REMEDIAL INVESTIGATION
WORK PLAN

Monticello Manor Lofts

15 High Street, Monticello, New York

NYSDEC BCP Site: C353018

May 2025

GBTS Project: 22003-0020

Technical Services Division

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GBTS Project: 22003-0020

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The undersigned have reviewed this Remedial Investigation Work Plan and certify to Manor Lofts JV, LLC and to the New York State Department of Environmental Conservation that the information provided in this document is accurate as of the date of issuance by this office.

I, Jay Jaros, PG, certify that I am currently a Qualified Environmental Professional as defined in 6 NYCRR Part 375 and that this Remedial Investigation Work Plan was prepared in accordance with all applicable statutes and regulations and in substantial conformance with the DER Technical Guidance for Site Investigation and Remediation (DER-10) and DER Green Remediation (Der-31).

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1.0 INTRODUCTION

1.1 Purpose

This Remedial Investigation Work Plan (RIWP) describes actions that are proposed by Gallagher Bassett Technical Services (GBTS) to investigate the property at 15 High Street, Monticello, New York (the Site) in accordance with the requirements of the New York State Department of Environmental Conservation (NYSDEC) Brownfield Cleanup Program (BCP). The BCP identification is Monticello Manor Lofts, Site C353018 (Brownfield Cleanup Agreement dated October 15, 2024).

This RIWP proposes a Remedial Investigation (RI) to document Site environmental conditions (this work supplements earlier fieldwork conducted during previous due diligence activities; see Section 1.4). Work will be conducted in accordance with a Site-specific Health and Safety Plan (HASP, Appendix A), Quality Assurance Project Plan (QAPP, Appendix B), and Community Air Monitoring Plan (CAMP, Appendix C).

1.2 Site Location and Description

The Site consists of a 1.943-acre portion of the property at 15 High Street, Monticello, New York (identified as Village of Monticello tax lot parcel Section 107, Block 1, Lot 11.1). The property is located in a developed village area comprised of residential, commercial, and institutional uses. See Figure 1 (Site Location Map) and Figure 2 (Site Map).

The Site is an irregularly shaped landlocked parcel that contains the following vacant, dilapidated structures: three-story former hospital and assisted living facility at the central portion (damaged by arson in August 2024); three-story former staff living quarters southeast of the former hospital building; and, several small outbuildings formerly used for storage. Building access is via an off-Site, paved driveway that extends to the northeast from High Street. Several paved and unpaved parking areas and driveways are on the Site; remaining portions of the property are vacant wooded land. Village of Monticello water towers and a pump house adjoin the Site to the west; all other adjoining properties are vacant, wooded parcels (adjoining off-Site portions of Lot 11.1 are minimally developed). All Figures show the BCP Site boundaries (a metes and bounds description was provided in the BCP Application).

Current development plans for the Site call for new residential redevelopment (one, four-story apartment building, providing affordable, mixed-income housing). [Note: A new residential building will also be completed immediately north of the Site.]

1.3 Physical Setting

1.3.1 Site Topography

The Site, located in a relatively hilly area, has surface elevations ranging from approximately 1,614 feet above mean sea level (amsl) at the western margin to 1,568 feet amsl at the eastern margin. Overall slopes are downward to the east-southeast, with relatively steep slopes both to the northwest and southeast of the former hospital structure (see Figure 2 and Figure 3).

1.3.2 Site Geology and Hydrogeology

Subsurface soil exposed during previous subsurface investigations generally consisted of variable texture sands with gravel and silt. Upper soils at several areas appeared to be fill. Shallow bedrock was encountered at approximately 2 to 4 feet below grade surface (bgs) throughout the Site. Groundwater, which was not encountered in soil borings or test pits (maximum depths of up to 5 feet bgs), is expected to follow surface topography and be southeasterly.

1.3.3 Surface Waters, Wetlands, and other Natural Resources

Federally-designated wetlands are located approximately ¼-mile to the southeast, and ½-mile to the northeast and south. A NYSDEC wetlands “check-zone” is located approximately ½-mile west-northwest. There are no other surface waters, federal or state designated wetland areas, or other similar natural resource features, including fish and wildlife, on or within a half-mile radius of the Site (see Figures 3 to 5). Based on these findings, a fish and wildlife resource impact analysis (FWRIA) is not anticipated to be required at the Site.

1.3.4 Local Area Land Use

The Site is located on the periphery of a well-developed village setting. Land use within a half-mile of the Site is primarily residential, with typical commercial (small retail and larger chain stores) and institutional uses; see Figure 6). Data from previous environmental reports as well as the NYSDEC online “DECinfo Locator” show no significant known contaminated properties, including NYSDEC remedial program sites and open spills, in close proximity to the Site. No significant environmental receptors having a likely potential to be impacted by Site contamination and/or remediation have been identified within a half mile of the Site.

1.4 Summary of Previous Environmental Investigations

Prior to entry into the BCP, the following due diligence activities were conducted to investigate Site history and existing environmental conditions (fieldwork conducted throughout Lot 11.1):

A Phase I Environmental Site Assessment (Phase I ESA) issued for the property by Tectonic Engineering & Surveying Consultants P.C. (Tectonic, November 2019) identified several petroleum bulk storage (PBS) tanks, including one underground storage tank (UST) and three above-ground storage tanks (ASTs). A Phase II ESA by Tectonic (July 2019) screened for potential impacts resulting from known and potential previous releases at PBS tanks and from historical uses. The Phase II ESA documents the advancement of eight (8) soil borings to depths ranging from 1 to 5 feet below ground surface (bgs) at several areas of the property, including the vicinity of the ASTs. Sampling was not conducted at or near the UST due to access limitations.

Subsurface soils reportedly consisted of brown to black coarse to fine sands with varying amounts of gravel and silt. Evidence of fill materials, including the presence of debris, was observed to depths of 4 feet bgs. No overt field evidence of petroleum contamination was encountered at any boring location.

Laboratory data documented elevated levels of metals (above NYSDEC Unrestricted Use [UU] criteria) in several samples, including lead and mercury, and elevated levels of several polycyclic aromatic hydrocarbons (PAHs; above NYSDEC Restricted-Residential Use [RRU] criteria) in one sample near the main building.

A Phase II ESA by GBTS (January 2021) documented fieldwork throughout the property, with extension of twelve (12) test pits (maximum depth 4 feet bgs) and collection of twenty-one (21) soil and five (5) soil vapor samples, within the Site boundary. Soil samples were collected from both test pits and surface areas near buildings. Metals were detected above RRU SCOs in multiple samples, including mercury (0.997 to 3.74 ppm), lead (504 to 4,020 ppm), and arsenic (32.8 ppm), barium (4,270 ppm), cadmium (6.62 ppm), and copper (326 to 703 ppm). Detections above UU SCOs included metals, pesticides, and one semi-volatile organic compound (SVOC). Contaminated above RRU SCOs was generally limited to near surface soil (elevated mercury was found in one sample at 4 feet bgs). No field evidence of contamination or elevated petroleum compounds were found in soil near on-Site storage tanks. Multiple VOCs, primarily petroleum constituents, were detected in all vapor samples, at low levels typically encountered in urban and commercial settings (reported concentrations were not considered to be consistent with the presence of any significant on-Site source areas of contamination).

Relevant previous sampling data are shown on Figures 7 and 8, and excerpts of previous reports are provided in Appendix D.

1.5 Areas of Concern

Based on documented Site history and the results of previous environmental investigations, the following areas of concern (AOC), requiring additional investigation, have been identified:

AOC 1 Soil Contamination:

Soil contains metals and PAHs exceeding RRU SCOs, potentially related to poor-quality fill and/or historical Site operations (Figure 7). Previous soil sampling, conducted in order to provide due-diligence screening, was limited and does not provide sufficient data to fully characterize the Site.

AOC 2 Site-wide Groundwater Quality:

No groundwater sampling has been conducted and Site-wide groundwater quality is unknown.

AOC 3 Vapor Contamination:

Only limited soil vapor sampling has been conducted and Site-wide vapor quality is not sufficiently documented.

AOC 4 Impacts from USTs:

Soil, groundwater, or vapor contamination may be associated with releases from former storage tanks (locations shown on Figure 2).

2.0 REMEDIAL INVESTIGATION WORK PLAN

This RIWP details activities proposed by GBTS to further characterize the Site so that a comprehensive assessment of Site conditions, as required by the NYSDEC BCP guidelines, is completed.

Previous investigations will be supplemented by the work described below to complete a Site Characterization in compliance with NYSDEC DER-10 Technical Guidance for Site Investigation and Remediation, Section 3. Additional investigation will be completed to fully characterize contamination associated with the identified areas of concern (including known significant impacts to soil), and establish a comprehensive data set for all Part 375 analytical parameters in accordance with BCP requirements.

A Remedial Investigation Map depicting relevant Site features, and previous and proposed sampling locations, is provided as Figure 9, and an alpha-numeric Grid Map is provided as Figure 10. All proposed work will be conducted in accordance with a site-specific HASP (Appendix A), QAPP (Appendix B), and CAMP (Appendix C).

For the purpose of the work detailed in this RIWP, the Volunteer is Manor Lofts JV, LLC, who will contract with the environmental consultant/remediation firm (hereafter referred to as the On-site Coordinator [OSC]) to provide the services detailed below.

The OSC shall be a firm with experience in investigating NYSDEC BCP sites, with the capability to certify the final Remedial Investigation Report (RIR) in conformance with DER-10 Section 1.5.

2.1 Overview of Proposed Investigative Services

The proposed investigative services described in detail in subsequent sections of this RIWP consist of the following:

- Documentation of underground structures (2.2.3);
- Initiation of air monitoring during ground intrusive activities (Section 2.3.1);
- Extension of thirty-five (35) soil borings, and collection of one or more soil samples from each boring, to document soil conditions (Section 2.3.3);
- Completion of four (4) borings as new, permanent groundwater monitoring wells, and sampling to document groundwater quality (Section 2.3.4);
- Collection of twenty-one (21) vapor samples to more fully delineate known contamination conditions, and to screen for potential off-Site vapor impacts (Section 2.3.5); and,
- Preparation of a RIR for the Volunteer and NYSDEC (Section 2.4)

Prior to, or in conjunction with, the initiation of these actions (see Section 2.3), the tasks detailed in Section 2.2, below, will also be conducted.

2.2 Proposed Site Preparation Services

This section of the RIWP provides details of activities and services necessary to be initiated and/or completed prior to the implementation of Site remediation services.

2.2.1 Agency Notification and Reporting

The NYSDEC will be notified in writing at least seven (7) days prior to the start of fieldwork. Notification of subsequent field activities will be in accordance with reasonable business practice, with verbal notification for immediate (within 48 hours) activities and written notification otherwise. Written notifications will be transmitted to the NYSDEC via electronic mail. Daily reports will be provided to NYSDEC and New York State Department of Health (NYSDOH) by the end of the following business day.

A final list of the names, contact information, roles, and qualifications of the principal personnel who will participate in the investigation (including the project manager and contractors) will be provided to NYSDEC prior to the start of fieldwork. If the principal personnel designated on the project change, information for new personnel will be submitted to NYSDEC for approval. Relevant information is also provided in the QAPP (Appendix B) and CAMP (Appendix C).

2.2.2 Utility Markout

Prior to the implementation of any of the investigative tasks outlined in Section 2.3, below, a request for a complete utility markout of the Site will be submitted as required by New York State Department of Labor regulations. Confirmation of underground utility locations will be secured, a field check of the utility markout will be conducted prior to the initiation of work.

2.2.3 Documentation of Underground Structures

The presence or absence of relevant underground structures will be documented throughout accessible areas of the Site, either using ground penetrating radar (GPR) or other means if GPR technology is determined to not be suitable to the Site (e.g., metal reinforcement in building slabs may be a significant limiting factor). A GPR survey will be of sufficient density to document the presence or absence of small subgrade structures, including tanks. Results will be provided to the OSC and NYSDEC prior to the extension of borings (which may be relocated based on the findings) and will be recorded on Site maps for inclusion in the RIR. Should the use of GPR not be feasible, an alternative methodology will be proposed to NYSDEC for review and approval.

2.2.4 Quality Assurance Project Plan

A Quality Assurance Project Plan (QAPP, Appendix B) has been prepared, detailing procedures necessary to generate data of sufficient quality and quantity to represent successful performance of the Remedial Investigation at the Site. The QAPP includes a Sampling and Analysis Plan (SAP), detailing sampling and analysis of all media and which identifies methods for sample collection and handling.

A photo-ionization detector (PID) will be utilized to screen encountered materials for the presence of volatile vapors. The PID will be calibrated at the onset of each workday, and a written calibration log will be maintained for this project. The PID will be calibrated to read parts per million gas equivalents of isobutylene in accordance with protocols set forth by the equipment manufacturer.

All samples will be collected in accordance with applicable DER-10 requirements and NYSDEC and NYSDOH guidance documents and will be submitted to a NYSDOH ELAP-certified laboratory using appropriate chain of custody procedures. Dedicated, laboratory supplied containers will be used for sample collection. Field personnel will maintain all samples at cold temperatures, as necessary, and complete all chain of custody forms. Laboratory reports will include detailed Quality Assurance/Quality Control (QA/QC) analyses, including sample duplicates, rinse blanks (for non-dedicated sampling equipment), and trip blanks.

A Data Usability Summary Report (DUSR) will be prepared by a third, independent party, which maintains NYSDOH ELAP CLP Certification.

2.2.5 Subcontractor Coordination

Subcontractors will perform requested services under the direct supervision of the OSC. Prior to the initiation of fieldwork, all subcontractors will be provided with a copy of the Health and Safety Plan (Section 2.2.6). Insurance certificates will be secured from subcontractors by the Volunteer and/or by the OSC. At this time, the following subcontractors are anticipated to be used on this project: GPR, driller, analytical laboratory, and data validator.

2.2.6 Health and Safety Plan

The site-specific Health and Safety Plan (Appendix A) will be reviewed with on-site personnel (including subcontractors) prior to the initiation of fieldwork. It is anticipated that all proposed work will be performed in "Level D" personal protective equipment; however, all on-site field personnel will be prepared to continue services wearing more protective levels of equipment should field conditions warrant. The HASP provides practices to be implemented in order to protect off-Site receptors, such as users of adjoining sidewalks and/or adjoining properties.

2.2.7 Site Security

The Volunteer will secure the property with a six-foot fence and locking gates to prevent unauthorized access to the BCP Site. [Note: While egress points must be determined based on actual Site conditions and practical considerations for the utilization of heavy equipment, all efforts will be made to avoid locating such areas in proximity to adjoining sensitive uses.]

2.3 Proposed Specific Investigation Services

This section of the RIWP provides a detailed description of the investigative tasks that will be conducted at the Site.

2.3.1 Community Air Monitoring

A CAMP (Appendix C; inclusive of the NYSDOH Generic CAMP [DER-10 Appendix 1A]) will document the presence or absence of specific compounds in the air surrounding the work zone, which may migrate off-site due to fieldwork activities. The CAMP will be implemented: 1) at all times that fieldwork activities that are likely to generate emissions are occurring; and, 2) for the duration of all ground intrusive and soil handling activities.

This plan provides guidance on the need for implementing more stringent dust and emission controls based on air quality data. Air monitoring will be conducted for VOCs and for dust. Water misting will be used to control dust (as needed) during all ground intrusive activities, which will be limited to the extension of soil borings and installation of the monitoring wells (hand-held equipment and portable water tanks will be supplied by the driller).

Site investigation activities are not expected to expose impacted soil or other media in quantities likely to generate vapor emissions creating a public nuisance or that could pose a health hazard to workers and the general public. The CAMP, however, specifies that the fieldwork team must be prepared to stop work in response to excess vapor conditions in order to evaluate appropriate response actions, which may include the use of an odor/vapor suppressant, such as BioSolve®, capable of suppressing vapor releases (see documentation in CAMP), or limiting work to cooler or less windy times of day.

2.3.2 General Fieldwork Methodology

Fieldwork methodology will be in conformance with the QAPP (including sample handling and custody for PFAS and 1,4-dioxane, which includes copies of applicable Standard Operating Procedures [SOPs] for fieldwork activities). The QAPP provides tables indicating appropriate types of sample containers, sampling frequency and approved USEPA Methods for laboratory analysis.

All sampling locations will be determined in the field, documented using a handheld GPS unit (accuracy ±0.5 foot), and recorded in fieldwork logs for use in production of all final maps. Anticipated sampling locations, and planned new monitoring wells, are depicted on the Remedial Investigation Map (Figure 9).

An assessment of media characteristics, including soil type, presence or absence of foreign materials, field indications of contamination (e.g., unusual coloration patterns or odors), and instrument (PID) readings, will be made by the OSC during all investigative work. In accordance with DER-10, sampling media and/or other materials will be considered “grossly” contaminated based on the presence of sources or substantial quantities of mobile contamination in the form of non-aqueous phase liquids (NAPL) that is identifiable either visually, through strong odor, by elevated contaminant vapor levels, or is otherwise readily detectable without laboratory analysis. Site contamination that is concentrated and likely to or known to exceed applicable standards, criteria, and guidance, will be considered as a “hot spot” potentially requiring targeted evaluation and response actions (hot spots may serve as source areas of mobile contamination impacting other Site locations or off-Site areas).

The OSC will be responsible for identifying any materials that require special handling (media that may contain elevated concentrations of contaminants or is grossly contaminated, hazardous materials, etc.) and will ensure that they are properly securely stored on-site (soil stockpiled on plastic and covered, or soil and water placed in approved containers), pending characterization and proper disposition. The OSC will ensure that unforeseen environmental conditions are managed in accordance with applicable federal and state regulations.

Any proposed significant changes to the assessment program for soil, groundwater, and/or vapor (e.g., change in number or location of samples, or modifications to installation methodologies for monitoring wells or vapor probes) will be made in consultation with NYSDEC, and may require submission of an approved Work Plan.

For the purposes of the RI, references to “Part 375 analytes” shall mean:

- Organic compounds (VOCs and SVOCs) on the USEPA Target Compound List (TCL) plus 30 tentatively identified compounds (TICs), with analysis of 1,4-dioxane by 8270 SIM;
- All remaining compounds identified in NYSDEC Part 375-6.8 Soil Cleanup Objective tables, including USEPA Target Analyte List (TAL) metals with Cr^{+6}, polychlorinated biphenyls (PCBs), pesticides, herbicides, and cyanide; and,
- PFAS (Method 1633 analyte list, in accordance with the most recent NYSDEC guidance).

Analysis of samples may be modified in consultation with the NYSDEC Project Manager based on initial sampling results, including the presence or absence of field evidence of contamination. Additional analysis may be performed based repository requirements for waste characterization prior to off-site disposal.

2.3.3 Soil Assessment

Overview

A planned total of thirty-five (35) soil borings (SB-01 to SB-35) will initially be extended during the RI, with additional step-out borings as needed (based on the presence of gross contamination, or professional evaluation of lesser indications of contamination, including low-level staining, odors, PID readings, or the presence of foreign materials) in order to define the extent of Site soils containing analyte concentrations above the applicable SCOs. Additional fieldwork rounds for the advancement of soil borings (and/or installation of monitoring wells) may be required to fully delineate identified contamination, and to determine if contamination extends or is migrating off-site (the need for an expanded investigation scope will be determine in consultation with NYSDEC).

Manual surface soil sampling (0 to 2 inches) will be conducted to characterize surface-level contamination and the potential for human exposure at each planned boring location. Once completed, borings will be extended using mechanized equipment (or hand-held equipment, as necessary), capable of collecting soil cores at discreet intervals. Borings will be extended to at least the deeper of 15 feet below ground surface or to one sample interval below the groundwater interface (depth unknown at this time), or until refusal (all borings to be completed as groundwater monitoring wells will be extended to a minimum depth that allows for proper installation of the well screen).

Soil is anticipated to be collected using coring barrels (4 or 5 feet in length) lined with disposable acetate sleeves (split spoons may be utilized based on Site conditions and equipment availability).

Based on the findings of the previous Site investigations (see Section 1.4), refusal on bedrock may be encountered. A final determination of boring refusal will be made in consultation with the qualified drilling sub-contractor, including field observations of equipment behavior, time required to advance the boring, and examination of the cutting shoe for damage and/or the presence of materials resisting boring advancement (obvious bedrock, dense gravel layer, etc.), and review of available geological reports. The failure to reach targeted depths, based on a determination of refusal, will result in modification of the boring plan as necessary, including the use of step out borings, the use of alternative means of boring (e.g., a sonic drill rig replaces direct-push equipment in order to move through a dense gravel layer), or the use of equipment capable of extending test pits. All instances of refusal will be fully documented in field log books and relevant information will be promptly provided to NYSDEC.

Sampling Methodology

Surface soil will be collected from immediately beneath any encountered vegetation of building slab, using hand-held disposable plastic or decontaminated steel trowels, or manually using disposable gloves.

Soil will be continuously recovered from all borings, and material in each sampling interval will be characterized in order to identify existing subsurface physical conditions and any overt evidence of contamination. Sampling of recovered material for laboratory submission will be conducted from all boring intervals, as warranted, to fully define contaminants in soil and provide sufficient areal and vertical delineation. Samples will be collected (at a minimum) from the soil stratum intercepting the groundwater table, any fill material, and from soil exhibiting field evidence of impacts (if encountered) or at soil strata corresponding to previously identified contamination in nearby boring locations (for delineation). Only one sample will be collected at locations where bedrock refusal occurs no deeper than 5 feet bgs, unless additional sampling is warranted based on field evidence of contamination and/or unique conditions.

Sampling events may occur in multiple rounds to ensure complete Site characterization in compliance with DER-10, Chapter 3. Examples of secondary events include collection of shallow, near surface soils as warranted based of laboratory results from sampling the more extensive parent interval of upper soils, and additional characterization of existing soils proposed to remain in place as a clean cover system (based on Site development requirements, the characterization of in situ cover soils may be conducted in full or part during a Pre-design Investigation). Any additional rounds of sampling will be conducted only after proposed sample locations or procedures are reviewed by NYSDEC.

Samples will be collected directly from the freshly cut open sleeve, using disposable plastic trowels or properly decontaminated stainless steel instruments, or may be manually collected directly from exposed soil or the sampling instrument using dedicated disposable latex gloves. Soil sampling for VOCs will follow USEPA Method 5035 protocols, using disposable 5-gram plastic syringes to place material into laboratory-supplied glass vials (prepared with stirs bars and appropriate preservatives).

Sample Submission

All soil samples will be analyzed for Part 375 analytes.

2.3.4 Groundwater Assessment

The RI will identify current and potential groundwater uses at the Site and document current groundwater conditions. A minimum of four (4) new permanent monitoring wells (MW-01 to MW-04) are proposed to be installed within the overburden and sampled. Monitoring wells may be relocated or extended into bedrock, or their number modified, based on encountered Site subsurface conditions, including the absence of saturated soil, or the presence of gross contamination. The need for installation of paired "deep" wells (e.g., to evaluate impacts from VOCs with a high specific gravity) will be determined following review of initial laboratory data.

Well installation, well development, and sample collection and laboratory submission are detailed below.

Monitoring Well Installation

Attempts will be made to install monitoring wells within the overburden (depth to groundwater is not known at this time). A drill rig with 8-inch auger (or similar equipment) will be used to advance borings to likely final depths, and wells will then be constructed using two-inch PVC casing with a ten-foot length of 0.01-inch slotted PVC screening across the water table. No glue will be used to thread the casing lengths. The wells will be constructed such that a minimum of 2 feet of screening will extend above the water table, with approximately 8 feet of screening below the water level. If paired deep wells are required, they will be constructed with the screening located to intercept the lowest level of the water column. The annular space between the well screen and the borehole will be backfilled with clean silica sand to a depth of approximately two feet above the well screen. A seal consisting of hydrated bentonite clay will be placed above the sand pack (minimum of least 12 inches at shallow wells, and the depth required to exclude the upper water column at deep wells) and the remaining annular space will be grouted with cement.

If bedrock wells are required, borings will be implemented using either air-rotary or sonic equipment, based on encountered Site conditions and the recommendation of the driller. Two-inch (minimum diameter) PVC or metal casing will be extended through the overburden soils and socketed into the upper portion of the bedrock in order to prevent contact with vadose zone media and/or contaminants. The open borehole within the bedrock will be extended to a depth sufficient to ensure a minimum water column depth of 8 feet (screening may be used within the borehole if bedrock does not appear to be competent).

For all wells, a locked cap with vent will be installed at the top of the well riser and the wells will be protected by secure metal covers or casings.

All wells will be surveyed to determine the elevation of the top of the PVC well riser, for use in determining groundwater elevations and direction of flow. Relative elevations (documented using a transit) will initially be utilized in order to provide guidance during implementation of the RI, and absolute elevations based on NAD 83 will be determined by a licensed surveyor at the conclusion of the RI fieldwork activities. Well locations and relative elevations will be recorded in field logs and indicated on all fieldwork maps.

Monitoring Well Development

One week following installation, wells will be developed with a decontaminated mechanical pump and dedicated polyethylene tubing in order to clear fine-grained material that may have settled around the well screen or rock pores, and to enhance the natural hydraulic connection with the surrounding media. Well development will begin at the top of the well to prevent pump clogging. Development will be discontinued when the discharge water is free of obvious sediment, turbidity is below 50 NTUs, and indicator parameters (e.g., dissolved oxygen, temperature, etc.) have stabilized. The pump assembly will be removed from the well while the pump is running to avoid discharge of purged water back into the well. Development water will be securely stored on-site pending laboratory analysis.

Sampling Methodology

All Site monitoring wells will be sampled one week following development using USEPA Low-Stress (“low flow”) methodology. Sampling will be conducted using the following general protocol:

1. Basic weather conditions and all field observations will be recorded in the field logbook. Sampling will begin at the potentially least contaminated well (as determined from well location and/or previous data) and proceed to the potentially most contaminated well. Wells will be checked for damage or evidence of tampering before initiating sampling.
2. If permissible under QAPP requirements, plastic sheeting will be placed around wells to minimize potential contamination of sampling equipment from the ground surface, and all monitoring, purging, and sampling equipment will be placed on the sheeting.
3. The protective casing on the well will be unlocked, the air in the well head will be screened with a PID, and the static water level (relative to the top of the casing) will be measured with a decontaminated water-level meter. A peristaltic pump with plastic tubing (or equivalent equipment) will be used for sampling. The tubing (or a submersible pump attached to tubing, if required by Site conditions) will be slowly lowered until reaching two to three feet off of the well bottom to prevent disturbance of sediment.
4. The water level will be measured before the pump is started and at three to five minute intervals. Pumping rates will be reduced (as needed) to the minimum capabilities of the pump to ensure stabilization of the water level (drawdown of 0.3 feet or less).
5. During pumping, field indicator parameters (turbidity, temperature, specific conductance, pH, redox potential, and dissolved oxygen) will be monitored and recorded approximately every five minutes. The well will be considered stabilized when the indicator parameters have stabilized for three consecutive readings (the minimum purge interval will be at least 15 minutes).
6. All groundwater samples will be collected in a manner consistent with the QAPP.
7. The protective cap on the well will be replaced and locked, and the field sampling crew will move to the next most contaminated well and the process will be repeated.

Sample Submission

All groundwater samples will be analyzed for Part 375 analytes.

Groundwater Flow Calculations

The direction of groundwater flow will be determined based on elevations of static groundwater as measured at all wells, measured prior to water quality sample collection. Measurements will be collected with an electronic depth meter with an accuracy of +/- 0.01 foot. All data will be recorded in field logs and presented on a Direction of Groundwater Flow Map in the RIR.

2.3.5 Soil Vapor Assessment

A total of twenty-one (21) vapor samples (2SV-01 to 2SV-21) will be collected during the RI to define potential VOC contamination, and to help determine the potential for off-Site migration of vapor. All sampling will be in accordance with NYSDOH Guidance for Evaluating Soil Vapor Intrusion in the State of New York, October 2006, and subsequent updates. Supplementary sampling (e.g. additional depths) may be conducted, in consultation with NYSDEC, to provide increased spatial resolution of VOC impacts as warranted.

Sampling Methodology

Vapor probes will be constructed by advancing a boring, using mechanized direct-push equipment, and inserting sampling tubing to a depth corresponding to the lowest elevation of the planned building slabs or to approximately 4 feet bgs in areas without planned new structures.

The end of the tubing will be protected with a stainless steel screen or ceramic gas diffuser (air stone) to prevent particulates from entering the tubing. The sample collection interval (approximately 1 foot) will be backfilled with clean sand that will surround the end of the tubing. Several inches of dry bentonite clay will be placed above the sand, and the remaining upper portion of the borehole and the surface opening will be filled and sealed with hydrated clay to prevent surface air, or vapor from non-target intervals, from entering the system.

All locations will utilize approved tubing (0.188-inch inner diameter Teflon), be screened with a PID for VOCs prior to purging, and will be checked for a proper surface seal. A tracer gas will be used to verify that there is no significant infiltration of outside air. The space surrounding the sampling point will be enclosed and sealed (e.g., with a metal hemisphere and clay seal, over plastic sheeting) in order to introduce helium into the area surrounding the probe. Real-time sampling equipment (Radiodetection Multi-vapor Leak Locator, model MDG 2002, or equivalent) will be utilized to determine when the interior atmosphere in the enclosure reaches a concentration of 80%, and the tubing for the vapor implant will then be sampled for helium. If helium is detected in vapor at a concentration greater than 10%, the annular seal will be repaired and gas tracing performed again until less than 10% helium is detected. Successful exclusion of the tracer gas will be considered adequate documentation that sampling techniques are sufficiently preventing air infiltration (screening will be conducted at additional locations, as needed, based on any variable conditions encountered in the field).

Purge volume will be dependent on boring depth and tubing length. Three borehole and tubing volumes will be purged prior to collection and samples will be collected into laboratory-certified clean Summa canisters, equipped with two-hour flow regulators (purge and sampling rate not exceeding 0.2 L/minute).

Sample Submission

Soil vapor samples will be analyzed for VOCs using USEPA method TO-15.

2.3.6 Sampling Summary

The overall sampling rationale is to delineate the nature and extent of contamination in all Site media, assess potential human exposures and/or off-Site environmental impacts, and to provide information sufficient for developing potential remedial response actions.

Site-wide sampling will include collection of: soil from borings using a mechanized Geoprobe with macro-core barrel (multiple depths) to address AOC 1; groundwater from permanent monitoring wells using USEPA low-flow methodology to address AOC 2; and, vapor using probes installed in borings, following relevant NYSDOH protocols, to address AOC 3. Additional soil sampling will be conducted from step-out borings as needed, based on any observed contamination conditions or based on any newly documented “hot spots” indicated by laboratory analysis. Manual confirmatory endpoint soil sampling will be conducted in any excavation areas associated with removal of on-Site USTs (details regarding any UST excavation activities and associated remedial actions will be provided in a Work Plan for the review and approval of NYSDEC). The location, number, and depth of these samples will be based on encountered field conditions.

The following tables summarize proposed Site investigation sampling, including matrix type, location, sampling collection method, laboratory analytical parameters, sampling rationale, and required QA/QC samples as needed. All laboratory analysis, minimum reporting limits, and QA/QC sampling as per the QAPP, including TICs, duplicates, and blanks.

Table 2.3.6a - Summary of Sample Analytical Parameters and Sampling Rationale

Sample Matrix	Analytical Parameters	Sampling Rationale
Soil (surface/borings/test pits)	Full Part 375 list; PFAS	Site-wide analysis of upper fill materials and the soil interval intercepting groundwater table, as well as other soil intervals that may exhibit overt contamination and/or for delineation
Soil (excavation endpoints)	Full Part 375 list; PFAS	Document any releases at excavation areas (USTs and/or buried hydraulic equipment)
Groundwater	Full Part 375 list (includes dissolved metals); PFAS	Site-wide analysis of groundwater (concurrently allows determining direction of groundwater flow)
Vapor	TO-15 VOCs	Site-wide analysis of vapor and potential for off-Site impacts

Notes:

- *Reporting limits for all analytical parameters are provided in Attachment E of the QAPP (RIWP Appendix B)*
- *Part 375 list includes TCL VOCs/SVOCs +30 TICs, TAL metals with Cr^{+6}, cyanide, pesticides, PCBs, herbicides, PFAS 1633, and 1,4-dioxane 8270 SIM (analyte list may be modified in consultation with NYSDEC)*

Table 2.3.6b - Sample Location, Depth, and Collection Method					
ID	**Grid**	**Matrix**	**Depth (feet below grade)**	**Collection Method**	**AOC (Notes)**
SB-01	D3	soil	0-2”, 0-5’, groundwater interval	Geoprobe macro-core	AOC 1
SB-02	G3	soil	0-2”, 0-5’, groundwater interval	Geoprobe macro-core	AOC 1
SB-03	I4	soil	0-2”, 0-5’, groundwater interval	Geoprobe macro-core	AOC 1
SB-04	H6	soil	0-2”, 0-5’, groundwater interval	Geoprobe macro-core	AOC 1
SB-05	L7	soil	0-2”, 0-5’, groundwater interval	Geoprobe macro-core	AOC 1
SB-06	J8	soil	0-2”, 0-5’, groundwater interval	Geoprobe macro-core	AOC 1
SB-07	F6	soil	0-2”, 0-5’, groundwater interval	Geoprobe macro-core	AOC 1
SB-08	D5	soil	0-2”, 0-5’, groundwater interval	Geoprobe macro-core	AOC 1 (Provides screening near UST)
SB-09	C4	soil	0-2”, 0-5’, groundwater interval	Geoprobe macro-core	AOC 1
SB-10	B5	soil	0-2”, 0-5’, groundwater interval	Geoprobe macro-core	AOC 1
SB-11	C7	soil	0-2”, 0-5’, groundwater interval	Geoprobe macro-core	AOC 1
SB-12	E8	soil	0-2”, 0-5’, groundwater interval	Geoprobe macro-core	AOC 1
SB-13	H10	soil	0-2”, 0-5’, groundwater interval	Geoprobe macro-core	AOC 1
SB-14	J10	soil	0-2”, 0-5’, groundwater interval	Geoprobe macro-core	AOC 1
SB-15	I12	soil	0-2”, 0-5’, groundwater interval	Geoprobe macro-core	AOC 1 (Provides screening near UST)
SB-16	H12	soil	0-2”, 0-5’, groundwater interval	Geoprobe macro-core	AOC 1 (Provides screening near UST)
SB-17	F11	soil	0-2”, 0-5’, groundwater interval	Geoprobe macro-core	AOC 1
SB-18	A7	soil	0-2”, 0-5’, groundwater interval	Geoprobe macro-core	AOC 1
SB-19	G9	soil	0-2”, 0-5’, groundwater interval	Geoprobe macro-core	AOC 1
SB-20	H8	soil	0-2”, 0-5’, groundwater interval	Geoprobe macro-core	AOC 1
SB-21	H7	soil	0-2”, 0-5’, groundwater interval	Geoprobe macro-core	AOC 1
SB-22	G7	soil	0-2”, 0-5’, groundwater interval	Geoprobe macro-core	AOC 1
SB-23	E7	soil	0-2”, 0-5’, groundwater interval	Geoprobe macro-core	AOC 1
SB-24	D6	soil	0-2”, 0-5’, groundwater interval	Geoprobe macro-core	AOC 1
SB-25	E6	soil	0-2”, 0-5’, groundwater interval	Geoprobe macro-core	AOC 1
SB-26	E5	soil	0-2”, 0-5’, groundwater interval	Geoprobe macro-core	AOC 1
SB-27	D5	soil	0-2”, 0-5’, groundwater interval	Geoprobe macro-core	AOC 1 (Provides screening near vault)
SB-28	E4	soil	0-2”, 0-5’, groundwater interval	Geoprobe macro-core	AOC 1 (Provides screening near vault)
SB-29	D5	soil	0-2”, 0-5’, groundwater interval	Geoprobe macro-core	AOC 1 (Provides screening near vault)
SB-30	H12	soil	0-2”, 0-5’, groundwater interval	Geoprobe macro-core	AOC 1 (Provides screening near UST)
SB-31	H12	soil	0-2”, 0-5’, groundwater interval	Geoprobe macro-core	AOC 1 (Provides screening near UST)
SB-32	H4	soil	0-2”, 0-5’, groundwater interval	Geoprobe macro-core	AOC 1 (Provides screening near AST)
SB-33	H4	soil	0-2”, 0-5’, groundwater interval	Geoprobe macro-core	AOC 1 (Provides screening near AST)
SB-34	H5	soil	0-2”, 0-5’, groundwater interval	Geoprobe macro-core	AOC 1 (Provides screening near AST)
SB-35	J11	soil	0-2”, 0-5’, groundwater interval	Geoprobe macro-core	AOC 1
MW-01	E2	water	TBD	USEPA low-flow	AOC 2
MW-02	J6	water	TBD	USEPA low-flow	AOC 2
MW-03	H11	water	TBD	USEPA low-flow	AOC 2
MW-04	E9	water	TBD	USEPA low-flow	AOC 2

Table 2.3.6b - Sample Location, Depth, and Collection Method

ID	Grid	Matrix	Depth (feet below grade)	Collection Method	AOC (Notes)
2SV-01	G2	vapor	TBD	NYSDOH, Summa canister	AOC 2 (plus screen for off-Site impacts)
2SV-02	D2	vapor	TBD	NYSDOH, Summa canister	AOC 2 (plus screen for off-Site impacts)
2SV-03	E4	vapor	TBD	NYSDOH, Summa canister	AOC 2
2SV-04	G5	vapor	TBD	NYSDOH, Summa canister	AOC 2
2SV-05	K6	vapor	TBD	NYSDOH, Summa canister	AOC 2 (plus screen for off-Site impacts)
2SV-06	B6	vapor	TBD	NYSDOH, Summa canister	AOC 2 (plus screen for off-Site impacts)
2SV-07	C6	vapor	TBD	NYSDOH, Summa canister	AOC 2
2SV-08	E8	vapor	TBD	NYSDOH, Summa canister	AOC 2
2SV-09	H9	vapor	TBD	NYSDOH, Summa canister	AOC 2
2SV-10	K10	vapor	TBD	NYSDOH, Summa canister	AOC 2 (plus screen for off-Site impacts)
2SV-11	J12	vapor	TBD	NYSDOH, Summa canister	AOC 2 (plus screen for off-Site impacts)
2SV-12	E8	vapor	TBD	NYSDOH, Summa canister	AOC 2 (plus screen for off-Site impacts)
2SV-13	C8	vapor	TBD	NYSDOH, Summa canister	AOC 2 (plus screen for off-Site impacts)
2SV-14	E5	vapor	TBD	NYSDOH, Summa canister	AOC 2
2SV-15	F7	vapor	TBD	NYSDOH, Summa canister	AOC 2
2SV-16	G8	vapor	TBD	NYSDOH, Summa canister	AOC 2
2SV-17	H8	vapor	TBD	NYSDOH, Summa canister	AOC 2
2SV-18	H9	vapor	TBD	NYSDOH, Summa canister	AOC 2
2SV-19	I9	vapor	TBD	NYSDOH, Summa canister	AOC 2
2SV-20	K9	vapor	TBD	NYSDOH, Summa canister	AOC 2 (plus screen for off-Site impacts)
2SV-21	I8	vapor	TBD	NYSDOH, Summa canister	AOC 2

Notes:
- *Soil samples to be collected at additional depth intervals as required; see Section 2.3.3 for details*
- *Sampling at any excavation areas requires prior review and approval of a work plan by NYSDEC*

Table 2.3.6c - QAPP Required Duplicates and Blanks

Required QAPP Sampler	Number of Samples
Duplicates, MS/MSD	1 for every 20 samples (minimum 1/week), as per sample collection requirements
Trip Blank (PFAS)	1 per sample cooler (each day of sampling)
Trip Blank (VOCs)	1 per sample cooler (each day of sampling)
Field Blank (PFAS)	1 per sampling day (each matrix)
Equipment Blank	1 for every 20 samples (non-dedicated), as per sample collection requirements
Duplicates, MS/MSD	1 for every 20 samples (minimum 1/week), as per sample collection requirements

2.3.7 Management of Investigation-Derived Waste

Any soil cuttings will be backfilled within the originating borehole to within 12-inches of the surface, unless the following conditions exist: soil is grossly contaminated; the boring has penetrated a confining layer; a path for vertical migration would be completed; cuttings do not fit in the borehole; or, the boring will be converted to a monitoring point for groundwater or soil vapor.

Waste soil generated during the investigation will be stored on plastic sheeting or within approved DOT containers prior to being returned to the bore hole. Any materials remaining at the Site at the end of the workday will be properly covered and secured and all materials remaining after completion of the fieldwork will be containerized and disposed off-site at a permitted facility.

In the event that soil stockpiles are utilized, the following conditions will apply:

- All stockpile activities will be compliant with applicable laws and regulations. Stockpile areas will be appropriately graded to control run-off and will be located in areas not subject to flooding or excessive sheet flow during storm events. Material to be stockpiled will be placed within an area designed and constructed to contain the materials from all sides and prevent runoff and dispersion. Stockpiles of excavated soils and other materials shall be located at least of 50 feet from the property boundaries, where possible.
- Excavated soil from known and/or suspected areas of contamination (e.g., petroleum spill areas, drains, etc.) will be stockpiled separately and will be segregated from clean soil and construction materials. Stockpiles will be used only when necessary and will be removed as soon as practicable.
- Excavated soils will be stockpiled on, at minimum, double layers of 8-mil minimum sheeting. Stockpiles will be kept covered at all times with appropriately anchored tarps. Stockpiles will be routinely inspected and damaged tarp covers will be promptly replaced. Results of inspections will be recorded in a logbook maintained at the Site and available for inspection by NYSDEC.
- Soil stockpiles will be continuously encircled with silt fences. Hay bales (or equivalent) will be used as needed near catch basins, surface waters and other discharge points.
- Water will be available on-Site at suitable supply and pressure for use in dust control.

Monitoring well purge water and other fluids will be securely stored on-site in properly labeled, DOT-approved closed containers, pending the results of groundwater sampling and/or waste characterization, and disposed at an appropriate facility.

Discarded personal protective equipment and other fieldwork supplies will be disposed as municipal solid waste.

2.3.8 Management of Contingency Conditions

General Methodology

Identification of unknown contamination source areas during invasive Site work will be promptly communicated to NYSDEC's Project Manager, and petroleum spills will be reported to the NYSDEC Spill Hotline. These findings will be included in the daily report. If previously unidentified sources of gross contamination are found during the investigation, sampling will be performed on targeted material and surrounding soils; chemical analytical testing will be performed in accordance with the QAPP and any NYSDEC directives.

On-site personnel should be prepared to respond appropriately if the following previously unknown materials are encountered (if encountered, this material could result in a recommendation from the QEP for an immediate, temporary shutdown of construction activities):

- Previously unknown tanks (including drums) containing a liquid product that is not likely to be water and is likely to present a threat to worker health or safety;
- Previously unknown demolition debris, which could contain significant quantities of asbestos, the disturbance of which is determined, based on field observations, to violate or likely to violate Federal, State, or local asbestos regulations; and,
- Material which cannot be readily identified.

Procedures for Encountered Underground Storage Tanks (USTs)

If a UST is encountered, all accessible portions of the tank will be inspected and documented, including tank integrity and the presence or absence of liquids and/or sludge. If accessible, any significant quantities of materials in the tank will be identified, and be removed by a qualified contractor and disposed off-Site at a permitted facility. Manifests of liquid waste management will be maintained by the OSC and be included in final documentation submitted to NYSDEC. Soil sampling in the vicinity of the tank will be completed in accordance with the QAPP and DER-10 (3.9), after consultation with NYSDEC. The removal of any tanks and/or ancillary piping will be performed only in accordance with an approved Site-specific Work Plan.

Procedures for Encountered Demolition Debris

To the extent practical, any investigation derived wastes that contain clearly identifiable material suspected of containing asbestos will be handled separately from other wastes, following all applicable Federal, State and local asbestos regulations. The presence of significant quantities of asbestos will result in a temporary shutdown of the Site.

Procedures for Encountered Unknown Material

Material which cannot be readily identified but which is considered, based on field observations, to be material that needs further investigation before disposal will be properly segregated. Unknown material will be screened with a PID and all recorded levels will be documented. Samples will be collected and analyzed for full Part 375 parameters to identify the compounds present and to assist in determining appropriate disposal practices. Until determined by laboratory analysis otherwise, this material will be considered a hazardous substance. A plan to describe the handling and disposal of such materials will be submitted to NYSDEC for review and approval.

2.4 Documentation of Environmental Conditions

A RIR will be prepared at the completion of all fieldwork services, in accordance with DER-10, summarizing the nature of environmental conditions for all identified areas of concern. The RIR will: summarize Site history and all previous investigations; document Site conditions and the investigative work performed during implementation of the RIWP; provide complete analytical findings and compare results to applicable SCG; and, include an on-site and off-site Qualitative Human Health Exposure Assessment in accordance with DER-10(3.3)(c)(4).

An on-site and off-site qualitative fish and wildlife resource exposure assessment (identification of impacts to fish and wildlife resources from Site contaminants of ecological concern) will be completed if it is determined that there are likely to be ecological resources present on or in close vicinity of the Site. Any potential groundwater uses within a 0.25-mile radius will be identified.

The RIR will provide complete data summary tables, figures showing all exceedances of SCGs, fieldwork and construction logs, laboratory and data validation reports, CAMP monitoring data and waste disposal documentation. All laboratory data presented in the RIR will be submitted to NYSDEC in an acceptable electronic data deliverable (EDD) format.

2.5 Principal Personnel and Contact Information

Principal personnel are shown below (GBTS resumes are provided in QAPP Attachment D).

Role	Name	Phone / Email Address
Qualified Environmental Professional (QEP)	Jay Jaros, PG Gallagher Bassett Technical Services	(630) 593 6073 jay_jaros@gbtpa.com
Site Investigation Project Manager	Richard Hooker Gallagher Bassett Technical Services	(845) 867-4715 richard_hooker@gbtpa.com
Quality Assurance Officer	Scott Spitzer Gallagher Bassett Technical Services	(845) 867-4717 richard_hooker@gbtpa.com
Site Investigation On-site Manager	Erick Salazar Gallagher Bassett Technical Services	(845) 867 4716 Erick_salazar@gbtpa.com
Site Investigation Fieldwork Personnel	TBD	TBD
Representative of Volunteer	Lorne Norton	(845) 331-2140 lnorton@rupco.com

2.6 Green and Sustainable Remediation Practices

NYSDEC DER-31 *Green Remediation* requires that Green and Sustainable Remediation (GSR) concepts be considered and/or implemented in all phases of site investigation and cleanup, and that reports required under the BCP document all GSR efforts.

The following general goals, consistent with DER-31, are applicable to the proposed RI:

- Reduce total energy use and increase the percentage of energy from renewable resources.
- Reduce air pollutants and greenhouse gas (GHG) emissions.
- Reduce water use and preserve water quality.
- Conserve material resources and reduce waste.
- Protect land and ecosystem services.

In support of these goals, the following best management practices to minimize the environmental footprint of the RI will be implemented (to the extent feasible) and documented in the RIR:

- Schedule fieldwork activities to minimize mobilization of equipment, field personnel, and supplies to the Site;
- Plan fieldwork to efficiently manage: use of equipment utilizing fuel/generating exhaust, including heavy machinery, generators, and/or personal vehicles; of water for decontamination activities; and, minimize travel distances by using local contractors;
- Minimize waste generation through efficient material use, and re-use or recycling (as possible) of materials that could be considered wastes (e.g., use drilling spoils of acceptable quality for on-Site backfill); and,
- Conduct fieldwork such that soil compaction, soil erosion, and surface runoff are limited.

Documentation of GSR practices implemented at the Site during the RI will be documented in the RIR, including quantitative reporting using an approved environmental footprint analysis calculator, such as the USEPA's SEFA (Spreadsheets for Environmental Footprint Analysis) or SiteWise™ from the Sustainable Remediation Forum (SURF).

3.0 PROJECT SCHEDULE

The following general schedule is anticipated (Week 1 based on date of RIWP approval):

Week	Task
1	NYSDEC notification, utility markout and geophysical survey; selection of driller; secure insurance
2 to 3	Installation of borings; collection of soil and vapor samples, completion of monitoring wells
4 to 5	Well development; collection of groundwater samples; establish groundwater elevations
5-7	Laboratory analysis of media samples completed; removal of investigation derived wastes
8-12	Preparation of RIR
12	Submission of RIR to NYSDEC (a Remedial Alternatives Report and Remedial Action Work Plan may also be submitted at this time)

A complete, detailed schedule for all activities, including timelines and target dates for the start and completion of all field activities and submission of all reports, will be provided to NYSDEC prior to the start of the remedial investigation, once the RIWP has been approved, required permits are secured, and qualified contractors for environmental borings are identified.

FIGURES

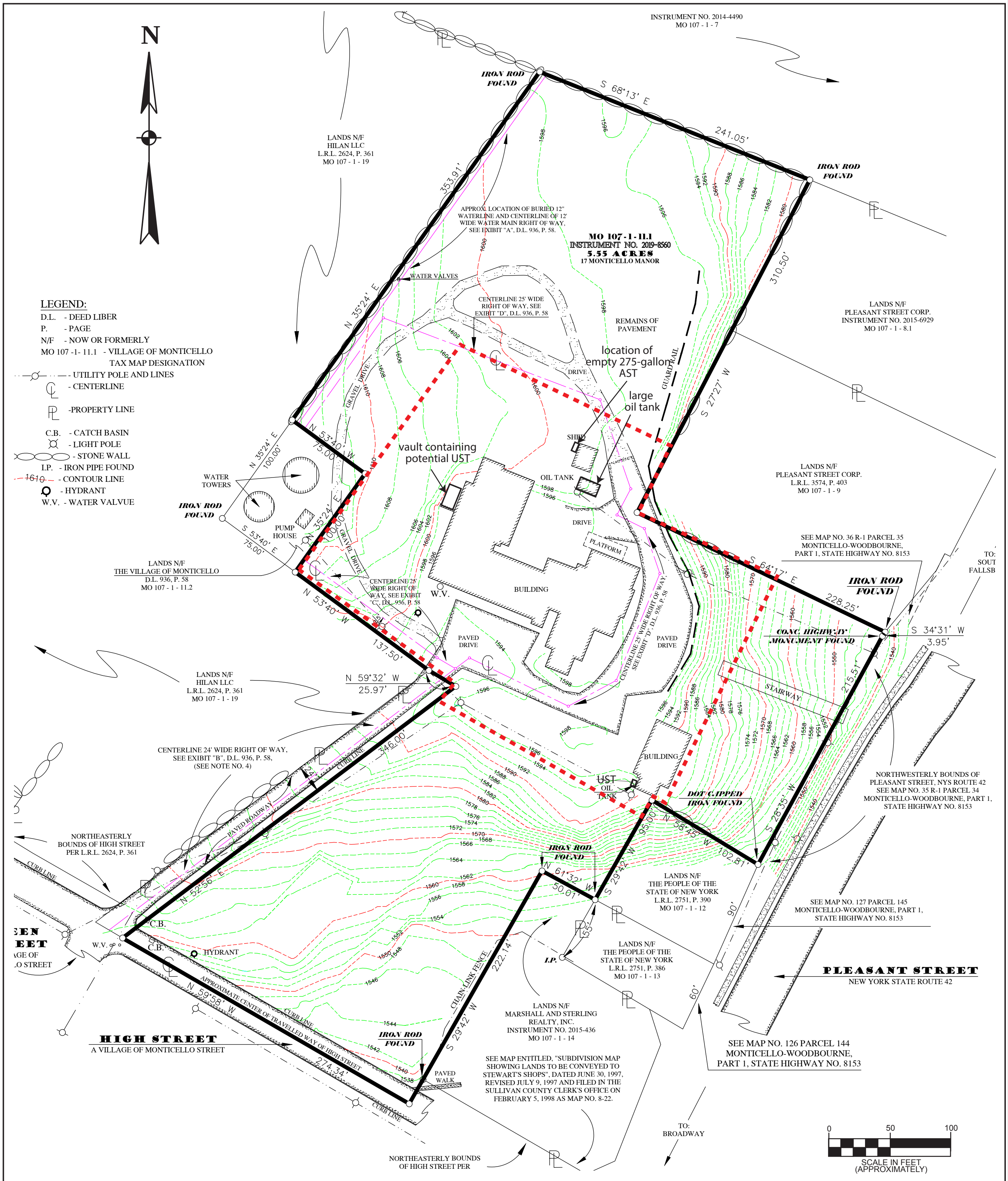
Figure 1: Site Location Map

Monticello Manor Lofts
BCP Site: C353018
15 High Street
Monticello, New York

Legend:

━ Tax Lot 107-1-11.1
┅ BCP Site Boundary

File: 22003-0020
May 2025
Scale as shown
Figures



Base Map provided by John W. Galligan, Licensed Land Surveyor dated 2/3/20.

Figure 2: Site Map

Monticello Manor Lofts
BCP Site: C353018
15 High Street
Monticello, New York

Legend:

▬ Tax Lot 107-1-11.1

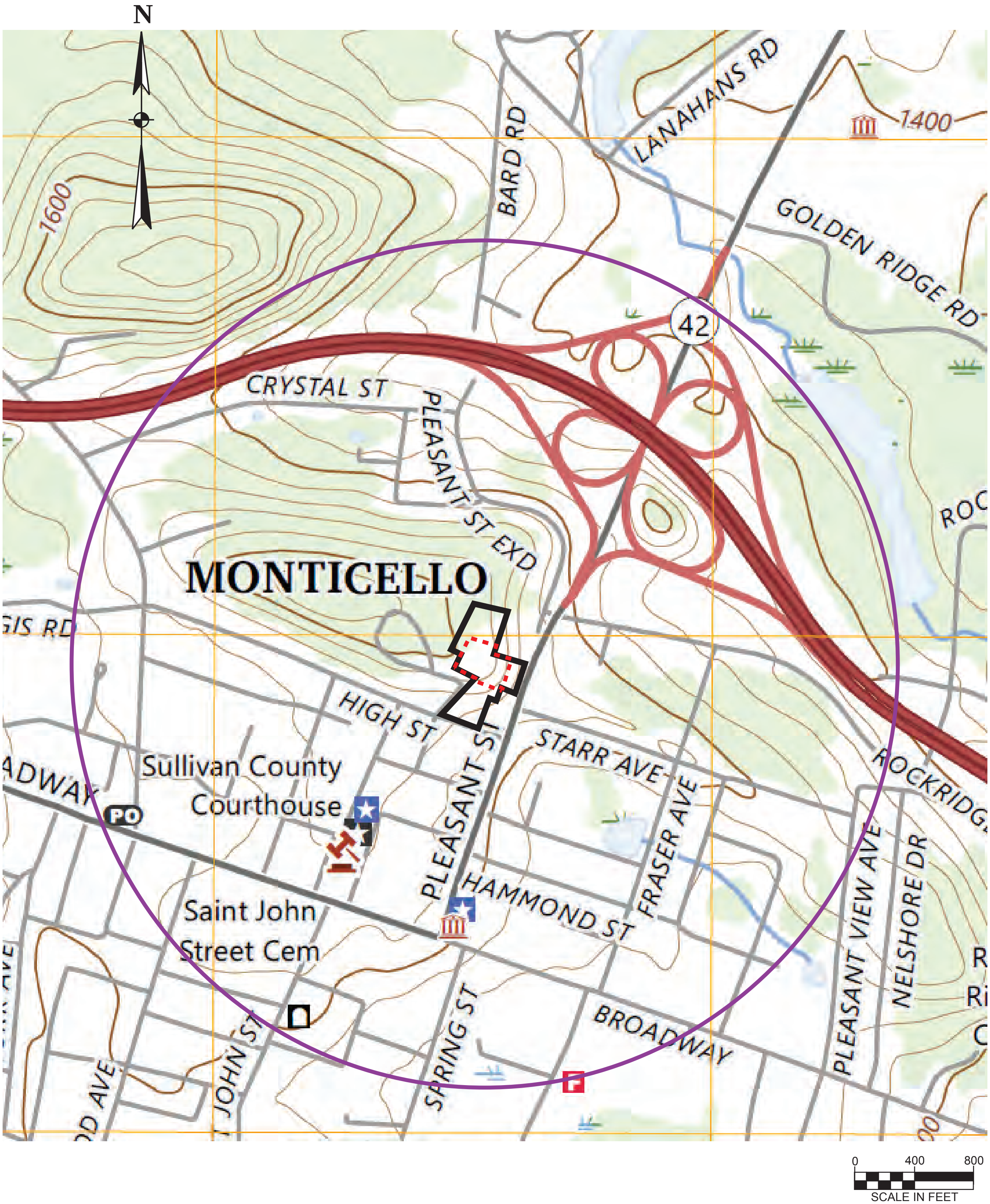
▪▪▪ BCP Site Boundary

File: 22003-0020

May 2025

Scale as shown

Figures



Source: USGS Topographic Map of the Monticello, New York Quadrangle dated 2019, digital image provided by https://ngmdb.usgs.gov/topoview

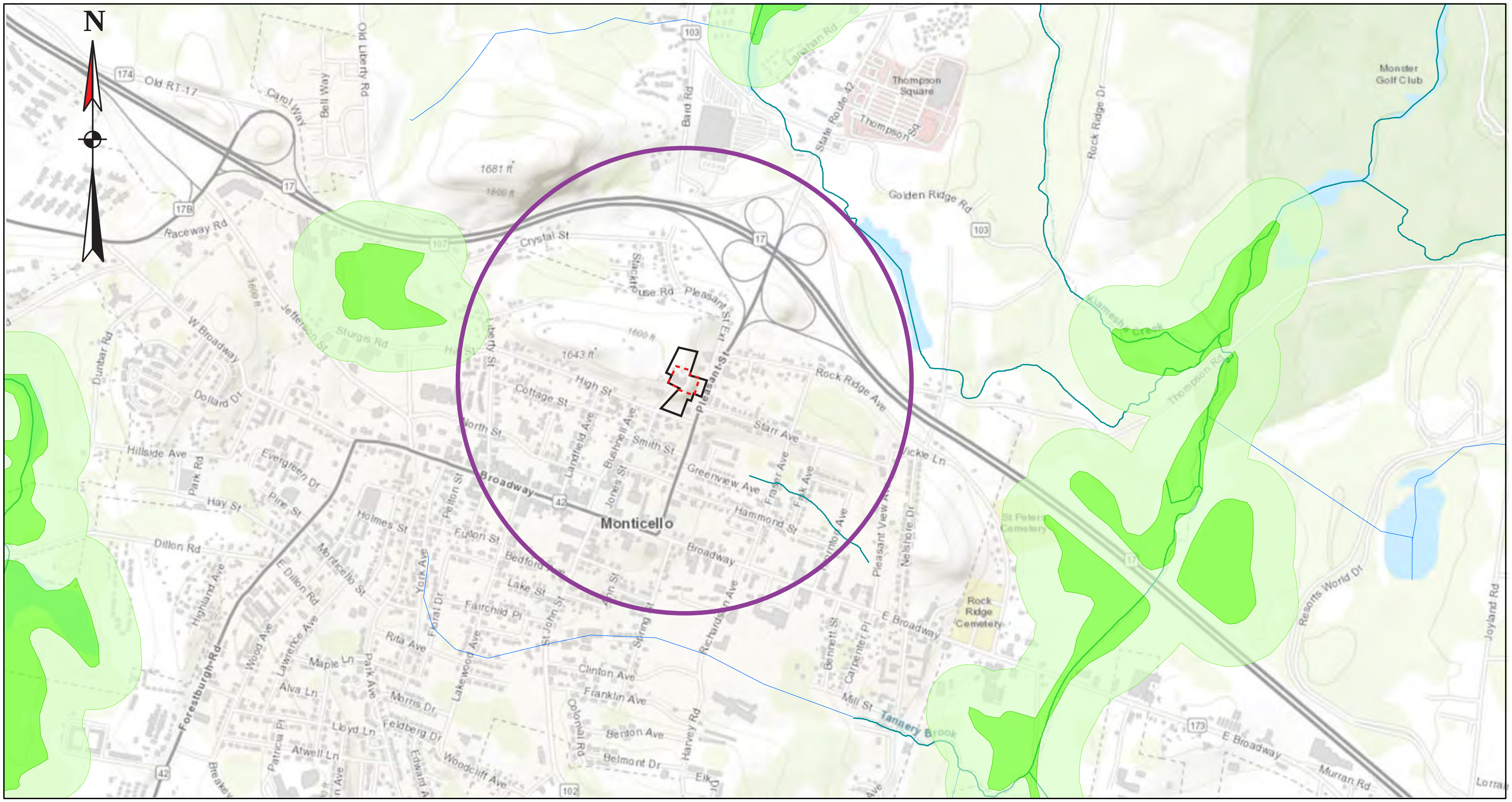
Figure 3: USGS Topographic Map
Monticello Manor Lofts
BCP Site: C353018
15 High Street
Monticello, New York

Legend:
- Tax Lot 107-1-11.1
- BCP Site Boundary
- 1/2 mile radius

File: 22003-0020

May 2025

Figures



October 1, 2024

Esri, HERE, Garmin, INCREMENT P, USGS, METI/NASA, EPA, USDA

Figure 4: New York State Wetlands

Monticello Manor Lofts
BCP Site: C353018
15 High Street
Monticello, New York

Legend:

▬ Tax Lot 107-1-11.1
┅ BCP Site Boundary
▬ 1/2 mile radius

File: 22003-0020
May 2025
Scale as shown
Figures

GALLAGHER BASSETT | TECHNICAL SERVICES

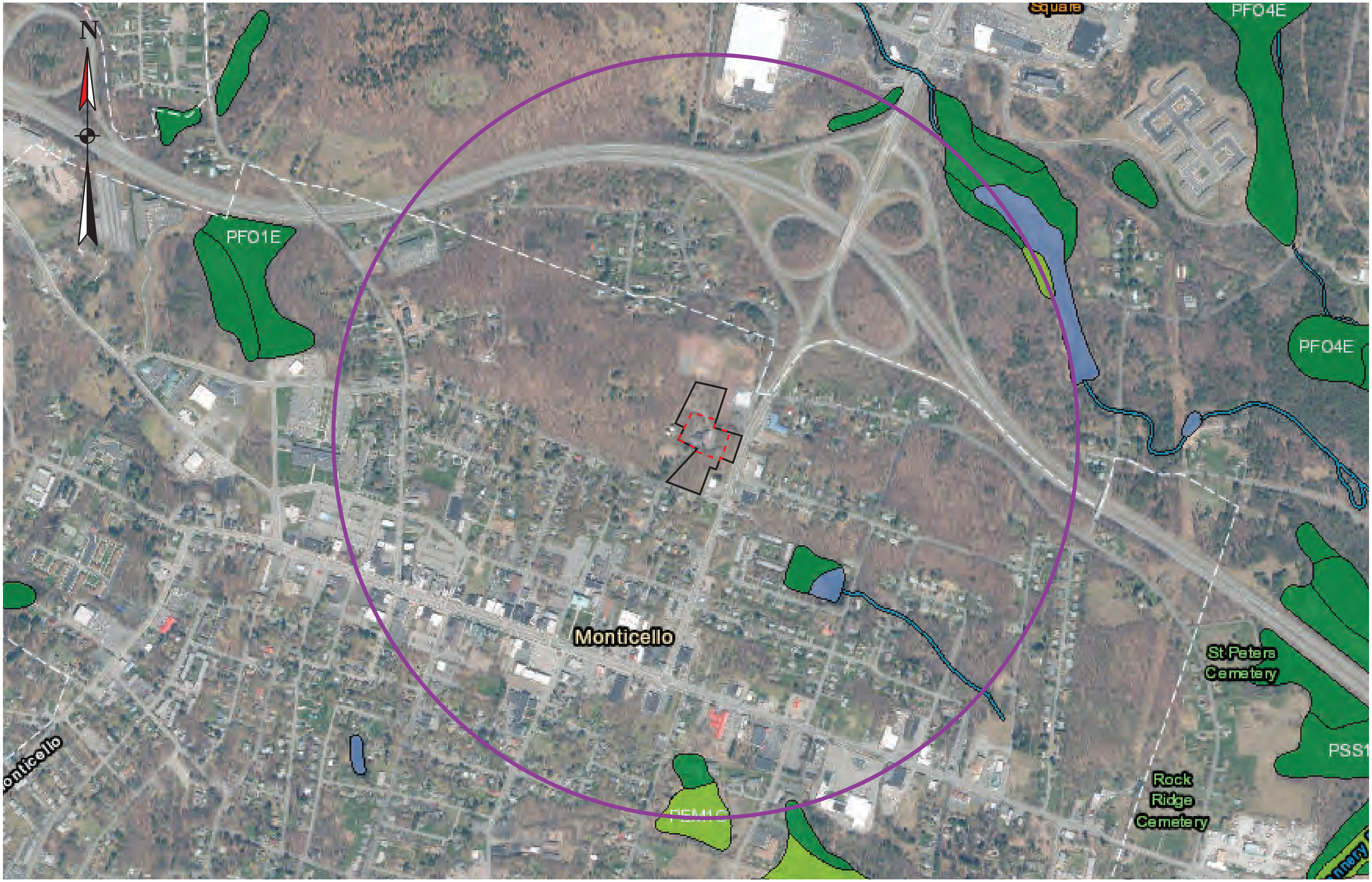


Figure 5: Federal Wetlands

Monticello Manor Lofts
BCP Site: C353018
15 High Street
Monticello, New York

Legend:

- Tax Lot 107-1-11.1
- BCP Site Boundary
- 1/2 mile radius

File: 22003-0020

May 2025

Figures

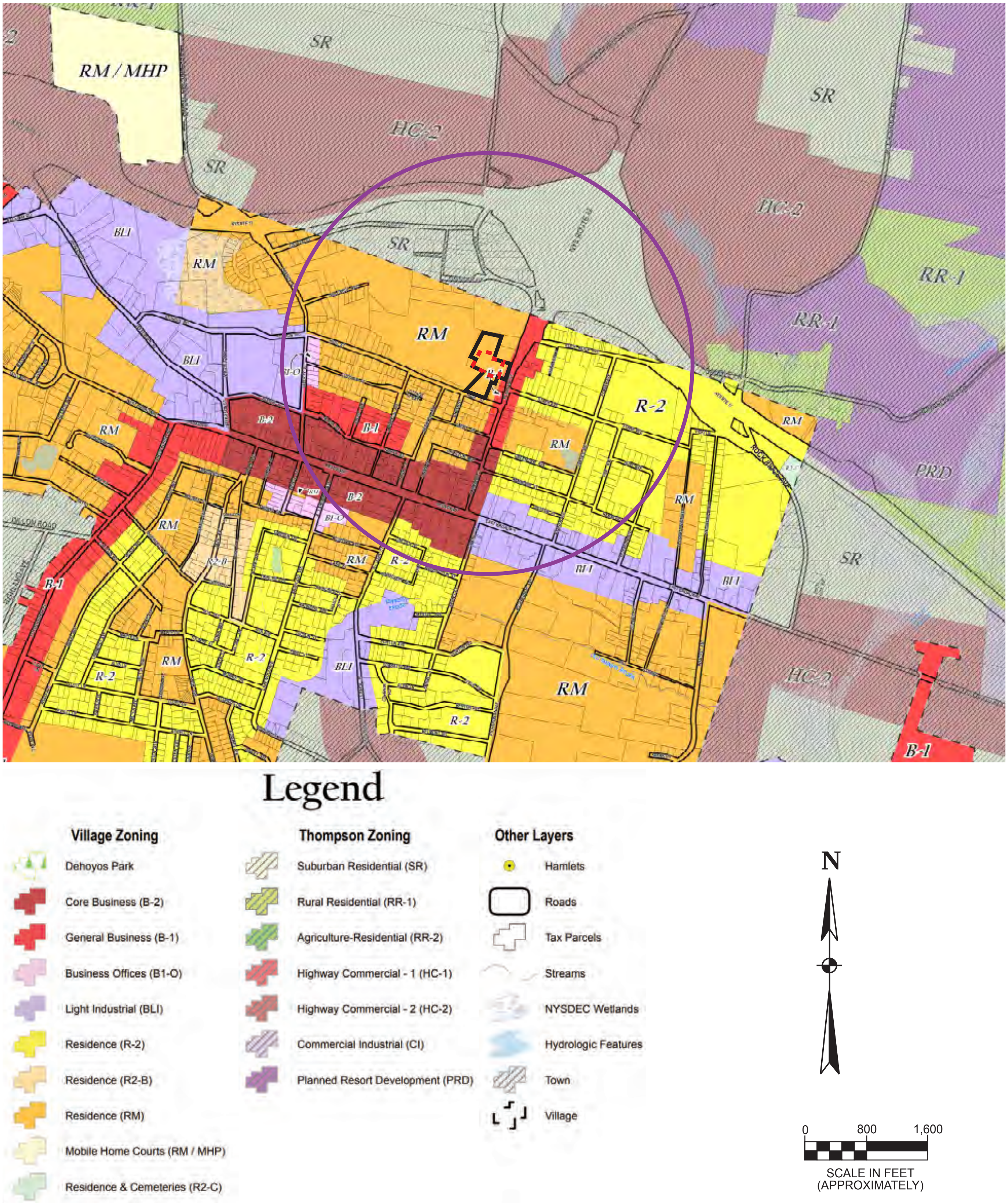


Figure 6: Area Land Use Map

Monticello Manor Lofts
BCP Site: C353018
15 High Street
Monticello, New York

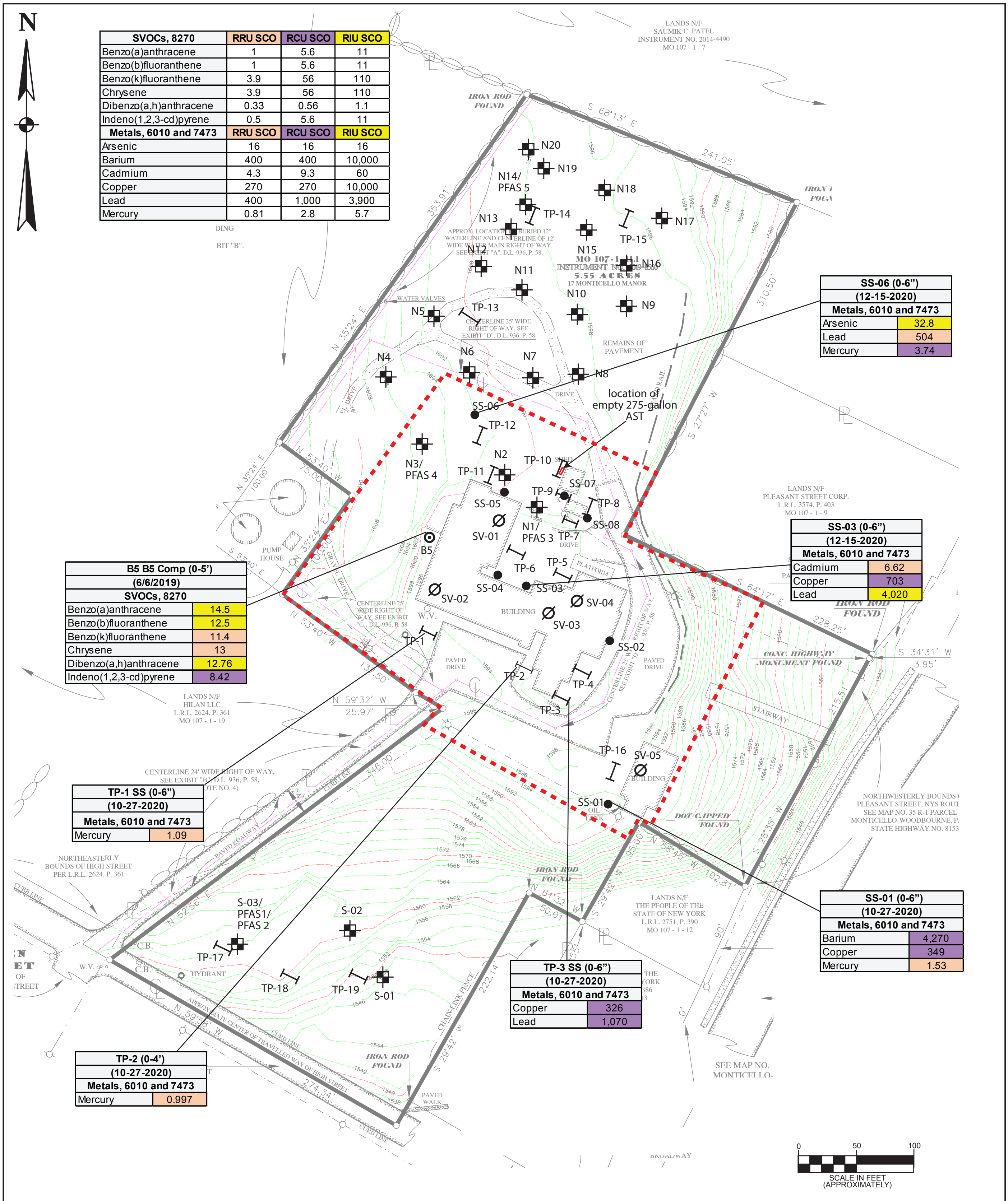
Legend:

—	Tax Lot 107-1-11.1
- - - -	BCP Site Boundary
—	1/2 mile radius

File: 22003-0020

May 2025

Figures



SVOCs, 8270	RRU SCO	RCU SCO	RIU SCO
Benzo(a)anthracene	1	5.6	11
Benzo(b)fluoranthene	1	5.6	11
Benzo(k)fluoranthene	3.9	56	110
Chrysene	3.9	56	110
Dibenzo(a,h)anthracene	0.33	0.56	1.1
Indeno(1,2,3-cd)pyrene	0.5	5.6	11
Metals, 6010 and 7473	**RRU SCO**	**RCU SCO**	**RIU SCO**
Arsenic	16	16	16
Barium	400	400	10,000
Cadmium	4.3	9.3	60
Copper	270	270	10,000
Lead	400	1,000	3,900
Mercury	0.81	2.8	5.7

SS-06 (0-6")	
(12-15-2020)	
Metals, 6010 and 7473	
Arsenic	32.8
Lead	504
Mercury	3.74

SS-03 (0-6")	
(12-15-2020)	
Metals, 6010 and 7473	
Cadmium	6.62
Copper	703
Lead	4,020

B5 B5 Comp (0-5')	
(6/6/2019)	
SVOCs, 8270	
Benzo(a)anthracene	14.5
Benzo(b)fluoranthene	12.5
Benzo(k)fluoranthene	11.4
Chrysene	13
Dibenzo(a,h)anthracene	12.76
Indeno(1,2,3-cd)pyrene	8.42

TP-1 SS (0-6")	
(10-27-2020)	
Metals, 6010 and 7473	
Mercury	1.09

SS-01 (0-6")	
(10-27-2020)	
Metals, 6010 and 7473	
Barium	4,270
Copper	349
Mercury	1.53

TP-3 SS (0-6")	
(10-27-2020)	
Metals, 6010 and 7473	
Copper	326
Lead	1,070

TP-2 (0-4')	
(10-27-2020)	
Metals, 6010 and 7473	
Mercury	0.997

Base Map provided by John W. Galligan, Licensed Land Surveyor dated 2/3/20.

Figure 7: Soil Contamination

Monticello Manor Lofts
BCP Site: C353018
15 High Street
Monticello, New York

Legend:

- Tax Lot 107-1-11.1
- ⊢ test pit location (2020)
- ● soil sample location (2020)
- ◉ boring location (2019)
- ∅ soil vapor location (2020)
- BCP Site Boundary
- ✚ Tectonic test pit location (2021)

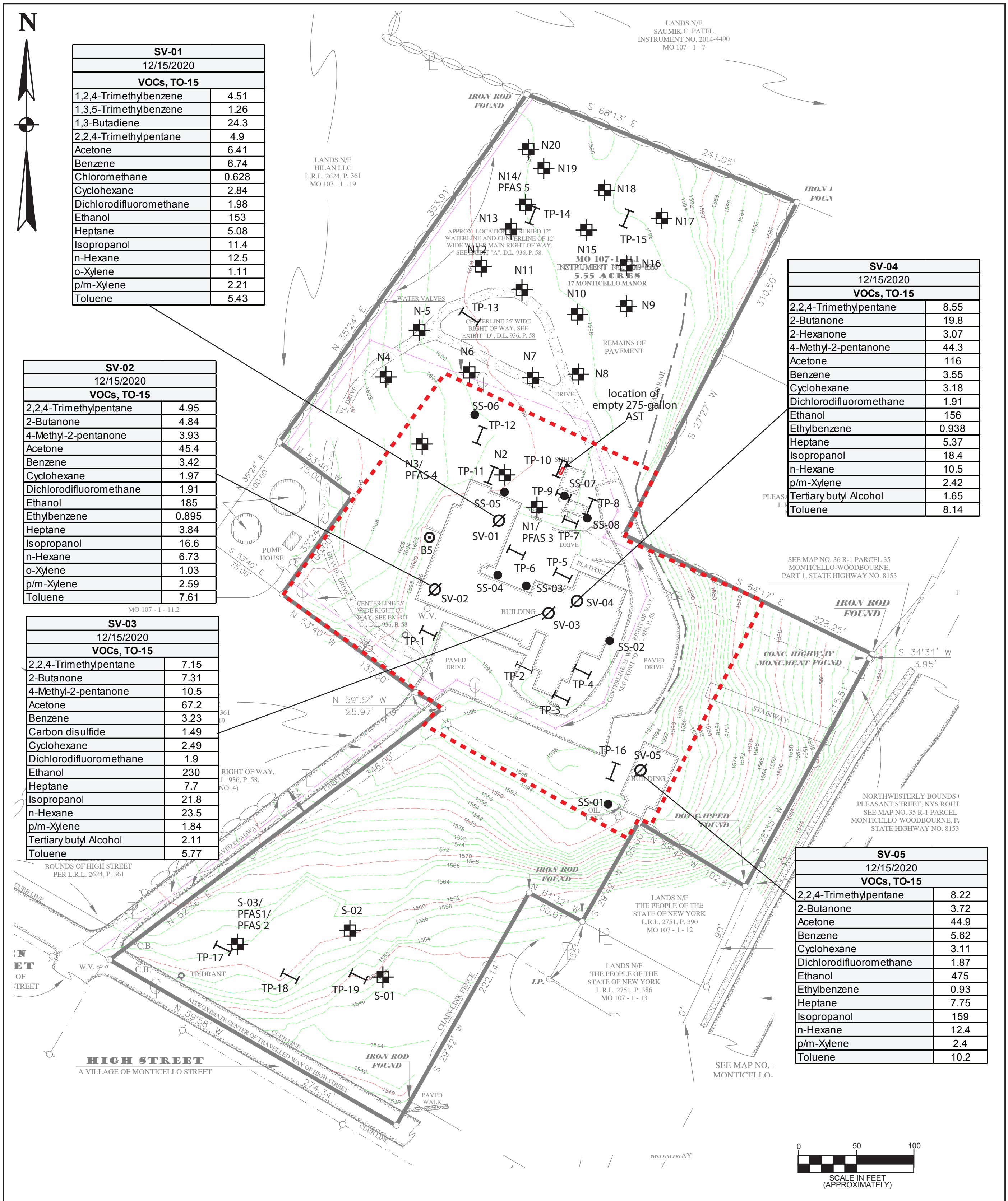
All data in mg/Kg (ppm)
Analyte Above RRU SCO
Analyte Above CU SCO
Analyte Above IU SCO

File: 22003-0020

May 2025

Scale as shown

Figures



SV-01	
12/15/2020	
VOCs, TO-15	
1,2,4-Trimethylbenzene	4.51
1,3,5-Trimethylbenzene	1.26
1,3-Butadiene	24.3
2,2,4-Trimethylpentane	4.9
Acetone	6.41
Benzene	6.74
Chloromethane	0.628
Cyclohexane	2.84
Dichlorodifluoromethane	1.98
Ethanol	153
Heptane	5.08
Isopropanol	11.4
n-Hexane	12.5
o-Xylene	1.11
p/m-Xylene	2.21
Toluene	5.43

SV-02	
12/15/2020	
VOCs, TO-15	
2,2,4-Trimethylpentane	4.95
2-Butanone	4.84
4-Methyl-2-pentanone	3.93
Acetone	45.4
Benzene	3.42
Cyclohexane	1.97
Dichlorodifluoromethane	1.91
Ethanol	185
Ethylbenzene	0.895
Heptane	3.84
Isopropanol	16.6
n-Hexane	6.73
o-Xylene	1.03
p/m-Xylene	2.59
Toluene	7.61

SV-03	
12/15/2020	
VOCs, TO-15	
2,2,4-Trimethylpentane	7.15
2-Butanone	7.31
4-Methyl-2-pentanone	10.5
Acetone	67.2
Benzene	3.23
Carbon disulfide	1.49
Cyclohexane	2.49
Dichlorodifluoromethane	1.9
Ethanol	230
Heptane	7.7
Isopropanol	21.8
n-Hexane	23.5
p/m-Xylene	1.84
Tertiary butyl Alcohol	2.11
Toluene	5.77

SV-04	
12/15/2020	
VOCs, TO-15	
2,2,4-Trimethylpentane	8.55
2-Butanone	19.8
2-Hexanone	3.07
4-Methyl-2-pentanone	44.3
Acetone	116
Benzene	3.55
Cyclohexane	3.18
Dichlorodifluoromethane	1.91
Ethanol	156
Ethylbenzene	0.938
Heptane	5.37
Isopropanol	18.4
n-Hexane	10.5
p/m-Xylene	2.42
Tertiary butyl Alcohol	1.65
Toluene	8.14

SV-05	
12/15/2020	
VOCs, TO-15	
2,2,4-Trimethylpentane	8.22
2-Butanone	3.72
Acetone	44.9
Benzene	5.62
Cyclohexane	3.11
Dichlorodifluoromethane	1.87
Ethanol	475
Ethylbenzene	0.93
Heptane	7.75
Isopropanol	159
n-Hexane	12.4
p/m-Xylene	2.4
Toluene	10.2

Base Map provided by John W. Galligan, Licensed Land Surveyor dated 2/3/20.

Figure 8: Soil Vapor Contamination

Monticello Manor Lofts
BCP Site: C353018
15 High Street
Monticello, New York

Legend:
- ▬ Tax Lot 107-1-11.1
- ├─┤ test pit location (2020)
- ● soil sample location (2020)
- ⊙ boring location (2019)
- ∅ soil vapor location (2020)
- ▪▪▪▪ BCP Site Boundary
- ⊞ Tectonic test pit location (2021)

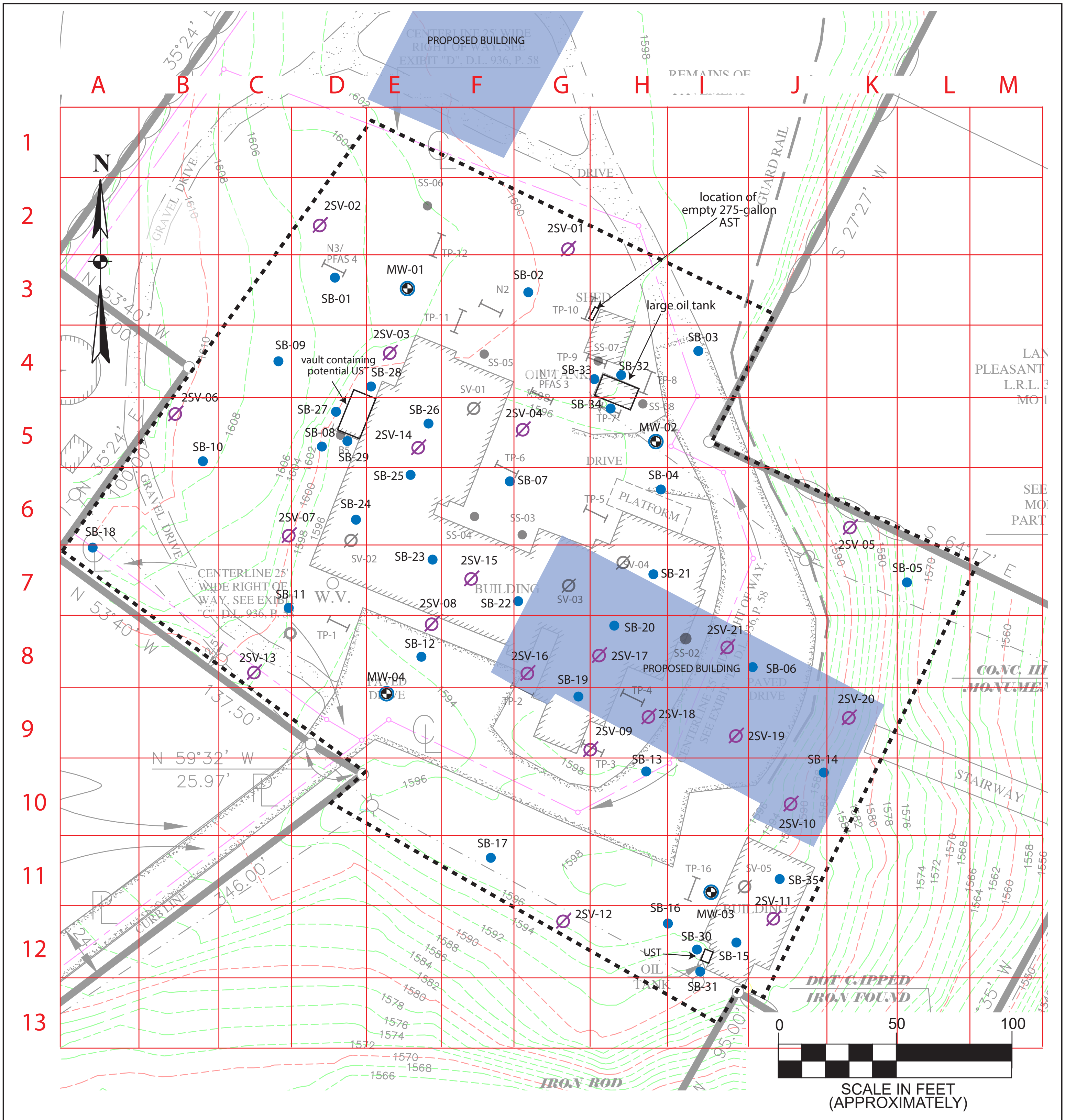
All data in µg/m³

File: 22003-0020

May 2025

Scale as shown

Figures



Base Map provided by John W. Galligan, Licensed Land Surveyor dated 2/3/20. All feature locations are approximate.
This map is intended as a schematic to be used in conjunction with the associated report, and it should not be relied upon as a survey for planning or other activities.

Figure 9: Remedial Investigation Map

Monticello Manor Lofts
BCP Site: C353018
15 High Street
Monticello, New York

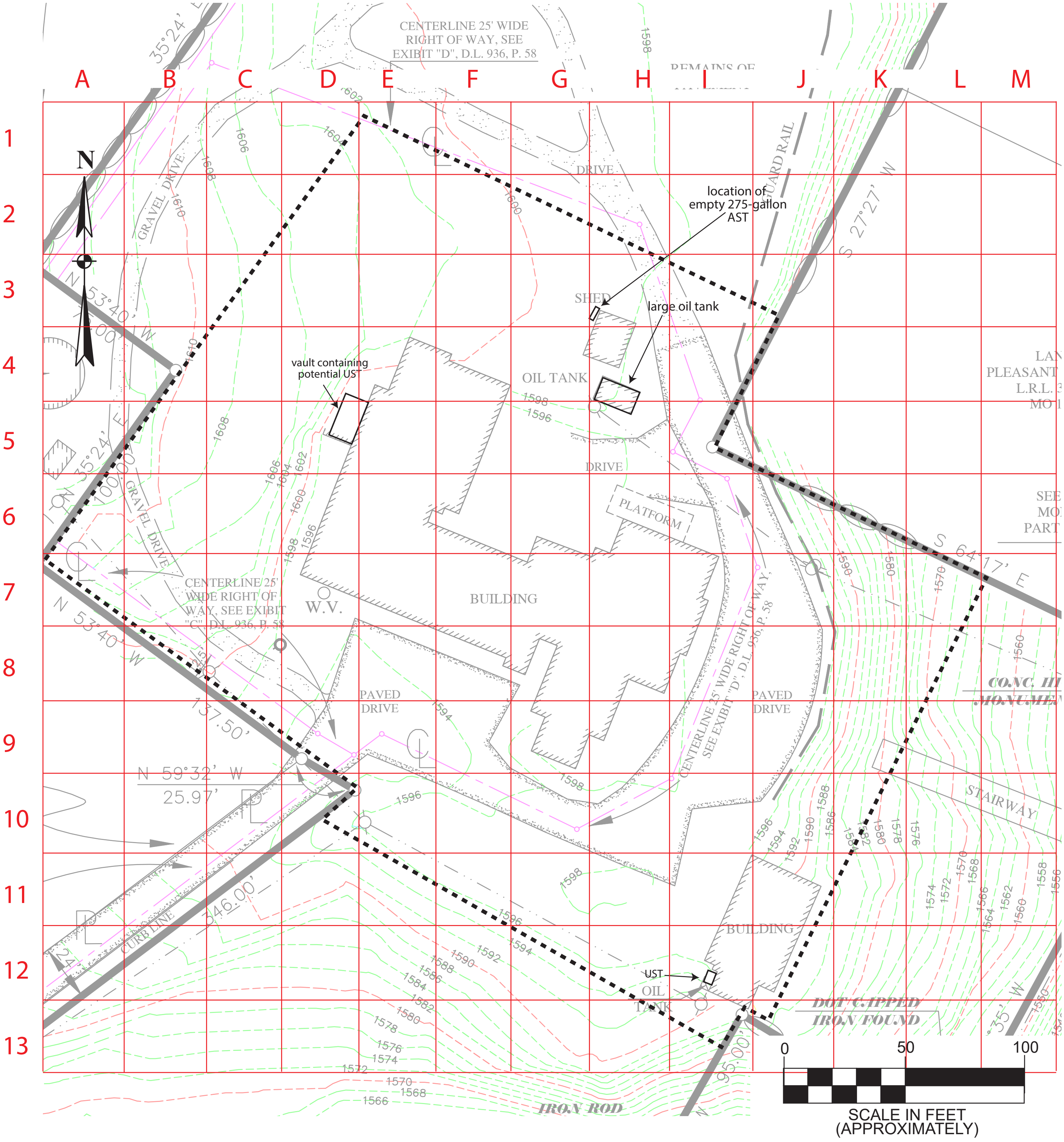
Legend:
- — Tax Lot 107-1-11.1
- ■■■ BCP Site Boundary
- ⊢⊣ previous test pit location
- ● previous soil sample location
- ∅ previous soil vapor location
- ⊕ proposed monitoring well location
- ● proposed soil boring location
- ∅ proposed soil vapor location

File: 22003-0020

May 2025

Scale as shown

Figures



Base Map provided by John W. Galligan, Licensed Land Surveyor dated 2/3/20. All feature locations are approximate.
This map is intended as a schematic to be used in conjunction with the associated report, and it should not be relied upon as a survey for planning or other activities.

Figure 10: Grid Map

Monticello Manor Lofts
BCP Site: C353018
15 High Street
Monticello, New York

Legend:

▬	Tax Lot 107-1-11.1
┅	BCP Site Boundary

File: 22003-0020

May 2025

Scale as shown

Figures

APPENDIX A – Health and Safety Plan

SITE INVESTIGATION
HEALTH AND SAFETY PLAN

Monticello Manor Lofts

15 High Street, Monticello, New York

NYSDEC BCP Site: C353018

May 2025

GBTS Project: 22003-0020

Technical Services Division

24 Davis Ave., Poughkeepsie, NY 12603 T: 845-452-1658 F: 845-485-7083
www.gallagherbassett.com/solutions/risk-control/environmental-health-safety/

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SITE INVESTIGATION
HEALTH AND SAFETY PLAN

May 2025

GBTS Project: 22003-0020

Prepared By:	**Prepared For:**
Gallagher Bassett Technical Services **22 IBM Road, Suite 101** **Poughkeepsie, New York 12601**	**Manor Lofts JV, LLC** **57 Route 6, Suite 207** **Baldwin Place, New York 10505**

The undersigned have reviewed this Site Investigation Health And Safety Plan and certify to Manor Lofts JV, LLC and to the New York State Department of Environmental Conservation that the information provided in this document is accurate as of the date of issuance by this office.

Scott Spitzer	RHooker
Scott Spitzer Gallagher Bassett Technical Services Technical Director – Environmental Consulting	Richard Hooker Gallagher Bassett Technical Services Manager – Environmental Consulting

TABLE OF CONTENTS

1.0 INTRODUCTION

1.1 Purpose

This Site Investigation Health and Safety Plan (HASP) has been developed to provide the requirements and general procedures to be followed by Gallagher Bassett Technical Services (GBTS) and on-site subcontractors while performing investigative services at the Monticello Manor Lofts BCP Site (C353018) located in the Village of Monticello, Sullivan County, New York.

This HASP incorporates policies, guidelines and procedures intended to protect the public health of the community during fieldwork activities, and therefore serves as a Community Health and Safety Plan. The objectives of the HASP are met by establishing guidelines to minimize potential exposures during fieldwork, and by planning for and responding to emergencies affecting the public adjacent to the site.

This HASP describes the responsibilities, training requirements, protective equipment and standard operating procedures to be utilized by all personnel while on the Site. All on-site personnel and visitors shall follow the guidelines, rules, and procedures contained in this HASP. The Project Manager or Site Health and Safety Officer (SHSO) may impose any other procedures or prohibitions necessary for safe operations. This HASP incorporates by reference applicable Occupational Safety and Health Administration (OSHA) requirements in 29 CFR 1910 and 1926.

The requirements and guidelines in this HASP are based on a review of available information and evaluation of potential on-site hazards. This HASP will be discussed with Site personnel and will be available on-site for review while work is underway. On-site personnel will report to the SHSO in matters of health and safety. The on-site project supervisor(s) are responsible for the enforcement and implementation of this HASP, which is applicable to all on-site field personnel, including contractors and subcontractors.

This HASP is specifically intended for the conduct of activities within the defined scope of work in specified areas of the Site. Changes in conditions or future actions that may be conducted at the Site may necessitate the modification of the requirements of the HASP. Although this HASP can be made available to interested persons for informational purposes, GBTS cannot be held accountable for the interpretations or activities of any other persons or entities other than the employees of GBTS or its subcontractors.

1.2 Site Location and Fieldwork Area

The Site is defined as Monticello Manor Lofts, located at 15 High Street, the Village of Monticello, Sullivan County, New York. A Proposed Remedial Investigation Map illustrating the Site configuration is attached to this HASP.

1.3 Work Activities

Environmental Site investigative activities are detailed in the NYSDEC-approved Remedial Investigation Work Plan (RIWP) dated May 2025. The specific tasks detailed in the RIWP are wholly incorporated by reference into this HASP. The RIWP describes the tasks required to investigate any environmental contamination at the Site.

Previous subsurface investigations documented the presence of poor-quality soil with elevated concentrations of organic compounds (semi-volatile organic compounds [SVOCs]) and metals, and soil-vapor impacts by volatile organic compounds (VOCs) at levels typical of developed, urban settings. Groundwater quality is unknown at this time.

Proposed remedial investigative actions include extension of soil borings, installation of monitoring wells and soil vapor probes, and collection of soil, groundwater, and vapor samples to document and delineate on-Site contamination conditions.

2.0 HEALTH AND SAFETY HAZARDS

2.1 Hazard Overview for On-Site Personnel

The potential exists for the presence of elevated levels of organic and inorganic compounds in Site soils and potentially in groundwater, and VOCs in soil vapor. The possibility exists for on-site personnel to have contact with contaminated soils, groundwater and/or vapor during fieldwork activities. Contact with contaminated substances may present a skin contact, inhalation and/or ingestion hazard. These potential hazards are addressed in Sections 3.0 through 11.0, below.

2.2 Potential Hazards to the Public from Fieldwork Activities

The potential exists for the public to be exposed to contaminated soils, groundwater and/or vapor, which may present a skin contact, inhalation and/or ingestion hazard. Additional potential hazards to the public that are associated with fieldwork activities include mechanical/physical hazards, traffic hazards from fieldwork vehicles, and noise impacts associated with operation of mechanical equipment.

Impacts to public health and safety are expected to be limited to hazards that could directly affect on-site visitors and/or trespassers. These effects will be mitigated through site access and control measures (see Section 6.0, below). Specific actions taken to protect the public health (presented in Sections 3.0 through 11, below) are anticipated to minimize any potential off-site impacts from contaminant migration, noise and traffic hazards.

3.0 PERSONAL PROTECTIVE EQUIPMENT

The levels of protection identified for the services specified in the RAWP represent a best estimate of exposure potential and protective equipment needed for that exposure. Determination of levels was based on data provided by previous studies of the Site and information reviewed on current and past Site usage. The SHSO may recommend revisions to these levels based on an assessment of actual exposures and may at any time require Site workers, supervisors and/or visitors to use specific safety equipment.

The level of protective clothing and equipment selected for this project is Level D. Level D PPE provides minimal skin protection and no respiratory protection, and is used when the atmosphere contains no known hazard, oxygen concentrations are not less than 19.5%, and work activities exclude splashes, immersion or the potential for unexpected inhalation or contact with hazardous levels of chemicals. Workers will wear Level D protective clothing including, but not limited to, a hard hat, steel-toed boots, nitrile gloves (when handling soils and/or groundwater), hearing protection (foam ear plugs or ear muffs, as required), and safety goggles (in areas of exposed groundwater and when decontaminating equipment). Personal protective equipment (PPE) will be worn at all times, as designated by this HASP.

Disposable gloves will be changed immediately following the handling of contaminated soils, water, or equipment. Tyvek suits will be worn during activities likely to excessively expose work clothing to contaminated dust or soil (chemically-resistant over garments will be required in situations where exposures could lead to penetration of clothing and direct dermal contact by contaminants).

The requirement for the use of PPE by official on-site visitors shall be determined by the SHSO, based on the most restrictive PPE requirement for a particular Work Zones (see Section 6 for Work Zone definitions). All on-site visitors shall, at a minimum, be required to wear an approved hardhat and be provided with appropriate hearing protection as necessary.

The need for an upgrade in PPE will be determined based upon encountered Site conditions, including measurements taken in the breathing zone of the work area using a photo-ionization detector (PID). An upgrade to a higher level of protection (Level C) will begin when specific action levels are reached (see Section 5.0, below), or as otherwise required by the SHSO. Level C PPE includes a full-face or half-mask air-purifying respirator (NIOSH approved for compound[s] of concern), hooded chemical-resistant clothing, outer and inner chemical-resistant gloves, and (as needed) coveralls, outer boots/boot covers, escape mask, and face shield. Level C PPE may be used only when: oxygen concentrations are not less than 19.5%; contaminant contact will not adversely affect exposed skin; types of air contaminants have been identified, concentrations measured, and a cartridge/canister is available that can remove the contaminant; atmospheric contaminant concentrations do not exceed immediately dangerous to life or health (IDLH) levels;

and job functions do not require self-contained breathing apparatus (SCBAs). The need for Level B or Level A PPE is not anticipated for the planned remedial activities at this Site.

If any equipment fails and/or any employee experiences a failure or other alteration of their protective equipment that may affect its protective ability, that person will immediately leave the work area. The Project Manager and the SHSO will be notified and, after reviewing the situation, determine the effect of the failure on the continuation of on-going operations. If the failure affects the safety of personnel, the work site, or the surrounding environment, personnel will be evacuated until appropriate corrective actions have been taken.

4.0 CONTAMINANT CONTROL

Precautions will be taken during dry weather (e.g., wetting or covering exposed soils) to avoid generating and breathing dust-generated from soils. A PID (or equivalent equipment) will be used to monitor potential contaminant levels. Response to the monitoring will be in accordance with the action levels provided in Section 5.0.

5.0 MONITORING AND ACTION LEVELS

Concentrations of volatile compounds in the air are expected to be below the OSHA Permissible Exposure Limits (PELs). Air monitoring will be conducted during Site investigation in accordance with a Community Air Monitoring Plan (CAMP, RIWP Appendix B). Monitoring will be conducted at all times that fieldwork includes ground intrusive activities or other work likely to generate emissions. PID and dust readings consistently in excess of CAMP limits will be used as an indication of the need to initiate personnel monitoring, increase worker protective measures, and/or modify or cease on-site operations in order to mitigate off-site community exposure. [Note: the CAMP includes special requirements for: a) work within 20 feet of potentially exposed individuals or structures; and, b) indoor work with co-located residences or facilities.]

PID readings that consistently exceed background in the breathing zone (during any proposed tasks) will necessitate moving away from the source or implementing a higher PPE level.

6.0 SITE CONTROL/WORK ZONES

Site control procedures will be established to reduce the possibility of worker/visitor contact with environmental contaminants, to protect the public in the area surrounding the Site and to limit access to the Site to only those persons required to be in the work zone. Notices placed near the Site will warn the public not to enter fieldwork areas and direct visitors to report to the Project Manager or SHSO. Measures will be taken to limit the entry of unauthorized personnel into the specific areas of field activity and to safely direct and control all vehicular traffic in and near the Site (e.g., placement of traffic cones and warning tape).

Work Areas are defined as follows:

Exclusion Zone - The exclusion zone will be that area immediately surrounding the work being performed to accomplish fieldwork activities involving the handling or potential exposures to contaminated media. Only individuals with appropriate PPE and training are allowed into this zone. It is the responsibility of the SHSO to prevent unauthorized personnel from entering the exclusion zone. When necessary (e.g., high traffic areas) the exclusion zone will be delineated with barricade tape, cones and/or barricades.

Dedicated Decontamination Area - A dedicated decontamination area for personnel and equipment (including contamination reduction and support zones) is not anticipated to be required during completion of fieldwork activities, but will be established and utilized, as warranted, based on changes in Site conditions. Care will be taken at all times to remove gloves, excess soil from boots, and soiled clothing (if necessary) before entering the Intermediate Zone.

Intermediate Zone - The intermediate zone, also known as the decontamination zone, is where patient decontamination should take place, if necessary. A degree of contamination still is found in this zone and some PPE is required, although it is usually of a lesser degree than that required for the exclusion zone.

Command Zone - The command zone is located outside the decontamination zone. All exposed individuals and equipment from the exclusion zone and the decontamination zone should be decontaminated before entering the command zone. Access to all zones must be controlled. Keeping onlookers, media, etc. well away from the Site is critical and will be the responsibility of both the SHSO and the Project Manager, and other Site personnel as appropriate.

7.0 NOISE CONTROL

All fieldwork activities will be conducted in a manner designed to reduce unnecessary noise generation, and to minimize the potential for both on-site and off-site harmful noise levels. The Project Manager and SHSO will establish noise reduction procedures (as appropriate to the Site and the work) to meet these requirements.

8.0 PERSONNEL TRAINING

Work zones that will accomplish the general objective stated above will be established by the Project Manager and the SHSO. Site access will be monitored by the SHSO, who will maintain a log-in sheet for personnel that will include, at the minimum, personnel on the Site, their arrival and departure times and their destination on the Site. All workers will be properly trained in accordance with OSHA requirements (29 CFR 1910). Personnel exiting the work zone(s) will be decontaminated prior to exiting the Site.

Site-specific training will be provided to each employee. Personnel will be briefed by the SHSO as to the potential hazards to be encountered.

Topics will include:

- Availability of this HASP;
- General site hazards and specific hazards in the work areas, including those attributable to known of suspect on-site contaminants;
- Selection, use, testing, and care of the body, eye, hand, and foot protection being worn, with the limitations of each;
- Decontamination procedures for personnel, their personal protective equipment, and other equipment used on the Site;
- Emergency response procedures and requirements;
- Emergency alarm systems and other forms of notification, and evacuation routes to be followed; and,
- Methods to obtain emergency assistance and medical attention.

9.0 DECONTAMINATION

The SHSO will establish a decontamination system and decontamination procedures (appropriate to the Site and the work) that will prevent potentially hazardous materials from leaving the Site. Vehicles will be brushed to remove materials adhering to surfaces. Sampling equipment will be segregated and, after decontamination, stored separately from PPE. All decontaminated or clean sampling equipment not in use will be protected and stored in a designated, controlled storage area.

10.0 EMERGENCY RESPONSE

10.1 Notification of Site Emergencies

In the event of an emergency, the SHSO will be immediately notified of the nature and extent of the emergency (the names and contact information for key site safety and management personnel, as well as other site safety contact telephone numbers, shall be posted at the Site).

Table 1 in this HASP contains Emergency Response Telephone Numbers, and immediately following is a map detailing the directions to the nearest hospital emergency room. This information will be maintained at the work Site by the SHSO. The location of the nearest telephone will be determined prior to the initiation of on-site activities. In addition to any permanent phone lines, a cellular phone will be in the possession of the SHSO, or an authorized designee, at all times.

10.2 Responsibilities

Prior to the initiation of on-site work activities, the SHSO will:

- Notify individuals, authorities and/or health care facilities of the potentially hazardous activities and potential wastes that may develop as a result of the remedial activities;
- Confirm that first aid supplies and a fire extinguisher are available on-site;
- Have a working knowledge of safety equipment available; and,
- Confirm that a map detailing the most direct route to the hospital is prominently posted with the emergency telephone numbers.

The SHSO will be responsible for directing notification, response and follow-up actions and for contacting outside response personnel (ambulance, fire department, or others). In the case of an evacuation, the SHSO will account for personnel. A log of individuals entering and leaving the Site will be kept so that everyone can be accounted for in an emergency.

Upon notification of an exposure incident, the SHSO will contact the appropriate emergency response personnel for recommended medical diagnosis and, if necessary, treatment. The SHSO will determine whether and at what levels exposure actually occurred, the cause of such exposure, and the means to prevent similar incidents from occurring.

10.3 Accidents and Injuries

In the event of an accident or injury, measures will be taken to assist those who have been injured or exposed and to protect others from hazards. If an individual is transported to a hospital or doctor, a copy of the HASP will accompany the individual.

The SHSO will be notified and respond according to the severity of the incident. The SHSO will investigate the incident and prepare a signed and dated report documenting the investigation. An exposure-incident report will also be completed by the SHSO and the exposed individual. The form will be filed with the employee's medical and safety records to serve as documentation of the incident and the actions taken.

10.4 Communication

No special hand signals will be utilized within the work zone. Field personnel will utilize standard hand signals during the operation of heavy equipment.

10.5 Safe Refuge

Vehicles and on-site structures will serve as the immediate place of refuge in the event of an emergency. If evacuation from the area is necessary, project vehicles will be used to transport on-site personnel to safety.

10.6 Site Security and Control

Site security and control during emergencies, accidents and incidents will be monitored by the SHSO. The SHSO is responsible for limiting access to the Site to authorized personnel and for oversight of reaction activities.

10.7 Emergency Evacuation

In case of an emergency, personnel will evacuate to the safe refuge identified by the SHSO, both for their personal safety and to prevent the hampering of response/rescue efforts.

10.8 Resuming Work

A determination that it is safe to return to work will be made by the SHSO and/or any personnel assisting in the emergency, e.g., fire department, police department, utility company, etc. No personnel will be allowed to return to the work areas until a full determination has been made by the above-identified personnel that all field activities can continue unobstructed. Such a determination will depend upon the nature of the emergency (e.g., downed power lines -- removal of all lines from the property; fire -- extinguished fire; injury -- safe transport of the injured party to a medical facility with either assurance of acceptable medical care present or completion of medical care; etc.). Before on-site work is resumed following an emergency, necessary emergency equipment will be recharged, refilled or replaced. Government agencies will be notified as appropriate. An Incident Report Form will be filed.

10.9 Fire Fighting Procedures

A fire extinguisher will be available in the work zone during on-site activities. This extinguisher is intended for small fires. When a fire cannot be controlled with the extinguisher, the area will be evacuated immediately. The SHSO will be responsible for directing notification, response and follow-up actions and for contacting ambulance and fire department personnel.

10.10 Emergency Decontamination Procedure

The extent of emergency decontamination depends on the severity of the injury or illness and the nature of the contamination. Whenever possible, minimum decontamination will consist of washing, rinsing and/or removal of contaminated outer clothing and equipment. If time does not permit decontamination, the person will be given first aid treatment and then wrapped in plastic or a blanket prior to transport.

10.11 Emergency Equipment

The SHSO will maintain a dedicated vehicle containing the following on-site equipment for safety and emergency response: fire extinguisher; first-aid kit; and, extra copy of this HASP.

11.0 SPECIAL PRECAUTIONS AND PROCEDURES

The activities associated with this remediation may involve potential risks of exposure to both chemical and physical hazards. The potential for chemical exposure to hazardous or regulated substances will be significantly reduced through the use of monitoring, personal protective clothing, engineering controls, and implementation of safe work practices.

11.1 Heat/Cold Stress

Training in prevention of heat/cold stress will be provided as part of the site-specific training. The timing of this project is such that heat/cold stress may pose a threat to the health and safety of personnel. Work/rest regimens will be employed, as necessary, so that personnel do not suffer adverse effects from heat/cold stress. Special clothing and appropriate diet and fluid intake regimens will be recommended to personnel to further reduce this temperature-related hazard. Rest periods will be recommended in the event of high/low temperatures and/or humidity to counter the negative effects of heat/cold stress.

11.2 Heavy Equipment

Working in the vicinity of heavy equipment is the primary safety hazard at the Site. Physical hazards in working near heavy construction equipment include the following: overhead hazards, slips/trip/falls, hand and foot injuries, moving part hazards, improper lifting/back injuries and noise. All workers will be properly trained in accordance with OSHA requirements (29 CFR 1910). No workers will be permitted within any excavated areas without proper personal protective equipment (PPE), including, as warranted, any necessary Level C equipment (e.g., respirators and protective suits). Air monitoring in excavation areas will be conducted for VOCs in accordance with Section 5.0.

11.3 Additional Safety Practices

The following are important safety precautions which will be enforced during the remedial activities.

Medicine and alcohol can aggravate the effect of exposure to certain compounds. Controlled substances and alcoholic beverages will not be consumed during remedial activities. Consumption of prescribed drugs will only be at the discretion of a physician familiar with the person's work.

Eating, drinking, chewing gum or tobacco, smoking, or other practices that increase the probability of hand-to-mouth transfer and ingestion of material is prohibited except in areas designated by the SHSO.

Contact with potentially contaminated surfaces will be avoided whenever possible. Workers will not unnecessarily walk through puddles, mud or other discolored surfaces; kneel on the ground; or lean, sit, or place equipment on drums, containers, vehicles, or the ground.

Personnel and equipment in the work areas will be minimized, consistent with effective site operations.

Unsafe equipment left unattended will be identified by a "DANGER, DO NOT OPERATE" tag.

Work areas for various operational activities will be established.

11.4 Daily Log Contents

The SHSO will establish a system appropriate to the Site, the work and the work zones that will record, at a minimum, the following information:

- Personnel on the Site (arrival and departure times) and their destination on the Site;
- Incidents and unusual activities Site such as (but not limited to) accidents, spills, breaches of security, injuries, equipment failures and weather-related problems;
- Changes to the HASP; and,
- Daily information, including: changes to work plans, work accomplished and current Site status, and monitoring results.

12.0 EMERGENCY INFORMATION

12.1 Emergency Contact Information

The following page presents a table indicating emergency contact information. This table should be copied and freely distributed and/or posted at the Site to ensure ready access.

Emergency Contact Information

Emergency Agencies	Phone Numbers
EMERGENCY	**911**
HOSPITAL Emergency Department at Garnet Health Medical Center 68 Harris Bushville Road Harris, New York	**(845) 794-3300 or 911**
POLICE Village of Monticello Police Department 2 Pleasant Street Monticello New York	**(845) 794-4422 or 911**
FIRE	**911**
City Hall	**(845) 794-6130**
Water and Sewer Services	**(845) 794-4911**
Site Health and Safety Officer, Richard Hooker, GBTS	(845) 452-1658

12.2 Directions to Hospital

Approximately 10 minutes travel time – 6.6 miles

Left on High Street then **Left** on NY-42 North/Pleasant Street (0.3 mile)

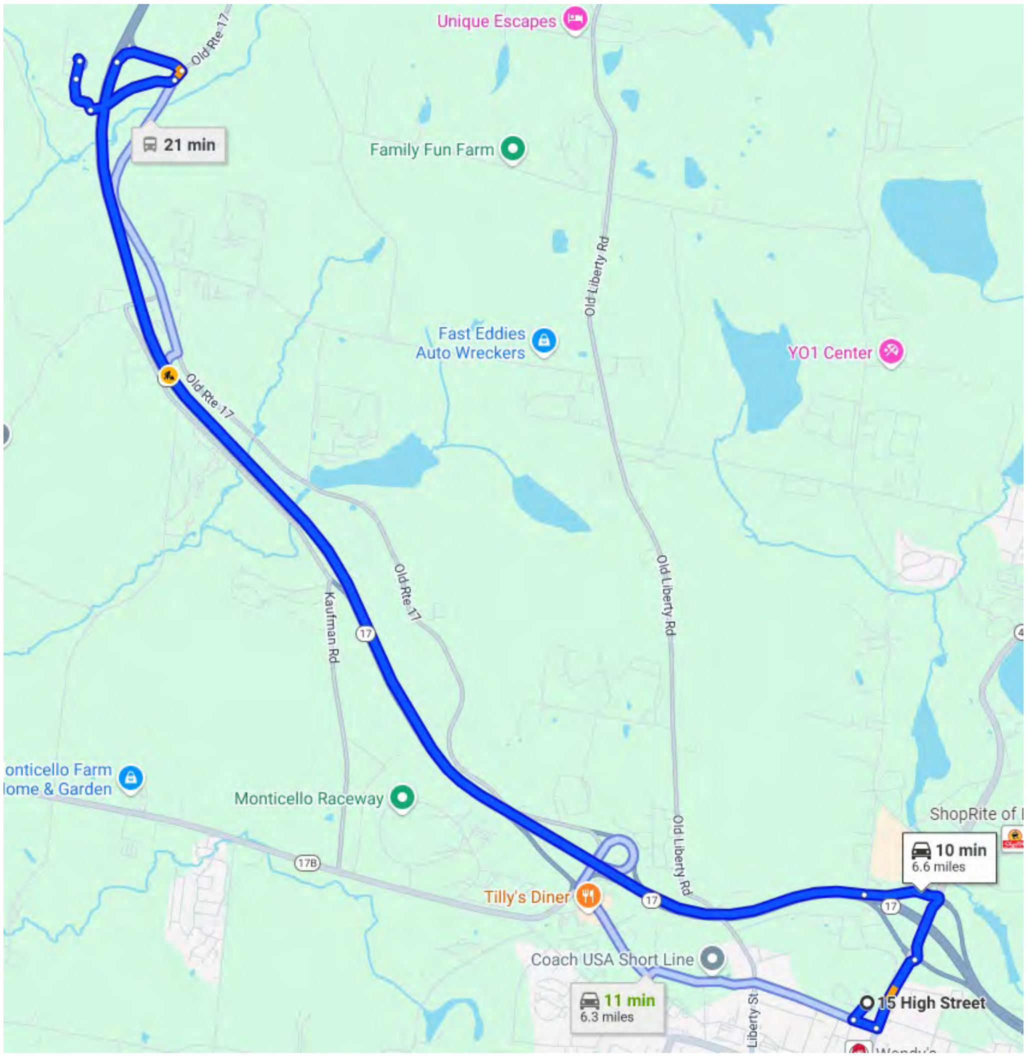
Traffic Circle – Third Exit onto NY-17 West (5 miles)

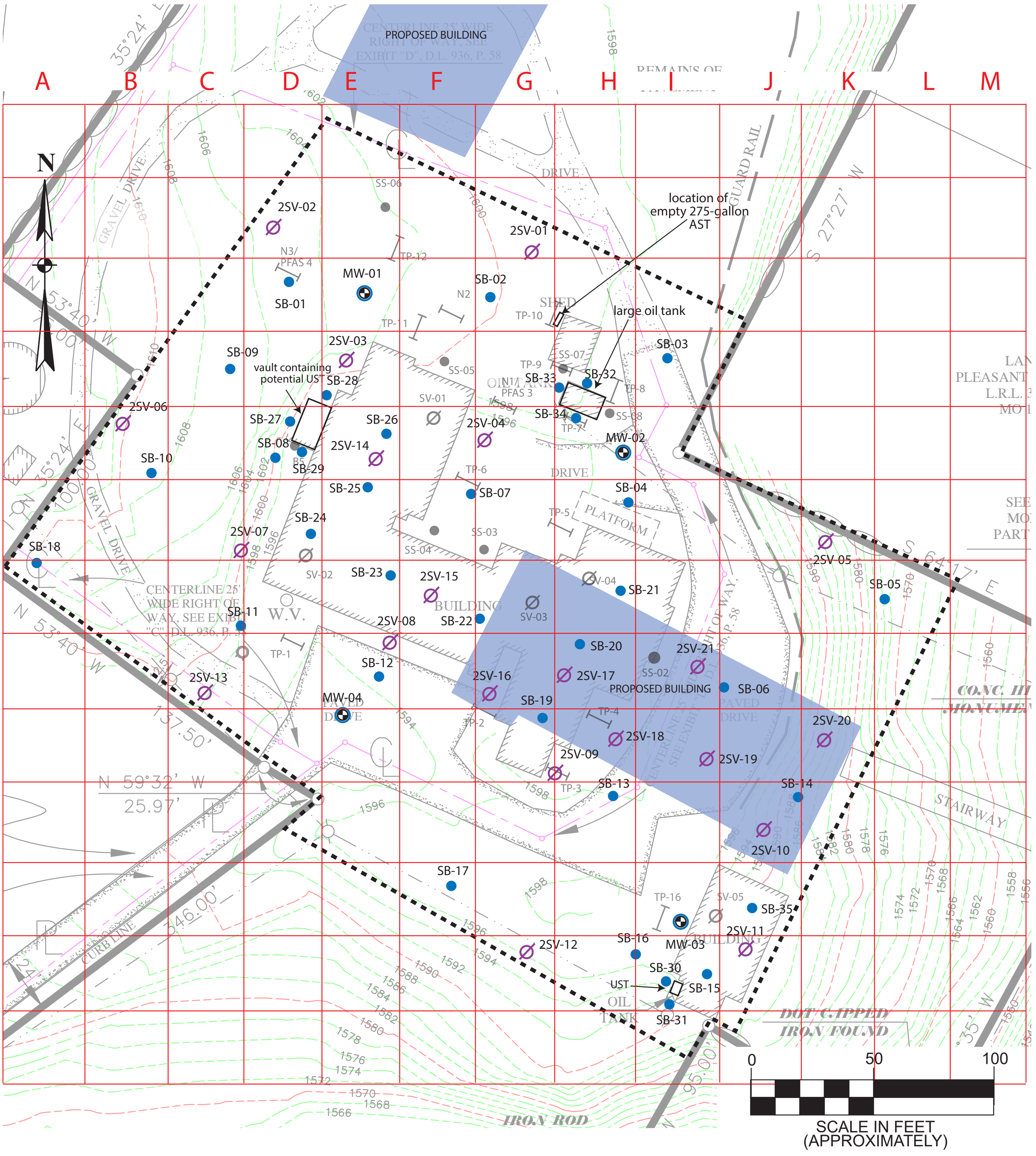
Exit 102 Harris/Bushville then **Right** on Old Route 17

Right on Harris Bushville Road (0.6 mile)

Hospital on Right, follow signs to Emergency Room

12.3 Map to Hospital





Base Map provided by John W. Galligan, Licensed Land Surveyor dated 2/3/20. All feature locations are approximate.
This map is intended as a schematic to be used in conjunction with the associated report, and it should not be relied upon as a survey for planning or other activities.

Remedial Investigation Map

Monticello Manor Lofts
BCP Site: C353018
15 High Street
Monticello, New York

Legend:
Tax Lot 107-1-11.1
BCP Site Boundary
previous test pit location
● previous soil sample location
Ø previous soil vapor location
proposed monitoring well location
● proposed soil boring location
Ø proposed soil vapor location

File: 22003-0020
May 2025
Scale as shown
Attachment

APPENDIX B – Quality Assurance Project Plan

SITE INVESTIGATION
QUALITY ASSURANCE PROJECT PLAN

Monticello Manor Lofts

15 High Street, Monticello, New York

NYSDEC BCP Site: C353018

May 2025

GBTS Project: 22003-0020

Technical Services Division

24 Davis Ave., Poughkeepsie, NY 12603 T: 845-452-1658 F: 845-485-7083
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GALLAGHER BASSETT | TECHNICAL SERVICES

SITE INVESTIGATION
QUALITY ASSURANCE PROJECT PLAN

May 2025

GBTS Project: 22003-0020

Prepared By:

Gallagher Bassett Technical Services
22 IBM Road, Suite 101
Poughkeepsie, New York 12601

Prepared For:

Manor Lofts JV, LLC
57 Route 6, Suite 207
Baldwin Place, New York 10505

The undersigned have reviewed this Site Investigation Quality Assurance Project Plan and certify to Manor Lofts JV, LLC and to the New York State Department of Environmental Conservation that the information provided in this document is accurate as of the date of issuance by this office.

Scott Spitzer

Scott Spitzer
Gallagher Bassett Technical Services
Technical Director – Environmental Consulting

RH Hooker

Richard Hooker
Gallagher Bassett Technical Services
Manager – Environmental Consulting

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1.0 PROJECT MANAGEMENT

1.1 Project/Task Organization

Major participants in the project are shown below along with their specific responsibilities and authorities. Resumes for Gallagher Bassett Technical Services (GBTS) personnel and the Data Validator are provided in Attachment D this Quality Assurance Project Plan (QAPP).

Alexander Malamet New York State Department of Environmental Conservation (NYSDEC)

Alexander Malamet is the project manager for the NYSDEC, responsible for review and approval of all project submittals.

Jay Jaros Project Manager, GBTS

Jay Jaros, PG is the Qualified Environmental Professional (QEP) for the project, responsible for overview of all project activities. Mr. Jaros has authority over all GBTS personnel and subcontractors and will be responsible for final review and approval of all project submittals prior to submission to the NYSDEC.

Scott Spitzer Technical Director, Environmental Consulting, GBTS

Scott Spitzer will be the Project Manager, responsible for directing and coordinating all project activities, reviewing all project documents, and ensuring that project plans are followed. Mr. Spitzer has authority to direct the activities of the field team (OSC and subcontractors).

Richard Hooker Quality Assurance Officer (QAO), GBTS

Richard Hooker, PhD will be responsible for reviewing all sampling procedures and certifying that the data was collected and analyzed using the appropriate procedures, and will assist in the development of the sampling and analytical portion of a site-specific quality assurance project plan (QAPP).

Scott McDonald On-Site Coordinator (OSC), GBTS

Scott McDonald, PE is the OSC, responsible for the completion of all on-site fieldwork, collection of all samples, completion of the field log, and chains of custody. The OSC will have authority over all on-site subcontractors.

Laboratory York Analytical Laboratories

York Analytical Laboratories, will be responsible for analysis of samples, and is New York State Department of Health (NYSDOH) Environmental Laboratory Approved Program (ELAP) certified in the appropriate categories, including PFOA and PFOS in drinking water by EPA Method 537.1 or ISO 25101.

Subcontractors *To be determined*

Subcontractors will be responsible for the operation of special equipment and providing technical assistance as needed.

1.2 Principal Data Users

The principal users of the generated data in this project are listed below.

1. Residents of Monticello, especially those residing in the vicinity of the Site
2. Manor Lofts JV, LLC (the Volunteer)
3. NYSDEC

1.3 Problem Definition/Background

The Site is being investigated under the NYSDEC Brownfields Cleanup Program (BCP ID: C353018) to document the presence or absence of contamination in Site media. Previous subsurface investigations documented the presence of poor-quality soil with elevated concentrations of organic compounds (semi-volatile organic compounds [SVOCs]) and metals, and soil-vapor impacts by volatile organic compounds (VOCs) at levels typical of developed, urban settings. Groundwater quality is unknown at this time.

1.4 Project/Task Description

The project will meet its objective through compliance with applicable requirements in NYSDEC DER-10 Technical Guidance for Site Investigation and Remediation, and with this QAPP. Proposed remedial investigative actions include extension of soil borings, installation of monitoring wells and soil vapor probes, and collection of soil, groundwater, and vapor samples to document and delineate on-Site contamination conditions.

1.5 Quality Objectives and Criteria

The data collected in this project will be used for the following purposes:

- To document Site environmental conditions.

In order to meet data quality objectives of precision, accuracy, representation, comparability, and completeness the following actions will be implemented:

- All media sampling will be conducted in accordance with the NYSDEC-approved Remedial Investigation Work Plan (RIWP) and in QAPP Sections 2 and 3.
- Data generated during the Remedial Investigation (RI) will be submitted for review by a third, independent party (see Section 3.2.1, below).

Prior to field activities, the QEP, Project Manager, and the OSC will review the RIWP to ensure that the data quality objectives of precision, accuracy, representation, comparability, and completeness will be met during the field activities. At the completion of field activities, the Project Manager will review field logs and chains of custody to ensure that field activities met the intent of the RIWP. If a problem is identified, the Project Manager and the QAO will meet to determine any necessary corrective measures to meet the data quality objectives.

1.6 Documents and Records

Electronic and paper copies of all fieldwork observations and measurements will be retained by GBTS, which will be provided in the final RIR.

2.0 SAMPLING AND ANALYSIS PLAN

Sample collection, handling, and laboratory analysis is summarized below. A Fieldwork Map indicating Site features and planned fieldwork locations is provided as Attachment A.

2.1 Sampling Overview

Borings will be extended in order to recover representative soil samples at various depths and to allow for the collection of soil vapor samples. Several borings will be completed as permanent groundwater monitoring wells to allow for the collection of reproducible groundwater quality samples.

2.2 Fieldwork and Sampling Methodology

All fieldwork activities, including collection and handling of media samples, will be in accordance with the Standard Operating Procedures (SOPs) provided in Attachment B. Sampling will occur for per- and polyfluoroalkyl substances (PFAS) and 1,4-dioxane (“emerging contaminants”) and guidelines for such sampling will be strictly followed by all field and laboratory personnel. Basic SOP components are summarized below.

2.2.1 General Fieldwork

The OSC will be responsible for compliance with the SOPs, including:

- Documentation of all fieldwork activities in logbooks for inclusion in final reports;
- Assessment of media characteristics (soil type, presence or absence of foreign materials, field indications of contamination), and instrument readings using properly calibrated and operated precision instruments;
- Identification of materials requiring special handling (media that may contain elevated concentrations of contaminants or is grossly contaminated, hazardous materials, etc.) and ensuring proper secure on-site storage, pending characterization and disposition;

- Ensuring that unforeseen environmental conditions are managed in accordance with applicable federal and state regulations;
- Sample collection, including procedures to minimize potential cross-contamination; and,
- Implementation of decontamination procedures.

Sample collection and laboratory analysis for PFAS will comply with current NYSDEC guidance (Sampling, Analysis, and Assessment of Per-and Polyfluoroalkyl Substances [PFAS] Under NYSDEC's Part 375 Remedial Programs, April 2023), provided in Attachment B (SOPs), which includes a target list of PFAS compounds (see also Section 2.4, Analytical Methods).

Guidelines for sampling of soil and/or groundwater for PFAS include the following (detailed protocols, including lists of prohibited behaviors and materials, are provided in the SOP):

- Sampling for PFAS will be conducted prior to sampling for other analytes, as practicable, to minimize cross contamination from sample containers utilized for other methods;
- Sampling personnel will comply with specific prohibitions in regards to field equipment, PPE, rain gear, personal clothing and body-care, food, etc.;
- Sample coolers will be held at low temperature using only water ice (plastic freezer packs are prohibited);
- Decontamination protocols specific to PFAS will be followed, including use of "PFAS free" water and approved cleaning agents (Liquinox is prohibited); and,
- Compliance with laboratory requirements for sampling containers, field blanks, etc. (laboratory fieldwork SOPs for PFAS are included in Attachment B).

2.2.2 Extension of Borings and Soil Sampling

It is anticipated that a total of thirty-five (35) soil borings will be extended for this project, with additional "step out" borings as needed to provide delineation data. Borings will be extended using mechanized equipment (or hand-held boring equipment, as necessary), capable of collecting soil cores at discreet intervals. Borings will be extended to 15 feet below ground surface (bgs) or to one sample interval below the groundwater interface (whichever is deepest), or until refusal is reached (all borings to be completed as groundwater monitoring wells will be extended to a minimum depth that allows for proper installation of the well screen).

Surface soil will be collected prior extending borings, and then will be collected from the subsurface using coring barrels lined with disposable acetate sleeves (split spoons may be utilized based on Site conditions and equipment availability).

Samples will be collected (at a minimum) from the soil stratum intercepting the groundwater table, any fill material, and from soil exhibiting field evidence of contamination (if encountered) or at soil strata corresponding to previously identified contamination in nearby boring locations (for delineation).

Samples will be collected directly from the freshly cut open sleeve, using disposable plastic trowels or properly decontaminated stainless steel instruments, or may be manually collected directly from exposed soil or the sampling instrument using dedicated disposable latex gloves.

Soil sampling for VOCs will follow USEPA Method 5035 protocols, using disposable 5-gram plastic syringes to place material into laboratory-supplied glass vials (prepared with stirs bars and appropriate preservatives).

2.2.3 Installation of Monitoring Wells and Groundwater Sampling

It is anticipated that four (4) borings will be completed as permanent monitoring wells, with final maximum depths of approximately 30 feet bgs. The wells will be constructed of two-inch PVC casing with a ten-foot length of 0.01-inch slotted PVC well screening across the water table. No glue will be used to secure PVC connections. The wells will be constructed with approximately 2 feet of screening above the water table and approximately 8 feet of screening below the water level. The annular space between the well screen/casing and the borehole will be backfilled with clean silica sand and hydrated bentonite and/or cement grout. Wells will be secured with locked caps and metal covers. All wells will be surveyed to determine the elevation of the top of the PVC well riser, for use in determining groundwater elevations and direction of groundwater flow. The wells will be developed one week following installation.

All Site monitoring wells will be purged and sampled using USEPA Low Flow methodology. Sampling will begin at the potentially least contaminated well and proceed to the potentially most contaminated well.

Prior to purging, the air in the well head will be screened with a PID and the static water level (relative to the top of the casing) will be measured with a decontaminated water-level meter. A peristaltic pump with plastic tubing (or equivalent equipment) will be used for sampling. The tubing (or a submersible pump attached to tubing, if required by Site conditions) will be slowly lowered until reaching two to three feet off of the well bottom to prevent disturbance and re-suspension of any remaining sediment.

The water level will be measured before the pump is started and at intervals of every three to five minutes. Pumping rates will be reduced (as needed) to the minimum capabilities of the pump to ensure stabilization of the water level (drawdown of 0.3 feet or less). During pumping, field indicator parameters (turbidity, temperature, specific conductance, pH, redox potential, and dissolved oxygen) will be monitored and recorded approximately every five minutes.

The well will be considered stabilized, and sampling may proceed, when the indicator parameters have stabilized for three consecutive readings (the minimum purge interval will be at least 15 minutes).

2.2.4 Soil Vapor Sampling

It is anticipated that twenty-one (21) vapor samples will be collected in accordance with applicable NYSDOH guidance, including use of a tracer gas to confirm adequate surface seals. Purge rates will not exceed 0.2 liters per minute. For this project, soil vapor samples will be collected over a two-hour period (rate not exceeding 0.2 liters per minute) into individual laboratory-certified clean Summa canisters equipped with two-hour flow regulators.

2.2.5 Other Materials

Any non-soil solid materials requiring laboratory analysis will be placed into laboratory supplied glassware when possible, or will alternatively be placed into double locking plastic bags and then boxed in order to prevent a tear or other breach in the bags. Liquid samples from excavations, collection pits, or drums/tanks, etc., will be sampled using a dedicated disposal sampling device.

2.3 Sample Handling and Custody

2.3.1 Sample Containers

The following laboratory-supplied containers will be used for sample collection (as applicable):

Media	Analyte Class	Collection Container (subject to laboratory requirements)	Preservation
Soil	PFAS	1, 250-ml HDPE plastic (fill halfway)	6° C
Soil	VOCs	Laboratory prepared 5035 VOA kit, (4, 40-ml glass vials)	Method 5035
Soil	SVOCs, metals, pesticides, herbicides, PCBs, cyanide	1, 8-oz. glass jar	4° C
Soil	PFAS MS/MSD	1, 250-ml HDPE plastic (fill halfway), (may use soil from a sample container)	6° C
Soil	All other MS/MSD	additional 8-oz. glass jar	4° C
Water	PFAS	2, 250-ml HDPE plastic (fill to neck)	6° C
Water	VOCs	4, 40-ml prepared glass vials	4° C, HCl
Water	SVOCs, pesticides, herbicides, PCBs	1-liter amber glass (jar quantity per laboratory requirements)	4° C
Water	Metals - total	1, 500-ml HDPE plastic	4° C
Water	Metals - dissolved	1, 500-ml HDPE plastic	4° C, HNO_3
Water	Cyanide	1, 500-ml HDPE plastic	4° C, NaOH
Water	Trip blank (PFAS)	2, 250-ml HDPE plastic (fill to neck)	4° C
Water	Field blank (PFAS)	1, 250-ml HDPE plastic (fill to neck)	4° C
Water	Trip blank (VOCs)	3, 40-ml prepared glass vials	4° C, HCl
Water	Field blank (other analytes)	As per sample collection requirements	See above
Vapor	VOCs	1, 6-liter Summa canister (or equivalent)	none

2.3.2 Sampling Frequency

Soil: All boring locations will be sampled for both surface and subsurface soil. Based on thirty-five (35) soil boring locations and the collection of surface soils, and one or more samples from upper interval soils, the interval intercepting the groundwater table, and/or potential additional soil exhibiting peak field evidence of contamination, at least one-hundred-five (105) soil samples will be analyzed for organic compounds (VOCs and SVOCs) on the USEPA Target Compound List (TCL) plus 30 tentatively identified compounds (TICs); all remaining compounds identified in NYSDEC Part 375-6.8 Soil Cleanup Objective tables (including USEPA Target Analyte List [TAL] metals with Cr^{+6}, polychlorinated biphenyls [PCBs], pesticides, herbicides, and cyanide); and, PFAS (Method 1633, in accordance with the most recent NYSDEC guidance). Laboratory analysis for 1,4-dioxane will utilize Method 8270 SIM.

Analysis of samples may be modified in consultation with the NYSDEC Project Manager based on initial sampling results, including the presence or absence of field evidence of contamination. Additional analysis may be performed based repository requirements for waste characterization prior to off-site disposal.

Groundwater: Samples from all four (4) monitoring wells will be analyzed for TCL VOCs/SVOCs (+30 TICs); USEPA TAL metals with Cr^{+6} (including total and dissolved concentrations); PCBs; pesticides; herbicides; cyanide; and PFAS (Method 1633, in accordance with the most recent NYSDEC guidance). Analysis for 1,4-dioxane will utilize Method 8270 SIM. Analysis of samples may be modified in consultation with the NYSDEC Project Manager based on initial sampling results, including the presence or absence of field evidence of contamination.

Soil Vapor: Samples from all twenty-one (21) soil vapor implants will be analyzed for VOCs.

The proposed number of soil boring and construction of new monitoring wells, is summarized below (the actual number of borings extended and wells completed may vary, in consultation with NYSDEC, based on encountered field conditions).

Quantity	Fieldwork Element	Purpose
105 (minimum)	Sample Surface and Borings	Collect soil samples from multiple depths
4	Install Monitoring Wells	Collect groundwater samples from fixed locations
21	Install Soil Vapor Implants	Collect soil vapor samples from fixed locations

The estimated approximate number of samples to be collected is outlined below (actual number of samples may vary based on conditions encountered during the investigation).

Media /QC Parameter	**Number of Samples** [a]	**Analytes (USEPA Method)** [b, c]
Soil	70 (minimum)	PFAS NYSDEC target list (1633); TCL VOCs +10 and SVOCs +20 (8260C/8270D); TAL metals (6010D and 7473); hexavalent chromium (7196A); cyanide (9010C); pesticides (8081); PCBs (8082); herbicides (8151A)
Groundwater	4	PFAS NYSDEC target list (1633); TCL VOCs +10 and SVOCs +20 (8260C/8270D); TAL metals, total & dissolved (6010D and 7473); hexavalent chromium (7196A); cyanide (9010C); pesticides (8081); PCBs (8082); herbicides (8151A)
Soil Vapor	21	VOCs (TO-15)
Trip Blank (PFAS)	1 per sample cooler (each day of sampling)	PFAS NYSDEC target list (1633)
Trip Blank (VOCs)	1 per sample cooler (each day of sampling)	TCL VOCs +10 (8260)
Field Blank (PFAS)	1 per sampling day	PFAS NYSDEC target list (1633)
Equipment Blank [d]	1 for every 20 samples (non-dedicated)	As per sample collection requirements
Duplicates, MS/MSD	1 for every 20 samples (minimum 1/week)	As per sample collection requirements; PFAS soil MS/MSD may be from same container as sample

Notes

a Assumes a minimum of 2 soil sample from each of 35 borings (possible additional samples to be collected based on overt field evidence of contamination).

b PFAS will be analyzed using methodologies based on EPA Method 1633; additional methods may include SPLP (EPA Method 1312), and/or Total Oxidizable Precursor (TOP) Assay.

c 1,4-dioxane by 8270 SIM

d PFAS and 1,4-dioxane: collected at a minimum frequency of one per day for each matrix

2.3.3 Sample Custody

Samples will be handled by the OSC, and kept at cold temperatures (per Table 2.3.1) as warranted. Upon the completion of each day of sample collection activities, all samples will be shipped via either courier or overnight delivery (per laboratory requirements) to a NYSDOH ELAP certified laboratory under proper chain of custody. Laboratory personnel will record the cooler temperature upon receipt and analyze the samples prior to the expiration of the hold times as specified in the NYSDEC Analytical Services Protocols (ASP).

2.4 Analytical Methods

Media samples will be analyzed as indicated in Section 2.3.2. Analytical methods for the samples will be implemented as follows:

Matrix	Sample Analysis (Holding Time)	USEPA Analytical Method
Vapor	VOCs (30 days)	TO-15
Soil	PFAS (28 days)	1633 (reporting limit 0.5 µg/kg)
Soil	TCL VOCs+10 (14 days)	8260C; 8270 for 1,4-dioxane (1,4-dioxane reporting limit 0.1 mg/kg) [a]
Soil	TCL SVOCs+20 (14 days)	8270B
Soil	TAL metals (180 days; mercury 28 days)	6010C/7471B
Soil	Cyanide (14 days)	9010C
Soil	Pesticides/PCBs/herbicides (14 days [b])	8081A/8082/8151A
Water	PFAS (28 days)	1633 (reporting limit 2 ng/L)
Water	TCL VOCs+10 (14 days)	8260C; 8270 SIM for 1,4-dioxane (1,4-dioxane reporting limit 0.35 µg/L) [a]
Water	TCL SVOCs+20 (7 days [b])	8270B
Water	TAL metals (180 days; mercury 28 days)	6010C/7471B
Water	Cyanide (14 days)	9010C
Water	Pesticides/PCBs/herbicides (7 days [b])	8081A/8082/8151A

a Laboratory will meet required reporting limits running standard USEPA Method 8270

b Days for extraction, 40 days after extraction for laboratory analysis

NYSDEC PFAS target compounds are shown below. Laboratory reporting limits for PFOA and PFOS should not exceed 0.50 µg/kg for soil and 2.00 ng/l for water (reporting limits for all other PFAS in soil and water should be as close to these limits as possible). The NYSDEC PFAS target list is shown below, and laboratory SOPs for collection analysis of PFAS are provided in Attachment E.

Group	Chemical Name	Abbreviation	CAS Number
perfluoroalkyl sulfonic acids	perfluorobutanesulfonic acid	PFBS	375-73-5
	perfluoropentanesulfonic acid	PFPeS	2706-91-4
	perfluorohexanesulfonic acid	PFHxS	355-46-4
	perfluoroheptanesulfonic acid	PFHpS	375-92-8
	perfluorooctanesulfonic acid	PFOS	1763-23-1
	perfluorononanesulfonic acid	PFNS	68259-12-1
	perfluorodecanesulfonic acid	PFDS	335-77-3
	perfluorododecanesulfonic acid	PFDoS	79780-39-5
perfluoroalkyl carboxylic acids	perfluorobutanoic acid	PFBA	375-22-4
	perfluoropentanoic acid	PFPeA	2706-90-3
	perfluorohexanoic acid	PFHxA	307-24-4
	perfluoroheptanoic acid	PFHpA	375-85-9

Group	Chemical Name	Abbreviation	CAS Number
perfluoroalkyl carboxylic acids	perfluorooctanoic acid	PFOA	335-67-1
	perfluorononanoic acid	PFNA	375-95-1
	perfluorodecanoic acid	PFDA	335-76-2
	perfluoroundecanoic acid	PFUnA	2058-94-8
	perfluorododecanoic acid	PFDoA	307-55-1
	perfluorotridecanoic acid	PFTrDA	72629-94-8
	perfluorotetradecanoic acid	PFTeDA	376-06-7
per-and polyfluoroether carboxylic acids	hexafluoropropylene oxide dimer acid	HFPO-DA	13252-13-6
	4,8-dioxa-3h-perfluorononanoic acid	ADONA	919005-14-4
	perfluoro-3-methoxypropanoic acid	PFMPA	377-73-1
	perfluoro-4-methoxybutanoic acid	PFMBA	863090-89-5
	nonafluoro-3,6-dioxaheptanoic acid	NFDHA	151772-58-6
fluorotelomer sulfonic acids	4:2 fluorotelomer sulfonic acid	4:2-FTS	757124-72-4
	6:2 fluorotelomer sulfonic acid	6:2-FTS	27619-97-2
	8:2 fluorotelomer sulfonic acid	8:2-FTS	39108-34-4
fluorotelomer carboxylic acids	3:3 fluorotelomer carboxylic acid	3:3 FTCA	356-02-5
	5:3 fluorotelomer carboxylic acid	5:3 FTCA	914637-49-3
	7:3 fluorotelomer carboxylic acid	7:3 FTCA	812-70-4
perfluorooctane sulfonamides	perfluorooctane sulfonamide	PFOSA	754-91-6
	n-methylperfluorooctane sulfonamide	NMeFOSA	31506-32-8
	n-ethylperfluorooctane sulfonamide	NEtFOSA	4151-50-2
perfluorooctane sulfonamidoacetic acids	n-methylperfluorooctane sulfonamidoacetic acid	N-MeFOSAA	2355-31-9
	n-ethylperfluorooctane sulfonamidoacetic acid	N-EtFOSAA	2991-50-6
perfluorooctane sulfonamide ethanols	n-methylperfluorooctane sulfonamidoethanol	MeFOSE	24448-09-7
	n-ethylperfluorooctane sulfonamidoethanol	EtFOSE	1691-99-2
ether sulfonic acids	9-chlorohexadecafluoro-3-oxanonane-1-sulfonic acid	9Cl-PF3ONS	756426-58-1
	11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid	11Cl-PF3OUdS	763051-92-9
	perfluoro(2-ethoxyethane) sulfonic acid	PFEESA	113507-82-7

2.5 Quality Control

Accuracy and precision will be determined by repeated analysis of laboratory standards, and matrix effects and recovery will be determined through use of spiked samples. The laboratory will run standards, blanks, and spiked samples during sample analysis.

Duplicate sampling (for all parameters), and matrix spike (MS)/matrix spike duplicate (MSD) analyses, will be performed in accordance with Section 2.3.2. For each day of sampling, a trip blank will be included with each sample cooler and be analyzed for PFAS or VOCs, as applicable.

Samples will be identified using a unique ID number. This ID will be recorded on the sampling log and/or field record and the sampling container (samples for each day of fieldwork will be assigned to a Sample Delivery Group [SDG] by the laboratory). In accordance with current best fieldwork practices, permanent marker will not be utilized to label samples planned for analysis for PFAS. Samples for each day of fieldwork will be shipped via courier to the laboratory under proper chain of custody procedures.

2.6 Quality Assurance

2.6.1 Instrument/Equipment, Testing, Inspection, and Maintenance

Field measurements will be conducted using monitoring equipment specialized for each task, including use of a PID during fieldwork to screen for volatile organic vapors. All equipment will be properly stored (within buildings or construction trailers when not in use) and calibrated (as warranted) in accordance with the manufacturer’s instructions (instrument malfunction is normally apparent during calibration). In the event of malfunction, equipment will be cleaned and tested. Equipment testing, inspection, and maintenance will be the responsibility of the Project Manager and OSC. Any other equipment selected for field measurements will be similarly managed.

2.6.2 Inspection/Acceptance of Supplies and Consumables

All supplies and consumables will be inspected and tested (if necessary) by either the Project Manager or the OSC upon receipt.

The following supplies and consumables will be used for each sample:

- Laboratory-supplied sampling containers, as specified in Section 2.3.1
- Laboratory-supplied materials for PFAS sampling, including trip blanks and PFAS-free cooler
- Plastic tubing for groundwater and soil vapor sampling
- PFAS-free water for decontamination
- Disposable gloves (nitrile or equivalent)

2.6.3 Data Management

For the purpose of data management, the data can be divided into field and laboratory data.

Field data will be recorded at the time of measurement on written field logs. Laboratory data will be reviewed upon receipt and summarized in data summary tables. The NYSDEC electronic data deliverable format for the analytical data will be requested from the testing laboratory. NYSDEC ASP Category B Data Deliverables will be requested from the testing laboratory and forwarded to an independent third party data validator for the development of Data Usability Summary Report (DUSR).

3.0 DATA REVIEW, VALIDATION AND USABILITY

3.1 Field Measurements

If field instruments are determined to be functioning correctly through calibration and measurements of standards, and if there are no inconsistencies between written records and data recorded in the meters, the data will be assumed to be valid and will be accepted as an indication of field conditions.

If instruments malfunction prior to field measurement, they will be restored to proper function prior to re-use. If they malfunction immediately after field measurements are taken, the measurements will be retaken as soon as possible. Inconsistencies between written records and recorded meter data will be resolved by re-testing the material, if possible. If re-testing is not possible, (i.e. the sample has been shipped to the laboratory), the inconsistency will be described in appropriate subsequent reporting and the laboratory analysis will be utilized to classify the material.

All field data will be reviewed by the Project Manager for consistency and plausibility.

3.2 Laboratory Analysis

A NYSDOH ELAP-certified laboratory will provide a NYSDEC ASP Category B data package and NYSDEC Electronic Data Deliverable format for the determinative sample analyses.

3.3 Standards, Criteria and Guidance

The following Standards, Criteria, and Guidance (SCGs) are applicable for this Site:

SOIL

Soil results are compared to Soil Cleanup Objectives (SCOs) provided in 6 NYCRR Subpart 375, Table 375-6.8(a) Unrestricted Use SCOs and 6.8(b) Restricted-Residential Use SCOs, and (as needed) Supplemental SCOs and/or Soil Cleanup Levels in NYSDEC CP-51 Soil Cleanup Guidance, Tables 1 to 3. SCOs are provided as Attachment C.

WATER

Water results are compared to NYSDEC Division of Water Ambient Water Quality Standards and Guidance Values (AWQS), provided in Technical and Operational Guidance Series 1.1.1.

VAPOR

The State of New York does not have any SCG for volatile chemicals in subsurface or sub-slab vapors. Laboratory results will be reviewed and evaluated in comparison to Site data as a whole, inclusive of an analysis of potential vapor intrusion concerns, as warranted, in accordance with applicable current NYSDOH guidance.

3.4 Verification and Validation Methods

3.4.1 Verification Method

Laboratory data will go to the Project Manager for review and verification (determination of proper sampling and collection, and completeness of all field and laboratory logs). A DUSR will be prepared by a third, independent party. A current resume of the individual preparing the DUSR (indicating education and relevant experience) is provided in Attachment D.

3.4.2 Authority for Verification

Authority for verification, validation, and resolution of data issues will be distributed among the investigators. Authority to resolve issues regarding verification of field measurements will rest with the Project Manager and the QAO.

4.0 REPORTING REQUIREMENTS

Following review, validation, and verification, all data will be conveyed to users via a Remedial Investigation Report (RIR) in accordance with the requirements of NYSDEC DER-10 Section 3.1.4.

The RIR will summarize all data collected during implementation of the RIWP (and any additional work), and will include, at a minimum:

- Descriptions of fieldwork activities and observations;
- Summaries of laboratory analytical results from sampling events, described in the report text and provided in data summary tables, as well as DUSRs for all data;
- Characterization of contamination sources (including environmental fate and transport);
- A qualitative human exposure assessment;
- Accounts of any deviations from RIWP procedural requirements;
- Conclusions drawn from applicable, available data; and,
- A summary of required Green and Sustainable Remediation (GSR) metrics.

Attachment A: Figures

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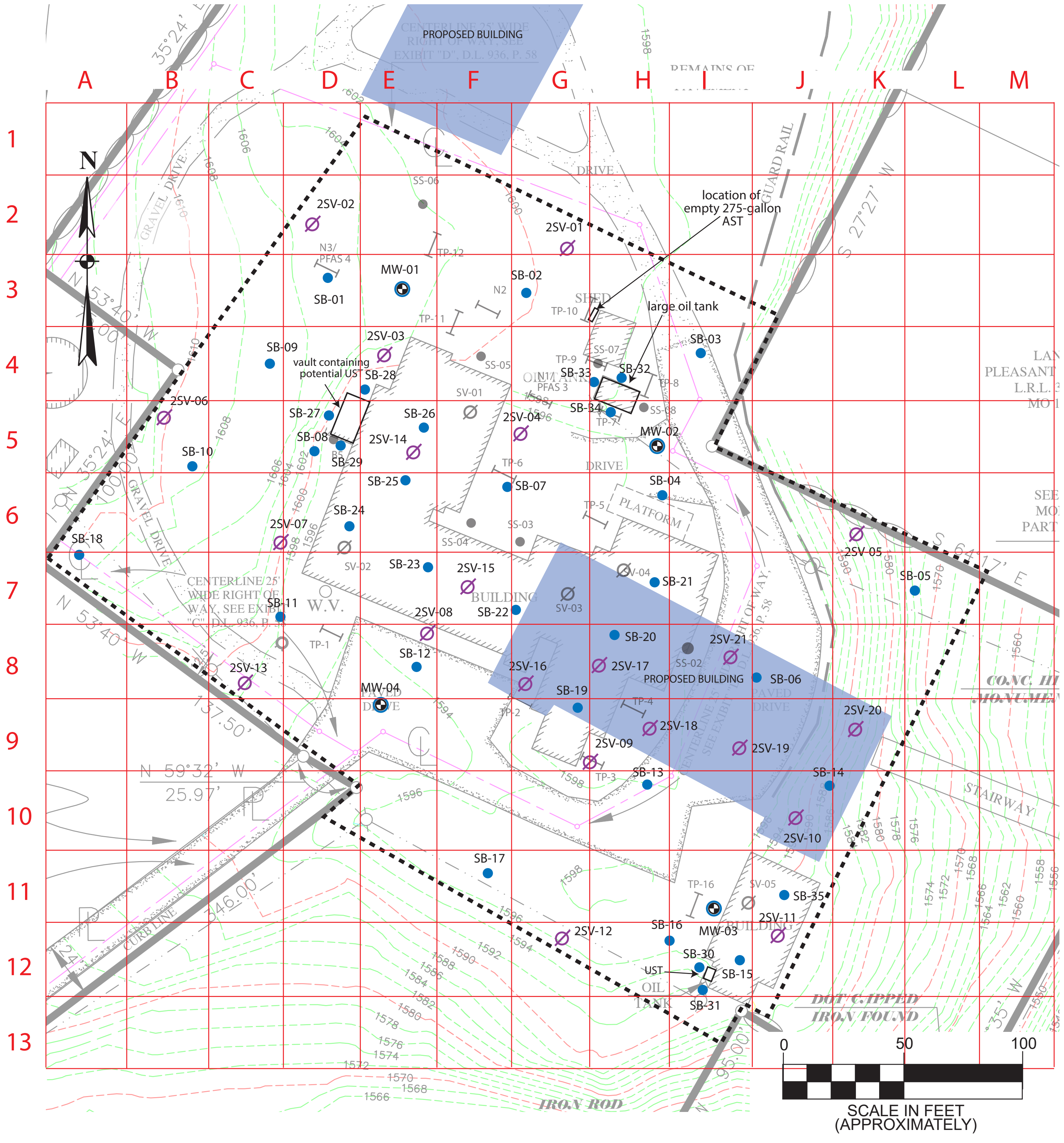

Base Map provided by John W. Galligan, Licensed Land Surveyor dated 2/3/20. All feature locations are approximate.
This map is intended as a schematic to be used in conjunction with the associated report, and it should not be relied upon as a survey for planning or other activities.

Figure: Remedial Investigation Map

Monticello Manor Lofts
BCP Site: C353018
15 High Street
Monticello, New York

Legend:
- — Tax Lot 107-1-11.1
- ---- BCP Site Boundary
- ⊢⊣ previous test pit location
- ● previous soil sample location
- ∅ previous soil vapor location
- ⊕ proposed monitoring well location
- ● proposed soil boring location
- ∅ proposed soil vapor location

File: 22003-0020

May 2025

Scale as shown

Figures

Attachment B: Fieldwork SOPs

GALLAGHER BASSETT | TECHNICAL SERVICES

STANDARD OPERATING PROCEDURES

Fieldwork Sampling
and
Decontamination

Updated May 2025

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TABLE OF CONTENTS

I. INTRODUCTION

This document provides Standard Operating Procedures (SOPs) for use by Gallagher Bassett Technical Services (GBTS) personnel during fieldwork events that require the collection of soil, groundwater, soil vapor and/or air samples. General procedures are presented below; detailed protocols, as available, are provided in the supplemental documentation. Equipment checklists, forms, and calibration documents are maintained at GBTS offices. All SOPs and supporting documentation are periodically updated.

II. FIELDWORK SAMPLING

Fieldwork sampling procedures are described below (model field logs are provided in Supplement A). Selection of field equipment will be based on anticipated site conditions (updated check-lists of equipment and supplies required for sampling activities are maintained at the local field office). All equipment operations will be in accordance with applicable operating manuals and specifications, and will be conducted (as needed) by an experienced subcontractor holding applicable permits/licenses. Decontamination procedures will be implemented as warranted during all fieldwork activities. Special requirements for PFAS sampling are noted in Section III.

A. Procedures to be Conducted Prior to Fieldwork

Prior to the initiation of any ground-intrusive fieldwork, a request for a complete utility markout of the fieldwork site will be submitted to an appropriate service, as required by state regulations. Confirmation of underground utility locations will be secured and a field check of the utility markout will be conducted prior to the extension of soil borings[1].

A Fieldwork Map and Work Plan, indicating sampling locations and objectives, will be prepared prior to fieldwork activities, and sampling locations will be confirmed and located prior to starting work.

B. General Fieldwork Methodology

At the start of the wok day, all on-site personnel, including environmental subcontractors and observers, will be briefed on planned activities and the contents of the site-specific Health and Safety Plan (HASP). Independent field logs will be utilized to document relevant information, including arrival and departure times of on-site personnel, safety meetings, basic weather conditions, and detailed notes and drawings documenting all fieldwork activities and/or any other relevant events and conditions.

On-site personnel will be properly dressed for the intended activities[2] and the anticipated weather conditions, including use of personnel protective equipment in accordance with the HASP.

Sampling locations will be determined in the field, measured to the nearest 0.5-foot relative to a fixed on-site marker, and will be recorded in logbooks for inclusion in all final maps.

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[1] Markout requirements apply to any ground intrusive methodologies, including the extension of test pits.

[2] Special care is required when for sampling of PFAS; see Section IV

Media will be collected in accordance with the Quality Assurance Project Plan (QAPP) and in a manner consistent with NYSDEC and/or NYSDOH requirements, including protocols for handling and custody. New, dedicated disposable nitrile gloves will be worn at each sampling location, and will be changed frequently based on field conditions. Fieldwork personnel will assess media characteristics (e.g., soil type, presence of debris, indications of contamination, etc.) and record all observations in log books.

On-site senior personnel will be responsible for: a) identifying any materials that require special handling, such as media that may contain high levels of contaminants or is grossly contaminated or likely to be hazardous; b) ensuring that identified materials are properly securely stored on-site (stockpiled on plastic and covered, or placed in approved containers), pending characterization and proper disposition; and, c) ensuring that unforeseen environmental conditions are managed in accordance with applicable federal and state regulations.

Sample collection from recovered media will be performed without unnecessary delay. Samples will be placed into labeled containers provided by the laboratory, stored in dedicated coolers kept at 4 (+/-2) °C and handled under proper chain of custody. All samples will be shipped to a NYSDOH ELAP certified laboratory via laboratory courier (either upon completion of each day of sample collection activities, or the following day after overnight storage in a dedicated sample refrigerator).

C. Extension of Soil Borings

Soil borings will be extended using either hand-held or mechanized equipment, based on site conditions and Work Plan requirements. Mechanized equipment includes using either direct push technology (DPT) or rotary methods, including hollow stem auger (HSA) and sonic drilling. The small size of DPT rigs allows for sampling in tight spaces and areas that are sensitive to the use of heavy equipment. DPT can be used in overburden soils where the soil texture allows for direct push of sampling equipment. A HSA or sonic rig will be utilized if significant subsurface obstructions (e.g., large cobbles, boulders, concrete, etc) are (or are expected to be) encountered.

Hand borings will be extended (as warranted) using manual DPT equipment (e.g., Geoprobe), which includes a collection barrel lined with disposable acetate sleeves, extension rods and a slide hammer. The barrel will collect samples from discreet intervals of 2 feet. Hand boring methods are generally restricted to shallow soil sampling (0 to 6’ below grade) and may be employed/attempted if access by mechanized equipment is not practical.

DPT will typically be utilized during the extension of borings in overburden soils. The DPT rig will be equipped with a macro-core sampling barrel (minimum diameter 4”) lined with disposable acetate sleeves. The barrel will collect samples from discreet intervals of either 4 or 5 feet. HSA rigs will use a continuous hollow stem auger with a split-spoon (collection interval of 2 feet) or other collection device. This system drives drill cuttings to the surface as drilling progresses, which will require management. Sonic drill rigs will utilize coring barrels of various lengths lined with plastic tubing.

Bore hole openings will be periodically screened with a photoionization detector (PID).

D. Installation and Development of Monitoring wells

Groundwater monitoring wells will be installed by the drilling subcontractor. Unless otherwise specified, monitoring wells will be constructed of two-inch PVC casing with a ten-foot length of 0.01-inch slotted PVC well screening across the water table. No glue will be used to thread the casing lengths. A minimum of 2 feet of screening will extend above the water table, with approximately 8 feet below the water level (depth to water will be inferred based on saturated soils encountered during installation, or from data from existing groundwater monitoring wells).

The annular space between the well screen and the borehole will be backfilled with clean silica sand to approximately two feet above the screen. A seal consisting of at least 12 inches of hydrated bentonite clay will be placed above the sand pack and the remaining annular space will be grouted with cement.

A locked cap with vent will be installed at the top of the PVC riser (well protection will be in accordance with the Work Plan, including use of secure “drive-over” metal cover or stick-up metal outer casing). A surveyor’s transit level will be used to determine the elevation of the top of the PVC well riser, relative to a permanent on-site marker, for use in determining relative groundwater elevations. Well locations and relative elevations will be recorded in field logs and indicated on all fieldwork maps.

The wells will be developed one week following installation. The wells will be developed with a properly decontaminated mechanical pump and dedicated polyethylene tubing in order to clear fine-grained material that may have settled around the well screen and to enhance the natural hydraulic connection between the well screen and the surrounding soils. Well development will begin at the top of the screened interval to prevent clogging of the pump within the well casing. Well development will be discontinued when the discharge water is free of obvious sediment, turbidity is below 50 NTUs, and indicator parameters (e.g., dissolved oxygen, temperature, etc.) have stabilized. Upon completion, the pump assembly will be removed from the well while the pump is still running to avoid discharge of purged water back into the well. Development water will be securely stored on-site pending laboratory analysis.

E. Soil Sampling

Recovered sampling equipment will be placed on a clean surface (folding table, plastic sheeting, etc.) and opened (liners will be sliced with a clean razor knife). Recovered soils will be observed for potential contamination through observation and use of properly calibrated field instruments, e.g., PID. Samples will be collected directly from the sampling device. The volume of material collected will be sufficient for the required analyses and for reasonably anticipated potential additional analyses. Soil to be analyzed for volatile organic compounds (VOCs) will be collected following USEPA Method 5035 protocols, using laboratory sampling kits. Samples to be analyzed for parameters other than VOCs will be collected as either grab or composite samples, using disposable plastic trowels or properly decontaminated stainless steel instruments, or directly by the fieldwork technician using dedicated, fresh disposable nitrile gloves.

F. Groundwater Sampling

Groundwater sampling will be conducted using USEPA "Low-Stress" protocols (detailed in Supplement B). Sampling will be conducted using the following general procedures:

1. Groundwater sampling will begin at the potentially least contaminated well (as determined from well location and/or previous data) and proceed to the potentially most contaminated well. The field technician will check and record the condition of all monitoring wells for damage or evidence of tampering before initiating sampling. Plastic will be placed around wells to minimize potential contamination of sampling equipment from the ground surface, and all monitoring, purging, and sampling equipment will be placed on the sheeting.
2. The protective casing on the well will be unlocked, the air in the well head will be screened with a PID, and static water level (from the top of the casing) will be measured with a decontaminated water-level meter. A peristaltic pump with plastic tubing, or a submersible pump attached to tubing (if required by Site conditions, e.g., well depth) will be used for sampling. The tubing (or pump attached to tubing) will be slowly lowered until reaching two to three feet off of the well bottom to prevent disturbance and re-suspension of any remaining sediment.
3. Depth to water will be measured to nearest 0.01 feet, relative to a reference measuring point on the well casing (if no pre-existing reference point is found, a reference point will be marked on the inner casing and noted in the field logbook). The water level will be measured before the pump is started and at intervals of every three to five minutes. Pumping rates will be reduced (as needed) to the minimum capabilities of the pump to ensure stabilization of the water level (drawdown of 0.3 feet or less).
4. During pumping, field indicator parameters (turbidity, temperature, specific conductance, pH, redox potential, and dissolved oxygen) will be monitored and recorded approximately every five minutes. The well will be considered stabilized when the indicator parameters have stabilized for three consecutive readings (the minimum purge interval will be at least 15 minutes).
5. All groundwater samples will be collected in a manner consistent with the QAPP.
6. The protective cap on the well will be replaced and locked following sampling, and the field sampling crew will move to the next most contaminated well and the process will be repeated.

G. Soil Vapor Sampling

Soil vapor sampling will be conducted consistent with applicable NYSDOH guidance and fieldwork protocols (detailed in Supplement C). Sampling will be conducted using the following general procedures:

Soil vapor samples may be collected from beneath building foundations or paved areas, or from exterior areas not otherwise covered by material that trap soil vapor at the surface. Concrete slabs and exterior pavement will generally be breached with rotary equipment, which produce a small-diameter hole. The hole will be extended into underlying soil/sub-base to a depth required by the sampling technology (typically 6 to 12 inches below the base of the overlying materials for temporary installations). Sampling at exterior areas will require extension of a borehole to at least 3 to 4 feet below the surface (greater depths may be specified by the Work Plan).

Construction details for soil vapor implants are provided in the Supplement C. All soil vapor probes will be installed with a properly sealed surface opening to prevent ambient air from entering the system.

A tracer gas (e.g., helium) will be used at soil vapor sampling locations to verify that adequate sampling techniques are being implemented (i.e. to verify the absence of significant infiltration of outside air), in accordance with applicable NYSDOH guidance. The space around the sampling point will be enclosed and sealed (with a metal hemisphere and clay) in order to introduce a tracer gas (helium) into the area surrounding the probe point. Real-time sampling equipment (Radiodetection Multi-vapor Leak Locator, model MDG 2002, or equivalent) will be utilized to determine when the interior atmosphere in the enclosure reaches a concentration of 80%, and the tubing for the vapor implant will then be sampled for the tracer gas. If helium is detected in vapor at a concentration greater than 10%, the annular seal will be repaired and gas tracing performed again until less than 10% helium is detected.

Vapor in the sampling tubing will be screened with a PID for VOCs prior to purging. For all sampling locations, the exact purge volume will be dependent on the boring depth and subsequent length of tubing. Three borehole and tubing volumes will be purged prior to collection. The purge rate will not exceed 0.2 liters per minute. Following purging of ambient air from the collection device, soil vapor samples will be (at a rate not exceeding 0.2 liters per minute) into individual laboratory-certified clean Summa canisters equipped with flow regulators (sampling period as specified in the Work Plan).

III. GENERAL DECONTAMINATION PROTOCOL

Consistent decontamination methods will be used to reduce or eliminate contamination and cross-contamination of samples by field equipment, other samples, or personnel, and to minimize potential exposures caused by the spread of contaminants. Decontamination will occur any time a sampling tool or instrument used in field investigations contacts sampled media or personnel using the equipment. These procedures will be used in conjunction with all non-dedicated (i.e. reusable) equipment used during the handling, sampling or measuring of environmental media, and will be implemented primarily on-site at the point of use or at a designated equipment decontamination station at the project site.

Types of equipment usually requiring decontamination include pumps, gauges, augers, and sampling barrels. Drilling equipment, water level meters, submersible pumping equipment, and any other non-dedicated monitoring and sampling equipment will be decontaminated prior to the start of fieldwork, after the collection of each media sample, and between boring intervals and/or sampling locations. Water quality parameter sensors and flow-through cell will be cleaned between sampling locations in accordance with the manufacturer's recommendations.

Materials and methods for decontamination are provided in Supplement D.

IV. PFAS SAMPLING - SPECIAL REQUIREMENTS

Special requirements apply to all fieldwork procedures during sampling for per- and polyfluoroalkyl substances (PFAS). Because of the potential presence of PFAS in common consumer products and in equipment typically used to collect media and the need for very low reporting limits, special handling and care must be taken when collecting samples for PFAS analysis to avoid sample contamination. There is only limited research regarding how the use of various procedures and materials affect sample results, and this SOP therefore represent a conservative approach. Field personnel should take precautions to avoid items that are likely to contain PFAS at the sampling site as well as avoid specific items during the sampling event, and must frequently check for updates to this SOP. The most recent NYSDEC guidance document, as well as a *PFAS Sampling Quick Reference Field Guide* (provided by Michigan Department of Environment, Great Lakes, and Energy), are provided in Supplement E.

A. EQUIPMENT AND SUPPLIES

Avoid personal protective equipment (PPE, including clothing chemically treated for UV protection) and field supplies that may include PFAS and which could cross-contaminate field samples. Personal body products such as shampoos, moisturizers, and cosmetics may contain PFAS and should be used with care the day of sampling. Sunblock and insect repellent ingredients need to be verified to ensure that they do not contain PFAS before use in the field.

Food and food packaging should not enter the sampling zone.

Water resistant, waterproof, stain-treated, clothing recently washed with fabric softeners, and new clothing should be avoided. If sampling in inclement weather a canopy tent may be a good option (note, however, that water resistant/waterproof material likely contains PFAS and disposable gloves should be worn when putting up and/or moving the tent.

Waterproof field books may contain PFAS and should not be used. Documentation of field activities should be on loose paper on an aluminum clipboard or in a waterproof field book that does not use PFAS. Field notes should be taken with a ball point pen (avoid large felt tip markers; fine and ultra-fine point Sharpie® markers are acceptable). Sticky notes, etc., may contain PFAS and should be avoided (pre-printed labels should be verified PFAS-free.

Disposable, powderless, nitrile gloves must be worn during PFAS sampling and handling activities and should be changed frequently during and between sampling activities.

Sealed laboratory-supplied sampling containers may be placed into LDPE re-sealable storage bags (e.g., Ziploc®) that will not contact the sample media.

Chemical ice packs should not be used unless it is verified that they are PFAS-free. Samples for PFAS analysis should be placed on water ice immediately and should ideally be received by the laboratory at a temperature less than 6º Celsius.

B. GENERAL SAMPLING PROCEDURES

Sampling must be conducted in accordance with the project-specific QAPP, including use of laboratory-supplied sample containers.

If non-dedicated non-disposable equipment is used for sampling, proper decontamination is necessary. Decontamination reagents should be checked to ensure that they do not contain PFAS before use. Similarly, water used for decontamination should be checked (i.e. field equipment blanks) to verify that it does not contain PFAS. It may be necessary to collect samples of decontamination water prior to use to ensure that water being used for decontamination does not contain PFAS.

Soil samples should be collected using stainless steel, acetate, or polypropylene constructed equipment. Liners for soil sampling should not contain PFAS.

If a monitoring well has dedicated tubing that may contain PFAS, the dedicated tubing should be removed, and silicone or HDPE tubing should be used to sample for PFAS following at least one well volume purge prior to sampling for PFAS. The recommended length of time that dedicated tubing should be removed, and the recommended amount of purging conducted prior to sampling where dedicated tubing has been present is variable. If it is anticipated that dedicated tubing may be a source of PFAS cross contamination extra precaution, such as removal of the tubing 14 days prior to sampling or purging of three well volumes, should be considered.

Care should be taken to not cross contaminate PFAS samples if samples for non-PFAS analyses are being collected. For example, if VOCs and PFAS water samples are being collected, the VOCs would be collected using a peristaltic pump with HDPE and silicone tubing, and then a second set of samples would be collected for PFAS after changing gloves and switching sample container sets.

If transfer bottles are necessary for surface water sample collection, they should be PFAS-free and made of the same material as the laboratory provided sample containers.

If a water supply is to be sampled, both a pre- and post-treatment sample may be necessary. Carbon filtration, reverse osmosis, and other filter media may bias laboratory results for PFAS. Water should be allowed to run freely until water quality parameter stabilization has occurred, typically between 3 and 5 minutes. Water flow rate should be reduced for minimal aeration.

Do not filter samples for PFAS analysis.

C. DECONTAMINATION OF PFAS SAMPLING EQUIPMENT

Special requirements apply to decontaminating non-dedicated equipment used for PFAS sampling. Laboratory supplied PFAS-free deionized water is preferred for decontamination (commercially available deionized water in an HDPE container, and municipal drinking water, may be used for decontamination if verified to be PFAS-free. Sampling equipment can be scrubbed using a polyethylene or polyvinyl chloride (PVC) brush to remove particulates. Decontamination procedures should include triple rinsing with PFAS-free water. Note that a QAPP prepared for NYSDEC program sites prohibits use of Liquinox®.

V. INVESTIGATION DERIVED WASTES

Disposal of any waste materials will be in accordance with provisions of the applicable site-specific Work Plan. If not otherwise specified: 1) discarded personal protective equipment and other fieldwork supplies not significantly impacted by free petroleum or other gross contaminants will be disposed as municipal solid waste; and, 2) well development purge water, spent absorbents or other significantly contaminated materials, and/or any recovered free-petroleum, will be properly stored on-site, in properly labeled and secured containers, pending final off-site disposal at a permitted facility.

Supplement A - Model Fieldwork Logs

Soil Boring Log

GALLAGHER BASSETT | TECHNICAL SERVICES

Boring ID

Site ID:

GBTS Project

Page____of____

Date:

Driller (Rig)

GBTS Staff:

Weather:

Surface Material:

Boring Interval (recovery)	**Soil / Material Description**	Moisture	PID (ppm)	Odors	Staining	NAPL	Samples Collected
___–___ (___%)							
___–___ (___%)							
___–___ (___%)							
___–___ (___%)							
___–___ (___%)							
___–___ (___%)							

Notes

Fill, water conditions, field evidence of contamination, well installation details, etc

ND (non-detect) **PID** (photoionization detector) **ppm** (parts per million) **NAPL** (non-aqueous phase liquid)
F (fine) **M** (medium) **C** (coarse) **P** (plastic) **LP** (low plastic) **NP** (non-plastic)

GROUNDWATER MONITORING WELL PURGE DATA SHEET

GALLAGHER BASSETT | TECHNICAL SERVICES

Project Name: ______________________________

GBTS PROJECT #: ______________________________

Date: ______________________________

Field Personnel: ______________________________

Weather: ______________________________

Well ID: ______________________________

PID Reading: ______________________________

Depth of well: ______________________________

Depth to water: ______________________________

Pump type: ______________________________

Time	Temp (^{o}C)	pH	ORP (mv)	Specific Conductivity (ms/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Depth to Water (ft)	Purge Rate (mL/m)	Comments (e.g. color/clarity)

***** STABILIZATION CRITERIA*****

Temp +/- 3% **pH** +/- 0.1 **ORP** +/- 10 **Spec Cond** +/- 3% **Turb** +/- 10% **DO** +/- 10%

*****PURGED WATER DETAILS*****

Start/End time: ______________________________

Total purge time: ______________________________

Total volume: ______________________________

Purge rate: ______________________________

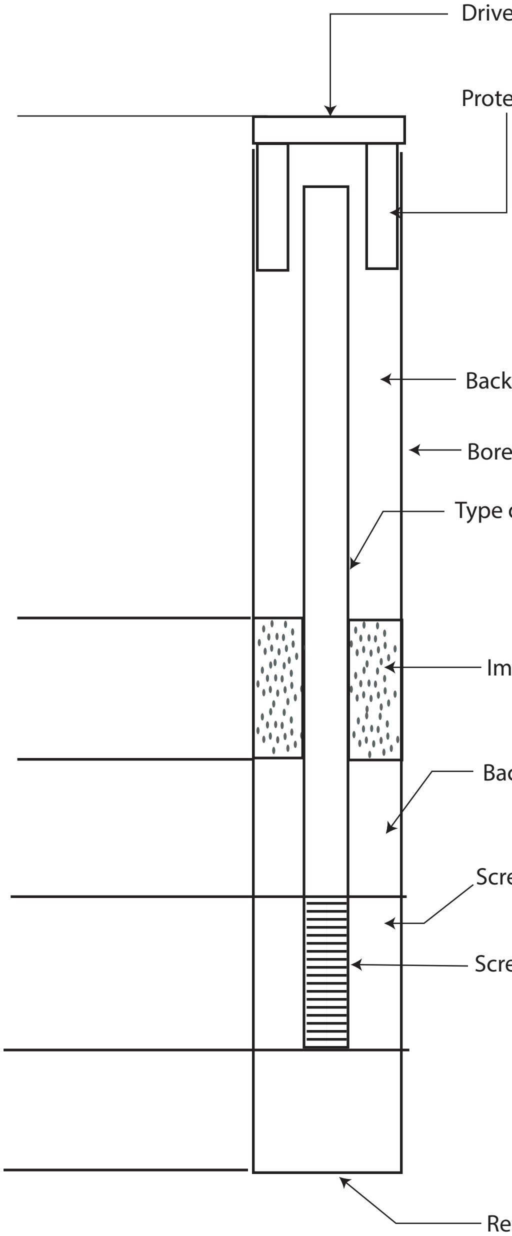
CHARACTERISTICS:

Odor: none | slight | moderate | strong

Sheen: none | slight | moderate | strong

L/DNAPL: Yes | No **L/DNAPL thickness (in.):**_______

NOTES:



Drive over Cover ____ Yes _____ No

Protective Metal Casing _____ Yes _____ No

Backfill Material: __________

Borehole Dia. : ____

Type of Casing : _______

Impermeable Backfill: _____________

Backfill Material: _________________

Screen Packing: __________________

Screen Slot Size: __________

Refusal: _____ Yes _____ No

Materials Used:

- Screen (PVC)
- Riser (PVC)
- Plug (PVC)
- Silica Sand
- Bentonite clay

Monitor Well Construction Log - Well ID:

Site:

Project:

Date:

Appendix:

Supplement B - USEPA Groundwater Sampling

U.S. ENVIRONMENTAL PROTECTION AGENCY
REGION I

LOW STRESS (low flow) PURGING AND SAMPLING PROCEDURE FOR THE COLLECTION OF GROUNDWATER SAMPLES FROM MONITORING WELLS

Quality Assurance Unit
U.S. Environmental Protection Agency – Region 1
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North Chelmsford, MA 01863

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Prepared by:___________________________________ ____________
(Robert Reinhart, Quality Assurance Unit) Date

Approved by:___________________________________ ____________
(John Smaldone, Quality Assurance Unit) Date

Revision Page

Date	**Rev #**	**Summary of changes**	**Sections**
7/30/96	1	Finalized	
01/19/10	2	Updated	All sections
3/23/17	3	Updated	All sections
9/20/17	4	Updated	Section 7.0

Table of Contents

1.0 USE OF TERMS

Equipment blank: The equipment blank shall include the pump and the pump's tubing. If tubing is dedicated to the well, the equipment blank needs only to include the pump in subsequent sampling rounds. If the pump and tubing are dedicated to the well, the equipment blank is collected prior to its placement in the well. If the pump and tubing will be used to sample multiple wells, the equipment blank is normally collected after sampling from contaminated wells and not after background wells.

Field duplicates: Field duplicates are collected to determine precision of the sampling procedure. For this procedure, collect duplicate for each analyte group in consecutive order (VOC original, VOC duplicate, SVOC original, SVOC duplicate, etc.).

Indicator field parameters: This SOP uses field measurements of turbidity, dissolved oxygen, specific conductance, temperature, pH, and oxidation/reduction potential (ORP) as indicators of when purging operations are sufficient and sample collection may begin.

Matrix Spike/Matrix Spike Duplicates: Used by the laboratory in its quality assurance program. Consult the laboratory for the sample volume to be collected.

Potentiometric Surface: The level to which water rises in a tightly cased well constructed in a confined aquifer. In an unconfined aquifer, the potentiometric surface is the water table.

QAPP: Quality Assurance Project Plan

SAP: Sampling and Analysis Plan

SOP: Standard operating procedure

Stabilization: A condition that is achieved when all indicator field parameter measurements are sufficiently stable (as described in the "Monitoring Indicator Field Parameters" section) to allow sample collection to begin.

Temperature blank: A temperature blank is added to each sample cooler. The blank is measured upon receipt at the laboratory to assess whether the samples were properly cooled during transit.

Trip blank (VOCs): Trip blank is a sample of analyte-free water taken to the sampling site and returned to the laboratory. The trip blanks (one pair) are added to each sample cooler that contains VOC samples.

2.0 SCOPE & APPLICATION

The goal of this groundwater sampling procedure is to collect water samples that reflect the total mobile organic and inorganic loads (dissolved and colloidal sized fractions) transported through the subsurface under ambient flow conditions, with minimal physical and chemical alterations from sampling operations. This standard operating procedure (SOP) for collecting groundwater samples will help ensure that the project's data quality objectives (DQOs) are met under certain low-flow conditions.

The SOP emphasizes the need to minimize hydraulic stress at the well-aquifer interface by maintaining low water-level drawdowns, and by using low pumping rates during purging and sampling operations. Indicator field parameters (e.g., dissolved oxygen, pH, etc.) are monitored during purging in order to determine when sample collection may begin. Samples properly collected using this SOP are suitable for analysis of groundwater contaminants (volatile and semi-volatile organic analytes, dissolved gases, pesticides, PCBs, metals and other inorganics), or naturally occurring analytes. This SOP is based on Puls, and Barcelona (1996).

This procedure is designed for monitoring wells with an inside diameter (1.5-inches or greater) that can accommodate a positive lift pump with a screen length or open interval ten feet or less and with a water level above the top of the screen or open interval (Hereafter, the "screen or open interval" will be referred to only as "screen interval"). This SOP is not applicable to other well-sampling conditions.

While the use of dedicated sampling equipment is not mandatory, dedicated pumps and tubing can reduce sampling costs significantly by streamlining sampling activities and thereby reducing the overall field costs.

The goal of this procedure is to emphasize the need for consistency in deploying and operating equipment while purging and sampling monitoring wells during each sampling event. This will help to minimize sampling variability.

This procedure describes a general framework for groundwater sampling. Other site specific information (hydrogeological context, conceptual site model (CSM), DQOs, etc.) coupled with systematic planning must be added to the procedure in order to develop an appropriate site specific SAP/QAPP. In addition, the site specific SAP/QAPP must identify the specific equipment that will be used to collect the groundwater samples.

This procedure does not address the collection of water or free product samples from wells containing free phase LNAPLs and/or DNAPLs (light or dense non-aqueous phase liquids). For this type of situation, the reader may wish to check: Cohen, and Mercer (1993) or other pertinent documents.

This SOP is to be used when collecting groundwater samples from monitoring wells at all Superfund, Federal Facility and RCRA sites in Region 1 under the conditions described herein. Request for modification of this SOP, in order to better address specific situations at individual wells, must include adequate technical justification for proposed changes. <u>All changes and modifications must be approved and included in a revised SAP/QAPP before implementation in field.</u>

3.0 BACKGROUND FOR IMPLEMENTATION

It is expected that the monitoring well screen has been properly located (both laterally and vertically) to intercept existing contaminant plume(s) or along flow paths of potential contaminant migration. Problems with inappropriate monitoring well placement or faulty/improper well installation cannot be overcome by even the best water sampling procedures. This SOP presumes that the analytes of interest are moving (or will potentially move) primarily through the more permeable zones intercepted by the screen interval.

Proper well construction, development, and operation and maintenance cannot be overemphasized. The use of installation techniques that are appropriate to the hydrogeologic setting of the site often prevent "problem well" situations from occurring. During well development, or redevelopment, tests should be conducted to determine the hydraulic characteristics of the monitoring well. The data can then be used to set the purging/sampling rate, and provide a baseline for evaluating changes in well performance and the potential need for well rehabilitation. Note: if this installation data or well history (construction and sampling) is not available or discoverable, for all wells to be sampled, efforts to build a sampling history should commence with the next sampling event.

The pump intake should be located within the screen interval and at a depth that will remain under water at all times. It is recommended that the intake depth and pumping rate remain the same for all sampling events. The mid-point or the lowest historical midpoint of the saturated screen length is often used as the location of the pump intake. For new wells, or for wells without pump intake depth information, the site’s SAP/QAPP must provide clear reasons and instructions on how the pump intake depth(s) will be selected, and reason(s) for the depth(s) selected. If the depths to top and bottom of the well screen are not known, the SAP/QAPP will need to describe how the sampling depth will be determined and how the data can be used.

Stabilization of indicator field parameters is used to indicate that conditions are suitable for sampling to begin. Achievement of turbidity levels of less than 5 NTU, and stable drawdowns of less than 0.3 feet, while desirable, are not mandatory. Sample collection may still take place provided the indicator field parameter criteria in this procedure are met. If after 2 hours of purging indicator field parameters have not stabilized, one of three optional courses of action may be taken: a) continue purging until stabilization is achieved, b) discontinue purging, do not collect any samples, and record in log book that stabilization could not be achieved (documentation must describe attempts to achieve stabilization), c) discontinue purging, collect samples and provide full explanation of attempts to achieve stabilization (note: there is a risk that the analytical data obtained, especially metals and strongly hydrophobic organic analytes, may reflect a sampling bias and therefore, the data may not meet the data quality objectives of the sampling event).

It is recommended that low-flow sampling be conducted when the air temperature is above 32°F (0°C). If the procedure is used below 32°F, special precautions will need to be taken to prevent the groundwater from freezing in the equipment. Because sampling during freezing temperatures may adversely impact the data quality objectives, the need for water sample collection during months when these conditions are likely to occur should be evaluated during site planning and special sampling measures may need to be developed. Ice formation in the flow-through-cell will cause the monitoring probes to act erratically. A transparent flow-through-cell needs to be used to observe if ice is forming in the cell. If ice starts to form on the other pieces of the sampling equipment, additional problems may occur.

4.0 HEALTH & SAFETY

When working on-site, comply with all applicable OSHA requirements and the site’s health/safety procedures. All proper personal protection clothing and equipment are to be worn. Some samples may contain biological and chemical hazards. These samples should be handled with suitable protection to skin, eyes, etc.

5.0 CAUTIONS

The following cautions need to be considered when planning to collect groundwater samples when the below conditions occur.

If the groundwater degasses during purging of the monitoring well, dissolved gases and VOCs will be lost. When this happens, the groundwater data for dissolved gases (e.g., methane, ethene, ethane, dissolved oxygen, etc.) and VOCs will need to be qualified. Some conditions that can promote degassing are the use of a vacuum pump (e.g., peristaltic pumps), changes in aperture along the sampling tubing, and squeezing/pinching the pump’s tubing which results in a pressure change.

When collecting the samples for dissolved gases and VOCs analyses, avoid aerating the groundwater in the pump’s tubing. This can cause loss of the dissolved gases and VOCs in the groundwater. Having the pump's tubing completely filled prior to sampling will avoid this problem when using a centrifugal pump or peristaltic pump.

Direct sun light and hot ambient air temperatures may cause the groundwater in the tubing and flow-through-cell to heat up. This may cause the groundwater to degas which will result in loss of VOCs and dissolved gases. When sampling under these conditions, the sampler will need to shade the equipment from the sunlight (e.g., umbrella, tent, etc.). If possible, sampling on hot days, or during the hottest time of the day, should be avoided. The tubing exiting the monitoring well should be kept as short as possible to avoid the sun light or ambient air from heating up the groundwater.

Thermal currents in the monitoring well may cause vertical mixing of water in the well bore. When the air temperature is colder than the groundwater temperature, it can cool the top of the water column. Colder water which is denser than warm water sinks to the bottom of the well and the warmer water at the bottom of the well rises, setting up a convection cell. "During low-flow sampling, the pumped water may be a mixture of convecting water from within the well casing and aquifer water moving inward through the screen. This mixing of water during low-flow sampling can substantially increase equilibration times, can cause false stabilization of indicator parameters, can give false indication of redox state, and can provide biological data that are not representative of the aquifer conditions" (Vroblesky 2007).

Failure to calibrate or perform proper maintenance on the sampling equipment and measurement instruments (e.g., dissolved oxygen meter, etc.) can result in faulty data being collected.

Interferences may result from using contaminated equipment, cleaning materials, sample containers, or uncontrolled ambient/surrounding air conditions (e.g., truck/vehicle exhaust nearby).

Cross contamination problems can be eliminated or minimized through the use of dedicated sampling equipment and/or proper planning to avoid ambient air interferences. Note that the use of dedicated sampling equipment can also significantly reduce the time needed to complete each sampling event, will promote consistency in the sampling, and may reduce sampling bias by having the pump's intake at a constant depth.

Clean and decontaminate all sampling equipment prior to use. All sampling equipment needs to be routinely checked to be free from contaminants and equipment blanks collected to ensure that the equipment is free of contaminants. Check the previous equipment blank data for the site (if they exist) to determine if the previous cleaning procedure removed the contaminants. If contaminants were detected and they are a concern, then a more vigorous cleaning procedure will be needed.

6.0 PERSONNEL QUALIFICATIONS

All field samplers working at sites containing hazardous waste must meet the requirements of the OSHA regulations. OSHA regulations may require the sampler to take the 40 hour OSHA health and safety training course and a refresher course prior to engaging in any field activities, depending upon the site and field conditions.

The field samplers must be trained prior to the use of the sampling equipment, field instruments, and procedures. Training is to be conducted by an experienced sampler before initiating any sampling procedure.

The entire sampling team needs to read, and be familiar with, the site Health and Safety Plan, all relevant SOPs, and SAP/QAPP (and the most recent amendments) before going onsite for the sampling event. It is recommended that the field sampling leader attest to the understanding of these site documents and that it is recorded.

7.0 EQUIPMENT AND SUPPLIES

A. Informational materials for sampling event

A copy of the current Health and Safety Plan, SAP/QAPP, monitoring well construction data, location map(s), field data from last sampling event, manuals for sampling, and the monitoring instruments’ operation, maintenance, and calibration manuals should be brought to the site.

B. Well keys.

C. Extraction device

Adjustable rate, submersible pumps (e.g., centrifugal, bladder, etc.) which are constructed of stainless steel or polytetrafluoroethylene (PTFE, i.e. Teflon®) are preferred. PTFE, however, should not be used when sampling for per- and polyfluoroalkyl substances (PFAS) as it is likely to contain these substances.

Note: If extraction devices constructed of other materials are to be used, adequate information must be provided to show that the substituted materials do not leach contaminants nor cause interferences to the analytical procedures to be used. Acceptance of these materials must be obtained before the sampling event.

If bladder pumps are selected for the collection of VOCs and dissolved gases, the pump setting should be set so that one pulse will deliver a water volume that is sufficient to fill a 40 mL VOC vial. This is not mandatory, but is considered a "best practice". For the proper operation, the bladder pump will need a minimum amount of water above the pump; consult the manufacturer for the recommended submergence. The pump's recommended submergence value should be determined during the planning stage, since it may influence well construction and placement of dedicated pumps where water-level fluctuations are significant.

Adjustable rate, peristaltic pumps (suction) are to be used with caution when collecting samples for VOCs and dissolved gases (e.g., methane, carbon dioxide, etc.) analyses. Additional information on the use of peristaltic pumps can be found in Appendix A.
If peristaltic pumps are used, the inside diameter of the rotor head tubing needs to match the inside diameter of the tubing installed in the monitoring well.

Inertial pumping devices (motor driven or manual) are not recommended. These devices frequently cause greater disturbance during purging and sampling, and are less easily controlled than submersible pumps (potentially increasing turbidity and sampling variability, etc.). This can lead to sampling results that are adversely affected by purging and sampling operations, and a higher degree of data variability.

D. Tubing

PTFE (Teflon®) or PTFE-lined polyethylene tubing are preferred when sampling is to include VOCs, SVOCs, pesticides, PCBs and inorganics. As discussed in the previous section, PTFE tubing should not be used when sampling for PFAS. In this case, a suitable alternative such as high-density polyethylene tubing should be used.

PVC, polypropylene or polyethylene tubing may be used when collecting samples for metal and other inorganics analyses.

Note: If tubing constructed of other materials is to be used, adequate information must be provided to show that the substituted materials do not leach contaminants nor cause interferences to the analytical procedures to be used. Acceptance of these materials must be obtained before the sampling event.

The use of 1/4 inch or 3/8 inch (inside diameter) tubing is recommended. This will help ensure that the tubing remains liquid filled when operating at very low pumping rates when using centrifugal and peristaltic pumps.

Silastic tubing should be used for the section around the rotor head of a peristaltic pump. It should be less than a foot in length. The inside diameter of the tubing used at the pump rotor head must be the same as the inside diameter of tubing placed in the well. A tubing connector is used to connect the pump rotor head tubing to the well tubing. Alternatively, the two pieces of tubing can be connected to each other by placing the one end of the tubing inside the end of the other tubing. The tubing must not be reused.

E. The water level measuring device

Electronic ”tape”, pressure transducer, water level sounder/level indicator, etc. should be capable of measuring to 0.01 foot accuracy. Recording pressure transducers, mounted above the pump, are especially helpful in tracking water levels during pumping operations, but their use must include check measurements with a water level “tape” at the start and end of each sampling event.

F. Flow measurement supplies

Graduated cylinder (size according to flow rate) and stopwatch usually will suffice.

Large graduated bucket used to record total water purged from the well.

G. Interface probe

To be used to check on the presence of free phase liquids (LNAPL, or DNAPL) before purging begins (as needed).

H. Power source (generator, nitrogen tank, battery, etc.)

When a gasoline generator is used, locate it downwind and at least 30 feet from the well so that the exhaust fumes do not contaminate samples.

I. Indicator field parameter monitoring instruments

Use of a multi-parameter instrument capable of measuring pH, oxidation/reduction potential (ORP), dissolved oxygen (DO), specific conductance, temperature, and coupled with a flow-through-cell is required when measuring all indicator field parameters, except turbidity. Turbidity is collected using a separate instrument. Record equipment/instrument identification (manufacturer, and model number).

Transparent, small volume flow-through-cells (e.g., 250 mLs or less) are preferred. This allows observation of air bubbles and sediment buildup in the cell, which can interfere with the operation of the monitoring instrument probes, to be easily detected. A small volume cell facilitates rapid turnover of water in the cell between measurements of the indicator field parameters.

It is recommended to use a flow-through-cell and monitoring probes from the same manufacturer and model to avoid incompatibility between the probes and flow-through-cell.

Turbidity samples are collected before the flow-through-cell. A "T" connector coupled with a valve is connected between the pump's tubing and flow-through-cell. When a turbidity measurement is required, the valve is opened to allow the groundwater to flow into a container. The valve is closed and the container sample is then placed in the turbidimeter.

Standards are necessary to perform field calibration of instruments. A minimum of two standards are needed to bracket the instrument measurement range for all parameters except ORP which use a Zobell solution as a standard. For dissolved oxygen, a wet sponge used for the 100% saturation and a zero dissolved oxygen solution are used for the calibration.

Barometer (used in the calibration of the Dissolved Oxygen probe) and the conversion formula to convert the barometric pressure into the units of measure used by the Dissolved Oxygen meter are needed.

J. Decontamination supplies

Includes (for example) non-phosphate detergent, distilled/deionized water, isopropyl alcohol, etc.

K. Record keeping supplies

Logbook(s), well purging forms, chain-of-custody forms, field instrument calibration forms, etc.

L. Sample bottles

M. Sample preservation supplies (as required by the analytical methods)

N. Sample tags or labels

O. PID or FID instrument

If appropriate, to detect VOCs for health and safety purposes, and provide qualitative field evaluations.

P. Miscellaneous Equipment

Equipment to keep the sampling apparatus shaded in the summer (e.g., umbrella) and from freezing in the winter. If the pump's tubing is allowed to heat up in the warm weather, the cold groundwater may degas as it is warmed in the tubing.

8.0 EQUIPMENT/INSTRUMENT CALIBRATION

Prior to the sampling event, perform maintenance checks on the equipment and instruments according to the manufacturer's manual and/or applicable SOP. This will ensure that the equipment/instruments are working properly before they are used in the field.

Prior to sampling, the monitoring instruments must be calibrated and the calibration documented. The instruments are calibrated using U.S Environmental Protection Agency Region 1 *Calibration of Field Instruments (temperature, pH, dissolved oxygen, conductivity/specific conductance, oxidation/reduction [ORP], and turbidity),* March 23, 2017, or latest version or from one of the methods listed in 40CFR136, 40CFR141 and SW-846.

The instruments shall be calibrated at the beginning of each day. If the field measurement falls outside the calibration range, the instrument must be re-calibrated so that all measurements fall within the calibration range. At the end of each day, a calibration check is performed to verify that instruments remained in calibration throughout the day. This check is performed while the instrument is in measurement mode, not calibration mode. If the field instruments are being used to monitor the natural attenuation parameters, then a calibration check at mid-day is highly recommended to ensure that the instruments did not drift out of calibration. Note: during the day if the instrument reads zero or a negative number for dissolved oxygen, pH, specific conductance, or turbidity (negative value only), this indicates that the instrument drifted out of calibration or the instrument is malfunctioning. If this situation occurs the data from this instrument will need to be qualified or rejected.

9.0 PRELIMINARY SITE ACTIVITIES (as applicable)

Check the well for security (damage, evidence of tampering, missing lock, etc.) and record pertinent observations (include photograph as warranted).

If needed, lay out a sheet of clean polyethylene for monitoring and sampling equipment, unless equipment is elevated above the ground (e.g., on a table, etc.).

Remove well cap and if appropriate measure VOCs at the rim of the well with a PID or FID instrument and record reading in field logbook or on the well purge form.

If the well casing does not have an established reference point (usually a V-cut or indelible mark in the well casing), make one. Describe its location and record the date of the mark in the logbook (consider a photographic record as well). All water level measurements must be recorded relative to this reference point (and the altitude of this point should be determined using techniques that are appropriate to site's DQOs.

If water-table or potentiometric surface map(s) are to be constructed for the sampling event, perform synoptic water level measurement round (in the shortest possible time) before any purging and sampling activities begin. If possible, measure water level depth (to 0.01 ft.) and total well depth (to 0.1 ft.) the day before sampling begins, in order to allow for re-settlement of any particulates in the water column. This is especially important for those wells that have not been recently sampled because sediment buildup in the well may require the well to be redeveloped. If measurement of total well depth is not made the day before, it should be measured after sampling of the well is complete. All measurements must be taken from the established referenced point. Care should be taken to minimize water column disturbance.

Check newly constructed wells for the presence of LNAPLs or DNAPLs before the initial sampling round. If none are encountered, subsequent check measurements with an interface probe may not be necessary unless analytical data or field analysis signal a worsening situation. This SOP cannot be used in the presence of LNAPLs or DNAPLs. If NAPLs are present, the project team must decide upon an alternate sampling method. All project modifications must be approved and documented prior to implementation.

If available check intake depth and drawdown information from previous sampling event(s) for each well. Duplicate, to the extent practicable, the intake depth and extraction rate (use final pump dial setting information) from previous event(s). If changes are made in the intake depth or extraction rate(s) used during previous sampling event(s), for either portable or dedicated extraction devices, record new values, and explain reasons for the changes in the field logbook.

10.0 PURGING AND SAMPLING PROCEDURE

Purging and sampling wells in order of increasing chemical concentrations (known or anticipated) are preferred.

The use of dedicated pumps is recommended to minimize artificial mobilization and entrainment of particulates each time the well is sampled. Note that the use of dedicated sampling equipment can also significantly reduce the time needed to complete each sampling event, will promote consistency in the sampling, and may reduce sampling bias by having the pump's intake at a constant depth.

A. Initial Water Level

Measure the water level in the well before installing the pump if a non-dedicated pump is being used. The initial water level is recorded on the purge form or in the field logbook.

B. Install Pump

Lower pump, safety cable, tubing and electrical lines slowly (to minimize disturbance) into the well to the appropriate depth (may not be the mid-point of the screen/open interval). The Sampling and Analysis Plan/Quality Assurance Project Plan should specify the sampling depth (used previously), or provide criteria for selection of intake depth for each new well. If possible keep the pump intake at least two feet above the bottom of the well, to minimize mobilization of particulates present in the bottom of the well.

Pump tubing lengths, above the top of well casing should be kept as short as possible to minimize heating the groundwater in the tubing by exposure to sun light and ambient air temperatures. Heating may cause the groundwater to degas, which is unacceptable for the collection of samples for VOC and dissolved gases analyses.

C. Measure Water Level

Before starting pump, measure water level. Install recording pressure transducer, if used to track drawdowns, to initialize starting condition.

D. Purge Well

From the time the pump starts purging and until the time the samples are collected, the purged water is discharged into a graduated bucket to determine the total volume of groundwater purged. This information is recorded on the purge form or in the field logbook.

Start the pump at low speed and slowly increase the speed until discharge occurs. Check water level. Check equipment for water leaks and if present fix or replace the affected equipment. Try to match pumping rate used during previous sampling event(s). Otherwise, adjust pump speed until there is little or no water level drawdown. If the minimal drawdown that can be achieved exceeds 0.3 feet, but remains stable, continue purging.

Monitor and record the water level and pumping rate every five minutes (or as appropriate) during purging. Record any pumping rate adjustments (both time and flow rate). Pumping rates should, as needed, be reduced to the minimum capabilities of the pump to ensure stabilization of the water level. Adjustments are best made in the first fifteen minutes of pumping in order to help minimize purging time. During pump start-up, drawdown may exceed the 0.3 feet target and then "recover" somewhat as pump flow adjustments are made. Purge volume calculations should utilize stabilized drawdown value, not the initial drawdown. If the initial water level is above the top of the screen do not allow the water level to fall into the well screen. The final purge volume must be greater than the stabilized drawdown volume plus the pump’s tubing volume. If the drawdown has exceeded 0.3 feet and stabilizes, calculate the volume of water between the initial water level and the stabilized water level. Add the volume of the water which occupies the pump’s tubing to this calculation. This combined volume of water needs to be purged from the well after the water level has stabilized before samples are collected.

Avoid the use of constriction devices on the tubing to decrease the flow rate because the constrictor will cause a pressure difference in the water column. This will cause the groundwater to degas and result in a loss of VOCs and dissolved gasses in the groundwater samples.

Note: the flow rate used to achieve a stable pumping level should remain constant while monitoring the indicator parameters for stabilization and while collecting the samples.

Wells with low recharge rates may require the use of special pumps capable of attaining very low pumping rates (e.g., bladder, peristaltic), and/or the use of dedicated equipment. For new monitoring wells, or wells where the following situation has not occurred before, if the recovery rate to the well is less than 50 mL/min., or the well is being essentially dewatered during purging, the well should be sampled as soon as the water level has recovered sufficiently to collect the volume needed for all anticipated samples. The project manager or field team leader will need to make the decision when samples should be collected, how the sample is to be collected, and the reasons recorded on the purge form or in the field logbook. A water level measurement needs to be performed and recorded before samples are collected. If the project manager decides to collect the samples using the pump, it is best during this recovery period that the pump intake tubing not be removed, since this will aggravate any turbidity problems. Samples in this specific situation may be collected without stabilization of indicator field parameters. Note that field conditions and efforts to overcome problematic situations must be recorded in order to support field decisions to deviate from normal procedures described in this SOP. If this type of problematic situation persists in a well, then water sample collection should be changed to a passive or no-purge method, if consistent with the site's DQOs, or have a new well installed.

E. Monitor Indicator Field Parameters

After the water level has stabilized, connect the "T" connector with a valve and the flow-through-cell to monitor the indicator field parameters. If excessive turbidity is anticipated or encountered with the pump startup, the well may be purged for a while without connecting up the flow-through-cell, in order to minimize particulate buildup in the cell (This is a judgment call made by the sampler). Water level drawdown measurements should be made as usual. If possible, the pump may be installed the day before purging to allow particulates that were disturbed during pump insertion to settle.

During well purging, monitor indicator field parameters (turbidity, temperature, specific conductance, pH, ORP, DO) at a frequency of five minute intervals or greater. The pump's flow rate must be able to "turn over" at least one flow-through-cell volume between measurements (for a 250 mL flow-through-cell with a flow rate of 50 mLs/min., the monitoring frequency would be every five minutes; for a 500 mL flow-through-cell it would be every ten minutes). If the cell volume cannot be replaced in the five minute interval, then the time between measurements must be increased accordingly. <u>Note: during the early phase of purging, emphasis should be put on minimizing and stabilizing pumping stress, and recording those adjustments followed by stabilization of indicator parameters. Purging is considered complete and sampling may begin when all the above indicator field parameters have stabilized. Stabilization is considered to be achieved when three consecutive readings are within the following limits:</u>

Turbidity (10% for values greater than 5 NTU; if three Turbidity values are less than 5 NTU, consider the values as stabilized),
Dissolved Oxygen (10% for values greater than 0.5 mg/L, if three Dissolved Oxygen values are less than 0.5 mg/L, consider the values as stabilized),
Specific Conductance (3%),
Temperature (3%),
pH (± 0.1 unit),
Oxidation/Reduction Potential (±10 millivolts).

All measurements, except turbidity, must be obtained using a flow-through-cell. Samples for turbidity measurements are obtained before water enters the flow-through-cell. Transparent flow-through-cells are preferred, because they allow field personnel to watch for particulate build-up within the cell. This build-up may affect indicator field parameter values measured within the cell. If the cell needs to be cleaned during purging operations, continue pumping and disconnect cell for cleaning, then reconnect after cleaning and continue monitoring activities. Record start and stop times and give a brief description of cleaning activities.

The flow-through-cell must be designed in a way that prevents gas bubble entrapment in the cell. Placing the flow-through-cell at a 45 degree angle with the port facing upward can help remove bubbles from the flow-through-cell (see Appendix B Low-Flow Setup Diagram). Throughout the measurement process, the flow-through-cell must remain free of any gas bubbles. Otherwise, the monitoring probes may act erratically. When the pump is turned off or cycling on/off (when using a bladder pump), water in the cell must not drain out. Monitoring probes must remain submerged in water at all times.

F. Collect Water Samples

When samples are collected for laboratory analyses, the pump's tubing is disconnected from the "T" connector with a valve and the flow-through-cell. The samples are collected directly from the pump's tubing. Samples must not be collected from the flow-through-cell or from the "T" connector with a valve.

VOC samples are normally collected first and directly into pre-preserved sample containers. However, this may not be the case for all sampling locations; the SAP/QAPP should list the order in which the samples are to be collected based on the project's objective(s). Fill all sample containers by allowing the pump discharge to flow gently down the inside of the container with minimal turbulence.

If the pump's flow rate is too high to collect the VOC/dissolved gases samples, collect the other samples first. Lower the pump's flow rate to a reasonable rate and collect the VOC/dissolved gases samples and record the new flow rate.

During purging and sampling, the centrifugal/peristaltic pump tubing must remain filled with water to avoid aeration of the groundwater. It is recommended that 1/4 inch or 3/8 inch (inside diameter) tubing be used to help ensure that the sample tubing remains water filled. If the pump tubing is not completely filled to the sampling point, use the following procedure to collect samples: collect non-VOC/dissolved gases samples first, then increase flow rate slightly until the water completely fills the tubing, collect the VOC/dissolved gases samples, and record new drawdown depth and flow rate.

For bladder pumps that will be used to collect VOC or dissolved gas samples, it is recommended that the pump be set to deliver long pulses of water so that one pulse will fill a 40 mL VOC vial.

Use pre-preserved sample containers or add preservative, as required by analytical methods, to the samples immediately after they are collected. Check the analytical methods (e.g. EPA SW-846, 40 CFR 136, water supply, etc.) for additional information on preservation.

If determination of filtered metal concentrations is a sampling objective, collect filtered water samples using the same low flow procedures. The use of an in-line filter (transparent housing preferred) is required, and the filter size (0.45 µm is commonly used) should be based on the sampling objective. Pre-rinse the filter with groundwater prior to sample collection. Make sure the filter is free of air bubbles before samples are collected. Preserve the filtered water sample immediately. Note: filtered water samples are not an acceptable substitute for unfiltered samples when the monitoring objective is to obtain chemical concentrations of total mobile contaminants in groundwater for human health or ecological risk calculations.

Label each sample as collected. Samples requiring cooling will be placed into a cooler with ice or refrigerant for delivery to the laboratory. Metal samples after acidification to a pH less than 2 do not need to be cooled.

G. Post Sampling Activities

If a recording pressure transducer is used to track drawdown, re-measure water level with tape.

After collection of samples, the pump tubing may be dedicated to the well for re-sampling (by hanging the tubing inside the well), decontaminated, or properly discarded.

Before securing the well, measure and record the well depth (to 0.1 ft.), if not measured the day before purging began. Note: measurement of total well depth annually is usually sufficient after the initial low stress sampling event. However, a greater frequency may be needed if the well has a “silting” problem or if confirmation of well identity is needed.

Secure the well.

11.0 DECONTAMINATION

Decontaminate sampling equipment prior to use in the first well, and then following sampling of each subsequent well. Pumps should not be removed between purging and sampling operations. The pump, tubing, support cable and electrical wires which were in contact with the well should be decontaminated by one of the procedures listed below.

The use of dedicated pumps and tubing will reduce the amount of time spent on decontamination of the equipment. If dedicated pumps and tubing are used, only the initial sampling event will require decontamination of the pump and tubing.

Note if the previous equipment blank data showed that contaminant(s) were present after using the below procedure or the one described in the SAP/QAPP, a more vigorous procedure may be needed.

Procedure 1

Decontaminating solutions can be pumped from either buckets or short PVC casing sections through the pump and tubing. The pump may be disassembled and flushed with the decontaminating solutions. It is recommended that detergent and alcohol be used sparingly in the decontamination process and water flushing steps be extended to ensure that any sediment trapped in the pump is removed. The pump exterior and electrical wires must be rinsed with the decontaminating solutions, as well. The procedure is as follows:

Flush the equipment/pump with potable water.

Flush with non-phosphate detergent solution. If the solution is recycled, the solution must be changed periodically.

Flush with potable or distilled/deionized water to remove all of the detergent solution. If the water is recycled, the water must be changed periodically.

Optional - flush with isopropyl alcohol (pesticide grade; must be free of ketones {e.g., acetone}) or with methanol. This step may be required if the well is highly contaminated or if the equipment blank data from the previous sampling event show that the level of contaminants is significant.

Flush with distilled/deionized water. This step must remove all traces of alcohol (if used) from the equipment. The final water rinse must not be recycled.

Procedure 2

Steam clean the outside of the submersible pump.

Pump hot potable water from the steam cleaner through the inside of the pump. This can be accomplished by placing the pump inside a three or four inch diameter PVC pipe with end cap. Hot water from the steam cleaner jet will be directed inside the PVC pipe and the pump exterior will be cleaned. The hot water from the steam cleaner will then be pumped from the PVC pipe through the pump and collected into another container. Note: additives or solutions should not be added to the steam cleaner.

Pump non-phosphate detergent solution through the inside of the pump. If the solution is recycled, the solution must be changed periodically.

Pump potable water through the inside of the pump to remove all of the detergent solution. If the solution is recycled, the solution must be changed periodically.

Pump distilled/deionized water through the pump. The final water rinse must not be recycled.

12.0 FIELD QUALITY CONTROL

Quality control samples are required to verify that the sample collection and handling process has not compromised the quality of the groundwater samples. All field quality control samples must be prepared the same as regular investigation samples with regard to sample volume, containers, and preservation. Quality control samples include field duplicates, equipment blanks, matrix spike/matrix spike duplicates, trip blanks (VOCs), and temperature blanks.

13.0 FIELD LOGBOOK

A field log shall be kept to document all groundwater field monitoring activities (see Appendix C, example table), and record the following for each well:

Site name, municipality, state.

Well identifier, latitude-longitude or state grid coordinates.

Measuring point description (e.g., north side of PVC pipe).

Well depth, and measurement technique.

Well screen length.

Pump depth.

Static water level depth, date, time and measurement technique.

Presence and thickness of immiscible liquid (NAPL) layers and detection method.

Pumping rate, drawdown, indicator parameters values, calculated or measured total volume pumped, and clock time of each set of measurements.

Type of tubing used and its length.

Type of pump used.

Clock time of start and end of purging and sampling activity.

Types of sample bottles used and sample identification numbers.

Preservatives used.

Parameters requested for analyses.

Field observations during sampling event.

Name of sample collector(s).

Weather conditions, including approximate ambient air temperature.

QA/QC data for field instruments.

Any problems encountered should be highlighted.

Description of all sampling/monitoring equipment used, including trade names, model number, instrument identification number, diameters, material composition, etc.

14.0 DATA REPORT

Data reports are to include laboratory analytical results, QA/QC information, field indicator parameters measured during purging, field instrument calibration information, and whatever other field logbook information is needed to allow for a full evaluation of data usability.

Note: the use of trade, product, or firm names in this sampling procedure is for descriptive purposes only and does not constitute endorsement by the U.S. EPA.

15.0 REFERENCES

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Robert W. Puls and Michael J. Barcelona, *Low-Flow (Minimal Drawdown) Ground-Water Sampling Procedures*, April 1996 (EPA/540/S-95/504).

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U.S Environmental Protection Agency, 40 CFR 136.

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APPENDIX A

PERISTALTIC PUMPS

Before selecting a peristaltic pump to collect groundwater samples for VOCs and/or dissolved gases, (e.g., methane, carbon dioxide, etc.) consideration should be given to the following:

- The decision of whether or not to use a peristaltic pump is dependent on the intended use of the data.
- If the additional sampling error that may be introduced by this device is NOT of concern for the VOC/dissolved gases data's intended use, then this device may be acceptable.
- If minor differences in the groundwater concentrations could affect the decision, such as to continue or terminate groundwater cleanup or whether the cleanup goals have been reached, then this device should NOT be used for VOC/dissolved gases sampling. In these cases, centrifugal or bladder pumps are a better choice for more accurate results.

EPA and USGS have documented their concerns with the use of the peristaltic pumps to collect water sample in the below documents.

- "Suction Pumps are not recommended because they may cause degassing, pH modification, and loss of volatile compounds" *A Compendium of Superfund Field Operations Methods*, EPA/540/P-87/001, December 1987.
- "The agency does not recommend the use of peristaltic pumps to sample ground water particularly for volatile organic analytes" *RCRA Ground-Water Monitoring Draft Technical Guidance*, EPA Office of Solid Waste, November 1992.
- "The peristaltic pump is limited to shallow applications and can cause degassing resulting in alteration of pH, alkalinity, and volatiles loss", *Low-flow (Minimal drawdown) Ground-Water Sampling Procedures*, by Robert Puls & Michael Barcelona, April 1996, EPA/540/S-95/504.
- "Suction-lift pumps, such as peristaltic pumps, can operate at a very low pumping rate; however, using negative pressure to lift the sample can result in the loss of volatile analytes", USGS Book 9 Techniques of Water-Resources Investigation, Chapter A4. (Version 2.0, 9/2006).

APPENDIX B

SUMMARY OF SAMPLING INSTRUCTIONS

These instructions are for using an adjustable rate, submersible pump or a peristaltic pump with the pump's intake placed at the midpoint of a 10 foot or less well screen or an open interval. The water level in the monitoring well is above the top of the well screen or open interval, the ambient temperature is above 32°F, and the equipment is not dedicated. Field instruments are already calibrated. The equipment is setup according to the diagram at the end of these instructions.

1. Review well installation information. Record well depth, length of screen or open interval, and depth to top of the well screen. Determine the pump's intake depth (e.g., mid-point of screen/open interval).

2. On the day of sampling, check security of the well casing, perform any safety checks needed for the site, lay out a sheet of polyethylene around the well (if necessary), and setup the equipment. If necessary a canopy or an equivalent item can be setup to shade the pump's tubing and flow-through-cell from the sun light to prevent the sun light from heating the groundwater.

3. Check well casing for a reference mark. If missing, make a reference mark. Measure the water level (initial) to 0.01 ft. and record this information.

4. Install the pump's intake to the appropriate depth (e.g., midpoint) of the well screen or open interval. Do not turn-on the pump at this time.

5. Measure water level and record this information.

6. Turn-on the pump and discharge the groundwater into a graduated waste bucket. Slowly increase the flow rate until the water level starts to drop. Reduce the flow rate slightly so the water level stabilizes. Record the pump's settings. Calculate the flow rate using a graduated container and a stop watch. Record the flow rate. Do not let the water level drop below the top of the well screen.

If the groundwater is highly turbid or discolored, continue to discharge the water into the bucket until the water clears (visual observation); this usually takes a few minutes. The turbid or discolored water is usually from the well-being disturbed during the pump installation. If the water does not clear, then you need to make a choice whether to continue purging the well (hoping that it will clear after a reasonable time) or continue to the next step. Note, it is sometimes helpful to install the pump the day before the sampling event so that the disturbed materials in the well can settle out.

If the water level drops to the top of the well screen during the purging of the well, stop purging the well, and do the following:

> Wait for the well to recharge to a sufficient volume so samples can be collected. This may take a while (pump may be removed from well, if turbidity is not a problem). The project manager will need to make the decision when samples should be collected and the reasons recorded in the site's log book. A water level measurement needs to be performed and recorded before samples are collected. When samples are being collected, the water level must not drop below the top of the screen or open interval. Collect the samples from the pump's tubing. Always collect the VOCs and dissolved gases samples first. Normally, the samples requiring a small volume are collected before the large volume samples are collected just in case there is not sufficient water in the well to fill all the sample containers. All samples must be collected, preserved, and stored according to the analytical method. Remove the pump from the well and decontaminate the sampling equipment.

If the water level has dropped 0.3 feet or less from the initial water level (water level measure before the pump was installed); proceed to Step 7. If the water level has dropped more than 0.3 feet, calculate the volume of water between the initial water level and the stabilized water level. Add the volume of the water which occupies the pump's tubing to this calculation. This combined volume of water needs to be purged from the well after the water level has stabilized before samples are be collected.

7. Attach the pump's tubing to the "T" connector with a valve (or a three-way stop cock). The pump's tubing from the well casing to the "T" connector must be as short as possible to prevent the groundwater in the tubing from heating up from the sun light or from the ambient air. Attach a short piece of tubing to the other end of the end of the "T" connector to serve as a sampling port for the turbidity samples. Attach the remaining end of the "T" connector to a short piece of tubing and connect the tubing to the flow-through-cell bottom port. To the top port, attach a small piece of tubing to direct the water into a calibrated waste bucket. Fill the cell with the groundwater and remove all gas bubbles from the cell. Position the flow-through-cell in such a way that if gas bubbles enter the cell they can easily exit the cell. If the ports are on the same side of the cell and the cell is cylindrical shape, the cell can be placed at a 45-degree angle with the ports facing upwards; this position should keep any gas bubbles entering the cell away from the monitoring probes and allow the gas bubbles to exit the cell easily (see Low-Flow Setup Diagram). Note:

make sure there are no gas bubbles caught in the probes' protective guard; you may need to shake the cell to remove these bubbles.

8. Turn-on the monitoring probes and turbidity meter.

9. Record the temperature, pH, dissolved oxygen, specific conductance, and oxidation/reduction potential measurements. Open the valve on the "T" connector to collect a sample for the turbidity measurement, close the valve, do the measurement, and record this measurement. Calculate the pump's flow rate from the water exiting the flow-through-cell using a graduated container and a stop watch, and record the measurement. Measure and record the water level. Check flow-through-cell for gas bubbles and sediment; if present, remove them.

10. Repeat Step 9 every 5 minutes or as appropriate until monitoring parameters stabilized. Note: at least one flow-through-cell volume must be exchanged between readings. If not, the time interval between readings will need to be increased. Stabilization is achieved when three consecutive measurements are within the following limits:

> **Turbidity** (10% for values greater than 5 NTUs; if three Turbidity values are less than 5 NTUs, consider the values as stabilized),
> **Dissolved Oxygen** (10% for values greater than 0.5 mg/L, if three Dissolved Oxygen values are less than 0.5 mg/L, consider the values as stabilized),
> **Specific Conductance** (3%),
> **Temperature** (3%),
> **pH** (± 0.1 unit),
> **Oxidation/Reduction Potential** (±10 millivolts).

If these stabilization requirements do not stabilize in a reasonable time, the probes may have been coated from the materials in the groundwater, from a buildup of sediment in the flow-through-cell, or a gas bubble is lodged in the probe. The cell and the probes will need to be cleaned. Turn-off the probes (not the pump), disconnect the cell from the "T" connector and continue to purge the well. Disassemble the cell, remove the sediment, and clean the probes according to the manufacturer's instructions. Reassemble the cell and connect the cell to the "T" connector. Remove all gas bubbles from the cell, turn-on the probes, and continue the measurements. Record the time the cell was cleaned.

11. When it is time to collect the groundwater samples, turn-off the monitoring probes, and disconnect the pump's tubing from the "T" connector. If you are using a centrifugal or peristaltic pump check the pump's tubing to determine if the tubing is completely filled with water (no air space).

All samples must be collected and preserved according to the analytical method. VOCs and dissolved gases samples are normally collected first and directly into pre-preserved sample containers. However, this may not be the case for all sampling locations; the SAP/QAPP should list the order in which the samples are to be collected based on the project's objective(s). Fill all sample containers by allowing the pump discharge to flow gently down the inside of the container with minimal turbulence.

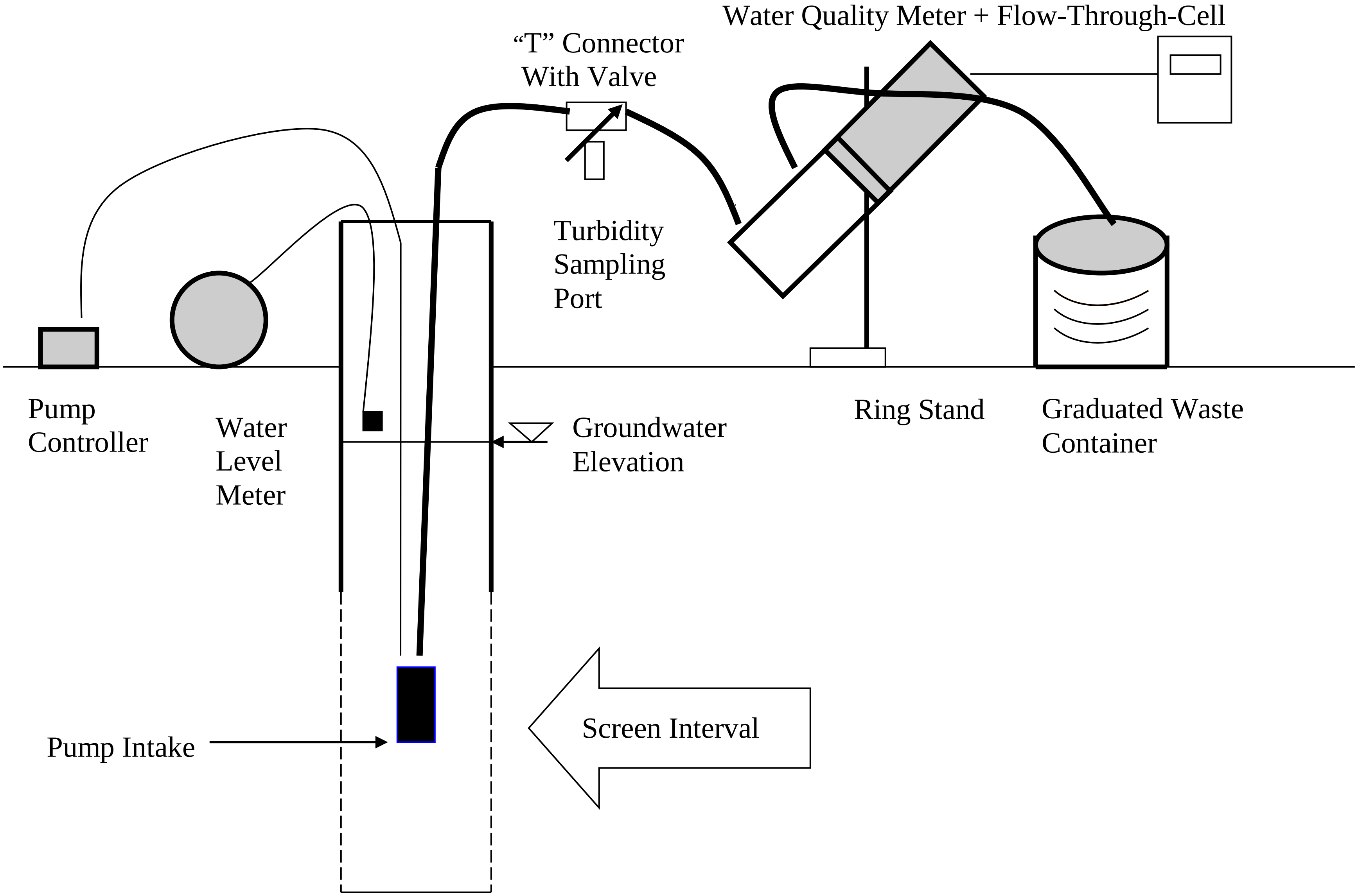
If the pump's tubing is not completely filled with water and the samples are being collected for VOCs and/or dissolved gases analyses using a centrifugal or peristaltic pump, do the following:

> All samples must be collected and preserved according to the analytical method. The VOCs and the dissolved gases (e.g., methane, ethane, ethene, and carbon dioxide) samples are collected last. When it becomes time to collect these samples increase the pump's flow rate until the tubing is completely filled. Collect the samples and record the new flow rate.

12. Store the samples according to the analytical method.

13. Record the total purged volume (graduated waste bucket). Remove the pump from the well and decontaminate the sampling equipment.

Low-Flow Setup Diagram



APPENDIX C

EXAMPLE (Minimum Requirements)

WELL PURGING-FIELD WATER QUALITY MEASUREMENTS FORM

Location (Site/Facility Name)________________________________
Well Number_________________ Date________________________
Field Personnel____
Sampling Organization_______________________________________
Identify MP____

Depth to ________/_________ of screen
(below MP) top bottom
Pump Intake at (ft. below MP)_________
Purging Device; (pump type)__________
Total Volume Purged ________________

Clock Time 24 HR	Water Depth below MP ft	Pump Dial[1]	Purge Rate ml/min	Cum. Volume Purged liters	Temp. "C	Spec. Cond.[2] µS/cm	pH	ORP[3] mv	DO mg/L	Tur-bidity NTU	Comments

Stabilization Criteria 3% 3% ±0.1 ±10 mv 10% 10%

1. Pump dial setting (for example: hertz, cycles/min, etc).
2. µSiemens per cm(same as µmhos/cm)at 25°C.
3. Oxidation reduction potential (ORP)

Supplement C - NYSDOH Vapor and Air Sampling

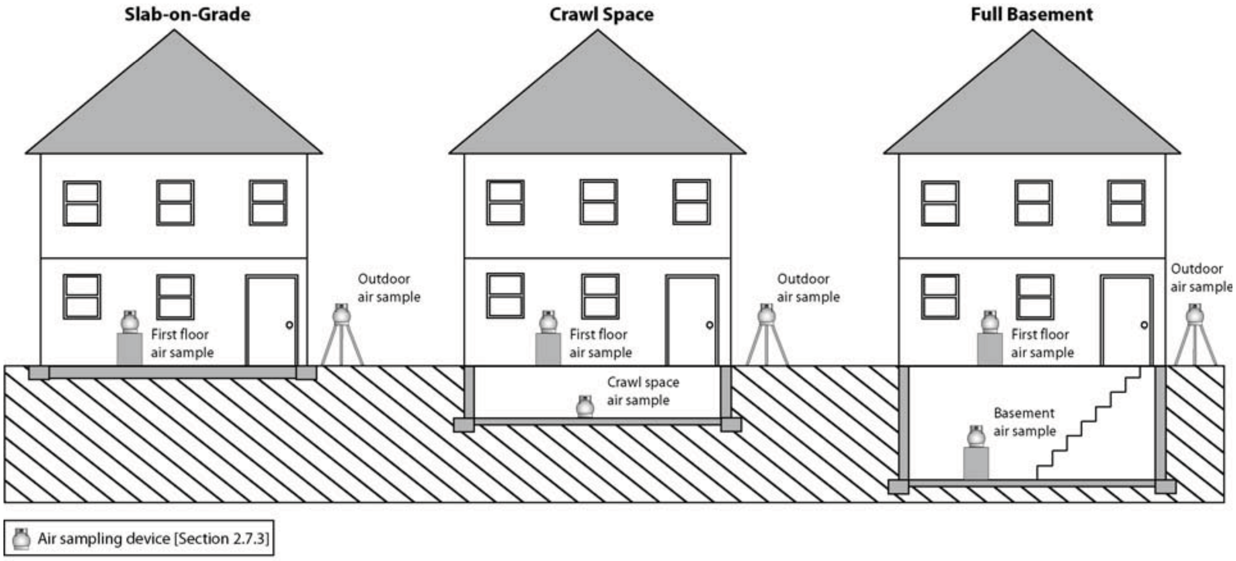


Figure 2.1
Schematic of indoor and outdoor air sampling locations

2.6.4 Outdoor air

Typically, an outdoor air sample is collected outside of each building where an indoor air sample is collected. However, if several buildings are being sampled within a localized area, representative outdoor air samples may be appropriate. For example, one outdoor air sample may be sufficient for three houses being sampled in a cul-de-sac. Outdoor air samples should be collected from a representative upwind location, away from wind obstructions (e.g., trees or bushes), and at a height above the ground to represent breathing zones (3 to 5 feet) [Figure 2.1]. A representative sample is one that is not biased toward obvious sources of volatile chemicals (e.g., automobiles, lawn mowers, oil storage tanks, gasoline stations, industrial facilities, etc.). For buildings with HVAC systems that draw outdoor air into the building, an outdoor air sample collected near the outdoor air intake may be appropriate.

2.7 Sampling protocols

The procedures recommended here may be modified depending on site-specific conditions, the sampling objectives, or emerging technologies and methodologies. Alternative sampling procedures should be described thoroughly and proposed in a work plan submitted for review by the State. The State will review and comment on the proposed procedure and consider the efficacy of the alternative sampling procedure based on the objectives of investigation. In all cases, work plans should thoroughly describe the proposed sampling procedure. Similarly, the procedures that were implemented in the field should be documented and included in the final report of the sampling results.

2.7.1 Soil vapor

Soil vapor probe installations [Figure 2.2] may be permanent, semi-permanent or temporary. In general, permanent or semi-permanent installations are preferred for data consistency reasons and to ensure outdoor air infiltration does not occur. Temporary probes should only be used if measures are taken to ensure that an adequate surface seal is created to prevent outdoor air infiltration and if tracer gas is used at every sampling location. [See Section 2.7.5 for additional information about the use of tracer gas when collecting soil vapor samples.] Soil vapor implants or probes should be constructed in the same manner at all sampling locations to minimize possible discrepancies. The following procedures should be included in any permanent construction protocol:

a. implants should be installed using an appropriate method based on site conditions (e.g., direct push, manually driven, auger — if necessary to attain the desired depth or if sidewall smearing is a concern, etc.);

b. porous, inert backfill material (e.g., glass beads, washed #1 crushed stone, etc.) should be used to create a sampling zone 1 to 2 feet in length;

c. implants should be fitted with inert tubing (e.g., polyethylene, stainless steel, nylon, Teflon®, etc.) of the appropriate size (typically 1/8 inch to 1/4 inch diameter) and of laboratory or food grade quality to the surface;

d. soil vapor probes should be sealed above the sampling zone with a bentonite slurry for a minimum distance of 3 feet to prevent outdoor air infiltration and the remainder of the borehole backfilled with clean material;

e. for multiple probe depths, the borehole should be grouted with bentonite between probes to create discrete sampling zones or separate nested probes should be installed [Figure 2.2]; and

f. steps should be taken to minimize infiltration of water or outdoor air and to prevent accidental damage (e.g., setting a protective casing around the top of the probe tubing and grouting in place to the top of bentonite, sloping the ground surface to direct water away from the borehole like a groundwater monitoring well, etc.).

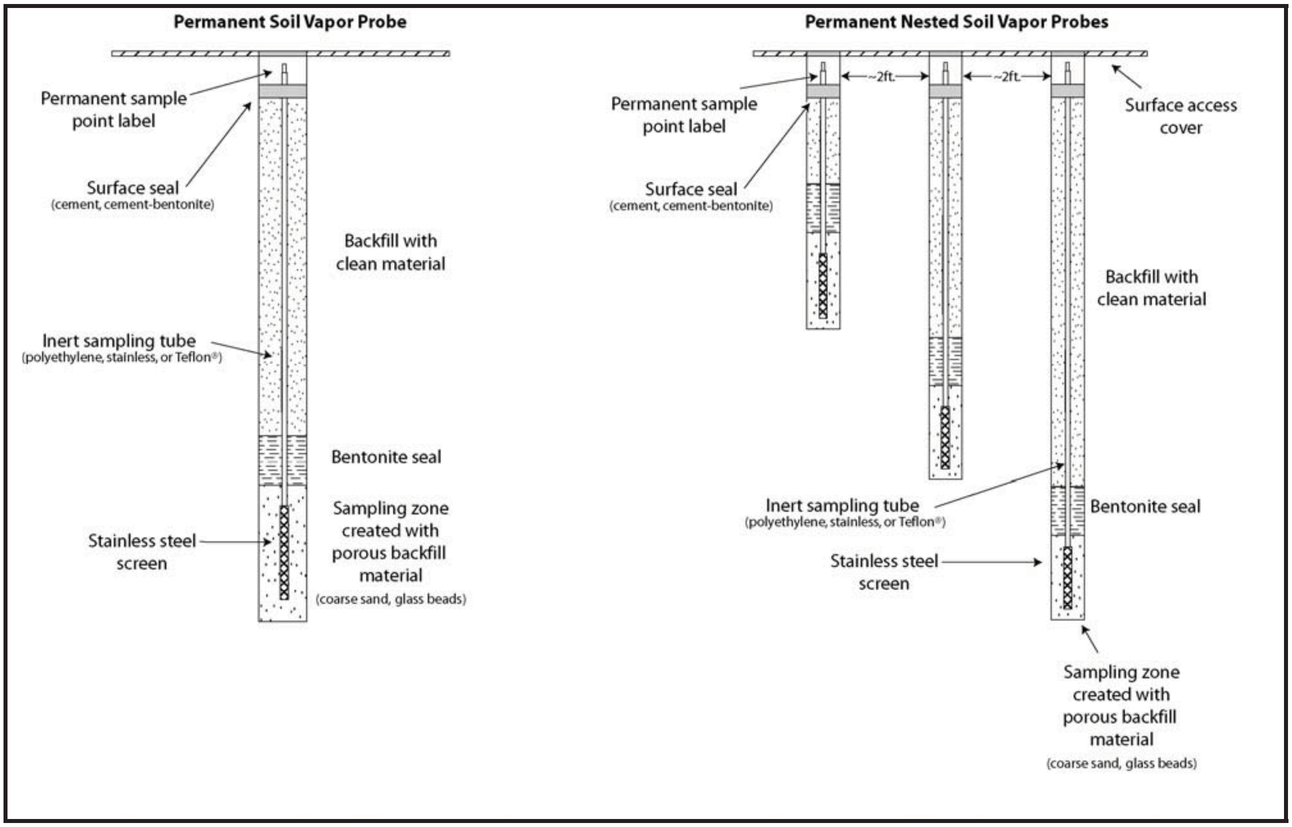


Figure 2.2

Schematics of a generic permanent soil vapor probe
and permanent nested soil vapor probes

[Note: Many variations exist and may be proposed in a work plan. Proposed installations should meet the sampling objectives and requirements of the analytical methods.]

To obtain representative samples and to minimize possible discrepancies, soil vapor samples should be collected in the following manner at all locations:

a. at least 24 hours after the installation of permanent probes and shortly after the installation of temporary probes, one to three implant volumes (i.e., the volume of the sample probe and tube) should be purged prior to collecting the samples;

b. flow rates for both purging and collecting should not exceed 0.2 liters per minute to minimize outdoor air infiltration during sampling;

c. samples should be collected, using conventional sampling methods, in an appropriate container — one which

    i. meets the objectives of the sampling (e.g., investigation of areas where low or high concentrations of volatile chemicals are expected; to minimize losses of volatile chemicals that are susceptible to photodegradation),

    ii. is consistent with the sampling and analytical methods (e.g., low flow rate; Summa® canisters if analyzing by using EPA Method TO-15), and

    iii. is certified clean by the laboratory;

d. sample size depends upon the volume of that will achieve minimum reporting limits [Section 2.9]; and
e. a tracer gas (e.g., helium, butane, sulfur hexafluoride, etc.) should be used when collecting soil vapor samples to verify that adequate sampling techniques are being implemented (i.e., to verify infiltration of outdoor air is not occurring) [Section 2.7.5].

In some cases, weather conditions may present certain limitations on soil vapor sampling. For example, condensation in the sample tubing may be encountered during winter sampling due to low outdoor air temperatures. Devices, such as tube warmers, may be used to address these conditions. Anticipated limitations to the sampling should be discussed prior to the sampling event so appropriate measures can be taken to address these difficulties and produce representative and reliable data.

When soil vapor samples are collected, the following actions should be taken to document local conditions during sampling that may influence interpretation of the results:

a. if sampling near a commercial or industrial building, uses of volatile chemicals during normal operations of the facility should be identified;
b. outdoor plot sketches should be drawn that include the site, area streets, neighboring commercial or industrial facilities (with estimated distance to the site), outdoor air sampling locations (if applicable), and compass orientation (north);
c. weather conditions (e.g., precipitation and outdoor temperature) should be noted for the past 24 to 48 hours; and
d. any pertinent observations should be recorded, such as odors and readings from field instrumentation.

Additional information that could be gathered to assist in the interpretation of the results includes barometric pressure, wind speed and wind direction.

The field sampling team should maintain a sample log sheet summarizing the following:

a. sample identification,
b. date and time of sample collection,
c. sampling depth,
d. identity of samplers,
e. sampling methods and devices,
f. purge volumes,
g. volume of soil vapor extracted,
h. if canisters used, the vacuum before and after samples were collected,
i. apparent moisture content (dry, moist, saturated, etc.) of the sampling zone, and
j. chain of custody protocols and records used to track samples from sampling point to analysis.

2.7.2 Sub-slab vapor

During colder months, heating systems should be operating to maintain normal indoor air temperatures (i.e., 65 – 75 °F) for at least 24 hours prior to and during the scheduled sampling time. Prior to installation of the sub-slab vapor probe, the building floor should be inspected and any penetrations (cracks, floor drains, utility perforations, sumps, etc.) should be noted and recorded. Probes should be installed at locations where the potential for ambient air infiltration via floor penetrations is minimal.

Sub-slab vapor probe installations [Figure 2.3] may be permanent, semi-permanent or temporary. A vacuum should not be used to remove drilling debris from the sampling port. Sub-slab implants or probes should be constructed in the same manner at all sampling locations to minimize possible discrepancies. The following procedures should be included in any construction protocol:

a. permanent recessed probes should be constructed with brass or stainless steel tubing and fittings;

b. temporary probes should be constructed with inert tubing (e.g., polyethylene, stainless steel, nylon, Teflon®, etc.) of the appropriate size (typically 1/8 inch to 1/4 inch diameter), and of laboratory or food grade quality;

c. tubing should not extend further than 2 inches into the sub-slab material;

d. porous, inert backfill material (e.g., glass beads, washed #1 crushed stone, etc.) should be added to cover about 1 inch of the probe tip for permanent installations; and

e. the implant should be sealed to the surface with non-VOC-containing and non-shrinking products for temporary installations (e.g., permagum grout, melted beeswax, putty, etc.) or cement for permanent installations.

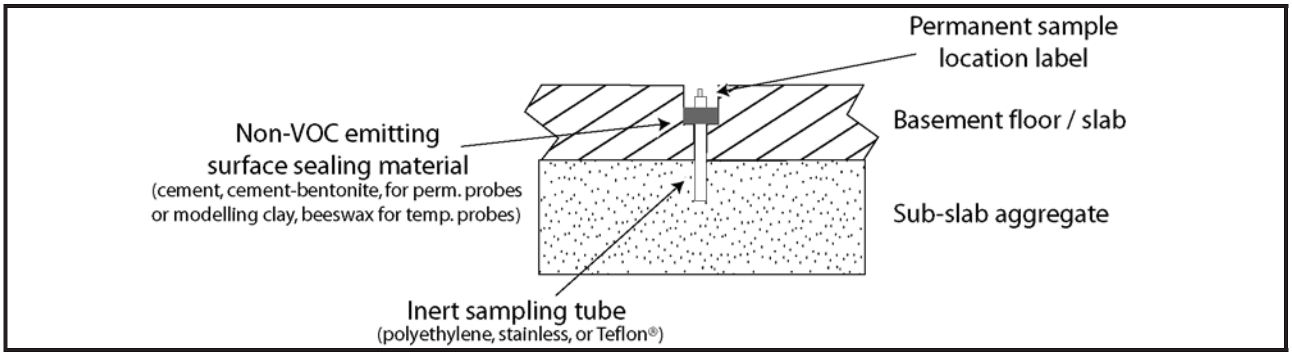


Figure 2.3

Schematic of a generic sub-slab vapor probe

[Note: Many variations exist and may be proposed in a work plan. Proposed installations should meet the sampling objectives and requirements of the analytical methods.]

To obtain representative samples that meet the data quality objectives, sub-slab vapor samples should be collected in the following manner:

a. after installation of the probes, one to three volumes (i.e., the volume of the sample probe and tube) must be purged prior to collecting the samples to ensure samples collected are representative;

b. flow rates for both purging and collecting must not exceed 0.2 liters per minute to minimize ambient air infiltration during sampling; and

c. samples should be collected, using conventional sampling methods, in an appropriate container — one which

    i. meets the objectives of the sampling (e.g., investigation of areas where low or high concentrations of volatile chemicals are expected; to minimize losses of volatile chemicals that are susceptible to photodegradation),

    ii. is consistent with the sampling and analytical methods (e.g., low flow rate; Summa® canisters if analyzing by using EPA Method TO-15), and

    iii. is certified clean by the laboratory;

d. sample size depends upon the volume of that will achieve minimum reporting limits [Section 2.9], the flow rate, and the sampling duration; and

e. ideally, samples should be collected over the same period of time as concurrent indoor and outdoor air samples.

When sub-slab vapor samples are collected, the following actions should be taken to document conditions during sampling and ultimately to aid in the interpretation of the sampling results [Section 3]:

a. historic and current storage and uses of volatile chemicals should be identified, especially if sampling within a commercial or industrial building (e.g., use of volatile chemicals in commercial or industrial processes and/or during building maintenance);

b. the use of heating or air conditioning systems during sampling should be noted;

c. floor plan sketches should be drawn that include the floor layout with sampling locations, chemical storage areas, garages, doorways, stairways, location of basement sumps or subsurface drains and utility perforations through building foundations, HVAC system air supply and return registers, compass orientation (north), footings that create separate foundation sections, and any other pertinent information should be completed;

d. outdoor plot sketches should be drawn that include the building site, area streets, outdoor air sampling locations (if applicable), compass orientation (north), and paved areas;

e. weather conditions (e.g., precipitation and indoor and outdoor temperature) and ventilation conditions (e.g., heating system active and windows closed) should be reported; and

f. any pertinent observations, such as spills, floor stains, smoke tube results, odors and readings from field instrumentation (e.g., vapors via PID, ppbRAE, Jerome Mercury Vapor Analyzer, etc.), should be recorded.

Additional documentation that could be gathered to assist in the interpretation of the results includes information about air flow patterns and pressure relationships obtained by using smoke tubes or other devices (especially between floor levels and between suspected contaminant sources and other areas), the barometric pressure and photographs to accompany floor plan sketches.

The field sampling team should maintain a sample log sheet summarizing the following:

a. sample identification,
b. date and time of sample collection,
c. sampling depth,
d. identity of samplers,
e. sampling methods and devices,
f. soil vapor purge volumes,
g. volume of soil vapor extracted,
h. if canisters used, vacuum of canisters before and after samples collected,
i. apparent moisture content (dry, moist, saturated, etc.) of the sampling zone, and
j. chain of custody protocols and records used to track samples from sampling point to analysis.

2.7.3 Indoor air

[Reference: NYSDOH's *Indoor Air Sampling & Analysis Guidance (February 1, 2005)*]

During colder months, heating systems should be operating to maintain normal indoor air temperatures (i.e., 65 – 75 °F) for at least 24 hours prior to and during the scheduled sampling time. If possible, prior to collecting indoor samples, a pre-sampling inspection [Section 2.11.1] should be performed to evaluate the physical layout and conditions of the building being investigated, to identify conditions that may affect or interfere with the proposed sampling, and to prepare the building for sampling. This process is described in Section 2.11.1.

In general, indoor air samples should be collected in the following manner:

a. sampling duration should reflect the exposure scenario being evaluated without compromising the detection limit or sample collection flow rate (e.g., an 8 hour sample from a workplace with a single shift versus a 24 hour sample from a workplace with multiple shifts). To ensure that air is representative of the locations sampled and to avoid undue influence from sampling personnel, samples should be collected for at least 1 hour. If the goal of the sampling is to represent average concentrations over longer periods, then longer duration sampling periods may be appropriate. Typically, 24 hour samples are collected from residential settings;
b. personnel should avoid lingering in the immediate area of the sampling device while samples are being collected;
c. sample flow rates must conform to the specifications in the sample collection method and, if possible, should be consistent with the flow rates for concurrent outdoor air and sub-slab samples; and
d. samples must be collected, using conventional sampling methods, in an appropriate container — one which

i. meets the objectives of the sampling (e.g., investigation of areas where low or high concentrations of volatile chemicals are expected; to minimize losses of volatile chemicals that are susceptible to photodegradation),

ii. is consistent with the sampling and analytical methods (e.g., low flow rate; Summa® canisters if analyzing by using EPA Method TO-15), and

iii. is certified clean by the laboratory.

At sites with tetrachloroethene contamination, passive air monitors that are specifically analyzed for tetrachloroethene (i.e., "perc badges") are commonly used to collect indoor and outdoor air samples. If site characterization activities indicate that degradation products of tetrachloroethene also represent a vapor intrusion concern, perc badges may be used to indicate the likelihood of vapor intrusion (i.e., by using tetrachloroethene as a surrogate) followed, as appropriate, by more comprehensive sampling and laboratory analyses to quantify both tetrachloroethene and its degradation products. Perc badge samples ideally should be collected over a twenty-four hour period, but for no less than eight hours.

The following actions should be taken to document conditions during indoor air sampling and ultimately to aid in the interpretation of the sampling results [Section 3]:

a. historic and current uses and storage of volatile chemicals should be identified, especially if sampling within a commercial or industrial building (e.g., use of volatile chemicals in commercial or industrial processes and/or during building maintenance);

b. a product inventory survey documenting sources of volatile chemicals present in the building during the indoor air sampling that could potentially influence the sample results should be completed [Section 2.11.2];

c. the use of heating or air conditioning systems during sampling should be noted;

d. floor plan sketches should be drawn that include the floor layout with sampling locations, chemical storage areas, garages, doorways, stairways, location of basement sumps or subsurface drains and utility perforations through building foundations, HVAC system supply and return registers, compass orientation (north), footings that create separate foundation sections, and any other pertinent information should be completed;

e. outdoor plot sketches should be drawn that include the building site, area streets, outdoor air sampling locations (if applicable), compass orientation (north), and paved areas;

f. weather conditions (e.g., precipitation and indoor and outdoor temperature) and ventilation conditions (e.g., heating system active and windows closed) should be reported; and

g. any pertinent observations, such as spills, floor stains, smoke tube results, odors and readings from field instrumentation (e.g., vapors via PID, ppbRAE, Jerome Mercury Vapor Analyzer, etc.), should be recorded.

Additional documentation that could be gathered to assist in the interpretation of the results includes information about air flow patterns and pressure relationships obtained by using smoke tubes or other devices (especially between floor levels and between suspected contaminant sources and other areas), the barometric pressure and photographs to accompany floor plan sketches.

The field sampling team should maintain a sample log sheet summarizing the following:

a. sample identification,

b. date and time of sample collection,

c. sampling height,

d. identity of samplers,

e. sampling methods and devices,

f. depending upon the method, volume of air sampled,

g. if canisters are used, vacuum of canisters before and after samples collected, and

h. chain of custody protocols and records used to track samples from sampling point to analysis.

2.7.4 Outdoor air

Outdoor air samples should be collected simultaneously with indoor air samples to evaluate the potential influence, if any, of outdoor air on indoor air quality. They may also be collected simultaneously with soil vapor samples to identify potential outdoor air interferences associated with infiltration of outdoor air into the sampling apparatus while the soil vapor was collected. To obtain representative samples that meet the data quality objectives, outdoor air samples should be collected in a manner consistent with that for indoor air samples (described in Section 2.7.3).

The following actions should be taken to document conditions during outdoor air sampling and ultimately to aid in the interpretation of the sampling results [Section 3]:

a. outdoor plot sketches should be drawn that include the building site, area streets, outdoor air sampling locations, the location of potential interferences (e.g., gasoline stations, factories, lawn movers, etc.), compass orientation (north), and paved areas;

b. weather conditions (e.g., precipitation and outdoor temperature) should be reported; and

c. any pertinent observations, such as odors, readings from field instrumentation, and significant activities in the vicinity (e.g., operation of heavy equipment or dry cleaners) should be recorded.

2.7.5 Tracer gas

When collecting soil vapor samples as part of a vapor intrusion evaluation, a tracer gas serves as a quality assurance/quality control measure to verify the integrity of the soil vapor probe seal. Without the use of a tracer, there is no way to verify that a soil vapor sample has not been diluted by outdoor air.

Depending on the nature of the contaminants of concern, a number of different compounds can be used as a tracer. Typically, sulfur hexafluoride (SF_6) or helium are used as tracers because they are readily available, have low toxicity, and can be monitored with portable measurement devices. Butane and propane (or other gases) could also be used as a tracer in some situations. Compounds other than those mentioned here may be appropriate, provided they meet project-specific data quality objectives. Where applicable, steps should be taken to ensure that the gas used by the laboratory to clean the air sampling container is different from the gas used as a tracer during sampling (e.g., helium).

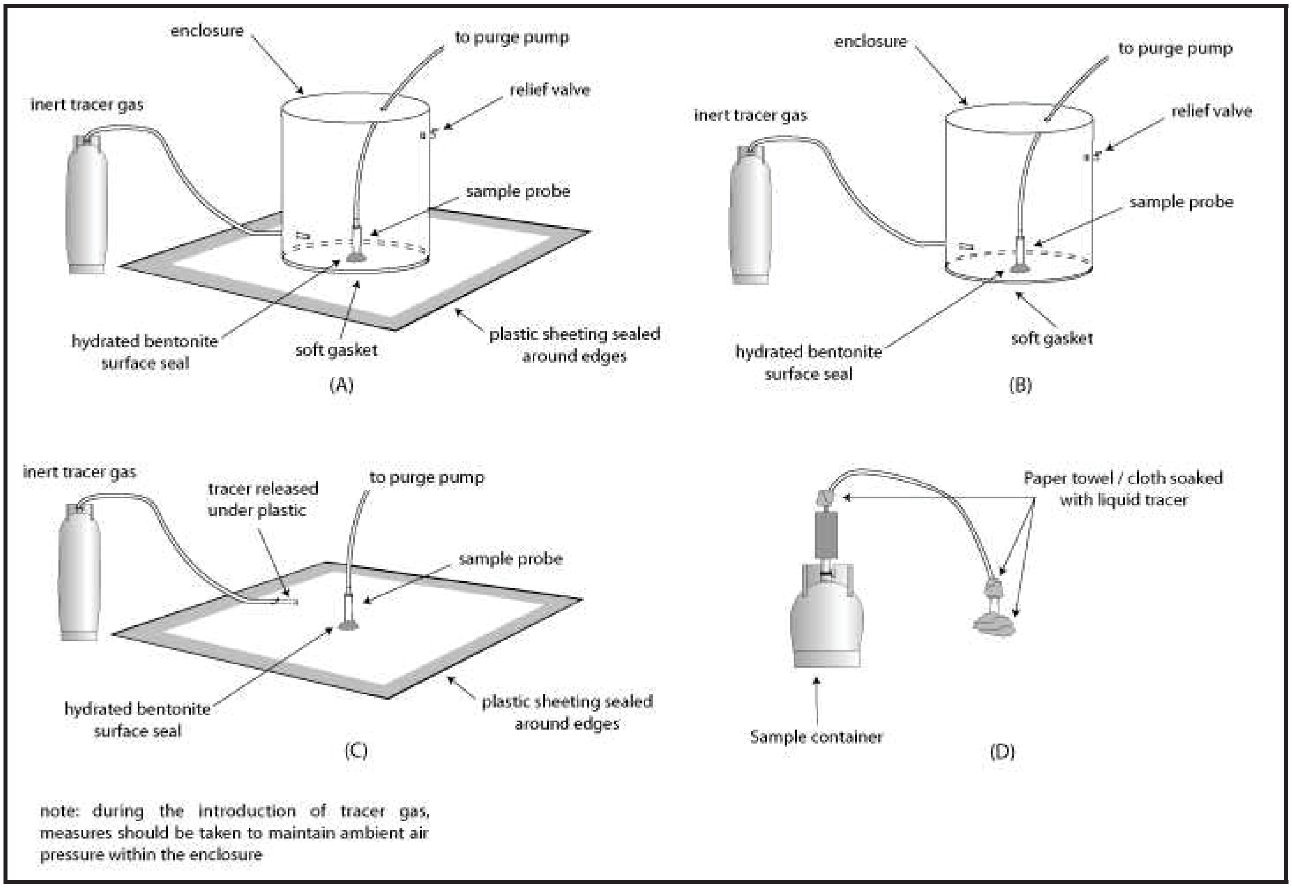
The protocol for using a tracer gas is straightforward: simply enrich the atmosphere in the immediate vicinity of the area where the probe intersects the ground surface with the tracer gas, and measure a vapor sample from the probe for the presence of high concentrations (> 10%) of the tracer. A cardboard box, a plastic pail, or even a garbage bag can serve to keep the tracer gas in contact with the probe during the testing. If there are concerns about infiltration of ambient air through other parts of the sampling train (such as around the fittings, not just at the probe/ground interface), then consideration should be given to ensuring that the tracer gas is in contact with the entire sampling apparatus. In these cases, field personnel may prefer to use a liquid tracer — soaking paper towels with a liquid tracer and placing the towels around the probe/ground interface, around fittings, and/or in the corner of a shroud.

There are two basic approaches to testing for the tracer gas:

1. include the tracer gas in the list of target analytes reported by the laboratory; or
2. use a portable monitoring device to analyze a sample of soil vapor for the tracer prior to and after sampling for the compounds of concern. (Note that the tracer gas samples can be collected via syringe, Tedlar® bag etc. They need not be collected in Summa® canisters or minicans.)

The advantage of the second approach is that the real time tracer sampling results can be used to confirm the integrity of the probe seals prior to formal sample collection.

Figure 2.4 depicts common methods for using tracer gas. In examples a, b and c, the tracer gas is released in the enclosure prior to initially purging the sample point. Care should be taken to avoid excessive purging prior to sample collection. Care should also be taken to prevent pressure build-up in the enclosure during introduction of the tracer gas. Inspection of the installed sample probe, specifically noting the integrity of the surface seal and the porosity of the soil in which the probe is installed, will help to determine the tracer gas setup. Figure 2.4a may be most effective at preventing tracer gas infiltration, however, it may not be appropriate in some situations depending on site-specific conditions. Figures 2.4b and 2.4c may be sufficient for probes installed in tight soils with well-constructed surface seals. Figure 2d provides an example of using a liquid tracer. In all cases, the same tracer gas application should be used for all probes at any given site.



note: during the introduction of tracer gas, measures should be taken to maintain ambient air pressure within the enclosure

Figure 2.4
Schematics of generic tracer gas applications when collecting soil vapor samples

Because minor leakage around the probe seal should not materially affect the usability of the soil vapor sampling results, the mere presence of the tracer gas in the sample should not be a cause for alarm. Consequently, portable field monitoring devices with detection limits in the low ppm range are more than adequate for screening samples for the tracer. If high concentrations (> 10%) of tracer gas are observed in a sample, the probe seal should be enhanced to reduce the infiltration of outdoor air.

Where permanent or semi-permanent sampling probes are used, tracer gas samples should be collected at each of the sampling probes during the initial stages of a soil vapor sampling program. If the results of the initial samples indicate that the probe seals are adequate, reducing the number of locations at which tracer gas samples are employed may be considered. At a minimum, tracer gas samples should be collected with at least 10% of the soil vapor samples collected in subsequent sampling rounds. When using permanent soil vapor probes as part of a long-term monitoring program, annual testing of the probe integrity is recommended. Where temporary probes are used, tracer gas should be used at every sampling location, every time.

Supplement D - Decontamination

1.0 Purpose and Scope

This SOP supplement provides guidance to project personnel for the decontamination of field equipment, but does not specifically address all of the required procedures, and is intended to be used in conjunction with available operating manuals supplied by equipment manufacturers. Decontamination must be performed in accordance with other relevant project-specific documentation, including work plans, sampling and analysis plans, health and safety plans, quality assurance project plans, and additional SOPs, as appropriate.

2.0 General

Decontamination of sampling and heavy equipment, as well as personal protective equipment (PPE), is performed as a quality assurance measure and a safety precaution. Decontamination prevents cross-contamination between samples, minimizes contaminant transport (it is critical that equipment used in one area not serve as a source of contamination of another), and helps to maintain a clean working environment for the safety of field personnel. General decontamination requirements will be specified in project plans. Note: All decontamination procedures must comply with specific requirements when sampling for per- and polyfluoroalkyl substances (PFAS).

Field personnel will review and be familiar with required decontamination procedures, including those for cleaning field equipment, proper storage of cleaned field equipment, and for properly disposing of waste generated from decontamination procedures. Decontamination conducted on site will be performed in a designated, controlled location that will not impact collected samples. Decontamination activities will be appropriately documented in the field notes. Wastes generated in the field will be collected, stored, and properly disposed in accordance with applicable project requirements.

Decontamination consists of physically removing contaminants from the surface of equipment and/or materials potentially exposed to contaminants. A decontamination plan assumes that protective clothing and equipment that leave the exclusion zone are contaminated, and a system is established to wash and rinse non-disposable equipment and dispose of disposable equipment.

Decontamination procedures will vary depending on project-specific requirements as listed in the project-specific work plan, type of equipment, and the required analytical parameters. The effectiveness of the decontamination procedure is verified by collecting and analyzing equipment blank samples (as required).

To minimize or eliminate the need for decontamination, it is recommended that dedicated disposable equipment be used whenever possible.

Document all decontamination activities, and flag equipment with decontamination issues, in fieldwork log books and related fieldwork forms.

3.0 Responsibilities

3.1 Fieldwork Manager

The Fieldwork Manager (FM), in conjunction with the Project Manager (PM), is responsible for overall compliance with SOPs. The FM, or designee, is responsible for ensuring and verifying that all equipment and materials are decontaminated, as required.

3.2 Site Personnel

Site personnel are required to read SOP documentation before engaging in fieldwork activities. The FM will inform personnel who will be responsible for decontamination of specific equipment.

4.0 Procedures

These are standard (typically applicable) operating procedures, which may be varied or changed as required, dependent on site conditions, equipment limitations or limitations imposed by the procedure. In all instances, the ultimate procedures employed should be documented. All decontamination procedures are to be modified, as appropriate, when sampling for PFAS (see applicable sampling SOPs).

Decontaminate non-disposable sampling equipment used at the site both before activities begin and after each sample is collected. Decontaminate drilling and excavation equipment both before activities begin and between each investigation location. Take care that materials and solutions used for decontamination procedures are themselves not hazardous or could potentially contaminate samples (e.g., solvents, acids).

4.1 Decontamination Area

A localized decontamination area should be establish where decontamination fluids and soil wastes can be managed and controlled with minimal risk to the surrounding environment. Decontamination should be performed in a non-contaminated area (as possible), that is large enough to allow temporary storage of cleaned equipment and materials before use, as well as to stage drums of decontamination investigation-derived waste (IDW).

In the case of large decontamination areas (e.g., hollow-stem-auger decontamination), line each area with a heavy-gauge plastic sheeting and include a collection system designed to capture potential decontamination IDW. Decontamination areas will, in all cases, be laid out in such a way as to prevent overspray while performing equipment and personnel decontamination.

Smaller decontamination tasks, such as the cleaning of soil or water sampling equipment, and Geoprobe drive rods and barrels, may take place at the sampling location. In this case, all required decontamination supplies and equipment must be brought to the sampling location. This decontamination will use various containment systems to capture the decontamination IDW, which can then be transferred to larger containers as needed.

4.2 Health and Safety Precautions

Decontamination procedures may involve exposure to contaminants in site media and/or dangerous materials used during decontamination (e.g., solvents or acids), and physical hazards associated with the operation of the decontamination equipment. All work should be performed in accordance with the HASP, including decontamination of PPE. Safety Data Sheets for any solvents/chemical stored or used during fieldwork should be available at the site. At a minimum, eye protection, safety shoes, and gloves are to be worn. There are several types of gloves that may be worn, depending on equipment being cleaned, type and extent of equipment contamination, and cleaning solutions or solvents being used. Nitrile gloves (or similar) may be worn when the equipment to be decontaminated is not heavily coated with constituents such as tars/oils. In cases where heavy accumulations of tars/oils are present on the equipment, neoprene or similar chemically compatible gloves are recommended. If a potential for skin contact exists, protective clothing should be worn.

4.3 General Equipment Decontamination Procedures

All sampling equipment must be decontaminated before use to ensure that contaminants have not been introduced to the sample during the sampling process through contact with the sampling device. Monitoring well riser pipes, screens and drilling augers must also be decontaminated, as appropriate, to prevent the introduction of contaminants.

Unless the decontaminated sampling devices that will come in contact with samples are to be used immediately, they should be wrapped in aluminum foil, shiny side out, and stored in a designated “clean” area. Field equipment can also be stored in plastic bags to eliminate the potential for contamination. Larger size equipment, such drill rods, backhoe buckets, etc. need not be wrapped or covered, but must not be stored directly on the ground surface. Field equipment should be inspected and decontaminated prior to use if the equipment has been stored for long periods of time.

4.4 Decontamination Equipment

The following is a list equipment and materials typically needed to perform decontamination:

- Health and safety equipment, including appropriate PPE
- Plastic sheeting (to serve as secondary containment for liquids and protect equipment)
- Brushes and flat-bladed scrapers
- Garden-type water sprayers (without oil-lubricated, moving parts)
- High-pressure washer or portable steam cleaner
- Sump or collection system for contaminated liquid
- Wash basins and buckets
- Spray and rinse bottles
- Potable water, distilled/deionized water (DIW), and laboratory-grade detergent

- Isopropyl alcohol (free of ketones) or methanol (can be wipes or diluted with DIW)
- Airtight, sealable plastic baggies
- Plastic waste bags
- Leak-tight liquid waste containers (55-gallon drums or similar)
- Bulk solid waste containers (55-gallon drums, or similar)

4.5 Specific Decontamination Procedures

For all procedures, decontamination fluids and other wastes may be transferred from smaller to larger containers (e.g., 55-gallon drums or 5-gallon buckets, with tight fitting lids, and transported to the IDW storage facility.

4.5.1 Sampling Equipment

Conduct consistent decontamination of sampling equipment to ensure the quality of the samples collected. Decontaminate all sampling equipment that comes into contact with potentially contaminated samples. Disposable equipment intended for one-time use that is factory-wrapped generally does not need to be decontaminated before use, unless evidence of contamination is present.

Disposable equipment (e.g., water bailers, plastic scoops, VOC sampling syringes) is preferred over reusable equipment; use wherever appropriate. Decontaminate sampling equipment, including split-spoon samplers, Geoprobe Macro-Core cutting shoes, hand augers, reusable bailers, spoons, trowels, and shovels used to collect samples for chemical analyses before sampling at a new sampling location. All decontamination fluids will be captured in a containment system as appropriate.

Take the following steps to decontaminate non-dedicated, non-disposable sampling equipment:

1. Remove as much gross contamination (such as pieces of soil) as possible off equipment at the sampling site.
2. Wash water-resistant equipment thoroughly and vigorously with potable water containing non-phosphate laboratory-grade detergent such as Liquinox®, Alconox®, or equivalent, and using a bristle brush or similar utensil to remove any remaining residual contamination.
3. Rinse equipment thoroughly with potable water.
4. Repeat the first three steps as necessary until all residue is removed.
5. Rinse equipment thoroughly with DIW.
6. If metals are a constituent of interest, rinse with 10% nitric acid and then with DIW.
7. If organics are constituents of interest, rinse with methanol and allow to air dry on a clean surface.

8. Air dry at a location where dust or other fugitive contaminants may not contact the sample equipment. Alternatively, wet equipment maybe dried with a clean, disposable paper towel to assist the drying process. All equipment should be dry before reuse.
9. If the equipment is not used soon after decontamination, it should be covered or wrapped in new, oil-free aluminum foil or new, unused plastic bags to protect the decontaminated equipment from fugitive contaminants before reuse.
10. Store decontaminated equipment at a secure, unexposed location out of the weather and any potential contaminant exposure.

4.5.2 Groundwater Sampling Pumps

[Note: This procedure does not apply to dedicated submersible pumps which have been permanently installed in wells.] Proper decontamination between wells is essential to avoid introducing contaminants from the sampling equipment to another well. If peristaltic pumps are being used, it is necessary only to replace the pump head tubing after sampling each well. If sampling with submersible pumps that come into direct contact with groundwater, the equipment must be decontaminated. The following procedure will be used to decontaminate submersible pumps and non-dedicated tubing before and between sample collection points, as well as the end of each day of use.

<u>Preparation</u>

Pre-clean appropriately sized buckets and prepare cleaning solutions (detergent solution, tap water rinse, distilled/deionized water rinse) and field blank water.

<u>Detergent wash and tap water rinse</u>

a) Put on disposable, powderless gloves. Rest pump in a washbasin or pail partially filled with detergent solution and clean exterior of pump and tubing with a soft brush. Rinse thoroughly with tap water. (DIW can be used instead of tap water, but is less efficient in detergent removal and requires a greater volume of water than tap water).
b) Place pump into bucket, add detergent solution to level above pump intake, and route the intake and discharge ends of pump tubing into the bucket. Begin pumping. Circulate detergent solution for several minutes. If possible, pump detergent solution through tubing at alternating high and low speeds.
c) Change gloves. Manually rinse detergent from pump, tubing and bucket with tap water.
d) Place pump into bucket, add tap water to level above pump intake, and route the intake and discharge ends of pump tubing into the bucket. Begin pumping. Circulate tap water for several minutes. If possible, pump tap water through tubing at alternating high and low speeds. Replace water in bucket and repeat cycle until no sudsing is observed. Change gloves as needed.

DIW Rinse

If a pump will be used to collect inorganic samples, manually rinse pump and tubing with DIW, then place in clean bucket, add DIW to level above pump intake, and route the discharge end of pump tubing outside the bucket. Begin pumping to rinse DIW through the equipment without recirculating. Collect water for use as a field blank, as required, from the pump discharge.

Equipment Storage

1. Place pump into a clean, non-contaminating storage bag and tie the bag shut.
2. Cover the pump reel and tubing with plastic bags or sheeting for transport to the next site.
3. On reaching the next monitoring well, place the pump in the well casing and wipe dry the power and discharge lines with a chemical-free paper towel as the pump is lowered.
4. For long-term storage (longer than 3 days), the pump and exterior and interior of the tubing must be dry before being placed into plastic bags.

4.5.3 Measurement Devices & Monitoring Equipment

For water quality instruments, oil-water interface indicators, water level indicators, continuous water level data loggers, and other field instruments that have the potential to come into contact with site media, at a minimum, wash with dilute laboratory-grade detergent (e.g., Alconox) and double rinse with tap water and DIW before and after each use or by using a similar procedure as discussed in Section 4.4.1. All decontamination fluids will be captured in a containment system as appropriate.

4.5.4 Subsurface Drilling Equipment

Drilling equipment and associated materials (drill bits, augers, and drilling stems) will be decontaminated by the drilling contractor prior to any drilling operations and between borings. These decontamination activities should be performed in the defined decontamination area as described in Section 4.1.

All down-hole Geoprobe tools (drive rods, Macro-Core barrels, etc.) that come in direct contact with potentially contaminated soil or groundwater shall be decontaminated between each sampling location, and may take place at the sampling location using a mobile decontamination platform with a containment system or other means to capture the decontamination IDW.

Decontamination will be performed using the following basic sequence:

1. Remove as much gross contamination as possible off equipment at the sampling site.
2. Wash equipment thoroughly and vigorously with potable water using a high-pressure washer and/or steam cleaner. A bristle brush is also suggested to remove any persistent gross contamination.
3. Air dry at a location where dust or other contaminants may not contact the sample equipment. All equipment should be dry before reuse.
4. Store decontaminated equipment at a location away from any potential exposure from fugitive contamination.

4.5.5 Heavy Equipment

Wash earthwork equipment (such as excavators and back-hoes) with high-pressure potable water, if possible, before leaving a contaminated area using similar steps as outlined in Section 4.4.4, otherwise the equipment may be moved to the decontamination area discussed in Section 4.1. Hand washing with a brush and detergent, followed by a potable water rinse, can also be used. In some instances, tires and tracks of equipment maybe only need to be thoroughly brushed with a dry brush. Take particular care with the components in direct contact with contaminants, such as tires and backhoe buckets.

Any part of earthwork equipment that may come in direct contact with analytical samples (that is, sampling from the excavator bucket) must be thoroughly decontaminated before excavation activities and between sample locations.

4.6 Quality Assurance/Quality Control

To ensure that sampling equipment is cleaned properly and sample cross-contamination does not occur, field rinsate blanks may be collected if required by project plans. A rinsate blank will consist of pouring deionized organic-free water over the specific sampling device or pouring it through the device after it has been cleaned. The rinsate sample is collected in the field under the same conditions as occurred for the sampling activity, and is handled exactly like any other samples collected that day.

Generally, one rinsate blank is collected each day of sampling or at a rate of 1 per 20 for each parameter, whichever is less, for each matrix being sampled or for each type of sampling instrument decontaminated and reused per day. The rinsate samples are analyzed for the specific parameters of concern (for each matrix). Rinsate blanks should be labeled like a routine environmental sample, and laboratory analysis instructions should be included on the chain-of-custody form. Rinsate blanks are not required if dedicated sampling equipment is used. Additional quality assurance samples may be collected if deemed necessary by project specific requirements.

Supplement E - PFAS Sampling Guidance

NEW YORK STATE OF OPPORTUNITY
Department of Environmental Conservation

SAMPLING, ANALYSIS, AND ASSESSMENT OF PER- AND POLYFLUOROALKYL SUBSTANCES (PFAS)

Under NYSDEC's Part 375 Remedial Programs

April 2023

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April 2023

ERRATA SHEET for

SAMPLING, ANALYSIS, AND ASSESSMENT OF PER- AND POLYFLUOROALKYL SUBSTANCES (PFAS) Under NYSDEC's Part 375 Remedial Programs Issued January 17, 2020

Citation and Page Number	Current Text	Corrected Text	Date
Title of Appendix I, page 32	Appendix H	Appendix I	2/25/2020
Document Cover, page 1	Guidelines for Sampling and Analysis of PFAS	Sampling, Analysis, and Assessment of Per- and Polyfluoroalkyl Substances (PFAS) Under NYSDEC's Part 375 Remedial Programs	9/15/2020
Data Assessment and Application to Site Cleanup Page 3	Until such time as Ambient Water Quality Standards (AWQS) and Soil Cleanup Objectives (SCOs) for PFOA and PFOS are published	Until such time as Soil Cleanup Objectives (SCOs) for PFOA and PFOS are published	3/28/2023
Water Sample Results Page 3	PFOA and PFOS should be further assessed and considered as potential contaminants of concern in groundwater or surface water if PFOA or PFOS is detected in any water sample at or above 10 ng/L (ppt) and is determined to be attributable to the site, either by a comparison of upgradient and downgradient levels, or the presence of soil source areas, as defined below.	NYSDEC has adopted ambient water quality guidance values for PFOA and PFOS. Groundwater samples should be compared to the human health criteria of 6.7 ng/l (ppt) for PFOA and 2.7 ng/l (ppt) for PFOS. These guidance values also include criteria for surface water for PFOS applicable for aquatic life, which may be applicable at some sites. Drinking water sample results should be compared to the NYS maximum contaminant level (MCL) of 10 ng/l (ppt).Analysis to determine if PFOA and PFOS concentrations are attributable to the site should include a comparison between upgradient and downgradient levels, and the presence of soil source areas, as defined below.	3/28/2023
Soil Sample Results Page 3	Soil cleanup objectives for PFOA and PFOS have been proposed in an upcoming revision to 6 NYCRR Part 375-6. Until SCOs are in effect, the following are to be used as guidance values:	NYSDEC will delay adding soil cleanup objectives for PFOA and PFOS to 6 NYCRR Part 375-6 until the PFAS rural soil background study has been completed. Until SCOs are in effect, the following are to be used as guidance values:	3/28/2023
Protection of Groundwater Page 3	PFOA (ppb) 1.1 PFOS (ppb) 3.7	PFOA (ppb) 0.8 PFOS (ppb) 1.0	3/28/2023

Citation and Page Number	Current Text	Corrected Text	Date
Footnote 2 Page 3	The movement of PFAS in the environment is being aggressively researched at this time; that research will eventually result in more accurate models for the behaviors of these chemicals. In the meantime, DEC has calculated the guidance value for the protection of groundwater using the same procedure used for all other chemicals, as described in Section 7.7 of the Technical Support Document (http://www.dec.ny.gov/docs/remediation_hudson_pdf/techsuppdoc.pdf).	The Protection of Groundwater values are based on the above referenced ambient groundwater guidance values. Details on that calculation are available in the following document, prepared for the February 2022 proposed changes to Part 375 (https://www.dec.ny.gov/docs/remediation_hudson_pdf/part375techsupport.pdf). The movement of PFAS in the environment is being aggressively researched at this time; that research will eventually result in more accurate models for the behaviors of these chemicals. In the meantime, DEC has calculated the guidance value for the protection of groundwater using the same procedure used for all other chemicals, as described in Section 7.7 of the Technical Support Document (http://www.dec.ny.gov/docs/remediation_hudson_pdf/techsuppdoc.pdf).	3/28/2023
Testing for Imported Soil Page 4	If the concentrations of PFOA and PFOS in leachate are at or above 10 ppt (the Maximum Contaminant Levels established for drinking water by the New York State Department of Health), then the soil is not acceptable.	If the concentrations of PFOA and PFOS in leachate are at or above the ambient water quality guidance values for groundwater, then the soil is not acceptable.	3/28/2023
Routine Analysis, page 9	“However, laboratories analyzing environmental samples…PFOA and PFOS in drinking water by EPA Method 537, 537.1 or ISO 25101.”	“However, laboratories analyzing environmental samples…PFOA and PFOS in drinking water by EPA Method 537, 537.1, ISO 25101, or Method 533.”	9/15/2020
Additional Analysis, page 9, new paragraph regarding soil parameters	None	“In cases where site-specific cleanup objectives for PFOA and PFOS are to be assessed, soil parameters, such as Total Organic Carbon (EPA Method 9060), soil pH (EPA Method 9045), clay content (percent), and cation exchange capacity (EPA Method 9081), should be included in the analysis to help evaluate factors affecting the leachability of PFAS in site soils.”	9/15/2020

Citation and Page Number	Current Text	Corrected Text	Date
Data Assessment and Application to Site Cleanup Page 10	Until such time as Ambient Water Quality Standards (AWQS) and Soil Cleanup Objectives (SCOs) for PFAS are published, the extent of contaminated media potentially subject to remediation should be determined on a case-by-case basis using the procedures discussed below and the criteria in DER-10. Target levels for cleanup of PFAS in other media, including biota and sediment, have not yet been established by the DEC.	Until such time as Ambient Water Quality Standards (AWQS) and Soil Cleanup Objectives (SCOs) for PFOA and PFOS are published, the extent of contaminated media potentially subject to remediation should be determined on a case-by-case basis using the procedures discussed below and the criteria in DER-10. Preliminary target levels for cleanup of PFOA and PFOS in other media, including biota and sediment, have not yet been established by the DEC.	9/15/2020
Water Sample Results Page 10	PFAS should be further assessed and considered as a potential contaminant of concern in groundwater or surface water (…) If PFAS are identified as a contaminant of concern for a site, they should be assessed as part of the remedy selection process in accordance with Part 375 and DER-10.	PFOA and PFOS should be further assessed and considered as potential contaminants of concern in groundwater or surface water (…) If PFOA and/or PFOS are identified as contaminants of concern for a site, they should be assessed as part of the remedy selection process in accordance with Part 375 and DER-10.	9/15/2020

Citation and Page Number	Current Text	Corrected Text	Date
Soil Sample Results, page 10	"The extent of soil contamination for purposes of delineation and remedy selection should be determined by having certain soil samples tested by Synthetic Precipitation Leaching Procedure (SPLP) and the leachate analyzed for PFAS. Soil exhibiting SPLP results above 70 ppt for either PFOA or PFOS (individually or combined) are to be evaluated during the cleanup phase."	"Soil cleanup objectives for PFOA and PFOS will be proposed in an upcoming revision to 6 NYCRR Part 375-6. Until SCOs are in effect, the following are to be used as guidance values. " [Interim SCO Table] "PFOA and PFOS results for soil are to be compared against the guidance values listed above. These guidance values are to be used in determining whether PFOA and PFOS are contaminants of concern for the site and for determining remedial action objectives and cleanup requirements. Site-specific remedial objectives for protection of groundwater can also be presented for evaluation by DEC. Development of site-specific remedial objectives for protection of groundwater will require analysis of additional soil parameters relating to leachability. These additional analyses can include any or all the parameters listed above (soil pH, cation exchange capacity, etc.) and/or use of SPLP. As the understanding of PFAS transport improves, DEC welcomes proposals for site-specific remedial objectives for protection of groundwater. DEC will expect that those may be dependent on additional factors including soil pH, aqueous pH, % organic carbon, % Sand/Silt/Clay, soil cations: K, Ca, Mg, Na, Fe, Al, cation exchange capacity, and anion exchange capacity. Site-specific remedial objectives should also consider the dilution attenuation factor (DAF). The NJDEP publication on DAF can be used as a reference: https://www.nj.gov/dep/srp/guidance/rs/daf.pdf. "	9/15/2020

Citation and Page Number	Current Text	Corrected Text	Date
Testing for Imported Soil Page 11	Soil imported to a site for use in a soil cap, soil cover, or as backfill is to be tested for PFAS in general conformance with DER-10, Section 5.4(e) for the PFAS Analyte List (Appendix F) using the analytical procedures discussed below and the criteria in DER-10 associated with SVOCs. If PFOA or PFOS is detected in any sample at or above 1 µg/kg, then soil should be tested by SPLP and the leachate analyzed for PFAS. If the SPLP results exceed 10 ppt for either PFOA or PFOS (individually) then the source of backfill should be rejected, unless a site-specific exemption is provided by DER. SPLP leachate criteria is based on the Maximum Contaminant Levels proposed for drinking water by New York State's Department of Health, this value may be updated based on future Federal or State promulgated regulatory standards. Remedial parties have the option of analyzing samples concurrently for both PFAS in soil and in the SPLP leachate to minimize project delays. Category B deliverables should be submitted for backfill samples, though a DUSR is not required.	Testing for PFAS should be included any time a full TAL/TCL analyte list is required. Results for PFOA and PFOS should be compared to the applicable guidance values. If PFOA or PFOS is detected in any sample at or above the guidance values then the source of backfill should be rejected, unless a site-specific exemption is provided by DER based on SPLP testing, for example. If the concentrations of PFOA and PFOS in leachate are at or above 10 ppt (the Maximum Contaminant Levels established for drinking water by the New York State Department of Health), then the soil is not acceptable. PFOA, PFOS and 1,4-dioxane are all considered semi-volatile compounds, so composite samples are appropriate for these compounds when sampling in accordance with DER-10, Table 5.4(e)10. Category B deliverables should be submitted for backfill samples, though a DUSR is not required.	9/15/2020

Citation and Page Number	Current Text	Corrected Text	Date
Footnotes	None	[1] TOP Assay analysis of highly contaminated samples, such as those from an AFFF (aqueous film-forming foam) site, can result in incomplete oxidation of the samples and an underestimation of the total perfluoroalkyl substances. [2] The movement of PFAS in the environment is being aggressively researched at this time; that research will eventually result in more accurate models for the behaviors of these chemicals. In the meantime, DEC has calculated the soil cleanup objective for the protection of groundwater using the same procedure used for all other chemicals, as described in Section 7.7 of the Technical Support Document (http://www.dec.ny.gov/docs/remediation_hudson_pdf/techsuppdoc.pdf).	9/15/2020
Additional Analysis, page 9	In cases… soil parameters, such as Total Organic Carbon (EPA Method 9060), soil…	In cases… soil parameters, such as Total Organic Carbon (Lloyd Kahn), soil…	1/8/2021
Appendix A, General Guidelines, fourth bullet	List the ELAP-approved lab(s) to be used for analysis of samples	List the ELAP- certified lab(s) to be used for analysis of samples	1/8/2021
Appendix E, Laboratory Analysis and Containers	Drinking water samples collected using this protocol are intended to be analyzed for PFAS by ISO Method 25101.	Drinking water samples collected using this protocol are intended to be analyzed for PFAS by EPA Method 537, 537.1, 533, or ISO Method 25101	1/8/2021
Water Sample Results Page 9	"In addition, further assessment of water may be warranted if either of the following screening levels are met: a. any other individual PFAS (not PFOA or PFOS) is detected in water at or above 100 ng/L; or b. total concentration of PFAS (including PFOA and PFOS) is detected in water at or above 500 ng/L"	Deleted	6/15/2021

Citation and Page Number	Current Text	Corrected Text	Date
Routine Analysis, Page XX	Currently, New York State Department of Health's Environmental Laboratory Approval Program (ELAP)… criteria set forth in the DER's laboratory guidelines for PFAS in non-potable water and solids (Appendix H - Laboratory Guidelines for Analysis of PFAS in Non-Potable Water and Solids).	Deleted	5/31/2022
Analysis and Reporting, Page XX	As of October 2020, the United States Environmental Protection Agency (EPA) does not have a validated method for analysis of PFAS for media commonly analyzed under DER remedial programs (non-potable waters, solids). DER has developed the following guidelines to ensure consistency in analysis and reporting of PFAS.	Deleted	5/31/2022
Routine Analysis, Page XX	LC-MS/MS analysis for PFAS using methodologies based on EPA Method 537.1 is the procedure to use for environmental samples. Isotope dilution techniques should be utilized for the analysis of PFAS in all media.	EPA Method 1633 is the procedure to use for environmental samples.	
Soil Sample Results, Page XX	Soil cleanup objectives for PFOA and PFOS will be proposed in an upcoming revision to 6 NYCRR Part 375-6	Soil cleanup objectives for PFOA and PFOS have been proposed in an upcoming revision to 6 NYCRR Part 375-6	
Appendix A	"Include in the text… LC-MS/MS for PFAS using methodologies based on EPA Method 537.1"	"Include in the text ….EPA Method 1633"	
Appendix A	"Laboratory should have ELAP certification for PFOA and PFOS in drinking water by EPA Method 537, 537.1, EPA Method 533, or ISO 25101"	Deleted	
Appendix B	"Samples collected using this protocol are intended to be analyzed for PFAS using methodologies based on EPA Method 537.1"	"Samples collected using this protocol are intended to be analyzed for PFAS using EPA Method 1633"	

Citation and Page Number	Current Text	Corrected Text	Date
Appendix C	"Samples collected using this protocol are intended to be analyzed for PFAS using methodologies based on EPA Method 537.1"	"Samples collected using this protocol are intended to be analyzed for PFAS using EPA Method 1633"	
Appendix D	"Samples collected using this protocol are intended to be analyzed for PFAS using methodologies based on EPA Method 537.1"	"Samples collected using this protocol are intended to be analyzed for PFAS using EPA Method 1633"	
Appendix G		Updated to include all forty PFAS analytes in EPA Method 533	
Appendix H		Deleted	
Appendix I	Appendix I	Appendix H	
Appendix H	"These guidelines are intended to be used for the validation of PFAS analytical results for projects within the Division of Environmental Remediation (DER) as well as aid in the preparation of a data usability summary report."	"These guidelines are intended to be used for the validation of PFAS using EPA Method 1633 for projects within the Division of Environmental Remediation (DER)."	
Appendix H	"The holding time is 14 days…"	"The holding time is 28 days…"	
Appendix H, Initial Calibration	"The initial calibration should contain a minimum of five standards for linear fit…"	"The initial calibration should contain a minimum of six standards for linear fit…"	
Appendix H, Initial Calibration	Linear fit calibration curves should have an R^2 value greater than 0.990.	Deleted	
Appendix H, Initial Calibration Verification	Initial Calibration Verification Section	Deleted	
Appendix H	secondary Ion Monitoring Section	Deleted	
Appendix H	Branched and Linear Isomers Section	Deleted	

April 2023

NEW YORK STATE OF OPPORTUNITY | Department of Environmental Conservation

Sampling, Analysis, and Assessment of Per- and Polyfluoroalkyl Substances (PFAS) Under NYSDEC's Part 375 Remedial Programs

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Objective

New York State Department of Environmental Conservation's Division of Environmental Remediation (DER) performs or oversees sampling of environmental media and subsequent analysis of PFAS as part of remedial programs implemented under 6 NYCRR Part 375. To ensure consistency in sampling, analysis, reporting, and assessment of PFAS, DER has developed this document which summarizes currently accepted procedures and updates previous DER technical guidance pertaining to PFAS.

Applicability

All work plans submitted to DEC pursuant to one of the remedial programs under Part 375 shall include PFAS sampling and analysis procedures that conform to the guidelines provided herein.

As part of a site investigation or remedial action compliance program, whenever samples of potentially affected media are collected and analyzed for the standard Target Analyte List/Target Compound List (TAL/TCL), PFAS analysis should also be performed. Potentially affected media can include soil, groundwater, surface water, and sediment. Based upon the potential for biota to be affected, biota sampling and analysis for PFAS may also be warranted as determined pursuant to a Fish and Wildlife Impact Analysis. Soil vapor sampling for PFAS is not required.

Field Sampling Procedures

DER-10 specifies technical guidance applicable to DER's remedial programs. Given the prevalence and use of PFAS, DER has developed "best management practices" specific to sampling for PFAS. As specified in DER-10 Chapter 2, quality assurance procedures are to be submitted with investigation work plans. Typically, these procedures are incorporated into a work plan, or submitted as a stand-alone document (e.g., a Quality Assurance Project Plan). Quality assurance guidelines for PFAS are listed in Appendix A - Quality Assurance Project Plan (QAPP) Guidelines for PFAS.

Field sampling for PFAS performed under DER remedial programs should follow the appropriate procedures outlined for soils, sediments, or other solids (Appendix B), non-potable groundwater (Appendix C), surface water (Appendix D), public or private water supply wells (Appendix E), and fish tissue (Appendix F).

QA/QC samples (e.g. duplicates, MS/MSD) should be collected as specified in DER-10, Section 2.3(c). For sampling equipment coming in contact with aqueous samples only, rinsate or equipment blanks should be collected. Equipment blanks should be collected at a minimum frequency of one per day per site or one per twenty samples, whichever is more frequent.

Analysis and Reporting

The investigation work plan should describe analysis and reporting procedures, including laboratory analytical procedures for the methods discussed below. As specified in DER-10 Section 2.2, laboratories should provide a full Category B deliverable. In addition, a Data Usability Summary Report (DUSR) should be prepared by an independent, third-party data validator. Electronic data submissions should meet the requirements provided at: https://www.dec.ny.gov/chemical/62440.html.

DER has developed a *PFAS Analyte List* (Appendix G) for remedial programs to understand the nature of contamination at sites. It is expected that reported results for PFAS will include, at a minimum, all the compounds listed. If lab and/or matrix specific issues are encountered for any analytes, the DER project manager, in consultation with the DER chemist, will make case-by-case decisions as to whether certain analytes may be temporarily or permanently discontinued from analysis at each site. As with other contaminants that are analyzed for at a site, the *PFAS Analyte List* may be refined for future sampling events based on investigative findings.

Routine Analysis

EPA Method 1633 is the procedure to use for environmental samples. Reporting limits for PFOA and PFOS in aqueous samples should not exceed 2 ng/L. Reporting limits for PFOA and PFOS in solid samples should not exceed 0.5 µg/kg. Reporting limits for all other PFAS in aqueous and solid media should be as close to these limits as possible. If laboratories indicate that they are not able to achieve these reporting limits for the entire *PFAS Analyte List*, site-specific decisions regarding acceptance of elevated reporting limits for specific PFAS can be made by the DER project manager in consultation with the DER chemist. Data review guidelines were developed by DER to ensure data comparability and usability (Appendix H - Data Review Guidelines for Analysis of PFAS in Non-Potable Water and Solids).

Additional Analysis

Additional laboratory methods for analysis of PFAS may be warranted at a site, such as the Synthetic Precipitation Leaching Procedure (SPLP) and Total Oxidizable Precursor Assay (TOP Assay).

In cases where site-specific cleanup objectives for PFOA and PFOS are to be assessed, soil parameters, such as Total Organic Carbon (Lloyd Kahn), soil pH (EPA Method 9045), clay content (percent), and cation exchange capacity (EPA Method 9081), should be included in the analysis to help evaluate factors affecting the leachability of PFAS in site soils.

SPLP is a technique used to determine the mobility of chemicals in liquids, soils and wastes, and may be useful in determining the need for addressing PFAS-containing material as part of the remedy. SPLP by EPA Method 1312 should be used unless otherwise specified by the DER project manager in consultation with the DER chemist.

Impacted materials can be made up of PFAS that are not analyzable by routine analytical methodology. A TOP Assay can be utilized to conceptualize the amount and type of oxidizable PFAS which could be liberated in the environment, which approximates the maximum concentration of perfluoroalkyl substances that could be generated if all polyfluoroalkyl substances were oxidized. For example, some polyfluoroalkyl substances may degrade or transform to form perfluoroalkyl substances (such as PFOA or PFOS), resulting in an increase in perfluoroalkyl substance concentrations as contaminated groundwater moves away from a source. The TOP Assay converts, through oxidation, polyfluoroalkyl substances (precursors) into perfluoroalkyl substances that can be detected by routine analytical methodology.[1]

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[1] TOP Assay analysis of highly contaminated samples, such as those from an AFFF (aqueous film-forming foam) site, can result in incomplete oxidation of the samples and an underestimation of the total perfluoroalkyl substances.

Commercial laboratories have adopted methods which allow for the quantification of targeted PFAS in air and biota. The EPA's Office of Research and Development (ORD) is currently developing methods which allow for air emissions characterization of PFAS, including both targeted and non-targeted analysis of PFAS. Consult with the DER project manager and the DER chemist for assistance on analyzing biota/tissue and air samples.

Data Assessment and Application to Site Cleanup

Until such time as Soil Cleanup Objectives (SCOs) for PFOA and PFOS are published, the extent of contaminated media potentially subject to remediation should be determined on a case-by-case basis using the procedures discussed below and the criteria in DER-10. Preliminary target levels for cleanup of PFOA and PFOS in other media, including biota and sediment, have not yet been established by the DEC.

Water Sample Results

NYSDEC has adopted ambient water quality guidance values for PFOA and PFOS. Groundwater samples should be compared to the human health criteria of 6.7 ng/l (ppt) for PFOA and 2.7 ng/l (ppt) for PFOS. These human health criteria should also be applied to surface water that is used as a water supply. This guidance also includes criteria for surface water for PFOS applicable for aquatic life, which may be applicable at some sites. Drinking water sample results should be compared to the NYS maximum contaminant level (MCL) of 10 ng/l (ppt). Analysis to determine if PFOA and PFOS concentrations are attributable to the site should include a comparison between upgradient and downgradient levels, and the presence of soil source areas, as defined below.

If PFOA and/or PFOS are identified as contaminants of concern for a site, they should be assessed as part of the remedy selection process in accordance with Part 375 and DER-10.

Soil Sample Results

NYSDEC will delay adding soil cleanup objectives for PFOA and PFOS to 6 NYCRR Part 375-6 until the PFAS rural soil background study has been completed. Until SCOs are in effect, the following are to be used as guidance values:

Guidance Values for Anticipated Site Use	PFOA (ppb)	PFOS (ppb)
Unrestricted	0.66	0.88
Residential	6.6	8.8
Restricted Residential	33	44
Commercial	500	440
Industrial	600	440
Protection of Groundwater[2]	0.8	1.0

PFOA and PFOS results for soil are to be compared against the guidance values listed above. These guidance values are to be used in determining whether PFOA and PFOS are contaminants of concern for the site and for determining remedial action objectives and cleanup requirements. Site-specific remedial objectives for protection of groundwater can also be presented for evaluation by DEC. Development of site-specific remedial objectives for protection of groundwater will require analysis of additional soil parameters relating to leachability. These

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[2] The Protection of Groundwater values are based on the above referenced ambient groundwater guidance values. Details on that calculation are available in the following document, prepared for the February 2022 proposed changes to Part 375 (https://www.dec.ny.gov/docs/remediation_hudson_pdf/part375techsupport.pdf). The movement of PFAS in the environment is being aggressively researched at this time; that research will eventually result in more accurate models for the behaviors of these chemicals. In the meantime, DEC has calculated the guidance value for the protection of groundwater using the same procedure used for all other chemicals, as described in Section 7.7 of the Technical Support Document (http://www.dec.ny.gov/docs/remediation_hudson_pdf/techsuppdoc.pdf).

additional analyses can include any or all the parameters listed above (soil pH, cation exchange capacity, etc.) and/or use of SPLP.

As the understanding of PFAS transport improves, DEC welcomes proposals for site-specific remedial objectives for protection of groundwater. DEC will expect that those may be dependent on additional factors including soil pH, aqueous pH, % organic carbon, % Sand/Silt/Clay, soil cations: K, Ca, Mg, Na, Fe, Al, cation exchange capacity, and anion exchange capacity. Site-specific remedial objectives should also consider the dilution attenuation factor (DAF). The NJDEP publication on DAF can be used as a reference: https://www.nj.gov/dep/srp/guidance/rs/daf.pdf.

Testing for Imported Soil

Testing for PFAS should be included any time a full TAL/TCL analyte list is required. Results for PFOA and PFOS should be compared to the applicable guidance values. If PFOA or PFOS is detected in any sample at or above the guidance values then the source of backfill should be rejected, unless a site-specific exemption is provided by DER based on SPLP testing, for example. If the concentrations of PFOA and PFOS in leachate are at or above the ambient water quality guidance values for groundwater, then the soil is not acceptable.

PFOA, PFOS and 1,4-dioxane are all considered semi-volatile compounds, so composite samples are appropriate for these compounds when sampling in accordance with DER-10, Table 5.4(e)10. Category B deliverables should be submitted for backfill samples, though a DUSR is not required.

Appendix A - Quality Assurance Project Plan (QAPP) Guidelines for PFAS

The following guidelines (general and PFAS-specific) can be used to assist with the development of a QAPP for projects within DER involving sampling and analysis of PFAS.

General Guidelines in Accordance with DER-10

- Document/work plan section title – Quality Assurance Project Plan
- Summarize project scope, goals, and objectives
- Provide project organization including names and resumes of the project manager, Quality Assurance Officer (QAO), field staff, and Data Validator
    - The QAO should not have another position on the project, such as project or task manager, that involves project productivity or profitability as a job performance criterion
- List the ELAP certified lab(s) to be used for analysis of samples
- Include a site map showing sample locations
- Provide detailed sampling procedures for each matrix
- Include Data Quality Usability Objectives
- List equipment decontamination procedures
- Include an "Analytical Methods/Quality Assurance Summary Table" specifying:
    - Matrix type
    - Number or frequency of samples to be collected per matrix
    - Number of field and trip blanks per matrix
    - Analytical parameters to be measured per matrix
    - Analytical methods to be used per matrix with minimum reporting limits
    - Number and type of matrix spike and matrix spike duplicate samples to be collected
    - Number and type of duplicate samples to be collected
    - Sample preservation to be used per analytical method and sample matrix
    - Sample container volume and type to be used per analytical method and sample matrix
    - Sample holding time to be used per analytical method and sample matrix
- Specify Category B laboratory data deliverables and preparation of a DUSR

Specific Guidelines for PFAS

- Include in the text that sampling for PFAS will take place
- Include in the text that PFAS will be analyzed by EPA Method 1633
- Include the list of PFAS compounds to be analyzed (*PFAS Analyte List*)
- Include the laboratory SOP for PFAS analysis
- List the minimum method-achievable Reporting Limits for PFAS
    - Reporting Limits should be less than or equal to:
        - Aqueous – 2 ng/L (ppt)
        - Solids – 0.5 µg/kg (ppb)
- Include the laboratory Method Detection Limits for the PFAS compounds to be analyzed
-
- Include detailed sampling procedures
    - Precautions to be taken
    - Pump and equipment types
    - Decontamination procedures
    - Approved materials only to be used
- Specify that regular ice only will be used for sample shipment
- Specify that equipment blanks should be collected at a minimum frequency of 1 per day per site for each matrix

Appendix B - Sampling Protocols for PFAS in Soils, Sediments and Solids

General

The objective of this protocol is to give general guidelines for the collection of soil, sediment and other solid samples for PFAS analysis. The sampling procedure used should be consistent with Sampling Guidelines and Protocols – Technological Background and Quality Control/Quality Assurance for NYS DEC Spill Response Program – March 1991 (http://www.dec.ny.gov/docs/remediation_hudson_pdf/sgpsect5.pdf), with the following limitations.

Laboratory Analysis and Containers

Samples collected using this protocol are intended to be analyzed for PFAS using EPA Method 1633.

The preferred material for containers is high density polyethylene (HDPE). Pre-cleaned sample containers, coolers, sample labels, and a chain of custody form will be provided by the laboratory.

Equipment

Acceptable materials for sampling include stainless steel, HDPE, PVC, silicone, acetate, and polypropylene. Additional materials may be acceptable if pre-approved by New York State Department of Environmental Conservation's Division of Environmental Remediation.

No sampling equipment components or sample containers should come in to contact with aluminum foil, low density polyethylene, glass, or polytetrafluoroethylene (PTFE, Teflon™) materials including sample bottle cap liners with a PTFE layer.

A list of acceptable equipment is provided below, but other equipment may be considered appropriate based on sampling conditions.

- stainless steel spoon
- stainless steel bowl
- steel hand auger or shovel without any coatings

Equipment Decontamination

Standard two step decontamination using detergent (Alconox is acceptable) and clean, PFAS-free water will be performed for sampling equipment. All sources of water used for equipment decontamination should be verified in advance to be PFAS-free through laboratory analysis or certification.

Sampling Techniques

Sampling is often conducted in areas where a vegetative turf has been established. In these cases, a pre-cleaned trowel or shovel should be used to carefully remove the turf so that it may be replaced at the conclusion of sampling. Surface soil samples (e.g. 0 to 6 inches below surface) should then be collected using a pre-cleaned, stainless steel spoon. Shallow subsurface soil samples (e.g. 6 to ~36 inches below surface) may be collected by digging a hole using a pre-cleaned hand auger or shovel. When the desired subsurface depth is reached, a pre-cleaned hand auger or spoon shall be used to obtain the sample.

When the sample is obtained, it should be deposited into a stainless steel bowl for mixing prior to filling the sample containers. The soil should be placed directly into the bowl and mixed thoroughly by rolling the material into the middle until the material is homogenized. At this point the material within the bowl can be placed into the laboratory provided container.

Sample Identification and Logging

A label shall be attached to each sample container with a unique identification. Each sample shall be included on the chain of custody (COC).

Quality Assurance/Quality Control

- Immediately place samples in a cooler maintained at 4 ± 2º Celsius using ice
- Collect one field duplicate for every sample batch, minimum 1 duplicate per 20 samples. The duplicate shall consist of an additional sample at a given location
- Collect one matrix spike / matrix spike duplicate (MS/MSD) for every sample batch, minimum 1 MS/MSD per 20 samples. The MS/MSD shall consist of an additional two samples at a given location and identified on the COC
- Request appropriate data deliverable (Category B) and an electronic data deliverable

Documentation

A soil log or sample log shall document the location of the sample/borehole, depth of the sample, sampling equipment, duplicate sample, visual description of the material, and any other observations or notes determined to be appropriate. Additionally, care should be performed to limit contact with PFAS containing materials (e.g. waterproof field books, food packaging) during the sampling process.

Personal Protection Equipment (PPE)

For most sampling Level D PPE is anticipated to be appropriate. The sampler should wear nitrile gloves while conducting field work and handling sample containers.

Field staff shall consider the clothing to be worn during sampling activities. Clothing that contains PTFE material (including GORE-TEX®) or that have been waterproofed with PFAS materials should be avoided. All clothing worn by sampling personnel should have been laundered multiple times.

Appropriate rain gear (PVC, polyurethane, or rubber rain gear are acceptable), bug spray, and sunscreen should be used that does not contain PFAS. Well washed cotton coveralls may be used as an alternative to bug spray and/or sunscreen.

PPE that contains PFAS is acceptable when site conditions warrant additional protection for the samplers and no other materials can be used to be protective. Documentation of such use should be provided in the field notes.

Appendix C - Sampling Protocols for PFAS in Monitoring Wells

General

The objective of this protocol is to give general guidelines for the collection of groundwater samples for PFAS analysis. The sampling procedure used should be consistent with Sampling Guidelines and Protocols – Technological Background and Quality Control/Quality Assurance for NYS DEC Spill Response Program – March 1991 (http://www.dec.ny.gov/docs/remediation_hudson_pdf/sgpsect5.pdf), with the following limitations.

Laboratory Analysis and Container

Samples collected using this protocol are intended to be analyzed for PFAS using EPA Method 1633.

The preferred material for containers is high density polyethylene (HDPE). Pre-cleaned sample containers, coolers, sample labels, and a chain of custody form will be provided by the laboratory.

Equipment

Acceptable materials for sampling include: stainless steel, HDPE, PVC, silicone, acetate, and polypropylene. Additional materials may be acceptable if pre-approved by New York State Department of Environmental Conservation's Division of Environmental Remediation.

No sampling equipment components or sample containers should come in contact with aluminum foil, low density polyethylene, glass, or polytetrafluoroethylene (PTFE, Teflon™) materials including plumbers tape and sample bottle cap liners with a PTFE layer.

A list of acceptable equipment is provided below, but other equipment may be considered appropriate based on sampling conditions.

- stainless steel inertia pump with HDPE tubing
- peristaltic pump equipped with HDPE tubing and silicone tubing
- stainless steel bailer with stainless steel ball
- bladder pump (identified as PFAS-free) with HDPE tubing

Equipment Decontamination

Standard two step decontamination using detergent (Alconox is acceptable) and clean, PFAS-free water will be performed for sampling equipment. All sources of water used for equipment decontamination should be verified in advance to be PFAS-free through laboratory analysis or certification.

Sampling Techniques

Monitoring wells should be purged in accordance with the sampling procedure (standard/volume purge or low flow purge) identified in the site work plan, which will determine the appropriate time to collect the sample. If sampling using standard purge techniques, additional purging may be needed to reduce turbidity levels, so samples contain a limited amount of sediment within the sample containers. Sample containers that contain sediment may cause issues at the laboratory, which may result in elevated reporting limits and other issues during the sample preparation that can compromise data usability. Sampling personnel should don new nitrile gloves prior to sample collection due to the potential to contact PFAS containing items (not related to the sampling equipment) during the purging activities.

Sample Identification and Logging

A label shall be attached to each sample container with a unique identification. Each sample shall be included on the chain of custody (COC).

Quality Assurance/Quality Control

- Immediately place samples in a cooler maintained at 4 ± 2º Celsius using ice
- Collect one field duplicate for every sample batch, minimum 1 duplicate per 20 samples. The duplicate shall consist of an additional sample at a given location
- Collect one matrix spike / matrix spike duplicate (MS/MSD) for every sample batch, minimum 1 MS/MSD per 20 samples. The MS/MSD shall consist of an additional two samples at a given location and identified on the COC
- Collect one equipment blank per day per site and minimum 1 equipment blank per 20 samples. The equipment blank shall test the new and decontaminated sampling equipment utilized to obtain a sample for residual PFAS contamination. This sample is obtained by using laboratory provided PFAS-free water and passing the water over or through the sampling device and into laboratory provided sample containers
- Additional equipment blank samples may be collected to assess other equipment that is utilized at the monitoring well
- Request appropriate data deliverable (Category B) and an electronic data deliverable

Documentation

A purge log shall document the location of the sample, sampling equipment, groundwater parameters, duplicate sample, visual description of the material, and any other observations or notes determined to be appropriate. Additionally, care should be performed to limit contact with PFAS containing materials (e.g. waterproof field books, food packaging) during the sampling process.

Personal Protection Equipment (PPE)

For most sampling Level D PPE is anticipated to be appropriate. The sampler should wear nitrile gloves while conducting field work and handling sample containers.

Field staff shall consider the clothing to be worn during sampling activities. Clothing that contains PTFE material (including GORE-TEX®) or that have been waterproofed with PFAS materials should be avoided. All clothing worn by sampling personnel should have been laundered multiple times.

Appropriate rain gear (PVC, polyurethane, or rubber rain gear are acceptable), bug spray, and sunscreen should be used that does not contain PFAS. Well washed cotton coveralls may be used as an alternative to bug spray and/or sunscreen.

PPE that contains PFAS is acceptable when site conditions warrant additional protection for the samplers and no other materials can be used to be protective. Documentation of such use should be provided in the field notes.

Appendix D - Sampling Protocols for PFAS in Surface Water

General

The objective of this protocol is to give general guidelines for the collection of surface water samples for PFAS analysis. The sampling procedure used should be consistent with Sampling Guidelines and Protocols – Technological Background and Quality Control/Quality Assurance for NYS DEC Spill Response Program – March 1991 (http://www.dec.ny.gov/docs/remediation_hudson_pdf/sgpsect5.pdf), with the following limitations.

Laboratory Analysis and Container

Samples collected using this protocol are intended to be analyzed for PFAS using EPA Method 1633.

The preferred material for containers is high density polyethylene (HDPE). Pre-cleaned sample containers, coolers, sample labels, and a chain of custody form will be provided by the laboratory.

Equipment

Acceptable materials for sampling include: stainless steel, HDPE, PVC, silicone, acetate, and polypropylene. Additional materials may be acceptable if pre-approved by New York State Department of Environmental Conservation's Division of Environmental Remediation.

No sampling equipment components or sample containers should come in contact with aluminum foil, low density polyethylene, glass, or polytetrafluoroethylene (PTFE, Teflon™) materials including sample bottle cap liners with a PTFE layer.

A list of acceptable equipment is provided below, but other equipment may be considered appropriate based on sampling conditions.

- stainless steel cup

Equipment Decontamination

Standard two step decontamination using detergent (Alconox is acceptable) and clean, PFAS-free water will be performed for sampling equipment. All sources of water used for equipment decontamination should be verified in advance to be PFAS-free through laboratory analysis or certification.

Sampling Techniques

Where conditions permit, (e.g. creek or pond) sampling devices (e.g. stainless steel cup) should be rinsed with site medium to be sampled prior to collection of the sample. At this point the sample can be collected and poured into the sample container.

If site conditions permit, samples can be collected directly into the laboratory container.

Sample Identification and Logging

A label shall be attached to each sample container with a unique identification. Each sample shall be included on the chain of custody (COC).

Quality Assurance/Quality Control

- Immediately place samples in a cooler maintained at 4 ± 2º Celsius using ice
- Collect one field duplicate for every sample batch, minimum 1 duplicate per 20 samples. The duplicate shall consist of an additional sample at a given location
- Collect one matrix spike / matrix spike duplicate (MS/MSD) for every sample batch, minimum 1 MS/MSD per 20 samples. The MS/MSD shall consist of an additional two samples at a given location and identified on the COC
- Collect one equipment blank per day per site and minimum 1 equipment blank per 20 samples. The equipment blank shall test the new and decontaminated sampling equipment utilized to obtain a sample for residual PFAS contamination. This sample is obtained by using laboratory provided PFAS-free water and passing the water over or through the sampling device and into laboratory provided sample containers
- Request appropriate data deliverable (Category B) and an electronic data deliverable

Documentation

A sample log shall document the location of the sample, sampling equipment, duplicate sample, visual description of the material, and any other observations or notes determined to be appropriate. Additionally, care should be performed to limit contact with PFAS containing materials (e.g. waterproof field books, food packaging) during the sampling process.

Personal Protection Equipment (PPE)

For most sampling Level D PPE is anticipated to be appropriate. The sampler should wear nitrile gloves while conducting field work and handling sample containers.

Field staff shall consider the clothing to be worn during sampling activities. Clothing that contains PTFE material (including GORE-TEX®) or that have been waterproofed with PFAS materials should be avoided. All clothing worn by sampling personnel should have been laundered multiple times.

Appropriate rain gear (PVC, polyurethane, or rubber rain gear are acceptable), bug spray, and sunscreen should be used that does not contain PFAS. Well washed cotton coveralls may be used as an alternative to bug spray and/or sunscreen.

PPE that contains PFAS is acceptable when site conditions warrant additional protection for the samplers and no other materials can be used to be protective. Documentation of such use should be provided in the field notes.

Appendix E - Sampling Protocols for PFAS in Private Water Supply Wells

General

The objective of this protocol is to give general guidelines for the collection of water samples from private water supply wells (with a functioning pump) for PFAS analysis. The sampling procedure used should be consistent with Sampling Guidelines and Protocols – Technological Background and Quality Control/Quality Assurance for NYS DEC Spill Response Program – March 1991 (http://www.dec.ny.gov/docs/remediation_hudson_pdf/sgpsect5.pdf), with the following limitations.

Laboratory Analysis and Container

Drinking water samples collected using this protocol are intended to be analyzed for PFAS by EPA Method 537, 537.1, 533, or ISO Method 25101. The preferred material for containers is high density polyethylene (HDPE). Pre-cleaned sample containers, coolers, sample labels, and a chain of custody form will be provided by the laboratory.

Equipment

Acceptable materials for sampling include stainless steel, HDPE, PVC, silicone, acetate, and polypropylene. Additional materials may be acceptable if pre-approved by New York State Department of Environmental Conservation's Division of Environmental Remediation.

No sampling equipment components or sample containers should come in contact with aluminum foil, low density polyethylene, glass, or polytetrafluoroethylene (PTFE, Teflon™) materials (e.g. plumbers tape), including sample bottle cap liners with a PTFE layer.

Equipment Decontamination

Standard two step decontamination using detergent (Alconox is acceptable) and clean, PFAS-free water will be performed for sampling equipment. All sources of water used for equipment decontamination should be verified in advance to be PFAS-free through laboratory analysis or certification.

Sampling Techniques

Locate and assess the pressure tank and determine if any filter units are present within the building. Establish the sample location as close to the well pump as possible, which is typically the spigot at the pressure tank. Ensure sampling equipment is kept clean during sampling as access to the pressure tank spigot, which is likely located close to the ground, may be obstructed and may hinder sample collection.

Prior to sampling, a faucet downstream of the pressure tank (e.g., washroom sink) should be run until the well pump comes on and a decrease in water temperature is noted which indicates that the water is coming from the well. If the homeowner is amenable, staff should run the water longer to purge the well (15+ minutes) to provide a sample representative of the water in the formation rather than standing water in the well and piping system including the pressure tank. At this point a new pair of nitrile gloves should be donned and the sample can be collected from the sample point at the pressure tank.

Sample Identification and Logging

A label shall be attached to each sample container with a unique identification. Each sample shall be included on the chain of custody (COC).

Quality Assurance/Quality Control

- Immediately place samples in a cooler maintained at 4 ± 2º Celsius using ice
- Collect one field duplicate for every sample batch, minimum 1 duplicate per 20 samples. The duplicate shall consist of an additional sample at a given location
- Collect one matrix spike / matrix spike duplicate (MS/MSD) for every sample batch, minimum 1 MS/MSD per 20 samples. The MS/MSD shall consist of an additional two samples at a given location and identified on the COC
- If equipment was used, collect one equipment blank per day per site and a minimum 1 equipment blank per 20 samples. The equipment blank shall test the new and decontaminated sampling equipment utilized to obtain a sample for residual PFAS contamination. This sample is obtained by using laboratory provided PFAS-free water and passing the water over or through the sampling device and into laboratory provided sample containers.
- A field reagent blank (FRB) should be collected at a rate of one per 20 samples. The lab will provide a FRB bottle containing PFAS free water and one empty FRB bottle. In the field, pour the water from the one bottle into the empty FRB bottle and label appropriately.
- Request appropriate data deliverable (Category B) and an electronic data deliverable
- For sampling events where multiple private wells (homes or sites) are to be sampled per day, it is acceptable to collect QC samples at a rate of one per 20 across multiple sites or days.

Documentation

A sample log shall document the location of the private well, sample point location, owner contact information, sampling equipment, purge duration, duplicate sample, visual description of the material, and any other observations or notes determined to be appropriate and available (e.g. well construction, pump type and location, yield, installation date). Additionally, care should be performed to limit contact with PFAS containing materials (e.g. waterproof field books, food packaging) during the sampling process.

Personal Protection Equipment (PPE)

For most sampling Level D PPE is anticipated to be appropriate. The sampler should wear nitrile gloves while conducting field work and handling sample containers.

Field staff shall consider the clothing to be worn during sampling activities. Clothing that contains PTFE material (including GORE-TEX®) or that have been waterproofed with PFAS materials should be avoided. All clothing worn by sampling personnel should have been laundered multiple times.

Appendix F - Sampling Protocols for PFAS in Fish

This appendix contains a copy of the current SOP developed by the Division of Fish and Wildlife (DFW) entitled "General Fish Handling Procedures for Contaminant Analysis" (Ver. 8). This SOP should be followed when collecting fish for contaminant analysis. Note, however, that the Bureau of Ecosystem Health will not be supplying bags or tags. All supplies are the responsibility of the collector

Procedure Name: General Fish Handling Procedures for Contaminant Analysis

Number: FW-005

Purpose: This procedure describes data collection, fish processing and delivery of fish collected for contaminant monitoring. It contains the chain of custody and collection record forms that should be used for the collections.

Organization: Environmental Monitoring Section
Bureau of Ecosystem Health
Division of Fish and Wildlife (DFW)
New York State Department of Environmental Conservation (NYSDEC)
625 Broadway
Albany, New York 12233-4756

Version: 8

Previous Version Date: 21 March 2018

Summary of Changes to this Version: Updated bureau name to Bureau of Ecosystem Health. Added direction to list the names of all field crew on the collection record. Minor formatting changes on chain of custody and collection records.

Originator or Revised by: Wayne Richter, Jesse Becker

Date: 26 April 2019

Quality Assurance Officer and Approval Date: Jesse Becker, 26 April 2019

NEW YORK STATE
DEPARTMENT OF ENVIRONMENTAL CONSERVATION

GENERAL FISH HANDLING PROCEDURES FOR CONTAMINANT ANALYSES

A. Original copies of all continuity of evidence (i.e., Chain of Custody) and collection record forms must accompany delivery of fish to the lab. A copy shall be directed to the Project Leader or as appropriate, Wayne Richter. All necessary forms will be supplied by the Bureau of Ecosystem Health. Because some samples may be used in legal cases, it is critical that each section is filled out completely. Each Chain of Custody form has three main sections:

1. The top box is to be filled out **and signed** by the person responsible for the fish collection (e.g., crew leader, field biologist, researcher). This person is responsible for delivery of the samples to DEC facilities or personnel (e.g., regional office or biologist).

2. The second section is to be filled out **and signed** by the person responsible for the collections while being stored at DEC, before delivery to the analytical lab. This may be the same person as in (1), but it is still required that they complete the section. Also important is the **range of identification numbers** (i.e., tag numbers) included in the sample batch.

3. Finally, the bottom box is to record any transfers between DEC personnel and facilities. Each subsequent transfer should be **identified, signed, and dated**, until laboratory personnel take possession of the fish.

B. The following data are required on each **Fish Collection Record** form:

1. Project and Site Name.

2. DEC Region.

3. All personnel (and affiliation) involved in the collection.

4. Method of collection (gill net, hook and line, etc.)

5. Preservation Method.

C. The following data are to be taken on each fish collected and recorded on the **Fish Collection Record** form:

1. Tag number - Each specimen is to be individually jaw tagged at time of collection with a unique number. Make sure the tag is turned out so that the number can be read without opening the bag. Use tags in sequential order. For small fish or composite samples place the tag inside the bag with the samples. The Bureau of Ecosystem Health can supply the tags.

2. Species identification (please be explicit enough to enable assigning genus and species). Group fish by species when processing.

3. Date collected.

4. Sample location (waterway and nearest prominent identifiable landmark).

5. Total length (nearest mm or smallest sub-unit on measuring instrument) and weight (nearest g or

smallest sub-unit of weight on weighing instrument). Take all measures as soon as possible with calibrated, protected instruments (e.g. from wind and upsets) and prior to freezing.

6. Sex - fish may be cut enough to allow sexing or other internal investigation, but do not eviscerate. Make any incision on the right side of the belly flap or exactly down the midline so that a left-side fillet can be removed.

D. General data collection recommendations:

1. It is helpful to use an ID or tag number that will be unique. It is best to use metal striped bass or other uniquely numbered metal tags. If uniquely numbered tags are unavailable, values based on the region, water body and year are likely to be unique: for example, R7CAY11001 for Region 7, Cayuga Lake, 2011, fish 1. If the fish are just numbered 1 through 20, we have to give them new numbers for our database, making it more difficult to trace your fish to their analytical results and creating an additional possibility for errors.

2. Process and record fish of the same species sequentially. Recording mistakes are less likely when all fish from a species are processed together. Starting with the bigger fish species helps avoid missing an individual.

3. If using Bureau of Ecosystem Health supplied tags or other numbered tags, use tags in sequence so that fish are recorded with sequential Tag Numbers. This makes data entry and login at the lab and use of the data in the future easier and reduces keypunch errors.

4. Record length and weight as soon as possible after collection and before freezing. Other data are recorded in the field upon collection. An age determination of each fish is optional, but if done, it is recorded in the appropriate “Age” column.

5. For composite samples of small fish, record the number of fish in the composite in the Remarks column. Record the length and weight of each individual in a composite. All fish in a composite sample should be of the same species and members of a composite should be visually matched for size.

6. Please submit photocopies of topographic maps or good quality navigation charts indicating sampling locations. GPS coordinates can be entered in the Location column of the collection record form in addition to or instead for providing a map. These records are of immense help to us (and hopefully you) in providing documented location records which are not dependent on memory and/or the same collection crew. In addition, they may be helpful for contaminant source trackdown and remediation/control efforts of the Department.

7. When recording data on fish measurements, it will help to ensure correct data recording for the data recorder to call back the numbers to the person making the measurements.

E. Each fish is to be placed in its own individual plastic bag. For small fish to be analyzed as a composite, put all of the fish for one composite in the same bag but use a separate bag for each composite. It is important to individually bag the fish to avoid difficulties or cross contamination when processing the fish for chemical analysis. Be sure to include the fish’s tag number inside the bag, preferably attached to the fish with the tag number turned out so it can be read. Tie or otherwise secure the bag closed. **<u>The Bureau of Ecosystem Health will supply the bags.</u>** If necessary, food grade bags may be procured from a suitable vendor (e.g., grocery store). It is preferable to redundantly label each bag with a manila tag tied between the knot and the body of the bag. This tag should be labeled with the project name, collection location, tag number, collection date, and fish species. If scales are collected, the scale envelope should be labeled with the same information.

F. Groups of fish, by species, are to be placed in one large plastic bag per sampling location. **The Bureau of Ecosystem Health will supply the larger bags.** Tie or otherwise secure the bag closed. Label the site bag with a manila tag tied between the knot and the body of the bag. The tag should contain: project, collection location, collection date, species and **tag number ranges**. Having this information on the manila tag enables lab staff to know what is in the bag without opening it.

G. Do not eviscerate, fillet or otherwise dissect the fish unless specifically asked to. If evisceration or dissection is specified, the fish must be cut along the exact midline or on the right side so that the left side fillet can be removed intact at the laboratory. If filleting is specified, the procedure for taking a standard fillet (SOP PREPLAB 4) must be followed, including removing scales.

H. Special procedures for PFAS: Unlike legacy contaminants such as PCBs, which are rarely found in day to day life, PFAS are widely used and frequently encountered. Practices that avoid sample contamination are therefore necessary. While no standard practices have been established for fish, procedures for water quality sampling can provide guidance. The following practices should be used for collections when fish are to be analyzed for PFAS:

No materials containing Teflon.
No Post-it notes.
No ice packs; only water ice or dry ice.
Any gloves worn must be powder free nitrile.
No Gore-Tex or similar materials (Gore-Tex is a PFC with PFOA used in its manufacture).
No stain repellent or waterproof treated clothing; these are likely to contain PFCs.
Avoid plastic materials, other than HDPE, including clipboards and waterproof notebooks.
Wash hands after handling any food containers or packages as these may contain PFCs. Keep pre-wrapped food containers and wrappers isolated from fish handling.
Wear clothing washed at least six times since purchase.
Wear clothing washed without fabric softener.
Staff should avoid cosmetics, moisturizers, hand creams and similar products on the day of sampling as many of these products contain PFCs (Fujii et al. 2013). Sunscreen or insect repellent should not contain ingredients with “fluor” in their name. Apply any sunscreen or insect repellent well downwind from all materials. Hands must be washed after touching any of these products.

I. All fish must be kept at a temperature <45° F (<8° C) immediately following data processing. As soon as possible, freeze at -20° C ± 5° C. Due to occasional freezer failures, daily freezer temperature logs are required. The freezer should be locked or otherwise secured to maintain chain of custody.

J. In most cases, samples should be delivered to the Analytical Services Unit at the Hale Creek field station. Coordinate delivery with field station staff and send copies of the collection records, continuity of evidence forms and freezer temperature logs to the field station. For samples to be analyzed elsewhere, non-routine collections or other questions, contact Wayne Richter, Bureau of Ecosystem Health, NYSDEC, 625 Broadway, Albany, New York 12233-4756, 518-402-8974, or the project leader about sample transfer. Samples will then be directed to the analytical facility and personnel noted on specific project descriptions.

K. A recommended equipment list is at the end of this document.

page ______ of ______

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
DIVISION OF FISH AND WILDLIFE
FISH COLLECTION RECORD

Project and Site Name ____ DEC Region ____________

Collections made by (include all crew) ____

Sampling Method: ☐Electrofishing ☐Gill netting ☐Trap netting ☐Trawling ☐Seining ☐Angling ☐Other ______________________

Preservation Method: ☐Freezing ☐Other ____________________ Notes (SWFDB survey number): ______________________

FOR LAB USE ONLY- LAB ENTRY NO.	COLLECTION OR TAG NO.	SPECIES	DATE TAKEN	LOCATION	AGE	SEX &/OR REPROD. CONDIT	LENGTH ( )	WEIGHT ( )	REMARKS

richter: revised 2011, 5/7/15, 10/4/16, 3/20/17; becker: 3/23/17, 4/26/19

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
CHAIN OF CUSTODY

I, ______________________________, of ____ collected the
(Print Name) (Print Business Address)

following on ____________________, 20____ from ____
(Date) (Water Body)

in the vicinity of ____
(Landmark, Village, Road, etc.)

Town of ____, in __________________________________ County.

Item(s) ____

____

Said sample(s) were in my possession and handled according to standard procedures provided to me prior to collection. The sample(s) were placed in the custody of a representative of the New York State Department of Environmental Conservation on ____________________________________, 20______.

____ ____________________________
Signature Date

I, ___________________________________, received the above mentioned sample(s) on the date specified and assigned identification number(s) ____ to the sample(s). I have recorded pertinent data for the sample(s) on the attached collection records. The sample(s) remained in my custody until subsequently transferred, prepared or shipped at times and on dates as attested to below.

_______________________________________ ___________________
Signature Date

SECOND RECIPIENT (Print Name)	TIME & DATE	PURPOSE OF TRANSFER
SIGNATURE	UNIT	
THIRD RECIPIENT (Print Name)	TIME & DATE	PURPOSE OF TRANSFER
SIGNATURE	UNIT	
FOURTH RECIPIENT (Print Name)	TIME & DATE	PURPOSE OF TRANSFER
SIGNATURE	UNIT	
RECEIVED IN LABORATORY BY (Print Name)	TIME & DATE	REMARKS
SIGNATURE	UNIT	
LOGGED IN BY (Print Name)	TIME & DATE	ACCESSION NUMBERS
SIGNATURE	UNIT	

richter: revised 21 April 2014; becker: 23 March 2017, 26 April, 2019

NOTICE OF WARRANTY

By signature to the chain of custody (reverse), the signatory warrants that the information provided is truthful and accurate to the best of his/her ability. The signatory affirms that he/she is willing to testify to those facts provided and the circumstances surrounding the same. Nothing in this warranty or chain of custody negates responsibility nor liability of the signatories for the truthfulness and accuracy of the statements provided.

HANDLING INSTRUCTIONS

On day of collection, collector(s) name(s), address(es), date, geographic location of capture (attach a copy of topographic map or navigation chart), species, number kept of each species, and description of capture vicinity (proper noun, if possible) along with name of Town and County must be indicated on reverse.

Retain organisms in manila tagged plastic bags to avoid mixing capture locations. Note appropriate information on each bag tag.

Keep samples as cool as possible. Put on ice if fish cannot be frozen within 12 hours. If fish are held more than 24 hours without freezing, they will not be retained or analyzed.

Initial recipient (either DEC or designated agent) of samples from collector(s) is responsible for obtaining and recording information on the collection record forms which will accompany the chain of custody. This person will seal the container using packing tape and writing his signature, the time and the date across the tape onto the container with indelible marker. Any time a seal is broken, for whatever purpose, the incident must be recorded on the Chain of Custody (reason, time, and date) in the purpose of transfer block. Container then is resealed using new tape and rewriting signature, with time and date.

EQUIPMENT LIST

Scale or balance of appropriate capacity for the fish to be collected.

Fish measuring board.

Plastic bags of an appropriate size for the fish to be collected and for site bags.

Individually numbered metal tags for fish.

Manila tags to label bags.

Small envelops, approximately 2” x 3.5”, if fish scales are to be collected.

Knife for removing scales.

Chain of custody and fish collection forms.

Clipboard.

Pens or markers.

Paper towels.

Dish soap and brush.

Bucket.

Cooler.

Ice.

Duct tape.

Appendix G – PFAS Analyte List

Group	Chemical Name	Abbreviation	CAS Number
Perfluoroalkyl sulfonic acids	Perfluorobutanesulfonic acid	PFBS	375-73-5
	Perfluoropentanesulfonic acid	PFPeS	2706-91-4
	Perfluorohexanesulfonic acid	PFHxS	355-46-4
	Perfluoroheptanesulfonic acid	PFHpS	375-92-8
	Perfluorooctanesulfonic acid	PFOS	1763-23-1
	Perfluorononanesulfonic acid	PFNS	68259-12-1
	Perfluorodecanesulfonic acid	PFDS	335-77-3
	Perfluorododecanesulfonic acid	PFDoS	79780-39-5
Perfluoroalkyl carboxylic acids	Perfluorobutanoic acid	PFBA	375-22-4
	Perfluoropentanoic acid	PFPeA	2706-90-3
	Perfluorohexanoic acid	PFHxA	307-24-4
	Perfluoroheptanoic acid	PFHpA	375-85-9
	Perfluorooctanoic acid	PFOA	335-67-1
	Perfluorononanoic acid	PFNA	375-95-1
	Perfluorodecanoic acid	PFDA	335-76-2
	Perfluoroundecanoic acid	PFUnA	2058-94-8
	Perfluorododecanoic acid	PFDoA	307-55-1
	Perfluorotridecanoic acid	PFTrDA	72629-94-8
	Perfluorotetradecanoic acid	PFTeDA	376-06-7
Per- and Polyfluoroether carboxylic acids	Hexafluoropropylene oxide dimer acid	HFPO-DA	13252-13-6
	4,8-Dioxa-3H-perfluorononanoic acid	ADONA	919005-14-4
	Perfluoro-3-methoxypropanoic acid	PFMPA	377-73-1
	Perfluoro-4-methoxybutanoic acid	PFMBA	863090-89-5
	Nonafluoro-3,6-dioxaheptanoic acid	NFDHA	151772-58-6
Fluorotelomer sulfonic acids	4:2 Fluorotelomer sulfonic acid	4:2-FTS	757124-72-4
	6:2 Fluorotelomer sulfonic acid	6:2-FTS	27619-97-2
	8:2 Fluorotelomer sulfonic acid	8:2-FTS	39108-34-4
Fluorotelomer carboxylic acids	3:3 Fluorotelomer carboxylic acid	3:3 FTCA	356-02-5
	5:3 Fluorotelomer carboxylic acid	5:3 FTCA	914637-49-3
	7:3 Fluorotelomer carboxylic acid	7:3 FTCA	812-70-4
Perfluorooctane sulfonamides	Perfluorooctane sulfonamide	PFOSA	754-91-6
	N-methylperfluorooctane sulfonamide	NMeFOSA	31506-32-8
	N-ethylperfluorooctane sulfonamide	NEtFOSA	4151-50-2
Perfluorooctane sulfonamidoacetic acids	N-methylperfluorooctane sulfonamidoacetic acid	N-MeFOSAA	2355-31-9
	N-ethylperfluorooctane sulfonamidoacetic acid	N-EtFOSAA	2991-50-6
Perfluorooctane sulfonamide ethanols	N-methylperfluorooctane sulfonamidoethanol	MeFOSE	24448-09-7
	N-ethylperfluorooctane sulfonamidoethanol	EtFOSE	1691-99-2

Group	Chemical Name	Abbreviation	CAS Number
Ether sulfonic acids	9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (F-53B Major)	9Cl-PF3ONS	756426-58-1
	11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (F-53B Minor)	11Cl-PF3OUdS	763051-92-9
	Perfluoro(2-ethoxyethane) sulfonic acid	PFEESA	113507-82-7

Appendix H - Data Review Guidelines for Analysis of PFAS in Non-Potable Water and Solids

General

These guidelines are intended to be used for the validation of PFAS using EPA Method 1633 for projects within the Division of Environmental Remediation (DER). Data reviewers should understand the methodology and techniques utilized in the analysis. Consultation with the end user of the data may be necessary to assist in determining data usability based on the data quality objectives in the Quality Assurance Project Plan. A familiarity with the laboratory's Standard Operating Procedure may also be needed to fully evaluate the data. If you have any questions, please contact DER's Quality Assurance Officer, Dana Barbarossa, at dana.barbarossa@dec.ny.gov.

Preservation and Holding Time

Samples should be preserved with ice to a temperature of less than 6°C upon arrival at the lab. The holding time is 28 days to extraction for aqueous and solid samples. The time from extraction to analysis for aqueous samples is 28 days and 40 days for solids.

Temperature greatly exceeds 6ºC upon arrival at the lab*	Use professional judgement to qualify detects and non-detects as estimated or rejected
Holding time exceeding 28 days to extraction	Use professional judgement to qualify detects and non-detects as estimated or rejected if holding time is grossly exceeded

*Samples that are delivered to the lab immediately after sampling may not meet the thermal preservation guidelines. Samples are considered acceptable if they arrive on ice or an attempt to chill the samples is observed.

Initial Calibration

The initial calibration should contain a minimum of six standards for linear fit and six standards for a quadratic fit. The relative standard deviation (RSD) for a quadratic fit calibration should be less than 20%.

The low-level calibration standard should be within 50% - 150% of the true value, and the mid-level calibration standard within 70% - 130% of the true value.

%RSD >20%	J flag detects and UJ non detects

Continuing Calibration Verification

Continuing calibration verification (CCV) checks should be analyzed at a frequency of one per ten field samples. If CCV recovery is very low, where detection of the analyte could be in question, ensure a low level CCV was analyzed and use to determine data quality.

CCV recovery <70 or >130%	J flag results

Blanks

There should be no detections in the method blanks above the reporting limits. Equipment blanks, field blanks, rinse blanks etc. should be evaluated in the same manner as method blanks. Use the most contaminated blank to evaluate the sample results.

Blank Result	Sample Result	Qualification
Any detection	<Reporting limit	Qualify as ND at reporting limit
Any detection	>Reporting Limit and >10x the blank result	No qualification
>Reporting limit	>Reporting limit and <10x blank result	J+ biased high

Field Duplicates

A blind field duplicate should be collected at rate of one per twenty samples. The relative percent difference (RPD) should be less than 30% for analyte concentrations greater than two times the reporting limit. Use the higher result for final reporting.

RPD >30%	Apply J qualifier to parent sample

Lab Control Spike

Lab control spikes should be analyzed with each extraction batch or one for every twenty samples. In the absence of lab derived criteria, use 70% - 130% recovery criteria to evaluate the data.

Recovery <70% or >130% (lab derived criteria can also be used)	Apply J qualifier to detects and UJ qualifier to non detects

Matrix Spike/Matrix Spike Duplicate

One matrix spike and matrix spike duplicate should be collected at a rate of one per twenty samples. Use professional judgement to reject results based on out of control MS/MSD recoveries.

Recovery <70% or >130% (lab derived criteria can also be used)	Apply J qualifier to detects and UJ qualifier to non detects of parent sample only
RPD >30%	Apply J qualifier to detects and UJ qualifier to non detects of parent sample only

Extracted Internal Standards (Isotope Dilution Analytes)

Problematic analytes (e.g. PFBA, PFPeA, fluorotelomer sulfonates) can have wider recoveries without qualification. Qualify corresponding native compounds with a J flag if outside of the range.

Recovery <50% or >150%	Apply J qualifier
Recovery <25% or >150% for poor responding analytes	Apply J qualifier
Isotope Dilution Analyte (IDA) Recovery <10%	Reject results

Signal to Noise Ratio

The signal to noise ratio for the quantifier ion should be at least 3:1. If the ratio is less than 3:1, the peak is discernable from the baseline noise and symmetrical, the result can be reported. If the peak appears to be baseline noise and/or the shape is irregular, qualify the result as tentatively identified.

Reporting Limits

If project-specific reporting limits were not met, please indicate that in the report along with the reason (e.g. over dilution, dilution for non-target analytes, high sediment in aqueous samples).

Peak Integrations

Target analyte peaks should be integrated properly and consistently when compared to standards. Ensure branched isomer peaks are included for PFAS where standards are available. Inconsistencies should be brought to the attention of the laboratory or identified in the data review summary report.

EGLE Michigan Department of Environment, Great Lakes, and Energy

EGLE PFAS SAMPLING QUICK REFERENCE FIELD GUIDE[1]

All Items Used During Sampling Event

● Prohibited
• Items or materials that contain fluoropolymers such as ○ Polytetrafluoroethylene (PTFE), that includes the trademarks Teflon® and Hostaflon® ○ Polyvinylidene fluoride (PVDF), that includes the trademark Kynar® ○ Polycholotrifluoroethylene (PCTFE), that includes the trademark Neoflon ® ○ Ethylene-tetrafluoro-ethylene (ETFE), that includes the trademark Tefzel® ○ Fluorinated ethylene propylene (FEP), that includes the trademarks Teflon® FEP and Hostaflon® FEP • Items or materials that contain any other fluoropolymer

Pumps, Tubing, and Sampling Equipment

● Prohibited	🟩 Allowable	▲ Needs Screening[2]
• Items or materials containing any fluoropolymer (potential items include tubing, valves, or pipe thread seal tape)	• High-density polyethylene (HDPE) • Low-density polyethylene (LDPE) tubing • Polypropylene • Silicone • Stainless-steel • Any items used to secure sampling bottles made from: ○ Natural rubber ○ Nylon (cable ties) ○ Uncoated metal springs ○ Polyethylene	• Any items or materials that will come into direct contact with the sample that have **not** been verified to be PFAS-free ○ Do not assume that any sampling items or materials are PFAS-free based on composition alone

Sample Storage and Preservation

● Prohibited	🟩 Allowable	▲ Needs Screening[2]
• Polytetrafluoroethylene (PTFE): Teflon® lined bottles or caps	• Glass jars[4] • Laboratory-provided PFAS-Free bottles: ○ HDPE or polypropylene • Regular wet ice • Thin HDPE sheeting • LDPE resealable storage bags (i.e. Ziploc®) that will not contact the sample media[6]	• Aluminium foil[4] • Chemical or blue ice[5] • Plastic storage bags other than those listed as 🟩 Allowable • Low-density polyethylene (LDPE) bottles

Field Documentation

● Prohibited	🟩 Allowable	▲ Needs Screening[2]
• Clipboards coated with PFAS • Notebooks made with PFAS treated paper • PFAS treated loose paper • PFAS treated adhesive paper products	• Loose paper (non-waterproof, non-recycled) • Rite in the Rain® notebooks • Aluminium, polypropylene, or Masonite field clipboards • Ballpoint pens, pencils, and Fine or Ultra-Fine Point Sharpie® markers	• Plastic clipboards, binders, or spiral hard cover notebooks • All markers not listed as 🟩 Allowable • Post-It® Notes or other adhesive paper products • Waterproof field books

Decontamination

● Prohibited	🟩 Allowable	▲ Needs Screening[2]
• Decon 90® • PFAS treated paper towel	• Alconox®, Liquinox®, or Citranox® • Triple rinse with PFAS-free deionized water • Cotton cloth or untreated paper towel	• Municipal water • Recycled paper towels or chemically treated paper towels

www.michigan.gov/pfasresponse 800-662-9278 Revised 10/17/2018 (rebranded 8/19)

Clothing, Boots, Rain Gear, and PPE

● Prohibited	■ Allowable	▲ Needs Screening[2]
- New or unwashed clothing - Anything made of or with: ○ Gore-Tex™ or other water-resistant synthetics - Anything applied with or recently washed with: ○ Fabric softeners ○ Fabric protectors, including UV protection ○ Insect resistant chemicals ○ Water, dirt, and/or stain resistant chemicals	- Powderless nitrile gloves - Well-laundered synthetic or 100% cotton clothing, with most recent launderings not using fabric softeners - Made of or with: ○ Polyurethane ○ Polyvinyl chloride (PVC) ○ Wax coated fabrics ○ Rubber / Neoprene ○ Uncoated Tyvek®	- Latex gloves - Water and/or dirt resistant leather gloves - Any special gloves required by a HASP - Tyvek® suits, clothing that contains Tyvek®, or coated Tyvek®

Food and Beverages

● Prohibited	■ Allowable
- No food should be consumed in the staging or sampling areas, including pre-packaged food or snacks. ■ If consuming food on-site becomes necessary, move to the staging area and remove PPE. After eating, wash hands thoroughly and put on new PPE.	- Brought and consumed only outside the vicinity of the sampling area: ○ Bottled water ○ Hydration drinks (i.e. Gatorade®, Powerade®)

Personal Care Products (PCPs) - for day of sample collection[6]

● Prohibited	■ Allowable	▲ Needs Screening[2]
- Any PCPs[6], sunscreen, and insect repellent applied in the sampling area.	PCPs[6], sunscreens, and insect repellents applied in the staging area, away from sampling bottles and equipment followed by thoroughly washing hands: **PCPs[6]:** - Cosmetics, deodorants/antiperspirants, moisturizers, hand creams, and other PCPs[6] **Sunscreens:** - Banana Boat® for Men Triple Defense Continuous Spray Sunscreen SPF 30 - Banana Boat® Sport Performance Coolzone Broad Spectrum SPF 30 - Banana Boat® Sport Performance Sunscreen Lotion Broad Spectrum SPF 30 - Banana Boat® Sport Performance Sunscreen Stick SPF 50 - Coppertone® Sunscreen Lotion Ultra Guard Broad Spectrum SPF 50 - Coppertone® Sport High Performance AccuSpray Sunscreen SPF 30 - Coppertone® Sunscreen Stick Kids SPF 55 - L'Oréal® Silky Sheer Face Lotion 50 - Meijer® Clear Zinc Sunscreen Lotion Broad Spectrum SPF 50 - Meijer® Sunscreen Continuous Spray Broad Spectrum SPF 30 - Meijer® Clear Zinc Sunscreen Lotion Broad Spectrum SPF 15, 30 and 50 - Meijer® Wet Skin Kids Sunscreen Continuous Spray Broad Spectrum SPF 70 - Neutrogena® Beach Defense Water+Sun Barrier Lotion SPF 70 - Neutrogena® Beach Defense Water+Sun Barrier Spray Broad Spectrum SPF 30 - Neutrogena® Pure & Free Baby Sunscreen Broad Spectrum SPF 60+ - Neutrogena® UltraSheer Dry-Touch Sunscreen Broad Spectrum SPF 30 **Insect Repellents:** - OFF® Deep Woods - Sawyer® Permethrin	- Products other than those listed as ■Allowable

[1] This table is not considered to be a complete listing of prohibited or allowable materials. All materials should be evaluated prior to use during sampling. The manufacturers of various products should be contacted in order to determine if PFAS was used in the production of any particular product.

[2] Equipment blank samples should be taken to verify these products are PFAS-free prior to use during sampling.

[3] **For surface water foam samples:** LDPE storage bags may be used in the sampling of foam on surface waters. In this instance, it is allowable for the LDPE bag to come into direct contact with the sample media.

[4] **For fish and other wildlife samples:** Depending on the project objectives, glass jars and aluminum foil might be used for PFAS sampling. PFAS has been found to bind to glass and if the sample is stored in a glass jar, a rinse of the jar is required during the sample analysis. PFAS are sometimes used as a protective layer for some aluminum foils. An equipment blank sample should be collected prior to any aluminum foil use.

[5] Regular ice is recommended as there are concerns that chemical and blue ice may not cool and maintain the sample at or below 42.8˚F (6°C) (as determined by EPA 40 CFR 136 – NPDES) during collection and through transit to the laboratory.

[6] Based on evidence, avoidance of PCPs is considered to be precautionary because none have been documented as having cross-contaminated samples due to their use. However, if used, application of PCPs must be done at the staging area and away from sampling bottles and equipment, and hands must be thoroughly washed after the use of any PCPs prior to sampling.

●- Prohibited ■- Allowable ▲- Needs Screening

Attachment C: Soil Cleanup Objectives

Department of Environmental Conservation

Division of Environmental Remediation

6 NYCRR PART 375

Environmental Remediation Programs

Subparts 375-1 to 375- 4 & 375-6

Effective December 14, 2006

New York State Department of Environmental Conservation

Subpart 375-6
Remedial Program Soil Cleanup Objectives

375-6.1 Purpose; applicability.

(a) This subpart applies to the development and implementation of the remedial programs for soil and other media set forth in subparts 375-2 through 375-4.

(b) This subpart includes the soil cleanup objective tables developed pursuant to ECL 27-1415(6).

375-6.2 Definitions.

(a) "Contract required quantitation limit" or "CRQL" means the minimum level of quantitation acceptable for Department analytical services contracts. The value represents minimum quantitation limits, not absolute detection limits. The minimum quantitation limit is the lowest level at which the analytical instrument can determine the concentration of a chemical that exists in the sample. The detection limit is the minimum level at which the analytical instrument can confirm the presence of the chemical in the sample. At the detection limit, the analytical instrument can confirm that there is some amount of the chemical in the sample but can not determine the concentration that exists with certainty.

(b) "Technical Support Document" means the "New York State Brownfield Cleanup Program Development of Soil Cleanup Objectives Technical Support Document" dated September 2006, which is the document that presents the assumptions, rationale, algorithms and calculations utilized by the Department and the New York State Department of Health to develop the soil cleanup objectives in ECL 27-1415(6).

375-6.3 Unrestricted use soil cleanup objectives.

(a) Applicability. The unrestricted use soil cleanup objectives represent the concentration of a contaminant in soil which, when achieved at a site, will require no use restrictions on the site for the protection of public health, groundwater and ecological resources due to the presence of contaminants in the soil.

(b) Soil cleanup objectives.

(1) The calculated values for the protection of groundwater, ecological resources and public health were considered in developing the unrestricted use soil cleanup objectives. The unrestricted soil cleanup objectives in Table 375-6.8(a) represent the lowest of the three values for protection of groundwater, ecological resources and public health developed as set forth in ECL 27-1415(6).

(2) Unrestricted use, as set forth in subparagraph 375-1.8(g)(1)(i), is achieved when a remedial program for soil meets the unrestricted use soil cleanup objectives in Table 375-6.8(a).

375-6.4 Restricted use soil cleanup objectives for the protection of public health.

(a) Applicability. A protection of public health soil cleanup objective is applicable for the protection of public health at every restricted use site where contamination has been identified in soil above the residential use soil cleanup objectives for a compound included in Table 375-6.8(b), and the Department has determined that remediation is required to protect public health.

(b) Soil cleanup objectives. Protection of public health soil cleanup objectives have been developed for:

(1) Residential use, as set forth in subparagraph 375-1.8(g)(2)(i). The residential use soil cleanup objectives are presented in the protection of public health-residential use column of Table 375-6.8(b).

(2) Restricted-residential use, as set forth in subparagraph 375-1.8(g)(2)(ii). The restricted-residential use soil cleanup objectives are presented in the protection of public health, restricted-residential use column of Table 375-6.8(b).

(3) Commercial use, as set forth in subparagraph 375-1.8(g)(2)(iii). The commercial use soil cleanup objectives are presented in the protection of public health-commercial use column of Table 375-6.8(b).

(4) Industrial use, as set forth in subparagraph 375-1.8(g)(2)(iv). The industrial use soil cleanup objectives are presented in the protection of public health-industrial use column of Table 375-6.8(b).

(c) Selection of the restricted use soil cleanup objectives. In addition to the protection of public health soil cleanup objective for the identified use of the site, protection of groundwater and ecological resources soil cleanup objectives shall be considered where applicable. The contaminant-specific soil cleanup objectives for the soil cleanup component of the remedial program shall be the lowest of the applicable contaminant-specific soil cleanup objectives which are identified for the site as set forth in paragraphs (1) through (3) below.

(1) The protection of groundwater soil cleanup objectives in Table 375-6.8(b) will be applicable to the site and evaluated in determining the soil cleanup objectives for a site as set forth in section 375-6.5.

(2) The protection of ecological resources soil cleanup objectives in Table 375-6.8(b) will be applicable to the site and evaluated in determining the soil cleanup objectives in section 375-6.6

(3) The protection of public health soil cleanup objective for the current, intended and reasonably anticipated future use of the site in Table 375-6.8(b) will be applicable and evaluated in determining the soil cleanup objectives for every site, unless a site-specific soil cleanup objective is proposed.

375-6.5 Soil cleanup objectives for the protection of groundwater.

(a) Applicability. Except as provided in paragraph (1) and (2) below, the protection of groundwater soil cleanup objectives are applicable at restricted use sites where contamination has been identified in on-site soil by the remedial investigation and groundwater standards are, or are threatened to be, contravened by the presence of soil contamination at concentrations above the protection of groundwater soil cleanup objectives.

(1) The protection of groundwater soil cleanup objectives may not be applicable where:

(i) the groundwater standard contravention is the result of an on-site source which is addressed by the remedial program;

(ii) an environmental easement will be put in place which provides for a groundwater use restriction on the site as set forth in paragraph
375-1.8(h)(2);

(iii) the Department determines that contaminated groundwater at the site:

(a) is not migrating, or likely to migrate, off-site; or

(b) is migrating, or is likely to migrate, off-site, however, the remedy includes controls or treatment to address off-site migration; and

(iv) the Department determines the groundwater quality will improve over time.

(2) The protection of groundwater soil cleanup objectives are not applicable if the contravention of groundwater standards at the site is determined to be the result of an off-site source, as set forth in paragraph 375-1.8(d)(2).

(b) Soil cleanup objectives. The protection of groundwater soil cleanup objectives are in Table 375-6.8(b) in the protection of groundwater column.

375-6.6 Soil cleanup objectives for the protection of ecological resources.

(a) Applicability. The soil cleanup objectives for protection of ecological resources must be considered and applied as set forth in this section for the upland soils at sites where terrestrial flora and fauna and the habitats that support them are identified.

(1) Protection of ecological resources soil cleanup objectives apply to sites or portions of sites where the Department determines:

(i) ecological resources at or adjacent to a site, as set forth in subdivision 375-6.6(b):

(a) are present, or will be present under the reasonably anticipated future use of the site; and

(b) constitute an important component of the environment at, or in the vicinity of, the site;

(ii) an impact or threat to the ecological resource has been identified as set forth in subdivision 375-6.6(c); and

(iii) soil contaminant concentrations exceed the protection of ecological resources soil cleanup objectives, as set forth in subdivision 375-6.6(d).

(2) Protection of ecological resources soil cleanup objectives do not and/or will not apply to:

(i) sites or portions of sites where the condition of the land (e.g., paved, covered by impervious surfaces, buildings and other structures) precludes the existence of an ecological resource which constitutes an important component of the environment;

(ii) protection of the aquatic environment; or

(iii) such non-wild biota as:

(1) pets or livestock;

(2) agricultural or horticultural crops; and

(3) landscaping in developed areas.

(b) Identification of ecological resources. The presence of ecological resources shall be determined during the investigation of a site.

(1) The remedial party for a remedial program undertaken pursuant to either subparts 375-2 or 375-4 shall conduct an ecological resource characterization as part of a fish and wildlife impact analysis according to Department guidance to document the presence of fish, wildlife, plants and habitats both on and adjacent to the site.

(2) The remedial party for a remedial program undertaken pursuant to subpart 375-3 shall conduct a resource characterization as part of the qualitative exposure assessment required by ECL 27-1415(2)(b) and in accordance with Department guidance to document the presence of fish, wildlife, plants and habitats both on and adjacent to the site.

(3) The Department shall determine whether the characterization conducted as set forth in paragraphs (1) and (2) above:

(i) has identified ecological resources to be present at or adjacent to a site, or a portion thereof; and

(ii) if such ecological resources constitute an important component of the environment at, or in the vicinity of, the site.

(c) Consideration of impact or threat of impact. If ecological resources that constitute an important component of the environment at, or adjacent to, the site are determined to be present the protection of ecological resources soil cleanup objectives must be considered in the remedial program for the site.

(1) An impact or theat of impact exists when:

(i) a threat to the environment exists, as set forth in subparagraphs 375-2.7(a)(1)(i) to (iv), as a result of contaminants in the soil of the site, unless the Department determines that a more stringent cleanup is necessary to met the requirements of subdivision 375-2.8(a) and paragraph 375-2.8(b)(1); or

(ii) an ecological resource is, or is potentially, impacted by contaminants in the soil of the site.

(d) Soil cleanup objectives. The protection of ecological resources soil cleanup objectives are the same for both unrestricted and restricted use and are incorporated in the soil cleanup objective tables.

(1) For an unrestricted use site, Table 375-6.8(a) presents the lower of the protection of groundwater, ecological resources and unrestricted public health soil cleanup objectives, as calculated and presented in the Technical Support Document.

(2) For a restricted use site, Table 375-6.8(b) includes a protection of ecological resources column, which is applicable to a site regardless of the identified use, as set forth in subdivision (a) above.

(3) Protection of ecological resources soil cleanup objectives were not developed for contaminants identified in Table 375-6.8(b) as “NS”. For such contaminants, the applicant may be required to calculate a protection of ecological resources soil cleanup objective for any site, as set forth in section 375-6.9.

375-6.7 Other considerations and media.

(a) Soil vapor and vapor intrusion.

(1) The soil cleanup objectives presented in this subpart do not account for the impact of concentrations of contaminants in soil relative to soil vapor or vapor intrusion attributable to a remedial site.

(2) The nature and extent of any contamination of the soil vapor media, if present at the site, will be evaluated by the remedial investigation.

(3) The remedy will be protective for soil vapor and vapor intrusion and shall address through appropriate removal or engineering controls the migration of contaminants in soil and groundwater at levels which could impact the indoor air of buildings.

(b) Surface water and sediments.

(1) The soil cleanup objectives presented in this subpart do not account for the impact of contaminants in soil relative to surface water and surface water sediments attributable to a remedial site.

(2) The nature and extent of any contamination of the surface water and sediment, if present at the site, will be evaluated by the remedial investigation.

(3) The remedy for a site will eliminate or mitigate the threat to public health and the environment from contaminated surface water and surface water sediments and shall, to the extent feasible:

(i) remove, contain or treat the source of a discharge of contaminants from the site to the surface water and sediments;

(ii) address through appropriate removal or engineering controls the migration of contaminants in soil and groundwater at levels which could impact the water quality or adversely impact the sediments of a surface water body on or adjacent to the site; and

(iii) remove, contain or treat the impacted surface water and surface water sediments based upon the cleanup objectives developed for the remedial program.

(c) Adjacent residential properties.

(1) The soil cleanup objectives presented for commercial or industrial use in this subpart do not directly account for the impact of concentrations of contaminants in soil relative to adjacent residential properties attributable to a remedial site.

(2) The remedy for a site using the commercial or industrial soil cleanup objectives will be protective of adjacent residential properties and shall address, through appropriate removal or engineering controls, the migration of contaminants in soil which could impact residential properties adjacent to the site.

(d) Soil covers and backfill.

(1) Soil brought to the site for use as a soil cover or backfill must:

(i) be comprised of soil or other unregulated material as set forth in Part 360 of this title;

(ii) not exceed the applicable soil cleanup objectives for the use of the site, as set forth in Tables 375-6.8(a) or (b), as follows:

(a) for unrestricted use sites, as set forth in Table 375-6.8(a);

(b) for residential, restricted-residential, and commercial use sites use the lower of the protection of groundwater or the protection of public health soil cleanup objectives, for the identified use of the site as set forth in Table 375-6.8(b);

(c) for industrial use sites, use the lower of the protection of groundwater or the protection of public health soil cleanup objectives for commercial use as set forth in Table 375-6.8(b);

(d) for restricted use sites where an ecological resource that constitutes an important component of the environment is determined to be present, the protection of ecological resources soil cleanup objective must also be considered, so as not to preclude the growth and development of plants and soil dwelling organisms nor inhibit the activity of burrowing organisms; or

(e) a site specific modification to a soil cleanup objective, as set forth in subdivision 375-6.9(c), may also be utilized in compliance with clauses (ii)*(a)* through *(d)* above.

(2) Analytical data is required to demonstrate that the material complies with the requirements of paragraph (1) above. The number of samples required to confirm compliance will be approved in the work plan. The Department may issue a site specific exemption for the analytical testing requirements, based upon documentation of the origin and composition of the material.

(3) The Department may issue a site specific exemption for one or more of the requirements set forth in paragraph (1) above, based upon site specific conditions, including but not limited to, the following:

(i) the use and redevelopment of the site;

(ii) the depth of placement of the backfill material;

(iii) the depth of placement of the backfill material relative to groundwater;

(iv) the volume of backfill material;

(v) the potential for odor from the backfill material;

(vi) the presence of historic fill in the vicinity of the site;

(vii) a Department issued beneficial use determination, pursuant to Part 360 of this title; or

(viii) background levels of contamination in areas surrounding the site.

375-6.8 Soil cleanup objective tables.

(a) Unrestricted use soil cleanup objectives.

Table 375-6.8(a):Unrestricted Use Soil Cleanup Objectives

Contaminant	CAS Number	Unrestricted Use
Metals		
Arsenic	7440-38-2	13 [c]
Barium	7440-39-3	350 [c]
Beryllium	7440-41-7	7.2
Cadmium	7440-43-9	2.5 [c]
Chromium, hexavalent [e]	18540-29-9	1[b]
Chromium, trivalent [e]	16065-83-1	30 [c]
Copper	7440-50-8	50
Total Cyanide [e, f]		27
Lead	7439-92-1	63 [c]
Manganese	7439-96-5	1600 [c]
Total Mercury		0.18 [c]
Nickel	7440-02-0	30
Selenium	7782-49-2	3.9[c]
Silver	7440-22-4	2
Zinc	7440-66-6	109 [c]
PCBs/Pesticides		
2,4,5-TP Acid (Silvex) [f]	93-72-1	3.8
4,4'-DDE	72-55-9	0.0033 [b]
4,4'-DDT	50-29-3	0.0033 [b]
4,4'-DDD	72-54-8	0.0033 [b]
Aldrin	309-00-2	0.005 [c]
alpha-BHC	319-84-6	0.02
beta-BHC	319-85-7	0.036
Chlordane (alpha)	5103-71-9	0.094

Table 375-6.8(a):Unrestricted Use Soil Cleanup Objectives

Contaminant	CAS Number	Unrestricted Use
delta-BHC [g]	319-86-8	0.04
Dibenzofuran [f]	132-64-9	7
Dieldrin	60-57-1	0.005 [c]
Endosulfan I [d, f]	959-98-8	2.4
Endosulfan II [d, f]	33213-65-9	2.4
Endosulfan sulfate [d, f]	1031-07-8	2.4
Endrin	72-20-8	0.014
Heptachlor	76-44-8	0.042
Lindane	58-89-9	0.1
Polychlorinated biphenyls	1336-36-3	0.1
Semivolatile organic compounds		
Acenaphthene	83-32-9	20
Acenapthylene [f]	208-96-8	100 [a]
Anthracene [f]	120-12-7	100 [a]
Benz(a)anthracene [f]	56-55-3	1[c]
Benzo(a)pyrene	50-32-8	1[c]
Benzo(b)fluoranthene [f]	205-99-2	1[c]
Benzo(g,h,i)perylene [f]	191-24-2	100
Benzo(k)fluoranthene [f]	207-08-9	0.8 [c]
Chrysene [f]	218-01-9	1[c]
Dibenz(a,h)anthracene [f]	53-70-3	0.33 [b]
Fluoranthene [f]	206-44-0	100 [a]
Fluorene	86-73-7	30
Indeno(1,2,3-cd)pyrene [f]	193-39-5	0.5 [c]
m-Cresol [f]	108-39-4	0.33 [b]
Naphthalene [f]	91-20-3	12
o-Cresol [f]	95-48-7	0.33 [b]

Table 375-6.8(a):Unrestricted Use Soil Cleanup Objectives

Contaminant	CAS Number	Unrestricted Use
p-Cresol [f]	106-44-5	0.33 [b]
Pentachlorophenol	87-86-5	0.8 [b]
Phenanthrene [f]	85-01-8	100
Phenol	108-95-2	0.33 [b]
Pyrene [f]	129-00-0	100
Volatile organic compounds		
1,1,1-Trichloroethane [f]	71-55-6	0.68
1,1-Dichloroethane [f]	75-34-3	0.27
1,1-Dichloroethene [f]	75-35-4	0.33
1,2-Dichlorobenzene [f]	95-50-1	1.1
1,2-Dichloroethane	107-06-2	0.02 [c]
cis -1,2-Dichloroethene [f]	156-59-2	0.25
trans-1,2-Dichloroethene [f]	156-60-5	0.19
1,3-Dichlorobenzene [f]	541-73-1	2.4
1,4-Dichlorobenzene	106-46-7	1.8
1,4-Dioxane	123-91-1	0.1 [b]
Acetone	67-64-1	0.05
Benzene	71-43-2	0.06
n-Butylbenzene [f]	104-51-8	12
Carbon tetrachloride [f]	56-23-5	0.76
Chlorobenzene	108-90-7	1.1
Chloroform	67-66-3	0.37
Ethylbenzene [f]	100-41-4	1
Hexachlorobenzene [f]	118-74-1	0.33[b]
Methyl ethyl ketone	78-93-3	0.12
Methyl tert-butyl ether [f]	1634-04-4	0.93
Methylene chloride	75-09-2	0.05

Table 375-6.8(a):Unrestricted Use Soil Cleanup Objectives

Contaminant	CAS Number	Unrestricted Use
n - Propylbenzene [f]	103-65-1	3.9
sec-Butylbenzene [f]	135-98-8	11
tert-Butylbenzene [f]	98-06-6	5.9
Tetrachloroethene	127-18-4	1.3
Toluene	108-88-3	0.7
Trichloroethene	79-01-6	0.47
1,2,4-Trimethylbenzene [f]	95-63-6	3.6
1,3,5-Trimethylbenzene[f]	108-67-8	8.4
Vinyl chloride[f]	75-01-4	0.02
Xylene (mixed)	1330-20-7	0.26

All soil cleanup objectives (SCOs) are in parts per million (ppm).

Footnotes

[a] The SCOs for unrestricted use were capped at a maximum value of 100 ppm. See Technical Support Document (TSD), section 9.3.

[b] For constituents where the calculated SCO was lower than the contract required quantitation limit (CRQL), the CRQL is used as the Track 1 SCO value.

[c] For constituents where the calculated SCO was lower than the rural soil background concentration, as determined by the Department and Department of Health rural soil survey, the rural soil background concentration is used as the Track 1 SCO value for this use of the site.

[d] SCO is the sum of endosulfan I, endosulfan II and endosulfan sulfate.

[e] The SCO for this specific compound (or family of compounds) is considered to be met if the analysis for the total species of this contaminant is below the specific SCO.

[f] Protection of ecological resources SCOs were not developed for contaminants identified in Table 375-6.8(b) with “NS”. Where such contaminants appear in Table 375-6.8(a), the applicant may be required by the Department to calculate a protection of ecological resources SCO according to the TSD.

(b) Restricted use soil cleanup objectives.

Table 375-6.8(b): Restricted Use Soil Cleanup Objectives

Contaminant	CAS Number	Protection of Public Health				Protection of Ecological Resources	Protection of Ground-water
		Residential	Restricted-Residential	Commercial	Industrial		
Metals							
Arsenic	7440-38-2	16[f]	16[f]	16[f]	16[f]	13[f]	16[f]
Barium	7440-39-3	350[f]	400	400	10,000 [d]	433	820
Beryllium	7440-41-7	14	72	590	2,700	10	47
Cadmium	7440-43-9	2.5[f]	4.3	9.3	60	4	7.5
Chromium, hexavalent [h]	18540-29-9	22	110	400	800	1[e]	19
Chromium, trivalent [h]	16065-83-1	36	180	1,500	6,800	41	NS
Copper	7440-50-8	270	270	270	10,000 [d]	50	1,720
Total Cyanide [h]		27	27	27	10,000 [d]	NS	40
Lead	7439-92-1	400	400	1,000	3,900	63[f]	450
Manganese	7439-96-5	2,000[f]	2,000[f]	10,000 [d]	10,000 [d]	1600[f]	2,000[f]
Total Mercury		0.81[j]	0.81[j]	2.8[j]	5.7[j]	0.18[f]	0.73
Nickel	7440-02-0	140	310	310	10,000 [d]	30	130
Selenium	7782-49-2	36	180	1,500	6,800	3.9[f]	4[f]
Silver	7440-22-4	36	180	1,500	6,800	2	8.3
Zinc	7440-66-6	2200	10,000 [d]	10,000 [d]	10,000 [d]	109[f]	2,480
PCBs/Pesticides							
2,4,5-TP Acid (Silvex)	93-72-1	58	100[a]	500[b]	1,000[c]	NS	3.8
4,4'-DDE	72-55-9	1.8	8.9	62	120	0.0033 [e]	17
4,4'-DDT	50-29-3	1.7	7.9	47	94	0.0033 [e]	136
4,4'- DDD	72-54-8	2.6	13	92	180	0.0033 [e]	14
Aldrin	309-00-2	0.019	0.097	0.68	1.4	0.14	0.19
alpha-BHC	319-84-6	0.097	0.48	3.4	6.8	0.04[g]	0.02
beta-BHC	319-85-7	0.072	0.36	3	14	0.6	0.09
Chlordane (alpha)	5103-71-9	0.91	4.2	24	47	1.3	2.9

Table 375-6.8(b): Restricted Use Soil Cleanup Objectives

Contaminant	CAS Number	Protection of Public Health				Protection of Ecological Resources	Protection of Ground-water
		Residential	Restricted-Residential	Commercial	Industrial		
delta-BHC	319-86-8	100[a]	100[a]	500[b]	1,000[c]	0.04[g]	0.25
Dibenzofuran	132-64-9	14	59	350	1,000[c]	NS	210
Dieldrin	60-57-1	0.039	0.2	1.4	2.8	0.006	0.1
Endosulfan I	959-98-8	4.8[i]	24[i]	200[i]	920[i]	NS	102
Endosulfan II	33213-65-9	4.8[i]	24[i]	200[i]	920[i]	NS	102
Endosulfan sulfate	1031-07-8	4.8[i]	24[i]	200[i]	920[i]	NS	1,000[c]
Endrin	72-20-8	2.2	11	89	410	0.014	0.06
Heptachlor	76-44-8	0.42	2.1	15	29	0.14	0.38
Lindane	58-89-9	0.28	1.3	9.2	23	6	0.1
Polychlorinated biphenyls	1336-36-3	1	1	1	25	1	3.2
Semivolatiles							
Acenaphthene	83-32-9	100[a]	100[a]	500[b]	1,000[c]	20	98
Acenapthylene	208-96-8	100[a]	100[a]	500[b]	1,000[c]	NS	107
Anthracene	120-12-7	100[a]	100[a]	500[b]	1,000[c]	NS	1,000[c]
Benz(a)anthracene	56-55-3	1[f]	1[f]	5.6	11	NS	1[f]
Benzo(a)pyrene	50-32-8	1[f]	1[f]	1[f]	1.1	2.6	22
Benzo(b)fluoranthene	205-99-2	1[f]	1[f]	5.6	11	NS	1.7
Benzo(g,h,i)perylene	191-24-2	100[a]	100[a]	500[b]	1,000[c]	NS	1,000[c]
Benzo(k)fluoranthene	207-08-9	1	3.9	56	110	NS	1.7
Chrysene	218-01-9	1[f]	3.9	56	110	NS	1[f]
Dibenz(a,h)anthracene	53-70-3	0.33[e]	0.33[e]	0.56	1.1	NS	1,000[c]
Fluoranthene	206-44-0	100[a]	100[a]	500[b]	1,000[c]	NS	1,000[c]
Fluorene	86-73-7	100[a]	100[a]	500[b]	1,000[c]	30	386
Indeno(1,2,3-cd)pyrene	193-39-5	0.5[f]	0.5[f]	5.6	11	NS	8.2
m-Cresol	108-39-4	100[a]	100[a]	500[b]	1,000[c]	NS	0.33[e]
Naphthalene	91-20-3	100[a]	100[a]	500[b]	1,000[c]	NS	12

Table 375-6.8(b): Restricted Use Soil Cleanup Objectives

Contaminant	CAS Number	Protection of Public Health				Protection of Ecological Resources	Protection of Ground-water
		Residential	Restricted-Residential	Commercial	Industrial		
o-Cresol	95-48-7	100[a]	100[a]	500[b]	1,000[c]	NS	0.33[e]
p-Cresol	106-44-5	34	100[a]	500[b]	1,000[c]	NS	0.33[e]
Pentachlorophenol	87-86-5	2.4	6.7	6.7	55	0.8[e]	0.8[e]
Phenanthrene	85-01-8	100[a]	100[a]	500[b]	1,000[c]	NS	1,000[c]
Phenol	108-95-2	100[a]	100[a]	500[b]	1,000[c]	30	0.33[e]
Pyrene	129-00-0	100[a]	100[a]	500[b]	1,000[c]	NS	1,000[c]
Volatiles							
1,1,1-Trichloroethane	71-55-6	100[a]	100[a]	500[b]	1,000[c]	NS	0.68
1,1-Dichloroethane	75-34-3	19	26	240	480	NS	0.27
1,1-Dichloroethene	75-35-4	100[a]	100[a]	500[b]	1,000[c]	NS	0.33
1,2-Dichlorobenzene	95-50-1	100[a]	100[a]	500[b]	1,000[c]	NS	1.1
1,2-Dichloroethane	107-06-2	2.3	3.1	30	60	10	0.02[f]
cis-1,2-Dichloroethene	156-59-2	59	100[a]	500[b]	1,000[c]	NS	0.25
trans-1,2-Dichloroethene	156-60-5	100[a]	100[a]	500[b]	1,000[c]	NS	0.19
1,3-Dichlorobenzene	541-73-1	17	49	280	560	NS	2.4
1,4-Dichlorobenzene	106-46-7	9.8	13	130	250	20	1.8
1,4-Dioxane	123-91-1	9.8	13	130	250	0.1[e]	0.1[e]
Acetone	67-64-1	100[a]	100[b]	500[b]	1,000[c]	2.2	0.05
Benzene	71-43-2	2.9	4.8	44	89	70	0.06
Butylbenzene	104-51-8	100[a]	100[a]	500[b]	1,000[c]	NS	12
Carbon tetrachloride	56-23-5	1.4	2.4	22	44	NS	0.76
Chlorobenzene	108-90-7	100[a]	100[a]	500[b]	1,000[c]	40	1.1
Chloroform	67-66-3	10	49	350	700	12	0.37
Ethylbenzene	100-41-4	30	41	390	780	NS	1
Hexachlorobenzene	118-74-1	0.33[e]	1.2	6	12	NS	3.2
Methyl ethyl ketone	78-93-3	100[a]	100[a]	500[b]	1,000[c]	100[a]	0.12

Table 375-6.8(b): Restricted Use Soil Cleanup Objectives

Contaminant	CAS Number	Protection of Public Health				Protection of Ecological Resources	Protection of Ground-water
		Residential	Restricted-Residential	Commercial	Industrial		
Methyl tert-butyl ether	1634-04-4	62	100[a]	500[b]	1,000[c]	NS	0.93
Methylene chloride	75-09-2	51	100[a]	500[b]	1,000[c]	12	0.05
n-Propylbenzene	103-65-1	100[a]	100[a]	500[b]	1,000[c]	NS	3.9
sec-Butylbenzene	135-98-8	100[a]	100[a]	500[b]	1,000[c]	NS	11
tert-Butylbenzene	98-06-6	100[a]	100[a]	500[b]	1,000[c]	NS	5.9
Tetrachloroethene	127-18-4	5.5	19	150	300	2	1.3
Toluene	108-88-3	100[a]	100[a]	500[b]	1,000[c]	36	0.7
Trichloroethene	79-01-6	10	21	200	400	2	0.47
1,2,4-Trimethylbenzene	95-63-6	47	52	190	380	NS	3.6
1,3,5- Trimethylbenzene	108-67-8	47	52	190	380	NS	8.4
Vinyl chloride	75-01-4	0.21	0.9	13	27	NS	0.02
Xylene (mixed)	1330-20-7	100[a]	100[a]	500[b]	1,000[c]	0.26	1.6

All soil cleanup objectives (SCOs) are in parts per million (ppm).
NS=Not specified. See Technical Support Document (TSD).

Footnotes

[a] The SCOs for residential, restricted-residential and ecological resources use were capped at a maximum value of 100 ppm. See TSD section 9.3.

[b] The SCOs for commercial use were capped at a maximum value of 500 ppm. See TSD section 9.3.

[c] The SCOs for industrial use and the protection of groundwater were capped at a maximum value of 1000 ppm. See TSD section 9.3.

[d] The SCOs for metals were capped at a maximum value of 10,000 ppm. See TSD section 9.3.

[e] For constituents where the calculated SCO was lower than the contract required quantitation limit (CRQL), the CRQL is used as the SCO value.

[f] For constituents where the calculated SCO was lower than the rural soil background concentration as determined by the Department and Department of Health rural soil survey, the rural soil background concentration is used as the Track 2 SCO value for this use of the site.

[g] This SCO is derived from data on mixed isomers of BHC.

[h] The SCO for this specific compound (or family of compounds) is considered to be met if the analysis for the total species of this contaminant is below the specific SCO.

[i] This SCO is for the sum of endosulfan I, endosulfan II, and endosulfan sulfate.

[j] This SCO is the lower of the values for mercury (elemental) or mercury (inorganic salts). See TSD Table 5.6-1.

375-6.9 Development or modification of soil cleanup objectives.

(a) Applicability. This section identifies when and the procedures under which a contaminant-specific soil cleanup objective may be developed or modified.

(1) Soil cleanup objectives for contaminants not included in Tables 375-6.8(a) and (b) may be developed by the remedial party or required by the Department.

(2) Soil cleanup objectives for contaminants included in Tables 375-6.8(a) and (b), may be modified based on site-specific data if desired by the remedial party; as set forth in:

(i) subpart 375-3 for Tracks 3 or 4, as set forth in paragraphs 375-3.8(e)(3) or (4), respectively; or

(ii) subparts 375-2 and 375-4, as set forth in subparagraph 375-2.8(b)(1)(iii) and subparagraph 375-4.8(c)(1)(iii).

(3) Protection of ecological resources soil cleanup objectives were not developed for certain contaminants, which are identified in Table 375-6.8(b) as "NS". Where such contaminants:

(i) appear in Table 375-6.8(a), the applicant may be required by the Department to calculate a protection of ecological resources soil cleanup objective for the contaminant for use in Track 1 and apply such soil cleanup objective where it is lower than the soil cleanup objective set forth in Table 375-6.8(a); or

(ii) are identified as impacting or threatening an ecological resource for a restricted use remedial program the Department may require a protection of ecological resources soil cleanup objective be developed.

(b) New soil cleanup objectives must:

(1) Be developed utilizing the same methodologies that were used by the Department to develop the respective soil cleanup objective, as provided in the Technical Support Document.

(2) Apply the following caps, as set forth in section 9.3 of the Technical Support Document, on any soil cleanup objective included in Tables 375-6.8(a) and (b), with the exception of metals, as set forth in paragraph (3) below, developed for:

(i) unrestricted use, residential use, restricted-residential use and the protection of ecological resources, a maximum value of 100 ppm;

(ii) commercial use, a maximum value of 500 ppm; and

(iii) industrial use and the protection of groundwater a maximum value of 1000 ppm, and

(3) Apply a cap for metals at a maximum value of 10,000 ppm.

(c) Development of unrestricted use soil cleanup objectives. The unrestricted use soil cleanup objective for a compound will be the lowest of the soil cleanup values, calculated as set forth in appendix E of the Technical Support Document, for the protection of groundwater, protection of ecological resources and protection of public health.

(d) Development of restricted use soil cleanup objectives. The protection of:

(1) Groundwater soil cleanup objective will be the values calculated for the protection of groundwater as set forth in appendix E of the Technical Support Document;

(2) Ecological resources soil cleanup objectives will be the values calculated for the protection of ecological resources as set forth in appendix E of the Technical Support Document; and

(3) Public health cleanup objective will be the values calculated for the protection of public health for the identified use of the site, as set forth in appendix E of the Technical Support Document.

(e) Modification of soil cleanup objectives. The contaminant-specific soil cleanup objectives set forth at Tables 675-6.8(a) and (b)[1] may be modified by site specific data as set forth in this subdivision.

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[1] Original should read "Tables 375-6.8(a) and (b)"

(1) Contaminant-specific soil cleanup objectives modified in accordance with this subdivision may be utilized by the remedial party for a site remedial program undertaken pursuant to:

(i) subpart 375-3 in Tracks 3 or 4, as set forth in paragraphs 375-3.8(e)(3) or (4), respectively; or

(ii) subparts 375-2 and 375-4, as set forth in subparagraph 375-2.8(b)(1)(ii) and subparagraph 375-4.8(c)(1)(ii).

(2) For the calculation of a protection of groundwater or ecological resources contaminant -specific soil cleanup objective, the site-specific percentage of total organic carbon in the soil at the site may be substituted in the algorithms provided in appendix E of the Technical Support Document.

(3) For the calculation of a protection of public health contaminant-specific soil cleanup objective, site-specific data may be used to modify two of the five exposure pathways, as follows:

(i) for the particulate inhalation pathway six parameters rely on site-specific data; and

(ii) for the volatile inhalation pathway, four parameters rely on site-specific data.

(4) The algorithms to be used for each protection of public health pathway and details on the parameters which can be substituted are included in appendix E of the Technical Support Document.

(f) Use of soil cleanup objectives developed or modified. Once approved by the Department, contaminant-specific soil cleanup objectives developed or modified as set forth in this section may be utilized by the Department at other sites consistent with paragraphs (1) and (2) below.

(1) Contaminant-specific soil cleanup objectives developed for contaminants not included in Tables 375-6.8(a) and (b), as set forth in subdivision 375-6.9(b) above, will be used as guidance and shall be considered by the Department for inclusion in the Tables in this subpart during any subsequent reevaluation of the soil cleanup objectives, as set forth by ECL 27-1415.

(2) Contaminant-specific soil cleanup objectives modified for site specific parameters, as set forth in subdivision 375-6.9(e) above, may be utilized at sites manifesting similar parameters, if approved by the Department.

CP-51 / Soil Cleanup Guidance

New York State Department of Environmental Conservation

DEC Policy

Issuing Authority: Alexander B. Grannis, Commissioner

Date Issued: October 21, 2010 **Latest Date Revised:**

I. Summary

This policy provides the framework and procedures for the selection of soil cleanup levels appropriate for each of the remedial programs in the New York State Department of Environmental Conservation (DEC) Division of Environmental Remediation (DER). This policy applies to the Inactive Hazardous Waste Disposal Site Remedial Program, known as the State Superfund Program (SSF); Brownfield Cleanup Program (BCP); Voluntary Cleanup Program (VCP); Environmental Restoration Program (ERP); Spill Response Program - Navigation Law (NL) section 176 (SRP); and the Resource Conservation and Recovery Act (RCRA) Corrective Action Program. It replaces *Technical and Administrative Guidance Memorandum (TAGM) 4046: Determination of Soil Cleanup Objectives and Cleanup Levels* (January 24, 1994); the *Petroleum Site Inactivation and Closure Memorandum* (February 23, 1998); and Sections III and IV of *Spill Technology and Remediation Series (STARS) #1* (August 1992).

This document is used in conjunction with the applicable statutes, regulations and guidance. Site-specific soil cleanup levels, determined in accordance with this guidance, are only applied after:

- the site, or area of concern, is fully investigated to determine the nature and extent of contamination;
- all sources of contamination are addressed consistent with the hierarchy provided in 6 NYCRR 375-1.8(c) or consistent with the RCRA Corrective Action Program (as appropriate);
- groundwater, if contaminated, has been evaluated for appropriate remedial actions consistent with 6 NYCRR 375-1.8(d) or consistent with the RCRA Corrective Action Program (as appropriate); and
- impacts on adjacent residential properties, surface water, aquatic ecological resources are evaluated, as well as indoor air, soil vapor, vapor intrusion and other appropriate media.

II. Policy

It is DEC's policy, consistent with applicable statutes and regulations, that all remedies will be protective of public health and the environment. DEC's preference is that remedial programs, including the selection of soil cleanup levels, be designed such that the performance standard results in the implementation of a permanent remedy resulting in no future land use restrictions. However, some of

DEC's remedial programs are predicated on future site use. Further, it is not always feasible to return to a condition where no restrictions are required.

The procedures set forth herein are intended for the use and guidance of both DEC and remedial parties to provide a uniform and consistent process for the determination of soil cleanup levels. This guidance is not intended to create any substantive or procedural rights, enforceable by any party in administrative or judicial litigation with DEC. DEC reserves the right to act at variance with these procedures to address site-specific circumstances and to change the procedures in this guidance at any time.

Please note that this guidance focuses only on soil cleanup levels. All remedies must be fully protective of public health and the environment and must prevent further off-site migration to the extent feasible, with special emphasis on preventing or minimizing migration onto adjacent residential properties. A remedial party is required to evaluate and investigate, if necessary, all environmental media including soil, groundwater, surface water, sediments, soil vapor, ambient air, and biota. [See 6 NYCRR 375-1.8(a)(6) or RCRA Corrective Action Program (as appropriate)]. This investigation will determine if any of the referenced media are, or may be, impacted by site contamination. Applicable guidance should be consulted for media other than soil.

Nothing contained in this guidance, in itself, forms the basis for changes to previously selected remedies. However, a change in the site remedy may be considered consistent with *DER-2: Making Changes to Selected Remedies* (April 1, 2008). [See Section VI, Related References.] To the extent that a change to a selected remedy at a site in one of DER's remedial programs is necessary as provided in DER-2, as applicable, the Soil Cleanup Objectives (SCOs) may be considered in the evaluation of appropriate changes to the selected remedy. For sites in other programs, applicable regulations and guidance must be used.

III. Purpose and Background

DEC has a number of different remedial programs that were developed over time based on separate and distinct authorities. These programs use different procedures to determine the extent of soil cleanup necessary to satisfy the remedial program goals. The purpose of this document is to set forth how soil cleanup levels are selected for the different programs.

Legislation establishing New York State's Brownfield Cleanup Program (Article 27, Title 14 of the Environmental Conservation Law [ECL]) required DEC, in consultation with the New York State Department of Health (NYSDOH), to develop an approach for the remediation of contamination at brownfield sites. The resulting regulation includes seven sets of SCOs. Four sets provide for the protection of public health for different land uses (residential, restricted residential, commercial, and industrial); two sets provide for the protection of other resources (groundwater and ecological resources); and one set includes SCOs for protection of public health and the environment for all uses (unrestricted use).

With the promulgation of the SCOs, it is necessary to discuss how the SCOs, and soil cleanup levels generally, are arrived at for a specific site. Some key definitions in understanding how cleanup levels for soil are arrived at follow.

Feasible, which means suitable to site conditions, capable of being successfully carried out with available technology, implementable and cost effective [see 6 NYCRR 375-1.2(s)].

Presumptive remedy, which means a technology or technique where experience has shown the remedy to be a proven solution for specific types of sites and/or contaminant classes [See *DER-15: Presumptive/Proven Remedial Technologies* February 27, 2007. Refer to Section VI, Related References.]

Soil cleanup level, which means the concentration of a given contaminant for a specific site that must be achieved under a remedial program for soil. Depending on the regulatory program, a soil cleanup level may be based on the regulation [6 NYCRR 375-6.8(a) or (b)], modified from the regulatory value based on site-specific differences, or based on other information, including background levels or feasibility. Soil cleanup levels may include:

- SCOs promulgated at 6 NYCRR 375-6;
- Supplemental Soil Cleanup Objectives (SSCOs);
- a "totals" approach for a family of contaminants known as Polycyclic Aromatic Hydrocarbons (PAHs);
- Presumptive remedy for Polychlorinated Biphenyls (PCBs); and
- Nuisance Condition.

Soil Cleanup Objective (SCO), which means the chemical concentrations for soil cleanup of individual chemicals contained in 6 NYCRR 375-6.8(a) or (b). The SCOs were developed using the process outlined in the Technical Support Document (TSD). The SCOs and the SSCOs defined below are applicable statewide and do not account for many site-specific considerations which could potentially result in higher levels. Soil concentrations that are higher than the SCOs and SSCOs are not necessarily a health or environmental concern. When an SCO (or SSCO) is exceeded, the degree of public health or environmental concern depends on several factors, including the magnitude of the exceedance, the accuracy of the exposure estimates, other sources of exposure to the contaminant, and the strength and quality of the available toxicological information on the contaminant.

Supplemental Soil Cleanup Objective (SSCO), which means a) an existing soil cleanup level for a contaminant which had been included in former TAGM 4046 and was not included in 6 NYCRR 375-6; b) has been developed using the same process used for development of the SCOs; and c) new cleanup levels for soil developed by the remedial party following the approach detailed in Appendix E of the TSD. The TSD provides information relative to the development of cleanup objectives for soil that are not set forth in 6 NYCRR 375-6. Cleanup objectives that have been established at the direction of DEC or the election of remedial parties are included in Table 1.

Technical Support Document (TSD), which refers to the document dated December 2006 detailing the development of the SCOs that were promulgated in 6 NYCRR 375-6. It provides the technical background and provides a detailed discussion of the considerations for development of the SCOs for the different land uses and exposure pathways. The TSD is available on DEC's website [see Section VI, Related References].

The purpose of this guidance is NOT to focus on media other than soil. Accordingly, the remedial program may require remedial activities to address media other than soil (e.g., groundwater, surface water, sediment, and vapor). Applicable guidance should be consulted for media other than soil. This guidance is to be used in conjunction with the applicable statutes, regulations and guidance. Site-specific soil cleanup levels, determined in accordance with this guidance, are only applied after:

- the site, or area of concern, is fully investigated to determine the nature and extent of contamination;
- all sources of contamination are addressed consistent with the hierarchy provided in 6 NYCRR 375-1.8(c) or consistent with the RCRA Corrective Action Program (as appropriate);
- groundwater, if contaminated, has been evaluated for appropriate remedial actions consistent with 6 NYCRR 375-1.8(d) or consistent with the RCRA Corrective Action Program (as appropriate); and
- an evaluation of impacts on adjacent residential properties, surface water, aquatic ecological resources, as well as indoor air, soil vapor, vapor intrusion and other appropriate media.

IV. Responsibility

The responsibility for maintaining and updating this policy lies with DER. DEC staff are responsible for implementing this policy, with input (as applicable) from NYSDOH.

V. Procedures

A. General Approaches to the Selection of Soil Cleanup Levels

The determination of soil cleanup levels for a site is dependent on:

1. The regulatory program pursuant to which the site is being addressed;
2. Whether the groundwater beneath or down gradient of the site is, or may become contaminated with site-related contaminants;
3. Whether ecological resources constitute an important component of the environment at or adjacent to a site, and which are, or may be, impacted by site-related contaminants; and
4. Other impacted environmental media such as surface water, sediment, and soil vapor.

After fully evaluating the nature and extent of soil contamination associated with a site, the soil cleanup levels will be based on one, or a combination of, the following four approaches.

Approach 1: **Utilize the Unrestricted Use Soil Cleanup Objectives** [see 6 NYCRR Table 375-6.8(a)]. Under this approach, the soil cleanup levels will be established consistent with the SCOs set forth in 6 NYCRR Table 375-6.8(a). For contaminants of concern which are not included in the rule, DEC may direct development of a soil cleanup level which is protective of public health and the environment without restrictions following the procedure outlined in Appendix E of the TSD. Under this approach, the unrestricted SCOs are applied throughout the soil matrix to the top of bedrock (including the saturated zone).

Approach 2: **Utilize the Restricted Use Soil Cleanup Objectives** [see 6 NYCRR Table 375-6.8(b)]. Under this approach, soil cleanup levels will be established consistent with the SCOs set forth in 6 NYCRR Table 375-6.8(b) selecting the lowest SCO in the categories described in A through C below. Generally, after source removal, the soil cleanup levels do not need to be achieved to more than 15 feet below ground surface or to the top of bedrock, whichever is shallower.

A. Select the applicable land use category for the protection of public health (residential, restricted residential, commercial or industrial);

B. Determine if the SCOs for the protection of groundwater are applicable (see Section V.D); and

C. Determine if the SCOs for the protection of ecological resources are applicable (see Section V.C).

Approach 3: **Limited Site-Specific Modifications to Soil Cleanup Objectives.** This approach allows for consideration of site-specific information to modify the SCOs promulgated in 6 NYCRR Tables 375-6.8 (a) and (b) following the approach detailed in Appendix E of the TSD. The equations and basic methodology specified for calculating the 6 NYCRR 375-6.8 (a) and (b) values may not be modified under this approach. However, in instances where site-specific parameters were used in the calculation of the SCOs, site data different from the assumptions used to calculate the SCOs may be used to modify the soil cleanup levels for a specific site. These instances are very limited and occur only in certain pathways that are listed below.

- Protection of groundwater pathway
- Particulate inhalation pathway
- Volatile inhalation pathway
- Protection of ecological resources pathway

It should be noted that even if site-specific data modifies these pathways, it may not result in modifying the SCOs because the lowest value from all applicable pathways is used to determine each SCO. The inhalation pathway is very seldom the controlling pathway in the determination of the protection of public health. The specific parameters that can be modified are identified in Appendix E of the TSD (e.g., inhalation dispersion terms, fraction of organic carbon in soil, etc.).

The remedial party should consider the cost of collecting the data necessary to support a request to modify the SCOs with the potential for deriving a higher SCO that provides an appropriate level of protection. The remedial party may be required to submit additional data to support the use of modified SCOs. Once DEC approves one or more modified SCOs, they are applied in the manner described under Approach 2.

Approach 4: **Site-Specific Soil Cleanup Objectives.** Under this approach, the remedial party may propose site-specific cleanup levels or approaches for soil which are protective of public health and the environment based on other information. This approach sets forth a flexible framework to develop soil cleanup levels by allowing the remedial party to conduct a more detailed evaluation of site information in an effort to calculate protective soil cleanup levels or approaches unique to a site. Under this approach, the remedial party may propose a remedy that does not include specific soil cleanup levels (e.g., excavate the top 6 feet in an area extending 75 feet in all directions from boring B12); modify the input parameters used in the SCO calculations; use site data to improve or confirm predictions of exposures to receptors to contaminants of concern; analyze site-specific risks using risk assessments; use toxicological information available from alternate sources; or consider site background and historic fill. Data supporting these site-specific adjustments or use of alternate methodologies must also be provided to DEC for review and approval to ensure that the resulting soil cleanup levels are protective.

The Approach 4 framework leaves DEC with discretion to determine whether a different approach is appropriate for the site and, if a different approach is to be used, the proper method of implementation. The remedial party should consider the cost of collecting the data necessary to develop site-specific soil cleanup levels (or approaches) with the potential for deriving a soil cleanup level which is higher than a particular SCO and which provides an appropriate level of protection. The remedial party may also be required to submit additional data to support the use of methodologies in the calculation of site-specific soil cleanup levels or to support the proposed approach.

B. Application of Soil Cleanup Levels for the Specific Remedial Programs: Soil cleanup levels are determined on a site-specific basis depending on the program under which the site is being remediated. In some cases (e.g., BCP Track 1 or Track 2), the soil cleanup levels are the SCOs taken directly from 6 NYCRR 375-6. In other cases, soil cleanup levels may be derived from the Part 375 SCOs but modified based on other information. In yet other cases, the soil cleanup levels may have no relationship or connection to the SCOs, but rather be developed in accordance with DEC-approved methodologies or approaches.

1. <u>Inactive Hazardous Waste Disposal Site Remedial Program (State Superfund Program)</u>: The goal of the remedial program for a specific site is to restore that site to pre-disposal conditions, to the extent feasible. The unrestricted use SCOs are considered to be representative of pre-disposal conditions unless an impact to ecological resources has been identified (see 6 NYCRR 375-2.8(b)(2)). However, it must be recognized that achievement of this goal may not be feasible in every case. At a minimum, all remedies must be protective of public health and the environment. The following procedure is used to determine the most feasible remedy.

(a) The remedial party shall evaluate, and if feasible, implement a cleanup utilizing Approach 1 (application of unrestricted SCOs).

(b) Where DEC determines that achieving unrestricted SCOs is not feasible as documented in a feasibility study, the remedial party may evaluate alternatives to remediate the site to the greatest extent feasible (see *DER-10: Technical Guidance for Site Investigation and Remediation*, Chapter 4.3). [See Section VI, Related References.] In this event, the remedial party may propose soil cleanup levels in accordance with any of the general approaches. However, when considering restricted use soil cleanup levels, the remedial party should apply the least restrictive use category feasible. For purposes of this discussion, residential use is the least restrictive use and industrial use is the most restrictive category. This process starts with consideration of residential use, followed by restricted residential use, commercial use, and then industrial use. The evaluation proceeds through the different land uses until a feasible remedy is found. This evaluation is not bound to the SCOs in regulation or SSCOs set forth in this guidance but may result in a site-specific soil cleanup level that is between the SCOs or soil cleanup level for two different land uses (e.g., above the restricted residential SCO and below the commercial SCO).

2. Brownfield Cleanup Program The remedy shall be fully protective of public health and the environment, including, but not limited to, groundwater according to its classification pursuant to ECL 17-0301, drinking water, surface water, air (including indoor air), sensitive populations (including children), and ecological resources (including fish and wildlife). Soil cleanup levels corresponding to the cleanup track under which the site is being remediated are required to be met. The four cleanup tracks are:

Track 1: Cleanups pursuant to this track must achieve unrestricted use of the site. This track requires that the remedial party implement a cleanup utilizing Approach 1. Institutional and engineering controls are allowed only for periods of less than five years (defined as short-term controls) except in the limited instance where a volunteer has conducted remedial activities resulting in a bulk reduction in groundwater contamination to asymptotic levels.

Track 2 : Cleanups pursuant to this track may consider the current, intended, or reasonably anticipated future use in determining the appropriate cleanup levels for soil. This track requires that the remedial party implement a cleanup that achieves the SCOs in the tables in 6 NYCRR 375-6.7(b) for the top 15 feet of soil (or bedrock if less than 15 feet). This track follows approach 2. Institutional and engineering controls are allowed for soil (for the top 15 feet of soil or bedrock if less than 15 feet) for less than five years (defined as short-term controls). Institutional and engineering controls which limit site use and the use of onsite groundwater can be used without regard to duration. Track 2 cleanups at restricted residential, commercial or industrial use sites require site management plans to ensure that material removed from the site (post remedial action) is managed appropriately and to ensure that any buffer zone protecting adjacent residential use sites or ecological resources is maintained.

Track 3: Cleanups pursuant to this track may consider the current, intended, or reasonably anticipated use in determining the appropriate cleanup levels for soil. This track requires that the remedial party implement a cleanup utilizing Approach 3 for those SCOs which the remedial party seeks to modify an established SCO. Institutional and engineering controls are allowed for soil (for the top 15 feet of soil or bedrock if less than 15 feet) for less than 5 years (defined as short-term controls). Institutional and engineering controls which limit site use and the use of on-site groundwater can be used without regard to duration. Track 3 cleanups at restricted residential, commercial or industrial use sites require site management plans to ensure that material removed from the site (post remedial action)is managed appropriately and to ensure that any buffer zone protecting adjacent residential use sites or ecological resources is maintained.

Track 4: Cleanups pursuant to this track may consider the current, intended, or reasonably anticipated use in determining the appropriate cleanup levels for soil. This track allows for the development of site-specific soil cleanup levels below the cover system in accordance with Approach 4. Track 4 remedies must address all sources as a component of the remedy. Short- and long-term institutional and engineering controls are allowed to achieve protection of public health and the environment. The remedy under Track 4 must provide a cover system over exposed residual soil contamination. Soils which are not otherwise covered by structures such as buildings, sidewalks or pavement (i.e., exposed surface soils) must be covered with soil that complies with the use-based SCOs in 6 NYCRR Table 375-6.8(b) levels for the top one foot (non-residential uses) or top two feet (restricted residential use).

3. Environmental Restoration Program: The goal of the program for a specific site is to select a remedy that is protective of public health and the environment, including, but not limited to, groundwater according to its classification pursuant to ECL 17-0301, drinking water, surface water and air (including indoor air), sensitive populations (including children) and ecological resources (including fish and wildlife). At a minimum, the remedy selected shall eliminate or mitigate all significant threats to public health and to the environment presented by contaminants disposed at the site through the proper application of scientific and engineering principles. Soil cleanup levels may be developed in accordance with Approaches 1 – 4 without restriction.

4. Voluntary Cleanup Program: The goal of the program for a specific site is to select a remedy that is protective of public health and the environment for the contemplated use. The soil cleanup levels may be developed in accordance with Approaches 1 – 4 without restriction.

5. Petroleum Spill Response Program: The goal of the Petroleum Spill Response Program is to achieve pre-spill conditions [6 NYCRR 611.6(a)(4)]. Remedial activities under this program shall be undertaken relative to the petroleum contamination that was released along with any co-mingled contamination from other sources. The remedial party shall achieve, to the extent feasible, the unrestricted SCOs for petroleum-related contaminants listed in 6 NYCRR Table 375-6.8(a). For petroleum contaminants not included in 6 NYCRR Table 375-6.8(a) (discussed in Section E below), the remedial party shall apply, to the extent feasible, the soil cleanup levels provided in Table 1. For ease of implementation, two lists of petroleum contaminants (Gasoline and Fuel Oil, Tables 2 and 3) are attached. The tables combine the applicable petroleum-related SCOs from 6 NYCRR 375-6.8(a) and the applicable petroleum related SSCOs from Table 1. Where DEC determines that it is not feasible to achieve the soil cleanup levels as set forth in this paragraph, the remedial party may propose soil cleanup levels in accordance with any of the general approaches. However, when considering restricted use soil cleanup levels, the remedial party should apply the least restrictive use category feasible.

For purposes of this discussion, residential use is the least restrictive use, and industrial use is the most restrictive category. This process starts with consideration of residential use, followed by restricted residential use, commercial use, and then industrial use. The evaluation proceeds through the different land uses until a feasible remedy is found. If the protection of groundwater or ecological SCOs apply, the lower of the applicable protection of the public health SCO or the applicable protection of groundwater or ecological SCO should be achieved to the extent feasible. This evaluation is not bound to the SCOs in regulation or the SSCOs set forth in this guidance but may result in a site-specific soil cleanup level that is between the SCOs or soil cleanup level for two different land uses (e.g., above the restricted residential SCO and below the commercial SCO).

6. RCRA Corrective Action Program: The RCRA program was promulgated to regulate facilities that actively manage hazardous waste. DER administers the RCRA Corrective Action Program, with a goal of achieving soil cleanup levels at Solid Waste Management Units (SWMUs) and Areas of Concern (AOCs) that eliminate risks to public health and the environment (i.e., clean the site to unrestricted use) or control said risks (i.e., clean the site or unit(s) to the lowest possible soil cleanup objective, regardless of site use), to the extent feasible. This goal takes into account that certain units at the facility may be permitted to manage hazardous waste under New York State's Hazardous Waste Management (HWM) regulations (6 NYCRR Part 373). The requirements of active HWM facilities, as well as the site's history, will be considered when soil cleanup levels are determined. Selected remedies must be protective of public health and the environment. Soil cleanup levels will be selected using the following procedure.

(a) The remedial party shall evaluate, and if feasible, implement a cleanup utilizing Approach 1. Under this approach, the unrestricted SCOs apply to the entire soil matrix to the top of bedrock. For contaminants not listed in 6 NYCRR 375-6, a new or existing SSCO may be used.

(b) If DEC determines that achieving unrestricted SCOs is not feasible, the remedial party may evaluate other alternatives to remediate the site. In this event, the remedial party may propose soil cleanup levels in accordance with any of the general approaches. However, when considering restricted use soil cleanup levels, the remedial party shall apply the use category which is both feasible and least restricted. For purposes of this discussion, residential use is the least restricted category and industrial use is the most restricted category. A soil cleanup level between two different land uses (e.g., residential and restricted residential) may be determined to be feasible, and if selected, must be achieved.

Any soil cleanup levels specified in regulation (i.e., 6 NYCRR 373-2.6(b)-(k) for "regulated units" as defined in 6 NYCRR 373-2.6 (a)(1)(ii)) or in a DEC enforceable document (Part 373 permits, Consent Orders, etc.) shall take precedence over the soil cleanup levels which could be established through use of this document.

C. Determination of Whether Ecological Resources SCOs Apply to a Site: SCOs developed to protect ecological resources (ESCOs) are incorporated in the Unrestricted Use SCO in 6 NYCRR Table 375-6.8(a) and are included as a separate category in 6 NYCRR Table 375-6.8(b). For contaminants of concern which do not have a calculated ESCO in regulation, DEC may direct the remedial party to develop a soil cleanup level which is protective of ecological resources where appropriate, based on the process outlined in Appendix E of the TSD.

The presence of ecological resources and any impact to those resources will be assessed during the remedial investigation. For sites where there is the potential for an ecological resource impact to be present, or where it is likely to be present, an assessment of fish and wildlife resource impacts will be performed. For sites in DER's SSF, BCP, VCP and ERP, the assessment will be performed in accordance with DEC's guidance, *Fish and Wildlife Impact Analysis for Inactive Hazardous Waste Sites*, October, 1994, as described in DER-10, Section 3.10. For sites in the RCRA Corrective Action Program, the assessment will be performed using the above referenced fish and wildlife impact analysis document as guidance, and by consulting with appropriate personnel in DEC's Division of Fish, Wildlife and Marine Resources.

Soil cleanup levels which are protective of ecological resources must be considered and applied, as appropriate, for the upland soils (not sediment) at sites where DEC determines, based on the foregoing analysis, that:

- ecological resources are present, or will be present, under the reasonably anticipated future use of the site, and such resources constitute an important component of the environment at, or adjacent to, the site;

- an impact or threat of impact to the ecological resource has been identified; and

- contaminant concentrations in soil exceed the ESCOs as set forth in 6 NYCRR 375-6.8(b) or the Protection of Ecological Resources SSCOs contained in this document.

Sites or portions thereof that will be covered by buildings, structures or pavement are not subject to the ESCOs. Further, ecological resources do not include pets, livestock, agricultural or horticultural crops, or landscaping in developed areas. (See 6 NYCRR 375-6.6 for more detail.)

D. Determination of Whether Protection of Groundwater SCOs Apply: SCOs developed to protect groundwater are incorporated in the Unrestricted Use SCOs in 6 NYCRR Table 375-6.8(a) and are included as a separate category in 6 NYCRR Table 375-6.8(b). For contaminants of concern which do not have a protection of groundwater SCO, DEC may direct the remedial party to develop a soil cleanup level which is protective of groundwater using the process in Appendix E of the TSD.

1. Except as provided for in (2) below, the protection of groundwater SCOs will be applicable where:

   (i) contamination has been identified in on-site soil by the remedial investigation; and
   (ii) groundwater standards are, or are threatened to be, contravened by the presence of soil contamination at concentrations above the protection of groundwater SCOs.

2. DEC may provide an exception to the applicability of the protection of groundwater SCOs, as set forth in 6 NYCRR 375-6.5(a)(1), when (i), (ii), and (iii) exist and either (iv) or (v) also apply, as described below.

   (i) The groundwater standard contravention is the result of an on-site source which is addressed by the remedial program.
   (ii) An environmental easement or other institutional control will be put in place which provides for a groundwater use restriction.
   (iii) DEC determines that contaminated groundwater at the site:
      (a) is not migrating, nor is likely to migrate, off-site; or
      (b) is migrating, or is likely to migrate, off-site; however, the remedy includes active groundwater management to address off-site migration.
   (iv) DEC determines the groundwater quality will improve over time.
   (v) The groundwater contamination migrating from the site is the result of an off-site source of contamination, and site contaminants are not contributing consequential amounts to the groundwater contamination.

3. In determining whether to provide the exemption set forth in subparagraph 2 above, DEC will consider:

   (i) all of the remedy selection criteria at 6 NYCRR 375-1.8(h) or in the RCRA Corrective Action program;
   (ii) the amount of time that the groundwater will need to be actively managed for the protection of public health and the environment; and
   (iii) the potential impact that groundwater contamination may have on media not specifically addressed by the SCOs (e.g., vapor intrusion, protection of surface water, and protection of aquatic ecological resources).

E. Supplemental Soil Cleanup Objectives: SSCOs are either existing cleanup levels in Table 1 or are new soil cleanup levels developed by the remedial party as part of its remedial program. These SSCOs are in addition to the SCOs that are included in Part 375.

Existing SSCOs: The Table 1 list of SSCOs includes contaminants from former TAGM 4046 that were not included in 6 NYCRR 375-6.8 and soil cleanup levels developed using the process detailed in Appendix E of the TSD but not promulgated. For those contaminants which were part of the former TAGM 4046, soil cleanup levels exist for the protection of public health (based on ingestion) and for the protection of groundwater. In some cases, to be determined on a site-by-site basis, evaluation of other factors is likely needed for the protection of public health, especially when the use of a site includes residential use.

These other factors include other exposure pathways (e.g., homegrown vegetable ingestion, inhalation and dermal contact), potential non-site exposures to the contaminant and current toxicological data on the contaminant. In these instances, DEC (in consultation with NYSDOH) will determine if the additional factors have been adequately addressed. The SSCOs identified in Table 1 (subject to the limitation described above) may be used as if they were included in Part 375. A remedial party is not required to use the SSCOs set forth in Table 1. In lieu of applying an SSCO, the remedial party may elect to develop a soil cleanup level (using the process described in Appendix E of the TSD and discussed below.) Table 1 also includes SSCOs that were developed for some pathways using the same process detailed in the TSD. A remedial party may elect to use those SSCOs directly or confirm that the calculated value for that pathway is correct.

New SSCOs: The remedial party may elect to, or DEC may direct a remedial party to, develop a contaminant-specific SCO for any contaminant not included in 6 NYCRR Tables 375-6.8(a) or (b). Generally, DEC will request that an SCO be developed only where the contaminant is a predominant contaminant of concern (COC) at the site and is not otherwise being addressed to DEC's satisfaction as part of the proposed remedy. This could happen, for example, when a remedial party is seeking a Track 1 cleanup and non-SCO/SSCO contaminants are present and may not be satisfactorily addressed by the remedial activities addressing the SCOs or SSCOs. Guidance on the process for developing new SCOs is provided in Appendix E of the TSD. DEC will include all newly developed soil cleanup levels, developed and approved pursuant to this paragraph in a revised Table 1. The developed SSCO must:

1. be developed utilizing the same methodologies that were used by DEC to develop SCOs that are set forth in Part 375; and

2. apply the maximum acceptable soil concentrations (caps), as set forth in section 9.3 of the TSD.

F. Use of SCOs and SSCOs as a Screening Tool: The SCOs and SSCOs may be used to identify areas of soil contamination and to determine the extent of soil contamination. As noted in Section V.K, consideration of other media is required to determine if remedial action is needed.

1. At sites or areas of concern where contaminant concentrations are equal to or below the unrestricted SCOs in 6 NYCRR Table 375-6.8(a), no action or study is warranted because of soil contamination.

2. The exceedance of one or more applicable SCOs or SSCOs, (which is the lower of protection of public health, protection of groundwater, or protection of ecological resources soil cleanup objectives as described in Section III below), alone does not trigger the need for remedial action, define “unacceptable” levels of contaminants in soil, or indicates that a site qualifies for any DEC remedial program (e.g., BCP, SSF). As noted in the definition of SCO above, SCOs and SSCOs are applicable statewide and do not account for many site-specific considerations which could potentially result in higher levels. Therefore, soil concentrations that are higher than the applicable SCOs or SSCOs are not necessarily health or environmental concerns.

3. When an applicable SCO or SSCO is exceeded, the degree of public health or environmental concern depends on several factors, including:

    - magnitude of the exceedance;
    - accuracy of the exposure estimates;
    - other sources of exposure to the contaminant; and
    - strength and quality of the available toxicological information on the contaminant.

G. Soil Cleanup Levels for Nuisance Conditions: Experience has shown that contaminants in soil that meets the DEC-approved soil cleanup levels can exhibit a distinct odor or other type of nuisance (e.g., staining). This is true even though the contaminants will not leach from the soil (e.g., certain soils with more insoluble substances at higher concentrations). When DEC determines that soil remaining after the remedial action will result in the continuation of a nuisance (e.g., odors, staining, etc), DEC will require that additional remedial measures be evaluated, and may require additional remedial actions be taken to address the nuisance condition.

H. Subsurface Soil Cleanup for Total Polycyclic Aromatic Hydrocarbons: For non-residential use sites (i.e., commercial or industrial use sites) where the ESCOs are not applicable, DEC may approve a remedial program which achieves a soil cleanup level of 500 parts per million (ppm) for total PAHs for all subsurface soil. The 500 ppm soil cleanup level is in lieu of achieving all of the PAH-specific SCOs in 6 NYCRR 375-6. For purposes of this provision, subsurface soil shall mean the soil beneath permanent structures, pavement, or similar cover systems; or at least one foot of soil cover (which must meet the applicable SCOs). Institutional controls (e.g., an environmental easement) along with a site management plan will be required when this soil cleanup level is employed at a site. This cleanup level is determined to be feasible and protective based on DEC’s experience in its various remedial programs. This approach has existed in TAGM 4046 since it was first issued in 1992.

I. Soil Cleanup for PCBs: DEC may approve a remedial program which achieves a soil cleanup level for PCBs as set forth herein:

1. **For Non-BCP sites:** An acceptable presumptive remedy for soil where neither the unrestricted SCOs nor the ESCOs are applied in the remedial program may include a soil cleanup level for PCBs of 1 ppm in the surface soils and 10 ppm in subsurface soils.

2. **For BCP sites:** An acceptable presumptive remedy for soil may include a soil cleanup level for PCBs of 1 ppm (the applicable SCO) in the surface soils and 10 ppm in subsurface in limited circumstances as follows:

- cleanup track is Track 4;
- site use will be restricted residential, commercial or industrial; and
- ESCOs do not apply.

3. **At industrial use sites,** a level of 25 ppm for PCBs provided that access is limited and individual occupancy is restricted to less than an average of 6.7 hours per week.

For purposes of this provision, subsurface soil shall mean:

- soil beneath permanent structures, pavement, or similar cover systems;
- soil beneath 1 foot of soil cover for commercial and industrial uses; or
- soil beneath 2 feet of soil cover for residential and restricted residential uses.

Institutional controls (i.e., an environmental easement), along with a site management plan, will be required when this soil cleanup level is employed at a site. As with all presumptive remedies, just because a remedy is presumptive does not mean that it will work at every site. For example, this presumptive remedy for PCBs in soil is not applicable at most landfills. This cleanup level is determined to be feasible and protective based on DEC's experience in its various remedial programs. Further, this approach has existed in TAGM 4046 since it was first issued in 1992.

J. Sampling and Compliance with Soil Cleanup Levels: The number of samples to determine if the SCOs have been achieved should be sufficient to be representative of the area being sampled. See attached Table 4 for suggested sampling frequency and subdivision 5.4(e) of DER-10 for details. This frequency can be used for confirmatory samples or for backfill. It is DEC's goal that all confirmatory samples demonstrate that the remedy has achieved the DEC-approved soil cleanup levels. However, recognizing the heterogeneity of contaminated sites and the uncertainty of sampling and analysis, DEC project manager has limited discretion to determine that remediation is complete where some discrete samples do not meet the soil cleanup levels established for a site. See DER-10 for more information regarding the determination that remediation is complete.

K. Other Considerations: All remedies must be fully protective of public health and the environment and prevent off-site migration to the extent feasible with special emphasis for the prevention or minimization of migration onto adjacent residential properties or into ecological resources. A remedial party is required to investigate all environmental media including soil, groundwater, surface water, sediments, soil vapor, indoor air, and biota. (See 6 NYCRR 375-1.8(a)(6) or RCRA Corrective Action Program). This investigation will determine if any of the referenced media are, or may be, impacted by site contamination. However, the SCOs do not directly address these other media. DEC may require remedial actions to address such media and impacts, including but not limited to the application of lower soil cleanup levels or buffer zones where it determines, based on the investigation, that any of these media are, or may be, impacted by site contamination.

VI. Related References:

- Environmental Conservation Law, Article 27 Titles 3, 5, 9, 13 and 14.

- Article 12 of the Navigation Law, Section 178.

- 6 NYCRR Part 375, Environmental Remediation Programs. December 14, 2006.

- 6 NYCRR Subparts 373-1, 373-2 and 373-3, Requirements for Hazardous Waste Management Facilities. September 6, 2006.

- 6 NYCRR Part 611, Environmental Priorities and Procedures in Petroleum Cleanup and Removal. November 5, 1984 (amended).

- Development of Soil Cleanup Objectives: Technical Support Document. New York State Department of Environmental Conservation. December 14, 2006.

- Supplemental Guidance to RAGS: Calculating the Concentration Term. United States Environmental Protection Agency. Publication 9285.7-081. May 1992.

- New York State Guidelines for Urban Erosion and Sediment Control. 1997.

- Fish and Wildlife Impact Analysis for Inactive Hazardous Waste Sites. New York State Department of Environmental Conservation. October 1994.

- Program Policy DER-2, *Making Changes to Selected Remedies*. New York State Department of Environmental Conservation. April 1, 2008.

- Program Policy DER-10, *Technical Guidance for Site Investigation and Remediation*. New York State Department of Environmental Conservation. May 3, 2010.

- Program Policy DER-15, *Presumptive/Proven Remedial Technologies*. New York State Department of Environmental Conservation. February 27, 2007.

TABLES

Table 1

Supplemental Soil Cleanup Objectives
(ppm)

Contaminant	CAS Number	Residential	Restricted Residential	Commercial	Industrial	Protection of Ecological Resources	Protection of Ground-water
METALS							
Aluminum	7429-90-5					10,000 [a,b]	
Antimony	7440–36-0					12[c]	
Boron	7440-42-8					0.5	
Calcium	7440-70-2					10,000 [a,b]	
Cobalt	7440-48-4	30				20	
Iron	7439-89-6	2,000					
Lithium	7439-93-2					2	
Molybdenum	7439-98-7					2	
Technetium	7440-26-8					0.2	
Thallium	7440-28-0					5 [c]	
Tin	7440-31-5					50	
Uranium	7440-61-1					5	
Vanadium	7440-62-2	100 [a]				39[b]	
PESTICIDES							
Biphenyl	92-52-4					60	
Chlordecone (Kepone)	143-50-0					0.06	
Dibenzofuran	132-64-9						6.2
2,4-D (2,4-Dichloro-phenoxyacetic acid)	94-75-7	100 [a]					0.5
Furan	110-00-9					600	
Gamma Chlordane	5103-74-2	0.54					14
Heptachlor Epoxide	1024-57-3	0.077					0.02
Methoxychlor	72-43-5	100 [a]				1.2	900

Contaminant	**CAS Number**	**Residential**	**Restricted Residential**	**Commercial**	**Industrial**	**Protection of Ecological Resources**	**Protection of Ground-water**
Parathion	56-38-2	100 [a]					1.2
2,4,5-T	93-76-5	100 [a]					1.9
2,3,7,8-TCDD	1746-01-6					0.000001	
2,3,7,8-TCDF	51207-31-9					0.000001	
SEMIVOLATILE ORGANIC COMPOUNDS							
Aniline	62-53-3	48	100[a]	500[a]	1000[a]		0.33[b]
Bis(2-ethylhexyl) phthalate	117-81-7	50				239	435
Benzoic Acid	65-85-0	100[a]					2.7
Butylbenzyl-phthalate	85-68-7	100 [a]					122
4-Chloroaniline	106-47-8	100 [a]					0.22
Chloroethane	75-00-3						1.9
2-Chlorophenol	95-57-8	100 [a]				0.8	
3-Chloroaniline	108-42-9					20	
3-Chlorophenol	108-43-0					7	
Di-n-butyl-phthalate	84-74-2	100 [a]				0.014	8.1
2,4-Dichlorophenol	120-83-2	100 [a]				20	0.40
3,4-Dichlorophenol	95-77-2					20	
Diethylphthalate	84-66-2	100 [a]				100	7.1
Di-*n*-hexyl-phthalate	84-75-3					0.91	
2,4-Dinitrophenol	51-28-5	100 [a]				20	0.2
Dimethylphthlate	131-11-3	100 [a]				200	27
Di-n-octylphthlate	117-84-0	100 [a]					120
1,2,3,6,7,8-HCDF	57117-44-9					0.00021	
Hexachloro-benzene	118-74-1	0.41					1.4
2,6-Dinitrotoluene	606-20-2	1.03					1.0
Isophorone	78-59-1	100 [a]					4.4

Contaminant	CAS Number	Residential	Restricted Residential	Commercial	Industrial	Protection of Ecological Resources	Protection of Ground-water
4-methyl-2-pentanone	108-10-1						1.0
2-methyl-naphthalene	91-57-6	0.41					36.4
2-Nitroaniline	88-74-4						0.4
3-Nitroaniline	99-09-2						0.5
Nitrobenzene	98-95-3	3.7	15	69	140	40	0.17[b]
2-Nitrophenol	88-75-5					7	0.3
4-Nitrophenol	100-02-7					7	0.1
Pentachloroaniline	527-20-8					100	
2,3,5,6-Tetrachloroaniline	3481-20-7					20	
2,3,4,5-Tetrachlorophenol	4901-51-3					20	
2,4,5-Trichloroaniline	636-30-6					20	
2,4,5-Trichlorophenol	95-95-4	100 [a]				4	0.1
2,4,6-Trichlorophenol	88-06-2					10	
VOLATILE ORGANIC COMPOUNDS							
2-Butanone	78-93-3	100 [a]					0.3
Carbon Disulfide	75-15-0	100 [a]					2.7
Chloroacetamide	79-07-2					2	
Dibromochloro-methane	124-48-1					10	
2,4-Dichloro aniline	554-00-7					100	
3,4-Dichloroaniline	95-76-1					20	
1,2-Dichloropropane	78-87-5					700	
1,3-Dichloropropane	142-28-9						0.3
2,6-Dinitrotoluene	606-20-2	1.03					0.17[b]
Ethylacetate	141-78-6					48	

Contaminant	**CAS Number**	**Residential**	**Restricted Residential**	**Commercial**	**Industrial**	**Protection of Ecological Resources**	**Protection of Ground-water**
4-methyl-2-pentanone	108-10-1						1.0
113 Freon (1,1,2- TFE)	76-13-1	100 [a]					6
isopropylbenzene	98-82-8	100 [a]					2.3
p-isopropyltoluene	99-87-6						10
Hexachlorocyclo-pentadiene	77-47-4					10	
Methanol	67-56-1					6.5	
N-nitrosodiphenyl-amine	86-30-6					20	
Pentachloro-benzene	608-93-5					20	
Pentachloronitro-benzene	82-68-8					10	
Styrene	100-42-5					300	
1,2,3,4-Tetrachlorobenzene	634-66-2					10	
1,1,2,2-Tetrachloroethane	79-34-5	35					0.6
1,1,2,2-Tetrachloroethylene	127-18-4					2	
1,2,3-Trichlorobenzene	87-61-6					20	
1,2,4-Trichlorobenzene	120-82-1					20	3.4
1,2,3-Trichloropropane	96-18-4	80					0.34

[a] SCOs for organic contaminants (volatile organic compounds, semivolatile organic compounds, and pesticides) are capped at 100 ppm for residential use, 500 ppm for commercial use, 1000 ppm for industrial use. SCOs for metals are capped at 10,000 ppm.

[b] Based on rural background study

[c] SCO limited by contract required quantitation limit.

Table 2

Soil Cleanup Levels for Gasoline Contaminated Soils

Contaminant	CAS Registry Number	Soil Cleanup Level (ppm)
Benzene	71-43-2	0.06
n-Butylbenzene	104-51-8	12.0
sec-Butylbenzene	135-98-8	11.0
Ethylbenzene	100-41-4	1.0
Isopropylbenzene	98-82-8	2.3
p-Isopropyltoluene	99-87-6	10.0
Methyl-Tert-Butyl-Ether	1634-04-4	0.93
Naphthalene	91-20-3	12.0
n-Propylbenzene	103-65-1	3.9
Tert-Butylbenzene	98-06-6	5.9
Toluene	108-88-3	0.7
1,2,4-Trimethylbenzene	95-63-6	3.6
1,3,5-Trimethylbenzene	108-67-8	8.4
Xylene (Mixed)	1330-20-7	0.26

Table 3

Soil Cleanup Levels for Fuel Oil Contaminated Soil

Contaminant	CAS Registry Number	Soil Cleanup Level (ppm)
Acenaphthene	83-32-9	20
Acenaphthylene	208-96-8	100
Anthracene	120-12-7	100
Benz(a)Anthracene	56-55-3	1.0
Dibenzo(a,h)Anthracene	53-70-3	0.33
Benzene	71-43-2	0.06
n-Butylbenzene	104-51-8	12.0
sec-Butylbenzene	135-98-8	11.0
Tert-Butylbenzene	98-06-6	5.9
Chrysene	218-01-9	1.0
Ethylbenzene	100-41-4	1.0
Fluoranthene	206-44-0	100
Benzo(b)Fluoranthene	205-99-2	1.0
Benzo(k)Fluoranthene	207-08-9	0.8
Fluorene	86-73-7	30
Isopropylbenzene	98-82-8	2.3
p-Isopropyltoluene	99-87-6	10.0
Naphthalene	91-20-3	12.0
n-Propylbenzene	103-65-1	3.9
Benzo(g,h,i)Perylene	191-24-2	100
Phenanthrene	85-01-8	100
Pyrene	129-00-0	100
Benzo(a)Pyrene	50-32-8	1.0
Indeno(1,2,3-cd)Pyrene	193-39-5	0.5
1,2,4-Trimethylbenzene	95-63-6	3.6
1,3,5-Trimethylbenzene	108-67-8	8.4
Toluene	108-88-3	0.7
Xylene (Mixed)	1330-20-7	0.26

Table 4

Recommended Number of Soil Samples for Soil Imported To or Exported From a Site

Contaminant	**VOCs**[a]	**SVOCs, Inorganics & PCBs/Pesticides**	
Soil Quantity (cubic yards)	**Discrete Samples**	**Composite**	**Discrete Samples/Composite**
0-50	1	1	Each composite sample for analysis is created from 3-5 discrete samples from representative locations in the fill.
50-100	2	1	
100-200	3	1	
200-300	4	1	
300-400	4	2	
400-500	5	2	
500-800	6	2	
800-1000	7	2	
➢ 1000	Add an additional 2 VOC and 1 composite for each additional 1000 Cubic yards or consult with DER.[b]		

[a] VOC samples cannot be composited. Discrete samples must be taken to maximize the representativeness of the results.

[b] For example, a 3,000 cubic yard soil pile to be sampled and analyzed for VOCs would require 11 discrete representative samples. The same pile to be sampled for SVOCs would require 4 composite samples with each composite sample consisting of 3-5 discrete samples.

Attachment D: Resumes

JAMES M. JAROS MBA, CSP, PG

GALLAGHER BASSETT | TECHNICAL SERVICES

CURRENT POSITION: SR. LOSS CONTROL CONSULTANT

PROFESSIONAL SUMMARY

James Jaros has 25 years of comprehensive health, safety, and environmental program management experience with a diverse background in industrial and consulting roles. Mr. Jaros' unique skillset includes experience in a variety of industrial settings such as refineries, nuclear facilities, and mining/natural resources in both construction and decommissioning situations in the construction, demolition, restoration, energy, petrochemical, and nuclear arenas.

Mr. Jaros' subject matter expertise includes systematic safety management and customized program development, implementation, and compliance. His uncommon approach infuses critical aspects of process safety management (PSM), human performance improvement (HPI), and contractor safety management processes with business objectives and best practices.

PROFESSIONAL EXPERIENCE

Senior Loss Control Consultant **2019 - Present**
Gallagher Bassett Technical Services Division

Mr. Jaros is the Senior Consultant responsible for providing high level loss control services to Gallagher Bassett's current clients. In addition, he is responsible for growing the loss control service base with additional clients, expanding loss control service offerings, and the professional development of staff.

President, Chief Consultant **2018 - 2019**
JAROS Health, Safety, & Environment LLC

Launched a full-service safety management and consulting corporation designed to support industrial clients, construction, and demolition, industrial, petrochemical, and nuclear decommissioning industries.

Capitalized on nearly two decades of safety management experience and industry certifications to assemble a sustainable portfolio of safety program management, risk assessment, employee training, and compliance products; developed marketing collateral and initiated prospecting.

Consulting Services – Outlined key industry challenges and needs assessment strategies; designed service options in areas of audits and inspections, compliance, health and safety plans and procedures, accident investigation, contracting, and organization development across business segments and functions.

Professional Development – Produced a versatile training platform to accommodate immediate and future training needs related to safety management and workforce competencies. Topics include 10-30 Hour OSHA Construction, Behavior-Based Safety Training, Bloodborne Pathogens, Confined Space, Electrical Safety Awareness, Emergency Action Plans, Ergonomics, Back Safety, Fall Protection, Fire Protection, Hazard

Communication (SDS), Introduction to OSHA, Lockout/Tagout, Machine Guarding, Personal Protective Equipment (PPE), Recordkeeping, Walking Working Surfaces, Welding, Cutting, and Brazing.

Manager, Industrial Safety & Hygiene **2008 – 2018**
Energy Solutions LLC, Zion, IL

EnergySolutions is an international nuclear services company providing a full range of nuclear power plant (sites and facilities) decommissioning and decontamination (D&D). Specialties include management of spent nuclear fuel, the transportation of nuclear material, and environmental cleanup of nuclear legacy sites.

Partnered with leadership to build a strong safety culture; provided technical guidance, health, and safety leadership to senior management and project personnel; outlined key performance indicators (KPI) and metrics for business unit safety functions.

Zion Restoration Project **2008 – 2018**
Subsidiary of EnergySolutions

Charged with safety management in decommissioning the Zion Nuclear Power Station in Zion, IL, a project valued at $1B over a period of eight years.

- Supported the world's largest commercial nuclear decommissioning project. Managed Industrial Safety and Hygiene, and Occupational Health Service departments to improve the return on investment (ROI) and protect an average of 600 personnel;
- Supervised several direct reports; performed formal performance reviews; recruited new staff; delivered high-level presentations and collaborated with executive-level stakeholders, senior managers, and project management team leaders to embed the full spectrum of safety into project production goals and site activities;
- Exercised fiduciary and P&L responsibility in the projection and allocation of a $7M safety budget; experienced no major injuries and completed more than 1.2M hours without a lost time injury;
- Integral in rollout of the Human Performance Improvement Safety Program, an initiative presented to more than 1,000 personnel during the lifetime of the project.

GE Hitachi Project **2008 – 2010**
Subsidiary of EnergySolutions

Developed health and safety plans to support the radioactive cleanup for two separate GE Hitachi projects: GE Morris Operation, Morris, IL and Vallecitos Nuclear Center (VNC), Sunol, CA. Verified project compliance and developed project-specific safety training; performed safety audits, conducted hazard evaluations, and led incident investigations.

Health and Safety Manager / Lead Geologist **2002 – 2008**
Trihydro Corporation, Lockport, IL

Trihydro specializes in providing clients with advanced technical and regulatory knowledge in areas of air quality, process management, engineering, environmental, health and safety, information management, and water resources. Industries encompass petroleum, government operations, mining and natural resources, industrial and commercial applications, and infrastructure.

Augmented the development of project requirements and ensured compliance for projects including active oil refineries, oil pipeline projects, and a former refinery (demolition and environmental remediation).

Project Management of plan, including: generating bids, proposals, and cost estimates; which led the safety program for projects ranging in value from $100K to $60M; with no major injuries experienced.

- Chaired safety meetings; managed the Fit for Duty program supporting 60 personnel, and led the implementation of a behavior-based health and safety system;

Infused Process Safety Management (PSM) tools into business processes; implemented quality systems management (QSM) and project training programs for new site personnel.

Key Projects included: Former Texaco Lockport Refinery Environmental Cleanup (6 years), Citgo Refinery (3 years), and Enbridge Pipeline (2 years). Recognized for safe work place by Three Rivers Manufacturing Association.

- Rolled out the nationwide Behavior-Based Safety Program; trained hundreds of employees and contractors;
- Managed an Environmental Monitoring Program on behalf of major petroleum pipeline companies;
- Subsequent to a petrochemical release, managed the investigation and cleanup of contaminants for a major oil company;
- Member of a remediation team tasked to remediate a former petroleum refinery under a Resource Conservation and Recovery Act (RCRA) permit; kept the project in regulatory compliance while moving forward with remediation activities.

Geologist / Environmental Consultant / Project Manager **1994 - 2002**
Various Environmental Consulting Firms

Managed diverse environmentally impacted property portfolios, developed site background profiles, investigated subsurface conditions, determined site classifications, and proposed and implemented remedial action measures.

- Evaluated soil and groundwater analytical data to determine site-specific hydro-geologic properties for contaminant fate and transport modeling.
- Performed Phase 1 and Phase 2 Environmental Site Assessments
- Developed site-specific remediation objectives aligned with reducing remedial costs, without compromising the risks of contaminant exposure.

- Compiled analytical data and produced technical reports to regulatory agencies, clients, and property owners; trained new employees.
- Initiated project planning, coordinated and communicated the scope of work (SOW); supervised contractors/subcontractors/personnel in remediation activities.
- Collected samples for anthrax using Department of Defense (DOD) safety protocol.
- Managed contractors performing installation activities for Geosynthetic Environmental Liner Systems and methane gas collection systems, and groundwater monitoring wells at municipal landfills; an initiative designed to prevent the migration of liquids and gases from solid or hazardous waste into the environment.
- Conducted groundwater sampling and slug tests, performed in-situ soil and hydrogeological evaluations on compacted clay liners and the natural subbase.

EDUCATION:

- MBA in Entrepreneurship and Managing Innovation, Benedictine University, Lisle, IL
- Bachelor of Science, Geology Northern Illinois University, DeKalb, IL

REGISTRATIONS / CERTIFICATIONS

- Certified Safety Professional (CSP), Board of Certified Safety Professionals
- Licensed Professional Geologist (PG), State of Illinois, #196- 001071
- Certified OSHA Authorized Construction Trainer
- ISO 45001 Lead Auditor
- Certified in Fire Extinguisher Inspection
- Certified in Mold Recognition, Prevention, and Remediation
- Certified in Hazardous Waste Operations and Emergency Response (HAZWOPER)

PROFESSIONAL AFFILIATIONS

- American Society of Safety Professionals (ASSP)
- Board of Certified Safety Professionals (BCSP)
- National Safety Council (NSC)
- Great Lakes Construction Association

RICHARD HOOKER, PH.D.

GALLAGHER BASSETT | TECHNICAL SERVICES

CURRENT POSITION: MANAGER, ENVIRONMENTAL CONSULTING

PROFESSIONAL SUMMARY

Richard Hooker serves as Senior Project Manager for investigative and remedial projects including NYSDEC and OER Brownfields sites, Phase II investigations, and environmental management of construction projects. He also prepares and evaluates interdisciplinary, comprehensive environmental impact assessment reviews (NEPA, SEQR and CEQR) and has a particular expertise in noise issues. Mr. Hooker develops investigative and remedial work plans, health and safety plans, performs fieldwork, and prepares technical reports. He works with regulatory authorities and subcontractors including construction personnel, waste repositories and haulage contractors, laboratories and drillers. His responsibilities include: designing noise studies, investigating site histories, and document reviews, cost benefit analysis of remedial alternatives, overseeing excavations and in situ remediation, sampling, sample data evaluation, report preparation, and obtaining regulatory closure. He has extensive experience of sampling and sample collection protocols for soil, vapor, indoor air, sediment, and groundwater and has worked to remediate a wide range of environmental contaminants including petroleum, heavy metals, PCBs, and solvents.

Mr. Hooker holds a Ph.D. from the University of St. Andrews, St. Andrews, Scotland and a BA from Staffordshire University, Stoke-on-Trent, England. Prior to relocating to the Hudson Valley, he served as an Assistant Professor at the University of Glasgow, Scotland.

PROFESSIONAL EXPERIENCE

3475 Third Avenue, Bronx, NY—Investigated and remediated this former manufacturing facility to NYSDEC Brownfields to Track 1 cleanup standards. This site was the first project in the OER Jumpstart program established to assist cleanup on government supported affordable and supportive housing projects in NYC. Under this program OER sponsored enrollment in the NYS Brownfield Cleanup Program. Work on this trailblazing project required liaising with OER and NYSDEC Region 2 to ensure documentation met the requirements of both agencies. Certificate of Completion secured in 2016.

Former A.C. Dutton Lumber Yard, Dutchess County, NY—Documented hazardous concentrations of arsenic and chromium in soils and concrete surfaces at this NYSDEC Brownfields site contaminated by the historical pressure treatment of lumber. Developed a Workplan for site remediation and directed environmental restoration activities, including: characterization, excavation and removal of hazardous soils, scarification concrete warehouse floors, removal aboveground and underground chemical and petroleum storage tanks.

Crannell Square, Dutchess County, NY —oversaw the investigation and remediation of this Track 1 BCP site.

EDUCATION:

- Ph.D., University of St. Andrews, Scotland
- BA, Staffordshire University, England

SCOTT E. MCDONALD, P.E.

CURRENT POSITION: SENIOR REMEDIATION PROJECT MANAGER

PROFESSIONAL SUMMARY

Scott McDonald is a seasoned professional engineer with over 30 years of experience in civil and environmental engineering, design/consulting engineering, and both remediation and construction project management. He excels in the management of complex projects, negotiating contracts, and expediting regulatory approvals for the Division of Gallagher Bassett Technical Services.

Mr. McDonald serves as Senior Remediation Project Manager and Project Site Field Manager on solid and hazardous waste remediation projects. As a successful project manager for large New Jersey based construction companies, Mr. McDonald has been responsible for managing all construction work, from award of project, through construction to completion, for a myriad of environmental and civil projects, as well as for multi-million dollar retail and office space projects. This includes coordinating all trades, site inspection to ensure compliance with contract documents, and completion of work on time and within budget.

Mr. McDonald earned an AAS in Civil Engineering and Construction Technology from Mercer County Community College, and a Bachelor of Science in Engineering Technology from New Jersey Institute of Technology. He is a Licensed Professional Engineer in the State of New Jersey, and the State of New York, and has the following OSHA Certification/Training: 40-hour OSHA HAZWOPER Certified; 10-hour & 30-hour Construction Safety and Health, and 8-hour Supervisor/Management.

PROFESSIONAL EXPERIENCE

NYC OER—Engineer of Record

As Engineer of Record, Scott is responsible for the content of Remedial Action Reports and Remedial Closure Reports prepared for multiple remediation projects within the NYC OER E—Designation Program. The Remedial Action Reports are submitted to the OER for approval and implementation in the field for remediation of a site (typically prior to new construction). Once a Remedial Action Plan has been approved by the OER and implemented in the field, a final Remedial Closure Report is prepared certifying that the remedial actions implemented were in accordance with the approved Remedial Action Plan.

Senior Project Manager and Project Superintendent on solid and hazardous waste remediation projects.

- Most recently, responsibilities include: Field management of the importation of 500,000 cubic yards of soil to raise site grades for future site development on a project in Bayonne, NJ, Project Management support for Pre-demolition/remediation work on a former Army Engine Plant in Stratford, CT. Work included coordination of project consultants, project schedules, cost estimates, demolition bid documentation preparation, coordination and management of demolition bid packages, contractor negotiations, bid leveling, participation in planning meetings, etc.

- Additionally, recent projects include: management of Site/Remedial Investigation work for a former Power Generation Plant in Mercer County, NJ, and assistance with a former Power Generation Plant in Hudson County, NJ. Responsibilities include LSRP oversight, schedule and cost estimate preparation, site inspections, field work coordination, participation in planning meetings, document preparation, and report review.

- Coal Tar/Purifier Waste contaminated site located in the Bronx, NY, where responsibilities included management of site operations as construction manager at risk for a quasi-government agency. Responsibilities included sub-contractor oversight, cost containment, schedule management, quality control, contract compliance, etc. on a remediation site that include the following scope of work: Excavation, blending and load out of Coal Tar impacted soils, in-situ stabilization of Coat Tar and Purifier Waste, construction of a Soil Bentonite Wall, dewatering, grading and compaction, final restoration.
- Former Van Leer Chocolate Factory, an Arsenic contaminated site in Jersey City, NJ where responsibilities include overseeing the Site Remediation Contractors work as a liaison to the project developer. In addition to the typical tasks on a remediation project, the remedial work includes excavation, mixing and treating soils to reduce the leachability and change the RCRA characteristics from hazardous to non-hazardous prior to transporting offsite for landfill disposal. A recent project was a PCB contaminated site in Carlstadt, NJ where responsibilities included managing an “at risk” remediation project with TSCA level Hazardous material export, as well as onsite landfilling and capping of lower level contaminated material. The work also included management of an onsite groundwater treatment system. Another recent project, located in Hanover, PA included management of cleanup and restoration of impacted onsite, and downstream offsite areas due to flooding and washed out fertilizer chemicals from a plant fire during the first responder efforts to control and contain the fire. Responsibilities included working with the environmental consultant to comply with state regulatory requirements, and coordinating contractors to dispose of millions of gallons of impacted water, and disposal of impacted soils, while restoring site conditions.

- Garfield Avenue Group (Site 114), a 40+ acre, hexavalent chromium remediation site in an industrial zone in Jersey City, NJ—Primary responsibilities include contractor oversight, coordination of consulting engineer’s ongoing remedial design work, oversight of construction groundwater treatment system, liaison to regulatory oversight consultant, responsible for all site operations including remediation, restoration, investigation, security, trucking, coordination of utilities, waste disposal, etc.

- Site 16 (45 Linden East Ave.), a 12.9 acre, hexavalent chromium remediation/restoration site in a warehousing zone in Jersey City, NJ—Primary responsibilities include construction management of all field operations, and oversight of all field contractors and consultants. The work consisted of managing the remediation site contractor and all remediation activities (excavation, backfill, compaction, dust control, SE&SC, restoration, air monitoring, sample collection for post excavation confirmation, waste disposal, invoicing, change orders, RFI’s, hosting of multiple construction progress meetings, liaison to regulatory agencies and property owner. Scope of work ran from breaking of ground through final restoration and transfer of site control back to owner.

- Metro Towers, an 8.6-acre, hexavalent chromium remediation/restoration project on a high-rise residential site in downtown Jersey City, NJ—Primary responsibilities included construction management of all field operations, and oversight of all field contractors and consultants. The work consisted of managing the remediation site contractor and all remediation activities (excavation, backfill, compaction, dust control, SE&SC, restoration, air monitoring, sample collection for post excavation confirmation, waste disposal, invoicing, change orders, RFIs, hosting of multiple construction progress meetings, liaison to regulatory agencies and property owner. Scope of work ran from breaking of ground through final restoration and transfer of site control back to owner.

- Berry Lane Park, a 17-acre, hexavalent chromium remediation site developed into a municipal park in Jersey City, NJ—Primary responsibilities included construction management of all field operations, and oversight of all field contractors and consultants. The work consisted of managing the remediation site contractor and all remediation activities (excavation, backfill, compaction, dust control, SE&SC, restoration/development, air monitoring, sample collection for post excavation confirmation, waste disposal, invoicing, change orders, RFIs, and hosting of construction progress meetings. Scope of work ran from breaking of ground through interim park development and transfer of site control back to owner.

- Meadowlands Landfill Closure Project, a 780-acre, multiple landfill project in Lyndhurst, North Arlington and Rutherford, NJ—Primary responsibilities included managing all site activities such as security, mobile office, safety, site support contractors, engineering controls, emergent work, pre-construction investigative work, and landfill closure activities.

- 18,000 cy Soil Remediation Project at the former New Jersey Turnpike Drum Dump site in Jersey City, NJ—Primary responsibilities included working with the environmental consultant to establish an acceptable waste disposal characterization plan, preparation and assembling of bid documents for Soil Remediation contractors, review of contractor bid proposals, contractor bid review conferences, and bid leveling.

- 10,000 cy Soil Remediation Project at a Commercial site in Long Island City, NY—Primary responsibilities included preparation and assembling of bid documents for Soil Remediation contractors, review of contractor bid proposals, contractor bid review conferences, and bid leveling. Worked with the site environmental consultant in developing Disposal Facilities to obtain preliminary determination of acceptance of various waste streams from site.

- 20,000 cy Soil Remediation Project at an Industrial site in Highland Park, NJ—Worked full time, on site in a QA/QC and oversight capacity on behalf of the environmental insurance company insuring the responsible party. Observed and recorded daily operations to identify any deviance from approved construction documents. Prepared detailed daily reports and weekly summary reports to the insurer, including estimated contract drawdown estimates and recommendations for corrective action.

- 40,000 cy Soil Remediation Project at a School Site in Trenton, NJ—Worked side by side with Construction Manager as environmental consultant/construction manager. Responsible for managing the bidding of remediation work, full-time management of remediation tasks, preparation of Daily and Weekly environmental construction reports, processing of contractor submittals, co-management of Soil Remediation Contractor with the Construction Manager, expedition of project to completion, one month ahead of schedule and on budget.

- Senior Project Manager on Building Construction Projects—Responsible for all construction work associated with fit outs for retail and office space. Coordinated subcontractors (all trades) and oversaw progress of work to assure compliance with contract documents and completion of work within project schedule as described below.

    - Responsible for managing construction projects from award of project through construction to completion (including punchlist and certificate of occupancy).

- Negotiated and prepared contracts, purchase orders, and change orders with subcontractors.
- Prepared change orders to owners, reviewed monthly subcontractor invoices, and prepared monthly invoices to owner.
- Responsible for preparing construction schedule and keeping project on schedule and on budget.
- Oversight of field supervisors and resolve disputes, etc., with subcontractors. Oversight of progress meetings.
- Review submittals for compliance with contract documents. Prepare RFIs and miscellaneous correspondence with owner and subcontractors.
- Project managed various projects as a General Contractor, Construction Manager, and Design Build Contractor.
- Reviewed and re-negotiated bid proposals.

EDUCATION:

- Bachelor of Science (B.S.) New Jersey Institute of Technology
- AAS, Civil Engineering and Construction Technology, Mercer County Community College

REGISTRATIONS / CERTIFICATIONS

- Licensed Professional Engineer in the State of NJ and NY
- OSHA 40-hour Hazardous Waste Site Operations Initial & Annual Refresher Training
- OSHA 10-hr & 30-hr Construction Safety and Health
- OSHA 8-hr Supervisor/Management

SCOTT SPITZER

GALLAGHER BASSETT | TECHNICAL SERVICES

CURRENT POSITION: DIRECTOR OF ENVIRONMENTAL INVESTIGATIONS

PROFESSIONAL SUMMARY

Scott Spitzer serves as Director of Environmental Investigations, overseeing the technical elements of Phase I and Phase II technical environmental investigations and remedial projects, including Brownfield sites. Mr. Spitzer supervises all GBTS field staff and reviews all documents prepared by GBTS to ensure consistency and technical accuracy.

His responsibilities associated with the preparation of site assessments include: investigating site histories, conducting facility inspections, reviewing regulatory agency records, documenting facility compliance with relevant State and Federal regulations, and preparing reports. As project manager for complex technical environmental investigations (including sites currently on the NYSDEC Registry of Inactive Hazardous Waste Sites), Mr. Spitzer is involved with: coordinating subcontractors; overseeing fieldwork; designing and implementing material, soil, and water sampling plans, preparing technical reports and interfacing with regulatory agency personnel.

Mr. Spitzer has 15 years' experience in the preparation of Phase I, Phase II and Brownfields investigations and in the management of complex remediation projects. He is knowledgeable in both New York State and Federal environmental regulations and has an understanding of a broad range of remedial technologies. Mr. Spitzer studied environmental science at SUNY Purchase and holds a BS in Biology from SUNY at Stony Brook, Stony Brook, New York.

PROFESSIONAL EXPERIENCE

Former NuHart Plastics Manufacturing Site, Brooklyn, NY: GBTS conducted a complex remedial investigation of a NYSDEC Class 2 Inactive Hazardous Waste Disposal ("Superfund") site, where a plume of liquid phthalates and chlorinated solvents had impacted groundwater. Extensive sampling was conducted of both on- and off-site soil, soil vapor and groundwater, and phthalates were removed from recovery wells as an interim remedial measure. A Remedial Investigation Report was completed, allowing the site owner to move create a Remedial Design Document.

Sakmann Restaurant Corporation Site, Fort Montgomery, NY: Conducted Phase I Environmental Site Assessment and Phase II Subsurface Investigations for former filling station and automotive repair garage contaminated by solvent and waste-oil discharges to an on-site drywell. Designed and implemented a sampling plan for soils impacted by chlorinated hydrocarbons, petroleum, and metals. Created Work Plan (in coordination with the NYSDEC Voluntary Cleanup Program) for remediation of on-site contamination and long-term sampling of on-site groundwater monitoring wells.

EDUCATION:

- BS, Biology, SUNY at Stony Brook, NY

Attachment E: Laboratory Documents

YORK
ANALYTICAL LABORATORIES INC

PFAS Field Sampling Guidelines for Groundwater and Soil

For Waters: 2 x 125 mL Bottles per sample filled to the neck of the bottle

PLEASE READ THESE INSTRUCTIONS PRIOR TO CONDUCTING SAMPLING

Sampling for PFAS for determination using EPA 537m can be challenging due to the prevalence of these compounds in consumer products. The following guidelines reflect current knowledge and are recommended when conducting sampling.

Consider Sampling for PFAS First...

Sample containers for other methods may have PFAS present on their sampling containers which could cross-contaminate your sample(s). We are analyzing down to the low parts-per-trillion (ppt) range so cross-contamination prevention is an important consideration.

SAMPLING

All Sampling done with Nitrile Gloves, provided by YORK

SAMPLE CONTAINERS

All sample containers - PP ONLY (Target list of 21 PFAS) Caps are unlined and made of PP (no Teflon® lined caps) Bottles are Batch Certified to be Target PFAS-free (< Reporting Limit)

FIELD EQUIPMENT

-Must not contain Teflon® (aka PTFE) or LDPE materials

-All sampling materials must be made from stainless steel, HDPE, acetate, silicone, or polypropylene

-No waterproof field notebooks can be used

-No plastic clipboards, binders, or the like

-No adhesives (e.g.Post-It® Notes, Duct tape) can be used

-Sharpies and permanent markers not allowed; regular ball point pens are acceptable

-Aluminum foil must not be used

-Keep PFAS samples in separate cooler, away from sampling containers that may contain PFAS

-Coolers filled with regular ice only - Do not use chemical (blue) ice packs

EQUIPMENT DECON

-"PFAS-free" water (e.g. Poland Spring*)-on-site for decontamination

-Only Alconox and Liquinox can be used for decontamination

* *Poland Spring has been demonstrated to be PFAS -free when freshly opened*

FIELD SAMPLING CLOTHING CONSIDERATIONS

Do not use fabric softener on clothing to be worn in field

Do not used cosmetics, moisturizers, hand cream, or other related products the morning of sampling

Do not use sunscreen or insect repellants

No materials containing Tyvek®

All safety boots made from polyurethane and PVC

No clothing or boots containing Gore-Tex®

Wet weather gear made of polyurethane and PVC only

FOOD CONSIDERATIONS

No food or drink when PFAS Sampling with exception of bottled water and/or hydration drinks (i.e., Gatorade and Powerade) that is available for consumption only in the staging area.

SAMPLE CONTAINER HANDLING

-For **AQUEOUS** Samples: Each sample set contains 2 x 125 mL containers. Fill each container to the neck

-For **SOILS**-1 x 250 mL container, FILL HALF WAY ONLY

-No preservative is necessary for this appliction at this time.

-Place closed, labeled Sample bottles into ZipLock bag.

-Dispose of Nitrile gloves in provided waste bag.

-Place in separate cooler from other samples, WET ICE only

-Follow instructions on next page for more detail.

-If you have a Quality Assurance Project Plan follow that guidance

YORK
ANALYTICAL LABORATORIES INC

PFAS -Recommended Field Sampling Guidelines

PLEASE READ INSTRUCTIONS ENTIRELY PRIOR TO SAMPLING EVENT

Sampler should wash hands before wearing nitrile gloves in order to limit contamination during sampling. Each sample set* requires a set of containers to comply with the method as indicated below. **Sample set is composed of samples collected from the same sample site and at the same time.* **A pair of Nitrile gloves is included with each sample Zip-lock bag/bottle set. One Field Blank set per day is provided.**

Note: PP is Polypropylene

Sample Containers	Bottle Type	Preservation
2 Sampling Containers - Empty- per sample-Waters **SOILS- 1 Container-fill only half way**	125 mL PP container-Waters 250 mL PP for Soils	None, Cool <6C
1 PP Bottle with PFAS-free Water for Field Blank	125 mL PP container	None, Cool <6C
1 Field Blank (FRB) - Empty-per sampling day	125 mL PP container	None, Cool <6C
2 - Empty PP bottles for MS/DUP when needed (Soils MS/DUP come from same Bottle)	125 mL PP container	None, Cool <6C

NOTE: Sampling containers for WATERS must be filled to the neck. **SOILS, fill bottle only 1/2 full**

FIELD BLANK and MS/DUP Bottles are labeled with NEON GREEN LABELS

Field blanks are required per sampling event day and the containers have been provided. Follow the instructions below.

Field Blank Instructions:

1. Locate the PFAS Field Blank bottle (empty, labeled) supplied The PFAS Field Blank Water container is pre-filled at YORK with PFAS-free water to transfer to the empty PFAS Field Blank bottle.
2. Locate the empty container labeled "Field Blank" with Neon green labels
3. Open both containers and proceed to transfer contents of the "PFAS FIELD BLANK WATER" container into the "PFAS FIELD BLANK" Bottle
4. Field Blanks to be analyzed must be listed on the Chain-of-Custody.
5. Both the empty Field Blank water container and the filled Field Blank container must be returned to YORK along with the samples taken.

Matrix Spike/ Matrix Dup Instructions: Note: S**oil MS/MSD** can be from the same container as the sample

1. Locate the PFAS MS and DUP bottles (empty, labeled-NEON GREEN) supplied -normally 1 set per 20 field samples
2. Transfer chosen Field MS /Dup as a normal sample and indicate sample ID on container and on Chain-of-Custody

Sampling Instructions: ALL SAMPLE BOTTLES HAVE NEON YELLOW LABELS

1. Do not overfill or rinse the container. Any sample(s) for Matrix Spike and Matrix Duplicates are treated similarly.
2. Close containers securely. Label legibly and place containers in ZipLoc® bags, and in a separate cooler (no other container types).
3. Ensure Chain-of-Custody and all sample labels contain required information. Place all samples in separate coolers (separate from other samples for different parameters). Place wet ice (bagged) on samples for return to YORK.
Samples should be kept at 4°C ±2. Samples must not exceed 10°C during first 48 hours after collection. **Hold time is 14 days.**

York Analytical Laboratories, Inc. ***Emerging Contaminants Laboratory***
132-02 89th Avenue SUITE 217 Richmond Hill, NY 11418

PFAS Target compounds and Reporting Limits

Analytical Method Information

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PFAS, EPA 1633 Target List in Soil (EPA 1633 Draft 2)

Preservation: Cool 4°C

Container: 10_250mL Plastic Cool to 4° C **Amount Required:** 250 mL **Hold Time:** 28 days

Analyte	MDL	Reporting Limit	Surrogate %Rec	Duplicate RPD	----Matrix Spike---- %Rec	RPD	--Blank Spike / LCS-- %Rec	RPD
Perfluorobutanesulfonic acid (PFBS)	0.111	0.177 ug/kg		30	25-150	35	50-150	30
Perfluorohexanoic acid (PFHxA)	0.0530	0.200 ug/kg		30	25-150	35	50-150	30
Perfluoroheptanoic acid (PFHpA)	0.105	0.200 ug/kg		30	25-150	35	50-150	30
Perfluorohexanesulfonic acid (PFHxS)	0.179	0.183 ug/kg		30	25-150	35	50-150	30
Perfluorooctanoic acid (PFOA)	0.172	0.200 ug/kg		30	25-150	35	50-150	30
Perfluorooctanesulfonic acid (PFOS)	0.167	0.186 ug/kg		30	25-150	35	50-150	30
Perfluorononanoic acid (PFNA)	0.189	0.200 ug/kg		30	25-150	35	50-150	30
Perfluorodecanoic acid (PFDA)	0.191	0.200 ug/kg		30	25-150	35	50-150	30
Perfluoroundecanoic acid (PFUnA)	0.198	0.200 ug/kg		30	25-150	35	50-150	30
Perfluorododecanoic acid (PFDoA)	0.163	0.200 ug/kg		30	25-150	35	50-150	30
Perfluorotridecanoic acid (PFTrDA)	0.125	0.200 ug/kg		30	25-150	35	50-150	30
Perfluorotetradecanoic acid (PFTA)	0.103	0.200 ug/kg		30	25-150	35	50-150	30
N-MeFOSAA	0.148	0.200 ug/kg		30	25-150	35	50-150	30
N-EtFOSAA	0.194	0.200 ug/kg		30	25-150	35	50-150	30
Perfluoropentanoic acid (PFPeA)	0.109	0.400 ug/kg		30	25-150	35	50-150	30
Perfluoro-1-octanesulfonamide (FOSA)	0.146	0.200 ug/kg		30	25-150	35	50-150	30
Perfluoro-1-heptanesulfonic acid (PFHpS)	0.155	0.200 ug/kg		30	25-150	35	50-150	30
Perfluoro-1-decanesulfonic acid (PFDS)	0.191	0.193 ug/kg		30	25-150	35	50-150	30
1H,1H,2H,2H-Perfluorooctanesulfonic acid (6:2 FTS)	0.595	0.760 ug/kg		30	25-150	35	50-150	30
1H,1H,2H,2H-Perfluorodecanesulfonic acid (8:2 FTS)	0.755	0.768 ug/kg		30	25-150	35	50-150	30
Perfluoro-n-butanoic acid (PFBA)	0.109	0.800 ug/kg		30	25-150	35	50-150	30
Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	0.139	0.356 ug/kg		30	25-150	30	50-150	30
Perfluoro-3,6-dioxaheptanoic acid (NFDHA)	0.193	0.400 ug/kg		30	25-150	30	50-150	30
Perfluoro-4-oxapentanoic acid (PFMPA)	0.0620	0.400 ug/kg		30	25-150	30	50-150	30
Perfluoro-5-oxahexanoic acid (PFMBA)	0.0960	0.400 ug/kg		30	25-150	30	50-150	30
Perfluoro-1-pentanesulfonate (PFPeS)	0.157	0.188 ug/kg		30	25-150	30	50-150	30
1H,1H,2H,2H-Perfluorohexanesulfonic acid (4:2 FTS)	0.595	0.750 ug/kg		30	25-150	30	50-150	30
HFPO-DA (Gen-X)	0.608	0.800 ug/kg		30	25-150	30	50-150	30
11CL-PF3OUdS	0.311	0.756 ug/kg		30	25-150	30	50-150	30
9CL-PF3ONS	0.246	0.748 ug/kg		30	25-150	30	50-150	30
ADONA	0.174	0.756 ug/kg		30	25-150	30	50-150	30
Perfluorododecanesulfonic acid (PFDoS)	0.169	0.194 ug/kg		30	25-150	30	50-150	30
Perfluoro-1-nonanesulfonic acid (PFNS)	0.124	0.192 ug/kg		30	25-150	30	50-150	30
3-Perfluoropropyl propanoic acid (FPrPA)	0.634	1.00 ug/kg		30	25-150	30	50-150	30
3-Perfluoropentyl propanoic acid (FPePA)	2.10	5.00 ug/kg		30	25-150	30	50-150	30
3-Perfluoroheptyl propanoic acid (FHpPA)	1.50	5.00 ug/kg		30	25-150	30	50-150	30
N-MeFOSE	0.611	2.00 ug/kg		30	25-150	30	50-150	30
N-MeFOSA	0.180	0.200 ug/kg		30	25-150	30	50-150	30
N-EtFOSE	0.697	2.00 ug/kg		30	25-150	30	50-150	30
N-EtFOSA	0.198	0.200 ug/kg		30	25-150	30	50-150	30
Surr: M3PFBS			25-150					

Analytical Method Information

(Continued)

PFAS, EPA 1633 Target List in Soil (EPA 1633 Draft 2) (Continued)

Analyte	MDL	Reporting Limit	Surrogate %Rec	Duplicate RPD	----Matrix Spike---- %Rec	RPD	--Blank Spike / LCS-- %Rec	RPD
Surr: M5PFHxA			25-150					
Surr: M4PFHpA			25-150					
Surr: M3PFHxS			25-150					
Surr: Perfluoro-n-[13C8]octanoic acid (M8PFOA)			25-150					
Surr: M6PFDA			25-150					
Surr: M7PFUdA			25-150					
Surr: Perfluoro-n-[1,2-13C2]dodecanoic acid (MPFDoA)			25-150					
Surr: M2PFTeDA			10-150					
Surr: Perfluoro-n-[13C4]butanoic acid (MPFBA)			25-150					
Surr: Perfluoro-1-[13C8]octanesulfonic acid (M8PFOS)			25-150					
Surr: Perfluoro-n-[13C5]pentanoic acid (M5PFPeA)			25-150					
Surr: Perfluoro-1-[13C8]octanesulfonamide (M8FOSA)			10-150					
Surr: d3-N-MeFOSAA			25-150					
Surr: d5-N-EtFOSAA			25-150					
Surr: M2-6:2 FTS			25-200					
Surr: M2-8:2 FTS			25-200					
Surr: M9PFNA			25-150					
Surr: M2-4:2 FTS			25-150					
Surr: d-N-MeFOSA			25-150					
Surr: d-N-EtFOSA			25-150					
Surr: M3HFPO-DA			25-150					
Surr: d9-N-EtFOSE			25-150					
Surr: d7-N-MeFOSE			25-150					
M3PFBA								
MPFDA								
MPFHxA								
MPFHxS								
MPFNA								
MPFOA								
MPFOS								
Perfluoro-n-[13C9]nonanoic acid (M9PFNA)-EIS								
Perfluoro-n-[13C8]octanoic acid (M8PFOA)-EIS								
Perfluoro-n-[13C54]pentanoic acid (M5PFPeA)-EIS								
Perfluoro-n-[13C4]butanoic acid (MPFBA)-EIS								
Perfluoro-n-[1,2-13C2]dodecanoic acid (MPFDoA)-EIS								
Perfluoro-1-[13C8]octanesulfonic acid (M8PFOS)-EIS								
Perfluoro-1-[13C8]octanesulfonamide (M8FOSA)-EIS								
M7PFUdA-EIS								
M6PFDA-EIS								
M5PFHxA-EIS								
M4PFHpA-EIS								
M3PFHxS-EIS								
M3PFBS-EIS								
M3-HFPO-DA-EIS								
M2PFTeDA-EIS								

Analytical Method Information

(Continued)

PFAS, EPA 1633 Target List in Soil (EPA 1633 Draft 2) (Continued)

Analyte	MDL	Reporting Limit	Surrogate %Rec	Duplicate RPD	----Matrix Spike---- %Rec	RPD	--Blank Spike / LCS-- %Rec	RPD
M2-8-2FTS-EIS								
M2-6-2FTS-EIS								
M2-4-2FTS-EIS								
d9-NEtFOSE-EIS								
d7-NMeFOSE-EIS								
d5-NEtFOSA-EIS								
d5-N-EtFOSAA-EIS								
d3-NMeFOSA-EIS								
d3-N-MeFOSAA-EIS								

PFAS, EPA 1633 Target List in Water (EPA 1633 Draft 2)

Preservation: Cool 4°C

Container: 10_250mL Plastic Cool to 4° C **Amount Required:** 250 mL **Hold Time:** 28 days

Analyte	MDL	Reporting Limit	Surrogate %Rec	Duplicate RPD	----Matrix Spike----		--Blank Spike / LCS--	
					%Rec	RPD	%Rec	RPD
Perfluorobutanesulfonic acid (PFBS)	0.470	1.77 ng/L		30	25-150	35	50-150	30
Perfluorohexanoic acid (PFHxA)	0.350	2.00 ng/L		30	25-150	35	50-150	30
Perfluoroheptanoic acid (PFHpA)	0.710	2.00 ng/L		30	25-150	35	50-150	30
Perfluorohexanesulfonic acid (PFHxS)	0.680	1.83 ng/L		30	25-150	35	50-150	30
Perfluorooctanoic acid (PFOA)	0.420	2.00 ng/L		30	25-150	35	50-150	30
Perfluorooctanesulfonic acid (PFOS)	0.820	1.86 ng/L		30	25-150	35	50-150	30
Perfluorononanoic acid (PFNA)	0.520	2.00 ng/L		30	25-150	35	50-150	30
Perfluorodecanoic acid (PFDA)	0.750	2.00 ng/L		30	25-150	35	50-150	30
Perfluoroundecanoic acid (PFUnA)	1.13	2.00 ng/L		30	25-150	35	50-150	30
Perfluorododecanoic acid (PFDoA)	0.880	2.00 ng/L		30	25-150	35	50-150	30
Perfluorotridecanoic acid (PFTrDA)	0.740	2.00 ng/L		30	25-150	35	50-150	30
Perfluorotetradecanoic acid (PFTA)	0.690	2.00 ng/L		30	25-150	35	50-150	30
N-MeFOSAA	0.790	2.00 ng/L		30	25-150	35	50-150	30
N-EtFOSAA	1.03	2.00 ng/L		30	25-150	35	50-150	30
Perfluoropentanoic acid (PFPeA)	0.230	4.00 ng/L		30	25-150	35	50-150	30
Perfluoro-1-octanesulfonamide (FOSA)	0.880	2.00 ng/L		30	25-150	35	50-150	30
Perfluoro-1-heptanesulfonic acid (PFHpS)	0.910	1.91 ng/L		30	25-150	35	50-150	30
Perfluoro-1-decanesulfonic acid (PFDS)	1.32	1.93 ng/L		30	25-150	35	50-150	30
1H,1H,2H,2H-Perfluorooctanesulfonic acid (6:2 FTS)	1.06	7.60 ng/L		30	25-150	35	50-150	30
1H,1H,2H,2H-Perfluorodecanesulfonic acid (8:2 FTS)	2.05	7.68 ng/L		30	25-150	35	50-150	30
Perfluoro-n-butanoic acid (PFBA)	0.330	8.00 ng/L		30	25-150	35	50-150	30
Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	0.500	3.56 ng/L		30	25-150	30	50-150	30
Perfluoro-3,6-dioxaheptanoic acid (NFDHA)	2.14	4.00 ng/L		30	25-150	30	50-150	30
Perfluoro-4-oxapentanoic acid (PFMPA)	0.250	4.00 ng/L		30	25-150	30	50-150	30
Perfluoro-5-oxahexanoic acid (PFMBA)	0.370	4.00 ng/L		30	25-150	30	50-150	30
Perfluoro-1-pentanesulfonate (PFPeS)	0.760	1.88 ng/L		30	25-150	30	50-150	30
1H,1H,2H,2H-Perfluorohexanesulfonic acid (4:2 FTS)	1.79	7.50 ng/L		30	25-150	30	50-150	30
HFPO-DA (Gen-X)	3.23	8.00 ng/L		30	25-150	30	50-150	30
11CL-PF3OUdS	1.38	7.56 ng/L		30	25-150	30	50-150	30
9CL-PF3ONS	0.700	7.48 ng/L		30	25-150	30	50-150	30
ADONA	0.530	7.56 ng/L		30	25-150	30	50-150	30
Perfluorododecanesulfonic acid (PFDoS)	0.930	1.94 ng/L		30	25-150	30	50-150	30
Perfluoro-1-nonanesulfonic acid (PFNS)	0.860	1.92 ng/L		30	25-150	30	50-150	30
3-Perfluoropropyl propanoic acid (FPrPA)	2.03	5.00 ng/L		30	25-150	30	50-150	30
3-Perfluoropentyl propanoic acid (FPePA)	7.33	25.0 ng/L		30	25-150	30	50-150	30
3-Perfluoroheptyl propanoic acid (FHpPA)	9.47	25.0 ng/L		30	25-150	30	50-150	30
N-MeFOSE	3.99	20.0 ng/L		30	25-150	30	50-150	30
N-MeFOSA	1.58	2.00 ng/L		30	25-150	30	50-150	30
N-EtFOSE	3.99	20.0 ng/L		30	25-150	30	50-150	30
N-EtFOSA	1.80	2.00 ng/L		30	25-150	30	50-150	30
Surr: M3PFBS			25-150					

PFAS, EPA 1633 Target List in Water (EPA 1633 Draft 2) (Continued)

Analyte	MDL	Reporting Limit	Surrogate %Rec	Duplicate RPD	----Matrix Spike---- %Rec	RPD	--Blank Spike / LCS-- %Rec	RPD
Surr: M5PFHxA			25-150					
Surr: M4PFHpA			25-150					
Surr: M3PFHxS			25-150					
Surr: Perfluoro-n-[13C8]octanoic acid (M8PFOA)			25-150					
Surr: M6PFDA			25-150					
Surr: M7PFUdA			25-150					
Surr: Perfluoro-n-[1,2-13C2]dodecanoic acid (MPFDoA)			25-150					
Surr: M2PFTeDA			10-150					
Surr: Perfluoro-n-[13C4]butanoic acid (MPFBA)			25-150					
Surr: Perfluoro-1-[13C8]octanesulfonic acid (M8PFOS)			25-150					
Surr: Perfluoro-n-[13C5]pentanoic acid (M5PFPeA)			25-150					
Surr: Perfluoro-1-[13C8]octanesulfonamide (M8FOSA)			10-150					
Surr: d3-N-MeFOSAA			25-150					
Surr: d5-N-EtFOSAA			25-150					
Surr: M2-6:2 FTS			25-200					
Surr: M2-8:2 FTS			25-200					
Surr: M9PFNA			25-150					
Surr: M2-4:2 FTS			25-150					
Surr: d-N-MeFOSA			25-150					
Surr: d-N-EtFOSA			25-150					
Surr: M3HFPO-DA			25-150					
Surr: d9-N-EtFOSE			25-150					
Surr: d7-N-MeFOSE			25-150					
M3PFBA								
MPFDA								
MPFHxA								
MPFHxS								
MPFNA								
MPFOA								
MPFOS								
Perfluoro-n-[13C9]nonanoic acid (M9PFNA)-EIS								
Perfluoro-n-[13C8]octanoic acid (M8PFOA)-EIS								
Perfluoro-n-[13C54]pentanoic acid (M5PFPeA)-EIS								
Perfluoro-n-[13C4]butanoic acid (MPFBA)-EIS								
Perfluoro-n-[1,2-13C2]dodecanoic acid (MPFDoA)-EIS								
Perfluoro-1-[13C8]octanesulfonic acid (M8PFOS)-EIS								
Perfluoro-1-[13C8]octanesulfonamide (M8FOSA)-EIS								
M7PFUdA-EIS								
M6PFDA-EIS								
M5PFHxA-EIS								
M4PFHpA-EIS								
M3PFHxS-EIS								
M3PFBS-EIS								
M3-HFPO-DA-EIS								
M2PFTeDA-EIS								

Analytical Method Information

(Continued)

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PFAS, EPA 1633 Target List in Water (EPA 1633 Draft 2) (Continued)

Analyte	MDL	Reporting Limit	Surrogate %Rec	Duplicate RPD	----Matrix Spike---- %Rec	RPD	--Blank Spike / LCS-- %Rec	RPD
M2-8-2FTS-EIS								
M2-6-2FTS-EIS								
M2-4-2FTS-EIS								
d9-NEtFOSE-EIS								
d7-NMeFOSE-EIS								
d5-NEtFOSA-EIS								
d5-N-EtFOSAA-EIS								
d3-NMeFOSA-EIS								
d3-N-MeFOSAA-EIS								

Laboratory Standard Operating Procedure

Determination of PFAS in Aqueous and Solid matrices by Isotope Dilution Analysis by HPLC/MS-MS (EPA 1633 Draft 2)

Standard Operating Procedure

Determination of Target Per- and Polyfluoroalkyl Substances (PFAS) in Aqueous and Solid matrices by Isotope Dilution Analysis by HPLC/MS-MS
According to EPA Method 1633 Draft 2

Approvals

Laboratory Director/QA Officer ____________________
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Controlled Copy No. PFAS_LCMSMS1633, Rev 1.0-____

Issued to: NA

1. SCOPE AND APPLICATION

This method is used to identify and quantitate specific PFAS compounds in extracts of non-potable water and solid (soil/sediment) samples using HPLC/MS-MS (high pressure liquid chromatography/tandem mass spectrometry. Currently the compounds (40) that are measured by this methodology are listed in the Table 1.0 below.

Table 1.0-Target PFAS

Perfluoroalkyl carboxylic acids		
Perfluorobutanoic acid	PFBA	375-22-4
Perfluoropentanoic acid	PFPeA	2706-90-3
Perfluorohexanoic acid	PFHxA	307-24-4
Perfluoroheptanoic acid	PFHpA	375-85-9
Perfluorooctanoic acid	PFOA	335-67-1
Perfluorononanoic acid	PFNA	375-95-1
Perfluorodecanoic acid	PFDA	335-76-2
Perfluoroundecanoic acid	PFUnA	2058-94-8
Perfluorododecanoic acid	PFDoA	307-55-1
Perfluorotridecanoic acid	PFTrDA	72629-94-8
Perfluorotetradecanoic acid	PFTeDA	376-06-7
Perfluoroalkyl sulfonic acids Acid Form		
Perfluorobutanesulfonic acid	PFBS	375-73-5
Perfluoropentansulfonic acid	PFPeS	2706-91-4
Perfluorohexanesulfonic acid	PFHxS	355-46-4
Perfluoroheptanesulfonic acid	PFHpS	375-92-8
Perfluorooctanesulfonic acid	PFOS	1763-23-1
Perfluorononanesulfonic acid	PFNS	68259-12-1
Perfluorodecanesulfonic acid	PFDS	335-77-3
Perfluorododecanesulfonic acid	PFDoS	79780-39-5
Fluorotelomer sulfonic acids		
1*H*,1*H*, 2*H*, 2*H*-Perfluorohexane sulfonic acid	4:2FTS	757124-72-4
1*H*,1*H*, 2*H*, 2*H*-Perfluorooctane sulfonic acid	6:2FTS	27619-97-2
1*H*,1*H*, 2*H*, 2*H*-Perfluorodecane sulfonic acid	8:2FTS	39108-34-4
Perfluorooctane sulfonamides		
Perfluorooctanesulfonamide	PFOSA	754-91-6
N-methyl perfluorooctanesulfonamide	NMeFOSA	31506-32-8
N-ethyl perfluorooctanesulfonamide	NEtFOSA	4151-50-2
Perfluorooctane sulfonamidoacetic acids		
N-methyl perfluorooctanesulfonamidoacetic acid	NMeFOSAA	2355-31-9
N-ethyl perfluorooctanesulfonamidoacetic acid	NEtFOSAA	2991-50-6
Perfluorooctane sulfonamide ethanols		
N-methyl perfluorooctanesulfonamidoethanol	NMeFOSE	24448-09-7
N-ethyl perfluorooctanesulfonamidoethanol	NEtFOSE	1691-99-2
Per- and Polyfluoroether carboxylic acids		
Hexafluoropropylene oxide dimer acid	HFPO-DA	13252-13-6
4,8-Dioxa-3*H*-perfluorononanoic acid	ADONA	919005-14-4
Perfluoro-3-methoxypropanoic acid	PFMPA	377-73-1
Perfluoro-4-methoxybutanoic acid	PFMBA	863090-89-5
Nonafluoro-3,6-dioxaheptanoic acid	NFDHA	151772-58-6
Ether sulfonic acids		
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid	9Cl-PF3ONS	756426-58-1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid	11Cl-PF3OUdS	763051-92-9
Perfluoro(2-ethoxyethane)sulfonic acid	PFEESA	113507-82-7
Fluorotelomer carboxylic acids		
3-Perfluoropropyl propanoic acid	3:3FTCA	356-02-5
2*H*,2*H*,3*H*,3*H*-Perfluorooctanoic acid	5:3FTCA	914637-49-3
3-Perfluoroheptyl propanoic acid	7:3FTCA	812-70-4

The estimated reporting limits (MRL) based upon the preparation/analysis parameters herein at the time of this revision are approximately 2.0-20.0 ng/L (ppt) for aqueous samples and 0.5-5.0 ug/kG for solids . The linear range for these PFAS can be extended by dilution. These MRLs are based upon a volume of 0.250L-0.500L extracted for aqueous samples and 2-5 g. for solids.

This method is "performance-based," which means that modifications may be made without additional EPA review to improve performance (e.g., overcome interferences, or improve the sensitivity, accuracy, or precision of the results) *provided that* all performance criteria in this method are met. Requirements for establishing equivalency are in Section 9.1.2 and include 9.1.2.2c. For CWA uses, additional flexibility is described at 40 CFR 136.6. Changes in performance, sensitivity, selectivity, precision, recovery, etc., that result from modifications within the scope of 40 CFR Part 136.6, and Section 9.0 of this method must be documented, as well as how these modifications compare to the specifications in this method. Changes outside the scope of 40 CFR Part 136.6 and Section 9.0 of this method may require prior review or approval.

2. SUMMARY

Environmental samples are prepared and extracted using method-specific procedures. Sample extracts are subjected to cleanup procedures designed to remove interferences. Analyses of the sample extracts are conducted by LC-MS/MS in the multiple reaction monitoring (MRM) mode. Sample concentrations are determined by isotope dilution or extracted internal standard quantification (see Section 10.3) using isotopically labeled compounds added to the samples before extraction

2.1 **Extraction**

2.1.1 Aqueous samples are spiked with isotopically labeled standards, extracted using solid-phase extraction (SPE) cartridges and undergo cleanup using carbon before analysis.

2.1.2 Solid samples are spiked with isotopically labeled standards, extracted into basic methanol, and cleaned up by carbon and SPE cartridges before analysis.

2.2 **Analysis**

2.2.1 Extracts are then analyzed by HPLC-MS/MS in the MRM mode. Extracts contain Non-extracted Internal Standards (NIS) to monitor instrument performance and used for quantitative analysis.

2.2.2 Individual PFAS analytes are identified through peak analysis of the quantification and confirmation ions (Precursor and product ions) where applicable.

2.2.3 The concentration of each analyte is calculated using the isotope dilution technique. This approach corrects the target analytes for surrogate analog recoveries and these surrogates are essentially extracted internal standards (EIS). For QC purposes, the percent recoveries of the isotope dilution analogues are calculated using the integrated peak areas of isotope performance standards, which are added to the final extract and function as traditional internal standards (non-extracted internal standards), exclusively applied to the isotope dilution analogues.

3. DEFINITIONS

3.1 ANALYSIS BATCH – A set of samples that is analyzed on the same instrument during a 24-hour period, including no more than 20 Field Samples, that begins and ends with the analysis of the appropriate Continuing Calibration Check (CCC) standards. Additional CCCs may be required depending on the length of the analysis batch and/or the number of Field Samples.

3.2 CALIBRATION STANDARD (CAL) – A solution of the method analytes, isotope dilution analogues, and isotope performance standards (Internal standards) prepared from the Primary Dilution Standards and stock standards. The calibration standards are used to calibrate the instrument response with respect to analyte concentration.

3.3 CONTINUING CALIBRATION VERIFICATION (CCV) – A calibration standard containing the method analytes, internal standard(s) and surrogate(s). The CCV is analyzed periodically to verify the accuracy of the existing calibration for those analytes.

3.4 EXTRACTION BATCH – A set of up to 20 Field Samples (not including QC Samples) extracted together by the same person(s) during a work day using the same lot of SPE devices, solvents, surrogate, internal standard and fortifying solutions. Required QC samples include Method blank, and Matrix spike/duplicate pair.

3.5 FIELD DUPLICATES – Separate samples collected at the same time and sampling location, shipped and stored under identical conditions. Method precision, including the contribution from sample collection procedures, is estimated from the analysis of Field Duplicates. Field Duplicates are used to prepare matrix spike/matrix spike duplicate QC samples.

3.6 FIELD BLANK (FBLK) – An aliquot of reagent water that is placed in a sample container in the laboratory and treated as a sample in all respects, including shipment to the sampling site, exposure to sampling site conditions, storage, preservation, and all analytical procedures. The purpose of the FBLK is to determine if method analytes or other interferences are introduced into the sample from shipping, storage, and the field environment.

3.7 ISOTOPE DILUTION ANALOGUES - Isotopically labeled analogues of the method analytes that are added to the sample prior to extraction in a known amount. Note: Not all target PFAS currently have an isotopically labeled analogue. In these cases, an alternate isotopically labeled analogue is used as detailed in our SOP and in the reference method.

3.8 ISOTOPE DILUTION TECHNIQUE - An analytical technique for measuring analyte concentration using the ratio of the peak area of the native analyte to that of an isotopically labeled analogue, added to the original sample in a known amount and carried through the entire analytical procedure.

3.9 ISOTOPE PERFORMANCE STANDARDS (Internal Standards) - Quality control compounds that are added to all standard solutions and extracts in a known amount and used to measure the relative response of the isotopically labelled analogues that are components of the same solution. For this method, the isotope performance standards are three isotopically labeled analogues of the method analytes. The isotope performance standards are indicators of instrument performance and are used to calculate the recovery of the isotope dilution analogues through the extraction procedure. In this method, the isotope performance standards are not used in the calculation of the recovery of the native analytes.

3.10 METHOD BLANK – An aliquot of reagent water to which known quantities of the method analytes and isotope dilution analogues are added. The results of the MBLK verify method performance in the absence of sample matrix.

3.11 MATRIX SPIKE/MATRIX SPIKE DUPLICATE (MS/MSD) – Aliquots of field samples that have been fortified with a known concentration of target compounds, prior to sample preparation and extraction, and analyzed to measure the effect of matrix interferences. The use of MS/MSD samples is generally not required in isotope dilution methods because the labeled compounds added to every sample provide more performance data than spiking a single sample in each preparation batch.

3.12 LIMIT OF QUANTITATION (LOQ) – The smallest concentration that produces a quantitative result with known and recorded precision and bias. The LOQ shall be set at or above the concentration of the lowest initial calibration standard (the lowest calibration standard must fall within the linear range). Determined by matrix through the entire preparation and analysis process.

3.13 METHOD DETECTION LIMIT (MDL) – The minimum measured concentration of a substance that can be reported with 99% confidence that the measured analyte concentration is distinguishable from method blank results (40 CFR 136, Appendix B).

3.14 MINIMUM LEVEL OF QUANTITATION (ML) – The lowest level at which the entire analytical system must give a recognizable signal and acceptable calibration point for the analyte. The ML represents the lowest concentration at which an analyte can be measured with a known level of confidence. It may be equivalent to the concentration of the lowest calibration standard, assuming that all method-specified sample weights, volumes, and cleanup procedures have been employed. Alternatively, the ML may be established by multiplying the MDL (pooled or unpooled, as appropriate) by 3.18 and rounding the result to the number nearest to 1, 2, or 5 x 10n, where n is zero or an integer (see 68 FR 11770).

3.15 PRECURSOR ION – For the purpose of this method, the precursor ion is the deprotonated molecule ([M-H]-) of the method analyte (with the exception of HFPO-DA, in which the precursor ion is formed by decarboxylation). In MS/MS, the precursor ion is mass selected and fragmented by collisionally activated dissociation to produce distinctive product ions of smaller *m/z*.

3.16 PRIMARY DILUTION STANDARD (PDS) SOLUTION – A solution containing the analytes prepared in the laboratory from stock standard solutions and diluted as needed to prepare calibration solutions and other needed analyte solutions.

3.17 PRODUCT ION – For the purpose of this method, a product ion is one of the fragment ions produced in MS/MS by collisionally activated dissociation of the precursor ion.

3.18 INITIAL CALIBRATION VERIFICATION (ICV) – A calibration standard prepared independently from the primary calibration solutions. For this method, the ICV is a repeat of the entire dilution scheme starting with the same stock materials (neat compounds or purchased stock solutions) used to prepare the primary calibration solutions. Independent sources and separate lots of the starting materials are not required, provided the laboratory has obtained the purest form of the starting materials commercially available. The purpose of the ICV is to verify the integrity of the primary calibration standards.

3.19 QUANTITATIVE STANDARD - A quantitative standard of assayed concentration and purity traceable to a Certificate of Analysis.

3.20 STOCK STANDARD SOLUTION - A concentrated solution containing one or more method analytes prepared in the laboratory using assayed reference materials or purchased from a reputable commercial source with a Certificate of Analysis.

3.21 TECHNICAL GRADE STANDARD – As defined for this method, a technical-grade standard includes a mixture of the branched and linear isomers of a method analyte. For the purposes of this method, technical-grade standards are used to identify retention times of branched and linear isomers of method analytes.

3.22 ANALYTE – A PFAS compound included in this method. The analytes are listed in Table 1.

3.23 CALIBRATION STANDARD (CS) – A solution prepared from a secondary standard and/or stock solutions and used to calibrate the response of the LC-MS/MS instrument.

3.24 CONTINUING CALIBRATION VERIFICATION (CCV) STANDARD – The mid-point calibration standard that is used to verify calibration.

3.25 CFR – Code of Federal Regulations

3.26 EXTRACTED INTERNAL STANDARD (EIS) QUANTIFICATION – The response of the target compound is compared to the response of the labeled analog of another compound in the same LOC.

3.27 INSTRUMENT SENSITIVITY CHECK – solution used to check the sensitivity of the instrument. The solution contains the native compounds at the concentration of the LOQ.

3.28 IPR – INITIAL PRECISION AND RECOVERY; four aliquots of a reference matrix spiked with the analytes of interest and labeled compounds and analyzed to establish the ability of the laboratory to generate acceptable precision and recovery. An IPR is performed prior to the first time this method is used and any time the method or instrumentation is modified

3.29 OPR - ONGOING PRECISION AND RECOVERY- – Ongoing precision and recovery standard (OPR); a method blank spiked with known quantities of analytes. The OPR is analyzed exactly like a sample. Its purpose is to assure that the results produced by the laboratory remain within the limits specified in this method for precision and recovery. Applies to OPR and LLOPR (low level OPR at **2x** the LOQ level).

3.30 SPE – SOLID PHASE EXTRACTION; a technique in which an analyte is extracted from an aqueous solution or a solid extract by passage over or through a material capable of reversibly adsorbing the analyte. Also termed liquid-solid extraction.

4. INTERFERENCES

LC-MS/MS data from blanks, samples, and spikes must be evaluated for interferences. If any interferences are present, take corrective action if necessary. Do not use aluminum foil because PFAAs can be potentially transferred from the aluminum foil to the glassware. Only aluminum foil rinsed with LC/MS grade methanol can be used where necessary.

4.1 PFAS have been used in a wide variety of manufacturing processes, and laboratory supplies should be considered potentially contaminated until they have been tested and shown to be otherwise. The materials and supplies used during the method validation process have been tested and shown to be clean. These items are listed in the Reagents section.

4.2 Method interferences may be caused by contaminants in solvents, reagents (including DI water), sample bottles and caps, and other sample processing hardware that lead to discrete artifacts and/or elevated baselines in the chromatograms. All items such as these must be routinely demonstrated to be free from interferences (less than 1/2 the Reporting Limit), under the conditions of the analysis by analyzing Method Blanks. Subtracting blank values from sample results is not permitted.

4.3 PTFE products can be a source of PFAS (PFOA) contamination. The use of PTFE in the procedure should be avoided. Polypropylene (PP) or polyethylene (PE, HDPE) products may be used in place of PTFE products to minimize PFOA contamination.

4.3.1 Standards and samples are injected from polypropylene autosampler vials with polypropylene or polyolefin snap caps, once. Multiple injections may be performed on Primers when conditioning the instrument for analysis.

4.3.2 Random evaporation losses have been observed with the polypropylene caps causing high Internal Std. recovery after the vial was punctured and sample re-injected. For this reason, it is best to inject standards and samples once in the analytical sequence, then recap with polyolefin caps for storage.

4.3.2 Teflon-lined screw caps have detected PFAS at low concentrations. Repeated injection from the same teflon-lined screw cap have detected PFNA at increasing concentration as each repeated injection was performed, therefore, it is best to use polypropylene snap caps.

4.3.3 Aqueous samples should not come in contact with any glass containers or pipettes as PFAS analytes can potentially adsorb to glass surfaces. Standards dissolved in organic solvent may be purchased in glass ampoules. These standards in organic solvent are acceptable and subsequent transfers may be performed using glass syringes and pipets. Following extraction, the eluate must be collected in a polypropylene tube prior to concentration to dryness. Concentration to dryness in glass tubes may cause poor recovery.

4.4 LC/MS grade methanol must be used for all steps where methanol is used in this method. HPLC grade methanol has been demonstrated to be acceptable if tested prior to use.

4.5 Matrix interferences may be caused by contaminants that are co-extracted from the sample. The extent of matrix interferences will vary considerably from source to source, depending upon the nature of the sample.

4.5.1 Co-extracted Organic Material - Under normal LC conditions matrix effects due to co-extracted organic material enhanced the ionization of 4:2 FTS appreciably. Total organic carbon (TOC) is a good indicator of humic content of the sample.

4.5.2 Solid phase extraction cartridges may be a source of interferences. The analysis of field and laboratory reagent blanks can provide important information regarding the presence or absence of such interferences. SPE cartridges should be sealed while in storage to prevent ambient contamination of the SPE sorbent.

4.6 Contamination by carryover can occur whenever a high-concentration and low concentration samples are sequentially analyzed. To reduce carryover, the sample syringe in automatically rinsed with solvent between injections. These operations are programmed into the LC multi-sampler system.

4.7 Volumetric glassware and syringes are difficult to clean after being used for solutions containing high levels of PFOA. These items should be labeled for use only with similarly concentrated solutions or verified clean prior to re-use. To the extent possible, disposable labware is used.

4.8 Both branched and linear PFAS isomers can potentially be found in the environment. Linear and branched isomers are known to exist for PFOS, PFOA, PFHxS, and PFBS, based upon the scientific literature. We have also seen branched isomers for PFHpA, NMeFOSAA, NEtFOSAA and PFNA. If multiple isomers are present for one of these PFAS they likely are adjacent peaks that completely resolve or not, but usually with a deflection point resolved during peak integration. The later of these peaks matches the retention time of its labeled linear analog. In general, earlier peaks are the branched isomers and are not the result of peak splitting.

Currently, all these species are available as linear isomers. Some available branched and linear reference standards of the technical mixtures for these specific PFAS are used to ensure that all appropriate peaks are included during peak integration. These species currently include PFOA, PFHxS, NMeFOSAA, and NEtFOSAA. These branched isomers elute before the linear isomer and are integrated and reported as total for those species. Others are also included at this time such as those listed in section 7.3.4.

4.9 In an attempt to reduce PFOS bias, it is required that *m/z* 499>80 transition be used as the quantitation transition.

5. SAMPLE HANDLING

5.1 **Aqueous Samples** - samples are collected by our clients in 250 or 500ml HDPE bottles with unlined HDPE or polypropylene caps and filled to the neck. Each sample submitted should be submitted in triplicate-with one used for determination of Suspended solids and possible pre-screening. Sub-sampling should be avoided whenever possible. When historical data are available indicating high levels of PFAS, sub-sampling may be an advisable option.

5.2 **Soil Samples** – samples are collected in wide mouth 125 or 250 mL HDPE bottles with PP unlined caps.

5.3 SAMPLE SHIPMENT AND STORAGE/HOLDING TIMES – Maintain all aqueous samples protected from light at 0 - 6 ºC from the time of collection until shipped to the laboratory. Samples must be shipped as soon as practical with sufficient ice to maintain the sample temperature below 6 ºC during transport. Sample are to be received by the laboratory within 48 hours of collection. The laboratory must confirm that the sample temperature is 0 - 6 ºC upon receipt. Once received by the laboratory, the samples may be stored at ≤ -20 ºC, or at 0 - 6 ºC, until sample preparation. However, the allowable holding time for samples depends on the storage temperature, as described below:

5.3.1 Aqueous samples may be held in the laboratory for up to 90 days from collection, when stored at ≤ -20 ºC and protected from the light. When stored at 0 - 6 ºC and protected from the light, aqueous samples may be held for up to **28 days**, with the caveat that issues were observed with certain perfluorooctane sulfonamide ethanols and perfluorooctane sulfonamidoacetic acids after **7 days**. These issues are more likely to elevate the observed concentrations of other PFAS compounds via the transformation of these precursors if they are present in the sample.

5.3.2 Solid samples (soils and sediments) may be held for up to 90 days, if stored in the dark at either 0 - 6 ºC or ≤ -20 ºC, with the caveat that samples may need to be extracted as soon as possible if NFDHA is an important analyte.

5.4 **SAMPLE EXTRACT HOLDING TIMES –** Store sample extracts in the dark at less than 0 - 4 ºC until analyzed. If stored in the dark at less than 0 - 4 ºC, sample extracts may be stored for up to 90 days, with the caveat that issues were observed for some ether sulfonates after 28 days. These issues may elevate the observed concentrations of the ether sulfonates in the extract over time. Samples may need to be extracted as soon as possible if NFDHA is an important analyte.

6. APPARATUS AND MATERIALS (as listed or demonstrated equivalents)

6.1 250-500 mL polypropylene bottles with polypropylene caps. VWR Scientific or equivalent: Part no. 414004-125, 12 pk. Alternate: White PP unlined lid L238WH and 16oz. clarified PP single wall jar 70-400 neck, item J066- Containers and Packaging.com or equivalent.

6.2 Transport Tube: Virgin Polypropylene, White, Plastic, 10 mL Capacity, 16 mm OD, 93 mm Overall Lg, Self-Standing, 250 PK， Item 710Z420, Gamut.com (Grainger), with PP cap or equivalent.

6.3 Graduated cylinders, 50, 100, 250, 500 and 1000mL, Polypropylene, VWR Scientific or equivalent

6.4 Analytical Balance, 0.0001g., checked for accuracy each day of use with Class S weights, certified annually by an outside service

6.5 Extract concentrators: Organomation Model N-EVAP 112, 24 position concentrator with water batch control and nitrogen supply controls or equivalent

6.6 3.1 Micron in-line filters, Promochrom only

6.7 1.0-2.0 mL polypropylene snap cap vials, Agilent part no. 5182-0567 or equivalent

6.8 Snap caps, polypropylene or olefin, 11 mm, 11/9k, Agilent Part no. 5182-0542

6.9 Solid Phase Extraction Tubes: for EPA 1633: WAX (weak anion exchange mixed mode polymeric sorbent – Phenomenex No. 8B-S038-HCH 200 mg or Waters Oasis 150 mg Cat. # 186002493. Must have a pKa > 8 to remain positively charged during the extraction. Alternate is Agilent Bond Elute WAX 200 mg-cat. No. 5610-2151

6.10 Syringes, Hamilton or equivalent 5.0 uL, 10 uL 25 uL, 100 uL, 250 uL, 500 uL, teflon free

6.11 Solid Phase Extraction System-automated-Promochrom 8 position autosampler system for 6 mL capacity SPE tubes. System retrofit to remove all PTFE components and replaced with PEEK tubing or PFAS free tubing. Automated bottle rinsing feature required with 3.1 um in line PP filters

6.12 Nitrogen Evaporation System- TurboVap nitrogen evaporation system operated at less than 55C.

6.13 LC/MS-MS system- Agilent 1260 or 1290 HPLC system interfaced to an Agilent 6470A or 6460C Triple Quadrupole system. The instrument control and qualitative/quantitative software is Mass Hunter versions B.8.0 and B.9.0 or later.

6.13.1 HPLC System-Agilent 1260 or 1290 Infinity II

6.13.1.1 The Agilent 1260 or 1290 Infinity II HPLC system is configured with temperature controlled column oven compartment. 4 column configuration, temperature controlled (refrigerated) auto sampler compartments, injection valve, proportioning valves, variable flow controls and variable injection capabilities.

6.13.1.2 The delay column (PFAS and other interference removal) is an Agilent Eclipse Plus C18, 4.6mm x 50 mm, 3.5 um-Part no. 959943-902 or equivalent.

6.13.1.3 The analytical column is a Restek Raptor C18 part no. 9304252 50mm x 2.1 mm ID, 1.8 u particle size or equivalent

6.13.2 Agilent LC/MS-MS- Agilent 6470AAR/6460C

6.14.2.1 Agilent model 6470AAR/6460C triple Quadrupole system with Agilent Jet Stream ESI source. UHP nitrogen is used as cell gas and High purity nitrogen is delivered for the sheath gas from a Peak Scientific nitrogen generator system.

6.14 Vortex Mixer- Benchmark Industries or equivalent

6.15 Variable Speed shaker table, 18” x 12”- Orbital Shaker- Jiangau Tenlin Instr. Co., Ltd., Model no. TLSK-III 20-230 RPM, 0-999 min, or equivalent
6.16 Centrifuge, 50 mL, Premiere Model XC-2450 Series Centrifuge 6 x 50 mL, 3500 RPM max., or equivalent
6.17 Mechanical Pipettors- 10-100 uL; 100-1000 uL; 1000-5000 uL-4 E’S Scientific or equivalent, calibrated quarterly.
6.18 Vortex Mixer- Benchmark Industries or equivalent

6.19 pH paper, short range 6-8 and full range with 0.5 pH readability- VWR Scientific or equivalent
6.20 15 mL PP or HDPE Centrifuge tubes, Corning Part no. 430791
6.21 3 mL Disposable Transfer pipets, PE, VWR part no. 16001-176
6.22 1.0 mL polypropylene snap cap vials, Agilent part no. 5182-0567
6.23 Snap caps, polypropylene, 11 mm, 11/9k, Agilent Part no. 5182-0542
6.24 2mL self standing PP microcentrifuge snap cap tubes, SKS Scientific part no. 0747-17

6.25 Collection tubes, 15 mL graduated PP or HDPE Centrifuge tubes, Corning Part no. 430791
6.26 Disposable 10 mg scoops, PP
6.27 Ultrasonic mixer
6.28 10 mL disposable syringes, PP or HDPE, luer fitting
6.29 13mm or 25 mm 0.2 um Nylon membrane filters, PALL Acrodisc or equivalent

7. REAGENTS AND STANDARDS-as listed or equivalents

7.1 ALL REAGENTS and STANDARDS MUST BE LOGGED INTO THE ELEMENT LIMS SYSTEM. This includes lot numbers, expiration, open and prepared dates, receipt date, Certification/traceability documents from supplier(s) if provided and preparer.

7.2 SOLVENTS and REAGENTS-all as listed or equivalents

7.2.1 Methanol, hypergrade for LC/MS. (Merck) from Sigma Aldrich Part no. 1060354000 or equivalent (HPLC Plus grade is an acceptable alternate)

7.2.2 Water, hypergrade for LC/MS. (Merck) from Sigma Aldrich Part no. 1153334000 or equivalent (HPLC plus grade is an acceptable alternate). Alternatively, York PFAS free water demonstrated ion and PFAS free can be used.

7.2.3 Acetic Acid, glacial. ACS grade or equivalent.

7.2.4 Ammonium Hydroxide, conc. Cert. ACS grade, 28-30% in water, Sigma Aldrich part no.1054231000, or equivalent

7.2.5 Methanolic Potassium Hydroxide (0.05 M) – add 3.3 g of KOH to 1L MeOH

7.2.6 Sodium Hydroxide, pellets, ACS grade- Sigma Aldrich part no. 221465-500G, or equivalent

7.2.7 Potassium Hydroxide, pellets, ACS grade

7.2.8 Ammonium Acetate – ACS grade or better, Ammonium Acetate, HPLC or cert. ACS grade. Sigma Aldrich Part no. 73594-100-G-F or equivalent.

7.2.9 Ammonium Acetate 5 mM for HPLC in aqueous solution: HPLC gradient A-- Weigh 0.3854 g (+ 0.0005) Ammonium Acetate and add to 1 liter hypergrade Water. Mix until dissolved then sonicate for 5 mins. To remove air bubbles. Stability - 2 weeks.

7.2.10 **Methanolic Ammonium Hydroxide 0.3 %** - take 2.5 mL of conc. ammonium hydroxide into 247 mL MeOH (measure the 247 mL in a PP graduated cylinder-they are under QQ1 somewhere). Use a mechanical pipet to add the 2.5 mL (not strictly quantitative FYI)-**Make 4 bottles of this**. *Used for soil extractions*.- 1 month life

7.2.11 **Methanolic Ammonium Hydroxide 1.0 %** - take 8.25 mL of conc. ammonium hydroxide into 242 mL MeOH (measure the 242 mL in a PP graduated cylinder-they are under QQ1 somewhere). Use a mechanical pipet to add the 8.25 mL (not strictly quantitative FYI)- **Make 4 bottles of this** -*used in Promochrom-*1 month life.

7.2.12 **Aqueous Ammonium Hydroxide 3%-** take 24.8 mL of ammonium hydroxide and add to 242 mL PFAS free water. 3 month life- *used for pH adjustment*

7.2.13 **Methanol with 4% water, 1% ammonium hydroxide and 0.625% acetic acid** – add ammonium hydroxide (3.3 mL, 30%), reagent water (1.7 mL) and acetic acid (0.625 mL) to methanol (92 mL), store at room temperature, replace after 1 month. **This solution is used to prepare the instrument blank, calibration stds and is used to dilute the extracts of samples that exceed the calibration range.**

7.2.14 **Formic Acid 0.1M-aqueous** – add 873 uL formic acid into 250 mL PFAS free water- **Make 2 bottles of this-***used to prepare 7 below.* 2 year life

7.2.15 **Formic Acid, 0.3M**-aqueous- add 2.62 mL (2619 uL) into 250 mL PFAS free water- **Make 4 bottles of this** -*used in Promochrom-*2 year life

7.2.16 **Formic Acid methanolic 1:1, 0.1M formic acid**- mix equal volumes of Methanol and 0.1 M formic acid- **Make 4 bottles of this** -*used in Promochrom-*2 year life

7.2.17 **Formic Acid 5% aqueous**- add 12.5 mL Formic acid into 250 mL PFAS free water. *Used for pH adjustment.* 2 year life

7.3 Stock Standards

Stock Standards are purchased in mid to high concentration levels from Wellington Laboratories, Inc. Guelph, ONT, CA. Currently, Wellington is the preferred supplier of these materials. As a second source verification, prepare a mid-level from the stock independently from the preparation used for initial calibration. Document this preparation in Element. See Attachments 1,2, and 3 for detailed information.

7.3.1 Internal Standards (7-Non-Extracted –NIS)) used for the method are MPFOA, MPFOS, M3PFBA, MPFDA, MPFHxA, MPFHxS and MPFNA.

These are purchased at 250 - 1000 ng/mL depending upon the ISTD in a mixture. This mixture is purchased from Wellington Labs in 1.2 mL volumes with the following **part no.: MPFAC-HIF-IS**. Stored at 4C or less unopened this solution has a 5 year life. Once opened, the life is one year from open date.

7.3.2 Isotopic Surrogate Analogs (24 isotopes) are purchased for the method described from Wellington Labs at 250-5000 ng/mL levels, depending upon the isotope. The part no. is **MPFAC-HIF-ES**.

7.3.3 Stock Standard mixtures of both linear and branched isomers of the EPA 1633 - 40 list are purchased from Wellington Labs at varying concentrations in 5 different mixtures under part nos. PFAC-MXJ, PFAS-MXI, PFAC-MXH, PFAC-MXG, PFAC-MXF.

7.3.4 Qualitative branched isomers mix- individual available branched and linear mixes for the following PFAS are used daily to allow for qualitative knowledge of the PFAS branched isomers so they are integrated/included in quantitative analysis: T-PFOA, lp-PFNA, br-FOSA, br-NEtFOSA, br-NMeFOSA, br-NEtFOSE and br-NMeFOSE. These are purchased at 50,000 ng/mL levels from Wellington Labs-the names above are the Catalogue nos. These have a five year life at stock concentrations.

Make a 100 ng/mL Intermediate mix by adding 2.0 uL of the individual stocks up to 1.0 mL with MeOH.

Make a working solution by taking 200 uL of the 100 ng/mL intermediate into 750 uL of cal matrix solution (7.2.13) and add 50 uL of 1:10 EIS mix.

Transfer 300 uL to an autosampler vials, add 3 uL of ISTD working mix, cap, vortex and store until needed. Life is 1 year.

The summary below details the procurement requirements for this method - All from Wellington Laboratories, Inc.:

Description	Part nos.	Comes in
40 Compound Target 1633 list targets	PFAC-MXJ PFAS-MXI PFAC-MXH PFAC-MXG PFAC-MXF	4 Days – 1.2 mL
Isotopic Surrogates-24	MPFAC-HIF-ES	4 Days – 1.2 mL
EPA 1633 - 7 Internal Stds	MPFAC-HIF-IS	4 Days – 1.2 mL

7.4 Preparation of Standards

7.4.1 Preparation of Working Standards and Intermediates from STOCK Materials

All stock standards are prepared by the vendor in methanol containing a bit of sodium hydroxide to prevent losses of target PFAS compounds due to potential esterification in methanolic solution. The stocks come prepared with 4 molar equivalents (a 3x excess) of sodium hydroxide for stocks at the 50 ug/mL levels. This insures their stability with respect to potential loss due to esterification. The basic solution insures that any acidic sites on the glass ampules or acidic impurities in the methanol are neutralized to prevent ester formation and forms the sodium salt of the PFAS to stabilize it.

When preparing any intermediate level standards, the dilution must be prepared in alkaline methanol to prevent the above from occurring.

In order to do this, prepare a 5.0 mM NaOH in Hypergrade Methanol (or LC/MSMS grade) by dissolving 0.02 g. of sodium hydroxide into 100 mL of MeOH. This has a 2 week life.

For intermediate standards that are made to 10 mL final volume, add 100 uL of 5.0 mM NaOH/MeOH as part of the preparation. This results in a final concentration of NaOH at 0.05 mM.

For intermediate standards prepared to a final volume of 1.0 mL. add 10 uL of the 5.0 mM NaOH/MeOH.

For working calibration standards/CCV/SCV made to 500 uL final volume, using the mixture detailed in section 7.1.13 (MeOH/Water/acetic acid/ammonium hydroxide). This approximates the matrix of the final extracts for analysis.

7.4.2 Storage and Handling of Standards

All working standards should be stored at either room temperature or 4C provided the containers are sealed properly.

Stock Standards may be stored at 4-10 deg. C but before using must sit to allow equilibration to room temperature followed by either vigorous vortex mixing or sonication for 3-5 mins.

7.4.3 Detailed Standards Preparation Procedure-EPA 1633

7.4.4 Internal Standards-*See Attachment 1*

Internal Standards are purchased as a **stock mixture** at 250-1000 ng/mL

These as transferred to a snap cap vial that has been pre-rinsed with 5 mM NaOH/MeOH then allowed to dry.

7.4.4.1 Working level of Non-Extracted Internal Standard (NIS) –make a 1:1 dilution of the stock by taking 500 uL of the Stock and adding 500 uL MeOH.

Use as is by adding 3 uL to 300 uL volumes for QC, samples or calibration.

7.4.5 Isotopic Surrogates (Extracted Internal Standards)- *See Attachment 2*

7.4.5.1 Stock Surrogates are purchased as a mixture at 250-5000 ng/mL. These are transferred to a snap cap vial that has been pre-rinsed with 5 mM NaOH/MeOH then allowed to dry.

Option 1- Use Stock as received and add 25 uL to all samples/QC to be extracted

Option 2- Prepare **2** mL of Working EIS by preparing a 1:2 dilution to yield 125-2500 ng/mL for use as follows:
Take 1000 uL of the Surrogate Stock, plus 25 uL of 5 mM NaOH/MeOH and 975 uL MeOH to give 2.0 mL final volume**. 50 uL are added to ALL preparation blanks, samples and QC**. This is sufficient for approx. 40 x 50 uL additions to all blanks, QC and samples.

This corresponds to adding 5 to 100 ng of EIS compounds to the initial samples and QC. The final volume of extractions will typically be 5.0 ml so this yields 1-20 ng/mL of the isotope EISs in the final extract for analysis.

For calibration, the Stock mix at 250-5000 ng/mL is used by adding 100 uL up to 1.0 mL final volume to yield 25/500 ng/mL in each calibration level as directed in the calibration section 7.4.7.1.

7.4.6 Target Analytes- EPA 1633- *See Attachment 3*

The target analytes for this method are purchased commercially from Wellington Labs under the 5 part nos. described in Section 7.3.3 which contains the method target analytes only at varying concentrations. These mixtures are transferred from their glass ampules to snap cap vials that have been pre-rinsed with 5 mM NaOH/MeOH then allowed to dry. Again these are the nominal concentrations and the actual anion concentrations for those present as salts are listed in the documentation and are reflected in both Mass Hunter and Element.

Preparation of a 1.0 mL volume of a 10 x intermediate of each of the 5 mixes for Calibration. Some of the higher levels on the curve use aliquots of the stock as shown in Figure 2.

Scale the volume accordingly if less is desired. Note that the EPA 1633 mixes come 1.2 mL per vial so this recipe may consume one vial quickly.

7.4.6.1 OPR and LLOPR - these are a mid-level blank spike and low level blank spike (at 2x the LOQ). These are prepared as follows from the EPA 1633 Target mixtures (5 components) by taking 200 uL of each STOCK into a snap cap vial giving 1.0 mL final volume.

1. Element ID Y22B199- PFAC-MXF mix 200 uL
2. Element ID Y22B200- PFAC-MXG mix 200 uL
3. Element ID Y22B201- PFAC-MXH mix 200 uL
4. Element ID Y22B204- PFAC-MXI mix 200 uL
5. Element ID Y22B205- PFAC-MXJ mix 200 uL

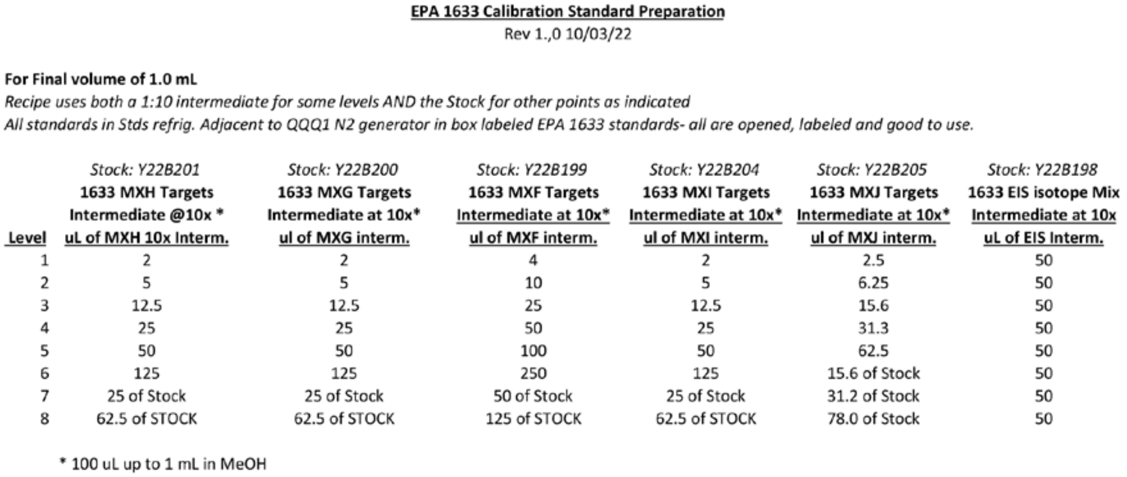
For OPR (BS) at mid-level add 100 uL to each matrix for the batch OPR and for the **LLOPR add 20 uL** of the spike mix and process through all steps of the specific matrix preparation.

7.4.7 Calibration

Calibration of the LC-MSMS systems is done by an eight level calibration covering the range 0.2 to 1650 ng/mL, nominal. Various PFAS species are present as salts and at differing concentrations and these are reflected in Mass Hunter and Element as their actual concentrations. Six to eight levels are prepared depending upon the analyte. These levels are prepared as directed below using the internal standards, surrogates and target analytes from above.
This is made to a final volume of 1000 uL in the matrix described in section 7.1.13 (MeOH/Water/acetic acid/ammonium hydroxide)

This preparation excludes the ISTD in the initial preparation. After preparation as directed, withdraw 300 uL of each level into a 500 uL PP vial and add 3 uL of ISTD before analysis, cap and vortex to mix.
These are stored at <10C and are stable for 6 months when prepared as directed.

7.4.7.1 Calibration Curve Preparation - Based upon a final volume of 1.0 mL in CAL Matrix Solution*
See Attachment 4 for details.



EPA 1633 Calibration Standard Preparation

Rev 1.,0 10/03/22

For Final volume of 1.0 mL

Recipe uses both a 1:10 intermediate for some levels AND the Stock for other points as indicated

All standards in Stds refrig. Adjacent to QQQ1 N2 generator in box labeled EPA 1633 standards- all are opened, labeled and good to use.

Level	*Stock: Y22B201* **1633 MXH Targets Intermediate @10x * uL of MXH 10x Interm.**	*Stock: Y22B200* **1633 MXG Targets Intermediate at 10x* ul of MXG interm.**	*Stock: Y22B199* **1633 MXF Targets Intermediate at 10x* ul of MXF interm.**	*Stock: Y22B204* **1633 MXI Targets Intermediate at 10x* ul of MXI interm.**	*Stock: Y22B205* **1633 MXJ Targets Intermediate at 10x* ul of MXJ interm.**	*Stock: Y22B198* **1633 EIS isotope Mix Intermediate at 10x uL of EIS Interm.**
1	2	2	4	2	2.5	50
2	5	5	10	5	6.25	50
3	12.5	12.5	25	12.5	15.6	50
4	25	25	50	25	31.3	50
5	50	50	100	50	62.5	50
6	125	125	250	125	15.6 of Stock	50
7	25 of Stock	25 of Stock	50 of Stock	25 of Stock	31.2 of Stock	50
8	62.5 of STOCK	62.5 of STOCK	125 of STOCK	62.5 of STOCK	78.0 of Stock	50

* 100 uL up to 1 mL in MeOH

*CAL MATRIX: Methanol with 4% water, 1% ammonium hydroxide and 0.625% acetic acid – Prepared by adding ammonium hydroxide (3.3 mL, 30%), reagent water (1.7 mL) and acetic acid (0.625 mL) to methanol (92 mL), store at room temperature, replace after 1 month. This solution is used to prepare the instrument blank and is used to dilute the extracts of samples that exceed the calibration range.

Amount of CAL Matrix to make up to 1.0 mL Final volumes:

CAL LEVEL	uL of CAL Matrix
1	937.5
2	918.8
3	871.9
4 *	793.7
5	637.5
6	309.0
7	843.8
8	609.5

INTERNAL STANDARD MIX (non-extracted IS-NIS). Mix 500 uL of STOCK ISTD at 250-1000 ng/mL with 500 uL of Methanol. This results in 125-500 ng/mL Intermediate ISTD. See 7.4.4.1.

Add 3.0 uL to 300 uL of each level 1-8 in a 500 uL PP autosampler vials and cap with polyolefin cap, vortex to mix and run. Add 3 uL to 300 uL of all sample/QC extracts before analysis.

*Level 4 is also used as the CCV for each analysis sequence run initially, then after every 10 samples and at the end of the sequence. Multiple vials should be prepared for this level.

7.4.8 Checking the Efficacy of the Surrogate/Spike Mixes

On a monthly basis the surrogate (EIS) and spike mixes from the vials used for spiking are assayed to ensure stability. These are prepared for the analysis by taking 3.0 uL of the surrogate (EIS) mix and 3 uL of the Spike mix into 294 uL MeOH/Water/Acetic Acid/Ammonium hydroxide from 7.1.13, then add 3 uL of NIS (ISTD). This yields a 1:100 dilution of the EIS and Spike mixes. Use 100 as the dilution factor in the Mass Hunter worklist.

7.4.9 Second Source - Initial Calibration Verification (ICV)

Currently, the EPA method 1633 does not require a second source ICV. Rather, the initial calibration is verified by preparing a Level 5 -5.0 ng/mL (nominal) calibration standard independently from calibration standard preparation. This serves as the ICV.

8. PROCEDURE

8.1 Preventative and Routine Maintenance

HPLC/MS/MS Preventative Maintenance	
As Needed: Change pump seals. Change in-line filters in autosampler (HPLC). Check/replace in-line frit if excessive pressure or poor performance. Replace column if no change following in-line frit change. Clean needle. Replace or clean Capillary Replace fused silica tube in ESI interface. Clean lenses. Clean skimmer. Ballast rough pump 30 minutes. Check Nozzle flow pattern	**Daily (When in use)** Check solvent reservoirs for sufficient level of solvent. Verify that pump is primed, operating pulse free. (ripple < 1%) Check needle wash reservoir for sufficient solvent. Verify capillary heater temperature functioning. Verify vaporizer heater temperature. Verify rough pump oil levels. Verify turbo-pump functioning. Verify nitrogen pressure for auxiliary and sheath gasses. Possible Checktune
Semi-Annually Replace oil mist and odor elements. Replace activated alumina filter if applicable	**Annually** Vacuum system components including fans and fan covers. Clean/replace fan filters, if applicable.

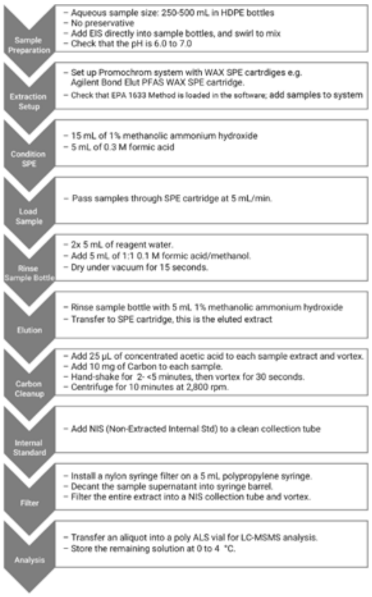
8.2 Sample Preparation (Extraction, Clean-up and Concentration)-Aqueous Matrices

A summary of the steps for the steps related to aqueous samples are shown in Figure 1.0 and in the summary below.

1. Determine % Suspended Solids – 10.0 mLs ± 0.02 mL through a tared 0.2 um PP filter. Dry filter ≥ 12 hours @ 105C, cool in dessicator. Calc % TSS
2. Check pH with short range pH paper to insure pH = 6.5 ± 0.5. Adjust if necessary with either 5% aqueous formic acid to lower pH or with 3% aqueous ammonium hydroxide to raise pH.
3. Weigh sample bottle as is to ± 0.1 g.-remove cap first since that will not be weighed later since autosampler caps are used
4. Homogenize sample by inversion 3-4 x-place full volume on Promochrom System using WAX SPE cartridges.

5. Set up MBLK, OPR at 2x LOQ (low LCS) and mid-level OPR (mid-level LCS)-spike with 10 uL of Spike mix for LLOPR and 100 uL of spike mix for mid-OPR.
6. Spike all with 25 uL EIS solution (isotopic surrogates)
7. Follow Promochrom method for EPA 1633
8. Initiate SPE program EPA1633AQ on the Promochrom system
9. Once the program is finished there will be 5 ml in the collection tube. If less, make up to exactly 5.0 mL with MeOH.
10. Remove the sample bottle from the Promochrom system and weigh the empty bottle. That will determine the weight (volume for water) assume 1g. = 1.0 mL. Enter this value into the element bench sheet and the initial volume.
11. Add 25 uL of concentrated acetic acid to each collection tube and vortex to mix.
12. Add 10 mg of activated carbon to all samples and QC. Hand mix and vortex mix for no more than 2 minutes
13. Centrifuge at 2800 rpm for approx. 10 minutes.
14. Filter the final volume through 0.2 um nylon filter using a syringe.
15. If the client provides only 250 mL of sample, in order to meet reporting limits, it may be required to concentrate the unfiltered extract by a factor of at least 2 on a TurboVap at 1.2 Liters/min with nitrogen at <55^{o}C.. For example if final volume is 5.0 mL, concentrate to 2.0 mL final volume (2.5 x concentration). If 500 ml provided, skip this step.
16. Enter the final volume achieved into the bench sheet in Element.
17. Transfer a portion of the final extract to a 2 mL snap cap, labeled.
18. Take a 300 uL portion of the extract into a 500 uL PP autosampler vial, add 3 uL of NIS (non-extracted internal std.). Cap, vortex, store at <6^{o}C.
19. Sample is ready for analysis.

Figure 1.0 Aqueous Sample Preparation Steps



8.2.1 To measure sample initial volume for aqueous samples, remove the cap and weight the bottle and record the weight in the sample weight. For MBLK, LLOPR and OPR use 250-500 mL volumes). After SPE processing, be sure the empty bottle is dry and weight to determine the amount of sample in grams (essentially equal to volume in mL). Use that number for the initial volume in Element LIMS.

8.2.2 For every 20 field samples (Field blanks are considered field samples in as they are treated as such), a blank (MBLK), blank spikes, (2 levels-LLOPR and OPR as BS1 and BS2 respectively. A matrix spike is not necessary since isotope dilution is used. If an MS/MSD is required by a specific project, spike 100 uL of the mid-level BS mix (OPR).

8.2.3 All polypropylene equipment including graduated cylinders and sample transfer lines/reservoirs should be washed prior to using with extraction solvent (Methanol).

8.2.4 Add 25 uL of EIS (isotopic surrogates) (250/5000 ng/mL) to each sample and QC sample, recap and invert to mix well.

8.2.5 Add, 5ul (low level spike), 50 uL (mid-level spike)

8.2.6 Using the Promochrom automated system, run a cleaning run. Be sure the reservoirs of LC/MS grade methanol and HPLC plus grade water or equivalent are full. Prime all lines and align all components.

8.2.7. Load in the EPA1633 method and adjust the sample volume to 10 ml more than the highest volume container measured by visual comparison to a calibrated bottle of the same size.

8.2.8 The SPE method solvents for extractions are as follows:

- Solvent 1 = MeOH
- Solvent 2 = H_2O
- Solvent 3 = 0.3 M Formic acid,
- Solvent 4 = 1:1 0.1M Formic Acid/MeOH,
- Solvent 5 = MeOH with 1% ammonium hydroxide ("Basic MeOH")
  W1 = Aqueous waste, W2 = Organic waste

8.2.9 Place labeled 15 mL graduated collection vessels in the sample collection tray and use Element labels to identify the vials at this point. Print 2 sets of labels for each since they will be used after the concentration step as well. These are graduated.

8.2.10 Connect the bottles to the automated system.

8.2.12 Initiate the EPA1633Aq SPE Extraction Program. Each run is approximately 1 hour 45 minutes.

8.2.13 **Evaporation Options**-Aqueous Samples

N-EVAP systems

8.2.13.1 The resulting 5 mL extracts are not further concentrated unless Work Plan reporting limits need to be lower than standard RLs. When this is required by the Work Plan, the extracts and QC are transferred to the N-EVAP concentrator systems operated at 50-55 degrees C (never more than 55C) in their original collection vials. The nitrogen flow is initiated at 1.2 ml/min and adjusted on each individual sample to provide a gentle stream causing a slight disturbance at the surface of the methanol extracts.

8.2.13.2 As this evaporation proceeds the walls of each vessel are rinsed with methanol when the volume is approximately 2.5 mls and then again when the volume is reduced to just below 2.0 mL. Then Bring up the final volume to 2.5 mL. This is a 2x concentration when needed.

8.2.14 Swirl final extract, make up to 2.0 mL with methanol. Using a disposable polypropylene pipet, carefully transfer to a 2 mL PP snap cap vial.

8.2.15 Withdraw an aliquot of 300 uL into a 500 uL autosampler vial (PP) and add 3.0 uL of ISTD (NIS) mix. .

8.2.16 Cap with polyolefin flexible caps and vortex to mix.

8.2.17 Store Extracts at <6°C until analysis.

8.3 Sample Preparation (Extraction, Clean-up and Concentration)-Soil Matrices

1. Determine % solids: use 5 grams; dry at 110C ≥ 12 hours.
2. Mix sample with a stainless steel spatula to homogenize-exclude Sticks, vegetation, rocks and the like.
3. Remove 5.0 g. from the homogenized sample container. Add to a tared 50 mL centrifuge tube. Determine the weight ± 0.01 g.
4. Prepare QC using clean matrix (Ottawa Sand) wetted with 1 mL PFAS free water in 50 mL centrifuge tubes
5. For all samples, QC blanks and LCSs (LLOPR and ML OPR) and a 25 uL aliquot of EIS onto the soil. The current Element standard ID is Y22J305. For the OPRs add appropriate amount of spike solution (10 uL for LLOPR and 100 uL for OPR. The current Element Std ID is Y22J304.
6. Swirl the samples to mix then let sit for 30 minutes.
7. Add 10 mL of 0.3% methanolic ammonium hydroxide to each centrifuge tube.
8. Vortex to mix then shake on the shaker table for 30 minutes.
9. Next, centrifuge at 3500 rpm for 5 minutes or 2800 rpm for 10 minutes.
10. Transfer the supernatant liquid to a clean 50 mL centrifuge tube
11. Add 15 mL of 0.3% methanolic ammonium hydroxide to each of the original centrifuge tubes.
12. Vortex to mix then shake on the shaker table for 30 minutes
13. Next, centrifuge at 3500 rpm for 5 minutes or 2800 rpm for 10 minutes.
14. Transfer the supernatant liquid to the centrifuge tubes from 10.0 above
15. Add another 5 mL of 0.3% methanolic ammonium hydroxide to each of the original centrifuge tubes.
16. Vortex to mix then shake on shaker table for 30 minutes
17. Next, centrifuge at 3500 rpm for 5 minutes or 2800 rpm for 10 minutes.
18. Transfer the supernatant liquid to the centrifuge tubes from 10.0 above
19. Add 10 mg of activated carbon to the combined extract using a 10 mg scoop and hand swirl for 2 minutes (never more than 5 minutes of losses of Target PFAS will occur)
20. Centrifuge at 3500 rpm for 5 minutes or 2800 rpm for 10 minutes
21. Immediately Decant into a 50 mL centrifuge tube.
22. Place in Turbovap or on the N-EVAP system and concentrate at 55 deg. C to a final volume of approx..7 mL at a nitrogen flow of 1.2 ml/min.
23. Add 35-40 mL of PFAS free water to the tube and vortex to mix.
24. Check the pH= 6.5 ± 0.5 if not adjust accordingly using 5% formic acid to lower pH or 3% aqueous ammonium hydroxide to raise pH rto within this range.

25. Set up the soil EPA 1633 method on the Promochrom be sure volume is set to 50 ml for sample size.
26. Place samples and QC centrifuge tubes on the autosampler
27. Once the program is finished, note the final volume and use that in the Element benchsheet as final volume. Should be 5.0 mL. If less make up to 5.0 mL with MeOH.
28. Add 25 uL of concentrated acetic acid to each collection tube and vortex to mix.
29. Add 10 mg of carbon to all samples and QC and mix for 2 minutes (no more than 5 minutes).
30. Immediately centrifuge at 2800 rpm for 10 minutes.
31. Filter the extract through a 0.2 um nylon membrane using a syringe and filter into a 2 mL snap cap vial.
32. When ready for analysis, remove 300 uL of extract and transfer to a 500 uL autosampler vial. Add 3 uL of NIS (internal standard), vortex to mix. Cap with polyolefin flexible caps and vortex to mix.
33. Store Extracts at <6^{o}C until analysis
34. Samples/QC are now ready for analysis.

8.4 Sample Analysis--Running Samples/QC - Acquisition Method

The acquisition method is detailed in Attachment 4 (HPLC) and Attachment 5 (MS/MS) of this SOP. The method is a HPLC with dynamic MRM method with precursor and product ions with specific acquisition parameters to maximize sensitivity and specificity. This list may be modified to add other PFAS target analytes as necessary.

8.3.1 The triple Quadrupole (QQQ) system must be optimized for each target analyte (including surrogates and internal standards) using the Mass Hunter Optimizer program. This program determines the most abundant precursor and product ions for each compound and their abundances. These data are then used to build an MRM (multiple reaction monitor) method for acquisition. This is done initially or after any major maintenance procedures are performed to the triple quadrupole system. A high level standard is used for this in the $[M\text{-}H]^-$ mode or M-COOH for HFPO-DA.

8.3.2 The QQQ is checked for tuning on a weekly basis (if necessary) before analysis using the Tune context by selecting the CHECKTUNE radio button. This is done only in negative ion mode since that what we are operating under. If the Checktune fails, run the Autotune program-note: this takes approx. 45 mins. in negative mode. After autotune or any tuning adjustment, a re-calibration of the instrument is required.

8.3.3 Before any QC or samples can be run, the HPLC must be allowed to purge for at least thirty minutes. This purge must be done using the initial mobile phase conditions used in the method must be allowed to run for 15 minutes or until pressure has stabilized (ripple must be < 1%)

8.3.4 An instrument sequence (Worklist) is then made. It should begin with a blank, a primer (5 ng/mL) followed by a blank with ISTD to establish system cleanliness.

8.3.5 After a successful initial calibration has been completed, the analytical sequence for a batch of samples analyzed during the same time period is as follows. Standards and sample extracts must be brought to room temperature and vortexed prior to aliquoting into an instrument vial in order to ensure homogeneity of the extract.

8.3.6 Analysis Sequence

1. Instrument Blank *
2. Instrument Sensitivity Check –**LOQ Standard Level (SEQ-CAL 1) S/N > 3:1**
3. Calibration Verification Standard (CCV)
4. Qualitative Identification Standards –Branched PFAS
   PFOA, PFNA, PFOSA, NMeFOSA, NEtFOSA, NEtFOSE, and NMeFOSE.
5. Instrument Blank (SEQ-CCB)*
6. Method Blank (Batchxxxx-BLK1)
7. Low-level OPR (LLOPR) (Batchxxxx-BS1)
8. OPR (Batchxxxx-BS2)
9. Field Samples (10 or fewer)
10. Calibration Verification Standard (SEQ-CCVn)
11. Instrument Blank (SEQ-CCBn)*
12. Field Samples (10 or fewer)
13. Calibration Verification Standard (SEQ-CCVn)
14. Instrument Blank (SEQ-CCBn)*

* Contains solvent system for calibration, NIS and EIS

8.3.7 The run can end with a script to put the instrument into standby mode.

8.4 Daily Sample Preparation/Analysis Sequence

- Prepare extracts for analysis by placing a 300 ul aliquot of sample extract containing 3 uL of internal standards into a PP auto-sampler vial. Apply Polyolefin cap.
- Confirm that the samples loaded on the auto-sampler were entered correctly in the injection log. Make any necessary corrections.
- Run instrument CCV checks at the RL (0.25-0.5 ng/mL), then at a mid level and high level rotating every ten samples (5, 25 ng/mL) and ending with a mid level CCV.
- Enter the Worklist (injection sequence) into the instrument software and load samples onto the auto-sampler in the order shown above in Section 8.3.6

8.5 Data Review

The Agilent Mass Hunter Quantitation program is used to review all data. All identifications are based upon acceptable ion ratios for the abundance of both precursor and product ions along with retention time information. All positive detections of target PFAS must be less that the high point conc. of the Cal. Curve.

8.5.1 Since certain PFAS species are manufactured by different processes the presence of branched as well as linear isomers may be found. In order to properly quantitate these species, the analyst must sum the related branched and linear isomers. This affects the following species: PFOS, PFHxS, PFOA, PFNA, PFOSA, NMeFOSA, NEtFOSA, NEtFOSE, and NMeFOSE.

8.5.2 Any detection greater than the upper limit of the calibration curve requires dilution into the upper half of the curve, where possible.

9. CALIBRATION

9.1 Initial Calibration

The initial calibration covers the range 0.20 ng/mL to 1560 ng/mL nominal conc. or higher depending upon the linearity of the PFAS species. After acquisition, the data are quantitated in Mass Hunter and the default calibration model for target compounds is generated using Quadratic regression, FORCED through the origin where applicable. All same level species (EIS) used average response factor model. Depending upon the response and accuracy at each level as shown in the Mass Hunter program, use Linear, Forced, weighted (1/x) or quadratic, Forced, with or without weighting to achieve the best fit which is based upon the best accuracy on a compound by compound basis. In any case, the correlation coefficient must be greater than 0.990. Average response factor RSD should be ≤ 20% where used.

9.1.1 The calibration levels as shown in Section 7.6.3 use 8 levels. All points are included in the calibration with exception of some species that saturate at levels 7 and 8.

9.2 ICV/SCV

An independently prepared Initial Calibration Verification must be run immediately following initial calibration. The concentration of this standard should be in the middle of the calibration range (e.g. 5.0 ng/mL) and prepared from a separate preparation as that of the calibration. Unless project-specific data quality objectives are required, the values from the second-source check should be ± 30% of the expected concentration.

Corrective Action: Quantitative sample analyses should not proceed for a failing ICV. Recalibrate and re-run the ICV if necessary.

9.3 Continuing Calibration Verification

The first CCV is at a mid-level and run every 10 client samples including a closing CCV.

The mid-Level CCV must be ± 30% of the true value.

Corrective Action: If any of the required calibration check criteria fail, the system must be evaluated and any appropriate instrument repair or maintenance must be performed. Sample data are unacceptable and must be rerun. Reinjection the standard may be done. If the calibration check standard still fails, the system must be recalibrated.

10. Quality Control

10.1 Initial Demonstration of Capability (IDOC)

10.1.1 The initial demonstration requirement of EPA 1633 must be acceptable before analysis of samples may begin. To establish the ability to generate acceptable precision and recovery, the laboratory must perform the following operations for each sample matrix type to which the method will be applied by that laboratory.

The IDOC includes the following key elements:

- Initial Demonstration of Precision and Recovery (IPR)
- MDL determination

10.1.2 Initial Demonstration of Precision and Recovery-IPR

- Extract, concentrate, and analyze four aliquots of aqueous and soil matrices spiked with 100 uL of the native spike solution OPR Mix Y22J304, 50 µL of the EIS solution no. Y22J305. At least one method blank, matching the matrix being analyzed, must be prepared with the IPR batches by matrix. All sample processing steps that are used for processing samples, including preparation and extractions, cleanup and concentration, must be included in this test.

- Using results of the set of four analyses, compute the average percent recovery (R) of the extracts and the relative standard deviation (RSD) of the concentration for each target and EIS compound.
- For each native and isotopically labeled compound, compare RSD and % recovery with the corresponding limits for initial precision and recovery in Table 5. If RSD and R for all compounds meet the acceptance criteria, system performance is acceptable, and analysis of blanks and samples may begin. *Note these acceptance criteria are not finalized and are based upon a single lab validation. Data for this table are derived from the single-laboratory validation study, and are only provided as examples for this draft method. The data will be updated to reflect the inter-laboratory study results in a subsequent revision. Therefore, these criteria will change after inter-laboratory validation. Several sections of this method state that Table 5 criteria are required, this is standard language that will be applicable when the method is finalized.*

10.1.3 MDL Determination

MDL Determination –In order to perform the MDL study, 7 total extractions are performed on 3 different days (Extraction day 1= 3 LRBs and 3 LFBs); Extraction day 2 is 2 of each, and Extraction day 3 is also 2 of each).

The levels extracted represent approx. 3-5 x the expected LOQ.

Once extracted, the analyses are conducted on 3 separate days (we use only QQQ2 for EPA 1633 so all runs are on that system). The MDL is determined according to the EPA MDL protocol defined in Definition and Procedure of the Determination of the Method Detection Limit, Revision 2 Dec. 2016 as detailed below:

Make all computations as specified in the analytical method and express the final results in the method-specified reporting units.

Calculate the sample standard deviation (SD) of the replicate spiked sample measurements and the sample standard deviation of the replicate method blank measurements from all instruments to which the MDL will be applied.

Compute the MDLs (the MDL based on spiked samples) as follows:

MDL_s = 3.143 x SD (for seven replicates; SD = Standard Deviation)

Compute the MDLb (MDL based on method blanks-LRBs) as follows:

- If none of the blanks give numerical results then the MDLb does not apply
- If only some of the blanks (but not all) give a result, set the MDLb to the highest result found

- If ALL method blanks show a detections then use the following calculation to determine MDLb:

MDLb = Average of Blank Detections + (3.143 x Std. Dev.)

Calculate the final MDL by selecting the greater of MDLs or MDLb.

10.2 On-going QC Requirements

Preparation Batches are defined at the sample preparation step. Batches should be kept together through the whole analytical process as far as possible, but it is not mandatory to analyze prepared extracts on the same instrument or in the same sequence.

The quality control batch is a set of up to 20 samples of the same matrix processed using the same procedure and reagents within the same time period. The quality control batch may contain a matrix spike/matrix spike duplicate (MS/MSD), two laboratory control sample (LCS-LLOPR and OPR) and a method blank. Laboratory generated QC samples (Blank, LLOPR, OPR, MS/MSD) do not count toward the maximum 20 samples in a batch. Field QC samples are included in the batch count. In some cases, at client request, the MS/MSD may be replaced with a matrix spike and sample duplicate.

10.2.1 METHOD BLANK - One method blank must be extracted with every prep batch of similar matrix, not to exceed twenty (20) samples. For aqueous samples the matrix is Lab reagent water. For Soils the method blank matrix is Ottawa sand. Criteria:

- The method blank must not contain any analyte at or above 1/2 the LOQ (Reporting Limit).

- Re-extraction and reanalysis of samples associated with an unacceptable method blank is required when reportable concentrations are determined in the samples.

10.2.2 LABORATORY CONTROL SAMPLES (LCS- also called OPR and LLOPR) must be extracted with every process batch of similar matrix, not to exceed twenty (20) samples. The LCS is an aliquot of laboratory matrix (e.g. water for aqueous spiked with analytes of known identity and concentration and isotopic surrogate analogs. The OPRs must be processed in the same manner and at the same time as the associated samples. Recovery for Aqueous low level OPR target analytes is 40-150% until more data are derived. For all other Aqueous OPR levels recovery targets are 50-150%. These data are based upon EPA 1633 draft ranges that will change and are not used for acceptance/rejection but are reported until such time that fully validated acceptance ranges are provided in the final version of the method.

10.2.3 Matrix spike/Matrix spike duplicate (MS/MSD or MS/MSD). These are not typically required since each sample contains isotopic PFAS analogues that correct for any matrix effects. If the client requests them, then they are processed accordingly but are not a requirement of this method. If done they are by matrix, not to exceed twenty (20) samples. An MS/MSD pair is aliquots of a selected field sample spiked with analytes of known identity and concentration. The MS/MSD pair must be processed in the same manner and at the same time as the associated samples. Spiked analytes with recoveries or precision outside of the Laboratory control limits are flagged accordingly. Until enough statistical data per matrix is available, no criteria are offered. If a specific QA Project Plan has required limits, this is preempted. Any outliers must be qualified accordingly.

10.2.4 Initial calibration verification (ICV) –A second source standard is not required for this method. A second independently prepared mid-level standard is prepared and used for this purpose and analyzed after the ICAL. The concentration should be at the mid range of the curve and must recover within 70-130 % of expected value.

Corrective actions for the ICV include:

- Rerun the ICV
- Remake or acquire a new ICV.
- Evaluate the instrument conditions.
- Evaluate the initial calibration standards.
- Rerun the initial calibration.

10.2.5 Internal Standard- The Non-extracted Internal Standard (NIS) is added to each field and QC sample prior to analysis. The IS response (peak area) must not deviate by more than 50-200% from the mean response (peak area) of the initial calibration. If the areas are low for all the field samples and QC samples in the batch, it suggests a loss of instrument sensitivity, while low areas in only some field or QC samples suggests a possible bad injection.

Corrective action includes:

- Reinject the questionable samples
- Verifying the CCV NIS areas are compliant with the range, if so, this suggests either matrix effects and may require a small dilution to mitigate interference if only some of the NIS compounds are affected
- Qualify affected data

10.3 Initial Demonstration of Capability (IDC)

Initial Demonstration of Capability involves the following processes listed ion Table 1.0 as follows.

Table 1.0 - Initial Demonstration of Capability (IDC)

Requirement	Specification and Frequency	Acceptance Criteria
Initial Demonstration of Precision and Recovery (IPR)	Extract, concentrate, and analyze four aliquots of the matrix (aqueous and soil) spiked with target native standard solution, EIS solution and finally the NIS (ISTD). Extract a method blank of each matrix with each matrix IPR batch. All steps that are used for processing samples, including preparation and extraction must be included.	Using results of the set of four analyses, compute the average percent recovery (R) of the extracts and the relative standard deviation (RSD) of the concentration for each target and EIS compound.
		For each native and isotopically labeled compound, compare RSD and % recovery with the corresponding limits for initial precision and recovery in Table 5. If RSD and R for all compounds meet the acceptance criteria, system performance is acceptable, and analysis of blanks and samples may begin.
Method Detection Limit (MDL)	Method detection limit (MDL) - Each laboratory must also establish MDLs for all the analytes using the MDL procedure at 40 CFR Part 136, Appendix B. An MDL determination must be performed for all target compounds.	The minimum level of quantification (ML) can be calculated by multiplying the MDL by 3.18 and rounding to the nearest integer
Calibration Verification (ICV or SCV) *Section 9.1.5*	Analyze a mid-level ICV, each time a new calibration is performed or at a minimum, quarterly. The ICV must be an independent dilution beginning with the common starting materials used for ICAL. No 2nd source is required due to availability.	Results must be 70-130% of true value.

10.4 QC Requirements

Ongoing QC requirements are detailed in Table 3.0 as follows.

Table 3.0 QC Requirements

Summary of Quality Control

Method Reference	**Requirement**	**Specification and Frequency**
Section 10.1	Mass Calibration	Annually and on as-needed basis
Section 10.1.7	Mass Calibration Verification	After mass calibration
Section 10.3	Initial Calibration (ICAL)	Minimum 6 calibration standards for linear model and 7 calibration standards for non-linear models.
Sections 10.2.2, 14.4	Retention Time (RT) window	After ICAL and at the beginning of analytical sequence
Sections 7.3.1, 9.4	Extracted Internal Standard (EIS) Analytes	All CAL standards, batch QC and field samples

Sections 7.3.2	Non-extracted Internal Standards (NIS)	All CAL standards, batch QC and field samples
Sections 7.3.4, 10.3.1, 13.3	Instrument Sensitivity Check (ISC)	Daily, prior to analysis
Section 14.2	Calibration Verification (CV) (CCV)	At the beginning and every 10 samples and at the end
Section 14.6	Instrument Blank	Daily prior to analysis and after high standards
Sections 9.1.3, 9.5, 14.7	Method Blank (MB)	One per preparation batch
Section 14.5	Ongoing Precision Recovery (OPR)	One per preparation batch
Section 11.0	Limit of Quantitation Verification (LLOPR)	Prior to analyzing samples
Section 11.0	Matrix Spike (MS/MSD)	One per preparation batch (if required) Normally not needed, since Isotope dilution is employed

11.0 DATA REVIEW, CALCULATIONS AND REPORTING

Samples concentrations are determined using either or linear regression or quadratic regression FORCED through the origin. Weighted (1/x or 1/x^2) may assist with low level accuracy and is recommended where necessary. All calibration curves have greater than 6 points. Any target analyte exceeding the calibration range will require dilution.

11.1 Data interpretation

All sample data calculations are performed by the Agilent Mass Hunter software in ng/mL and then final data are calculated taking into account final extract volumes and the initial sample volumes extracted which are entered into the Element bench sheet.

11.2 Linear and Branched Isomers are addressed in Section 8.5 and are reported for the noted species as Total which is a sum of the linear and branched isomers for affected species.

11.3 All Data are uploaded into Element LIMS and all final concentration calculations and associated recoveries are detailed. All pdfs of Mass Hunter Quant reports are uploaded to the Element Raw_Data drive for association with ICALs and all batch and analysis sequence runs. Data are set to Analyzed status once uploaded and initially reviewed, then locked.

11.4 The Data are then evaluated using the York Qualinator ™ data review tool which evaluates all data CCVs, QC, ISTDS, Recoveries, etc. and automatically assigns outlier qualifiers for review and acceptance by the reviewer. The accepted data are then uploaded to Element and final reviewed in Laboratory Data Entry/Review module. Once reviewed, the status is set to Reviewed indicating the data are ready to be Reported by the Reporting Group.

12. HEALTH AND SAFETY

12.1 General safety considerations and requirements are detailed in the York Laboratory Safety and Health Standard Operating Procedure No. Safety011600.

Specific safety rules applying to the conduct of this analysis requiring the following:

- When handling standards and samples, latex gloves are required.
- Also, when handling neat materials, a fume hood and safety glasses are required.
- When handling samples, gloves and glasses are required.
- Highly odorous samples must be handled in a fume hood.
- Refer to SDSs for specific safety/health information.

12.2 The analysts must exercise normal care and be supervised and trained to work in an analytical chemistry laboratory. The analysts will be handling fragile glassware, needles, syringes, volatile and flammable chemicals, toxic chemicals and corrosive chemicals.

- No smoking or open flames are allowed.
- No food or food products may be brought into the laboratory.

Solvents should not be left uncovered on the laboratory benches.
All solvent transfers should be done in the hoods.

Hood doors must be kept in the position which yields approx. 100 fpm face velocity.
Solvent evaporation must be done in the hood with exhaust elevated and in the rear.

Waste containers that had solvents must be vented to a hood until all solvents have evaporated.

Safety glasses are provided and must be worn at all times in the laboratory.
Gloves are provided and must be worn when working with chemicals.
Laboratory coats are provided and should be worn to protect the analysts’ clothes.
Syringes and needles must be kept in their original cases when not in use.
Care must be exercised in using and handling syringes to avoid injury.
Report any sticking with a needle immediately to your supervisor.

12.3 Specific Safety Concerns

12.3.1 Preliminary toxicity studies indicate that PFAS could have significant toxic effects. In the interest of keeping exposure levels as low as reasonably achievable, PFAS must be handled in the laboratory as hazardous and toxic chemicals.

12.3.2 Exercise caution when using syringes with attached filter disc assemblies. Application of excessive force has, upon occasion, caused a filter disc to burst during the process.

12.3.3 Laboratory procedures such as repetitive use of pipets, repetitive transferring of extracts and manipulation of filled separatory funnels and other glassware represent a significant potential for repetitive motion or other ergonomic injuries. Laboratory associates performing these procedures are in the best position to realize when they are at risk for these types of injuries.

12.3.4 Eye protection, laboratory coat, and nitrile gloves must be worn while handling samples, standards, solvents, and reagents. Disposable gloves that have been contaminated will be removed and discarded; other gloves will be cleaned immediately.

12.3.5 Perfluorocarboxylic acids are acids and are not compatible with strong bases.

12.3.6 Primary Materials Used- The following is a list of the materials used in this method, which have a serious or significant hazard rating. NOTE: This list does not include all materials used in the method. The table contains a summary of the primary hazards listed in the SDS for each of the materials listed in the table. A complete list of materials used in the method can be found in the reagents and materials section. Employees must review the information in the SDS for each material before using it for the first time or when there are major changes to the SDS.

Methanol	-Flammable Poison -Irritant	200 ppm (TWA)	A slight irritant to the mucous membranes. Toxic effects exerted upon nervous system, particularly the optic nerve. Symptoms of overexposure may include headache, drowsiness and dizziness. Methyl alcohol is a defatting agent and may cause skin to become dry and cracked. Skin absorption can occur; symptoms may parallel inhalation exposure. Irritant to the eyes.

Acetic Acid, Glacial	-Flammable liquid and vapor. -Irritation	10 ppm TWA; 25 mg/m3 TWA	**Eye:** Causes severe eye irritation. Contact with liquid or vapor causes severe burns and possible irreversible eye damage. **Skin:** Causes skin burns. May be harmful if absorbed through the skin. Contact with the skin may cause blackening and hyperkeratosis of the skin of the hands. **Ingestion:** May cause severe and permanent damage to the digestive tract. Causes severe pain, nausea, vomiting, diarrhea, and shock. May cause polyuria, oliguria (excretion of a diminished amount of urine in relation to the fluid intake) and anuria (complete suppression of urination). Rapidly absorbed from the gastrointestinal tract. **Inhalation:** Effects may be delayed. Causes chemical burns to the respiratory tract. Exposure may lead to bronchitis, pharyngitis, and dental erosion. May be absorbed through the lungs. **Chronic:** Chronic exposure to acetic acid may cause erosion of dental enamel, bronchitis, eye irritation, darkening of the skin, and chronic inflammation of the respiratory tract. Acetic acid can cause occupational asthma. One case of a delayed asthmatic response to glacial acetic acid has been reported in a person with bronchial asthma. Skin sensitization to acetic acid is rare, but has occurred.
Ammonium Hydroxide, conc. 28-30%	- Inhalation hazard - Skin Corrosion -Eye Damage and Irritation	OSHA PEL: 35 mg/m3 ; 50 ppm OSHA TWA: 18 mg/m3; 25 ppm	Ammonia is an irritant and corrosive to the skin, eyes, respiratory tract and mucous membranes. May cause severe chemical burns to the eyes, lungs and skin. Skin and respiratory related diseases could be aggravated by exposure. The extent of injury produced by exposure to ammonia depends on the duration of the exposure, the concentration of the liquid or vapor and the depth of inhalation. Exposure Routes: Inhalation (vapors), skin and/or eye contact (vapors, liquid), ingestion (liquid).
Formic Acid, conc.	-Flammable liquid and vapor -Harmful if swallowed -Causes severe skin burns and eye damage -Toxic if inhaled -May cause respiratory irritation	OSHA TWA: 5 ppm or 9 mg/m3 OSHA PEL: 10 ppm	Formic acid is an irritant and corrosive to the skin, eyes, respiratory tract and mucous membranes. May cause severe chemical burns to the eyes, lungs and skin. Skin and respiratory related diseases could be aggravated by exposure. The extent of injury produced by exposure to ammonia depends on the duration of the exposure, the concentration of the liquid or vapor and the depth of inhalation. Exposure Routes: Inhalation (vapors), skin and/or eye contact (vapors, liquid), ingestion (liquid).

13. WASTE MANAGEMENT/POLLUTION PREVENTION

Neat Materials

Waste management procedures require the prudent use of neat materials. The ordering of neat standards and materials must be done to minimize unused material which would result in storage or handling of excess material. Quantities ordered should be sufficient to provide for necessary standards with consideration to shelf life. When ordering a unique material for a standard, be sure to order the smallest practical quantity.

Solvents

The solvents used at York for this procedure include isopropanol and Methanol. These solvents are used for sample extraction or LC cleanup, all amounts are either consumed during concentration or placed in one liter amber jars in the hood areas for evaporation. Any remaining solvent/water is transferred to a drum designated for solvent waste.

Acids and Bases

The acids and bases used for this procedure include: Acetic Acid and Formic Acid. The bases used are Ammonium hydroxide, sodium hydroxide and potassium hydroxide. Store concentrated base and acids separately whether waste or neat material.

Samples

Unused or remaining water samples are returned to the sample control room for continued storage for proper disposal by the sample control group.

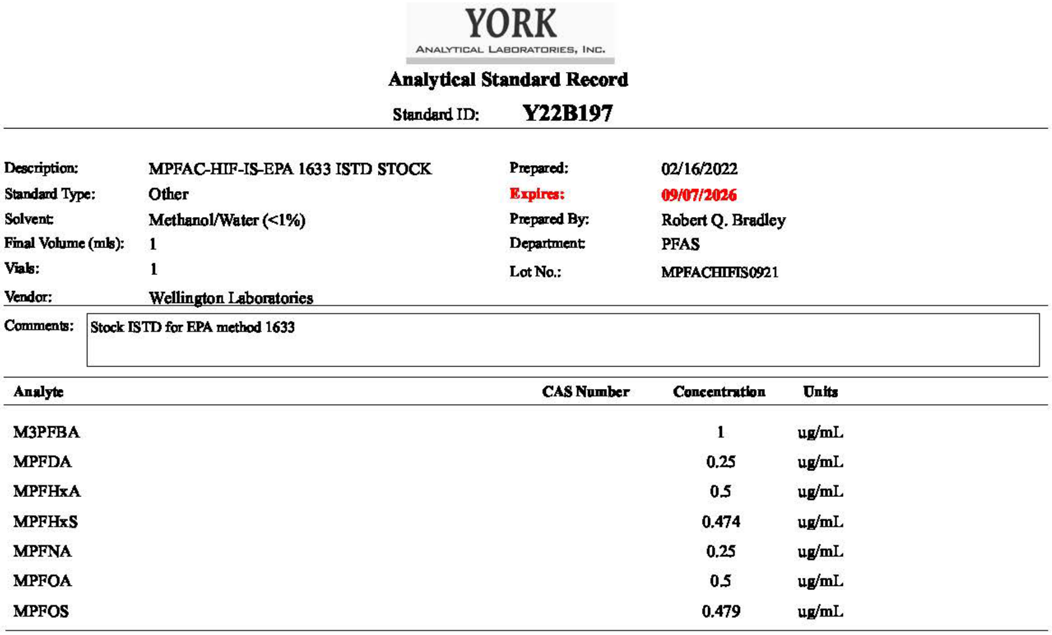
14. REFERENCES

1. EPA METHOD 1633 Draft 2 June, 2022- Analysis of Per- and Polyfluoroalkyl Substances (PFAS) in Aqueous, Solid, Biosolids, and Tissue Samples by LC-MS/MS; EPA 821-D-22-001

15. REVISION HISTORY

Revision 1.0	10/24/2022	First issue.
Revision 1.1	02/10/2023	Modified LLOPR in Section 7.4.6.1 to reflect 2x the MRL

Attachment 1 – Non-Extracted Internal Standards (NIS)



YORK
ANALYTICAL LABORATORIES, INC.

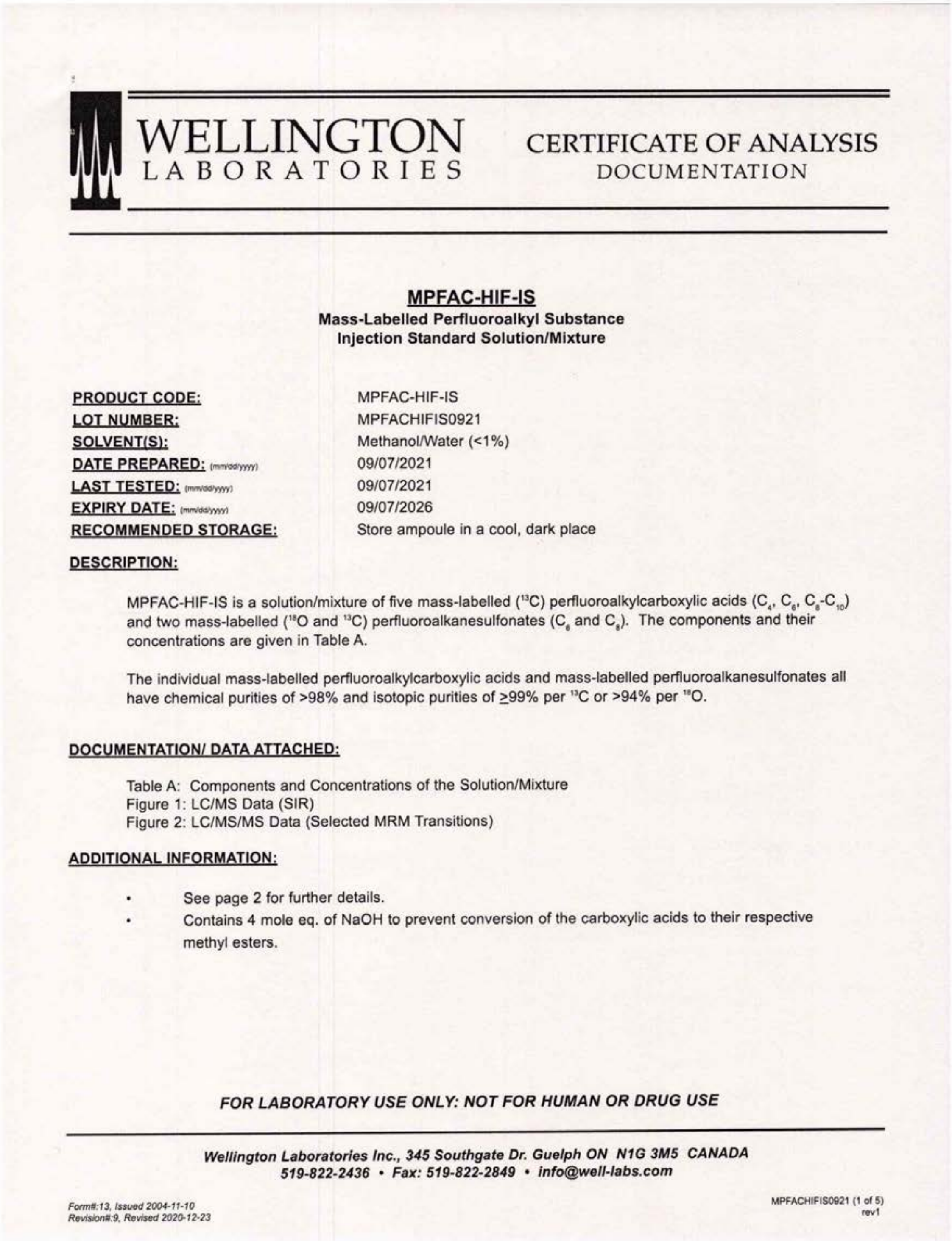
Analytical Standard Record

Standard ID: **Y22B197**

Description:	MPFAC-HIF-IS-EPA 1633 ISTD STOCK	**Prepared:**	02/16/2022
Standard Type:	Other	**Expires:**	**09/07/2026**
Solvent:	Methanol/Water (<1%)	**Prepared By:**	Robert Q. Bradley
Final Volume (mls):	1	**Department:**	PFAS
Vials:	1	**Lot No.:**	MPFACHIFIS0921
Vendor:	Wellington Laboratories		

Comments: Stock ISTD for EPA method 1633

Analyte	CAS Number	Concentration	Units
M3PFBA		1	ug/mL
MPFDA		0.25	ug/mL
MPFHxA		0.5	ug/mL
MPFHxS		0.474	ug/mL
MPFNA		0.25	ug/mL
MPFOA		0.5	ug/mL
MPFOS		0.479	ug/mL



WELLINGTON
LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

MPFAC-HIF-IS

Mass-Labelled Perfluoroalkyl Substance
Injection Standard Solution/Mixture

PRODUCT CODE:	MPFAC-HIF-IS
LOT NUMBER:	MPFACHIFIS0921
SOLVENT(S):	Methanol/Water (<1%)
DATE PREPARED: (mm/dd/yyyy)	09/07/2021
LAST TESTED: (mm/dd/yyyy)	09/07/2021
EXPIRY DATE: (mm/dd/yyyy)	09/07/2026
RECOMMENDED STORAGE:	Store ampoule in a cool, dark place

DESCRIPTION:

MPFAC-HIF-IS is a solution/mixture of five mass-labelled (^{13}C) perfluoroalkylcarboxylic acids (C_4, C_6, C_8-C_{10}) and two mass-labelled (^{18}O and ^{13}C) perfluoroalkanesulfonates (C_6 and C_8). The components and their concentrations are given in Table A.

The individual mass-labelled perfluoroalkylcarboxylic acids and mass-labelled perfluoroalkanesulfonates all have chemical purities of >98% and isotopic purities of ≥99% per ^{13}C or >94% per ^{18}O.

DOCUMENTATION/ DATA ATTACHED:

Table A: Components and Concentrations of the Solution/Mixture
Figure 1: LC/MS Data (SIR)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent conversion of the carboxylic acids to their respective methyl esters.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

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Revision#:9, Revised 2020-12-23

MPFACHIFIS0921 (1 of 5)
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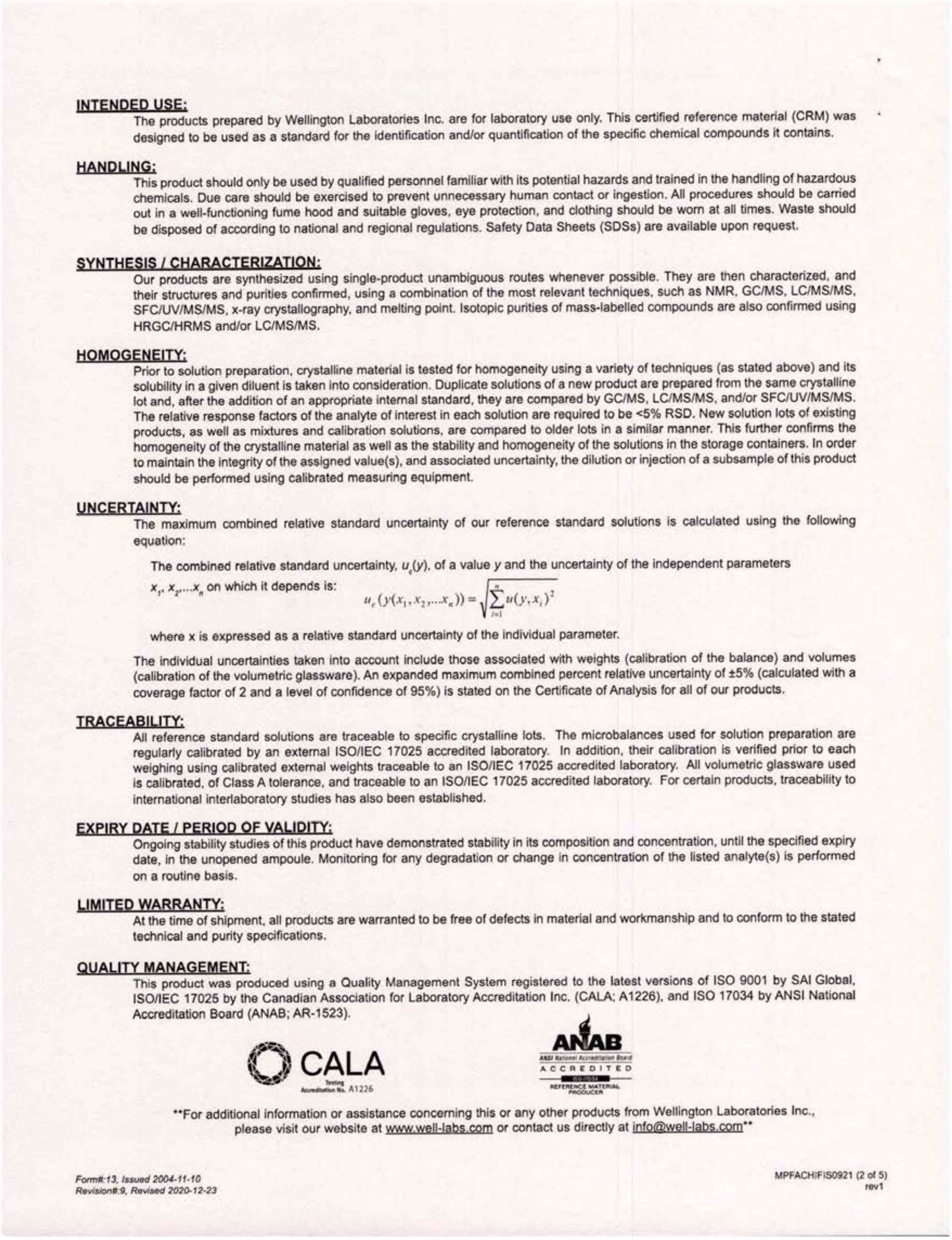

INTENDED USE:

The products prepared by Wellington Laboratories Inc. are for laboratory use only. This certified reference material (CRM) was designed to be used as a standard for the identification and/or quantification of the specific chemical compounds it contains.

HANDLING:

This product should only be used by qualified personnel familiar with its potential hazards and trained in the handling of hazardous chemicals. Due care should be exercised to prevent unnecessary human contact or ingestion. All procedures should be carried out in a well-functioning fume hood and suitable gloves, eye protection, and clothing should be worn at all times. Waste should be disposed of according to national and regional regulations. Safety Data Sheets (SDSs) are available upon request.

SYNTHESIS / CHARACTERIZATION:

Our products are synthesized using single-product unambiguous routes whenever possible. They are then characterized, and their structures and purities confirmed, using a combination of the most relevant techniques, such as NMR, GC/MS, LC/MS/MS, SFC/UV/MS/MS, x-ray crystallography, and melting point. Isotopic purities of mass-labelled compounds are also confirmed using HRGC/HRMS and/or LC/MS/MS.

HOMOGENEITY:

Prior to solution preparation, crystalline material is tested for homogeneity using a variety of techniques (as stated above) and its solubility in a given diluent is taken into consideration. Duplicate solutions of a new product are prepared from the same crystalline lot and, after the addition of an appropriate internal standard, they are compared by GC/MS, LC/MS/MS, and/or SFC/UV/MS/MS. The relative response factors of the analyte of interest in each solution are required to be <5% RSD. New solution lots of existing products, as well as mixtures and calibration solutions, are compared to older lots in a similar manner. This further confirms the homogeneity of the crystalline material as well as the stability and homogeneity of the solutions in the storage containers. In order to maintain the integrity of the assigned value(s), and associated uncertainty, the dilution or injection of a subsample of this product should be performed using calibrated measuring equipment.

UNCERTAINTY:

The maximum combined relative standard uncertainty of our reference standard solutions is calculated using the following equation:

The combined relative standard uncertainty, $u_c(y)$, of a value y and the uncertainty of the independent parameters $x_1, x_2, \dots x_n$ on which it depends is:

$$u_c(y(x_1, x_2, \dots x_n)) = \sqrt{\sum_{i=1}^{n} u(y, x_i)^2}$$

where x is expressed as a relative standard uncertainty of the individual parameter.

The individual uncertainties taken into account include those associated with weights (calibration of the balance) and volumes (calibration of the volumetric glassware). An expanded maximum combined percent relative uncertainty of ±5% (calculated with a coverage factor of 2 and a level of confidence of 95%) is stated on the Certificate of Analysis for all of our products.

TRACEABILITY:

All reference standard solutions are traceable to specific crystalline lots. The microbalances used for solution preparation are regularly calibrated by an external ISO/IEC 17025 accredited laboratory. In addition, their calibration is verified prior to each weighing using calibrated external weights traceable to an ISO/IEC 17025 accredited laboratory. All volumetric glassware used is calibrated, of Class A tolerance, and traceable to an ISO/IEC 17025 accredited laboratory. For certain products, traceability to international interlaboratory studies has also been established.

EXPIRY DATE / PERIOD OF VALIDITY:

Ongoing stability studies of this product have demonstrated stability in its composition and concentration, until the specified expiry date, in the unopened ampoule. Monitoring for any degradation or change in concentration of the listed analyte(s) is performed on a routine basis.

LIMITED WARRANTY:

At the time of shipment, all products are warranted to be free of defects in material and workmanship and to conform to the stated technical and purity specifications.

QUALITY MANAGEMENT:

This product was produced using a Quality Management System registered to the latest versions of ISO 9001 by SAI Global, ISO/IEC 17025 by the Canadian Association for Laboratory Accreditation Inc. (CALA; A1226), and ISO 17034 by ANSI National Accreditation Board (ANAB; AR-1523).

CALA Testing Accreditation No. A1226

ANAB ANSI National Accreditation Board ACCREDITED ISO 17034 REFERENCE MATERIAL PRODUCER

For additional information or assistance concerning this or any other products from Wellington Laboratories Inc., please visit our website at www.well-labs.com or contact us directly at info@well-labs.com

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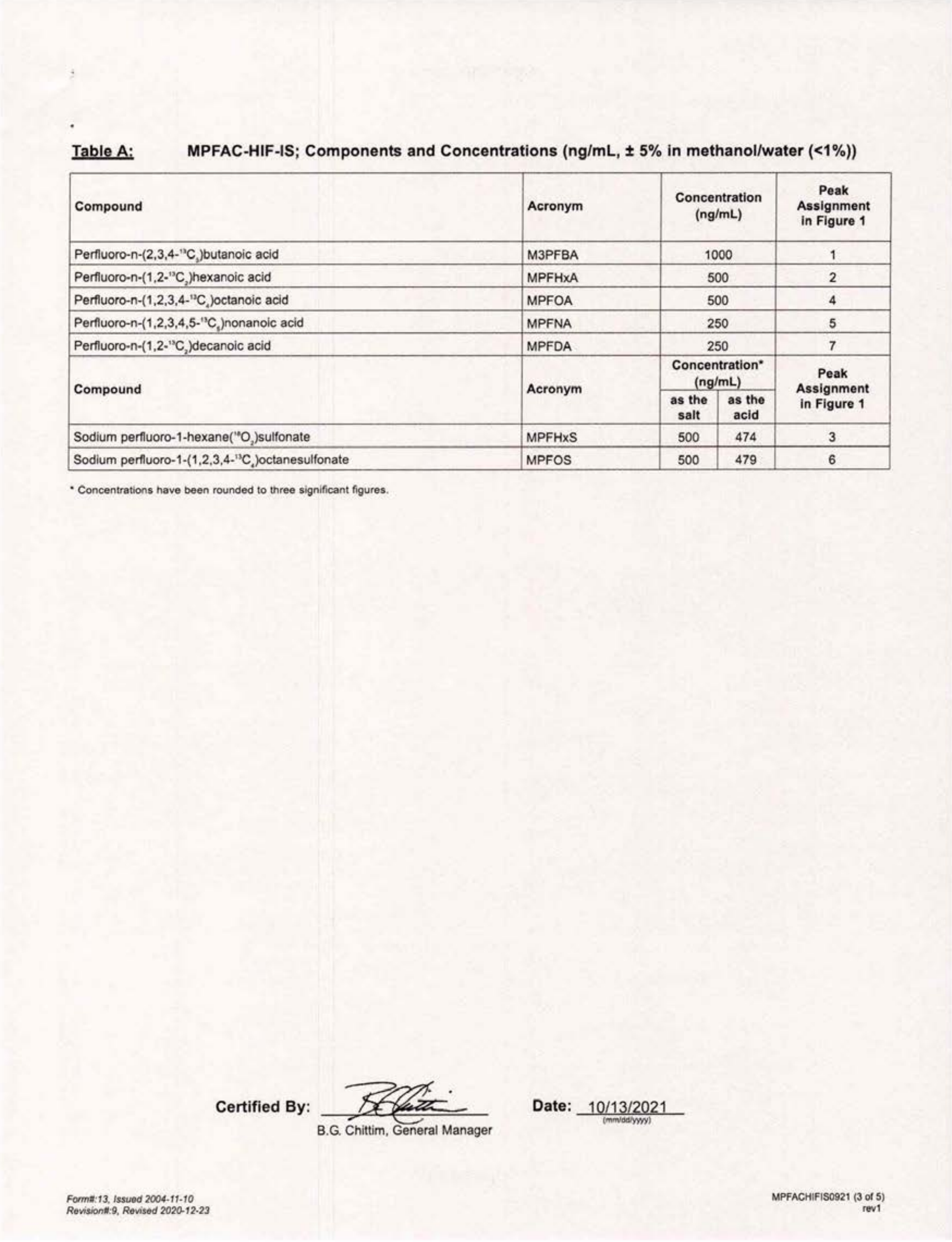

Table A: **MPFAC-HIF-IS; Components and Concentrations (ng/mL, ± 5% in methanol/water (<1%))**

Compound	Acronym	Concentration (ng/mL)	Peak Assignment in Figure 1
Perfluoro-n-(2,3,4-$^{13}C_3$)butanoic acid	M3PFBA	1000	1
Perfluoro-n-(1,2-$^{13}C_2$)hexanoic acid	MPFHxA	500	2
Perfluoro-n-(1,2,3,4-$^{13}C_4$)octanoic acid	MPFOA	500	4
Perfluoro-n-(1,2,3,4,5-$^{13}C_5$)nonanoic acid	MPFNA	250	5
Perfluoro-n-(1,2-$^{13}C_2$)decanoic acid	MPFDA	250	7

Compound	Acronym	Concentration* (ng/mL)		Peak Assignment in Figure 1
		as the salt	as the acid	
Sodium perfluoro-1-hexane($^{18}O_2$)sulfonate	MPFHxS	500	474	3
Sodium perfluoro-1-(1,2,3,4-$^{13}C_4$)octanesulfonate	MPFOS	500	479	6

* Concentrations have been rounded to three significant figures.

Certified By: ______________ **Date:** 10/13/2021
B.G. Chittim, General Manager (mm/dd/yyyy)

Form#:13, Issued 2004-11-10
Revision#:9, Revised 2020-12-23

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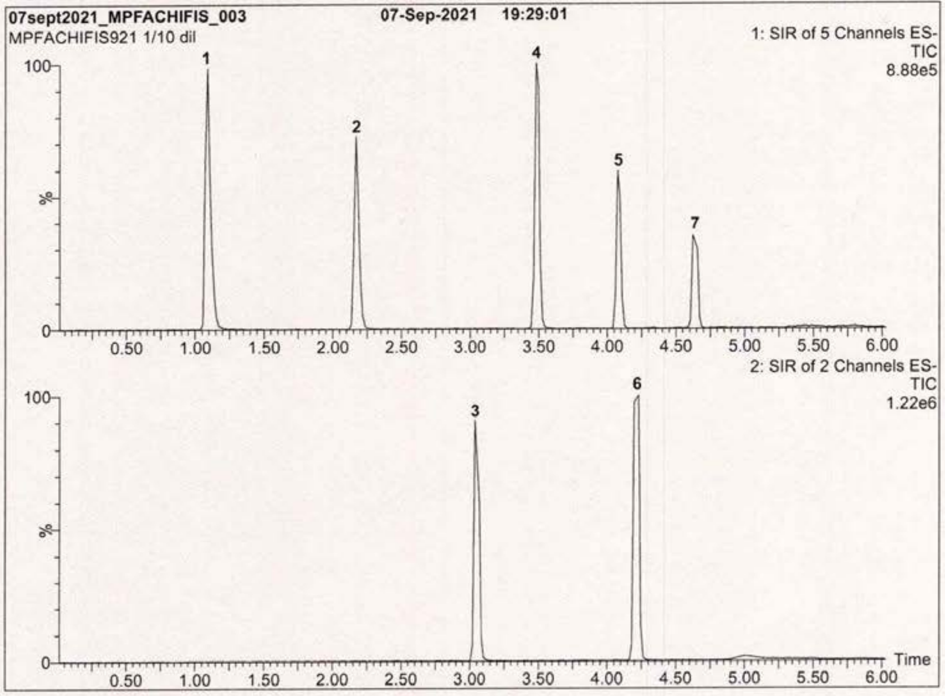
rev1

Figure 1: **MPFAC-HIF-IS; LC/MS Data (SIR)**



Conditions for Figure 1:

Waters Acquity Ultra Performance LC
Waters Xevo TQ-S micro MS

Chromatographic Conditions:

Column: Acquity UPLC BEH Shield RP_{18}
1.7 µm, 2.1 x 100 mm

Mobile phase: Gradient
Start: 50% H_2O / 50% (80:20 MeOH:ACN)
(both with 10 mM NH_4OAc buffer)
Ramp to 90% organic over 9 min and hold for
2 min before returning to initial conditions in 1 min.
Time: 15 min

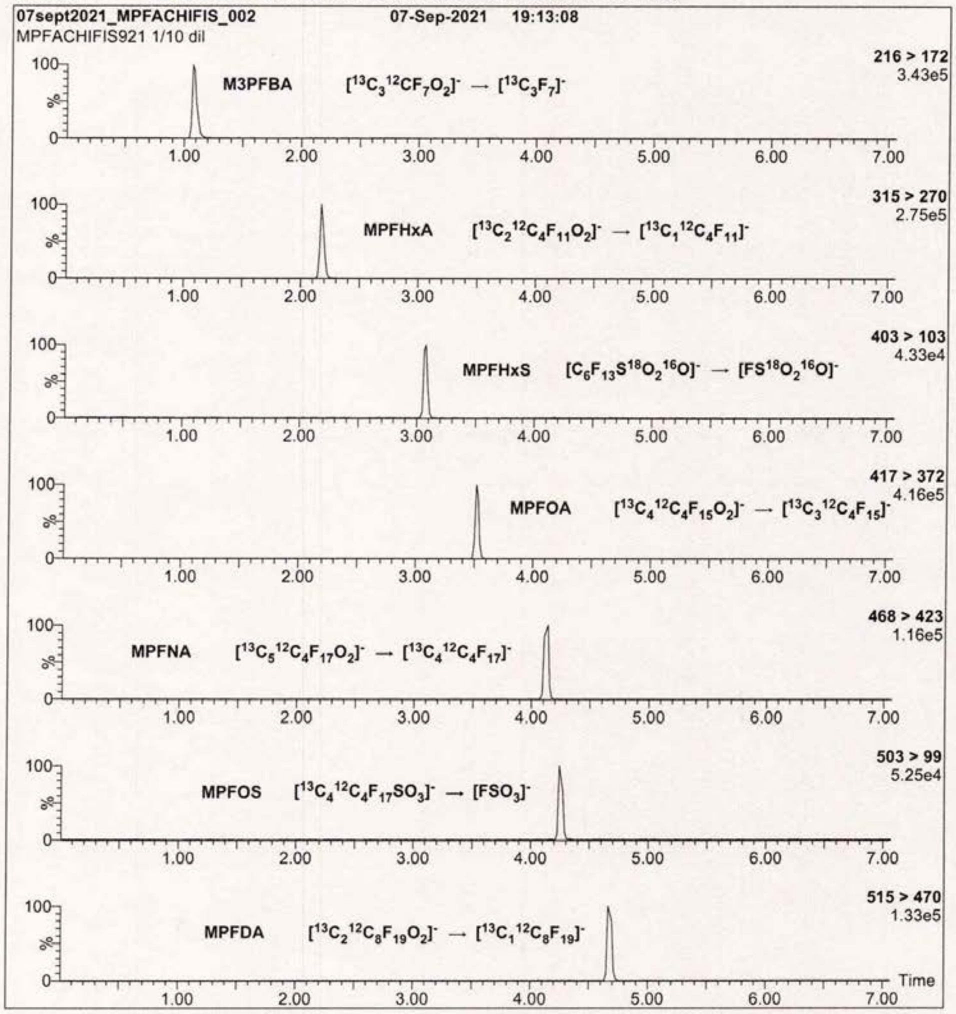
Flow: 300 µL/min

MS Parameters:

Experiment: SIR

Source: Electrospray (negative)
Capillary Voltage (kV) = 2.00
Cone Voltage (V) = variable (2-6)
Desolvation Temperature (°C) = 350
Desolvation Gas Flow (L/hr) = 1000

Figure 2: **MPFAC-HIF-IS; LC/MS/MS Data (Selected MRM Transitions)**



Conditions for Figure 2:

Injection: On-column (MPFAC-HIF-IS)

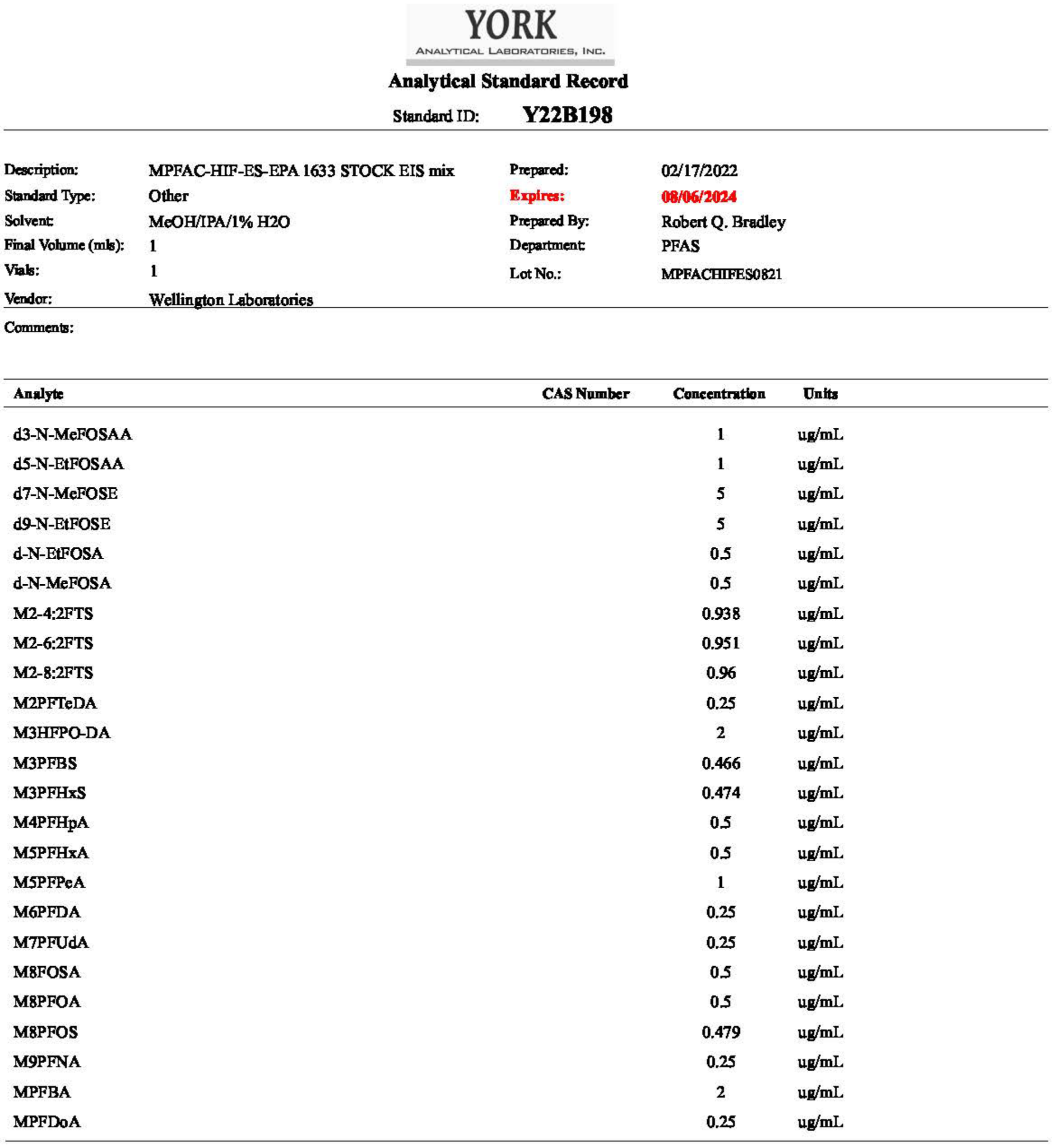
Mobile phase: Same as Figure 1

Flow: 300 µL/min

MS Parameters:

Collision Gas (mbar) = 3.18e-3
Collision Energy (eV) = 4-64 (variable)

Attachment 2 – Extracted Internal Standards (EIS)



YORK
ANALYTICAL LABORATORIES, INC.

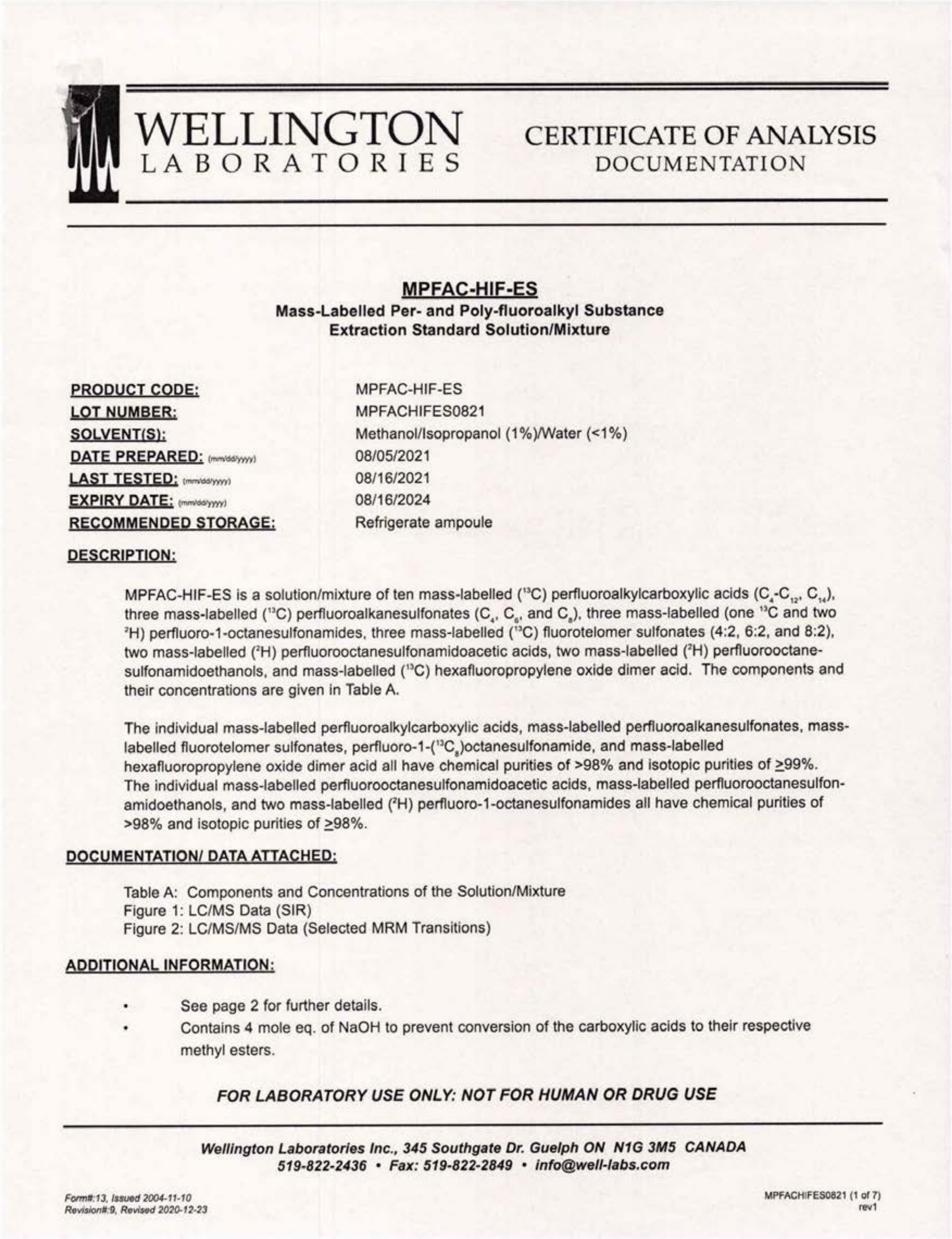
Analytical Standard Record

Standard ID: **Y22B198**

Description:	MPFAC-HIF-ES-EPA 1633 STOCK EIS mix	**Prepared:**	02/17/2022
Standard Type:	Other	**Expires:**	**08/06/2024**
Solvent:	MeOH/IPA/1% H2O	**Prepared By:**	Robert Q. Bradley
Final Volume (mls):	1	**Department:**	PFAS
Vials:	1	**Lot No.:**	MPFACHIFES0821
Vendor:	Wellington Laboratories		

Comments:

Analyte	**CAS Number**	**Concentration**	**Units**
d3-N-MeFOSAA		1	ug/mL
d5-N-EtFOSAA		1	ug/mL
d7-N-MeFOSE		5	ug/mL
d9-N-EtFOSE		5	ug/mL
d-N-EtFOSA		0.5	ug/mL
d-N-MeFOSA		0.5	ug/mL
M2-4:2FTS		0.938	ug/mL
M2-6:2FTS		0.951	ug/mL
M2-8:2FTS		0.96	ug/mL
M2PFTeDA		0.25	ug/mL
M3HFPO-DA		2	ug/mL
M3PFBS		0.466	ug/mL
M3PFHxS		0.474	ug/mL
M4PFHpA		0.5	ug/mL
M5PFHxA		0.5	ug/mL
M5PFPeA		1	ug/mL
M6PFDA		0.25	ug/mL
M7PFUdA		0.25	ug/mL
M8FOSA		0.5	ug/mL
M8PFOA		0.5	ug/mL
M8PFOS		0.479	ug/mL
M9PFNA		0.25	ug/mL
MPFBA		2	ug/mL
MPFDoA		0.25	ug/mL



WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

MPFAC-HIF-ES

Mass-Labelled Per- and Poly-fluoroalkyl Substance Extraction Standard Solution/Mixture

PRODUCT CODE:	MPFAC-HIF-ES
LOT NUMBER:	MPFACHIFES0821
SOLVENT(S):	Methanol/Isopropanol (1%)/Water (<1%)
DATE PREPARED: (mm/dd/yyyy)	08/05/2021
LAST TESTED: (mm/dd/yyyy)	08/16/2021
EXPIRY DATE: (mm/dd/yyyy)	08/16/2024
RECOMMENDED STORAGE:	Refrigerate ampoule

DESCRIPTION:

MPFAC-HIF-ES is a solution/mixture of ten mass-labelled (^{13}C) perfluoroalkylcarboxylic acids (C_4-C_{12}, C_{14}), three mass-labelled (^{13}C) perfluoroalkanesulfonates (C_4, C_6, and C_8), three mass-labelled (one ^{13}C and two ^{2}H) perfluoro-1-octanesulfonamides, three mass-labelled (^{13}C) fluorotelomer sulfonates (4:2, 6:2, and 8:2), two mass-labelled (^{2}H) perfluorooctanesulfonamidoacetic acids, two mass-labelled (^{2}H) perfluorooctanesulfonamidoethanols, and mass-labelled (^{13}C) hexafluoropropylene oxide dimer acid. The components and their concentrations are given in Table A.

The individual mass-labelled perfluoroalkylcarboxylic acids, mass-labelled perfluoroalkanesulfonates, mass-labelled fluorotelomer sulfonates, perfluoro-1-($^{13}C_8$)octanesulfonamide, and mass-labelled hexafluoropropylene oxide dimer acid all have chemical purities of >98% and isotopic purities of $\geq$99%. The individual mass-labelled perfluorooctanesulfonamidoacetic acids, mass-labelled perfluorooctanesulfonamidoethanols, and two mass-labelled (^{2}H) perfluoro-1-octanesulfonamides all have chemical purities of >98% and isotopic purities of $\geq$98%.

DOCUMENTATION/ DATA ATTACHED:

Table A: Components and Concentrations of the Solution/Mixture
Figure 1: LC/MS Data (SIR)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent conversion of the carboxylic acids to their respective methyl esters.

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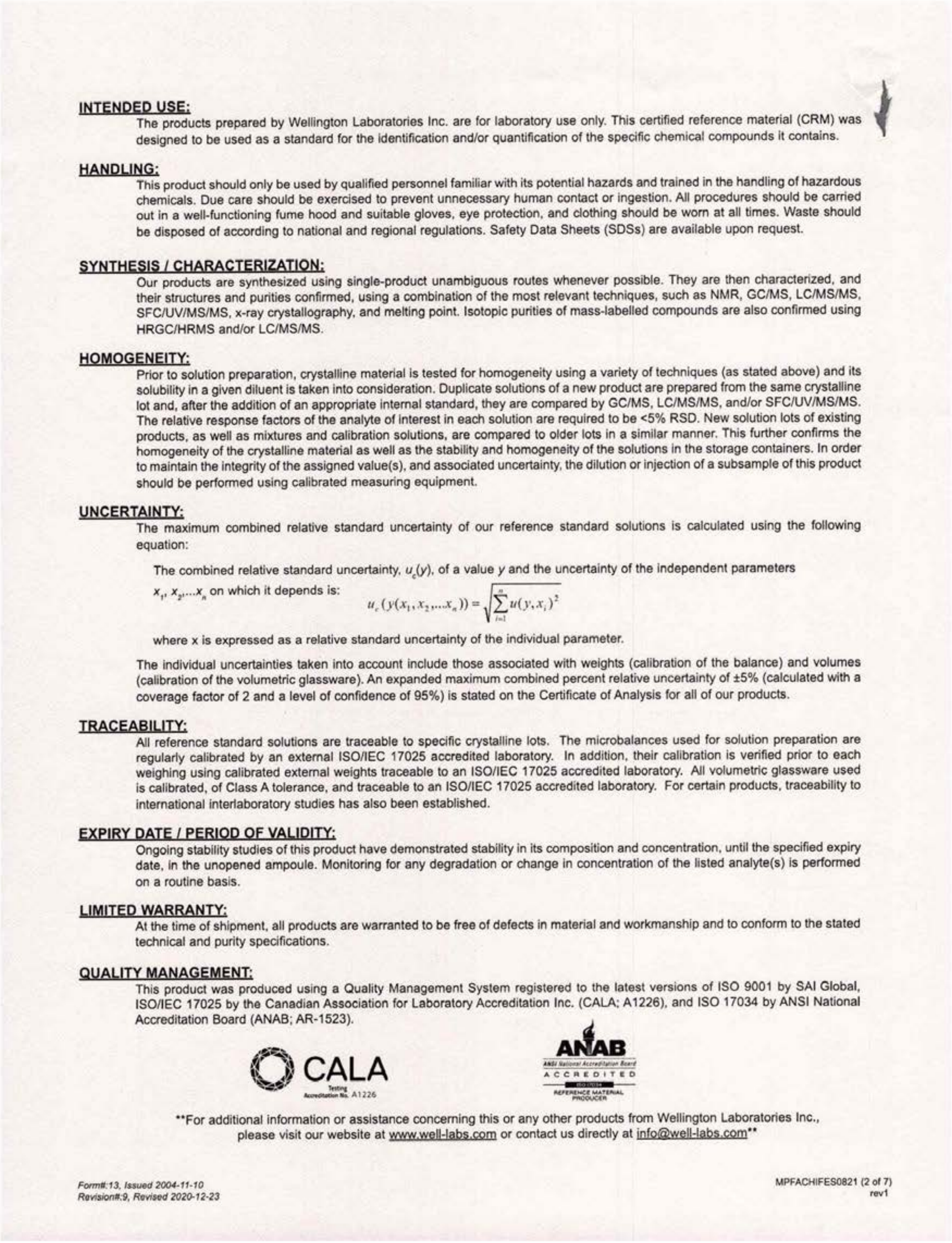

INTENDED USE:

The products prepared by Wellington Laboratories Inc. are for laboratory use only. This certified reference material (CRM) was designed to be used as a standard for the identification and/or quantification of the specific chemical compounds it contains.

HANDLING:

This product should only be used by qualified personnel familiar with its potential hazards and trained in the handling of hazardous chemicals. Due care should be exercised to prevent unnecessary human contact or ingestion. All procedures should be carried out in a well-functioning fume hood and suitable gloves, eye protection, and clothing should be worn at all times. Waste should be disposed of according to national and regional regulations. Safety Data Sheets (SDSs) are available upon request.

SYNTHESIS / CHARACTERIZATION:

Our products are synthesized using single-product unambiguous routes whenever possible. They are then characterized, and their structures and purities confirmed, using a combination of the most relevant techniques, such as NMR, GC/MS, LC/MS/MS, SFC/UV/MS/MS, x-ray crystallography, and melting point. Isotopic purities of mass-labelled compounds are also confirmed using HRGC/HRMS and/or LC/MS/MS.

HOMOGENEITY:

Prior to solution preparation, crystalline material is tested for homogeneity using a variety of techniques (as stated above) and its solubility in a given diluent is taken into consideration. Duplicate solutions of a new product are prepared from the same crystalline lot and, after the addition of an appropriate internal standard, they are compared by GC/MS, LC/MS/MS, and/or SFC/UV/MS/MS. The relative response factors of the analyte of interest in each solution are required to be <5% RSD. New solution lots of existing products, as well as mixtures and calibration solutions, are compared to older lots in a similar manner. This further confirms the homogeneity of the crystalline material as well as the stability and homogeneity of the solutions in the storage containers. In order to maintain the integrity of the assigned value(s), and associated uncertainty, the dilution or injection of a subsample of this product should be performed using calibrated measuring equipment.

UNCERTAINTY:

The maximum combined relative standard uncertainty of our reference standard solutions is calculated using the following equation:

The combined relative standard uncertainty, $u_c(y)$, of a value y and the uncertainty of the independent parameters $x_1, x_2,...x_n$ on which it depends is:

$$u_c(y(x_1,x_2,...x_n)) = \sqrt{\sum_{i=1}^{n} u(y,x_i)^2}$$

where x is expressed as a relative standard uncertainty of the individual parameter.

The individual uncertainties taken into account include those associated with weights (calibration of the balance) and volumes (calibration of the volumetric glassware). An expanded maximum combined percent relative uncertainty of ±5% (calculated with a coverage factor of 2 and a level of confidence of 95%) is stated on the Certificate of Analysis for all of our products.

TRACEABILITY:

All reference standard solutions are traceable to specific crystalline lots. The microbalances used for solution preparation are regularly calibrated by an external ISO/IEC 17025 accredited laboratory. In addition, their calibration is verified prior to each weighing using calibrated external weights traceable to an ISO/IEC 17025 accredited laboratory. All volumetric glassware used is calibrated, of Class A tolerance, and traceable to an ISO/IEC 17025 accredited laboratory. For certain products, traceability to international interlaboratory studies has also been established.

EXPIRY DATE / PERIOD OF VALIDITY:

Ongoing stability studies of this product have demonstrated stability in its composition and concentration, until the specified expiry date, in the unopened ampoule. Monitoring for any degradation or change in concentration of the listed analyte(s) is performed on a routine basis.

LIMITED WARRANTY:

At the time of shipment, all products are warranted to be free of defects in material and workmanship and to conform to the stated technical and purity specifications.

QUALITY MANAGEMENT:

This product was produced using a Quality Management System registered to the latest versions of ISO 9001 by SAI Global, ISO/IEC 17025 by the Canadian Association for Laboratory Accreditation Inc. (CALA; A1226), and ISO 17034 by ANSI National Accreditation Board (ANAB; AR-1523).

CALA Testing Accreditation No. A1226

ANAB ACCREDITED REFERENCE MATERIAL PRODUCER

For additional information or assistance concerning this or any other products from Wellington Laboratories Inc., please visit our website at www.well-labs.com or contact us directly at info@well-labs.com

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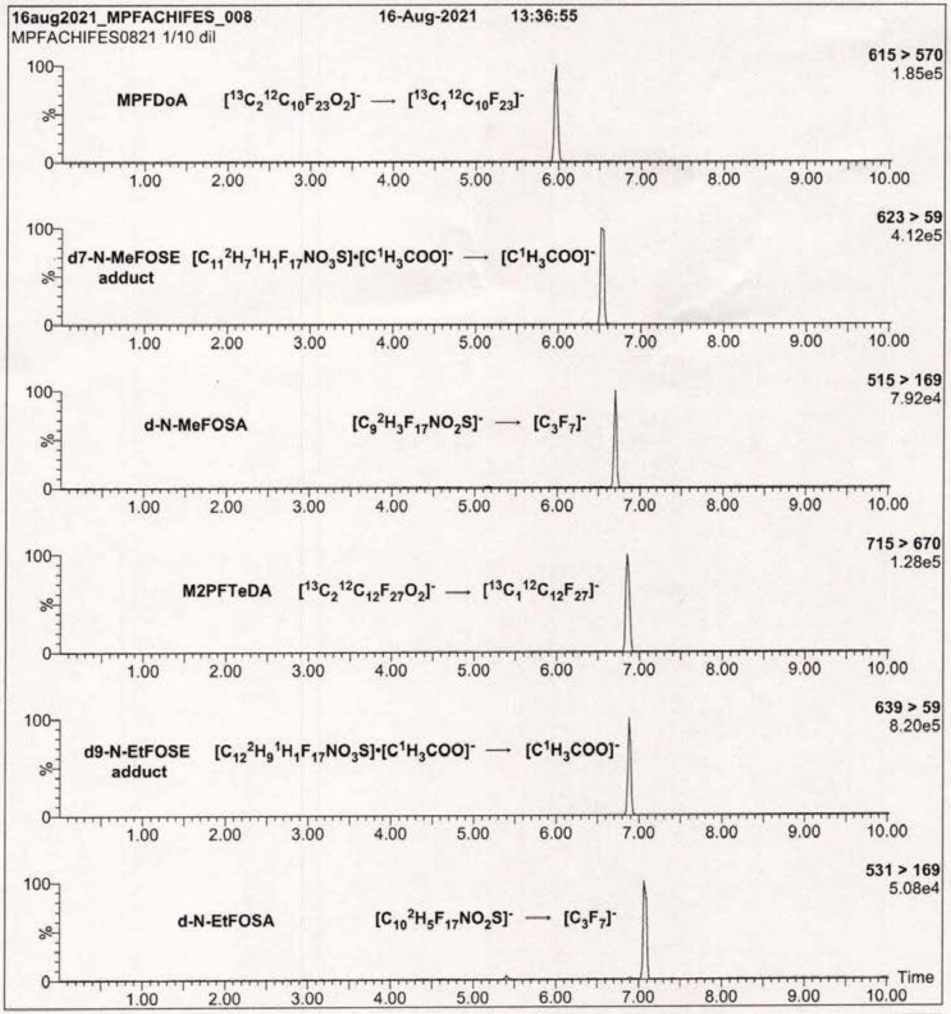
Figure 2: **MPFAC-HIF-ES; LC/MS/MS Data (Selected MRM Transitions)**



Conditions for Figure 2:

Injection: On-column (MPFAC-HIF-ES)

Mobile phase: Same as Figure 1

Flow: 300 µL/min

MS Parameters:

Collision Gas (mbar) = 3.41e-3
Collision Energy (eV) = 4-64 (variable)

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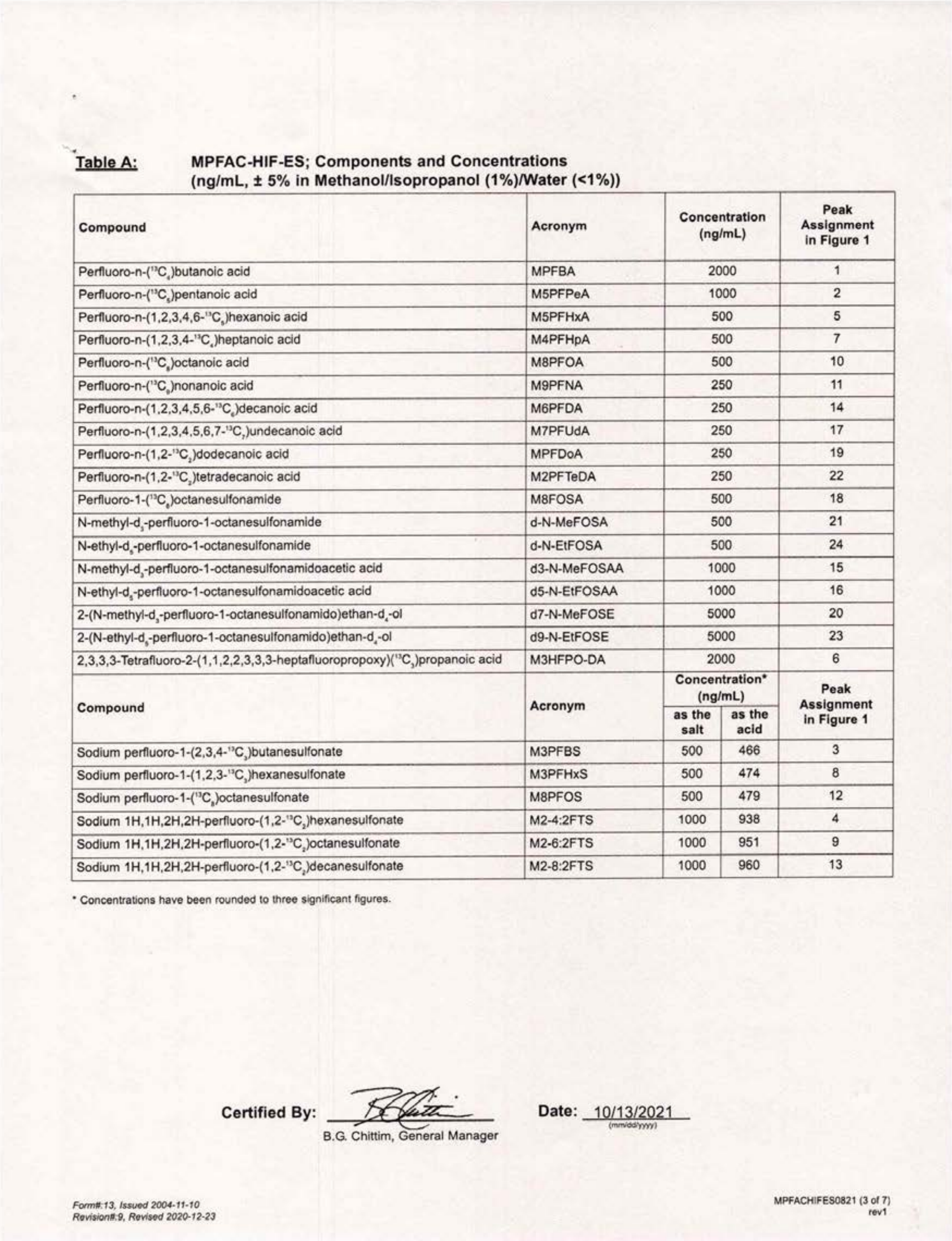

Table A: **MPFAC-HIF-ES; Components and Concentrations**
(ng/mL, ± 5% in Methanol/Isopropanol (1%)/Water (<1%))

Compound	**Acronym**	**Concentration (ng/mL)**	**Peak Assignment in Figure 1**
Perfluoro-n-($^{13}C_4$)butanoic acid	MPFBA	2000	1
Perfluoro-n-($^{13}C_5$)pentanoic acid	M5PFPeA	1000	2
Perfluoro-n-(1,2,3,4,6-$^{13}C_5$)hexanoic acid	M5PFHxA	500	5
Perfluoro-n-(1,2,3,4-$^{13}C_4$)heptanoic acid	M4PFHpA	500	7
Perfluoro-n-($^{13}C_8$)octanoic acid	M8PFOA	500	10
Perfluoro-n-($^{13}C_9$)nonanoic acid	M9PFNA	250	11
Perfluoro-n-(1,2,3,4,5,6-$^{13}C_6$)decanoic acid	M6PFDA	250	14
Perfluoro-n-(1,2,3,4,5,6,7-$^{13}C_7$)undecanoic acid	M7PFUdA	250	17
Perfluoro-n-(1,2-$^{13}C_2$)dodecanoic acid	MPFDoA	250	19
Perfluoro-n-(1,2-$^{13}C_2$)tetradecanoic acid	M2PFTeDA	250	22
Perfluoro-1-($^{13}C_8$)octanesulfonamide	M8FOSA	500	18
N-methyl-d_3-perfluoro-1-octanesulfonamide	d-N-MeFOSA	500	21
N-ethyl-d_5-perfluoro-1-octanesulfonamide	d-N-EtFOSA	500	24
N-methyl-d_3-perfluoro-1-octanesulfonamidoacetic acid	d3-N-MeFOSAA	1000	15
N-ethyl-d_5-perfluoro-1-octanesulfonamidoacetic acid	d5-N-EtFOSAA	1000	16
2-(N-methyl-d_3-perfluoro-1-octanesulfonamido)ethan-d_4-ol	d7-N-MeFOSE	5000	20
2-(N-ethyl-d_5-perfluoro-1-octanesulfonamido)ethan-d_4-ol	d9-N-EtFOSE	5000	23
2,3,3,3-Tetrafluoro-2-(1,1,2,2,3,3,3-heptafluoropropoxy)($^{13}C_3$)propanoic acid	M3HFPO-DA	2000	6

Compound	**Acronym**	**Concentration* (ng/mL)**		**Peak Assignment in Figure 1**
		as the salt	**as the acid**	
Sodium perfluoro-1-(2,3,4-$^{13}C_3$)butanesulfonate	M3PFBS	500	466	3
Sodium perfluoro-1-(1,2,3-$^{13}C_3$)hexanesulfonate	M3PFHxS	500	474	8
Sodium perfluoro-1-($^{13}C_8$)octanesulfonate	M8PFOS	500	479	12
Sodium 1H,1H,2H,2H-perfluoro-(1,2-$^{13}C_2$)hexanesulfonate	M2-4:2FTS	1000	938	4
Sodium 1H,1H,2H,2H-perfluoro-(1,2-$^{13}C_2$)octanesulfonate	M2-6:2FTS	1000	951	9
Sodium 1H,1H,2H,2H-perfluoro-(1,2-$^{13}C_2$)decanesulfonate	M2-8:2FTS	1000	960	13

* Concentrations have been rounded to three significant figures.

Certified By: B.G. Chittim, General Manager

Date: 10/13/2021
(mm/dd/yyyy)

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Revision#:9, Revised 2020-12-23

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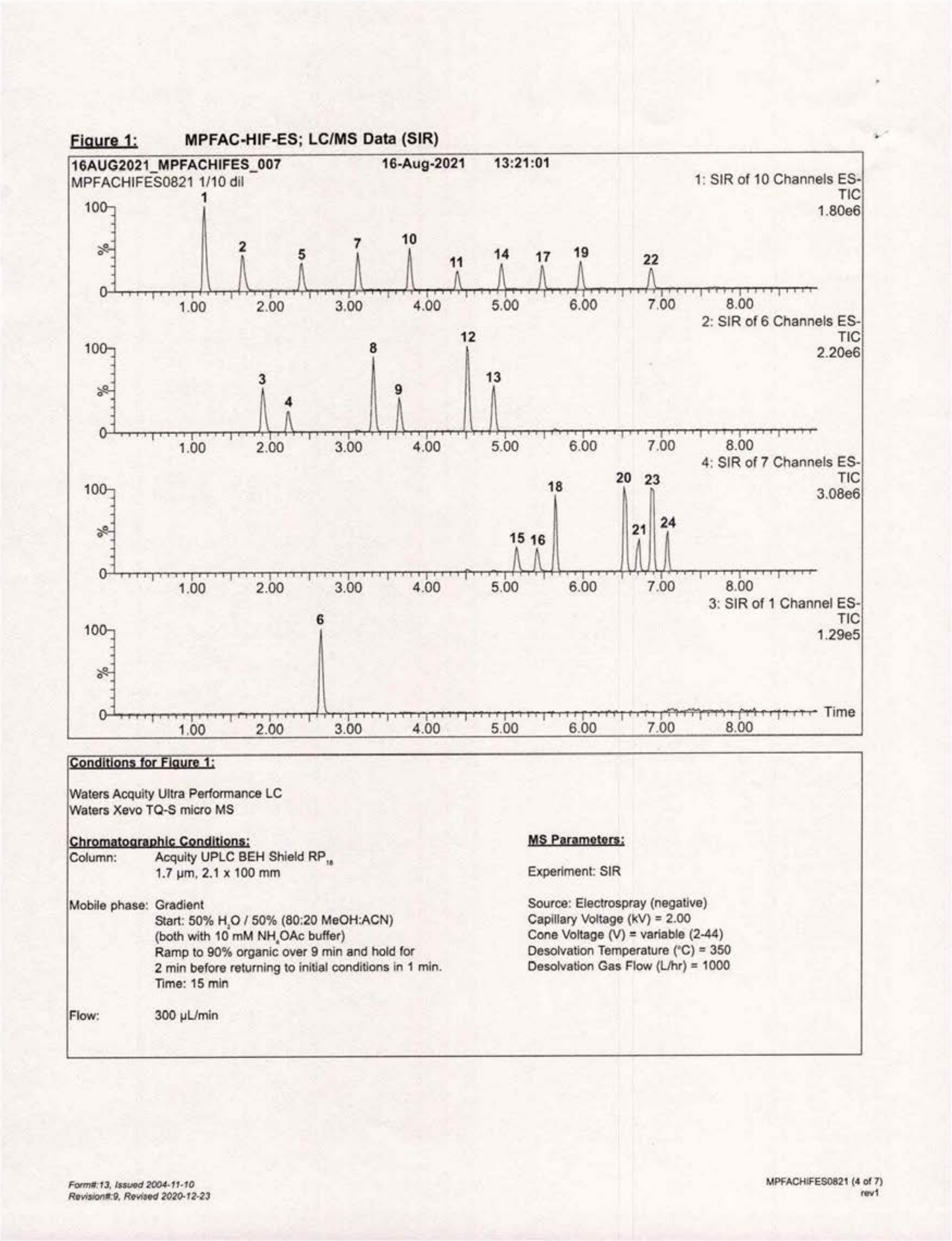

Figure 1: **MPFAC-HIF-ES; LC/MS Data (SIR)**

Conditions for Figure 1:

Waters Acquity Ultra Performance LC
Waters Xevo TQ-S micro MS

Chromatographic Conditions:

Column:	Acquity UPLC BEH Shield RP_{18} 1.7 µm, 2.1 x 100 mm
Mobile phase:	Gradient Start: 50% H_2O / 50% (80:20 MeOH:ACN) (both with 10 mM NH_4OAc buffer) Ramp to 90% organic over 9 min and hold for 2 min before returning to initial conditions in 1 min. Time: 15 min
Flow:	300 µL/min

MS Parameters:

Experiment: SIR

Source: Electrospray (negative)
Capillary Voltage (kV) = 2.00
Cone Voltage (V) = variable (2-44)
Desolvation Temperature (°C) = 350
Desolvation Gas Flow (L/hr) = 1000

Form#:13, Issued 2004-11-10
Revision#:9, Revised 2020-12-23

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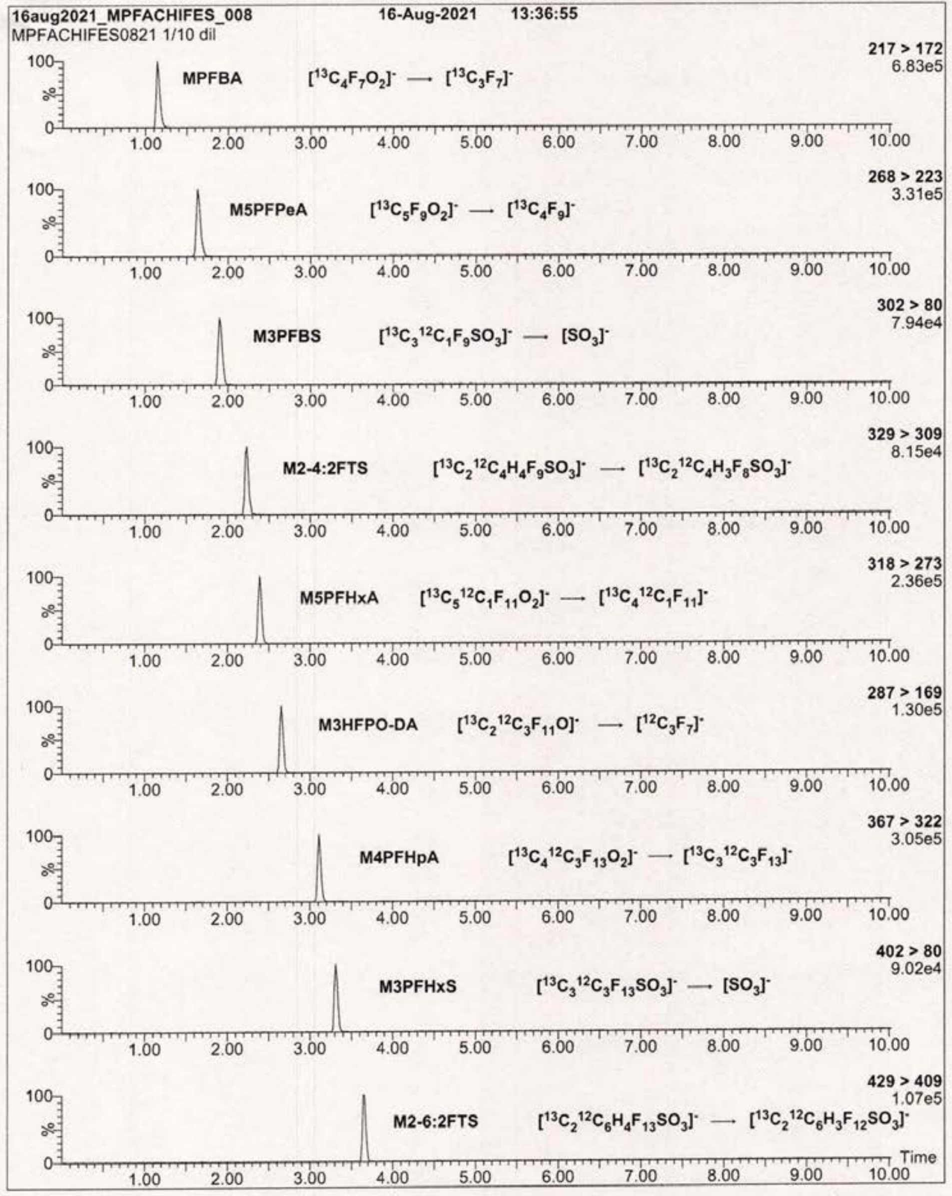
rev1

Figure 2: **MPFAC-HIF-ES; LC/MS/MS Data (Selected MRM Transitions)**



Form#:13, Issued 2004-11-10
Revision#:9, Revised 2020-12-23

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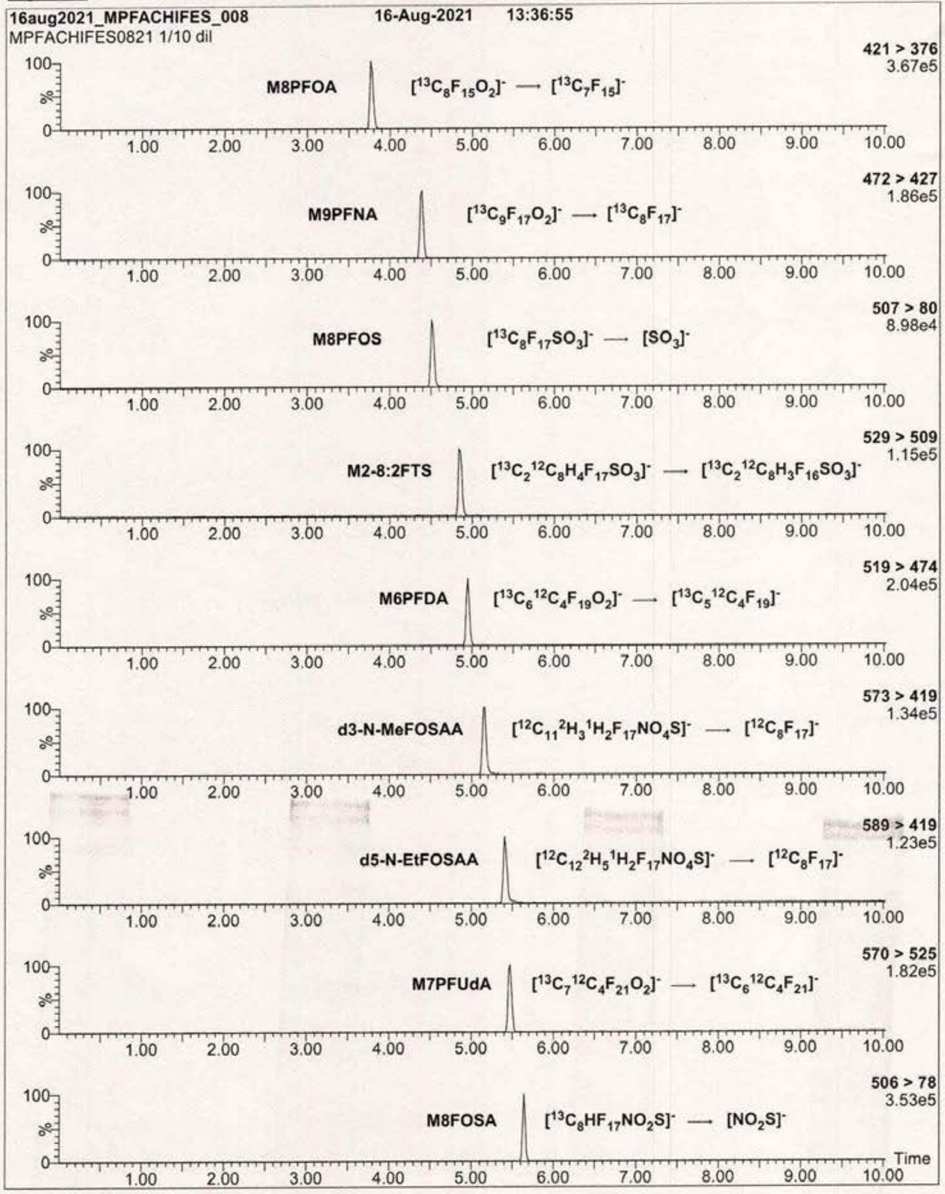
rev1

Figure 2: **MPFAC-HIF-ES; LC/MS/MS Data (Selected MRM Transitions)**



Form#:13, Issued 2004-11-10
Revision#:9, Revised 2020-12-23

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rev1

Attachment 3 – Target Analyte Mixtures

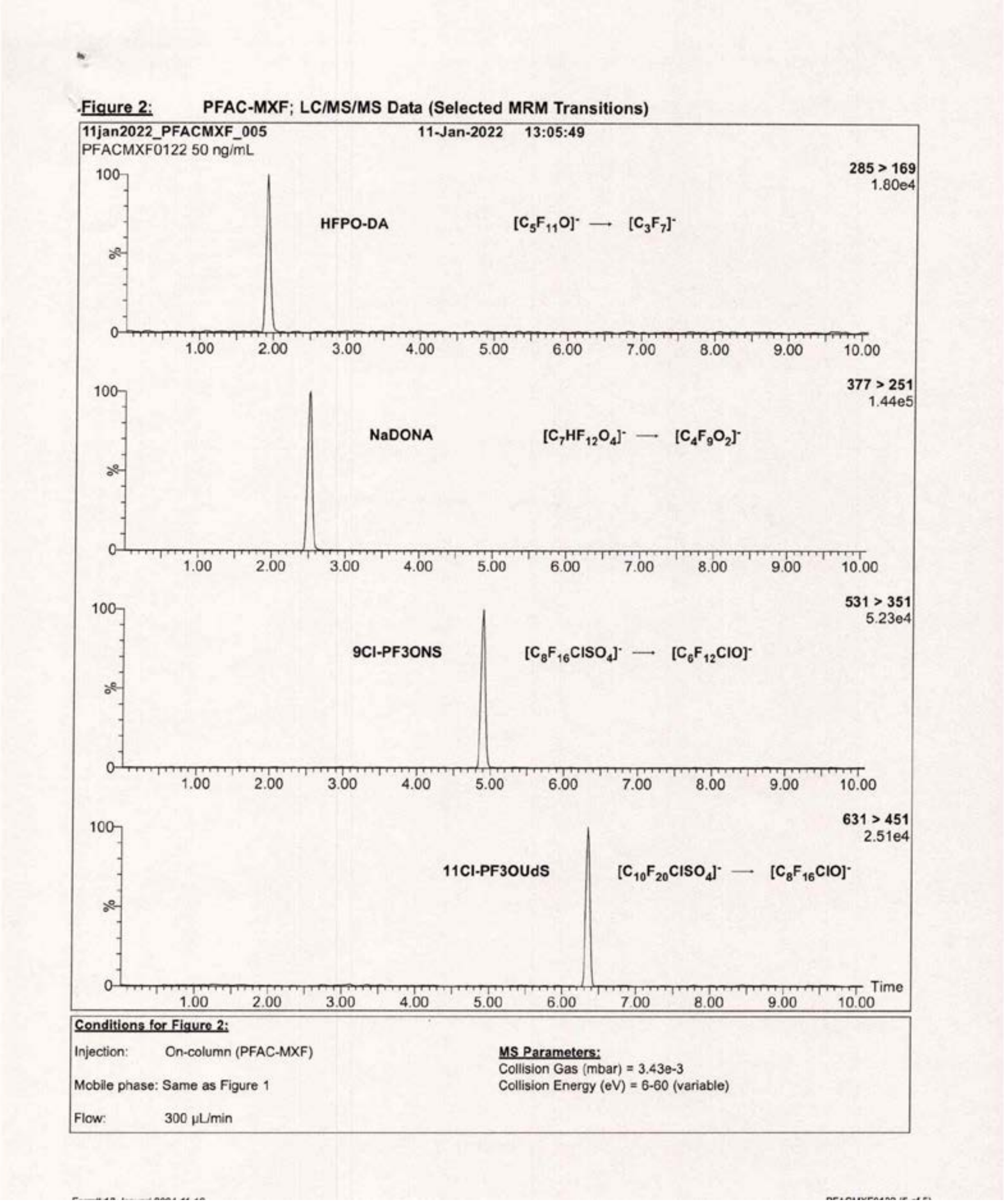


Figure 2: **PFAC-MXF; LC/MS/MS Data (Selected MRM Transitions)**

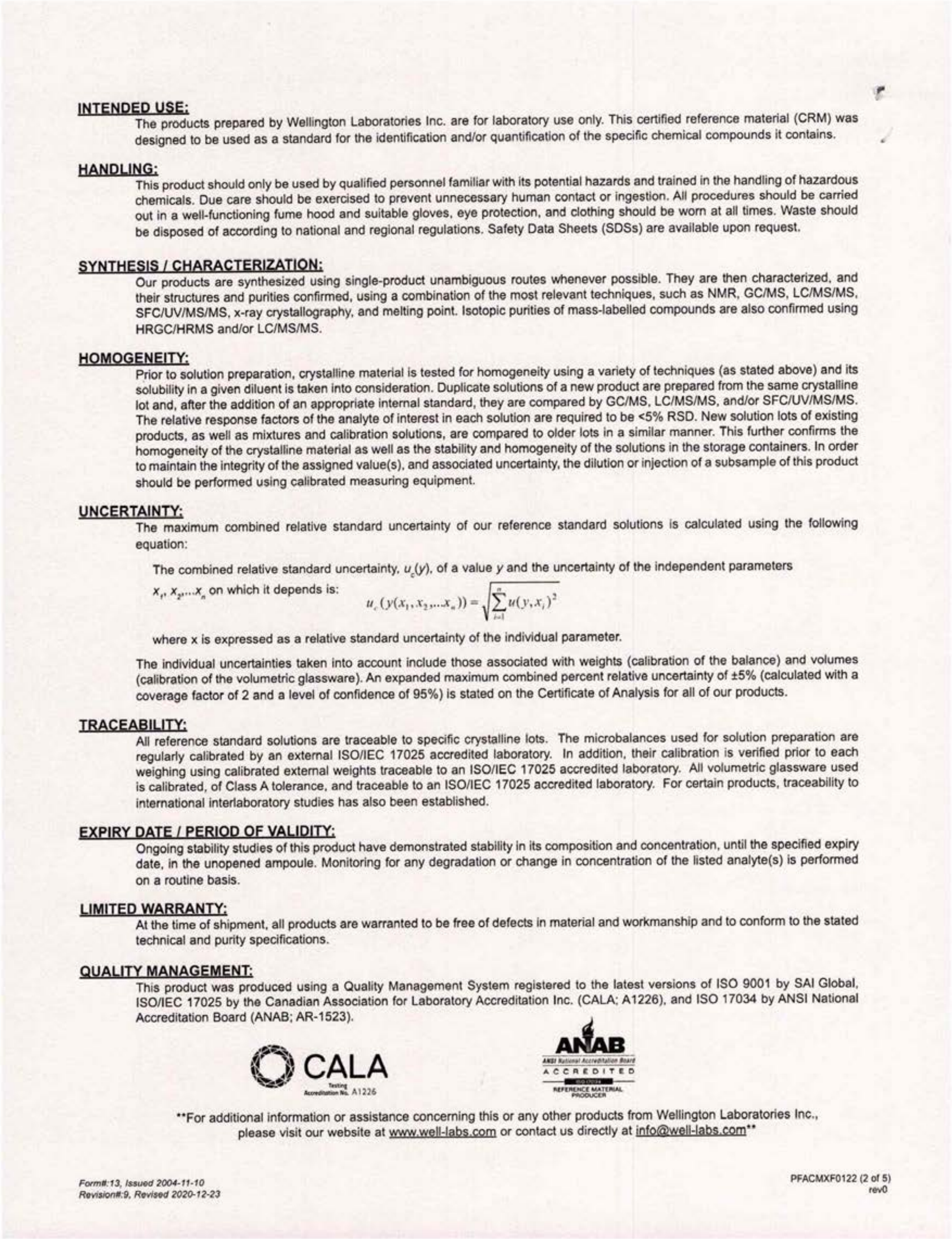
Conditions for Figure 2:

Injection: On-column (PFAC-MXF)

Mobile phase: Same as Figure 1

Flow: 300 µL/min

MS Parameters:
Collision Gas (mbar) = 3.43e-3
Collision Energy (eV) = 6-60 (variable)



INTENDED USE:

The products prepared by Wellington Laboratories Inc. are for laboratory use only. This certified reference material (CRM) was designed to be used as a standard for the identification and/or quantification of the specific chemical compounds it contains.

HANDLING:

This product should only be used by qualified personnel familiar with its potential hazards and trained in the handling of hazardous chemicals. Due care should be exercised to prevent unnecessary human contact or ingestion. All procedures should be carried out in a well-functioning fume hood and suitable gloves, eye protection, and clothing should be worn at all times. Waste should be disposed of according to national and regional regulations. Safety Data Sheets (SDSs) are available upon request.

SYNTHESIS / CHARACTERIZATION:

Our products are synthesized using single-product unambiguous routes whenever possible. They are then characterized, and their structures and purities confirmed, using a combination of the most relevant techniques, such as NMR, GC/MS, LC/MS/MS, SFC/UV/MS/MS, x-ray crystallography, and melting point. Isotopic purities of mass-labelled compounds are also confirmed using HRGC/HRMS and/or LC/MS/MS.

HOMOGENEITY:

Prior to solution preparation, crystalline material is tested for homogeneity using a variety of techniques (as stated above) and its solubility in a given diluent is taken into consideration. Duplicate solutions of a new product are prepared from the same crystalline lot and, after the addition of an appropriate internal standard, they are compared by GC/MS, LC/MS/MS, and/or SFC/UV/MS/MS. The relative response factors of the analyte of interest in each solution are required to be <5% RSD. New solution lots of existing products, as well as mixtures and calibration solutions, are compared to older lots in a similar manner. This further confirms the homogeneity of the crystalline material as well as the stability and homogeneity of the solutions in the storage containers. In order to maintain the integrity of the assigned value(s), and associated uncertainty, the dilution or injection of a subsample of this product should be performed using calibrated measuring equipment.

UNCERTAINTY:

The maximum combined relative standard uncertainty of our reference standard solutions is calculated using the following equation:

The combined relative standard uncertainty, $u_c(y)$, of a value y and the uncertainty of the independent parameters $x_1, x_2,...x_n$ on which it depends is:

$$u_c(y(x_1, x_2,...x_n)) = \sqrt{\sum_{i=1}^{n} u(y, x_i)^2}$$

where x is expressed as a relative standard uncertainty of the individual parameter.

The individual uncertainties taken into account include those associated with weights (calibration of the balance) and volumes (calibration of the volumetric glassware). An expanded maximum combined percent relative uncertainty of ±5% (calculated with a coverage factor of 2 and a level of confidence of 95%) is stated on the Certificate of Analysis for all of our products.

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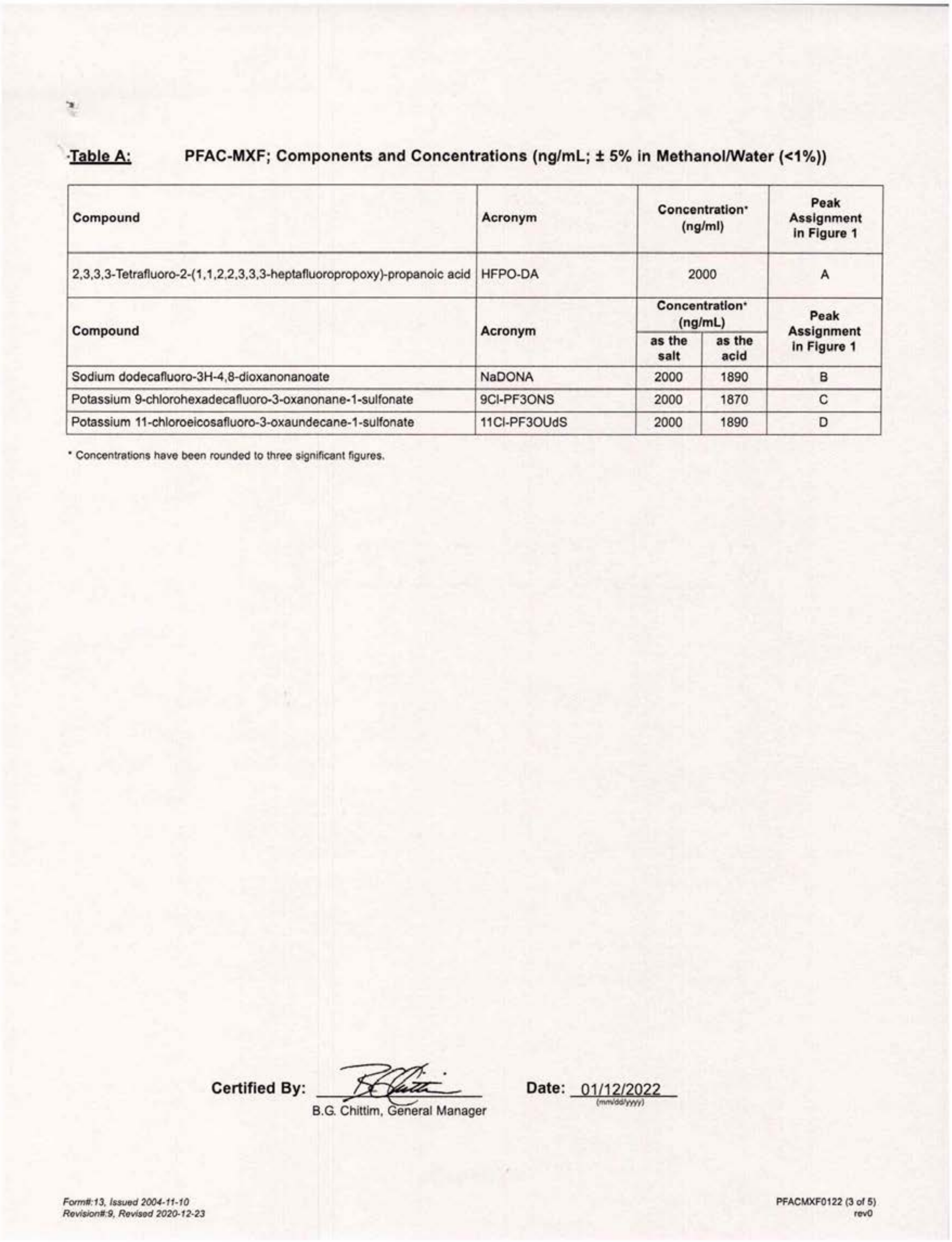

Table A: **PFAC-MXF; Components and Concentrations (ng/mL; ± 5% in Methanol/Water (<1%))**

Compound	Acronym	Concentration* (ng/ml)	Peak Assignment in Figure 1
2,3,3,3-Tetrafluoro-2-(1,1,2,2,3,3,3-heptafluoropropoxy)-propanoic acid	HFPO-DA	2000	A

Compound	Acronym	Concentration* (ng/mL)		Peak Assignment in Figure 1
		as the salt	as the acid	
Sodium dodecafluoro-3H-4,8-dioxanonanoate	NaDONA	2000	1890	B
Potassium 9-chlorohexadecafluoro-3-oxanonane-1-sulfonate	9Cl-PF3ONS	2000	1870	C
Potassium 11-chloroeicosafluoro-3-oxaundecane-1-sulfonate	11Cl-PF3OUdS	2000	1890	D

* Concentrations have been rounded to three significant figures.

Certified By: B.G. Chittim, General Manager

Date: 01/12/2022
(mm/dd/yyyy)

Form#:13, Issued 2004-11-10
Revision#:9, Revised 2020-12-23

PFACMXF0122 (3 of 5)
rev0

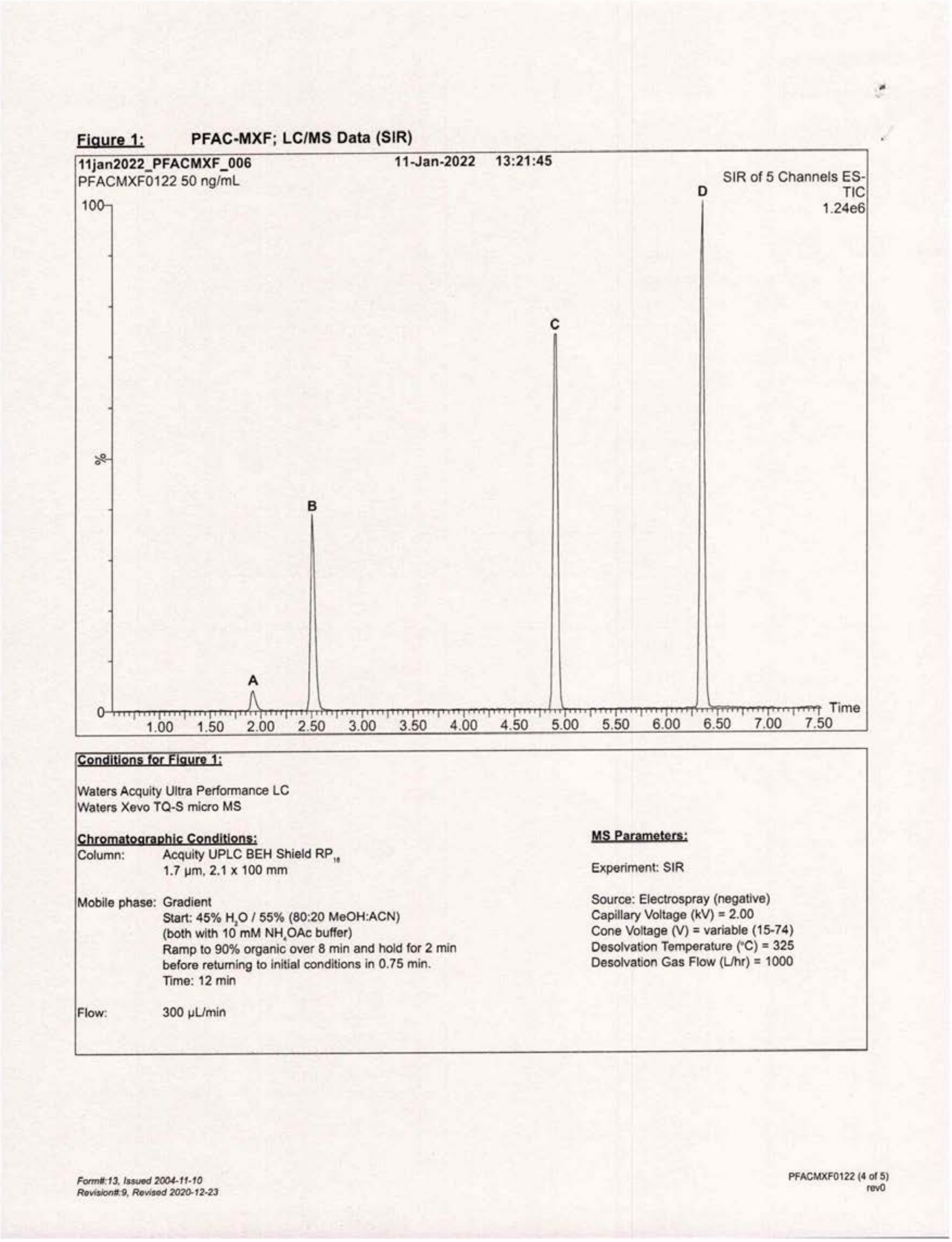

Figure 1: **PFAC-MXF; LC/MS Data (SIR)**

11jan2022_PFACMXF_006 **11-Jan-2022** **13:21:45**
PFACMXF0122 50 ng/mL

Conditions for Figure 1:

Waters Acquity Ultra Performance LC
Waters Xevo TQ-S micro MS

Chromatographic Conditions:

Column: Acquity UPLC BEH Shield RP_{18}
1.7 µm, 2.1 x 100 mm

Mobile phase: Gradient
Start: 45% H_2O / 55% (80:20 MeOH:ACN)
(both with 10 mM NH_4OAc buffer)
Ramp to 90% organic over 8 min and hold for 2 min
before returning to initial conditions in 0.75 min.
Time: 12 min

Flow: 300 µL/min

MS Parameters:

Experiment: SIR

Source: Electrospray (negative)
Capillary Voltage (kV) = 2.00
Cone Voltage (V) = variable (15-74)
Desolvation Temperature (°C) = 325
Desolvation Gas Flow (L/hr) = 1000

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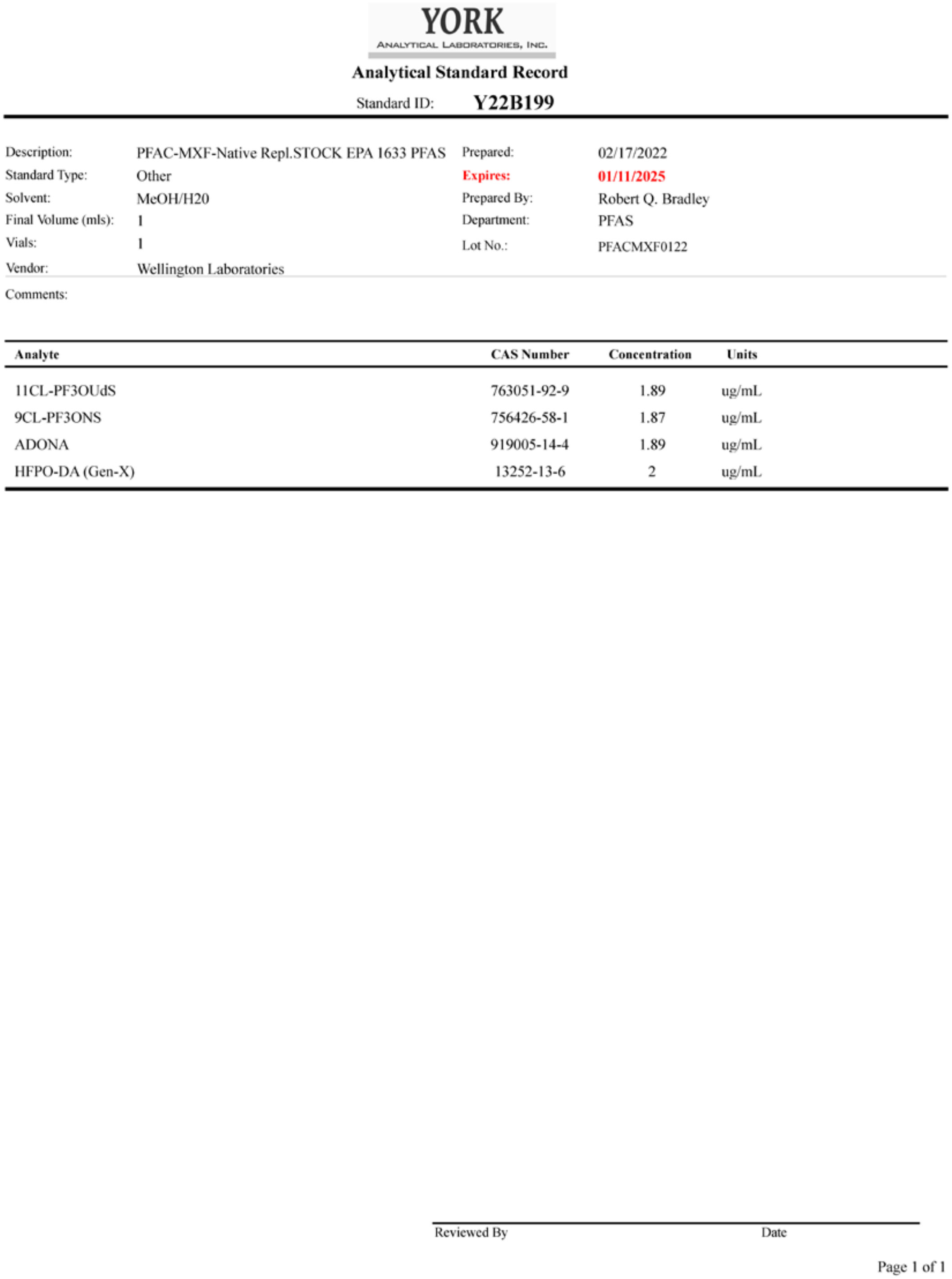
rev0



YORK
ANALYTICAL LABORATORIES, INC.

Analytical Standard Record

Standard ID: **Y22B199**

Description:	PFAC-MXF-Native Repl.STOCK EPA 1633 PFAS	Prepared:	02/17/2022
Standard Type:	Other	**Expires:**	**01/11/2025**
Solvent:	MeOH/H20	Prepared By:	Robert Q. Bradley
Final Volume (mls):	1	Department:	PFAS
Vials:	1	Lot No.:	PFACMXF0122
Vendor:	Wellington Laboratories		

Comments:

Analyte	CAS Number	Concentration	Units
11CL-PF3OUdS	763051-92-9	1.89	ug/mL
9CL-PF3ONS	756426-58-1	1.87	ug/mL
ADONA	919005-14-4	1.89	ug/mL
HFPO-DA (Gen-X)	13252-13-6	2	ug/mL

Reviewed By   Date

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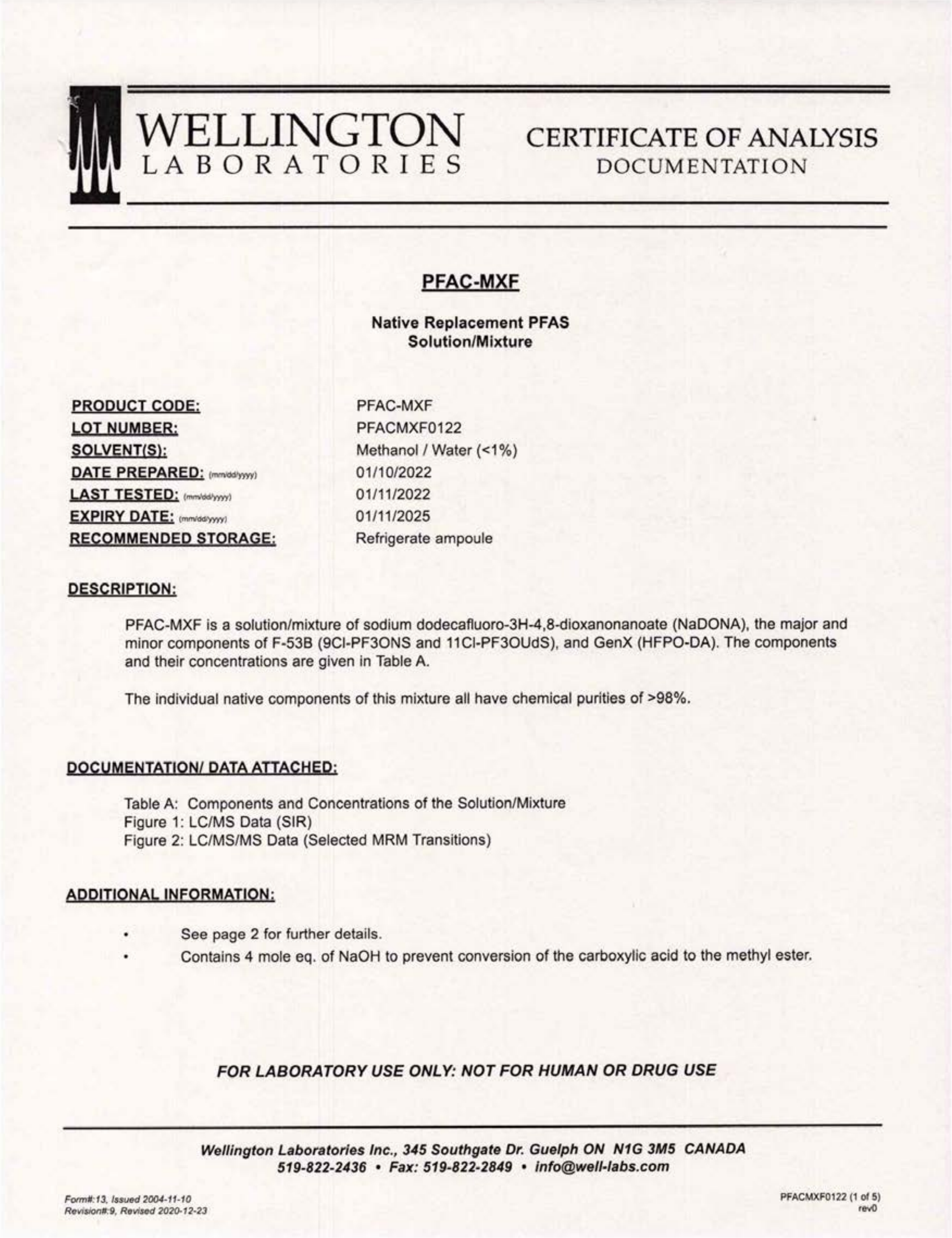

WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PFAC-MXF

Native Replacement PFAS Solution/Mixture

PRODUCT CODE:	PFAC-MXF
LOT NUMBER:	PFACMXF0122
SOLVENT(S):	Methanol / Water (<1%)
DATE PREPARED: (mm/dd/yyyy)	01/10/2022
LAST TESTED: (mm/dd/yyyy)	01/11/2022
EXPIRY DATE: (mm/dd/yyyy)	01/11/2025
RECOMMENDED STORAGE:	Refrigerate ampoule

DESCRIPTION:

PFAC-MXF is a solution/mixture of sodium dodecafluoro-3H-4,8-dioxanonanoate (NaDONA), the major and minor components of F-53B (9Cl-PF3ONS and 11Cl-PF3OUdS), and GenX (HFPO-DA). The components and their concentrations are given in Table A.

The individual native components of this mixture all have chemical purities of >98%.

DOCUMENTATION/ DATA ATTACHED:

Table A: Components and Concentrations of the Solution/Mixture
Figure 1: LC/MS Data (SIR)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent conversion of the carboxylic acid to the methyl ester.

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Revision#:9, Revised 2020-12-23

PFACMXF0122 (1 of 5)
rev0

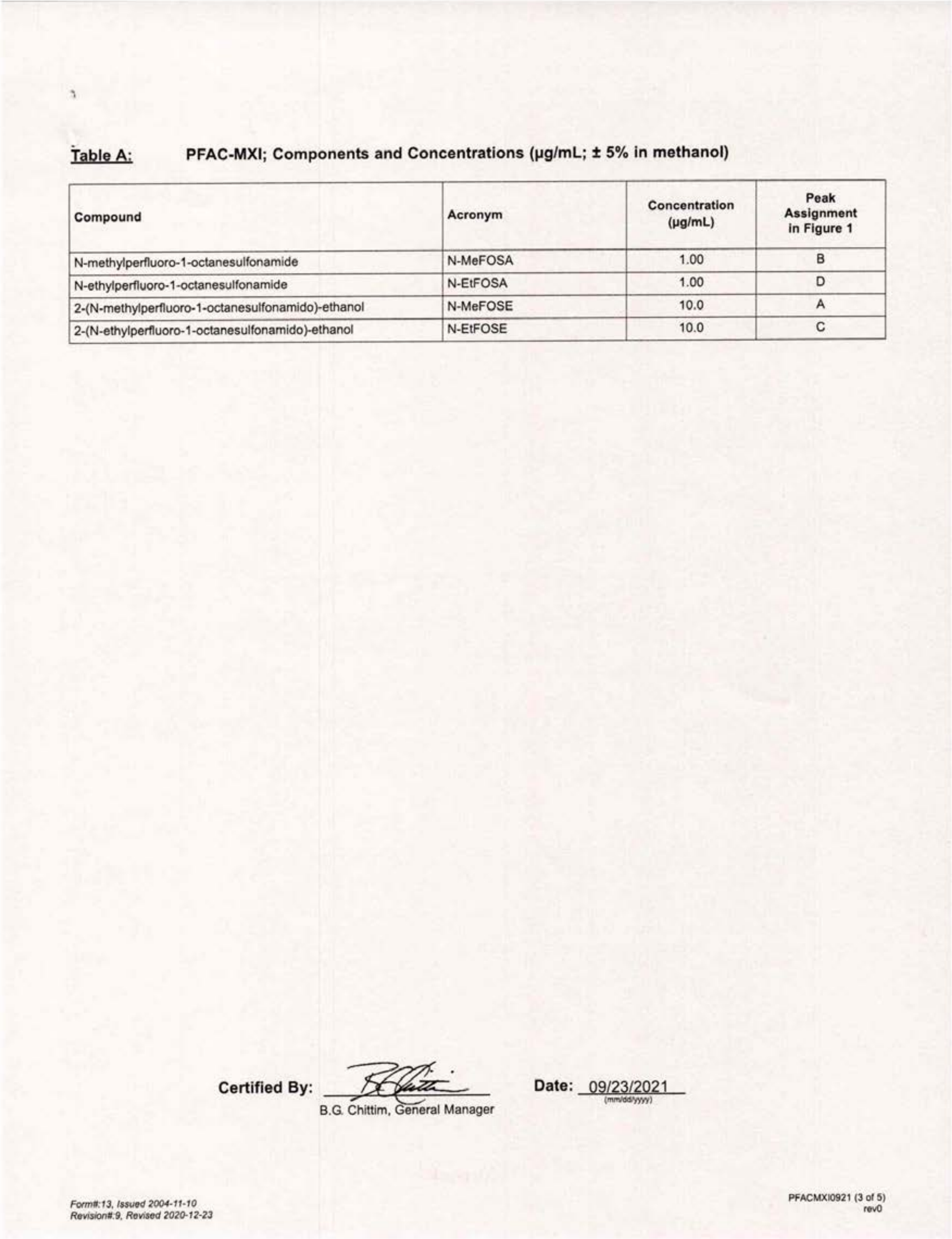

Table A: **PFAC-MXI; Components and Concentrations (µg/mL; ± 5% in methanol)**

Compound	Acronym	Concentration (µg/mL)	Peak Assignment in Figure 1
N-methylperfluoro-1-octanesulfonamide	N-MeFOSA	1.00	B
N-ethylperfluoro-1-octanesulfonamide	N-EtFOSA	1.00	D
2-(N-methylperfluoro-1-octanesulfonamido)-ethanol	N-MeFOSE	10.0	A
2-(N-ethylperfluoro-1-octanesulfonamido)-ethanol	N-EtFOSE	10.0	C

Certified By: ______________ **Date:** 09/23/2021
B.G. Chittim, General Manager (mm/dd/yyyy)

Form#:13, Issued 2004-11-10
Revision#:9, Revised 2020-12-23

PFACMXI0921 (3 of 5)
rev0

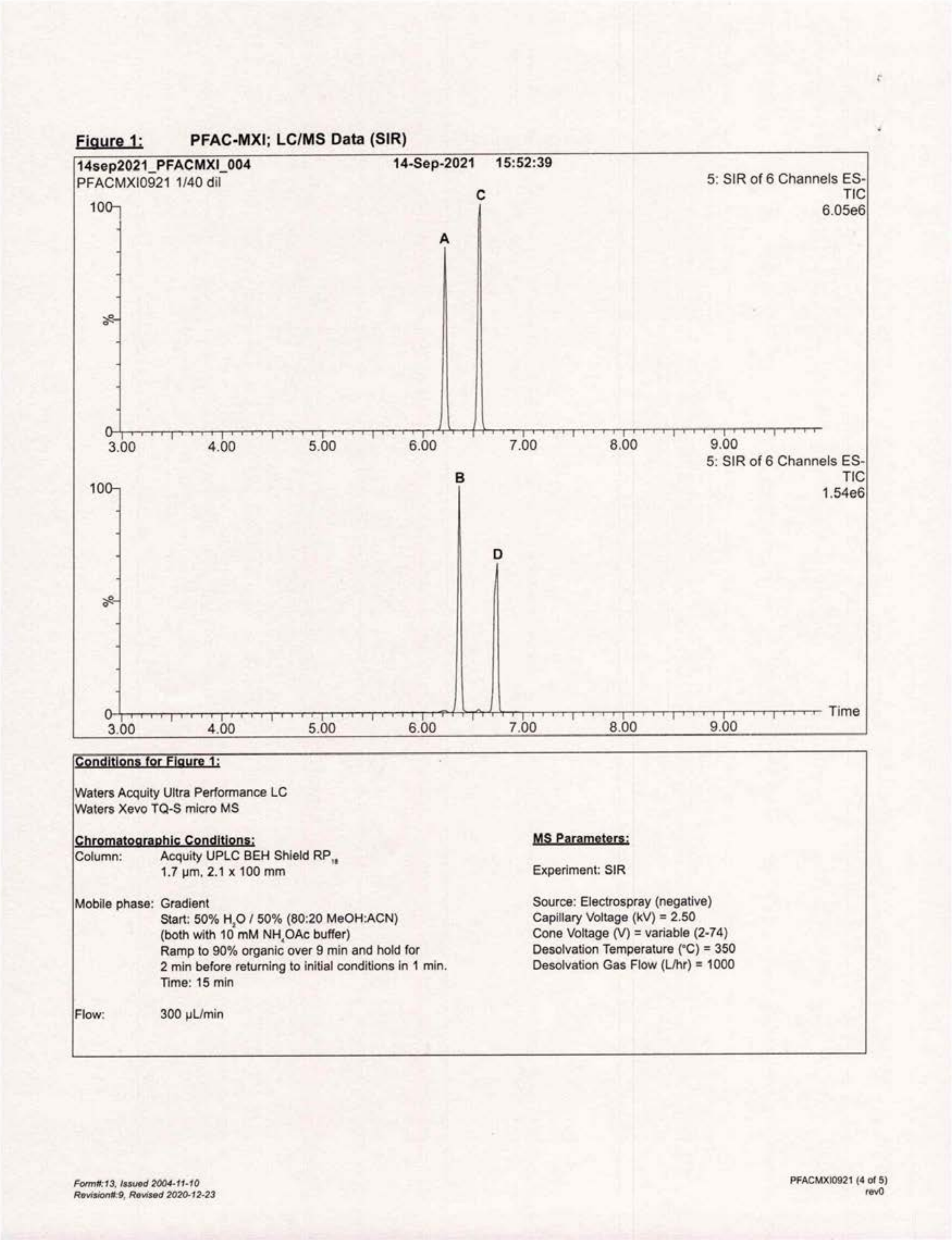

Figure 1: **PFAC-MXI; LC/MS Data (SIR)**

Conditions for Figure 1:

Waters Acquity Ultra Performance LC
Waters Xevo TQ-S micro MS

Chromatographic Conditions:

Column: Acquity UPLC BEH Shield RP_{18}
1.7 µm, 2.1 x 100 mm

Mobile phase: Gradient
Start: 50% H_2O / 50% (80:20 MeOH:ACN)
(both with 10 mM NH_4OAc buffer)
Ramp to 90% organic over 9 min and hold for
2 min before returning to initial conditions in 1 min.
Time: 15 min

Flow: 300 µL/min

MS Parameters:

Experiment: SIR

Source: Electrospray (negative)
Capillary Voltage (kV) = 2.50
Cone Voltage (V) = variable (2-74)
Desolvation Temperature (°C) = 350
Desolvation Gas Flow (L/hr) = 1000

Form#:13, Issued 2004-11-10
Revision#:9, Revised 2020-12-23

PFACMXI0921 (4 of 5)
rev0

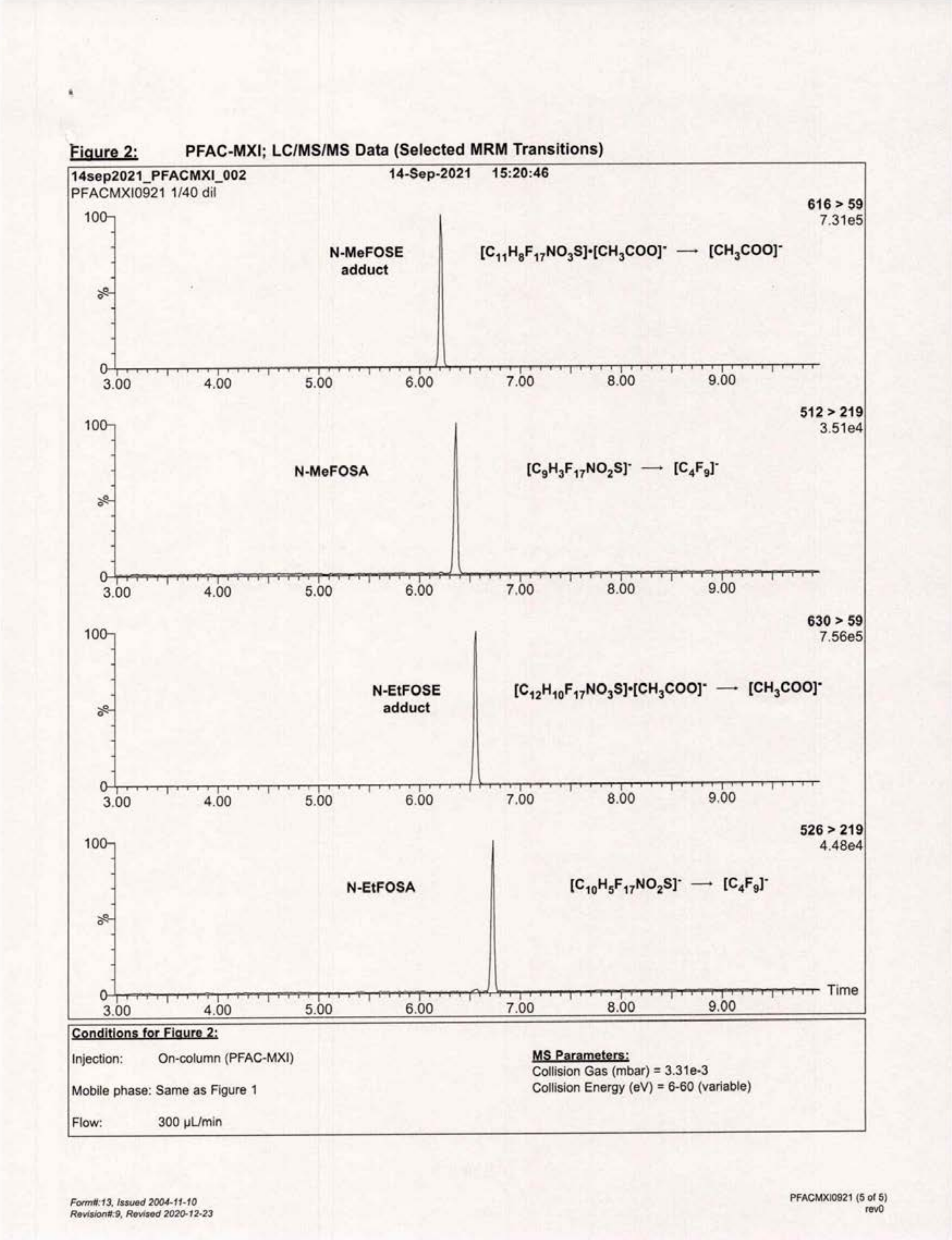

Figure 2: PFAC-MXI; LC/MS/MS Data (Selected MRM Transitions)

14sep2021_PFACMXI_002 14-Sep-2021 15:20:46
PFACMXI0921 1/40 dil

Conditions for Figure 2:

Injection: On-column (PFAC-MXI)

Mobile phase: Same as Figure 1

Flow: 300 µL/min

MS Parameters:
Collision Gas (mbar) = 3.31e-3
Collision Energy (eV) = 6-60 (variable)

Form#:13, Issued 2004-11-10
Revision#:9, Revised 2020-12-23

PFACMXI0921 (5 of 5)
rev0

YORK
ANALYTICAL LABORATORIES, INC.

Analytical Standard Record

Standard ID: **Y22B204**

Description:	PFAC-MXI-EPA 1633 Stock	Prepared:	02/17/2022
Standard Type:	Other	**Expires:**	**02/17/2023**
Solvent:	Methanol	Prepared By:	Robert Q. Bradley
Final Volume (mls):	1	Department:	PFAS
Vials:	1	Lot No.:	PFACMXI0921
Vendor:	Wellington Laboratories		
Comments:			

Analyte	CAS Number	Concentration	Units
N-EtFOSA	4151-50-2	1	ug/mL
N-EtFOSE	1691-99-2	10	ug/mL
N-MeFOSA	31506-32-8	1	ug/mL
N-MeFOSE	24448-09-7	10	ug/mL

Reviewed By Date

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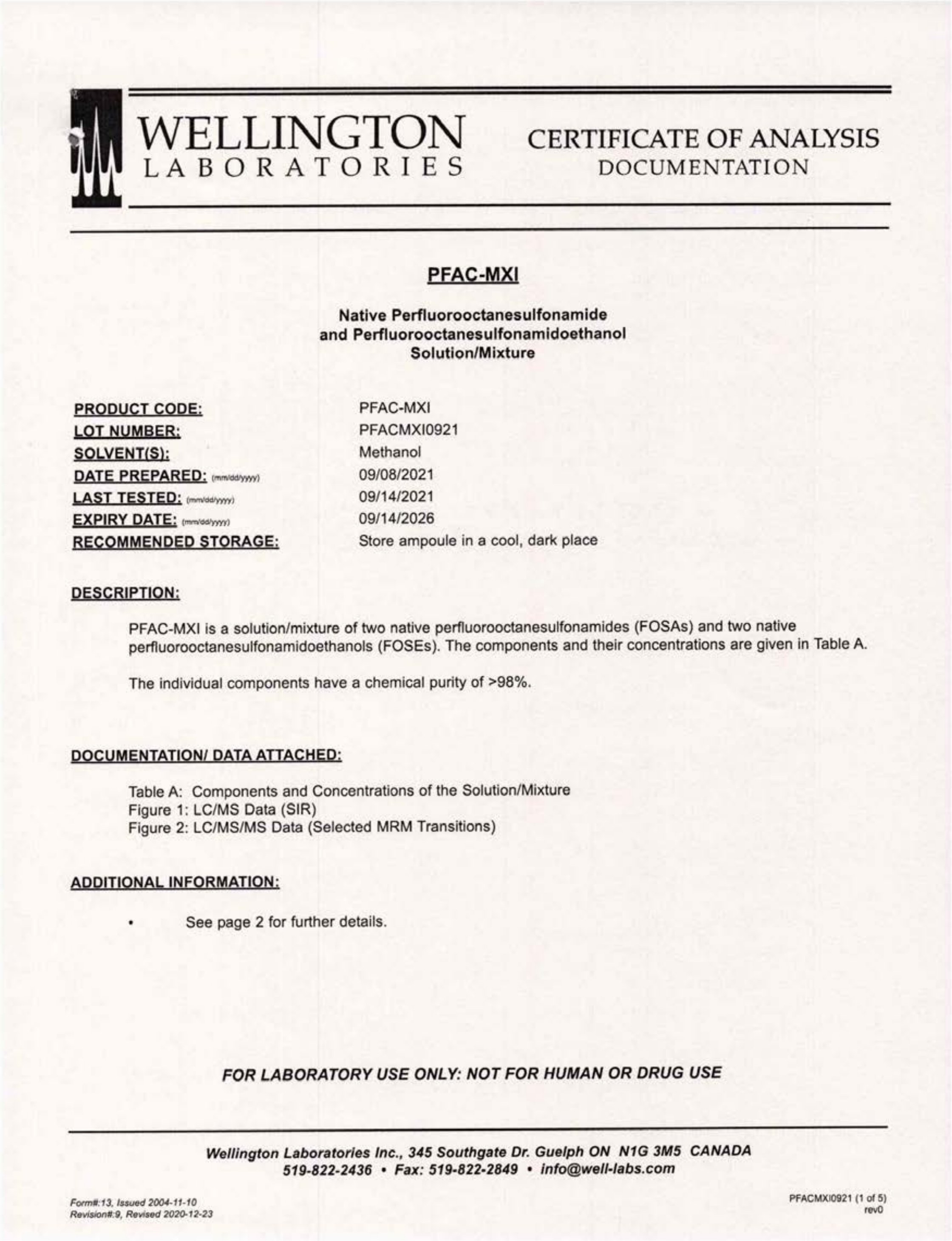

WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

PFAC-MXI

Native Perfluorooctanesulfonamide and Perfluorooctanesulfonamidoethanol Solution/Mixture

PRODUCT CODE:	PFAC-MXI
LOT NUMBER:	PFACMXI0921
SOLVENT(S):	Methanol
DATE PREPARED: (mm/dd/yyyy)	09/08/2021
LAST TESTED: (mm/dd/yyyy)	09/14/2021
EXPIRY DATE: (mm/dd/yyyy)	09/14/2026
RECOMMENDED STORAGE:	Store ampoule in a cool, dark place

DESCRIPTION:

PFAC-MXI is a solution/mixture of two native perfluorooctanesulfonamides (FOSAs) and two native perfluorooctanesulfonamidoethanols (FOSEs). The components and their concentrations are given in Table A.

The individual components have a chemical purity of >98%.

DOCUMENTATION/ DATA ATTACHED:

Table A: Components and Concentrations of the Solution/Mixture
Figure 1: LC/MS Data (SIR)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.

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Form#:13, Issued 2004-11-10
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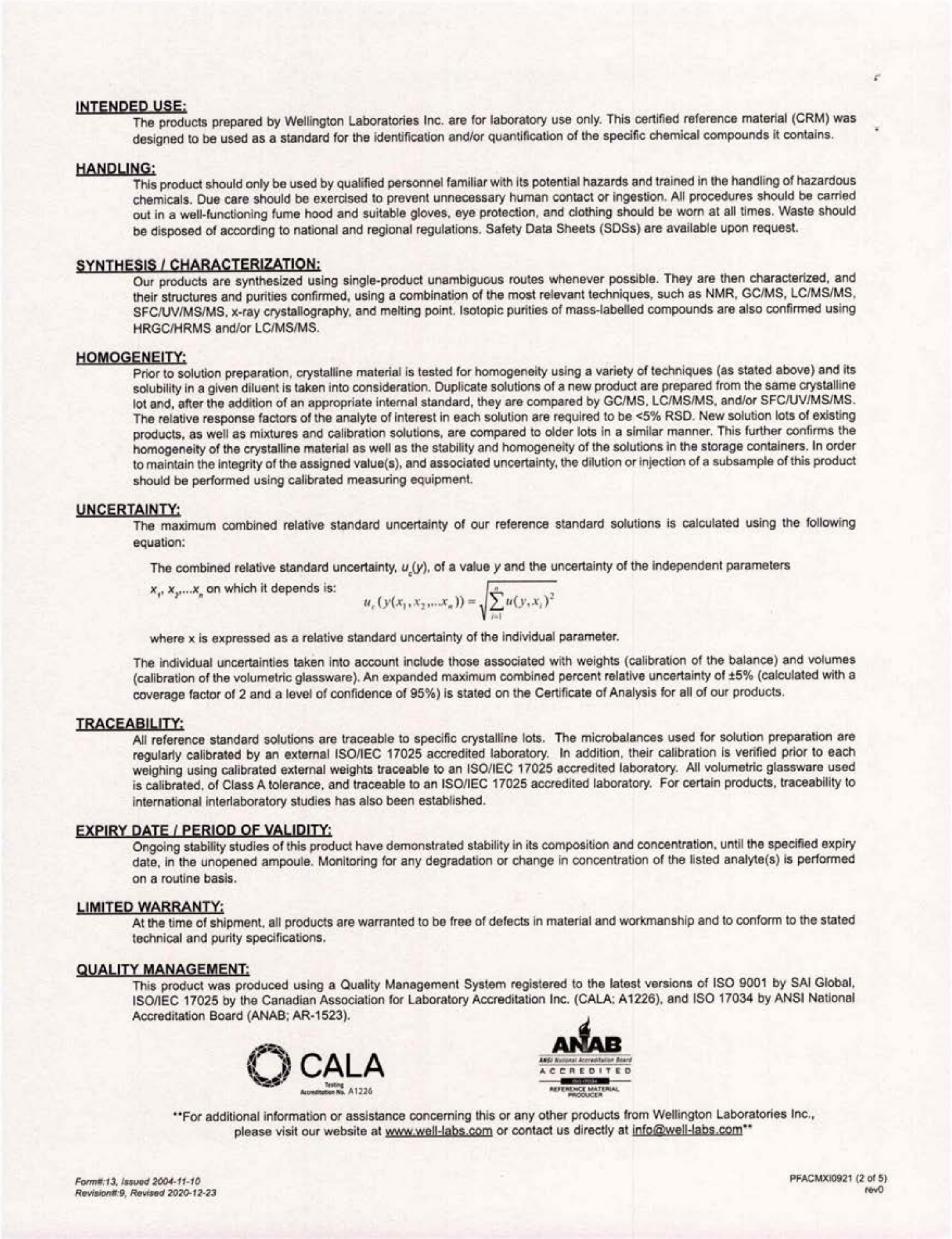
PFACMXI0921 (1 of 5)
rev0



INTENDED USE:

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HANDLING:

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SYNTHESIS / CHARACTERIZATION:

Our products are synthesized using single-product unambiguous routes whenever possible. They are then characterized, and their structures and purities confirmed, using a combination of the most relevant techniques, such as NMR, GC/MS, LC/MS/MS, SFC/UV/MS/MS, x-ray crystallography, and melting point. Isotopic purities of mass-labelled compounds are also confirmed using HRGC/HRMS and/or LC/MS/MS.

HOMOGENEITY:

Prior to solution preparation, crystalline material is tested for homogeneity using a variety of techniques (as stated above) and its solubility in a given diluent is taken into consideration. Duplicate solutions of a new product are prepared from the same crystalline lot and, after the addition of an appropriate internal standard, they are compared by GC/MS, LC/MS/MS, and/or SFC/UV/MS/MS. The relative response factors of the analyte of interest in each solution are required to be <5% RSD. New solution lots of existing products, as well as mixtures and calibration solutions, are compared to older lots in a similar manner. This further confirms the homogeneity of the crystalline material as well as the stability and homogeneity of the solutions in the storage containers. In order to maintain the integrity of the assigned value(s), and associated uncertainty, the dilution or injection of a subsample of this product should be performed using calibrated measuring equipment.

UNCERTAINTY:

The maximum combined relative standard uncertainty of our reference standard solutions is calculated using the following equation:

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$$u_c(y(x_1, x_2, ...x_n)) = \sqrt{\sum_{i=1}^{n} u(y, x_i)^2}$$

where x is expressed as a relative standard uncertainty of the individual parameter.

The individual uncertainties taken into account include those associated with weights (calibration of the balance) and volumes (calibration of the volumetric glassware). An expanded maximum combined percent relative uncertainty of ±5% (calculated with a coverage factor of 2 and a level of confidence of 95%) is stated on the Certificate of Analysis for all of our products.

TRACEABILITY:

All reference standard solutions are traceable to specific crystalline lots. The microbalances used for solution preparation are regularly calibrated by an external ISO/IEC 17025 accredited laboratory. In addition, their calibration is verified prior to each weighing using calibrated external weights traceable to an ISO/IEC 17025 accredited laboratory. All volumetric glassware used is calibrated, of Class A tolerance, and traceable to an ISO/IEC 17025 accredited laboratory. For certain products, traceability to international interlaboratory studies has also been established.

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CALA
Testing
Accreditation No. A1226

ANAB
ANSI National Accreditation Board
ACCREDITED
ISO 17034
REFERENCE MATERIAL PRODUCER

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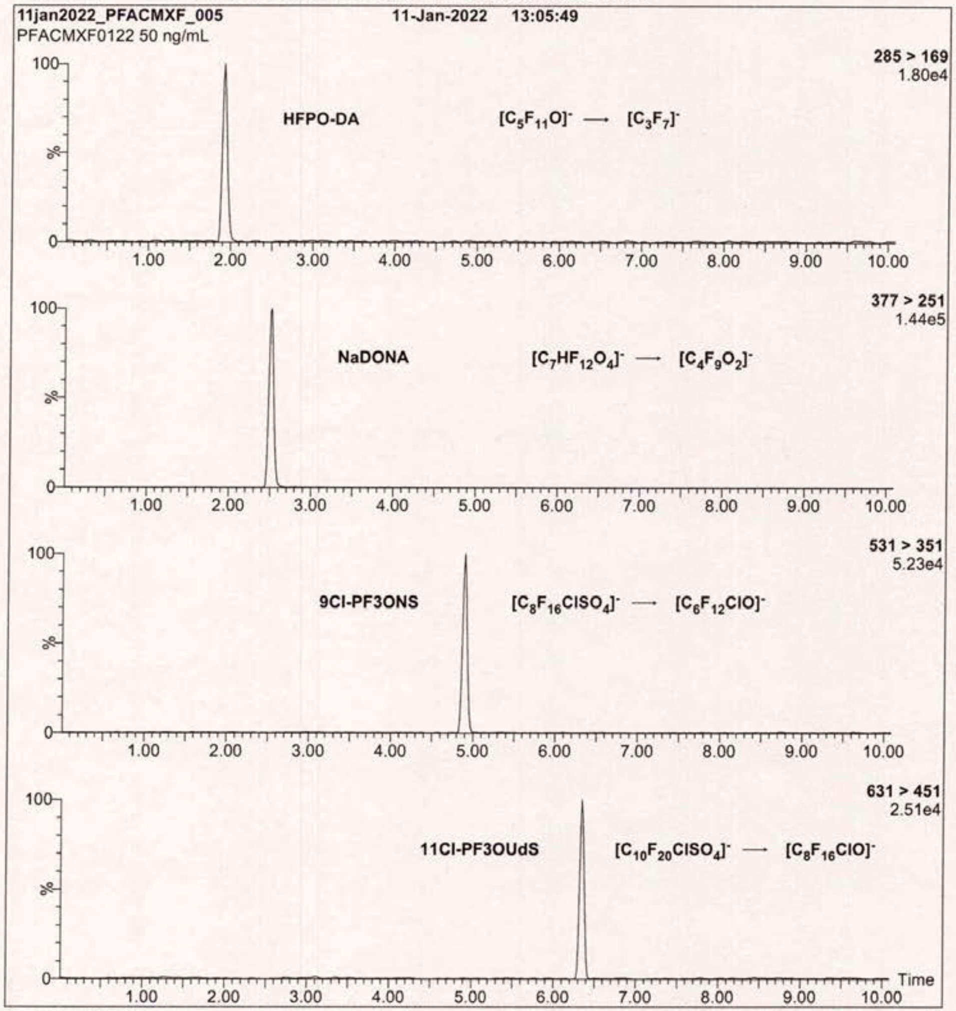
Figure 2: **PFAC-MXF; LC/MS/MS Data (Selected MRM Transitions)**



Conditions for Figure 2:

Injection: On-column (PFAC-MXF)

Mobile phase: Same as Figure 1

Flow: 300 µL/min

MS Parameters:
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Collision Energy (eV) = 6-60 (variable)

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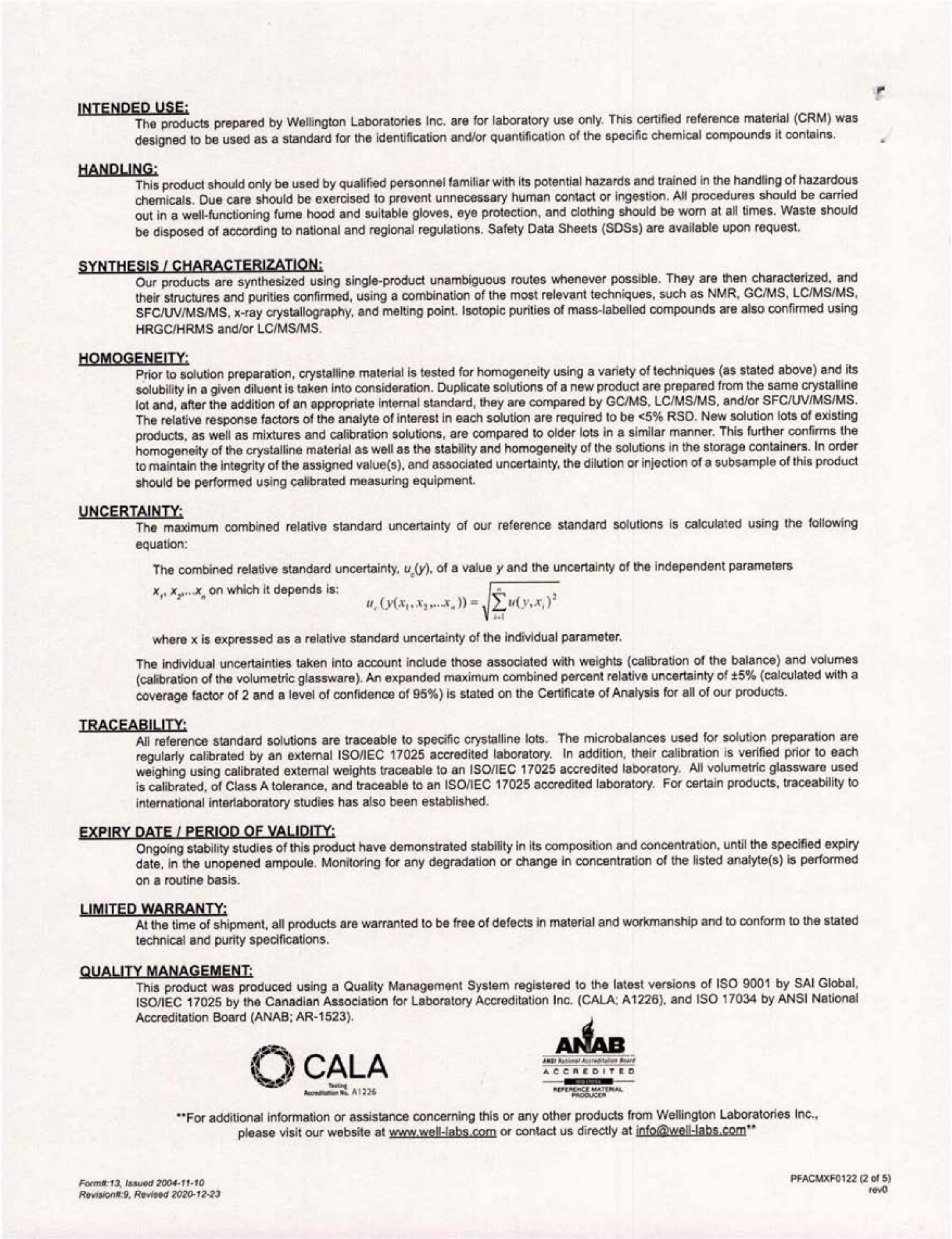
rev0



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where x is expressed as a relative standard uncertainty of the individual parameter.

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CALA Testing Accreditation No. A1226

ANAB ANSI National Accreditation Board ACCREDITED ISO 17034 REFERENCE MATERIAL PRODUCER

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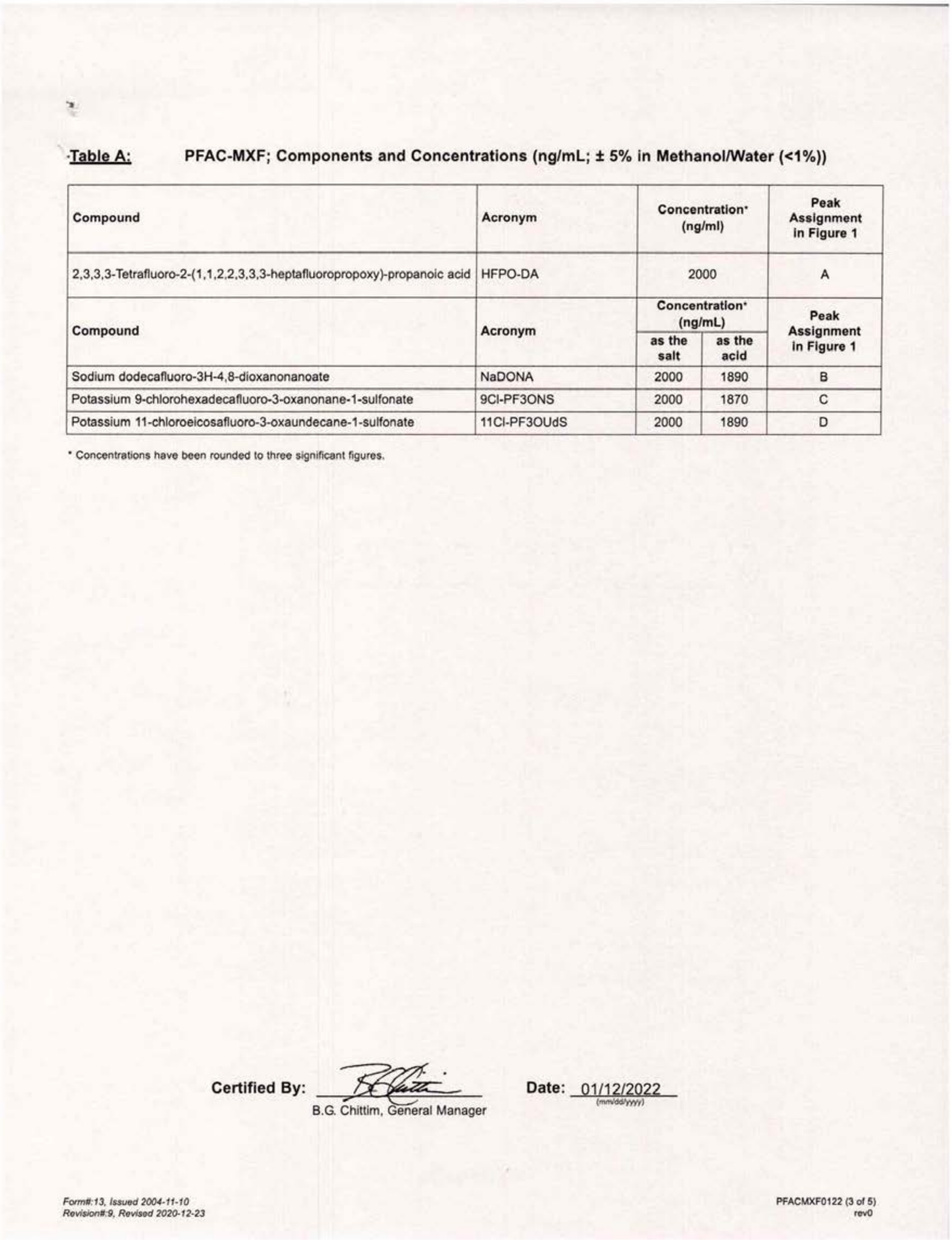

Table A: **PFAC-MXF; Components and Concentrations (ng/mL; ± 5% in Methanol/Water (<1%))**

Compound	Acronym	Concentration* (ng/ml)	Peak Assignment in Figure 1
2,3,3,3-Tetrafluoro-2-(1,1,2,2,3,3,3-heptafluoropropoxy)-propanoic acid	HFPO-DA	2000	A

Compound	Acronym	Concentration* (ng/mL)		Peak Assignment in Figure 1
		as the salt	as the acid	
Sodium dodecafluoro-3H-4,8-dioxanonanoate	NaDONA	2000	1890	B
Potassium 9-chlorohexadecafluoro-3-oxanonane-1-sulfonate	9Cl-PF3ONS	2000	1870	C
Potassium 11-chloroeicosafluoro-3-oxaundecane-1-sulfonate	11Cl-PF3OUdS	2000	1890	D

* Concentrations have been rounded to three significant figures.

Certified By: ______________ **Date:** 01/12/2022
B.G. Chittim, General Manager (mm/dd/yyyy)

Form#:13, Issued 2004-11-10
Revision#:9, Revised 2020-12-23

PFACMXF0122 (3 of 5)
rev0

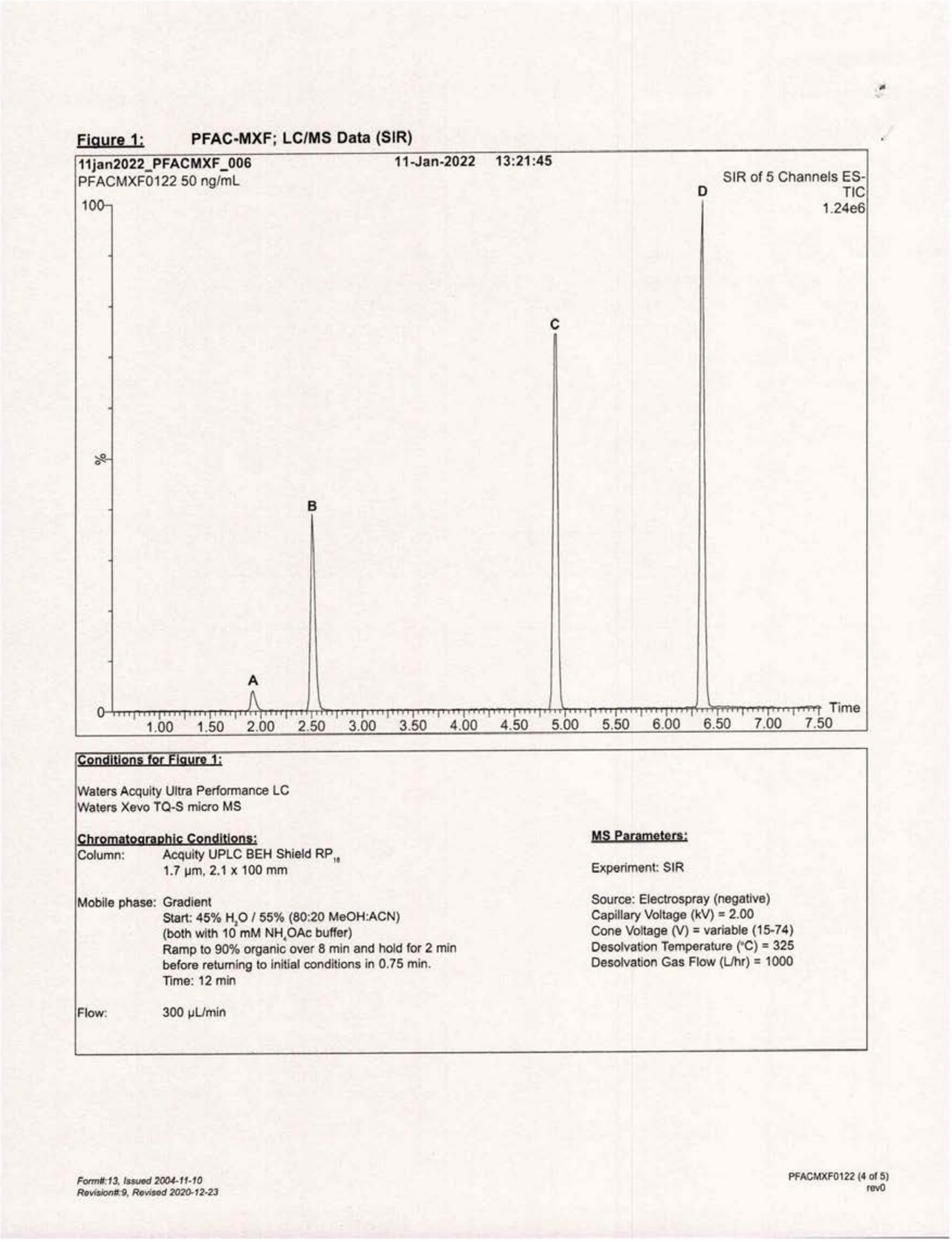

Figure 1: **PFAC-MXF; LC/MS Data (SIR)**

Conditions for Figure 1:

Waters Acquity Ultra Performance LC
Waters Xevo TQ-S micro MS

Chromatographic Conditions:

Column:	Acquity UPLC BEH Shield RP_{18} 1.7 µm, 2.1 x 100 mm
Mobile phase:	Gradient Start: 45% H_2O / 55% (80:20 MeOH:ACN) (both with 10 mM NH_4OAc buffer) Ramp to 90% organic over 8 min and hold for 2 min before returning to initial conditions in 0.75 min. Time: 12 min
Flow:	300 µL/min

MS Parameters:

Experiment: SIR

Source: Electrospray (negative)
Capillary Voltage (kV) = 2.00
Cone Voltage (V) = variable (15-74)
Desolvation Temperature (°C) = 325
Desolvation Gas Flow (L/hr) = 1000

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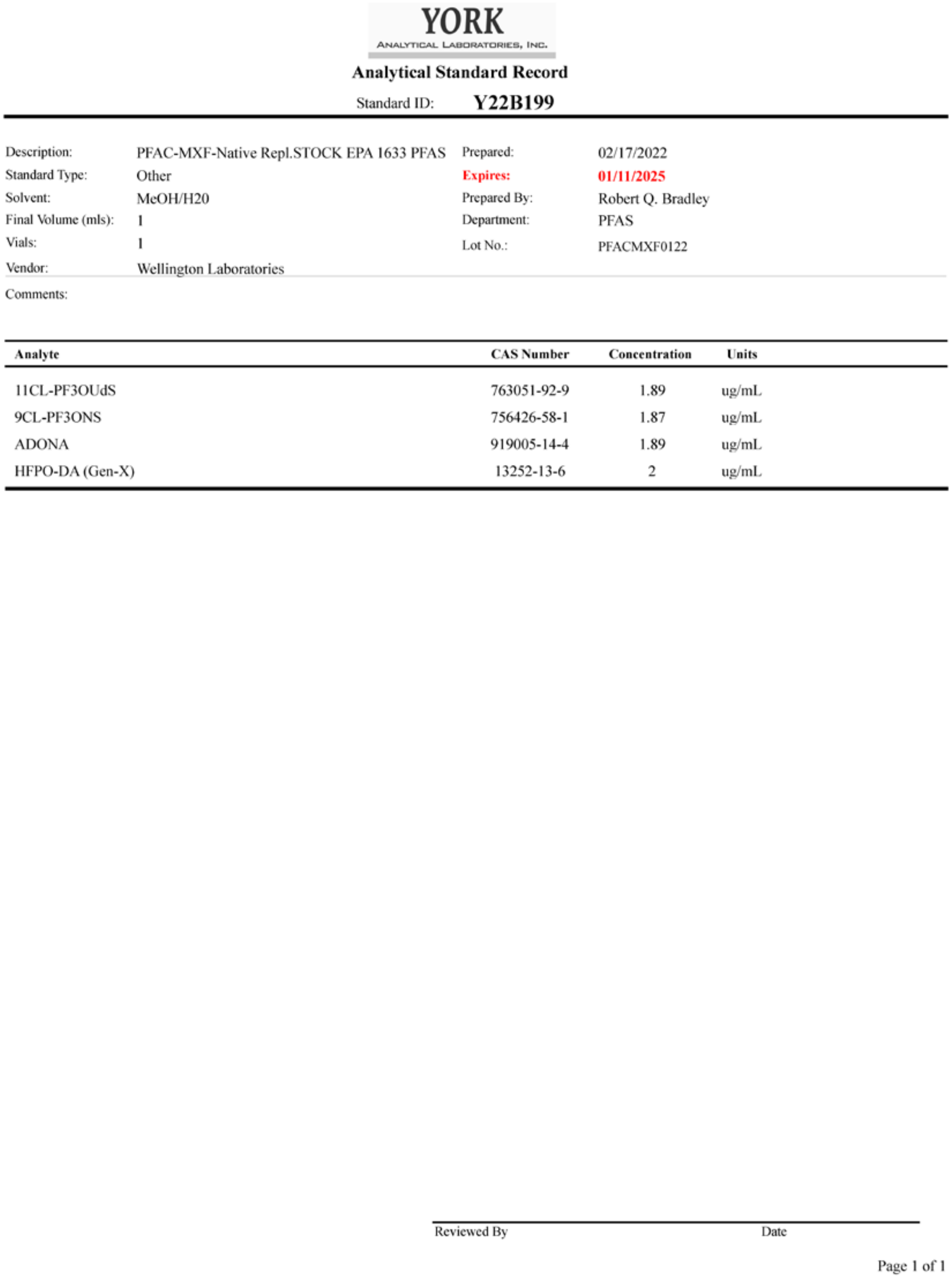
PFACMXF0122 (4 of 5)
rev0



YORK
ANALYTICAL LABORATORIES, INC.

Analytical Standard Record

Standard ID: **Y22B199**

Description:	PFAC-MXF-Native Repl.STOCK EPA 1633 PFAS	Prepared:	02/17/2022
Standard Type:	Other	**Expires:**	**01/11/2025**
Solvent:	MeOH/H20	Prepared By:	Robert Q. Bradley
Final Volume (mls):	1	Department:	PFAS
Vials:	1	Lot No.:	PFACMXF0122
Vendor:	Wellington Laboratories		

Comments:

Analyte	CAS Number	Concentration	Units
11CL-PF3OUdS	763051-92-9	1.89	ug/mL
9CL-PF3ONS	756426-58-1	1.87	ug/mL
ADONA	919005-14-4	1.89	ug/mL
HFPO-DA (Gen-X)	13252-13-6	2	ug/mL

Reviewed By Date

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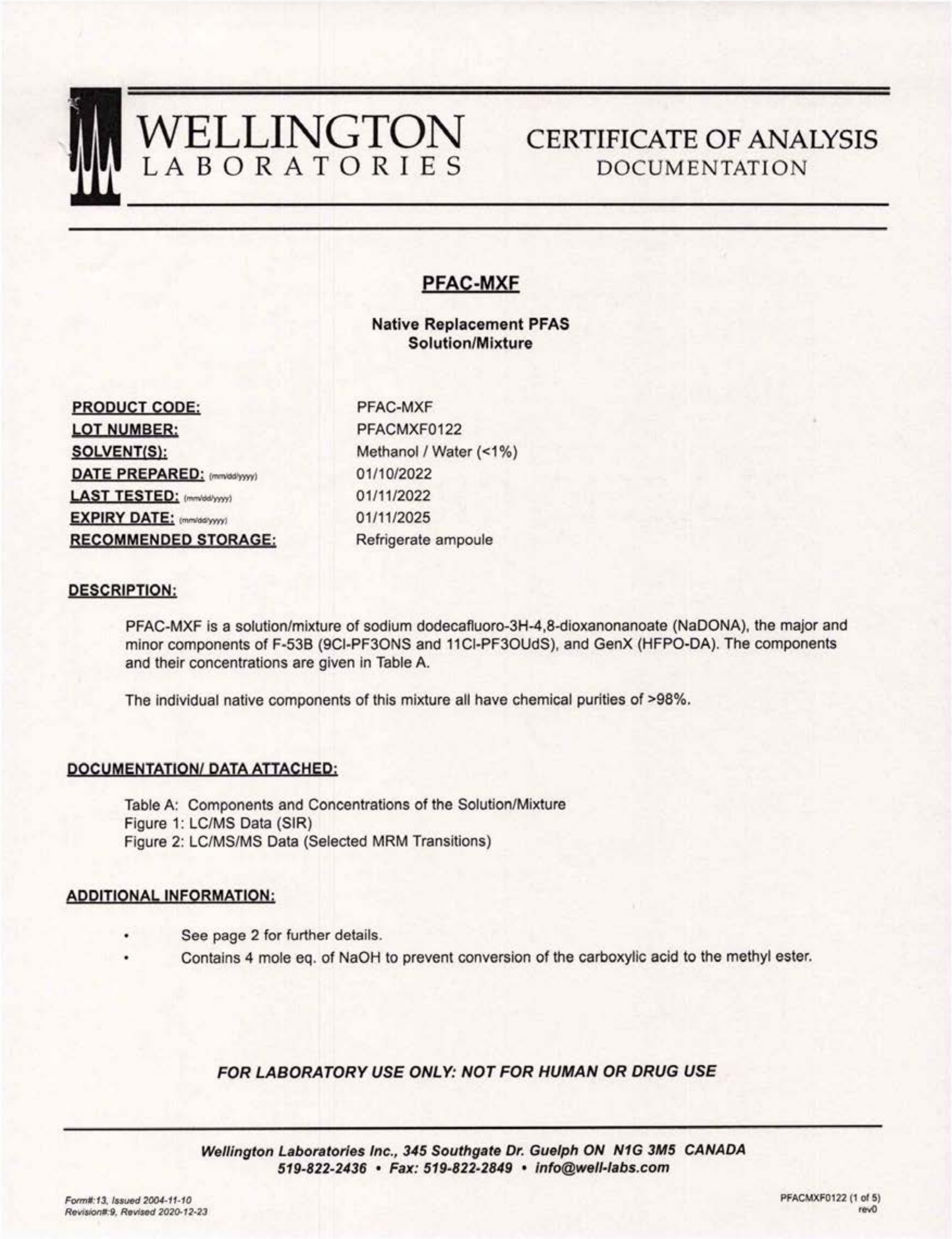

WELLINGTON LABORATORIES **CERTIFICATE OF ANALYSIS DOCUMENTATION**

PFAC-MXF

Native Replacement PFAS
Solution/Mixture

PRODUCT CODE:	PFAC-MXF
LOT NUMBER:	PFACMXF0122
SOLVENT(S):	Methanol / Water (<1%)
DATE PREPARED: (mm/dd/yyyy)	01/10/2022
LAST TESTED: (mm/dd/yyyy)	01/11/2022
EXPIRY DATE: (mm/dd/yyyy)	01/11/2025
RECOMMENDED STORAGE:	Refrigerate ampoule

DESCRIPTION:

PFAC-MXF is a solution/mixture of sodium dodecafluoro-3H-4,8-dioxanonanoate (NaDONA), the major and minor components of F-53B (9Cl-PF3ONS and 11Cl-PF3OUdS), and GenX (HFPO-DA). The components and their concentrations are given in Table A.

The individual native components of this mixture all have chemical purities of >98%.

DOCUMENTATION/ DATA ATTACHED:

Table A: Components and Concentrations of the Solution/Mixture
Figure 1: LC/MS Data (SIR)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent conversion of the carboxylic acid to the methyl ester.

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PFACMXF0122 (1 of 5)
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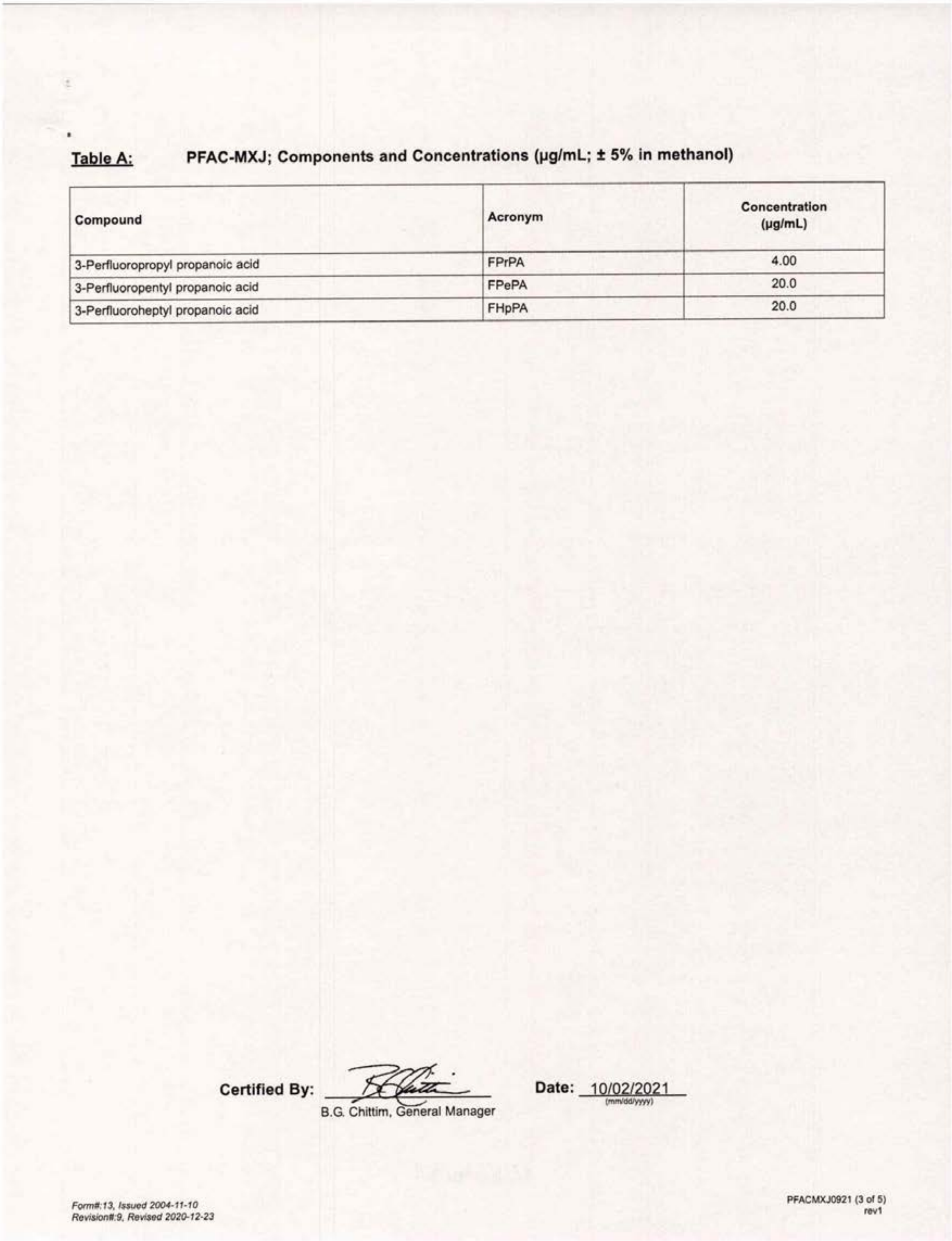

Table A: **PFAC-MXJ; Components and Concentrations (μg/mL; ± 5% in methanol)**

Compound	Acronym	Concentration (μg/mL)
3-Perfluoropropyl propanoic acid	FPrPA	4.00
3-Perfluoropentyl propanoic acid	FPePA	20.0
3-Perfluoroheptyl propanoic acid	FHpPA	20.0

Certified By: B.G. Chittim, General Manager

Date: 10/02/2021 (mm/dd/yyyy)

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PFACMXJ0921 (3 of 5)
rev1

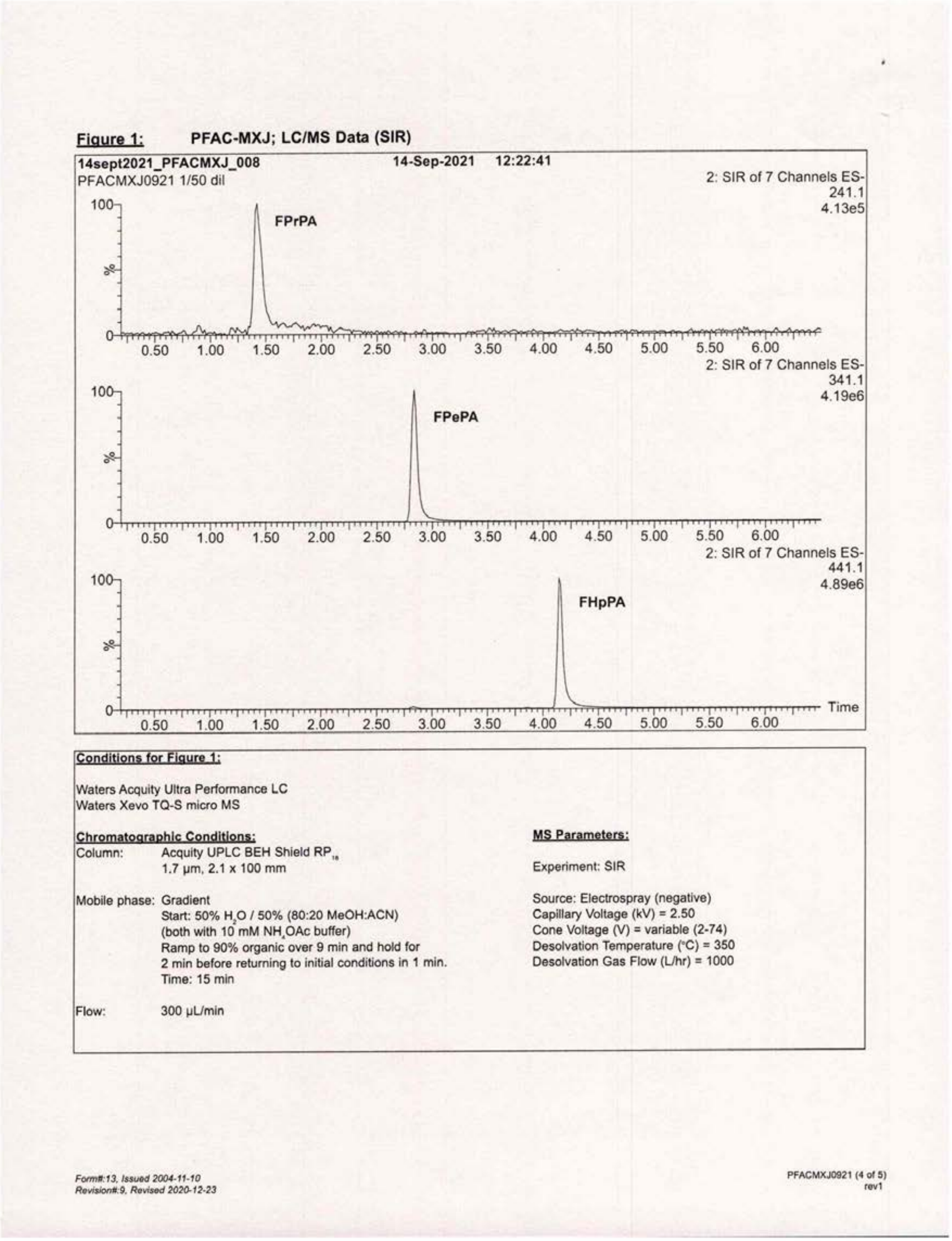

Figure 1: **PFAC-MXJ; LC/MS Data (SIR)**

Conditions for Figure 1:

Waters Acquity Ultra Performance LC
Waters Xevo TQ-S micro MS

Chromatographic Conditions:

Column:	Acquity UPLC BEH Shield RP$_{18}$ 1.7 µm, 2.1 x 100 mm
Mobile phase:	Gradient Start: 50% H_2O / 50% (80:20 MeOH:ACN) (both with 10 mM NH_4OAc buffer) Ramp to 90% organic over 9 min and hold for 2 min before returning to initial conditions in 1 min. Time: 15 min
Flow:	300 µL/min

MS Parameters:

Experiment: SIR

Source: Electrospray (negative)
Capillary Voltage (kV) = 2.50
Cone Voltage (V) = variable (2-74)
Desolvation Temperature (°C) = 350
Desolvation Gas Flow (L/hr) = 1000

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rev1

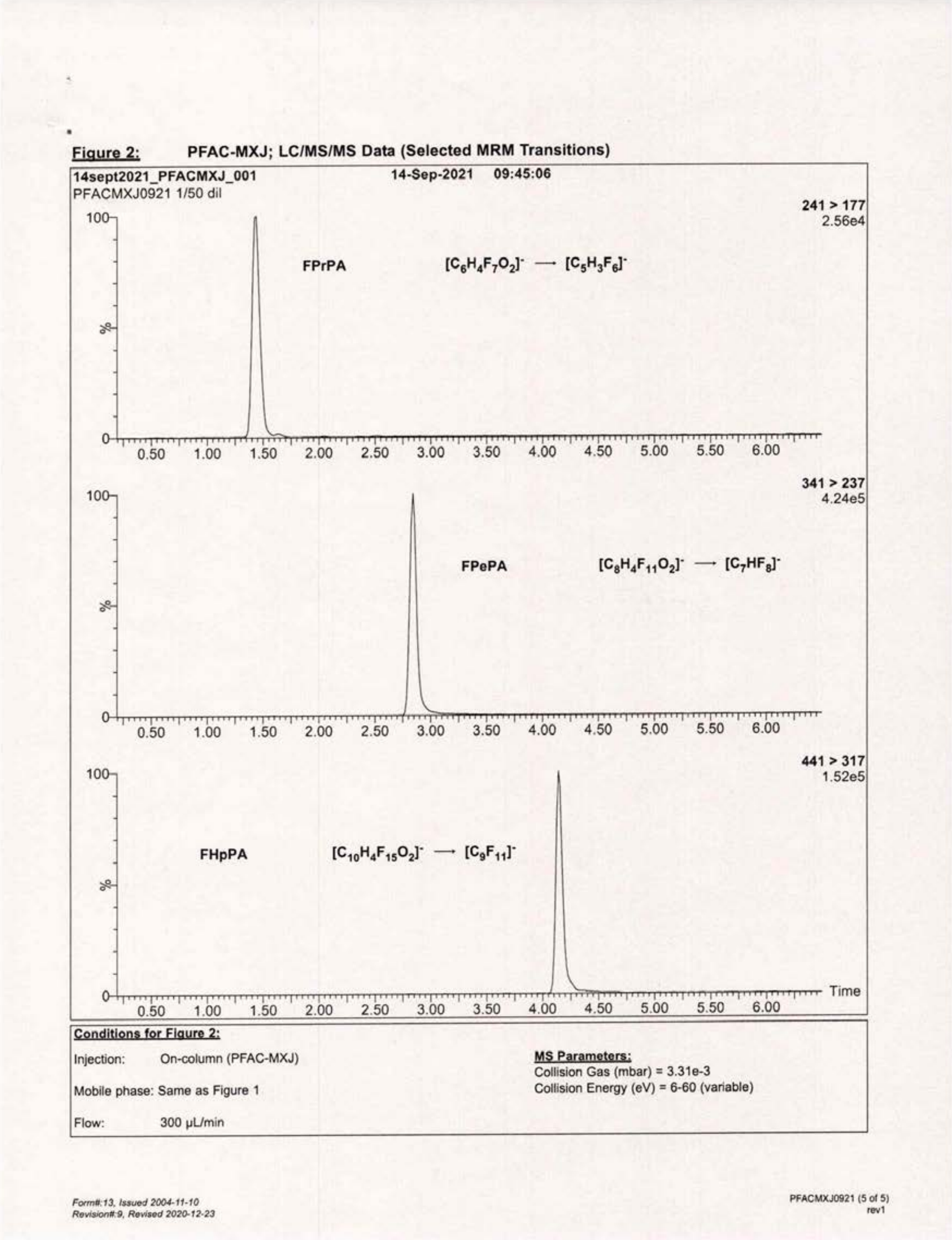

Figure 2: **PFAC-MXJ; LC/MS/MS Data (Selected MRM Transitions)**

14sept2021_PFACMXJ_001 **14-Sep-2021 09:45:06**
PFACMXJ0921 1/50 dil

Conditions for Figure 2:

Injection: On-column (PFAC-MXJ)

Mobile phase: Same as Figure 1

Flow: 300 µL/min

MS Parameters:
Collision Gas (mbar) = 3.31e-3
Collision Energy (eV) = 6-60 (variable)

Form#:13, Issued 2004-11-10
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rev1

YORK
ANALYTICAL LABORATORIES, INC.

Analytical Standard Record

Standard ID: **Y22B205**

Description:	PFAC-MXJ-EPA 1633 Stock mix	**Prepared:**	02/17/2022
Standard Type:	Other	**Expires:**	**09/14/2026**
Solvent:	Methanol	**Prepared By:**	Robert Q. Bradley
Final Volume (mls):	1	**Department:**	PFAS
Vials:	1	**Lot No.:**	PFACMXJ0921
Vendor:	Wellington Laboratories		

Comments:

Analyte	CAS Number	Concentration	Units
3-Perfluoroheptyl propanoic acid (FHpPA	812-70-4	20	ug/mL
3-Perfluoropentyl propanoic acid (FPePA)	914637-49-3	20	ug/mL
3-Perfluoropropyl propanoic acid (FPrPA)	356-02-2	4	ug/mL

Reviewed By **Date**

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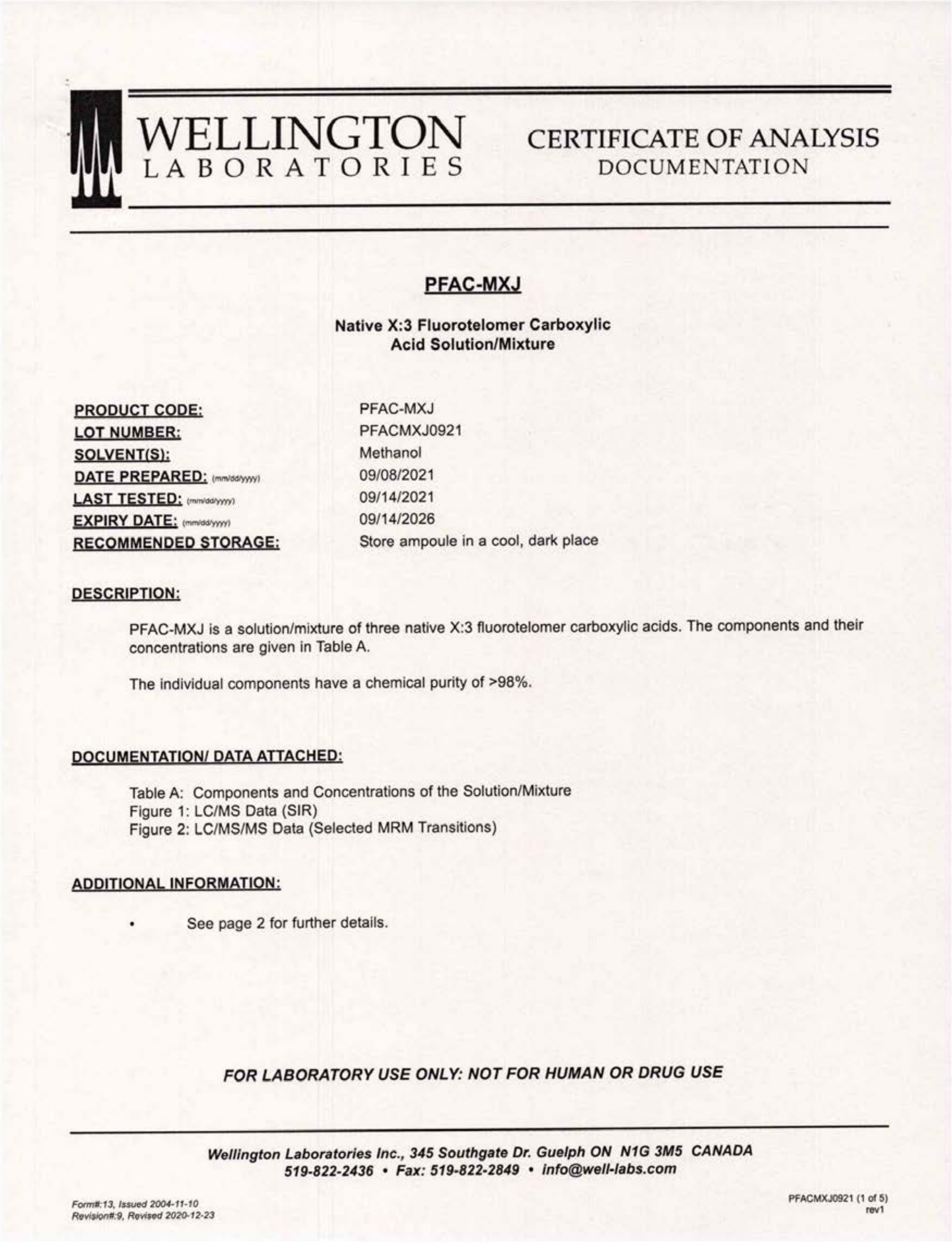

WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

PFAC-MXJ

Native X:3 Fluorotelomer Carboxylic Acid Solution/Mixture

PRODUCT CODE:	PFAC-MXJ
LOT NUMBER:	PFACMXJ0921
SOLVENT(S):	Methanol
DATE PREPARED: (mm/dd/yyyy)	09/08/2021
LAST TESTED: (mm/dd/yyyy)	09/14/2021
EXPIRY DATE: (mm/dd/yyyy)	09/14/2026
RECOMMENDED STORAGE:	Store ampoule in a cool, dark place

DESCRIPTION:

PFAC-MXJ is a solution/mixture of three native X:3 fluorotelomer carboxylic acids. The components and their concentrations are given in Table A.

The individual components have a chemical purity of >98%.

DOCUMENTATION/ DATA ATTACHED:

Table A: Components and Concentrations of the Solution/Mixture
Figure 1: LC/MS Data (SIR)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.

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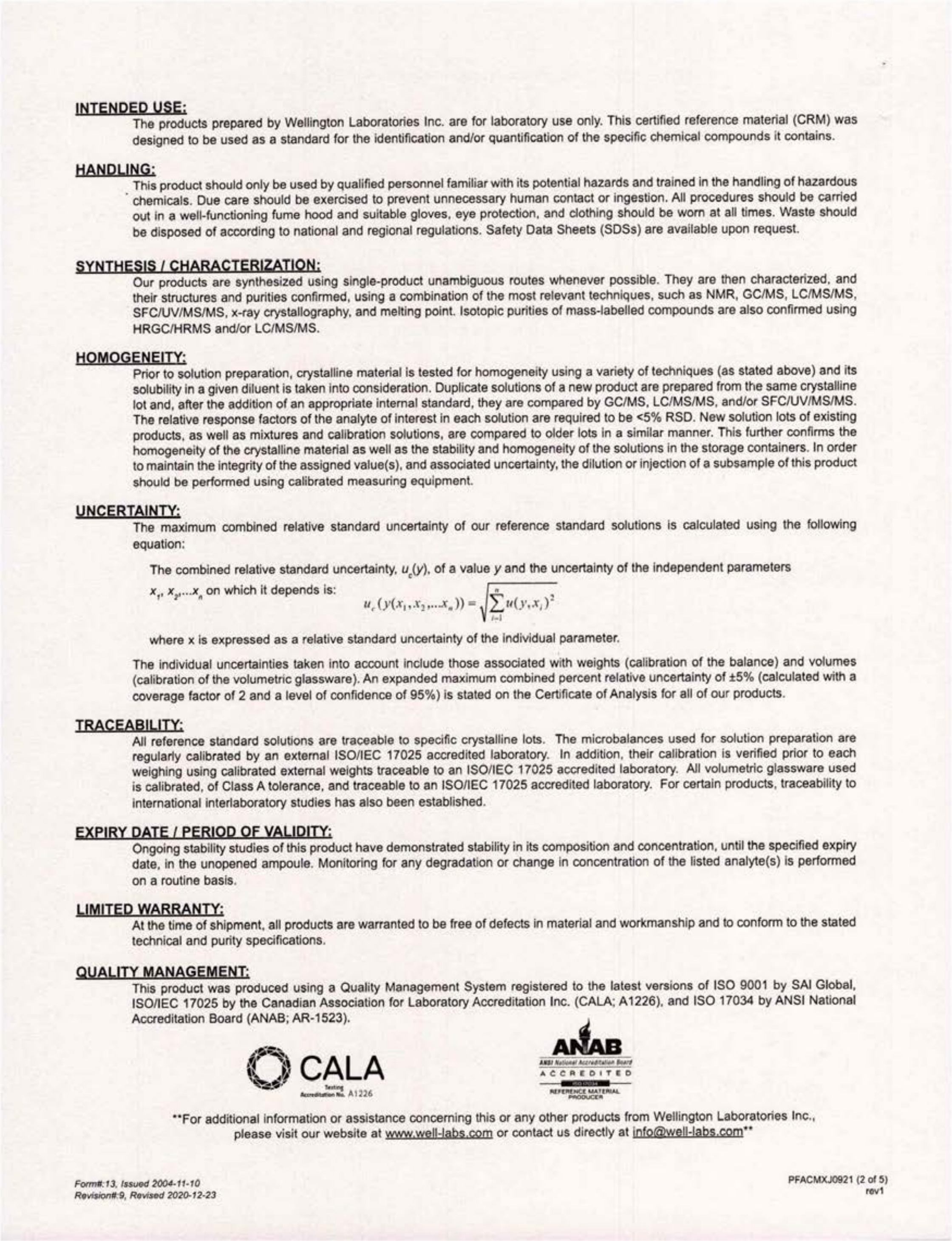
rev1



INTENDED USE:

The products prepared by Wellington Laboratories Inc. are for laboratory use only. This certified reference material (CRM) was designed to be used as a standard for the identification and/or quantification of the specific chemical compounds it contains.

HANDLING:

This product should only be used by qualified personnel familiar with its potential hazards and trained in the handling of hazardous chemicals. Due care should be exercised to prevent unnecessary human contact or ingestion. All procedures should be carried out in a well-functioning fume hood and suitable gloves, eye protection, and clothing should be worn at all times. Waste should be disposed of according to national and regional regulations. Safety Data Sheets (SDSs) are available upon request.

SYNTHESIS / CHARACTERIZATION:

Our products are synthesized using single-product unambiguous routes whenever possible. They are then characterized, and their structures and purities confirmed, using a combination of the most relevant techniques, such as NMR, GC/MS, LC/MS/MS, SFC/UV/MS/MS, x-ray crystallography, and melting point. Isotopic purities of mass-labelled compounds are also confirmed using HRGC/HRMS and/or LC/MS/MS.

HOMOGENEITY:

Prior to solution preparation, crystalline material is tested for homogeneity using a variety of techniques (as stated above) and its solubility in a given diluent is taken into consideration. Duplicate solutions of a new product are prepared from the same crystalline lot and, after the addition of an appropriate internal standard, they are compared by GC/MS, LC/MS/MS, and/or SFC/UV/MS/MS. The relative response factors of the analyte of interest in each solution are required to be <5% RSD. New solution lots of existing products, as well as mixtures and calibration solutions, are compared to older lots in a similar manner. This further confirms the homogeneity of the crystalline material as well as the stability and homogeneity of the solutions in the storage containers. In order to maintain the integrity of the assigned value(s), and associated uncertainty, the dilution or injection of a subsample of this product should be performed using calibrated measuring equipment.

UNCERTAINTY:

The maximum combined relative standard uncertainty of our reference standard solutions is calculated using the following equation:

The combined relative standard uncertainty, $u_c(y)$, of a value y and the uncertainty of the independent parameters $x_1, x_2, ... x_n$ on which it depends is:

$$u_c(y(x_1, x_2, ... x_n)) = \sqrt{\sum_{i=1}^{n} u(y, x_i)^2}$$

where x is expressed as a relative standard uncertainty of the individual parameter.

The individual uncertainties taken into account include those associated with weights (calibration of the balance) and volumes (calibration of the volumetric glassware). An expanded maximum combined percent relative uncertainty of ±5% (calculated with a coverage factor of 2 and a level of confidence of 95%) is stated on the Certificate of Analysis for all of our products.

TRACEABILITY:

All reference standard solutions are traceable to specific crystalline lots. The microbalances used for solution preparation are regularly calibrated by an external ISO/IEC 17025 accredited laboratory. In addition, their calibration is verified prior to each weighing using calibrated external weights traceable to an ISO/IEC 17025 accredited laboratory. All volumetric glassware used is calibrated, of Class A tolerance, and traceable to an ISO/IEC 17025 accredited laboratory. For certain products, traceability to international interlaboratory studies has also been established.

EXPIRY DATE / PERIOD OF VALIDITY:

Ongoing stability studies of this product have demonstrated stability in its composition and concentration, until the specified expiry date, in the unopened ampoule. Monitoring for any degradation or change in concentration of the listed analyte(s) is performed on a routine basis.

LIMITED WARRANTY:

At the time of shipment, all products are warranted to be free of defects in material and workmanship and to conform to the stated technical and purity specifications.

QUALITY MANAGEMENT:

This product was produced using a Quality Management System registered to the latest versions of ISO 9001 by SAI Global, ISO/IEC 17025 by the Canadian Association for Laboratory Accreditation Inc. (CALA; A1226), and ISO 17034 by ANSI National Accreditation Board (ANAB; AR-1523).

CALA Testing Accreditation No. A1226

ANAB ANSI National Accreditation Board ACCREDITED ISO 17034 REFERENCE MATERIAL PRODUCER

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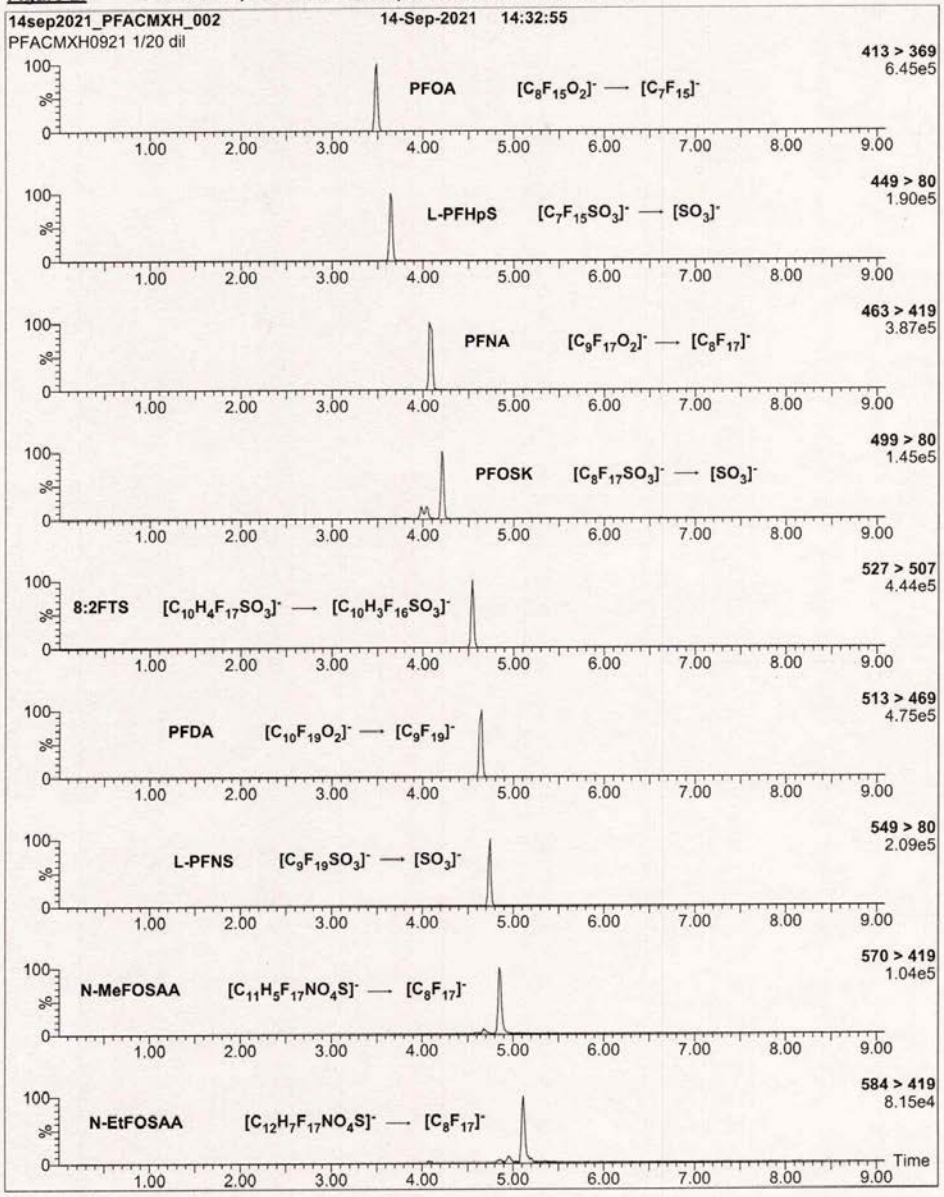
Figure 2: **PFAC-MXH; LC/MS/MS Data (Selected MRM Transitions)**



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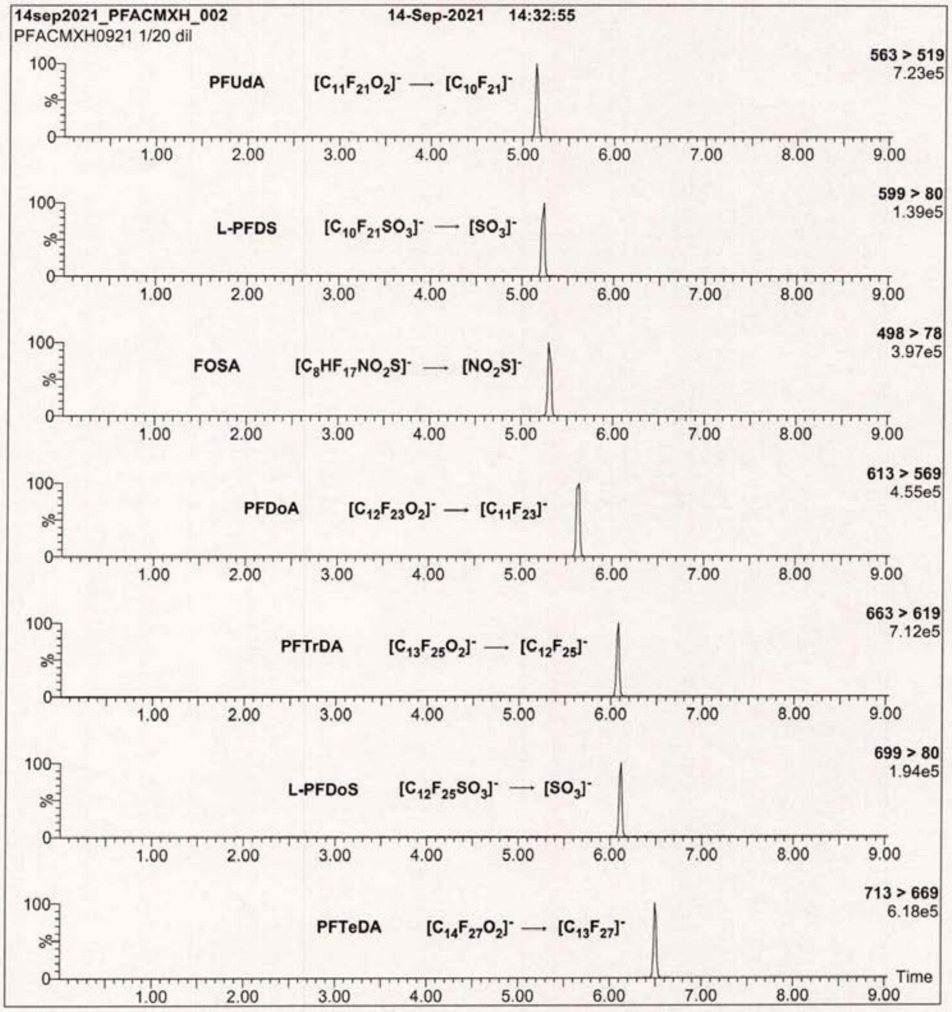
rev0

Figure 2: **PFAC-MXH; LC/MS/MS Data (Selected MRM Transitions)**



Conditions for Figure 2:

Injection: On-column (PFAC-MXH)

Mobile phase: Same as Figure 1

Flow: 300 µL/min

MS Parameters:
Collision Gas (mbar) = 3.31e-3
Collision Energy (eV) = 6-60 (variable)

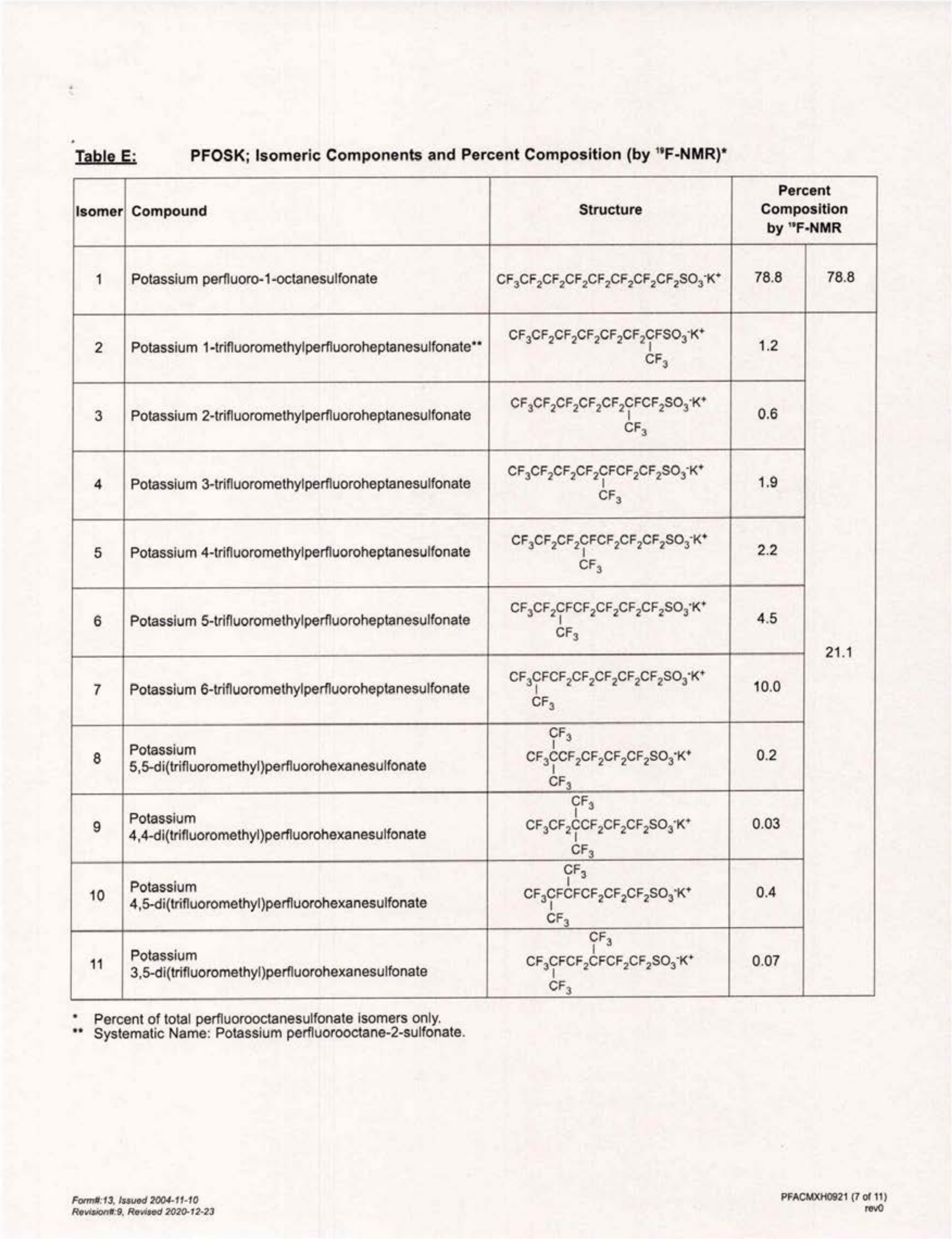


Table E: **PFOSK; Isomeric Components and Percent Composition (by ^{19}F-NMR)***

Isomer	Compound	Structure	Percent Composition by ^{19}F-NMR	
1	Potassium perfluoro-1-octanesulfonate	$CF_3CF_2CF_2CF_2CF_2CF_2CF_2CF_2SO_3^-K^+$	78.8	78.8
2	Potassium 1-trifluoromethylperfluoroheptanesulfonate**	$CF_3CF_2CF_2CF_2CF_2CF_2\underset{\underset{CF_3}{\mid}}{C}FSO_3^-K^+$	1.2	21.1
3	Potassium 2-trifluoromethylperfluoroheptanesulfonate	$CF_3CF_2CF_2CF_2CF_2\underset{\underset{CF_3}{\mid}}{C}FCF_2SO_3^-K^+$	0.6	
4	Potassium 3-trifluoromethylperfluoroheptanesulfonate	$CF_3CF_2CF_2CF_2\underset{\underset{CF_3}{\mid}}{C}FCF_2CF_2SO_3^-K^+$	1.9	
5	Potassium 4-trifluoromethylperfluoroheptanesulfonate	$CF_3CF_2CF_2\underset{\underset{CF_3}{\mid}}{C}FCF_2CF_2CF_2SO_3^-K^+$	2.2	
6	Potassium 5-trifluoromethylperfluoroheptanesulfonate	$CF_3CF_2\underset{\underset{CF_3}{\mid}}{C}FCF_2CF_2CF_2CF_2SO_3^-K^+$	4.5	
7	Potassium 6-trifluoromethylperfluoroheptanesulfonate	$CF_3\underset{\underset{CF_3}{\mid}}{C}FCF_2CF_2CF_2CF_2CF_2SO_3^-K^+$	10.0	
8	Potassium 5,5-di(trifluoromethyl)perfluorohexanesulfonate	$CF_3\overset{\overset{CF_3}{\mid}}{\underset{\underset{CF_3}{\mid}}{C}}CF_2CF_2CF_2CF_2SO_3^-K^+$	0.2	
9	Potassium 4,4-di(trifluoromethyl)perfluorohexanesulfonate	$CF_3CF_2\overset{\overset{CF_3}{\mid}}{\underset{\underset{CF_3}{\mid}}{C}}CF_2CF_2CF_2SO_3^-K^+$	0.03	
10	Potassium 4,5-di(trifluoromethyl)perfluorohexanesulfonate	$CF_3\underset{\underset{CF_3}{\mid}}{C}F\overset{\overset{CF_3}{\mid}}{C}FCF_2CF_2CF_2SO_3^-K^+$	0.4	
11	Potassium 3,5-di(trifluoromethyl)perfluorohexanesulfonate	$CF_3\underset{\underset{CF_3}{\mid}}{C}FCF_2\overset{\overset{CF_3}{\mid}}{C}FCF_2CF_2SO_3^-K^+$	0.07	

* Percent of total perfluorooctanesulfonate isomers only.
** Systematic Name: Potassium perfluorooctane-2-sulfonate.

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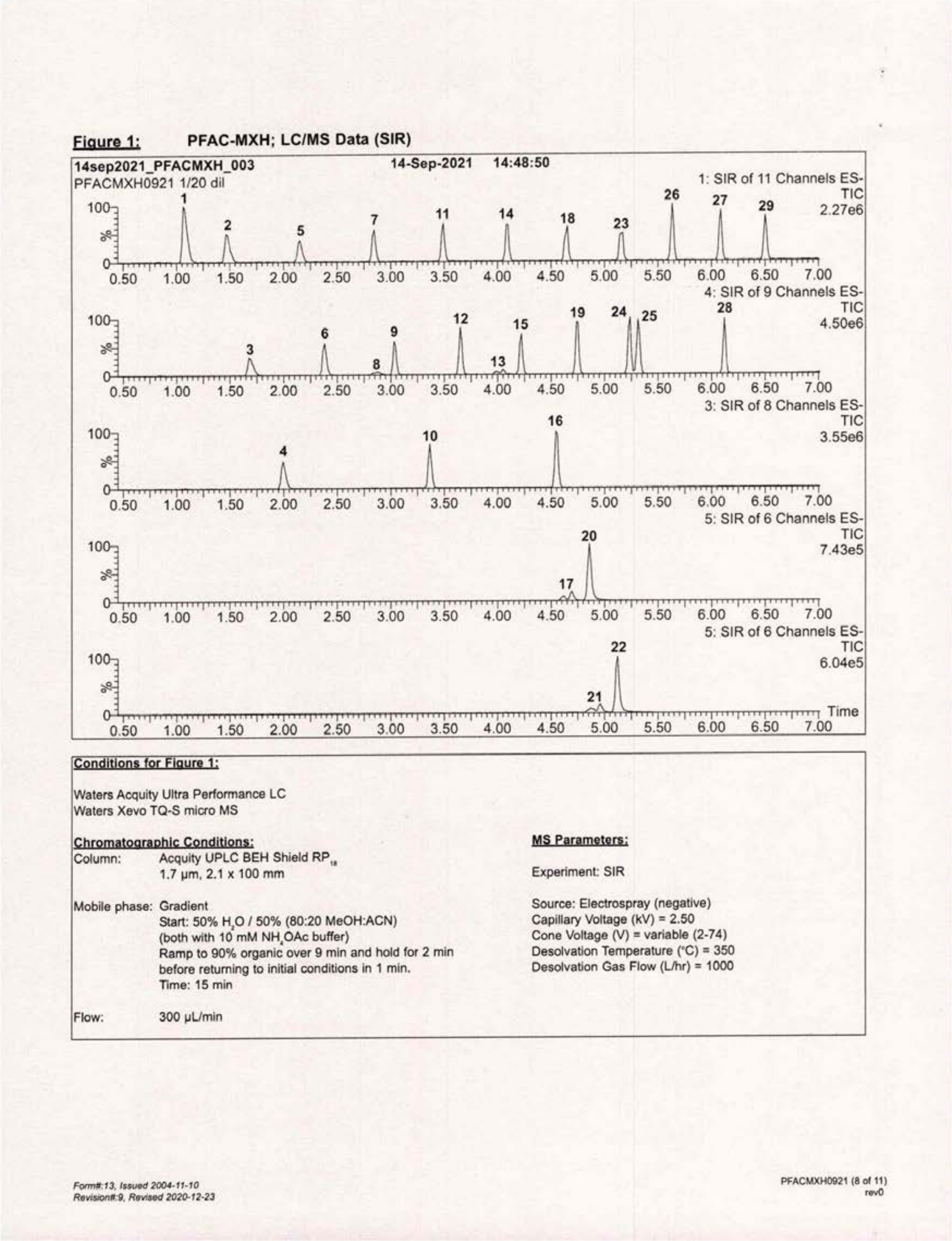

Figure 1: **PFAC-MXH; LC/MS Data (SIR)**

Conditions for Figure 1:

Waters Acquity Ultra Performance LC
Waters Xevo TQ-S micro MS

Chromatographic Conditions:

Column: Acquity UPLC BEH Shield RP_{18}
1.7 µm, 2.1 x 100 mm

Mobile phase: Gradient
Start: 50% H_2O / 50% (80:20 MeOH:ACN)
(both with 10 mM NH_4OAc buffer)
Ramp to 90% organic over 9 min and hold for 2 min
before returning to initial conditions in 1 min.
Time: 15 min

Flow: 300 µL/min

MS Parameters:

Experiment: SIR

Source: Electrospray (negative)
Capillary Voltage (kV) = 2.50
Cone Voltage (V) = variable (2-74)
Desolvation Temperature (°C) = 350
Desolvation Gas Flow (L/hr) = 1000

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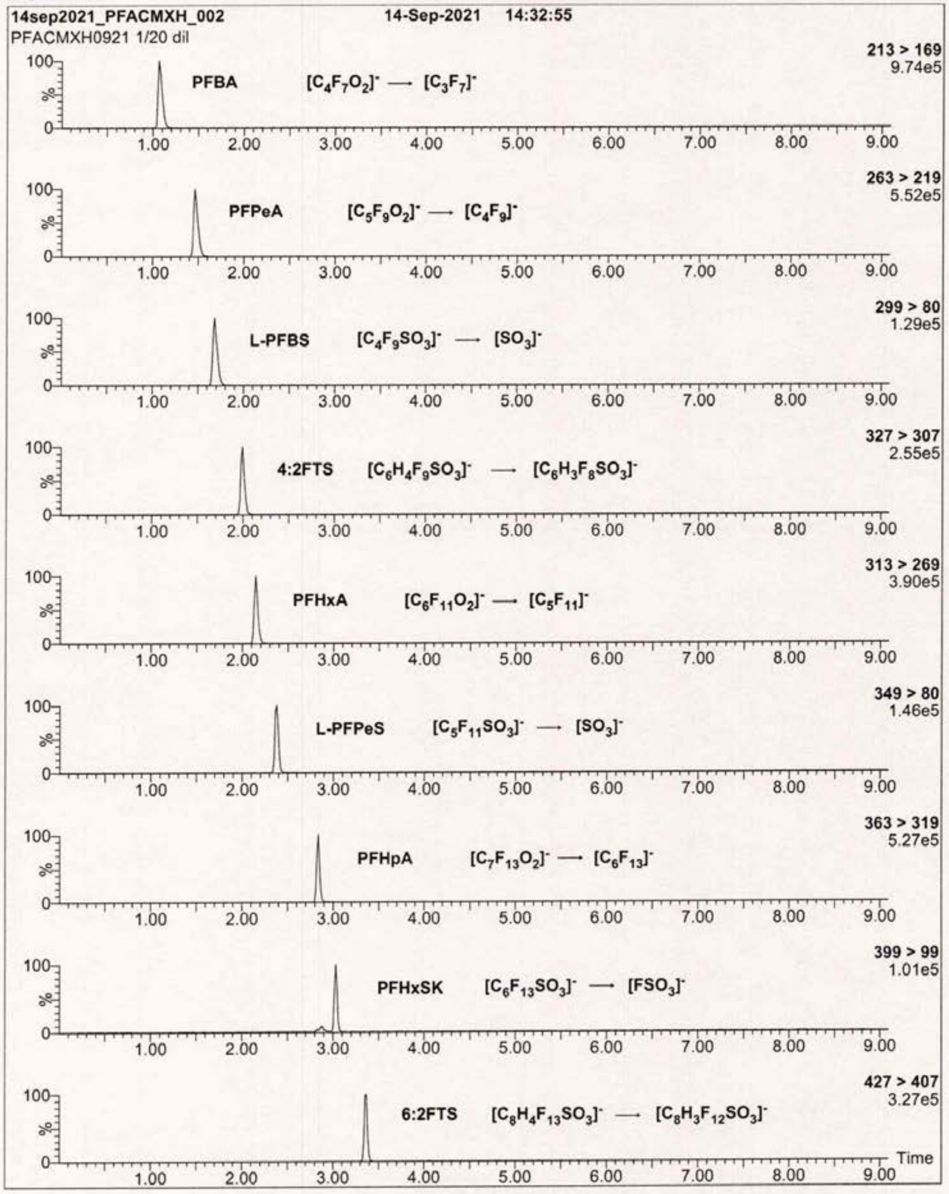
Figure 2: PFAC-MXH; LC/MS/MS Data (Selected MRM Transitions)



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rev0

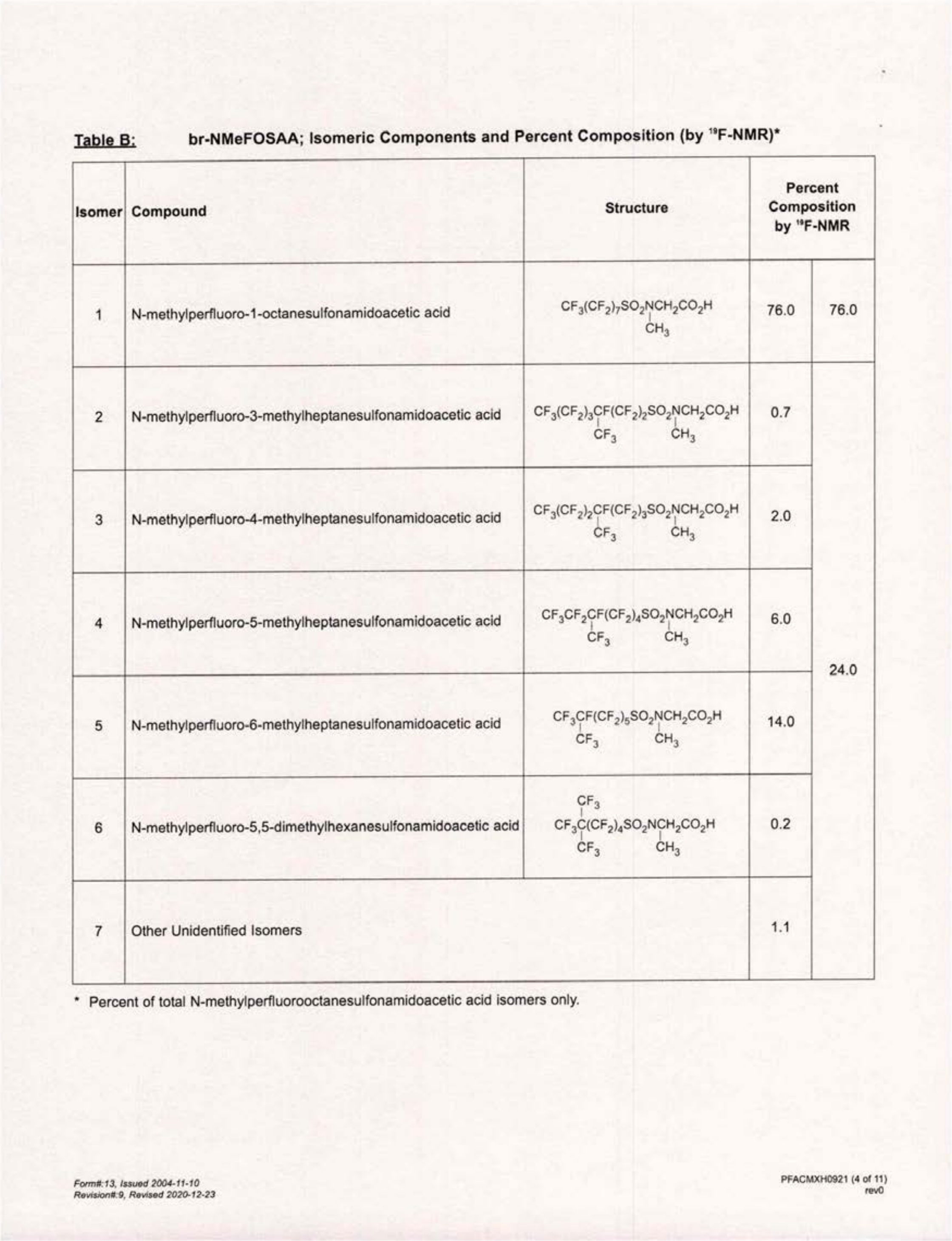

Table B: **br-NMeFOSAA; Isomeric Components and Percent Composition (by ^{19}F-NMR)***

Isomer	Compound	Structure	Percent Composition by ^{19}F-NMR	
1	N-methylperfluoro-1-octanesulfonamidoacetic acid	$CF_3(CF_2)_7SO_2\underset{CH_3}{N}CH_2CO_2H$	76.0	76.0
2	N-methylperfluoro-3-methylheptanesulfonamidoacetic acid	$CF_3(CF_2)_3\underset{CF_3}{C}F(CF_2)_2SO_2\underset{CH_3}{N}CH_2CO_2H$	0.7	24.0
3	N-methylperfluoro-4-methylheptanesulfonamidoacetic acid	$CF_3(CF_2)_2\underset{CF_3}{C}F(CF_2)_3SO_2\underset{CH_3}{N}CH_2CO_2H$	2.0	
4	N-methylperfluoro-5-methylheptanesulfonamidoacetic acid	$CF_3CF_2\underset{CF_3}{C}F(CF_2)_4SO_2\underset{CH_3}{N}CH_2CO_2H$	6.0	
5	N-methylperfluoro-6-methylheptanesulfonamidoacetic acid	$CF_3\underset{CF_3}{C}F(CF_2)_5SO_2\underset{CH_3}{N}CH_2CO_2H$	14.0	
6	N-methylperfluoro-5,5-dimethylhexanesulfonamidoacetic acid	$CF_3\overset{CF_3}{\underset{CF_3}{C}}(CF_2)_4SO_2\underset{CH_3}{N}CH_2CO_2H$	0.2	
7	Other Unidentified Isomers		1.1	

* Percent of total N-methylperfluorooctanesulfonamidoacetic acid isomers only.

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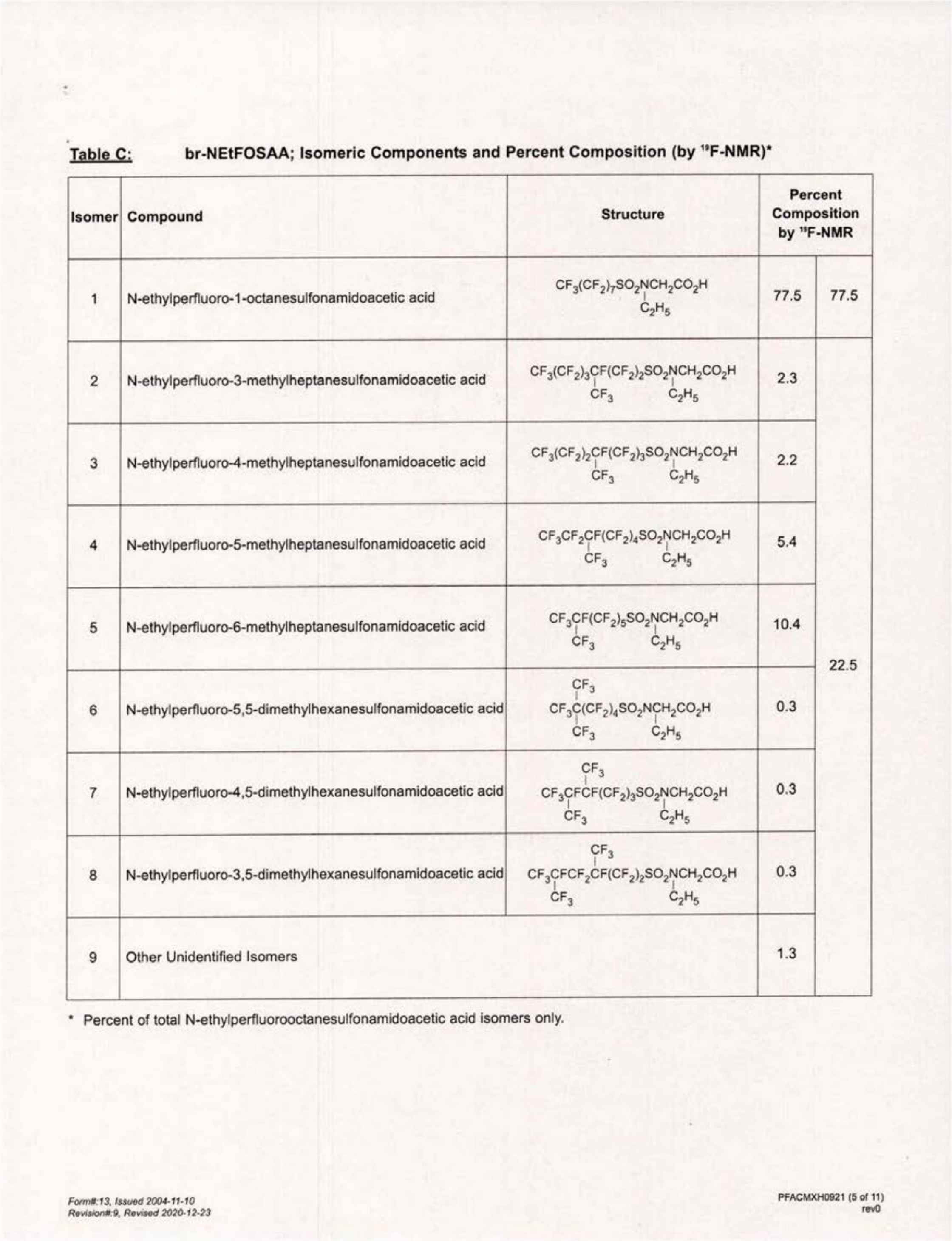

Table C: **br-NEtFOSAA; Isomeric Components and Percent Composition (by ^{19}F-NMR)***

Isomer	Compound	Structure	Percent Composition by ^{19}F-NMR	
1	N-ethylperfluoro-1-octanesulfonamidoacetic acid	$CF_3(CF_2)_7SO_2\underset{C_2H_5}{N}CH_2CO_2H$	77.5	77.5
2	N-ethylperfluoro-3-methylheptanesulfonamidoacetic acid	$CF_3(CF_2)_3\underset{CF_3}{C}F(CF_2)_2SO_2\underset{C_2H_5}{N}CH_2CO_2H$	2.3	22.5
3	N-ethylperfluoro-4-methylheptanesulfonamidoacetic acid	$CF_3(CF_2)_2\underset{CF_3}{C}F(CF_2)_3SO_2\underset{C_2H_5}{N}CH_2CO_2H$	2.2	
4	N-ethylperfluoro-5-methylheptanesulfonamidoacetic acid	$CF_3CF_2\underset{CF_3}{C}F(CF_2)_4SO_2\underset{C_2H_5}{N}CH_2CO_2H$	5.4	
5	N-ethylperfluoro-6-methylheptanesulfonamidoacetic acid	$CF_3\underset{CF_3}{C}F(CF_2)_5SO_2\underset{C_2H_5}{N}CH_2CO_2H$	10.4	
6	N-ethylperfluoro-5,5-dimethylhexanesulfonamidoacetic acid	$CF_3\overset{CF_3}{\underset{CF_3}{C}}(CF_2)_4SO_2\underset{C_2H_5}{N}CH_2CO_2H$	0.3	
7	N-ethylperfluoro-4,5-dimethylhexanesulfonamidoacetic acid	$CF_3\underset{CF_3}{C}F\overset{CF_3}{C}F(CF_2)_3SO_2\underset{C_2H_5}{N}CH_2CO_2H$	0.3	
8	N-ethylperfluoro-3,5-dimethylhexanesulfonamidoacetic acid	$CF_3\underset{CF_3}{C}FCF_2\overset{CF_3}{C}F(CF_2)_2SO_2\underset{C_2H_5}{N}CH_2CO_2H$	0.3	
9	Other Unidentified Isomers		1.3	

* Percent of total N-ethylperfluorooctanesulfonamidoacetic acid isomers only.

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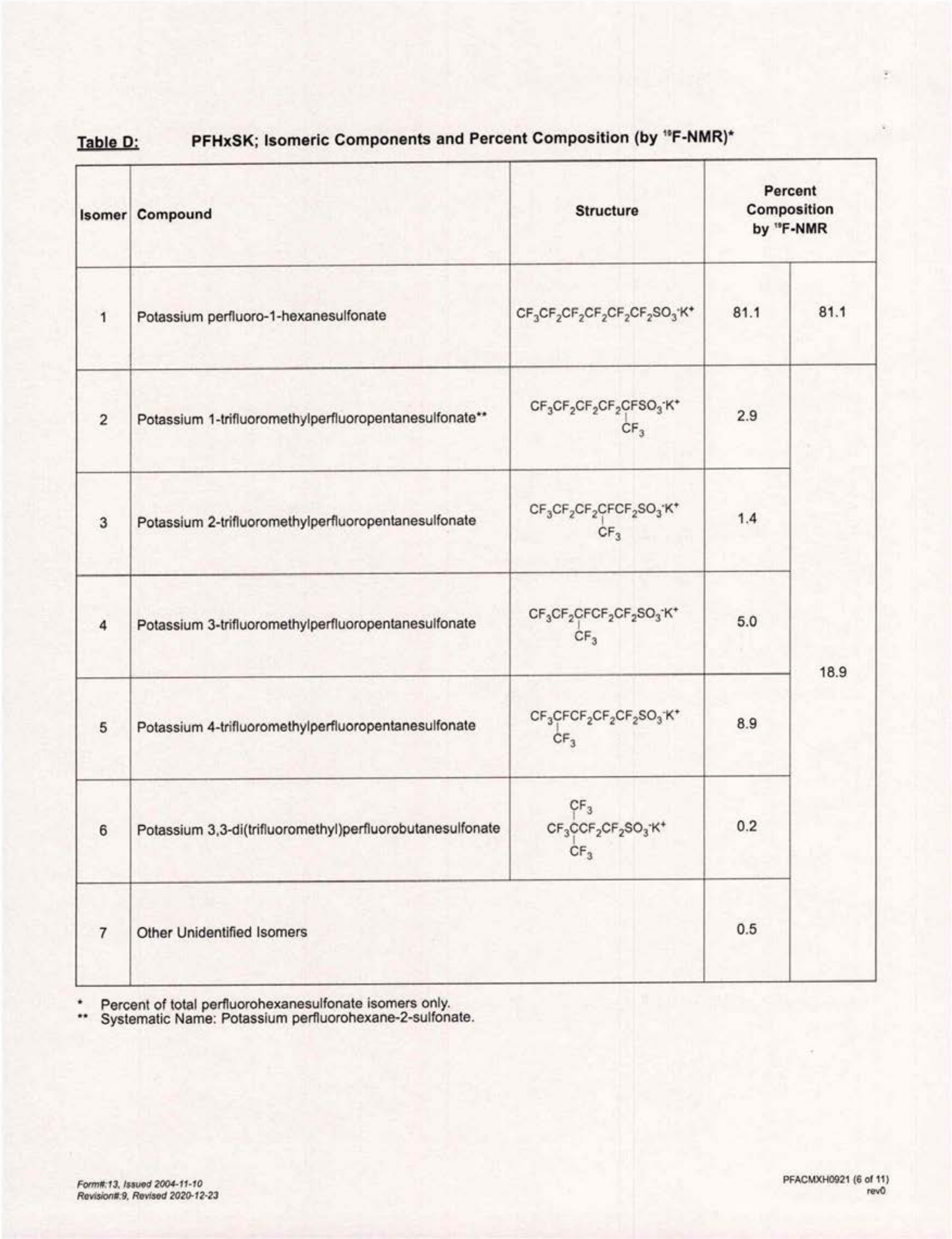


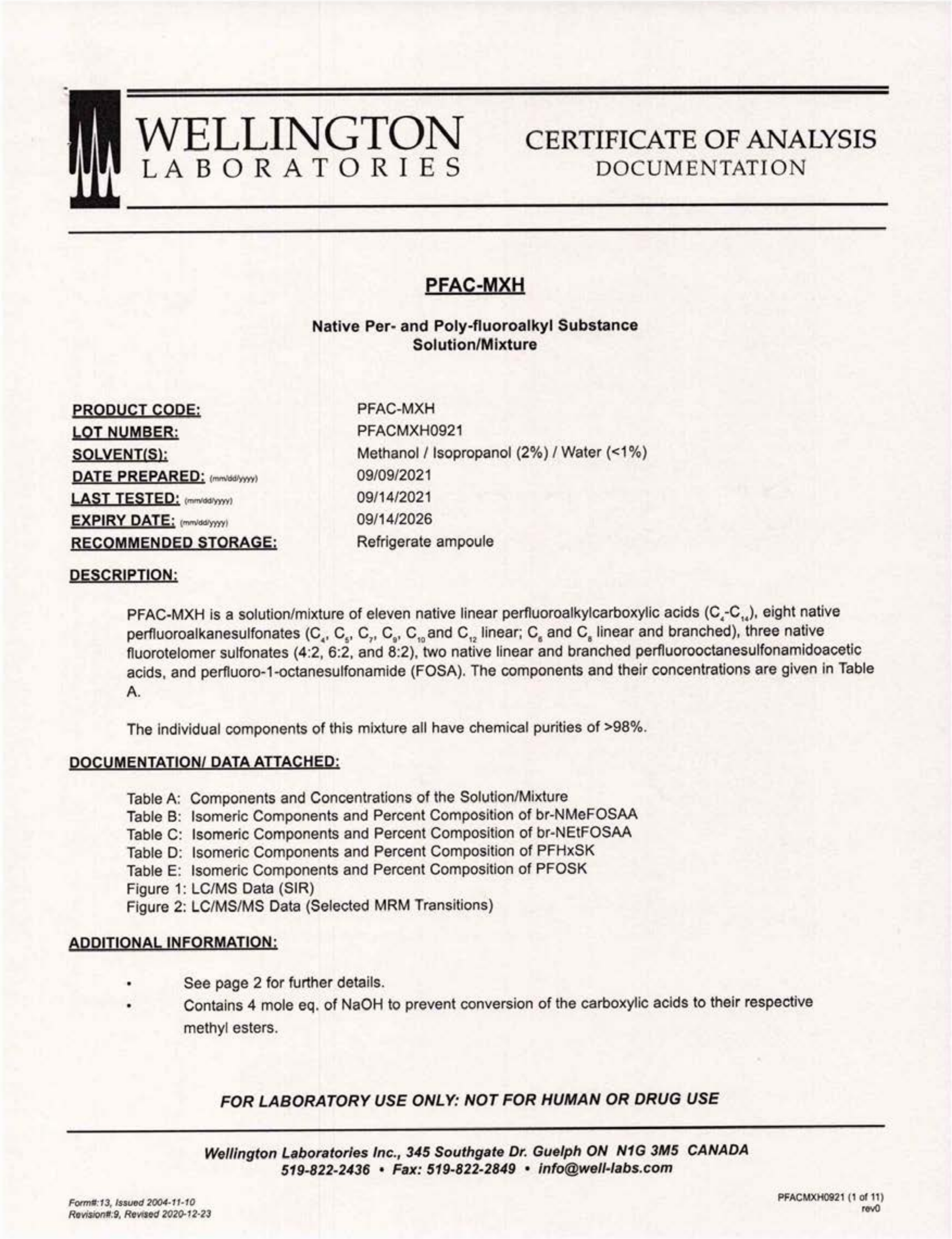
Table D: **PFHxSK; Isomeric Components and Percent Composition (by ^{19}F-NMR)***

Isomer	Compound	Structure	Percent Composition by ^{19}F-NMR	
1	Potassium perfluoro-1-hexanesulfonate	$CF_3CF_2CF_2CF_2CF_2CF_2SO_3^-K^+$	81.1	81.1
2	Potassium 1-trifluoromethylperfluoropentanesulfonate**	$CF_3CF_2CF_2CF_2\underset{\substack{\vert\\CF_3}}{C}FSO_3^-K^+$	2.9	18.9
3	Potassium 2-trifluoromethylperfluoropentanesulfonate	$CF_3CF_2CF_2\underset{\substack{\vert\\CF_3}}{C}FCF_2SO_3^-K^+$	1.4	
4	Potassium 3-trifluoromethylperfluoropentanesulfonate	$CF_3CF_2\underset{\substack{\vert\\CF_3}}{C}FCF_2CF_2SO_3^-K^+$	5.0	
5	Potassium 4-trifluoromethylperfluoropentanesulfonate	$CF_3\underset{\substack{\vert\\CF_3}}{C}FCF_2CF_2CF_2SO_3^-K^+$	8.9	
6	Potassium 3,3-di(trifluoromethyl)perfluorobutanesulfonate	$CF_3\overset{\substack{CF_3\\\vert}}{\underset{\substack{\vert\\CF_3}}{C}}CF_2CF_2SO_3^-K^+$	0.2	
7	Other Unidentified Isomers		0.5	

* Percent of total perfluorohexanesulfonate isomers only.
** Systematic Name: Potassium perfluorohexane-2-sulfonate.

Form#:13, Issued 2004-11-10
Revision#:9, Revised 2020-12-23

PFACMXH0921 (6 of 11)
rev0



WELLINGTON
LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

PFAC-MXH

Native Per- and Poly-fluoroalkyl Substance
Solution/Mixture

PRODUCT CODE:	PFAC-MXH
LOT NUMBER:	PFACMXH0921
SOLVENT(S):	Methanol / Isopropanol (2%) / Water (<1%)
DATE PREPARED: (mm/dd/yyyy)	09/09/2021
LAST TESTED: (mm/dd/yyyy)	09/14/2021
EXPIRY DATE: (mm/dd/yyyy)	09/14/2026
RECOMMENDED STORAGE:	Refrigerate ampoule

DESCRIPTION:

PFAC-MXH is a solution/mixture of eleven native linear perfluoroalkylcarboxylic acids (C_4-C_{14}), eight native perfluoroalkanesulfonates (C_4, C_5, C_7, C_9, C_{10} and C_{12} linear; C_6 and C_8 linear and branched), three native fluorotelomer sulfonates (4:2, 6:2, and 8:2), two native linear and branched perfluorooctanesulfonamidoacetic acids, and perfluoro-1-octanesulfonamide (FOSA). The components and their concentrations are given in Table A.

The individual components of this mixture all have chemical purities of >98%.

DOCUMENTATION/ DATA ATTACHED:

Table A: Components and Concentrations of the Solution/Mixture
Table B: Isomeric Components and Percent Composition of br-NMeFOSAA
Table C: Isomeric Components and Percent Composition of br-NEtFOSAA
Table D: Isomeric Components and Percent Composition of PFHxSK
Table E: Isomeric Components and Percent Composition of PFOSK
Figure 1: LC/MS Data (SIR)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

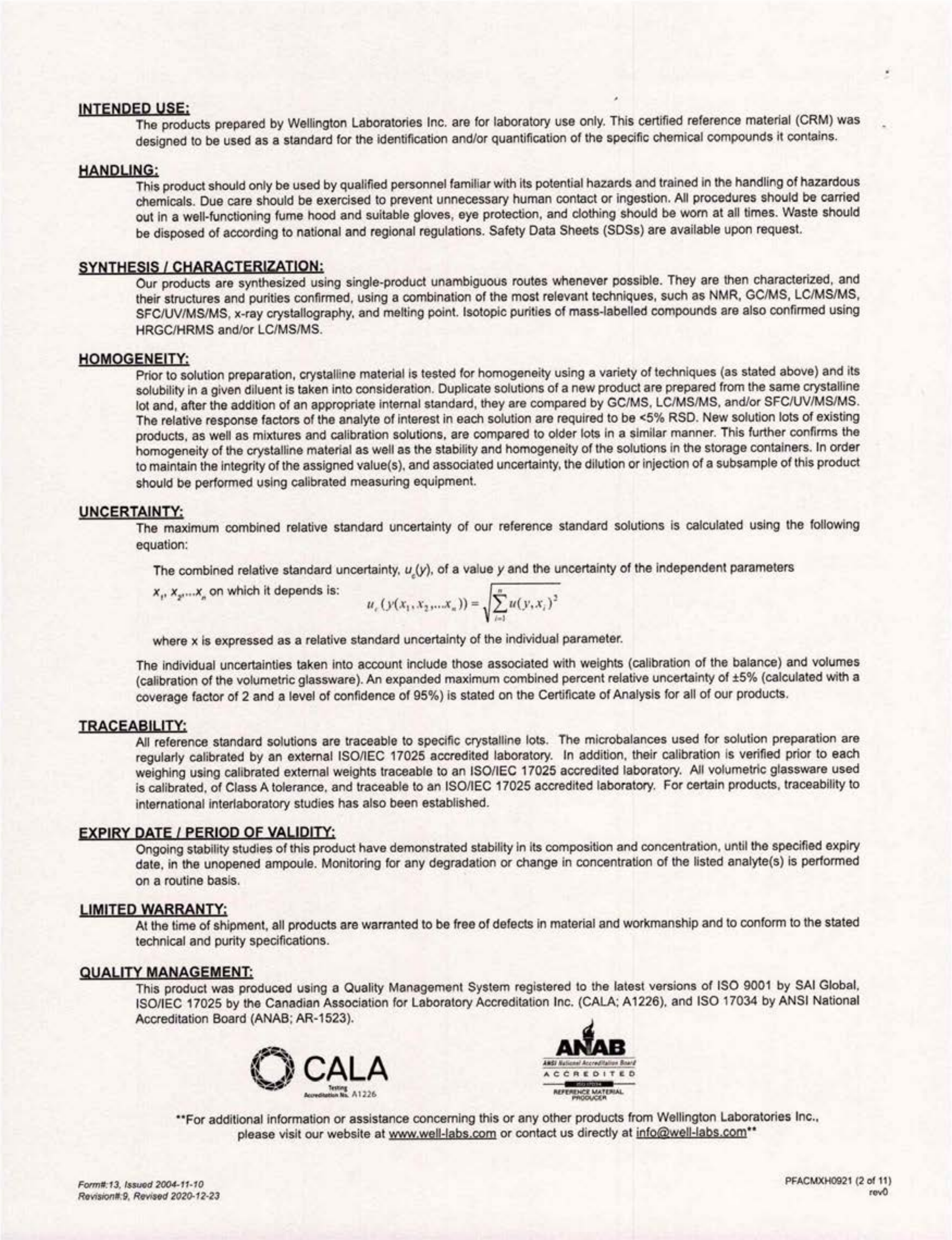
- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent conversion of the carboxylic acids to their respective methyl esters.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

Form#:13, Issued 2004-11-10
Revision#:9, Revised 2020-12-23

PFACMXH0921 (1 of 11)
rev0



INTENDED USE:

The products prepared by Wellington Laboratories Inc. are for laboratory use only. This certified reference material (CRM) was designed to be used as a standard for the identification and/or quantification of the specific chemical compounds it contains.

HANDLING:

This product should only be used by qualified personnel familiar with its potential hazards and trained in the handling of hazardous chemicals. Due care should be exercised to prevent unnecessary human contact or ingestion. All procedures should be carried out in a well-functioning fume hood and suitable gloves, eye protection, and clothing should be worn at all times. Waste should be disposed of according to national and regional regulations. Safety Data Sheets (SDSs) are available upon request.

SYNTHESIS / CHARACTERIZATION:

Our products are synthesized using single-product unambiguous routes whenever possible. They are then characterized, and their structures and purities confirmed, using a combination of the most relevant techniques, such as NMR, GC/MS, LC/MS/MS, SFC/UV/MS/MS, x-ray crystallography, and melting point. Isotopic purities of mass-labelled compounds are also confirmed using HRGC/HRMS and/or LC/MS/MS.

HOMOGENEITY:

Prior to solution preparation, crystalline material is tested for homogeneity using a variety of techniques (as stated above) and its solubility in a given diluent is taken into consideration. Duplicate solutions of a new product are prepared from the same crystalline lot and, after the addition of an appropriate internal standard, they are compared by GC/MS, LC/MS/MS, and/or SFC/UV/MS/MS. The relative response factors of the analyte of interest in each solution are required to be <5% RSD. New solution lots of existing products, as well as mixtures and calibration solutions, are compared to older lots in a similar manner. This further confirms the homogeneity of the crystalline material as well as the stability and homogeneity of the solutions in the storage containers. In order to maintain the integrity of the assigned value(s), and associated uncertainty, the dilution or injection of a subsample of this product should be performed using calibrated measuring equipment.

UNCERTAINTY:

The maximum combined relative standard uncertainty of our reference standard solutions is calculated using the following equation:

The combined relative standard uncertainty, $u_c(y)$, of a value y and the uncertainty of the independent parameters $x_1, x_2, \ldots x_n$ on which it depends is:

$$u_c(y(x_1, x_2, \ldots x_n)) = \sqrt{\sum_{i=1}^{n} u(y, x_i)^2}$$

where x is expressed as a relative standard uncertainty of the individual parameter.

The individual uncertainties taken into account include those associated with weights (calibration of the balance) and volumes (calibration of the volumetric glassware). An expanded maximum combined percent relative uncertainty of ±5% (calculated with a coverage factor of 2 and a level of confidence of 95%) is stated on the Certificate of Analysis for all of our products.

TRACEABILITY:

All reference standard solutions are traceable to specific crystalline lots. The microbalances used for solution preparation are regularly calibrated by an external ISO/IEC 17025 accredited laboratory. In addition, their calibration is verified prior to each weighing using calibrated external weights traceable to an ISO/IEC 17025 accredited laboratory. All volumetric glassware used is calibrated, of Class A tolerance, and traceable to an ISO/IEC 17025 accredited laboratory. For certain products, traceability to international interlaboratory studies has also been established.

EXPIRY DATE / PERIOD OF VALIDITY:

Ongoing stability studies of this product have demonstrated stability in its composition and concentration, until the specified expiry date, in the unopened ampoule. Monitoring for any degradation or change in concentration of the listed analyte(s) is performed on a routine basis.

LIMITED WARRANTY:

At the time of shipment, all products are warranted to be free of defects in material and workmanship and to conform to the stated technical and purity specifications.

QUALITY MANAGEMENT:

This product was produced using a Quality Management System registered to the latest versions of ISO 9001 by SAI Global, ISO/IEC 17025 by the Canadian Association for Laboratory Accreditation Inc. (CALA; A1226), and ISO 17034 by ANSI National Accreditation Board (ANAB; AR-1523).

CALA Testing Accreditation No. A1226

ANAB ANSI National Accreditation Board ACCREDITED ISO 17034 REFERENCE MATERIAL PRODUCER

For additional information or assistance concerning this or any other products from Wellington Laboratories Inc., please visit our website at www.well-labs.com or contact us directly at info@well-labs.com

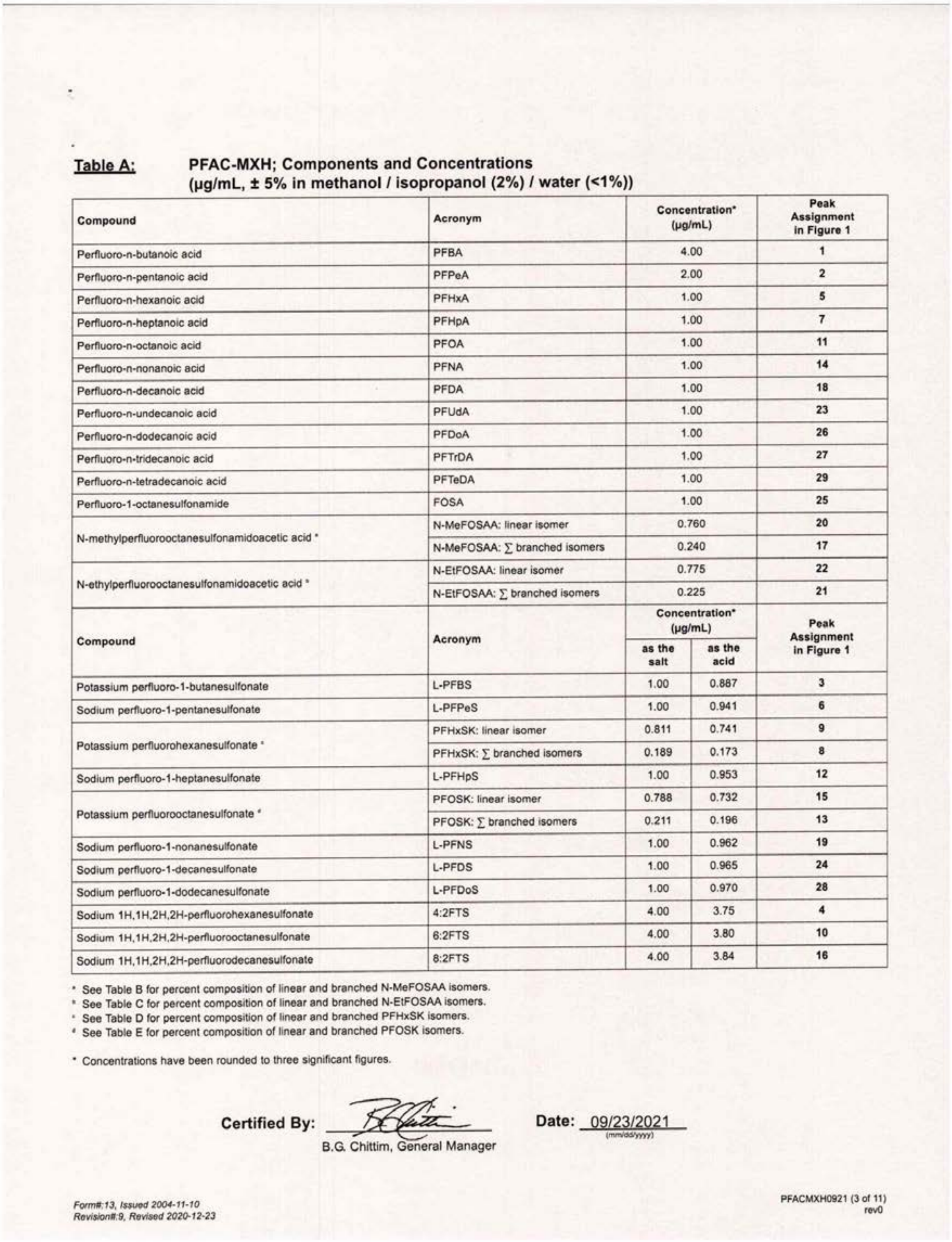


Table A: **PFAC-MXH; Components and Concentrations**
(µg/mL, ± 5% in methanol / isopropanol (2%) / water (<1%))

Compound	Acronym	Concentration* (µg/mL)	Peak Assignment in Figure 1
Perfluoro-n-butanoic acid	PFBA	4.00	1
Perfluoro-n-pentanoic acid	PFPeA	2.00	2
Perfluoro-n-hexanoic acid	PFHxA	1.00	5
Perfluoro-n-heptanoic acid	PFHpA	1.00	7
Perfluoro-n-octanoic acid	PFOA	1.00	11
Perfluoro-n-nonanoic acid	PFNA	1.00	14
Perfluoro-n-decanoic acid	PFDA	1.00	18
Perfluoro-n-undecanoic acid	PFUdA	1.00	23
Perfluoro-n-dodecanoic acid	PFDoA	1.00	26
Perfluoro-n-tridecanoic acid	PFTrDA	1.00	27
Perfluoro-n-tetradecanoic acid	PFTeDA	1.00	29
Perfluoro-1-octanesulfonamide	FOSA	1.00	25
N-methylperfluorooctanesulfonamidoacetic acid [a]	N-MeFOSAA: linear isomer	0.760	20
	N-MeFOSAA: ∑ branched isomers	0.240	17
N-ethylperfluorooctanesulfonamidoacetic acid [b]	N-EtFOSAA: linear isomer	0.775	22
	N-EtFOSAA: ∑ branched isomers	0.225	21

Compound	Acronym	Concentration* (µg/mL)		Peak Assignment in Figure 1
		as the salt	as the acid	
Potassium perfluoro-1-butanesulfonate	L-PFBS	1.00	0.887	3
Sodium perfluoro-1-pentanesulfonate	L-PFPeS	1.00	0.941	6
Potassium perfluorohexanesulfonate [c]	PFHxSK: linear isomer	0.811	0.741	9
	PFHxSK: ∑ branched isomers	0.189	0.173	8
Sodium perfluoro-1-heptanesulfonate	L-PFHpS	1.00	0.953	12
Potassium perfluorooctanesulfonate [d]	PFOSK: linear isomer	0.788	0.732	15
	PFOSK: ∑ branched isomers	0.211	0.196	13
Sodium perfluoro-1-nonanesulfonate	L-PFNS	1.00	0.962	19
Sodium perfluoro-1-decanesulfonate	L-PFDS	1.00	0.965	24
Sodium perfluoro-1-dodecanesulfonate	L-PFDoS	1.00	0.970	28
Sodium 1H,1H,2H,2H-perfluorohexanesulfonate	4:2FTS	4.00	3.75	4
Sodium 1H,1H,2H,2H-perfluorooctanesulfonate	6:2FTS	4.00	3.80	10
Sodium 1H,1H,2H,2H-perfluorodecanesulfonate	8:2FTS	4.00	3.84	16

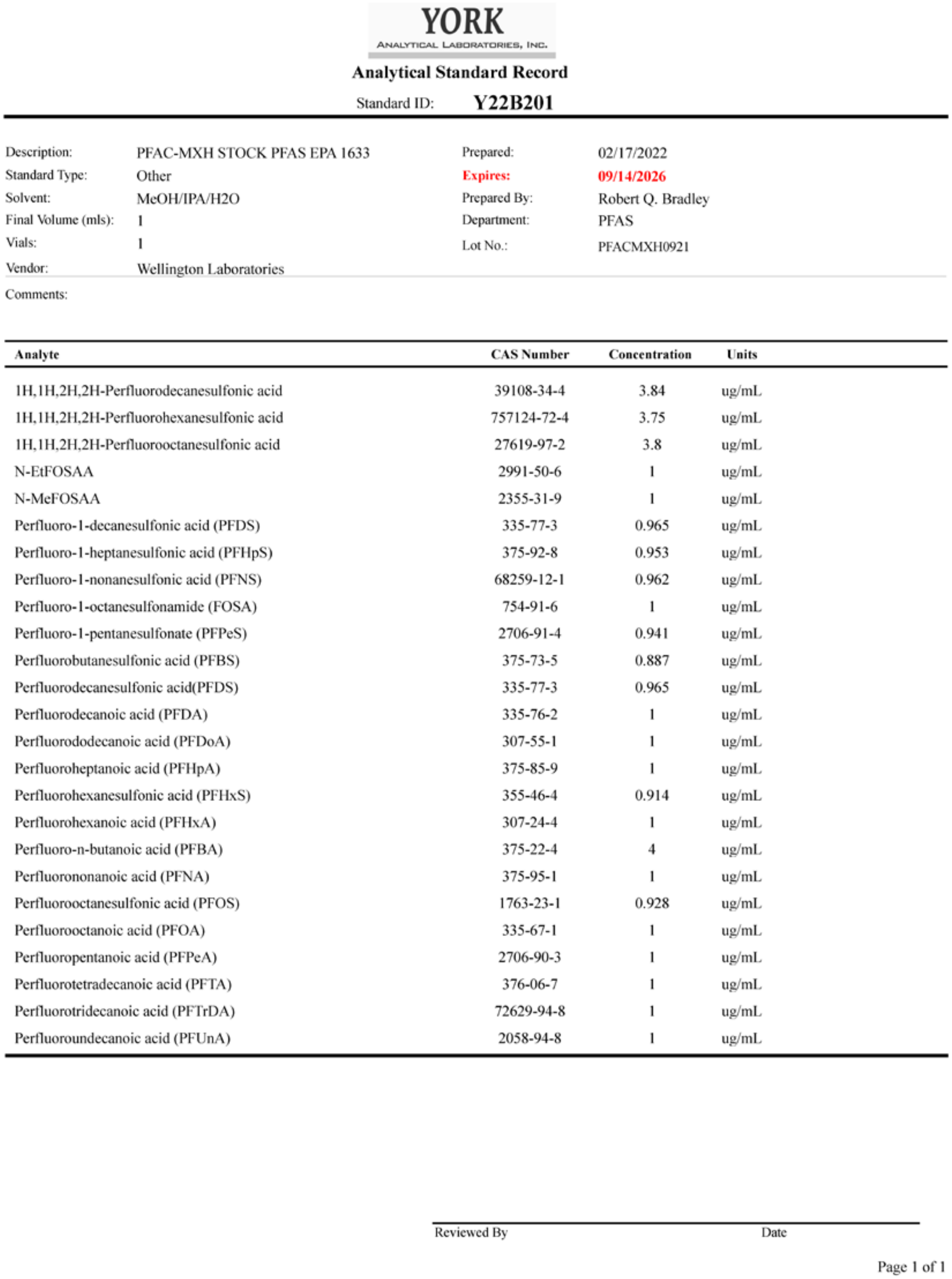
[a] See Table B for percent composition of linear and branched N-MeFOSAA isomers.
[b] See Table C for percent composition of linear and branched N-EtFOSAA isomers.
[c] See Table D for percent composition of linear and branched PFHxSK isomers.
[d] See Table E for percent composition of linear and branched PFOSK isomers.

* Concentrations have been rounded to three significant figures.

Certified By: ______________ **Date:** 09/23/2021
B.G. Chittim, General Manager (mm/dd/yyyy)

Form#:13, Issued 2004-11-10
Revision#:9, Revised 2020-12-23

PFACMXH0921 (3 of 11)
rev0



YORK
ANALYTICAL LABORATORIES, INC.

Analytical Standard Record

Standard ID: **Y22B201**

Description:	PFAC-MXH STOCK PFAS EPA 1633	Prepared:	02/17/2022
Standard Type:	Other	**Expires:**	**09/14/2026**
Solvent:	MeOH/IPA/H2O	Prepared By:	Robert Q. Bradley
Final Volume (mls):	1	Department:	PFAS
Vials:	1	Lot No.:	PFACMXH0921
Vendor:	Wellington Laboratories		

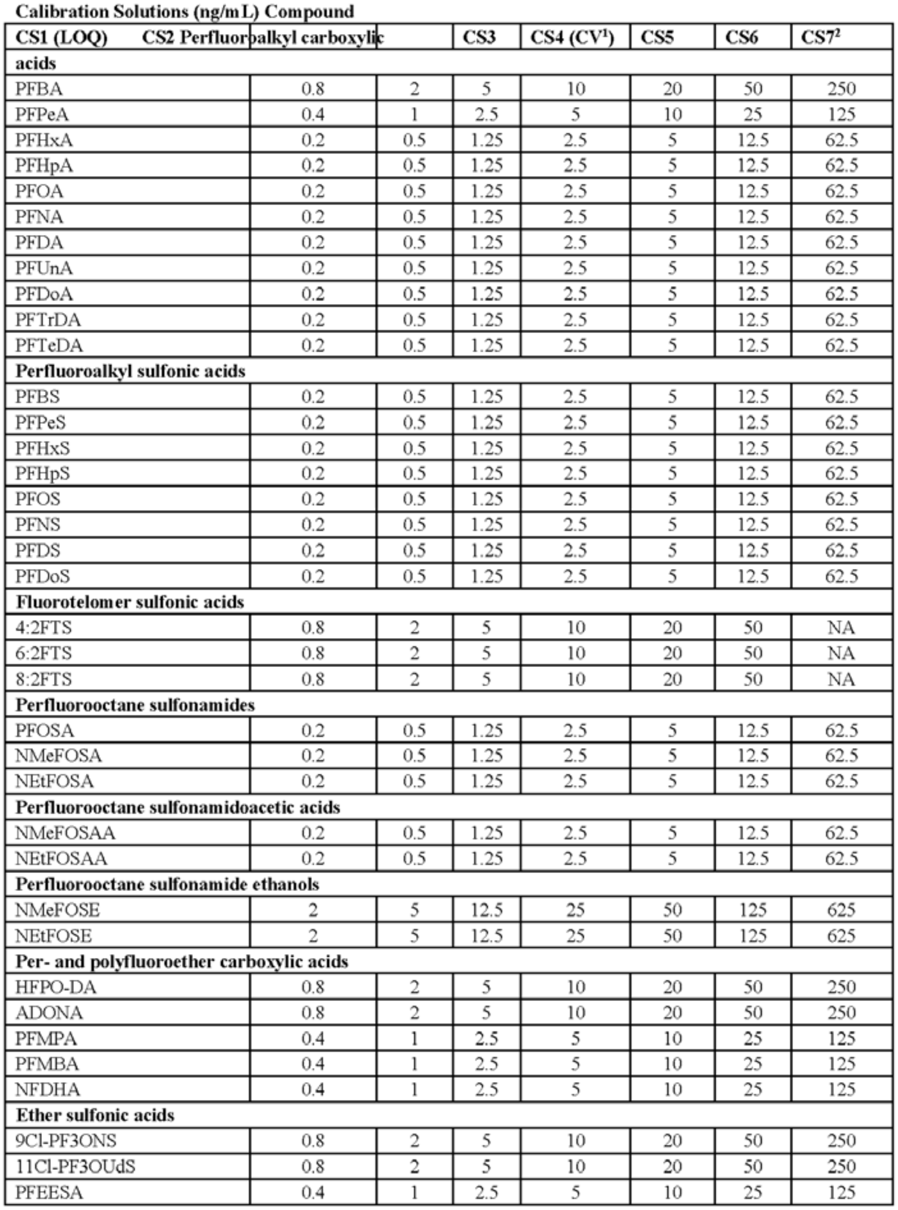
Comments:

Analyte	**CAS Number**	**Concentration**	**Units**
1H,1H,2H,2H-Perfluorodecanesulfonic acid	39108-34-4	3.84	ug/mL
1H,1H,2H,2H-Perfluorohexanesulfonic acid	757124-72-4	3.75	ug/mL
1H,1H,2H,2H-Perfluorooctanesulfonic acid	27619-97-2	3.8	ug/mL
N-EtFOSAA	2991-50-6	1	ug/mL
N-MeFOSAA	2355-31-9	1	ug/mL
Perfluoro-1-decanesulfonic acid (PFDS)	335-77-3	0.965	ug/mL
Perfluoro-1-heptanesulfonic acid (PFHpS)	375-92-8	0.953	ug/mL
Perfluoro-1-nonanesulfonic acid (PFNS)	68259-12-1	0.962	ug/mL
Perfluoro-1-octanesulfonamide (FOSA)	754-91-6	1	ug/mL
Perfluoro-1-pentanesulfonate (PFPeS)	2706-91-4	0.941	ug/mL
Perfluorobutanesulfonic acid (PFBS)	375-73-5	0.887	ug/mL
Perfluorodecanesulfonic acid(PFDS)	335-77-3	0.965	ug/mL
Perfluorodecanoic acid (PFDA)	335-76-2	1	ug/mL
Perfluorododecanoic acid (PFDoA)	307-55-1	1	ug/mL
Perfluoroheptanoic acid (PFHpA)	375-85-9	1	ug/mL
Perfluorohexanesulfonic acid (PFHxS)	355-46-4	0.914	ug/mL
Perfluorohexanoic acid (PFHxA)	307-24-4	1	ug/mL
Perfluoro-n-butanoic acid (PFBA)	375-22-4	4	ug/mL
Perfluorononanoic acid (PFNA)	375-95-1	1	ug/mL
Perfluorooctanesulfonic acid (PFOS)	1763-23-1	0.928	ug/mL
Perfluorooctanoic acid (PFOA)	335-67-1	1	ug/mL
Perfluoropentanoic acid (PFPeA)	2706-90-3	1	ug/mL
Perfluorotetradecanoic acid (PFTA)	376-06-7	1	ug/mL
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	1	ug/mL
Perfluoroundecanoic acid (PFUnA)	2058-94-8	1	ug/mL

Reviewed By Date

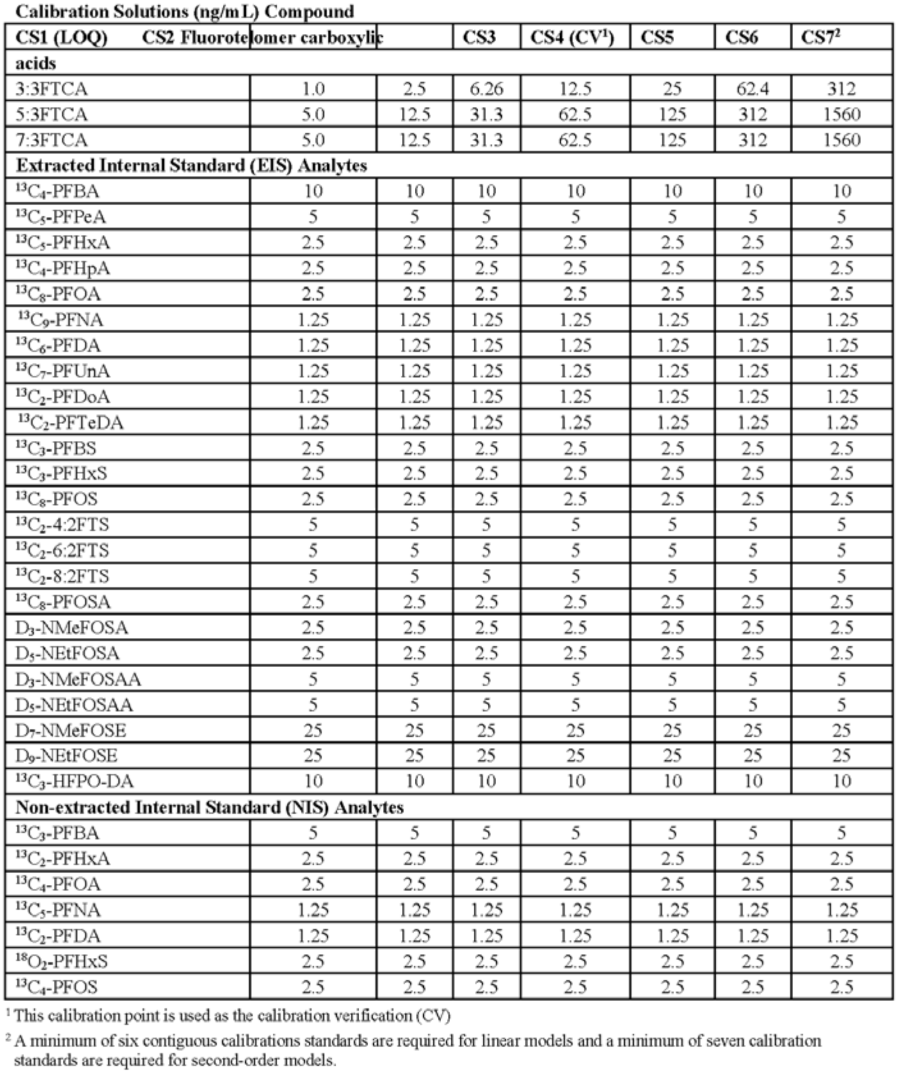
Page 1 of 1

Attachment 4 – Calibration Concentrations, nominal



Calibration Solutions (ng/mL) Compound

CS1 (LOQ) CS2 Perfluor	**alkyl carboxylic**		**CS3**	**CS4 (CV^1)**	**CS5**	**CS6**	**CS7^2**
acids							
PFBA	0.8	2	5	10	20	50	250
PFPeA	0.4	1	2.5	5	10	25	125
PFHxA	0.2	0.5	1.25	2.5	5	12.5	62.5
PFHpA	0.2	0.5	1.25	2.5	5	12.5	62.5
PFOA	0.2	0.5	1.25	2.5	5	12.5	62.5
PFNA	0.2	0.5	1.25	2.5	5	12.5	62.5
PFDA	0.2	0.5	1.25	2.5	5	12.5	62.5
PFUnA	0.2	0.5	1.25	2.5	5	12.5	62.5
PFDoA	0.2	0.5	1.25	2.5	5	12.5	62.5
PFTrDA	0.2	0.5	1.25	2.5	5	12.5	62.5
PFTeDA	0.2	0.5	1.25	2.5	5	12.5	62.5
Perfluoroalkyl sulfonic acids							
PFBS	0.2	0.5	1.25	2.5	5	12.5	62.5
PFPeS	0.2	0.5	1.25	2.5	5	12.5	62.5
PFHxS	0.2	0.5	1.25	2.5	5	12.5	62.5
PFHpS	0.2	0.5	1.25	2.5	5	12.5	62.5
PFOS	0.2	0.5	1.25	2.5	5	12.5	62.5
PFNS	0.2	0.5	1.25	2.5	5	12.5	62.5
PFDS	0.2	0.5	1.25	2.5	5	12.5	62.5
PFDoS	0.2	0.5	1.25	2.5	5	12.5	62.5
Fluorotelomer sulfonic acids							
4:2FTS	0.8	2	5	10	20	50	NA
6:2FTS	0.8	2	5	10	20	50	NA
8:2FTS	0.8	2	5	10	20	50	NA
Perfluorooctane sulfonamides							
PFOSA	0.2	0.5	1.25	2.5	5	12.5	62.5
NMeFOSA	0.2	0.5	1.25	2.5	5	12.5	62.5
NEtFOSA	0.2	0.5	1.25	2.5	5	12.5	62.5
Perfluorooctane sulfonamidoacetic acids							
NMeFOSAA	0.2	0.5	1.25	2.5	5	12.5	62.5
NEtFOSAA	0.2	0.5	1.25	2.5	5	12.5	62.5
Perfluorooctane sulfonamide ethanols							
NMeFOSE	2	5	12.5	25	50	125	625
NEtFOSE	2	5	12.5	25	50	125	625
Per- and polyfluoroether carboxylic acids							
HFPO-DA	0.8	2	5	10	20	50	250
ADONA	0.8	2	5	10	20	50	250
PFMPA	0.4	1	2.5	5	10	25	125
PFMBA	0.4	1	2.5	5	10	25	125
NFDHA	0.4	1	2.5	5	10	25	125
Ether sulfonic acids							
9Cl-PF3ONS	0.8	2	5	10	20	50	250
11Cl-PF3OUdS	0.8	2	5	10	20	50	250
PFEESA	0.4	1	2.5	5	10	25	125



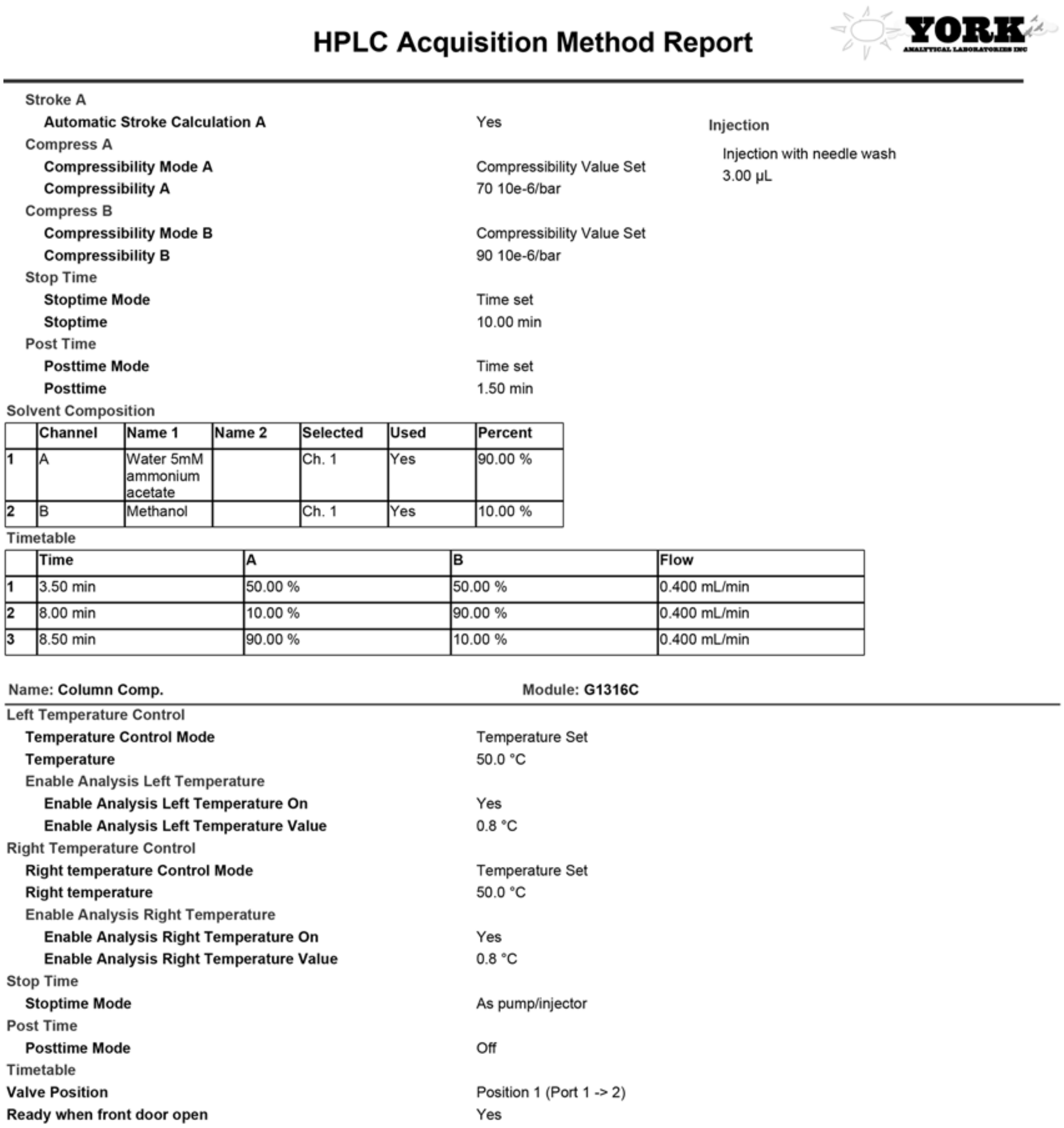
Calibration Solutions (ng/mL) Compound

CS1 (LOQ) CS2 Fluorote	**lomer carboxyli**	**c**	**CS3**	**CS4 (CV[1])**	**CS5**	**CS6**	**CS7[2]**
acids							
3:3FTCA	1.0	2.5	6.26	12.5	25	62.4	312
5:3FTCA	5.0	12.5	31.3	62.5	125	312	1560
7:3FTCA	5.0	12.5	31.3	62.5	125	312	1560
Extracted Internal Standard (EIS) Analytes							
$^{13}C_4$-PFBA	10	10	10	10	10	10	10
$^{13}C_5$-PFPeA	5	5	5	5	5	5	5
$^{13}C_5$-PFHxA	2.5	2.5	2.5	2.5	2.5	2.5	2.5
$^{13}C_4$-PFHpA	2.5	2.5	2.5	2.5	2.5	2.5	2.5
$^{13}C_8$-PFOA	2.5	2.5	2.5	2.5	2.5	2.5	2.5
$^{13}C_9$-PFNA	1.25	1.25	1.25	1.25	1.25	1.25	1.25
$^{13}C_6$-PFDA	1.25	1.25	1.25	1.25	1.25	1.25	1.25
$^{13}C_7$-PFUnA	1.25	1.25	1.25	1.25	1.25	1.25	1.25
$^{13}C_2$-PFDoA	1.25	1.25	1.25	1.25	1.25	1.25	1.25
$^{13}C_2$-PFTeDA	1.25	1.25	1.25	1.25	1.25	1.25	1.25
$^{13}C_3$-PFBS	2.5	2.5	2.5	2.5	2.5	2.5	2.5
$^{13}C_3$-PFHxS	2.5	2.5	2.5	2.5	2.5	2.5	2.5
$^{13}C_8$-PFOS	2.5	2.5	2.5	2.5	2.5	2.5	2.5
$^{13}C_2$-4:2FTS	5	5	5	5	5	5	5
$^{13}C_2$-6:2FTS	5	5	5	5	5	5	5
$^{13}C_2$-8:2FTS	5	5	5	5	5	5	5
$^{13}C_8$-PFOSA	2.5	2.5	2.5	2.5	2.5	2.5	2.5
D_3-NMeFOSA	2.5	2.5	2.5	2.5	2.5	2.5	2.5
D_5-NEtFOSA	2.5	2.5	2.5	2.5	2.5	2.5	2.5
D_3-NMeFOSAA	5	5	5	5	5	5	5
D_5-NEtFOSAA	5	5	5	5	5	5	5
D_7-NMeFOSE	25	25	25	25	25	25	25
D_9-NEtFOSE	25	25	25	25	25	25	25
$^{13}C_3$-HFPO-DA	10	10	10	10	10	10	10
Non-extracted Internal Standard (NIS) Analytes							
$^{13}C_3$-PFBA	5	5	5	5	5	5	5
$^{13}C_2$-PFHxA	2.5	2.5	2.5	2.5	2.5	2.5	2.5
$^{13}C_4$-PFOA	2.5	2.5	2.5	2.5	2.5	2.5	2.5
$^{13}C_5$-PFNA	1.25	1.25	1.25	1.25	1.25	1.25	1.25
$^{13}C_2$-PFDA	1.25	1.25	1.25	1.25	1.25	1.25	1.25
$^{18}O_2$-PFHxS	2.5	2.5	2.5	2.5	2.5	2.5	2.5
$^{13}C_4$-PFOS	2.5	2.5	2.5	2.5	2.5	2.5	2.5

[1] This calibration point is used as the calibration verification (CV)

[2] A minimum of six contiguous calibrations standards are required for linear models and a minimum of seven calibration standards are required for second-order models.

Attachment 5 -HPLC Method Parameters



HPLC Acquisition Method Report

Stroke A	
Automatic Stroke Calculation A	Yes
Compress A	
Compressibility Mode A	Compressibility Value Set
Compressibility A	70 10e-6/bar
Compress B	
Compressibility Mode B	Compressibility Value Set
Compressibility B	90 10e-6/bar
Stop Time	
Stoptime Mode	Time set
Stoptime	10.00 min
Post Time	
Posttime Mode	Time set
Posttime	1.50 min

Injection

Injection with needle wash
3.00 µL

Solvent Composition

	Channel	Name 1	Name 2	Selected	Used	Percent
1	A	Water 5mM ammonium acetate		Ch. 1	Yes	90.00 %
2	B	Methanol		Ch. 1	Yes	10.00 %

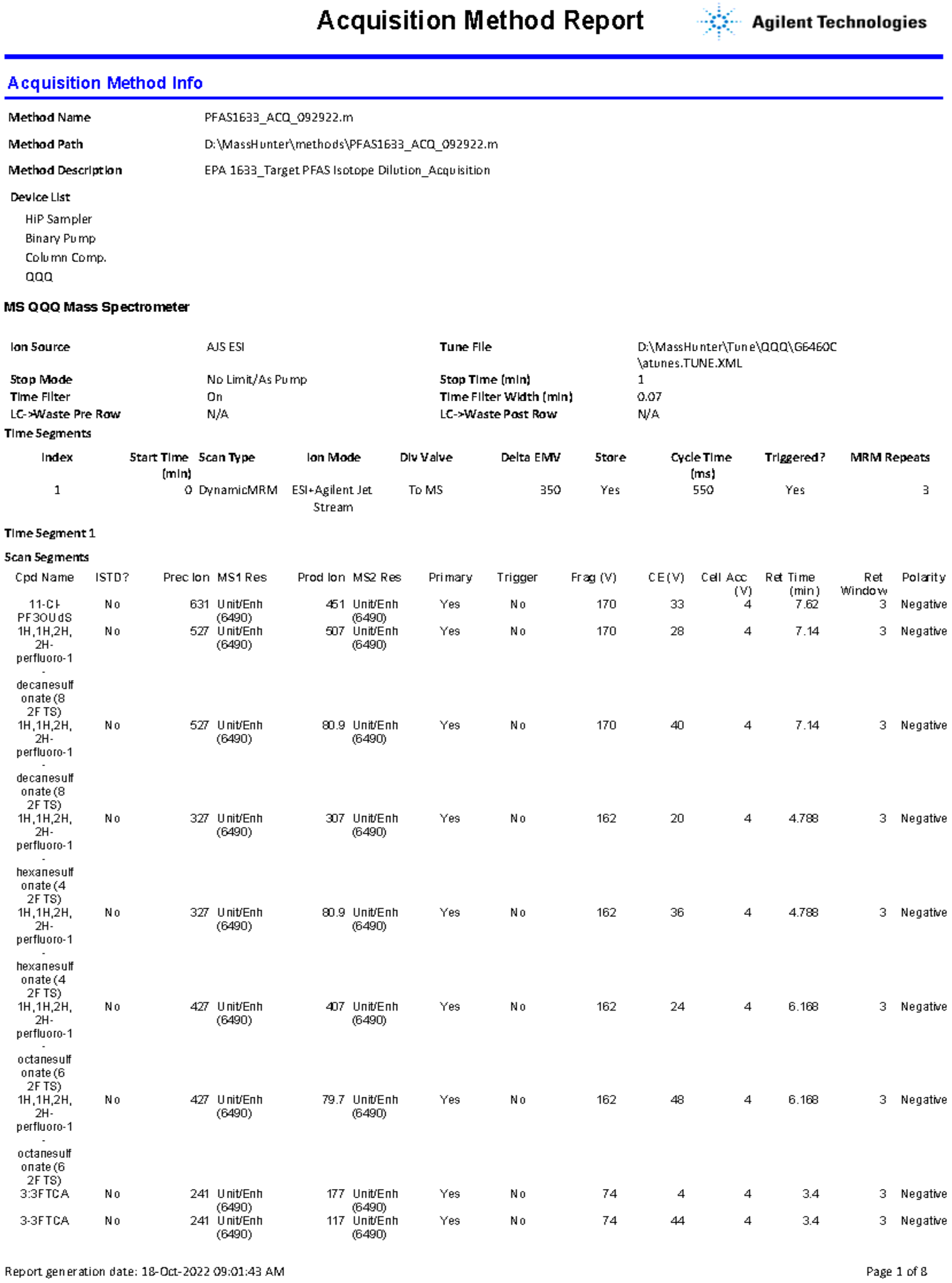
Timetable

	Time	A	B	Flow
1	3.50 min	50.00 %	50.00 %	0.400 mL/min
2	8.00 min	10.00 %	90.00 %	0.400 mL/min
3	8.50 min	90.00 %	10.00 %	0.400 mL/min

Name: **Column Comp.** Module: **G1316C**

Left Temperature Control	
Temperature Control Mode	Temperature Set
Temperature	50.0 °C
Enable Analysis Left Temperature	
Enable Analysis Left Temperature On	Yes
Enable Analysis Left Temperature Value	0.8 °C
Right Temperature Control	
Right temperature Control Mode	Temperature Set
Right temperature	50.0 °C
Enable Analysis Right Temperature	
Enable Analysis Right Temperature On	Yes
Enable Analysis Right Temperature Value	0.8 °C
Stop Time	
Stoptime Mode	As pump/injector
Post Time	
Posttime Mode	Off
Timetable	
Valve Position	Position 1 (Port 1 -> 2)
Ready when front door open	Yes

Attachment 6 - Triple Quadrupole Acquisition Method



Acquisition Method Report

Agilent Technologies

Acquisition Method Info

Method Name	PFAS1633_ACQ_092922.m
Method Path	D:\MassHunter\methods\PFAS1633_ACQ_092922.m
Method Description	EPA 1633_Target PFAS Isotope Dilution_Acquisition

Device List

- HiP Sampler
- Binary Pump
- Column Comp.
- QQQ

MS QQQ Mass Spectrometer

Ion Source	AJS ESI	**Tune File**	D:\MassHunter\Tune\QQQ\G6460C \atunes.TUNE.XML
Stop Mode	No Limit/As Pump	**Stop Time (min)**	1
Time Filter	On	**Time Filter Width (min)**	0.07
LC->Waste Pre Row	N/A	**LC->Waste Post Row**	N/A

Time Segments

Index	Start Time (min)	Scan Type	Ion Mode	Div Valve	Delta EMV	Store	Cycle Time (ms)	Triggered?	MRM Repeats
1	0	DynamicMRM	ESI+Agilent Jet Stream	To MS	350	Yes	550	Yes	3

Time Segment 1

Scan Segments

Cpd Name	ISTD?	Prec Ion	MS1 Res	Prod Ion	MS2 Res	Primary	Trigger	Frag (V)	CE (V)	Cell Acc (V)	Ret Time (min)	Ret Window	Polarity
11-Cl-PF3OUdS	No	631	Unit/Enh (6490)	451	Unit/Enh (6490)	Yes	No	170	33	4	7.62	3	Negative
1H,1H,2H,2H-perfluoro-1-decanesulfonate (8 2F TS)	No	527	Unit/Enh (6490)	507	Unit/Enh (6490)	Yes	No	170	28	4	7.14	3	Negative
1H,1H,2H,2H-perfluoro-1-decanesulfonate (8 2F TS)	No	527	Unit/Enh (6490)	80.9	Unit/Enh (6490)	Yes	No	170	40	4	7.14	3	Negative
1H,1H,2H,2H-perfluoro-1-hexanesulfonate (4 2F TS)	No	327	Unit/Enh (6490)	307	Unit/Enh (6490)	Yes	No	162	20	4	4.788	3	Negative
1H,1H,2H,2H-perfluoro-1-hexanesulfonate (4 2F TS)	No	327	Unit/Enh (6490)	80.9	Unit/Enh (6490)	Yes	No	162	36	4	4.788	3	Negative
1H,1H,2H,2H-perfluoro-1-octanesulfonate (6 2F TS)	No	427	Unit/Enh (6490)	407	Unit/Enh (6490)	Yes	No	162	24	4	6.168	3	Negative
1H,1H,2H,2H-perfluoro-1-octanesulfonate (6 2F TS)	No	427	Unit/Enh (6490)	79.7	Unit/Enh (6490)	Yes	No	162	48	4	6.168	3	Negative
3:3FTCA	No	241	Unit/Enh (6490)	177	Unit/Enh (6490)	Yes	No	74	4	4	3.4	3	Negative
3-3FTCA	No	241	Unit/Enh (6490)	117	Unit/Enh (6490)	Yes	No	74	44	4	3.4	3	Negative

Report generation date: 18-Oct-2022 09:01:43 AM

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Acquisition Method Report

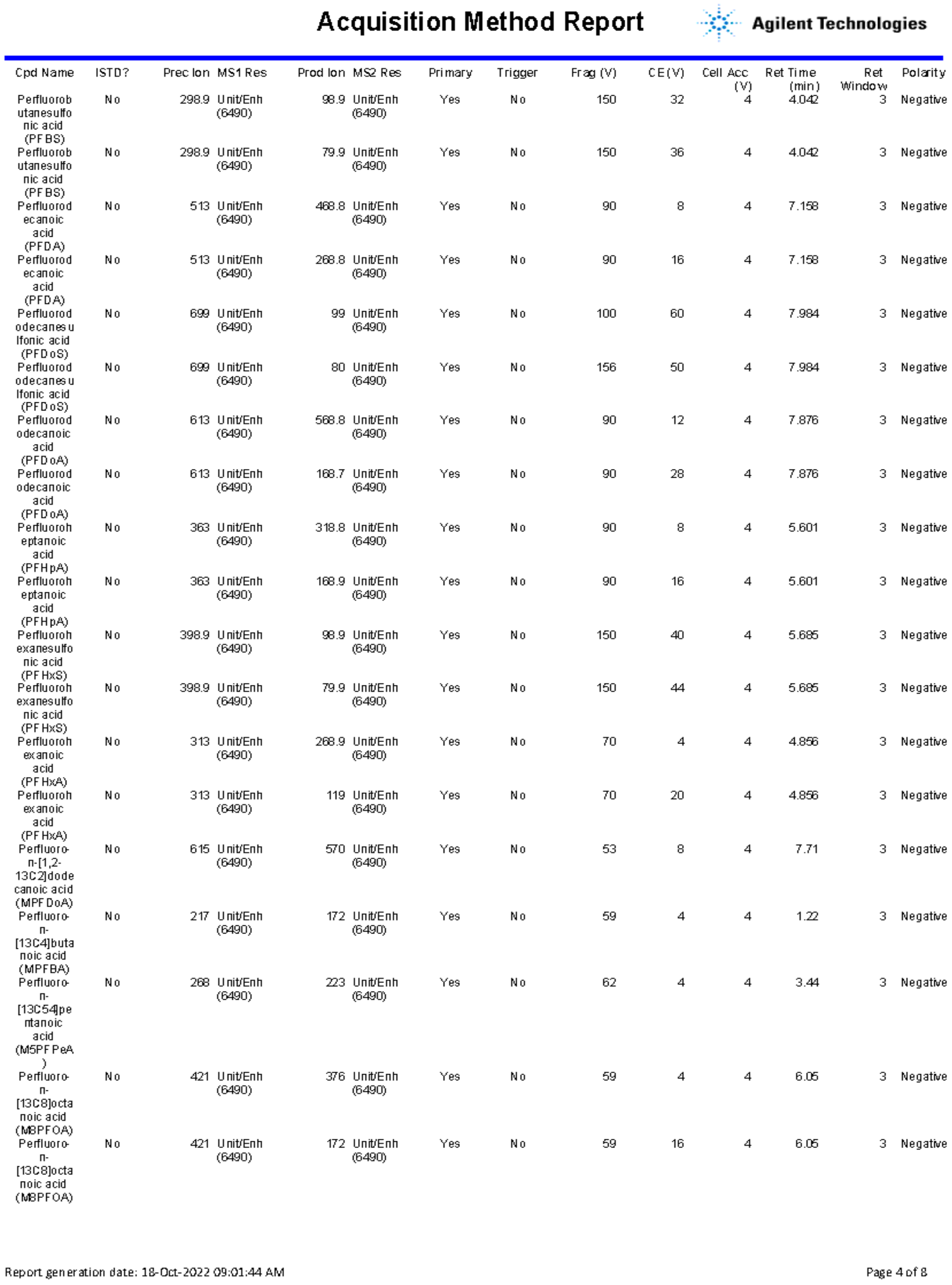
Agilent Technologies

Cpd Name	ISTD?	Prec Ion	MS1 Res	Prod Ion	MS2 Res	Primary	Trigger	Frag (V)	CE(V)	Cell Acc (V)	Ret Time (min)	Ret Window	Polarity
5-3FTCA	No	341	Unit/Enh (6490)	237	Unit/Enh (6490)	Yes	No	84	12	4	5.73	3	Negative
5-3FTCA	No	341	Unit/Enh (6490)	217	Unit/Enh (6490)	Yes	No	84	24	4	5.73	3	Negative
7-3FTCA	No	441	Unit/Enh (6490)	337	Unit/Enh (6490)	Yes	No	76	12	4	6.7	3	Negative
7-3FTCA	No	441	Unit/Enh (6490)	317	Unit/Enh (6490)	Yes	No	76	24	4	6.7	3	Negative
9-Cl-PF3ONS	No	531	Unit/Enh (6490)	351	Unit/Enh (6490)	Yes	No	175	29	4	6.89	3	Negative
ADONA	No	377	Unit/Enh (6490)	251	Unit/Enh (6490)	Yes	No	103	9	4	5.62	3	Negative
ADONA	No	377	Unit/Enh (6490)	85	Unit/Enh (6490)	Yes	No	103	37	4	5.62	3	Negative
d3-NMeFOSA	No	515	Unit/Enh (6490)	219	Unit/Enh (6490)	Yes	No	134	20	4	7.17	3	Negative
d3-N-MeFOSAA	No	572.99	Unit/Enh (6490)	418.8	Unit/Enh (6490)	Yes	No	130	20	4	7.17	3	Negative
d5-NEtFOSA	No	531	Unit/Enh (6490)	219	Unit/Enh (6490)	Yes	No	150	20	4	8.52	3	Negative
d5-NEtFOSA	No	531	Unit/Enh (6490)	169	Unit/Enh (6490)	Yes	No	150	20	4	8.52	3	Negative
d5-N-EtFOSAA	No	589.02	Unit/Enh (6490)	530.9	Unit/Enh (6490)	Yes	No	130	20	4	7.36	3	Negative
d5-N-EtFOSAA	No	589.02	Unit/Enh (6490)	418.8	Unit/Enh (6490)	Yes	No	130	20	4	7.36	3	Negative
d7-NMeFOSE	No	623	Unit/Enh (6490)	310	Unit/Enh (6490)	Yes	No	150	15	4	8.28	3	Negative
d7-NMeFOSE	No	623	Unit/Enh (6490)	59	Unit/Enh (6490)	Yes	No	88	15	4	8.28	3	Negative
d9-NEtFOSE	No	639	Unit/Enh (6490)	59	Unit/Enh (6490)	Yes	No	150	15	4	8.6	3	Negative
HFPO-DA	No	285	Unit/Enh (6490)	169.1	Unit/Enh (6490)	Yes	No	100	20	4	4.95	3	Negative
M2-4-2FTS	No	329	Unit/Enh (6490)	309	Unit/Enh (6490)	Yes	No	156	20	4	4.787	3	Negative
M2-4-2FTS	No	329	Unit/Enh (6490)	81	Unit/Enh (6490)	Yes	No	156	28	4	4.787	3	Negative
M2-6-2FTS	No	429	Unit/Enh (6490)	409	Unit/Enh (6490)	Yes	No	162	24	4	6.01	3	Negative
M2-6-2FTS	No	429	Unit/Enh (6490)	81	Unit/Enh (6490)	Yes	No	162	40	4	6.01	3	Negative
M2-8-2FTS	No	529	Unit/Enh (6490)	509	Unit/Enh (6490)	Yes	No	165	28	4	6.98	3	Negative
M2-8-2FTS	No	529	Unit/Enh (6490)	81	Unit/Enh (6490)	Yes	No	165	40	4	6.98	3	Negative
M2PFTeDA	No	715	Unit/Enh (6490)	670	Unit/Enh (6490)	Yes	No	62	12	4	8.25	3	Negative
M3-HFPO-DA	No	287	Unit/Enh (6490)	169	Unit/Enh (6490)	Yes	No	90	5	4	4.99	3	Negative
M3PFBA	Yes	216	Unit/Enh (6490)	172	Unit/Enh (6490)	Yes	No	90	5	4	1.2	2	Negative
M3PFBS	No	302	Unit/Enh (6490)	98.9	Unit/Enh (6490)	Yes	No	114	32	4	3.94	3	Negative
M3PFBS	No	302	Unit/Enh (6490)	79.9	Unit/Enh (6490)	Yes	No	114	40	4	3.94	3	Negative
M3PFHxS	No	402	Unit/Enh (6490)	98.9	Unit/Enh (6490)	Yes	No	165	40	4	5.55	3	Negative
M3PFHxS	No	402	Unit/Enh (6490)	80	Unit/Enh (6490)	Yes	No	165	48	4	5.55	3	Negative
M4PFHpA	No	367	Unit/Enh (6490)	322	Unit/Enh (6490)	Yes	No	124	8	4	5.601	3	Negative
M5PFHxA	No	318	Unit/Enh (6490)	273	Unit/Enh (6490)	Yes	No	70	4	4	5.47	3	Negative
M5PFHxA	No	318	Unit/Enh (6490)	120	Unit/Enh (6490)	Yes	No	70	4	4	5.47	3	Negative
M6PFDA	No	519	Unit/Enh (6490)	473.9	Unit/Enh (6490)	Yes	No	59	8	4	6.99	3	Negative
M7PFUdA	No	570	Unit/Enh (6490)	525	Unit/Enh (6490)	Yes	No	64	8	4	7.38	3	Negative
MPFDA	Yes	514.98	Unit/Enh (6490)	469.8	Unit/Enh (6490)	Yes	No	94	5	4	6.972	2	Negative
MPFHxA	Yes	314.99	Unit/Enh (6490)	269.8	Unit/Enh (6490)	Yes	No	86	4	4	4.705	2	Negative
MPFHxA	Yes	314.99	Unit/Enh (6490)	120	Unit/Enh (6490)	Yes	No	86	4	4	4.705	2	Negative
MPFHxS	Yes	403	Unit/Enh (6490)	103	Unit/Enh (6490)	Yes	No	110	37	4	5.63	2	Negative
MPFHxS	Yes	403	Unit/Enh (6490)	84	Unit/Enh (6490)	Yes	No	110	40	4	5.63	2	Negative
MPFNA	Yes	468	Unit/Enh (6490)	423	Unit/Enh (6490)	Yes	No	66	4	4	6.541	2	Negative
MPFOA	Yes	417	Unit/Enh (6490)	372	Unit/Enh (6490)	Yes	No	84	4	4	6.03	2	Negative
MPFOS	Yes	502.96	Unit/Enh (6490)	99	Unit/Enh (6490)	Yes	No	148	48	4	6.57	3	Negative

Acquisition Method Report

Agilent Technologies

Cpd Name	ISTD?	Prec Ion	MS1 Res	Prod Ion	MS2 Res	Primary	Trigger	Frag (V)	CE (V)	Cell Acc (V)	Ret Time (min)	Ret Window	Polarity
MPFOS	Yes	502.96	Unit/Enh (6490)	80	Unit/Enh (6490)	Yes	No	148	54	4	6.57	3	Negative
NEtFOSA	No	526	Unit/Enh (6490)	219	Unit/Enh (6490)	Yes	No	120	20	4	8.528	3	Negative
NEtFOSA	No	526	Unit/Enh (6490)	169	Unit/Enh (6490)	Yes	No	120	20	4	8.528	3	Negative
N-EtFOSAA	No	584	Unit/Enh (6490)	525.9	Unit/Enh (6490)	Yes	No	130	20	4	7.521	3	Negative
N-EtFOSAA	No	584	Unit/Enh (6490)	418.8	Unit/Enh (6490)	Yes	No	130	20	4	7.521	3	Negative
NEtFOSE	No	630	Unit/Enh (6490)	59	Unit/Enh (6490)	Yes	No	120	20	4	8.301	3	Negative
NFDHA	No	295	Unit/Enh (6490)	201.1	Unit/Enh (6490)	Yes	No	92	2	4	4.641	3	Negative
NFDHA	No	295	Unit/Enh (6490)	84.9	Unit/Enh (6490)	Yes	No	92	34	4	4.641	3	Negative
NMeFOSA	No	512	Unit/Enh (6490)	219	Unit/Enh (6490)	Yes	No	120	20	4	8.298	3	Negative
NMeFOSA	No	512	Unit/Enh (6490)	169	Unit/Enh (6490)	Yes	No	120	20	4	8.298	3	Negative
N-MeFOSAA	No	570	Unit/Enh (6490)	511.9	Unit/Enh (6490)	Yes	No	150	20	4	7.335	3	Negative
N-MeFOSAA	No	570	Unit/Enh (6490)	418.9	Unit/Enh (6490)	Yes	No	150	20	4	7.335	3	Negative
NMeFOSE	No	616	Unit/Enh (6490)	59	Unit/Enh (6490)	Yes	No	120	20	4	8.301	3	Negative
Perfluoro-1-[13C8]octanesulfonamide (M8FOSA)	No	506	Unit/Enh (6490)	78	Unit/Enh (6490)	Yes	No	162	48	4	7.59	3	Negative
Perfluoro-1-[13C8]octanesulfonic acid (M8PFOS)	No	507	Unit/Enh (6490)	98.9	Unit/Enh (6490)	Yes	No	174	48	4	6.59	3	Negative
Perfluoro-1-[13C8]octanesulfonic acid (M8PFOS)	No	507	Unit/Enh (6490)	80	Unit/Enh (6490)	Yes	No	174	54	4	6.59	3	Negative
Perfluoro-1-decanesulfonate (L-PFDS)	No	598.9	Unit/Enh (6490)	98.9	Unit/Enh (6490)	Yes	No	156	50	4	7.546	3	Negative
Perfluoro-1-decanesulfonate (L-PFDS)	No	598.9	Unit/Enh (6490)	98.9	Unit/Enh (6490)	Yes	No	100	60	4	7.546	3	Negative
Perfluoro-1-heptanesulfonate (L-PFHpS)	No	448.9	Unit/Enh (6490)	98.9	Unit/Enh (6490)	Yes	No	162	48	4	6.252	3	Negative
Perfluoro-1-heptanesulfonate (L-PFHpS)	No	448.9	Unit/Enh (6490)	80	Unit/Enh (6490)	Yes	No	162	48	4	6.252	3	Negative
Perfluoro-1-octanesulfonamide (FOSA)	No	497.9	Unit/Enh (6490)	478	Unit/Enh (6490)	Yes	No	156	100	4	7.651	3	Negative
Perfluoro-1-octanesulfonamide (FOSA)	No	497.9	Unit/Enh (6490)	78	Unit/Enh (6490)	Yes	No	156	40	4	7.651	3	Negative
Perfluoro-1-pentanesulfonate (L-PFPeS)	No	348.9	Unit/Enh (6490)	98.9	Unit/Enh (6490)	Yes	No	150	36	4	5.042	3	Negative
Perfluoro-1-pentanesulfonate (L-PFPeS)	No	348.9	Unit/Enh (6490)	79.9	Unit/Enh (6490)	Yes	No	150	40	4	5.042	3	Negative



Acquisition Method Report

Agilent Technologies

Cpd Name	ISTD?	Prec Ion	MS1 Res	Prod Ion	MS2 Res	Primary	Trigger	Frag (V)	CE(V)	Cell Acc (V)	Ret Time (min)	Ret Window	Polarity
Perfluorobutanesulfonic acid (PFBS)	No	298.9	Unit/Enh (6490)	98.9	Unit/Enh (6490)	Yes	No	150	32	4	4.042	3	Negative
Perfluorobutanesulfonic acid (PFBS)	No	298.9	Unit/Enh (6490)	79.9	Unit/Enh (6490)	Yes	No	150	36	4	4.042	3	Negative
Perfluorodecanoic acid (PFDA)	No	513	Unit/Enh (6490)	468.8	Unit/Enh (6490)	Yes	No	90	8	4	7.158	3	Negative
Perfluorodecanoic acid (PFDA)	No	513	Unit/Enh (6490)	268.8	Unit/Enh (6490)	Yes	No	90	16	4	7.158	3	Negative
Perfluorododecanesulfonic acid (PFDoS)	No	699	Unit/Enh (6490)	99	Unit/Enh (6490)	Yes	No	100	60	4	7.984	3	Negative
Perfluorododecanesulfonic acid (PFDoS)	No	699	Unit/Enh (6490)	80	Unit/Enh (6490)	Yes	No	156	50	4	7.984	3	Negative
Perfluorododecanoic acid (PFDoA)	No	613	Unit/Enh (6490)	568.8	Unit/Enh (6490)	Yes	No	90	12	4	7.876	3	Negative
Perfluorododecanoic acid (PFDoA)	No	613	Unit/Enh (6490)	168.7	Unit/Enh (6490)	Yes	No	90	28	4	7.876	3	Negative
Perfluoroheptanoic acid (PFHpA)	No	363	Unit/Enh (6490)	318.8	Unit/Enh (6490)	Yes	No	90	8	4	5.601	3	Negative
Perfluoroheptanoic acid (PFHpA)	No	363	Unit/Enh (6490)	168.9	Unit/Enh (6490)	Yes	No	90	16	4	5.601	3	Negative
Perfluorohexanesulfonic acid (PFHxS)	No	398.9	Unit/Enh (6490)	98.9	Unit/Enh (6490)	Yes	No	150	40	4	5.685	3	Negative
Perfluorohexanesulfonic acid (PFHxS)	No	398.9	Unit/Enh (6490)	79.9	Unit/Enh (6490)	Yes	No	150	44	4	5.685	3	Negative
Perfluorohexanoic acid (PFHxA)	No	313	Unit/Enh (6490)	268.9	Unit/Enh (6490)	Yes	No	70	4	4	4.856	3	Negative
Perfluorohexanoic acid (PFHxA)	No	313	Unit/Enh (6490)	119	Unit/Enh (6490)	Yes	No	70	20	4	4.856	3	Negative
Perfluoro-n-[1,2-13C2]dodecanoic acid (MPFDoA)	No	615	Unit/Enh (6490)	570	Unit/Enh (6490)	Yes	No	53	8	4	7.71	3	Negative
Perfluoro-n-[13C4]butanoic acid (MPFBA)	No	217	Unit/Enh (6490)	172	Unit/Enh (6490)	Yes	No	59	4	4	1.22	3	Negative
Perfluoro-n-[13C54]pentanoic acid (M5PFPeA)	No	268	Unit/Enh (6490)	223	Unit/Enh (6490)	Yes	No	62	4	4	3.44	3	Negative
Perfluoro-n-[13C8]octanoic acid (M8PFOA)	No	421	Unit/Enh (6490)	376	Unit/Enh (6490)	Yes	No	59	4	4	6.05	3	Negative
Perfluoro-n-[13C8]octanoic acid (M8PFOA)	No	421	Unit/Enh (6490)	172	Unit/Enh (6490)	Yes	No	59	16	4	6.05	3	Negative

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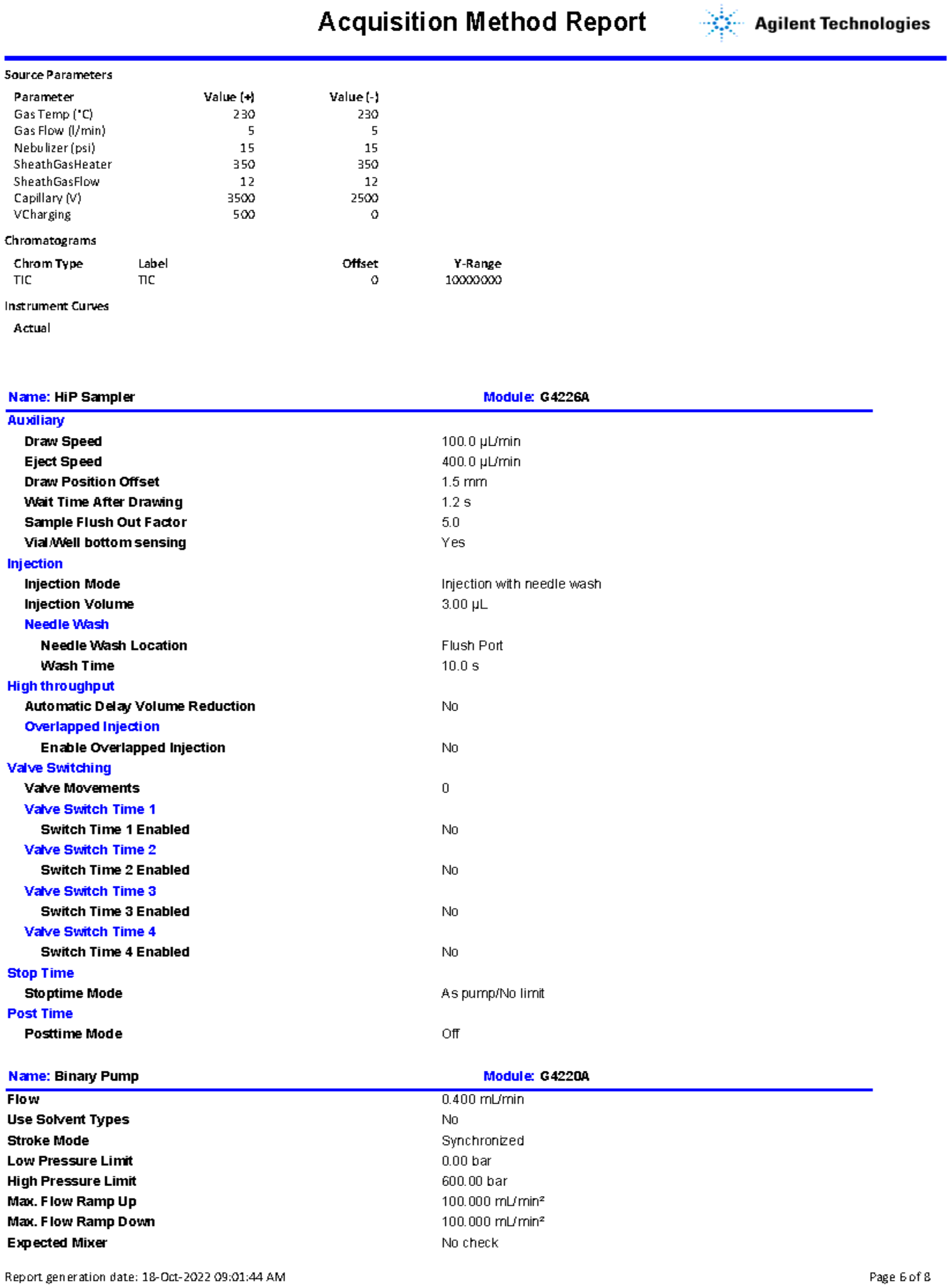
Acquisition Method Report

Agilent Technologies

Cpd Name	ISTD?	Prec Ion	MS1 Res	Prod Ion	MS2 Res	Primary	Trigger	Frag (V)	CE (V)	Cell Acc (V)	Ret Time (min)	Ret Window	Polarity
Perfluoro-n-[13C9]nonanoic acid (M9PFNA)	No	472	Unit/Enh (6490)	427	Unit/Enh (6490)	Yes	No	59	8	4	6.56	3	Negative
Perfluoro-n-[13C9]nonanoic acid (M9PFNA)	No	472	Unit/Enh (6490)	223	Unit/Enh (6490)	Yes	No	59	16	4	6.56	3	Negative
Perfluoro-n-butanoic acid (PFBA)	No	213	Unit/Enh (6490)	168.9	Unit/Enh (6490)	Yes	No	70	4	4	1.246	3	Negative
Perfluorononanesulfonate (L-PFNS)	No	548.9	Unit/Enh (6490)	98.9	Unit/Enh (6490)	Yes	No	159	48	4	7.174	3	Negative
Perfluorononanesulfonate (L-PFNS)	No	548.9	Unit/Enh (6490)	79.9	Unit/Enh (6490)	Yes	No	159	48	4	7.174	3	Negative
Perfluorononanoic acid (PFNA)	No	463	Unit/Enh (6490)	418.8	Unit/Enh (6490)	Yes	No	90	8	4	6.718	3	Negative
Perfluorononanoic acid (PFNA)	No	463	Unit/Enh (6490)	218.8	Unit/Enh (6490)	Yes	No	90	16	4	6.718	3	Negative
Perfluoro-n-pentanoic acid (PFPeA)	No	263	Unit/Enh (6490)	219	Unit/Enh (6490)	Yes	No	62	4	4	3.526	3	Negative
Perfluorooctanesulfonic acid (PFOS)	No	498.9	Unit/Enh (6490)	98.9	Unit/Enh (6490)	Yes	No	150	44	4	6.743	3	Negative
Perfluorooctanesulfonic acid (PFOS)	No	498.9	Unit/Enh (6490)	79.9	Unit/Enh (6490)	Yes	No	150	84	4	6.743	3	Negative
Perfluorooctanoic acid (PFOA)	No	413	Unit/Enh (6490)	368.8	Unit/Enh (6490)	Yes	No	90	8	4	6.202	3	Negative
Perfluorooctanoic acid (PFOA)	No	413	Unit/Enh (6490)	168.9	Unit/Enh (6490)	Yes	No	90	16	4	6.202	3	Negative
Perfluorotetradecanoic acid (PFTA)	No	713	Unit/Enh (6490)	669	Unit/Enh (6490)	Yes	No	110	12	4	8.414	3	Negative
Perfluorotetradecanoic acid (PFTA)	No	713	Unit/Enh (6490)	168.8	Unit/Enh (6490)	Yes	No	110	28	4	8.414	3	Negative
Perfluorotridecanoic acid (PFTrDA)	No	663	Unit/Enh (6490)	618.8	Unit/Enh (6490)	Yes	No	90	12	4	8.164	3	Negative
Perfluoroundecanoic acid (PFUnA)	No	563	Unit/Enh (6490)	519	Unit/Enh (6490)	Yes	No	90	8	4	7.538	3	Negative
Perfluoroundecanoic acid (PFUnA)	No	563	Unit/Enh (6490)	169	Unit/Enh (6490)	Yes	No	90	24	4	7.538	3	Negative
PFEESA	No	315	Unit/Enh (6490)	135	Unit/Enh (6490)	Yes	No	112	26	4	4.464	3	Negative
PFEESA	No	315	Unit/Enh (6490)	83	Unit/Enh (6490)	Yes	No	112	14	4	4.464	3	Negative
PFMBA	No	279	Unit/Enh (6490)	85	Unit/Enh (6490)	Yes	No	75	18	4	4.011	3	Negative
PFMPA	No	229	Unit/Enh (6490)	85	Unit/Enh (6490)	Yes	No	59	6	4	2.15	3	Negative

Scan Parameters

Data Stg	Threshold
Centroid	0



Acquisition Method Report

Source Parameters

Parameter	Value (+)	Value (-)
Gas Temp (°C)	230	230
Gas Flow (l/min)	5	5
Nebulizer (psi)	15	15
SheathGasHeater	350	350
SheathGasFlow	12	12
Capillary (V)	3500	2500
VCharging	500	0

Chromatograms

Chrom Type	Label	Offset	Y-Range
TIC	TIC	0	10000000

Instrument Curves

Actual

Name: HiP Sampler **Module:** G4226A

Auxiliary	
Draw Speed	100.0 µL/min
Eject Speed	400.0 µL/min
Draw Position Offset	1.5 mm
Wait Time After Drawing	1.2 s
Sample Flush Out Factor	5.0
Vial/Well bottom sensing	Yes
Injection	
Injection Mode	Injection with needle wash
Injection Volume	3.00 µL
Needle Wash	
Needle Wash Location	Flush Port
Wash Time	10.0 s
High throughput	
Automatic Delay Volume Reduction	No
Overlapped Injection	
Enable Overlapped Injection	No
Valve Switching	
Valve Movements	0
Valve Switch Time 1	
Switch Time 1 Enabled	No
Valve Switch Time 2	
Switch Time 2 Enabled	No
Valve Switch Time 3	
Switch Time 3 Enabled	No
Valve Switch Time 4	
Switch Time 4 Enabled	No
Stop Time	
Stoptime Mode	As pump/No limit
Post Time	
Posttime Mode	Off

Name: Binary Pump **Module:** G4220A

Flow	0.400 mL/min
Use Solvent Types	No
Stroke Mode	Synchronized
Low Pressure Limit	0.00 bar
High Pressure Limit	600.00 bar
Max. Flow Ramp Up	100.000 mL/min²
Max. Flow Ramp Down	100.000 mL/min²
Expected Mixer	No check

Report generation date: 18-Oct-2022 09:01:44 AM

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APPENDIX C – Community Air Monitoring Plan

GALLAGHER BASSETT | TECHNICAL SERVICES

COMMUNITY AIR MONITORING PLAN

Monticello Manor Lofts

15 High Street, Monticello, New York

NYSDEC BCP Site: C353018

May 2025

GBTS Project: 22003-0020

Technical Services Division

22 IBM Road, Suite 101., Poughkeepsie, NY 12601 T: 845-452-1658 F: 845-485-7083
www.gallagherbassett.com

COMMUNITY AIR MONITORING PLAN

May 2025

GBTS Project: 22003-0020

Prepared By:

Gallagher Bassett Technical Services
22 IBM Road, Suite 101
Poughkeepsie, New York 12601

Prepared For:

Manor Lofts JV, LLC
57 Route 6, Suite 207
Baldwin Place, New York 10505

The undersigned have reviewed this Community Air Monitoring Plan and certify to Manor Lofts JV, LLC and to the New York State Department of Environmental Conservation that the information provided in this document is accurate as of the date of issuance by this office.

Scott Spitzer

Scott Spitzer
Gallagher Bassett Technical Services
Technical Director – Environmental Consulting

Richard Hooker
Gallagher Bassett Technical Services
Manager – Environmental Consulting

TABLE OF CONTENTS

ATTACHMENTS

1.0 INTRODUCTION

1.1 Purpose

This Community Air Monitoring Plan (CAMP) has been developed to provide the requirements and general procedures to be followed by Gallagher Bassett Technical Services (GBTS) and on-Site subcontractors while performing investigative services at the Monticello Manor Lofts BCP Site (C353018) located in the Village of Monticello, Sullivan County, New York.

This CAMP requires real-time monitoring for volatile organic compounds (VOCs) and particulates (i.e., dust) at the upwind and downwind perimeters of each designated work area and is intended to provide protection for the downwind receptors, including off-Site properties and on-site workers not directly involved in the handling of contaminated materials. Implementation of the CAMP helps to confirm that work activities did not spread contamination off-site through the air. The Project Manager or Site Health and Safety Officer (SHSO) may impose other requirements necessary for safe Site operations and protection of potential receptors.

1.2 Site Location and Fieldwork Area

The Site is defined as Monticello Manor Lofts, located at 15 High Street, the Village of Monticello, Sullivan County, New York. A Proposed Remedial Investigation Map illustrating the Site configuration is attached.

1.3 Work Activities

Proposed remedial investigative actions include extension of soil borings, installation of monitoring wells and soil vapor probes, and collection of soil, groundwater, and vapor samples to document and delineate on-Site contamination conditions.

1.4 Health and Safety Hazards

The potential exists for the presence of elevated levels of organic and inorganic compounds in Site soils and groundwater, and volatile compounds in soil vapor. The possibility exists for on-site personnel to have contact with contaminated soils, groundwater, and/or vapor during fieldwork activities. Contact with contaminated substances may present a skin contact, inhalation, and/or ingestion hazard.

2.0 AIR MONITORING

2.1 General Requirements

The implementation of the CAMP will document the presence or absence of VOCs and dust in the air surrounding the work zone, which may migrate off-Site due to fieldwork activities. Monitoring will be conducted: 1) at all times that fieldwork activities that are likely to generate emissions are occurring; and, 2) for the duration of all ground intrusive and soil handling activities.

This plan provides guidance on the need for implementing more stringent dust and emission controls based on air quality data.

2.1.1 Continuous Monitoring

Real-time air monitoring for VOCs and particulate levels at the perimeter of the exclusion zone or work area will be performed according to the NYSDOH Generic Community Air Monitoring Plan (provided as an Attachment), and in accordance with the special requirements presented below, during all ground intrusive activities and any other fieldwork that is reasonably likely to generate significant dust or vapors from known or suspected contaminated soils. Ground intrusive activities include, but are not limited to, soil/waste excavation and handling, test pit excavation or trenching, and the installation of soil borings or monitoring wells.

2.1.2 Periodic Monitoring

Periodic monitoring for VOCs will be performed during non-intrusive activities such as the collection of soil and sediment samples or the collection of groundwater samples from existing monitoring wells. Periodic monitoring during sample collection, for instance, will consist of taking a reading upon arrival at a sample location, monitoring while opening a well cap or overturning soil, monitoring during well baling/purging, and taking a reading prior to leaving a sample location. Depending upon the proximity of potentially exposed individuals, continuous monitoring may be performed during sampling activities. Examples of such situations include groundwater sampling at wells on the curb of a busy urban street, in the midst of a public park, or adjacent to a school or residence.

2.1.3 Health and Safety

Photoionization detector (PID) and dust readings consistently in excess of CAMP limits will be used as an indication of the need to initiate personnel monitoring, increase worker protective measures, and/or modify or cease on-site operations in order to mitigate off-site community exposure. PID readings that consistently exceed background in the breathing zone (during any proposed tasks) will necessitate moving away from the source or implementing a higher level of personal protective equipment (concentrations of VOCs in the air are expected to be below the OSHA Permissible Exposure Limits [PELs]).

2.1.4 VOC Monitoring, Response Levels, and Actions

VOCs will be monitored at the downwind perimeter of the immediate work area (i.e., the exclusion zone) on a continuous basis during invasive work. Upwind concentrations will be measured at the start of each workday and periodically thereafter to establish background conditions. Monitoring work will be performed using equipment appropriate to measure the types of contaminants known or suspected to be present.

The equipment will be calibrated at least daily for the contaminant(s) of concern or for an appropriate surrogate. The equipment will be capable of calculating 15-minute running average concentrations, which will be compared to the levels specified below.

If the ambient air concentration of total organic vapors at the downwind perimeter of the work area or exclusion zone exceeds 5 parts per million (ppm) above background for the 15-minute average, work activities will be temporarily halted and monitoring continued. If the total organic vapor level readily decreases (per instantaneous readings) below 5 ppm over background, work activities will resume with continued monitoring.

If total organic vapor levels at the downwind perimeter of the work area or exclusion zone persist at levels in excess of 5 ppm over background but less than 25 ppm, work activities will be halted, the source of vapors identified, corrective actions taken to abate emissions, and monitoring continued. After these steps, work activities will resume provided that the total organic vapor level 200 feet downwind of the exclusion zone or half the distance to the nearest potential receptor or occupied structure, whichever is less - but in no case less than 20 feet, is below 5 ppm over background for the 15-minute average.

If the organic vapor level is above 25 ppm at the perimeter of the work area, activities will be shut down.

All 15-minute readings must be recorded and be available for NYSDEC personnel to review. Instantaneous readings, if any, used for decision purposes will also be recorded.

2.1.5 Particulate Monitoring, Response Levels, and Actions

Particulate concentrations will be monitored continuously at the upwind and downwind perimeters of the exclusion zone at temporary particulate monitoring stations. The particulate monitoring will be performed using real-time monitoring equipment capable of measuring particulate matter less than 10 micrometers in size (PM-10) and capable of integrating over a period of 15 minutes (or less) for comparison to the airborne particulate action level.

The equipment will be equipped with an audible alarm to indicate exceedance of the action level. In addition, fugitive dust migration should be visually assessed during all work activities.

If the downwind PM-10 particulate level is 100 micrograms per cubic meter ($\mu g/m^3$) greater than background (upwind perimeter) for the 15-minute period or if airborne dust is observed leaving the work area, then dust suppression techniques will be employed and work will continue provided that downwind PM-10 particulate levels do not exceed 150 $\mu g/m^3$ above the upwind level and provided that no visible dust is migrating from the work area.

If, after implementation of dust suppression techniques, downwind PM-10 particulate levels are greater than 150 µg/m^3 above the upwind level, work will be stopped and a re-evaluation of activities initiated. Work will resume provided that dust suppression measures and other controls are successful in reducing the downwind PM-10 particulate concentration to within 150 µg/m^3 of the upwind level and in preventing visible dust migration.

All readings will be recorded and will be available for NYSDEC personnel to review.

2.2 Special Requirements

2.2.1 Work within 20 Feet of Potential Receptors

When work areas are within 20 feet of potentially exposed populations or occupied structures, the continuous monitoring locations for VOCs and particulates must reflect the nearest potentially exposed individuals and the location of ventilation system intakes for nearby structures. The use of engineering controls such as vapor/dust barriers, temporary negative pressure enclosures, or special ventilation devices should be considered to prevent exposures related to the work activities and to control dust and odors. Consideration should be given to implementing the planned activities when potentially exposed populations are at a minimum, such as during weekends or evening hours in non-residential settings.

If total VOC concentrations opposite the walls of occupied structures or next to intake vents exceed 1 ppm, monitoring should occur within the occupied structure(s). Depending upon the nature of contamination, chemical-specific colorimetric tubes of sufficient sensitivity may be necessary for comparing the exposure point concentrations with appropriate pre-determined response levels (response actions should also be predetermined). Background readings in the occupied spaces must be taken and discussed with NYSDOH prior to commencement of the work.

If total particulate concentrations opposite the walls of occupied structures or next to intake vents exceed 150 mcg/m^3, work activities should be suspended until controls are implemented and are successful in reducing the total particulate concentration to 150 mcg/m^3 or less at the monitoring point.

Depending upon the nature of contamination and remedial activities, other parameters (e.g., explosivity, oxygen, hydrogen sulfide, and carbon monoxide) may also need to be monitored. Response levels and actions should be pre-determined, as necessary, for each site.

2.2.2 Special Requirements for Indoor Work

Unless a self-contained, negative-pressure enclosure with proper emission controls will encompass the work area, all individuals not directly involved with the planned work must be absent from the room in which the work will occur. Monitoring requirements shall be as stated above under Section 2.2.1, except that in this instance “nearby/occupied structures” would be adjacent occupied rooms.

The location of all exhaust vents in the room and their discharge points, as well as potential vapor pathways (openings, conduits, etc.) relative to adjoining rooms, should be understood and the monitoring locations established accordingly. In these situations, it is strongly recommended that exhaust fans or other engineering controls be used to create negative air pressure within the work area during remedial activities.

Additionally, it is strongly recommended that the planned work be implemented during hours (e.g., weekends or evenings) when building occupancy is at a minimum.

2.3 Contaminant Control

Mitigation measures may be required to control the generation of vapors and/or dust.

2.3.1 Dust Control

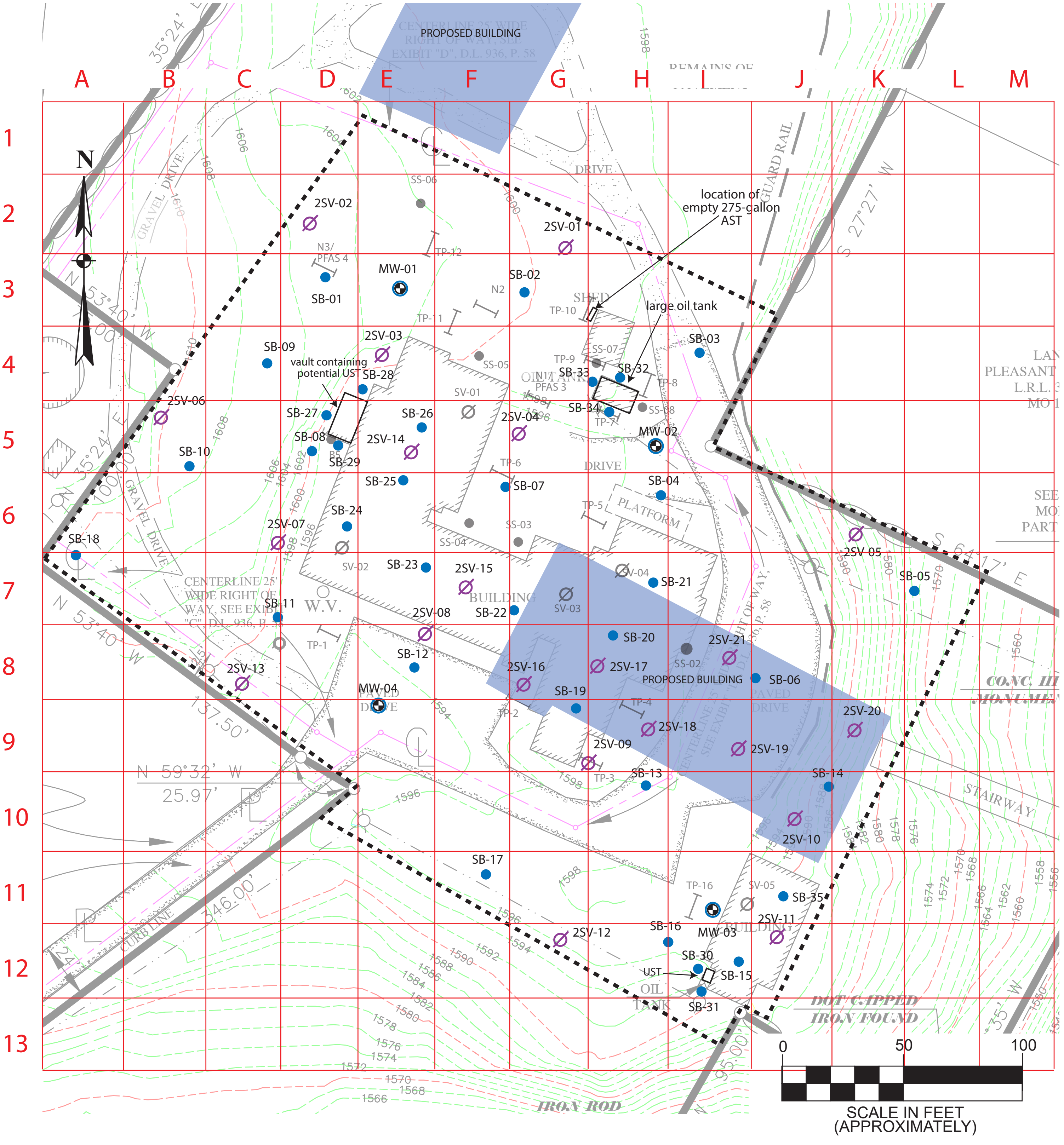
Mitigation measures may include reducing the surface area of contaminated soil being disturbed at one time, wetting heavy equipment and exposed soils to reduce fugitive dust, using covered stockpiles/trucks, or stopping excavation and/or other soil disturbing activities. Dust suppression will be conducted during construction activities that will disturb on-Site soils and may include misting, reduction in soil movement, reducing vehicle speeds, or cessation of excavation.

2.3.2 Vapor Control

If Site activities expose impacted soil or other media under conditions likely to generate vapor emissions creating a public nuisance or that could pose a health hazard to workers and the general public, the fieldwork team must be prepared to stop work in order to evaluate appropriate response actions, which may include the use of an odor/vapor suppressant, such as BioSolve®, capable of suppressing vapor release from soil surfaces (see attached documentation), or limiting work to cooler or less windy times of day.

3.0 QUALITY ASSURANCE

All instruments will be properly calibrated before the start of fieldwork, with periodic calibration checks as necessary. All equipment will be operated in accordance with the manufacturer's recommendations and the operator’s manual. The fieldwork manager will review all data and take appropriate actions based on the requirements in Section 2 of this CAMP. A record of all calibration events, and any unusual occurrence that affect CAMP data, will be recorded in the project field log book. Instrument calibration shall be documented in the designated field logbook. Exceedances of action levels observed during performance of the CAMP will be reported to the NYSDEC Project Manager and included in the Daily Report.



Base Map provided by John W. Galligan, Licensed Land Surveyor dated 2/3/20. All feature locations are approximate.
This map is intended as a schematic to be used in conjunction with the associated report, and it should not be relied upon as a survey for planning or other activities.

Figure: Remedial Investigation Map

Monticello Manor Lofts
BCP Site: C353018
15 High Street
Monticello, New York

Legend:
- ▬ Tax Lot 107-1-11.1
- ▪▪▪ BCP Site Boundary
- ⊢⊣ previous test pit location
- ● previous soil sample location
- ∅ previous soil vapor location
- ⊗ proposed monitoring well location
- ● proposed soil boring location
- ∅ proposed soil vapor location

File: 22003-0020
May 2025
Scale as shown
Figures

Appendix 1A
New York State Department of Health
Generic Community Air Monitoring Plan

Overview

A Community Air Monitoring Plan (CAMP) requires real-time monitoring for volatile organic compounds (VOCs) and particulates (i.e., dust) at the downwind perimeter of each designated work area when certain activities are in progress at contaminated sites. The CAMP is not intended for use in establishing action levels for worker respiratory protection. Rather, its intent is to provide a measure of protection for the downwind community (i.e., off-site receptors including residences and businesses and on-site workers not directly involved with the subject work activities) from potential airborne contaminant releases as a direct result of investigative and remedial work activities. The action levels specified herein require increased monitoring, corrective actions to abate emissions, and/or work shutdown. Additionally, the CAMP helps to confirm that work activities did not spread contamination off-site through the air.

The generic CAMP presented below will be sufficient to cover many, if not most, sites. Specific requirements should be reviewed for each situation in consultation with NYSDOH to ensure proper applicability. In some cases, a separate site-specific CAMP or supplement may be required. Depending upon the nature of contamination, chemical- specific monitoring with appropriately-sensitive methods may be required. Depending upon the proximity of potentially exposed individuals, more stringent monitoring or response levels than those presented below may be required. Special requirements will be necessary for work within 20 feet of potentially exposed individuals or structures and for indoor work with co-located residences or facilities. These requirements should be determined in consultation with NYSDOH.

Reliance on the CAMP should not preclude simple, common-sense measures to keep VOCs, dust, and odors at a minimum around the work areas.

Community Air Monitoring Plan

Depending upon the nature of known or potential contaminants at each site, real-time air monitoring for VOCs and/or particulate levels at the perimeter of the exclusion zone or work area will be necessary. Most sites will involve VOC and particulate monitoring; sites known to be contaminated with heavy metals alone may only require particulate monitoring. If radiological contamination is a concern, additional monitoring requirements may be necessary per consultation with appropriate DEC/NYSDOH staff.

Continuous monitoring will be required for all ground intrusive activities and during the demolition of contaminated or potentially contaminated structures. Ground intrusive activities include, but are not limited to, soil/waste excavation and handling, test pitting or trenching, and the installation of soil borings or monitoring wells.

Periodic monitoring for VOCs will be required during non-intrusive activities such as the collection of soil and sediment samples or the collection of groundwater samples from existing monitoring wells. “Periodic” monitoring during sample collection might reasonably consist of taking a reading upon arrival at a sample location, monitoring while opening a well cap or overturning soil, monitoring during well baling/purging, and taking a reading prior to leaving a sample location. In some instances, depending upon the proximity of potentially exposed individuals, continuous monitoring may be required during sampling activities. Examples of such situations include groundwater sampling at wells on the curb of a busy urban street, in the midst of a public park, or adjacent to a school or residence.

VOC Monitoring, Response Levels, and Actions

Volatile organic compounds (VOCs) must be monitored at the downwind perimeter of the immediate work area (i.e., the exclusion zone) on a continuous basis or as otherwise specified. Upwind concentrations should be measured at the start of each workday and periodically thereafter to establish background conditions, particularly if wind direction changes. The monitoring work should be performed using equipment appropriate to measure the types of contaminants known or suspected to be present. The equipment should be calibrated at least daily for the contaminant(s) of concern or for an appropriate surrogate. The equipment should be capable of calculating 15-minute running average concentrations, which will be compared to the levels specified below.

1. If the ambient air concentration of total organic vapors at the downwind perimeter of the work area or exclusion zone exceeds 5 parts per million (ppm) above background for the 15-minute average, work activities must be temporarily halted and monitoring continued. If the total organic vapor level readily decreases (per instantaneous readings) below 5 ppm over background, work activities can resume with continued monitoring.

2. If total organic vapor levels at the downwind perimeter of the work area or exclusion zone persist at levels in excess of 5 ppm over background but less than 25 ppm, work activities must be halted, the source of vapors identified, corrective actions taken to abate emissions, and monitoring continued. After these steps, work activities can resume provided that the total organic vapor level 200 feet downwind of the exclusion zone or half the distance to the nearest potential receptor or residential/commercial structure, whichever is less - but in no case less than 20 feet, is below 5 ppm over background for the 15-minute average.

3. If the organic vapor level is above 25 ppm at the perimeter of the work area, activities must be shutdown.

4. All 15-minute readings must be recorded and be available for State (DEC and NYSDOH) personnel to review. Instantaneous readings, if any, used for decision purposes should also be recorded.

Particulate Monitoring, Response Levels, and Actions

Particulate concentrations should be monitored continuously at the upwind and downwind perimeters of the exclusion zone at temporary particulate monitoring stations. The particulate monitoring should be performed using real-time monitoring equipment capable of measuring particulate matter less than 10 micrometers in size (PM-10) and capable of integrating over a period of 15 minutes (or less) for comparison to the airborne particulate action level. The equipment must be equipped with an audible alarm to indicate exceedance of the action level. In addition, fugitive dust migration should be visually assessed during all work activities.

1. If the downwind PM-10 particulate level is 100 micrograms per cubic meter (mcg/m^3) greater than background (upwind perimeter) for the 15-minute period or if airborne dust is observed leaving the work area, then dust suppression techniques must be employed. Work may continue with dust suppression techniques provided that downwind PM-10 particulate levels do not exceed 150 mcg/m^3 above the upwind level and provided that no visible dust is migrating from the work area.

2. If, after implementation of dust suppression techniques, downwind PM-10 particulate levels are greater than 150 mcg/m^3 above the upwind level, work must be stopped and a re-evaluation of activities initiated. Work can resume provided that dust suppression measures and other controls are successful in reducing the downwind PM-10 particulate concentration to within 150 mcg/m^3 of the upwind level and in preventing visible dust migration.

3. All readings must be recorded and be available for State (DEC and NYSDOH) and County Health personnel to review.

December 2009


Vapor Suppression


Soil


Remediation

Tank Cleaning & Degassing

biosolve
PINKWATER®
HYDROCARBON MITIGATION AGENT™

BioSolve PINKWATER, brand leader and industry workhorse for over 30 years. Formulated with our signature magenta dye for traceability. Sold only as a concentrate.

biosolve
CLEAR®
HYDROCARBON MITIGATION AGENT™

BioSolve CLEAR, same concentration and performance as Pinkwater, without traceable magenta dye.

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ACTIVATOR®
SOIL REMEDIATION AGENT™

NEW BioSolve Activator, formulated as a high performance emulsification surfactant for improved soil remediation. Meets EPA's Safer Choice Standard as well as OECD standard for Ready Biodegradability.

biosolve
FOGWASH®
REMOVES FATS, OILS & GREASE™

BioSolve FOGwash, same concentration and performance as Pinkwater, with no fragrance and less color. FOGwash is formulated for professional use in both commercial & industrial kitchens. (Sold only in cases/gallons.)

BioSolve products sold in:

Units	US Gallons	Liters	Pallet
Tote	275	1,041	1 unit
Drum	55	208	4 units
Pail	5	19	24 units
Case	4 x 1G	4 x 3.8L	27 units

TO ORDER CALL **800 225-3909**

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APPLICATIONS

Vapor Suppression & Odor Control >> PINKWATER • ACTIVATOR

Diluted in large mixing tanks, Pinkwater and Activator are used at major remediation and construction work-sites where excavation of contaminated soils may release noxious organic odors or hazardous VOCs. The dilute solution is sprayed directly onto newly exposed soil surfaces or stockpiles of contaminated material where volatilization is taking place. Used as an alternative to foam, our products create a barrier that keeps vapors in the soil, allowing work to continue safely without disruption to workers or neighbors.

Soil Remediation >> ACTIVATOR • PINKWATER

In-situ, a dilute solution is injected into contaminated subsurface zones to mobilize and solubilize NAPL trapped in the soil. The effluent is then extracted under careful hydraulic control and treated prior to discharge. For ex-situ remediation or soil washing, Pinkwater and Activator are used as washing agents to remove hydrocarbons. Following the wash, soil is rinsed, dried and returned to grade. On bioremediation or land farming projects, the ability to micro-emulsify hydrocarbons results in enhanced bioavailability for naturally occurring hydrocarbon degrader bacteria. This dramatically accelerates the biodegradation process.

Tank Cleaning & Degassing >> PINKWATER

Pinkwater is a standard component in cleaning/degassing protocols for oil and fuel tanks of all sizes. High pressure spray application of Pinkwater solution to tank walls and internal structures rapidly reduces LEL (Lower Explosive Limits) readings, improves worker safety and sharply reduces project turnaround time. Pinkwater solution is also sprayed/mixed into sludge to knock down vapor levels and convert sludge into a pumpable aqueous solution.

Emergency Spill Response >> PINKWATER

BioSolve Pinkwater eliminates fire and explosion hazard when sprayed directly onto a fuel/oil spill. Aggressive agitation reduces volatilization and causes LEL readings to immediately decline, possibly registering "0." Application of Pinkwater also facilitates roadway cleanup and elimination of hazardous oil sheen.

Equipment Decontamination >> PINKWATER • CLEAR

Used for cleaning/decontaminating tools and equipment at remediation sites, in refineries, on drilling rigs, following spill cleanup, and in industrial maintenance operations. Generally applied with standard pressure washing equipment, most oil and tar build-up can be washed away on contact. For more severe contamination, a hot water spray system may be required.

HOW DO BIOSOLVE PRODUCTS WORK?

BioSolve products are water-based surfactant formulations engineered to aggressively "grab" hydrocarbon molecules and hold them in an aqueous solution, called an emulsion. When applied as a dilute solution and agitated, the formulation first mobilizes hydrocarbons, pulling them away from hard surfaces (e.g., metal, concrete, asphalt) or releasing them from soil, and then solubilizes hydrocarbons in an emulsion that can be removed with water. The emulsion is non-volatile and readily degraded.

This functionality enables BioSolve products to be effective across a wide range of applications where increased solubility, reduced volatility and/or accelerated biodegradation is required for removing or remediating oil and fuel contamination. Pinkwater, Activator and Clear are typically applied as a 1% to 8% solution. Agitation may be provided by a pressure washer, pump, brush, water hose, jet sprayer or mixer.

"Shell is purchasing BioSolve Pinkwater for only one reason, because it works"

Pat Agbo
Head of Oil Spill Response
Shell Oil Upstream International
Port Harcourt, Nigeria

"Your product performed exactly as advertised"

David Turner
Colonial Pipeline
Alpharetta, Georgia

"The loading dock was caked with hydraulic oil and had a grotesque odor. The Pinkwater worked brilliantly. When those guys were finished, it literally smelled clean."

Mike Dimino
The Seneca Companies
Denver Colorado

"BioSolve Pinkwater helped mitigate a big VOC emission issue, assisting in eliminating citizen complaints and keeping the project on schedule."

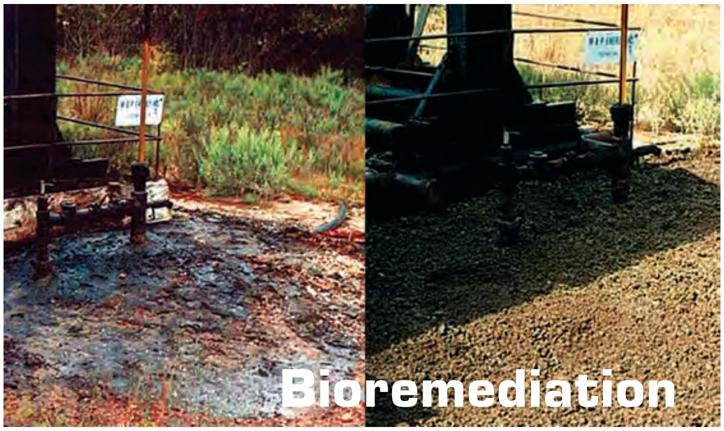
Shouvik Gangopadhyay
ECC Senior Project Manager
Nordlys Environmental, LP
Sydney Tar Ponds Project

» PROVEN EFFECTIVE » EASY TO USE » SAFE FOR WORKERS & ENVIRONMENT

Water-based **Biodegradable**

COMMON USES

Suppression of Volatile Organic Vapors
In-Situ/Ex-Situ Remediation of Contaminated Soil
Bioremediation of Contaminated Soil
Hazardous Spill Containment & Cleanup
Solubilization of Sludge & Grease
Oil/Fuel Storage Tank Cleaning & Degassing
Equipment & Hard Surface Decontamination
Paraffin Control in Oil Wells



BioSolve products contain no caustic, d-limonene or hydrocarbon solvents. Products do not contain any hazardous ingredients as defined by CERCLA, OSHA (29 CFR 1910.1200), Massachusetts Right to Know Law, and California Proposition 65. Products are rated by DOT as Class 55, non-hazardous.

BioSolve Pinkwater is on the U.S. Environmental Protection Agency's NCP Product Schedule. This listing does NOT mean that EPA approves, recommends, licenses, certifies, or authorizes the use of BioSolve Pinkwater on an oil discharge. This listing means only that data have been submitted to EPA as required by Subpart J of the National Contingency Plan, 40 CFR Section 300.915.

Pinkwater and Activator are not listed as bioremediation agents on the EPA National Contingency Plan and therefore are not to be used for bioremediation purposes on or near the shorelines of navigable waters within the US.

This material is made available for use by professionals or persons having the proper technical skills. The statements made herein are guidelines only and may require modification to accommodate site specific conditions. Nothing contained herein is a warranty or is to be taken as a license to use without proper instruction and supervision. BioSolve products should always be used in accordance with applicable federal, state and local rules and regulations

Case Studies, Information Sheets, Application Protocols & SDS are available on request

> **"I am very impressed with your product's ability to clean everything from invert and gel drilling mud to hydraulic oil."**
>
> Colby Simpson
> Hot Flash Oil Field Services
> Alberta Canada

> **"BioSolve clearly outperformed everything else we have tried. I'm a real believer in the product."**
>
> Lane Altenbaumer
> Specialized Maintenance Services,
> Carylon Corporation
> Pasadena, TX

Used by 'Fire Department of New York' Hazmat Units (for emergency response) and 'New York City Transit' (for parts cleaning) for over ten years.

INTERNATIONAL
MARITIME
ORGANIZATION

BioSolve.com

Safety Data Sheet

Section 1 – Chemical Products and Company Identification

Product Names:	BioSolve® Pinkwater®
Product Uses:	Remediation of hydrocarbon (oil, fuel, petrochemical) contamination, including: impacted soils, suppression of VOCs, decontamination of equipment and protective clothing, and surface washing
Manufacturer:	The BioSolve Company 24 Victory Lane Dracut, MA 01826 USA
Contact Information:	+1 (800) 225-3909 US, Canada, Mexico and Puerto Rico +1 (781) 482-7900 All other locations

Section 2 – Hazards Identification

Health Hazards:	Eye Contact:	Causes transient eye irritation
	Skin Contact:	May cause mild, transient irritation
	Ingestion:	May be harmful if swallowed; can cause gastrointestinal irritation, nausea, vomiting and/or diarrhea
Hazard Mitigation:	Wear protective gloves and eye/face protection Avoid prolonged breathing of spray	
Environmental Hazards:	Moderately toxic to aquatic life. Avoid discharge to storm drains and waterways	
GHS Classification:	Toxic to aquatic life, Acute Category 2	

Section 3 – Composition/Information on Ingredients

Proprietary formulation with nonionic surfactants (32% active ingredients in water)

BioSolve products contain no caustic, d-limonene or hydrocarbon solvents.

BioSolve products do not contain any hazardous ingredients as defined by CERCLA, Massachusetts Right to Know Law and California Prop 65. All ingredients are TSCA compliant.

Safety Data Sheet

Section 4 – First Aid Measures

Eyes: Immediately flush eyes with water for at least 15 minutes. Hold eyelids apart while flushing to rinse entire surface of eye and lids with water. Seek medical attention for lasting irritation.
Skin: Rinse exposed area and wash with mild soap and water for several minutes. Seek medical attention if irritation develops.
Ingestion: Seek medical attention in the event of serious or persistent abdominal discomfort, nausea or diarrhea.
Inhalation: Inhalation of concentrated vapors resulting from spraying or heating in confined or poorly ventilated areas may cause irritation of nose and throat. Remove person to fresh air and seek medical attention if irritation persists.

Section 5 – Fire Fighting Measures

Suitable Extinguishing Media: None required; BioSolve products are non-flammable

Special Protective Equipment for Firefighters: None necessary

Unusual Fire or Explosive Hazards: None

Section 6 – Accidental Release Measures

In case of accidental release, breakage or leakage: Eliminate or contain source with inert material, such as sand, earth, absorbent pads, etc. Transfer liquid to suitable containers for recovery, re-use or disposal. Wipe up or mop up using water. Hard surfaces (e.g., floors, driveways) may be slippery; use care to avoid falling.

Rinse area with water. Avoid flow of run-off to surface waters. Always check with local regulations before discharging effluent to storm drains or sewers.

Section 7 – Handling and Storage

Handling: Minimize periods of exposure to extreme temperatures. Keep from freezing. If frozen, separation may occur; thaw and stir thoroughly prior to use. Freezing will not affect product performance.
Precautions: Chemical resistant gloves and eye protection are recommended while mixing and using.
Incompatibilities: Avoid contact with strong acids or strong oxidants.
Storage: Recommended storage temperature: 35º – 120º F (1º – 48º C).
Shelf Life: If unopened, more than 10 years.

Section 8 – Exposure Controls / Personal Protection

Eyes Protection:	Safety glasses; chemical goggles or face shield recommended when spraying to protect against backsplash and drift.
Skin Protection:	Rubber or latex gloves recommended.
Respiratory Protection:	None required, except if application results in significant misting of product. If so, use of an approved air purifying respirator is recommended.
Engineering Controls:	For indoor use or for use in a confined space, normal ventilation is generally satisfactory.

Section 9 – Physical and Chemical Properties

Appearance:	Deep red
Odor:	Mild, pleasant sassafras fragrance
Concentration:	~32% active ingredients as sold

Boiling Point	265ºF/129ºC	**Vapor Pressure mm/Hg**	Not available
Melting/Freezing Point	28ºF/-2ºC	**Vapor Density (Air=1)**	Not available
Flash Point	Non-flammable	**Surface Tension***	29 Dyne/cm @25ºC
Flammability Limits	Not applicable	**Viscosity (concentrate)**	490 centipoise
Reactivity with Water	None	**Viscosity (6% solution)**	1.5 centipoise
Evaporation Rate	Not determined	**Solubility in Water**	100%
Specific Gravity	1.01 gms/cc	**VOC Content**	Not determined
	8.43 lbs/U.S. gal	**pH**	9

*6% solution

Section 10 – Stability and Reactivity

Chemical Stability:	Stable; will not decompose if used according to manufacturer's directions.
Conditions to Avoid:	Prolonged exposure to heat may cause product degradation. Freezing should also be avoided as discussed in Section 7.
Incompatible Materials:	Normally unreactive. Avoid strong alkalis, strong acids, strong oxidizing agents and materials with reactive hydroxyl compounds. These materials could damage the product and reduce its effectiveness during application.
Hazardous Decomposition Products:	None are known.
Hazardous Polymerization:	Will not occur.

Section 11 – Toxicological Information

Overview: No adverse acute or chronic health effects expected if product used in accordance with manufacturer's directions.
Carcinogenicity: No ingredient has been shown to cause cancer in laboratory animals.
Specific Organ Toxicity: None are known.

Section 12 – Ecological Considerations

Persistence and Degradability: The total of the organic components contained in this product is not classified as readily biodegradable (OECD-301 A-F). However, this product is inherently biodegradable with 60% degradation in 28 days (OECD-301B) and estimated >95% degradation in 120 days.
Bioaccumulation Potential: The bioaccumulation factor in fish has been estimated to be low, ranging from 87 to 344.
Mobility: No data available
Aquatic Toxicity: **LC$_{50}$ of Concentrate** (As shipped)

Mysidopsis bahia	48-hours	3.6 mg/L
Menidia beryllina	96-hours	6.4 mg/L

LC50 of 3% Dilute Solution (As Used)

Mysidopsis bahia	48-hours	185 mg/L
Menidia beryllina	96-hours	247 mg/L

LC50 of 6% Dilute Solution (As Used)

Daphnia magna	48-hours	287 mg/L
Pimephales promelas	96-hours	124 mg/L
Onchorhynchus mykiss	96-hours	177 mg/L

Section 13 - Disposal

DO NOT DUMP INTO STORM DRAINS OR INTO ANY BODY OF WATER. All disposal practices must be in compliance with all Federal, State/Provincial and local laws and regulations. As manufactured, BioSolve products do not meet the definition of a hazardous waste. Small quantities of unused and uncontaminated product may be discharged to a qualified wastewater treatment facility. Always obtain approval from local and Federal regulatory agencies prior to discarding this product into public sewers.

As your supplier, we have no control over your handling and use of this product. However, the intended use of this product as a remediation and/or surface washing agent may produce wastewater containing emulsified or dispersed hydrocarbons that may be classified as a hazardous waste and should be treated and disposed of accordingly.

Section 14 – Transportation Information

USDOT Freight Class 55 (Liquid Cleaning Compound, Non-Hazardous)
This product is not regulated by USDOT or Canadian TDG when shipped domestically by land.

North American Industry Classification System (NAICS) # 325613

U.S. ITC, Harmonized Tariff Schedule B Classification: 3402.90.30.00

Section 15 – Regulatory Information

This product is considered non-hazardous as defined by CERCLA, according to OSHA, Massachusetts Right to Know Law and California Prop 65.

Toxic Substances Control Act:	All components of this product are on the TSCA inventory or are exempt from TSCA Inventory requirements under 40 CFR 720.30.
CEPA – Domestic Substances List:	All substances contained in this product are listed on the Canadian Domestic Substances List (DSL) or not required to be listed.
Canadian CPR Compliance:	This product has been classified in accordance with the hazard criteria of the Canadian Controlled Products Regulations (CPR) and the SDS contains all the information required by the CPR
WHMIS Classification:	D2B Eye or skin irritant

Regulatory requirements are subject to change and may differ from one location to another; it is the buyer's responsibility to ensure that its activities comply with Federal, state or provincial and local laws.

Section 16 – Other Information

HMIS Rating

Health Hazard: 1 (Eye/Skin Irritant)
Fire Hazard: 0
Reactivity: 0
Personal Protective Equipment: Rubber gloves, safety glasses or face shield

NFPA Rating

Health: 1 (Eye/Skin Irritant)
Flammability: 0
Reactivity: 0
Other Hazard: None

BioSolve Pinkwater is on the US Environmental Protection Agency's NCP Product Schedule. This listing does NOT mean that EPA approves, recommends, licenses, certifies or authorizes the use of BioSolve Pinkwater on an oil discharge. This listing means only that data have been submitted to EPA as required by Subpart J of the National Contingency Plan, 40 CFR Section 300.915.

SDS Effective Date: January 1, 2018

The information contained herein is accurate to the best of our knowledge. The BioSolve Company makes no warranty of any kind, express or implied, concerning the safe use of this material in your process or application or in combination with other substances.

For more information, visit: www.biosolve.com

APPENDIX D – Previous Environmental Reports

Phase I Environmental Site Assessment Report

Monticello Manor
15 High Street
Monticello, NY 12701

Prepared for

Sullivan County Land Bank Corporation
100 North Street
Monticello, New York 12701

Prepared by

Tectonic
P.O. Box 37
Mountainville, NY 10953
Phone: (845) 534-5959

Job Number: 9801.01
11/25/2019

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1.0 GENERAL INFORMATION

Project Information:
Monticello Manor
Project Number:
9801.01

Consultant Information:
Tectonic
P.O. Box 37
Mountainville, NY 10953
Phone: (845) 534-5959
Fax: (845) 534-5999
E-mail Address:
Inspection Date: 11/15/2019
Report Date: 11/25/2019

Site Information:
Monticello Manor
15 High Street
Monticello, NY 12701
County: Sullivan
Latitude, Longitude: 41.658859, -74.681316
Site Access Contact: Jill Weyer

Client Information:
Sullivan County

100 North Street
Monticello, New York 12701

Site Assessor

Dina Peoples

Dina Peoples
Geologist III

Senior Reviewer

Lori A. Bart
Project Manager / Environmental Engineer

Certification:

I declare that, to the best of my professional knowledge and belief, I meet the definition of Environmental Professional as defined in 40 CFR Part 312. I have the specific qualifications based on education, training, and experience to assess a property of the nature, history, and setting of the subject property. I have developed and performed the all appropriate inquiries in conformance with the standards and practices set forth in 40 CFR Part 312.

Kristine Garbarino - Project Manager/ Senior Geologist

2.0 EXECUTIVE SUMMARY

2.1 Subject Property Description

Tectonic Engineering & Surveying Consultants P.C. (Tectonic) was retained by Sullivan County to perform a Phase I Environmental Site Assessment on the parcel of land identified by Tax Map Number 107-1-11.1, located at 15 High Street in the Village of Monticello in Sullivan County, NY, herein referred to as the "Subject Property". The Subject Property is approximately 5.6 acres and is improved with five (5) structures along with a paved access road and parking area. Structures include one (1) main structure located in the approximate center of the Subject Property, one (1) secondary structure located southeast of the main structure, and three (3) small storage structures that are situated to the north of the main structure. A paved access road extends north off of High Street and leads up to the main structure and further extends to the north side of the Subject Property where there is a parking area. The remainder of the Subject Property consists of unimproved woodlands.

Photographs of the Subject Property are attached in ***Appendix B***, while the street map, topographic map, and current aerial map are included in ***Appendix A.*** A hand-sketched field map of the Subject Property created during the site visit is included in ***Appendix F.***

2.2 Data Gaps

The data collected for this report was reviewed to determine if there were significant data gaps or failures that would affect Tectonic's ability to identify recognized environmental conditions associated with the Subject Property.

Two (2) data failure were identified, which does not affect the Opinions and Recommendations of this report:

- No Title Report was provided
- Due to safety concerns, the interior of structures on the Subject Property was not inspected

Based on review of the information collected and the type of development at or in proximity to the Subject Property, Tectonic does not believe that these data failure are significant and would therefore not likely alter the conclusions of this report.

2.3 Environmental Report Summary

The main objective of this Phase I ESA is to identify Recognized Environmental Conditions (RECs) and Business Environmental Risks (BERs) that may affect the environmental integrity of the Subject Property. RECs are defined in the American Society of Testing and Materials (ASTM) Standard Practice E 1527-13 as the presence or likely presence of hazardous substances or petroleum products on the Subject Property due to a release. BERs are defined in the American Society of Testing and Materials (ASTM) Standard Practice E 1527-13 as a risk which can have a material environmental or environmentally-driven impact on the business associated with the current or planned use of a parcel of commercial real estate.

In addition, other environmental issues and conditions that, in the opinion of the environmental professionals conducting the assessment, would not be considered RECs are identified in this assessment. These may include HRECs, CRECs or de minimus conditions. The Phase I ESA also includes a preliminary evaluation of specific potential BERs or conditions that are, according to ASTM E 1527-13, identified as "non-scope" considerations. These issues include asbestos-containing materials (ACM), lead-based paint, vapor intrusion, radon, wetlands, indoor air quality and mold. The Phase I ESA included a review of environmental agency databases, previous reports and historical documents; visual observation of the Subject Property and adjoining properties; and interviews with select representatives.

The assessment requested by Sullivan County is intended to identify conditions that would have the potential to impact the environmental integrity of the Subject Property. In addition, the assessment was conducted for purposes of environmental due diligence in order to qualify for the "innocent landowner defense" under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA).

Based on the results of the Phase I ESA investigation, a summary of the identified RECs, CRECs, HRECs and BERs associated with the Subject Property is provided below:

Report Section		**No Further Action**	**REC**	**HREC**	**CREC**	**Further Investig-ation**	**Comments**
4.4	**Current Use of Property**	X					The Subject Property is currently vacant.
4.6	**Adjoining Property Information**	X					No RECs, HRECs, or CRECs were identified.
6.1	**Standard Environmental Records Sources**	X					No RECs, HRECs, or CRECs were identified.
6.4.1	**Historical Summary**	X					No RECs, HRECs, or CRECs were identified.
6.4.7	**Other Environmental Reports**	X					No RECs, HRECs, or CRECs were identified.
7.3.1	**Hazardous Substances**	X					No RECs, HRECs, or CRECs were identified.
7.3.3	**USTs**	X				X	No RECs, HRECs, or CRECs were identified. One (1) UST was identified. The presence of this historic UST is considered a BER for the Subject Property.
7.3.4	**ASTs**	X					Five (5) ASTs were located on the Subject Property, with two (2) located inside the first floor of the main structure and three (3) located outside in various locations. See site sketch for more detailed locations. During the site visit, each AST was visually assessed for signs of leaks or odor. There was no evidence of spills or leaks upon visual assessment, therefore these are not listed as RECs.
7.3.5	**Other Suspect Containers**	X					No RECs, HRECs, or CRECs were identified. See Section 7.3.1 for additional details.
7.3.6	**Equipment Likely to Contain PCBs**					X	Upon assessment, there were no transformers or other evidence of PCB containing materials on or near the Subject Property. Due to the age of the structure, other items found on site may contain PCBs, including the light fixtures, window caulking, and hydraulic oil in the elevator. Therefore, this is considered a Business Environmental Risk (BER).

Report Section		**No Further Action**	**REC**	**HREC**	**CREC**	**Further Investig-ation**	**Comments**
7.3.11	**Stained Soil/Stressed Vegetation**	X					Upon the site visit, there was no evidence of staining on the Subject Property.
9.1	**Asbestos-Containing Materials**					X	The main building was constructed sometime between 1921 and 1929, prior to the federal ban of asbestos containing building materials in 1978. Potential asbestos containing materials that were noted during the site visit include ceiling tiles, floor tiles, pipe wrap, boiler components, etc.. The potential presence of asbestos is considered a Business Environmental Risk (BER).
9.2	**Lead-Based Paint**					X	The main building was constructed sometime between 1921 and 1929, prior to the federal ban of lead-based paint (LBP) for residential use in 1978. Upon the site visit, it was noted that there was peeling paint in most of the rooms of each of the structures. Due to this, the potential presence of LBP is considered a Business Environmental Risk (BER).
9.3	**Radon**					X	According to the EPA, Sullivan County is located with a Zone 1 area, or area with indoor average levels of > 4 pCi/L. Due to this, the potential presence of radon is considered a Business Environmental Risk (BER).
9.7	**Vapor Assessment**	X					No RECs, HRECs, or CRECs were identified.

3.0 INTRODUCTION

3.1 Purpose

The purpose of this investigation was to provide an evaluation of the potential environmental risks associated with the Subject Property as required as part of a due diligence process for Sullivan County, NY. The investigation was performed in accordance with ASTM E 1527-13 "Environmental Site Assessments," in order to provide "all appropriate inquiry into the previous ownership and uses of the property consistent with good commercial or customary practice".

3.2 Scope of Work

This evaluation was conducted by qualified environmental professionals utilizing a standard of "good commercial and customary practice" in accordance with ASTM E 1527-13. The scope of work completed for this evaluation included the following:

- Reviewed available maps, aerial photographs, and property deeds to establish the land use history of the Subject Property as well as the environmental and hydrogeological setting of the Subject Property.

- Reviewed information regarding the environmental condition and history of the Subject Property and abutting properties from federal, state, or local sources.

- Performed a site reconnaissance for observable evidence, indicating the possible use, storage or dumping of contaminants on the Subject Property or properties adjacent to the Subject Property.

- Interviewed the owners or occupants of the Subject Property and local government contacts in an effort to obtain information indicating whether recognized environmental conditions may exist in connection with the Subject Property.

- Prepared a Phase I Environmental Site Assessment Report summarizing the findings and conclusions of this investigation.

3.3 Significant Assumptions

Tectonic Engineering & Surveying Consultants P.C. has based its conclusions in this report in part on studies, data, and background information provided by others. Tectonic makes no guarantees as to the accuracy or completeness of this information.

For the purpose of evaluating whether certain recognized environmental conditions may potentially impact the Subject Property, Tectonic relies on making reasonable assumptions regarding the probable (inferred) groundwater gradient and flow direction based substantially, or in part, on information provided by standard United States Geologic Survey and other state agency topographic mapping. These topographic maps include generalized ground surface and elevation mapping of land, water bodies and other structures, but do not include specific elevations (gradients) of groundwater. In order to determine actual groundwater gradients and flow directions, site specific subsurface investigations must be performed that include such activities as the installation of groundwater monitoring wells, field and laboratory testing, monitoring of water levels, and preparation of groundwater gradient mapping.

These site-specific activities are beyond the scope of a Phase I ESA performed in accordance with ASTM E 1527-13. As such, these site-specific activities are not an industry standard approach to determining contaminant fate and transport mechanisms involving groundwater for this type of investigation. Groundwater conditions may also vary depending on such factors as seasonal changes, weather conditions, groundwater well usage, tidal influences, and variations in soil and bedrock geology.

3.4 Limitations and Exceptions

This report has been prepared for the exclusive use of Sullivan County for specific application to the listed Subject Property with the sole purpose of providing an evaluation of the potential environmental risks and recognized environmental conditions associated with the Subject Property. No other warranty, expressed or implied, is made as to the professional advice included in this report. This investigation is intended to provide the user with an evaluation of the Subject Property's present environmental conditions.

3.5 Deviations

This assessment was conducted without deviations, deletions or data gaps from ASTM E 1527-13. The following data failures were identified, which do not affect the Conclusions and Recommendations of this report:

- No Title Report was provided
- Due to safety concerns, the interior of structures on the Subject Property was not inspected

3.6 Special Terms and Conditions

Our professional services have been performed using the degree of care and skill ordinarily exercised, under similar circumstances, by reputable engineers, environmental scientists, and geologists practicing in this or similar situations.

3.7 Reliance

This report is for the use and benefit of, and may be relied upon by, Sullivan County, for the Subject Property. Any third party agrees by accepting this report that any use or reliance on this report shall be limited by the exceptions and limitations in this report, and with the acknowledgment that actual Subject Property conditions may change with time, and that hidden conditions may exist at the Subject Property that were not discovered within the authorized scope of the assessment.

Tectonic makes no other representation to any third party except that it has used the degree of care and skill ordinarily exercised by environmental consultants in the preparation of the report and in the assembling of data and information related thereto. No other warranties are made to any third party, either expressed or implied.

4.0 SITE DESCRIPTION

4.1 Location and Legal Description

The Subject Property is located at 15 High Street in the Village of Monticello in Sullivan County, NY. The Subject Property is the parcel of land identified by Tax Map Number 107.-1-11.1 by the Sullivan County Tax Map Department. The Subject Property consists of an approximately 5.6 acre lot that is located in an area that is primarily characterized by rural residential and commercial land use.

A street map and topographic map, showing the location of the Subject Property, are included in ***Appendix A***. Photographs of the Subject Property and surrounding areas are included in ***Appendix B***.

4.2 Activity/Use Limitations

No title report was provided for this parcel. As such, no information pertaining to activity/use limitations could be obtained from it.

4.3 Site and Vicinity Description

The Subject Property consists of an approximately 5.6 acre lot improved with five (5) structures, a paved access road, and a paved parking area. Structures include one (1) main structure located in the approximate center of the Subject Property, one (1) secondary structure located southeast of the main structure, and three (3) small storage structures that are situated to the north of the main structure. A paved access road extends north off of High Street and leads up to the main structure and further extends to the north side of the Subject Property where there is a parking area. The remainder of the Subject Property consists of unimproved woodlands. The current topographic map provided by EDR shows the Subject Property to be located at an approximate elevation of 1,560 feet Above Mean Sea Level (AMSL) in a rural area. Surface drainage in the area surrounding the Subject Property is primarily southeast.

A copy of the current topographic map is attached in ***Appendix A***.

4.4 Current Use of Property

The Subject Property is improved with structures. The structures and Subject Property are currently unoccupied.

4.5 Description of Structures and Other Improvements

The Subject Property consists of an approximately 5.6 acre lot that is improved with five (5) structures and a paved access road and parking area. Structures include:

- One (1) three-story, brick and mortar, main structure located in the approximate center of the Subject Property. According to the Sullivan County Tax Web App, the structure has an approximate gross floor area of 32,188-square feet. Based on an estimate derived using aerial imagery, the footprint of this structure is approximately 11,500-square feet. The oldest portion of the main structure was built circa 1920s.
- One (1) three-story, brick and mortar, secondary structure located southeast of the main structure. According to the Sullivan County Tax Web App, the structure has an approximate gross floor area of 4,748-square feet. Based on an estimate derived using aerial imagery, the footprint of this structure is approximately 1,600-square feet. The secondary structure was built around 1931.
- Three (3) small storage structures that are situated to the north of the main structure. Based on estimates derived using aerial imagery, the footprint of these structures are approximately 370-square feet, 240-square feet, and 480 square feet.

A paved access road extends north off of High Street and leads up to the main structure and further extends to the north side of the Subject Property where there is a parking area. The remainder of the Subject Property consists of unimproved woodlands.

According to information provided by Sullivan County, the main and secondary structures are serviced by municipal water and sanitary sewer. Sullivan County spoke with Phil Klemens, the Village of Monticello Water Superintendent, who stated that to the best of his knowledge, the Subject Property has always been serviced by municipal water and sewer. Additionally, Sullivan County provided a drawing titled Plot Plan Proposed Extension to the Monticello Hospital, dated January 16, 1950, which shows that the existing hospital at that time was connected to municipal water and sewer. A copy of the provided drawing is included in ***Appendix F***. Work and interviews performed during the July 2019 Phase II ESA confirmed that the Subject Property had been serviced by the Village of Monticello water and sewer system since the hospital had been constructed.

4.6 Adjoining Property Information

The land adjoining the Subject Property consists of commercial development along the Route 42 corridor to the east. The area south of the Subject Property is characterized by residential structures while the area located immediately north and west of the Subject Property is characterized as unimproved woodland.

The table below provides a detailed description of the adjoining property uses.

Direction From Site	Occupant	Use	Comments
North	Beer World	Commercial	77 Pleasant St Monticello, NY 12701
East	Citgo, Ultrapower, NAPA Auto Parts	Commercial	66, 68, and 74 Pleasant St Monticello, NY 12701
South	Marshall & Sterling Insurance	Commercial	corner of High St and Pleasant St Monticello, NY 12701
West	Residential structure, Village Water Towers	Residential	Corner of Old Landfield Hill and High St

5.0 USER PROVIDED INFORMATION

5.1 Specialized Knowledge

The Client, Sullivan County, is not currently aware of any specialized knowledge or experience that is material to recognized environmental conditions in connection with the Subject Property.

5.2 Valuation Reduction for Environmental Issues

No information was available at the time of the assessment regarding the relationship of the purchase price of the property to the fair market value of the Subject Property. If information is received regarding valuation reduction for environmental issues which changes the conclusions or recommendations presented in this report, an addendum to this report will be submitted.

5.3 Owner, Property Manager, and Occupant Information

The Subject Property is currently owned by Sullivan County who obtained the title of ownership on May 1, 2018 after the bankruptcy of the former property owner, Manor Venture, was discharged. According to a Property Ownership card provided by Sullivan County, past owner's ow the property included

- Landfield-Monticello Services, Inc. (recorded January 3, 2001);
- Highland Fields, Inc. (recorded January 31, 1994);
- Landfield Hill Associates (recorded August, 28, 1979);
- Community General Hospital of Sullivan County (recorded August 1, 1979); and
- Hebrew Hospital Association of Sullivan County (no date recorded).

Additionally, a Property Owner Questionnaire was completed and returned by Jill Weyer, the Assistant Commissioner of Sullivan County Division of Planning. The questionnaire revealed that Sullivan County is aware of one (1) above ground storage tank (AST) located on the Subject Property. The County is also aware that the Subject Property had previously been used for commercial purposes, including a medical facility,

Ownership information and the completed Property Owner Questionnaire provided by Sullivan County are included in ***Appendix F***.

5.4 Reason For Performing Phase I

The investigation was performed at the request of the Client, Sullivan County, and was executed in accordance with ASTM E 1527-13 "Environmental Site Assessments" in order to provide "all appropriate inquiry into the previous ownership and uses of the Subject Property consistent with good commercial or customary practice."

6.0 RECORDS REVIEW

6.1 Standard Environmental Records Sources

Environmental Data Resources, Inc. (EDR) conducted a search of available environmental records for the Subject Property and surrounding area. The search met the specific requirements of ASTM Standard Practice for Environmental Site Assessments, E 1527-13.

The Map Findings summary, provided by EDR, is listed in the first table below:

Tectonic reviewed the table of map findings, organized by database, in order to determine what may have the most potential to impact the Subject Property. Within the searched radius, it was determined that there were incidents recorded under NY Spills, RCRA NonGen, ASTs, and LTANKS. Of these listed incidents, each was reviewed and then further assessed based on incident type, location, topographic position and inferred direction of groundwater flow relative to the Subject Property, as well as the presence of hydraulic barriers.

Important incidents have been listed in the Detail Summary table, as seen below:

The Subject Property was identified by EDR as being listed in the NY Spills database with one (1) mapped spill. The Subject Property was also listed in the FINDS and US Brownfields database. Tectonic reviewed the report for the mapped spill that occurred on the Subject Property in order to evaluate its potential to impact the Site. It was determined that there is a low potential for the spill to impact the Subject Property. The spill is described further in the detail summary table below.

In addition, fifty (50) mapped sites within the applicable search radius surrounding the Subject Property were identified by EDR; Tectonic reviewed these mapped sites for their potential to impact the Subject Property. The interpretation of the degree of potential impact is based on key factors such as the site incident type, location relative to the Subject Property, topographic position and inferred direction of groundwater flow relative to the Subject Property, as well as the presence of hydraulic barriers. Based on the the down-gradient location of the mapped sites, minor nature of the incidences or reports, the inferred direction of groundwater flow, or their distance from the Subject Property, it was determined that forty-one (41) of the mapped sites listed by EDR are not likely to impact the Subject Property. The nine (9) remaining sites are described further in the detail summary table below.

Seven (7) orphan sites were also listed in the EDR report. Orphan sites are sites that cannot be located by EDR due to incomplete or unknown address information. A review of local road maps, government documents, and a site reconnaissance was performed by Tectonic to determine the locations of the orphan sites relative to the Subject Property and their potential to impact the Subject Property. Based on this review, it was determined that none of the orphan sites are likely to impact the Subject Property, due to their down-gradient location and their distance from the Subject Property.

In summary, one (1) spill was reported to have occurred on the Subject Property and was determined to have a low potential to impact the Subject Property. Additionally, a total of fifty (50) mapped sites were identified in the ASTM E 1527-05 search radii surrounding the Subject Property, all of which were determined to have a low potential to impact the Subject Property. Seven (7) orphan sites were also identified during the search, none of which were determined to have potential to impact the Subject Property.

A copy of the records search performed by Environmental Data Resources, Incorporated is contained in the Regulatory Records ***Appendix D***.

Map Findings Summary

Database	Target Property	Search Distance (Miles)	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
NPL		1	0	0	0	0	NR	0
Proposed NPL		1	0	0	0	0	NR	0
NPL LIENS		1	0	0	0	0	NR	0
Delisted NPL		1	0	0	0	0	NR	0
CORRACTS		1	0	0	0	0	NR	0
RCRA-TSDF		0.5	0	0	0	NR	NR	0
RCRA-LQG		0.25	0	0	NR	NR	NR	0
RCRA-SQG		0.25	0	0	NR	NR	NR	0
US ENG CONTROLS		0.5	0	0	0	NR	NR	0
US INST CONTROL		0.5	0	0	0	NR	NR	0
ERNS		TP	NR	NR	NR	NR	NR	0
HMIRS		TP	NR	NR	NR	NR	NR	0
DOD		1	0	0	0	0	NR	0
FUDS		1	0	0	0	0	NR	0
US BROWNFIELDS	X	0.5	0	0	0	NR	NR	1
CONSENT		1	0	0	0	0	NR	0
UMTRA		0.5	0	0	0	NR	NR	0
ODI		0.5	0	0	0	NR	NR	0
TRIS		TP	NR	NR	NR	NR	NR	0
TSCA		TP	NR	NR	NR	NR	NR	0
FTTS		TP	NR	NR	NR	NR	NR	0
SSTS		TP	NR	NR	NR	NR	NR	0
LUCIS		0.5	0	0	0	NR	NR	0
DOT OPS		TP	NR	NR	NR	NR	NR	0
ICIS		TP	NR	NR	NR	NR	NR	0
HIST FTTS		TP	NR	NR	NR	NR	NR	0
RADINFO		TP	NR	NR	NR	NR	NR	0
LIENS 2		TP	NR	NR	NR	NR	NR	0
PADS		TP	NR	NR	NR	NR	NR	0
MLTS		TP	NR	NR	NR	NR	NR	0
FINDS	X	TP	NR	NR	NR	NR	NR	1
RAATS		TP	NR	NR	NR	NR	NR	0
LEAD SMELTER 1		TP	NR	NR	NR	NR	NR	0
FUSRAP		1	0	0	0	0	NR	0
UXO		1	0	0	0	0	NR	0
FTTS INSP		TP	NR	NR	NR	NR	NR	0
PCB TRANSFORMER		TP	NR	NR	NR	NR	NR	0
SCRD DRYCLEANERS		0.5	0	0	0	NR	NR	0
EDR Hist Auto		0.125	1	NR	NR	NR	NR	1
PRP		TP	NR	NR	NR	NR	NR	0
US MINES		0.25	0	0	NR	NR	NR	0
SEMS		0.5	0	0	0	NR	NR	0
DOCKET HWC		TP	NR	NR	NR	NR	NR	0
MINES VIOLATIONS		0.25	0	0	NR	NR	NR	0
EPA WATCH LIST		TP	NR	NR	NR	NR	NR	0
LEAD SMELTER 2		TP	NR	NR	NR	NR	NR	0
COAL ASH EPA		0.5	0	0	0	NR	NR	0
EDR Hist Cleaner		0.125	0	NR	NR	NR	NR	0
DEBRIS REGION 9		0.5	0	0	0	NR	NR	0
USGS WATER WELLS		1	0	0	0	0	NR	0
SEMS-ARCHIVE		0.5	0	0	0	NR	NR	0
US FIN ASSUR		TP	NR	NR	NR	NR	NR	0
2020 COR ACTION		0.25	0	0	NR	NR	NR	0
FEDERAL FACILITY		0.5	0	0	0	NR	NR	0
ROD		1	0	0	0	0	NR	0
RCRA-VSQG		0.25	0	0	NR	NR	NR	0

Database	**Target Property**	**Search Distance (Miles)**	**< 1/8**	**1/8 - 1/4**	**1/4 - 1/2**	**1/2 - 1**	**> 1**	**Total Plotted**
US MINES 2		0.25	0	0	NR	NR	NR	0
US AIRS (AFS)		TP	NR	NR	NR	NR	NR	0
MINES MRDS		TP	NR	NR	NR	NR	NR	0
RCRA NonGen / NLR		0.25	1	0	NR	NR	NR	1
EDR Hist Cleaner		0.125	0	NR	NR	NR	NR	0
EDR Hist Auto		0.125	0	NR	NR	NR	NR	0
PWS		TP	NR	NR	NR	NR	NR	0
US HIST CDL		TP	NR	NR	NR	NR	NR	0
ABANDONED MINES		0.25	0	0	NR	NR	NR	0
US MINES 3		0.25	0	0	NR	NR	NR	0
RMP		TP	NR	NR	NR	NR	NR	0
COAL ASH DOE		TP	NR	NR	NR	NR	NR	0
HIST FTTS INSP		TP	NR	NR	NR	NR	NR	0
FEMA UST		0.25	0	0	NR	NR	NR	0
US AIRS MINOR		TP	NR	NR	NR	NR	NR	0
US CDL		TP	NR	NR	NR	NR	NR	0
FUELS PROGRAM		0.25	0	0	NR	NR	NR	0
ECHO		TP	NR	NR	NR	NR	NR	0
SHWS		1	0	0	0	0	NR	0
HSWDS		0.5	0	0	0	NR	NR	0
DEL SHWS		1	0	0	0	0	NR	0
SWF/LF		0.5	0	0	0	NR	NR	0
UIC		TP	NR	NR	NR	NR	NR	0
SWTIRE		0.5	0	0	0	NR	NR	0
LTANKS		0.5	7	7	18	NR	NR	32
HIST LTANKS		0.5	0	0	0	NR	NR	0
UST		0.25	3	4	NR	NR	NR	7
HIST UST		0.25	0	0	NR	NR	NR	0
CBS UST		0.25	0	0	NR	NR	NR	0
MOSF UST		0.5	0	0	0	NR	NR	0
AST		0.25	1	2	NR	NR	NR	3
HIST AST		TP	NR	NR	NR	NR	NR	0
CBS AST		0.25	0	0	NR	NR	NR	0
MOSF AST		0.5	0	0	0	NR	NR	0
NY MANIFEST		0.25	0	0	NR	NR	NR	0
LIENS		TP	NR	NR	NR	NR	NR	0
SPILLS	X	0.125	9	NR	NR	NR	NR	10
HIST SPILLS		0.125	0	NR	NR	NR	NR	0
ENG CONTROLS		0.5	0	0	0	NR	NR	0
INST CONTROL		0.5	0	0	0	NR	NR	0
VCP		0.5	0	0	0	NR	NR	0
DRYCLEANERS		0.25	0	0	NR	NR	NR	0
BROWNFIELDS		0.5	0	0	0	NR	NR	0
AIRS		TP	NR	NR	NR	NR	NR	0
MOSF		0.5	0	0	0	NR	NR	0
CBS		0.25	0	0	NR	NR	NR	0
CORTLAND CO. UST		0.25	0	0	NR	NR	NR	0
SPILLS 80		0.125	0	NR	NR	NR	NR	0
WELLS		1	0	0	0	0	NR	0
TANKS NASSAU		0.25	0	0	NR	NR	NR	0
Financial Assurance 1		TP	NR	NR	NR	NR	NR	0
SWRCY		0.5	0	0	0	NR	NR	0
CORTLAND CO. AST		0.25	0	0	NR	NR	NR	0
COAL ASH		0.5	0	0	0	NR	NR	0
WESTCHESTER CO. UST		0.25	0	0	NR	NR	NR	0
ENV RES DECL		0.125	0	NR	NR	NR	NR	0
RES DECL		0.125	0	NR	NR	NR	NR	0
RGA LF		TP	NR	NR	NR	NR	NR	0
TANKS		0.25	0	0	NR	NR	NR	0

Database	Target Property	Search Distance (Miles)	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
SPDES		TP	NR	NR	NR	NR	NR	0
VAPOR REOPENED		0.5	0	0	0	NR	NR	0
RGA HWS		TP	NR	NR	NR	NR	NR	0
NASSAU CO. UST		0.25	0	0	NR	NR	NR	0
NCFM UST		0.25	0	0	NR	NR	NR	0
Financial Assurance 2		TP	NR	NR	NR	NR	NR	0
SUFFOLK CO. UST		0.25	0	0	NR	NR	NR	0
E DESIGNATION		0.125	0	NR	NR	NR	NR	0
ERP		0.5	0	0	0	NR	NR	0
SUFFOLK CO TANKS		0.25	0	0	NR	NR	NR	0
PFAS		0.5	0	0	0	NR	NR	0
SUFFOLK CO. AST		0.25	0	0	NR	NR	NR	0
WESTCHESTER CO. AST		0.25	0	0	NR	NR	NR	0
ROCKLAND CO. UST		0.25	0	0	NR	NR	NR	0
VCP NYC		0.5	0	0	0	NR	NR	0
DAY CARE		TP	NR	NR	NR	NR	NR	0
SPILLS 90		0.125	0	NR	NR	NR	NR	0
ROCKLAND CO. AST		0.25	0	0	NR	NR	NR	0
NASSAU CO. AST		0.25	0	0	NR	NR	NR	0
NCFM AST		0.25	0	0	NR	NR	NR	0
COOLING TOWERS		TP	NR	NR	NR	NR	NR	0
INDIAN LUST		0.5	0	0	0	NR	NR	0
INDIAN UST		0.25	0	0	NR	NR	NR	0
INDIAN VCP		0.5	0	0	0	NR	NR	0
INDIAN ODI		0.5	0	0	0	NR	NR	0
INDIAN RESERV		1	0	0	0	0	NR	0
EDR MGP		1	0	0	0	0	NR	0

Detail Summary

Site Name: Monticello Manor (Map ID: A1)
Monticello Manor Adult Home (Map ID: A2)
Monticello Manor (Map ID: A3)
Databases: FINDS
NY SPILLS
US BROWNFIELDS
Address: 15 High St
Monticello, NY 12701
Distance: on Subject Property
Direction: on Subject Property
Elevation: Approx. 1560 feet (ft.) Above Mean Sea Level (AMSL)
Comments: The Subject Property is identified in the EDR Report as incident IDs A1, A2, and A3.

(A1) The Facility Index System (FINDS) database is a central inventory of facilities monitored or regulated by the United States Environmental Protection Agency (EPA) and cross-references the program office that has additional information about the facility. The Subject Property being listed in this database does not constitute a REC.

(A2) The Spills database reports that on June 11, 2008, approximately 20 gallons of #2 fuel oil was spilled because a bucket used to support filling an above ground storage tank from the bottom was removed. It is reported that cleanup did not meet NYSDEC standards. There is no further information available in the database report. A soil investigation performed during the July 2019 Phase II ESA noted that bedrock was shallow on the Subject Property and that soils analyzed as part of the Phase II ESA investigation would be classified as non-hazardous regulated material by the State of New York. As such, there is a low potential for impact to soils and groundwater on the Subject Property associated with this spill.

Comments: (A3) The Subject Property has been identified in the US Brownfields database. The Subject Property was added to the US Brownfields database on June 14, 2018 as part of the Brownfield Grant Program; assessment at this property had not started. The Subject Property being listed in this database does not constitute a REC.

Site Name: Stewart's Shops #373 (Map ID: B4, B5, B7)
Databases: NY SPILLS
LTANKS
UST
Address: 8 High St
Monticello, NY 12701
Distance: Approx. 442 feet
Direction: South
Elevation: Approx. 1530 ft. AMSL
Comments: This mapped site is identified in the EDR Report as incident IDs B4, B5, and B7. This mapped site is located approximately 442 feet down-gradient of the Subject Property.

(B4) The Spills database reports that on September 24, 2013, a spill occurred during the removal of a tank which an unknown quantity of gasoline. The spill was reported to the NYSDEC on the same day that it occurred, but the cleanup did not meet NYSDEC standards. However, a soil investigation performed during the July 2019 Phase II ESA noted that soils analyzed as part of the Phase II ESA investigation on the Subject Property would be classified as non-hazardous regulated material by the State of New York. As such, there is a low potential for impact to soils and groundwater on the Subject Property associated with this SPILLS report.

(B5) The LTANKS database reports that on July 11, 2003, a spill occurred from a tank overfill of a passenger vehicle, releasing approximately 1 gallon of gasoline. The spill was reported to the NYSDEC on the same day that it occurred, but the cleanup did not meet NYSDEC standards. Due to the small volume of the spill and the distance of the mapped site from the Subject Property, there is a low potential for the subject spill to impact the Subject Property.

(B7) The UST database states that one (1) 8,000 gallon UST and two (2) 4,000 gallon UST's containing gasoline/ethanol were closed/removed at this gas station on August 24, 2013. No issues or spills were reported. Being listed on the UST database does not in itself constitute a REC.

A soil investigation performed during the July 2019 Phase II ESA noted that bedrock was shallow across the Subject Property and that soils analyzed as part of the Phase II ESA investigation would be classified as non-hazardous regulated material by the State of New York. As such, this mapped site was determined to have a low potential to impact the Subject Property based on the nature of historic site use as a gas station.

Site Name: Ultra Power (Map IDs: B8, C9, C11, E16, and E17)
Databases: LTANKS
NY Spills
UST
AST
Address: 58 Pleasant St
Monticello, NY 12701
Distance: Approx. 380 ft.
Direction: Southeast
Elevation: Approx. 1530 ft. AMSL
Comments: This mapped site is identified in the EDR Report as incident IDs B8, C9, C11, E16, and E17. This mapped site is located approximately 380 feet down-gradient of the Subject Property.

(B8) The LTANKS database reports that on September 13, 1989, a storage tank

Comments: at this mapped site failed a tank tightness test. The spill was reported to the NYSDEC on the same day that it occurred, and the cleanup met NYSDEC standards. Due to this mapped site's down-gradient location from the Subject Property and cleanup meeting NYSDEC standards, this reported spill has a low potential for environmental impact on the Subject Property.

(C9) The LTANKS database reports that on February 24, 1999, there was a tank failure resulting in the leaking of an unknown quantity of gasoline. The spill was reported to the NYSDEC on the same day that it occurred, but the cleanup did not meet NYSDEC standards. The report further states that the wrong analytical tests were conducted on impacted soils and a No Further Action (NFA) letter was not issued by NYSDEC. A soil investigation performed during the July 2019 Phase II ESA noted that bedrock was shallow and that soils analyzed as part of the Phase II ESA investigation would be classified as non-hazardous regulated material by the State of New York. As such, there is a low potential for impact to soils and groundwater on the Subject Property associated with this LTANK report.

(C11) The Spills database reports that on October 9, 2006, a customer prematurely pulled away while pumping gas, spilling approximately 4 gallons of gasoline. The spill was reported to NYSDEC on the same day that it occurred, and the cleanup met NYSDEC standards. Due to this mapped site's down-gradient location from the Subject Property and cleanup meeting NYSDEC standards, this reported spill has a low potential for environmental impact on the Subject Property.

(E16) The UST database states that one (1) 15,000 gallon gasoline/ethanol UST, one (1) 7,000 gallon diesel UST, and one (1) 8,000 gallon gasoline/ethanol UST in service at the mapped site. The database also notes that two (2) 10,000 gallon gasoline USTs, one (1) 2,000 gallon kerosene UST, and one (1) 4,000 gallon gasoline UST were closed/removed at this gas station. Being listed on the UST database does not in itself constitute a REC.

(E17) The AST database states that one (1) 500 gallon AST containing kerosene were in service at this site. Being listed on the AST database does not in itself constitute a REC.

A soil investigation performed during the July 2019 Phase II ESA noted that bedrock was shallow on the Subject Property and that soils analyzed as part of the Phase II ESA investigation would be classified as non-hazardous regulated material by the State of New York. As such, this mapped site was determined to have a low potential to impact the Subject Property based on the nature of historic site use as a gas station.

Site Name: Don Partridge (owner)
Databases: NY SPILLS
Address: 30 High St
Monticello, NY 12701
Distance: 577 feet
Direction: WSW
Elevation: Approx. 1570
Comments: This mapped site is denoted by Map ID 12. The Spills database reports that on October 18, 2011, a spill occurred from deliberate vandalism to a fuel line at a private residence. Approximately 100 gallons of #2 fuel oil was released into the basement of the residence. It was reported that the sump was disconnected before the spill and there was no sign of fuel in drains and no impact beneath the floor surface. The spill was reported to the NYSDEC on the same day that it occurred, but the cleanup did not meet NYSDEC standards. Due to the down-gradient location of this spill relative to the Subject Property and the apparent containment of the spilled fuel oil, there is a low potential for environmental impact on the Subject Property.

Orphans Summary

Facility Name:	Mobil
Databases:	LTANKS
Address:	4375 Route 42 Monticello, NY 12701
Comments:	Based off a Google Maps search for a Mobil located on Route 42, the distance from the Subject Property to the site is approximately 1 mile and is down-gradient based on the topographic lines. From these conclusions, it was determined that the site is not likely to impact the Subject Property.

Facility Name:	Monticello LF (AKA Sullivan County Pretreatment)
Databases:	SEMS-ARCHIVE
Address:	E Broadway St Monticello, NY 12701
Comments:	It was determined that this site is approximately 3,628 feet away from the Subject Property and is down-gradient based on the topographic lines. From these conclusions, it was determined that the site is not likely to impact the Subject Property.

Facility Name:	LLOYDS MONTICELLO SERVICE CTR*
Databases:	EDR Hist Auto
Address:	62 Pleasant Ave Monticello, NY 12701
Comments:	This orphan site is located approximately 265 ft. southeast and down-gradient of the Subject Property. The EDR Historic Auto Database reports that LLoyd's Monticello Service Center operated as a gasoline service station between 1972 and 1975. Potential contaminants associated with activities performed at gasoline service station facilities include, but are not limited to, petroleum products, solvents, degreasers, and metals. While the orphaned site is located approximately adjacent to the Subject Property, the mapped site is located down-gradient from the Subject Property and a soil investigation performed during the July 2019 Phase II ESA noted that soils analyzed as part of the Phase II ESA investigation would be classified as non-hazardous regulated material by the State of New York. As such, this orphan mapped site was determined to have a low potential to impact the Subject Property.

Facility Name:	CONCORD HOTEL & RESORT
Databases:	VCP
Address:	Concord Road / P.O. BOX 263, Monticello, NY 12701
Comments:	This orphan site occurred at the Concord Hotel & Resort located in Kiamesha Lake, a hamlet in the Town of Thompson and located approximately 2 miles northeast and down-gradient of the Subject Property. As such, it was determined that this site is not likely to impact the Subject Property.

Facility Name:	MONTICELLO HIGHWAY GARAGE
Databases:	NY SPILLS
Address:	2 Pleasant St Monticello, NY 12701
Comments:	This orphan site occurred at the Monticello Highway Garage located approximately 1,500 feet south and down-gradient of the Subject Property. As such, it was determined that this site is not likely to impact the Subject Property.

Facility Name:	VILLAGE OF MONTICELLO HWY. DEPT.
Databases:	NY SPILLS
Address:	2 Pleasant Street Monticello, NY 12701
Comments:	This orphan site occurred at the Monticello Highway Garage located approximately 1,500 feet south and down-gradient of the Subject Property. As such, it was determined that this site is not likely to impact the Subject Property.

6.2 Additional Environmental Record Sources

No additional environmental records sources were reviewed.

6.3 Physical Setting Sources

Current topographic quadrangles, the U.S. Department of Agriculture, NYS Bedrock Maps, and EDR records were reviewed to assess the existing physical setting of the Subject Property. The results of this review are included in the appropriate sections below.

6.3.1 Topography

A review of the United States Geological Survey (USGS) 7.5-Minute Monticello Quadrangle (included in ***Appendix A***) indicates that the Subject Property of topography that slopes down toward the southeast with elevations that range between 1,540 and 1,600 feet above sea level. The general topographic gradient of the Subject Property and the surrounding area is to the southeast toward an unnamed body of water located approximately 1,200 feet from the Subject Property's eastern boundary.

6.3.2 Surface Water Bodies

United States Fish & Wildlife Service's Wetlands Online Mapper figure, as provided in the EDR report, depicting the Subject Property and surrounding area, was reviewed as part of the Phase I ESA. According to these maps, the Subject Property is not located within a 100-year flood zone, and no designated wetlands are identified on the Subject Property. A copy of the overview map provided in the EDR database search that includes both national and state wetlands is presented in ***Appendix D***.

6.3.3 Geology and Hydrology

Soil: The U.S. Department of Agriculture's (USDA) Soil Conservation Service (SCS) leads the National Cooperative Soil Survey (NCSS), and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. Soil maps, based on the State Soil Geographic (STATSGO) database, are compiled by generalizing more detailed Soil Survey Geographic (SSURGO) database maps. The EDR report provides the information, enumerated below, from these sources.

A U.S. Department of Agriculture Natural Resources Conservation Service (NRCS) Custom Soil Resource Report was generated by the NRCS Web Soil Survey 2.0, to supplement the report generated by EDR. According to these reports, mapped soils at the Subject Property consist of three soil types: Arnot-Oquaga complex (AoE), 15 to 35 percent slopes, very rocky; Oquaga very channery silt loam, 3 to 8 percent slopes (OeB); and Oquaga-Arnot complex, 8 to 15 percent slopes (OgC). AoE is described as a loamy till derived from acidic sandstone, siltstone and shale which extends to a depth of 20 to 40 inches before encountering lithic bedrock and to a depth of more than 80 inches before encountering the water table. This soil type is described as somewhat excessively drained and is categorized as hydrologic soil group D. OeB is described as a very channery silt loam derived from reddish sandstone, siltstone and shale which extends to a depth of 20 to 40 inches before encountering lithic bedrock and to a depth of more than 80 inches before encountering the water table. This soil type is described as well drained and is categorized as hydrologic soil group C. OgC is described as a channery loamy till derived from reddish sandstone, siltstone and shale which extends to a depth 20 to 40 inches before encountering lithic bedrock and to a depth of more than 80 inches before encountering the water table. This soil type is described as somewhat excessively drained and is classified as hydrologic soil group C.

Geology: According to USGS and the New York State Museum Office of Cartography and Publications' Generalized Bedrock Geology of NYS, the geology underlying the Subject Property consists of late Devonian aged sedimentary deposits consisting generally of shales, sandstones and conglomerates. Specifically, the Subject Property is located in an area that contains the Upper Walton Formation. Bedrock is exposed in some locations, but is generally shallow below the soil surface.

Hydrogeology: Environmental Data Resources conducted a review of public water supply wells within one mile of the Subject Property. According to the report, there is one (1) Federal FRDS Public Water Supply System (PWS) and eight (8) state water supply wells located within one (1) mile of the Subject Property. No Federal USGS wells were located within one (1) mile of the Subject Property.

A copy of the Physical Setting Source map is included in ***Appendix D***, and a copy of the USDA Web Soil Survey Custom Soils Report is provided in ***Appendix F***.

6.4 Historical Use

6.4.1 Historical Summary

Tectonic attempted to determine the history of the Subject Property and the surrounding area dating back to 1909 or first developed use. To determine this history, Tectonic relies upon the ASTM designated standard historical sources (which can include aerial photographs, fire insurance maps, property tax files, recorded land title records, USGS topographic maps, street directories, building department records, interview and/or other historical sources). The following section summarize the findings of the research pertaining to historical Subject Property and surrounding area uses.

Historical Summary

Period	Property Uses	Surrounding Area Uses
1909 - 1910	The Subject Property appears to be undeveloped.	Few structures appear to the northeast, east, and southwest of the Subject Property.
1911-1928	A structure is visible on the southern edge of the Subject Property and labeled as a Summer Boarding house. An additional two smaller structures are located to the north of the structure.	The surrounding area appears to generally consist of residential development
1929-1948	A structure is visible near the center of the Subject Property, which is likely a portion of the current structure, and is labeled as Monticello Hospital. A stairway leads to the entrance from Pleasant Street to the east. No other changes are apparent at the Subject Property.	The surrounding area appears to consist mainly of residential development to the east and south. Surrounding land to the north and northwest appears to be generally consist of unimproved woodlands.
1949-1957	A smaller structure is visible to the southeast of the main structure and labeled as the Nurses Home. No other changes are apparent at the Subject Property.	No apparent changes in the surrounding area.

Period	Property Uses	Surrounding Area Uses
1958-1986	There appears to have been an addition constructed off of the west side of the main structure and appears similar to the current layout of the main structure located at the Subject Property. Another small structure is now visible on the south side of the Subject Property.	There appears to be increased residential and commercial development in the surrounding area. Two water towers appear to have been constructed immediately adjacent to the western boundary of the Subject Property, as well as a dirt road leading to residential structures. No additional changes are apparent in the surrounding area.
1987 - present	It appears that the structure that was located in the southern portion of the Subject Property has been removed. No other changes are apparent at the Subject Property.	The land to the northeast appears to have increased residential development. No additional changes are apparent in the surrounding area.

6.4.2 Title Records

A title search was not completed for the Subject Property. Please refer to the Records Review section for current and historical use of the Subject Property.

6.4.3 City Directories

EDR conducted a search of historical city directories. The database covered the years from 1977 through 2014. The address of 15 High Street, Monticello, New York is not listed in the City Directory for any of the years covered in the database search. The surrounding properties consist primarily of residential development and a few scattered commercial properties. The City Directory Report is provided in ***Appendix C***.

No recognized environmental conditions are apparent at the Subject Property or within the surrounding properties.

Summary

Date	Site Comments	Surrounding Area Comments
1977	The Subject Property is not identified in the City Directory.	Two commercial lots listed on High Street.
1982	The Subject Property is not identified in the City Directory.	One commercial lot listed on High Street.
1987	The Subject Property is not identified in the City Directory.	Two commercial lots listed on High Street.
1992	The Subject Property is not identified in the City Directory.	Twenty residential lots and three commercial lots listed on High Street.
1995	The Subject Property is not identified in the City Directory.	One residential lot and two commercial lots listed on High Street.
2000	The Subject Property is not identified in the City Directory.	Twenty six residential lots and three commercial lots listed on High Street.
2005	The Subject Property is not identified in the City Directory.	Thirty one residential lots and one commercial lot listed on High Street.
2010	The Subject Property is not identified in the City Directory.	Twenty eight residential lots and three commercial lots listed on High Street.
2014	The Subject Property is not identified in the City Directory.	Twenty nine residential lots listed on High Street.

6.4.4 Aerial Photos

Eleven (11) aerial photographs, spanning from 1942 through 2017, were reviewed to aid in determining the historical use of the Subject Property and the surrounding areas. Observations are presented in the table below, while the aerial photographs are attached in ***Appendix C***.

The review of the aerial photographs has revealed no evidence of any recognized environmental condition at the Subject Property.

Summary

Date(s)	Property Comments	Surrounding Area Comments
1942	A structure is located near the center of the Subject Property which likely a portion of the current main structure. A driveway extends north from High Street to the south side of the structure and wraps around the east side of it. A smaller structure is visible to the east of the main structure.	The surrounding area appears to consist mainly of residential development to the east and south. Surrounding land to the north and northwest appears to be generally consist of unimproved woodlands.
1963	There appears to have been an addition constructed off of the west side of the main structure and appears similar to the current layout of the main structure located at the Subject Property. Another small structure is now visible on the south side of the Subject Property.	Two water towers appear to have been constructed immediately adjacent to the western boundary of the Subject Property, as well as a dirt road leading to residential structures. No additional changes are apparent in the surrounding area.
1966	Though the image quality is poor, no changes are apparent at the Subject Property.	Though the image quality is poor, no changes are apparent in the surrounding area.
1981	The small structure located on the south side of the Subject Property is no longer visible.	No changes are apparent in the surrounding area.
1987	It appears that the structure that was located in the southern portion of the Subject Property has been removed. No other changes are apparent at the Subject Property.	The land to the northeast appears to have increased residential development. No additional changes are apparent in the surrounding area.
1995	Though the image quality is poor, no changes are apparent at the Subject Property.	Though the image quality is poor, no changes are apparent in the surround areas.
1997	No changes are apparent on the Subject Property.	No changes are apparent in the surrounding areas.
2008	No changes are apparent on the Subject Property.	No changes are apparent in the surrounding areas.
2011	No changes are apparent on the Subject Property.	No changes are apparent in the surrounding areas.
2015	No changes are apparent on the Subject Property.	No changes are apparent in the surrounding areas.
2017	No changes are apparent on the Subject Property.	No changes are apparent in the surrounding areas.

6.4.5 Sanborn/Historical Maps

Five (5) Sanborn Fire Insurance maps, spanning from 1911 through 1964, were available for review to aid in determine the historical use of the Subject Property. They are attached in ***Appendix C***.

No potential recognized environmental conditions are apparent at the Subject Property or within the surrounding properties.

Summary

Date(s)	Property Comments	Surrounding Area Comments
1911	A structure is visible on the southern edge of the Subject Property and labeled as a Summer Boarding house. An additional two smaller structures are located to the north of the structure.	The surrounding area appears to generally consist of residential development. The land to the north of the Subject Property is not visible on this Sanborn Map.
1921	No changes are apparent on the Subject Property.	No changes are apparent in the surrounding area.
1929	A structure is visible near the center of the Subject Property, which is likely a portion of the current structure, and is labeled as Monticello Hospital. A stairway leads to the entrance from Pleasant Street to the east. No other changes are apparent at the Subject Property.	No changes are apparent in the surrounding areas.
1949	A smaller structure is visible to the southeast of the main structure and labeled as the Nurses Home. No other changes are apparent at the Subject Property.	No changes are apparent in the surrounding areas.
1964	No changes are apparent on the Subject Property.	There appears to be increased residential and commercial development in the surrounding area.

6.4.6 Historical Topographic Maps

Tectonic reviewed seven (7) available historical USGS Topographic Quadrangles, spanning from 1909 through 2013, for information regarding past uses of the Subject Property. The following table presents descriptions and interpretations from the historical USGS topographic quadrangles review. Copies of the historical USGS topographic maps are included in ***Appendix C***.

No potential recognized environmental conditions are apparent at the Subject Property or within the surrounding properties.

Summary

Date(s)	Quad	Property Comments	Surrounding Area Comments
1909	Monticello	The Subject Property appears to be undeveloped.	Few structures appear to the northeast, east, and southwest of the Subject Property. The land to northwest appears to be generally undeveloped.
1911	Monticello	No apparent changes at the Subject Property.	No changes are apparent in the surrounding area.
1943	Monticello	A structure appears to have been developed near the center of the Subject Property which is likely the current structure.	Increased development, both residential and commercial, to the east and the south. The land to northwest appears to be generally undeveloped.
1944	Monticello	No changes are apparent on the Subject Property.	No changes are apparent in the surrounding areas.
1966	Monticello	The structure in the center of the Subject Property appears to have increased in size and is similar to the current layout of the main structure. An additional smaller structure to the southeast of the main structure	No changes are apparent in the surrounding areas.

		appears to have been constructed.	
1982	Monticello	An additional small structure appears to have been constructed on the north edge of the Subject Property.	No changes are apparent in the surrounding areas.
2013	Monticello	No structures are shown on this topographic map.	No structures are shown on this topographic map.

6.4.7 Other Environmental Reports

The following Environmental Reports are associated with the Subject Property:

- Phase I Environmental Site Assessment (ESA) (July 2018)
- Phase II ESA (July 2019)

6.4.8 Building Department Records

Tectonic submitted a FOIL request to the Village of Monticello on November 14, 2019 to inquire if any records exist pertaining to the environmental history of the Subject Property. At the time of this report, no response has been received. If a response yields pertinent information about the Subject Property an addendum will be issued.

Copies of the above correspondence are included in ***Appendix F***.

6.4.9 Other Land Use Records

No other land use records were provided for review at the time of this report.

6.5 Environmental Liens and Activity/Use Limitations

No title report was provided for this parcel. As such, no information pertaining to activity/use limitations could be obtained from it.

7.0 SITE RECONNAISSANCE

7.1 Methodology and Limiting Conditions

A site reconnaissance was performed by Tectonic on November 15, 2019. The weather was clear with a temperature of approximately 40°F. The purpose of the visit was to review the environmental conditions associated with the Subject Property and surrounding properties. Jill Weyer from Sullivan County was present to allow access to the property. The interior of the five (5) structures showed visual sign of deterioration and trip hazards were littered throughout, and around, the existing structures. As such, these structures were not entered due to safety concerns.

A series of photographs showing the Subject Property are attached **in *Appendix B,*** as well as a Site Sketch attached in ***Appendix F***.

7.2 General Site Setting

The Subject Property is located south of Route 17 and north of High Street in the Village of Monticello in Sullivan County, NY. The Subject Property is approximately 5.6 acres and is improved with five (5) structures along with a paved access road and parking area. Structures include:

- One (1) three-story structure located in the approximate center of the Subject Property which is identified as "Monticello Manor," by a sign on the exterior (main structure);
- One (1) four-story structure located southeast of the main structure which is identified as "Nurses Home," by a sign on the exterior (secondary structure); and
- Three (3) small storage structures that are situated to the north of the main structure.

These structures showed visual sign of deterioration, including windows without glass or boards, plaster/ dry wall from the ceilings and walls no longer in place, collapsed brick work, and rusted through metal. Additionally, trip hazards in the form of household debris, garbage, and construction debris were littered throughout and around the structures. As such, these structures were not entered due to safety concerns.

The Subject Property is accessed via paved road extending north off of High Street toward the main structure and a parking area. The structures located at the Subject Property are currently unoccupied. The remainder of the Subject Property consists of unimproved woodlands.The Subject Property is generally flat with the topographic gradient of the immediate vicinity being downward in a southeastern direction. The lands immediately adjoining the Subject Property consist of residential and commercial development, as well as unimproved woodlands.

A sketch map of the site is included in ***Appendix F***.

7.3 Site Visit Findings

7.3.1 Hazardous Substances

There were numerous unlabeled 5-gallon buckets, 55-gallon drums, and various containers/bottles of unknown contents located across the Subject Property. These containers noted on the Subject Property include:

- Seven (7) 5-gallon buckets (detergent, urethane, unknown contents, etc.);
- One (1) container of fire suppressant;
- Four (4) bottles (flexible additive, antifreeze, boiler liquid, gear oil);
- Three (3) 55-gallon drums (VP Racing Fuel, unknown contents); and
- One (1) gas canister.

Additionally, one (1) 55-gallon drum labeled as "VP Racing Fuel" was noted on the Subject Property, located within the storage shed north of the main structure (see Site Sketch). This drum is partially full and it is unknown whether or not any liquid has been released. However, these containers were noted during a Phase I Environmental Site Assessment (ESA) Site Reconnaissance on June 25, 2018, when they were collectively identified as a REC for the Subject Property. A soil investigation performed during the July 2019 Phase II ESA noted that bedrock was shallow on the Subject Property and that soils analyzed as part of the Phase II ESA investigation would be classified as non-hazardous regulated material by the State of New York due to elevated metals and semi-volatile organic compounds. Based on the findings of the 2019 Phase II ESA, there is a low potential for impact to soils and groundwater on the Subject Property associated with these containers and debris.

More details on the approximate locations of these items can be found on the Site Sketch provided in ***Appendix F***.

7.3.2 Petroleum Products

Upon assessment of the Subject Property, one (1) 55-gallon drum labeled as "VP Racing Fuel" was noted on the Subject Property, located within the storage shed to the north of the main structure (see Site Sketch). See Section 7.3.1 for further details.

One (1) underground storage tank (UST) and five (5) above ground storage tanks (ASTs) were also noted during the site visit and potentially contain petroleum products. Please refer to sections 7.3.3 and 7.3.4, respectively, for further details.

More details on the approximate locations of these items can be found on the Site Sketch provided in ***Appendix F***.

7.3.3 USTs

One (1) underground storage tank (UST) was identified on the Subject Property during the site reconnaissance visit. The UST is located adjacent to the southwest corner of the secondary structure (Nurses Home) on the Subject Property and was partially exposed. It is unknown if this UST is currently registered with the New York State Department of Environmental Conservation (NYSDEC). A search of the NYSDEC Bulk Storage Database revealed that no petroleum bulk storage tanks are listed for the address 15 High Street, Monticello, NY. If this UST has a total capacity of greater than 1,100 gallons, it must be registered under the NYSDEC Petroleum Bulk Storage Database.

No evidence of release was observed in the vicinity of the tank during the site visit. As most of the tank was covered and located underground and is not visible to be assessed for potential release, and it is unknown whether or not the tank was closed in accordance with state regulations, there is a moderate potential for release. However, the presence of these USTs were noted during a Phase I Environmental Site Assessment (ESA) Site Reconnaissance on June 25, 2018, when they were identified as a REC for the Subject Property. A soil investigation performed during the July 2019 Phase II ESA noted that bedrock was shallow on the Subject Property and that soils analyzed as part of the Phase II ESA investigation would be classified as non-hazardous regulated material by the State of New York due to elevated metals and semi-volatile organic compounds. However, the Phase II ESA did not sample the soils immediately adjacent to or directly under the UST; as such, the potential exists for these soils to be potentially contaminated. Based on the findings of the 2019 Phase II ESA, there is a low potential for impact to soils and groundwater on the Subject Property associated with the presence of this UST. The presence of this UST is considered a business environmental risk (BER) for the Subject Property.

More details on the approximate location of the UST can be found on the Site Sketch provided in ***Appendix F***.

7.3.4 ASTs

Five (5) above ground storage tanks (ASTs) were identified on the Subject Property. Two (2) ASTs were located in the main structure (Monticello Manor) on the first floor, one (1) AST was located on the west side of the main structure (Monticello Manor) within an attached covered shelter, one (1) AST was located near the parking area to the north of the main structure (Monticello Manor), and one (1) tank was located on the west side of a storage shed. No odors, staining, or distressed vegetation were observed in the vicinity of any of the tanks.

More details on the approximate locations of the ASTs can be found on the Site Sketch provided in ***Appendix F***.

7.3.5 Other Suspect Containers

Please refer to Section 7.3.1 for a description of other suspect containers observed during the site reconnaissance.

7.3.6 Equipment Likely to Contain PCBs

No transformers or other evidence of PCB containing materials were observed on or near the Subject Property during the site inspection. However, due to the age of the structure, other items within the buildings at the Subject Property may contain PCBs, including the light fixtures, window caulking, and hydraulic oil in the elevator. This has been identified as a BER.

More details on the approximate locations of these items can be found on the Site Sketch provided in ***Appendix F***.

7.3.7 Interior Staining/Corrosion

There was no evidence of interior staining or corrosion on the Subject Property.

7.3.8 Discharge Features

There was no visible evidence of liquid discharges suspected to represent an environmental concern on or around the Subject Property.

7.3.9 Pits, Ponds, And Lagoons

No ponds or lagoons were observed on the Subject Property. A shallow excavation, approximately 1 foot deep, was noted to be on the northern portion of the Site. No odors, staining, or distressed vegetation were observed in the vicinity of the excavation.

7.3.10 Solid Waste Dumping/Landfills

Miscellaneous debris was observed throughout the Subject Property (see Site Sketch provided in ***Appendix F***). This debris included residential furniture, siding, tires, wood planks, and other miscellaneous objects. No odors, staining, or evidence of release were observed in the areas that contained the debris.

Each occurrence of debris would individually be considered a *de minimis* condition; however, the substantial number of debris piles and *de minimis* conditions were noted during a Phase I Environmental Site Assessment (ESA) Site Reconnaissance on June 25, 2018, when they were identified as a REC for the Subject Property. A soil investigation performed during the July 2019 Phase II ESA noted that bedrock was shallow on the Subject Property and that soils analyzed as part of the Phase II ESA investigation would be classified as non-hazardous regulated material by the State of

New York due to elevated metals and semi-volatile organic compounds. Based on the findings of the 2019 Phase II ESA, there is a low potential for impact to soils and groundwater on the Subject Property associated with the presence of these debris piles.

7.3.11 Stained Soil/Stressed Vegetation

There was no evidence of stained soil, stained pavement, or stressed vegetation on or near the Subject Property.

7.3.12 Wells

No wells were identified on the Subject Property.

8.0 INTERVIEWS

The following knowledgeable persons were interviewed with regard to the Subject Property pursuant to ASTM E 1527-13 Section 10:

Owner's Representative: A Property Owner Questionnaire was completed and returned from the client. The Questionnaire revealed that the Subject Property is currently serviced by the Village of Monticello for water, sanitary sewer and storm drainage. Electric is provided by NYSEG. The Questionnaire indicated that there is one (1) known AST present on the Subject Property.

Village of Monticello: Tectonic submitted a FOIL request to the Village of Monticello on November 14, 2019 to inquire if any records exist pertaining to the environmental history of the Subject Property. This FOIL request involved records associated with the Monticello Fire Department, Building Department, and Water Department. At the time of this report, no response has been received. If a response yields pertinent information about the Subject Property an addendum will be issued.

Records of all above correspondence are included in ***Appendix F***.

9.0 OTHER ENVIRONMENTAL CONSIDERATIONS

9.1 Asbestos-Containing Materials

Tectonic performed a preliminary evaluation for the presence of asbestos-containing materials, which is identified as a "non-scope" consideration by ASTM E 1527-13. Out of scope considerations have been included in this Phase I ESA because they can represent substantial costs associated with remediation and can have a material environmental or environmentally-driven impact on the business associated with the current or planned use of a parcel of commercial real estate.

The main building was constructed sometime between 1921 and 1929, prior to the federal ban of asbestos containing building materials in 1978. Potential asbestos containing materials were observed during the site visit including: ceiling tiles, floor tiles and associated mastic, pipe wrap, and boiler components. Due to the age of the structure, the potential presence of asbestos is considered an environmental concern. An asbestos survey should be performed by qualified professionals and a clearance report should be submitted prior to any disturbance of the suspected materials. Structures to be reconstructed or rehabilitated must conform to Part 56 of Title 12 of the Official Compilation of Codes, Rules, and Regulations of the State of New York Department of Labor (Cited as 12 NYCRR Part 56), the National Emission Standard for Asbestos pertaining to demolition and renovation in 40 CFR 61.145, and the National Emission Standard for Asbestos pertaining to waste disposal for manufacturing, fabricating, demolition, and spraying operations in 40 CFR 61.150.

The potential presence of asbestos is considered a BER.

9.2 Lead-Based Paint

Tectonic performed a preliminary evaluation for the presence of lead-based paint, which is identified as a "non-scope" consideration by ASTM E 1527-13. Out of scope considerations have been included in this Phase I ESA because they can represent substantial costs associated with remediation and can have a material environmental or environmentally-driven impact on the business associated with the current or planned use of a parcel of commercial real estate.

The main building was constructed sometime between 1921 and 1929, prior to the federal ban of lead-based paint (LBP) for residential use in 1978. It was noted during the site reconnaissance that there was peeling paint in many of the rooms within the structures. A LBP survey should be performed by qualified professionals and a clearance report should be submitted prior to any disturbance of suspected materials. All project activities must comply with applicable federal, state, and local laws and regulations regarding LBP, including but not limited to, HUD's regulations in 24 CFR Part 35 Subparts B, H, and J.

The potential presence of LBP is considered a BER.

9.3 Radon

Tectonic performed a preliminary evaluation for the potential for radon infiltration, which is identified as a "non-scope" consideration by ASTM E 1527-13. Out of scope considerations have been included in this Phase I ESA because they can represent substantial costs associated with remediation and can have a material environmental or environmentally-driven impact on the business associated with the current or planned use of a parcel of commercial real estate.

Tectonic reviewed the EPA's radon information for Sullivan County, including the EDR Summary Radius Report and the NYS EPA Radon Map**.** The Subject Property is located within Zone 1 according to the EPA Map of Radon Zones for New York State. Zone 1 has a predicted average indoor radon screening level above 4 pCi/L and therefore radon mitigation is a concern for the Subject Property..

The potential presence of radon is considered a BER.

A copy of the New York State Radon Map is included in ***Appendix F***.

9.4 Wetlands

Tectonic performed a preliminary evaluation for the presence of wetlands which is identified as a "non-scope" consideration by ASTM E 1527-13. Out of scope considerations have been included in this Phase I ESA because they can represent substantial costs associated with remediation and can have a material environmental or environmentally-driven impact on the business associated with the current or planned use of a parcel of commercial real estate.

United States Fish & Wildlife Service's Wetlands Online Mapper figure, as provided in the EDR report, depicting the Subject Property and surrounding area, was reviewed as part of the Phase I ESA. According to these maps, no designated wetlands are identified on the Subject Property. The closest designated wetland is located approximately 0.2 miles southeast of the Subject Property, and is a designated National Wetland categorized as a Freshwater Forested/Shrub Wetland.

A copy of the overview map provided in the EDR database search that includes both national and state wetlands is presented in ***Appendix D***.

9.5 Microbial Contamination (Mold)

Tectonic performed a preliminary evaluation for the presence of microbial contamination (mold), which is identified as a "non-scope" consideration by ASTM E 1527-13. Out of scope considerations have been included in this Phase I ESA because they can represent substantial costs associated with remediation and can have a material environmental or environmentally-driven impact on the business associated with the current or planned use of a parcel of commercial real estate.

The structures have not been utilized since it was shut down in 2008, as indicated by the 2018 Phase I ESA. It has not been managed and has been open to the elements which poses the potential for microbial growth (mold).

Mold was observed during the site reconnaissance in the shed located adjacent to the Secondary Structure (see Site Sketch in ***Appendix F***). The 2018 Phase I ESA Site Reconnaissance noted the presence of mold within the existing structures on the Site. The presence of mold is considered a BER.

9.6 Client-Specific Items

The client, Sullivan County, did not specify any other items to consider for environmental impact.

9.7 Vapor Assessment

A Vapor Encroachment Screening was performed on November 15, 2019, in accordance with the E2600-15 Tier I screening process, utilizing EDR's VEC App software. Upon assessment, it was concluded that the spill that occurred from a tank leak on the Subject Property could indicate a potential for vapor intrusion or encroachment. The spill consisted of approximately 20 gallons of #2 fuel oil that was released from an AST on the Subject Property and was not cleaned up according to NYSDEC standards. A soil investigation performed during the July 2019 Phase II ESA noted that bedrock was shallow on the Subject Property and groundwater was not found during the Phase II ESA. Additionally, the soils analyzed as part of the Phase II ESA investigation did not note the presence of volatile organic compounds that exceeded guidance concentrations set forth in 6 NYCRR Part 375/ PC-51. As such, there is a low potential for impact to soils and groundwater on the Subject Property associated with this spill.

The results of the screening can be found in ***Appendix F.***

10.0 FINDINGS

In an effort to establish the current and historic environmental condition of the Subject Property, a multi-task investigation was performed.

Tectonic attempted interviews with Subject Property and government contacts, conducted a three part (street, exterior, and interior view) site inspection, reviewed available topographic maps, aerial photographs, and searched government records to identify recognized environmental conditions (RECs) and business environmental risks (BERs) in connection with the Subject Property.

During the investigation, evidence of five (5) BERs were identified:

1. The first BER that was identified is the potential for asbestos on the Subject Property, since the structure was built prior to the federal ban of asbestos containing building materials in 1978.

2. The second BER that was identified is the potential for lead-based paint on the Subject Property, since the structure was built prior to the federal ban on lead-based paint (LBP) for residential use in 1978

3. The third BER that was identified is the potential for radon infiltration from the subsurface on the Subject Property, since the structure is located within EPA Zone 1 and has a predicted average indoor radon screening level above 4 pCi/L.

4. The fourth BER that was identified is the potential for PCBs on the Subject Property due to the age of the structures located at the Subject Property.

5. The fifth BER that was identified is the presence of a UST on the Subject Property.

11.0 OPINIONS

Based on the information collected and reviewed for this report and the findings presented in Section 10.0, it is Tectonic's opinion that there are business environmental risks (BERs) that have a potential to impact the Subject Property and Site. The BERs include:

1. The first BER, concerning the potential presence of asbestos containing materials on the Subject Property, has been identified to have a moderate potential for impact to the Subject Property due to the age of the structure and the items observed during the site visit.

2. The second BER, concerning the potential for lead-based paint on the Subject Property, has been identified to have a moderate potential for impact to the Subject Property due to the age of the structure and the peeling paint observed during the site visit.

3. The third BER, concerning the potential for radon infiltration from the subsurface, has been identified to have a moderate potential for impact to the Subject Property due to the location within EPA Zone 1.

4. The fourth BER, concerning the potential for PCB containing materials on the Subject Property, has been identified to have a moderate potential for impact to the Subject Property due to the age of the structures.

5. The fifth BER, concerning the presence of a UST on the Subject Property, has been identified to have a moderate potential for impact to the Subject Property due to the age and unknown condition of the UST on the Subject Property.

12.0 CONCLUSIONS

Tectonic has performed a Phase I Environmental Site Assessment in conformance with the scope and limitations of ASTM Practice E 1527-13 for the Subject Property identified in Sullivan County tax records as Tax Map Number 107.-1-11.1. Any exceptions to, or deletions from, this practice are described in Section 3.4 of this report. This assessment has revealed evidence of five (5) business environmental risks associated with the potential that asbestos containing material (ACM), lead-based paint (LBP), and PCB-containing building materials may be disturbed as part of any future improvements at the Subject Property. The potential for radon infiltration from the subsurface has been identified to have a moderate potential for impact to the Subject Property due to the location within EPA Zone 1 and the shallow bedrock on the Subject Property. Additionally, due to the age and unknown condition of the UST on the Subject Property, there is a moderate potential for impact to the soils immediately adjacent to and beneath the UST.

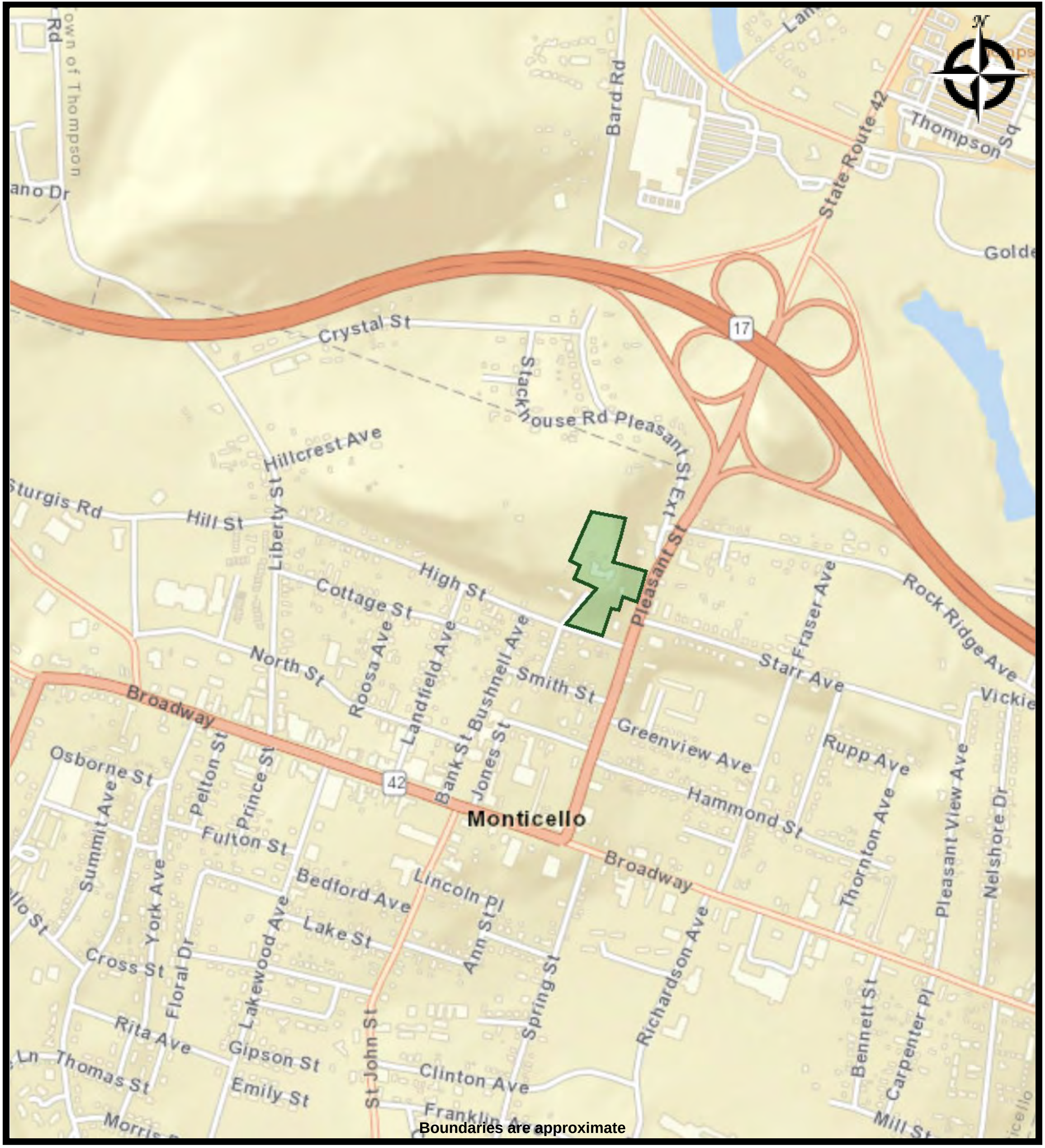
13.0 RECOMMENDATIONS

Based upon the site reconnaissance and file review, five (5) business environmental risks (BERs) were identified for the Subject Property that would have an impact on further Site development. If any renovation or demolition is proposed for the structures located at the Subject Property, a hazardous materials survey should be performed to identify any asbestos containing materials (ACM), Lead-based Paint (LBP) or PCB-containing materials prior to any proposed improvements that would potentially disturb such materials. The potential for radon vapor intrusion to impact a structure on the Subject Property; as such, any structures on the Subject Property should be evaluated for radon infiltration prior to use. Additionally, should the UST on the Subject Property be removed, it is recommended end point sampling be performed to meet New York State Underground Storage Tank closure guidelines and regulations.

Appendix A:

Figures

Image Provided By ESRI Street Map



Boundaries are approximate

STREET MAP
MONTICELLO MANOR
15 High Street
Monticello, New York 12701

PREPARED FOR: Sullivan County
PROJ. MGR: Kristine Garbarino **DATE:** 11/14/2019
DRAWN BY: Dina Peoples **PROJ. #:** 9801.01

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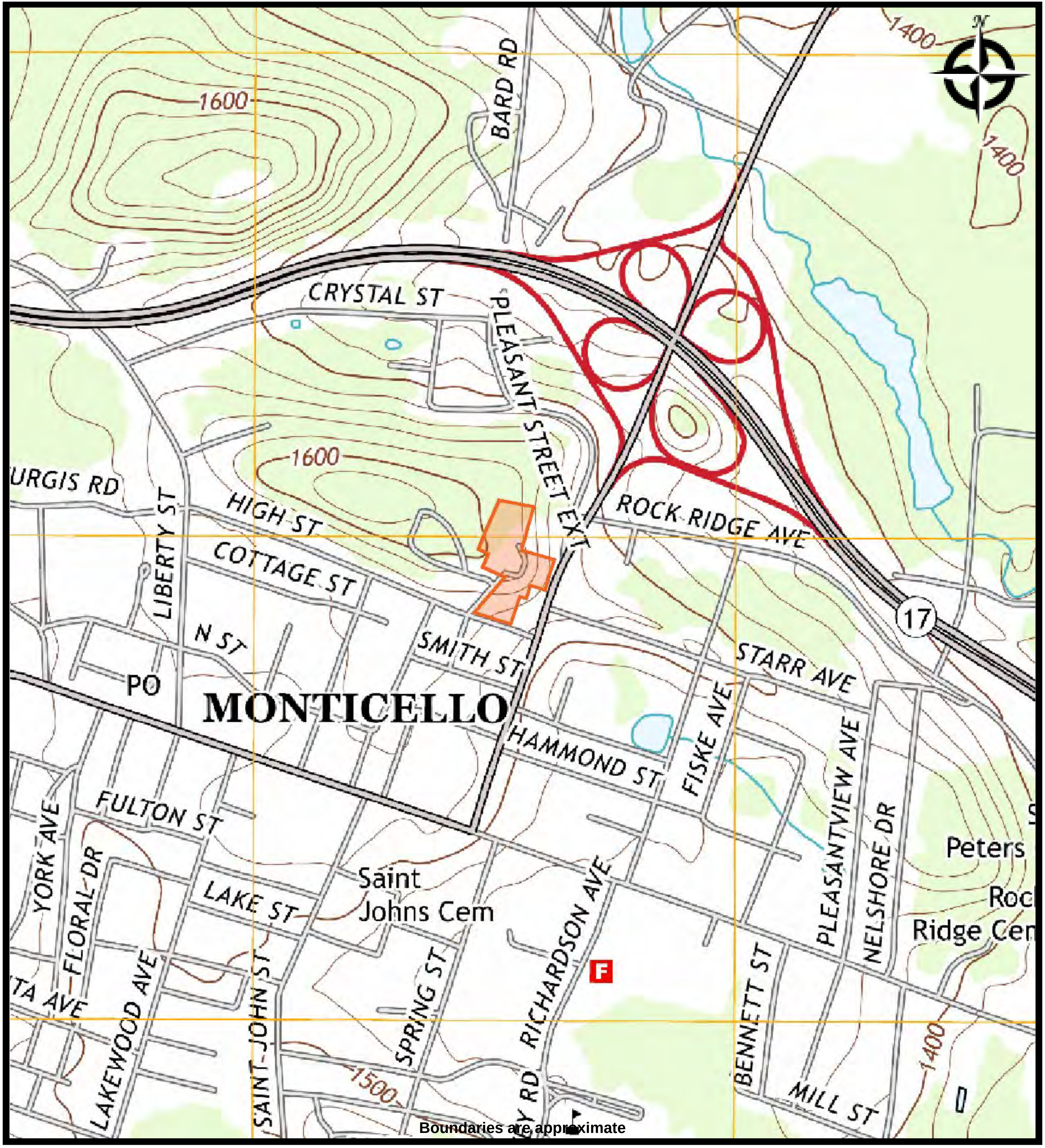
Image Provided By EDR USGS Topographic Maps



Boundaries are approximate

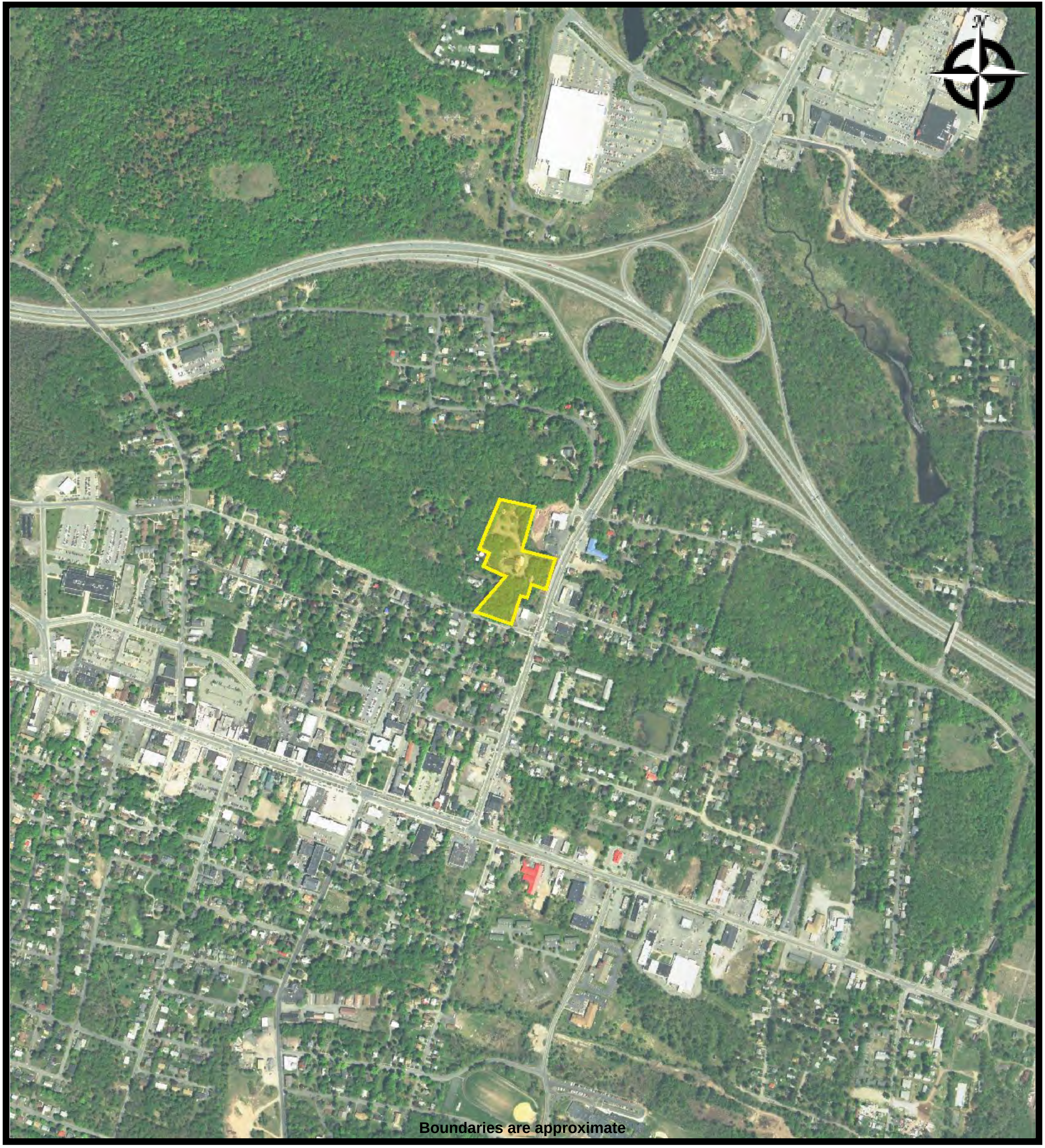
Tectonic

PRACTICAL SOLUTIONS. EXCEPTIONAL SERVICE.

TOPO MAP - 2013
MONTICELLO MANOR
15 High Street
Monticello, New York 12701

PREPARED FOR: Sullivan County
PROJ. MGR: Kristine Garbarino
DATE: 11/14/2019
DRAWN BY: Dina Peoples
PROJ. #: 9801.01

Image Provided By EDR Aerials



Boundaries are approximate

Tectonic

PRACTICAL SOLUTIONS. EXCEPTIONAL SERVICE.

AERIAL - 2015
MONTICELLO MANOR
15 High Street
Monticello, New York 12701

PREPARED FOR: Sullivan County
PROJ. MGR: Kristine Garbarino
DRAWN BY: Dina Peoples
DATE: 11/14/2019
PROJ. #: 9801.01

Appendix B:

Photographs

Looking north towards Main Structure

Looking northeast up drive towards Site

Looking northwest down High Street

Looking south from the Site down Green St

Looking southeast down high street; fire hydrant located on Site in right of way

Looking east towards the southern portion of the Site; representative photograph

Looking south towards Site from northern property boundary

Main Structure- looking north from entrance drive

Main Structure- looking northeast from entrance drive; mattresses, tires, and other misc. debris located adjacent to structure

Main Structure- looking east from entrance drive; mattresses and misc. debris located adjacent to structure

Main Structure- Misc. debris pile, which includes heavy duty oil stabilizer

Main Structure- debris pile including rusty containers and household items

Main Structure- eastern portion of the main structure with debris near building

Main Structure- northern face of main structure with debris under tarp

Main Structure- northern face of main structure and adjacent AST

Main Structure- tires stored adjacent to structure

Main Structure- vent structures on northwest corner

Main Structure- floor content of storage tank vault

Main Structure- visible storage tank in vault

Main Structure- wall content of storage tank vault

Main Structure- looking towards storage tank vault

Secondary Structure- shed located west of structure and debris on ground

Secondary Structure- debris on ground between structure and shed

Secondary Structure- gutter running underground and storage tank located against building

Secondary Structure- storage tank located against southwest corner of secondary structure

Secondary Structure- northern face of structure

Secondary Structure- eastern face of structure

Secondary Structure- western face of structure and stairs

Secondary Structure- southern face of structure

Secondary Structure- contents of shed located immediately southwest of secondary structure

Shed- looking north towards shed and two ASTs located adjacent to shed

Shed- interior of shed with CRT TVs and construction debris

Shed- interior of shed with CRT TVs and 55g fuel oil drum

Parking area- household garbage and debris

Parking area- household garbage and debris on eastern border

Parking area- Representative photograph of debris left on site

Parking area- representative photograph of containers located in debris pile adjacent to main structures

Parking area- household garbage and debris with 55g drum

Parking area- full 55g drum

Collapsed shed- debris and garbage pile east of shed

Collapsed shed- contents of shed

Collapsed shed- mattresses in shed

Collapsed shed- debris west of shed

Office- underground pipe coming out of ground and disconnected pipe on ground

Office- Looking south towards office

Sullivan County
Division of Planning &
Community Development

Phase II Environmental
Site Assessment (ESA)

Monticello Manor
15 High Street
Monticello, New York
Sullivan County

Tectonic
PRACTICAL SOLUTIONS. EXCEPTIONAL SERVICE.

Prepared for: **Sullivan County DPCD**
100 North Street
Monticello, New York 12701

Prepared by: **Tectonic Engineering & Surveying**
Consultants P.C.
70 Pleasant Hill Road
Mountainville , New York 10953

July 2019

Work Order: 9294.01

PHASE II ENVIRONMENTAL SITE ASSESSMENT (ESA)
MONTICELLO MANOR
15 HIGH STREET
VILLAGE OF MONTICELLO, SULLIVAN COUNTY, NEW YORK

TABLE OF CONTENTS

1.0 INTRODUCTION

Tectonic Engineering and Surveying Consultants, P.C. (Tectonic) has prepared this Phase II Environmental Site Assessment (ESA) Report for the property located at 15 High Street in the Village of Monticello, New York (herein referred to as the "Site" or "Subject Property"). This Phase II ESA investigation was performed in substantial accordance with the United States Environmental Protection Agency (USEPA) approved site-specific Sampling and Analysis Plan (SAP) dated December 2018 and Quality Assurance Project Plan (QAPP) dated March 2019 and revised April 5, 2019.

The subject Phase II ESA investigation was conducted in support of EPA Brownfield Hazardous Substance grant funds being administered by the Sullivan County Division of Planning & Community Development (DPCD). It is our understanding that the funds are being used to identify and assess brownfield sites in Sullivan County, focusing on the urban centers of Monticello, Liberty and South Fallsburg.

The primary objective of this Phase II ESA was to collect physical and chemical data in order to evaluate the presence / absence of potential impacts from eight (8) Recognized Environmental Conditions (RECs) identified in the Phase I ESA for the Monticello Manor property, as outlined in our Phase I ESA Report dated October 24, 2018. These RECs are described in detail in Section 2.5 of this Phase II ESA.

2.0 BACKGROUND

2.1 Site Description and Features

The Subject Property is located at 15 High Street in the Village of Monticello, Sullivan County, New York 12701 (see **Figure 1**). The Subject Property is the parcel of land identified as Tax Map Number 107.-1-11.1 by the Sullivan County Tax Map Department. The site occupies 5.6 acres in a residential and commercial area.

The Subject Property is improved with five (5) structures and a paved access road and parking area. Structures include:

- One (1) three-story, brick and mortar, main structure located in the approximate center of the Subject Property. According to the Sullivan County Tax Web App, the structure has an approximate gross floor area of 32,188-square feet. Based on an estimate derived using Google aerial imagery, the footprint of this structure is approximately 11,500-square feet. The oldest portion of the main structure was built circa 1920s;

- One (1) three-story, brick and mortar, secondary structure located southeast of the main structure. According to the Sullivan County Tax Web App, the structure has an approximate gross floor area of 4,748-square feet. Based on an estimate derived using Google aerial imagery, the footprint of this structure is approximately 1,600-square feet. The secondary structure was built around 1931; and

- Three (3) small storage structures that are situated to the north of the main structure. Based on estimates derived using Google aerial imagery, the footprint of these structures are approximately 370-square feet, 240-square feet, and 480 square feet.

A paved access road extends north off of High Street and leads up to the main structure and further extends to the north side of the Subject Property where there is a parking area. The remainder of the Subject Property consists of unimproved woodlands. The approximate locations of the above referenced structures are shown in **Figure 2**.

2.2 Physical Setting

Soil:

The United States Department of Agriculture's (USDA) Soil Conservation Service (SCS) leads the National Cooperative Soil Survey (NCSS), and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. Soil maps, based on the State Soil Geographic (STATSGO) database, are compiled by generalizing more detailed Soil Survey Geographic (SSURGO) database maps. The EDR report provides information from these sources, which was reviewed and summarized below.

A USDA Natural Resources Conservation Service (NRCS) Custom Soil Resource Report was generated by the NRCS Web Soil Survey 2.0, to supplement the report generated by EDR. According to these reports, mapped soils at the Subject Property consist of three (3) soil types:

- Arnot-Oquaga complex (AoE), 15 to 35 percent slopes, very rocky;
    - AoE is described as a loamy till derived from acidic sandstone, siltstone and shale which extends to a depth of 20 to 40 inches before encountering lithic bedrock and to a depth of more than 80 inches before encountering the water table. This soil type is described as somewhat excessively drained and is categorized as hydrologic soil group D.
- Oquaga very channery silt loam, 3 to 8 percent slopes (OeB); and
    - OeB is described as a very channery silt loam derived from reddish sandstone, siltstone and shale which extends to a depth of 20 to 40 inches before encountering lithic bedrock and to a depth of more than 80 inches before encountering the water table. This soil type is described as well drained and is categorized as hydrologic soil group C.
- Oquaga-Arnot complex, 8 to 15 percent slopes (OgC).
    - OgC is described as a channery loamy till derived from reddish sandstone, siltstone and shale which extends to a depth 20 to 40 inches before encountering lithic bedrock and to a depth of more than 80 inches before encountering the water table. This soil type is described as somewhat excessively drained and is classified as hydrologic soil group C.

Geology:

According to the United States Geological Survey (USGS) and the New York State (NYS) Museum Office of Cartography and Publications' Generalized Bedrock Geology of NYS, the geology underlying the Subject Property consists of late Devonian aged sedimentary deposits consisting generally of shales, sandstones and conglomerates. Specifically, the Subject Property is located in an area that contains the Upper Walton Formation. Bedrock is exposed in some locations, but is generally shallow below the soil surface.

Hydrogeology:

Monticello is not located within a 100-year flood zone and no designated wetlands or other surface water bodies were identified on the Subject Property. The general topographic gradient of the Subject Property and the surrounding area is to the southeast toward an unnamed body of water located approximately 1,200 feet from the Subject Property's eastern boundary.

2.3 Site History and Land Use

The Subject Property is currently owned by Sullivan County who obtained the title of ownership on May 1, 2018 after the bankruptcy of the former property owner, Manor Venture, was discharged. The Subject Property and the remaining structures are currently unoccupied.

While performing due diligence for the Phase I ESA, Tectonic interviewed a former property owner, Mr. Charlie Benson, via telephone on August 15, 2018 to inquire into the operational history at the Monticello Manor site. Mr. Benson owned the property for approximately thirty (30) years beginning in 1978. During that time, the property was used as an assisted living facility for adults. Mr. Benson stated that the property was operated as a hospital prior to his ownership. During his time as owner, Mr. Benson stated that there was no X-Ray Machine or dry cleaning facilities on site. Mr. Benson said that to his knowledge, no automotive maintenance was performed at the site during his time as property owner.

According to a Property Ownership card provided by Sullivan County, past owners' of the property included:

- Landfield-Monticello Services, Inc. (recorded January 3, 2001);
- Highland Fields, Inc. (recorded January 31, 1994);
- Landfield Hill Associates (recorded August, 28, 1979);
- Community General Hospital of Sullivan County (recorded August 1, 1979); and
- Hebrew Hospital Association of Sullivan County (no date recorded).

2.4 Adjacent Property Land Use

The Site is bordered on the north by commercial development (Beer World), on the west by a residential structure and the Village of Monticello water towers, on the south by a commercial structure (Marshall & Sterling Insurance), and on the east by commercial structures (Citgo, Ultrapower, NAPA Auto Parts).

2.5 Summary of Previous Assessments

Tectonic performed a Phase I ESA for Monticello Manor and presented findings and recommendations in the Phase I ESA Report dated October 24, 2018. Tectonic identified eight (8) RECs which included:

1. The first REC that was identified is a spill associated with an above ground storage tank (AST) on the Subject Property that was not cleaned up according to New York State Department of Environmental Conservation (NYSDEC) standards. The Environmental Data Resources, Inc. (EDR) database report identifies a release that was not immediately reported and was not remediated according to state standards. As such, we concluded there was a high potential that the reported release of petroleum has impacted site soils and potentially groundwater in the vicinity of the AST.

2. The second REC that was identified is associated with a tank failure that occurred at the Ultra Power gas station located approximately 380 feet southeast and down-gradient of the Subject Property that was not remediated according to state standards, as well as the property's historic use as a gas station. The historic tank failure and use of this nearby site as a gas station had the potential for

petroleum contaminated soils and groundwater, potentially impacting the Subject Property if the contaminated media had historically migrated off site.

3. The third REC that was identified is a spill that occurred at the Stewart's Shop gas station located approximately 442 feet down-gradient of the Subject Property, as well as its historic use as a gas station. The spill that occurred consisted of a release of an unknown quantity of gasoline and the cleanup did not meet NYSDEC standards. The reported petroleum release had the potential to contaminate on-site soils and groundwater, potentially impacting the Subject Property if the contaminated media had historically migrated off site.

4. The fourth REC that was identified is associated with a drum labeled "VP Racing Fuel" located on the Subject Property. This drum was partially filled and located in a storage shed on the Subject Property. Potential petroleum releases from the drum may have impacted the soils and groundwater in the vicinity of the drum.

5. The fifth REC that was identified is the potential cumulative impacts resulting from potential releases from various suspect containers discovered across the Subject Property that could potentially hold hazardous substances. The suspect containers were partially filled, and some of them were not stored properly. Each suspect container would individually be considered a de minimis condition, however, the substantial number of de minimis conditions has been considered a REC. Petroleum products and unknown material included in the containers may have impacted soils and groundwater at the Subject Property.

6. The sixth REC that was identified is the underground storage tank (UST) that was observed during the site reconnaissance on the Subject Property that could not be visually assessed for leaks. Potential releases from the UST may have historically impacted the Subject Property, impacting on-site soils and groundwater.

7. The seventh REC that was identified is associated with miscellaneous debris that was observed throughout the Subject Property. Each occurrence of debris would individually be considered a de minimis condition, however, the substantial number of debris piles/de minimis conditions has been considered a REC. Unknown material included in the debris may have impacted soils and groundwater at the Subject Property.

8. Due to the unknown date of connection to municipal utilities, there is potentially a septic tank at the property which may contain discharges from the former hospital. If a septic tank exists, the potential that it may have leaked wastewater containing phenolic compounds into on site soils and groundwater exists.

To the best of our knowledge, no other environmental investigations at the Subject Property have been performed.

3.0 PHASE II ESA ACTIVITIES

Prior to mobilization to the Site for field activities, Tectonic identified seven (7) areas of concern (AOCs) in which potential impacts and/or contamination may be present due to historic use of the Subject Property (see **Figure 3**). The identification of the AOCs was informed primarily by performing the Phase I ESA. These areas of concern include:

- AOC 1: One (1) UST was observed during the Phase I ESA site reconnaissance. Due to access limitations and the tank being below grade, it could not be assessed (visually or olfactorily) whether or not releases from the UST had impacted surrounding soils and groundwater.

- AOC 2, AOC 3, AOC 4: Three (3) ASTs were noted during the Phase I ESA site reconnaissance. No evidence of release was observed on the ground surface, however, impacts to sub-surface soils from potential releases may exist.

- AOC 5, AOC 6: Two (2) 55-gallon drums were reported during the Phase I ESA site reconnaissance. No evidence of release was observed on the ground surface, however, impacts to sub-surface soils from potential releases may exist.

- AOC 7: An interview with a former property owner revealed that a four car garage had previously existed in the rear (north of) the main structure located at the Subject Property. Potential releases from vehicles and suspect containers stored in the garage may have impacted sub-surface soils and groundwater.

Additionally, based on comments on the Phase I ESA, provided by the USEPA, the subject Phase II ESA investigation was designed to include two (2) additional components:

1. Tectonic shall obtain additional relevant documentation for the Subject Property from the Village of Monticello Building Department to evaluate when the structures on the property were connected to the municipal sewer system. If records indicate that the facility has been serviced by the municipal sewer since occupation, no further investigation will be necessary regarding the septic system. However, if information is inconclusive, item number 2, below, shall be implemented.

2. Tectonic shall perform a geophysical survey to investigate if a septic system is present.

The seven (7) AOCs and the approximate area of the geophysical survey are shown in **Figure 3**.

3.1 Deviations from the SAP / QAPP

Groundwater sampling was included as part of the scope of work in our USEPA approved SAP and QAPP with the intention of providing data relative to the presence and/or absence of petroleum impacts within the shallow groundwater within the limits of two (2) of the seven (7) identified AOCs (AOC 1 and AOC 7) and in a down-gradient location from a potential septic system. However, bedrock was encountered at shallow depths (0 – 5 feet below ground surface) and groundwater was not encountered. As such, monitoring wells could not be installed and groundwater samples were not collected.

3.2 Building Department Records Review

Tectonic conducted a records review in accordance with American Society for Testing & Materials ("ASTM") Practice E1527-13 during the Phase I ESA investigation. As part of the subject investigation, Tectonic requested any records on file for the Subject Property located at the Village of Monticello Building Department associated with existence of a potential septic system or any underground storage tanks. The Village of Monticello's Building Department responded on May 28, 2019, stating that no information was available associated with the presence of a septic tank or underground storage tanks on the Subject Property. Copies of this correspondence is included in **Appendix I**. However, on June 5, 2019, Steve Kozachuk with the Village of Monticello Water and Sewer Department confirmed that the Subject Property had been serviced by a public sanitary sewer system since the hospital had been constructed.

3.3 Geophysical Survey

A geophysical survey was performed in the vicinity of the main and secondary structures of the Subject Property on June 5, 2019 using ground penetrating radar (GPR) to investigate whether an undocumented septic system is present. All areas accessible to a GPR unit within a one hundred (100) foot radius of the structures were surveyed; no evidence was observed associated with a potential septic system on the Subject Property.

3.4 Soil Sampling

On June 5 and 6, 2019, a geologist from Tectonic, with current OSHA HAZWOPER training, and representatives from General Borings, Inc. mobilized to the Site to advance eight (8) soil borings to depths ranging between approximately eight (8) inches to five (5) feet below ground surface (bgs) (see **Figure 4**). Borings were advanced continuously via AMS PowerProbe 9500-VTR direct push rig or via hand excavation to refusal at bedrock.

The eight (8) soil borings were located to address the seven (7) AOCs identified and the presence of the sanitary sewer line, as detailed below.

- Two (2) soil borings (borings B1 and B2) were advanced in the vicinity of the two (2) 55-gallon drums discovered during Tectonic's site reconnaissance performed on June 25, 2018 as part of the Phase I ESA investigation for potential petroleum contamination. These borings were performed to address AOCs 5 and 6.

- Three (3) soil borings (borings B3, B4 and B5) were advanced in the vicinity of the three (3) ASTs discovered during Tectonic's site reconnaissance performed on June 25, 2018 as part of the Phase I ESA investigation for potential petroleum contamination. These borings were performed to address AOCs 2, 3, and 4.

- One (1) soil boring (boring B6) was advanced in the vicinity of the former location of a four car garage behind the main structure that has subsequently been destroyed (according to an interview with a former property owner). This boring was performed to address AOC 7.

- One (1) soil boring (boring B7) was advanced in the vicinity of the one (1) UST identified during Tectonic's site reconnaissance performed on June 25, 2018 as part of the Phase I ESA investigation. This boring was performed to address AOC 1.

- One (1) soil boring (boring B8) was advanced to evaluate the soils located down-gradient from the sanitary sewer line identified by the Village of Monticello.

The soil borings locations B1 through B4, B6 and B8 were advanced via Geoprobe to approximately five (5) feet below ground surface (bgs) or to refusal at bedrock; no groundwater was encountered. Boring locations B5 and B7 could not be accessed by the track mounted Geoprobe; as such, hand tools were utilized to reach bedrock. Once bedrock was exposed, a single-use, dedicated scoop was utilized to obtain a fresh surface in the side-walls of each excavation for soil classification and to obtain analytical samples. See Boring Logs and Test Pit Logs included as **Appendix II** for details.

Soils were visually and olfactorily inspected and field screened with a calibrated MiniRAE 3000 Photoionization Detector (PID) for the presence of Volatile Organic Compounds (VOCs) or other contaminants. No visual or olfactory indicators of contamination or PID readings above background concentrations were observed in the borings.

The soils were classified via the United Soil Classification System (USCS), and generally consisted of brown/black coarse to fine sand with varying amounts of gravel and silt. Soils within the borings also contained anthropogenic materials, including concrete, glass, and syrofoam, to depths of up to four (4) feet bgs. USCS classifications are noted on the corresponding boring logs, included as **Appendix II**.

One (1) discrete soil sample was collected from the termination depth of each boring via Terra Core® sampler for VOC analysis. Since no PID readings or other evidence of contamination were observed at shallower depths, discrete sampling locations were chosen to be representative of the depth closest to the surficial groundwater table. One (1) composite sample was collected from each boring location for the remaining analyses (see **Table 3**). Due to minimal soil recovery at the sampling locations, all recovered soil was used to prepare each composite sample. Soils were obtained directly off the dedicated plastic liner via dedicated plastic scoop, placed into a food-grade plastic container and kneaded to form a visually homogeneous composite samples. A total of eight (8) discrete samples and eight (8) composite samples were collected.

The soil samples were transferred to laboratory prepared containers. The containers were labeled, placed into a cooler on ice, and transferred to a courier provided by York Analytical Laboratories (York), a New York State Environmental Laboratory Approval Program (NYS ELAP) accredited laboratory located in Stratford, Connecticut following standard chain-of-custody protocol.

Boring logs and Test Pit logs are attached as **Appendix II**. A map showing the location of soil borings is shown in **Figure 4**. Photographs depicting the conditions at the site during sample collection activities are included as **Appendix III**.

4.0 ANALYTICAL TEST RESULTS

All samples were analyzed by York located in Stratford, Connecticut. Samples were received intact and at the proper temperature by the laboratory, and within the method required holding times for all analyses. Soil samples were analyzed for the parameters listed in **Table 1** via the indicated analytical methods.

Table 1: Soil Sample Analyses Summary

Parameter	Method
Target Compound List (TCL) Volatile Organic Compounds (VOCs)	SW-846 Method 8260
TCL Semi-volatile Organic Compounds (SVOCs)	SW-846 Method 8270
Target Analyte List (TAL) Metals	SW-846 Methods 6010/7470

Soil sample analytical results were compared to the Soil Clean-Up Objectives (SCOs) set forth in 6 NYCRR Part 375. -6.8(a) and (b) (Part 375) and the Supplemental Soil Clean-up Objectives (SSCOs) set forth by the New York State Department of Environmental Conservation (NYSDEC) Final Commissioner Policy, CP-51 (CP-51). Summary comparison tables of detected analytes in the soil samples and soil chemical properties are presented in **Tables 2 - 3**. A copy of the analytical test results is attached in **Appendix III**.

5.0 FINDINGS

The following summarizes the findings of the Phase II investigation soil sampling conducted between June 5, 2019 and June 6, 2019. The findings of the soil sampling and the results of the analytical testing indicate the following:

1. No PID readings, odors, visual or olfactory evidence, or staining indicating the potential presence of petroleum hydrocarbon compounds or other contaminants in the borings and test pits screened and sampled during the subject sampling event were observed.

2. The analytical test results indicate that the VOCs acetone and methylene chloride were detected above laboratory detection limits but below their respective Part 375/CP-51 SCOs/SSCOs use criteria in at least one discrete soil sample analyzed as part of this investigation. No other VOCs were reported above laboratory detection limits in the discrete soil samples analyzed as part of this investigation.

   It should be noted that while acetone and methylene chloride are common laboratory contaminates, the laboratory did not detect either acetone or methylene chloride in the associated method blanks for these compounds. Additionally, York analyzed the VOC samples in a laboratory dedicated to analysis of volatiles in water, soils, and vapor samples; as such, acetone and methylene chloride are not used in this laboratory. Based on the above information, the detected parameters are considered intrinsic to the soil samples and not a laboratory contaminant.

3. The analytical test results indicate that concentrations of the following metals were detected in at least one of the composite soil samples at concentrations above at least one of their respective Part 375/CP-51 SCOs/SSCOs unrestricted use criteria:

   - Aluminum;
   - Calcium;
   - Copper;
   - Iron;
   - Lead;
   - Mercury; and
   - Zinc.

Remaining detected metals were below their respective Part 375/CP-51 SCOs/SSCOs criteria limits for all uses.

4. The analytical test results indicate that concentrations of SVOCs were detected in the composite soil sample B5 B5 Comp at concentrations above at least one of their respective Part 375/CP-51 SCOs/SSCOs unrestricted use criteria:

    - Benzo(a)anthracene;
    - Benzo(a)pyrene;
    - Benzo(b)fluoranthene;
    - Benzo(k)fluoranthene;
    - Chrysene;
    - Dibenzo(a,h)anthracene; and
    - Indeno(1,2,3-cd)pyrene.

    Remaining detected SVOCs were below their respective Part 375/CP-51 SCOs/SSCOs criteria limits for all uses.

6.0 CONCLUSIONS AND RECOMMENDATIONS

This Phase II ESA was based on field work consisting of the advancement of eight (8) borings to bedrock on the Subject Property. No groundwater was encountered and potential impacts to on-site soil vapor was not investigated.

No odors, PID readings, or visual or olfactory evidence of contamination were observed. However, anthropogenic materials in the upper four (4) feet of soils were identified across the site. The soils sampled and analyzed as part of this investigation would be classified as non-hazardous regulated material by the State in New York. As such, should redevelopment or improvements be considered for the site, Tectonic offers the following recommendations:

1. A site-specific Health and Safety Plan (HASP) should be developed by a qualified safety professional and should include a task-specific health and safety analysis to identify task-specific hazardous, hazard controls, and monitoring and safety requirements for all phases of work. The HASP should be implemented by the appropriate party(ies) during site improvement activities, as specified.

2. A Site Management Plan (SMP) should be prepared by qualified personnel. The SMP should define the overall measures required to maintain protection of human health and the environment via an evaluation of the potential exposure pathways and receptors. Further, the SMP should specify what, if any, additional sampling is required to delineate the vertical and horizontal extent of the historic fill and include provisions for determining whether the material is environmentally suitable for reuse on-site.

3. All soils and debris leaving the site should be disposed of at a facility permitted to accept the material. All soils designated for off-site disposal should be classified in accordance with the facility's acceptance criteria. Off-site disposal operations shall meet the Contract document requirements, and if not otherwise specified, include a waste transportation manifest and disposal documentation program.

4. A Community Air Monitoring Plan (CAMP) should be developed in accordance with NYSDOH for any soil disturbing activities.

5. The underground and aboveground storage tanks on site should be closed in accordance with NYSDEC Division of Environmental Remediation Technical Guidance for Site Investigation and Remediation (DER-10), 6 NYCRR Part 375 Environmental Remediation Programs (Part 375) and/or 6 NYCRR Part 613, as applicable.

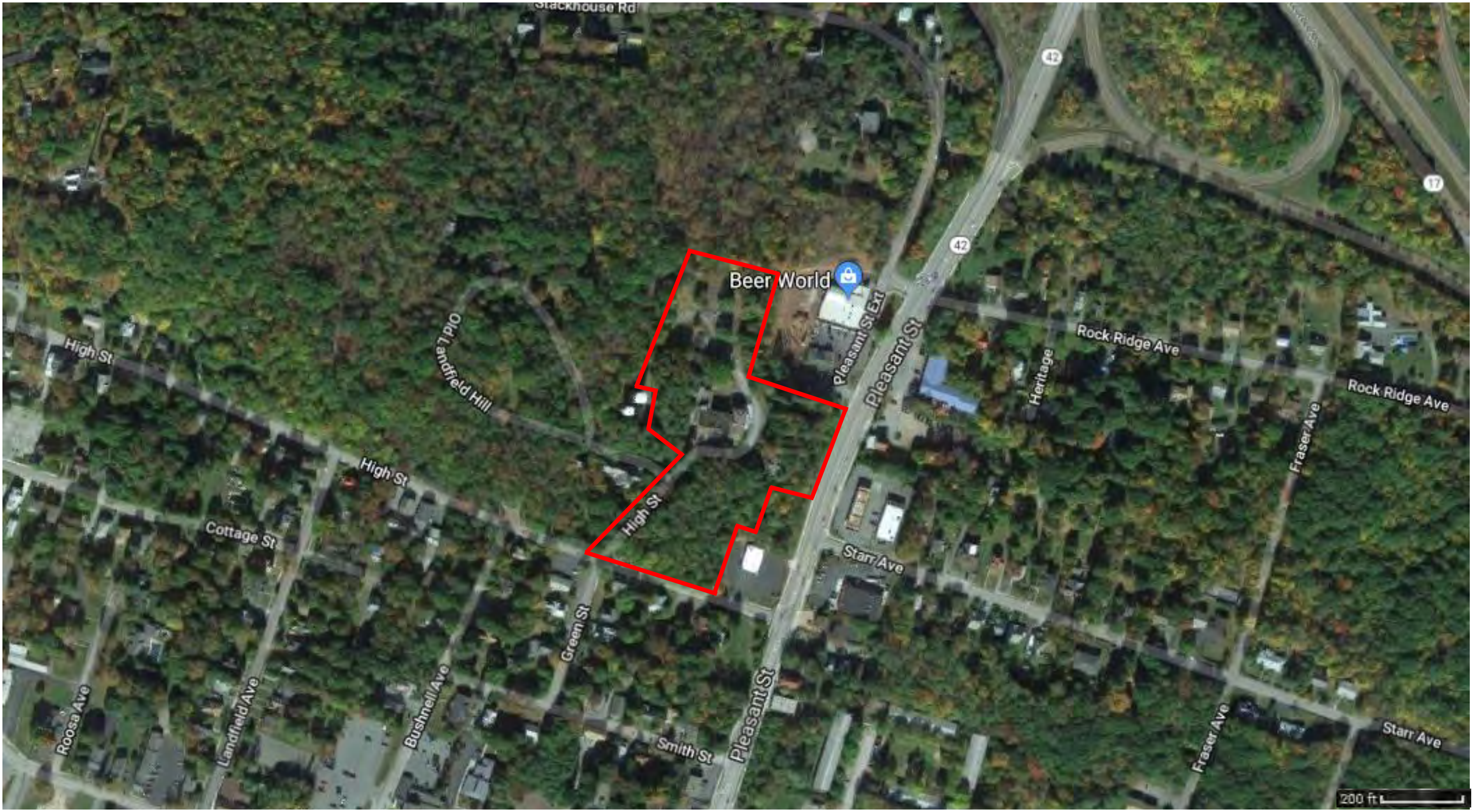
6. Should evidence of a petroleum or other materials release be encountered during site improvements, or during the closure of the existing storage tanks on site, this release should be reported to the NYSDEC Hotline at 1-800-457-7362.

7. Due to the age of the structures, an asbestos containing materials (ACM) and lead based paint (LBP) investigation should be performed if demolition or renovation to the structures is anticipated.

7.0 LIMITATIONS

The Phase II ESA services provided by Tectonic have been performed in general accordance with industry standards. Our professional services were performed using the degree of care and skill ordinarily exercised under similar circumstances by reputable environmental engineers and geologists practicing in this or similar situations. Our interpretation of the field data is based on good judgment and experience. However, no matter how qualified the environmental engineer or detailed the investigation, conditions cannot always be predicted beyond the points of actual sampling and testing. No other warranty, expressed or implied, is made as to the professional advice included in this report.

FIGURE 1



Key:

Approximate Site Location

NOTES

Tectonic

Planning
Engineering
Surveying
Construction Management

70 Pleasant Hill Road
Mountainville, NY 10953

(845) 534-5959 Telephone
(845) 534-5999 Fax

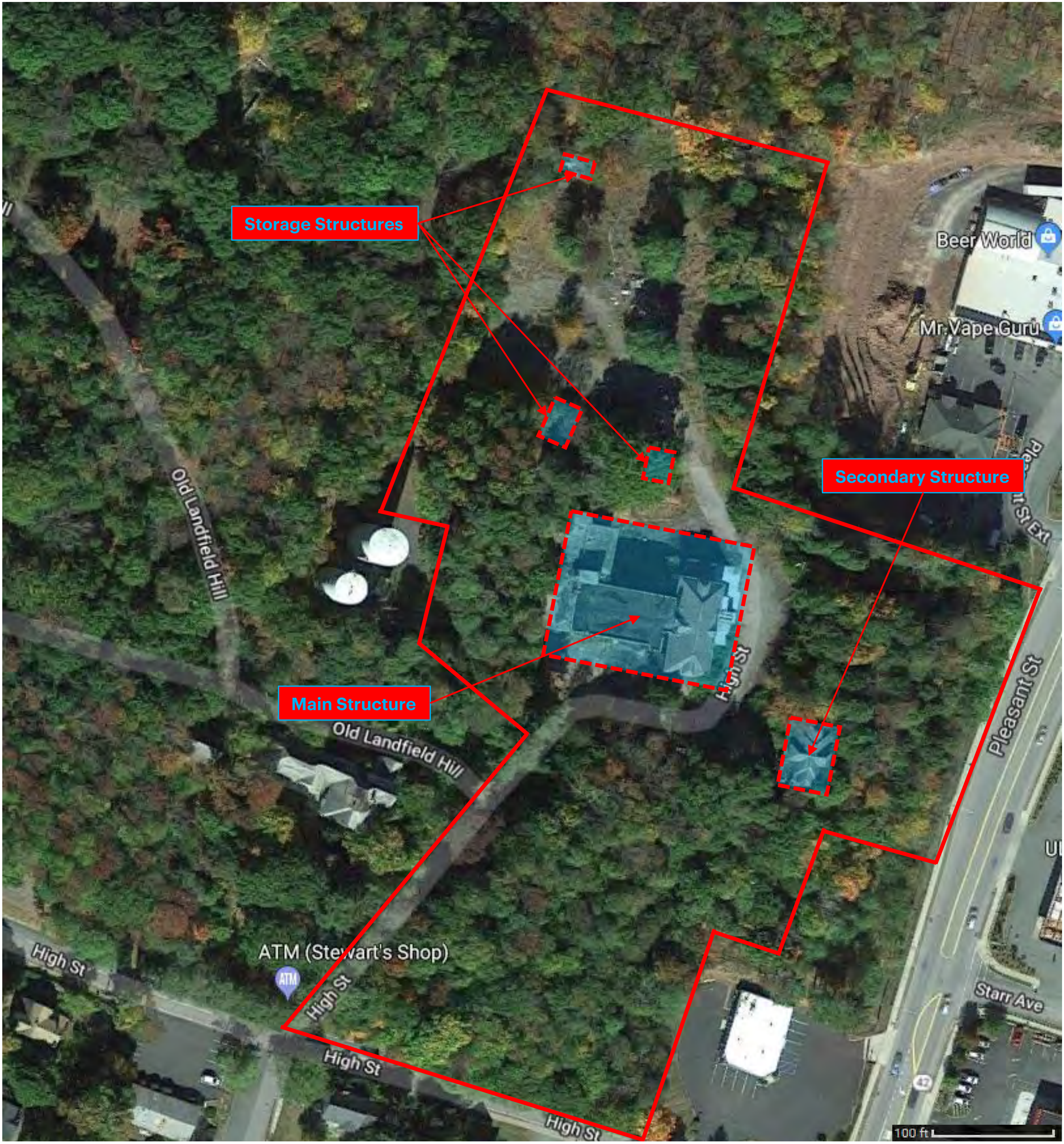
www.tectonicengineering.com

Title	**Figure 1: Approximate Site Location**
Location	**Monticello Manor, 15 High Street, Monticello, NY 12701**
Client	**Sullivan County**
Source	**Google Maps**

Date	**6/6/2019**	Work Order	Drawing No.	Rev.
Scale	**As Noted**	9294.01	1 of 1	0

This figure should only be considered in concert with the accompanying document with(in) which it was presented. This figure is subject to all the terms and limitations of the companion document and Tectonic's scope of work.

FIGURE 2



Key:

Approximate Site Boundaries

Approximate Location of Structures

NOTES

N
W E
S

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Mountainville, NY 10953
(845) 534-5959 Telephone
(845) 534-5999 Fax
www.tectonicengineering.com

Title	Figure 2: Approximate Location of Structures at Subject Property			
Location	Monticello Manor, 15 High Street, Monticello, NY 12701			
Client	Sullivan County			
Source	Google Maps			
Date	6/6/2019	Work Order	Drawing No.	Rev.
Scale	As Noted	9294.01	1 of 1	0

This figure should only be considered in concert with the accompanying document with(in) which it was presented. This figure is subject to all the terms and limitations of the companion document and Tectonic's scope of work.

FIGURE 3

AOC ID #	DESCRIPTION
1	Potentially leaky UST
2	Potentially leaky AST
3	Potentially leaky AST
4	Potentially leaky AST
5	Potentially leaky 55-gallon drum
6	Potentially leaky 55-gallon drum
7	Location of former 4-car garage

Key:

🟥 Approximate Site Boundaries

🟩 Approximate Location of Gephysical Survey

Approximate Location of AOCs

NOTES

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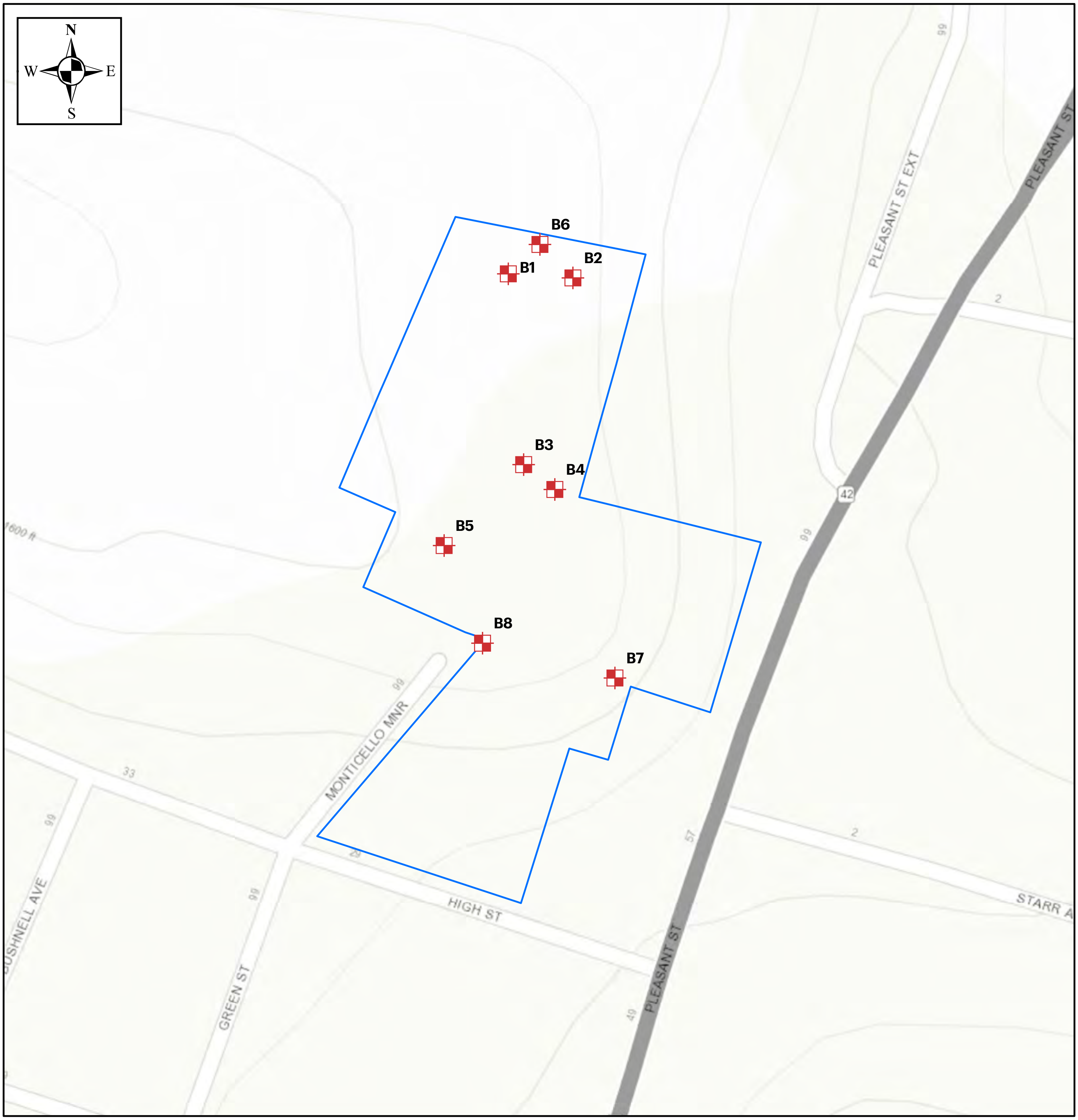
Title	Figure 3: Approximate Location of AOCs & Geophysical Survey
Location	Monticello Manor, 15 High Street, Monticello, NY 12701
Client	Sullivan County
Source	Google Maps

		Work Order	Drawing No.	Rev.
Date	6/6/2019			
Scale	As Noted	9294.01	1 of 1	0

This figure should only be considered in concert with the accompanying document with(in) which it was presented. This figure is subject to all the terms and limitations of the companion document and Tectonic's scope of work.

FIGURE 4



Legend

🟥 Approximate Boring Locations

☐ Approximate Property Boundaries

1:2,000

0 75 150 300 Feet

Monticello Manor
Phase II Environmental Site Assessment

Boring Location Plan

Tectonic

Date: 6/7/2019
Project #: 9294.01
Location: 15 High Street, Monticello, New York

PO Box 37, 70 Pleasant Hill Rd.
Mountainville, New York 10953
Phone: (845) 534-5959

Figure: **4**

Document Path: G:\Mountainville\Environmental\9294 Sullivan County Brownfields Consultant\03-GIS\PhaseII

TABLE 2

Table 2. Summary of Laboratory Detected Volatile Organoc Compounds (VOCs)

15 High Street

Monticello, NY

SAMPLE ID:	**Part 375 / CP-51** *Unrestricted Use*	**Part 375 / CP-51** Residential Use	**Part 375 / CP-51** Restricted Residential Use	**Part 375 / CP-51** Commercial Use	**Part 375 / CP-51** Industrial Use	**Part 375 / CP-51** *Protection of Ecological Resources*	**Part 375 / CP-51** Protection of Groundwater	**B1 S1 VOC**	**B2 S2 VOC**	**B3 S3 VOC**	**B4 S4 VOC**	**B5 S5 VOC**	**B6 D1 VOC**	**B7 D2 VOC**	**B8 D3 VOC**
LAB ID:								19F0191-01	19F0191-03	19F0191-05	19F0191-07	19F0195-05	19F0191-09	19F0195-01	19F0195-03
COLLECTION DATE:								6/5/2019	6/5/2019	6/5/2019	6/5/2019	6/6/2019	6/5/2019	6/6/2019	6/6/2019
SAMPLE MATRIX:								Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
SAMPLE UNITS:	*ppm*	ppm	ppm	ppm	ppm	*ppm*	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Volatile Organic Compounds (VOCs)															
Acetone	0.05	100	100	500	1,000	2.2	0.05	0.022 CCV-E	ND	0.020 CCV-E	ND	ND	ND	ND	ND
Methylene Chloride	0.05	51	100	500	1,000	12	0.05	ND	0.0062 J	0.0067 J	0.0060 J	0.016	0.0055 J	ND	0.0067 J

Qualifiers:

ND - Not Detected

NS - No Standard

J - Data indicates the presence of a compound that meets the identification criteria. The result is less than the quantitation limit but greater than MDL. The concentration given is an approximate value.

CCV-E - The value reported is ESTIMATED. The value is estimated due to its behavior during continuing calibration verification (>20%Difference for average Rf or >20% Drift for quadratic fit).

Notes:

Analytes that exceed Unrestricted Use guidance concentrations set forth in 6 NYCRR Part 375 / CP-51 are bolded and italicized.

Analytes that exceed Residential Use guidance concentrations set forth in 6 NYCRR Part 375 / CP-51 are bolded and highlighted in green.

Analytes that exceed Restricted Residential Use guidance concentrations set forth in 6 NYCRR Part 375 / CP-51 are bolded and highlighted in yellow.

Analytes that exceed Commercial Use guidance concentrations set forth in 6 NYCRR Part 375 / CP-51 are bolded and highlighted in orange.

Analytes that exceed Industrial Use guidance concentrations set forth in 6 NYCRR Part 375 / CP-51 are bolded and highlighted in red.

Analytes that exceed Protection of Ecological Resources guidance concentrations set forth in 6 NYCRR Part 375 / CP-51 are italicized.

Analytes that exceed Protection of Groundwater guidance concentrations set forth in 6 NYCRR Part 375 / CP-51 are bolded.

TABLE 3

Table 3: Summary of Laboratory Detected Compounds in Sediment Samples

15 High Street

Monticello, NY

SAMPLE ID:	**Part 375 / CP-51** *Unrestricted Use*	**Part 375 / CP-51** Residential Use	**Part 375 / CP-51** Restricted Residential Use	**Part 375 / CP-51** Commercial Use	**Part 375 / CP-51** Industrial Use	**Part 375 / CP-51** *Protection of Ecological Resources*	**Part 375 / CP-51** Protection of Groundwater	**B1 S1 Comp**	**B2 S2 Comp**	**B3 S3 Comp**	**B4 S4 Comp**	**B5 B5 Comp**	**B6 D1 Comp**	**B7 D2 Comp**	**B8 D3 Comp**
LAB ID:								19F0191-02	19F0191-04	19F0191-06	19F0191-08	19F0195-06	19F0191-10	19F0195-02	19F0195-04
COLLECTION DATE:								6/5/2019	6/5/2019	6/5/2019	6/5/2019	6/6/2019	6/5/2019	6/6/2019	6/6/2019
SAMPLE MATRIX:								Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
SAMPLE UNITS:	*ppm*	ppm	ppm	ppm	ppm	*ppm*	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Metals															
Aluminum	NS	NS	NS	NS	NS	10,000	NS	8,600	*11,800*	*15,300*	*10,300*	7,340	6,930	*16,500*	7,720
Arsenic	13	16	16	16	16	13	16	3.00	5.51	5.78	3.17	4.09	6.87	3.08	3.71
Barium	350	400	400	400	10,000	433	820	37.2	92.4	49.2	82.1	99.1	55.1	285	73.9
Beryllium	7.2	14	72	590	2,700	10	47	0.388	0.534	0.435	0.379	0.282	0.267	0.385	0.495
Cadmium	2.5	2.5	4.3	9.3	60	4	7.5	ND	ND	ND	ND	0.926	ND	ND	ND
Calcium	NS	NS	NS	NS	NS	10,000	NS	4,320	8,180	313	1,100	*26,500*	3,760	964	1,430
Chromium, total	NS	NS	NS	NS	NS	NS	NS	7.03	9.82	11.0	11.6	11.9	5.84	8.86	5.15
Cobalt	NS	30	NS	NS	NS	20	NS	5.75	7.95	7.57	5.80	4.44	5.36	5.06	7.15
Copper	50	270	270	270	10,000	50	1,720	6.77	17.2	25.90	25.2	*94.4*	11.5	31.2	24.6
Iron	NS	2,000	NS	NS	NS	NS	NS	14,200	15,500	17,600	14,700	10,500	10,300	25,000	13,200
Lead	63	400	400	1,000	3,900	63	450	12.1	*85.9*	14.7	*68.1*	*279*	24.3	*116*	15.6
Magnesium	NS	NS	NS	NS	NS	NS	NS	2,340	2,470	2,630	2,120	4,380	1,640	1,150	2,990
Manganese	1,600	2,000	2,000	10,000	10,000	1,600	2,000	971	893	562	379	811	313	980	788
Mercury	0.18	0.81	0.81	2.8	5.7	0.18	0.73	0.0477	0.133	0.0523	0.103	*0.249*	0.0655	0.131	ND
Nickel	30	140	310	310	10,000	30	130	10.0	13.2	14.3	12.0	11.5	9.67	8.95	14.7
Potassium	NS	NS	NS	NS	NS	NS	NS	738	683	598	606	462	408	632	1,140
Sodium	NS	NS	NS	NS	NS	NS	NS	ND	ND	ND	ND	78.6	ND	ND	ND
Vanadium	NS	100	NS	NS	NS	39	NS	11.9	15.9	16.2	15.7	9.91	7.43	14.2	13.3
Zinc	109	2,200	10,000	10,000	10,000	109	2,480	39.8	87.9	54.4	70.6	*142*	38.2	*119*	49.2
Semivolatile Organic Compounds (SVOCs)															
1,1-Biphenyl	NS	NS	NS	NS	NS	NS	NS	ND	ND	ND	ND	0.181	ND	ND	ND
2-Methylnaphthalene	7	14	59	350	1,000	NS	210	ND	ND	ND	ND	0.703	ND	ND	ND
4-Chloroaniline	NS	NS	NS	NS	NS	NS	NS	ND	ND	ND	ND	0.371	ND	ND	ND
Acenaphthene	20	100	100	500	1,000	20	98	ND	ND	ND	ND	3.910	ND	ND	ND
Acenaphthylene	100	100	100	500	1,000	NS	107	ND	ND	ND	ND	0.105 J	ND	ND	ND
Anthracene	100	100	100	500	1,000	NS	1,000	ND	0.0696 J	ND	ND	3.750	0.0782	ND	ND
Benzo(a)anthracene	1	1	1	5.6	11	NS	1	ND	0.145	ND	ND	14.500	0.299	ND	ND
Benzo(a)pyrene	1	1	1	1	1.1	2.6	22	ND	0.121	ND	ND	*13.600*	0.219	ND	ND
Benzo(b)fluoranthene	1	1	1	5.6	11	NS	2	ND	0.120	ND	ND	12.500	0.190	ND	ND
Benzo(g,h,i)perylene	100	100	100	500	1,000	NS	1,000	ND	0.0696 J	ND	ND	6.520	0.0839	ND	ND
Benzo(k)fluoranthene	0.8	1	3.9	56	110	NS	1.7	ND	0.0959 J	ND	ND	11.400	0.178	ND	ND
Benzoic acid	NS	NS	NS	NS	NS	NS	NS	ND	ND	ND	ND	ND	ND	0.0415 J	ND
Bis(2-ethylhexyl)phthalate	7	14	59	350	1,000	NS	210	ND	ND	ND	0.0748 CCV-E	ND	ND	0.636 CCV-E	ND
Carbazole	7	14	59	350	1,000	NS	210	ND	ND	ND	ND	3.690	0.0350 J	ND	ND
Chrysene	1	1	3.9	56	110	NS	1	ND	0.129	ND	ND	13.000	0.266	ND	ND
Dibenzo(a,h)anthracene	0.33	0.33	0.33	0.56	1.1	NS	1,000	ND	ND	ND	ND	2.760	0.0416 J	ND	ND
Dibenzofuran	7	14	59	350	1,000	NS	210	ND	ND	ND	ND	1.580	ND	ND	ND
Fluoranthene	100	100	100	500	1,000	NS	1,000	ND	0.331	ND	0.0551	32.200	0.556	0.0355 J	ND
Fluorene	30	100	100	500	1,000	30	386	ND	ND	ND	ND	3.140	ND	ND	ND
Indeno(1,2,3-cd)pyrene	0.5	0.5	0.5	5.6	11	NS	8.2	ND	0.0840 J	ND	ND	8.420	0.110	ND	ND
Naphthalene	12	100	100	500	1,000	NS	12	ND	ND	ND	ND	1.250	ND	ND	ND
Phenanthrene	100	100	100	500	1,000	NS	1,000	ND	0.268	ND	0.0262 J	20.800	0.241	ND	ND
Pyrene	100	100	100	500	1,000	NS	1,000	ND	0.221	ND	0.0370 J	20.900	0.366	0.0295 J	ND

Qualifiers:

ND - Not Detected

NS - No Standard

CCV-E - The value reported is ESTIMATED. The value is estimated due to its behavior during continuing calibration verification (>20%Difference for average Rf or >20% Drift for quadratic fit).

J - Data indicates the presence of a compound that meets the identification criteria. The result is less than the quantitation limit but greater than MDL.

Notes:

Analytes that exceed Unrestricted Use guidance concentrations set forth in 6 NYCRR Part 375 / CP-51 are bolded and italicized.

Analytes that exceed Residential Use guidance concentrations set forth in 6 NYCRR Part 375 / CP-51 are bolded and highlighted in green.

Analytes that exceed Restricted Residential Use guidance concentrations set forth in 6 NYCRR Part 375 / CP-51 are bolded and highlighted in yellow.

Analytes that exceed Commercial Use guidance concentrations set forth in 6 NYCRR Part 375 / CP-51 are bolded and highlighted in orange.

Analytes that exceed Industrial Use guidance concentrations set forth in 6 NYCRR Part 375 / CP-51 are bolded and highlighted in red.

Analytes that exceed Protection of Ecological Resources guidance concentrations set forth in 6 NYCRR Part 375 / CP-51 are italicized.

Analytes that exceed Protection of Groundwater guidance concentrations set forth in 6 NYCRR Part 375 / CP-51 are bolded.

APPENDIX I

Peoples, Dina

From: Sandra Burke (Village of Monticello) <sburke@villageofmonticello.com>
Sent: Tuesday, May 28, 2019 10:16 AM
To: Peoples, Dina
Subject: RE: Information Summary

Dina,

I have searched the property file for SBL #107.-1-11.1, High St., Monticello, NY 12701 and did not find anything relating to any septic tanks and/or any underground storage.

If you have any questions, please don't hesitate to reach out to me.

Thanks and have a great week.

Sandi Burke
Bldg Dept Acct Clerk/Certified Code Enforcement Officer
Village of Monticello
2 Pleasant St.
Monticello, NY 12701
Ph: 845-794-6130 x302
Fax: 845-794-2327
Email: sburke@villageofmonticello.com

From: Peoples, Dina <DPeoples@tectonicengineering.com>
Sent: Thursday, May 23, 2019 8:57 AM
To: SBurke@villageofmonticello.com
Subject: Information Summary

Good morning,

It's been lovely talking to you, thank you for helping us figure this mess out. Looking at our records, we submitted a formal FOIL request on 6/19/2018 to the Village, regarding environmental records associated with the property. On 8/14/2018, we followed up with the Village and Mr Singer with emails, as no responses had been provided for that FOIL request from either; we received acknowledgement of receipt of the FOIL request from the Village on 8/17/2018 and Mr Singer responded with the email chain you've seen previously. No other information was received associated with this request. I've attached the previously submitted FOIL documents for your reference.

The report is done, so we don't necessarily need the "Spills/Reports" requested in the FOIL request. What the EPA is 'requesting', however, is that we perform our Phase II environmental investigation at the locations of any historic/current septic tanks and underground storage tanks on the property. So that is the information we need – where were they located. If there is anything you need from me, please feel free to let me know and I'll see what I can do. My cell phone number is noted below, or you can respond to this email.

Thank you,

Dina Peoples
Geologist III

Tectonic
PRACTICAL SOLUTIONS. EXCEPTIONAL SERVICE.

ENGINEERING - SURVEYING - CONSTRUCTION INSPECTION

PO Box 37, 70 Pleasant Hill Rd.
Mountainville, New York 10953
T 845.534.5959 C 845.235.6298 F 845.534.5999
WWW.TECTONICENGINEERING.COM dpeoples@tectonicengineering.com

Download my outlook business card

APPENDIX II

Tectonic

PROJECT No. **9294.01**
PROJECT: **Monticello Manor**
LOCATION: **Monticello, NY**

BORING No. B-1

SHEET No. 1 of 1

CLIENT: **Sullivan County**		GROUND WATER	DATE	TIME	DEPTH
CONTRACTOR: **General Borings, Inc.**					

INSPECTOR: **Dina Peoples**
DRILLER: **John Wyant**
SURFACE ELEVATION: **~1560 AMSL**
DATUM: **USGS Topo**
DATE START: **6/5/19**
DATE FINISH: **6/5/19**

METHOD OF ADVANCING BORING	DIA.	DEPTH		
POWER AUGER:			TO	
ROT. DRILL:			TO	
GEOPROBE:	1 1/2	0	TO	2'
DIAMOND CORE:			TO	
AMS Power Probe 9500-VTR				

MON. WELL ☐ YES ☒ NO
SCREEN DEPTH: **---** TO **---**
WEATHER: **Clear** TEMP: **68° F**
DEPTH TO ROCK: **2'**
*CHANGES IN STRATA ARE INFERRED

UNCONFINED COMPRESS. STRENGTH ◓ (TONS/FT) 1 2 3 4 5
PLASTIC LIMIT % ✕ — WATER CONTENT % ⊗ — LIQUID LIMIT % △ 10 20 30 40 50
● STANDARD PENETRATION (BLOWS/FT.) 10 20 30 40 50

DEPTH (FT.)	N OR MIN./FT.	PENETRATION RESISTANCE (BL/6 IN.)	SAMPLES: SAMPLE NUMBER	SAMPLES: RECOV. LENGTH (IN.)	SAMPLES: RECOV. RQD (%)	SAMPLES: MOISTURE	UNIFIED SOIL CLASS.	DESCRIPTION OF MATERIAL	LITHOLOGY*	DEPTH (FT.)
1				15"		M	SM	Blk-bwn c-f SAND, little f Gravel, trace Silt, (organics at top), 9PID=0.0ppm		1
2								Tn f SAND, some Silt, trace f Gravel, (PID=0.0ppm)		2
3								Bedrock at 2'		3
4								End of Boring at 2'		4
5										5
6										6
7										7
8										8
9										9
10										10
11										11
12										12
13										13
14										14
15										15
16										16
17										17
18										18
19										19
20										20
21										21
22										22
23										23
24										24
25										25

REMARKS: GPS Waypoint 41.6597967, -74.6813692
VOC discrete sample collected at ~14"

Tectonic

PROJECT No. **9294.01**
PROJECT: **Monticello Manor**
LOCATION: **Monticello, NY**

BORING No. B-2

SHEET No. 1 of 1

CLIENT: **Sullivan County**
CONTRACTOR: **General Borings, Inc.**

GROUND WATER	DATE	TIME	DEPTH

INSPECTOR: **Dina Peoples**
DRILLER: **John Wyant**
SURFACE ELEVATION: **~ 1560 AMSL**

METHOD OF ADVANCING BORING	DIA.	DEPTH		
POWER AUGER:			TO	
ROT. DRILL:			TO	
GEOPROBE:	**1 1/2**	**0**	TO	**5'**
DIAMOND CORE:			TO	
AMS Power Probe 9500-VTR				

MON. WELL ☐ YES ☒ NO
SCREEN DEPTH: **---** TO **---**
WEATHER: **Clear** TEMP: **70° F**
DEPTH TO ROCK: **5'**
*CHANGES IN STRATA ARE INFERRED

DATUM: **USGS Topo**
DATE START: **6/5/19**
DATE FINISH: **6/5/19**

UNCONFINED COMPRESS. STRENGTH ◓ (TONS/FT) 1 2 3 4 5
PLASTIC LIMIT % ✕ WATER CONTENT % ⊗ LIQUID LIMIT % △ 10 20 30 40 50
● STANDARD PENETRATION (BLOWS/FT.) 10 20 30 40 50

DEPTH (FT.)	N OR MIN./FT.	PENETRATION RESISTANCE (BL/6 IN.)	SAMPLES: SAMPLE NUMBER	SAMPLES: RECOV. LENGTH (IN.)	SAMPLES: RECOV. RQD (%)	SAMPLES: MOISTURE	UNIFIED SOIL CLASS.	DESCRIPTION OF MATERIAL	LITHOLOGY*	DEPTH (FT.)
1								0-8" Bwn c-f SAND, little Silt, little f Gravel, (PID=0.0ppm)		1
2				17"		M	SM	8"-12" Gry c-f SAND, some c-f Gravel, trace Silt, (concrete fragments and pieces), (PID=0.0ppm)		2
3										3
4								12"-17" Bwn f SAND, some Silt, trace f Gravel, (PID=0.0ppm)		4
5				1"				Bedrock pieces		5
6								End of Boring at 5'		6
7										7
8										8
9										9
10										10
11										11
12										12
13										13
14										14
15										15
16										16
17										17
18										18
19										19
20										20
21										21
22										22
23										23
24										24
25										25

REMARKS: GPS Waypoint 41.6597834, -74.6810785
VOC discrete sample collected at ~16"

Tectonic

PROJECT No. **9294.01**

PROJECT: **Monticello Manor**

LOCATION: **Monticello, NY**

BORING No. B-3

SHEET No. 1 of 1

CLIENT: **Sullivan County**

CONTRACTOR: **General Borings, Inc.**

GROUND WATER	DATE	TIME	DEPTH

INSPECTOR: **Dina Peoples**

DRILLER: **John Wyant**

SURFACE ELEVATION: **~ 1560 AMSL**

DATUM: **USGS Topo**

DATE START: **6/5/19**

DATE FINISH: **6/5/19**

METHOD OF ADVANCING BORING	DIA.	DEPTH
POWER AUGER:		TO
ROT. DRILL:		TO
GEOPROBE:	1 1/2	0 TO 3.5'
DIAMOND CORE:		TO
AMS Power Probe 9500-VTR		

MON. WELL ☐ YES ☒ NO

SCREEN DEPTH: **---** TO **---**

WEATHER: **Clear** TEMP: **75° F**

DEPTH TO ROCK: **3.5'**

*CHANGES IN STRATA ARE INFERRED

UNCONFINED COMPRESS. STRENGTH ◓ (TONS/FT) 1 2 3 4 5

PLASTIC LIMIT % ✕ WATER CONTENT % ⊗ LIQUID LIMIT % △ 10 20 30 40 50

● STANDARD PENETRATION (BLOWS/FT.) 10 20 30 40 50

DEPTH (FT.)	N OR MIN./FT.	PENETRATION RESISTANCE (BL/6 IN.)	SAMPLES: SAMPLE NUMBER	RECOV.: LENGTH (IN.)	RECOV.: RQD (%)	MOISTURE	UNIFIED SOIL CLASS.	DESCRIPTION OF MATERIAL	LITHOLOGY*		DEPTH (FT.)
1								0-3 Gry c-f GRAVEL, some c-f Sand, trace Silt, (deteriorated concrete), (PID=0.0ppm)			1
2				18"		M	GIV				2
3								3-18 Bwn c-f SAND, some Silt, trace c-f Gravel, (PID=0.0ppm)			3
4								End of Boring at 3.5'			4
5								Refusal at Bedrock			5
6											6
7											7
8											8
9											9
10											10
11											11
12											12
13											13
14											14
15											15
16											16
17											17
18											18
19											19
20											20
21											21
22											22
23											23
24											24
25											25

REMARKS: GPS Waypoint 41.659153, -74.681304
VOC discrete sample collected at ~17"

Tectonic

PROJECT No. **9294.01**

PROJECT: **Monticello Manor**

LOCATION: **Monticello, NY**

BORING No. B-4

SHEET No. 1 of 1

CLIENT: **Sullivan County**

CONTRACTOR: **General Borings, Inc.**

GROUND WATER	DATE	TIME	DEPTH

INSPECTOR: **Dina Peoples**

DRILLER: **John Wyant**

SURFACE ELEVATION: **~ 1560 AMSL**

DATUM: **USGS Topo**

DATE START: **6/5/19**

DATE FINISH: **6/5/19**

METHOD OF ADVANCING BORING	DIA.	DEPTH
POWER AUGER:		TO
ROT. DRILL:		TO
GEOPROBE:	**1 1/2**	**0** TO **1'**
DIAMOND CORE:		TO
AMS Power Probe 9500-VTR		

MON. WELL ☐ YES ☒ NO

SCREEN DEPTH: **---** TO **---**

WEATHER: **Clear** TEMP: **78° F**

DEPTH TO ROCK: **1'**

*CHANGES IN STRATA ARE INFERRED

UNCONFINED COMPRESS. STRENGTH ◓ (TONS/FT) 1 2 3 4 5

PLASTIC LIMIT % ✕ WATER CONTENT % ⊗ LIQUID LIMIT % △ 10 20 30 40 50

● STANDARD PENETRATION (BLOWS/FT.) 10 20 30 40 50

DEPTH (FT.)	N OR MIN./FT.	PENETRATION RESISTANCE (BL/6 IN.)	SAMPLES: SAMPLE NUMBER	RECOV.: LENGTH (IN.)	RECOV.: RQD (%)	MOISTURE	UNIFIED SOIL CLASS.	DESCRIPTION OF MATERIAL	LITHOLOGY*	DEPTH (FT.)
1				8"		M	SM	Bwn c-f SAND, little f Gravel, trace Silt, (PID=0.0ppm)	⁙	1
2								End of Boring at 1'		2
3								Refusal at 1'		3
4										4
5										5
6										6
7										7
8										8
9										9
10										10
11										11
12										12
13										13
14										14
15										15
16										16
17										17
18										18
19										19
20										20
21										21
22										22
23										23
24										24
25										25

REMARKS: GPS Waypoint 41.659069, -74.681164
VOC discrete sample collected at ~7"

Tectonic (800) 829-6531	W.O. No.: 9294.01 Project: Monticello Manor Location: Monticello, NY		Date: 6/6/2019 **TEST PIT** **TP-B-5**

Client:	Sullivan County	Depth to Seepage:	N/A	Inspector:	Dina Peoples		
Contractor:	General Borings	Depth to Groundwater:	N/A	Surface Elevation:	~ 1560 AMSL		
Equipment:	AMS Power Probe 9500-VTR	Depth to Bedrock:	N/A	Datum:	USGS Topo		

Samples		Unified Soil Classification	DESCRIPTION OF MATERIAL	Strata Change (ft.)	Remarks
Sample No.	**Moisture**				
B5 S5 COMP, B5 S5 VOC	M	SM	Blk-bwn c-f SAND, trace Silt, trace c-f Gravel	0-7"	PID=0.0ppm
	M	SM	Bwn-tn c-f SAND, little Silt, trace c-f Gravel	7-8"	VOC discrete sample collected at ~8"
			Enf of Test Pit @ 8" Rock @ 8"		GPS Waypoint 41.6588816, -74.6816619

PARTICLE SIZE		**PROPORTION (exclusive of boulders & cobbles)**		**PROPORTION (boulders & cobbles)**	**MOISTURE**
Boulder: 10"(+)	Sand: No. 200 Sieve - 3/16"	trace: 0 - 10%	some: 20 - 35%	sparse: 0 - 10%	D: dry
Cobble: 3" - 10"	Silt/Clay: No. 200 Sieve (-)	little: 10 - 20%	and: 35 - 50%	few: 10 - 35%	M: moist
Gravel: 3/16" - 3"				many: 35 - 65%	W: wet

Tectonic

PROJECT No. **9294.01**

PROJECT: **Monticello Manor**

LOCATION: **Monticello, NY**

BORING No. B-6

SHEET No. 1 of 1

CLIENT: **Sullivan County**

CONTRACTOR: **General Borings, Inc.**

METHOD OF ADVANCING BORING	DIA.	DEPTH
POWER AUGER:		TO
ROT. DRILL:		TO
GEOPROBE:	**1 1/2**	**0** TO **2.5'**
DIAMOND CORE:		TO
AMS Power Probe 9500-VTR		

GROUND WATER	DATE	TIME	DEPTH

MON. WELL ☐ YES ☒ NO

SCREEN DEPTH: **---** TO **---**

WEATHER: **Clear** TEMP: **68° F**

DEPTH TO ROCK: **2.5'**

*CHANGES IN STRATA ARE INFERRED

INSPECTOR: **Dina Peoples**

DRILLER: **John Wyant**

SURFACE ELEVATION: **~ 1560 AMSL**

DATUM: **USGS Topo**

DATE START: **6/5/19**

DATE FINISH: **6/5/19**

DEPTH (FT.)	N OR MIN./FT.	PENETRATION RESISTANCE (BL/6 IN.)	SAMPLES SAMPLE NUMBER	RECOV. LENGTH (IN.)	RECOV. RQD (%)	MOISTURE	UNIFIED SOIL CLASS.	DESCRIPTION OF MATERIAL	LITHOLOGY*	UNCONFINED COMPRESS. STRENGTH ◓ (TONS/FT) 1 2 3 4 5 PLASTIC LIMIT % WATER CONTENT % LIQUID LIMIT % ✕ — — ⊗ — — △ 10 20 30 40 50 ● STANDARD PENETRATION (BLOWS/FT.) 10 20 30 40 50	DEPTH (FT.)
1				8"		M	SM	0-8 Bwn c-f SAND, some Silt, some c-f Gravel, (c&d materials included: particle board fragments, concrete), (PID=0.0ppm)	▨		1
2									▨		2
3								End of Boring at 2.5'			3
4								Refusal at Bedrock			4
5											5
6											6
7											7
8											8
9											9
10											10
11											11
12											12
13											13
14											14
15											15
16											16
17											17
18											18
19											19
20											20
21											21
22											22
23											23
24											24
25											25

REMARKS: GPS Waypoint 41.659896, -74.681227
VOC discrete sample collected at ~7"

Tectonic
(800) 829-6531

W.O. No.	9294.01
Project:	Monticello Manor
Location:	Monticello, NY
Date:	6/6/2019

TEST PIT

TP-B-7

Client:	Sullivan County	Depth to Seepage:	N/A	Inspector:	Dina Peoples
Contractor:	General Borings	Depth to Groundwater:	N/A	Surface Elevation:	~ 1560 AMSL
Equipment:	Shovel	Depth to Bedrock:	N/A	Datum:	USGS Topo

Samples		Unified Soil Classification	DESCRIPTION OF MATERIAL	Strata Change (ft.)	Remarks
Sample No.	**Moisture**				
B7 D2 COMP, B7 D2 VOC	M	SM	Bwn c-f SAND, little Silt, little c-f Gravel	0-1'	PID=0.0ppm VOC discrete sample collected at ~ 1' GPS Waypoint 41.6584333, -74.6808951
			Enf of Test Pit @ 1' Bedrock @ 1'		

PARTICLE SIZE		PROPORTION (exclusive of boulders & cobbles)		PROPORTION (boulders & cobbles)	MOISTURE
Boulder: 10"(+)	Sand: No. 200 Sieve - 3/16"	trace: 0 - 10%	some: 20 - 35%	sparse: 0 - 10%	D: dry
Cobble: 3" - 10"	Silt/Clay: No. 200 Sieve (-)	little: 10 - 20%	and: 35 - 50%	few: 10 - 35%	M: moist
Gravel: 3/16" - 3"				many: 35 - 65%	W: wet

CON118 - 3/02

Tectonic

PROJECT No. **9294.01**
PROJECT: **Monticello Manor**
LOCATION: **Monticello, NY**

BORING No. B-8

SHEET No. 1 of 1

CLIENT: **Sullivan County**
CONTRACTOR: **General Borings, Inc.**

GROUND WATER	DATE	TIME	DEPTH

INSPECTOR: **Dina Peoples**
DRILLER: **John Wyant**
SURFACE ELEVATION: **~ 1560 AMSL**
DATUM: **USGS Topo**
DATE START: **6/6/19**
DATE FINISH: **6/6/19**

METHOD OF ADVANCING BORING	DIA.	DEPTH	
POWER AUGER:			TO
ROT. DRILL:			TO
GEOPROBE:	1 1/2	0	TO 2.5'
DIAMOND CORE:			TO

AMS Power Probe 9500-VTR

MON. WELL ☐ YES ☒ NO
SCREEN DEPTH: --- TO ---
WEATHER: **Clear** TEMP: **75° F**
DEPTH TO ROCK: **2.5'**
*CHANGES IN STRATA ARE INFERRED

UNCONFINED COMPRESS. STRENGTH ◓ (TONS/FT) 1 2 3 4 5
PLASTIC LIMIT % × WATER CONTENT % ⊗ LIQUID LIMIT % △ 10 20 30 40 50
● STANDARD PENETRATION (BLOWS/FT.) 10 20 30 40 50

DEPTH (FT.)	N OR MIN./FT.	PENETRATION RESISTANCE (BL/6 IN.)	SAMPLES SAMPLE NUMBER	RECOV. LENGTH (IN.)	RQD (%)	MOISTURE	UNIFIED SOIL CLASS.	DESCRIPTION OF MATERIAL	LITHOLOGY*	DEPTH (FT.)
1				19"		M	SM	0-9 Blk to bwn c-f SAND, little Silt, little c-f Gravel, (PID=0.0ppm) 9-19 Gry c-f SAND, some Silt, little c-f Gravel, (PID=0.0ppm)		1
2										2
3										3
4								End of Boring at 2.5'		4
5								Bedrock at 2.5'		5
6										6
7										7
8										8
9										9
10										10
11										11
12										12
13										13
14										14
15										15
16										16
17										17
18										18
19										19
20										20
21										21
22										22
23										23
24										24
25										25

REMARKS: GPS Waypoint 41.6585519, -74.6814912
VOC discrete sample collected at ~18"

APPENDIX III

REPRESENTATIVE PHOTOGRAPH OF TOP 2 FEET OF BORING MATERIAL; MATERIAL FROM B-1 LOCATION.

FACING NORTHWEST TOWARDS BORING LOCATION B1.

FACING EAST TOWARDS BORING LOCATION B3.

REPRESENTATIVE PHOTOGRAPH OF TOP 3.5 FEET OF BORING MATERIAL; MATERIAL FROM B3 LOCATION.

REPRESENTATIVE PHOTOGRAPH OF TOP 1 FOOT OF BORING MATERIAL; MATERIAL FROM B4 LOCATION.

FACING NORTHEAST, SHOWING BORING LOCATION B5 IN FRONT OF DOOR LEADING TO AST.

FACING EAST, SHOWING BORING LOCATION B6 ADJACENT TO EXCAVATED AREA.

FACING NORTH, SHOWING BORING LOCATION B7 ADJACENT TO SECONDARY STRUCTURE.

FACING SOUTH, TOWARDS BORING LOCATION B8; BORING LOCATED DOWN-GRADIENT FROM THE SANITARY SEWER MANHOLE.

APPENDIX IV

Technical Report

prepared for:

Tectonic
70 Pleasant Hill Road
Mountainville NY, 10953
Attention: Kristine Garbarino

Report Date: 06/14/2019
Client Project ID: 9294 Monticello Manor
York Project (SDG) No.: 19F0191

CT Cert. No. PH-0723 New Jersey Cert. No. CT005 and NY037 New York Cert. Nos. 10854 and 12058 PA Cert. No. 68-04440

120 RESEARCH DRIVE STRATFORD, CT 06615 ■ 132-02 89th AVENUE RICHMOND HILL, NY 11418
www.YORKLAB.com (203) 325-1371 FAX (203) 357-0166 ClientServices@yorklab.com

Report Date: 06/14/2019
Client Project ID: 9294 Monticello Manor
York Project (SDG) No.: 19F0191

Tectonic
70 Pleasant Hill Road
Mountainville NY, 10953
Attention: Kristine Garbarino

Purpose and Results

This report contains the analytical data for the sample(s) identified on the attached chain-of-custody received in our laboratory on June 06, 2019 and listed below. The project was identified as your project: **9294 Monticello Manor**.

The analyses were conducted utilizing appropriate EPA, Standard Methods, and ASTM methods as detailed in the data summary tables.

All samples were received in proper condition meeting the customary acceptance requirements for environmental samples except those indicated under the Sample and Analysis Qualifiers section of this report.

All analyses met the method and laboratory standard operating procedure requirements except as indicated by any data flags, the meaning of which are explained in the Sample and Data Qualifiers Relating to This Work Order section of this report and case narrative if applicable.

The results of the analyses, which are all reported on dry weight basis (soils) unless otherwise noted, are detailed in the following pages.

Please contact Client Services at 203.325.1371 with any questions regarding this report.

York Sample ID	Client Sample ID	Matrix	Date Collected	Date Received
19F0191-01	**B1 S1 VOC**	**Soil**	**06/05/2019**	**06/06/2019**
19F0191-02	**B1 S1 Comp**	**Soil**	**06/05/2019**	**06/06/2019**
19F0191-03	**B2 S2 VOC**	**Soil**	**06/05/2019**	**06/06/2019**
19F0191-04	**B2 S2 Comp**	**Soil**	**06/05/2019**	**06/06/2019**
19F0191-05	**B3 S3 VOC**	**Soil**	**06/05/2019**	**06/06/2019**
19F0191-06	**B3 S3 Comp**	**Soil**	**06/05/2019**	**06/06/2019**
19F0191-07	**B4 S4 VOC**	**Soil**	**06/05/2019**	**06/06/2019**
19F0191-08	**B4 S4 Comp**	**Soil**	**06/05/2019**	**06/06/2019**
19F0191-09	**B6 D1 VOC**	**Soil**	**06/05/2019**	**06/06/2019**
19F0191-10	**B6 D1 Comp**	**Soil**	**06/05/2019**	**06/06/2019**

General Notes for York Project (SDG) No.: 19F0191

1. The RLs and MDLs (Reporting Limit and Method Detection Limit respectively) reported are adjusted for any dilution necessary due to the levels of target and/or non-target analytes and matrix interference. The RL(REPORTING LIMIT) is based upon the lowest standard utilized for the calibration where applicable.
2. Samples are retained for a period of thirty days after submittal of report, unless other arrangements are made.
3. York's liability for the above data is limited to the dollar value paid to York for the referenced project.
4. This report shall not be reproduced without the written approval of York Analytical Laboratories, Inc.
5. All analyses conducted met method or Laboratory SOP requirements. See the Sample and Data Qualifiers Section for further information.
6. It is noted that no analyses reported herein were subcontracted to another laboratory, unless noted in the report.
7. This report reflects results that relate only to the samples submitted on the attached chain-of-custody form(s) received by York.
8. Analyses conducted at York Analytical Laboratories, Inc. Stratford, CT are indicated by NY Cert. No. 10854; those conducted at York Analytical Laboratories, Inc., Richmond Hill, NY are indicated by NY Cert. No. 12058.

Approved By: **Date:** 06/14/2019

Benjamin Gulizia
Laboratory Director

Sample Information

Client Sample ID: **B1 S1 VOC**

York Sample ID: **19F0191-01**

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
19F0191	9294 Monticello Manor	Soil	June 5, 2019 10:00 am	06/06/2019

Volatile Organics, 8260 - Comprehensive

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5035A

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
630-20-6	1,1,1,2-Tetrachloroethane	ND		ug/kg dry	2.2	4.4	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/10/2019 23:58	LLJ
71-55-6	1,1,1-Trichloroethane	ND		ug/kg dry	2.2	4.4	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/10/2019 23:58	LLJ
79-34-5	1,1,2,2-Tetrachloroethane	ND		ug/kg dry	2.2	4.4	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/10/2019 23:58	LLJ
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND		ug/kg dry	2.2	4.4	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP	06/10/2019 07:16	06/10/2019 23:58	LLJ
79-00-5	1,1,2-Trichloroethane	ND		ug/kg dry	2.2	4.4	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/10/2019 23:58	LLJ
75-34-3	1,1-Dichloroethane	ND		ug/kg dry	2.2	4.4	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/10/2019 23:58	LLJ
75-35-4	1,1-Dichloroethylene	ND		ug/kg dry	2.2	4.4	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/10/2019 23:58	LLJ
87-61-6	1,2,3-Trichlorobenzene	ND		ug/kg dry	2.2	4.4	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/10/2019 23:58	LLJ
96-18-4	1,2,3-Trichloropropane	ND		ug/kg dry	2.2	4.4	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP	06/10/2019 07:16	06/10/2019 23:58	LLJ
120-82-1	1,2,4-Trichlorobenzene	ND		ug/kg dry	2.2	4.4	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/10/2019 23:58	LLJ
95-63-6	1,2,4-Trimethylbenzene	ND		ug/kg dry	2.2	4.4	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/10/2019 23:58	LLJ
96-12-8	1,2-Dibromo-3-chloropropane	ND		ug/kg dry	2.2	4.4	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/10/2019 23:58	LLJ
106-93-4	1,2-Dibromoethane	ND		ug/kg dry	2.2	4.4	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/10/2019 23:58	LLJ
95-50-1	1,2-Dichlorobenzene	ND		ug/kg dry	2.2	4.4	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/10/2019 23:58	LLJ
107-06-2	1,2-Dichloroethane	ND		ug/kg dry	2.2	4.4	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/10/2019 23:58	LLJ
78-87-5	1,2-Dichloropropane	ND		ug/kg dry	2.2	4.4	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/10/2019 23:58	LLJ
108-67-8	1,3,5-Trimethylbenzene	ND		ug/kg dry	2.2	4.4	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/10/2019 23:58	LLJ
541-73-1	1,3-Dichlorobenzene	ND		ug/kg dry	2.2	4.4	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/10/2019 23:58	LLJ
106-46-7	1,4-Dichlorobenzene	ND		ug/kg dry	2.2	4.4	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/10/2019 23:58	LLJ
123-91-1	1,4-Dioxane	ND		ug/kg dry	44	88	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/10/2019 23:58	LLJ
78-93-3	2-Butanone	ND		ug/kg dry	2.2	4.4	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/10/2019 23:58	LLJ
591-78-6	2-Hexanone	ND		ug/kg dry	2.2	4.4	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/10/2019 23:58	LLJ

Sample Information

Client Sample ID: **B1 S1 VOC**

York Sample ID: **19F0191-01**

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
19F0191	9294 Monticello Manor	Soil	June 5, 2019 10:00 am	06/06/2019

Volatile Organics, 8260 - Comprehensive

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5035A

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
108-10-1	4-Methyl-2-pentanone	ND		ug/kg dry	2.2	4.4	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/10/2019 23:58	LLJ
67-64-1	**Acetone**	**22**	CCV-E	ug/kg dry	4.4	8.8	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/10/2019 23:58	LLJ
107-02-8	Acrolein	ND		ug/kg dry	4.4	8.8	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/10/2019 23:58	LLJ
107-13-1	Acrylonitrile	ND		ug/kg dry	2.2	4.4	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/10/2019 23:58	LLJ
71-43-2	Benzene	ND		ug/kg dry	2.2	4.4	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/10/2019 23:58	LLJ
74-97-5	Bromochloromethane	ND		ug/kg dry	2.2	4.4	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/10/2019 23:58	LLJ
75-27-4	Bromodichloromethane	ND		ug/kg dry	2.2	4.4	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/10/2019 23:58	LLJ
75-25-2	Bromoform	ND		ug/kg dry	2.2	4.4	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/10/2019 23:58	LLJ
74-83-9	Bromomethane	ND		ug/kg dry	2.2	4.4	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/10/2019 23:58	LLJ
75-15-0	Carbon disulfide	ND		ug/kg dry	2.2	4.4	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/10/2019 23:58	LLJ
56-23-5	Carbon tetrachloride	ND		ug/kg dry	2.2	4.4	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/10/2019 23:58	LLJ
108-90-7	Chlorobenzene	ND		ug/kg dry	2.2	4.4	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/10/2019 23:58	LLJ
75-00-3	Chloroethane	ND		ug/kg dry	2.2	4.4	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/10/2019 23:58	LLJ
67-66-3	Chloroform	ND		ug/kg dry	2.2	4.4	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/10/2019 23:58	LLJ
74-87-3	Chloromethane	ND		ug/kg dry	2.2	4.4	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/10/2019 23:58	LLJ
156-59-2	cis-1,2-Dichloroethylene	ND		ug/kg dry	2.2	4.4	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/10/2019 23:58	LLJ
10061-01-5	cis-1,3-Dichloropropylene	ND		ug/kg dry	2.2	4.4	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/10/2019 23:58	LLJ
110-82-7	Cyclohexane	ND		ug/kg dry	2.2	4.4	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/10/2019 23:58	LLJ
124-48-1	Dibromochloromethane	ND		ug/kg dry	2.2	4.4	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/10/2019 23:58	LLJ
74-95-3	Dibromomethane	ND		ug/kg dry	2.2	4.4	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/10/2019 23:58	LLJ
75-71-8	Dichlorodifluoromethane	ND		ug/kg dry	2.2	4.4	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/10/2019 23:58	LLJ
100-41-4	Ethyl Benzene	ND		ug/kg dry	2.2	4.4	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/10/2019 23:58	LLJ
87-68-3	Hexachlorobutadiene	ND		ug/kg dry	2.2	4.4	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/10/2019 23:58	LLJ

Sample Information

Client Sample ID: **B1 S1 VOC**

York Sample ID: **19F0191-01**

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
19F0191	9294 Monticello Manor	Soil	June 5, 2019 10:00 am	06/06/2019

Volatile Organics, 8260 - Comprehensive

Sample Prepared by Method: EPA 5035A

Log-in Notes:

Sample Notes:

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
98-82-8	Isopropylbenzene	ND		ug/kg dry	2.2	4.4	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/10/2019 23:58	LLJ
79-20-9	Methyl acetate	ND		ug/kg dry	2.2	4.4	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/10/2019 23:58	LLJ
1634-04-4	Methyl tert-butyl ether (MTBE)	ND		ug/kg dry	2.2	4.4	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/10/2019 23:58	LLJ
108-87-2	Methylcyclohexane	ND		ug/kg dry	2.2	4.4	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/10/2019 23:58	LLJ
75-09-2	Methylene chloride	ND		ug/kg dry	4.4	8.8	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/10/2019 23:58	LLJ
104-51-8	n-Butylbenzene	ND		ug/kg dry	2.2	4.4	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/10/2019 23:58	LLJ
103-65-1	n-Propylbenzene	ND		ug/kg dry	2.2	4.4	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/10/2019 23:58	LLJ
95-47-6	o-Xylene	ND		ug/kg dry	2.2	4.4	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,PADEP	06/10/2019 07:16	06/10/2019 23:58	LLJ
179601-23-1	p- & m- Xylenes	ND		ug/kg dry	4.4	8.8	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,PADEP	06/10/2019 07:16	06/10/2019 23:58	LLJ
99-87-6	p-Isopropyltoluene	ND		ug/kg dry	2.2	4.4	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/10/2019 23:58	LLJ
135-98-8	sec-Butylbenzene	ND		ug/kg dry	2.2	4.4	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/10/2019 23:58	LLJ
100-42-5	Styrene	ND		ug/kg dry	2.2	4.4	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/10/2019 23:58	LLJ
75-65-0	tert-Butyl alcohol (TBA)	ND		ug/kg dry	2.2	4.4	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/10/2019 23:58	LLJ
98-06-6	tert-Butylbenzene	ND		ug/kg dry	2.2	4.4	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/10/2019 23:58	LLJ
127-18-4	Tetrachloroethylene	ND		ug/kg dry	2.2	4.4	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/10/2019 23:58	LLJ
108-88-3	Toluene	ND		ug/kg dry	2.2	4.4	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/10/2019 23:58	LLJ
156-60-5	trans-1,2-Dichloroethylene	ND		ug/kg dry	2.2	4.4	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/10/2019 23:58	LLJ
10061-02-6	trans-1,3-Dichloropropylene	ND		ug/kg dry	2.2	4.4	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/10/2019 23:58	LLJ
110-57-6	* trans-1,4-dichloro-2-butene	ND		ug/kg dry	2.2	4.4	1	EPA 8260C Certifications: CTDOH	06/10/2019 07:16	06/10/2019 23:58	LLJ
79-01-6	Trichloroethylene	ND		ug/kg dry	2.2	4.4	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/10/2019 23:58	LLJ
75-69-4	Trichlorofluoromethane	ND		ug/kg dry	2.2	4.4	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/10/2019 23:58	LLJ
75-01-4	Vinyl Chloride	ND		ug/kg dry	2.2	4.4	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/10/2019 23:58	LLJ
1330-20-7	Xylenes, Total	ND		ug/kg dry	6.6	13	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP	06/10/2019 07:16	06/10/2019 23:58	LLJ

Surrogate Recoveries	Result	Acceptance Range

Sample Information

Client Sample ID: **B1 S1 VOC** **York Sample ID:** **19F0191-01**

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
19F0191	9294 Monticello Manor	Soil	June 5, 2019 10:00 am	06/06/2019

Volatile Organics, 8260 - Comprehensive

Log-in Notes: **Sample Notes:**

Sample Prepared by Method: EPA 5035A

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
17060-07-0	*Surrogate: SURR: 1,2-Dichloroethane-d4*	*99.8 %*			*77-125*						
2037-26-5	*Surrogate: SURR: Toluene-d8*	*98.5 %*			*85-120*						
460-00-4	*Surrogate: SURR: p-Bromofluorobenzene*	*107 %*			*76-130*						

Total Solids

Log-in Notes: **Sample Notes:**

Sample Prepared by Method: % Solids Prep

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
solids	*** % Solids**	**86.0**		%	0.100	1	SM 2540G Certifications: CTDOH	06/13/2019 15:12	06/13/2019 15:15	KT

Sample Information

Client Sample ID: **B1 S1 Comp** **York Sample ID:** **19F0191-02**

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
19F0191	9294 Monticello Manor	Soil	June 5, 2019 10:00 am	06/06/2019

Semi-Volatiles, 8270 - Comprehensive

Log-in Notes: **Sample Notes:**

Sample Prepared by Method: EPA 3550C

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
92-52-4	1,1-Biphenyl	ND		ug/kg dry	25.1	50.1	1	EPA 8270D Certifications: NELAC-NY10854,NJDEP,PADEP	06/11/2019 13:56	06/13/2019 16:47	KH
95-94-3	1,2,4,5-Tetrachlorobenzene	ND		ug/kg dry	50.1	100	1	EPA 8270D Certifications: NELAC-NY10854,NJDEP,PADEP	06/11/2019 13:56	06/13/2019 16:47	KH
120-82-1	1,2,4-Trichlorobenzene	ND		ug/kg dry	25.1	50.1	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/11/2019 13:56	06/13/2019 16:47	KH
95-50-1	1,2-Dichlorobenzene	ND		ug/kg dry	25.1	50.1	1	EPA 8270D Certifications: NELAC-NY10854,PADEP	06/11/2019 13:56	06/13/2019 16:47	KH
122-66-7	1,2-Diphenylhydrazine (as Azobenzene)	ND		ug/kg dry	25.1	50.1	1	EPA 8270D Certifications: NELAC-NY10854,NJDEP,PADEP	06/11/2019 13:56	06/13/2019 16:47	KH
541-73-1	1,3-Dichlorobenzene	ND		ug/kg dry	25.1	50.1	1	EPA 8270D Certifications: NELAC-NY10854,PADEP	06/11/2019 13:56	06/13/2019 16:47	KH
106-46-7	1,4-Dichlorobenzene	ND		ug/kg dry	25.1	50.1	1	EPA 8270D Certifications: NELAC-NY10854,PADEP	06/11/2019 13:56	06/13/2019 16:47	KH
58-90-2	2,3,4,6-Tetrachlorophenol	ND		ug/kg dry	50.1	100	1	EPA 8270D Certifications: NELAC-NY10854,NJDEP,PADEP	06/11/2019 13:56	06/13/2019 16:47	KH
95-95-4	2,4,5-Trichlorophenol	ND		ug/kg dry	25.1	50.1	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/11/2019 13:56	06/13/2019 16:47	KH

Sample Information

Client Sample ID: **B1 S1 Comp**

York Sample ID: **19F0191-02**

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
19F0191	9294 Monticello Manor	Soil	June 5, 2019 10:00 am	06/06/2019

Semi-Volatiles, 8270 - Comprehensive

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3550C

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
88-06-2	2,4,6-Trichlorophenol	ND		ug/kg dry	25.1	50.1	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/11/2019 13:56	06/13/2019 16:47	KH
120-83-2	2,4-Dichlorophenol	ND		ug/kg dry	25.1	50.1	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/11/2019 13:56	06/13/2019 16:47	KH
105-67-9	2,4-Dimethylphenol	ND		ug/kg dry	25.1	50.1	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/11/2019 13:56	06/13/2019 16:47	KH
51-28-5	2,4-Dinitrophenol	ND		ug/kg dry	50.1	100	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/11/2019 13:56	06/13/2019 16:47	KH
121-14-2	2,4-Dinitrotoluene	ND		ug/kg dry	25.1	50.1	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/11/2019 13:56	06/13/2019 16:47	KH
606-20-2	2,6-Dinitrotoluene	ND		ug/kg dry	25.1	50.1	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/11/2019 13:56	06/13/2019 16:47	KH
91-58-7	2-Chloronaphthalene	ND		ug/kg dry	25.1	50.1	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/11/2019 13:56	06/13/2019 16:47	KH
95-57-8	2-Chlorophenol	ND		ug/kg dry	25.1	50.1	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/11/2019 13:56	06/13/2019 16:47	KH
91-57-6	2-Methylnaphthalene	ND		ug/kg dry	25.1	50.1	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/11/2019 13:56	06/13/2019 16:47	KH
95-48-7	2-Methylphenol	ND		ug/kg dry	25.1	50.1	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/11/2019 13:56	06/13/2019 16:47	KH
88-74-4	2-Nitroaniline	ND		ug/kg dry	50.1	100	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/11/2019 13:56	06/13/2019 16:47	KH
88-75-5	2-Nitrophenol	ND		ug/kg dry	25.1	50.1	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/11/2019 13:56	06/13/2019 16:47	KH
65794-96-9	3- & 4-Methylphenols	ND		ug/kg dry	25.1	50.1	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/11/2019 13:56	06/13/2019 16:47	KH
91-94-1	3,3-Dichlorobenzidine	ND		ug/kg dry	25.1	50.1	1	EPA 8270D Certifications: NELAC-NY10854,NJDEP,PADEP	06/11/2019 13:56	06/13/2019 16:47	KH
99-09-2	3-Nitroaniline	ND		ug/kg dry	50.1	100	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/11/2019 13:56	06/13/2019 16:47	KH
534-52-1	4,6-Dinitro-2-methylphenol	ND		ug/kg dry	50.1	100	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/11/2019 13:56	06/13/2019 16:47	KH
101-55-3	4-Bromophenyl phenyl ether	ND		ug/kg dry	25.1	50.1	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/11/2019 13:56	06/13/2019 16:47	KH
59-50-7	4-Chloro-3-methylphenol	ND		ug/kg dry	25.1	50.1	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/11/2019 13:56	06/13/2019 16:47	KH
106-47-8	4-Chloroaniline	ND		ug/kg dry	25.1	50.1	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/11/2019 13:56	06/13/2019 16:47	KH
7005-72-3	4-Chlorophenyl phenyl ether	ND		ug/kg dry	25.1	50.1	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/11/2019 13:56	06/13/2019 16:47	KH
100-01-6	4-Nitroaniline	ND		ug/kg dry	50.1	100	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/11/2019 13:56	06/13/2019 16:47	KH
100-02-7	4-Nitrophenol	ND		ug/kg dry	50.1	100	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/11/2019 13:56	06/13/2019 16:47	KH
83-32-9	Acenaphthene	ND		ug/kg dry	25.1	50.1	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/11/2019 13:56	06/13/2019 16:47	KH

Sample Information

Client Sample ID: **B1 S1 Comp** **York Sample ID:** **19F0191-02**

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
19F0191	9294 Monticello Manor	Soil	June 5, 2019 10:00 am	06/06/2019

Semi-Volatiles, 8270 - Comprehensive

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3550C

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
208-96-8	Acenaphthylene	ND		ug/kg dry	25.1	50.1	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/11/2019 13:56	06/13/2019 16:47	KH
98-86-2	Acetophenone	ND		ug/kg dry	25.1	50.1	1	EPA 8270D Certifications: NELAC-NY10854,NJDEP,PADEP	06/11/2019 13:56	06/13/2019 16:47	KH
62-53-3	Aniline	ND		ug/kg dry	100	201	1	EPA 8270D Certifications: NELAC-NY10854,NJDEP,PADEP	06/11/2019 13:56	06/13/2019 16:47	KH
120-12-7	Anthracene	ND		ug/kg dry	25.1	50.1	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/11/2019 13:56	06/13/2019 16:47	KH
1912-24-9	Atrazine	ND		ug/kg dry	25.1	50.1	1	EPA 8270D Certifications: NELAC-NY10854,NJDEP,PADEP	06/11/2019 13:56	06/13/2019 16:47	KH
100-52-7	Benzaldehyde	ND		ug/kg dry	25.1	50.1	1	EPA 8270D Certifications: NELAC-NY10854,NJDEP,PADEP	06/11/2019 13:56	06/13/2019 16:47	KH
92-87-5	Benzidine	ND		ug/kg dry	100	201	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,PADEP	06/11/2019 13:56	06/13/2019 16:47	KH
56-55-3	Benzo(a)anthracene	ND		ug/kg dry	25.1	50.1	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/11/2019 13:56	06/13/2019 16:47	KH
50-32-8	Benzo(a)pyrene	ND		ug/kg dry	25.1	50.1	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/11/2019 13:56	06/13/2019 16:47	KH
205-99-2	Benzo(b)fluoranthene	ND		ug/kg dry	25.1	50.1	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/11/2019 13:56	06/13/2019 16:47	KH
191-24-2	Benzo(g,h,i)perylene	ND		ug/kg dry	25.1	50.1	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/11/2019 13:56	06/13/2019 16:47	KH
207-08-9	Benzo(k)fluoranthene	ND		ug/kg dry	25.1	50.1	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/11/2019 13:56	06/13/2019 16:47	KH
65-85-0	Benzoic acid	ND		ug/kg dry	25.1	50.1	1	EPA 8270D Certifications: NELAC-NY10854,NJDEP,PADEP	06/11/2019 13:56	06/13/2019 16:47	KH
100-51-6	Benzyl alcohol	ND		ug/kg dry	25.1	50.1	1	EPA 8270D Certifications: NELAC-NY10854,NJDEP,PADEP	06/11/2019 13:56	06/13/2019 16:47	KH
85-68-7	Benzyl butyl phthalate	ND		ug/kg dry	25.1	50.1	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/11/2019 13:56	06/13/2019 16:47	KH
111-91-1	Bis(2-chloroethoxy)methane	ND		ug/kg dry	25.1	50.1	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/11/2019 13:56	06/13/2019 16:47	KH
111-44-4	Bis(2-chloroethyl)ether	ND		ug/kg dry	25.1	50.1	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/11/2019 13:56	06/13/2019 16:47	KH
108-60-1	Bis(2-chloroisopropyl)ether	ND		ug/kg dry	25.1	50.1	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/11/2019 13:56	06/13/2019 16:47	KH
117-81-7	Bis(2-ethylhexyl)phthalate	ND		ug/kg dry	25.1	50.1	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/11/2019 13:56	06/13/2019 16:47	KH
105-60-2	Caprolactam	ND		ug/kg dry	50.1	100	1	EPA 8270D Certifications: NELAC-NY10854,NJDEP,PADEP	06/11/2019 13:56	06/13/2019 16:47	KH
86-74-8	Carbazole	ND		ug/kg dry	25.1	50.1	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/11/2019 13:56	06/13/2019 16:47	KH
218-01-9	Chrysene	ND		ug/kg dry	25.1	50.1	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/11/2019 13:56	06/13/2019 16:47	KH
53-70-3	Dibenzo(a,h)anthracene	ND		ug/kg dry	25.1	50.1	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/11/2019 13:56	06/13/2019 16:47	KH

Sample Information

Client Sample ID: **B1 S1 Comp** **York Sample ID:** **19F0191-02**

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
19F0191	9294 Monticello Manor	Soil	June 5, 2019 10:00 am	06/06/2019

Semi-Volatiles, 8270 - Comprehensive

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3550C

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
132-64-9	Dibenzofuran	ND		ug/kg dry	25.1	50.1	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/11/2019 13:56	06/13/2019 16:47	KH
84-66-2	Diethyl phthalate	ND		ug/kg dry	25.1	50.1	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/11/2019 13:56	06/13/2019 16:47	KH
131-11-3	Dimethyl phthalate	ND		ug/kg dry	25.1	50.1	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/11/2019 13:56	06/13/2019 16:47	KH
84-74-2	Di-n-butyl phthalate	ND		ug/kg dry	25.1	50.1	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/11/2019 13:56	06/13/2019 16:47	KH
117-84-0	Di-n-octyl phthalate	ND		ug/kg dry	25.1	50.1	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/11/2019 13:56	06/13/2019 16:47	KH
206-44-0	Fluoranthene	ND		ug/kg dry	25.1	50.1	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/11/2019 13:56	06/13/2019 16:47	KH
86-73-7	Fluorene	ND		ug/kg dry	25.1	50.1	1	EPA 8270D Certifications: NELAC-NY10854,NJDEP,PADEP	06/11/2019 13:56	06/13/2019 16:47	KH
118-74-1	Hexachlorobenzene	ND		ug/kg dry	25.1	50.1	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/11/2019 13:56	06/13/2019 16:47	KH
87-68-3	Hexachlorobutadiene	ND		ug/kg dry	25.1	50.1	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/11/2019 13:56	06/13/2019 16:47	KH
77-47-4	Hexachlorocyclopentadiene	ND		ug/kg dry	25.1	50.1	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/11/2019 13:56	06/13/2019 16:47	KH
67-72-1	Hexachloroethane	ND		ug/kg dry	25.1	50.1	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/11/2019 13:56	06/13/2019 16:47	KH
193-39-5	Indeno(1,2,3-cd)pyrene	ND		ug/kg dry	25.1	50.1	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/11/2019 13:56	06/13/2019 16:47	KH
78-59-1	Isophorone	ND		ug/kg dry	25.1	50.1	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/11/2019 13:56	06/13/2019 16:47	KH
91-20-3	Naphthalene	ND		ug/kg dry	25.1	50.1	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/11/2019 13:56	06/13/2019 16:47	KH
98-95-3	Nitrobenzene	ND		ug/kg dry	25.1	50.1	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/11/2019 13:56	06/13/2019 16:47	KH
62-75-9	N-Nitrosodimethylamine	ND		ug/kg dry	25.1	50.1	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/11/2019 13:56	06/13/2019 16:47	KH
621-64-7	N-nitroso-di-n-propylamine	ND		ug/kg dry	25.1	50.1	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/11/2019 13:56	06/13/2019 16:47	KH
86-30-6	N-Nitrosodiphenylamine	ND		ug/kg dry	25.1	50.1	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/11/2019 13:56	06/13/2019 16:47	KH
87-86-5	Pentachlorophenol	ND		ug/kg dry	25.1	50.1	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/11/2019 13:56	06/13/2019 16:47	KH
85-01-8	Phenanthrene	ND		ug/kg dry	25.1	50.1	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/11/2019 13:56	06/13/2019 16:47	KH
108-95-2	Phenol	ND		ug/kg dry	25.1	50.1	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/11/2019 13:56	06/13/2019 16:47	KH
129-00-0	Pyrene	ND		ug/kg dry	25.1	50.1	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/11/2019 13:56	06/13/2019 16:47	KH

	Surrogate Recoveries	Result	Acceptance Range
367-12-4	*Surrogate: SURR: 2-Fluorophenol*	*63.3 %*	*20-108*
4165-62-2	*Surrogate: SURR: Phenol-d5*	*61.7 %*	*23-114*

Sample Information

Client Sample ID: **B1 S1 Comp** **York Sample ID:** **19F0191-02**

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
19F0191	9294 Monticello Manor	Soil	June 5, 2019 10:00 am	06/06/2019

Semi-Volatiles, 8270 - Comprehensive

Log-in Notes: **Sample Notes:**

Sample Prepared by Method: EPA 3550C

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
4165-60-0	*Surrogate: SURR: Nitrobenzene-d5*	*59.4 %*			*22-108*						
321-60-8	*Surrogate: SURR: 2-Fluorobiphenyl*	*38.7 %*			*21-113*						
118-79-6	*Surrogate: SURR: 2,4,6-Tribromophenol*	*38.9 %*			*19-110*						
1718-51-0	*Surrogate: SURR: Terphenyl-d14*	*35.1 %*			*24-116*						

Metals, Target Analyte

Log-in Notes: **Sample Notes:**

Sample Prepared by Method: EPA 3050B

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7429-90-5	**Aluminum**	**8600**		mg/kg dry	6.03	1	EPA 6010D	06/07/2019 11:03	06/10/2019 13:40	KML
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP		
7440-36-0	Antimony	ND		mg/kg dry	3.01	1	EPA 6010D	06/07/2019 11:03	06/10/2019 13:40	KML
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP		
7440-38-2	**Arsenic**	**3.00**		mg/kg dry	1.81	1	EPA 6010D	06/07/2019 11:03	06/10/2019 13:40	KML
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP		
7440-39-3	**Barium**	**37.2**		mg/kg dry	3.01	1	EPA 6010D	06/07/2019 11:03	06/10/2019 13:40	KML
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP		
7440-41-7	**Beryllium**	**0.388**		mg/kg dry	0.060	1	EPA 6010D	06/07/2019 11:03	06/10/2019 13:40	KML
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP		
7440-43-9	Cadmium	ND		mg/kg dry	0.362	1	EPA 6010D	06/07/2019 11:03	06/10/2019 13:40	KML
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP		
7440-70-2	**Calcium**	**4320**		mg/kg dry	6.03	1	EPA 6010D	06/07/2019 11:03	06/10/2019 13:40	KML
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP		
7440-47-3	**Chromium**	**7.03**		mg/kg dry	0.603	1	EPA 6010D	06/07/2019 11:03	06/10/2019 13:40	KML
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP		
7440-48-4	**Cobalt**	**5.75**		mg/kg dry	0.482	1	EPA 6010D	06/07/2019 11:03	06/10/2019 13:40	KML
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP		
7440-50-8	**Copper**	**6.77**		mg/kg dry	2.41	1	EPA 6010D	06/07/2019 11:03	06/10/2019 13:40	KML
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP		
7439-89-6	**Iron**	**14200**		mg/kg dry	30.1	1	EPA 6010D	06/07/2019 11:03	06/10/2019 13:40	KML
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP		
7439-92-1	**Lead**	**12.1**		mg/kg dry	0.603	1	EPA 6010D	06/07/2019 11:03	06/10/2019 13:40	KML
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP		
7439-95-4	**Magnesium**	**2340**		mg/kg dry	6.03	1	EPA 6010D	06/07/2019 11:03	06/10/2019 13:40	KML
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP		
7439-96-5	**Manganese**	**971**		mg/kg dry	0.603	1	EPA 6010D	06/07/2019 11:03	06/10/2019 13:40	KML
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP		
7440-02-0	**Nickel**	**10.0**		mg/kg dry	1.21	1	EPA 6010D	06/07/2019 11:03	06/10/2019 13:40	KML
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP		
7440-09-7	**Potassium**	**738**		mg/kg dry	6.03	1	EPA 6010D	06/07/2019 11:03	06/10/2019 13:40	KML
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP		

Sample Information

Client Sample ID: **B1 S1 Comp**

York Sample ID: **19F0191-02**

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
19F0191	9294 Monticello Manor	Soil	June 5, 2019 10:00 am	06/06/2019

Metals, Target Analyte

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3050B

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7782-49-2	Selenium	ND		mg/kg dry	3.01	1	EPA 6010D	06/07/2019 11:03	06/10/2019 13:40	KML
							Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP			
7440-22-4	Silver	ND		mg/kg dry	0.603	1	EPA 6010D	06/07/2019 11:03	06/10/2019 13:40	KML
							Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP			
7440-23-5	Sodium	ND		mg/kg dry	60.3	1	EPA 6010D	06/07/2019 11:03	06/10/2019 13:40	KML
							Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP			
7440-28-0	Thallium	ND		mg/kg dry	3.01	1	EPA 6010D	06/07/2019 11:03	06/10/2019 13:40	KML
							Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP			
7440-62-2	**Vanadium**	**11.9**		mg/kg dry	1.21	1	EPA 6010D	06/07/2019 11:03	06/10/2019 13:40	KML
							Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP			
7440-66-6	**Zinc**	**39.8**		mg/kg dry	3.01	1	EPA 6010D	06/07/2019 11:03	06/10/2019 13:40	KML
							Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP			

Mercury by 7473

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 7473 soil

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7439-97-6	**Mercury**	**0.0477**		mg/kg dry	0.0362	1	EPA 7473	06/07/2019 09:07	06/07/2019 09:54	SY
							Certifications: CTDOH,NJDEP,NELAC-NY10854,PADEP			

Total Solids

Log-in Notes:

Sample Notes:

Sample Prepared by Method: % Solids Prep

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
solids	*** % Solids**	**83.0**		%	0.100	1	SM 2540G	06/07/2019 11:33	06/07/2019 15:32	JTV
							Certifications: CTDOH			

Sample Information

Client Sample ID: **B2 S2 VOC**

York Sample ID: **19F0191-03**

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
19F0191	9294 Monticello Manor	Soil	June 5, 2019 10:42 am	06/06/2019

Volatile Organics, 8260 - Comprehensive

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5035A

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
630-20-6	1,1,1,2-Tetrachloroethane	ND		ug/kg dry	2.1	4.2	1	EPA 8260C	06/10/2019 07:16	06/11/2019 00:25	LLJ
								Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP			

Sample Information

Client Sample ID: **B2 S2 VOC**

York Sample ID: **19F0191-03**

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
19F0191	9294 Monticello Manor	Soil	June 5, 2019 10:42 am	06/06/2019

Volatile Organics, 8260 - Comprehensive

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5035A

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
71-55-6	1,1,1-Trichloroethane	ND		ug/kg dry	2.1	4.2	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 00:25	LLJ
79-34-5	1,1,2,2-Tetrachloroethane	ND		ug/kg dry	2.1	4.2	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 00:25	LLJ
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND		ug/kg dry	2.1	4.2	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP	06/10/2019 07:16	06/11/2019 00:25	LLJ
79-00-5	1,1,2-Trichloroethane	ND		ug/kg dry	2.1	4.2	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 00:25	LLJ
75-34-3	1,1-Dichloroethane	ND		ug/kg dry	2.1	4.2	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 00:25	LLJ
75-35-4	1,1-Dichloroethylene	ND		ug/kg dry	2.1	4.2	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 00:25	LLJ
87-61-6	1,2,3-Trichlorobenzene	ND		ug/kg dry	2.1	4.2	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 00:25	LLJ
96-18-4	1,2,3-Trichloropropane	ND		ug/kg dry	2.1	4.2	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP	06/10/2019 07:16	06/11/2019 00:25	LLJ
120-82-1	1,2,4-Trichlorobenzene	ND		ug/kg dry	2.1	4.2	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 00:25	LLJ
95-63-6	1,2,4-Trimethylbenzene	ND		ug/kg dry	2.1	4.2	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 00:25	LLJ
96-12-8	1,2-Dibromo-3-chloropropane	ND		ug/kg dry	2.1	4.2	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 00:25	LLJ
106-93-4	1,2-Dibromoethane	ND		ug/kg dry	2.1	4.2	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 00:25	LLJ
95-50-1	1,2-Dichlorobenzene	ND		ug/kg dry	2.1	4.2	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 00:25	LLJ
107-06-2	1,2-Dichloroethane	ND		ug/kg dry	2.1	4.2	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 00:25	LLJ
78-87-5	1,2-Dichloropropane	ND		ug/kg dry	2.1	4.2	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 00:25	LLJ
108-67-8	1,3,5-Trimethylbenzene	ND		ug/kg dry	2.1	4.2	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 00:25	LLJ
541-73-1	1,3-Dichlorobenzene	ND		ug/kg dry	2.1	4.2	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 00:25	LLJ
106-46-7	1,4-Dichlorobenzene	ND		ug/kg dry	2.1	4.2	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 00:25	LLJ
123-91-1	1,4-Dioxane	ND		ug/kg dry	42	85	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 00:25	LLJ
78-93-3	2-Butanone	ND		ug/kg dry	2.1	4.2	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 00:25	LLJ
591-78-6	2-Hexanone	ND		ug/kg dry	2.1	4.2	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 00:25	LLJ
108-10-1	4-Methyl-2-pentanone	ND		ug/kg dry	2.1	4.2	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 00:25	LLJ
67-64-1	Acetone	ND		ug/kg dry	4.2	8.5	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 00:25	LLJ

Sample Information

Client Sample ID: B2 S2 VOC **York Sample ID:** 19F0191-03

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
19F0191	9294 Monticello Manor	Soil	June 5, 2019 10:42 am	06/06/2019

Volatile Organics, 8260 - Comprehensive

Log-in Notes: **Sample Notes:**

Sample Prepared by Method: EPA 5035A

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
107-02-8	Acrolein	ND		ug/kg dry	4.2	8.5	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 00:25	LLJ
107-13-1	Acrylonitrile	ND		ug/kg dry	2.1	4.2	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 00:25	LLJ
71-43-2	Benzene	ND		ug/kg dry	2.1	4.2	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 00:25	LLJ
74-97-5	Bromochloromethane	ND		ug/kg dry	2.1	4.2	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 00:25	LLJ
75-27-4	Bromodichloromethane	ND		ug/kg dry	2.1	4.2	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 00:25	LLJ
75-25-2	Bromoform	ND		ug/kg dry	2.1	4.2	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 00:25	LLJ
74-83-9	Bromomethane	ND		ug/kg dry	2.1	4.2	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 00:25	LLJ
75-15-0	Carbon disulfide	ND		ug/kg dry	2.1	4.2	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 00:25	LLJ
56-23-5	Carbon tetrachloride	ND		ug/kg dry	2.1	4.2	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 00:25	LLJ
108-90-7	Chlorobenzene	ND		ug/kg dry	2.1	4.2	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 00:25	LLJ
75-00-3	Chloroethane	ND		ug/kg dry	2.1	4.2	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 00:25	LLJ
67-66-3	Chloroform	ND		ug/kg dry	2.1	4.2	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 00:25	LLJ
74-87-3	Chloromethane	ND		ug/kg dry	2.1	4.2	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 00:25	LLJ
156-59-2	cis-1,2-Dichloroethylene	ND		ug/kg dry	2.1	4.2	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 00:25	LLJ
10061-01-5	cis-1,3-Dichloropropylene	ND		ug/kg dry	2.1	4.2	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 00:25	LLJ
110-82-7	Cyclohexane	ND		ug/kg dry	2.1	4.2	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 00:25	LLJ
124-48-1	Dibromochloromethane	ND		ug/kg dry	2.1	4.2	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 00:25	LLJ
74-95-3	Dibromomethane	ND		ug/kg dry	2.1	4.2	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 00:25	LLJ
75-71-8	Dichlorodifluoromethane	ND		ug/kg dry	2.1	4.2	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 00:25	LLJ
100-41-4	Ethyl Benzene	ND		ug/kg dry	2.1	4.2	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 00:25	LLJ
87-68-3	Hexachlorobutadiene	ND		ug/kg dry	2.1	4.2	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 00:25	LLJ
98-82-8	Isopropylbenzene	ND		ug/kg dry	2.1	4.2	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 00:25	LLJ
79-20-9	Methyl acetate	ND		ug/kg dry	2.1	4.2	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 00:25	LLJ

Sample Information

Client Sample ID: **B2 S2 VOC** **York Sample ID:** **19F0191-03**

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
19F0191	9294 Monticello Manor	Soil	June 5, 2019 10:42 am	06/06/2019

Volatile Organics, 8260 - Comprehensive

Log-in Notes: **Sample Notes:**

Sample Prepared by Method: EPA 5035A

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
1634-04-4	Methyl tert-butyl ether (MTBE)	ND		ug/kg dry	2.1	4.2	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 00:25	LLJ
108-87-2	Methylcyclohexane	ND		ug/kg dry	2.1	4.2	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 00:25	LLJ
75-09-2	**Methylene chloride**	**6.2**	J	ug/kg dry	4.2	8.5	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 00:25	LLJ
104-51-8	n-Butylbenzene	ND		ug/kg dry	2.1	4.2	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 00:25	LLJ
103-65-1	n-Propylbenzene	ND		ug/kg dry	2.1	4.2	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 00:25	LLJ
95-47-6	o-Xylene	ND		ug/kg dry	2.1	4.2	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,PADEP	06/10/2019 07:16	06/11/2019 00:25	LLJ
179601-23-1	p- & m- Xylenes	ND		ug/kg dry	4.2	8.5	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,PADEP	06/10/2019 07:16	06/11/2019 00:25	LLJ
99-87-6	p-Isopropyltoluene	ND		ug/kg dry	2.1	4.2	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 00:25	LLJ
135-98-8	sec-Butylbenzene	ND		ug/kg dry	2.1	4.2	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 00:25	LLJ
100-42-5	Styrene	ND		ug/kg dry	2.1	4.2	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 00:25	LLJ
75-65-0	tert-Butyl alcohol (TBA)	ND		ug/kg dry	2.1	4.2	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 00:25	LLJ
98-06-6	tert-Butylbenzene	ND		ug/kg dry	2.1	4.2	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 00:25	LLJ
127-18-4	Tetrachloroethylene	ND		ug/kg dry	2.1	4.2	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 00:25	LLJ
108-88-3	Toluene	ND		ug/kg dry	2.1	4.2	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 00:25	LLJ
156-60-5	trans-1,2-Dichloroethylene	ND		ug/kg dry	2.1	4.2	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 00:25	LLJ
10061-02-6	trans-1,3-Dichloropropylene	ND		ug/kg dry	2.1	4.2	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 00:25	LLJ
110-57-6	* trans-1,4-dichloro-2-butene	ND		ug/kg dry	2.1	4.2	1	EPA 8260C Certifications: CTDOH	06/10/2019 07:16	06/11/2019 00:25	LLJ
79-01-6	Trichloroethylene	ND		ug/kg dry	2.1	4.2	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 00:25	LLJ
75-69-4	Trichlorofluoromethane	ND		ug/kg dry	2.1	4.2	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 00:25	LLJ
75-01-4	Vinyl Chloride	ND		ug/kg dry	2.1	4.2	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 00:25	LLJ
1330-20-7	Xylenes, Total	ND		ug/kg dry	6.3	13	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP	06/10/2019 07:16	06/11/2019 00:25	LLJ

	Surrogate Recoveries	Result	Acceptance Range
17060-07-0	*Surrogate: SURR: 1,2-Dichloroethane-d4*	*100 %*	*77-125*
2037-26-5	*Surrogate: SURR: Toluene-d8*	*99.9 %*	*85-120*

Sample Information

Client Sample ID: **B2 S2 VOC** **York Sample ID:** **19F0191-03**

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
19F0191	9294 Monticello Manor	Soil	June 5, 2019 10:42 am	06/06/2019

Volatile Organics, 8260 - Comprehensive

Log-in Notes: **Sample Notes:**

Sample Prepared by Method: EPA 5035A

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
460-00-4	*Surrogate: SURR: p-Bromofluorobenzene*	*107 %*			*76-130*						

Total Solids

Log-in Notes: **Sample Notes:**

Sample Prepared by Method: % Solids Prep

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
solids	*** % Solids**	**85.8**		%	0.100	1	SM 2540G Certifications: CTDOH	06/13/2019 15:12	06/13/2019 15:15	KT

Sample Information

Client Sample ID: **B2 S2 Comp** **York Sample ID:** **19F0191-04**

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
19F0191	9294 Monticello Manor	Soil	June 5, 2019 10:45 am	06/06/2019

Semi-Volatiles, 8270 - Comprehensive

Log-in Notes: **Sample Notes:**

Sample Prepared by Method: EPA 3550C

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
92-52-4	1,1-Biphenyl	ND		ug/kg dry	50.1	100	2	EPA 8270D Certifications: NELAC-NY10854,NJDEP,PADEP	06/11/2019 13:56	06/14/2019 11:40	KH
95-94-3	1,2,4,5-Tetrachlorobenzene	ND		ug/kg dry	100	200	2	EPA 8270D Certifications: NELAC-NY10854,NJDEP,PADEP	06/11/2019 13:56	06/14/2019 11:40	KH
120-82-1	1,2,4-Trichlorobenzene	ND		ug/kg dry	50.1	100	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/11/2019 13:56	06/14/2019 11:40	KH
95-50-1	1,2-Dichlorobenzene	ND		ug/kg dry	50.1	100	2	EPA 8270D Certifications: NELAC-NY10854,PADEP	06/11/2019 13:56	06/14/2019 11:40	KH
122-66-7	1,2-Diphenylhydrazine (as Azobenzene)	ND		ug/kg dry	50.1	100	2	EPA 8270D Certifications: NELAC-NY10854,NJDEP,PADEP	06/11/2019 13:56	06/14/2019 11:40	KH
541-73-1	1,3-Dichlorobenzene	ND		ug/kg dry	50.1	100	2	EPA 8270D Certifications: NELAC-NY10854,PADEP	06/11/2019 13:56	06/14/2019 11:40	KH
106-46-7	1,4-Dichlorobenzene	ND		ug/kg dry	50.1	100	2	EPA 8270D Certifications: NELAC-NY10854,PADEP	06/11/2019 13:56	06/14/2019 11:40	KH
58-90-2	2,3,4,6-Tetrachlorophenol	ND		ug/kg dry	100	200	2	EPA 8270D Certifications: NELAC-NY10854,NJDEP,PADEP	06/11/2019 13:56	06/14/2019 11:40	KH
95-95-4	2,4,5-Trichlorophenol	ND		ug/kg dry	50.1	100	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/11/2019 13:56	06/14/2019 11:40	KH
88-06-2	2,4,6-Trichlorophenol	ND		ug/kg dry	50.1	100	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/11/2019 13:56	06/14/2019 11:40	KH
120-83-2	2,4-Dichlorophenol	ND		ug/kg dry	50.1	100	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/11/2019 13:56	06/14/2019 11:40	KH

Sample Information

Client Sample ID: **B2 S2 Comp** **York Sample ID:** **19F0191-04**

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
19F0191	9294 Monticello Manor	Soil	June 5, 2019 10:45 am	06/06/2019

Semi-Volatiles, 8270 - Comprehensive

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3550C

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
105-67-9	2,4-Dimethylphenol	ND		ug/kg dry	50.1	100	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/11/2019 13:56	06/14/2019 11:40	KH
51-28-5	2,4-Dinitrophenol	ND		ug/kg dry	100	200	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/11/2019 13:56	06/14/2019 11:40	KH
121-14-2	2,4-Dinitrotoluene	ND		ug/kg dry	50.1	100	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/11/2019 13:56	06/14/2019 11:40	KH
606-20-2	2,6-Dinitrotoluene	ND		ug/kg dry	50.1	100	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/11/2019 13:56	06/14/2019 11:40	KH
91-58-7	2-Chloronaphthalene	ND		ug/kg dry	50.1	100	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/11/2019 13:56	06/14/2019 11:40	KH
95-57-8	2-Chlorophenol	ND		ug/kg dry	50.1	100	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/11/2019 13:56	06/14/2019 11:40	KH
91-57-6	2-Methylnaphthalene	ND		ug/kg dry	50.1	100	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/11/2019 13:56	06/14/2019 11:40	KH
95-48-7	2-Methylphenol	ND		ug/kg dry	50.1	100	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/11/2019 13:56	06/14/2019 11:40	KH
88-74-4	2-Nitroaniline	ND		ug/kg dry	100	200	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/11/2019 13:56	06/14/2019 11:40	KH
88-75-5	2-Nitrophenol	ND		ug/kg dry	50.1	100	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/11/2019 13:56	06/14/2019 11:40	KH
65794-96-9	3- & 4-Methylphenols	ND		ug/kg dry	50.1	100	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/11/2019 13:56	06/14/2019 11:40	KH
91-94-1	3,3-Dichlorobenzidine	ND		ug/kg dry	50.1	100	2	EPA 8270D Certifications: NELAC-NY10854,NJDEP,PADEP	06/11/2019 13:56	06/14/2019 11:40	KH
99-09-2	3-Nitroaniline	ND		ug/kg dry	100	200	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/11/2019 13:56	06/14/2019 11:40	KH
534-52-1	4,6-Dinitro-2-methylphenol	ND		ug/kg dry	100	200	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/11/2019 13:56	06/14/2019 11:40	KH
101-55-3	4-Bromophenyl phenyl ether	ND		ug/kg dry	50.1	100	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/11/2019 13:56	06/14/2019 11:40	KH
59-50-7	4-Chloro-3-methylphenol	ND		ug/kg dry	50.1	100	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/11/2019 13:56	06/14/2019 11:40	KH
106-47-8	4-Chloroaniline	ND		ug/kg dry	50.1	100	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/11/2019 13:56	06/14/2019 11:40	KH
7005-72-3	4-Chlorophenyl phenyl ether	ND		ug/kg dry	50.1	100	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/11/2019 13:56	06/14/2019 11:40	KH
100-01-6	4-Nitroaniline	ND		ug/kg dry	100	200	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/11/2019 13:56	06/14/2019 11:40	KH
100-02-7	4-Nitrophenol	ND		ug/kg dry	100	200	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/11/2019 13:56	06/14/2019 11:40	KH
83-32-9	Acenaphthene	ND		ug/kg dry	50.1	100	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/11/2019 13:56	06/14/2019 11:40	KH
208-96-8	Acenaphthylene	ND		ug/kg dry	50.1	100	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/11/2019 13:56	06/14/2019 11:40	KH
98-86-2	Acetophenone	ND		ug/kg dry	50.1	100	2	EPA 8270D Certifications: NELAC-NY10854,NJDEP,PADEP	06/11/2019 13:56	06/14/2019 11:40	KH

Sample Information

Client Sample ID:	**B2 S2 Comp**		**York Sample ID:**	**19F0191-04**
York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
19F0191	9294 Monticello Manor	Soil	June 5, 2019 10:45 am	06/06/2019

Semi-Volatiles, 8270 - Comprehensive

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3550C

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
62-53-3	Aniline	ND		ug/kg dry	200	401	2	EPA 8270D Certifications: NELAC-NY10854,NJDEP,PADEP	06/11/2019 13:56	06/14/2019 11:40	KH
120-12-7	**Anthracene**	**69.6**	J	ug/kg dry	50.1	100	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/11/2019 13:56	06/14/2019 11:40	KH
1912-24-9	Atrazine	ND		ug/kg dry	50.1	100	2	EPA 8270D Certifications: NELAC-NY10854,NJDEP,PADEP	06/11/2019 13:56	06/14/2019 11:40	KH
100-52-7	Benzaldehyde	ND		ug/kg dry	50.1	100	2	EPA 8270D Certifications: NELAC-NY10854,NJDEP,PADEP	06/11/2019 13:56	06/14/2019 11:40	KH
92-87-5	Benzidine	ND		ug/kg dry	200	401	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,PADEP	06/11/2019 13:56	06/14/2019 11:40	KH
56-55-3	**Benzo(a)anthracene**	**145**		ug/kg dry	50.1	100	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/11/2019 13:56	06/14/2019 11:40	KH
50-32-8	**Benzo(a)pyrene**	**121**		ug/kg dry	50.1	100	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/11/2019 13:56	06/14/2019 11:40	KH
205-99-2	**Benzo(b)fluoranthene**	**120**		ug/kg dry	50.1	100	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/11/2019 13:56	06/14/2019 11:40	KH
191-24-2	**Benzo(g,h,i)perylene**	**69.6**	J	ug/kg dry	50.1	100	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/11/2019 13:56	06/14/2019 11:40	KH
207-08-9	**Benzo(k)fluoranthene**	**95.9**	J	ug/kg dry	50.1	100	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/11/2019 13:56	06/14/2019 11:40	KH
65-85-0	Benzoic acid	ND		ug/kg dry	50.1	100	2	EPA 8270D Certifications: NELAC-NY10854,NJDEP,PADEP	06/11/2019 13:56	06/14/2019 11:40	KH
100-51-6	Benzyl alcohol	ND		ug/kg dry	50.1	100	2	EPA 8270D Certifications: NELAC-NY10854,NJDEP,PADEP	06/11/2019 13:56	06/14/2019 11:40	KH
85-68-7	Benzyl butyl phthalate	ND		ug/kg dry	50.1	100	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/11/2019 13:56	06/14/2019 11:40	KH
111-91-1	Bis(2-chloroethoxy)methane	ND		ug/kg dry	50.1	100	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/11/2019 13:56	06/14/2019 11:40	KH
111-44-4	Bis(2-chloroethyl)ether	ND		ug/kg dry	50.1	100	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/11/2019 13:56	06/14/2019 11:40	KH
108-60-1	Bis(2-chloroisopropyl)ether	ND		ug/kg dry	50.1	100	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/11/2019 13:56	06/14/2019 11:40	KH
117-81-7	Bis(2-ethylhexyl)phthalate	ND		ug/kg dry	50.1	100	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/11/2019 13:56	06/14/2019 11:40	KH
105-60-2	Caprolactam	ND		ug/kg dry	100	200	2	EPA 8270D Certifications: NELAC-NY10854,NJDEP,PADEP	06/11/2019 13:56	06/14/2019 11:40	KH
86-74-8	Carbazole	ND		ug/kg dry	50.1	100	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/11/2019 13:56	06/14/2019 11:40	KH
218-01-9	**Chrysene**	**129**		ug/kg dry	50.1	100	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/11/2019 13:56	06/14/2019 11:40	KH
53-70-3	Dibenzo(a,h)anthracene	ND		ug/kg dry	50.1	100	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/11/2019 13:56	06/14/2019 11:40	KH
132-64-9	Dibenzofuran	ND		ug/kg dry	50.1	100	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/11/2019 13:56	06/14/2019 11:40	KH
84-66-2	Diethyl phthalate	ND		ug/kg dry	50.1	100	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/11/2019 13:56	06/14/2019 11:40	KH

Sample Information

Client Sample ID: **B2 S2 Comp**

York Sample ID: **19F0191-04**

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
19F0191	9294 Monticello Manor	Soil	June 5, 2019 10:45 am	06/06/2019

Semi-Volatiles, 8270 - Comprehensive

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3550C

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
131-11-3	Dimethyl phthalate	ND		ug/kg dry	50.1	100	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/11/2019 13:56	06/14/2019 11:40	KH
84-74-2	Di-n-butyl phthalate	ND		ug/kg dry	50.1	100	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/11/2019 13:56	06/14/2019 11:40	KH
117-84-0	Di-n-octyl phthalate	ND		ug/kg dry	50.1	100	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/11/2019 13:56	06/14/2019 11:40	KH
206-44-0	**Fluoranthene**	**331**		ug/kg dry	50.1	100	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/11/2019 13:56	06/14/2019 11:40	KH
86-73-7	Fluorene	ND		ug/kg dry	50.1	100	2	EPA 8270D Certifications: NELAC-NY10854,NJDEP,PADEP	06/11/2019 13:56	06/14/2019 11:40	KH
118-74-1	Hexachlorobenzene	ND		ug/kg dry	50.1	100	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/11/2019 13:56	06/14/2019 11:40	KH
87-68-3	Hexachlorobutadiene	ND		ug/kg dry	50.1	100	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/11/2019 13:56	06/14/2019 11:40	KH
77-47-4	Hexachlorocyclopentadiene	ND		ug/kg dry	50.1	100	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/11/2019 13:56	06/14/2019 11:40	KH
67-72-1	Hexachloroethane	ND		ug/kg dry	50.1	100	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/11/2019 13:56	06/14/2019 11:40	KH
193-39-5	**Indeno(1,2,3-cd)pyrene**	**84.0**	J	ug/kg dry	50.1	100	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/11/2019 13:56	06/14/2019 11:40	KH
78-59-1	Isophorone	ND		ug/kg dry	50.1	100	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/11/2019 13:56	06/14/2019 11:40	KH
91-20-3	Naphthalene	ND		ug/kg dry	50.1	100	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/11/2019 13:56	06/14/2019 11:40	KH
98-95-3	Nitrobenzene	ND		ug/kg dry	50.1	100	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/11/2019 13:56	06/14/2019 11:40	KH
62-75-9	N-Nitrosodimethylamine	ND		ug/kg dry	50.1	100	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/11/2019 13:56	06/14/2019 11:40	KH
621-64-7	N-nitroso-di-n-propylamine	ND		ug/kg dry	50.1	100	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/11/2019 13:56	06/14/2019 11:40	KH
86-30-6	N-Nitrosodiphenylamine	ND		ug/kg dry	50.1	100	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/11/2019 13:56	06/14/2019 11:40	KH
87-86-5	Pentachlorophenol	ND		ug/kg dry	50.1	100	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/11/2019 13:56	06/14/2019 11:40	KH
85-01-8	**Phenanthrene**	**268**		ug/kg dry	50.1	100	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/11/2019 13:56	06/14/2019 11:40	KH
108-95-2	Phenol	ND		ug/kg dry	50.1	100	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/11/2019 13:56	06/14/2019 11:40	KH
129-00-0	**Pyrene**	**221**		ug/kg dry	50.1	100	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/11/2019 13:56	06/14/2019 11:40	KH

	Surrogate Recoveries	Result	Acceptance Range
367-12-4	*Surrogate: SURR: 2-Fluorophenol*	*54.0 %*	*20-108*
4165-62-2	*Surrogate: SURR: Phenol-d5*	*52.0 %*	*23-114*
4165-60-0	*Surrogate: SURR: Nitrobenzene-d5*	*63.3 %*	*22-108*
321-60-8	*Surrogate: SURR: 2-Fluorobiphenyl*	*51.7 %*	*21-113*

Sample Information

Client Sample ID: **B2 S2 Comp** **York Sample ID:** **19F0191-04**

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
19F0191	9294 Monticello Manor	Soil	June 5, 2019 10:45 am	06/06/2019

Semi-Volatiles, 8270 - Comprehensive

Log-in Notes: **Sample Notes:**

Sample Prepared by Method: EPA 3550C

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
118-79-6	*Surrogate: SURR: 2,4,6-Tribromophenol*	*56.5 %*			*19-110*						
1718-51-0	*Surrogate: SURR: Terphenyl-d14*	*55.0 %*			*24-116*						

Metals, Target Analyte

Log-in Notes: **Sample Notes:**

Sample Prepared by Method: EPA 3050B

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7429-90-5	**Aluminum**	**11800**		mg/kg dry	6.02	1	EPA 6010D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/07/2019 11:03	06/10/2019 13:42	KML
7440-36-0	Antimony	ND		mg/kg dry	3.01	1	EPA 6010D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/07/2019 11:03	06/10/2019 13:42	KML
7440-38-2	**Arsenic**	**5.51**		mg/kg dry	1.81	1	EPA 6010D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/07/2019 11:03	06/10/2019 13:42	KML
7440-39-3	**Barium**	**92.4**		mg/kg dry	3.01	1	EPA 6010D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/07/2019 11:03	06/10/2019 13:42	KML
7440-41-7	**Beryllium**	**0.534**		mg/kg dry	0.060	1	EPA 6010D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/07/2019 11:03	06/10/2019 13:42	KML
7440-43-9	Cadmium	ND		mg/kg dry	0.361	1	EPA 6010D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/07/2019 11:03	06/10/2019 13:42	KML
7440-70-2	**Calcium**	**8180**		mg/kg dry	6.02	1	EPA 6010D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/07/2019 11:03	06/10/2019 13:42	KML
7440-47-3	**Chromium**	**9.82**		mg/kg dry	0.602	1	EPA 6010D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/07/2019 11:03	06/10/2019 13:42	KML
7440-48-4	**Cobalt**	**7.95**		mg/kg dry	0.481	1	EPA 6010D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/07/2019 11:03	06/10/2019 13:42	KML
7440-50-8	**Copper**	**17.2**		mg/kg dry	2.41	1	EPA 6010D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/07/2019 11:03	06/10/2019 13:42	KML
7439-89-6	**Iron**	**15500**		mg/kg dry	30.1	1	EPA 6010D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/07/2019 11:03	06/10/2019 13:42	KML
7439-92-1	**Lead**	**85.9**		mg/kg dry	0.602	1	EPA 6010D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/07/2019 11:03	06/10/2019 13:42	KML
7439-95-4	**Magnesium**	**2470**		mg/kg dry	6.02	1	EPA 6010D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/07/2019 11:03	06/10/2019 13:42	KML
7439-96-5	**Manganese**	**893**		mg/kg dry	0.602	1	EPA 6010D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/07/2019 11:03	06/10/2019 13:42	KML
7440-02-0	**Nickel**	**13.2**		mg/kg dry	1.20	1	EPA 6010D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/07/2019 11:03	06/10/2019 13:42	KML
7440-09-7	**Potassium**	**683**		mg/kg dry	6.02	1	EPA 6010D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/07/2019 11:03	06/10/2019 13:42	KML
7782-49-2	Selenium	ND		mg/kg dry	3.01	1	EPA 6010D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/07/2019 11:03	06/10/2019 13:42	KML
7440-22-4	Silver	ND		mg/kg dry	0.602	1	EPA 6010D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/07/2019 11:03	06/10/2019 13:42	KML

Sample Information

Client Sample ID: **B2 S2 Comp** **York Sample ID:** **19F0191-04**

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
19F0191	9294 Monticello Manor	Soil	June 5, 2019 10:45 am	06/06/2019

Metals, Target Analyte

Log-in Notes: **Sample Notes:**

Sample Prepared by Method: EPA 3050B

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7440-23-5	Sodium	ND		mg/kg dry	60.2	1	EPA 6010D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/07/2019 11:03	06/10/2019 13:42	KML
7440-28-0	Thallium	ND		mg/kg dry	3.01	1	EPA 6010D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/07/2019 11:03	06/10/2019 13:42	KML
7440-62-2	**Vanadium**	**15.9**		mg/kg dry	1.20	1	EPA 6010D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/07/2019 11:03	06/10/2019 13:42	KML
7440-66-6	**Zinc**	**87.9**		mg/kg dry	3.01	1	EPA 6010D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/07/2019 11:03	06/10/2019 13:42	KML

Mercury by 7473

Log-in Notes: **Sample Notes:**

Sample Prepared by Method: EPA 7473 soil

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7439-97-6	**Mercury**	**0.133**		mg/kg dry	0.0361	1	EPA 7473 Certifications: CTDOH,NJDEP,NELAC-NY10854,PADEP	06/07/2019 09:07	06/07/2019 10:03	SY

Total Solids

Log-in Notes: **Sample Notes:**

Sample Prepared by Method: % Solids Prep

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
solids	*** % Solids**	**83.1**		%	0.100	1	SM 2540G Certifications: CTDOH	06/07/2019 11:33	06/07/2019 15:32	JTV

Sample Information

Client Sample ID: **B3 S3 VOC** **York Sample ID:** **19F0191-05**

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
19F0191	9294 Monticello Manor	Soil	June 5, 2019 12:30 pm	06/06/2019

Volatile Organics, 8260 - Comprehensive

Log-in Notes: **Sample Notes:**

Sample Prepared by Method: EPA 5035A

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
630-20-6	1,1,1,2-Tetrachloroethane	ND		ug/kg dry	2.0	4.0	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 00:51	LLJ
71-55-6	1,1,1-Trichloroethane	ND		ug/kg dry	2.0	4.0	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 00:51	LLJ
79-34-5	1,1,2,2-Tetrachloroethane	ND		ug/kg dry	2.0	4.0	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 00:51	LLJ

Sample Information

Client Sample ID: **B3 S3 VOC**

York Sample ID: **19F0191-05**

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
19F0191	9294 Monticello Manor	Soil	June 5, 2019 12:30 pm	06/06/2019

Volatile Organics, 8260 - Comprehensive

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5035A

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND		ug/kg dry	2.0	4.0	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP	06/10/2019 07:16	06/11/2019 00:51	LLJ
79-00-5	1,1,2-Trichloroethane	ND		ug/kg dry	2.0	4.0	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 00:51	LLJ
75-34-3	1,1-Dichloroethane	ND		ug/kg dry	2.0	4.0	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 00:51	LLJ
75-35-4	1,1-Dichloroethylene	ND		ug/kg dry	2.0	4.0	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 00:51	LLJ
87-61-6	1,2,3-Trichlorobenzene	ND		ug/kg dry	2.0	4.0	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 00:51	LLJ
96-18-4	1,2,3-Trichloropropane	ND		ug/kg dry	2.0	4.0	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP	06/10/2019 07:16	06/11/2019 00:51	LLJ
120-82-1	1,2,4-Trichlorobenzene	ND		ug/kg dry	2.0	4.0	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 00:51	LLJ
95-63-6	1,2,4-Trimethylbenzene	ND		ug/kg dry	2.0	4.0	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 00:51	LLJ
96-12-8	1,2-Dibromo-3-chloropropane	ND		ug/kg dry	2.0	4.0	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 00:51	LLJ
106-93-4	1,2-Dibromoethane	ND		ug/kg dry	2.0	4.0	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 00:51	LLJ
95-50-1	1,2-Dichlorobenzene	ND		ug/kg dry	2.0	4.0	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 00:51	LLJ
107-06-2	1,2-Dichloroethane	ND		ug/kg dry	2.0	4.0	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 00:51	LLJ
78-87-5	1,2-Dichloropropane	ND		ug/kg dry	2.0	4.0	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 00:51	LLJ
108-67-8	1,3,5-Trimethylbenzene	ND		ug/kg dry	2.0	4.0	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 00:51	LLJ
541-73-1	1,3-Dichlorobenzene	ND		ug/kg dry	2.0	4.0	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 00:51	LLJ
106-46-7	1,4-Dichlorobenzene	ND		ug/kg dry	2.0	4.0	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 00:51	LLJ
123-91-1	1,4-Dioxane	ND		ug/kg dry	40	79	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 00:51	LLJ
78-93-3	2-Butanone	ND		ug/kg dry	2.0	4.0	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 00:51	LLJ
591-78-6	2-Hexanone	ND		ug/kg dry	2.0	4.0	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 00:51	LLJ
108-10-1	4-Methyl-2-pentanone	ND		ug/kg dry	2.0	4.0	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 00:51	LLJ
67-64-1	**Acetone**	**20**	CCV-E	ug/kg dry	4.0	7.9	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 00:51	LLJ
107-02-8	Acrolein	ND		ug/kg dry	4.0	7.9	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 00:51	LLJ
107-13-1	Acrylonitrile	ND		ug/kg dry	2.0	4.0	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 00:51	LLJ

Sample Information

Client Sample ID: **B3 S3 VOC** **York Sample ID:** **19F0191-05**

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
19F0191	9294 Monticello Manor	Soil	June 5, 2019 12:30 pm	06/06/2019

Volatile Organics, 8260 - Comprehensive

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5035A

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
71-43-2	Benzene	ND		ug/kg dry	2.0	4.0	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 00:51	LLJ
74-97-5	Bromochloromethane	ND		ug/kg dry	2.0	4.0	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 00:51	LLJ
75-27-4	Bromodichloromethane	ND		ug/kg dry	2.0	4.0	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 00:51	LLJ
75-25-2	Bromoform	ND		ug/kg dry	2.0	4.0	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 00:51	LLJ
74-83-9	Bromomethane	ND		ug/kg dry	2.0	4.0	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 00:51	LLJ
75-15-0	Carbon disulfide	ND		ug/kg dry	2.0	4.0	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 00:51	LLJ
56-23-5	Carbon tetrachloride	ND		ug/kg dry	2.0	4.0	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 00:51	LLJ
108-90-7	Chlorobenzene	ND		ug/kg dry	2.0	4.0	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 00:51	LLJ
75-00-3	Chloroethane	ND		ug/kg dry	2.0	4.0	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 00:51	LLJ
67-66-3	Chloroform	ND		ug/kg dry	2.0	4.0	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 00:51	LLJ
74-87-3	Chloromethane	ND		ug/kg dry	2.0	4.0	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 00:51	LLJ
156-59-2	cis-1,2-Dichloroethylene	ND		ug/kg dry	2.0	4.0	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 00:51	LLJ
10061-01-5	cis-1,3-Dichloropropylene	ND		ug/kg dry	2.0	4.0	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 00:51	LLJ
110-82-7	Cyclohexane	ND		ug/kg dry	2.0	4.0	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 00:51	LLJ
124-48-1	Dibromochloromethane	ND		ug/kg dry	2.0	4.0	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 00:51	LLJ
74-95-3	Dibromomethane	ND		ug/kg dry	2.0	4.0	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 00:51	LLJ
75-71-8	Dichlorodifluoromethane	ND		ug/kg dry	2.0	4.0	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 00:51	LLJ
100-41-4	Ethyl Benzene	ND		ug/kg dry	2.0	4.0	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 00:51	LLJ
87-68-3	Hexachlorobutadiene	ND		ug/kg dry	2.0	4.0	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 00:51	LLJ
98-82-8	Isopropylbenzene	ND		ug/kg dry	2.0	4.0	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 00:51	LLJ
79-20-9	Methyl acetate	ND		ug/kg dry	2.0	4.0	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 00:51	LLJ
1634-04-4	Methyl tert-butyl ether (MTBE)	ND		ug/kg dry	2.0	4.0	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 00:51	LLJ
108-87-2	Methylcyclohexane	ND		ug/kg dry	2.0	4.0	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 00:51	LLJ

Sample Information

Client Sample ID: **B3 S3 VOC**

York Sample ID: **19F0191-05**

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
19F0191	9294 Monticello Manor	Soil	June 5, 2019 12:30 pm	06/06/2019

Volatile Organics, 8260 - Comprehensive

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5035A

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
75-09-2	**Methylene chloride**	**6.7**	J	ug/kg dry	4.0	7.9	1	EPA 8260C	06/10/2019 07:16	06/11/2019 00:51	LLJ
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP		
104-51-8	n-Butylbenzene	ND		ug/kg dry	2.0	4.0	1	EPA 8260C	06/10/2019 07:16	06/11/2019 00:51	LLJ
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP		
103-65-1	n-Propylbenzene	ND		ug/kg dry	2.0	4.0	1	EPA 8260C	06/10/2019 07:16	06/11/2019 00:51	LLJ
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP		
95-47-6	o-Xylene	ND		ug/kg dry	2.0	4.0	1	EPA 8260C	06/10/2019 07:16	06/11/2019 00:51	LLJ
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,PADEP		
179601-23-1	p- & m- Xylenes	ND		ug/kg dry	4.0	7.9	1	EPA 8260C	06/10/2019 07:16	06/11/2019 00:51	LLJ
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,PADEP		
99-87-6	p-Isopropyltoluene	ND		ug/kg dry	2.0	4.0	1	EPA 8260C	06/10/2019 07:16	06/11/2019 00:51	LLJ
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP		
135-98-8	sec-Butylbenzene	ND		ug/kg dry	2.0	4.0	1	EPA 8260C	06/10/2019 07:16	06/11/2019 00:51	LLJ
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP		
100-42-5	Styrene	ND		ug/kg dry	2.0	4.0	1	EPA 8260C	06/10/2019 07:16	06/11/2019 00:51	LLJ
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP		
75-65-0	tert-Butyl alcohol (TBA)	ND		ug/kg dry	2.0	4.0	1	EPA 8260C	06/10/2019 07:16	06/11/2019 00:51	LLJ
								Certifications:	NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP		
98-06-6	tert-Butylbenzene	ND		ug/kg dry	2.0	4.0	1	EPA 8260C	06/10/2019 07:16	06/11/2019 00:51	LLJ
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP		
127-18-4	Tetrachloroethylene	ND		ug/kg dry	2.0	4.0	1	EPA 8260C	06/10/2019 07:16	06/11/2019 00:51	LLJ
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP		
108-88-3	Toluene	ND		ug/kg dry	2.0	4.0	1	EPA 8260C	06/10/2019 07:16	06/11/2019 00:51	LLJ
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP		
156-60-5	trans-1,2-Dichloroethylene	ND		ug/kg dry	2.0	4.0	1	EPA 8260C	06/10/2019 07:16	06/11/2019 00:51	LLJ
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP		
10061-02-6	trans-1,3-Dichloropropylene	ND		ug/kg dry	2.0	4.0	1	EPA 8260C	06/10/2019 07:16	06/11/2019 00:51	LLJ
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP		
110-57-6	* trans-1,4-dichloro-2-butene	ND		ug/kg dry	2.0	4.0	1	EPA 8260C	06/10/2019 07:16	06/11/2019 00:51	LLJ
								Certifications:	CTDOH		
79-01-6	Trichloroethylene	ND		ug/kg dry	2.0	4.0	1	EPA 8260C	06/10/2019 07:16	06/11/2019 00:51	LLJ
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP		
75-69-4	Trichlorofluoromethane	ND		ug/kg dry	2.0	4.0	1	EPA 8260C	06/10/2019 07:16	06/11/2019 00:51	LLJ
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP		
75-01-4	Vinyl Chloride	ND		ug/kg dry	2.0	4.0	1	EPA 8260C	06/10/2019 07:16	06/11/2019 00:51	LLJ
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP		
1330-20-7	Xylenes, Total	ND		ug/kg dry	5.9	12	1	EPA 8260C	06/10/2019 07:16	06/11/2019 00:51	LLJ
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP		

	Surrogate Recoveries	Result	Acceptance Range
17060-07-0	*Surrogate: SURR: 1,2-Dichloroethane-d4*	*96.9 %*	*77-125*
2037-26-5	*Surrogate: SURR: Toluene-d8*	*98.2 %*	*85-120*
460-00-4	*Surrogate: SURR: p-Bromofluorobenzene*	*107 %*	*76-130*

Total Solids

Log-in Notes:

Sample Notes:

Sample Information

Client Sample ID: **B3 S3 VOC** **York Sample ID:** **19F0191-05**

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
19F0191	9294 Monticello Manor	Soil	June 5, 2019 12:30 pm	06/06/2019

Sample Prepared by Method: % Solids Prep

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
solids	*** % Solids**	**86.5**		%	0.100	1	SM 2540G Certifications: CTDOH	06/13/2019 15:12	06/13/2019 15:15	KT

Sample Information

Client Sample ID: **B3 S3 Comp** **York Sample ID:** **19F0191-06**

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
19F0191	9294 Monticello Manor	Soil	June 5, 2019 12:30 pm	06/06/2019

Semi-Volatiles, 8270 - Comprehensive

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3550C

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
92-52-4	1,1-Biphenyl	ND		ug/kg dry	23.8	47.4	1	EPA 8270D Certifications: NELAC-NY10854,NJDEP,PADEP	06/11/2019 13:56	06/13/2019 17:49	KH
95-94-3	1,2,4,5-Tetrachlorobenzene	ND		ug/kg dry	47.4	94.8	1	EPA 8270D Certifications: NELAC-NY10854,NJDEP,PADEP	06/11/2019 13:56	06/13/2019 17:49	KH
120-82-1	1,2,4-Trichlorobenzene	ND		ug/kg dry	23.8	47.4	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/11/2019 13:56	06/13/2019 17:49	KH
95-50-1	1,2-Dichlorobenzene	ND		ug/kg dry	23.8	47.4	1	EPA 8270D Certifications: NELAC-NY10854,PADEP	06/11/2019 13:56	06/13/2019 17:49	KH
122-66-7	1,2-Diphenylhydrazine (as Azobenzene)	ND		ug/kg dry	23.8	47.4	1	EPA 8270D Certifications: NELAC-NY10854,NJDEP,PADEP	06/11/2019 13:56	06/13/2019 17:49	KH
541-73-1	1,3-Dichlorobenzene	ND		ug/kg dry	23.8	47.4	1	EPA 8270D Certifications: NELAC-NY10854,PADEP	06/11/2019 13:56	06/13/2019 17:49	KH
106-46-7	1,4-Dichlorobenzene	ND		ug/kg dry	23.8	47.4	1	EPA 8270D Certifications: NELAC-NY10854,PADEP	06/11/2019 13:56	06/13/2019 17:49	KH
58-90-2	2,3,4,6-Tetrachlorophenol	ND		ug/kg dry	47.4	94.8	1	EPA 8270D Certifications: NELAC-NY10854,NJDEP,PADEP	06/11/2019 13:56	06/13/2019 17:49	KH
95-95-4	2,4,5-Trichlorophenol	ND		ug/kg dry	23.8	47.4	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/11/2019 13:56	06/13/2019 17:49	KH
88-06-2	2,4,6-Trichlorophenol	ND		ug/kg dry	23.8	47.4	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/11/2019 13:56	06/13/2019 17:49	KH
120-83-2	2,4-Dichlorophenol	ND		ug/kg dry	23.8	47.4	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/11/2019 13:56	06/13/2019 17:49	KH
105-67-9	2,4-Dimethylphenol	ND		ug/kg dry	23.8	47.4	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/11/2019 13:56	06/13/2019 17:49	KH
51-28-5	2,4-Dinitrophenol	ND		ug/kg dry	47.4	94.8	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/11/2019 13:56	06/13/2019 17:49	KH
121-14-2	2,4-Dinitrotoluene	ND		ug/kg dry	23.8	47.4	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/11/2019 13:56	06/13/2019 17:49	KH
606-20-2	2,6-Dinitrotoluene	ND		ug/kg dry	23.8	47.4	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/11/2019 13:56	06/13/2019 17:49	KH

Sample Information

Client Sample ID: **B3 S3 Comp**

York Sample ID: **19F0191-06**

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
19F0191	9294 Monticello Manor	Soil	June 5, 2019 12:30 pm	06/06/2019

Semi-Volatiles, 8270 - Comprehensive

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3550C

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
91-58-7	2-Chloronaphthalene	ND		ug/kg dry	23.8	47.4	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/11/2019 13:56	06/13/2019 17:49	KH
95-57-8	2-Chlorophenol	ND		ug/kg dry	23.8	47.4	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/11/2019 13:56	06/13/2019 17:49	KH
91-57-6	2-Methylnaphthalene	ND		ug/kg dry	23.8	47.4	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/11/2019 13:56	06/13/2019 17:49	KH
95-48-7	2-Methylphenol	ND		ug/kg dry	23.8	47.4	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/11/2019 13:56	06/13/2019 17:49	KH
88-74-4	2-Nitroaniline	ND		ug/kg dry	47.4	94.8	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/11/2019 13:56	06/13/2019 17:49	KH
88-75-5	2-Nitrophenol	ND		ug/kg dry	23.8	47.4	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/11/2019 13:56	06/13/2019 17:49	KH
65794-96-9	3- & 4-Methylphenols	ND		ug/kg dry	23.8	47.4	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/11/2019 13:56	06/13/2019 17:49	KH
91-94-1	3,3-Dichlorobenzidine	ND		ug/kg dry	23.8	47.4	1	EPA 8270D Certifications: NELAC-NY10854,NJDEP,PADEP	06/11/2019 13:56	06/13/2019 17:49	KH
99-09-2	3-Nitroaniline	ND		ug/kg dry	47.4	94.8	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/11/2019 13:56	06/13/2019 17:49	KH
534-52-1	4,6-Dinitro-2-methylphenol	ND		ug/kg dry	47.4	94.8	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/11/2019 13:56	06/13/2019 17:49	KH
101-55-3	4-Bromophenyl phenyl ether	ND		ug/kg dry	23.8	47.4	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/11/2019 13:56	06/13/2019 17:49	KH
59-50-7	4-Chloro-3-methylphenol	ND		ug/kg dry	23.8	47.4	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/11/2019 13:56	06/13/2019 17:49	KH
106-47-8	4-Chloroaniline	ND		ug/kg dry	23.8	47.4	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/11/2019 13:56	06/13/2019 17:49	KH
7005-72-3	4-Chlorophenyl phenyl ether	ND		ug/kg dry	23.8	47.4	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/11/2019 13:56	06/13/2019 17:49	KH
100-01-6	4-Nitroaniline	ND		ug/kg dry	47.4	94.8	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/11/2019 13:56	06/13/2019 17:49	KH
100-02-7	4-Nitrophenol	ND		ug/kg dry	47.4	94.8	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/11/2019 13:56	06/13/2019 17:49	KH
83-32-9	Acenaphthene	ND		ug/kg dry	23.8	47.4	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/11/2019 13:56	06/13/2019 17:49	KH
208-96-8	Acenaphthylene	ND		ug/kg dry	23.8	47.4	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/11/2019 13:56	06/13/2019 17:49	KH
98-86-2	Acetophenone	ND		ug/kg dry	23.8	47.4	1	EPA 8270D Certifications: NELAC-NY10854,NJDEP,PADEP	06/11/2019 13:56	06/13/2019 17:49	KH
62-53-3	Aniline	ND		ug/kg dry	95.0	190	1	EPA 8270D Certifications: NELAC-NY10854,NJDEP,PADEP	06/11/2019 13:56	06/13/2019 17:49	KH
120-12-7	Anthracene	ND		ug/kg dry	23.8	47.4	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/11/2019 13:56	06/13/2019 17:49	KH
1912-24-9	Atrazine	ND		ug/kg dry	23.8	47.4	1	EPA 8270D Certifications: NELAC-NY10854,NJDEP,PADEP	06/11/2019 13:56	06/13/2019 17:49	KH
100-52-7	Benzaldehyde	ND		ug/kg dry	23.8	47.4	1	EPA 8270D Certifications: NELAC-NY10854,NJDEP,PADEP	06/11/2019 13:56	06/13/2019 17:49	KH

Sample Information

Client Sample ID: **B3 S3 Comp** **York Sample ID:** **19F0191-06**

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
19F0191	9294 Monticello Manor	Soil	June 5, 2019 12:30 pm	06/06/2019

Semi-Volatiles, 8270 - Comprehensive **Log-in Notes:** **Sample Notes:**

Sample Prepared by Method: EPA 3550C

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
92-87-5	Benzidine	ND		ug/kg dry	95.0	190	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,PADEP	06/11/2019 13:56	06/13/2019 17:49	KH
56-55-3	Benzo(a)anthracene	ND		ug/kg dry	23.8	47.4	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/11/2019 13:56	06/13/2019 17:49	KH
50-32-8	Benzo(a)pyrene	ND		ug/kg dry	23.8	47.4	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/11/2019 13:56	06/13/2019 17:49	KH
205-99-2	Benzo(b)fluoranthene	ND		ug/kg dry	23.8	47.4	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/11/2019 13:56	06/13/2019 17:49	KH
191-24-2	Benzo(g,h,i)perylene	ND		ug/kg dry	23.8	47.4	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/11/2019 13:56	06/13/2019 17:49	KH
207-08-9	Benzo(k)fluoranthene	ND		ug/kg dry	23.8	47.4	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/11/2019 13:56	06/13/2019 17:49	KH
65-85-0	Benzoic acid	ND		ug/kg dry	23.8	47.4	1	EPA 8270D Certifications: NELAC-NY10854,NJDEP,PADEP	06/11/2019 13:56	06/13/2019 17:49	KH
100-51-6	Benzyl alcohol	ND		ug/kg dry	23.8	47.4	1	EPA 8270D Certifications: NELAC-NY10854,NJDEP,PADEP	06/11/2019 13:56	06/13/2019 17:49	KH
85-68-7	Benzyl butyl phthalate	ND		ug/kg dry	23.8	47.4	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/11/2019 13:56	06/13/2019 17:49	KH
111-91-1	Bis(2-chloroethoxy)methane	ND		ug/kg dry	23.8	47.4	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/11/2019 13:56	06/13/2019 17:49	KH
111-44-4	Bis(2-chloroethyl)ether	ND		ug/kg dry	23.8	47.4	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/11/2019 13:56	06/13/2019 17:49	KH
108-60-1	Bis(2-chloroisopropyl)ether	ND		ug/kg dry	23.8	47.4	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/11/2019 13:56	06/13/2019 17:49	KH
117-81-7	Bis(2-ethylhexyl)phthalate	ND		ug/kg dry	23.8	47.4	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/11/2019 13:56	06/13/2019 17:49	KH
105-60-2	Caprolactam	ND		ug/kg dry	47.4	94.8	1	EPA 8270D Certifications: NELAC-NY10854,NJDEP,PADEP	06/11/2019 13:56	06/13/2019 17:49	KH
86-74-8	Carbazole	ND		ug/kg dry	23.8	47.4	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/11/2019 13:56	06/13/2019 17:49	KH
218-01-9	Chrysene	ND		ug/kg dry	23.8	47.4	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/11/2019 13:56	06/13/2019 17:49	KH
53-70-3	Dibenzo(a,h)anthracene	ND		ug/kg dry	23.8	47.4	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/11/2019 13:56	06/13/2019 17:49	KH
132-64-9	Dibenzofuran	ND		ug/kg dry	23.8	47.4	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/11/2019 13:56	06/13/2019 17:49	KH
84-66-2	Diethyl phthalate	ND		ug/kg dry	23.8	47.4	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/11/2019 13:56	06/13/2019 17:49	KH
131-11-3	Dimethyl phthalate	ND		ug/kg dry	23.8	47.4	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/11/2019 13:56	06/13/2019 17:49	KH
84-74-2	Di-n-butyl phthalate	ND		ug/kg dry	23.8	47.4	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/11/2019 13:56	06/13/2019 17:49	KH
117-84-0	Di-n-octyl phthalate	ND		ug/kg dry	23.8	47.4	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/11/2019 13:56	06/13/2019 17:49	KH
206-44-0	Fluoranthene	ND		ug/kg dry	23.8	47.4	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/11/2019 13:56	06/13/2019 17:49	KH

Sample Information

Client Sample ID: **B3 S3 Comp** **York Sample ID:** **19F0191-06**

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
19F0191	9294 Monticello Manor	Soil	June 5, 2019 12:30 pm	06/06/2019

Semi-Volatiles, 8270 - Comprehensive

Log-in Notes: **Sample Notes:**

Sample Prepared by Method: EPA 3550C

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
86-73-7	Fluorene	ND		ug/kg dry	23.8	47.4	1	EPA 8270D Certifications: NELAC-NY10854,NJDEP,PADEP	06/11/2019 13:56	06/13/2019 17:49	KH
118-74-1	Hexachlorobenzene	ND		ug/kg dry	23.8	47.4	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/11/2019 13:56	06/13/2019 17:49	KH
87-68-3	Hexachlorobutadiene	ND		ug/kg dry	23.8	47.4	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/11/2019 13:56	06/13/2019 17:49	KH
77-47-4	Hexachlorocyclopentadiene	ND		ug/kg dry	23.8	47.4	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/11/2019 13:56	06/13/2019 17:49	KH
67-72-1	Hexachloroethane	ND		ug/kg dry	23.8	47.4	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/11/2019 13:56	06/13/2019 17:49	KH
193-39-5	Indeno(1,2,3-cd)pyrene	ND		ug/kg dry	23.8	47.4	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/11/2019 13:56	06/13/2019 17:49	KH
78-59-1	Isophorone	ND		ug/kg dry	23.8	47.4	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/11/2019 13:56	06/13/2019 17:49	KH
91-20-3	Naphthalene	ND		ug/kg dry	23.8	47.4	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/11/2019 13:56	06/13/2019 17:49	KH
98-95-3	Nitrobenzene	ND		ug/kg dry	23.8	47.4	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/11/2019 13:56	06/13/2019 17:49	KH
62-75-9	N-Nitrosodimethylamine	ND		ug/kg dry	23.8	47.4	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/11/2019 13:56	06/13/2019 17:49	KH
621-64-7	N-nitroso-di-n-propylamine	ND		ug/kg dry	23.8	47.4	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/11/2019 13:56	06/13/2019 17:49	KH
86-30-6	N-Nitrosodiphenylamine	ND		ug/kg dry	23.8	47.4	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/11/2019 13:56	06/13/2019 17:49	KH
87-86-5	Pentachlorophenol	ND		ug/kg dry	23.8	47.4	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/11/2019 13:56	06/13/2019 17:49	KH
85-01-8	Phenanthrene	ND		ug/kg dry	23.8	47.4	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/11/2019 13:56	06/13/2019 17:49	KH
108-95-2	Phenol	ND		ug/kg dry	23.8	47.4	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/11/2019 13:56	06/13/2019 17:49	KH
129-00-0	Pyrene	ND		ug/kg dry	23.8	47.4	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/11/2019 13:56	06/13/2019 17:49	KH

	Surrogate Recoveries	Result	Acceptance Range
367-12-4	*Surrogate: SURR: 2-Fluorophenol*	*61.5 %*	*20-108*
4165-62-2	*Surrogate: SURR: Phenol-d5*	*59.4 %*	*23-114*
4165-60-0	*Surrogate: SURR: Nitrobenzene-d5*	*62.2 %*	*22-108*
321-60-8	*Surrogate: SURR: 2-Fluorobiphenyl*	*35.0 %*	*21-113*
118-79-6	*Surrogate: SURR: 2,4,6-Tribromophenol*	*40.5 %*	*19-110*
1718-51-0	*Surrogate: SURR: Terphenyl-d14*	*33.2 %*	*24-116*

Metals, Target Analyte

Log-in Notes: **Sample Notes:**

Sample Prepared by Method: EPA 3050B

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst

Sample Information

Client Sample ID: **B3 S3 Comp** **York Sample ID:** **19F0191-06**

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
19F0191	9294 Monticello Manor	Soil	June 5, 2019 12:30 pm	06/06/2019

Metals, Target Analyte

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3050B

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7429-90-5	**Aluminum**	**15300**		mg/kg dry	5.75	1	EPA 6010D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/07/2019 11:03	06/10/2019 13:49	KML
7440-36-0	Antimony	ND		mg/kg dry	2.87	1	EPA 6010D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/07/2019 11:03	06/10/2019 13:49	KML
7440-38-2	**Arsenic**	**5.78**		mg/kg dry	1.72	1	EPA 6010D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/07/2019 11:03	06/10/2019 13:49	KML
7440-39-3	**Barium**	**49.2**		mg/kg dry	2.87	1	EPA 6010D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/07/2019 11:03	06/10/2019 13:49	KML
7440-41-7	**Beryllium**	**0.435**		mg/kg dry	0.057	1	EPA 6010D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/07/2019 11:03	06/10/2019 13:49	KML
7440-43-9	Cadmium	ND		mg/kg dry	0.345	1	EPA 6010D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/07/2019 11:03	06/10/2019 13:49	KML
7440-70-2	**Calcium**	**313**		mg/kg dry	5.75	1	EPA 6010D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/07/2019 11:03	06/10/2019 13:49	KML
7440-47-3	**Chromium**	**11.0**		mg/kg dry	0.575	1	EPA 6010D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/07/2019 11:03	06/10/2019 13:49	KML
7440-48-4	**Cobalt**	**7.57**		mg/kg dry	0.460	1	EPA 6010D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/07/2019 11:03	06/10/2019 13:49	KML
7440-50-8	**Copper**	**25.9**		mg/kg dry	2.30	1	EPA 6010D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/07/2019 11:03	06/10/2019 13:49	KML
7439-89-6	**Iron**	**17600**		mg/kg dry	28.7	1	EPA 6010D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/07/2019 11:03	06/10/2019 13:49	KML
7439-92-1	**Lead**	**14.7**		mg/kg dry	0.575	1	EPA 6010D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/07/2019 11:03	06/10/2019 13:49	KML
7439-95-4	**Magnesium**	**2630**		mg/kg dry	5.75	1	EPA 6010D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/07/2019 11:03	06/10/2019 13:49	KML
7439-96-5	**Manganese**	**562**		mg/kg dry	0.575	1	EPA 6010D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/07/2019 11:03	06/10/2019 13:49	KML
7440-02-0	**Nickel**	**14.3**		mg/kg dry	1.15	1	EPA 6010D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/07/2019 11:03	06/10/2019 13:49	KML
7440-09-7	**Potassium**	**598**		mg/kg dry	5.75	1	EPA 6010D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/07/2019 11:03	06/10/2019 13:49	KML
7782-49-2	Selenium	ND		mg/kg dry	2.87	1	EPA 6010D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/07/2019 11:03	06/10/2019 13:49	KML
7440-22-4	Silver	ND		mg/kg dry	0.575	1	EPA 6010D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/07/2019 11:03	06/10/2019 13:49	KML
7440-23-5	Sodium	ND		mg/kg dry	57.5	1	EPA 6010D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/07/2019 11:03	06/10/2019 13:49	KML
7440-28-0	Thallium	ND		mg/kg dry	2.87	1	EPA 6010D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/07/2019 11:03	06/10/2019 13:49	KML
7440-62-2	**Vanadium**	**16.2**		mg/kg dry	1.15	1	EPA 6010D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/07/2019 11:03	06/10/2019 13:49	KML
7440-66-6	**Zinc**	**54.4**		mg/kg dry	2.87	1	EPA 6010D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/07/2019 11:03	06/10/2019 13:49	KML

Sample Information

Client Sample ID: **B3 S3 Comp** **York Sample ID:** **19F0191-06**

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
19F0191	9294 Monticello Manor	Soil	June 5, 2019 12:30 pm	06/06/2019

Mercury by 7473

Log-in Notes: **Sample Notes:**

Sample Prepared by Method: EPA 7473 soil

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7439-97-6	**Mercury**	**0.0523**		mg/kg dry	0.0345	1	EPA 7473	06/07/2019 09:07	06/07/2019 10:12	SY
							Certifications:	CTDOH,NJDEP,NELAC-NY10854,PADEP		

Total Solids

Log-in Notes: **Sample Notes:**

Sample Prepared by Method: % Solids Prep

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
solids	*** % Solids**	**87.0**		%	0.100	1	SM 2540G	06/07/2019 11:33	06/07/2019 15:32	JTV
							Certifications:	CTDOH		

Sample Information

Client Sample ID: **B4 S4 VOC** **York Sample ID:** **19F0191-07**

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
19F0191	9294 Monticello Manor	Soil	June 5, 2019 1:00 pm	06/06/2019

Volatile Organics, 8260 - Comprehensive

Log-in Notes: **Sample Notes:**

Sample Prepared by Method: EPA 5035A

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
630-20-6	1,1,1,2-Tetrachloroethane	ND		ug/kg dry	2.1	4.2	1	EPA 8260C	06/10/2019 07:16	06/11/2019 01:18	LLJ
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP		
71-55-6	1,1,1-Trichloroethane	ND		ug/kg dry	2.1	4.2	1	EPA 8260C	06/10/2019 07:16	06/11/2019 01:18	LLJ
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP		
79-34-5	1,1,2,2-Tetrachloroethane	ND		ug/kg dry	2.1	4.2	1	EPA 8260C	06/10/2019 07:16	06/11/2019 01:18	LLJ
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP		
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND		ug/kg dry	2.1	4.2	1	EPA 8260C	06/10/2019 07:16	06/11/2019 01:18	LLJ
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP		
79-00-5	1,1,2-Trichloroethane	ND		ug/kg dry	2.1	4.2	1	EPA 8260C	06/10/2019 07:16	06/11/2019 01:18	LLJ
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP		
75-34-3	1,1-Dichloroethane	ND		ug/kg dry	2.1	4.2	1	EPA 8260C	06/10/2019 07:16	06/11/2019 01:18	LLJ
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP		
75-35-4	1,1-Dichloroethylene	ND		ug/kg dry	2.1	4.2	1	EPA 8260C	06/10/2019 07:16	06/11/2019 01:18	LLJ
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP		
87-61-6	1,2,3-Trichlorobenzene	ND		ug/kg dry	2.1	4.2	1	EPA 8260C	06/10/2019 07:16	06/11/2019 01:18	LLJ
								Certifications:	NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP		
96-18-4	1,2,3-Trichloropropane	ND		ug/kg dry	2.1	4.2	1	EPA 8260C	06/10/2019 07:16	06/11/2019 01:18	LLJ
								Certifications:	NELAC-NY10854,NELAC-NY12058,NJDEP		
120-82-1	1,2,4-Trichlorobenzene	ND		ug/kg dry	2.1	4.2	1	EPA 8260C	06/10/2019 07:16	06/11/2019 01:18	LLJ
								Certifications:	NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP		

Sample Information

Client Sample ID: B4 S4 VOC **York Sample ID:** 19F0191-07

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
19F0191	9294 Monticello Manor	Soil	June 5, 2019 1:00 pm	06/06/2019

Volatile Organics, 8260 - Comprehensive

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5035A

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
95-63-6	1,2,4-Trimethylbenzene	ND		ug/kg dry	2.1	4.2	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 01:18	LLJ
96-12-8	1,2-Dibromo-3-chloropropane	ND		ug/kg dry	2.1	4.2	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 01:18	LLJ
106-93-4	1,2-Dibromoethane	ND		ug/kg dry	2.1	4.2	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 01:18	LLJ
95-50-1	1,2-Dichlorobenzene	ND		ug/kg dry	2.1	4.2	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 01:18	LLJ
107-06-2	1,2-Dichloroethane	ND		ug/kg dry	2.1	4.2	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 01:18	LLJ
78-87-5	1,2-Dichloropropane	ND		ug/kg dry	2.1	4.2	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 01:18	LLJ
108-67-8	1,3,5-Trimethylbenzene	ND		ug/kg dry	2.1	4.2	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 01:18	LLJ
541-73-1	1,3-Dichlorobenzene	ND		ug/kg dry	2.1	4.2	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 01:18	LLJ
106-46-7	1,4-Dichlorobenzene	ND		ug/kg dry	2.1	4.2	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 01:18	LLJ
123-91-1	1,4-Dioxane	ND		ug/kg dry	42	83	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 01:18	LLJ
78-93-3	2-Butanone	ND		ug/kg dry	2.1	4.2	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 01:18	LLJ
591-78-6	2-Hexanone	ND		ug/kg dry	2.1	4.2	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 01:18	LLJ
108-10-1	4-Methyl-2-pentanone	ND		ug/kg dry	2.1	4.2	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 01:18	LLJ
67-64-1	Acetone	ND		ug/kg dry	4.2	8.3	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 01:18	LLJ
107-02-8	Acrolein	ND		ug/kg dry	4.2	8.3	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 01:18	LLJ
107-13-1	Acrylonitrile	ND		ug/kg dry	2.1	4.2	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 01:18	LLJ
71-43-2	Benzene	ND		ug/kg dry	2.1	4.2	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 01:18	LLJ
74-97-5	Bromochloromethane	ND		ug/kg dry	2.1	4.2	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 01:18	LLJ
75-27-4	Bromodichloromethane	ND		ug/kg dry	2.1	4.2	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 01:18	LLJ
75-25-2	Bromoform	ND		ug/kg dry	2.1	4.2	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 01:18	LLJ
74-83-9	Bromomethane	ND		ug/kg dry	2.1	4.2	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 01:18	LLJ
75-15-0	Carbon disulfide	ND		ug/kg dry	2.1	4.2	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 01:18	LLJ
56-23-5	Carbon tetrachloride	ND		ug/kg dry	2.1	4.2	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 01:18	LLJ

Sample Information

Client Sample ID: **B4 S4 VOC**

York Sample ID: **19F0191-07**

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
19F0191	9294 Monticello Manor	Soil	June 5, 2019 1:00 pm	06/06/2019

Volatile Organics, 8260 - Comprehensive

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5035A

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
108-90-7	Chlorobenzene	ND		ug/kg dry	2.1	4.2	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 01:18	LLJ
75-00-3	Chloroethane	ND		ug/kg dry	2.1	4.2	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 01:18	LLJ
67-66-3	Chloroform	ND		ug/kg dry	2.1	4.2	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 01:18	LLJ
74-87-3	Chloromethane	ND		ug/kg dry	2.1	4.2	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 01:18	LLJ
156-59-2	cis-1,2-Dichloroethylene	ND		ug/kg dry	2.1	4.2	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 01:18	LLJ
10061-01-5	cis-1,3-Dichloropropylene	ND		ug/kg dry	2.1	4.2	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 01:18	LLJ
110-82-7	Cyclohexane	ND		ug/kg dry	2.1	4.2	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 01:18	LLJ
124-48-1	Dibromochloromethane	ND		ug/kg dry	2.1	4.2	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 01:18	LLJ
74-95-3	Dibromomethane	ND		ug/kg dry	2.1	4.2	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 01:18	LLJ
75-71-8	Dichlorodifluoromethane	ND		ug/kg dry	2.1	4.2	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 01:18	LLJ
100-41-4	Ethyl Benzene	ND		ug/kg dry	2.1	4.2	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 01:18	LLJ
87-68-3	Hexachlorobutadiene	ND		ug/kg dry	2.1	4.2	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 01:18	LLJ
98-82-8	Isopropylbenzene	ND		ug/kg dry	2.1	4.2	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 01:18	LLJ
79-20-9	Methyl acetate	ND		ug/kg dry	2.1	4.2	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 01:18	LLJ
1634-04-4	Methyl tert-butyl ether (MTBE)	ND		ug/kg dry	2.1	4.2	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 01:18	LLJ
108-87-2	Methylcyclohexane	ND		ug/kg dry	2.1	4.2	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 01:18	LLJ
75-09-2	**Methylene chloride**	**6.0**	J	ug/kg dry	4.2	8.3	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 01:18	LLJ
104-51-8	n-Butylbenzene	ND		ug/kg dry	2.1	4.2	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 01:18	LLJ
103-65-1	n-Propylbenzene	ND		ug/kg dry	2.1	4.2	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 01:18	LLJ
95-47-6	o-Xylene	ND		ug/kg dry	2.1	4.2	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,PADEP	06/10/2019 07:16	06/11/2019 01:18	LLJ
179601-23-1	p- & m- Xylenes	ND		ug/kg dry	4.2	8.3	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,PADEP	06/10/2019 07:16	06/11/2019 01:18	LLJ
99-87-6	p-Isopropyltoluene	ND		ug/kg dry	2.1	4.2	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 01:18	LLJ
135-98-8	sec-Butylbenzene	ND		ug/kg dry	2.1	4.2	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 01:18	LLJ

Sample Information

Client Sample ID: **B4 S4 VOC**

York Sample ID: **19F0191-07**

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
19F0191	9294 Monticello Manor	Soil	June 5, 2019 1:00 pm	06/06/2019

Volatile Organics, 8260 - Comprehensive

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5035A

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
100-42-5	Styrene	ND		ug/kg dry	2.1	4.2	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 01:18	LLJ
75-65-0	tert-Butyl alcohol (TBA)	ND		ug/kg dry	2.1	4.2	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 01:18	LLJ
98-06-6	tert-Butylbenzene	ND		ug/kg dry	2.1	4.2	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 01:18	LLJ
127-18-4	Tetrachloroethylene	ND		ug/kg dry	2.1	4.2	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 01:18	LLJ
108-88-3	Toluene	ND		ug/kg dry	2.1	4.2	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 01:18	LLJ
156-60-5	trans-1,2-Dichloroethylene	ND		ug/kg dry	2.1	4.2	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 01:18	LLJ
10061-02-6	trans-1,3-Dichloropropylene	ND		ug/kg dry	2.1	4.2	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 01:18	LLJ
110-57-6	* trans-1,4-dichloro-2-butene	ND		ug/kg dry	2.1	4.2	1	EPA 8260C Certifications: CTDOH	06/10/2019 07:16	06/11/2019 01:18	LLJ
79-01-6	Trichloroethylene	ND		ug/kg dry	2.1	4.2	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 01:18	LLJ
75-69-4	Trichlorofluoromethane	ND		ug/kg dry	2.1	4.2	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 01:18	LLJ
75-01-4	Vinyl Chloride	ND		ug/kg dry	2.1	4.2	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 01:18	LLJ
1330-20-7	Xylenes, Total	ND		ug/kg dry	6.2	12	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP	06/10/2019 07:16	06/11/2019 01:18	LLJ

	Surrogate Recoveries	Result	Acceptance Range
17060-07-0	*Surrogate: SURR: 1,2-Dichloroethane-d4*	*102 %*	*77-125*
2037-26-5	*Surrogate: SURR: Toluene-d8*	*100 %*	*85-120*
460-00-4	*Surrogate: SURR: p-Bromofluorobenzene*	*112 %*	*76-130*

Total Solids

Log-in Notes:

Sample Notes:

Sample Prepared by Method: % Solids Prep

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
solids	*** % Solids**	**94.1**		%	0.100	1	SM 2540G Certifications: CTDOH	06/13/2019 15:12	06/13/2019 15:15	KT

Sample Information

Client Sample ID: **B4 S4 Comp** **York Sample ID:** **19F0191-08**

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
19F0191	9294 Monticello Manor	Soil	June 5, 2019 1:00 pm	06/06/2019

Semi-Volatiles, 8270 - Comprehensive

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3550C

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
92-52-4	1,1-Biphenyl	ND		ug/kg dry	24.2	48.2	1	EPA 8270D Certifications: NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 18:18	KH
95-94-3	1,2,4,5-Tetrachlorobenzene	ND		ug/kg dry	48.2	96.3	1	EPA 8270D Certifications: NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 18:18	KH
120-82-1	1,2,4-Trichlorobenzene	ND		ug/kg dry	24.2	48.2	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 18:18	KH
95-50-1	1,2-Dichlorobenzene	ND		ug/kg dry	24.2	48.2	1	EPA 8270D Certifications: NELAC-NY10854,PADEP	06/12/2019 07:48	06/13/2019 18:18	KH
122-66-7	1,2-Diphenylhydrazine (as Azobenzene)	ND		ug/kg dry	24.2	48.2	1	EPA 8270D Certifications: NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 18:18	KH
541-73-1	1,3-Dichlorobenzene	ND		ug/kg dry	24.2	48.2	1	EPA 8270D Certifications: NELAC-NY10854,PADEP	06/12/2019 07:48	06/13/2019 18:18	KH
106-46-7	1,4-Dichlorobenzene	ND		ug/kg dry	24.2	48.2	1	EPA 8270D Certifications: NELAC-NY10854,PADEP	06/12/2019 07:48	06/13/2019 18:18	KH
58-90-2	2,3,4,6-Tetrachlorophenol	ND		ug/kg dry	48.2	96.3	1	EPA 8270D Certifications: NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 18:18	KH
95-95-4	2,4,5-Trichlorophenol	ND		ug/kg dry	24.2	48.2	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 18:18	KH
88-06-2	2,4,6-Trichlorophenol	ND		ug/kg dry	24.2	48.2	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 18:18	KH
120-83-2	2,4-Dichlorophenol	ND		ug/kg dry	24.2	48.2	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 18:18	KH
105-67-9	2,4-Dimethylphenol	ND		ug/kg dry	24.2	48.2	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 18:18	KH
51-28-5	2,4-Dinitrophenol	ND		ug/kg dry	48.2	96.3	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 18:18	KH
121-14-2	2,4-Dinitrotoluene	ND		ug/kg dry	24.2	48.2	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 18:18	KH
606-20-2	2,6-Dinitrotoluene	ND		ug/kg dry	24.2	48.2	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 18:18	KH
91-58-7	2-Chloronaphthalene	ND		ug/kg dry	24.2	48.2	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 18:18	KH
95-57-8	2-Chlorophenol	ND		ug/kg dry	24.2	48.2	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 18:18	KH
91-57-6	2-Methylnaphthalene	ND		ug/kg dry	24.2	48.2	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 18:18	KH
95-48-7	2-Methylphenol	ND		ug/kg dry	24.2	48.2	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 18:18	KH
88-74-4	2-Nitroaniline	ND		ug/kg dry	48.2	96.3	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 18:18	KH
88-75-5	2-Nitrophenol	ND		ug/kg dry	24.2	48.2	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 18:18	KH
65794-96-9	3- & 4-Methylphenols	ND		ug/kg dry	24.2	48.2	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 18:18	KH
91-94-1	3,3-Dichlorobenzidine	ND		ug/kg dry	24.2	48.2	1	EPA 8270D Certifications: NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 18:18	KH

Sample Information

Client Sample ID: **B4 S4 Comp** **York Sample ID:** **19F0191-08**

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
19F0191	9294 Monticello Manor	Soil	June 5, 2019 1:00 pm	06/06/2019

Semi-Volatiles, 8270 - Comprehensive **Log-in Notes:** **Sample Notes:**

Sample Prepared by Method: EPA 3550C

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
99-09-2	3-Nitroaniline	ND		ug/kg dry	48.2	96.3	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 18:18	KH
534-52-1	4,6-Dinitro-2-methylphenol	ND		ug/kg dry	48.2	96.3	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 18:18	KH
101-55-3	4-Bromophenyl phenyl ether	ND		ug/kg dry	24.2	48.2	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 18:18	KH
59-50-7	4-Chloro-3-methylphenol	ND		ug/kg dry	24.2	48.2	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 18:18	KH
106-47-8	4-Chloroaniline	ND		ug/kg dry	24.2	48.2	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 18:18	KH
7005-72-3	4-Chlorophenyl phenyl ether	ND		ug/kg dry	24.2	48.2	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 18:18	KH
100-01-6	4-Nitroaniline	ND		ug/kg dry	48.2	96.3	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 18:18	KH
100-02-7	4-Nitrophenol	ND		ug/kg dry	48.2	96.3	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 18:18	KH
83-32-9	Acenaphthene	ND		ug/kg dry	24.2	48.2	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 18:18	KH
208-96-8	Acenaphthylene	ND		ug/kg dry	24.2	48.2	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 18:18	KH
98-86-2	Acetophenone	ND		ug/kg dry	24.2	48.2	1	EPA 8270D Certifications: NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 18:18	KH
62-53-3	Aniline	ND		ug/kg dry	96.5	193	1	EPA 8270D Certifications: NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 18:18	KH
120-12-7	Anthracene	ND		ug/kg dry	24.2	48.2	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 18:18	KH
1912-24-9	Atrazine	ND		ug/kg dry	24.2	48.2	1	EPA 8270D Certifications: NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 18:18	KH
100-52-7	Benzaldehyde	ND		ug/kg dry	24.2	48.2	1	EPA 8270D Certifications: NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 18:18	KH
92-87-5	Benzidine	ND		ug/kg dry	96.5	193	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,PADEP	06/12/2019 07:48	06/13/2019 18:18	KH
56-55-3	Benzo(a)anthracene	ND		ug/kg dry	24.2	48.2	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 18:18	KH
50-32-8	Benzo(a)pyrene	ND		ug/kg dry	24.2	48.2	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 18:18	KH
205-99-2	Benzo(b)fluoranthene	ND		ug/kg dry	24.2	48.2	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 18:18	KH
191-24-2	Benzo(g,h,i)perylene	ND		ug/kg dry	24.2	48.2	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 18:18	KH
207-08-9	Benzo(k)fluoranthene	ND		ug/kg dry	24.2	48.2	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 18:18	KH
65-85-0	Benzoic acid	ND		ug/kg dry	24.2	48.2	1	EPA 8270D Certifications: NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 18:18	KH
100-51-6	Benzyl alcohol	ND		ug/kg dry	24.2	48.2	1	EPA 8270D Certifications: NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 18:18	KH

Sample Information

Client Sample ID: **B4 S4 Comp** **York Sample ID:** **19F0191-08**

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
19F0191	9294 Monticello Manor	Soil	June 5, 2019 1:00 pm	06/06/2019

Semi-Volatiles, 8270 - Comprehensive

Log-in Notes: **Sample Notes:**

Sample Prepared by Method: EPA 3550C

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
85-68-7	Benzyl butyl phthalate	ND		ug/kg dry	24.2	48.2	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 18:18	KH
111-91-1	Bis(2-chloroethoxy)methane	ND		ug/kg dry	24.2	48.2	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 18:18	KH
111-44-4	Bis(2-chloroethyl)ether	ND		ug/kg dry	24.2	48.2	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 18:18	KH
108-60-1	Bis(2-chloroisopropyl)ether	ND		ug/kg dry	24.2	48.2	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 18:18	KH
117-81-7	**Bis(2-ethylhexyl)phthalate**	**74.8**	CCV-E	ug/kg dry	24.2	48.2	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 18:18	KH
105-60-2	Caprolactam	ND		ug/kg dry	48.2	96.3	1	EPA 8270D Certifications: NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 18:18	KH
86-74-8	Carbazole	ND		ug/kg dry	24.2	48.2	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 18:18	KH
218-01-9	Chrysene	ND		ug/kg dry	24.2	48.2	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 18:18	KH
53-70-3	Dibenzo(a,h)anthracene	ND		ug/kg dry	24.2	48.2	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 18:18	KH
132-64-9	Dibenzofuran	ND		ug/kg dry	24.2	48.2	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 18:18	KH
84-66-2	Diethyl phthalate	ND		ug/kg dry	24.2	48.2	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 18:18	KH
131-11-3	Dimethyl phthalate	ND		ug/kg dry	24.2	48.2	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 18:18	KH
84-74-2	Di-n-butyl phthalate	ND		ug/kg dry	24.2	48.2	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 18:18	KH
117-84-0	Di-n-octyl phthalate	ND		ug/kg dry	24.2	48.2	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 18:18	KH
206-44-0	**Fluoranthene**	**55.1**		ug/kg dry	24.2	48.2	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 18:18	KH
86-73-7	Fluorene	ND		ug/kg dry	24.2	48.2	1	EPA 8270D Certifications: NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 18:18	KH
118-74-1	Hexachlorobenzene	ND		ug/kg dry	24.2	48.2	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 18:18	KH
87-68-3	Hexachlorobutadiene	ND		ug/kg dry	24.2	48.2	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 18:18	KH
77-47-4	Hexachlorocyclopentadiene	ND		ug/kg dry	24.2	48.2	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 18:18	KH
67-72-1	Hexachloroethane	ND		ug/kg dry	24.2	48.2	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 18:18	KH
193-39-5	Indeno(1,2,3-cd)pyrene	ND		ug/kg dry	24.2	48.2	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 18:18	KH
78-59-1	Isophorone	ND		ug/kg dry	24.2	48.2	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 18:18	KH
91-20-3	Naphthalene	ND		ug/kg dry	24.2	48.2	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 18:18	KH

Sample Information

Client Sample ID: **B4 S4 Comp** **York Sample ID:** **19F0191-08**

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
19F0191	9294 Monticello Manor	Soil	June 5, 2019 1:00 pm	06/06/2019

Semi-Volatiles, 8270 - Comprehensive

Log-in Notes: **Sample Notes:**

Sample Prepared by Method: EPA 3550C

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
98-95-3	Nitrobenzene	ND		ug/kg dry	24.2	48.2	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 18:18	KH
62-75-9	N-Nitrosodimethylamine	ND		ug/kg dry	24.2	48.2	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 18:18	KH
621-64-7	N-nitroso-di-n-propylamine	ND		ug/kg dry	24.2	48.2	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 18:18	KH
86-30-6	N-Nitrosodiphenylamine	ND		ug/kg dry	24.2	48.2	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 18:18	KH
87-86-5	Pentachlorophenol	ND		ug/kg dry	24.2	48.2	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 18:18	KH
85-01-8	**Phenanthrene**	**26.2**	J	ug/kg dry	24.2	48.2	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 18:18	KH
108-95-2	Phenol	ND		ug/kg dry	24.2	48.2	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 18:18	KH
129-00-0	**Pyrene**	**37.0**	J	ug/kg dry	24.2	48.2	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 18:18	KH

	Surrogate Recoveries	Result	Acceptance Range
367-12-4	*Surrogate: SURR: 2-Fluorophenol*	*32.6 %*	*20-108*
4165-62-2	*Surrogate: SURR: Phenol-d5*	*32.7 %*	*23-114*
4165-60-0	*Surrogate: SURR: Nitrobenzene-d5*	*35.6 %*	*22-108*
321-60-8	*Surrogate: SURR: 2-Fluorobiphenyl*	*27.8 %*	*21-113*
118-79-6	*Surrogate: SURR: 2,4,6-Tribromophenol*	*36.6 %*	*19-110*
1718-51-0	*Surrogate: SURR: Terphenyl-d14*	*29.9 %*	*24-116*

Metals, Target Analyte

Log-in Notes: **Sample Notes:**

Sample Prepared by Method: EPA 3050B

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7429-90-5	**Aluminum**	**10300**		mg/kg dry	5.80	1	EPA 6010D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/07/2019 11:03	06/10/2019 13:52	KML
7440-36-0	Antimony	ND		mg/kg dry	2.90	1	EPA 6010D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/07/2019 11:03	06/10/2019 13:52	KML
7440-38-2	**Arsenic**	**3.17**		mg/kg dry	1.74	1	EPA 6010D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/07/2019 11:03	06/10/2019 13:52	KML
7440-39-3	**Barium**	**82.1**		mg/kg dry	2.90	1	EPA 6010D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/07/2019 11:03	06/10/2019 13:52	KML
7440-41-7	**Beryllium**	**0.379**		mg/kg dry	0.058	1	EPA 6010D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/07/2019 11:03	06/10/2019 13:52	KML
7440-43-9	Cadmium	ND		mg/kg dry	0.348	1	EPA 6010D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/07/2019 11:03	06/10/2019 13:52	KML
7440-70-2	**Calcium**	**1100**		mg/kg dry	5.80	1	EPA 6010D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/07/2019 11:03	06/10/2019 13:52	KML

Sample Information

Client Sample ID: **B4 S4 Comp** **York Sample ID:** **19F0191-08**

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
19F0191	9294 Monticello Manor	Soil	June 5, 2019 1:00 pm	06/06/2019

Metals, Target Analyte

Log-in Notes: **Sample Notes:**

Sample Prepared by Method: EPA 3050B

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7440-47-3	**Chromium**	**11.6**		mg/kg dry	0.580	1	EPA 6010D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/07/2019 11:03	06/10/2019 13:52	KML
7440-48-4	**Cobalt**	**5.80**		mg/kg dry	0.464	1	EPA 6010D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/07/2019 11:03	06/10/2019 13:52	KML
7440-50-8	**Copper**	**25.2**		mg/kg dry	2.32	1	EPA 6010D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/07/2019 11:03	06/10/2019 13:52	KML
7439-89-6	**Iron**	**14700**		mg/kg dry	29.0	1	EPA 6010D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/07/2019 11:03	06/10/2019 13:52	KML
7439-92-1	**Lead**	**68.1**		mg/kg dry	0.580	1	EPA 6010D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/07/2019 11:03	06/10/2019 13:52	KML
7439-95-4	**Magnesium**	**2120**		mg/kg dry	5.80	1	EPA 6010D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/07/2019 11:03	06/10/2019 13:52	KML
7439-96-5	**Manganese**	**379**		mg/kg dry	0.580	1	EPA 6010D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/07/2019 11:03	06/10/2019 13:52	KML
7440-02-0	**Nickel**	**12.0**		mg/kg dry	1.16	1	EPA 6010D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/07/2019 11:03	06/10/2019 13:52	KML
7440-09-7	**Potassium**	**606**		mg/kg dry	5.80	1	EPA 6010D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/07/2019 11:03	06/10/2019 13:52	KML
7782-49-2	Selenium	ND		mg/kg dry	2.90	1	EPA 6010D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/07/2019 11:03	06/10/2019 13:52	KML
7440-22-4	Silver	ND		mg/kg dry	0.580	1	EPA 6010D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/07/2019 11:03	06/10/2019 13:52	KML
7440-23-5	Sodium	ND		mg/kg dry	58.0	1	EPA 6010D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/07/2019 11:03	06/10/2019 13:52	KML
7440-28-0	Thallium	ND		mg/kg dry	2.90	1	EPA 6010D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/07/2019 11:03	06/10/2019 13:52	KML
7440-62-2	**Vanadium**	**15.7**		mg/kg dry	1.16	1	EPA 6010D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/07/2019 11:03	06/10/2019 13:52	KML
7440-66-6	**Zinc**	**70.6**		mg/kg dry	2.90	1	EPA 6010D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/07/2019 11:03	06/10/2019 13:52	KML

Mercury by 7473

Log-in Notes: **Sample Notes:**

Sample Prepared by Method: EPA 7473 soil

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7439-97-6	**Mercury**	**0.103**		mg/kg dry	0.0348	1	EPA 7473 Certifications: CTDOH,NJDEP,NELAC-NY10854,PADEP	06/07/2019 09:07	06/07/2019 10:21	SY

Total Solids

Log-in Notes: **Sample Notes:**

Sample Prepared by Method: % Solids Prep

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst

Sample Information

Client Sample ID: **B4 S4 Comp** **York Sample ID:** **19F0191-08**

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
19F0191	9294 Monticello Manor	Soil	June 5, 2019 1:00 pm	06/06/2019

Total Solids

Log-in Notes: **Sample Notes:**

Sample Prepared by Method: % Solids Prep

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
solids	*** % Solids**	**86.2**		%	0.100	1	SM 2540G Certifications: CTDOH	06/07/2019 11:33	06/07/2019 15:32	JTV

Sample Information

Client Sample ID: **B6 D1 VOC** **York Sample ID:** **19F0191-09**

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
19F0191	9294 Monticello Manor	Soil	June 5, 2019 11:30 am	06/06/2019

Volatile Organics, 8260 - Comprehensive

Log-in Notes: **Sample Notes:**

Sample Prepared by Method: EPA 5035A

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
630-20-6	1,1,1,2-Tetrachloroethane	ND		ug/kg dry	2.1	4.1	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 01:44	LLJ
71-55-6	1,1,1-Trichloroethane	ND		ug/kg dry	2.1	4.1	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 01:44	LLJ
79-34-5	1,1,2,2-Tetrachloroethane	ND		ug/kg dry	2.1	4.1	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 01:44	LLJ
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND		ug/kg dry	2.1	4.1	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP	06/10/2019 07:16	06/11/2019 01:44	LLJ
79-00-5	1,1,2-Trichloroethane	ND		ug/kg dry	2.1	4.1	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 01:44	LLJ
75-34-3	1,1-Dichloroethane	ND		ug/kg dry	2.1	4.1	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 01:44	LLJ
75-35-4	1,1-Dichloroethylene	ND		ug/kg dry	2.1	4.1	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 01:44	LLJ
87-61-6	1,2,3-Trichlorobenzene	ND		ug/kg dry	2.1	4.1	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 01:44	LLJ
96-18-4	1,2,3-Trichloropropane	ND		ug/kg dry	2.1	4.1	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP	06/10/2019 07:16	06/11/2019 01:44	LLJ
120-82-1	1,2,4-Trichlorobenzene	ND		ug/kg dry	2.1	4.1	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 01:44	LLJ
95-63-6	1,2,4-Trimethylbenzene	ND		ug/kg dry	2.1	4.1	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 01:44	LLJ
96-12-8	1,2-Dibromo-3-chloropropane	ND		ug/kg dry	2.1	4.1	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 01:44	LLJ
106-93-4	1,2-Dibromoethane	ND		ug/kg dry	2.1	4.1	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 01:44	LLJ
95-50-1	1,2-Dichlorobenzene	ND		ug/kg dry	2.1	4.1	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 01:44	LLJ

Sample Information

Client Sample ID: **B6 D1 VOC** **York Sample ID:** **19F0191-09**

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
19F0191	9294 Monticello Manor	Soil	June 5, 2019 11:30 am	06/06/2019

Volatile Organics, 8260 - Comprehensive

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5035A

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
107-06-2	1,2-Dichloroethane	ND		ug/kg dry	2.1	4.1	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 01:44	LLJ
78-87-5	1,2-Dichloropropane	ND		ug/kg dry	2.1	4.1	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 01:44	LLJ
108-67-8	1,3,5-Trimethylbenzene	ND		ug/kg dry	2.1	4.1	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 01:44	LLJ
541-73-1	1,3-Dichlorobenzene	ND		ug/kg dry	2.1	4.1	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 01:44	LLJ
106-46-7	1,4-Dichlorobenzene	ND		ug/kg dry	2.1	4.1	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 01:44	LLJ
123-91-1	1,4-Dioxane	ND		ug/kg dry	41	82	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 01:44	LLJ
78-93-3	2-Butanone	ND		ug/kg dry	2.1	4.1	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 01:44	LLJ
591-78-6	2-Hexanone	ND		ug/kg dry	2.1	4.1	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 01:44	LLJ
108-10-1	4-Methyl-2-pentanone	ND		ug/kg dry	2.1	4.1	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 01:44	LLJ
67-64-1	Acetone	ND		ug/kg dry	4.1	8.2	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 01:44	LLJ
107-02-8	Acrolein	ND		ug/kg dry	4.1	8.2	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 01:44	LLJ
107-13-1	Acrylonitrile	ND		ug/kg dry	2.1	4.1	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 01:44	LLJ
71-43-2	Benzene	ND		ug/kg dry	2.1	4.1	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 01:44	LLJ
74-97-5	Bromochloromethane	ND		ug/kg dry	2.1	4.1	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 01:44	LLJ
75-27-4	Bromodichloromethane	ND		ug/kg dry	2.1	4.1	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 01:44	LLJ
75-25-2	Bromoform	ND		ug/kg dry	2.1	4.1	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 01:44	LLJ
74-83-9	Bromomethane	ND		ug/kg dry	2.1	4.1	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 01:44	LLJ
75-15-0	Carbon disulfide	ND		ug/kg dry	2.1	4.1	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 01:44	LLJ
56-23-5	Carbon tetrachloride	ND		ug/kg dry	2.1	4.1	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 01:44	LLJ
108-90-7	Chlorobenzene	ND		ug/kg dry	2.1	4.1	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 01:44	LLJ
75-00-3	Chloroethane	ND		ug/kg dry	2.1	4.1	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 01:44	LLJ
67-66-3	Chloroform	ND		ug/kg dry	2.1	4.1	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 01:44	LLJ
74-87-3	Chloromethane	ND		ug/kg dry	2.1	4.1	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 01:44	LLJ

Sample Information

Client Sample ID: **B6 D1 VOC** **York Sample ID:** **19F0191-09**

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
19F0191	9294 Monticello Manor	Soil	June 5, 2019 11:30 am	06/06/2019

Volatile Organics, 8260 - Comprehensive

Log-in Notes: **Sample Notes:**

Sample Prepared by Method: EPA 5035A

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
156-59-2	cis-1,2-Dichloroethylene	ND		ug/kg dry	2.1	4.1	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 01:44	LLJ
10061-01-5	cis-1,3-Dichloropropylene	ND		ug/kg dry	2.1	4.1	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 01:44	LLJ
110-82-7	Cyclohexane	ND		ug/kg dry	2.1	4.1	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 01:44	LLJ
124-48-1	Dibromochloromethane	ND		ug/kg dry	2.1	4.1	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 01:44	LLJ
74-95-3	Dibromomethane	ND		ug/kg dry	2.1	4.1	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 01:44	LLJ
75-71-8	Dichlorodifluoromethane	ND		ug/kg dry	2.1	4.1	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 01:44	LLJ
100-41-4	Ethyl Benzene	ND		ug/kg dry	2.1	4.1	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 01:44	LLJ
87-68-3	Hexachlorobutadiene	ND		ug/kg dry	2.1	4.1	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 01:44	LLJ
98-82-8	Isopropylbenzene	ND		ug/kg dry	2.1	4.1	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 01:44	LLJ
79-20-9	Methyl acetate	ND		ug/kg dry	2.1	4.1	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 01:44	LLJ
1634-04-4	Methyl tert-butyl ether (MTBE)	ND		ug/kg dry	2.1	4.1	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 01:44	LLJ
108-87-2	Methylcyclohexane	ND		ug/kg dry	2.1	4.1	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 01:44	LLJ
75-09-2	**Methylene chloride**	**5.5**	J	ug/kg dry	4.1	8.2	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 01:44	LLJ
104-51-8	n-Butylbenzene	ND		ug/kg dry	2.1	4.1	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 01:44	LLJ
103-65-1	n-Propylbenzene	ND		ug/kg dry	2.1	4.1	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 01:44	LLJ
95-47-6	o-Xylene	ND		ug/kg dry	2.1	4.1	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,PADEP	06/10/2019 07:16	06/11/2019 01:44	LLJ
179601-23-1	p- & m- Xylenes	ND		ug/kg dry	4.1	8.2	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,PADEP	06/10/2019 07:16	06/11/2019 01:44	LLJ
99-87-6	p-Isopropyltoluene	ND		ug/kg dry	2.1	4.1	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 01:44	LLJ
135-98-8	sec-Butylbenzene	ND		ug/kg dry	2.1	4.1	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 01:44	LLJ
100-42-5	Styrene	ND		ug/kg dry	2.1	4.1	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 01:44	LLJ
75-65-0	tert-Butyl alcohol (TBA)	ND		ug/kg dry	2.1	4.1	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 01:44	LLJ
98-06-6	tert-Butylbenzene	ND		ug/kg dry	2.1	4.1	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 01:44	LLJ
127-18-4	Tetrachloroethylene	ND		ug/kg dry	2.1	4.1	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 01:44	LLJ

Sample Information

Client Sample ID: **B6 D1 VOC** **York Sample ID:** **19F0191-09**

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
19F0191	9294 Monticello Manor	Soil	June 5, 2019 11:30 am	06/06/2019

Volatile Organics, 8260 - Comprehensive

Log-in Notes: **Sample Notes:**

Sample Prepared by Method: EPA 5035A

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
108-88-3	Toluene	ND		ug/kg dry	2.1	4.1	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 01:44	LLJ
156-60-5	trans-1,2-Dichloroethylene	ND		ug/kg dry	2.1	4.1	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 01:44	LLJ
10061-02-6	trans-1,3-Dichloropropylene	ND		ug/kg dry	2.1	4.1	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 01:44	LLJ
110-57-6	* trans-1,4-dichloro-2-butene	ND		ug/kg dry	2.1	4.1	1	EPA 8260C Certifications: CTDOH	06/10/2019 07:16	06/11/2019 01:44	LLJ
79-01-6	Trichloroethylene	ND		ug/kg dry	2.1	4.1	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 01:44	LLJ
75-69-4	Trichlorofluoromethane	ND		ug/kg dry	2.1	4.1	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 01:44	LLJ
75-01-4	Vinyl Chloride	ND		ug/kg dry	2.1	4.1	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 01:44	LLJ
1330-20-7	Xylenes, Total	ND		ug/kg dry	6.2	12	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP	06/10/2019 07:16	06/11/2019 01:44	LLJ

	Surrogate Recoveries	Result	Acceptance Range
17060-07-0	*Surrogate: SURR: 1,2-Dichloroethane-d4*	*102 %*	*77-125*
2037-26-5	*Surrogate: SURR: Toluene-d8*	*99.6 %*	*85-120*
460-00-4	*Surrogate: SURR: p-Bromofluorobenzene*	*107 %*	*76-130*

Total Solids

Log-in Notes: **Sample Notes:**

Sample Prepared by Method: % Solids Prep

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
solids	*** % Solids**	**83.1**		%	0.100	1	SM 2540G Certifications: CTDOH	06/13/2019 15:12	06/13/2019 15:15	KT

Sample Information

Client Sample ID: **B6 D1 Comp** **York Sample ID:** **19F0191-10**

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
19F0191	9294 Monticello Manor	Soil	June 5, 2019 11:30 am	06/06/2019

Semi-Volatiles, 8270 - Comprehensive

Log-in Notes: **Sample Notes:**

Sample Prepared by Method: EPA 3550C

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst

Sample Information

Client Sample ID: **B6 D1 Comp** **York Sample ID:** **19F0191-10**

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
19F0191	9294 Monticello Manor	Soil	June 5, 2019 11:30 am	06/06/2019

Semi-Volatiles, 8270 - Comprehensive

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3550C

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
92-52-4	1,1-Biphenyl	ND		ug/kg dry	24.1	48.2	1	EPA 8270D Certifications: NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 18:47	KH
95-94-3	1,2,4,5-Tetrachlorobenzene	ND		ug/kg dry	48.2	96.2	1	EPA 8270D Certifications: NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 18:47	KH
120-82-1	1,2,4-Trichlorobenzene	ND		ug/kg dry	24.1	48.2	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 18:47	KH
95-50-1	1,2-Dichlorobenzene	ND		ug/kg dry	24.1	48.2	1	EPA 8270D Certifications: NELAC-NY10854,PADEP	06/12/2019 07:48	06/13/2019 18:47	KH
122-66-7	1,2-Diphenylhydrazine (as Azobenzene)	ND		ug/kg dry	24.1	48.2	1	EPA 8270D Certifications: NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 18:47	KH
541-73-1	1,3-Dichlorobenzene	ND		ug/kg dry	24.1	48.2	1	EPA 8270D Certifications: NELAC-NY10854,PADEP	06/12/2019 07:48	06/13/2019 18:47	KH
106-46-7	1,4-Dichlorobenzene	ND		ug/kg dry	24.1	48.2	1	EPA 8270D Certifications: NELAC-NY10854,PADEP	06/12/2019 07:48	06/13/2019 18:47	KH
58-90-2	2,3,4,6-Tetrachlorophenol	ND		ug/kg dry	48.2	96.2	1	EPA 8270D Certifications: NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 18:47	KH
95-95-4	2,4,5-Trichlorophenol	ND		ug/kg dry	24.1	48.2	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 18:47	KH
88-06-2	2,4,6-Trichlorophenol	ND		ug/kg dry	24.1	48.2	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 18:47	KH
120-83-2	2,4-Dichlorophenol	ND		ug/kg dry	24.1	48.2	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 18:47	KH
105-67-9	2,4-Dimethylphenol	ND		ug/kg dry	24.1	48.2	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 18:47	KH
51-28-5	2,4-Dinitrophenol	ND		ug/kg dry	48.2	96.2	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 18:47	KH
121-14-2	2,4-Dinitrotoluene	ND		ug/kg dry	24.1	48.2	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 18:47	KH
606-20-2	2,6-Dinitrotoluene	ND		ug/kg dry	24.1	48.2	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 18:47	KH
91-58-7	2-Chloronaphthalene	ND		ug/kg dry	24.1	48.2	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 18:47	KH
95-57-8	2-Chlorophenol	ND		ug/kg dry	24.1	48.2	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 18:47	KH
91-57-6	2-Methylnaphthalene	ND		ug/kg dry	24.1	48.2	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 18:47	KH
95-48-7	2-Methylphenol	ND		ug/kg dry	24.1	48.2	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 18:47	KH
88-74-4	2-Nitroaniline	ND		ug/kg dry	48.2	96.2	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 18:47	KH
88-75-5	2-Nitrophenol	ND		ug/kg dry	24.1	48.2	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 18:47	KH
65794-96-9	3- & 4-Methylphenols	ND		ug/kg dry	24.1	48.2	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 18:47	KH
91-94-1	3,3-Dichlorobenzidine	ND		ug/kg dry	24.1	48.2	1	EPA 8270D Certifications: NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 18:47	KH

Sample Information

Client Sample ID: **B6 D1 Comp** | **York Sample ID:** **19F0191-10**

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
19F0191	9294 Monticello Manor	Soil	June 5, 2019 11:30 am	06/06/2019

Semi-Volatiles, 8270 - Comprehensive

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3550C

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
99-09-2	3-Nitroaniline	ND		ug/kg dry	48.2	96.2	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 18:47	KH
534-52-1	4,6-Dinitro-2-methylphenol	ND		ug/kg dry	48.2	96.2	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 18:47	KH
101-55-3	4-Bromophenyl phenyl ether	ND		ug/kg dry	24.1	48.2	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 18:47	KH
59-50-7	4-Chloro-3-methylphenol	ND		ug/kg dry	24.1	48.2	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 18:47	KH
106-47-8	4-Chloroaniline	ND		ug/kg dry	24.1	48.2	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 18:47	KH
7005-72-3	4-Chlorophenyl phenyl ether	ND		ug/kg dry	24.1	48.2	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 18:47	KH
100-01-6	4-Nitroaniline	ND		ug/kg dry	48.2	96.2	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 18:47	KH
100-02-7	4-Nitrophenol	ND		ug/kg dry	48.2	96.2	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 18:47	KH
83-32-9	Acenaphthene	ND		ug/kg dry	24.1	48.2	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 18:47	KH
208-96-8	Acenaphthylene	ND		ug/kg dry	24.1	48.2	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 18:47	KH
98-86-2	Acetophenone	ND		ug/kg dry	24.1	48.2	1	EPA 8270D Certifications: NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 18:47	KH
62-53-3	Aniline	ND		ug/kg dry	96.5	193	1	EPA 8270D Certifications: NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 18:47	KH
120-12-7	**Anthracene**	**78.2**		ug/kg dry	24.1	48.2	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 18:47	KH
1912-24-9	Atrazine	ND		ug/kg dry	24.1	48.2	1	EPA 8270D Certifications: NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 18:47	KH
100-52-7	Benzaldehyde	ND		ug/kg dry	24.1	48.2	1	EPA 8270D Certifications: NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 18:47	KH
92-87-5	Benzidine	ND		ug/kg dry	96.5	193	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,PADEP	06/12/2019 07:48	06/13/2019 18:47	KH
56-55-3	**Benzo(a)anthracene**	**299**		ug/kg dry	24.1	48.2	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 18:47	KH
50-32-8	**Benzo(a)pyrene**	**219**		ug/kg dry	24.1	48.2	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 18:47	KH
205-99-2	**Benzo(b)fluoranthene**	**190**		ug/kg dry	24.1	48.2	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 18:47	KH
191-24-2	**Benzo(g,h,i)perylene**	**83.9**		ug/kg dry	24.1	48.2	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 18:47	KH
207-08-9	**Benzo(k)fluoranthene**	**178**		ug/kg dry	24.1	48.2	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 18:47	KH
65-85-0	Benzoic acid	ND		ug/kg dry	24.1	48.2	1	EPA 8270D Certifications: NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 18:47	KH
100-51-6	Benzyl alcohol	ND		ug/kg dry	24.1	48.2	1	EPA 8270D Certifications: NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 18:47	KH

Sample Information

Client Sample ID: **B6 D1 Comp**

York Sample ID: **19F0191-10**

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
19F0191	9294 Monticello Manor	Soil	June 5, 2019 11:30 am	06/06/2019

Semi-Volatiles, 8270 - Comprehensive

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3550C

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
85-68-7	Benzyl butyl phthalate	ND		ug/kg dry	24.1	48.2	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 18:47	KH
111-91-1	Bis(2-chloroethoxy)methane	ND		ug/kg dry	24.1	48.2	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 18:47	KH
111-44-4	Bis(2-chloroethyl)ether	ND		ug/kg dry	24.1	48.2	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 18:47	KH
108-60-1	Bis(2-chloroisopropyl)ether	ND		ug/kg dry	24.1	48.2	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 18:47	KH
117-81-7	Bis(2-ethylhexyl)phthalate	ND		ug/kg dry	24.1	48.2	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 18:47	KH
105-60-2	Caprolactam	ND		ug/kg dry	48.2	96.2	1	EPA 8270D Certifications: NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 18:47	KH
86-74-8	**Carbazole**	**35.0**	J	ug/kg dry	24.1	48.2	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 18:47	KH
218-01-9	**Chrysene**	**266**		ug/kg dry	24.1	48.2	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 18:47	KH
53-70-3	**Dibenzo(a,h)anthracene**	**41.6**	J	ug/kg dry	24.1	48.2	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 18:47	KH
132-64-9	Dibenzofuran	ND		ug/kg dry	24.1	48.2	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 18:47	KH
84-66-2	Diethyl phthalate	ND		ug/kg dry	24.1	48.2	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 18:47	KH
131-11-3	Dimethyl phthalate	ND		ug/kg dry	24.1	48.2	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 18:47	KH
84-74-2	Di-n-butyl phthalate	ND		ug/kg dry	24.1	48.2	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 18:47	KH
117-84-0	Di-n-octyl phthalate	ND		ug/kg dry	24.1	48.2	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 18:47	KH
206-44-0	**Fluoranthene**	**556**		ug/kg dry	24.1	48.2	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 18:47	KH
86-73-7	Fluorene	ND		ug/kg dry	24.1	48.2	1	EPA 8270D Certifications: NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 18:47	KH
118-74-1	Hexachlorobenzene	ND		ug/kg dry	24.1	48.2	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 18:47	KH
87-68-3	Hexachlorobutadiene	ND		ug/kg dry	24.1	48.2	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 18:47	KH
77-47-4	Hexachlorocyclopentadiene	ND		ug/kg dry	24.1	48.2	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 18:47	KH
67-72-1	Hexachloroethane	ND		ug/kg dry	24.1	48.2	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 18:47	KH
193-39-5	**Indeno(1,2,3-cd)pyrene**	**110**		ug/kg dry	24.1	48.2	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 18:47	KH
78-59-1	Isophorone	ND		ug/kg dry	24.1	48.2	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 18:47	KH
91-20-3	Naphthalene	ND		ug/kg dry	24.1	48.2	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 18:47	KH

Sample Information

Client Sample ID:	**B6 D1 Comp**			**York Sample ID:**	**19F0191-10**
York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received	
19F0191	9294 Monticello Manor	Soil	June 5, 2019 11:30 am	06/06/2019	

Semi-Volatiles, 8270 - Comprehensive

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3550C

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
98-95-3	Nitrobenzene	ND		ug/kg dry	24.1	48.2	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 18:47	KH
62-75-9	N-Nitrosodimethylamine	ND		ug/kg dry	24.1	48.2	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 18:47	KH
621-64-7	N-nitroso-di-n-propylamine	ND		ug/kg dry	24.1	48.2	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 18:47	KH
86-30-6	N-Nitrosodiphenylamine	ND		ug/kg dry	24.1	48.2	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 18:47	KH
87-86-5	Pentachlorophenol	ND		ug/kg dry	24.1	48.2	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 18:47	KH
85-01-8	**Phenanthrene**	**241**		ug/kg dry	24.1	48.2	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 18:47	KH
108-95-2	Phenol	ND		ug/kg dry	24.1	48.2	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 18:47	KH
129-00-0	**Pyrene**	**366**		ug/kg dry	24.1	48.2	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 18:47	KH

	Surrogate Recoveries	Result	Acceptance Range
367-12-4	*Surrogate: SURR: 2-Fluorophenol*	*43.9 %*	*20-108*
4165-62-2	*Surrogate: SURR: Phenol-d5*	*43.9 %*	*23-114*
4165-60-0	*Surrogate: SURR: Nitrobenzene-d5*	*41.7 %*	*22-108*
321-60-8	*Surrogate: SURR: 2-Fluorobiphenyl*	*29.5 %*	*21-113*
118-79-6	*Surrogate: SURR: 2,4,6-Tribromophenol*	*38.9 %*	*19-110*
1718-51-0	*Surrogate: SURR: Terphenyl-d14*	*32.6 %*	*24-116*

Metals, Target Analyte

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3050B

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7429-90-5	**Aluminum**	**6930**		mg/kg dry	5.81	1	EPA 6010D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/07/2019 11:03	06/10/2019 13:54	KML
7440-36-0	Antimony	ND		mg/kg dry	2.91	1	EPA 6010D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/07/2019 11:03	06/10/2019 13:54	KML
7440-38-2	**Arsenic**	**6.87**		mg/kg dry	1.74	1	EPA 6010D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/07/2019 11:03	06/10/2019 13:54	KML
7440-39-3	**Barium**	**55.1**		mg/kg dry	2.91	1	EPA 6010D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/07/2019 11:03	06/10/2019 13:54	KML
7440-41-7	**Beryllium**	**0.267**		mg/kg dry	0.058	1	EPA 6010D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/07/2019 11:03	06/10/2019 13:54	KML
7440-43-9	Cadmium	ND		mg/kg dry	0.349	1	EPA 6010D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/07/2019 11:03	06/10/2019 13:54	KML
7440-70-2	**Calcium**	**3760**		mg/kg dry	5.81	1	EPA 6010D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/07/2019 11:03	06/10/2019 13:54	KML

Sample Information

Client Sample ID: **B6 D1 Comp** **York Sample ID:** **19F0191-10**

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
19F0191	9294 Monticello Manor	Soil	June 5, 2019 11:30 am	06/06/2019

Metals, Target Analyte

Log-in Notes: **Sample Notes:**

Sample Prepared by Method: EPA 3050B

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7440-47-3	**Chromium**	**5.84**		mg/kg dry	0.581	1	EPA 6010D	06/07/2019 11:03	06/10/2019 13:54	KML
							Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP			
7440-48-4	**Cobalt**	**5.36**		mg/kg dry	0.465	1	EPA 6010D	06/07/2019 11:03	06/10/2019 13:54	KML
							Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP			
7440-50-8	**Copper**	**11.5**		mg/kg dry	2.33	1	EPA 6010D	06/07/2019 11:03	06/10/2019 13:54	KML
							Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP			
7439-89-6	**Iron**	**10300**		mg/kg dry	29.1	1	EPA 6010D	06/07/2019 11:03	06/10/2019 13:54	KML
							Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP			
7439-92-1	**Lead**	**24.3**		mg/kg dry	0.581	1	EPA 6010D	06/07/2019 11:03	06/10/2019 13:54	KML
							Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP			
7439-95-4	**Magnesium**	**1640**		mg/kg dry	5.81	1	EPA 6010D	06/07/2019 11:03	06/10/2019 13:54	KML
							Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP			
7439-96-5	**Manganese**	**313**		mg/kg dry	0.581	1	EPA 6010D	06/07/2019 11:03	06/10/2019 13:54	KML
							Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP			
7440-02-0	**Nickel**	**9.67**		mg/kg dry	1.16	1	EPA 6010D	06/07/2019 11:03	06/10/2019 13:54	KML
							Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP			
7440-09-7	**Potassium**	**408**		mg/kg dry	5.81	1	EPA 6010D	06/07/2019 11:03	06/10/2019 13:54	KML
							Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP			
7782-49-2	Selenium	ND		mg/kg dry	2.91	1	EPA 6010D	06/07/2019 11:03	06/10/2019 13:54	KML
							Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP			
7440-22-4	Silver	ND		mg/kg dry	0.581	1	EPA 6010D	06/07/2019 11:03	06/10/2019 13:54	KML
							Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP			
7440-23-5	Sodium	ND		mg/kg dry	58.1	1	EPA 6010D	06/07/2019 11:03	06/10/2019 13:54	KML
							Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP			
7440-28-0	Thallium	ND		mg/kg dry	2.91	1	EPA 6010D	06/07/2019 11:03	06/10/2019 13:54	KML
							Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP			
7440-62-2	**Vanadium**	**7.43**		mg/kg dry	1.16	1	EPA 6010D	06/07/2019 11:03	06/10/2019 13:54	KML
							Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP			
7440-66-6	**Zinc**	**38.2**		mg/kg dry	2.91	1	EPA 6010D	06/07/2019 11:03	06/10/2019 13:54	KML
							Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP			

Mercury by 7473

Log-in Notes: **Sample Notes:**

Sample Prepared by Method: EPA 7473 soil

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7439-97-6	**Mercury**	**0.0655**		mg/kg dry	0.0349	1	EPA 7473	06/07/2019 09:07	06/07/2019 10:30	SY
							Certifications: CTDOH,NJDEP,NELAC-NY10854,PADEP			

Total Solids

Log-in Notes: **Sample Notes:**

Sample Prepared by Method: % Solids Prep

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst

Sample Information

Client Sample ID: **B6 D1 Comp** **York Sample ID:** **19F0191-10**

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
19F0191	9294 Monticello Manor	Soil	June 5, 2019 11:30 am	06/06/2019

Total Solids

Log-in Notes:

Sample Notes:

Sample Prepared by Method: % Solids Prep

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
solids	* % Solids	**86.0**		%	0.100	1	SM 2540G Certifications: CTDOH	06/07/2019 11:33	06/07/2019 15:32	JTV

Analytical Batch Summary

Batch ID: BF90355 **Preparation Method:** EPA 7473 soil **Prepared By:** SY

YORK Sample ID	Client Sample ID	Preparation Date
19F0191-02	B1 S1 Comp	06/07/19
19F0191-04	B2 S2 Comp	06/07/19
19F0191-06	B3 S3 Comp	06/07/19
19F0191-08	B4 S4 Comp	06/07/19
19F0191-10	B6 D1 Comp	06/07/19
BF90355-BLK1	Blank	06/07/19
BF90355-SRM1	Reference	06/07/19

Batch ID: BF90377 **Preparation Method:** EPA 3050B **Prepared By:** SY

YORK Sample ID	Client Sample ID	Preparation Date
19F0191-02	B1 S1 Comp	06/07/19
19F0191-04	B2 S2 Comp	06/07/19
19F0191-06	B3 S3 Comp	06/07/19
19F0191-08	B4 S4 Comp	06/07/19
19F0191-10	B6 D1 Comp	06/07/19
BF90377-BLK1	Blank	06/07/19
BF90377-SRM1	Reference	06/07/19

Batch ID: BF90382 **Preparation Method:** % Solids Prep **Prepared By:** JTV

YORK Sample ID	Client Sample ID	Preparation Date
19F0191-02	B1 S1 Comp	06/07/19
19F0191-04	B2 S2 Comp	06/07/19
19F0191-06	B3 S3 Comp	06/07/19
19F0191-08	B4 S4 Comp	06/07/19
19F0191-10	B6 D1 Comp	06/07/19

Batch ID: BF90533 **Preparation Method:** EPA 3550C **Prepared By:** MAT

YORK Sample ID	Client Sample ID	Preparation Date
19F0191-02	B1 S1 Comp	06/11/19
19F0191-04	B2 S2 Comp	06/11/19
19F0191-06	B3 S3 Comp	06/11/19
BF90533-BLK1	Blank	06/11/19
BF90533-BS1	LCS	06/11/19

Batch ID: BF90557 **Preparation Method:** EPA 5035A **Prepared By:** TMP

YORK Sample ID	Client Sample ID	Preparation Date
19F0191-01	B1 S1 VOC	06/10/19
19F0191-03	B2 S2 VOC	06/10/19
19F0191-05	B3 S3 VOC	06/10/19

19F0191-07	B4 S4 VOC	06/10/19
19F0191-09	B6 D1 VOC	06/10/19
BF90557-BLK1	Blank	06/10/19
BF90557-BS1	LCS	06/10/19
BF90557-BSD1	LCS Dup	06/10/19

Batch ID: BF90579 **Preparation Method:** EPA 3550C **Prepared By:** LM

YORK Sample ID	Client Sample ID	Preparation Date
19F0191-08	B4 S4 Comp	06/12/19
19F0191-10	B6 D1 Comp	06/12/19
BF90579-BLK1	Blank	06/12/19
BF90579-BS1	LCS	06/12/19

Batch ID: BF90705 **Preparation Method:** % Solids Prep **Prepared By:** KT

YORK Sample ID	Client Sample ID	Preparation Date
19F0191-01	B1 S1 VOC	06/13/19
19F0191-03	B2 S2 VOC	06/13/19
19F0191-05	B3 S3 VOC	06/13/19
19F0191-07	B4 S4 VOC	06/13/19
19F0191-09	B6 D1 VOC	06/13/19

Volatile Organic Compounds by GC/MS - Quality Control Data

York Analytical Laboratories, Inc.

Batch BF90557 - EPA 5035A

Blank (BF90557-BLK1) Prepared & Analyzed: 06/10/2019

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
1,1,1,2-Tetrachloroethane	ND	5.0	ug/kg wet								
1,1,1-Trichloroethane	ND	5.0	"								
1,1,2,2-Tetrachloroethane	ND	5.0	"								
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	5.0	"								
1,1,2-Trichloroethane	ND	5.0	"								
1,1-Dichloroethane	ND	5.0	"								
1,1-Dichloroethylene	ND	5.0	"								
1,2,3-Trichlorobenzene	ND	5.0	"								
1,2,3-Trichloropropane	ND	5.0	"								
1,2,4-Trichlorobenzene	ND	5.0	"								
1,2,4-Trimethylbenzene	ND	5.0	"								
1,2-Dibromo-3-chloropropane	ND	5.0	"								
1,2-Dibromoethane	ND	5.0	"								
1,2-Dichlorobenzene	ND	5.0	"								
1,2-Dichloroethane	ND	5.0	"								
1,2-Dichloropropane	ND	5.0	"								
1,3,5-Trimethylbenzene	ND	5.0	"								
1,3-Dichlorobenzene	ND	5.0	"								
1,4-Dichlorobenzene	ND	5.0	"								
1,4-Dioxane	ND	100	"								
2-Butanone	ND	5.0	"								
2-Hexanone	ND	5.0	"								
4-Methyl-2-pentanone	ND	5.0	"								
Acetone	ND	10	"								
Acrolein	ND	10	"								
Acrylonitrile	ND	5.0	"								
Benzene	ND	5.0	"								
Bromochloromethane	ND	5.0	"								
Bromodichloromethane	ND	5.0	"								
Bromoform	ND	5.0	"								
Bromomethane	ND	5.0	"								
Carbon disulfide	ND	5.0	"								
Carbon tetrachloride	ND	5.0	"								
Chlorobenzene	ND	5.0	"								
Chloroethane	ND	5.0	"								
Chloroform	ND	5.0	"								
Chloromethane	ND	5.0	"								
cis-1,2-Dichloroethylene	ND	5.0	"								
cis-1,3-Dichloropropylene	ND	5.0	"								
Cyclohexane	ND	5.0	"								
Dibromochloromethane	ND	5.0	"								
Dibromomethane	ND	5.0	"								
Dichlorodifluoromethane	ND	5.0	"								
Ethyl Benzene	ND	5.0	"								
Hexachlorobutadiene	ND	5.0	"								
Isopropylbenzene	ND	5.0	"								
Methyl acetate	ND	5.0	"								
Methyl tert-butyl ether (MTBE)	ND	5.0	"								
Methylcyclohexane	ND	5.0	"								

Batch BF90557 - EPA 5035A

Blank (BF90557-BLK1) Prepared & Analyzed: 06/10/2019

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
Methylene chloride	ND	10	ug/kg wet								
n-Butylbenzene	ND	5.0	"								
n-Propylbenzene	ND	5.0	"								
o-Xylene	ND	5.0	"								
p- & m- Xylenes	ND	10	"								
p-Isopropyltoluene	ND	5.0	"								
sec-Butylbenzene	ND	5.0	"								
Styrene	ND	5.0	"								
tert-Butyl alcohol (TBA)	ND	5.0	"								
tert-Butylbenzene	ND	5.0	"								
Tetrachloroethylene	ND	5.0	"								
Toluene	ND	5.0	"								
trans-1,2-Dichloroethylene	ND	5.0	"								
trans-1,3-Dichloropropylene	ND	5.0	"								
trans-1,4-dichloro-2-butene	ND	5.0	"								
Trichloroethylene	ND	5.0	"								
Trichlorofluoromethane	ND	5.0	"								
Vinyl Chloride	ND	5.0	"								
Xylenes, Total	ND	15	"								
Surrogate: SURR: 1,2-Dichloroethane-d4	*47.9*		*ug/L*	*50.0*		*95.8*	*77-125*				
Surrogate: SURR: Toluene-d8	*49.1*		*"*	*50.0*		*98.1*	*85-120*				
Surrogate: SURR: p-Bromofluorobenzene	*53.5*		*"*	*50.0*		*107*	*76-130*				

LCS (BF90557-BS1) Prepared & Analyzed: 06/10/2019

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
1,1,1,2-Tetrachloroethane	46		ug/L	50.0		92.5	75-129				
1,1,1-Trichloroethane	49		"	50.0		98.1	71-137				
1,1,2,2-Tetrachloroethane	49		"	50.0		98.4	79-129				
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	33		"	50.0		65.4	58-146				
1,1,2-Trichloroethane	45		"	50.0		90.4	83-123				
1,1-Dichloroethane	45		"	50.0		90.8	75-130				
1,1-Dichloroethylene	45		"	50.0		90.6	64-137				
1,2,3-Trichlorobenzene	47		"	50.0		94.5	81-140				
1,2,3-Trichloropropane	49		"	50.0		97.8	81-126				
1,2,4-Trichlorobenzene	44		"	50.0		88.4	80-141				
1,2,4-Trimethylbenzene	45		"	50.0		89.6	84-125				
1,2-Dibromo-3-chloropropane	43		"	50.0		86.0	74-142				
1,2-Dibromoethane	48		"	50.0		95.5	86-123				
1,2-Dichlorobenzene	45		"	50.0		90.0	85-122				
1,2-Dichloroethane	43		"	50.0		85.9	71-133				
1,2-Dichloropropane	46		"	50.0		91.3	81-122				
1,3,5-Trimethylbenzene	45		"	50.0		90.2	82-126				
1,3-Dichlorobenzene	45		"	50.0		90.0	84-124				
1,4-Dichlorobenzene	45		"	50.0		90.0	84-124				
1,4-Dioxane	920		"	1050		87.6	10-228				
2-Butanone	41		"	50.0		82.4	58-147				
2-Hexanone	44		"	50.0		87.3	70-139				
4-Methyl-2-pentanone	38		"	50.0		76.2	72-132				
Acetone	28		"	50.0		56.7	36-155				
Acrolein	26		"	50.0		51.9	10-238				
Acrylonitrile	48		"	50.0		95.6	66-141				

Batch BF90557 - EPA 5035A

LCS (BF90557-BS1) Prepared & Analyzed: 06/10/2019

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
Benzene	47		ug/L	50.0		93.7	77-127				
Bromochloromethane	47		"	50.0		93.7	74-129				
Bromodichloromethane	49		"	50.0		98.5	81-124				
Bromoform	49		"	50.0		99.0	80-136				
Bromomethane	40		"	50.0		79.8	32-177				
Carbon disulfide	47		"	50.0		93.9	10-136				
Carbon tetrachloride	46		"	50.0		91.6	66-143				
Chlorobenzene	44		"	50.0		87.9	86-120				
Chloroethane	33		"	50.0		65.8	51-142				
Chloroform	46		"	50.0		92.7	76-131				
Chloromethane	35		"	50.0		70.6	49-132				
cis-1,2-Dichloroethylene	45		"	50.0		89.3	74-132				
cis-1,3-Dichloropropylene	47		"	50.0		93.2	81-129				
Cyclohexane	47		"	50.0		93.4	70-130				
Dibromochloromethane	48		"	50.0		95.2	10-200				
Dibromomethane	44		"	50.0		88.6	83-124				
Dichlorodifluoromethane	61		"	50.0		123	28-158				
Ethyl Benzene	45		"	50.0		89.4	84-125				
Hexachlorobutadiene	48		"	50.0		96.5	83-133				
Isopropylbenzene	45		"	50.0		90.7	81-127				
Methyl acetate	42		"	50.0		84.0	41-143				
Methyl tert-butyl ether (MTBE)	47		"	50.0		93.4	74-131				
Methylcyclohexane	45		"	50.0		89.8	70-130				
Methylene chloride	45		"	50.0		89.6	57-141				
n-Butylbenzene	42		"	50.0		84.4	80-130				
n-Propylbenzene	45		"	50.0		89.4	74-136				
o-Xylene	44		"	50.0		87.3	83-123				
p- & m- Xylenes	85		"	100		85.2	82-128				
p-Isopropyltoluene	47		"	50.0		93.1	85-125				
sec-Butylbenzene	49		"	50.0		97.5	83-125				
Styrene	45		"	50.0		89.5	86-126				
tert-Butyl alcohol (TBA)	200		"	250		78.3	70-130				
tert-Butylbenzene	41		"	50.0		82.7	80-127				
Tetrachloroethylene	41		"	50.0		82.8	80-129				
Toluene	43		"	50.0		86.9	85-121				
trans-1,2-Dichloroethylene	45		"	50.0		90.8	72-132				
trans-1,3-Dichloropropylene	46		"	50.0		92.6	78-132				
trans-1,4-dichloro-2-butene	49		"	50.0		98.4	75-135				
Trichloroethylene	44		"	50.0		89.0	84-123				
Trichlorofluoromethane	33		"	50.0		65.4	62-140				
Vinyl Chloride	40		"	50.0		80.4	52-130				
Surrogate: SURR: 1,2-Dichloroethane-d4	*47.6*		*"*	*50.0*		*95.2*	*77-125*				
Surrogate: SURR: Toluene-d8	*49.6*		*"*	*50.0*		*99.2*	*85-120*				
Surrogate: SURR: p-Bromofluorobenzene	*52.2*		*"*	*50.0*		*104*	*76-130*				

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag

Batch BF90557 - EPA 5035A

LCS Dup (BF90557-BSD1) Prepared & Analyzed: 06/10/2019

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
1,1,1,2-Tetrachloroethane	56		ug/L	50.0		111	75-129		18.3	30	
1,1,1-Trichloroethane	60		"	50.0		119	71-137		19.5	30	
1,1,2,2-Tetrachloroethane	59		"	50.0		118	79-129		18.5	30	
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	0.0		"	50.0			58-146	Low Bias		30	
1,1,2-Trichloroethane	56		"	50.0		112	83-123		21.0	30	
1,1-Dichloroethane	54		"	50.0		108	75-130		17.6	30	
1,1-Dichloroethylene	54		"	50.0		108	64-137		18.0	30	
1,2,3-Trichlorobenzene	57		"	50.0		114	81-140		18.2	30	
1,2,3-Trichloropropane	60		"	50.0		119	81-126		19.8	30	
1,2,4-Trichlorobenzene	52		"	50.0		104	80-141		16.7	30	
1,2,4-Trimethylbenzene	53		"	50.0		105	84-125		15.9	30	
1,2-Dibromo-3-chloropropane	56		"	50.0		113	74-142		27.0	30	
1,2-Dibromoethane	58		"	50.0		116	86-123		19.6	30	
1,2-Dichlorobenzene	53		"	50.0		107	85-122		17.0	30	
1,2-Dichloroethane	52		"	50.0		104	71-133		19.4	30	
1,2-Dichloropropane	55		"	50.0		109	81-122		17.8	30	
1,3,5-Trimethylbenzene	53		"	50.0		106	82-126		16.1	30	
1,3-Dichlorobenzene	53		"	50.0		106	84-124		16.2	30	
1,4-Dichlorobenzene	54		"	50.0		107	84-124		17.3	30	
1,4-Dioxane	1100		"	1050		107	10-228		19.8	30	
2-Butanone	51		"	50.0		102	58-147		21.7	30	
2-Hexanone	54		"	50.0		109	70-139		21.9	30	
4-Methyl-2-pentanone	48		"	50.0		95.7	72-132		22.7	30	
Acetone	38		"	50.0		75.2	36-155		28.0	30	
Acrolein	30		"	50.0		60.1	10-238		14.6	30	
Acrylonitrile	60		"	50.0		121	66-141		23.5	30	
Benzene	56		"	50.0		112	77-127		18.0	30	
Bromochloromethane	55		"	50.0		111	74-129		16.8	30	
Bromodichloromethane	60		"	50.0		119	81-124		19.0	30	
Bromoform	61		"	50.0		121	80-136		20.4	30	
Bromomethane	43		"	50.0		85.1	32-177		6.48	30	
Carbon disulfide	56		"	50.0		113	10-136		18.2	30	
Carbon tetrachloride	56		"	50.0		112	66-143		20.0	30	
Chlorobenzene	53		"	50.0		105	86-120		17.9	30	
Chloroethane	41		"	50.0		81.3	51-142		21.1	30	
Chloroform	56		"	50.0		111	76-131		18.1	30	
Chloromethane	43		"	50.0		85.9	49-132		19.5	30	
cis-1,2-Dichloroethylene	53		"	50.0		106	74-132		16.8	30	
cis-1,3-Dichloropropylene	56		"	50.0		112	81-129		18.6	30	
Cyclohexane	56		"	50.0		112	70-130		17.8	30	
Dibromochloromethane	58		"	50.0		115	10-200		19.2	30	
Dibromomethane	54		"	50.0		107	83-124		19.1	30	
Dichlorodifluoromethane	73		"	50.0		145	28-158		17.0	30	
Ethyl Benzene	54		"	50.0		107	84-125		18.1	30	
Hexachlorobutadiene	56		"	50.0		112	83-133		15.2	30	
Isopropylbenzene	53		"	50.0		106	81-127		15.5	30	
Methyl acetate	54		"	50.0		108	41-143		24.8	30	
Methyl tert-butyl ether (MTBE)	56		"	50.0		112	74-131		18.5	30	
Methylcyclohexane	53		"	50.0		106	70-130		16.5	30	
Methylene chloride	53		"	50.0		107	57-141		17.3	30	

Batch BF90557 - EPA 5035A

LCS Dup (BF90557-BSD1) Prepared & Analyzed: 06/10/2019

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
n-Butylbenzene	51		ug/L	50.0		101	80-130		18.2	30	
n-Propylbenzene	52		"	50.0		105	74-136		15.8	30	
o-Xylene	52		"	50.0		104	83-123		17.9	30	
p- & m- Xylenes	100		"	100		102	82-128		18.0	30	
p-Isopropyltoluene	54		"	50.0		109	85-125		15.6	30	
sec-Butylbenzene	57		"	50.0		115	83-125		16.0	30	
Styrene	53		"	50.0		107	86-126		17.7	30	
tert-Butyl alcohol (TBA)	260		"	250		103	70-130		27.7	30	
tert-Butylbenzene	49		"	50.0		97.9	80-127		16.9	30	
Tetrachloroethylene	49		"	50.0		98.0	80-129		16.8	30	
Toluene	52		"	50.0		104	85-121		17.7	30	
trans-1,2-Dichloroethylene	55		"	50.0		110	72-132		18.9	30	
trans-1,3-Dichloropropylene	56		"	50.0		113	78-132		19.5	30	
trans-1,4-dichloro-2-butene	60		"	50.0		121	75-135		20.4	30	
Trichloroethylene	53		"	50.0		106	84-123		17.6	30	
Trichlorofluoromethane	40		"	50.0		79.2	62-140		19.0	30	
Vinyl Chloride	49		"	50.0		97.3	52-130		18.9	30	
Surrogate: SURR: 1,2-Dichloroethane-d4	*49.0*		*"*	*50.0*		*98.0*	*77-125*				
Surrogate: SURR: Toluene-d8	*49.1*		*"*	*50.0*		*98.1*	*85-120*				
Surrogate: SURR: p-Bromofluorobenzene	*51.5*		*"*	*50.0*		*103*	*76-130*				

Semivolatile Organic Compounds by GC/MS - Quality Control Data

York Analytical Laboratories, Inc.

Batch BF90533 - EPA 3550C

Blank (BF90533-BLK1) Prepared: 06/11/2019 Analyzed: 06/12/2019

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
1,1-Biphenyl	ND	41.7	ug/kg wet								
1,2,4,5-Tetrachlorobenzene	ND	83.3	"								
1,2,4-Trichlorobenzene	ND	41.7	"								
1,2-Dichlorobenzene	ND	41.7	"								
1,2-Diphenylhydrazine (as Azobenzene)	ND	41.7	"								
1,3-Dichlorobenzene	ND	41.7	"								
1,4-Dichlorobenzene	ND	41.7	"								
2,3,4,6-Tetrachlorophenol	ND	83.3	"								
2,4,5-Trichlorophenol	ND	41.7	"								
2,4,6-Trichlorophenol	ND	41.7	"								
2,4-Dichlorophenol	ND	41.7	"								
2,4-Dimethylphenol	ND	41.7	"								
2,4-Dinitrophenol	ND	83.3	"								
2,4-Dinitrotoluene	ND	41.7	"								
2,6-Dinitrotoluene	ND	41.7	"								
2-Chloronaphthalene	ND	41.7	"								
2-Chlorophenol	ND	41.7	"								
2-Methylnaphthalene	ND	41.7	"								
2-Methylphenol	ND	41.7	"								
2-Nitroaniline	ND	83.3	"								
2-Nitrophenol	ND	41.7	"								
3- & 4-Methylphenols	ND	41.7	"								
3,3-Dichlorobenzidine	ND	41.7	"								
3-Nitroaniline	ND	83.3	"								
4,6-Dinitro-2-methylphenol	ND	83.3	"								
4-Bromophenyl phenyl ether	ND	41.7	"								
4-Chloro-3-methylphenol	ND	41.7	"								
4-Chloroaniline	ND	41.7	"								
4-Chlorophenyl phenyl ether	ND	41.7	"								
4-Nitroaniline	ND	83.3	"								
4-Nitrophenol	ND	83.3	"								
Acenaphthene	ND	41.7	"								
Acenaphthylene	ND	41.7	"								
Acetophenone	ND	41.7	"								
Aniline	ND	167	"								
Anthracene	ND	41.7	"								
Atrazine	ND	41.7	"								
Benzaldehyde	ND	41.7	"								
Benzidine	ND	167	"								
Benzo(a)anthracene	ND	41.7	"								
Benzo(a)pyrene	ND	41.7	"								
Benzo(b)fluoranthene	ND	41.7	"								
Benzo(g,h,i)perylene	ND	41.7	"								
Benzo(k)fluoranthene	ND	41.7	"								
Benzoic acid	ND	41.7	"								
Benzyl alcohol	ND	41.7	"								
Benzyl butyl phthalate	ND	41.7	"								
Bis(2-chloroethoxy)methane	ND	41.7	"								
Bis(2-chloroethyl)ether	ND	41.7	"								
Bis(2-chloroisopropyl)ether	ND	41.7	"								
Bis(2-ethylhexyl)phthalate	ND	41.7	"								

Semivolatile Organic Compounds by GC/MS - Quality Control Data

York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
Batch BF90533 - EPA 3550C											
Blank (BF90533-BLK1)											
Prepared: 06/11/2019 Analyzed: 06/12/2019											
Caprolactam	ND	83.3	ug/kg wet								
Carbazole	ND	41.7	"								
Chrysene	ND	41.7	"								
Dibenzo(a,h)anthracene	ND	41.7	"								
Dibenzofuran	ND	41.7	"								
Diethyl phthalate	ND	41.7	"								
Dimethyl phthalate	ND	41.7	"								
Di-n-butyl phthalate	ND	41.7	"								
Di-n-octyl phthalate	ND	41.7	"								
Fluoranthene	ND	41.7	"								
Fluorene	ND	41.7	"								
Hexachlorobenzene	ND	41.7	"								
Hexachlorobutadiene	ND	41.7	"								
Hexachlorocyclopentadiene	ND	41.7	"								
Hexachloroethane	ND	41.7	"								
Indeno(1,2,3-cd)pyrene	ND	41.7	"								
Isophorone	ND	41.7	"								
Naphthalene	ND	41.7	"								
Nitrobenzene	ND	41.7	"								
N-Nitrosodimethylamine	ND	41.7	"								
N-nitroso-di-n-propylamine	ND	41.7	"								
N-Nitrosodiphenylamine	ND	41.7	"								
Pentachlorophenol	ND	41.7	"								
Phenanthrene	ND	41.7	"								
Phenol	ND	41.7	"								
Pyrene	ND	41.7	"								
Surrogate: SURR: 2-Fluorophenol	*664*		*"*	*1670*		*39.8*	*20-108*				
Surrogate: SURR: Phenol-d5	*608*		*"*	*1670*		*36.5*	*23-114*				
Surrogate: SURR: Nitrobenzene-d5	*360*		*"*	*833*		*43.2*	*22-108*				
Surrogate: SURR: 2-Fluorobiphenyl	*336*		*"*	*833*		*40.3*	*21-113*				
Surrogate: SURR: 2,4,6-Tribromophenol	*677*		*"*	*1670*		*40.6*	*19-110*				
Surrogate: SURR: Terphenyl-d14	*345*		*"*	*833*		*41.4*	*24-116*				

Semivolatile Organic Compounds by GC/MS - Quality Control Data

York Analytical Laboratories, Inc.

Batch BF90533 - EPA 3550C

LCS (BF90533-BS1) Prepared: 06/11/2019 Analyzed: 06/12/2019

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
1,1-Biphenyl	343	41.7	ug/kg wet	833		41.2	22-103				
1,2,4,5-Tetrachlorobenzene	390	83.3	"	833		46.8	10-144				
1,2,4-Trichlorobenzene	354	41.7	"	833		42.5	23-130				
1,2-Dichlorobenzene	339	41.7	"	833		40.7	26-113				
1,2-Diphenylhydrazine (as Azobenzene)	281	41.7	"	833		33.7	10-140				
1,3-Dichlorobenzene	322	41.7	"	833		38.6	32-113				
1,4-Dichlorobenzene	336	41.7	"	833		40.3	28-111				
2,3,4,6-Tetrachlorophenol	668	83.3	"	833		80.2	30-130				
2,4,5-Trichlorophenol	305	41.7	"	833		36.6	14-138				
2,4,6-Trichlorophenol	348	41.7	"	833		41.7	27-122				
2,4-Dichlorophenol	406	41.7	"	833		48.7	23-133				
2,4-Dimethylphenol	409	41.7	"	833		49.0	15-131				
2,4-Dinitrophenol	141	83.3	"	833		16.9	10-149				
2,4-Dinitrotoluene	395	41.7	"	833		47.4	30-123				
2,6-Dinitrotoluene	406	41.7	"	833		48.7	30-125				
2-Chloronaphthalene	314	41.7	"	833		37.6	22-115				
2-Chlorophenol	375	41.7	"	833		45.0	25-121				
2-Methylnaphthalene	373	41.7	"	833		44.8	16-127				
2-Methylphenol	315	41.7	"	833		37.8	10-146				
2-Nitroaniline	385	83.3	"	833		46.2	24-126				
2-Nitrophenol	436	41.7	"	833		52.3	17-129				
3- & 4-Methylphenols	286	41.7	"	833		34.3	20-109				
3,3-Dichlorobenzidine	366	41.7	"	833		43.9	10-147				
3-Nitroaniline	346	83.3	"	833		41.5	23-123				
4,6-Dinitro-2-methylphenol	266	83.3	"	833		31.9	10-149				
4-Bromophenyl phenyl ether	389	41.7	"	833		46.7	30-138				
4-Chloro-3-methylphenol	422	41.7	"	833		50.6	16-138				
4-Chloroaniline	283	41.7	"	833		33.9	10-117				
4-Chlorophenyl phenyl ether	360	41.7	"	833		43.2	18-132				
4-Nitroaniline	420	83.3	"	833		50.4	14-125				
4-Nitrophenol	340	83.3	"	833		40.8	10-136				
Acenaphthene	331	41.7	"	833		39.7	17-124				
Acenaphthylene	338	41.7	"	833		40.6	16-124				
Acetophenone	348	41.7	"	833		41.8	28-105				
Aniline	326	167	"	833		39.1	10-111				
Anthracene	381	41.7	"	833		45.7	24-124				
Atrazine	435	41.7	"	833		52.2	22-120				
Benzaldehyde	432	41.7	"	833		51.8	21-100				
Benzo(a)anthracene	356	41.7	"	833		42.7	25-134				
Benzo(a)pyrene	382	41.7	"	833		45.9	29-144				
Benzo(b)fluoranthene	369	41.7	"	833		44.3	20-151				
Benzo(g,h,i)perylene	359	41.7	"	833		43.0	10-153				
Benzo(k)fluoranthene	339	41.7	"	833		40.7	10-148				
Benzoic acid	89.7	41.7	"	950		9.44	10-116	Low Bias			
Benzyl alcohol	387	41.7	"	833		46.5	17-128				
Benzyl butyl phthalate	413	41.7	"	833		49.5	10-132				
Bis(2-chloroethoxy)methane	367	41.7	"	833		44.0	10-129				
Bis(2-chloroethyl)ether	328	41.7	"	833		39.3	14-125				
Bis(2-chloroisopropyl)ether	375	41.7	"	833		45.0	14-122				
Bis(2-ethylhexyl)phthalate	398	41.7	"	833		47.8	10-141				
Caprolactam	499	83.3	"	833		59.9	10-123				

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
Batch BF90533 - EPA 3550C											
LCS (BF90533-BS1)											
Prepared: 06/11/2019 Analyzed: 06/12/2019											
Carbazole	383	41.7	ug/kg wet	833		45.9	31-120				
Chrysene	329	41.7	"	833		39.4	24-116				
Dibenzo(a,h)anthracene	363	41.7	"	833		43.6	17-147				
Dibenzofuran	352	41.7	"	833		42.3	23-123				
Diethyl phthalate	376	41.7	"	833		45.1	23-122				
Dimethyl phthalate	355	41.7	"	833		42.6	28-127				
Di-n-butyl phthalate	404	41.7	"	833		48.4	19-123				
Di-n-octyl phthalate	487	41.7	"	833		58.5	10-132				
Fluoranthene	410	41.7	"	833		49.2	36-125				
Fluorene	356	41.7	"	833		42.8	16-130				
Hexachlorobenzene	320	41.7	"	833		38.4	10-129				
Hexachlorobutadiene	368	41.7	"	833		44.2	22-153				
Hexachlorocyclopentadiene	88.3	41.7	"	833		10.6	10-134				
Hexachloroethane	333	41.7	"	833		40.0	20-112				
Indeno(1,2,3-cd)pyrene	401	41.7	"	833		48.2	10-155				
Isophorone	400	41.7	"	833		48.0	14-131				
Naphthalene	357	41.7	"	833		42.8	20-121				
Nitrobenzene	382	41.7	"	833		45.9	20-121				
N-Nitrosodimethylamine	284	41.7	"	833		34.0	10-124				
N-nitroso-di-n-propylamine	379	41.7	"	833		45.5	21-119				
N-Nitrosodiphenylamine	376	41.7	"	833		45.1	10-163				
Pentachlorophenol	170	41.7	"	833		20.4	10-143				
Phenanthrene	374	41.7	"	833		44.9	24-123				
Phenol	373	41.7	"	833		44.7	15-123				
Pyrene	332	41.7	"	833		39.8	24-132				
Surrogate: SURR: 2-Fluorophenol	*730*		*"*	*1670*		*43.8*	*20-108*				
Surrogate: SURR: Phenol-d5	*696*		*"*	*1670*		*41.8*	*23-114*				
Surrogate: SURR: Nitrobenzene-d5	*414*		*"*	*833*		*49.6*	*22-108*				
Surrogate: SURR: 2-Fluorobiphenyl	*327*		*"*	*833*		*39.3*	*21-113*				
Surrogate: SURR: 2,4,6-Tribromophenol	*763*		*"*	*1670*		*45.8*	*19-110*				
Surrogate: SURR: Terphenyl-d14	*351*		*"*	*833*		*42.1*	*24-116*				

Semivolatile Organic Compounds by GC/MS - Quality Control Data

York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag

Batch BF90579 - EPA 3550C

Blank (BF90579-BLK1) Prepared & Analyzed: 06/12/2019

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
1,1-Biphenyl	ND	41.6	ug/kg wet								
1,2,4,5-Tetrachlorobenzene	ND	83.0	"								
1,2,4-Trichlorobenzene	ND	41.6	"								
1,2-Dichlorobenzene	ND	41.6	"								
1,2-Diphenylhydrazine (as Azobenzene)	ND	41.6	"								
1,3-Dichlorobenzene	ND	41.6	"								
1,4-Dichlorobenzene	ND	41.6	"								
2,3,4,6-Tetrachlorophenol	ND	83.0	"								
2,4,5-Trichlorophenol	ND	41.6	"								
2,4,6-Trichlorophenol	ND	41.6	"								
2,4-Dichlorophenol	ND	41.6	"								
2,4-Dimethylphenol	ND	41.6	"								
2,4-Dinitrophenol	ND	83.0	"								
2,4-Dinitrotoluene	ND	41.6	"								
2,6-Dinitrotoluene	ND	41.6	"								
2-Chloronaphthalene	ND	41.6	"								
2-Chlorophenol	ND	41.6	"								
2-Methylnaphthalene	ND	41.6	"								
2-Methylphenol	ND	41.6	"								
2-Nitroaniline	ND	83.0	"								
2-Nitrophenol	ND	41.6	"								
3- & 4-Methylphenols	ND	41.6	"								
3,3-Dichlorobenzidine	ND	41.6	"								
3-Nitroaniline	ND	83.0	"								
4,6-Dinitro-2-methylphenol	ND	83.0	"								
4-Bromophenyl phenyl ether	ND	41.6	"								
4-Chloro-3-methylphenol	ND	41.6	"								
4-Chloroaniline	ND	41.6	"								
4-Chlorophenyl phenyl ether	ND	41.6	"								
4-Nitroaniline	ND	83.0	"								
4-Nitrophenol	ND	83.0	"								
Acenaphthene	ND	41.6	"								
Acenaphthylene	ND	41.6	"								
Acetophenone	ND	41.6	"								
Aniline	ND	166	"								
Anthracene	ND	41.6	"								
Atrazine	ND	41.6	"								
Benzaldehyde	ND	41.6	"								
Benzidine	ND	166	"								
Benzo(a)anthracene	ND	41.6	"								
Benzo(a)pyrene	ND	41.6	"								
Benzo(b)fluoranthene	ND	41.6	"								
Benzo(g,h,i)perylene	ND	41.6	"								
Benzo(k)fluoranthene	ND	41.6	"								
Benzoic acid	ND	41.6	"								
Benzyl alcohol	ND	41.6	"								
Benzyl butyl phthalate	ND	41.6	"								
Bis(2-chloroethoxy)methane	ND	41.6	"								
Bis(2-chloroethyl)ether	ND	41.6	"								
Bis(2-chloroisopropyl)ether	ND	41.6	"								
Bis(2-ethylhexyl)phthalate	ND	41.6	"								

Batch BF90579 - EPA 3550C

Blank (BF90579-BLK1) Prepared & Analyzed: 06/12/2019

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
Caprolactam	ND	83.0	ug/kg wet								
Carbazole	ND	41.6	"								
Chrysene	ND	41.6	"								
Dibenzo(a,h)anthracene	ND	41.6	"								
Dibenzofuran	ND	41.6	"								
Diethyl phthalate	ND	41.6	"								
Dimethyl phthalate	ND	41.6	"								
Di-n-butyl phthalate	ND	41.6	"								
Di-n-octyl phthalate	ND	41.6	"								
Fluoranthene	ND	41.6	"								
Fluorene	ND	41.6	"								
Hexachlorobenzene	ND	41.6	"								
Hexachlorobutadiene	ND	41.6	"								
Hexachlorocyclopentadiene	ND	41.6	"								
Hexachloroethane	ND	41.6	"								
Indeno(1,2,3-cd)pyrene	ND	41.6	"								
Isophorone	ND	41.6	"								
Naphthalene	ND	41.6	"								
Nitrobenzene	ND	41.6	"								
N-Nitrosodimethylamine	ND	41.6	"								
N-nitroso-di-n-propylamine	ND	41.6	"								
N-Nitrosodiphenylamine	ND	41.6	"								
Pentachlorophenol	ND	41.6	"								
Phenanthrene	ND	41.6	"								
Phenol	ND	41.6	"								
Pyrene	ND	41.6	"								
Surrogate: SURR: 2-Fluorophenol	*876*		*"*	*1660*		*52.8*	*20-108*				
Surrogate: SURR: Phenol-d5	*787*		*"*	*1660*		*47.4*	*23-114*				
Surrogate: SURR: Nitrobenzene-d5	*450*		*"*	*831*		*54.2*	*22-108*				
Surrogate: SURR: 2-Fluorobiphenyl	*404*		*"*	*831*		*48.6*	*21-113*				
Surrogate: SURR: 2,4,6-Tribromophenol	*791*		*"*	*1660*		*47.6*	*19-110*				
Surrogate: SURR: Terphenyl-d14	*459*		*"*	*831*		*55.3*	*24-116*				

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag

Batch BF90579 - EPA 3550C

LCS (BF90579-BS1) Prepared & Analyzed: 06/12/2019

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
1,1-Biphenyl	443	41.6	ug/kg wet	831		53.4	22-103				
1,2,4,5-Tetrachlorobenzene	488	83.0	"	831		58.7	10-144				
1,2,4-Trichlorobenzene	476	41.6	"	831		57.4	23-130				
1,2-Dichlorobenzene	405	41.6	"	831		48.8	26-113				
1,2-Diphenylhydrazine (as Azobenzene)	380	41.6	"	831		45.8	10-140				
1,3-Dichlorobenzene	401	41.6	"	831		48.3	32-113				
1,4-Dichlorobenzene	407	41.6	"	831		49.0	28-111				
2,3,4,6-Tetrachlorophenol	335	83.0	"	831		40.3	30-130				
2,4,5-Trichlorophenol	379	41.6	"	831		45.7	14-138				
2,4,6-Trichlorophenol	423	41.6	"	831		50.9	27-122				
2,4-Dichlorophenol	507	41.6	"	831		61.0	23-133				
2,4-Dimethylphenol	498	41.6	"	831		60.0	15-131				
2,4-Dinitrophenol	208	83.0	"	831		25.0	10-149				
2,4-Dinitrotoluene	476	41.6	"	831		57.3	30-123				
2,6-Dinitrotoluene	499	41.6	"	831		60.0	30-125				
2-Chloronaphthalene	397	41.6	"	831		47.8	22-115				
2-Chlorophenol	443	41.6	"	831		53.4	25-121				
2-Methylnaphthalene	494	41.6	"	831		59.5	16-127				
2-Methylphenol	383	41.6	"	831		46.1	10-146				
2-Nitroaniline	494	83.0	"	831		59.5	24-126				
2-Nitrophenol	585	41.6	"	831		70.4	17-129				
3- & 4-Methylphenols	345	41.6	"	831		41.5	20-109				
3,3-Dichlorobenzidine	468	41.6	"	831		56.3	10-147				
3-Nitroaniline	414	83.0	"	831		49.8	23-123				
4,6-Dinitro-2-methylphenol	397	83.0	"	831		47.8	10-149				
4-Bromophenyl phenyl ether	516	41.6	"	831		62.1	30-138				
4-Chloro-3-methylphenol	532	41.6	"	831		64.1	16-138				
4-Chloroaniline	365	41.6	"	831		44.0	10-117				
4-Chlorophenyl phenyl ether	433	41.6	"	831		52.1	18-132				
4-Nitroaniline	510	83.0	"	831		61.4	14-125				
4-Nitrophenol	436	83.0	"	831		52.5	10-136				
Acenaphthene	392	41.6	"	831		47.2	17-124				
Acenaphthylene	409	41.6	"	831		49.3	16-124				
Acetophenone	425	41.6	"	831		51.2	28-105				
Aniline	404	166	"	831		48.7	10-111				
Anthracene	505	41.6	"	831		60.8	24-124				
Atrazine	574	41.6	"	831		69.1	22-120				
Benzaldehyde	538	41.6	"	831		64.8	21-100				
Benzo(a)anthracene	439	41.6	"	831		52.8	25-134				
Benzo(a)pyrene	452	41.6	"	831		54.5	29-144				
Benzo(b)fluoranthene	440	41.6	"	831		52.9	20-151				
Benzo(g,h,i)perylene	427	41.6	"	831		51.4	10-153				
Benzo(k)fluoranthene	409	41.6	"	831		49.2	10-148				
Benzoic acid	86.0	41.6	"	947		9.09	10-116	Low Bias			
Benzyl alcohol	477	41.6	"	831		57.4	17-128				
Benzyl butyl phthalate	522	41.6	"	831		62.8	10-132				
Bis(2-chloroethoxy)methane	469	41.6	"	831		56.5	10-129				
Bis(2-chloroethyl)ether	398	41.6	"	831		48.0	14-125				
Bis(2-chloroisopropyl)ether	480	41.6	"	831		57.8	14-122				
Bis(2-ethylhexyl)phthalate	497	41.6	"	831		59.8	10-141				
Caprolactam	599	83.0	"	831		72.1	10-123				

Semivolatile Organic Compounds by GC/MS - Quality Control Data

York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
Batch BF90579 - EPA 3550C											
LCS (BF90579-BS1)							Prepared & Analyzed: 06/12/2019				
Carbazole	512	41.6	ug/kg wet	831		61.7	31-120				
Chrysene	413	41.6	"	831		49.7	24-116				
Dibenzo(a,h)anthracene	438	41.6	"	831		52.8	17-147				
Dibenzofuran	422	41.6	"	831		50.8	23-123				
Diethyl phthalate	458	41.6	"	831		55.1	23-122				
Dimethyl phthalate	444	41.6	"	831		53.4	28-127				
Di-n-butyl phthalate	536	41.6	"	831		64.5	19-123				
Di-n-octyl phthalate	599	41.6	"	831		72.1	10-132				
Fluoranthene	534	41.6	"	831		64.3	36-125				
Fluorene	427	41.6	"	831		51.4	16-130				
Hexachlorobenzene	434	41.6	"	831		52.2	10-129				
Hexachlorobutadiene	481	41.6	"	831		58.0	22-153				
Hexachlorocyclopentadiene	135	41.6	"	831		16.3	10-134				
Hexachloroethane	416	41.6	"	831		50.0	20-112				
Indeno(1,2,3-cd)pyrene	475	41.6	"	831		57.2	10-155				
Isophorone	496	41.6	"	831		59.8	14-131				
Naphthalene	473	41.6	"	831		56.9	20-121				
Nitrobenzene	493	41.6	"	831		59.4	20-121				
N-Nitrosodimethylamine	430	41.6	"	831		51.8	10-124				
N-nitroso-di-n-propylamine	451	41.6	"	831		54.3	21-119				
N-Nitrosodiphenylamine	489	41.6	"	831		58.9	10-163				
Pentachlorophenol	276	41.6	"	831		33.3	10-143				
Phenanthrene	496	41.6	"	831		59.8	24-123				
Phenol	451	41.6	"	831		54.3	15-123				
Pyrene	422	41.6	"	831		50.8	24-132				
Surrogate: SURR: 2-Fluorophenol	*859*		*"*	*1660*		*51.7*	*20-108*				
Surrogate: SURR: Phenol-d5	*799*		*"*	*1660*		*48.1*	*23-114*				
Surrogate: SURR: Nitrobenzene-d5	*502*		*"*	*831*		*60.4*	*22-108*				
Surrogate: SURR: 2-Fluorobiphenyl	*389*		*"*	*831*		*46.8*	*21-113*				
Surrogate: SURR: 2,4,6-Tribromophenol	*951*		*"*	*1660*		*57.3*	*19-110*				
Surrogate: SURR: Terphenyl-d14	*421*		*"*	*831*		*50.6*	*24-116*				

Batch BF90377 - EPA 3050B

Blank (BF90377-BLK1)

Prepared: 06/07/2019 Analyzed: 06/10/2019

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
Aluminum	ND	5.00	mg/kg wet								
Antimony	ND	2.50	"								
Arsenic	ND	1.50	"								
Barium	ND	2.50	"								
Beryllium	ND	0.050	"								
Cadmium	ND	0.300	"								
Calcium	ND	5.00	"								
Chromium	ND	0.500	"								
Cobalt	ND	0.400	"								
Copper	ND	2.00	"								
Iron	ND	25.0	"								
Lead	ND	0.500	"								
Magnesium	ND	5.00	"								
Manganese	ND	0.500	"								
Nickel	ND	1.00	"								
Potassium	ND	5.00	"								
Selenium	ND	2.50	"								
Silver	ND	0.500	"								
Sodium	ND	50.0	"								
Thallium	ND	2.50	"								
Vanadium	ND	1.00	"								
Zinc	ND	2.50	"								

Reference (BF90377-SRM1)

Prepared: 06/07/2019 Analyzed: 06/10/2019

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
Aluminum	7970	5.00	mg/kg wet	8360		95.3	50.2-149.5				
Antimony	79.8	2.50	"	89.6		89.1	19.3-258.9				
Arsenic	222	1.50	"	202		110	69.8-130.2				
Barium	292	2.50	"	270		108	75.2-125.2				
Beryllium	105	0.050	"	96.8		108	75-125				
Cadmium	146	0.300	"	141		103	74.5-124.8				
Calcium	5100	5.00	"	4700		108	72.6-127.7				
Chromium	173	0.500	"	167		104	70.1-129.9				
Cobalt	189	0.400	"	174		109	74.7-124.7				
Copper	123	2.00	"	108		114	74.7-124.1				
Iron	12700	25.0	"	14700		86.4	36.4-163.9				
Lead	80.7	0.500	"	73.8		109	68.4-131.6				
Magnesium	2340	5.00	"	2310		101	61.9-138.1				
Manganese	359	0.500	"	330		109	75.2-124.8				
Nickel	109	1.00	"	89.4		122	69.9-129.8				
Potassium	2210	5.00	"	2240		98.7	60.7-139.7				
Selenium	33.8	2.50	"	49.9		67.7	58.1-141.7				
Silver	57.5	0.500	"	71.1		80.9	70.7-129.3				
Sodium	217	50.0	"	195		111	45.5-154.4				
Thallium	61.4	2.50	"	58.5		105	60.9-139.3				
Vanadium	55.4	1.00	"	58.2		95.2	57.4-142.6				
Zinc	276	2.50	"	264		105	70.1-130.3				

Mercury by EPA 7000/200 Series Methods - Quality Control Data

York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
Batch BF90355 - EPA 7473 soil											
Blank (BF90355-BLK1)							Prepared & Analyzed: 06/07/2019				
Mercury	ND	0.0300	mg/kg wet								
Reference (BF90355-SRM1)							Prepared & Analyzed: 06/07/2019				
Mercury	2.7631		mg/kg	3.71		74.5	65-135				

Volatile Analysis Sample Containers

Lab ID	Client Sample ID	Volatile Sample Container
19F0191-01	B1 S1 VOC	40mL Vial with Stir Bar-Cool 4° C
19F0191-03	B2 S2 VOC	40mL Vial with Stir Bar-Cool 4° C
19F0191-05	B3 S3 VOC	40mL Vial with Stir Bar-Cool 4° C
19F0191-07	B4 S4 VOC	40mL Vial with Stir Bar-Cool 4° C
19F0191-09	B6 D1 VOC	40mL Vial with Stir Bar-Cool 4° C

Sample and Data Qualifiers Relating to This Work Order

QL-02	This LCS analyte is outside Laboratory Recovery limits due the analyte behavior using the referenced method. The reference method has certain limitations with respect to analytes of this nature.
M-CRL	The RL check for this element recovered outside of control limits.
J	Detected below the Reporting Limit but greater than or equal to the Method Detection Limit (MDL/LOD) or in the case of a TIC, the result is an estimated concentration.
E	The concentration indicated for this analyte is an estimated value above the calibration range of the instrument. This value is considered an estimate.
CCV-E	The value reported is ESTIMATED. The value is estimated due to its behavior during continuing calibration verification (>20% Difference for average Rf or >20% Drift for quadratic fit).

Definitions and Other Explanations

*	Analyte is not certified or the state of the samples origination does not offer certification for the Analyte.
ND	NOT DETECTED - the analyte is not detected at the Reported to level (LOQ/RL or LOD/MDL)
RL	REPORTING LIMIT - the minimum reportable value based upon the lowest point in the analyte calibration curve.
LOQ	LIMIT OF QUANTITATION - the minimum concentration of a target analyte that can be reported within a specified degree of confidence. This is the lowest point in an analyte calibration curve that has been subjected to all steps of the processing/analysis and verified to meet defined criteria. This is based upon NELAC 2009 Standards and applies to all analyses.
LOD	LIMIT OF DETECTION - a verified estimate of the minimum concentration of a substance in a given matrix that an analytical process can reliably detect. This is based upon NELAC 2009 Standards and applies to all analyses conducted under the auspices of EPA SW-846.
MDL	METHOD DETECTION LIMIT - a statistically derived estimate of the minimum amount of a substance an analytical system can reliably detect with a 99% confidence that the concentration of the substance is greater than zero. This is based upon 40 CFR Part 136 Appendix B and applies only to EPA 600 and 200 series methods.
Reported to	This indicates that the data for a particular analysis is reported to either the LOD/MDL, or the LOQ/RL. In cases where the "Reported to" is located above the LOD/MDL, any value between this and the LOQ represents an estimated value which is "J" flagged accordingly. This applies to volatile and semi-volatile target compounds only.
NR	Not reported
RPD	Relative Percent Difference
Wet	The data has been reported on an as-received (wet weight) basis
Low Bias	Low Bias flag indicates that the recovery of the flagged analyte is below the laboratory or regulatory lower control limit. The data user should take note that this analyte may be biased low but should evaluate multiple lines of evidence including the LCS and site-specific MS/MSD data to draw bias conclusions. In cases where no site-specific MS/MSD was requested, only the LCS data can be used to evaluate such bias.
High Bias	High Bias flag indicates that the recovery of the flagged analyte is above the laboratory or regulatory upper control limit. The data user should take note that this analyte may be biased high but should evaluate multiple lines of evidence including the LCS and site-specific MS/MSD data to draw bias conclusions. In cases where no site-specific MS/MSD was requested, only the LCS data can be used to evaluate such bias.
Non-Dir.	Non-dir. flag (Non-Directional Bias) indicates that the Relative Percent Difference (RPD) (a measure of precision) among the MS and MSD data is outside the laboratory or regulatory control limit. This alerts the data user where the MS and MSD are from site-specific samples that the RPD is high due to either non-homogeneous distribution of target analyte between the MS/MSD or indicates poor reproducibility for other reasons.

If EPA SW-846 method 8270 is included herein it is noted that the target compound N-nitrosodiphenylamine (NDPA) decomposes in the gas chromatographic inlet and cannot be separated from diphenylamine (DPA). These results could actually represent 100% DPA, 100% NDPA or some combination of the two. For this reason, York reports the combined result for n-nitrosodiphenylamine and diphenylamine for either of these compounds as a combined concentration as Diphenylamine.

If Total PCBs are detected and the target aroclors reported are "Not detected", the Total PCB value is reported due to the presence of either or both Aroclors 1262 and 1268 which are non-target aroclors for some regulatory lists.

2-chloroethylvinyl ether readily breaks down under acidic conditions. Samples that are acid preserved, including standards will exhibit breakdown. The data user should take note.

Certification for pH is no longer offered by NYDOH ELAP.

Semi-Volatile and Volatile analyses are reported down to the LOD/MDL, with values between the LOD/MDL and the LOQ being "J" flagged as estimated results.

For analyses by EPA SW-846-8270D, the Limit of Quantitation (LOQ) reported for benzidine is based upon the lowest standard used for calibration and is not a verified LOQ due to this compound's propensity for oxidative losses during extraction/concentration procedures and non-reproducible chromatographic performance.

YORK ANALYTICAL LABORATORIES INC

York Analytical Laboratories, Inc.
120 Research Drive, Stratford, CT 06615
132-02 89th Ave, Queens, NY 11418
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www.yorklab.com

Field Chain-of-Custody Record

NOTE: YORK's Standard Terms & Conditions are listed on the back side of this document. This document serves as your written authorization for YORK to proceed with the analyses requested below. Your signature binds you to YORK's Standard Terms & Conditions.

YORK Project No. 19F0191

Page 1 of 1

YOUR Information	Report To:	Invoice To:
Company: Tectonic Engineering	Company: Tectonic Engineering	Company: Tectonic Engineering
Address: 70 Pleasant Hill Rd Mountainville, NY	Address: 70 Pleasant Hill Rd Mountainville, NY	Address: 70 Pleasant Hill Rd Mountainville, NY
Phone: 845 534 5959	Phone: 845 534 5959	Phone: 845 534 5959
Contact: Kristine Garbarino	Contact: Kristine Garbarino	Contact: KGarbarino@
E-mail: KGarbarino@tectonicengineering.com	E-mail:	E-mail: tectonicengineering.com

YOUR Project Number: 9294

YOUR Project Name: Monticello Manor

YOUR PO#: 17444

Turn-Around Time
- RUSH - Next Day ☐
- RUSH - Two Day ☐
- RUSH - Three Day ☐
- RUSH - Four Day ☐
- **Standard (5-7 Day)** ☒

Please print clearly and legibly. All information must be complete. Samples will not be logged in and the turn-around-time clock will not begin until any questions by YORK are resolved.

Dina Peoples

Samples Collected by: (print your name above and sign below)

Dina People

Matrix Codes
- [✓ S - soil / solid]
- GW - groundwater
- DW - drinking water
- WW - wastewater
- O - Oil
- Other

Samples From
- New York ☒
- New Jersey ☐
- Connecticut ☐
- Pennsylvania ☐
- Other ☐

Report / EDD Type (circle selections)
- [✓ Summary Report]
- QA Report
- ~~NY ASP A Package~~
- NY ASP B Package
- CT RCP
- CT RCP DQA/DUE
- NJDEP Reduced Deliverables
- NJDKQP
- [✓ Standard Excel EDD]
- EQuIS (Standard)
- NYSDEC EQuIS
- NJDEP SRP HazSite
- Other:

YORK Reg. Comp.
Compared to the following Regulation(s): (please fill in)

Sample Identification	Sample Matrix	Date/Time Sampled	Analysis Requested	Container Description
B1 S1 VOC	S	6/5/19 1000	TCL VOC	4 vials = VOC
B1 S1 Comp		1000	TCL SVOC, TAL Metals	8 oz JAR =
B2 S2 VOC		1045	TCL VOC	SVOC + Metals
B2 S2 Comp		1045	TCL SVOC TAL Metals	
B3 S3 VOC		1230	TCL VOC	
B3 S3 Comp		1230	TCL SVOC TAL Metals	
B4 S4 VOC		1300	TCL VOC	
B4 S4 Comp		1300	TCL SVOC TAL Metals	
B6 D1 VOC		1130	TCL VOC	
B6 D1 Comp		1130	TCL SVOC TAL Metals	

Comments:

Preservation: (check all that apply)
HCl ___ MeOH ___ HNO3 ___ H2SO4 ___ NaOH ___ ZnAc ___
Ascorbic Acid ___ Other: Ice

Special Instruction
Field Filtered ___
Lab to Filter ___

Samples Relinquished by / Company	Date/Time	Samples Received by / Company	Date/Time	Samples Relinquished by / Company	Date/Time
Dina Peoples	6/5/19 1330		6-6-19 12:40		
Samples Received by / Company	Date/Time	Samples Relinquished by / Company	Date/Time	Samples Received by / Company	Date/Time
Samples Relinquished by / Company	Date/Time	Samples Received by / Company	Date/Time	Samples Received in LAB by / Date/Time	Temp. Received at Lab
				TC 6/6/19 1410	1.7 Degrees C

Technical Report

prepared for:

Tectonic
70 Pleasant Hill Road
Mountainville NY, 10953
Attention: Kristine Garbarino

Report Date: 06/14/2019
Client Project ID: 9294 Monticello Manor
York Project (SDG) No.: 19F0195

CT Cert. No. PH-0723
New Jersey Cert. No. CT005 and NY037
New York Cert. Nos. 10854 and 12058
PA Cert. No. 68-04440

Report Date: 06/14/2019
Client Project ID: 9294 Monticello Manor
York Project (SDG) No.: 19F0195

Tectonic
70 Pleasant Hill Road
Mountainville NY, 10953
Attention: Kristine Garbarino

Purpose and Results

This report contains the analytical data for the sample(s) identified on the attached chain-of-custody received in our laboratory on June 06, 2019 and listed below. The project was identified as your project: **9294 Monticello Manor**.

The analyses were conducted utilizing appropriate EPA, Standard Methods, and ASTM methods as detailed in the data summary tables.

All samples were received in proper condition meeting the customary acceptance requirements for environmental samples except those indicated under the Sample and Analysis Qualifiers section of this report.

All analyses met the method and laboratory standard operating procedure requirements except as indicated by any data flags, the meaning of which are explained in the Sample and Data Qualifiers Relating to This Work Order section of this report and case narrative if applicable.

The results of the analyses, which are all reported on dry weight basis (soils) unless otherwise noted, are detailed in the following pages.

Please contact Client Services at 203.325.1371 with any questions regarding this report.

York Sample ID	Client Sample ID	Matrix	Date Collected	Date Received
19F0195-01	**B7 D2 VOC**	**Soil**	**06/06/2019**	**06/06/2019**
19F0195-02	**B7 D2 Comp**	**Soil**	**06/06/2019**	**06/06/2019**
19F0195-03	**B8 D3 VOC**	**Soil**	**06/06/2019**	**06/06/2019**
19F0195-04	**B8 D3 Comp**	**Soil**	**06/06/2019**	**06/06/2019**
19F0195-05	**B5 S5 VOC**	**Soil**	**06/06/2019**	**06/06/2019**
19F0195-06	**B5 S5 Comp**	**Soil**	**06/06/2019**	**06/06/2019**

General Notes for York Project (SDG) No.: 19F0195

1. The RLs and MDLs (Reporting Limit and Method Detection Limit respectively) reported are adjusted for any dilution necessary due to the levels of target and/or non-target analytes and matrix interference. The RL(REPORTING LIMIT) is based upon the lowest standard utilized for the calibration where applicable.
2. Samples are retained for a period of thirty days after submittal of report, unless other arrangements are made.
3. York's liability for the above data is limited to the dollar value paid to York for the referenced project.
4. This report shall not be reproduced without the written approval of York Analytical Laboratories, Inc.
5. All analyses conducted met method or Laboratory SOP requirements. See the Sample and Data Qualifiers Section for further information.
6. It is noted that no analyses reported herein were subcontracted to another laboratory, unless noted in the report.
7. This report reflects results that relate only to the samples submitted on the attached chain-of-custody form(s) received by York.
8. Analyses conducted at York Analytical Laboratories, Inc. Stratford, CT are indicated by NY Cert. No. 10854; those conducted at York Analytical Laboratories, Inc., Richmond Hill, NY are indicated by NY Cert. No. 12058.

Approved By: **Date:** 06/14/2019

Benjamin Gulizia
Laboratory Director

Sample Information

Client Sample ID: **B7 D2 VOC**

York Sample ID: **19F0195-01**

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
19F0195	9294 Monticello Manor	Soil	June 6, 2019 10:30 am	06/06/2019

Volatile Organics, 8260 - Comprehensive

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5035A

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
630-20-6	1,1,1,2-Tetrachloroethane	ND		ug/kg dry	3.3	6.6	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 02:10	LLJ
71-55-6	1,1,1-Trichloroethane	ND		ug/kg dry	3.3	6.6	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 02:10	LLJ
79-34-5	1,1,2,2-Tetrachloroethane	ND		ug/kg dry	3.3	6.6	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 02:10	LLJ
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND		ug/kg dry	3.3	6.6	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP	06/10/2019 07:16	06/11/2019 02:10	LLJ
79-00-5	1,1,2-Trichloroethane	ND		ug/kg dry	3.3	6.6	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 02:10	LLJ
75-34-3	1,1-Dichloroethane	ND		ug/kg dry	3.3	6.6	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 02:10	LLJ
75-35-4	1,1-Dichloroethylene	ND		ug/kg dry	3.3	6.6	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 02:10	LLJ
87-61-6	1,2,3-Trichlorobenzene	ND		ug/kg dry	3.3	6.6	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 02:10	LLJ
96-18-4	1,2,3-Trichloropropane	ND		ug/kg dry	3.3	6.6	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP	06/10/2019 07:16	06/11/2019 02:10	LLJ
120-82-1	1,2,4-Trichlorobenzene	ND		ug/kg dry	3.3	6.6	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 02:10	LLJ
95-63-6	1,2,4-Trimethylbenzene	ND		ug/kg dry	3.3	6.6	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 02:10	LLJ
96-12-8	1,2-Dibromo-3-chloropropane	ND		ug/kg dry	3.3	6.6	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 02:10	LLJ
106-93-4	1,2-Dibromoethane	ND		ug/kg dry	3.3	6.6	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 02:10	LLJ
95-50-1	1,2-Dichlorobenzene	ND		ug/kg dry	3.3	6.6	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 02:10	LLJ
107-06-2	1,2-Dichloroethane	ND		ug/kg dry	3.3	6.6	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 02:10	LLJ
78-87-5	1,2-Dichloropropane	ND		ug/kg dry	3.3	6.6	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 02:10	LLJ
108-67-8	1,3,5-Trimethylbenzene	ND		ug/kg dry	3.3	6.6	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 02:10	LLJ
541-73-1	1,3-Dichlorobenzene	ND		ug/kg dry	3.3	6.6	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 02:10	LLJ
106-46-7	1,4-Dichlorobenzene	ND		ug/kg dry	3.3	6.6	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 02:10	LLJ
123-91-1	1,4-Dioxane	ND		ug/kg dry	66	130	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 02:10	LLJ
78-93-3	2-Butanone	ND		ug/kg dry	3.3	6.6	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 02:10	LLJ
591-78-6	2-Hexanone	ND		ug/kg dry	3.3	6.6	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 02:10	LLJ

Sample Information

Client Sample ID: **B7 D2 VOC**

York Sample ID: **19F0195-01**

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
19F0195	9294 Monticello Manor	Soil	June 6, 2019 10:30 am	06/06/2019

Volatile Organics, 8260 - Comprehensive

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5035A

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
108-10-1	4-Methyl-2-pentanone	ND		ug/kg dry	3.3	6.6	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 02:10	LLJ
67-64-1	Acetone	ND		ug/kg dry	6.6	13	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 02:10	LLJ
107-02-8	Acrolein	ND		ug/kg dry	6.6	13	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 02:10	LLJ
107-13-1	Acrylonitrile	ND		ug/kg dry	3.3	6.6	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 02:10	LLJ
71-43-2	Benzene	ND		ug/kg dry	3.3	6.6	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 02:10	LLJ
74-97-5	Bromochloromethane	ND		ug/kg dry	3.3	6.6	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 02:10	LLJ
75-27-4	Bromodichloromethane	ND		ug/kg dry	3.3	6.6	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 02:10	LLJ
75-25-2	Bromoform	ND		ug/kg dry	3.3	6.6	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 02:10	LLJ
74-83-9	Bromomethane	ND		ug/kg dry	3.3	6.6	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 02:10	LLJ
75-15-0	Carbon disulfide	ND		ug/kg dry	3.3	6.6	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 02:10	LLJ
56-23-5	Carbon tetrachloride	ND		ug/kg dry	3.3	6.6	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 02:10	LLJ
108-90-7	Chlorobenzene	ND		ug/kg dry	3.3	6.6	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 02:10	LLJ
75-00-3	Chloroethane	ND		ug/kg dry	3.3	6.6	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 02:10	LLJ
67-66-3	Chloroform	ND		ug/kg dry	3.3	6.6	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 02:10	LLJ
74-87-3	Chloromethane	ND		ug/kg dry	3.3	6.6	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 02:10	LLJ
156-59-2	cis-1,2-Dichloroethylene	ND		ug/kg dry	3.3	6.6	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 02:10	LLJ
10061-01-5	cis-1,3-Dichloropropylene	ND		ug/kg dry	3.3	6.6	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 02:10	LLJ
110-82-7	Cyclohexane	ND		ug/kg dry	3.3	6.6	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 02:10	LLJ
124-48-1	Dibromochloromethane	ND		ug/kg dry	3.3	6.6	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 02:10	LLJ
74-95-3	Dibromomethane	ND		ug/kg dry	3.3	6.6	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 02:10	LLJ
75-71-8	Dichlorodifluoromethane	ND		ug/kg dry	3.3	6.6	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 02:10	LLJ
100-41-4	Ethyl Benzene	ND		ug/kg dry	3.3	6.6	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 02:10	LLJ
87-68-3	Hexachlorobutadiene	ND		ug/kg dry	3.3	6.6	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 02:10	LLJ

Sample Information

Client Sample ID: **B7 D2 VOC** **York Sample ID:** **19F0195-01**

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
19F0195	9294 Monticello Manor	Soil	June 6, 2019 10:30 am	06/06/2019

Volatile Organics, 8260 - Comprehensive

Log-in Notes: **Sample Notes:**

Sample Prepared by Method: EPA 5035A

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
98-82-8	Isopropylbenzene	ND		ug/kg dry	3.3	6.6	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 02:10	LLJ
79-20-9	Methyl acetate	ND		ug/kg dry	3.3	6.6	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 02:10	LLJ
1634-04-4	Methyl tert-butyl ether (MTBE)	ND		ug/kg dry	3.3	6.6	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 02:10	LLJ
108-87-2	Methylcyclohexane	ND		ug/kg dry	3.3	6.6	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 02:10	LLJ
75-09-2	Methylene chloride	ND		ug/kg dry	6.6	13	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 02:10	LLJ
104-51-8	n-Butylbenzene	ND		ug/kg dry	3.3	6.6	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 02:10	LLJ
103-65-1	n-Propylbenzene	ND		ug/kg dry	3.3	6.6	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 02:10	LLJ
95-47-6	o-Xylene	ND		ug/kg dry	3.3	6.6	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,PADEP	06/10/2019 07:16	06/11/2019 02:10	LLJ
179601-23-1	p- & m- Xylenes	ND		ug/kg dry	6.6	13	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,PADEP	06/10/2019 07:16	06/11/2019 02:10	LLJ
99-87-6	p-Isopropyltoluene	ND		ug/kg dry	3.3	6.6	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 02:10	LLJ
135-98-8	sec-Butylbenzene	ND		ug/kg dry	3.3	6.6	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 02:10	LLJ
100-42-5	Styrene	ND		ug/kg dry	3.3	6.6	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 02:10	LLJ
75-65-0	tert-Butyl alcohol (TBA)	ND		ug/kg dry	3.3	6.6	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 02:10	LLJ
98-06-6	tert-Butylbenzene	ND		ug/kg dry	3.3	6.6	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 02:10	LLJ
127-18-4	Tetrachloroethylene	ND		ug/kg dry	3.3	6.6	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 02:10	LLJ
108-88-3	Toluene	ND		ug/kg dry	3.3	6.6	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 02:10	LLJ
156-60-5	trans-1,2-Dichloroethylene	ND		ug/kg dry	3.3	6.6	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 02:10	LLJ
10061-02-6	trans-1,3-Dichloropropylene	ND		ug/kg dry	3.3	6.6	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 02:10	LLJ
110-57-6	* trans-1,4-dichloro-2-butene	ND		ug/kg dry	3.3	6.6	1	EPA 8260C Certifications: CTDOH	06/10/2019 07:16	06/11/2019 02:10	LLJ
79-01-6	Trichloroethylene	ND		ug/kg dry	3.3	6.6	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 02:10	LLJ
75-69-4	Trichlorofluoromethane	ND		ug/kg dry	3.3	6.6	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 02:10	LLJ
75-01-4	Vinyl Chloride	ND		ug/kg dry	3.3	6.6	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 02:10	LLJ
1330-20-7	Xylenes, Total	ND		ug/kg dry	9.8	20	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP	06/10/2019 07:16	06/11/2019 02:10	LLJ

Surrogate Recoveries	Result	Acceptance Range

Sample Information

Client Sample ID: **B7 D2 VOC** **York Sample ID:** **19F0195-01**

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
19F0195	9294 Monticello Manor	Soil	June 6, 2019 10:30 am	06/06/2019

Volatile Organics, 8260 - Comprehensive

Log-in Notes: **Sample Notes:**

Sample Prepared by Method: EPA 5035A

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
17060-07-0	*Surrogate: SURR: 1,2-Dichloroethane-d4*	*99.6 %*			*77-125*						
2037-26-5	*Surrogate: SURR: Toluene-d8*	*99.5 %*			*85-120*						
460-00-4	*Surrogate: SURR: p-Bromofluorobenzene*	*111 %*			*76-130*						

Total Solids

Log-in Notes: **Sample Notes:**

Sample Prepared by Method: % Solids Prep

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
solids	*** % Solids**	**72.7**		%	0.100	1	SM 2540G Certifications: CTDOH	06/13/2019 15:12	06/13/2019 15:15	KT

Sample Information

Client Sample ID: **B7 D2 Comp** **York Sample ID:** **19F0195-02**

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
19F0195	9294 Monticello Manor	Soil	June 6, 2019 10:30 am	06/06/2019

Semi-Volatiles, 8270 - Comprehensive

Log-in Notes: **Sample Notes:**

Sample Prepared by Method: EPA 3550C

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
92-52-4	1,1-Biphenyl	ND		ug/kg dry	28.9	57.6	1	EPA 8270D Certifications: NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 19:16	KH
95-94-3	1,2,4,5-Tetrachlorobenzene	ND		ug/kg dry	57.6	115	1	EPA 8270D Certifications: NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 19:16	KH
120-82-1	1,2,4-Trichlorobenzene	ND		ug/kg dry	28.9	57.6	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 19:16	KH
95-50-1	1,2-Dichlorobenzene	ND		ug/kg dry	28.9	57.6	1	EPA 8270D Certifications: NELAC-NY10854,PADEP	06/12/2019 07:48	06/13/2019 19:16	KH
122-66-7	1,2-Diphenylhydrazine (as Azobenzene)	ND		ug/kg dry	28.9	57.6	1	EPA 8270D Certifications: NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 19:16	KH
541-73-1	1,3-Dichlorobenzene	ND		ug/kg dry	28.9	57.6	1	EPA 8270D Certifications: NELAC-NY10854,PADEP	06/12/2019 07:48	06/13/2019 19:16	KH
106-46-7	1,4-Dichlorobenzene	ND		ug/kg dry	28.9	57.6	1	EPA 8270D Certifications: NELAC-NY10854,PADEP	06/12/2019 07:48	06/13/2019 19:16	KH
58-90-2	2,3,4,6-Tetrachlorophenol	ND		ug/kg dry	57.6	115	1	EPA 8270D Certifications: NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 19:16	KH
95-95-4	2,4,5-Trichlorophenol	ND		ug/kg dry	28.9	57.6	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 19:16	KH

Sample Information

Client Sample ID: **B7 D2 Comp** **York Sample ID:** **19F0195-02**

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
19F0195	9294 Monticello Manor	Soil	June 6, 2019 10:30 am	06/06/2019

Semi-Volatiles, 8270 - Comprehensive

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3550C

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
88-06-2	2,4,6-Trichlorophenol	ND		ug/kg dry	28.9	57.6	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 19:16	KH
120-83-2	2,4-Dichlorophenol	ND		ug/kg dry	28.9	57.6	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 19:16	KH
105-67-9	2,4-Dimethylphenol	ND		ug/kg dry	28.9	57.6	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 19:16	KH
51-28-5	2,4-Dinitrophenol	ND		ug/kg dry	57.6	115	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 19:16	KH
121-14-2	2,4-Dinitrotoluene	ND		ug/kg dry	28.9	57.6	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 19:16	KH
606-20-2	2,6-Dinitrotoluene	ND		ug/kg dry	28.9	57.6	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 19:16	KH
91-58-7	2-Chloronaphthalene	ND		ug/kg dry	28.9	57.6	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 19:16	KH
95-57-8	2-Chlorophenol	ND		ug/kg dry	28.9	57.6	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 19:16	KH
91-57-6	2-Methylnaphthalene	ND		ug/kg dry	28.9	57.6	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 19:16	KH
95-48-7	2-Methylphenol	ND		ug/kg dry	28.9	57.6	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 19:16	KH
88-74-4	2-Nitroaniline	ND		ug/kg dry	57.6	115	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 19:16	KH
88-75-5	2-Nitrophenol	ND		ug/kg dry	28.9	57.6	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 19:16	KH
65794-96-9	3- & 4-Methylphenols	ND		ug/kg dry	28.9	57.6	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 19:16	KH
91-94-1	3,3-Dichlorobenzidine	ND		ug/kg dry	28.9	57.6	1	EPA 8270D Certifications: NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 19:16	KH
99-09-2	3-Nitroaniline	ND		ug/kg dry	57.6	115	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 19:16	KH
534-52-1	4,6-Dinitro-2-methylphenol	ND		ug/kg dry	57.6	115	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 19:16	KH
101-55-3	4-Bromophenyl phenyl ether	ND		ug/kg dry	28.9	57.6	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 19:16	KH
59-50-7	4-Chloro-3-methylphenol	ND		ug/kg dry	28.9	57.6	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 19:16	KH
106-47-8	4-Chloroaniline	ND		ug/kg dry	28.9	57.6	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 19:16	KH
7005-72-3	4-Chlorophenyl phenyl ether	ND		ug/kg dry	28.9	57.6	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 19:16	KH
100-01-6	4-Nitroaniline	ND		ug/kg dry	57.6	115	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 19:16	KH
100-02-7	4-Nitrophenol	ND		ug/kg dry	57.6	115	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 19:16	KH
83-32-9	Acenaphthene	ND		ug/kg dry	28.9	57.6	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 19:16	KH

Sample Information

Client Sample ID: **B7 D2 Comp** **York Sample ID:** **19F0195-02**

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
19F0195	9294 Monticello Manor	Soil	June 6, 2019 10:30 am	06/06/2019

Semi-Volatiles, 8270 - Comprehensive

Log-in Notes: **Sample Notes:**

Sample Prepared by Method: EPA 3550C

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
208-96-8	Acenaphthylene	ND		ug/kg dry	28.9	57.6	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 19:16	KH
98-86-2	Acetophenone	ND		ug/kg dry	28.9	57.6	1	EPA 8270D Certifications: NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 19:16	KH
62-53-3	Aniline	ND		ug/kg dry	115	231	1	EPA 8270D Certifications: NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 19:16	KH
120-12-7	Anthracene	ND		ug/kg dry	28.9	57.6	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 19:16	KH
1912-24-9	Atrazine	ND		ug/kg dry	28.9	57.6	1	EPA 8270D Certifications: NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 19:16	KH
100-52-7	Benzaldehyde	ND		ug/kg dry	28.9	57.6	1	EPA 8270D Certifications: NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 19:16	KH
92-87-5	Benzidine	ND		ug/kg dry	115	231	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,PADEP	06/12/2019 07:48	06/13/2019 19:16	KH
56-55-3	Benzo(a)anthracene	ND		ug/kg dry	28.9	57.6	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 19:16	KH
50-32-8	Benzo(a)pyrene	ND		ug/kg dry	28.9	57.6	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 19:16	KH
205-99-2	Benzo(b)fluoranthene	ND		ug/kg dry	28.9	57.6	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 19:16	KH
191-24-2	Benzo(g,h,i)perylene	ND		ug/kg dry	28.9	57.6	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 19:16	KH
207-08-9	Benzo(k)fluoranthene	ND		ug/kg dry	28.9	57.6	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 19:16	KH
65-85-0	**Benzoic acid**	**41.5**	J	ug/kg dry	28.9	57.6	1	EPA 8270D Certifications: NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 19:16	KH
100-51-6	Benzyl alcohol	ND		ug/kg dry	28.9	57.6	1	EPA 8270D Certifications: NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 19:16	KH
85-68-7	Benzyl butyl phthalate	ND		ug/kg dry	28.9	57.6	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 19:16	KH
111-91-1	Bis(2-chloroethoxy)methane	ND		ug/kg dry	28.9	57.6	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 19:16	KH
111-44-4	Bis(2-chloroethyl)ether	ND		ug/kg dry	28.9	57.6	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 19:16	KH
108-60-1	Bis(2-chloroisopropyl)ether	ND		ug/kg dry	28.9	57.6	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 19:16	KH
117-81-7	**Bis(2-ethylhexyl)phthalate**	**636**	CCV-E	ug/kg dry	28.9	57.6	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 19:16	KH
105-60-2	Caprolactam	ND		ug/kg dry	57.6	115	1	EPA 8270D Certifications: NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 19:16	KH
86-74-8	Carbazole	ND		ug/kg dry	28.9	57.6	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 19:16	KH
218-01-9	Chrysene	ND		ug/kg dry	28.9	57.6	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 19:16	KH
53-70-3	Dibenzo(a,h)anthracene	ND		ug/kg dry	28.9	57.6	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 19:16	KH

Sample Information

Client Sample ID: **B7 D2 Comp**

York Sample ID: **19F0195-02**

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
19F0195	9294 Monticello Manor	Soil	June 6, 2019 10:30 am	06/06/2019

Semi-Volatiles, 8270 - Comprehensive

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3550C

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
132-64-9	Dibenzofuran	ND		ug/kg dry	28.9	57.6	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 19:16	KH
84-66-2	Diethyl phthalate	ND		ug/kg dry	28.9	57.6	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 19:16	KH
131-11-3	Dimethyl phthalate	ND		ug/kg dry	28.9	57.6	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 19:16	KH
84-74-2	Di-n-butyl phthalate	ND		ug/kg dry	28.9	57.6	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 19:16	KH
117-84-0	Di-n-octyl phthalate	ND		ug/kg dry	28.9	57.6	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 19:16	KH
206-44-0	**Fluoranthene**	**35.5**	J	ug/kg dry	28.9	57.6	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 19:16	KH
86-73-7	Fluorene	ND		ug/kg dry	28.9	57.6	1	EPA 8270D Certifications: NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 19:16	KH
118-74-1	Hexachlorobenzene	ND		ug/kg dry	28.9	57.6	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 19:16	KH
87-68-3	Hexachlorobutadiene	ND		ug/kg dry	28.9	57.6	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 19:16	KH
77-47-4	Hexachlorocyclopentadiene	ND		ug/kg dry	28.9	57.6	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 19:16	KH
67-72-1	Hexachloroethane	ND		ug/kg dry	28.9	57.6	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 19:16	KH
193-39-5	Indeno(1,2,3-cd)pyrene	ND		ug/kg dry	28.9	57.6	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 19:16	KH
78-59-1	Isophorone	ND		ug/kg dry	28.9	57.6	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 19:16	KH
91-20-3	Naphthalene	ND		ug/kg dry	28.9	57.6	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 19:16	KH
98-95-3	Nitrobenzene	ND		ug/kg dry	28.9	57.6	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 19:16	KH
62-75-9	N-Nitrosodimethylamine	ND		ug/kg dry	28.9	57.6	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 19:16	KH
621-64-7	N-nitroso-di-n-propylamine	ND		ug/kg dry	28.9	57.6	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 19:16	KH
86-30-6	N-Nitrosodiphenylamine	ND		ug/kg dry	28.9	57.6	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 19:16	KH
87-86-5	Pentachlorophenol	ND		ug/kg dry	28.9	57.6	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 19:16	KH
85-01-8	Phenanthrene	ND		ug/kg dry	28.9	57.6	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 19:16	KH
108-95-2	Phenol	ND		ug/kg dry	28.9	57.6	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 19:16	KH
129-00-0	**Pyrene**	**29.5**	J	ug/kg dry	28.9	57.6	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 19:16	KH

	Surrogate Recoveries	Result	Acceptance Range
367-12-4	*Surrogate: SURR: 2-Fluorophenol*	*33.3 %*	*20-108*

Sample Information

Client Sample ID: **B7 D2 Comp** | **York Sample ID:** **19F0195-02**

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
19F0195	9294 Monticello Manor	Soil	June 6, 2019 10:30 am	06/06/2019

Semi-Volatiles, 8270 - Comprehensive

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3550C

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
4165-62-2	*Surrogate: SURR: Phenol-d5*	*32.0 %*			*23-114*						
4165-60-0	*Surrogate: SURR: Nitrobenzene-d5*	*37.1 %*			*22-108*						
321-60-8	*Surrogate: SURR: 2-Fluorobiphenyl*	*25.9 %*			*21-113*						
118-79-6	*Surrogate: SURR: 2,4,6-Tribromophenol*	*30.4 %*			*19-110*						
1718-51-0	*Surrogate: SURR: Terphenyl-d14*	*27.2 %*			*24-116*						

Metals, Target Analyte

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3050B

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7429-90-5	**Aluminum**	**16500**		mg/kg dry	6.98	1	EPA 6010D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/07/2019 11:03	06/10/2019 13:56	KML
7440-36-0	Antimony	ND		mg/kg dry	3.49	1	EPA 6010D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/07/2019 11:03	06/10/2019 13:56	KML
7440-38-2	**Arsenic**	**3.08**		mg/kg dry	2.09	1	EPA 6010D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/07/2019 11:03	06/10/2019 13:56	KML
7440-39-3	**Barium**	**285**		mg/kg dry	3.49	1	EPA 6010D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/07/2019 11:03	06/10/2019 13:56	KML
7440-41-7	**Beryllium**	**0.385**		mg/kg dry	0.070	1	EPA 6010D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/07/2019 11:03	06/10/2019 13:56	KML
7440-43-9	Cadmium	ND		mg/kg dry	0.419	1	EPA 6010D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/07/2019 11:03	06/10/2019 13:56	KML
7440-70-2	**Calcium**	**964**		mg/kg dry	6.98	1	EPA 6010D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/07/2019 11:03	06/10/2019 13:56	KML
7440-47-3	**Chromium**	**8.86**		mg/kg dry	0.698	1	EPA 6010D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/07/2019 11:03	06/10/2019 13:56	KML
7440-48-4	**Cobalt**	**5.06**		mg/kg dry	0.558	1	EPA 6010D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/07/2019 11:03	06/10/2019 13:56	KML
7440-50-8	**Copper**	**31.2**		mg/kg dry	2.79	1	EPA 6010D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/07/2019 11:03	06/10/2019 13:56	KML
7439-89-6	**Iron**	**25000**		mg/kg dry	34.9	1	EPA 6010D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/07/2019 11:03	06/10/2019 13:56	KML
7439-92-1	**Lead**	**116**		mg/kg dry	0.698	1	EPA 6010D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/07/2019 11:03	06/10/2019 13:56	KML
7439-95-4	**Magnesium**	**1150**		mg/kg dry	6.98	1	EPA 6010D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/07/2019 11:03	06/10/2019 13:56	KML
7439-96-5	**Manganese**	**980**		mg/kg dry	0.698	1	EPA 6010D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/07/2019 11:03	06/10/2019 13:56	KML
7440-02-0	**Nickel**	**8.95**		mg/kg dry	1.40	1	EPA 6010D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/07/2019 11:03	06/10/2019 13:56	KML
7440-09-7	**Potassium**	**632**		mg/kg dry	6.98	1	EPA 6010D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/07/2019 11:03	06/10/2019 13:56	KML

Sample Information

Client Sample ID: **B7 D2 Comp**

York Sample ID: **19F0195-02**

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
19F0195	9294 Monticello Manor	Soil	June 6, 2019 10:30 am	06/06/2019

Metals, Target Analyte

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3050B

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7782-49-2	Selenium	ND		mg/kg dry	3.49	1	EPA 6010D	06/07/2019 11:03	06/10/2019 13:56	KML
							Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP			
7440-22-4	Silver	ND		mg/kg dry	0.698	1	EPA 6010D	06/07/2019 11:03	06/10/2019 13:56	KML
							Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP			
7440-23-5	Sodium	ND		mg/kg dry	69.8	1	EPA 6010D	06/07/2019 11:03	06/10/2019 13:56	KML
							Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP			
7440-28-0	Thallium	ND		mg/kg dry	3.49	1	EPA 6010D	06/07/2019 11:03	06/10/2019 13:56	KML
							Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP			
7440-62-2	**Vanadium**	**14.2**		mg/kg dry	1.40	1	EPA 6010D	06/07/2019 11:03	06/10/2019 13:56	KML
							Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP			
7440-66-6	**Zinc**	**119**		mg/kg dry	3.49	1	EPA 6010D	06/07/2019 11:03	06/10/2019 13:56	KML
							Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP			

Mercury by 7473

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 7473 soil

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7439-97-6	**Mercury**	**0.131**		mg/kg dry	0.0419	1	EPA 7473	06/07/2019 09:07	06/07/2019 10:39	SY
							Certifications: CTDOH,NJDEP,NELAC-NY10854,PADEP			

Total Solids

Log-in Notes:

Sample Notes:

Sample Prepared by Method: % Solids Prep

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
solids	*** % Solids**	**71.6**		%	0.100	1	SM 2540G	06/07/2019 11:33	06/07/2019 15:32	JTV
							Certifications: CTDOH			

Sample Information

Client Sample ID: **B8 D3 VOC**

York Sample ID: **19F0195-03**

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
19F0195	9294 Monticello Manor	Soil	June 6, 2019 9:30 am	06/06/2019

Volatile Organics, 8260 - Comprehensive

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5035A

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
630-20-6	1,1,1,2-Tetrachloroethane	ND		ug/kg dry	2.1	4.2	1	EPA 8260C	06/10/2019 07:16	06/11/2019 02:37	LLJ
								Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP			

Sample Information

Client Sample ID: **B8 D3 VOC**

York Sample ID: **19F0195-03**

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
19F0195	9294 Monticello Manor	Soil	June 6, 2019 9:30 am	06/06/2019

Volatile Organics, 8260 - Comprehensive

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5035A

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
71-55-6	1,1,1-Trichloroethane	ND		ug/kg dry	2.1	4.2	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 02:37	LLJ
79-34-5	1,1,2,2-Tetrachloroethane	ND		ug/kg dry	2.1	4.2	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 02:37	LLJ
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND		ug/kg dry	2.1	4.2	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP	06/10/2019 07:16	06/11/2019 02:37	LLJ
79-00-5	1,1,2-Trichloroethane	ND		ug/kg dry	2.1	4.2	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 02:37	LLJ
75-34-3	1,1-Dichloroethane	ND		ug/kg dry	2.1	4.2	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 02:37	LLJ
75-35-4	1,1-Dichloroethylene	ND		ug/kg dry	2.1	4.2	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 02:37	LLJ
87-61-6	1,2,3-Trichlorobenzene	ND		ug/kg dry	2.1	4.2	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 02:37	LLJ
96-18-4	1,2,3-Trichloropropane	ND		ug/kg dry	2.1	4.2	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP	06/10/2019 07:16	06/11/2019 02:37	LLJ
120-82-1	1,2,4-Trichlorobenzene	ND		ug/kg dry	2.1	4.2	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 02:37	LLJ
95-63-6	1,2,4-Trimethylbenzene	ND		ug/kg dry	2.1	4.2	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 02:37	LLJ
96-12-8	1,2-Dibromo-3-chloropropane	ND		ug/kg dry	2.1	4.2	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 02:37	LLJ
106-93-4	1,2-Dibromoethane	ND		ug/kg dry	2.1	4.2	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 02:37	LLJ
95-50-1	1,2-Dichlorobenzene	ND		ug/kg dry	2.1	4.2	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 02:37	LLJ
107-06-2	1,2-Dichloroethane	ND		ug/kg dry	2.1	4.2	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 02:37	LLJ
78-87-5	1,2-Dichloropropane	ND		ug/kg dry	2.1	4.2	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 02:37	LLJ
108-67-8	1,3,5-Trimethylbenzene	ND		ug/kg dry	2.1	4.2	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 02:37	LLJ
541-73-1	1,3-Dichlorobenzene	ND		ug/kg dry	2.1	4.2	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 02:37	LLJ
106-46-7	1,4-Dichlorobenzene	ND		ug/kg dry	2.1	4.2	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 02:37	LLJ
123-91-1	1,4-Dioxane	ND		ug/kg dry	42	84	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 02:37	LLJ
78-93-3	2-Butanone	ND		ug/kg dry	2.1	4.2	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 02:37	LLJ
591-78-6	2-Hexanone	ND		ug/kg dry	2.1	4.2	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 02:37	LLJ
108-10-1	4-Methyl-2-pentanone	ND		ug/kg dry	2.1	4.2	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 02:37	LLJ
67-64-1	Acetone	ND		ug/kg dry	4.2	8.4	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 02:37	LLJ

Sample Information

Client Sample ID: **B8 D3 VOC** **York Sample ID:** **19F0195-03**

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
19F0195	9294 Monticello Manor	Soil	June 6, 2019 9:30 am	06/06/2019

Volatile Organics, 8260 - Comprehensive

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5035A

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
107-02-8	Acrolein	ND		ug/kg dry	4.2	8.4	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 02:37	LLJ
107-13-1	Acrylonitrile	ND		ug/kg dry	2.1	4.2	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 02:37	LLJ
71-43-2	Benzene	ND		ug/kg dry	2.1	4.2	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 02:37	LLJ
74-97-5	Bromochloromethane	ND		ug/kg dry	2.1	4.2	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 02:37	LLJ
75-27-4	Bromodichloromethane	ND		ug/kg dry	2.1	4.2	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 02:37	LLJ
75-25-2	Bromoform	ND		ug/kg dry	2.1	4.2	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 02:37	LLJ
74-83-9	Bromomethane	ND		ug/kg dry	2.1	4.2	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 02:37	LLJ
75-15-0	Carbon disulfide	ND		ug/kg dry	2.1	4.2	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 02:37	LLJ
56-23-5	Carbon tetrachloride	ND		ug/kg dry	2.1	4.2	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 02:37	LLJ
108-90-7	Chlorobenzene	ND		ug/kg dry	2.1	4.2	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 02:37	LLJ
75-00-3	Chloroethane	ND		ug/kg dry	2.1	4.2	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 02:37	LLJ
67-66-3	Chloroform	ND		ug/kg dry	2.1	4.2	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 02:37	LLJ
74-87-3	Chloromethane	ND		ug/kg dry	2.1	4.2	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 02:37	LLJ
156-59-2	cis-1,2-Dichloroethylene	ND		ug/kg dry	2.1	4.2	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 02:37	LLJ
10061-01-5	cis-1,3-Dichloropropylene	ND		ug/kg dry	2.1	4.2	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 02:37	LLJ
110-82-7	Cyclohexane	ND		ug/kg dry	2.1	4.2	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 02:37	LLJ
124-48-1	Dibromochloromethane	ND		ug/kg dry	2.1	4.2	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 02:37	LLJ
74-95-3	Dibromomethane	ND		ug/kg dry	2.1	4.2	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 02:37	LLJ
75-71-8	Dichlorodifluoromethane	ND		ug/kg dry	2.1	4.2	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 02:37	LLJ
100-41-4	Ethyl Benzene	ND		ug/kg dry	2.1	4.2	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 02:37	LLJ
87-68-3	Hexachlorobutadiene	ND		ug/kg dry	2.1	4.2	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 02:37	LLJ
98-82-8	Isopropylbenzene	ND		ug/kg dry	2.1	4.2	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 02:37	LLJ
79-20-9	Methyl acetate	ND		ug/kg dry	2.1	4.2	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 02:37	LLJ

Sample Information

Client Sample ID: **B8 D3 VOC** | **York Sample ID:** **19F0195-03**

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
19F0195	9294 Monticello Manor	Soil	June 6, 2019 9:30 am	06/06/2019

Volatile Organics, 8260 - Comprehensive

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5035A

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
1634-04-4	Methyl tert-butyl ether (MTBE)	ND		ug/kg dry	2.1	4.2	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 02:37	LLJ
108-87-2	Methylcyclohexane	ND		ug/kg dry	2.1	4.2	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 02:37	LLJ
75-09-2	**Methylene chloride**	**6.7**	J	ug/kg dry	4.2	8.4	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 02:37	LLJ
104-51-8	n-Butylbenzene	ND		ug/kg dry	2.1	4.2	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 02:37	LLJ
103-65-1	n-Propylbenzene	ND		ug/kg dry	2.1	4.2	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 02:37	LLJ
95-47-6	o-Xylene	ND		ug/kg dry	2.1	4.2	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,PADEP	06/10/2019 07:16	06/11/2019 02:37	LLJ
179601-23-1	p- & m- Xylenes	ND		ug/kg dry	4.2	8.4	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,PADEP	06/10/2019 07:16	06/11/2019 02:37	LLJ
99-87-6	p-Isopropyltoluene	ND		ug/kg dry	2.1	4.2	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 02:37	LLJ
135-98-8	sec-Butylbenzene	ND		ug/kg dry	2.1	4.2	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 02:37	LLJ
100-42-5	Styrene	ND		ug/kg dry	2.1	4.2	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 02:37	LLJ
75-65-0	tert-Butyl alcohol (TBA)	ND		ug/kg dry	2.1	4.2	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 02:37	LLJ
98-06-6	tert-Butylbenzene	ND		ug/kg dry	2.1	4.2	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 02:37	LLJ
127-18-4	Tetrachloroethylene	ND		ug/kg dry	2.1	4.2	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 02:37	LLJ
108-88-3	Toluene	ND		ug/kg dry	2.1	4.2	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 02:37	LLJ
156-60-5	trans-1,2-Dichloroethylene	ND		ug/kg dry	2.1	4.2	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 02:37	LLJ
10061-02-6	trans-1,3-Dichloropropylene	ND		ug/kg dry	2.1	4.2	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 02:37	LLJ
110-57-6	* trans-1,4-dichloro-2-butene	ND		ug/kg dry	2.1	4.2	1	EPA 8260C Certifications: CTDOH	06/10/2019 07:16	06/11/2019 02:37	LLJ
79-01-6	Trichloroethylene	ND		ug/kg dry	2.1	4.2	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 02:37	LLJ
75-69-4	Trichlorofluoromethane	ND		ug/kg dry	2.1	4.2	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 02:37	LLJ
75-01-4	Vinyl Chloride	ND		ug/kg dry	2.1	4.2	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 02:37	LLJ
1330-20-7	Xylenes, Total	ND		ug/kg dry	6.3	13	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP	06/10/2019 07:16	06/11/2019 02:37	LLJ

	Surrogate Recoveries	Result	Acceptance Range
17060-07-0	*Surrogate: SURR: 1,2-Dichloroethane-d4*	*99.4 %*	*77-125*
2037-26-5	*Surrogate: SURR: Toluene-d8*	*99.6 %*	*85-120*

Sample Information

Client Sample ID: **B8 D3 VOC** **York Sample ID:** **19F0195-03**

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
19F0195	9294 Monticello Manor	Soil	June 6, 2019 9:30 am	06/06/2019

Volatile Organics, 8260 - Comprehensive

Log-in Notes: **Sample Notes:**

Sample Prepared by Method: EPA 5035A

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
460-00-4	*Surrogate: SURR: p-Bromofluorobenzene*	*108 %*			*76-130*						

Total Solids

Log-in Notes: **Sample Notes:**

Sample Prepared by Method: % Solids Prep

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
solids	*** % Solids**	**94.5**		%	0.100	1	SM 2540G Certifications: CTDOH	06/13/2019 15:12	06/13/2019 15:15	KT

Sample Information

Client Sample ID: **B8 D3 Comp** **York Sample ID:** **19F0195-04**

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
19F0195	9294 Monticello Manor	Soil	June 6, 2019 9:30 am	06/06/2019

Semi-Volatiles, 8270 - Comprehensive

Log-in Notes: **Sample Notes:**

Sample Prepared by Method: EPA 3550C

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
92-52-4	1,1-Biphenyl	ND		ug/kg dry	216	432	10	EPA 8270D Certifications: NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 19:46	KH
95-94-3	1,2,4,5-Tetrachlorobenzene	ND		ug/kg dry	432	862	10	EPA 8270D Certifications: NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 19:46	KH
120-82-1	1,2,4-Trichlorobenzene	ND		ug/kg dry	216	432	10	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 19:46	KH
95-50-1	1,2-Dichlorobenzene	ND		ug/kg dry	216	432	10	EPA 8270D Certifications: NELAC-NY10854,PADEP	06/12/2019 07:48	06/13/2019 19:46	KH
122-66-7	1,2-Diphenylhydrazine (as Azobenzene)	ND		ug/kg dry	216	432	10	EPA 8270D Certifications: NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 19:46	KH
541-73-1	1,3-Dichlorobenzene	ND		ug/kg dry	216	432	10	EPA 8270D Certifications: NELAC-NY10854,PADEP	06/12/2019 07:48	06/13/2019 19:46	KH
106-46-7	1,4-Dichlorobenzene	ND		ug/kg dry	216	432	10	EPA 8270D Certifications: NELAC-NY10854,PADEP	06/12/2019 07:48	06/13/2019 19:46	KH
58-90-2	2,3,4,6-Tetrachlorophenol	ND		ug/kg dry	432	862	10	EPA 8270D Certifications: NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 19:46	KH
95-95-4	2,4,5-Trichlorophenol	ND		ug/kg dry	216	432	10	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 19:46	KH
88-06-2	2,4,6-Trichlorophenol	ND		ug/kg dry	216	432	10	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 19:46	KH
120-83-2	2,4-Dichlorophenol	ND		ug/kg dry	216	432	10	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 19:46	KH

Sample Information

Client Sample ID: **B8 D3 Comp** **York Sample ID:** **19F0195-04**

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
19F0195	9294 Monticello Manor	Soil	June 6, 2019 9:30 am	06/06/2019

Semi-Volatiles, 8270 - Comprehensive

Log-in Notes: **Sample Notes:**

Sample Prepared by Method: EPA 3550C

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
105-67-9	2,4-Dimethylphenol	ND		ug/kg dry	216	432	10	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 19:46	KH
51-28-5	2,4-Dinitrophenol	ND		ug/kg dry	432	862	10	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 19:46	KH
121-14-2	2,4-Dinitrotoluene	ND		ug/kg dry	216	432	10	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 19:46	KH
606-20-2	2,6-Dinitrotoluene	ND		ug/kg dry	216	432	10	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 19:46	KH
91-58-7	2-Chloronaphthalene	ND		ug/kg dry	216	432	10	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 19:46	KH
95-57-8	2-Chlorophenol	ND		ug/kg dry	216	432	10	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 19:46	KH
91-57-6	2-Methylnaphthalene	ND		ug/kg dry	216	432	10	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 19:46	KH
95-48-7	2-Methylphenol	ND		ug/kg dry	216	432	10	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 19:46	KH
88-74-4	2-Nitroaniline	ND		ug/kg dry	432	862	10	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 19:46	KH
88-75-5	2-Nitrophenol	ND		ug/kg dry	216	432	10	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 19:46	KH
65794-96-9	3- & 4-Methylphenols	ND		ug/kg dry	216	432	10	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 19:46	KH
91-94-1	3,3-Dichlorobenzidine	ND		ug/kg dry	216	432	10	EPA 8270D Certifications: NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 19:46	KH
99-09-2	3-Nitroaniline	ND		ug/kg dry	432	862	10	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 19:46	KH
534-52-1	4,6-Dinitro-2-methylphenol	ND		ug/kg dry	432	862	10	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 19:46	KH
101-55-3	4-Bromophenyl phenyl ether	ND		ug/kg dry	216	432	10	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 19:46	KH
59-50-7	4-Chloro-3-methylphenol	ND		ug/kg dry	216	432	10	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 19:46	KH
106-47-8	4-Chloroaniline	ND		ug/kg dry	216	432	10	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 19:46	KH
7005-72-3	4-Chlorophenyl phenyl ether	ND		ug/kg dry	216	432	10	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 19:46	KH
100-01-6	4-Nitroaniline	ND		ug/kg dry	432	862	10	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 19:46	KH
100-02-7	4-Nitrophenol	ND		ug/kg dry	432	862	10	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 19:46	KH
83-32-9	Acenaphthene	ND		ug/kg dry	216	432	10	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 19:46	KH
208-96-8	Acenaphthylene	ND		ug/kg dry	216	432	10	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 19:46	KH
98-86-2	Acetophenone	ND		ug/kg dry	216	432	10	EPA 8270D Certifications: NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 19:46	KH

Sample Information

Client Sample ID: B8 D3 Comp

York Sample ID: 19F0195-04

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
19F0195	9294 Monticello Manor	Soil	June 6, 2019 9:30 am	06/06/2019

Semi-Volatiles, 8270 - Comprehensive

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3550C

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
62-53-3	Aniline	ND		ug/kg dry	864	1730	10	EPA 8270D Certifications: NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 19:46	KH
120-12-7	Anthracene	ND		ug/kg dry	216	432	10	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 19:46	KH
1912-24-9	Atrazine	ND		ug/kg dry	216	432	10	EPA 8270D Certifications: NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 19:46	KH
100-52-7	Benzaldehyde	ND		ug/kg dry	216	432	10	EPA 8270D Certifications: NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 19:46	KH
92-87-5	Benzidine	ND		ug/kg dry	864	1730	10	EPA 8270D Certifications: CTDOH,NELAC-NY10854,PADEP	06/12/2019 07:48	06/13/2019 19:46	KH
56-55-3	Benzo(a)anthracene	ND		ug/kg dry	216	432	10	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 19:46	KH
50-32-8	Benzo(a)pyrene	ND		ug/kg dry	216	432	10	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 19:46	KH
205-99-2	Benzo(b)fluoranthene	ND		ug/kg dry	216	432	10	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 19:46	KH
191-24-2	Benzo(g,h,i)perylene	ND		ug/kg dry	216	432	10	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 19:46	KH
207-08-9	Benzo(k)fluoranthene	ND		ug/kg dry	216	432	10	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 19:46	KH
65-85-0	Benzoic acid	ND		ug/kg dry	216	432	10	EPA 8270D Certifications: NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 19:46	KH
100-51-6	Benzyl alcohol	ND		ug/kg dry	216	432	10	EPA 8270D Certifications: NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 19:46	KH
85-68-7	Benzyl butyl phthalate	ND		ug/kg dry	216	432	10	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 19:46	KH
111-91-1	Bis(2-chloroethoxy)methane	ND		ug/kg dry	216	432	10	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 19:46	KH
111-44-4	Bis(2-chloroethyl)ether	ND		ug/kg dry	216	432	10	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 19:46	KH
108-60-1	Bis(2-chloroisopropyl)ether	ND		ug/kg dry	216	432	10	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 19:46	KH
117-81-7	Bis(2-ethylhexyl)phthalate	ND		ug/kg dry	216	432	10	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 19:46	KH
105-60-2	Caprolactam	ND		ug/kg dry	432	862	10	EPA 8270D Certifications: NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 19:46	KH
86-74-8	Carbazole	ND		ug/kg dry	216	432	10	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 19:46	KH
218-01-9	Chrysene	ND		ug/kg dry	216	432	10	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 19:46	KH
53-70-3	Dibenzo(a,h)anthracene	ND		ug/kg dry	216	432	10	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 19:46	KH
132-64-9	Dibenzofuran	ND		ug/kg dry	216	432	10	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 19:46	KH
84-66-2	Diethyl phthalate	ND		ug/kg dry	216	432	10	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 19:46	KH

Sample Information

Client Sample ID: **B8 D3 Comp**

York Sample ID: **19F0195-04**

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
19F0195	9294 Monticello Manor	Soil	June 6, 2019 9:30 am	06/06/2019

Semi-Volatiles, 8270 - Comprehensive

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3550C

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
131-11-3	Dimethyl phthalate	ND		ug/kg dry	216	432	10	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 19:46	KH
84-74-2	Di-n-butyl phthalate	ND		ug/kg dry	216	432	10	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 19:46	KH
117-84-0	Di-n-octyl phthalate	ND		ug/kg dry	216	432	10	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 19:46	KH
206-44-0	Fluoranthene	ND		ug/kg dry	216	432	10	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 19:46	KH
86-73-7	Fluorene	ND		ug/kg dry	216	432	10	EPA 8270D Certifications: NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 19:46	KH
118-74-1	Hexachlorobenzene	ND		ug/kg dry	216	432	10	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 19:46	KH
87-68-3	Hexachlorobutadiene	ND		ug/kg dry	216	432	10	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 19:46	KH
77-47-4	Hexachlorocyclopentadiene	ND		ug/kg dry	216	432	10	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 19:46	KH
67-72-1	Hexachloroethane	ND		ug/kg dry	216	432	10	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 19:46	KH
193-39-5	Indeno(1,2,3-cd)pyrene	ND		ug/kg dry	216	432	10	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 19:46	KH
78-59-1	Isophorone	ND		ug/kg dry	216	432	10	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 19:46	KH
91-20-3	Naphthalene	ND		ug/kg dry	216	432	10	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 19:46	KH
98-95-3	Nitrobenzene	ND		ug/kg dry	216	432	10	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 19:46	KH
62-75-9	N-Nitrosodimethylamine	ND		ug/kg dry	216	432	10	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 19:46	KH
621-64-7	N-nitroso-di-n-propylamine	ND		ug/kg dry	216	432	10	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 19:46	KH
86-30-6	N-Nitrosodiphenylamine	ND		ug/kg dry	216	432	10	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 19:46	KH
87-86-5	Pentachlorophenol	ND		ug/kg dry	216	432	10	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 19:46	KH
85-01-8	Phenanthrene	ND		ug/kg dry	216	432	10	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 19:46	KH
108-95-2	Phenol	ND		ug/kg dry	216	432	10	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 19:46	KH
129-00-0	Pyrene	ND		ug/kg dry	216	432	10	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 19:46	KH

	Surrogate Recoveries	Result	Acceptance Range
367-12-4	*Surrogate: SURR: 2-Fluorophenol*	*68.4 %*	*20-108*
4165-62-2	*Surrogate: SURR: Phenol-d5*	*66.0 %*	*23-114*
4165-60-0	*Surrogate: SURR: Nitrobenzene-d5*	*72.0 %*	*22-108*
321-60-8	*Surrogate: SURR: 2-Fluorobiphenyl*	*68.8 %*	*21-113*

Sample Information

Client Sample ID: **B8 D3 Comp** **York Sample ID:** **19F0195-04**

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
19F0195	9294 Monticello Manor	Soil	June 6, 2019 9:30 am	06/06/2019

Semi-Volatiles, 8270 - Comprehensive

Log-in Notes: **Sample Notes:**

Sample Prepared by Method: EPA 3550C

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
118-79-6	*Surrogate: SURR: 2,4,6-Tribromophenol*	*64.0 %*			*19-110*						
1718-51-0	*Surrogate: SURR: Terphenyl-d14*	*58.8 %*			*24-116*						

Metals, Target Analyte

Log-in Notes: **Sample Notes:**

Sample Prepared by Method: EPA 3050B

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7429-90-5	**Aluminum**	**7720**		mg/kg dry	5.21	1	EPA 6010D	06/07/2019 11:03	06/10/2019 13:58	KML
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP		
7440-36-0	Antimony	ND		mg/kg dry	2.61	1	EPA 6010D	06/07/2019 11:03	06/10/2019 13:58	KML
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP		
7440-38-2	**Arsenic**	**3.71**		mg/kg dry	1.56	1	EPA 6010D	06/07/2019 11:03	06/10/2019 13:58	KML
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP		
7440-39-3	**Barium**	**73.9**		mg/kg dry	2.61	1	EPA 6010D	06/07/2019 11:03	06/10/2019 13:58	KML
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP		
7440-41-7	**Beryllium**	**0.495**		mg/kg dry	0.052	1	EPA 6010D	06/07/2019 11:03	06/10/2019 13:58	KML
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP		
7440-43-9	Cadmium	ND		mg/kg dry	0.313	1	EPA 6010D	06/07/2019 11:03	06/10/2019 13:58	KML
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP		
7440-70-2	**Calcium**	**1430**		mg/kg dry	5.21	1	EPA 6010D	06/07/2019 11:03	06/10/2019 13:58	KML
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP		
7440-47-3	**Chromium**	**5.15**		mg/kg dry	0.521	1	EPA 6010D	06/07/2019 11:03	06/10/2019 13:58	KML
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP		
7440-48-4	**Cobalt**	**7.15**		mg/kg dry	0.417	1	EPA 6010D	06/07/2019 11:03	06/10/2019 13:58	KML
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP		
7440-50-8	**Copper**	**24.6**		mg/kg dry	2.08	1	EPA 6010D	06/07/2019 11:03	06/10/2019 13:58	KML
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP		
7439-89-6	**Iron**	**13200**		mg/kg dry	26.1	1	EPA 6010D	06/07/2019 11:03	06/10/2019 13:58	KML
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP		
7439-92-1	**Lead**	**15.6**		mg/kg dry	0.521	1	EPA 6010D	06/07/2019 11:03	06/10/2019 13:58	KML
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP		
7439-95-4	**Magnesium**	**2990**		mg/kg dry	5.21	1	EPA 6010D	06/07/2019 11:03	06/10/2019 13:58	KML
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP		
7439-96-5	**Manganese**	**788**		mg/kg dry	0.521	1	EPA 6010D	06/07/2019 11:03	06/10/2019 13:58	KML
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP		
7440-02-0	**Nickel**	**14.7**		mg/kg dry	1.04	1	EPA 6010D	06/07/2019 11:03	06/10/2019 13:58	KML
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP		
7440-09-7	**Potassium**	**1140**		mg/kg dry	5.21	1	EPA 6010D	06/07/2019 11:03	06/10/2019 13:58	KML
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP		
7782-49-2	Selenium	ND		mg/kg dry	2.61	1	EPA 6010D	06/07/2019 11:03	06/10/2019 13:58	KML
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP		
7440-22-4	Silver	ND		mg/kg dry	0.521	1	EPA 6010D	06/07/2019 11:03	06/10/2019 13:58	KML
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP		

Sample Information

Client Sample ID: **B8 D3 Comp** **York Sample ID:** **19F0195-04**

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
19F0195	9294 Monticello Manor	Soil	June 6, 2019 9:30 am	06/06/2019

Metals, Target Analyte

Log-in Notes: **Sample Notes:**

Sample Prepared by Method: EPA 3050B

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7440-23-5	Sodium	ND		mg/kg dry	52.1	1	EPA 6010D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/07/2019 11:03	06/10/2019 13:58	KML
7440-28-0	Thallium	ND		mg/kg dry	2.61	1	EPA 6010D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/07/2019 11:03	06/10/2019 13:58	KML
7440-62-2	**Vanadium**	**13.3**		mg/kg dry	1.04	1	EPA 6010D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/07/2019 11:03	06/10/2019 13:58	KML
7440-66-6	**Zinc**	**49.2**		mg/kg dry	2.61	1	EPA 6010D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/07/2019 11:03	06/10/2019 13:58	KML

Mercury by 7473

Log-in Notes: **Sample Notes:**

Sample Prepared by Method: EPA 7473 soil

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7439-97-6	Mercury	ND		mg/kg dry	0.0313	1	EPA 7473 Certifications: CTDOH,NJDEP,NELAC-NY10854,PADEP	06/07/2019 09:07	06/07/2019 10:48	SY

Total Solids

Log-in Notes: **Sample Notes:**

Sample Prepared by Method: % Solids Prep

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
solids	*** % Solids**	**96.0**		%	0.100	1	SM 2540G Certifications: CTDOH	06/07/2019 11:33	06/07/2019 15:32	JTV

Sample Information

Client Sample ID: **B5 S5 VOC** **York Sample ID:** **19F0195-05**

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
19F0195	9294 Monticello Manor	Soil	June 6, 2019 8:45 am	06/06/2019

Volatile Organics, 8260 - Comprehensive

Log-in Notes: **Sample Notes:**

Sample Prepared by Method: EPA 5035A

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
630-20-6	1,1,1,2-Tetrachloroethane	ND		ug/kg dry	3.9	7.8	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 03:03	LLJ
71-55-6	1,1,1-Trichloroethane	ND		ug/kg dry	3.9	7.8	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 03:03	LLJ
79-34-5	1,1,2,2-Tetrachloroethane	ND		ug/kg dry	3.9	7.8	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 03:03	LLJ

Sample Information

Client Sample ID: B5 S5 VOC

York Sample ID: 19F0195-05

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
19F0195	9294 Monticello Manor	Soil	June 6, 2019 8:45 am	06/06/2019

Volatile Organics, 8260 - Comprehensive

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5035A

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND		ug/kg dry	3.9	7.8	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP	06/10/2019 07:16	06/11/2019 03:03	LLJ
79-00-5	1,1,2-Trichloroethane	ND		ug/kg dry	3.9	7.8	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 03:03	LLJ
75-34-3	1,1-Dichloroethane	ND		ug/kg dry	3.9	7.8	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 03:03	LLJ
75-35-4	1,1-Dichloroethylene	ND		ug/kg dry	3.9	7.8	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 03:03	LLJ
87-61-6	1,2,3-Trichlorobenzene	ND		ug/kg dry	3.9	7.8	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 03:03	LLJ
96-18-4	1,2,3-Trichloropropane	ND		ug/kg dry	3.9	7.8	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP	06/10/2019 07:16	06/11/2019 03:03	LLJ
120-82-1	1,2,4-Trichlorobenzene	ND		ug/kg dry	3.9	7.8	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 03:03	LLJ
95-63-6	1,2,4-Trimethylbenzene	ND		ug/kg dry	3.9	7.8	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 03:03	LLJ
96-12-8	1,2-Dibromo-3-chloropropane	ND		ug/kg dry	3.9	7.8	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 03:03	LLJ
106-93-4	1,2-Dibromoethane	ND		ug/kg dry	3.9	7.8	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 03:03	LLJ
95-50-1	1,2-Dichlorobenzene	ND		ug/kg dry	3.9	7.8	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 03:03	LLJ
107-06-2	1,2-Dichloroethane	ND		ug/kg dry	3.9	7.8	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 03:03	LLJ
78-87-5	1,2-Dichloropropane	ND		ug/kg dry	3.9	7.8	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 03:03	LLJ
108-67-8	1,3,5-Trimethylbenzene	ND		ug/kg dry	3.9	7.8	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 03:03	LLJ
541-73-1	1,3-Dichlorobenzene	ND		ug/kg dry	3.9	7.8	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 03:03	LLJ
106-46-7	1,4-Dichlorobenzene	ND		ug/kg dry	3.9	7.8	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 03:03	LLJ
123-91-1	1,4-Dioxane	ND		ug/kg dry	78	160	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 03:03	LLJ
78-93-3	2-Butanone	ND		ug/kg dry	3.9	7.8	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 03:03	LLJ
591-78-6	2-Hexanone	ND		ug/kg dry	3.9	7.8	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 03:03	LLJ
108-10-1	4-Methyl-2-pentanone	ND		ug/kg dry	3.9	7.8	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 03:03	LLJ
67-64-1	Acetone	ND		ug/kg dry	7.8	16	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 03:03	LLJ
107-02-8	Acrolein	ND		ug/kg dry	7.8	16	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 03:03	LLJ
107-13-1	Acrylonitrile	ND		ug/kg dry	3.9	7.8	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 03:03	LLJ

Sample Information

Client Sample ID: B5 S5 VOC

York Sample ID: 19F0195-05

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
19F0195	9294 Monticello Manor	Soil	June 6, 2019 8:45 am	06/06/2019

Volatile Organics, 8260 - Comprehensive

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5035A

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
71-43-2	Benzene	ND		ug/kg dry	3.9	7.8	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 03:03	LLJ
74-97-5	Bromochloromethane	ND		ug/kg dry	3.9	7.8	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 03:03	LLJ
75-27-4	Bromodichloromethane	ND		ug/kg dry	3.9	7.8	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 03:03	LLJ
75-25-2	Bromoform	ND		ug/kg dry	3.9	7.8	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 03:03	LLJ
74-83-9	Bromomethane	ND		ug/kg dry	3.9	7.8	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 03:03	LLJ
75-15-0	Carbon disulfide	ND		ug/kg dry	3.9	7.8	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 03:03	LLJ
56-23-5	Carbon tetrachloride	ND		ug/kg dry	3.9	7.8	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 03:03	LLJ
108-90-7	Chlorobenzene	ND		ug/kg dry	3.9	7.8	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 03:03	LLJ
75-00-3	Chloroethane	ND		ug/kg dry	3.9	7.8	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 03:03	LLJ
67-66-3	Chloroform	ND		ug/kg dry	3.9	7.8	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 03:03	LLJ
74-87-3	Chloromethane	ND		ug/kg dry	3.9	7.8	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 03:03	LLJ
156-59-2	cis-1,2-Dichloroethylene	ND		ug/kg dry	3.9	7.8	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 03:03	LLJ
10061-01-5	cis-1,3-Dichloropropylene	ND		ug/kg dry	3.9	7.8	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 03:03	LLJ
110-82-7	Cyclohexane	ND		ug/kg dry	3.9	7.8	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 03:03	LLJ
124-48-1	Dibromochloromethane	ND		ug/kg dry	3.9	7.8	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 03:03	LLJ
74-95-3	Dibromomethane	ND		ug/kg dry	3.9	7.8	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 03:03	LLJ
75-71-8	Dichlorodifluoromethane	ND		ug/kg dry	3.9	7.8	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 03:03	LLJ
100-41-4	Ethyl Benzene	ND		ug/kg dry	3.9	7.8	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 03:03	LLJ
87-68-3	Hexachlorobutadiene	ND		ug/kg dry	3.9	7.8	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 03:03	LLJ
98-82-8	Isopropylbenzene	ND		ug/kg dry	3.9	7.8	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 03:03	LLJ
79-20-9	Methyl acetate	ND		ug/kg dry	3.9	7.8	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 03:03	LLJ
1634-04-4	Methyl tert-butyl ether (MTBE)	ND		ug/kg dry	3.9	7.8	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 03:03	LLJ
108-87-2	Methylcyclohexane	ND		ug/kg dry	3.9	7.8	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 03:03	LLJ

Client Sample ID: **B5 S5 VOC** **York Sample ID:** **19F0195-05**

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
19F0195	9294 Monticello Manor	Soil	June 6, 2019 8:45 am	06/06/2019

Volatile Organics, 8260 - Comprehensive

Log-in Notes: **Sample Notes:**

Sample Prepared by Method: EPA 5035A

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
75-09-2	**Methylene chloride**	**16**		ug/kg dry	7.8	16	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 03:03	LLJ
104-51-8	n-Butylbenzene	ND		ug/kg dry	3.9	7.8	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 03:03	LLJ
103-65-1	n-Propylbenzene	ND		ug/kg dry	3.9	7.8	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 03:03	LLJ
95-47-6	o-Xylene	ND		ug/kg dry	3.9	7.8	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,PADEP	06/10/2019 07:16	06/11/2019 03:03	LLJ
179601-23-1	p- & m- Xylenes	ND		ug/kg dry	7.8	16	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,PADEP	06/10/2019 07:16	06/11/2019 03:03	LLJ
99-87-6	p-Isopropyltoluene	ND		ug/kg dry	3.9	7.8	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 03:03	LLJ
135-98-8	sec-Butylbenzene	ND		ug/kg dry	3.9	7.8	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 03:03	LLJ
100-42-5	Styrene	ND		ug/kg dry	3.9	7.8	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 03:03	LLJ
75-65-0	tert-Butyl alcohol (TBA)	ND		ug/kg dry	3.9	7.8	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 03:03	LLJ
98-06-6	tert-Butylbenzene	ND		ug/kg dry	3.9	7.8	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 03:03	LLJ
127-18-4	Tetrachloroethylene	ND		ug/kg dry	3.9	7.8	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 03:03	LLJ
108-88-3	Toluene	ND		ug/kg dry	3.9	7.8	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 03:03	LLJ
156-60-5	trans-1,2-Dichloroethylene	ND		ug/kg dry	3.9	7.8	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 03:03	LLJ
10061-02-6	trans-1,3-Dichloropropylene	ND		ug/kg dry	3.9	7.8	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 03:03	LLJ
110-57-6	* trans-1,4-dichloro-2-butene	ND		ug/kg dry	3.9	7.8	1	EPA 8260C Certifications: CTDOH	06/10/2019 07:16	06/11/2019 03:03	LLJ
79-01-6	Trichloroethylene	ND		ug/kg dry	3.9	7.8	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 03:03	LLJ
75-69-4	Trichlorofluoromethane	ND		ug/kg dry	3.9	7.8	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 03:03	LLJ
75-01-4	Vinyl Chloride	ND		ug/kg dry	3.9	7.8	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/10/2019 07:16	06/11/2019 03:03	LLJ
1330-20-7	Xylenes, Total	ND		ug/kg dry	12	23	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP	06/10/2019 07:16	06/11/2019 03:03	LLJ

	Surrogate Recoveries	Result	Acceptance Range
17060-07-0	*Surrogate: SURR: 1,2-Dichloroethane-d4*	*101 %*	*77-125*
2037-26-5	*Surrogate: SURR: Toluene-d8*	*103 %*	*85-120*
460-00-4	*Surrogate: SURR: p-Bromofluorobenzene*	*116 %*	*76-130*

Total Solids

Log-in Notes: **Sample Notes:**

Sample Information

Client Sample ID: **B5 S5 VOC**

York Sample ID: **19F0195-05**

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
19F0195	9294 Monticello Manor	Soil	June 6, 2019 8:45 am	06/06/2019

Sample Prepared by Method: % Solids Prep

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
solids	*** % Solids**	**66.7**		%	0.100	1	SM 2540G	06/13/2019 15:12	06/13/2019 15:15	KT
							Certifications: CTDOH			

Sample Information

Client Sample ID: **B5 S5 Comp**

York Sample ID: **19F0195-06**

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
19F0195	9294 Monticello Manor	Soil	June 6, 2019 8:45 am	06/06/2019

Semi-Volatiles, 8270 - Comprehensive

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3550C

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
92-52-4	**1,1-Biphenyl**	**181**		ug/kg dry	64.8	129	2	EPA 8270D	06/12/2019 07:48	06/13/2019 20:15	KH
								Certifications: NELAC-NY10854,NJDEP,PADEP			
95-94-3	1,2,4,5-Tetrachlorobenzene	ND		ug/kg dry	129	258	2	EPA 8270D	06/12/2019 07:48	06/13/2019 20:15	KH
								Certifications: NELAC-NY10854,NJDEP,PADEP			
120-82-1	1,2,4-Trichlorobenzene	ND		ug/kg dry	64.8	129	2	EPA 8270D	06/12/2019 07:48	06/13/2019 20:15	KH
								Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP			
95-50-1	1,2-Dichlorobenzene	ND		ug/kg dry	64.8	129	2	EPA 8270D	06/12/2019 07:48	06/13/2019 20:15	KH
								Certifications: NELAC-NY10854,PADEP			
122-66-7	1,2-Diphenylhydrazine (as Azobenzene)	ND		ug/kg dry	64.8	129	2	EPA 8270D	06/12/2019 07:48	06/13/2019 20:15	KH
								Certifications: NELAC-NY10854,NJDEP,PADEP			
541-73-1	1,3-Dichlorobenzene	ND		ug/kg dry	64.8	129	2	EPA 8270D	06/12/2019 07:48	06/13/2019 20:15	KH
								Certifications: NELAC-NY10854,PADEP			
106-46-7	1,4-Dichlorobenzene	ND		ug/kg dry	64.8	129	2	EPA 8270D	06/12/2019 07:48	06/13/2019 20:15	KH
								Certifications: NELAC-NY10854,PADEP			
58-90-2	2,3,4,6-Tetrachlorophenol	ND		ug/kg dry	129	258	2	EPA 8270D	06/12/2019 07:48	06/13/2019 20:15	KH
								Certifications: NELAC-NY10854,NJDEP,PADEP			
95-95-4	2,4,5-Trichlorophenol	ND		ug/kg dry	64.8	129	2	EPA 8270D	06/12/2019 07:48	06/13/2019 20:15	KH
								Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP			
88-06-2	2,4,6-Trichlorophenol	ND		ug/kg dry	64.8	129	2	EPA 8270D	06/12/2019 07:48	06/13/2019 20:15	KH
								Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP			
120-83-2	2,4-Dichlorophenol	ND		ug/kg dry	64.8	129	2	EPA 8270D	06/12/2019 07:48	06/13/2019 20:15	KH
								Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP			
105-67-9	2,4-Dimethylphenol	ND		ug/kg dry	64.8	129	2	EPA 8270D	06/12/2019 07:48	06/13/2019 20:15	KH
								Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP			
51-28-5	2,4-Dinitrophenol	ND		ug/kg dry	129	258	2	EPA 8270D	06/12/2019 07:48	06/13/2019 20:15	KH
								Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP			
121-14-2	2,4-Dinitrotoluene	ND		ug/kg dry	64.8	129	2	EPA 8270D	06/12/2019 07:48	06/13/2019 20:15	KH
								Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP			
606-20-2	2,6-Dinitrotoluene	ND		ug/kg dry	64.8	129	2	EPA 8270D	06/12/2019 07:48	06/13/2019 20:15	KH
								Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP			

Sample Information

Client Sample ID: **B5 S5 Comp** **York Sample ID:** **19F0195-06**

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
19F0195	9294 Monticello Manor	Soil	June 6, 2019 8:45 am	06/06/2019

Semi-Volatiles, 8270 - Comprehensive

Log-in Notes: **Sample Notes:**

Sample Prepared by Method: EPA 3550C

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
91-58-7	2-Chloronaphthalene	ND		ug/kg dry	64.8	129	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 20:15	KH
95-57-8	2-Chlorophenol	ND		ug/kg dry	64.8	129	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 20:15	KH
91-57-6	**2-Methylnaphthalene**	**703**		ug/kg dry	64.8	129	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 20:15	KH
95-48-7	2-Methylphenol	ND		ug/kg dry	64.8	129	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 20:15	KH
88-74-4	2-Nitroaniline	ND		ug/kg dry	129	258	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 20:15	KH
88-75-5	2-Nitrophenol	ND		ug/kg dry	64.8	129	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 20:15	KH
65794-96-9	3- & 4-Methylphenols	ND		ug/kg dry	64.8	129	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 20:15	KH
91-94-1	3,3-Dichlorobenzidine	ND		ug/kg dry	64.8	129	2	EPA 8270D Certifications: NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 20:15	KH
99-09-2	3-Nitroaniline	ND		ug/kg dry	129	258	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 20:15	KH
534-52-1	4,6-Dinitro-2-methylphenol	ND		ug/kg dry	129	258	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 20:15	KH
101-55-3	4-Bromophenyl phenyl ether	ND		ug/kg dry	64.8	129	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 20:15	KH
59-50-7	4-Chloro-3-methylphenol	ND		ug/kg dry	64.8	129	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 20:15	KH
106-47-8	**4-Chloroaniline**	**371**		ug/kg dry	64.8	129	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 20:15	KH
7005-72-3	4-Chlorophenyl phenyl ether	ND		ug/kg dry	64.8	129	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 20:15	KH
100-01-6	4-Nitroaniline	ND		ug/kg dry	129	258	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 20:15	KH
100-02-7	4-Nitrophenol	ND		ug/kg dry	129	258	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 20:15	KH
83-32-9	**Acenaphthene**	**3910**		ug/kg dry	64.8	129	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 20:15	KH
208-96-8	**Acenaphthylene**	**105**	J	ug/kg dry	64.8	129	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 20:15	KH
98-86-2	Acetophenone	ND		ug/kg dry	64.8	129	2	EPA 8270D Certifications: NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 20:15	KH
62-53-3	Aniline	ND		ug/kg dry	259	518	2	EPA 8270D Certifications: NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 20:15	KH
120-12-7	**Anthracene**	**3750**		ug/kg dry	64.8	129	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 20:15	KH
1912-24-9	Atrazine	ND		ug/kg dry	64.8	129	2	EPA 8270D Certifications: NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 20:15	KH
100-52-7	Benzaldehyde	ND		ug/kg dry	64.8	129	2	EPA 8270D Certifications: NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 20:15	KH

Sample Information

Client Sample ID: **B5 S5 Comp**

York Sample ID: **19F0195-06**

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
19F0195	9294 Monticello Manor	Soil	June 6, 2019 8:45 am	06/06/2019

Semi-Volatiles, 8270 - Comprehensive

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3550C

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
92-87-5	Benzidine	ND		ug/kg dry	259	518	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,PADEP	06/12/2019 07:48	06/13/2019 20:15	KH
56-55-3	**Benzo(a)anthracene**	**14500**		ug/kg dry	324	646	10	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/14/2019 12:09	KH
50-32-8	**Benzo(a)pyrene**	**13600**		ug/kg dry	324	646	10	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/14/2019 12:09	KH
205-99-2	**Benzo(b)fluoranthene**	**12500**		ug/kg dry	324	646	10	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/14/2019 12:09	KH
191-24-2	**Benzo(g,h,i)perylene**	**6520**		ug/kg dry	324	646	10	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/14/2019 12:09	KH
207-08-9	**Benzo(k)fluoranthene**	**11400**		ug/kg dry	324	646	10	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/14/2019 12:09	KH
65-85-0	Benzoic acid	ND		ug/kg dry	64.8	129	2	EPA 8270D Certifications: NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 20:15	KH
100-51-6	Benzyl alcohol	ND		ug/kg dry	64.8	129	2	EPA 8270D Certifications: NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 20:15	KH
85-68-7	Benzyl butyl phthalate	ND		ug/kg dry	64.8	129	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 20:15	KH
111-91-1	Bis(2-chloroethoxy)methane	ND		ug/kg dry	64.8	129	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 20:15	KH
111-44-4	Bis(2-chloroethyl)ether	ND		ug/kg dry	64.8	129	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 20:15	KH
108-60-1	Bis(2-chloroisopropyl)ether	ND		ug/kg dry	64.8	129	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 20:15	KH
117-81-7	Bis(2-ethylhexyl)phthalate	ND		ug/kg dry	64.8	129	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 20:15	KH
105-60-2	Caprolactam	ND		ug/kg dry	129	258	2	EPA 8270D Certifications: NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 20:15	KH
86-74-8	**Carbazole**	**3690**		ug/kg dry	64.8	129	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 20:15	KH
218-01-9	**Chrysene**	**13000**		ug/kg dry	324	646	10	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/14/2019 12:09	KH
53-70-3	**Dibenzo(a,h)anthracene**	**2760**		ug/kg dry	64.8	129	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 20:15	KH
132-64-9	**Dibenzofuran**	**1580**		ug/kg dry	64.8	129	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 20:15	KH
84-66-2	Diethyl phthalate	ND		ug/kg dry	64.8	129	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 20:15	KH
131-11-3	Dimethyl phthalate	ND		ug/kg dry	64.8	129	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 20:15	KH
84-74-2	Di-n-butyl phthalate	ND		ug/kg dry	64.8	129	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 20:15	KH
117-84-0	Di-n-octyl phthalate	ND		ug/kg dry	64.8	129	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/13/2019 20:15	KH
206-44-0	**Fluoranthene**	**32200**		ug/kg dry	810	1620	25	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/12/2019 07:48	06/14/2019 13:36	KH

Sample Information

Client Sample ID: **B5 S5 Comp**

York Sample ID: **19F0195-06**

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
19F0195	9294 Monticello Manor	Soil	June 6, 2019 8:45 am	06/06/2019

Semi-Volatiles, 8270 - Comprehensive

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3550C

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
86-73-7	**Fluorene**	**3140**		ug/kg dry	64.8	129	2	EPA 8270D	06/12/2019 07:48	06/13/2019 20:15	KH
								Certifications:	NELAC-NY10854,NJDEP,PADEP		
118-74-1	Hexachlorobenzene	ND		ug/kg dry	64.8	129	2	EPA 8270D	06/12/2019 07:48	06/13/2019 20:15	KH
								Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP		
87-68-3	Hexachlorobutadiene	ND		ug/kg dry	64.8	129	2	EPA 8270D	06/12/2019 07:48	06/13/2019 20:15	KH
								Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP		
77-47-4	Hexachlorocyclopentadiene	ND		ug/kg dry	64.8	129	2	EPA 8270D	06/12/2019 07:48	06/13/2019 20:15	KH
								Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP		
67-72-1	Hexachloroethane	ND		ug/kg dry	64.8	129	2	EPA 8270D	06/12/2019 07:48	06/13/2019 20:15	KH
								Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP		
193-39-5	**Indeno(1,2,3-cd)pyrene**	**8420**		ug/kg dry	324	646	10	EPA 8270D	06/12/2019 07:48	06/14/2019 12:09	KH
								Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP		
78-59-1	Isophorone	ND		ug/kg dry	64.8	129	2	EPA 8270D	06/12/2019 07:48	06/13/2019 20:15	KH
								Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP		
91-20-3	**Naphthalene**	**1250**		ug/kg dry	64.8	129	2	EPA 8270D	06/12/2019 07:48	06/13/2019 20:15	KH
								Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP		
98-95-3	Nitrobenzene	ND		ug/kg dry	64.8	129	2	EPA 8270D	06/12/2019 07:48	06/13/2019 20:15	KH
								Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP		
62-75-9	N-Nitrosodimethylamine	ND		ug/kg dry	64.8	129	2	EPA 8270D	06/12/2019 07:48	06/13/2019 20:15	KH
								Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP		
621-64-7	N-nitroso-di-n-propylamine	ND		ug/kg dry	64.8	129	2	EPA 8270D	06/12/2019 07:48	06/13/2019 20:15	KH
								Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP		
86-30-6	N-Nitrosodiphenylamine	ND		ug/kg dry	64.8	129	2	EPA 8270D	06/12/2019 07:48	06/13/2019 20:15	KH
								Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP		
87-86-5	Pentachlorophenol	ND		ug/kg dry	64.8	129	2	EPA 8270D	06/12/2019 07:48	06/13/2019 20:15	KH
								Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP		
85-01-8	**Phenanthrene**	**20800**		ug/kg dry	810	1620	25	EPA 8270D	06/12/2019 07:48	06/14/2019 13:36	KH
								Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP		
108-95-2	Phenol	ND		ug/kg dry	64.8	129	2	EPA 8270D	06/12/2019 07:48	06/13/2019 20:15	KH
								Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP		
129-00-0	**Pyrene**	**20900**		ug/kg dry	810	1620	25	EPA 8270D	06/12/2019 07:48	06/14/2019 13:36	KH
								Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP		

	Surrogate Recoveries	Result	Acceptance Range
367-12-4	*Surrogate: SURR: 2-Fluorophenol*	*73.8 %*	*20-108*
4165-62-2	*Surrogate: SURR: Phenol-d5*	*72.8 %*	*23-114*
4165-60-0	*Surrogate: SURR: Nitrobenzene-d5*	*76.4 %*	*22-108*
321-60-8	*Surrogate: SURR: 2-Fluorobiphenyl*	*42.8 %*	*21-113*
118-79-6	*Surrogate: SURR: 2,4,6-Tribromophenol*	*59.0 %*	*19-110*
1718-51-0	*Surrogate: SURR: Terphenyl-d14*	*38.7 %*	*24-116*

Metals, Target Analyte

Log-in Notes:

Sample Notes:

Sample Information

Client Sample ID: **B5 S5 Comp**

York Sample ID: **19F0195-06**

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
19F0195	9294 Monticello Manor	Soil	June 6, 2019 8:45 am	06/06/2019

Sample Prepared by Method: EPA 3050B

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7429-90-5	**Aluminum**	**7340**		mg/kg dry	7.78	1	EPA 6010D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/07/2019 11:03	06/10/2019 14:00	KML
7440-36-0	Antimony	ND		mg/kg dry	3.89	1	EPA 6010D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/07/2019 11:03	06/10/2019 14:00	KML
7440-38-2	**Arsenic**	**4.09**		mg/kg dry	2.33	1	EPA 6010D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/07/2019 11:03	06/10/2019 14:00	KML
7440-39-3	**Barium**	**99.1**		mg/kg dry	3.89	1	EPA 6010D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/07/2019 11:03	06/10/2019 14:00	KML
7440-41-7	**Beryllium**	**0.282**		mg/kg dry	0.078	1	EPA 6010D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/07/2019 11:03	06/10/2019 14:00	KML
7440-43-9	**Cadmium**	**0.926**		mg/kg dry	0.467	1	EPA 6010D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/07/2019 11:03	06/10/2019 14:00	KML
7440-70-2	**Calcium**	**26500**		mg/kg dry	7.78	1	EPA 6010D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/07/2019 11:03	06/10/2019 14:00	KML
7440-47-3	**Chromium**	**11.9**		mg/kg dry	0.778	1	EPA 6010D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/07/2019 11:03	06/10/2019 14:00	KML
7440-48-4	**Cobalt**	**4.44**		mg/kg dry	0.622	1	EPA 6010D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/07/2019 11:03	06/10/2019 14:00	KML
7440-50-8	**Copper**	**94.4**		mg/kg dry	3.11	1	EPA 6010D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/07/2019 11:03	06/10/2019 14:00	KML
7439-89-6	**Iron**	**10500**		mg/kg dry	38.9	1	EPA 6010D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/07/2019 11:03	06/10/2019 14:00	KML
7439-92-1	**Lead**	**279**		mg/kg dry	0.778	1	EPA 6010D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/07/2019 11:03	06/10/2019 14:00	KML
7439-95-4	**Magnesium**	**4380**		mg/kg dry	7.78	1	EPA 6010D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/07/2019 11:03	06/10/2019 14:00	KML
7439-96-5	**Manganese**	**811**		mg/kg dry	0.778	1	EPA 6010D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/07/2019 11:03	06/10/2019 14:00	KML
7440-02-0	**Nickel**	**11.5**		mg/kg dry	1.56	1	EPA 6010D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/07/2019 11:03	06/10/2019 14:00	KML
7440-09-7	**Potassium**	**462**		mg/kg dry	7.78	1	EPA 6010D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/07/2019 11:03	06/10/2019 14:00	KML
7782-49-2	Selenium	ND		mg/kg dry	3.89	1	EPA 6010D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/07/2019 11:03	06/10/2019 14:00	KML
7440-22-4	Silver	ND		mg/kg dry	0.778	1	EPA 6010D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/07/2019 11:03	06/10/2019 14:00	KML
7440-23-5	**Sodium**	**78.6**		mg/kg dry	77.8	1	EPA 6010D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/07/2019 11:03	06/10/2019 14:00	KML
7440-28-0	Thallium	ND		mg/kg dry	3.89	1	EPA 6010D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/07/2019 11:03	06/10/2019 14:00	KML
7440-62-2	**Vanadium**	**9.91**		mg/kg dry	1.56	1	EPA 6010D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/07/2019 11:03	06/10/2019 14:00	KML
7440-66-6	**Zinc**	**142**		mg/kg dry	3.89	1	EPA 6010D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	06/07/2019 11:03	06/10/2019 14:00	KML

Sample Information

Client Sample ID: **B5 S5 Comp**

York Sample ID: **19F0195-06**

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
19F0195	9294 Monticello Manor	Soil	June 6, 2019 8:45 am	06/06/2019

Mercury by 7473

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 7473 soil

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7439-97-6	**Mercury**	**0.249**		mg/kg dry	0.0467	1	EPA 7473	06/07/2019 09:07	06/07/2019 10:57	SY
							Certifications: CTDOH,NJDEP,NELAC-NY10854,PADEP			

Total Solids

Log-in Notes:

Sample Notes:

Sample Prepared by Method: % Solids Prep

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
solids	*** % Solids**	**64.3**		%	0.100	1	SM 2540G	06/07/2019 11:36	06/07/2019 15:27	JTV
							Certifications: CTDOH			

Analytical Batch Summary

Batch ID: BF90355 **Preparation Method:** EPA 7473 soil **Prepared By:** SY

YORK Sample ID	Client Sample ID	Preparation Date
19F0195-02	B7 D2 Comp	06/07/19
19F0195-04	B8 D3 Comp	06/07/19
19F0195-06	B5 S5 Comp	06/07/19
BF90355-BLK1	Blank	06/07/19
BF90355-SRM1	Reference	06/07/19

Batch ID: BF90377 **Preparation Method:** EPA 3050B **Prepared By:** SY

YORK Sample ID	Client Sample ID	Preparation Date
19F0195-02	B7 D2 Comp	06/07/19
19F0195-04	B8 D3 Comp	06/07/19
19F0195-06	B5 S5 Comp	06/07/19
BF90377-BLK1	Blank	06/07/19
BF90377-SRM1	Reference	06/07/19

Batch ID: BF90382 **Preparation Method:** % Solids Prep **Prepared By:** JTV

YORK Sample ID	Client Sample ID	Preparation Date
19F0195-02	B7 D2 Comp	06/07/19
19F0195-04	B8 D3 Comp	06/07/19

Batch ID: BF90383 **Preparation Method:** % Solids Prep **Prepared By:** JTV

YORK Sample ID	Client Sample ID	Preparation Date
19F0195-06	B5 S5 Comp	06/07/19

Batch ID: BF90557 **Preparation Method:** EPA 5035A **Prepared By:** TMP

YORK Sample ID	Client Sample ID	Preparation Date
19F0195-01	B7 D2 VOC	06/10/19
19F0195-03	B8 D3 VOC	06/10/19
19F0195-05	B5 S5 VOC	06/10/19
BF90557-BLK1	Blank	06/10/19
BF90557-BS1	LCS	06/10/19
BF90557-BSD1	LCS Dup	06/10/19

Batch ID: BF90579 **Preparation Method:** EPA 3550C **Prepared By:** LM

YORK Sample ID	Client Sample ID	Preparation Date
19F0195-02	B7 D2 Comp	06/12/19
19F0195-04	B8 D3 Comp	06/12/19
19F0195-06	B5 S5 Comp	06/12/19

19F0195-06RE1	B5 S5 Comp	06/12/19
19F0195-06RE2	B5 S5 Comp	06/12/19
BF90579-BLK1	Blank	06/12/19
BF90579-BS1	LCS	06/12/19

Batch ID: BF90705 **Preparation Method:** % Solids Prep **Prepared By:** KT

YORK Sample ID	Client Sample ID	Preparation Date
19F0195-01	B7 D2 VOC	06/13/19
19F0195-03	B8 D3 VOC	06/13/19
19F0195-05	B5 S5 VOC	06/13/19

Volatile Organic Compounds by GC/MS - Quality Control Data

York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
Batch BF90557 - EPA 5035A											
Blank (BF90557-BLK1)							Prepared & Analyzed: 06/10/2019				
1,1,1,2-Tetrachloroethane	ND	5.0	ug/kg wet								
1,1,1-Trichloroethane	ND	5.0	"								
1,1,2,2-Tetrachloroethane	ND	5.0	"								
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	5.0	"								
1,1,2-Trichloroethane	ND	5.0	"								
1,1-Dichloroethane	ND	5.0	"								
1,1-Dichloroethylene	ND	5.0	"								
1,2,3-Trichlorobenzene	ND	5.0	"								
1,2,3-Trichloropropane	ND	5.0	"								
1,2,4-Trichlorobenzene	ND	5.0	"								
1,2,4-Trimethylbenzene	ND	5.0	"								
1,2-Dibromo-3-chloropropane	ND	5.0	"								
1,2-Dibromoethane	ND	5.0	"								
1,2-Dichlorobenzene	ND	5.0	"								
1,2-Dichloroethane	ND	5.0	"								
1,2-Dichloropropane	ND	5.0	"								
1,3,5-Trimethylbenzene	ND	5.0	"								
1,3-Dichlorobenzene	ND	5.0	"								
1,4-Dichlorobenzene	ND	5.0	"								
1,4-Dioxane	ND	100	"								
2-Butanone	ND	5.0	"								
2-Hexanone	ND	5.0	"								
4-Methyl-2-pentanone	ND	5.0	"								
Acetone	ND	10	"								
Acrolein	ND	10	"								
Acrylonitrile	ND	5.0	"								
Benzene	ND	5.0	"								
Bromochloromethane	ND	5.0	"								
Bromodichloromethane	ND	5.0	"								
Bromoform	ND	5.0	"								
Bromomethane	ND	5.0	"								
Carbon disulfide	ND	5.0	"								
Carbon tetrachloride	ND	5.0	"								
Chlorobenzene	ND	5.0	"								
Chloroethane	ND	5.0	"								
Chloroform	ND	5.0	"								
Chloromethane	ND	5.0	"								
cis-1,2-Dichloroethylene	ND	5.0	"								
cis-1,3-Dichloropropylene	ND	5.0	"								
Cyclohexane	ND	5.0	"								
Dibromochloromethane	ND	5.0	"								
Dibromomethane	ND	5.0	"								
Dichlorodifluoromethane	ND	5.0	"								
Ethyl Benzene	ND	5.0	"								
Hexachlorobutadiene	ND	5.0	"								
Isopropylbenzene	ND	5.0	"								
Methyl acetate	ND	5.0	"								
Methyl tert-butyl ether (MTBE)	ND	5.0	"								
Methylcyclohexane	ND	5.0	"								

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
Batch BF90557 - EPA 5035A											
Blank (BF90557-BLK1)							Prepared & Analyzed: 06/10/2019				
Methylene chloride	ND	10	ug/kg wet								
n-Butylbenzene	ND	5.0	"								
n-Propylbenzene	ND	5.0	"								
o-Xylene	ND	5.0	"								
p- & m- Xylenes	ND	10	"								
p-Isopropyltoluene	ND	5.0	"								
sec-Butylbenzene	ND	5.0	"								
Styrene	ND	5.0	"								
tert-Butyl alcohol (TBA)	ND	5.0	"								
tert-Butylbenzene	ND	5.0	"								
Tetrachloroethylene	ND	5.0	"								
Toluene	ND	5.0	"								
trans-1,2-Dichloroethylene	ND	5.0	"								
trans-1,3-Dichloropropylene	ND	5.0	"								
trans-1,4-dichloro-2-butene	ND	5.0	"								
Trichloroethylene	ND	5.0	"								
Trichlorofluoromethane	ND	5.0	"								
Vinyl Chloride	ND	5.0	"								
Xylenes, Total	ND	15	"								
Surrogate: SURR: 1,2-Dichloroethane-d4	*47.9*		*ug/L*	*50.0*		*95.8*	*77-125*				
Surrogate: SURR: Toluene-d8	*49.1*		*"*	*50.0*		*98.1*	*85-120*				
Surrogate: SURR: p-Bromofluorobenzene	*53.5*		*"*	*50.0*		*107*	*76-130*				
LCS (BF90557-BS1)							Prepared & Analyzed: 06/10/2019				
1,1,1,2-Tetrachloroethane	46		ug/L	50.0		92.5	75-129				
1,1,1-Trichloroethane	49		"	50.0		98.1	71-137				
1,1,2,2-Tetrachloroethane	49		"	50.0		98.4	79-129				
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	33		"	50.0		65.4	58-146				
1,1,2-Trichloroethane	45		"	50.0		90.4	83-123				
1,1-Dichloroethane	45		"	50.0		90.8	75-130				
1,1-Dichloroethylene	45		"	50.0		90.6	64-137				
1,2,3-Trichlorobenzene	47		"	50.0		94.5	81-140				
1,2,3-Trichloropropane	49		"	50.0		97.8	81-126				
1,2,4-Trichlorobenzene	44		"	50.0		88.4	80-141				
1,2,4-Trimethylbenzene	45		"	50.0		89.6	84-125				
1,2-Dibromo-3-chloropropane	43		"	50.0		86.0	74-142				
1,2-Dibromoethane	48		"	50.0		95.5	86-123				
1,2-Dichlorobenzene	45		"	50.0		90.0	85-122				
1,2-Dichloroethane	43		"	50.0		85.9	71-133				
1,2-Dichloropropane	46		"	50.0		91.3	81-122				
1,3,5-Trimethylbenzene	45		"	50.0		90.2	82-126				
1,3-Dichlorobenzene	45		"	50.0		90.0	84-124				
1,4-Dichlorobenzene	45		"	50.0		90.0	84-124				
1,4-Dioxane	920		"	1050		87.6	10-228				
2-Butanone	41		"	50.0		82.4	58-147				
2-Hexanone	44		"	50.0		87.3	70-139				
4-Methyl-2-pentanone	38		"	50.0		76.2	72-132				
Acetone	28		"	50.0		56.7	36-155				
Acrolein	26		"	50.0		51.9	10-238				
Acrylonitrile	48		"	50.0		95.6	66-141				

Volatile Organic Compounds by GC/MS - Quality Control Data

York Analytical Laboratories, Inc.

Batch BF90557 - EPA 5035A

LCS (BF90557-BS1) Prepared & Analyzed: 06/10/2019

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
Benzene	47		ug/L	50.0		93.7	77-127				
Bromochloromethane	47		"	50.0		93.7	74-129				
Bromodichloromethane	49		"	50.0		98.5	81-124				
Bromoform	49		"	50.0		99.0	80-136				
Bromomethane	40		"	50.0		79.8	32-177				
Carbon disulfide	47		"	50.0		93.9	10-136				
Carbon tetrachloride	46		"	50.0		91.6	66-143				
Chlorobenzene	44		"	50.0		87.9	86-120				
Chloroethane	33		"	50.0		65.8	51-142				
Chloroform	46		"	50.0		92.7	76-131				
Chloromethane	35		"	50.0		70.6	49-132				
cis-1,2-Dichloroethylene	45		"	50.0		89.3	74-132				
cis-1,3-Dichloropropylene	47		"	50.0		93.2	81-129				
Cyclohexane	47		"	50.0		93.4	70-130				
Dibromochloromethane	48		"	50.0		95.2	10-200				
Dibromomethane	44		"	50.0		88.6	83-124				
Dichlorodifluoromethane	61		"	50.0		123	28-158				
Ethyl Benzene	45		"	50.0		89.4	84-125				
Hexachlorobutadiene	48		"	50.0		96.5	83-133				
Isopropylbenzene	45		"	50.0		90.7	81-127				
Methyl acetate	42		"	50.0		84.0	41-143				
Methyl tert-butyl ether (MTBE)	47		"	50.0		93.4	74-131				
Methylcyclohexane	45		"	50.0		89.8	70-130				
Methylene chloride	45		"	50.0		89.6	57-141				
n-Butylbenzene	42		"	50.0		84.4	80-130				
n-Propylbenzene	45		"	50.0		89.4	74-136				
o-Xylene	44		"	50.0		87.3	83-123				
p- & m- Xylenes	85		"	100		85.2	82-128				
p-Isopropyltoluene	47		"	50.0		93.1	85-125				
sec-Butylbenzene	49		"	50.0		97.5	83-125				
Styrene	45		"	50.0		89.5	86-126				
tert-Butyl alcohol (TBA)	200		"	250		78.3	70-130				
tert-Butylbenzene	41		"	50.0		82.7	80-127				
Tetrachloroethylene	41		"	50.0		82.8	80-129				
Toluene	43		"	50.0		86.9	85-121				
trans-1,2-Dichloroethylene	45		"	50.0		90.8	72-132				
trans-1,3-Dichloropropylene	46		"	50.0		92.6	78-132				
trans-1,4-dichloro-2-butene	49		"	50.0		98.4	75-135				
Trichloroethylene	44		"	50.0		89.0	84-123				
Trichlorofluoromethane	33		"	50.0		65.4	62-140				
Vinyl Chloride	40		"	50.0		80.4	52-130				
Surrogate: SURR: 1,2-Dichloroethane-d4	*47.6*		*"*	*50.0*		*95.2*	*77-125*				
Surrogate: SURR: Toluene-d8	*49.6*		*"*	*50.0*		*99.2*	*85-120*				
Surrogate: SURR: p-Bromofluorobenzene	*52.2*		*"*	*50.0*		*104*	*76-130*				

Volatile Organic Compounds by GC/MS - Quality Control Data

York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag

Batch BF90557 - EPA 5035A

LCS Dup (BF90557-BSD1) Prepared & Analyzed: 06/10/2019

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
1,1,1,2-Tetrachloroethane	56		ug/L	50.0		111	75-129		18.3	30	
1,1,1-Trichloroethane	60		"	50.0		119	71-137		19.5	30	
1,1,2,2-Tetrachloroethane	59		"	50.0		118	79-129		18.5	30	
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	0.0		"	50.0			58-146	Low Bias		30	
1,1,2-Trichloroethane	56		"	50.0		112	83-123		21.0	30	
1,1-Dichloroethane	54		"	50.0		108	75-130		17.6	30	
1,1-Dichloroethylene	54		"	50.0		108	64-137		18.0	30	
1,2,3-Trichlorobenzene	57		"	50.0		114	81-140		18.2	30	
1,2,3-Trichloropropane	60		"	50.0		119	81-126		19.8	30	
1,2,4-Trichlorobenzene	52		"	50.0		104	80-141		16.7	30	
1,2,4-Trimethylbenzene	53		"	50.0		105	84-125		15.9	30	
1,2-Dibromo-3-chloropropane	56		"	50.0		113	74-142		27.0	30	
1,2-Dibromoethane	58		"	50.0		116	86-123		19.6	30	
1,2-Dichlorobenzene	53		"	50.0		107	85-122		17.0	30	
1,2-Dichloroethane	52		"	50.0		104	71-133		19.4	30	
1,2-Dichloropropane	55		"	50.0		109	81-122		17.8	30	
1,3,5-Trimethylbenzene	53		"	50.0		106	82-126		16.1	30	
1,3-Dichlorobenzene	53		"	50.0		106	84-124		16.2	30	
1,4-Dichlorobenzene	54		"	50.0		107	84-124		17.3	30	
1,4-Dioxane	1100		"	1050		107	10-228		19.8	30	
2-Butanone	51		"	50.0		102	58-147		21.7	30	
2-Hexanone	54		"	50.0		109	70-139		21.9	30	
4-Methyl-2-pentanone	48		"	50.0		95.7	72-132		22.7	30	
Acetone	38		"	50.0		75.2	36-155		28.0	30	
Acrolein	30		"	50.0		60.1	10-238		14.6	30	
Acrylonitrile	60		"	50.0		121	66-141		23.5	30	
Benzene	56		"	50.0		112	77-127		18.0	30	
Bromochloromethane	55		"	50.0		111	74-129		16.8	30	
Bromodichloromethane	60		"	50.0		119	81-124		19.0	30	
Bromoform	61		"	50.0		121	80-136		20.4	30	
Bromomethane	43		"	50.0		85.1	32-177		6.48	30	
Carbon disulfide	56		"	50.0		113	10-136		18.2	30	
Carbon tetrachloride	56		"	50.0		112	66-143		20.0	30	
Chlorobenzene	53		"	50.0		105	86-120		17.9	30	
Chloroethane	41		"	50.0		81.3	51-142		21.1	30	
Chloroform	56		"	50.0		111	76-131		18.1	30	
Chloromethane	43		"	50.0		85.9	49-132		19.5	30	
cis-1,2-Dichloroethylene	53		"	50.0		106	74-132		16.8	30	
cis-1,3-Dichloropropylene	56		"	50.0		112	81-129		18.6	30	
Cyclohexane	56		"	50.0		112	70-130		17.8	30	
Dibromochloromethane	58		"	50.0		115	10-200		19.2	30	
Dibromomethane	54		"	50.0		107	83-124		19.1	30	
Dichlorodifluoromethane	73		"	50.0		145	28-158		17.0	30	
Ethyl Benzene	54		"	50.0		107	84-125		18.1	30	
Hexachlorobutadiene	56		"	50.0		112	83-133		15.2	30	
Isopropylbenzene	53		"	50.0		106	81-127		15.5	30	
Methyl acetate	54		"	50.0		108	41-143		24.8	30	
Methyl tert-butyl ether (MTBE)	56		"	50.0		112	74-131		18.5	30	
Methylcyclohexane	53		"	50.0		106	70-130		16.5	30	
Methylene chloride	53		"	50.0		107	57-141		17.3	30	

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
Batch BF90557 - EPA 5035A											
LCS Dup (BF90557-BSD1)							Prepared & Analyzed: 06/10/2019				
n-Butylbenzene	51		ug/L	50.0		101	80-130		18.2	30	
n-Propylbenzene	52		"	50.0		105	74-136		15.8	30	
o-Xylene	52		"	50.0		104	83-123		17.9	30	
p- & m- Xylenes	100		"	100		102	82-128		18.0	30	
p-Isopropyltoluene	54		"	50.0		109	85-125		15.6	30	
sec-Butylbenzene	57		"	50.0		115	83-125		16.0	30	
Styrene	53		"	50.0		107	86-126		17.7	30	
tert-Butyl alcohol (TBA)	260		"	250		103	70-130		27.7	30	
tert-Butylbenzene	49		"	50.0		97.9	80-127		16.9	30	
Tetrachloroethylene	49		"	50.0		98.0	80-129		16.8	30	
Toluene	52		"	50.0		104	85-121		17.7	30	
trans-1,2-Dichloroethylene	55		"	50.0		110	72-132		18.9	30	
trans-1,3-Dichloropropylene	56		"	50.0		113	78-132		19.5	30	
trans-1,4-dichloro-2-butene	60		"	50.0		121	75-135		20.4	30	
Trichloroethylene	53		"	50.0		106	84-123		17.6	30	
Trichlorofluoromethane	40		"	50.0		79.2	62-140		19.0	30	
Vinyl Chloride	49		"	50.0		97.3	52-130		18.9	30	
Surrogate: SURR: 1,2-Dichloroethane-d4	*49.0*		*"*	*50.0*		*98.0*	*77-125*				
Surrogate: SURR: Toluene-d8	*49.1*		*"*	*50.0*		*98.1*	*85-120*				
Surrogate: SURR: p-Bromofluorobenzene	*51.5*		*"*	*50.0*		*103*	*76-130*				

Semivolatile Organic Compounds by GC/MS - Quality Control Data

York Analytical Laboratories, Inc.

Batch BF90579 - EPA 3550C

Blank (BF90579-BLK1) Prepared & Analyzed: 06/12/2019

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
1,1-Biphenyl	ND	41.6	ug/kg wet								
1,2,4,5-Tetrachlorobenzene	ND	83.0	"								
1,2,4-Trichlorobenzene	ND	41.6	"								
1,2-Dichlorobenzene	ND	41.6	"								
1,2-Diphenylhydrazine (as Azobenzene)	ND	41.6	"								
1,3-Dichlorobenzene	ND	41.6	"								
1,4-Dichlorobenzene	ND	41.6	"								
2,3,4,6-Tetrachlorophenol	ND	83.0	"								
2,4,5-Trichlorophenol	ND	41.6	"								
2,4,6-Trichlorophenol	ND	41.6	"								
2,4-Dichlorophenol	ND	41.6	"								
2,4-Dimethylphenol	ND	41.6	"								
2,4-Dinitrophenol	ND	83.0	"								
2,4-Dinitrotoluene	ND	41.6	"								
2,6-Dinitrotoluene	ND	41.6	"								
2-Chloronaphthalene	ND	41.6	"								
2-Chlorophenol	ND	41.6	"								
2-Methylnaphthalene	ND	41.6	"								
2-Methylphenol	ND	41.6	"								
2-Nitroaniline	ND	83.0	"								
2-Nitrophenol	ND	41.6	"								
3- & 4-Methylphenols	ND	41.6	"								
3,3-Dichlorobenzidine	ND	41.6	"								
3-Nitroaniline	ND	83.0	"								
4,6-Dinitro-2-methylphenol	ND	83.0	"								
4-Bromophenyl phenyl ether	ND	41.6	"								
4-Chloro-3-methylphenol	ND	41.6	"								
4-Chloroaniline	ND	41.6	"								
4-Chlorophenyl phenyl ether	ND	41.6	"								
4-Nitroaniline	ND	83.0	"								
4-Nitrophenol	ND	83.0	"								
Acenaphthene	ND	41.6	"								
Acenaphthylene	ND	41.6	"								
Acetophenone	ND	41.6	"								
Aniline	ND	166	"								
Anthracene	ND	41.6	"								
Atrazine	ND	41.6	"								
Benzaldehyde	ND	41.6	"								
Benzidine	ND	166	"								
Benzo(a)anthracene	ND	41.6	"								
Benzo(a)pyrene	ND	41.6	"								
Benzo(b)fluoranthene	ND	41.6	"								
Benzo(g,h,i)perylene	ND	41.6	"								
Benzo(k)fluoranthene	ND	41.6	"								
Benzoic acid	ND	41.6	"								
Benzyl alcohol	ND	41.6	"								
Benzyl butyl phthalate	ND	41.6	"								
Bis(2-chloroethoxy)methane	ND	41.6	"								
Bis(2-chloroethyl)ether	ND	41.6	"								
Bis(2-chloroisopropyl)ether	ND	41.6	"								
Bis(2-ethylhexyl)phthalate	ND	41.6	"								

Batch BF90579 - EPA 3550C

Blank (BF90579-BLK1) Prepared & Analyzed: 06/12/2019

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
Caprolactam	ND	83.0	ug/kg wet								
Carbazole	ND	41.6	"								
Chrysene	ND	41.6	"								
Dibenzo(a,h)anthracene	ND	41.6	"								
Dibenzofuran	ND	41.6	"								
Diethyl phthalate	ND	41.6	"								
Dimethyl phthalate	ND	41.6	"								
Di-n-butyl phthalate	ND	41.6	"								
Di-n-octyl phthalate	ND	41.6	"								
Fluoranthene	ND	41.6	"								
Fluorene	ND	41.6	"								
Hexachlorobenzene	ND	41.6	"								
Hexachlorobutadiene	ND	41.6	"								
Hexachlorocyclopentadiene	ND	41.6	"								
Hexachloroethane	ND	41.6	"								
Indeno(1,2,3-cd)pyrene	ND	41.6	"								
Isophorone	ND	41.6	"								
Naphthalene	ND	41.6	"								
Nitrobenzene	ND	41.6	"								
N-Nitrosodimethylamine	ND	41.6	"								
N-nitroso-di-n-propylamine	ND	41.6	"								
N-Nitrosodiphenylamine	ND	41.6	"								
Pentachlorophenol	ND	41.6	"								
Phenanthrene	ND	41.6	"								
Phenol	ND	41.6	"								
Pyrene	ND	41.6	"								
Surrogate: SURR: 2-Fluorophenol	*876*		*"*	*1660*		*52.8*	*20-108*				
Surrogate: SURR: Phenol-d5	*787*		*"*	*1660*		*47.4*	*23-114*				
Surrogate: SURR: Nitrobenzene-d5	*450*		*"*	*831*		*54.2*	*22-108*				
Surrogate: SURR: 2-Fluorobiphenyl	*404*		*"*	*831*		*48.6*	*21-113*				
Surrogate: SURR: 2,4,6-Tribromophenol	*791*		*"*	*1660*		*47.6*	*19-110*				
Surrogate: SURR: Terphenyl-d14	*459*		*"*	*831*		*55.3*	*24-116*				

Batch BF90579 - EPA 3550C

LCS (BF90579-BS1) Prepared & Analyzed: 06/12/2019

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
1,1-Biphenyl	443	41.6	ug/kg wet	831		53.4	22-103				
1,2,4,5-Tetrachlorobenzene	488	83.0	"	831		58.7	10-144				
1,2,4-Trichlorobenzene	476	41.6	"	831		57.4	23-130				
1,2-Dichlorobenzene	405	41.6	"	831		48.8	26-113				
1,2-Diphenylhydrazine (as Azobenzene)	380	41.6	"	831		45.8	10-140				
1,3-Dichlorobenzene	401	41.6	"	831		48.3	32-113				
1,4-Dichlorobenzene	407	41.6	"	831		49.0	28-111				
2,3,4,6-Tetrachlorophenol	335	83.0	"	831		40.3	30-130				
2,4,5-Trichlorophenol	379	41.6	"	831		45.7	14-138				
2,4,6-Trichlorophenol	423	41.6	"	831		50.9	27-122				
2,4-Dichlorophenol	507	41.6	"	831		61.0	23-133				
2,4-Dimethylphenol	498	41.6	"	831		60.0	15-131				
2,4-Dinitrophenol	208	83.0	"	831		25.0	10-149				
2,4-Dinitrotoluene	476	41.6	"	831		57.3	30-123				
2,6-Dinitrotoluene	499	41.6	"	831		60.0	30-125				
2-Chloronaphthalene	397	41.6	"	831		47.8	22-115				
2-Chlorophenol	443	41.6	"	831		53.4	25-121				
2-Methylnaphthalene	494	41.6	"	831		59.5	16-127				
2-Methylphenol	383	41.6	"	831		46.1	10-146				
2-Nitroaniline	494	83.0	"	831		59.5	24-126				
2-Nitrophenol	585	41.6	"	831		70.4	17-129				
3- & 4-Methylphenols	345	41.6	"	831		41.5	20-109				
3,3-Dichlorobenzidine	468	41.6	"	831		56.3	10-147				
3-Nitroaniline	414	83.0	"	831		49.8	23-123				
4,6-Dinitro-2-methylphenol	397	83.0	"	831		47.8	10-149				
4-Bromophenyl phenyl ether	516	41.6	"	831		62.1	30-138				
4-Chloro-3-methylphenol	532	41.6	"	831		64.1	16-138				
4-Chloroaniline	365	41.6	"	831		44.0	10-117				
4-Chlorophenyl phenyl ether	433	41.6	"	831		52.1	18-132				
4-Nitroaniline	510	83.0	"	831		61.4	14-125				
4-Nitrophenol	436	83.0	"	831		52.5	10-136				
Acenaphthene	392	41.6	"	831		47.2	17-124				
Acenaphthylene	409	41.6	"	831		49.3	16-124				
Acetophenone	425	41.6	"	831		51.2	28-105				
Aniline	404	166	"	831		48.7	10-111				
Anthracene	505	41.6	"	831		60.8	24-124				
Atrazine	574	41.6	"	831		69.1	22-120				
Benzaldehyde	538	41.6	"	831		64.8	21-100				
Benzo(a)anthracene	439	41.6	"	831		52.8	25-134				
Benzo(a)pyrene	452	41.6	"	831		54.5	29-144				
Benzo(b)fluoranthene	440	41.6	"	831		52.9	20-151				
Benzo(g,h,i)perylene	427	41.6	"	831		51.4	10-153				
Benzo(k)fluoranthene	409	41.6	"	831		49.2	10-148				
Benzoic acid	86.0	41.6	"	947		9.09	10-116	Low Bias			
Benzyl alcohol	477	41.6	"	831		57.4	17-128				
Benzyl butyl phthalate	522	41.6	"	831		62.8	10-132				
Bis(2-chloroethoxy)methane	469	41.6	"	831		56.5	10-129				
Bis(2-chloroethyl)ether	398	41.6	"	831		48.0	14-125				
Bis(2-chloroisopropyl)ether	480	41.6	"	831		57.8	14-122				
Bis(2-ethylhexyl)phthalate	497	41.6	"	831		59.8	10-141				
Caprolactam	599	83.0	"	831		72.1	10-123				

Batch BF90579 - EPA 3550C

LCS (BF90579-BS1) Prepared & Analyzed: 06/12/2019

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
Carbazole	512	41.6	ug/kg wet	831		61.7	31-120				
Chrysene	413	41.6	"	831		49.7	24-116				
Dibenzo(a,h)anthracene	438	41.6	"	831		52.8	17-147				
Dibenzofuran	422	41.6	"	831		50.8	23-123				
Diethyl phthalate	458	41.6	"	831		55.1	23-122				
Dimethyl phthalate	444	41.6	"	831		53.4	28-127				
Di-n-butyl phthalate	536	41.6	"	831		64.5	19-123				
Di-n-octyl phthalate	599	41.6	"	831		72.1	10-132				
Fluoranthene	534	41.6	"	831		64.3	36-125				
Fluorene	427	41.6	"	831		51.4	16-130				
Hexachlorobenzene	434	41.6	"	831		52.2	10-129				
Hexachlorobutadiene	481	41.6	"	831		58.0	22-153				
Hexachlorocyclopentadiene	135	41.6	"	831		16.3	10-134				
Hexachloroethane	416	41.6	"	831		50.0	20-112				
Indeno(1,2,3-cd)pyrene	475	41.6	"	831		57.2	10-155				
Isophorone	496	41.6	"	831		59.8	14-131				
Naphthalene	473	41.6	"	831		56.9	20-121				
Nitrobenzene	493	41.6	"	831		59.4	20-121				
N-Nitrosodimethylamine	430	41.6	"	831		51.8	10-124				
N-nitroso-di-n-propylamine	451	41.6	"	831		54.3	21-119				
N-Nitrosodiphenylamine	489	41.6	"	831		58.9	10-163				
Pentachlorophenol	276	41.6	"	831		33.3	10-143				
Phenanthrene	496	41.6	"	831		59.8	24-123				
Phenol	451	41.6	"	831		54.3	15-123				
Pyrene	422	41.6	"	831		50.8	24-132				
Surrogate: SURR: 2-Fluorophenol	*859*		*"*	*1660*		*51.7*	*20-108*				
Surrogate: SURR: Phenol-d5	*799*		*"*	*1660*		*48.1*	*23-114*				
Surrogate: SURR: Nitrobenzene-d5	*502*		*"*	*831*		*60.4*	*22-108*				
Surrogate: SURR: 2-Fluorobiphenyl	*389*		*"*	*831*		*46.8*	*21-113*				
Surrogate: SURR: 2,4,6-Tribromophenol	*951*		*"*	*1660*		*57.3*	*19-110*				
Surrogate: SURR: Terphenyl-d14	*421*		*"*	*831*		*50.6*	*24-116*				

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
Batch BF90377 - EPA 3050B											
Blank (BF90377-BLK1)							Prepared: 06/07/2019 Analyzed: 06/10/2019				
Aluminum	ND	5.00	mg/kg wet								
Antimony	ND	2.50	"								
Arsenic	ND	1.50	"								
Barium	ND	2.50	"								
Beryllium	ND	0.050	"								
Cadmium	ND	0.300	"								
Calcium	ND	5.00	"								
Chromium	ND	0.500	"								
Cobalt	ND	0.400	"								
Copper	ND	2.00	"								
Iron	ND	25.0	"								
Lead	ND	0.500	"								
Magnesium	ND	5.00	"								
Manganese	ND	0.500	"								
Nickel	ND	1.00	"								
Potassium	ND	5.00	"								
Selenium	ND	2.50	"								
Silver	ND	0.500	"								
Sodium	ND	50.0	"								
Thallium	ND	2.50	"								
Vanadium	ND	1.00	"								
Zinc	ND	2.50	"								
Reference (BF90377-SRM1)							Prepared: 06/07/2019 Analyzed: 06/10/2019				
Aluminum	7970	5.00	mg/kg wet	8360		95.3	50.2-149.5				
Antimony	79.8	2.50	"	89.6		89.1	19.3-258.9				
Arsenic	222	1.50	"	202		110	69.8-130.2				
Barium	292	2.50	"	270		108	75.2-125.2				
Beryllium	105	0.050	"	96.8		108	75-125				
Cadmium	146	0.300	"	141		103	74.5-124.8				
Calcium	5100	5.00	"	4700		108	72.6-127.7				
Chromium	173	0.500	"	167		104	70.1-129.9				
Cobalt	189	0.400	"	174		109	74.7-124.7				
Copper	123	2.00	"	108		114	74.7-124.1				
Iron	12700	25.0	"	14700		86.4	36.4-163.9				
Lead	80.7	0.500	"	73.8		109	68.4-131.6				
Magnesium	2340	5.00	"	2310		101	61.9-138.1				
Manganese	359	0.500	"	330		109	75.2-124.8				
Nickel	109	1.00	"	89.4		122	69.9-129.8				
Potassium	2210	5.00	"	2240		98.7	60.7-139.7				
Selenium	33.8	2.50	"	49.9		67.7	58.1-141.7				
Silver	57.5	0.500	"	71.1		80.9	70.7-129.3				
Sodium	217	50.0	"	195		111	45.5-154.4				
Thallium	61.4	2.50	"	58.5		105	60.9-139.3				
Vanadium	55.4	1.00	"	58.2		95.2	57.4-142.6				
Zinc	276	2.50	"	264		105	70.1-130.3				

Mercury by EPA 7000/200 Series Methods - Quality Control Data

York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
Batch BF90355 - EPA 7473 soil											
Blank (BF90355-BLK1)							Prepared & Analyzed: 06/07/2019				
Mercury	ND	0.0300	mg/kg wet								
Reference (BF90355-SRM1)							Prepared & Analyzed: 06/07/2019				
Mercury	2.7631		mg/kg	3.71		74.5	65-135				

Volatile Analysis Sample Containers

Lab ID	Client Sample ID	Volatile Sample Container
19F0195-01	B7 D2 VOC	40mL Vial with Stir Bar-Cool 4° C
19F0195-03	B8 D3 VOC	40mL Vial with Stir Bar-Cool 4° C
19F0195-05	B5 S5 VOC	40mL Vial with Stir Bar-Cool 4° C

Sample and Data Qualifiers Relating to This Work Order

QL-02	This LCS analyte is outside Laboratory Recovery limits due the analyte behavior using the referenced method. The reference method has certain limitations with respect to analytes of this nature.
M-CRL	The RL check for this element recovered outside of control limits.
J	Detected below the Reporting Limit but greater than or equal to the Method Detection Limit (MDL/LOD) or in the case of a TIC, the result is an estimated concentration.
E	The concentration indicated for this analyte is an estimated value above the calibration range of the instrument. This value is considered an estimate.
CCV-E	The value reported is ESTIMATED. The value is estimated due to its behavior during continuing calibration verification (>20% Difference for average Rf or >20% Drift for quadratic fit).

Definitions and Other Explanations

*	Analyte is not certified or the state of the samples origination does not offer certification for the Analyte.
ND	NOT DETECTED - the analyte is not detected at the Reported to level (LOQ/RL or LOD/MDL)
RL	REPORTING LIMIT - the minimum reportable value based upon the lowest point in the analyte calibration curve.
LOQ	LIMIT OF QUANTITATION - the minimum concentration of a target analyte that can be reported within a specified degree of confidence. This is the lowest point in an analyte calibration curve that has been subjected to all steps of the processing/analysis and verified to meet defined criteria. This is based upon NELAC 2009 Standards and applies to all analyses.
LOD	LIMIT OF DETECTION - a verified estimate of the minimum concentration of a substance in a given matrix that an analytical process can reliably detect. This is based upon NELAC 2009 Standards and applies to all analyses conducted under the auspices of EPA SW-846.
MDL	METHOD DETECTION LIMIT - a statistically derived estimate of the minimum amount of a substance an analytical system can reliably detect with a 99% confidence that the concentration of the substance is greater than zero. This is based upon 40 CFR Part 136 Appendix B and applies only to EPA 600 and 200 series methods.
Reported to	This indicates that the data for a particular analysis is reported to either the LOD/MDL, or the LOQ/RL. In cases where the "Reported to" is located above the LOD/MDL, any value between this and the LOQ represents an estimated value which is "J" flagged accordingly. This applies to volatile and semi-volatile target compounds only.
NR	Not reported
RPD	Relative Percent Difference
Wet	The data has been reported on an as-received (wet weight) basis
Low Bias	Low Bias flag indicates that the recovery of the flagged analyte is below the laboratory or regulatory lower control limit. The data user should take note that this analyte may be biased low but should evaluate multiple lines of evidence including the LCS and site-specific MS/MSD data to draw bias conclusions. In cases where no site-specific MS/MSD was requested, only the LCS data can be used to evaluate such bias.
High Bias	High Bias flag indicates that the recovery of the flagged analyte is above the laboratory or regulatory upper control limit. The data user should take note that this analyte may be biased high but should evaluate multiple lines of evidence including the LCS and site-specific MS/MSD data to draw bias conclusions. In cases where no site-specific MS/MSD was requested, only the LCS data can be used to evaluate such bias.
Non-Dir.	Non-dir. flag (Non-Directional Bias) indicates that the Relative Percent Difference (RPD) (a measure of precision) among the MS and MSD data is outside the laboratory or regulatory control limit. This alerts the data user where the MS and MSD are from site-specific samples that the RPD is high due to either non-homogeneous distribution of target analyte between the MS/MSD or indicates poor reproducibility for other reasons.

If EPA SW-846 method 8270 is included herein it is noted that the target compound N-nitrosodiphenylamine (NDPA) decomposes in the gas chromatographic inlet and cannot be separated from diphenylamine (DPA). These results could actually represent 100% DPA, 100% NDPA or some combination of the two. For this reason, York reports the combined result for n-nitrosodiphenylamine and diphenylamine for either of these compounds as a combined concentration as Diphenylamine.

If Total PCBs are detected and the target aroclors reported are "Not detected", the Total PCB value is reported due to the presence of either or both Aroclors 1262 and 1268 which are non-target aroclors for some regulatory lists.

2-chloroethylvinyl ether readily breaks down under acidic conditions. Samples that are acid preserved, including standards will exhibit breakdown. The data user should take note.

Certification for pH is no longer offered by NYDOH ELAP.

Semi-Volatile and Volatile analyses are reported down to the LOD/MDL, with values between the LOD/MDL and the LOQ being "J" flagged as estimated results.

For analyses by EPA SW-846-8270D, the Limit of Quantitation (LOQ) reported for benzidine is based upon the lowest standard used for calibration and is not a verified LOQ due to this compound's propensity for oxidative losses during extraction/concentration procedures and non-reproducible chromatographic performance.

YORK ANALYTICAL LABORATORIES INC

York Analytical Laboratories, Inc.
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Field Chain-of-Custody Record

NOTE: YORK's Standard Terms & Conditions are listed on the back side of this document. This document serves as your written authorization for YORK to proceed with the analyses requested below. Your signature binds you to YORK's Standard Terms & Conditions.

YORK Project No. 19F0195

Page 1 of 1

YOUR Information	Report To:	Invoice To:
Company: Tectonic Engineering	Company: Tectonic Engineering	Company: Tectonic Engineering
Address: 70 Pleasant Hill Rd Mountainville, NY	Address: 70 Pleasant Hill Rd Mountainville, NY	Address: 70 Pleasant Hill Rd Mountainville, NY
Phone: 845 534 5959	Phone: 845 534 5959	Phone: 845 534 5959
Contact: Kristine Garbarino	Contact: Kristine Garbarino	Contact: Kristine Garbarino
E-mail: KGarbarino@tectonicengineering.com	E-mail:	E-mail: KGarbarino@tectonicengineering.com

YOUR Project ~~Number~~ NAME: Montecello Manor

YOUR Project ~~Name~~ Number: 9294

YOUR PO#: 174415

Turn-Around Time
- RUSH - Next Day ☐
- RUSH - Two Day ☐
- RUSH - Three Day ☐
- RUSH - Four Day ☐
- Standard (5-7 Day) ☒

Please print clearly and legibly. All information must be complete. Samples will not be logged in and the turn-around-time clock will not begin until any questions by YORK are resolved.

Dina Peoples

Samples Collected by: (print your name above and sign below)

Matrix Codes
- [✓ S - soil / solid]
- GW - groundwater
- DW - drinking water
- WW - wastewater
- O - Oil | Other

Samples From
- New York ☒
- New Jersey ☐
- Connecticut ☐
- Pennsylvania ☐
- Other ☐

Report / EDD Type (circle selections)
- [✓ Summary Report]
- QA Report
- [✓ NY ASP A Package]
- NY ASP B Package
- CT RCP
- CT RCP DQA/DUE
- NJDEP Reduced Deliverables
- NJDKQP
- [✓ Standard Excel EDD]
- EQuIS (Standard)
- NYSDEC EQuIS
- NJDEP SRP HazSite
- Other:

YORK Reg. Comp.
Compared to the following Regulation(s): (please fill in)

Sample Identification	Sample Matrix	Date/Time Sampled	Analysis Requested	Container Description
B7 D2 VOC	S	6/6/19 1030	TCL VOC	4 vials
B7 D2 Comp	S	6/6/19 1030	TCL SVOC, TAL Metals	8 oz
B8 D3 VOC	S	6/6/19 930	TCL VOC	4 Vials
B8 D3 Comp	S	6/6/19 930	TCL SVOC, TAL Metals	8 oz
B5 S5 VOC	S	6/6/19 0845	TCL VOC	4 Vials
B5 S5 Comp	S	6/6/19 0845	TCL SVOC, TAL Metals	8 oz

Comments:

Preservation: (check all that apply)
HCl ___ MeOH ___ HNO3 ___ H2SO4 ___ NaOH ___ ZnAc ___
Ascorbic Acid ___ Other: Ice

Special Instruction
Field Filtered ____
Lab to Filter ____

Samples Relinquished by / Company	Date/Time	Samples Received by / Company	Date/Time	Samples Relinquished by / Company	Date/Time
Dina Peoples	6/6/19 1130		6-6-19 12:46		

Samples Received by / Company	Date/Time	Samples Relinquished by / Company	Date/Time	Samples Received by / Company	Date/Time

Samples Relinquished by / Company	Date/Time	Samples Received by / Company	Date/Time	Samples Received in LAB by	Date/Time	Temp. Received at Lab
				TC	6/6/19 1410	1.7 Degrees C

GALLAGHER BASSETT | TECHNICAL SERVICES

PHASE II
ENVIRONMENTAL
SITE ASSESSMENT

Monticello Manor

15 High Street

City of Monticello

Sullivan County, New York

January 27, 2021

GBTS File: 20-0857.01

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22 IBM Road – Suite 101
Poughkeepsie, NY 12601
(845) 452-1658   www.gallagherbassett.com

PHASE II

ENVIRONMENTAL

SITE ASSESSMENT

January 27, 2021

GBTS File: 20-0857.01

Prepared By:

Gallagher Bassett Technical Services
22 IBM Road – Suite 101
Poughkeepsie, New York 12601

Prepared For:

Kearney Realty & Development Group
34 Clayton Boulevard, Suite A
Baldwin Place, New York 10505

Environmental investigation services were performed by Gallagher Bassett Technical Services (GBTS). The undersigned have reviewed this Phase II Environmental Site Assessment and certify to Kearney Realty & Development Group that the information provided in this document is accurate as of the date of issuance by this office.

Erick Salazar
Gallagher Bassett Technical Services
Environmental Scientist

Scott Spitz

Scott Spitzer
Gallagher Bassett Technical Services
Technical Director – Environmental Consulting

TABLE OF CONTENTS

APPENDICES

1.0 INTRODUCTION

1.1 Purpose

This Phase II Environmental Site Assessment (Report) documents environmental fieldwork performed by Gallagher Bassett Technical Services (GBTS) at the Monticello Manor property, located at 15 High Street, City of Monticello, Sullivan County, New York (Site). Investigative and analytical work were performed to address potential environmental liabilities on specified portions of the subject property, which were identified during previous site investigations (see Section 1.4). The specific purpose of this Report is to summarize the work performed by GBTS and GBTS's subcontractors, and to identify any on-site conditions that may require further investigation and/or remedial actions.

This Report describes all fieldwork methodologies for the work conducted by GBTS, includes discussions of the resulting analytical data from collected samples and provides conclusions and recommendations drawn from the fieldwork and analytical data.

1.2 Limitations

This written analysis summarizes the site characterization activities conducted on a specified portion of the above-referenced property and is not relevant to other portions of this property or any other property. It is a representation of those portions of the property analyzed as of the respective dates of fieldwork. This Report cannot account for activities or events resulting in contamination after the dates of fieldwork.

Services summarized in this Report were performed in accordance with generally accepted practices and established New York State Department of Environmental Conservation (NYSDEC) protocols. Unless specifically noted, GBTS's findings and conclusions must be considered not as scientific certainties, but as probabilities based on professional judgement.

1.3 Site Location and Description

The property is an approximately 5.6-acre parcel located on the northern side of High Street and the western side of Pleasant Street. The property contains the following vacant, dilapidated structures formerly utilized as a health care facility: three-story former hospital and care facility at the central portion; three-story former staff living quarters at the southeastern portion; and, three vacant auxiliary structures at the central-northern and northern portions. The buildings are accessed by an asphalt paved driveway that extends to the northeast from High Street. Paved and unpaved parking areas are located in the northern and southern vicinity of the main building; remaining portions of the property are vacant wooded land.

The specified portions of the property on which the environmental investigation was conducted (Site) consists of areas immediately surrounding on-site buildings and three petroleum bulk storage (PBS) tanks, which may have been impacted by historical uses or releases, and wooded areas at the northern and southern portions where future development is anticipated. A Fieldwork Map indicating specific Site characteristics is provided in Appendix A and photographs showing key site features are provided in Appendix B.

No groundwater was encountered during subsurface fieldwork, and no other data documenting depth to groundwater, or site-specific investigation of groundwater direction of flow, has been reviewed. Based on local topographic conditions, shallow groundwater flow in the vicinity of the Site is likely to be to the southeast.

1.4 Previous Environmental Reports

A Phase I Environmental Site Assessment (Phase I ESA) performed for the property by Tectonic Engineering & Surveying Consultants P.C. (Tectonic) in November 2019 identified several PBS tanks, including one underground storage tank (UST) and three above-ground storage tanks (ASTs), and two 55-gallon drums containing unknown liquids. The Phase I ESA also identified a former four-car garage that may have been used for automotive repair.

A Phase II ESA was completed by Tectonic in July 2019 to screen for potential impacts resulting from known and potential previous releases at PBS tanks and from historical uses. The Phase II ESA documents the advancement of eight soil borings to depths ranging from 1 to 5 feet below ground surface (bgs) at several areas of the property, including the vicinity of the ASTs. Sampling was not conducted at or near the UST due to access limitations.

Subsurface soils reportedly consisted of brown to black coarse to fine sands with varying amounts of gravel and silt. Evidence of fill materials, including the presence of glass, concrete and styrofoam, was observed to depths of 4 feet bgs. No overt field evidence of petroleum contamination was encountered at any boring location. Laboratory data documented elevated levels of metals (above NYSDEC Unrestricted Use criteria) in several samples, including lead and mercury, and elevated levels of several polycyclic aromatic hydrocarbons (PAHs; above NYSDEC Restricted Use, Commercial and Industrial criteria) in one sample near the main building.

2.0 SUBSURFACE INVESTIGATION

2.1 Summary of Services

GBTS advanced nineteen test pits and collected soil samples at the Site on October 27, 2020, and collected soil vapor and additional surface soil samples on December 15, 2020, to document the presence or absence of contamination. This Report contains sections documenting fieldwork methodology (Section 2.2) and laboratory results (Section 2.3), and present GBTS's conclusions and recommendations (Section 3.0). A map indicating all fieldwork locations and selected Site features is provided in Appendix A.

2.2 Fieldwork Activities

2.2.1 Site Preparation Services

GBTS requested a complete utility markout (as required by New York State Department of Labor regulations) and on-site personnel reviewed the markout and underground utility locations prior to the initiation of fieldwork.

2.2.2 Fieldwork Methodology

General Protocols

Encountered material was screened (as appropriate) with a MiniRAE Lite (Model PGM 7300) photo-ionization detector (PID) for volatile organic vapors. GBTS documented field observations in log books, including soil characteristics, the presence of foreign materials, and any indications of contamination (photographs of select test pits are provided in Appendix B).

GBTS collected samples in general conformance with NYSDEC and NYSDOH fieldwork protocols. All field personnel wore dedicated, disposable gloves during relevant fieldwork activities, and any non-dedicated sampling instruments were decontaminated prior to media collection.

All samples were collected into appropriately-sized containers provided by the laboratory (with preservatives as required for the specific analysis), and were maintained at proper temperatures (using ice-packs and coolers as needed) while in GBTS's custody. Samples were transported on October 29, 2020 and December 15, 2020 via courier to York Analytical Laboratories, Inc., (soil samples) and Alpha Analytical (soil vapor samples), both New York State Department of Health-certified laboratories (ELAP Certification Numbers 10854 and 11627, respectively) for chemical analyses. Appropriate chain-of-custody procedures were followed.

Soil Collection

GBTS oversaw the extension of nineteen (19) test pits throughout the Site on October 27, 2020 as follows:

- Immediate vicinity of the main building (TP-1 and TP-2 to the south, TP-3 and TP-4 to the east, and TP-5, TP-6 and TP-11 to the north);
- Immediate vicinity of two ASTs (TP-7 to TP-10);
- East of auxiliary structure (TP-11); and,
- Throughout the proposed new building footprints (TP-13 to TP-15 at northern portion of property, and TP-17 to TP-19 at southern portion).

All test pits were advanced by personnel from Mac Testa Contracting Corporation. Test pits were advanced using a backhoe (fourteen foot reach) to a maximum depth of 4 feet bgs (shallow bedrock refusal was encountered at approximately 2 to 4 feet bgs throughout the site). Eighteen samples were collected, with soil recovered at each test pit location within the top one-foot interval, except at TP-1 SS and TP-3 SS, where soil was recovered from within the top 6 inches and at TP-2 where soil was recovered from approximately 4 feet bgs immediately adjacent to the invert of a catch basin. Samples SS-01 to SS-08 were collected from the surface (top 6 inches) near on-Site structures.

Site soil generally consisted of light brown, fine sands to approximately 1 foot bgs, underlain by brown, medium to coarse sands with varying amounts of gravel. Evidence of fill material (generally limited to small quantities of glass, brick and asphalt) was encountered in TP-1, TP-5, TP-6, TP-10, TP-11 and TP-16. All other soil at test pit locations appeared to be native, undisturbed material.

No field evidence of contamination was observed at any fieldwork location and groundwater was not encountered in test pit excavations.

All soil samples were collected directly from exposed areas in the test pits or readily accessible surface areas, utilizing clean, disposable equipment. Collection for analysis of volatile organic compounds (VOCs) followed USEPA Method 5035 fieldwork protocols, utilizing sampling kits provided by the laboratory.

Collection of Soil Vapor

Soil vapor sampling was conducted beneath the main building (samples SV-01 to SV-05) and the former staff residence (Sample SV-05, located to screen for releases from the former UST). GBTS constructed temporary soil vapor probes by drilling a ½-inch hole through the concrete slabs to a depth of approximately 6 inches within the underlying material. An air-stone attached to ¼" Teflon tubing was inserted to the bottom of each vapor probe and surrounded with clean #2 silica sand. The vapor probe was then sealed using hydrated bentonite clay in order to prevent the infiltration of surface air.

Each vapor probe was purged (at least three borehole and tubing volumes) prior to sampling using a GilAir 3 air-sampling pump, at a rate of approximately 0.2 liters/minute. Soil vapor samples were collected into 2.7-liter Summa Canisters equipped with two-hour flow controllers.

2.3 Laboratory Analysis

2.3.1 Standards, Criteria and/or Guidance

Soil

Laboratory results for all compounds detected in soils are compared to NYSDEC Remedial Program Soil Cleanup Objectives (SCOs) for Unrestricted Use (UU) and Restricted-Residential Use (RRU) as provided in 6 NYCRR Subpart 375, Tables 375-6.8(a) and 375-6.8(b), and Soil Cleanup Levels (for gasoline and fuel oil contaminated Soils) presented in NYSDEC CP-51 (Soil Cleanup Guidance, October 2010) Tables 2 through 3.

Vapor

The State of New York does not have any standards, criteria or guidance values for volatile chemicals in subsurface vapors (either soil vapor or sub-slab vapor). In the absence of SCG, soil vapor results were reviewed as a whole and compared to the results of all other environmental sampling. Note: NYSDOH utilizes three generic decision matrices for evaluating potential soil vapor intrusion into buildings under specific circumstances (see NYSDOH website updates and Guidance for Evaluating Soil Vapor Intrusion in the State of New York [October 2006]). Matrices compare concentrations of a limited number of VOCs, reported in concurrent sub-slab vapor and indoor air samples, and summarize actions recommended to address current and potential exposures related to soil vapor intrusion (ranging from no further action to mitigation). Each matrix contains threshold values for sub-slab vapor, above which mitigation is recommended irrespective of the reported indoor air concentration; soil vapor values that exceed these upper thresholds are noted in the report text and data tables, as warranted[1].

2.3.2 Sample Submission

Samples were submitted for laboratory analyses as follows:

Area of Concern	Sample ID(s)	Laboratory Analysis
Surface soils from 0 – 1’ bgs	TP-1 SS; TP-2; TP-4; TP-5; TP-6; TP-12; TP-14; TP-18; SS-01	VOCs, semi-volatile organic compounds (SVOCs), Target Analyte List (TAL) metals, pesticides, and PCBs
	TP-1, TP-3, TP-3 SS; TP-10, TP-11; TP-16	TAL Metals, pesticides, and PCBs
	SS-02 through SS-08	TAL Metals
ASTs	TP-7 through TP-10	NYSDEC CP-51 petroleum list VOCs/SVOCs
Soil Vapor	SV-01 through SV-05	VOCs (TO-15 list)
USEPA methodologies: *VOCs (soil 8260, vapor TO-15), SVOCs (8270), pesticides/PCBs (8081/8082), metals (6010/7473)*		

Submission of soil samples was biased (as warranted) based on field observations, including any elevated PID readings, unusual odors, discoloration, or other unusual patterns.

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[1] Upper threshold values: 60 µg/m^3 (trichloroethylene, cis-dichloroethylene, 1,1-dichloroethylene, vinyl chloride, and carbon tetrachloride) and 1,000 µg/m^3 (tetrachloroethylene, 1,1,1-trichloroethane, and methylene chloride).

2.3.3 Laboratory Results

A summary of the results of the laboratory analyses is presented below. Results are referenced as parts per million (ppm, equivalent to milligrams per kilogram) for soil and micrograms per cubic meter (µg/m^3) for soil vapor. Data summary tables and the laboratory reports are provided as Appendices C and D, respectively.

SOIL

VOCs

No VOCs were detected above SCOs at any sample location. Two VOCs, n-butylbenzene (0.11 ppm, UU SCO 12 ppm) and p-isopropyltoluene (0.064 ppm, UU SCO 10 ppm) were detected at trace-level concentrations in one sample (TP-8) collected near the ASTs; no other VOCS were detected in three other samples collected in this area. Trace levels of acetone and methylene chloride (possible laboratory cross contaminants) were reported in six of thirteen samples (no other VOCs were detected in any sample).

SVOCs

Pentachlorophenol was detected at a slightly elevated concentration in one of thirteen samples (SS-01, 1.27 ppm; UU SCO 0.8 ppm; RRU SCO 6.7 ppm). No other exceedances were detected in any other sample. Multiple SVOCs, primarily PAHs, were reported at trace levels in nine of thirteen samples, with the majority of detections encountered at TP-1 SS. Trace levels of PAHs were reported in several test pits samples collected in the vicinity of the ASTs. No SVOCs were detected in samples TP-9 and TP-18.

TAL Metals

Metals were detected above RRU SCOs in multiple samples. Mercury was detected above the RRU SCO (0.81 ppm) in four of twenty-one samples, with concentrations ranging from 0.997 ppm (TP-2) to 3.74 ppm (SS-06), and above the UU SCO (0.18 ppm) in four other samples. Lead was detected above the RRU SCO (400 ppm) in three samples, with concentrations ranging from 504 ppm (SS-06) to 4,020 ppm (SS-03), and above the UU SCO (63 ppm) in ten samples. Arsenic, barium, cadmium and copper were detected above RRU SCOs in one or more samples. Several other metals were detected in multiple samples above UU SCOs.

Pesticides and PCBs

Three pesticides (4,4’-DDD, 4-4’-DDE and 4-4’ DDT) were detected above UU SCOs (0.0033 ppm) at SS-01; three other pesticides were detected in this sample at low-level concentrations. One pesticide (4,4’-DDT) was detected above the UU SCO at TP-1 and TP-2. No other pesticides were detected at any other sample location.

One PCB (Aroclor 1254) was detected at trace levels in SS-01 and TP-12. No other PCBs were detected at any other sample location.

SOIL VAPOR

Multiple VOCs, primarily petroleum constituents, were detected in all samples, at low levels concentrations typically encountered in urban and commercial settings. No compounds listed in the NYSDOH matrices were reported. VOC levels are not consistent with the presence of any significant on-Site source areas of contamination.

3.0 CONCLUSIONS AND RECOMMENDATIONS

GBTS has completed the services summarized in Section 2.0 on specified portions of the Monticello Manor property, located at 15 High Street, City of Monticello, Sullivan County, New York. Fieldwork (conducted to document the presence or absence of subsurface contamination resulting from historical commercial use) included extension of nineteen test pits, and collection of ten surface and sixteen subsurface soil samples, and five soil vapor samples.

Conclusions and recommendations (in **bold**), based on the fieldwork services and laboratory data, are as follows:

1. Surface soil in the central portion of the property, in the vicinity of the main hospital building, is impacted by heavy metals (arsenic, barium, cadmium, copper, lead, and/or mercury) at concentrations exceeding NYSDEC Part 375 Soil Cleanup Objectives for Restricted-Residential Use (RRU SCO), and mercury was detected above the RRU SCO in one deeper sample (approximately 4 feet bgs). Multiple other metals are present at concentrations above Unrestricted Use (UU) SCOs. Pesticides have also been identified above UU SCOs at several locations. A high level of polycyclic aromatic hydrocarbons (PAHs; well above RRU SCOs) was documented in one soil sample collected during a previous investigation. The source of these impacts is unknown but may be related to historical site activities and/or on-site fill materials. Elevated concentrations of metals and PAHs in soil present an exposure hazard, and will result in additional costs (due to requirements for special handling) during Site development.

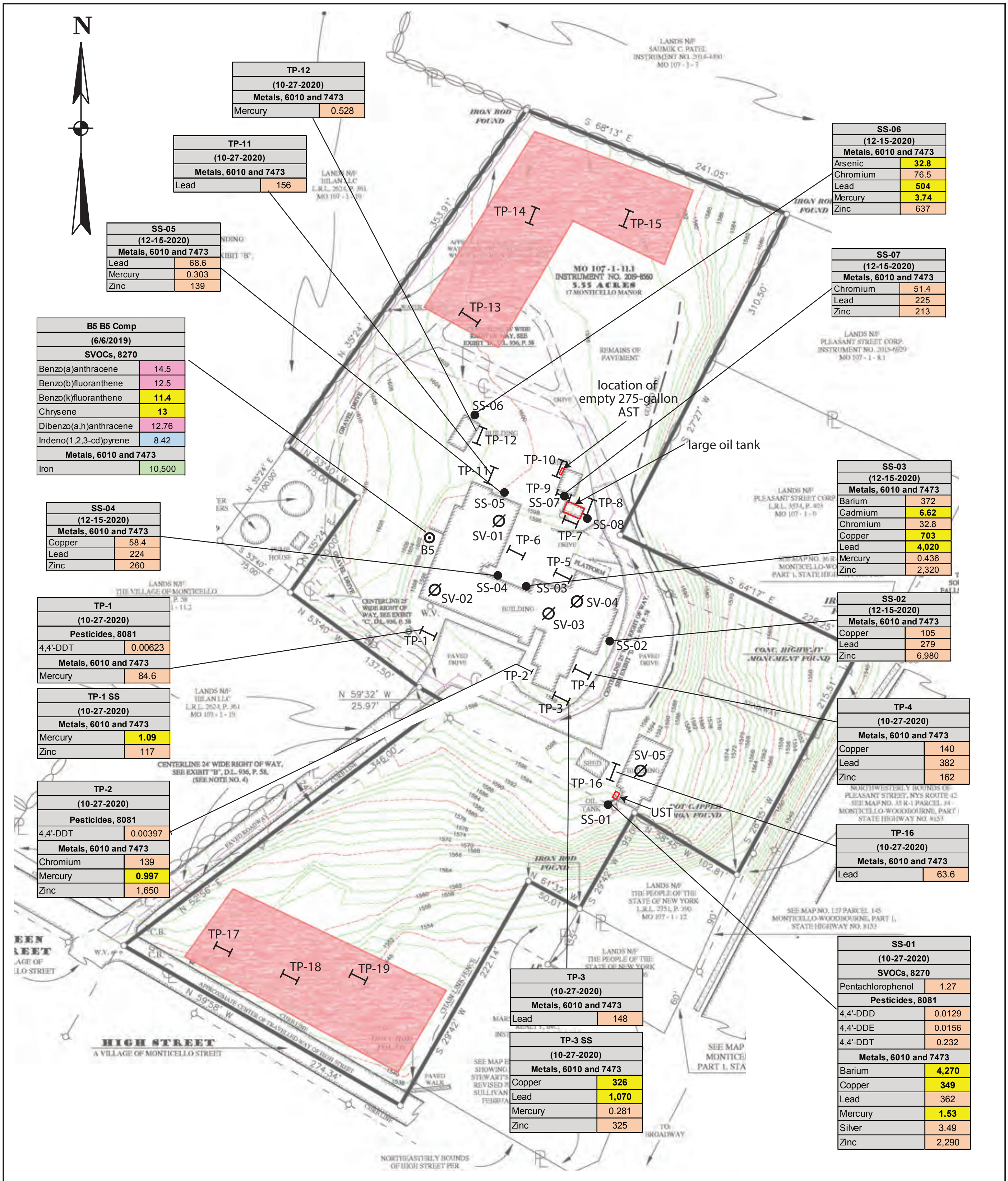
   Site soils impacted by metal and PAH contamination above RRU SCOs should be removed during Site development in accordance with applicable regulations.

2. Several aboveground storage tanks (ASTs) and an underground storage tank (UST) are located on the property. No evidence of petroleum contamination was encountered in test pits throughout the Site and laboratory data document no potential petroleum contamination in soil or soil vapor. These findings suggest that historical uses and/or releases from storage tanks have not resulted in gross on-Site petroleum impacts.

   Additional investigation should be conducted in the vicinity of the UST, as needed, based on Site development requirements.

APPENDIX A

Fieldwork Map



TP-12	
(10-27-2020)	
Metals, 6010 and 7473	
Mercury	0.528

TP-11	
(10-27-2020)	
Metals, 6010 and 7473	
Lead	156

SS-05	
(12-15-2020)	
Metals, 6010 and 7473	
Lead	68.6
Mercury	0.303
Zinc	139

B5 B5 Comp	
(6/6/2019)	
SVOCs, 8270	
Benzo(a)anthracene	14.5
Benzo(b)fluoranthene	12.5
Benzo(k)fluoranthene	11.4
Chrysene	13
Dibenzo(a,h)anthracene	12.76
Indeno(1,2,3-cd)pyrene	8.42
Metals, 6010 and 7473	
Iron	10,500

SS-04	
(12-15-2020)	
Metals, 6010 and 7473	
Copper	58.4
Lead	224
Zinc	260

TP-1	
(10-27-2020)	
Pesticides, 8081	
4,4'-DDT	0.00623
Metals, 6010 and 7473	
Mercury	84.6

TP-1 SS	
(10-27-2020)	
Metals, 6010 and 7473	
Mercury	1.09
Zinc	117

TP-2	
(10-27-2020)	
Pesticides, 8081	
4,4'-DDT	0.00397
Metals, 6010 and 7473	
Chromium	139
Mercury	0.997
Zinc	1,650

SS-06	
(12-15-2020)	
Metals, 6010 and 7473	
Arsenic	32.8
Chromium	76.5
Lead	504
Mercury	3.74
Zinc	637

SS-07	
(12-15-2020)	
Metals, 6010 and 7473	
Chromium	51.4
Lead	225
Zinc	213

SS-03	
(12-15-2020)	
Metals, 6010 and 7473	
Barium	372
Cadmium	6.62
Chromium	32.8
Copper	703
Lead	4,020
Mercury	0.436
Zinc	2,320

SS-02	
(12-15-2020)	
Metals, 6010 and 7473	
Copper	105
Lead	279
Zinc	6,980

TP-4	
(10-27-2020)	
Metals, 6010 and 7473	
Copper	140
Lead	382
Zinc	162

TP-16	
(10-27-2020)	
Metals, 6010 and 7473	
Lead	63.6

TP-3	
(10-27-2020)	
Metals, 6010 and 7473	
Lead	148

TP-3 SS	
(10-27-2020)	
Metals, 6010 and 7473	
Copper	326
Lead	1,070
Mercury	0.281
Zinc	325

SS-01	
(10-27-2020)	
SVOCs, 8270	
Pentachlorophenol	1.27
Pesticides, 8081	
4,4'-DDD	0.0129
4,4'-DDE	0.0156
4,4'-DDT	0.232
Metals, 6010 and 7473	
Barium	4,270
Copper	349
Lead	362
Mercury	1.53
Silver	3.49
Zinc	2,290

All feature locations are approximate. This map is intended as a schematic to be used in conjunction with the associated report, and it should not be relied upon as a survey for planning or other activities.

Fieldwork Map

15 High Street
Monticello, New York

Legend:
- ▬ subject property border
- ⊢⊣ test pit location (2020)
- ● soil sample location (2020)
- ⊙ boring location (2019)
- Ø soil vapor location (2020)

All data in mg/Kg (ppm)
- Analyte Above UU SCO
- Analyte Above RU SCO
- Analyte Above RRU SCO
- Analyte Above CU SCO
- Analyte Above IU SCO

File: 20-0857

January 2021

Not to scale

Attachment

APPENDIX B

Fieldwork Observation Photos

1. **Location of TP-1, main building (former hospital) and excavator**

2. **Large AST north of main building**

3. 275-gallon AST in vicinity of large AST

4. UST at southeastern portion of property

5. **Vault containing potential PBS tank at western exterior wall of main building (photo from Tectonic Phase I ESA)**

6. **TP-1**

7. TP-3

8. TP-5

9. TP-7 (large AST at top right)

10. TP-10 (275-gallon AST at left)

11. TP-15

12. TP-19

APPENDIX C

Data Summary Tables

Table 1: Petroleum Compounds in Soils

GBTS File: 20-0857

All data in mg/Kg (ppm)		**Sample ID**	**TP-7**		**TP-8**		**TP-9**		**TP-10**	
U= Not Detected ≥ value		Sample Date	(10-27-2020)		(10-27-2020)		(10-27-2020)		(10-27-2020)	
Data above SCOs shown in **Bold**		Dilution Factor	1		1		1		1	
VOCs, 8260	**UU SCO**	**RRU SCO**	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*
1,2,4-Trimethylbenzene	3.6	52	0.004	*U*	0.0032	*U*	0.003	*U*	0.0032	*U*
1,3,5-Trimethylbenzene	8.4	52	0.004	*U*	0.0032	*U*	0.003	*U*	0.0032	*U*
Benzene	0.06	4.8	0.004	*U*	0.0032	*U*	0.003	*U*	0.0032	*U*
Ethyl Benzene	1	41	0.004	*U*	0.0032	*U*	0.003	*U*	0.0032	*U*
Isopropylbenzene	2.3	100	0.004	*U*	0.0032	*U*	0.003	*U*	0.0032	*U*
Methyl tert-butyl ether (MTBE)	0.93	100	0.004	*U*	0.0032	*U*	0.003	*U*	0.0032	*U*
Naphthalene	12	100	0.004	*U*	0.0032	*U*	0.003	*U*	0.0032	*U*
n-Butylbenzene	12	100	0.004	*U*	0.11		0.003	*U*	0.0032	*U*
n-Propylbenzene	3.9	100	0.004	*U*	0.0032	*U*	0.003	*U*	0.0032	*U*
o-Xylene	0.26	100	0.004	*U*	0.0032	*U*	0.003	*U*	0.0032	*U*
p- & m- Xylenes	0.26	100	0.004	*U*	0.0032	*U*	0.003	*U*	0.0032	*U*
p-Isopropyltoluene	10	NA	0.004	*U*	0.064		0.003	*U*	0.0032	*U*
sec-Butylbenzene	11	100	0.004	*U*	0.0032	*U*	0.003	*U*	0.0032	*U*
tert-Butylbenzene	5.9	100	0.004	*U*	0.0032	*U*	0.003	*U*	0.0032	*U*
Toluene	0.7	100	0.004	*U*	0.0032	*U*	0.003	*U*	0.0032	*U*
Xylenes, Total	0.26	100	0.004	*U*	0.0032	*U*	0.003	*U*	0.0032	*U*

		Sample ID	**TP-7**		**TP-8**		**TP-9**		**TP-10**	
		Sample Date	(10-27-2020)		(10-27-2020)		(10-27-2020)		(10-27-2020)	
		Dilution Factor	2		2		2		2	
SVOCs, 8270	**UU SCO**	**RRU SCO**	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*
Acenaphthene	20	100	0.049	*U*	0.052	*U*	0.049	*U*	0.051	*U*
Acenaphthylene	100	100	0.049	*U*	0.052	*U*	0.049	*U*	0.051	*U*
Anthracene	100	100	0.08	*JD*	0.052	*U*	0.049	*U*	0.051	*U*
Benzo(a)anthracene	1	1	0.23	*D*	0.052	*U*	0.049	*U*	0.15	*D*
Benzo(a)pyrene	1	1	0.2	*D*	0.052	*U*	0.049	*U*	0.18	*D*
Benzo(b)fluoranthene	1	1	0.17	*D*	0.052	*U*	0.049	*U*	0.2	*D*
Benzo(g,h,i)perylene	100	100	0.13	*D*	0.052	*U*	0.049	*U*	0.14	*D*
Benzo(k)fluoranthene	0.8	3.9	0.19	*D*	0.052	*U*	0.049	*U*	0.16	*D*
Chrysene	1	3.9	0.21	*D*	0.052	*U*	0.049	*U*	0.18	*D*
Dibenzo(a,h)anthracene	0.33	0.33	0.049	*JD*	0.052	*U*	0.049	*U*	0.051	*U*
Fluoranthene	100	100	0.4	*D*	0.052	*U*	0.053	*JD*	0.33	*D*
Fluorene	30	100	0.049	*U*	0.052	*U*	0.049	*U*	0.051	*U*
Indeno(1,2,3-cd)pyrene	0.5	0.5	0.14	*D*	0.052	*U*	0.049	*U*	0.15	*D*
Naphthalene	12	100	0.049	*U*	0.052	*U*	0.049	*U*	0.051	*U*
Phenanthrene	100	100	0.26	*D*	0.052	*U*	0.049	*U*	0.14	*D*
pyrene	100	100	0.31	*D*	0.052	*U*	0.049	*U*	0.27	*D*

Analyte Detected

Analyte Above UU SCO

Analyte Above RRU SCO

Notes: SCOs based on NYSDEC Part 375-6.8 and CP-51 NA = not available
Result Qualifiers: J = approximate E = estimated B = detected in blank D = diluted

Table 2: VOCs in Soils

GBTS File: 20-0857

All data in mg/Kg (ppm)		**Sample ID**	**TP-1 SS**		**TP-2**		**TP-4**		**TP-5**	
U= Not Detected ≥ value		Sample Date	(10-27-2020)		(10-27-2020)		(10-27-2020)		(10-27-2020)	
Data above SCOs shown in **Bold**		Dilution Factor	1		1		1		1	
VOCs, 8260	**UU SCO**	**RRU SCO**	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*
1,1,1,2-Tetrachloroethane	NA	NA	0.0056	*U*	0.0024	*U*	0.0036	*U*	0.0041	*U*
1,1,1-Trichloroethane	0.68	100	0.0056	*U*	0.0024	*U*	0.0036	*U*	0.0041	*U*
1,1,2,2-Tetrachloroethane	NA	NA	0.0056	*U*	0.0024	*U*	0.0036	*U*	0.0041	*U*
1,1,2-Trichloro-1,2,2-trifluoroethane	NA	NA	0.0056	*U*	0.0024	*U*	0.0036	*U*	0.0041	*U*
1,1,2-Trichloroethane	NA	NA	0.0056	*U*	0.0024	*U*	0.0036	*U*	0.0041	*U*
1,1-Dichloroethane	0.27	26	0.0056	*U*	0.0024	*U*	0.0036	*U*	0.0041	*U*
1,1-Dichloroethylene (1,1-DCE)	0.33	100	0.0056	*U*	0.0024	*U*	0.0036	*U*	0.0041	*U*
1,2,3-Trichlorobenzene	NA	NA	0.0056	*U*	0.0024	*U*	0.0036	*U*	0.0041	*U*
1,2,3-Trichloropropane	NA	NA	0.0056	*U*	0.0024	*U*	0.0036	*U*	0.0041	*U*
1,2,4-Trichlorobenzene	NA	NA	0.0056	*U*	0.0024	*U*	0.0036	*U*	0.0041	*U*
1,2,4-Trimethylbenzene	3.6	52	0.0056	*U*	0.0024	*U*	0.0036	*U*	0.0041	*U*
1,2-Dibromo-3-chloropropane	NA	NA	0.0056	*U*	0.0024	*U*	0.0036	*U*	0.0041	*U*
1,2-Dibromoethane	NA	NA	0.0056	*U*	0.0024	*U*	0.0036	*U*	0.0041	*U*
1,2-Dichlorobenzene	1.1	100	0.0056	*U*	0.0024	*U*	0.0036	*U*	0.0041	*U*
1,2-Dichloroethane	0.02	3.1	0.0056	*U*	0.0024	*U*	0.0036	*U*	0.0041	*U*
1,2-Dichloropropane	NA	NA	0.0056	*U*	0.0024	*U*	0.0036	*U*	0.0041	*U*
1,3,5-Trimethylbenzene	8.4	52	0.0056	*U*	0.0024	*U*	0.0036	*U*	0.0041	*U*
1,3-Dichlorobenzene	2.4	49	0.0056	*U*	0.0024	*U*	0.0036	*U*	0.0041	*U*
1,4-Dichlorobenzene	1.8	13	0.0056	*U*	0.0024	*U*	0.0036	*U*	0.0041	*U*
1,4-Dioxane	0.1	13	0.11	*U*	0.049	*U*	0.071	*U*	0.082	*U*
2-Butanone (MEK)	0.12	100	0.0056	*U*	0.0024	*U*	0.0036	*U*	0.0041	*U*
2-Hexanone	NA	NA	0.0056	*U*	0.0024	*U*	0.0036	*U*	0.0041	*U*
4-Methyl-2-pentanone	NA	NA	0.0056	*U*	0.0024	*U*	0.0036	*U*	0.0041	*U*
Acetone	0.05	100	0.011	*U*	0.0096	*J*	0.0071	*U*	0.0082	*U*
Acrolein	NA	NA	0.011	*U*	0.0049	*U*	0.0071	*U*	0.0082	*U*
Acrylonitrile	NA	NA	0.0056	*U*	0.0024	*U*	0.0036	*U*	0.0041	*U*
Benzene	0.06	4.8	0.0056	*U*	0.0024	*U*	0.0036	*U*	0.0041	*U*
Bromochloromethane	NA	NA	0.0056	*U*	0.0024	*U*	0.0036	*U*	0.0041	*U*
Bromodichloromethane	NA	NA	0.0056	*U*	0.0024	*U*	0.0036	*U*	0.0041	*U*
Bromoform	NA	NA	0.0056	*U*	0.0024	*U*	0.0036	*U*	0.0041	*U*
Bromomethane	NA	NA	0.0056	*U*	0.0024	*U*	0.0036	*U*	0.0041	*U*
Carbon disulfide	NA	NA	0.0056	*U*	0.0024	*U*	0.0036	*U*	0.0041	*U*
Carbon tetrachloride	0.76	2.4	0.0056	*U*	0.0024	*U*	0.0036	*U*	0.0041	*U*
Chlorobenzene	1.1	100	0.0056	*U*	0.0024	*U*	0.0036	*U*	0.0041	*U*
Chloroethane	NA	NA	0.0056	*U*	0.0024	*U*	0.0036	*U*	0.0041	*U*
Chloroform	0.37	49	0.0056	*U*	0.0024	*U*	0.0036	*U*	0.0041	*U*
Chloromethane	NA	NA	0.0056	*U*	0.0024	*U*	0.0036	*U*	0.0041	*U*
cis-1,2-Dichloroethylene (cis-DCE)	0.25	100	0.0056	*U*	0.0024	*U*	0.0036	*U*	0.0041	*U*
cis-1,3-Dichloropropylene	NA	NA	0.0056	*U*	0.0024	*U*	0.0036	*U*	0.0041	*U*
Cyclohexane	NA	NA	0.0056	*U*	0.0024	*U*	0.0036	*U*	0.0041	*U*
Dibromochloromethane	NA	NA	0.0056	*U*	0.0024	*U*	0.0036	*U*	0.0041	*U*
Dibromomethane	NA	NA	0.0056	*U*	0.0024	*U*	0.0036	*U*	0.0041	*U*
Dichlorodifluoromethane	NA	NA	0.0056	*U*	0.0024	*U*	0.0036	*U*	0.0041	*U*
Ethyl Benzene	1	41	0.0056	*U*	0.0024	*U*	0.0036	*U*	0.0041	*U*
Hexachlorobutadiene	NA	NA	0.0056	*U*	0.0024	*U*	0.0036	*U*	0.0041	*U*
Isopropylbenzene	2.3	100	0.0056	*U*	0.0024	*U*	0.0036	*U*	0.0041	*U*
Methyl acetate	NA	NA	0.0056	*U*	0.0024	*U*	0.0036	*U*	0.0041	*U*
Methyl tert-butyl ether (MTBE)	0.93	100	0.0056	*U*	0.0024	*U*	0.0036	*U*	0.0041	*U*
Methylcyclohexane	NA	NA	0.0056	*U*	0.0024	*U*	0.0036	*U*	0.0041	*U*
Methylene chloride	0.05	100	0.017	*J*	0.0049	*U*	0.0071	*U*	0.0082	*U*
n-Butylbenzene	12	100	0.0056	*U*	0.0024	*U*	0.0036	*U*	0.0041	*U*
n-Propylbenzene	3.9	100	0.0056	*U*	0.0024	*U*	0.0036	*U*	0.0041	*U*
o-Xylene	0.26	100	0.0056	*U*	0.0024	*U*	0.0036	*U*	0.0041	*U*
p- & m- Xylenes	0.26	100	0.011	*U*	0.0049	*U*	0.0071	*U*	0.0082	*U*
p-Isopropyltoluene	10	NA	0.0056	*U*	0.0024	*U*	0.0036	*U*	0.0041	*U*
sec-Butylbenzene	11	100	0.0056	*U*	0.0024	*U*	0.0036	*U*	0.0041	*U*
Styrene	NA	NA	0.0056	*U*	0.0024	*U*	0.0036	*U*	0.0041	*U*
tert-Butyl alcohol (TBA)	NA	NA	0.0056	*U*	0.0024	*U*	0.0036	*U*	0.0041	*U*
tert-Butylbenzene	5.9	100	0.0056	*U*	0.0024	*U*	0.0036	*U*	0.0041	*U*
Tetrachloroethylene (PCE)	1.3	19	0.0056	*U*	0.0024	*U*	0.0036	*U*	0.0041	*U*
Toluene	0.7	100	0.0056	*U*	0.0024	*U*	0.0036	*U*	0.0041	*U*
trans-1,2-Dichloroethylene (trans-DCE)	0.19	100	0.0056	*U*	0.0024	*U*	0.0036	*U*	0.0041	*U*
trans-1,3-Dichloropropylene	NA	NA	0.0056	*U*	0.0024	*U*	0.0036	*U*	0.0041	*U*
Trichloroethylene (TCE)	0.47	21	0.0056	*U*	0.0024	*U*	0.0036	*U*	0.0041	*U*
Trichlorofluoromethane	NA	NA	0.0056	*U*	0.0024	*U*	0.0036	*U*	0.0041	*U*
Vinyl chloride (VC)	0.02	0.9	0.0056	*U*	0.0024	*U*	0.0036	*U*	0.0041	*U*
Xylenes, Total	0.26	100	0.017	*U*	0.0073	*U*	0.011	*U*	0.012	*U*

Analyte Detected

Analyte Above UU SCO

Analyte Above RRU SCO

Notes: SCOs based on NYSDEC Part 375-6.8 and CP-51   NA = not available

Result Qualifiers: J = approximate E = estimated B = detected in blank D = diluted

Table 2: VOCs in Soils

GBTS File: 20-0857

All data in mg/Kg (ppm)		**Sample ID**	**TP-6**		**TP-12**		**TP-14**		**TP-18**	
U= Not Detected ≥ value		Sample Date	(10-27-2020)		(10-27-2020)		(10-27-2020)		(10-27-2020)	
Data above SCOs shown in **Bold**		Dilution Factor	1		1		1		1	
VOCs, 8260	**UU SCO**	**RRU SCO**	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*
1,1,1,2-Tetrachloroethane	NA	NA	0.0036	*U*	0.0046	*U*	0.0026	*U*	0.0029	*U*
1,1,1-Trichloroethane	0.68	100	0.0036	*U*	0.0046	*U*	0.0026	*U*	0.0029	*U*
1,1,2,2-Tetrachloroethane	NA	NA	0.0036	*U*	0.0046	*U*	0.0026	*U*	0.0029	*U*
1,1,2-Trichloro-1,2,2-trifluoroethane	NA	NA	0.0036	*U*	0.0046	*U*	0.0026	*U*	0.0029	*U*
1,1,2-Trichloroethane	NA	NA	0.0036	*U*	0.0046	*U*	0.0026	*U*	0.0029	*U*
1,1-Dichloroethane	0.27	26	0.0036	*U*	0.0046	*U*	0.0026	*U*	0.0029	*U*
1,1-Dichloroethylene (1,1-DCE)	0.33	100	0.0036	*U*	0.0046	*U*	0.0026	*U*	0.0029	*U*
1,2,3-Trichlorobenzene	NA	NA	0.0036	*U*	0.0046	*U*	0.0026	*U*	0.0029	*U*
1,2,3-Trichloropropane	NA	NA	0.0036	*U*	0.0046	*U*	0.0026	*U*	0.0029	*U*
1,2,4-Trichlorobenzene	NA	NA	0.0036	*U*	0.0046	*U*	0.0026	*U*	0.0029	*U*
1,2,4-Trimethylbenzene	3.6	52	0.0036	*U*	0.0046	*U*	0.0026	*U*	0.0029	*U*
1,2-Dibromo-3-chloropropane	NA	NA	0.0036	*U*	0.0046	*U*	0.0026	*U*	0.0029	*U*
1,2-Dibromoethane	NA	NA	0.0036	*U*	0.0046	*U*	0.0026	*U*	0.0029	*U*
1,2-Dichlorobenzene	1.1	100	0.0036	*U*	0.0046	*U*	0.0026	*U*	0.0029	*U*
1,2-Dichloroethane	0.02	3.1	0.0036	*U*	0.0046	*U*	0.0026	*U*	0.0029	*U*
1,2-Dichloropropane	NA	NA	0.0036	*U*	0.0046	*U*	0.0026	*U*	0.0029	*U*
1,3,5-Trimethylbenzene	8.4	52	0.0036	*U*	0.0046	*U*	0.0026	*U*	0.0029	*U*
1,3-Dichlorobenzene	2.4	49	0.0036	*U*	0.0046	*U*	0.0026	*U*	0.0029	*U*
1,4-Dichlorobenzene	1.8	13	0.0036	*U*	0.0046	*U*	0.0026	*U*	0.0029	*U*
1,4-Dioxane	0.1	13	0.072	*U*	0.092	*U*	0.052	*U*	0.057	*U*
2-Butanone (MEK)	0.12	100	0.0036	*U*	0.0046	*U*	0.0026	*U*	0.0029	*U*
2-Hexanone	NA	NA	0.0036	*U*	0.0046	*U*	0.0026	*U*	0.0029	*U*
4-Methyl-2-pentanone	NA	NA	0.0036	*U*	0.0046	*U*	0.0026	*U*	0.0029	*U*
Acetone	0.05	100	0.0072	*U*	0.0092	*U*	0.0086	*J*	0.007	*J*
Acrolein	NA	NA	0.0072	*U*	0.0092	*U*	0.0052	*U*	0.0057	*U*
Acrylonitrile	NA	NA	0.0036	*U*	0.0046	*U*	0.0026	*U*	0.0029	*U*
Benzene	0.06	4.8	0.0036	*U*	0.0046	*U*	0.0026	*U*	0.0029	*U*
Bromochloromethane	NA	NA	0.0036	*U*	0.0046	*U*	0.0026	*U*	0.0029	*U*
Bromodichloromethane	NA	NA	0.0036	*U*	0.0046	*U*	0.0026	*U*	0.0029	*U*
Bromoform	NA	NA	0.0036	*U*	0.0046	*U*	0.0026	*U*	0.0029	*U*
Bromomethane	NA	NA	0.0036	*U*	0.0046	*U*	0.0026	*U*	0.0029	*U*
Carbon disulfide	NA	NA	0.0036	*U*	0.0046	*U*	0.0026	*U*	0.0029	*U*
Carbon tetrachloride	0.76	2.4	0.0036	*U*	0.0046	*U*	0.0026	*U*	0.0029	*U*
Chlorobenzene	1.1	100	0.0036	*U*	0.0046	*U*	0.0026	*U*	0.0029	*U*
Chloroethane	NA	NA	0.0036	*U*	0.0046	*U*	0.0026	*U*	0.0029	*U*
Chloroform	0.37	49	0.0036	*U*	0.0046	*U*	0.0026	*U*	0.0029	*U*
Chloromethane	NA	NA	0.0036	*U*	0.0046	*U*	0.0026	*U*	0.0029	*U*
cis-1,2-Dichloroethylene (cis-DCE)	0.25	100	0.0036	*U*	0.0046	*U*	0.0026	*U*	0.0029	*U*
cis-1,3-Dichloropropylene	NA	NA	0.0036	*U*	0.0046	*U*	0.0026	*U*	0.0029	*U*
Cyclohexane	NA	NA	0.0036	*U*	0.0046	*U*	0.0026	*U*	0.0029	*U*
Dibromochloromethane	NA	NA	0.0036	*U*	0.0046	*U*	0.0026	*U*	0.0029	*U*
Dibromomethane	NA	NA	0.0036	*U*	0.0046	*U*	0.0026	*U*	0.0029	*U*
Dichlorodifluoromethane	NA	NA	0.0036	*U*	0.0046	*U*	0.0026	*U*	0.0029	*U*
Ethyl Benzene	1	41	0.0036	*U*	0.0046	*U*	0.0026	*U*	0.0029	*U*
Hexachlorobutadiene	NA	NA	0.0036	*U*	0.0046	*U*	0.0026	*U*	0.0029	*U*
Isopropylbenzene	2.3	100	0.0036	*U*	0.0046	*U*	0.0026	*U*	0.0029	*U*
Methyl acetate	NA	NA	0.0036	*U*	0.0046	*U*	0.0026	*U*	0.0029	*U*
Methyl tert-butyl ether (MTBE)	0.93	100	0.0036	*U*	0.0046	*U*	0.0026	*U*	0.0029	*U*
Methylcyclohexane	NA	NA	0.0036	*U*	0.0046	*U*	0.0026	*U*	0.0029	*U*
Methylene chloride	0.05	100	0.012	*J*	0.0092	*U*	0.0052	*U*	0.0057	*U*
n-Butylbenzene	12	100	0.0036	*U*	0.0046	*U*	0.0026	*U*	0.0029	*U*
n-Propylbenzene	3.9	100	0.0036	*U*	0.0046	*U*	0.0026	*U*	0.0029	*U*
o-Xylene	0.26	100	0.0036	*U*	0.0046	*U*	0.0026	*U*	0.0029	*U*
p- & m- Xylenes	0.26	100	0.0072	*U*	0.0092	*U*	0.0052	*U*	0.0057	*U*
p-Isopropyltoluene	10	NA	0.0036	*U*	0.0046	*U*	0.0026	*U*	0.0029	*U*
sec-Butylbenzene	11	100	0.0036	*U*	0.0046	*U*	0.0026	*U*	0.0029	*U*
Styrene	NA	NA	0.0036	*U*	0.0046	*U*	0.0026	*U*	0.0029	*U*
tert-Butyl alcohol (TBA)	NA	NA	0.0036	*U*	0.0046	*U*	0.0026	*U*	0.0029	*U*
tert-Butylbenzene	5.9	100	0.0036	*U*	0.0046	*U*	0.0026	*U*	0.0029	*U*
Tetrachloroethylene (PCE)	1.3	19	0.0036	*U*	0.0046	*U*	0.0026	*U*	0.0029	*U*
Toluene	0.7	100	0.0036	*U*	0.0046	*U*	0.0026	*U*	0.0029	*U*
trans-1,2-Dichloroethylene (trans-DCE)	0.19	100	0.0036	*U*	0.0046	*U*	0.0026	*U*	0.0029	*U*
trans-1,3-Dichloropropylene	NA	NA	0.0036	*U*	0.0046	*U*	0.0026	*U*	0.0029	*U*
Trichloroethylene (TCE)	0.47	21	0.0036	*U*	0.0046	*U*	0.0026	*U*	0.0029	*U*
Trichlorofluoromethane	NA	NA	0.0036	*U*	0.0046	*U*	0.0026	*U*	0.0029	*U*
Vinyl chloride (VC)	0.02	0.9	0.0036	*U*	0.0046	*U*	0.0026	*U*	0.0029	*U*
Xylenes, Total	0.26	100	0.011	*U*	0.014	*U*	0.0077	*U*	0.0086	*U*

Analyte Detected

Analyte Above UU SCO

Analyte Above RRU SCO

Notes: SCOs based on NYSDEC Part 375-6.8 and CP-51   NA = not available

Result Qualifiers: J = approximate E = estimated B = detected in blank D = diluted

Table 2: VOCs in Soils

GBTS File: 20-0857

All data in mg/Kg (ppm)		**Sample ID**	**SS-01**	
U= Not Detected ≥ value		Sample Date	(10-27-2020)	
Data above SCOs shown in **Bold**		Dilution Factor	1	
VOCs, 8260	**UU SCO**	**RRU SCO**	*Result*	*Qualifier*
1,1,1,2-Tetrachloroethane	NA	NA	0.005	U
1,1,1-Trichloroethane	0.68	100	0.005	U
1,1,2,2-Tetrachloroethane	NA	NA	0.005	U
1,1,2-Trichloro-1,2,2-trifluoroethane	NA	NA	0.005	U
1,1,2-Trichloroethane	NA	NA	0.005	U
1,1-Dichloroethane	0.27	26	0.005	U
1,1-Dichloroethylene (1,1-DCE)	0.33	100	0.005	U
1,2,3-Trichlorobenzene	NA	NA	0.005	U
1,2,3-Trichloropropane	NA	NA	0.005	U
1,2,4-Trichlorobenzene	NA	NA	0.005	U
1,2,4-Trimethylbenzene	3.6	52	0.005	U
1,2-Dibromo-3-chloropropane	NA	NA	0.005	U
1,2-Dibromoethane	NA	NA	0.005	U
1,2-Dichlorobenzene	1.1	100	0.005	U
1,2-Dichloroethane	0.02	3.1	0.005	U
1,2-Dichloropropane	NA	NA	0.005	U
1,3,5-Trimethylbenzene	8.4	52	0.005	U
1,3-Dichlorobenzene	2.4	49	0.005	U
1,4-Dichlorobenzene	1.8	13	0.005	U
1,4-Dioxane	0.1	13	0.1	U
2-Butanone (MEK)	0.12	100	0.005	U
2-Hexanone	NA	NA	0.005	U
4-Methyl-2-pentanone	NA	NA	0.005	U
Acetone	0.05	100	0.01	U
Acrolein	NA	NA	0.01	U
Acrylonitrile	NA	NA	0.005	U
Benzene	0.06	4.8	0.005	U
Bromochloromethane	NA	NA	0.005	U
Bromodichloromethane	NA	NA	0.005	U
Bromoform	NA	NA	0.005	U
Bromomethane	NA	NA	0.005	U
Carbon disulfide	NA	NA	0.005	U
Carbon tetrachloride	0.76	2.4	0.005	U
Chlorobenzene	1.1	100	0.005	U
Chloroethane	NA	NA	0.005	U
Chloroform	0.37	49	0.005	U
Chloromethane	NA	NA	0.005	U
cis-1,2-Dichloroethylene (cis-DCE)	0.25	100	0.005	U
cis-1,3-Dichloropropylene	NA	NA	0.005	U
Cyclohexane	NA	NA	0.005	U
Dibromochloromethane	NA	NA	0.005	U
Dibromomethane	NA	NA	0.005	U
Dichlorodifluoromethane	NA	NA	0.005	U
Ethyl Benzene	1	41	0.005	U
Hexachlorobutadiene	NA	NA	0.005	U
Isopropylbenzene	2.3	100	0.005	U
Methyl acetate	NA	NA	0.005	U
Methyl tert-butyl ether (MTBE)	0.93	100	0.005	U
Methylcyclohexane	NA	NA	0.005	U
Methylene chloride	0.05	100	0.011	J
n-Butylbenzene	12	100	0.005	U
n-Propylbenzene	3.9	100	0.005	U
o-Xylene	0.26	100	0.005	U
p- & m- Xylenes	0.26	100	0.01	U
p-Isopropyltoluene	10	NA	0.005	U
sec-Butylbenzene	11	100	0.005	U
Styrene	NA	NA	0.005	U
tert-Butyl alcohol (TBA)	NA	NA	0.005	U
tert-Butylbenzene	5.9	100	0.005	U
Tetrachloroethylene (PCE)	1.3	19	0.005	U
Toluene	0.7	100	0.005	U
trans-1,2-Dichloroethylene (trans-DCE)	0.19	100	0.005	U
trans-1,3-Dichloropropylene	NA	NA	0.005	U
Trichloroethylene (TCE)	0.47	21	0.005	U
Trichlorofluoromethane	NA	NA	0.005	U
Vinyl chloride (VC)	0.02	0.9	0.005	U
Xylenes, Total	0.26	100	0.015	U

Analyte Detected

Analyte Above UU SCO

Analyte Above RRU SCO

Notes: SCOs based on NYSDEC Part 375-6.8 and CP-51 NA = not available

Result Qualifiers: J = approximate E = estimated B = detected in blank D = diluted

Table 3: SVOCs in Soils

GBTS File: 20-0857

All data in mg/Kg (ppm)		**Sample ID**	**TP-1 SS**		**TP-2**		**TP-4**		**TP-5**	
U= Not Detected ≥ value		Sample Date	(10-27-2020)		(10-27-2020)		(10-27-2020)		(10-27-2020)	
Data above SCOs shown in **Bold**		Dilution Factor	2		2		2		2	
SVOCs, 8270	**UU SCO**	**RRU SCO**	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*
1,1'-Biphenyl	NA	NA	0.0526	U	0.0468	U	0.0475	U	0.0486	U
1,2,4,5-Tetrachlorobenzene	NA	NA	0.105	U	0.0933	U	0.0948	U	0.097	U
1,2,4-Trichlorobenzene	NA	NA	0.0526	U	0.0468	U	0.0475	U	0.0486	U
1,2-Dichlorobenzene	NA	NA	0.0526	U	0.0468	U	0.0475	U	0.0486	U
1,2-Diphenylhydrazine (Azobenzene	NA	NA	0.0526	U	0.0468	U	0.0475	U	0.0486	U
1,3-Dichlorobenzene	NA	NA	0.0526	U	0.0468	U	0.0475	U	0.0486	U
1,4-Dichlorobenzene	NA	NA	0.0526	U	0.0468	U	0.0475	U	0.0486	U
2,3,4,6-Tetrachlorophenol	NA	NA	0.105	U	0.0933	U	0.0948	U	0.097	U
2,4,5-Trichlorophenol	NA	NA	0.0526	U	0.0468	U	0.0475	U	0.0486	U
2,4,6-Trichlorophenol	NA	NA	0.0526	U	0.0468	U	0.0475	U	0.0486	U
2,4-Dichlorophenol	NA	NA	0.0526	U	0.0468	U	0.0475	U	0.0486	U
2,4-Dimethylphenol	NA	NA	0.0526	U	0.0468	U	0.0475	U	0.0486	U
2,4-Dinitrophenol	NA	NA	0.105	U	0.0933	U	0.0948	U	0.097	U
2,4-Dinitrotoluene	NA	NA	0.0526	U	0.0468	U	0.0475	U	0.0486	U
2,6-Dinitrotoluene	NA	NA	0.0526	U	0.0468	U	0.0475	U	0.0486	U
2-Chloronaphthalene	NA	NA	0.0526	U	0.0468	U	0.0475	U	0.0486	U
2-Chlorophenol	NA	NA	0.0526	U	0.0468	U	0.0475	U	0.0486	U
2-Methylnaphthalene	NA	NA	0.0526	U	0.0468	U	0.0475	U	0.0486	U
2-Methylphenol	0.33	100	0.0526	U	0.0468	U	0.0475	U	0.0486	U
2-Nitroaniline	NA	NA	0.105	U	0.0933	U	0.0948	U	0.097	U
2-Nitrophenol	NA	NA	0.0526	U	0.0468	U	0.0475	U	0.0486	U
3- & 4-Methylphenols	0.33	100	0.0526	U	0.0468	U	0.0475	U	0.0486	U
3,3'-Dichlorobenzidine	NA	NA	0.0526	U	0.0468	U	0.0475	U	0.0486	U
3-Nitroaniline	NA	NA	0.105	U	0.0933	U	0.0948	U	0.097	U
4,6-Dinitro-2-methylphenol	NA	NA	0.105	U	0.0933	U	0.0948	U	0.097	U
4-Bromophenyl phenyl ether	NA	NA	0.0526	U	0.0468	U	0.0475	U	0.0486	U
4-Chloro-3-methylphenol	NA	NA	0.0526	U	0.0468	U	0.0475	U	0.0486	U
4-Chloroaniline	NA	NA	0.0526	U	0.0468	U	0.0475	U	0.0486	U
4-Chlorophenyl phenyl ether	NA	NA	0.0526	U	0.0468	U	0.0475	U	0.0486	U
4-Nitroaniline	NA	NA	0.105	U	0.0933	U	0.0948	U	0.097	U
4-Nitrophenol	NA	NA	0.105	U	0.0933	U	0.0948	U	0.097	U
Acenaphthene	20	100	0.122	D	0.0468	U	0.0475	U	0.0486	U
Acenaphthylene	100	100	0.0526	U	0.0468	U	0.0475	U	0.0486	U
Acetophenone	NA	NA	0.0526	U	0.0468	U	0.0475	U	0.0486	U
Aniline	NA	NA	0.21	U	0.187	U	0.19	U	0.194	U
Anthracene	100	100	0.257	D	0.0468	U	0.0475	U	0.0486	U
Atrazine	NA	NA	0.0526	U	0.0468	U	0.0475	U	0.0486	U
Benzaldehyde	NA	NA	0.0805	JD	0.0468	U	0.0475	U	0.0486	U
Benzidine	NA	NA	0.21	U	0.187	U	0.19	U	0.194	U
Benzo(a)anthracene	1	1	0.63	D	0.0955	D	0.0636	JD	0.0535	JD
Benzo(a)pyrene	1	1	0.578	D	0.0873	JD	0.0667	JD	0.0581	JD
Benzo(b)fluoranthene	1	1	0.557	D	0.0776	JD	0.0659	JD	0.0504	JD
Benzo(g,h,i)perylene	100	100	0.388	D	0.0604	JD	0.0492	JD	0.0486	U
Benzo(k)fluoranthene	0.8	3.9	0.491	D	0.0798	JD	0.0583	JD	0.0486	U
Benzoic acid	NA	NA	0.0526	U	0.0468	U	0.0475	U	0.0486	U
Benzyl alcohol	NA	NA	0.0526	U	0.0468	U	0.0475	U	0.0486	U
Benzyl butyl phthalate	NA	NA	0.238	D	0.0468	U	0.0475	U	0.0486	U
Bis(2-chloroethoxy)methane	NA	NA	0.0526	U	0.0468	U	0.0475	U	0.0486	U
Bis(2-chloroethyl)ether	NA	NA	0.0526	U	0.0468	U	0.0475	U	0.0486	U
Bis(2-chloroisopropyl)ether	NA	NA	0.0526	U	0.0468	U	0.0475	U	0.0486	U
Bis(2-ethylhexyl)phthalate	NA	NA	0.243	D	0.0507	JD	0.0475	U	0.0729	JD
Caprolactam	NA	NA	0.105	U	0.0933	U	0.0948	U	0.097	U
Carbazole	NA	NA	0.131	D	0.0468	U	0.0475	U	0.0486	U
Chrysene	1	3.9	0.616	D	0.088	JD	0.0757	JD	0.0636	JD
Dibenzo(a,h)anthracene	0.33	0.33	0.139	D	0.0468	U	0.0475	U	0.0486	U
Dibenzofuran	7	59	0.062	JD	0.0468	U	0.0475	U	0.0486	U
Diethyl phthalate	NA	NA	0.0526	U	0.0468	U	0.0475	U	0.0486	U
Dimethyl phthalate	NA	NA	0.0526	U	0.0468	U	0.0475	U	0.0486	U
Di-n-butyl phthalate	NA	NA	0.0526	U	0.0468	U	0.0475	U	0.0486	U
Di-n-octyl phthalate	NA	NA	0.0526	U	0.0468	U	0.0475	U	0.0486	U
Fluoranthene	100	100	1.3	D	0.156	D	0.147	D	0.0946	JD
Fluorene	30	100	0.138	D	0.0468	U	0.0475	U	0.0486	U
Hexachlorobenzene	0.33	1.2	0.0526	U	0.0468	U	0.0475	U	0.0486	U
Hexachlorobutadiene	NA	NA	0.0526	U	0.0468	U	0.0475	U	0.0486	U
Hexachlorocyclopentadiene	NA	NA	0.0526	U	0.0468	U	0.0475	U	0.0486	U
Hexachloroethane	NA	NA	0.0526	U	0.0468	U	0.0475	U	0.0486	U
Indeno(1,2,3-cd)pyrene	0.5	0.5	0.438	D	0.0649	JD	0.0591	JD	0.0486	U
Isophorone	NA	NA	0.0526	U	0.0468	U	0.0475	U	0.0486	U
Naphthalene	12	100	0.0645	JD	0.0468	U	0.0475	U	0.0486	U
Nitrobenzene	NA	NA	0.0526	U	0.0468	U	0.0475	U	0.0486	U
N-Nitrosodimethylamine	NA	NA	0.0526	U	0.0468	U	0.0475	U	0.0486	U
N-nitroso-di-n-propylamine	NA	NA	0.0526	U	0.0468	U	0.0475	U	0.0486	U
N-Nitrosodiphenylamine	NA	NA	0.0526	U	0.0468	U	0.0475	U	0.0486	U
Pentachlorophenol	0.8	6.7	0.0526	U	0.0468	U	0.0475	U	0.0486	U
Phenanthrene	100	100	0.994	D	0.0753	JD	0.0795	JD	0.0488	JD
Phenol	0.33	100	0.0526	U	0.0468	U	0.0475	U	0.0486	U
Pyrene	100	100	1.03	D	0.131	D	0.122	D	0.0876	JD

Analyte Detected
Analyte Above UU SCO
Analyte Above RRU SCO

Notes: SCOs based on NYSDEC Part 375-6.8 and CP-51   NA = not available
Result Qualifiers: J = approximate E = estimated B = detected in blank D = diluted

Table 3: SVOCs in Soils

GBTS File: 20-0857

All data in mg/Kg (ppm)		**Sample ID**	**TP-6**		**TP-12**		**TP-14**		**TP-18**	
U= Not Detected ≥ value		Sample Date	(10-27-2020)		(10-27-2020)		(10-27-2020)		(10-27-2020)	
Data above SCOs shown in **Bold**		Dilution Factor	2		2		2		2	
SVOCs, 8270	**UU SCO**	**RRU SCO**	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*
1,1'-Biphenyl	NA	NA	0.0466	*U*	0.0469	*U*	0.0469	*U*	0.0437	*U*
1,2,4,5-Tetrachlorobenzene	NA	NA	0.0929	*U*	0.0935	*U*	0.0935	*U*	0.0871	*U*
1,2,4-Trichlorobenzene	NA	NA	0.0466	*U*	0.0469	*U*	0.0469	*U*	0.0437	*U*
1,2-Dichlorobenzene	NA	NA	0.0466	*U*	0.0469	*U*	0.0469	*U*	0.0437	*U*
1,2-Diphenylhydrazine (Azobenzene	NA	NA	0.0466	*U*	0.0469	*U*	0.0469	*U*	0.0437	*U*
1,3-Dichlorobenzene	NA	NA	0.0466	*U*	0.0469	*U*	0.0469	*U*	0.0437	*U*
1,4-Dichlorobenzene	NA	NA	0.0466	*U*	0.0469	*U*	0.0469	*U*	0.0437	*U*
2,3,4,6-Tetrachlorophenol	NA	NA	0.0929	*U*	0.0935	*U*	0.0935	*U*	0.0871	*U*
2,4,5-Trichlorophenol	NA	NA	0.0466	*U*	0.0469	*U*	0.0469	*U*	0.0437	*U*
2,4,6-Trichlorophenol	NA	NA	0.0466	*U*	0.0469	*U*	0.0469	*U*	0.0437	*U*
2,4-Dichlorophenol	NA	NA	0.0466	*U*	0.0469	*U*	0.0469	*U*	0.0437	*U*
2,4-Dimethylphenol	NA	NA	0.0466	*U*	0.0469	*U*	0.0469	*U*	0.0437	*U*
2,4-Dinitrophenol	NA	NA	0.0929	*U*	0.0935	*U*	0.0935	*U*	0.0871	*U*
2,4-Dinitrotoluene	NA	NA	0.0466	*U*	0.0469	*U*	0.0469	*U*	0.0437	*U*
2,6-Dinitrotoluene	NA	NA	0.0466	*U*	0.0469	*U*	0.0469	*U*	0.0437	*U*
2-Chloronaphthalene	NA	NA	0.0466	*U*	0.0469	*U*	0.0469	*U*	0.0437	*U*
2-Chlorophenol	NA	NA	0.0466	*U*	0.0469	*U*	0.0469	*U*	0.0437	*U*
2-Methylnaphthalene	NA	NA	0.0466	*U*	0.0469	*U*	0.0469	*U*	0.0437	*U*
2-Methylphenol	0.33	100	0.0466	*U*	0.0469	*U*	0.0469	*U*	0.0437	*U*
2-Nitroaniline	NA	NA	0.0929	*U*	0.0935	*U*	0.0935	*U*	0.0871	*U*
2-Nitrophenol	NA	NA	0.0466	*U*	0.0469	*U*	0.0469	*U*	0.0437	*U*
3- & 4-Methylphenols	0.33	100	0.0466	*U*	0.0469	*U*	0.0469	*U*	0.0437	*U*
3,3'-Dichlorobenzidine	NA	NA	0.0466	*U*	0.0469	*U*	0.0469	*U*	0.0437	*U*
3-Nitroaniline	NA	NA	0.0929	*U*	0.0935	*U*	0.0935	*U*	0.0871	*U*
4,6-Dinitro-2-methylphenol	NA	NA	0.0929	*U*	0.0935	*U*	0.0935	*U*	0.0871	*U*
4-Bromophenyl phenyl ether	NA	NA	0.0466	*U*	0.0469	*U*	0.0469	*U*	0.0437	*U*
4-Chloro-3-methylphenol	NA	NA	0.0466	*U*	0.0469	*U*	0.0469	*U*	0.0437	*U*
4-Chloroaniline	NA	NA	0.0466	*U*	0.0469	*U*	0.0469	*U*	0.0437	*U*
4-Chlorophenyl phenyl ether	NA	NA	0.0466	*U*	0.0469	*U*	0.0469	*U*	0.0437	*U*
4-Nitroaniline	NA	NA	0.0929	*U*	0.0935	*U*	0.0935	*U*	0.0871	*U*
4-Nitrophenol	NA	NA	0.0929	*U*	0.0935	*U*	0.0935	*U*	0.0871	*U*
Acenaphthene	20	100	0.0466	*U*	0.0469	*U*	0.0469	*U*	0.0437	*U*
Acenaphthylene	100	100	0.0466	*U*	0.0469	*U*	0.0469	*U*	0.0437	*U*
Acetophenone	NA	NA	0.0466	*U*	0.0469	*U*	0.0469	*U*	0.0437	*U*
Aniline	NA	NA	0.186	*U*	0.187	*U*	0.187	*U*	0.174	*U*
Anthracene	100	100	0.0466	*U*	0.0469	*U*	0.0469	*U*	0.0437	*U*
Atrazine	NA	NA	0.0466	*U*	0.0469	*U*	0.0469	*U*	0.0437	*U*
Benzaldehyde	NA	NA	0.0466	*U*	0.0469	*U*	0.0469	*U*	0.0437	*U*
Benzidine	NA	NA	0.186	*U*	0.187	*U*	0.187	*U*	0.174	*U*
Benzo(a)anthracene	1	1	0.0466	*U*	0.074	*JD*	0.0469	*U*	0.0437	*U*
Benzo(a)pyrene	1	1	0.0466	*U*	0.0732	*JD*	0.0469	*U*	0.0437	*U*
Benzo(b)fluoranthene	1	1	0.0466	*U*	0.074	*JD*	0.0469	*U*	0.0437	*U*
Benzo(g,h,i)perylene	100	100	0.0466	*U*	0.0508	*JD*	0.0469	*U*	0.0437	*U*
Benzo(k)fluoranthene	0.8	3.9	0.0466	*U*	0.0613	*JD*	0.0469	*U*	0.0437	*U*
Benzoic acid	NA	NA	0.0466	*U*	0.0469	*U*	0.0469	*U*	0.0437	*U*
Benzyl alcohol	NA	NA	0.0466	*U*	0.0469	*U*	0.0469	*U*	0.0437	*U*
Benzyl butyl phthalate	NA	NA	0.0466	*U*	0.984	*D*	0.0469	*U*	0.0437	*U*
Bis(2-chloroethoxy)methane	NA	NA	0.0466	*U*	0.0469	*U*	0.0469	*U*	0.0437	*U*
Bis(2-chloroethyl)ether	NA	NA	0.0466	*U*	0.0469	*U*	0.0469	*U*	0.0437	*U*
Bis(2-chloroisopropyl)ether	NA	NA	0.0466	*U*	0.0469	*U*	0.0469	*U*	0.0437	*U*
Bis(2-ethylhexyl)phthalate	NA	NA	0.0466	*U*	0.146	*D*	0.0553	*JD*	0.0437	*U*
Caprolactam	NA	NA	0.0929	*U*	0.0935	*U*	0.0935	*U*	0.0871	*U*
Carbazole	NA	NA	0.0466	*U*	0.0469	*U*	0.0469	*U*	0.0437	*U*
Chrysene	1	3.9	0.0466	*U*	0.074	*JD*	0.0469	*U*	0.0437	*U*
Dibenzo(a,h)anthracene	0.33	0.33	0.0466	*U*	0.0469	*U*	0.0469	*U*	0.0437	*U*
Dibenzofuran	7	59	0.0466	*U*	0.0469	*U*	0.0469	*U*	0.0437	*U*
Diethyl phthalate	NA	NA	0.0466	*U*	0.0469	*U*	0.0469	*U*	0.0437	*U*
Dimethyl phthalate	NA	NA	0.0466	*U*	0.0469	*U*	0.0469	*U*	0.0437	*U*
Di-n-butyl phthalate	NA	NA	0.0466	*U*	0.0469	*U*	0.0469	*U*	0.0437	*U*
Di-n-octyl phthalate	NA	NA	0.0466	*U*	0.0469	*U*	0.0469	*U*	0.0437	*U*
Fluoranthene	100	100	0.0809	*JD*	0.149	*D*	0.0469	*U*	0.0437	*U*
Fluorene	30	100	0.0466	*U*	0.0469	*U*	0.0469	*U*	0.0437	*U*
Hexachlorobenzene	0.33	1.2	0.0466	*U*	0.0469	*U*	0.0469	*U*	0.0437	*U*
Hexachlorobutadiene	NA	NA	0.0466	*U*	0.0469	*U*	0.0469	*U*	0.0437	*U*
Hexachlorocyclopentadiene	NA	NA	0.0466	*U*	0.0469	*U*	0.0469	*U*	0.0437	*U*
Hexachloroethane	NA	NA	0.0466	*U*	0.0469	*U*	0.0469	*U*	0.0437	*U*
Indeno(1,2,3-cd)pyrene	0.5	0.5	0.0466	*U*	0.0546	*JD*	0.0469	*U*	0.0437	*U*
Isophorone	NA	NA	0.0466	*U*	0.0469	*U*	0.0469	*U*	0.0437	*U*
Naphthalene	12	100	0.0466	*U*	0.0469	*U*	0.0469	*U*	0.0437	*U*
Nitrobenzene	NA	NA	0.0466	*U*	0.0469	*U*	0.0469	*U*	0.0437	*U*
N-Nitrosodimethylamine	NA	NA	0.0466	*U*	0.0469	*U*	0.0469	*U*	0.0437	*U*
N-nitroso-di-n-propylamine	NA	NA	0.0466	*U*	0.0469	*U*	0.0469	*U*	0.0437	*U*
N-Nitrosodiphenylamine	NA	NA	0.0466	*U*	0.0469	*U*	0.0469	*U*	0.0437	*U*
Pentachlorophenol	0.8	6.7	0.0466	*U*	0.0469	*U*	0.0469	*U*	0.0437	*U*
Phenanthrene	100	100	0.0466	*U*	0.0732	*JD*	0.0469	*U*	0.0437	*U*
Phenol	0.33	100	0.0466	*U*	0.0469	*U*	0.0469	*U*	0.0437	*U*
Pyrene	100	100	0.0691	*JD*	0.123	*D*	0.0469	*U*	0.0437	*U*

Analyte Detected

Analyte Above UU SCO

Analyte Above RRU SCO

Notes: SCOs based on NYSDEC Part 375-6.8 and CP-51   NA = not available

Result Qualifiers: J = approximate E = estimated B = detected in blank D = diluted

Table 3: SVOCs in Soils

GBTS File: 20-0857

All data in mg/Kg (ppm)		**Sample ID**	**SS-01**	
U= Not Detected ≥ value		Sample Date	(10-27-2020)	
Data above SCOs shown in **Bold**		Dilution Factor	10	
SVOCs, 8270	**UU SCO**	**RRU SCO**	*Result*	*Qualifier*
1,1'-Biphenyl	NA	NA	0.248	*U*
1,2,4,5-Tetrachlorobenzene	NA	NA	0.496	*U*
1,2,4-Trichlorobenzene	NA	NA	0.248	*U*
1,2-Dichlorobenzene	NA	NA	0.248	*U*
1,2-Diphenylhydrazine (Azobenzene	NA	NA	0.248	*U*
1,3-Dichlorobenzene	NA	NA	0.248	*U*
1,4-Dichlorobenzene	NA	NA	0.248	*U*
2,3,4,6-Tetrachlorophenol	NA	NA	0.496	*U*
2,4,5-Trichlorophenol	NA	NA	0.248	*U*
2,4,6-Trichlorophenol	NA	NA	0.248	*U*
2,4-Dichlorophenol	NA	NA	0.248	*U*
2,4-Dimethylphenol	NA	NA	0.248	*U*
2,4-Dinitrophenol	NA	NA	0.496	*U*
2,4-Dinitrotoluene	NA	NA	0.248	*U*
2,6-Dinitrotoluene	NA	NA	0.248	*U*
2-Chloronaphthalene	NA	NA	0.248	*U*
2-Chlorophenol	NA	NA	0.248	*U*
2-Methylnaphthalene	NA	NA	0.248	*U*
2-Methylphenol	0.33	100	0.248	*U*
2-Nitroaniline	NA	NA	0.496	*U*
2-Nitrophenol	NA	NA	0.248	*U*
3- & 4-Methylphenols	0.33	100	0.248	*U*
3,3'-Dichlorobenzidine	NA	NA	0.248	*U*
3-Nitroaniline	NA	NA	0.496	*U*
4,6-Dinitro-2-methylphenol	NA	NA	0.496	*U*
4-Bromophenyl phenyl ether	NA	NA	0.248	*U*
4-Chloro-3-methylphenol	NA	NA	0.248	*U*
4-Chloroaniline	NA	NA	0.248	*U*
4-Chlorophenyl phenyl ether	NA	NA	0.248	*U*
4-Nitroaniline	NA	NA	0.496	*U*
4-Nitrophenol	NA	NA	0.496	*U*
Acenaphthene	20	100	0.248	*U*
Acenaphthylene	100	100	0.248	*U*
Acetophenone	NA	NA	0.61	*D*
Aniline	NA	NA	0.993	*U*
Anthracene	100	100	0.248	*U*
Atrazine	NA	NA	0.248	*U*
Benzaldehyde	NA	NA	0.248	*U*
Benzidine	NA	NA	0.993	*U*
Benzo(a)anthracene	1	1	0.248	*U*
Benzo(a)pyrene	1	1	0.248	*U*
Benzo(b)fluoranthene	1	1	0.248	*U*
Benzo(g,h,i)perylene	100	100	0.248	*U*
Benzo(k)fluoranthene	0.8	3.9	0.248	*U*
Benzoic acid	NA	NA	0.59	*D*
Benzyl alcohol	NA	NA	0.248	*U*
Benzyl butyl phthalate	NA	NA	0.248	*U*
Bis(2-chloroethoxy)methane	NA	NA	0.248	*U*
Bis(2-chloroethyl)ether	NA	NA	0.248	*U*
Bis(2-chloroisopropyl)ether	NA	NA	0.248	*U*
Bis(2-ethylhexyl)phthalate	NA	NA	0.694	*D*
Caprolactam	NA	NA	0.496	*U*
Carbazole	NA	NA	0.248	*U*
Chrysene	1	3.9	0.248	*U*
Dibenzo(a,h)anthracene	0.33	0.33	0.248	*U*
Dibenzofuran	7	59	0.248	*U*
Diethyl phthalate	NA	NA	0.248	*U*
Dimethyl phthalate	NA	NA	0.248	*U*
Di-n-butyl phthalate	NA	NA	0.248	*U*
Di-n-octyl phthalate	NA	NA	0.248	*U*
Fluoranthene	100	100	0.248	*U*
Fluorene	30	100	0.248	*U*
Hexachlorobenzene	0.33	1.2	0.248	*U*
Hexachlorobutadiene	NA	NA	0.248	*U*
Hexachlorocyclopentadiene	NA	NA	0.248	*U*
Hexachloroethane	NA	NA	0.248	*U*
Indeno(1,2,3-cd)pyrene	0.5	0.5	0.248	*U*
Isophorone	NA	NA	0.248	*U*
Naphthalene	12	100	0.248	*U*
Nitrobenzene	NA	NA	0.248	*U*
N-Nitrosodimethylamine	NA	NA	0.248	*U*
N-nitroso-di-n-propylamine	NA	NA	0.248	*U*
N-Nitrosodiphenylamine	NA	NA	0.248	*U*
Pentachlorophenol	0.8	6.7	1.27	*D*
Phenanthrene	100	100	0.248	*U*
Phenol	0.33	100	0.248	*U*
Pyrene	100	100	0.248	*U*

Analyte Detected

Analyte Above UU SCO

Analyte Above RRU SCO

Notes: SCOs based on NYSDEC Part 375-6.8 and CP-51   NA = not available

Result Qualifiers: J = approximate E = estimated B = detected in blank D = diluted

Table 4: Pesticides and PCBs in Soils

GBTS File: 20-0857

All data in mg/Kg (ppm)		**Sample ID**	**TP-1 SS**		**TP-3 SS**		**SS-01**		**TP-2**	
U= Not Detected ≥ value		Sample Date	(10-27-2020)		(10-27-2020)		(10-27-2020)		(10-27-2020)	
Data above SCOs shown in **Bold**		Dilution Factor	5		5		5		5	
Pesticides, 8081	**UU SCO**	**RRU SCO**	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*
4,4'-DDD	0.0033	13	0.00209	*U*	0.00193	*U*	0.0129	*D*	0.00185	*U*
4,4'-DDE	0.0033	8.9	0.00209	*U*	0.00193	*U*	0.0156	*D*	0.00185	*U*
4,4'-DDT	0.0033	7.9	0.00209	*U*	0.00193	*U*	0.232	*D*	0.00397	*DP*
Aldrin	0.005	0.097	0.00209	*U*	0.00193	*U*	0.00196	*U*	0.00185	*U*
alpha-BHC	0.02	0.48	0.00209	*U*	0.00193	*U*	0.00196	*U*	0.00185	*U*
alpha-Chlordane	0.094	4.2	0.00209	*U*	0.00193	*U*	0.0418	*DP*	0.00185	*U*
beta-BHC	0.036	0.36	0.00209	*U*	0.00193	*U*	0.00196	*U*	0.00185	*U*
Chlordane (total)	NA	NA	0.0418	*U*	0.0385	*U*	0.361	*DP*	0.037	*U*
delta-BHC	0.04	100	0.00209	*U*	0.00193	*U*	0.00196	*U*	0.00185	*U*
Dieldrin	0.005	0.2	0.00209	*U*	0.00193	*U*	0.00196	*U*	0.00185	*U*
Endosulfan I	2.4	24	0.00209	*U*	0.00193	*U*	0.00196	*U*	0.00185	*U*
Endosulfan II	2.4	24	0.00209	*U*	0.00193	*U*	0.00196	*U*	0.00185	*U*
Endosulfan sulfate	2.4	24	0.00209	*U*	0.00193	*U*	0.00196	*U*	0.00185	*U*
Endrin	0.014	11	0.00209	*U*	0.00193	*U*	0.00196	*U*	0.00185	*U*
Endrin aldehyde	NA	NA	0.00209	*U*	0.00193	*U*	0.00196	*U*	0.00185	*U*
Endrin ketone	NA	NA	0.00209	*U*	0.00193	*U*	0.00196	*U*	0.00185	*U*
gamma-BHC (Lindane)	0.1	1.3	0.00209	*U*	0.00193	*U*	0.00196	*U*	0.00185	*U*
gamma-Chlordane	NA	NA	0.00209	*U*	0.00193	*U*	0.0248	*D*	0.00185	*U*
Heptachlor	0.042	2.1	0.00209	*U*	0.00193	*U*	0.00196	*U*	0.00185	*U*
Heptachlor Epoxide	NA	NA	0.00209	*U*	0.00193	*U*	0.00196	*U*	0.00185	*U*
Methoxychlor	NA	NA	0.0104	*U*	0.00963	*U*	0.00981	*U*	0.00926	*U*
Toxaphene	NA	NA	0.106	*U*	0.0974	*U*	0.0993	*U*	0.0937	*U*

		Sample ID	**TP-1 SS**		**TP-3 SS**		**SS-01**		**TP-2**	
		Sample Date	(10-27-2020)		(10-27-2020)		(10-27-2020)		(10-27-2020)	
		Dilution Factor	1		1		1		1	
PCBs, 8082	**UU SCO**	**RRU SCO**	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*
Aroclor 1016	0.1	1.00	0.0211	*U*	0.0194	*U*	0.0198	*U*	0.0187	*U*
Aroclor 1221	0.1	1.00	0.0211	*U*	0.0194	*U*	0.0198	*U*	0.0187	*U*
Aroclor 1232	0.1	1.00	0.0211	*U*	0.0194	*U*	0.0198	*U*	0.0187	*U*
Aroclor 1242	0.1	1.00	0.0211	*U*	0.0194	*U*	0.0198	*U*	0.0187	*U*
Aroclor 1248	0.1	1.00	0.0211	*U*	0.0194	*U*	0.0198	*U*	0.0187	*U*
Aroclor 1254	0.1	1.00	0.0211	*U*	0.0194	*U*	0.0411		0.0187	*U*
Aroclor 1260	0.1	1.00	0.0211	*U*	0.0194	*U*	0.0198	*U*	0.0187	*U*
Aroclor 1262	0.1	1.00	0.0211	*U*	0.0194	*U*	0.0198	*U*	0.0187	*U*
Aroclor 1268	0.1	1.00	0.0211	*U*	0.0194	*U*	0.0198	*U*	0.0187	*U*
Aroclor, Total	0.1	1.00	0.0211	*U*	0.0194	*U*	0.0411		0.0187	*U*

Analyte Detected
Analyte Above UU SCO
Analyte Above RRU SCO

Notes: SCOs based on NYSDEC Part 375-6.8 and CP-51   NA = not available
Result Qualifiers: J = approximate E = estimated B = detected in blank D = diluted

Table 4: Pesticides and PCBs in Soils

GBTS File: 20-0857

All data in mg/Kg (ppm)		**Sample ID**	**TP-4**		**TP-5**		**TP-6**		**TP-12**	
U= Not Detected ≥ value		Sample Date	(10-27-2020)		(10-27-2020)		(10-27-2020)		(10-27-2020)	
Data above SCOs shown in **Bold**		Dilution Factor	5		5		5		5	
Pesticides, 8081	**UU SCO**	**RRU SCO**	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*
4,4'-DDD	0.0033	13	0.00189	*U*	0.00192	*U*	0.00184	*U*	0.00183	*U*
4,4'-DDE	0.0033	8.9	0.00189	*U*	0.00192	*U*	0.00184	*U*	0.00183	*U*
4,4'-DDT	0.0033	7.9	0.00189	*U*	0.00192	*U*	0.00184	*U*	0.00183	*U*
Aldrin	0.005	0.097	0.00189	*U*	0.00192	*U*	0.00184	*U*	0.00183	*U*
alpha-BHC	0.02	0.48	0.00189	*U*	0.00192	*U*	0.00184	*U*	0.00183	*U*
alpha-Chlordane	0.094	4.2	0.00189	*U*	0.00192	*U*	0.00184	*U*	0.00183	*U*
beta-BHC	0.036	0.36	0.00189	*U*	0.00192	*U*	0.00184	*U*	0.00183	*U*
Chlordane (total)	NA	NA	0.0377	*U*	0.0385	*U*	0.0369	*U*	0.0366	*U*
delta-BHC	0.04	100	0.00189	*U*	0.00192	*U*	0.00184	*U*	0.00183	*U*
Dieldrin	0.005	0.2	0.00189	*U*	0.00192	*U*	0.00184	*U*	0.00183	*U*
Endosulfan I	2.4	24	0.00189	*U*	0.00192	*U*	0.00184	*U*	0.00183	*U*
Endosulfan II	2.4	24	0.00189	*U*	0.00192	*U*	0.00184	*U*	0.00183	*U*
Endosulfan sulfate	2.4	24	0.00189	*U*	0.00192	*U*	0.00184	*U*	0.00183	*U*
Endrin	0.014	11	0.00189	*U*	0.00192	*U*	0.00184	*U*	0.00183	*U*
Endrin aldehyde	NA	NA	0.00189	*U*	0.00192	*U*	0.00184	*U*	0.00183	*U*
Endrin ketone	NA	NA	0.00189	*U*	0.00192	*U*	0.00184	*U*	0.00183	*U*
gamma-BHC (Lindane)	0.1	1.3	0.00189	*U*	0.00192	*U*	0.00184	*U*	0.00183	*U*
gamma-Chlordane	NA	NA	0.00189	*U*	0.00192	*U*	0.00184	*U*	0.00183	*U*
Heptachlor	0.042	2.1	0.00189	*U*	0.00192	*U*	0.00184	*U*	0.00183	*U*
Heptachlor Epoxide	NA	NA	0.00189	*U*	0.00192	*U*	0.00184	*U*	0.00183	*U*
Methoxychlor	NA	NA	0.00944	*U*	0.00962	*U*	0.00922	*U*	0.00916	*U*
Toxaphene	NA	NA	0.0955	*U*	0.0974	*U*	0.0933	*U*	0.0927	*U*

		Sample ID	**TP-4**		**TP-5**		**TP-6**		**TP-12**	
		Sample Date	(10-27-2020)		(10-27-2020)		(10-27-2020)		(10-27-2020)	
		Dilution Factor	1		1		1		1	
PCBs, 8082	**UU SCO**	**RRU SCO**	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*
Aroclor 1016	0.1	1.00	0.0191	*U*	0.0194	*U*	0.0186	*U*	0.0185	*U*
Aroclor 1221	0.1	1.00	0.0191	*U*	0.0194	*U*	0.0186	*U*	0.0185	*U*
Aroclor 1232	0.1	1.00	0.0191	*U*	0.0194	*U*	0.0186	*U*	0.0185	*U*
Aroclor 1242	0.1	1.00	0.0191	*U*	0.0194	*U*	0.0186	*U*	0.0185	*U*
Aroclor 1248	0.1	1.00	0.0191	*U*	0.0194	*U*	0.0186	*U*	0.0185	*U*
Aroclor 1254	0.1	1.00	0.0191	*U*	0.0194	*U*	0.0186	*U*	0.0275	
Aroclor 1260	0.1	1.00	0.0191	*U*	0.0194	*U*	0.0186	*U*	0.0185	*U*
Aroclor 1262	0.1	1.00	0.0191	*U*	0.0194	*U*	0.0186	*U*	0.0185	*U*
Aroclor 1268	0.1	1.00	0.0191	*U*	0.0194	*U*	0.0186	*U*	0.0185	*U*
Aroclor, Total	0.1	1.00	0.0191	*U*	0.0194	*U*	0.0186	*U*	0.0275	

Analyte Detected

Analyte Above UU SCO

Analyte Above RRU SCO

Notes: SCOs based on NYSDEC Part 375-6.8 and CP-51 NA = not available

Result Qualifiers: J = approximate E = estimated B = detected in blank D = diluted

Table 4: Pesticides and PCBs in Soils

GBTS File: 20-0857

All data in mg/Kg (ppm)		**Sample ID**	**TP-14**		**TP-18**		**TP-1**		**TP-3**	
U= Not Detected ≥ value		Sample Date	(10-27-2020)		(10-27-2020)		(10-27-2020)		(10-27-2020)	
Data above SCOs shown in **Bold**		Dilution Factor	5		5		5		5	
Pesticides, 8081	**UU SCO**	**RRU SCO**	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*
4,4'-DDD	0.0033	13	0.00185	*U*	0.00173	*U*	0.00179	*U*	0.00189	*U*
4,4'-DDE	0.0033	8.9	0.00185	*U*	0.00173	*U*	0.00179	*U*	0.00189	*U*
4,4'-DDT	0.0033	7.9	0.00185	*U*	0.00173	*U*	0.00623	*D*	0.00189	*U*
Aldrin	0.005	0.097	0.00185	*U*	0.00173	*U*	0.00179	*U*	0.00189	*U*
alpha-BHC	0.02	0.48	0.00185	*U*	0.00173	*U*	0.00179	*U*	0.00189	*U*
alpha-Chlordane	0.094	4.2	0.00185	*U*	0.00173	*U*	0.00179	*U*	0.00189	*U*
beta-BHC	0.036	0.36	0.00185	*U*	0.00173	*U*	0.00179	*U*	0.00189	*U*
Chlordane (total)	NA	NA	0.037	*U*	0.0346	*U*	0.0359	*U*	0.0378	*U*
delta-BHC	0.04	100	0.00185	*U*	0.00173	*U*	0.00179	*U*	0.00189	*U*
Dieldrin	0.005	0.2	0.00185	*U*	0.00173	*U*	0.00179	*U*	0.00189	*U*
Endosulfan I	2.4	24	0.00185	*U*	0.00173	*U*	0.00179	*U*	0.00189	*U*
Endosulfan II	2.4	24	0.00185	*U*	0.00173	*U*	0.00179	*U*	0.00189	*U*
Endosulfan sulfate	2.4	24	0.00185	*U*	0.00173	*U*	0.00179	*U*	0.00189	*U*
Endrin	0.014	11	0.00185	*U*	0.00173	*U*	0.00179	*U*	0.00189	*U*
Endrin aldehyde	NA	NA	0.00185	*U*	0.00173	*U*	0.00179	*U*	0.00189	*U*
Endrin ketone	NA	NA	0.00185	*U*	0.00173	*U*	0.00179	*U*	0.00189	*U*
gamma-BHC (Lindane)	0.1	1.3	0.00185	*U*	0.00173	*U*	0.00179	*U*	0.00189	*U*
gamma-Chlordane	NA	NA	0.00185	*U*	0.00173	*U*	0.00179	*U*	0.00189	*U*
Heptachlor	0.042	2.1	0.00185	*U*	0.00173	*U*	0.00179	*U*	0.00189	*U*
Heptachlor Epoxide	NA	NA	0.00185	*U*	0.00173	*U*	0.00179	*U*	0.00189	*U*
Methoxychlor	NA	NA	0.00925	*U*	0.00865	*U*	0.00896	*U*	0.00945	*U*
Toxaphene	NA	NA	0.0936	*U*	0.0875	*U*	0.0907	*U*	0.0956	*U*

		Sample ID	**TP-14**		**TP-18**	
		Sample Date	(10-27-2020)		(10-27-2020)	
		Dilution Factor	1		1	
PCBs, 8082	**UU SCO**	**RRU SCO**	*Result*	*Qualifier*	*Result*	*Qualifier*
Aroclor 1016	0.1	1.00	0.0187	*U*	0.0175	*U*
Aroclor 1221	0.1	1.00	0.0187	*U*	0.0175	*U*
Aroclor 1232	0.1	1.00	0.0187	*U*	0.0175	*U*
Aroclor 1242	0.1	1.00	0.0187	*U*	0.0175	*U*
Aroclor 1248	0.1	1.00	0.0187	*U*	0.0175	*U*
Aroclor 1254	0.1	1.00	0.0187	*U*	0.0175	*U*
Aroclor 1260	0.1	1.00	0.0187	*U*	0.0175	*U*
Aroclor 1262	0.1	1.00	0.0187	*U*	0.0175	*U*
Aroclor 1268	0.1	1.00	0.0187	*U*	0.0175	*U*
Aroclor, Total	0.1	1.00	0.0187	*U*	0.0175	*U*

Analyte Detected
Analyte Above UU SCO
Analyte Above RRU SCO

Notes: SCOs based on NYSDEC Part 375-6.8 and CP-51   NA = not available
Result Qualifiers: J = approximate E = estimated B = detected in blank D = diluted

Table 4: Pesticides and PCBs in Soils

GBTS File: 20-0857

All data in mg/Kg (ppm)		**Sample ID**	**TP-11**		**TP-16**	
U= Not Detected ≥ value		Sample Date	(10-27-2020)		(10-27-2020)	
Data above SCOs shown in **Bold**		Dilution Factor	5		5	
Pesticides, 8081	**UU SCO**	**RRU SCO**	*Result*	*Qualifier*	*Result*	*Qualifier*
4,4'-DDD	0.0033	13	0.00198	*U*	0.00173	*U*
4,4'-DDE	0.0033	8.9	0.00198	*U*	0.00173	*U*
4,4'-DDT	0.0033	7.9	0.00198	*U*	0.00173	*U*
Aldrin	0.005	0.097	0.00198	*U*	0.00173	*U*
alpha-BHC	0.02	0.48	0.00198	*U*	0.00173	*U*
alpha-Chlordane	0.094	4.2	0.00198	*U*	0.00173	*U*
beta-BHC	0.036	0.36	0.00198	*U*	0.00173	*U*
Chlordane (total)	NA	NA	0.0396	*U*	0.0347	*U*
delta-BHC	0.04	100	0.00198	*U*	0.00173	*U*
Dieldrin	0.005	0.2	0.00198	*U*	0.00173	*U*
Endosulfan I	2.4	24	0.00198	*U*	0.00173	*U*
Endosulfan II	2.4	24	0.00198	*U*	0.00173	*U*
Endosulfan sulfate	2.4	24	0.00198	*U*	0.00173	*U*
Endrin	0.014	11	0.00198	*U*	0.00173	*U*
Endrin aldehyde	NA	NA	0.00198	*U*	0.00173	*U*
Endrin ketone	NA	NA	0.00198	*U*	0.00173	*U*
gamma-BHC (Lindane)	0.1	1.3	0.00198	*U*	0.00173	*U*
gamma-Chlordane	NA	NA	0.00198	*U*	0.00173	*U*
Heptachlor	0.042	2.1	0.00198	*U*	0.00173	*U*
Heptachlor Epoxide	NA	NA	0.00198	*U*	0.00173	*U*
Methoxychlor	NA	NA	0.00989	*U*	0.00867	*U*
Toxaphene	NA	NA	0.1	*U*	0.0878	*U*

		Sample ID
		Sample Date
		Dilution Factor
PCBs, 8082	**UU SCO**	**RRU SCO**
Aroclor 1016	0.1	1.00
Aroclor 1221	0.1	1.00
Aroclor 1232	0.1	1.00
Aroclor 1242	0.1	1.00
Aroclor 1248	0.1	1.00
Aroclor 1254	0.1	1.00
Aroclor 1260	0.1	1.00
Aroclor 1262	0.1	1.00
Aroclor 1268	0.1	1.00
Aroclor, Total	0.1	1.00

Analyte Detected
Analyte Above UU SCO
Analyte Above RRU SCO

Notes: SCOs based on NYSDEC Part 375-6.8 and CP-51 NA = not available
Result Qualifiers: J = approximate E = estimated B = detected in blank D = diluted

Table 5: TAL Metals in Soils

GBTS File: 20-0857

All data in mg/Kg (ppm)		**Sample ID**	**TP-1**		**TP-2**		**TP-3**		**TP-4**	
U= Not Detected ≥ value		Sample Date	(10-27-2020)		(10-27-2020)		(10-27-2020)		(10-27-2020)	
Data above SCOs shown in **Bold**		Dilution Factor	1		1		1		1	
Metals, 6010 and 7473	**UU SCO**	**RRU SCO**	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*
Aluminum	NA	NA	8,220		9,780		17,700		14,400	
Antimony	NA	NA	2.74	*U*	2.82	*U*	2.89	*U*	2.87	*U*
Arsenic	13	16	2.19		1.69	*U*	3.57		10.8	
Barium	350	400	98.3		119		62.5		124	
Beryllium	7.2	72	0.055	*U*	0.056	*U*	0.058	*U*	0.083	
Cadmium	2.5	4.3	0.329	*U*	0.912		0.347	*U*	0.344	*U*
Calcium	NA	NA	6,800	*B*	8,890		1,760	*B*	792	
Chromium	30	180	8.32		139		13.5		13.1	
Cobalt	NA	NA	6.59		7.94		6.48		6.2	
Copper	50	270	19.9		26.1		30.6		140	
Iron	NA	NA	13,400		22,400		20,300		20,000	
Lead	63	400	84.6		56.1		148		382	
Magnesium	NA	NA	2,890		5,620		2,190		2,200	
Manganese	1,600	2,000	573		289		698		328	
Mercury	0.18	0.81	0.0362	*U*	**0.997**		0.0382	*U*	0.157	
Nickel	30	310	13.1		28.4		11.5		12.5	
Potassium	NA	NA	1,190		1,790		770		838	
Selenium	3.9	180	2.74	*U*	2.82	*U*	2.89	*U*	2.87	*U*
Silver	2	180	0.549	*U*	1.74		0.578	*U*	0.574	*U*
Sodium	NA	NA	55.2		56.5	*U*	57.8	*U*	57.4	*U*
Thallium	NA	NA	2.74	*U*	2.82	*U*	2.89	*U*	2.87	*U*
Vanadium	NA	NA	11.2		13.7		22.3		17.7	
Zinc	109	10,000	75.9		1,650	*B*	73.5		162	*B*

Analyte Detected
Analyte Above UU SCO
Analyte Above RRU SCO

Notes: SCOs based on NYSDEC Part 375-6.8 and CP-51 NA = not available
Result Qualifiers: J = approximate E = estimated B = detected in blank D = diluted

Table 5: TAL Metals in Soils

GALLAGHER BASSETT
TECHNICAL SERVICES

GBTS File: 20-0857

All data in mg/Kg (ppm)		**Sample ID**	**TP-5**		**TP-6**		**TP-11**		**TP-12**	
U= Not Detected ≥ value		Sample Date	(10-27-2020)		(10-27-2020)		(10-27-2020)		(10-27-2020)	
Data above SCOs shown in **Bold**		Dilution Factor	1		1		1		1	
Metals, 6010 and 7473	**UU SCO**	**RRU SCO**	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*
Aluminum	NA	NA	10,800		8,970		15,100		9,200	
Antimony	NA	NA	2.94	*U*	2.81	*U*	3.03	*U*	2.83	*U*
Arsenic	13	16	2.93		4.15		2.26		5.24	
Barium	350	400	43.6		62.7		81.9		264	
Beryllium	7.2	72	0.059	*U*	0.136		0.061	*U*	0.057	*U*
Cadmium	2.5	4.3	0.352	*U*	0.338	*U*	0.363	*U*	0.34	*U*
Calcium	NA	NA	2,360		1,450		3,550	*B*	5,310	
Chromium	30	180	10.1		8		13.6		7.07	
Cobalt	NA	NA	4.35		7.35		7.55		4.62	
Copper	50	270	22.8		22.7		19.4		9.15	
Iron	NA	NA	14,100		14,900		19,500		12,200	
Lead	63	400	45		43.1		156		23.2	
Magnesium	NA	NA	1,690		2,770		2,930		1,560	
Manganese	1,600	2,000	402		456		645		808	
Mercury	0.18	0.81	0.137		0.0901		0.04	*U*	0.528	
Nickel	30	310	8.87		12.8		15.1		6.94	
Potassium	NA	NA	783		1,020		1,030		571	
Selenium	3.9	180	2.94	*U*	2.81	*U*	3.03	*U*	2.83	*U*
Silver	2	180	0.587	*U*	0.563	*U*	0.606	*U*	0.566	*U*
Sodium	NA	NA	58.7	*U*	56.3	*U*	60.8		56.6	*U*
Thallium	NA	NA	2.94	*U*	2.81	*U*	3.03	*U*	2.83	*U*
Vanadium	NA	NA	13.2		10.2		18.8		11.5	
Zinc	109	10,000	57.7	*B*	62.9	*B*	70.5		84.1	*B*

Analyte Detected
Analyte Above UU SCO
Analyte Above RRU SCO

Notes: SCOs based on NYSDEC Part 375-6.8 and CP-51   NA = not available
Result Qualifiers: J = approximate E = estimated B = detected in blank D = diluted

Table 5: TAL Metals in Soils

GBTS File: 20-0857

All data in mg/Kg (ppm)		**Sample ID**	**TP-14**		**TP-16**		**TP-18**	
U= Not Detected ≥ value		Sample Date	(10-27-2020)		(10-27-2020)		(10-27-2020)	
Data above SCOs shown in **Bold**		Dilution Factor	1		1		1	
Metals, 6010 and 7473	**UU SCO**	**RRU SCO**	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*
Aluminum	NA	NA	12,100		8,270		10,600	
Antimony	NA	NA	2.83	*U*	2.65	*U*	2.64	*U*
Arsenic	13	16	5.54		1.59	*U*	4.29	
Barium	350	400	40.2		47		33.5	
Beryllium	7.2	72	0.057	*U*	0.053	*U*	0.053	*U*
Cadmium	2.5	4.3	0.34	*U*	0.318	*U*	0.317	*U*
Calcium	NA	NA	388		1,200	*B*	315	
Chromium	30	180	10.8		7.08		7.94	
Cobalt	NA	NA	7.08		5.89		5.72	
Copper	50	270	16.7		19.1		7.49	
Iron	NA	NA	19,100		12,900		14,900	
Lead	63	400	13.1		63.6		51.6	
Magnesium	NA	NA	2,870		2,310		2,030	
Manganese	1,600	2,000	302		362		292	
Mercury	0.18	0.81	0.0372		0.035	*U*	0.0925	
Nickel	30	310	13.6		11.4		11.2	
Potassium	NA	NA	985		744		646	
Selenium	3.9	180	2.83	*U*	2.65	*U*	2.64	*U*
Silver	2	180	0.566	*U*	0.531	*U*	0.528	*U*
Sodium	NA	NA	56.6	*U*	53.1	*U*	52.8	*U*
Thallium	NA	NA	2.83	*U*	2.65	*U*	2.64	*U*
Vanadium	NA	NA	15.7		9.76		10.8	
Zinc	109	10,000	44.6	*B*	59.9		78.8	*B*

Analyte Detected

Analyte Above UU SCO

Analyte Above RRU SCO

Notes: SCOs based on NYSDEC Part 375-6.8 and CP-51   NA = not available

Result Qualifiers: J = approximate E = estimated B = detected in blank D = diluted

Table 5: TAL Metals in Soils

GBTS File: 20-0857

All data in mg/Kg (ppm)		**Sample ID**	**TP-1 SS**		**TP-3 SS**		**SS-01**		**SS-02**	
U= Not Detected ≥ value		Sample Date	(10-27-2020)		(10-27-2020)		(10-27-2020)		(12-15-2020)	
Data above SCOs shown in **Bold**		Dilution Factor	1		1		1		10	
Metals, 6010 and 7473	**UU SCO**	**RRU SCO**	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*
Aluminum	NA	NA	6,310		10,900		7,310		3,670	
Antimony	NA	NA	3.17	*U*	2.99	*U*	3	*U*	4.81	*U*
Arsenic	13	16	1.9	*U*	4.79		4.61		2.89	*U*
Barium	350	400	93.2		113		**4,270**		72.7	
Beryllium	7.2	72	0.063	*U*	0.06	*U*	0.06	*U*	0.096	*U*
Cadmium	2.5	4.3	0.381	*U*	0.988		0.776		0.664	
Calcium	NA	NA	2,890		3,920		62,200		9,100	
Chromium	30	180	6.63		17.1		25		12.4	
Cobalt	NA	NA	4.68		5.28		4.95		4.79	
Copper	50	270	17.3		**326**		**349**		105	
Iron	NA	NA	10,000		15,400		13,400		9,130	
Lead	63	400	47.8		**1,070**		362		279	
Magnesium	NA	NA	1,810		2,670		4,620		1,750	
Manganese	1,600	2,000	341		524		1,410		423	
Mercury	0.18	0.81	**1.09**		0.281		**1.53**		0.159	
Nickel	30	310	9.81		14		10.1		9.6	
Potassium	NA	NA	687		794		874		719	*B*
Selenium	3.9	180	3.17	*U*	2.99	*U*	3	*U*	4.81	*U*
Silver	2	180	0.635	*U*	0.599	*U*	3.49		0.962	*U*
Sodium	NA	NA	63.5	*U*	59.9	*U*	93.7		96.2	*U*
Thallium	NA	NA	3.17	*U*	2.99	*U*	3	*U*	4.81	*U*
Vanadium	NA	NA	7.12		14.3		9.33		8.32	
Zinc	109	10,000	117	*B*	325	*B*	2,290	*B*	6,980	*D*

Analyte Detected

Analyte Above UU SCO

Analyte Above RRU SCO

Notes: SCOs based on NYSDEC Part 375-6.8 and CP-51 NA = not available

Result Qualifiers: J = approximate E = estimated B = detected in blank D = diluted

Table 5: TAL Metals in Soils

GBTS File: 20-0857

All data in mg/Kg (ppm)		**Sample ID**	**SS-03**		**SS-04**		**SS-05**		**SS-06**	
U= Not Detected ≥ value		Sample Date	(12-15-2020)		(12-15-2020)		(12-15-2020)		(12-15-2020)	
Data above SCOs shown in **Bold**		Dilution Factor	1		1		1		1	
Metals, 6010 and 7473	**UU SCO**	**RRU SCO**	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*
Aluminum	NA	NA	11,000		7,220		7,820		5,140	
Antimony	NA	NA	4.32	*U*	3.47	*U*	2.93	*U*	7.93	*U*
Arsenic	13	16	6.18		3.4		1.96		**32.8**	
Barium	350	400	372		123		123		167	
Beryllium	7.2	72	0.086	*U*	0.069	*U*	0.185		0.159	*U*
Cadmium	2.5	4.3	**6.62**		1.95		0.352	*U*	0.952	*U*
Calcium	NA	NA	9,990		5,180		1,700		9,800	
Chromium	30	180	32.8		21.9		13.8		76.5	
Cobalt	NA	NA	12		6.68		8.65		7.56	
Copper	50	270	**703**		58.4		17.5		34.4	
Iron	NA	NA	34,200		15,300		16,900		20,100	
Lead	63	400	**4,020**		224		68.6		**504**	
Magnesium	NA	NA	4,390		2,020		3,380		1,500	
Manganese	1,600	2,000	626		429		605		570	
Mercury	0.18	0.81	0.436		0.158		0.303		**3.74**	
Nickel	30	310	27.8		16.6		16.8		20.2	
Potassium	NA	NA	1,180	*B*	820	*B*	1,150	*B*	1,280	*B*
Selenium	3.9	180	4.32	*U*	3.47	*U*	2.93	*U*	7.93	*U*
Silver	2	180	0.864	*U*	0.695	*U*	0.586	*U*	1.59	*U*
Sodium	NA	NA	257	*B*	85.7	*B*	58.6	*U*	272	*B*
Thallium	NA	NA	4.32	*U*	3.47	*U*	2.93	*U*	7.93	*U*
Vanadium	NA	NA	28.9		14.9		10.3		53.8	
Zinc	109	10,000	2,320		260		139		637	

Analyte Detected

Analyte Above UU SCO

Analyte Above RRU SCO

Notes: SCOs based on NYSDEC Part 375-6.8 and CP-51 NA = not available

Result Qualifiers: J = approximate E = estimated B = detected in blank D = diluted

Table 5: TAL Metals in Soils

GBTS File: 20-0857

All data in mg/Kg (ppm)		**Sample ID**	**SS-07**		**SS-08**	
U= Not Detected ≥ value		Sample Date	(12-15-2020)		(12-15-2020)	
Data above SCOs shown in **Bold**		Dilution Factor	1		1	
Metals, 6010 and 7473	**UU SCO**	**RRU SCO**	*Result*	*Qualifier*	*Result*	*Qualifier*
Aluminum	NA	NA	14,800		17,000	
Antimony	NA	NA	3.53	*U*	3.23	*U*
Arsenic	13	16	6.64		6.26	
Barium	350	400	102		75.9	
Beryllium	7.2	72	0.071	*U*	0.065	*U*
Cadmium	2.5	4.3	0.423	*U*	0.388	*U*
Calcium	NA	NA	828		819	
Chromium	30	180	51.4		13.1	
Cobalt	NA	NA	7.76		7.99	
Copper	50	270	25.1		16.6	
Iron	NA	NA	19,200		19,700	
Lead	63	400	225		33.4	
Magnesium	NA	NA	2,100		2,540	
Manganese	1,600	2,000	723		724	
Mercury	0.18	0.81	0.152		0.131	
Nickel	30	310	14.2		11.1	
Potassium	NA	NA	953	*B*	1,070	*B*
Selenium	3.9	180	3.53	*U*	3.23	*U*
Silver	2	180	0.799		1.06	
Sodium	NA	NA	70.5	*U*	66.7	*B*
Thallium	NA	NA	3.53	*U*	3.23	*U*
Vanadium	NA	NA	18.4		21.7	
Zinc	109	10,000	213		97.2	

Analyte Detected

Analyte Above UU SCO

Analyte Above RRU SCO

Notes: SCOs based on NYSDEC Part 375-6.8 and CP-51   NA = not available

Result Qualifiers: J = approximate E = estimated B = detected in blank D = diluted

Table 6: VOCs in Soil Vapor

GBTS File: 20-0857

Sample ID	SV-01		SV-02		SV-03		SV-04		SV-05	
All data in µg/m^3 Sample Date	12/15/2020		12/15/2020		12/15/2020		12/15/2020		12/15/2020	
U= Not Detected ≥ value Dilution Factor	1		1		1		1		1	
VOCs, TO-15	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*
1,1,1-Trichloroethane	1.09	*U*	1.09	*U*	1.09	*U*	1.09	*U*	1.09	*U*
1,1,2,2-Tetrachloroethane	1.37	*U*	1.37	*U*	1.37	*U*	1.37	*U*	1.37	*U*
1,1,2-Trichloroethane	1.09	*U*	1.09	*U*	1.09	*U*	1.09	*U*	1.09	*U*
1,1-Dichloroethane	0.809	*U*	0.809	*U*	0.809	*U*	0.809	*U*	0.809	*U*
1,1-Dichloroethene	0.793	*U*	0.793	*U*	0.793	*U*	0.793	*U*	0.793	*U*
1,2,4-Trichlorobenzene	1.48	*U*	1.48	*U*	1.48	*U*	1.48	*U*	1.48	*U*
1,2,4-Trimethylbenzene	4.51		0.983	*U*	0.983	*U*	0.983	*U*	0.983	*U*
1,2-Dibromoethane	1.54	*U*	1.54	*U*	1.54	*U*	1.54	*U*	1.54	*U*
1,2-Dichlorobenzene	1.2	*U*	1.2	*U*	1.2	*U*	1.2	*U*	1.2	*U*
1,2-Dichloroethane	0.809	*U*	0.809	*U*	0.809	*U*	0.809	*U*	0.809	*U*
1,2-Dichloropropane	0.924	*U*	0.924	*U*	0.924	*U*	0.924	*U*	0.924	*U*
1,3,5-Trimethylbenzene	1.26		0.983	*U*	0.983	*U*	0.983	*U*	0.983	*U*
1,3-Butadiene	24.3		0.442	*U*	0.442	*U*	0.442	*U*	0.442	*U*
1,3-Dichlorobenzene	1.2	*U*	1.2	*U*	1.2	*U*	1.2	*U*	1.2	*U*
1,4-Dichlorobenzene	1.2	*U*	1.2	*U*	1.2	*U*	1.2	*U*	1.2	*U*
1,4-Dioxane	0.721	*U*	0.721	*U*	0.721	*U*	0.721	*U*	0.721	*U*
2,2,4-Trimethylpentane	4.9		4.95		7.15		8.55		8.22	
2-Butanone	1.47	*U*	4.84		7.31		19.8		3.72	
2-Hexanone	0.82	*U*	0.82	*U*	0.82	*U*	3.07		0.82	*U*
3-Chloropropene	0.626	*U*	0.626	*U*	0.626	*U*	0.626	*U*	0.626	*U*
4-Ethyltoluene	0.983	*U*	0.983	*U*	0.983	*U*	0.983	*U*	0.983	*U*
4-Methyl-2-pentanone	2.05	*U*	3.93		10.5		44.3		2.05	*U*
Acetone	6.41		45.4		67.2		116		44.9	
Benzene	6.74		3.42		3.23		3.55		5.62	
Benzyl chloride	1.04	*U*	1.04	*U*	1.04	*U*	1.04	*U*	1.04	*U*
Bromodichloromethane	1.34	*U*	1.34	*U*	1.34	*U*	1.34	*U*	1.34	*U*
Bromoform	2.07	*U*	2.07	*U*	2.07	*U*	2.07	*U*	2.07	*U*
Bromomethane	0.777	*U*	0.777	*U*	0.777	*U*	0.777	*U*	0.777	*U*
Carbon disulfide	0.623	*U*	0.623	*U*	1.49		0.623	*U*	0.623	*U*
Carbon tetrachloride	1.26	*U*	1.26	*U*	1.26	*U*	1.26	*U*	1.26	*U*
Chlorobenzene	0.921	*U*	0.921	*U*	0.921	*U*	0.921	*U*	0.921	*U*
Chloroethane	0.528	*U*	0.528	*U*	0.528	*U*	0.528	*U*	0.528	*U*
Chloroform	0.977	*U*	0.977	*U*	0.977	*U*	0.977	*U*	0.977	*U*
Chloromethane	0.628		0.413	*U*	0.413	*U*	0.413	*U*	0.413	*U*
cis-1,2-Dichloroethene	0.793	*U*	0.793	*U*	0.793	*U*	0.793	*U*	0.793	*U*
cis-1,3-Dichloropropene	0.908	*U*	0.908	*U*	0.908	*U*	0.908	*U*	0.908	*U*
Cyclohexane	2.84		1.97		2.49		3.18		3.11	
Dibromochloromethane	1.7	*U*	1.7	*U*	1.7	*U*	1.7	*U*	1.7	*U*
Dichlorodifluoromethane	1.98		1.91		1.9		1.91		1.87	
Ethanol	153		185		230		156		475	
Ethyl Acetate	1.8	*U*	1.8	*U*	1.8	*U*	2.98		1.8	*U*
Ethylbenzene	0.869	*U*	0.895		0.869	*U*	0.938		0.93	
Freon-113	1.53	*U*	1.53	*U*	1.53	*U*	1.53	*U*	1.53	*U*
Freon-114	1.4	*U*	1.4	*U*	1.4	*U*	1.4	*U*	1.4	*U*
Heptane	5.08		3.84		7.7		5.37		7.75	
Hexachlorobutadiene	2.13	*U*	2.13	*U*	2.13	*U*	2.13	*U*	2.13	*U*
Isopropanol	11.4		16.6		21.8		18.4		159	
Methyl tert butyl ether	0.721	*U*	0.721	*U*	0.721	*U*	0.721	*U*	0.721	*U*
Methylene chloride	1.74	*U*	1.74	*U*	1.74	*U*	1.74	*U*	1.74	*U*
n-Hexane	12.5		6.73		23.5		10.5		12.4	
o-Xylene	1.11		1.03		0.869	*U*	0.869	*U*	0.869	*U*
p/m-Xylene	2.21		2.59		1.84		2.42		2.4	
Styrene	0.852	*U*	0.852	*U*	0.852	*U*	0.852	*U*	0.852	*U*
Tertiary butyl Alcohol	1.52	*U*	1.52	*U*	2.11		1.65		1.52	*U*
Tetrachloroethene	1.36	*U*	1.36	*U*	1.36	*U*	1.36	*U*	1.36	*U*
Tetrahydrofuran	1.47	*U*	1.47	*U*	1.47	*U*	1.47	*U*	1.47	*U*
Toluene	5.43		7.61		5.77		8.14		10.2	
trans-1,2-Dichloroethene	0.793	*U*	0.793	*U*	0.793	*U*	0.793	*U*	0.793	*U*
trans-1,3-Dichloropropene	0.908	*U*	0.908	*U*	0.908	*U*	0.908	*U*	0.908	*U*
Trichloroethene	1.07	*U*	1.07	*U*	1.07	*U*	1.07	*U*	1.07	*U*
Trichlorofluoromethane	1.12	*U*	1.12	*U*	1.12	*U*	1.12	*U*	1.12	*U*
Vinyl bromide	0.874	*U*	0.874	*U*	0.874	*U*	0.874	*U*	0.874	*U*
Vinyl chloride	0.511	*U*	0.511	*U*	0.511	*U*	0.511	*U*	0.511	*U*

Detected concentrations

Relatively elevated concentrations

Notes: NA = not available

Result Qualifiers: J = approximate E = estimated B = detected in blank

APPENDIX D

Laboratory Reports

Technical Report

prepared for:

Gallagher Bassett - Poughkeepsie, NY
22 IBM Road, Suite 101
Poughkeepsie NY, 12601
Attention: Erick Salazar

Report Date: 11/23/2020
Client Project ID: 20-0857
York Project (SDG) No.: 20J1329

Revision No. 1.0

CT Cert. No. PH-0723 New Jersey Cert. No. CT005 and NY037 New York Cert. Nos. 10854 and 12058 PA Cert. No. 68-04440

Report Date: 11/23/2020
Client Project ID: 20-0857
York Project (SDG) No.: 20J1329

Gallagher Bassett - Poughkeepsie, NY
22 IBM Road, Suite 101
Poughkeepsie NY, 12601
Attention: Erick Salazar

Purpose and Results

This report contains the analytical data for the sample(s) identified on the attached chain-of-custody received in our laboratory on October 29, 2020 and listed below. The project was identified as your project: **20-0857**.

The analyses were conducted utilizing appropriate EPA, Standard Methods, and ASTM methods as detailed in the data summary tables.

All samples were received in proper condition meeting the customary acceptance requirements for environmental samples except those indicated under the Sample and Analysis Qualifiers section of this report.

All analyses met the method and laboratory standard operating procedure requirements except as indicated by any data flags, the meaning of which are explained in the Sample and Data Qualifiers Relating to This Work Order section of this report and case narrative if applicable.

The results of the analyses, which are all reported on dry weight basis (soils) unless otherwise noted, are detailed in the following pages.

Please contact Client Services at 203.325.1371 with any questions regarding this report.

York Sample ID	Client Sample ID	Matrix	Date Collected	Date Received
20J1329-01	TP-1 SS	Soil	10/27/2020	10/29/2020
20J1329-02	TP-2	Soil	10/27/2020	10/29/2020
20J1329-03	TP-4	Soil	10/27/2020	10/29/2020
20J1329-04	TP-5	Soil	10/27/2020	10/29/2020
20J1329-05	TP-6	Soil	10/27/2020	10/29/2020
20J1329-06	TP-12	Soil	10/27/2020	10/29/2020
20J1329-07	TP-14	Soil	10/27/2020	10/29/2020
20J1329-08	TP-18	Soil	10/27/2020	10/29/2020
20J1329-09	SS-01	Soil	10/27/2020	10/29/2020
20J1329-10	TP-7	Soil	10/27/2020	10/29/2020
20J1329-11	TP-8	Soil	10/27/2020	10/29/2020
20J1329-12	TP-9	Soil	10/27/2020	10/29/2020
20J1329-13	TP-10	Soil	10/27/2020	10/29/2020
20J1329-14	TP-3 SS	Soil	10/27/2020	10/29/2020
20J1329-15	TP-1	Soil	10/27/2020	10/29/2020
20J1329-16	TP-3	Soil	10/27/2020	10/29/2020
20J1329-17	TP-11	Soil	10/27/2020	10/29/2020
20J1329-20	TP-16	Soil	10/27/2020	10/29/2020

General Notes for York Project (SDG) No.: 20J1329

1. The RLs and MDLs (Reporting Limit and Method Detection Limit respectively) reported are adjusted for any dilution necessary due to the levels of target and/or non-target analytes and matrix interference. The RL(REPORTING LIMIT) is based upon the lowest standard utilized for the calibration where applicable.
2. Samples are retained for a period of thirty days after submittal of report, unless other arrangements are made.
3. York's liability for the above data is limited to the dollar value paid to York for the referenced project.
4. This report shall not be reproduced without the written approval of York Analytical Laboratories, Inc.
5. All analyses conducted met method or Laboratory SOP requirements. See the Sample and Data Qualifiers Section for further information.
6. It is noted that no analyses reported herein were subcontracted to another laboratory, unless noted in the report.
7. This report reflects results that relate only to the samples submitted on the attached chain-of-custody form(s) received by York.
8. Analyses conducted at York Analytical Laboratories, Inc. Stratford, CT are indicated by NY Cert. No. 10854; those conducted at York Analytical Laboratories, Inc., Richmond Hill, NY are indicated by NY Cert. No. 12058.

Approved By: **Date:** 11/23/2020

Benjamin Gulizia
Laboratory Director

Sample Information

Client Sample ID: **TP-1 SS** **York Sample ID:** **20J1329-01**

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
20J1329	20-0857	Soil	October 27, 2020 12:00 am	10/29/2020

Volatile Organics, 8260 - Comprehensive **Log-in Notes:** **Sample Notes:**

Sample Prepared by Method: EPA 5035A

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
630-20-6	1,1,1,2-Tetrachloroethane	ND		mg/kg dry	0.0056	0.011	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 18:15	TMP
71-55-6	1,1,1-Trichloroethane	ND		mg/kg dry	0.0056	0.011	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 18:15	TMP
79-34-5	1,1,2,2-Tetrachloroethane	ND		mg/kg dry	0.0056	0.011	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 18:15	TMP
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND		mg/kg dry	0.0056	0.011	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP	11/03/2020 07:00	11/03/2020 18:15	TMP
79-00-5	1,1,2-Trichloroethane	ND		mg/kg dry	0.0056	0.011	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 18:15	TMP
75-34-3	1,1-Dichloroethane	ND		mg/kg dry	0.0056	0.011	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 18:15	TMP
75-35-4	1,1-Dichloroethylene	ND		mg/kg dry	0.0056	0.011	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 18:15	TMP
87-61-6	1,2,3-Trichlorobenzene	ND		mg/kg dry	0.0056	0.011	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 18:15	TMP
96-18-4	1,2,3-Trichloropropane	ND		mg/kg dry	0.0056	0.011	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP	11/03/2020 07:00	11/03/2020 18:15	TMP
120-82-1	1,2,4-Trichlorobenzene	ND		mg/kg dry	0.0056	0.011	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 18:15	TMP
95-63-6	1,2,4-Trimethylbenzene	ND		mg/kg dry	0.0056	0.011	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 18:15	TMP
96-12-8	1,2-Dibromo-3-chloropropane	ND		mg/kg dry	0.0056	0.011	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 18:15	TMP
106-93-4	1,2-Dibromoethane	ND		mg/kg dry	0.0056	0.011	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 18:15	TMP
95-50-1	1,2-Dichlorobenzene	ND		mg/kg dry	0.0056	0.011	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 18:15	TMP
107-06-2	1,2-Dichloroethane	ND		mg/kg dry	0.0056	0.011	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 18:15	TMP
78-87-5	1,2-Dichloropropane	ND		mg/kg dry	0.0056	0.011	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 18:15	TMP
108-67-8	1,3,5-Trimethylbenzene	ND		mg/kg dry	0.0056	0.011	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 18:15	TMP
541-73-1	1,3-Dichlorobenzene	ND		mg/kg dry	0.0056	0.011	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 18:15	TMP
106-46-7	1,4-Dichlorobenzene	ND		mg/kg dry	0.0056	0.011	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 18:15	TMP
123-91-1	1,4-Dioxane	ND		mg/kg dry	0.11	0.22	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 18:15	TMP
78-93-3	2-Butanone	ND		mg/kg dry	0.0056	0.011	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 18:15	TMP
591-78-6	2-Hexanone	ND		mg/kg dry	0.0056	0.011	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 18:15	TMP

Sample Information

Client Sample ID: TP-1 SS **York Sample ID:** 20J1329-01

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
20J1329	20-0857	Soil	October 27, 2020 12:00 am	10/29/2020

Volatile Organics, 8260 - Comprehensive

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5035A

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
108-10-1	4-Methyl-2-pentanone	ND		mg/kg dry	0.0056	0.011	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 18:15	TMP
67-64-1	Acetone	ND		mg/kg dry	0.011	0.022	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 18:15	TMP
107-02-8	Acrolein	ND		mg/kg dry	0.011	0.022	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 18:15	TMP
107-13-1	Acrylonitrile	ND		mg/kg dry	0.0056	0.011	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 18:15	TMP
71-43-2	Benzene	ND		mg/kg dry	0.0056	0.011	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 18:15	TMP
74-97-5	Bromochloromethane	ND		mg/kg dry	0.0056	0.011	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 18:15	TMP
75-27-4	Bromodichloromethane	ND		mg/kg dry	0.0056	0.011	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 18:15	TMP
75-25-2	Bromoform	ND		mg/kg dry	0.0056	0.011	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 18:15	TMP
74-83-9	Bromomethane	ND		mg/kg dry	0.0056	0.011	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 18:15	TMP
75-15-0	Carbon disulfide	ND		mg/kg dry	0.0056	0.011	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 18:15	TMP
56-23-5	Carbon tetrachloride	ND		mg/kg dry	0.0056	0.011	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 18:15	TMP
108-90-7	Chlorobenzene	ND		mg/kg dry	0.0056	0.011	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 18:15	TMP
75-00-3	Chloroethane	ND		mg/kg dry	0.0056	0.011	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 18:15	TMP
67-66-3	Chloroform	ND		mg/kg dry	0.0056	0.011	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 18:15	TMP
74-87-3	Chloromethane	ND		mg/kg dry	0.0056	0.011	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 18:15	TMP
156-59-2	cis-1,2-Dichloroethylene	ND		mg/kg dry	0.0056	0.011	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 18:15	TMP
10061-01-5	cis-1,3-Dichloropropylene	ND		mg/kg dry	0.0056	0.011	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 18:15	TMP
110-82-7	Cyclohexane	ND		mg/kg dry	0.0056	0.011	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 18:15	TMP
124-48-1	Dibromochloromethane	ND		mg/kg dry	0.0056	0.011	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 18:15	TMP
74-95-3	Dibromomethane	ND		mg/kg dry	0.0056	0.011	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 18:15	TMP
75-71-8	Dichlorodifluoromethane	ND		mg/kg dry	0.0056	0.011	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 18:15	TMP
100-41-4	Ethyl Benzene	ND		mg/kg dry	0.0056	0.011	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 18:15	TMP
87-68-3	Hexachlorobutadiene	ND		mg/kg dry	0.0056	0.011	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 18:15	TMP

Sample Information

Client Sample ID: TP-1 SS

York Sample ID: 20J1329-01

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
20J1329	20-0857	Soil	October 27, 2020 12:00 am	10/29/2020

Volatile Organics, 8260 - Comprehensive

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5035A

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
98-82-8	Isopropylbenzene	ND		mg/kg dry	0.0056	0.011	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 18:15	TMP
79-20-9	Methyl acetate	ND		mg/kg dry	0.0056	0.011	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 18:15	TMP
1634-04-4	Methyl tert-butyl ether (MTBE)	ND		mg/kg dry	0.0056	0.011	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 18:15	TMP
108-87-2	Methylcyclohexane	ND		mg/kg dry	0.0056	0.011	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 18:15	TMP
75-09-2	**Methylene chloride**	**0.017**	J	mg/kg dry	0.011	0.022	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 18:15	TMP
104-51-8	n-Butylbenzene	ND		mg/kg dry	0.0056	0.011	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 18:15	TMP
103-65-1	n-Propylbenzene	ND		mg/kg dry	0.0056	0.011	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 18:15	TMP
95-47-6	o-Xylene	ND		mg/kg dry	0.0056	0.011	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,PADEP	11/03/2020 07:00	11/03/2020 18:15	TMP
179601-23-1	p- & m- Xylenes	ND		mg/kg dry	0.011	0.022	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,PADEP	11/03/2020 07:00	11/03/2020 18:15	TMP
99-87-6	p-Isopropyltoluene	ND		mg/kg dry	0.0056	0.011	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 18:15	TMP
135-98-8	sec-Butylbenzene	ND		mg/kg dry	0.0056	0.011	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 18:15	TMP
100-42-5	Styrene	ND		mg/kg dry	0.0056	0.011	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 18:15	TMP
75-65-0	tert-Butyl alcohol (TBA)	ND		mg/kg dry	0.0056	0.011	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 18:15	TMP
98-06-6	tert-Butylbenzene	ND		mg/kg dry	0.0056	0.011	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 18:15	TMP
127-18-4	Tetrachloroethylene	ND		mg/kg dry	0.0056	0.011	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 18:15	TMP
108-88-3	Toluene	ND		mg/kg dry	0.0056	0.011	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 18:15	TMP
156-60-5	trans-1,2-Dichloroethylene	ND		mg/kg dry	0.0056	0.011	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 18:15	TMP
10061-02-6	trans-1,3-Dichloropropylene	ND		mg/kg dry	0.0056	0.011	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 18:15	TMP
79-01-6	Trichloroethylene	ND		mg/kg dry	0.0056	0.011	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 18:15	TMP
75-69-4	Trichlorofluoromethane	ND		mg/kg dry	0.0056	0.011	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 18:15	TMP
75-01-4	Vinyl Chloride	ND		mg/kg dry	0.0056	0.011	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 18:15	TMP
1330-20-7	Xylenes, Total	ND		mg/kg dry	0.017	0.034	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP	11/03/2020 07:00	11/03/2020 18:15	TMP

	Surrogate Recoveries	Result	Acceptance Range
17060-07-0	*Surrogate: SURR: 1,2-Dichloroethane-d4*	*105 %*	*77-125*

Sample Information

Client Sample ID: **TP-1 SS** **York Sample ID:** **20J1329-01**

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
20J1329	20-0857	Soil	October 27, 2020 12:00 am	10/29/2020

Volatile Organics, 8260 - Comprehensive

Log-in Notes: **Sample Notes:**

Sample Prepared by Method: EPA 5035A

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
2037-26-5	*Surrogate: SURR: Toluene-d8*	*101 %*			*85-120*						
460-00-4	*Surrogate: SURR: p-Bromofluorobenzene*	*100 %*			*76-130*						

Semi-Volatiles, 8270 - Comprehensive

Log-in Notes: **Sample Notes:**

Sample Prepared by Method: EPA 3550C

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
92-52-4	1,1-Biphenyl	ND		ug/kg dry	52.6	105	2	EPA 8270D Certifications: NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 19:13	KH
95-94-3	1,2,4,5-Tetrachlorobenzene	ND		ug/kg dry	105	209	2	EPA 8270D Certifications: NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 19:13	KH
120-82-1	1,2,4-Trichlorobenzene	ND		ug/kg dry	52.6	105	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 19:13	KH
95-50-1	1,2-Dichlorobenzene	ND		ug/kg dry	52.6	105	2	EPA 8270D Certifications: NELAC-NY10854,PADEP	11/05/2020 07:27	11/05/2020 19:13	KH
122-66-7	1,2-Diphenylhydrazine (as Azobenzene)	ND		ug/kg dry	52.6	105	2	EPA 8270D Certifications: NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 19:13	KH
541-73-1	1,3-Dichlorobenzene	ND		ug/kg dry	52.6	105	2	EPA 8270D Certifications: NELAC-NY10854,PADEP	11/05/2020 07:27	11/05/2020 19:13	KH
106-46-7	1,4-Dichlorobenzene	ND		ug/kg dry	52.6	105	2	EPA 8270D Certifications: NELAC-NY10854,PADEP	11/05/2020 07:27	11/05/2020 19:13	KH
58-90-2	2,3,4,6-Tetrachlorophenol	ND		ug/kg dry	105	209	2	EPA 8270D Certifications: NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 19:13	KH
95-95-4	2,4,5-Trichlorophenol	ND		ug/kg dry	52.6	105	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 19:13	KH
88-06-2	2,4,6-Trichlorophenol	ND		ug/kg dry	52.6	105	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 19:13	KH
120-83-2	2,4-Dichlorophenol	ND		ug/kg dry	52.6	105	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 19:13	KH
105-67-9	2,4-Dimethylphenol	ND		ug/kg dry	52.6	105	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 19:13	KH
51-28-5	2,4-Dinitrophenol	ND		ug/kg dry	105	209	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 19:13	KH
121-14-2	2,4-Dinitrotoluene	ND		ug/kg dry	52.6	105	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 19:13	KH
606-20-2	2,6-Dinitrotoluene	ND		ug/kg dry	52.6	105	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 19:13	KH
91-58-7	2-Chloronaphthalene	ND		ug/kg dry	52.6	105	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 19:13	KH
95-57-8	2-Chlorophenol	ND		ug/kg dry	52.6	105	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 19:13	KH
91-57-6	2-Methylnaphthalene	ND		ug/kg dry	52.6	105	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 19:13	KH
95-48-7	2-Methylphenol	ND		ug/kg dry	52.6	105	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 19:13	KH

Sample Information

Client Sample ID: **TP-1 SS** **York Sample ID:** **20J1329-01**

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
20J1329	20-0857	Soil	October 27, 2020 12:00 am	10/29/2020

Semi-Volatiles, 8270 - Comprehensive

Log-in Notes: **Sample Notes:**

Sample Prepared by Method: EPA 3550C

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
88-74-4	2-Nitroaniline	ND		ug/kg dry	105	209	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 19:13	KH
88-75-5	2-Nitrophenol	ND		ug/kg dry	52.6	105	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 19:13	KH
65794-96-9	3- & 4-Methylphenols	ND		ug/kg dry	52.6	105	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 19:13	KH
91-94-1	3,3-Dichlorobenzidine	ND		ug/kg dry	52.6	105	2	EPA 8270D Certifications: NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 19:13	KH
99-09-2	3-Nitroaniline	ND		ug/kg dry	105	209	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 19:13	KH
534-52-1	4,6-Dinitro-2-methylphenol	ND		ug/kg dry	105	209	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 19:13	KH
101-55-3	4-Bromophenyl phenyl ether	ND		ug/kg dry	52.6	105	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 19:13	KH
59-50-7	4-Chloro-3-methylphenol	ND		ug/kg dry	52.6	105	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 19:13	KH
106-47-8	4-Chloroaniline	ND		ug/kg dry	52.6	105	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 19:13	KH
7005-72-3	4-Chlorophenyl phenyl ether	ND		ug/kg dry	52.6	105	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 19:13	KH
100-01-6	4-Nitroaniline	ND		ug/kg dry	105	209	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 19:13	KH
100-02-7	4-Nitrophenol	ND		ug/kg dry	105	209	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 19:13	KH
83-32-9	**Acenaphthene**	**122**		ug/kg dry	52.6	105	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 19:13	KH
208-96-8	Acenaphthylene	ND		ug/kg dry	52.6	105	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 19:13	KH
98-86-2	Acetophenone	ND		ug/kg dry	52.6	105	2	EPA 8270D Certifications: NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 19:13	KH
62-53-3	Aniline	ND		ug/kg dry	210	420	2	EPA 8270D Certifications: NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 19:13	KH
120-12-7	**Anthracene**	**257**		ug/kg dry	52.6	105	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 19:13	KH
1912-24-9	Atrazine	ND		ug/kg dry	52.6	105	2	EPA 8270D Certifications: NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 19:13	KH
100-52-7	**Benzaldehyde**	**80.5**	J	ug/kg dry	52.6	105	2	EPA 8270D Certifications: NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 19:13	KH
92-87-5	Benzidine	ND		ug/kg dry	210	420	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,PADEP	11/05/2020 07:27	11/05/2020 19:13	KH
56-55-3	**Benzo(a)anthracene**	**630**		ug/kg dry	52.6	105	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 19:13	KH
50-32-8	**Benzo(a)pyrene**	**578**		ug/kg dry	52.6	105	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 19:13	KH
205-99-2	**Benzo(b)fluoranthene**	**557**		ug/kg dry	52.6	105	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 19:13	KH

Sample Information

Client Sample ID: **TP-1 SS**

York Sample ID: **20J1329-01**

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
20J1329	20-0857	Soil	October 27, 2020 12:00 am	10/29/2020

Semi-Volatiles, 8270 - Comprehensive

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3550C

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
191-24-2	**Benzo(g,h,i)perylene**	**388**		ug/kg dry	52.6	105	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 19:13	KH
207-08-9	**Benzo(k)fluoranthene**	**491**		ug/kg dry	52.6	105	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 19:13	KH
65-85-0	Benzoic acid	ND		ug/kg dry	52.6	105	2	EPA 8270D Certifications: NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 19:13	KH
100-51-6	Benzyl alcohol	ND		ug/kg dry	52.6	105	2	EPA 8270D Certifications: NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 19:13	KH
85-68-7	**Benzyl butyl phthalate**	**238**		ug/kg dry	52.6	105	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 19:13	KH
111-91-1	Bis(2-chloroethoxy)methane	ND		ug/kg dry	52.6	105	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 19:13	KH
111-44-4	Bis(2-chloroethyl)ether	ND		ug/kg dry	52.6	105	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 19:13	KH
108-60-1	Bis(2-chloroisopropyl)ether	ND		ug/kg dry	52.6	105	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 19:13	KH
117-81-7	**Bis(2-ethylhexyl)phthalate**	**243**		ug/kg dry	52.6	105	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 19:13	KH
105-60-2	Caprolactam	ND		ug/kg dry	105	209	2	EPA 8270D Certifications: NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 19:13	KH
86-74-8	**Carbazole**	**131**		ug/kg dry	52.6	105	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 19:13	KH
218-01-9	**Chrysene**	**616**		ug/kg dry	52.6	105	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 19:13	KH
53-70-3	**Dibenzo(a,h)anthracene**	**139**		ug/kg dry	52.6	105	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 19:13	KH
132-64-9	**Dibenzofuran**	**62.0**	J	ug/kg dry	52.6	105	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 19:13	KH
84-66-2	Diethyl phthalate	ND		ug/kg dry	52.6	105	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 19:13	KH
131-11-3	Dimethyl phthalate	ND		ug/kg dry	52.6	105	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 19:13	KH
84-74-2	Di-n-butyl phthalate	ND		ug/kg dry	52.6	105	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 19:13	KH
117-84-0	Di-n-octyl phthalate	ND		ug/kg dry	52.6	105	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 19:13	KH
122-39-4	* Diphenylamine	ND		ug/kg dry	105	209	2	EPA 8270D Certifications:	11/05/2020 07:27	11/05/2020 19:13	KH
206-44-0	**Fluoranthene**	**1300**		ug/kg dry	52.6	105	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 19:13	KH
86-73-7	**Fluorene**	**138**		ug/kg dry	52.6	105	2	EPA 8270D Certifications: NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 19:13	KH
118-74-1	Hexachlorobenzene	ND		ug/kg dry	52.6	105	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 19:13	KH
87-68-3	Hexachlorobutadiene	ND		ug/kg dry	52.6	105	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 19:13	KH

Sample Information

Client Sample ID: **TP-1 SS**　　**York Sample ID:** **20J1329-01**

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
20J1329	20-0857	Soil	October 27, 2020 12:00 am	10/29/2020

Semi-Volatiles, 8270 - Comprehensive

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3550C

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
77-47-4	Hexachlorocyclopentadiene	ND		ug/kg dry	52.6	105	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 19:13	KH
67-72-1	Hexachloroethane	ND		ug/kg dry	52.6	105	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 19:13	KH
193-39-5	**Indeno(1,2,3-cd)pyrene**	**438**		ug/kg dry	52.6	105	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 19:13	KH
78-59-1	Isophorone	ND		ug/kg dry	52.6	105	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 19:13	KH
91-20-3	**Naphthalene**	**64.5**	J	ug/kg dry	52.6	105	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 19:13	KH
98-95-3	Nitrobenzene	ND		ug/kg dry	52.6	105	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 19:13	KH
62-75-9	N-Nitrosodimethylamine	ND		ug/kg dry	52.6	105	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 19:13	KH
621-64-7	N-nitroso-di-n-propylamine	ND		ug/kg dry	52.6	105	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 19:13	KH
86-30-6	N-Nitrosodiphenylamine	ND		ug/kg dry	52.6	105	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 19:13	KH
87-86-5	Pentachlorophenol	ND		ug/kg dry	52.6	105	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 19:13	KH
85-01-8	**Phenanthrene**	**994**		ug/kg dry	52.6	105	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 19:13	KH
108-95-2	Phenol	ND		ug/kg dry	52.6	105	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 19:13	KH
129-00-0	**Pyrene**	**1030**		ug/kg dry	52.6	105	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 19:13	KH

	Surrogate Recoveries	Result	Acceptance Range
367-12-4	*Surrogate: SURR: 2-Fluorophenol*	*41.1 %*	*20-108*
4165-62-2	*Surrogate: SURR: Phenol-d5*	*43.7 %*	*23-114*
4165-60-0	*Surrogate: SURR: Nitrobenzene-d5*	*52.6 %*	*22-108*
321-60-8	*Surrogate: SURR: 2-Fluorobiphenyl*	*55.2 %*	*21-113*
118-79-6	*Surrogate: SURR: 2,4,6-Tribromophenol*	*86.1 %*	*19-110*
1718-51-0	*Surrogate: SURR: Terphenyl-d14*	*61.8 %*	*24-116*

Pesticides, 8081 target list

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3550C

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
72-54-8	4,4'-DDD	ND		mg/kg dry	0.00209	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/04/2020 09:23	11/05/2020 06:43	CM
72-55-9	4,4'-DDE	ND		mg/kg dry	0.00209	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/04/2020 09:23	11/05/2020 06:43	CM

Sample Information

Client Sample ID: **TP-1 SS** **York Sample ID:** **20J1329-01**

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
20J1329	20-0857	Soil	October 27, 2020 12:00 am	10/29/2020

Pesticides, 8081 target list

Log-in Notes: **Sample Notes:**

Sample Prepared by Method: EPA 3550C

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
50-29-3	4,4'-DDT	ND		mg/kg dry	0.00209	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/04/2020 09:23	11/05/2020 06:43	CM
309-00-2	Aldrin	ND		mg/kg dry	0.00209	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/04/2020 09:23	11/05/2020 06:43	CM
319-84-6	alpha-BHC	ND		mg/kg dry	0.00209	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/04/2020 09:23	11/05/2020 06:43	CM
5103-71-9	alpha-Chlordane	ND		mg/kg dry	0.00209	5	EPA 8081B Certifications: NELAC-NY10854,NJDEP	11/04/2020 09:23	11/05/2020 06:43	CM
319-85-7	beta-BHC	ND		mg/kg dry	0.00209	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/04/2020 09:23	11/05/2020 06:43	CM
57-74-9	Chlordane, total	ND		mg/kg dry	0.0418	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/04/2020 09:23	11/05/2020 06:43	CM
319-86-8	delta-BHC	ND		mg/kg dry	0.00209	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/04/2020 09:23	11/05/2020 06:43	CM
60-57-1	Dieldrin	ND		mg/kg dry	0.00209	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/04/2020 09:23	11/05/2020 06:43	CM
959-98-8	Endosulfan I	ND		mg/kg dry	0.00209	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/04/2020 09:23	11/05/2020 06:43	CM
33213-65-9	Endosulfan II	ND		mg/kg dry	0.00209	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854	11/04/2020 09:23	11/05/2020 06:43	CM
1031-07-8	Endosulfan sulfate	ND		mg/kg dry	0.00209	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/04/2020 09:23	11/05/2020 06:43	CM
72-20-8	Endrin	ND		mg/kg dry	0.00209	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/04/2020 09:23	11/05/2020 06:43	CM
7421-93-4	Endrin aldehyde	ND		mg/kg dry	0.00209	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/04/2020 09:23	11/05/2020 06:43	CM
53494-70-5	Endrin ketone	ND		mg/kg dry	0.00209	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/04/2020 09:23	11/05/2020 06:43	CM
58-89-9	gamma-BHC (Lindane)	ND		mg/kg dry	0.00209	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/04/2020 09:23	11/05/2020 06:43	CM
5566-34-7	gamma-Chlordane	ND		mg/kg dry	0.00209	5	EPA 8081B Certifications: NELAC-NY10854,NJDEP	11/04/2020 09:23	11/05/2020 06:43	CM
76-44-8	Heptachlor	ND		mg/kg dry	0.00209	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/04/2020 09:23	11/05/2020 06:43	CM
1024-57-3	Heptachlor epoxide	ND		mg/kg dry	0.00209	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/04/2020 09:23	11/05/2020 06:43	CM
72-43-5	Methoxychlor	ND		mg/kg dry	0.0104	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/04/2020 09:23	11/05/2020 06:43	CM
8001-35-2	Toxaphene	ND		mg/kg dry	0.106	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/04/2020 09:23	11/05/2020 06:43	CM

	Surrogate Recoveries	Result	Acceptance Range
2051-24-3	*Surrogate: Decachlorobiphenyl*	*77.0 %*	*30-150*
877-09-8	*Surrogate: Tetrachloro-m-xylene*	*43.1 %*	*30-150*

Polychlorinated Biphenyls (PCB)

Log-in Notes: **Sample Notes:**

Sample Information

Client Sample ID: TP-1 SS **York Sample ID:** 20J1329-01

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
20J1329	20-0857	Soil	October 27, 2020 12:00 am	10/29/2020

Sample Prepared by Method: EPA 3550C

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
12674-11-2	Aroclor 1016	ND		mg/kg dry	0.0211	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	11/04/2020 09:23	11/04/2020 22:48	BJ
11104-28-2	Aroclor 1221	ND		mg/kg dry	0.0211	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	11/04/2020 09:23	11/04/2020 22:48	BJ
11141-16-5	Aroclor 1232	ND		mg/kg dry	0.0211	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	11/04/2020 09:23	11/04/2020 22:48	BJ
53469-21-9	Aroclor 1242	ND		mg/kg dry	0.0211	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	11/04/2020 09:23	11/04/2020 22:48	BJ
12672-29-6	Aroclor 1248	ND		mg/kg dry	0.0211	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	11/04/2020 09:23	11/04/2020 22:48	BJ
11097-69-1	Aroclor 1254	ND		mg/kg dry	0.0211	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	11/04/2020 09:23	11/04/2020 22:48	BJ
11096-82-5	Aroclor 1260	ND		mg/kg dry	0.0211	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	11/04/2020 09:23	11/04/2020 22:48	BJ
37324-23-5	Aroclor 1262	ND		mg/kg dry	0.0211	1	EPA 8082A Certifications: NELAC-NY10854,NJDEP,PADEP	11/04/2020 09:23	11/04/2020 22:48	BJ
11100-14-4	Aroclor 1268	ND		mg/kg dry	0.0211	1	EPA 8082A Certifications: NELAC-NY10854,NJDEP,PADEP	11/04/2020 09:23	11/04/2020 22:48	BJ
1336-36-3	* Total PCBs	ND		mg/kg dry	0.0211	1	EPA 8082A Certifications:	11/04/2020 09:23	11/04/2020 22:48	BJ

	Surrogate Recoveries	Result	Acceptance Range
877-09-8	*Surrogate: Tetrachloro-m-xylene*	*45.0 %*	*30-140*
2051-24-3	*Surrogate: Decachlorobiphenyl*	*45.0 %*	*30-140*

Metals, Target Analyte

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3050B

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7429-90-5	**Aluminum**	**6310**		mg/kg dry	6.35	1	EPA 6010D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	10/29/2020 16:34	11/02/2020 15:53	WJM
7440-36-0	Antimony	ND		mg/kg dry	3.17	1	EPA 6010D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	10/29/2020 16:34	11/02/2020 15:53	WJM
7440-38-2	Arsenic	ND		mg/kg dry	1.90	1	EPA 6010D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	10/29/2020 16:34	11/02/2020 15:53	WJM
7440-39-3	**Barium**	**93.2**		mg/kg dry	3.17	1	EPA 6010D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	10/29/2020 16:34	11/02/2020 15:53	WJM
7440-41-7	Beryllium	ND		mg/kg dry	0.063	1	EPA 6010D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	10/29/2020 16:34	11/02/2020 15:53	WJM
7440-43-9	Cadmium	ND		mg/kg dry	0.381	1	EPA 6010D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	10/29/2020 16:34	11/02/2020 15:53	WJM
7440-70-2	**Calcium**	**2890**		mg/kg dry	6.35	1	EPA 6010D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	10/29/2020 16:34	11/02/2020 15:53	WJM
7440-47-3	**Chromium**	**6.63**		mg/kg dry	0.635	1	EPA 6010D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	10/29/2020 16:34	11/02/2020 15:53	WJM

Sample Information

Client Sample ID: **TP-1 SS**

York Sample ID: **20J1329-01**

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
20J1329	20-0857	Soil	October 27, 2020 12:00 am	10/29/2020

Metals, Target Analyte

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3050B

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7440-48-4	**Cobalt**	**4.68**		mg/kg dry	0.508	1	EPA 6010D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	10/29/2020 16:34	11/02/2020 15:53	WJM
7440-50-8	**Copper**	**17.3**		mg/kg dry	2.54	1	EPA 6010D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	10/29/2020 16:34	11/02/2020 15:53	WJM
7439-89-6	**Iron**	**10000**		mg/kg dry	31.7	1	EPA 6010D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	10/29/2020 16:34	11/02/2020 15:53	WJM
7439-92-1	**Lead**	**47.8**		mg/kg dry	0.635	1	EPA 6010D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	10/29/2020 16:34	11/02/2020 15:53	WJM
7439-95-4	**Magnesium**	**1810**		mg/kg dry	6.35	1	EPA 6010D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	10/29/2020 16:34	11/02/2020 15:53	WJM
7439-96-5	**Manganese**	**341**		mg/kg dry	0.635	1	EPA 6010D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	10/29/2020 16:34	11/02/2020 15:53	WJM
7440-02-0	**Nickel**	**9.81**		mg/kg dry	1.27	1	EPA 6010D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	10/29/2020 16:34	11/02/2020 15:53	WJM
7440-09-7	**Potassium**	**687**		mg/kg dry	6.35	1	EPA 6010D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	10/29/2020 16:34	11/02/2020 15:53	WJM
7782-49-2	Selenium	ND		mg/kg dry	3.17	1	EPA 6010D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	10/29/2020 16:34	11/02/2020 15:53	WJM
7440-22-4	Silver	ND		mg/kg dry	0.635	1	EPA 6010D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	10/29/2020 16:34	11/02/2020 15:53	WJM
7440-23-5	Sodium	ND		mg/kg dry	63.5	1	EPA 6010D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	10/29/2020 16:34	11/02/2020 15:53	WJM
7440-28-0	Thallium	ND		mg/kg dry	3.17	1	EPA 6010D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	10/29/2020 16:34	11/02/2020 15:53	WJM
7440-62-2	**Vanadium**	**7.12**		mg/kg dry	1.27	1	EPA 6010D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	10/29/2020 16:34	11/02/2020 15:53	WJM
7440-66-6	**Zinc**	**117**	B	mg/kg dry	3.17	1	EPA 6010D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	10/29/2020 16:34	11/02/2020 15:53	WJM

Mercury by 7473

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 7473 soil

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7439-97-6	**Mercury**	**1.09**		mg/kg dry	0.0381	1	EPA 7473 Certifications: CTDOH,NJDEP,NELAC-NY10854,PADEP	10/29/2020 16:32	10/29/2020 18:50	MAO

Total Solids

Log-in Notes:

Sample Notes:

Sample Prepared by Method: % Solids Prep

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
solids	*** % Solids**	**78.7**		%	0.100	1	SM 2540G Certifications: CTDOH	10/30/2020 08:47	10/30/2020 14:41	SK

Sample Information

Client Sample ID: TP-2 **York Sample ID:** 20J1329-02

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
20J1329	20-0857	Soil	October 27, 2020 12:00 am	10/29/2020

Volatile Organics, 8260 - Comprehensive **Log-in Notes:** **Sample Notes:**

Sample Prepared by Method: EPA 5035A

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
630-20-6	1,1,1,2-Tetrachloroethane	ND		mg/kg dry	0.0024	0.0049	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 18:43	TMP
71-55-6	1,1,1-Trichloroethane	ND		mg/kg dry	0.0024	0.0049	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 18:43	TMP
79-34-5	1,1,2,2-Tetrachloroethane	ND		mg/kg dry	0.0024	0.0049	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 18:43	TMP
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND		mg/kg dry	0.0024	0.0049	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP	11/03/2020 07:00	11/03/2020 18:43	TMP
79-00-5	1,1,2-Trichloroethane	ND		mg/kg dry	0.0024	0.0049	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 18:43	TMP
75-34-3	1,1-Dichloroethane	ND		mg/kg dry	0.0024	0.0049	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 18:43	TMP
75-35-4	1,1-Dichloroethylene	ND		mg/kg dry	0.0024	0.0049	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 18:43	TMP
87-61-6	1,2,3-Trichlorobenzene	ND		mg/kg dry	0.0024	0.0049	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 18:43	TMP
96-18-4	1,2,3-Trichloropropane	ND		mg/kg dry	0.0024	0.0049	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP	11/03/2020 07:00	11/03/2020 18:43	TMP
120-82-1	1,2,4-Trichlorobenzene	ND		mg/kg dry	0.0024	0.0049	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 18:43	TMP
95-63-6	1,2,4-Trimethylbenzene	ND		mg/kg dry	0.0024	0.0049	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 18:43	TMP
96-12-8	1,2-Dibromo-3-chloropropane	ND		mg/kg dry	0.0024	0.0049	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 18:43	TMP
106-93-4	1,2-Dibromoethane	ND		mg/kg dry	0.0024	0.0049	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 18:43	TMP
95-50-1	1,2-Dichlorobenzene	ND		mg/kg dry	0.0024	0.0049	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 18:43	TMP
107-06-2	1,2-Dichloroethane	ND		mg/kg dry	0.0024	0.0049	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 18:43	TMP
78-87-5	1,2-Dichloropropane	ND		mg/kg dry	0.0024	0.0049	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 18:43	TMP
108-67-8	1,3,5-Trimethylbenzene	ND		mg/kg dry	0.0024	0.0049	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 18:43	TMP
541-73-1	1,3-Dichlorobenzene	ND		mg/kg dry	0.0024	0.0049	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 18:43	TMP
106-46-7	1,4-Dichlorobenzene	ND		mg/kg dry	0.0024	0.0049	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 18:43	TMP
123-91-1	1,4-Dioxane	ND		mg/kg dry	0.049	0.098	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 18:43	TMP
78-93-3	2-Butanone	ND		mg/kg dry	0.0024	0.0049	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 18:43	TMP
591-78-6	2-Hexanone	ND		mg/kg dry	0.0024	0.0049	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 18:43	TMP
108-10-1	4-Methyl-2-pentanone	ND		mg/kg dry	0.0024	0.0049	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 18:43	TMP

Sample Information

Client Sample ID: TP-2

York Sample ID: 20J1329-02

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
20J1329	20-0857	Soil	October 27, 2020 12:00 am	10/29/2020

Volatile Organics, 8260 - Comprehensive

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5035A

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
67-64-1	**Acetone**	**0.0096**	CCV-E, J	mg/kg dry	0.0049	0.0098	1	EPA 8260C	11/03/2020 07:00	11/03/2020 18:43	TMP
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP		
107-02-8	Acrolein	ND		mg/kg dry	0.0049	0.0098	1	EPA 8260C	11/03/2020 07:00	11/03/2020 18:43	TMP
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP		
107-13-1	Acrylonitrile	ND		mg/kg dry	0.0024	0.0049	1	EPA 8260C	11/03/2020 07:00	11/03/2020 18:43	TMP
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP		
71-43-2	Benzene	ND		mg/kg dry	0.0024	0.0049	1	EPA 8260C	11/03/2020 07:00	11/03/2020 18:43	TMP
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP		
74-97-5	Bromochloromethane	ND		mg/kg dry	0.0024	0.0049	1	EPA 8260C	11/03/2020 07:00	11/03/2020 18:43	TMP
								Certifications:	NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP		
75-27-4	Bromodichloromethane	ND		mg/kg dry	0.0024	0.0049	1	EPA 8260C	11/03/2020 07:00	11/03/2020 18:43	TMP
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP		
75-25-2	Bromoform	ND		mg/kg dry	0.0024	0.0049	1	EPA 8260C	11/03/2020 07:00	11/03/2020 18:43	TMP
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP		
74-83-9	Bromomethane	ND		mg/kg dry	0.0024	0.0049	1	EPA 8260C	11/03/2020 07:00	11/03/2020 18:43	TMP
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP		
75-15-0	Carbon disulfide	ND		mg/kg dry	0.0024	0.0049	1	EPA 8260C	11/03/2020 07:00	11/03/2020 18:43	TMP
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP		
56-23-5	Carbon tetrachloride	ND		mg/kg dry	0.0024	0.0049	1	EPA 8260C	11/03/2020 07:00	11/03/2020 18:43	TMP
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP		
108-90-7	Chlorobenzene	ND		mg/kg dry	0.0024	0.0049	1	EPA 8260C	11/03/2020 07:00	11/03/2020 18:43	TMP
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP		
75-00-3	Chloroethane	ND		mg/kg dry	0.0024	0.0049	1	EPA 8260C	11/03/2020 07:00	11/03/2020 18:43	TMP
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP		
67-66-3	Chloroform	ND		mg/kg dry	0.0024	0.0049	1	EPA 8260C	11/03/2020 07:00	11/03/2020 18:43	TMP
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP		
74-87-3	Chloromethane	ND		mg/kg dry	0.0024	0.0049	1	EPA 8260C	11/03/2020 07:00	11/03/2020 18:43	TMP
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP		
156-59-2	cis-1,2-Dichloroethylene	ND		mg/kg dry	0.0024	0.0049	1	EPA 8260C	11/03/2020 07:00	11/03/2020 18:43	TMP
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP		
10061-01-5	cis-1,3-Dichloropropylene	ND		mg/kg dry	0.0024	0.0049	1	EPA 8260C	11/03/2020 07:00	11/03/2020 18:43	TMP
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP		
110-82-7	Cyclohexane	ND		mg/kg dry	0.0024	0.0049	1	EPA 8260C	11/03/2020 07:00	11/03/2020 18:43	TMP
								Certifications:	NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP		
124-48-1	Dibromochloromethane	ND		mg/kg dry	0.0024	0.0049	1	EPA 8260C	11/03/2020 07:00	11/03/2020 18:43	TMP
								Certifications:	NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP		
74-95-3	Dibromomethane	ND		mg/kg dry	0.0024	0.0049	1	EPA 8260C	11/03/2020 07:00	11/03/2020 18:43	TMP
								Certifications:	NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP		
75-71-8	Dichlorodifluoromethane	ND		mg/kg dry	0.0024	0.0049	1	EPA 8260C	11/03/2020 07:00	11/03/2020 18:43	TMP
								Certifications:	NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP		
100-41-4	Ethyl Benzene	ND		mg/kg dry	0.0024	0.0049	1	EPA 8260C	11/03/2020 07:00	11/03/2020 18:43	TMP
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP		
87-68-3	Hexachlorobutadiene	ND		mg/kg dry	0.0024	0.0049	1	EPA 8260C	11/03/2020 07:00	11/03/2020 18:43	TMP
								Certifications:	NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP		
98-82-8	Isopropylbenzene	ND		mg/kg dry	0.0024	0.0049	1	EPA 8260C	11/03/2020 07:00	11/03/2020 18:43	TMP
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP		

Sample Information

Client Sample ID: TP-2 **York Sample ID:** 20J1329-02

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
20J1329	20-0857	Soil	October 27, 2020 12:00 am	10/29/2020

Volatile Organics, 8260 - Comprehensive

Log-in Notes: **Sample Notes:**

Sample Prepared by Method: EPA 5035A

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
79-20-9	Methyl acetate	ND		mg/kg dry	0.0024	0.0049	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 18:43	TMP
1634-04-4	Methyl tert-butyl ether (MTBE)	ND		mg/kg dry	0.0024	0.0049	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 18:43	TMP
108-87-2	Methylcyclohexane	ND		mg/kg dry	0.0024	0.0049	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 18:43	TMP
75-09-2	Methylene chloride	ND		mg/kg dry	0.0049	0.0098	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 18:43	TMP
104-51-8	n-Butylbenzene	ND		mg/kg dry	0.0024	0.0049	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 18:43	TMP
103-65-1	n-Propylbenzene	ND		mg/kg dry	0.0024	0.0049	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 18:43	TMP
95-47-6	o-Xylene	ND		mg/kg dry	0.0024	0.0049	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,PADEP	11/03/2020 07:00	11/03/2020 18:43	TMP
179601-23-1	p- & m- Xylenes	ND		mg/kg dry	0.0049	0.0098	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,PADEP	11/03/2020 07:00	11/03/2020 18:43	TMP
99-87-6	p-Isopropyltoluene	ND		mg/kg dry	0.0024	0.0049	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 18:43	TMP
135-98-8	sec-Butylbenzene	ND		mg/kg dry	0.0024	0.0049	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 18:43	TMP
100-42-5	Styrene	ND		mg/kg dry	0.0024	0.0049	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 18:43	TMP
75-65-0	tert-Butyl alcohol (TBA)	ND		mg/kg dry	0.0024	0.0049	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 18:43	TMP
98-06-6	tert-Butylbenzene	ND		mg/kg dry	0.0024	0.0049	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 18:43	TMP
127-18-4	Tetrachloroethylene	ND		mg/kg dry	0.0024	0.0049	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 18:43	TMP
108-88-3	Toluene	ND		mg/kg dry	0.0024	0.0049	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 18:43	TMP
156-60-5	trans-1,2-Dichloroethylene	ND		mg/kg dry	0.0024	0.0049	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 18:43	TMP
10061-02-6	trans-1,3-Dichloropropylene	ND		mg/kg dry	0.0024	0.0049	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 18:43	TMP
79-01-6	Trichloroethylene	ND		mg/kg dry	0.0024	0.0049	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 18:43	TMP
75-69-4	Trichlorofluoromethane	ND		mg/kg dry	0.0024	0.0049	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 18:43	TMP
75-01-4	Vinyl Chloride	ND		mg/kg dry	0.0024	0.0049	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 18:43	TMP
1330-20-7	Xylenes, Total	ND		mg/kg dry	0.0073	0.015	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP	11/03/2020 07:00	11/03/2020 18:43	TMP

	Surrogate Recoveries	Result	Acceptance Range
17060-07-0	*Surrogate: SURR: 1,2-Dichloroethane-d4*	*106 %*	*77-125*
2037-26-5	*Surrogate: SURR: Toluene-d8*	*99.7 %*	*85-120*

Sample Information

Client Sample ID:	**TP-2**	**York Sample ID:**	**20J1329-02**

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
20J1329	20-0857	Soil	October 27, 2020 12:00 am	10/29/2020

Volatile Organics, 8260 - Comprehensive

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5035A

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
460-00-4	*Surrogate: SURR: p-Bromofluorobenzene*	*97.3 %*			*76-130*						

Semi-Volatiles, 8270 - Comprehensive

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3550C

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
92-52-4	1,1-Biphenyl	ND		ug/kg dry	46.8	93.3	2	EPA 8270D Certifications: NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 19:42	KH
95-94-3	1,2,4,5-Tetrachlorobenzene	ND		ug/kg dry	93.3	186	2	EPA 8270D Certifications: NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 19:42	KH
120-82-1	1,2,4-Trichlorobenzene	ND		ug/kg dry	46.8	93.3	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 19:42	KH
95-50-1	1,2-Dichlorobenzene	ND		ug/kg dry	46.8	93.3	2	EPA 8270D Certifications: NELAC-NY10854,PADEP	11/05/2020 07:27	11/05/2020 19:42	KH
122-66-7	1,2-Diphenylhydrazine (as Azobenzene)	ND		ug/kg dry	46.8	93.3	2	EPA 8270D Certifications: NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 19:42	KH
541-73-1	1,3-Dichlorobenzene	ND		ug/kg dry	46.8	93.3	2	EPA 8270D Certifications: NELAC-NY10854,PADEP	11/05/2020 07:27	11/05/2020 19:42	KH
106-46-7	1,4-Dichlorobenzene	ND		ug/kg dry	46.8	93.3	2	EPA 8270D Certifications: NELAC-NY10854,PADEP	11/05/2020 07:27	11/05/2020 19:42	KH
58-90-2	2,3,4,6-Tetrachlorophenol	ND		ug/kg dry	93.3	186	2	EPA 8270D Certifications: NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 19:42	KH
95-95-4	2,4,5-Trichlorophenol	ND		ug/kg dry	46.8	93.3	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 19:42	KH
88-06-2	2,4,6-Trichlorophenol	ND		ug/kg dry	46.8	93.3	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 19:42	KH
120-83-2	2,4-Dichlorophenol	ND		ug/kg dry	46.8	93.3	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 19:42	KH
105-67-9	2,4-Dimethylphenol	ND		ug/kg dry	46.8	93.3	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 19:42	KH
51-28-5	2,4-Dinitrophenol	ND		ug/kg dry	93.3	186	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 19:42	KH
121-14-2	2,4-Dinitrotoluene	ND		ug/kg dry	46.8	93.3	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 19:42	KH
606-20-2	2,6-Dinitrotoluene	ND		ug/kg dry	46.8	93.3	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 19:42	KH
91-58-7	2-Chloronaphthalene	ND		ug/kg dry	46.8	93.3	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 19:42	KH
95-57-8	2-Chlorophenol	ND		ug/kg dry	46.8	93.3	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 19:42	KH
91-57-6	2-Methylnaphthalene	ND		ug/kg dry	46.8	93.3	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 19:42	KH
95-48-7	2-Methylphenol	ND		ug/kg dry	46.8	93.3	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 19:42	KH

Sample Information

Client Sample ID: TP-2 **York Sample ID:** 20J1329-02

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
20J1329	20-0857	Soil	October 27, 2020 12:00 am	10/29/2020

Semi-Volatiles, 8270 - Comprehensive

Log-in Notes: **Sample Notes:**

Sample Prepared by Method: EPA 3550C

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
88-74-4	2-Nitroaniline	ND		ug/kg dry	93.3	186	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 19:42	KH
88-75-5	2-Nitrophenol	ND		ug/kg dry	46.8	93.3	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 19:42	KH
65794-96-9	3- & 4-Methylphenols	ND		ug/kg dry	46.8	93.3	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 19:42	KH
91-94-1	3,3-Dichlorobenzidine	ND		ug/kg dry	46.8	93.3	2	EPA 8270D Certifications: NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 19:42	KH
99-09-2	3-Nitroaniline	ND		ug/kg dry	93.3	186	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 19:42	KH
534-52-1	4,6-Dinitro-2-methylphenol	ND		ug/kg dry	93.3	186	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 19:42	KH
101-55-3	4-Bromophenyl phenyl ether	ND		ug/kg dry	46.8	93.3	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 19:42	KH
59-50-7	4-Chloro-3-methylphenol	ND		ug/kg dry	46.8	93.3	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 19:42	KH
106-47-8	4-Chloroaniline	ND		ug/kg dry	46.8	93.3	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 19:42	KH
7005-72-3	4-Chlorophenyl phenyl ether	ND		ug/kg dry	46.8	93.3	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 19:42	KH
100-01-6	4-Nitroaniline	ND		ug/kg dry	93.3	186	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 19:42	KH
100-02-7	4-Nitrophenol	ND		ug/kg dry	93.3	186	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 19:42	KH
83-32-9	Acenaphthene	ND		ug/kg dry	46.8	93.3	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 19:42	KH
208-96-8	Acenaphthylene	ND		ug/kg dry	46.8	93.3	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 19:42	KH
98-86-2	Acetophenone	ND		ug/kg dry	46.8	93.3	2	EPA 8270D Certifications: NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 19:42	KH
62-53-3	Aniline	ND		ug/kg dry	187	374	2	EPA 8270D Certifications: NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 19:42	KH
120-12-7	Anthracene	ND		ug/kg dry	46.8	93.3	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 19:42	KH
1912-24-9	Atrazine	ND		ug/kg dry	46.8	93.3	2	EPA 8270D Certifications: NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 19:42	KH
100-52-7	Benzaldehyde	ND		ug/kg dry	46.8	93.3	2	EPA 8270D Certifications: NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 19:42	KH
92-87-5	Benzidine	ND		ug/kg dry	187	374	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,PADEP	11/05/2020 07:27	11/05/2020 19:42	KH
56-55-3	**Benzo(a)anthracene**	**95.5**		ug/kg dry	46.8	93.3	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 19:42	KH
50-32-8	**Benzo(a)pyrene**	**87.3**	J	ug/kg dry	46.8	93.3	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 19:42	KH
205-99-2	**Benzo(b)fluoranthene**	**77.6**	J	ug/kg dry	46.8	93.3	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 19:42	KH

Sample Information

Client Sample ID: TP-2 **York Sample ID:** 20J1329-02

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
20J1329	20-0857	Soil	October 27, 2020 12:00 am	10/29/2020

Semi-Volatiles, 8270 - Comprehensive

Log-in Notes: **Sample Notes:**

Sample Prepared by Method: EPA 3550C

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
191-24-2	**Benzo(g,h,i)perylene**	**60.4**	J	ug/kg dry	46.8	93.3	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 19:42	KH
207-08-9	**Benzo(k)fluoranthene**	**79.8**	J	ug/kg dry	46.8	93.3	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 19:42	KH
65-85-0	Benzoic acid	ND		ug/kg dry	46.8	93.3	2	EPA 8270D Certifications: NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 19:42	KH
100-51-6	Benzyl alcohol	ND		ug/kg dry	46.8	93.3	2	EPA 8270D Certifications: NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 19:42	KH
85-68-7	Benzyl butyl phthalate	ND		ug/kg dry	46.8	93.3	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 19:42	KH
111-91-1	Bis(2-chloroethoxy)methane	ND		ug/kg dry	46.8	93.3	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 19:42	KH
111-44-4	Bis(2-chloroethyl)ether	ND		ug/kg dry	46.8	93.3	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 19:42	KH
108-60-1	Bis(2-chloroisopropyl)ether	ND		ug/kg dry	46.8	93.3	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 19:42	KH
117-81-7	**Bis(2-ethylhexyl)phthalate**	**50.7**	J	ug/kg dry	46.8	93.3	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 19:42	KH
105-60-2	Caprolactam	ND		ug/kg dry	93.3	186	2	EPA 8270D Certifications: NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 19:42	KH
86-74-8	Carbazole	ND		ug/kg dry	46.8	93.3	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 19:42	KH
218-01-9	**Chrysene**	**88.0**	J	ug/kg dry	46.8	93.3	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 19:42	KH
53-70-3	Dibenzo(a,h)anthracene	ND		ug/kg dry	46.8	93.3	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 19:42	KH
132-64-9	Dibenzofuran	ND		ug/kg dry	46.8	93.3	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 19:42	KH
84-66-2	Diethyl phthalate	ND		ug/kg dry	46.8	93.3	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 19:42	KH
131-11-3	Dimethyl phthalate	ND		ug/kg dry	46.8	93.3	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 19:42	KH
84-74-2	Di-n-butyl phthalate	ND		ug/kg dry	46.8	93.3	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 19:42	KH
117-84-0	Di-n-octyl phthalate	ND		ug/kg dry	46.8	93.3	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 19:42	KH
122-39-4	* Diphenylamine	ND		ug/kg dry	93.3	186	2	EPA 8270D Certifications:	11/05/2020 07:27	11/05/2020 19:42	KH
206-44-0	**Fluoranthene**	**156**		ug/kg dry	46.8	93.3	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 19:42	KH
86-73-7	Fluorene	ND		ug/kg dry	46.8	93.3	2	EPA 8270D Certifications: NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 19:42	KH
118-74-1	Hexachlorobenzene	ND		ug/kg dry	46.8	93.3	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 19:42	KH
87-68-3	Hexachlorobutadiene	ND		ug/kg dry	46.8	93.3	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 19:42	KH

Sample Information

Client Sample ID: TP-2 **York Sample ID:** 20J1329-02

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
20J1329	20-0857	Soil	October 27, 2020 12:00 am	10/29/2020

Semi-Volatiles, 8270 - Comprehensive

Log-in Notes: **Sample Notes:**

Sample Prepared by Method: EPA 3550C

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
77-47-4	Hexachlorocyclopentadiene	ND		ug/kg dry	46.8	93.3	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 19:42	KH
67-72-1	Hexachloroethane	ND		ug/kg dry	46.8	93.3	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 19:42	KH
193-39-5	**Indeno(1,2,3-cd)pyrene**	**64.9**	J	ug/kg dry	46.8	93.3	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 19:42	KH
78-59-1	Isophorone	ND		ug/kg dry	46.8	93.3	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 19:42	KH
91-20-3	Naphthalene	ND		ug/kg dry	46.8	93.3	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 19:42	KH
98-95-3	Nitrobenzene	ND		ug/kg dry	46.8	93.3	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 19:42	KH
62-75-9	N-Nitrosodimethylamine	ND		ug/kg dry	46.8	93.3	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 19:42	KH
621-64-7	N-nitroso-di-n-propylamine	ND		ug/kg dry	46.8	93.3	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 19:42	KH
86-30-6	N-Nitrosodiphenylamine	ND		ug/kg dry	46.8	93.3	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 19:42	KH
87-86-5	Pentachlorophenol	ND		ug/kg dry	46.8	93.3	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 19:42	KH
85-01-8	**Phenanthrene**	**75.3**	J	ug/kg dry	46.8	93.3	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 19:42	KH
108-95-2	Phenol	ND		ug/kg dry	46.8	93.3	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 19:42	KH
129-00-0	**Pyrene**	**131**		ug/kg dry	46.8	93.3	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 19:42	KH

	Surrogate Recoveries	Result		Acceptance Range
367-12-4	*Surrogate: SURR: 2-Fluorophenol*	*56.3 %*		*20-108*
4165-62-2	*Surrogate: SURR: Phenol-d5*	*57.7 %*		*23-114*
4165-60-0	*Surrogate: SURR: Nitrobenzene-d5*	*70.0 %*		*22-108*
321-60-8	*Surrogate: SURR: 2-Fluorobiphenyl*	*69.4 %*		*21-113*
118-79-6	*Surrogate: SURR: 2,4,6-Tribromophenol*	*113 %*	S-08	*19-110*
1718-51-0	*Surrogate: SURR: Terphenyl-d14*	*82.6 %*		*24-116*

Pesticides, 8081 target list

Log-in Notes: **Sample Notes:**

Sample Prepared by Method: EPA 3550C

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
72-54-8	4,4'-DDD	ND		mg/kg dry	0.00185	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/04/2020 09:23	11/05/2020 06:59	CM
72-55-9	4,4'-DDE	ND		mg/kg dry	0.00185	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/04/2020 09:23	11/05/2020 06:59	CM

Sample Information

Client Sample ID: TP-2 **York Sample ID:** 20J1329-02

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
20J1329	20-0857	Soil	October 27, 2020 12:00 am	10/29/2020

Pesticides, 8081 target list

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3550C

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
50-29-3	**4,4'-DDT**	**0.00397**		mg/kg dry	0.00185	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/04/2020 09:23	11/05/2020 06:59	CM
309-00-2	Aldrin	ND		mg/kg dry	0.00185	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/04/2020 09:23	11/05/2020 06:59	CM
319-84-6	alpha-BHC	ND		mg/kg dry	0.00185	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/04/2020 09:23	11/05/2020 06:59	CM
5103-71-9	alpha-Chlordane	ND		mg/kg dry	0.00185	5	EPA 8081B Certifications: NELAC-NY10854,NJDEP	11/04/2020 09:23	11/05/2020 06:59	CM
319-85-7	beta-BHC	ND		mg/kg dry	0.00185	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/04/2020 09:23	11/05/2020 06:59	CM
57-74-9	Chlordane, total	ND		mg/kg dry	0.0370	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/04/2020 09:23	11/05/2020 06:59	CM
319-86-8	delta-BHC	ND		mg/kg dry	0.00185	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/04/2020 09:23	11/05/2020 06:59	CM
60-57-1	Dieldrin	ND		mg/kg dry	0.00185	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/04/2020 09:23	11/05/2020 06:59	CM
959-98-8	Endosulfan I	ND		mg/kg dry	0.00185	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/04/2020 09:23	11/05/2020 06:59	CM
33213-65-9	Endosulfan II	ND		mg/kg dry	0.00185	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854	11/04/2020 09:23	11/05/2020 06:59	CM
1031-07-8	Endosulfan sulfate	ND		mg/kg dry	0.00185	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/04/2020 09:23	11/05/2020 06:59	CM
72-20-8	Endrin	ND		mg/kg dry	0.00185	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/04/2020 09:23	11/05/2020 06:59	CM
7421-93-4	Endrin aldehyde	ND		mg/kg dry	0.00185	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/04/2020 09:23	11/05/2020 06:59	CM
53494-70-5	Endrin ketone	ND		mg/kg dry	0.00185	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/04/2020 09:23	11/05/2020 06:59	CM
58-89-9	gamma-BHC (Lindane)	ND		mg/kg dry	0.00185	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/04/2020 09:23	11/05/2020 06:59	CM
5566-34-7	gamma-Chlordane	ND		mg/kg dry	0.00185	5	EPA 8081B Certifications: NELAC-NY10854,NJDEP	11/04/2020 09:23	11/05/2020 06:59	CM
76-44-8	Heptachlor	ND		mg/kg dry	0.00185	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/04/2020 09:23	11/05/2020 06:59	CM
1024-57-3	Heptachlor epoxide	ND		mg/kg dry	0.00185	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/04/2020 09:23	11/05/2020 06:59	CM
72-43-5	Methoxychlor	ND		mg/kg dry	0.00926	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/04/2020 09:23	11/05/2020 06:59	CM
8001-35-2	Toxaphene	ND		mg/kg dry	0.0937	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/04/2020 09:23	11/05/2020 06:59	CM

	Surrogate Recoveries	Result	Acceptance Range
2051-24-3	*Surrogate: Decachlorobiphenyl*	*91.8 %*	*30-150*
877-09-8	*Surrogate: Tetrachloro-m-xylene*	*43.8 %*	*30-150*

Polychlorinated Biphenyls (PCB)

Log-in Notes:

Sample Notes:

Sample Information

Client Sample ID: TP-2 **York Sample ID:** **20J1329-02**

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
20J1329	20-0857	Soil	October 27, 2020 12:00 am	10/29/2020

Sample Prepared by Method: EPA 3550C

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
12674-11-2	Aroclor 1016	ND		mg/kg dry	0.0187	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	11/04/2020 09:23	11/04/2020 23:01	BJ
11104-28-2	Aroclor 1221	ND		mg/kg dry	0.0187	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	11/04/2020 09:23	11/04/2020 23:01	BJ
11141-16-5	Aroclor 1232	ND		mg/kg dry	0.0187	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	11/04/2020 09:23	11/04/2020 23:01	BJ
53469-21-9	Aroclor 1242	ND		mg/kg dry	0.0187	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	11/04/2020 09:23	11/04/2020 23:01	BJ
12672-29-6	Aroclor 1248	ND		mg/kg dry	0.0187	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	11/04/2020 09:23	11/04/2020 23:01	BJ
11097-69-1	Aroclor 1254	ND		mg/kg dry	0.0187	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	11/04/2020 09:23	11/04/2020 23:01	BJ
11096-82-5	Aroclor 1260	ND		mg/kg dry	0.0187	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	11/04/2020 09:23	11/04/2020 23:01	BJ
37324-23-5	Aroclor 1262	ND		mg/kg dry	0.0187	1	EPA 8082A Certifications: NELAC-NY10854,NJDEP,PADEP	11/04/2020 09:23	11/04/2020 23:01	BJ
11100-14-4	Aroclor 1268	ND		mg/kg dry	0.0187	1	EPA 8082A Certifications: NELAC-NY10854,NJDEP,PADEP	11/04/2020 09:23	11/04/2020 23:01	BJ
1336-36-3	* Total PCBs	ND		mg/kg dry	0.0187	1	EPA 8082A Certifications:	11/04/2020 09:23	11/04/2020 23:01	BJ

	Surrogate Recoveries	Result	Acceptance Range
877-09-8	*Surrogate: Tetrachloro-m-xylene*	*48.5 %*	*30-140*
2051-24-3	*Surrogate: Decachlorobiphenyl*	*53.5 %*	*30-140*

Metals, Target Analyte

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3050B

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7429-90-5	**Aluminum**	**9780**		mg/kg dry	5.65	1	EPA 6010D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	10/29/2020 16:34	11/02/2020 15:56	WJM
7440-36-0	Antimony	ND		mg/kg dry	2.82	1	EPA 6010D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	10/29/2020 16:34	11/02/2020 15:56	WJM
7440-38-2	Arsenic	ND		mg/kg dry	1.69	1	EPA 6010D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	10/29/2020 16:34	11/02/2020 15:56	WJM
7440-39-3	**Barium**	**119**		mg/kg dry	2.82	1	EPA 6010D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	10/29/2020 16:34	11/02/2020 15:56	WJM
7440-41-7	Beryllium	ND		mg/kg dry	0.056	1	EPA 6010D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	10/29/2020 16:34	11/02/2020 15:56	WJM
7440-43-9	**Cadmium**	**0.912**		mg/kg dry	0.339	1	EPA 6010D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	10/29/2020 16:34	11/02/2020 15:56	WJM
7440-70-2	**Calcium**	**8890**		mg/kg dry	5.65	1	EPA 6010D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	10/29/2020 16:34	11/02/2020 15:56	WJM
7440-47-3	**Chromium**	**139**		mg/kg dry	0.565	1	EPA 6010D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	10/29/2020 16:34	11/02/2020 15:56	WJM

Sample Information

Client Sample ID: TP-2 **York Sample ID:** 20J1329-02

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
20J1329	20-0857	Soil	October 27, 2020 12:00 am	10/29/2020

Metals, Target Analyte

Log-in Notes: **Sample Notes:**

Sample Prepared by Method: EPA 3050B

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7440-48-4	**Cobalt**	**7.94**		mg/kg dry	0.452	1	EPA 6010D	10/29/2020 16:34	11/02/2020 15:56	WJM
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP		
7440-50-8	**Copper**	**26.1**		mg/kg dry	2.26	1	EPA 6010D	10/29/2020 16:34	11/02/2020 15:56	WJM
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP		
7439-89-6	**Iron**	**22400**		mg/kg dry	28.2	1	EPA 6010D	10/29/2020 16:34	11/02/2020 15:56	WJM
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP		
7439-92-1	**Lead**	**56.1**		mg/kg dry	0.565	1	EPA 6010D	10/29/2020 16:34	11/02/2020 15:56	WJM
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP		
7439-95-4	**Magnesium**	**5620**		mg/kg dry	5.65	1	EPA 6010D	10/29/2020 16:34	11/02/2020 15:56	WJM
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP		
7439-96-5	**Manganese**	**289**		mg/kg dry	0.565	1	EPA 6010D	10/29/2020 16:34	11/02/2020 15:56	WJM
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP		
7440-02-0	**Nickel**	**28.4**		mg/kg dry	1.13	1	EPA 6010D	10/29/2020 16:34	11/02/2020 15:56	WJM
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP		
7440-09-7	**Potassium**	**1790**		mg/kg dry	5.65	1	EPA 6010D	10/29/2020 16:34	11/02/2020 15:56	WJM
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP		
7782-49-2	Selenium	ND		mg/kg dry	2.82	1	EPA 6010D	10/29/2020 16:34	11/02/2020 15:56	WJM
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP		
7440-22-4	**Silver**	**1.74**		mg/kg dry	0.565	1	EPA 6010D	10/29/2020 16:34	11/02/2020 15:56	WJM
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP		
7440-23-5	Sodium	ND		mg/kg dry	56.5	1	EPA 6010D	10/29/2020 16:34	11/02/2020 15:56	WJM
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP		
7440-28-0	Thallium	ND		mg/kg dry	2.82	1	EPA 6010D	10/29/2020 16:34	11/02/2020 15:56	WJM
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP		
7440-62-2	**Vanadium**	**13.7**		mg/kg dry	1.13	1	EPA 6010D	10/29/2020 16:34	11/02/2020 15:56	WJM
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP		
7440-66-6	**Zinc**	**1650**	B	mg/kg dry	2.82	1	EPA 6010D	10/29/2020 16:34	11/02/2020 15:56	WJM
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP		

Mercury by 7473

Log-in Notes: **Sample Notes:**

Sample Prepared by Method: EPA 7473 soil

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7439-97-6	**Mercury**	**0.997**		mg/kg dry	0.0339	1	EPA 7473	10/29/2020 16:32	10/29/2020 18:57	MAO
							Certifications:	CTDOH,NJDEP,NELAC-NY10854,PADEP		

Total Solids

Log-in Notes: **Sample Notes:**

Sample Prepared by Method: % Solids Prep

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
solids	*** % Solids**	**88.5**		%	0.100	1	SM 2540G	10/30/2020 08:47	10/30/2020 14:41	SK
							Certifications:	CTDOH		

Sample Information

Client Sample ID: TP-4

York Sample ID: 20J1329-03

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
20J1329	20-0857	Soil	October 27, 2020 12:00 am	10/29/2020

Volatile Organics, 8260 - Comprehensive

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5035A

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
630-20-6	1,1,1,2-Tetrachloroethane	ND		mg/kg dry	0.0036	0.0071	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 19:10	TMP
71-55-6	1,1,1-Trichloroethane	ND		mg/kg dry	0.0036	0.0071	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 19:10	TMP
79-34-5	1,1,2,2-Tetrachloroethane	ND		mg/kg dry	0.0036	0.0071	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 19:10	TMP
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND		mg/kg dry	0.0036	0.0071	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP	11/03/2020 07:00	11/03/2020 19:10	TMP
79-00-5	1,1,2-Trichloroethane	ND		mg/kg dry	0.0036	0.0071	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 19:10	TMP
75-34-3	1,1-Dichloroethane	ND		mg/kg dry	0.0036	0.0071	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 19:10	TMP
75-35-4	1,1-Dichloroethylene	ND		mg/kg dry	0.0036	0.0071	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 19:10	TMP
87-61-6	1,2,3-Trichlorobenzene	ND		mg/kg dry	0.0036	0.0071	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 19:10	TMP
96-18-4	1,2,3-Trichloropropane	ND		mg/kg dry	0.0036	0.0071	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP	11/03/2020 07:00	11/03/2020 19:10	TMP
120-82-1	1,2,4-Trichlorobenzene	ND		mg/kg dry	0.0036	0.0071	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 19:10	TMP
95-63-6	1,2,4-Trimethylbenzene	ND		mg/kg dry	0.0036	0.0071	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 19:10	TMP
96-12-8	1,2-Dibromo-3-chloropropane	ND		mg/kg dry	0.0036	0.0071	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 19:10	TMP
106-93-4	1,2-Dibromoethane	ND		mg/kg dry	0.0036	0.0071	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 19:10	TMP
95-50-1	1,2-Dichlorobenzene	ND		mg/kg dry	0.0036	0.0071	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 19:10	TMP
107-06-2	1,2-Dichloroethane	ND		mg/kg dry	0.0036	0.0071	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 19:10	TMP
78-87-5	1,2-Dichloropropane	ND		mg/kg dry	0.0036	0.0071	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 19:10	TMP
108-67-8	1,3,5-Trimethylbenzene	ND		mg/kg dry	0.0036	0.0071	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 19:10	TMP
541-73-1	1,3-Dichlorobenzene	ND		mg/kg dry	0.0036	0.0071	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 19:10	TMP
106-46-7	1,4-Dichlorobenzene	ND		mg/kg dry	0.0036	0.0071	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 19:10	TMP
123-91-1	1,4-Dioxane	ND		mg/kg dry	0.071	0.14	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 19:10	TMP
78-93-3	2-Butanone	ND		mg/kg dry	0.0036	0.0071	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 19:10	TMP
591-78-6	2-Hexanone	ND		mg/kg dry	0.0036	0.0071	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 19:10	TMP
108-10-1	4-Methyl-2-pentanone	ND		mg/kg dry	0.0036	0.0071	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 19:10	TMP

Sample Information

Client Sample ID: TP-4 **York Sample ID:** 20J1329-03

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
20J1329	20-0857	Soil	October 27, 2020 12:00 am	10/29/2020

Volatile Organics, 8260 - Comprehensive

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5035A

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
67-64-1	Acetone	ND		mg/kg dry	0.0071	0.014	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 19:10	TMP
107-02-8	Acrolein	ND		mg/kg dry	0.0071	0.014	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 19:10	TMP
107-13-1	Acrylonitrile	ND		mg/kg dry	0.0036	0.0071	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 19:10	TMP
71-43-2	Benzene	ND		mg/kg dry	0.0036	0.0071	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 19:10	TMP
74-97-5	Bromochloromethane	ND		mg/kg dry	0.0036	0.0071	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 19:10	TMP
75-27-4	Bromodichloromethane	ND		mg/kg dry	0.0036	0.0071	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 19:10	TMP
75-25-2	Bromoform	ND		mg/kg dry	0.0036	0.0071	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 19:10	TMP
74-83-9	Bromomethane	ND		mg/kg dry	0.0036	0.0071	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 19:10	TMP
75-15-0	Carbon disulfide	ND		mg/kg dry	0.0036	0.0071	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 19:10	TMP
56-23-5	Carbon tetrachloride	ND		mg/kg dry	0.0036	0.0071	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 19:10	TMP
108-90-7	Chlorobenzene	ND		mg/kg dry	0.0036	0.0071	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 19:10	TMP
75-00-3	Chloroethane	ND		mg/kg dry	0.0036	0.0071	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 19:10	TMP
67-66-3	Chloroform	ND		mg/kg dry	0.0036	0.0071	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 19:10	TMP
74-87-3	Chloromethane	ND		mg/kg dry	0.0036	0.0071	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 19:10	TMP
156-59-2	cis-1,2-Dichloroethylene	ND		mg/kg dry	0.0036	0.0071	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 19:10	TMP
10061-01-5	cis-1,3-Dichloropropylene	ND		mg/kg dry	0.0036	0.0071	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 19:10	TMP
110-82-7	Cyclohexane	ND		mg/kg dry	0.0036	0.0071	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 19:10	TMP
124-48-1	Dibromochloromethane	ND		mg/kg dry	0.0036	0.0071	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 19:10	TMP
74-95-3	Dibromomethane	ND		mg/kg dry	0.0036	0.0071	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 19:10	TMP
75-71-8	Dichlorodifluoromethane	ND		mg/kg dry	0.0036	0.0071	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 19:10	TMP
100-41-4	Ethyl Benzene	ND		mg/kg dry	0.0036	0.0071	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 19:10	TMP
87-68-3	Hexachlorobutadiene	ND		mg/kg dry	0.0036	0.0071	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 19:10	TMP
98-82-8	Isopropylbenzene	ND		mg/kg dry	0.0036	0.0071	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 19:10	TMP

Sample Information

Client Sample ID: TP-4

York Sample ID: 20J1329-03

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
20J1329	20-0857	Soil	October 27, 2020 12:00 am	10/29/2020

Volatile Organics, 8260 - Comprehensive

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5035A

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
79-20-9	Methyl acetate	ND		mg/kg dry	0.0036	0.0071	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 19:10	TMP
1634-04-4	Methyl tert-butyl ether (MTBE)	ND		mg/kg dry	0.0036	0.0071	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 19:10	TMP
108-87-2	Methylcyclohexane	ND		mg/kg dry	0.0036	0.0071	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 19:10	TMP
75-09-2	Methylene chloride	ND		mg/kg dry	0.0071	0.014	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 19:10	TMP
104-51-8	n-Butylbenzene	ND		mg/kg dry	0.0036	0.0071	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 19:10	TMP
103-65-1	n-Propylbenzene	ND		mg/kg dry	0.0036	0.0071	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 19:10	TMP
95-47-6	o-Xylene	ND		mg/kg dry	0.0036	0.0071	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,PADEP	11/03/2020 07:00	11/03/2020 19:10	TMP
179601-23-1	p- & m- Xylenes	ND		mg/kg dry	0.0071	0.014	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,PADEP	11/03/2020 07:00	11/03/2020 19:10	TMP
99-87-6	p-Isopropyltoluene	ND		mg/kg dry	0.0036	0.0071	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 19:10	TMP
135-98-8	sec-Butylbenzene	ND		mg/kg dry	0.0036	0.0071	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 19:10	TMP
100-42-5	Styrene	ND		mg/kg dry	0.0036	0.0071	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 19:10	TMP
75-65-0	tert-Butyl alcohol (TBA)	ND		mg/kg dry	0.0036	0.0071	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 19:10	TMP
98-06-6	tert-Butylbenzene	ND		mg/kg dry	0.0036	0.0071	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 19:10	TMP
127-18-4	Tetrachloroethylene	ND		mg/kg dry	0.0036	0.0071	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 19:10	TMP
108-88-3	Toluene	ND		mg/kg dry	0.0036	0.0071	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 19:10	TMP
156-60-5	trans-1,2-Dichloroethylene	ND		mg/kg dry	0.0036	0.0071	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 19:10	TMP
10061-02-6	trans-1,3-Dichloropropylene	ND		mg/kg dry	0.0036	0.0071	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 19:10	TMP
79-01-6	Trichloroethylene	ND		mg/kg dry	0.0036	0.0071	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 19:10	TMP
75-69-4	Trichlorofluoromethane	ND		mg/kg dry	0.0036	0.0071	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 19:10	TMP
75-01-4	Vinyl Chloride	ND		mg/kg dry	0.0036	0.0071	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 19:10	TMP
1330-20-7	Xylenes, Total	ND		mg/kg dry	0.011	0.021	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP	11/03/2020 07:00	11/03/2020 19:10	TMP

	Surrogate Recoveries	Result	Acceptance Range
17060-07-0	*Surrogate: SURR: 1,2-Dichloroethane-d4*	*104 %*	*77-125*
2037-26-5	*Surrogate: SURR: Toluene-d8*	*99.5 %*	*85-120*

Sample Information

Client Sample ID: TP-4 **York Sample ID:** 20J1329-03

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
20J1329	20-0857	Soil	October 27, 2020 12:00 am	10/29/2020

Volatile Organics, 8260 - Comprehensive

Log-in Notes: **Sample Notes:**

Sample Prepared by Method: EPA 5035A

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
460-00-4	*Surrogate: SURR: p-Bromofluorobenzene*	*98.8 %*			*76-130*						

Semi-Volatiles, 8270 - Comprehensive

Log-in Notes: **Sample Notes:**

Sample Prepared by Method: EPA 3550C

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
92-52-4	1,1-Biphenyl	ND		ug/kg dry	47.5	94.8	2	EPA 8270D Certifications: NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 20:12	KH
95-94-3	1,2,4,5-Tetrachlorobenzene	ND		ug/kg dry	94.8	189	2	EPA 8270D Certifications: NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 20:12	KH
120-82-1	1,2,4-Trichlorobenzene	ND		ug/kg dry	47.5	94.8	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 20:12	KH
95-50-1	1,2-Dichlorobenzene	ND		ug/kg dry	47.5	94.8	2	EPA 8270D Certifications: NELAC-NY10854,PADEP	11/05/2020 07:27	11/05/2020 20:12	KH
122-66-7	1,2-Diphenylhydrazine (as Azobenzene)	ND		ug/kg dry	47.5	94.8	2	EPA 8270D Certifications: NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 20:12	KH
541-73-1	1,3-Dichlorobenzene	ND		ug/kg dry	47.5	94.8	2	EPA 8270D Certifications: NELAC-NY10854,PADEP	11/05/2020 07:27	11/05/2020 20:12	KH
106-46-7	1,4-Dichlorobenzene	ND		ug/kg dry	47.5	94.8	2	EPA 8270D Certifications: NELAC-NY10854,PADEP	11/05/2020 07:27	11/05/2020 20:12	KH
58-90-2	2,3,4,6-Tetrachlorophenol	ND		ug/kg dry	94.8	189	2	EPA 8270D Certifications: NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 20:12	KH
95-95-4	2,4,5-Trichlorophenol	ND		ug/kg dry	47.5	94.8	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 20:12	KH
88-06-2	2,4,6-Trichlorophenol	ND		ug/kg dry	47.5	94.8	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 20:12	KH
120-83-2	2,4-Dichlorophenol	ND		ug/kg dry	47.5	94.8	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 20:12	KH
105-67-9	2,4-Dimethylphenol	ND		ug/kg dry	47.5	94.8	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 20:12	KH
51-28-5	2,4-Dinitrophenol	ND		ug/kg dry	94.8	189	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 20:12	KH
121-14-2	2,4-Dinitrotoluene	ND		ug/kg dry	47.5	94.8	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 20:12	KH
606-20-2	2,6-Dinitrotoluene	ND		ug/kg dry	47.5	94.8	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 20:12	KH
91-58-7	2-Chloronaphthalene	ND		ug/kg dry	47.5	94.8	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 20:12	KH
95-57-8	2-Chlorophenol	ND		ug/kg dry	47.5	94.8	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 20:12	KH
91-57-6	2-Methylnaphthalene	ND		ug/kg dry	47.5	94.8	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 20:12	KH
95-48-7	2-Methylphenol	ND		ug/kg dry	47.5	94.8	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 20:12	KH

Sample Information

Client Sample ID: TP-4 **York Sample ID:** 20J1329-03

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
20J1329	20-0857	Soil	October 27, 2020 12:00 am	10/29/2020

Semi-Volatiles, 8270 - Comprehensive

Log-in Notes: **Sample Notes:**

Sample Prepared by Method: EPA 3550C

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
88-74-4	2-Nitroaniline	ND		ug/kg dry	94.8	189	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 20:12	KH
88-75-5	2-Nitrophenol	ND		ug/kg dry	47.5	94.8	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 20:12	KH
65794-96-9	3- & 4-Methylphenols	ND		ug/kg dry	47.5	94.8	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 20:12	KH
91-94-1	3,3-Dichlorobenzidine	ND		ug/kg dry	47.5	94.8	2	EPA 8270D Certifications: NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 20:12	KH
99-09-2	3-Nitroaniline	ND		ug/kg dry	94.8	189	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 20:12	KH
534-52-1	4,6-Dinitro-2-methylphenol	ND		ug/kg dry	94.8	189	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 20:12	KH
101-55-3	4-Bromophenyl phenyl ether	ND		ug/kg dry	47.5	94.8	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 20:12	KH
59-50-7	4-Chloro-3-methylphenol	ND		ug/kg dry	47.5	94.8	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 20:12	KH
106-47-8	4-Chloroaniline	ND		ug/kg dry	47.5	94.8	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 20:12	KH
7005-72-3	4-Chlorophenyl phenyl ether	ND		ug/kg dry	47.5	94.8	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 20:12	KH
100-01-6	4-Nitroaniline	ND		ug/kg dry	94.8	189	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 20:12	KH
100-02-7	4-Nitrophenol	ND		ug/kg dry	94.8	189	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 20:12	KH
83-32-9	Acenaphthene	ND		ug/kg dry	47.5	94.8	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 20:12	KH
208-96-8	Acenaphthylene	ND		ug/kg dry	47.5	94.8	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 20:12	KH
98-86-2	Acetophenone	ND		ug/kg dry	47.5	94.8	2	EPA 8270D Certifications: NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 20:12	KH
62-53-3	Aniline	ND		ug/kg dry	190	379	2	EPA 8270D Certifications: NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 20:12	KH
120-12-7	Anthracene	ND		ug/kg dry	47.5	94.8	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 20:12	KH
1912-24-9	Atrazine	ND		ug/kg dry	47.5	94.8	2	EPA 8270D Certifications: NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 20:12	KH
100-52-7	Benzaldehyde	ND		ug/kg dry	47.5	94.8	2	EPA 8270D Certifications: NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 20:12	KH
92-87-5	Benzidine	ND		ug/kg dry	190	379	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,PADEP	11/05/2020 07:27	11/05/2020 20:12	KH
56-55-3	**Benzo(a)anthracene**	**63.6**	J	ug/kg dry	47.5	94.8	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 20:12	KH
50-32-8	**Benzo(a)pyrene**	**66.7**	J	ug/kg dry	47.5	94.8	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 20:12	KH
205-99-2	**Benzo(b)fluoranthene**	**65.9**	J	ug/kg dry	47.5	94.8	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 20:12	KH

Sample Information

Client Sample ID: **TP-4**　　**York Sample ID:** **20J1329-03**

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
20J1329	20-0857	Soil	October 27, 2020 12:00 am	10/29/2020

Semi-Volatiles, 8270 - Comprehensive

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3550C

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
191-24-2	**Benzo(g,h,i)perylene**	**49.2**	J	ug/kg dry	47.5	94.8	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 20:12	KH
207-08-9	**Benzo(k)fluoranthene**	**58.3**	J	ug/kg dry	47.5	94.8	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 20:12	KH
65-85-0	Benzoic acid	ND		ug/kg dry	47.5	94.8	2	EPA 8270D Certifications: NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 20:12	KH
100-51-6	Benzyl alcohol	ND		ug/kg dry	47.5	94.8	2	EPA 8270D Certifications: NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 20:12	KH
85-68-7	Benzyl butyl phthalate	ND		ug/kg dry	47.5	94.8	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 20:12	KH
111-91-1	Bis(2-chloroethoxy)methane	ND		ug/kg dry	47.5	94.8	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 20:12	KH
111-44-4	Bis(2-chloroethyl)ether	ND		ug/kg dry	47.5	94.8	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 20:12	KH
108-60-1	Bis(2-chloroisopropyl)ether	ND		ug/kg dry	47.5	94.8	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 20:12	KH
117-81-7	Bis(2-ethylhexyl)phthalate	ND		ug/kg dry	47.5	94.8	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 20:12	KH
105-60-2	Caprolactam	ND		ug/kg dry	94.8	189	2	EPA 8270D Certifications: NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 20:12	KH
86-74-8	Carbazole	ND		ug/kg dry	47.5	94.8	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 20:12	KH
218-01-9	**Chrysene**	**75.7**	J	ug/kg dry	47.5	94.8	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 20:12	KH
53-70-3	Dibenzo(a,h)anthracene	ND		ug/kg dry	47.5	94.8	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 20:12	KH
132-64-9	Dibenzofuran	ND		ug/kg dry	47.5	94.8	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 20:12	KH
84-66-2	Diethyl phthalate	ND		ug/kg dry	47.5	94.8	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 20:12	KH
131-11-3	Dimethyl phthalate	ND		ug/kg dry	47.5	94.8	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 20:12	KH
84-74-2	Di-n-butyl phthalate	ND		ug/kg dry	47.5	94.8	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 20:12	KH
117-84-0	Di-n-octyl phthalate	ND		ug/kg dry	47.5	94.8	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 20:12	KH
122-39-4	* Diphenylamine	ND		ug/kg dry	94.8	189	2	EPA 8270D Certifications:	11/05/2020 07:27	11/05/2020 20:12	KH
206-44-0	**Fluoranthene**	**147**		ug/kg dry	47.5	94.8	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 20:12	KH
86-73-7	Fluorene	ND		ug/kg dry	47.5	94.8	2	EPA 8270D Certifications: NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 20:12	KH
118-74-1	Hexachlorobenzene	ND		ug/kg dry	47.5	94.8	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 20:12	KH
87-68-3	Hexachlorobutadiene	ND		ug/kg dry	47.5	94.8	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 20:12	KH

Sample Information

Client Sample ID: TP-4 **York Sample ID:** **20J1329-03**

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
20J1329	20-0857	Soil	October 27, 2020 12:00 am	10/29/2020

Semi-Volatiles, 8270 - Comprehensive

Log-in Notes: **Sample Notes:**

Sample Prepared by Method: EPA 3550C

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
77-47-4	Hexachlorocyclopentadiene	ND		ug/kg dry	47.5	94.8	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 20:12	KH
67-72-1	Hexachloroethane	ND		ug/kg dry	47.5	94.8	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 20:12	KH
193-39-5	**Indeno(1,2,3-cd)pyrene**	**59.1**	J	ug/kg dry	47.5	94.8	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 20:12	KH
78-59-1	Isophorone	ND		ug/kg dry	47.5	94.8	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 20:12	KH
91-20-3	Naphthalene	ND		ug/kg dry	47.5	94.8	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 20:12	KH
98-95-3	Nitrobenzene	ND		ug/kg dry	47.5	94.8	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 20:12	KH
62-75-9	N-Nitrosodimethylamine	ND		ug/kg dry	47.5	94.8	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 20:12	KH
621-64-7	N-nitroso-di-n-propylamine	ND		ug/kg dry	47.5	94.8	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 20:12	KH
86-30-6	N-Nitrosodiphenylamine	ND		ug/kg dry	47.5	94.8	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 20:12	KH
87-86-5	Pentachlorophenol	ND		ug/kg dry	47.5	94.8	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 20:12	KH
85-01-8	**Phenanthrene**	**79.5**	J	ug/kg dry	47.5	94.8	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 20:12	KH
108-95-2	Phenol	ND		ug/kg dry	47.5	94.8	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 20:12	KH
129-00-0	**Pyrene**	**122**		ug/kg dry	47.5	94.8	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 20:12	KH

	Surrogate Recoveries	Result	Acceptance Range
367-12-4	*Surrogate: SURR: 2-Fluorophenol*	*53.7 %*	*20-108*
4165-62-2	*Surrogate: SURR: Phenol-d5*	*55.7 %*	*23-114*
4165-60-0	*Surrogate: SURR: Nitrobenzene-d5*	*68.5 %*	*22-108*
321-60-8	*Surrogate: SURR: 2-Fluorobiphenyl*	*70.8 %*	*21-113*
118-79-6	*Surrogate: SURR: 2,4,6-Tribromophenol*	*106 %*	*19-110*
1718-51-0	*Surrogate: SURR: Terphenyl-d14*	*81.0 %*	*24-116*

Pesticides, 8081 target list

Log-in Notes: **Sample Notes:**

Sample Prepared by Method: EPA 3550C

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
72-54-8	4,4'-DDD	ND		mg/kg dry	0.00189	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/04/2020 09:23	11/05/2020 07:16	CM
72-55-9	4,4'-DDE	ND		mg/kg dry	0.00189	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/04/2020 09:23	11/05/2020 07:16	CM

Sample Information

Client Sample ID:	**TP-4**	**York Sample ID:**	**20J1329-03**

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
20J1329	20-0857	Soil	October 27, 2020 12:00 am	10/29/2020

Pesticides, 8081 target list

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3550C

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
50-29-3	4,4'-DDT	ND		mg/kg dry	0.00189	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/04/2020 09:23	11/05/2020 07:16	CM
309-00-2	Aldrin	ND		mg/kg dry	0.00189	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/04/2020 09:23	11/05/2020 07:16	CM
319-84-6	alpha-BHC	ND		mg/kg dry	0.00189	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/04/2020 09:23	11/05/2020 07:16	CM
5103-71-9	alpha-Chlordane	ND		mg/kg dry	0.00189	5	EPA 8081B Certifications: NELAC-NY10854,NJDEP	11/04/2020 09:23	11/05/2020 07:16	CM
319-85-7	beta-BHC	ND		mg/kg dry	0.00189	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/04/2020 09:23	11/05/2020 07:16	CM
57-74-9	Chlordane, total	ND		mg/kg dry	0.0377	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/04/2020 09:23	11/05/2020 07:16	CM
319-86-8	delta-BHC	ND		mg/kg dry	0.00189	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/04/2020 09:23	11/05/2020 07:16	CM
60-57-1	Dieldrin	ND		mg/kg dry	0.00189	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/04/2020 09:23	11/05/2020 07:16	CM
959-98-8	Endosulfan I	ND		mg/kg dry	0.00189	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/04/2020 09:23	11/05/2020 07:16	CM
33213-65-9	Endosulfan II	ND		mg/kg dry	0.00189	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854	11/04/2020 09:23	11/05/2020 07:16	CM
1031-07-8	Endosulfan sulfate	ND		mg/kg dry	0.00189	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/04/2020 09:23	11/05/2020 07:16	CM
72-20-8	Endrin	ND		mg/kg dry	0.00189	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/04/2020 09:23	11/05/2020 07:16	CM
7421-93-4	Endrin aldehyde	ND		mg/kg dry	0.00189	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/04/2020 09:23	11/05/2020 07:16	CM
53494-70-5	Endrin ketone	ND		mg/kg dry	0.00189	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/04/2020 09:23	11/05/2020 07:16	CM
58-89-9	gamma-BHC (Lindane)	ND		mg/kg dry	0.00189	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/04/2020 09:23	11/05/2020 07:16	CM
5566-34-7	gamma-Chlordane	ND		mg/kg dry	0.00189	5	EPA 8081B Certifications: NELAC-NY10854,NJDEP	11/04/2020 09:23	11/05/2020 07:16	CM
76-44-8	Heptachlor	ND		mg/kg dry	0.00189	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/04/2020 09:23	11/05/2020 07:16	CM
1024-57-3	Heptachlor epoxide	ND		mg/kg dry	0.00189	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/04/2020 09:23	11/05/2020 07:16	CM
72-43-5	Methoxychlor	ND		mg/kg dry	0.00944	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/04/2020 09:23	11/05/2020 07:16	CM
8001-35-2	Toxaphene	ND		mg/kg dry	0.0955	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/04/2020 09:23	11/05/2020 07:16	CM

	Surrogate Recoveries	Result	Acceptance Range
2051-24-3	*Surrogate: Decachlorobiphenyl*	*77.0 %*	*30-150*
877-09-8	*Surrogate: Tetrachloro-m-xylene*	*61.2 %*	*30-150*

Polychlorinated Biphenyls (PCB)

Log-in Notes:

Sample Notes:

Sample Information

Client Sample ID: **TP-4** **York Sample ID:** **20J1329-03**

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
20J1329	20-0857	Soil	October 27, 2020 12:00 am	10/29/2020

Sample Prepared by Method: EPA 3550C

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
12674-11-2	Aroclor 1016	ND		mg/kg dry	0.0191	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	11/04/2020 09:23	11/04/2020 23:15	BJ
11104-28-2	Aroclor 1221	ND		mg/kg dry	0.0191	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	11/04/2020 09:23	11/04/2020 23:15	BJ
11141-16-5	Aroclor 1232	ND		mg/kg dry	0.0191	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	11/04/2020 09:23	11/04/2020 23:15	BJ
53469-21-9	Aroclor 1242	ND		mg/kg dry	0.0191	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	11/04/2020 09:23	11/04/2020 23:15	BJ
12672-29-6	Aroclor 1248	ND		mg/kg dry	0.0191	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	11/04/2020 09:23	11/04/2020 23:15	BJ
11097-69-1	Aroclor 1254	ND		mg/kg dry	0.0191	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	11/04/2020 09:23	11/04/2020 23:15	BJ
11096-82-5	Aroclor 1260	ND		mg/kg dry	0.0191	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	11/04/2020 09:23	11/04/2020 23:15	BJ
37324-23-5	Aroclor 1262	ND		mg/kg dry	0.0191	1	EPA 8082A Certifications: NELAC-NY10854,NJDEP,PADEP	11/04/2020 09:23	11/04/2020 23:15	BJ
11100-14-4	Aroclor 1268	ND		mg/kg dry	0.0191	1	EPA 8082A Certifications: NELAC-NY10854,NJDEP,PADEP	11/04/2020 09:23	11/04/2020 23:15	BJ
1336-36-3	* Total PCBs	ND		mg/kg dry	0.0191	1	EPA 8082A Certifications:	11/04/2020 09:23	11/04/2020 23:15	BJ

	Surrogate Recoveries	Result	Acceptance Range
877-09-8	*Surrogate: Tetrachloro-m-xylene*	*50.0 %*	*30-140*
2051-24-3	*Surrogate: Decachlorobiphenyl*	*49.5 %*	*30-140*

Metals, Target Analyte

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3050B

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7429-90-5	**Aluminum**	**14400**		mg/kg dry	5.74	1	EPA 6010D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	10/29/2020 16:34	11/02/2020 15:58	WJM
7440-36-0	Antimony	ND		mg/kg dry	2.87	1	EPA 6010D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	10/29/2020 16:34	11/02/2020 15:58	WJM
7440-38-2	**Arsenic**	**10.8**		mg/kg dry	1.72	1	EPA 6010D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	10/29/2020 16:34	11/02/2020 15:58	WJM
7440-39-3	**Barium**	**124**		mg/kg dry	2.87	1	EPA 6010D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	10/29/2020 16:34	11/02/2020 15:58	WJM
7440-41-7	**Beryllium**	**0.083**		mg/kg dry	0.057	1	EPA 6010D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	10/29/2020 16:34	11/02/2020 15:58	WJM
7440-43-9	Cadmium	ND		mg/kg dry	0.344	1	EPA 6010D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	10/29/2020 16:34	11/02/2020 15:58	WJM
7440-70-2	**Calcium**	**792**		mg/kg dry	5.74	1	EPA 6010D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	10/29/2020 16:34	11/02/2020 15:58	WJM
7440-47-3	**Chromium**	**13.1**		mg/kg dry	0.574	1	EPA 6010D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	10/29/2020 16:34	11/02/2020 15:58	WJM

Sample Information

Client Sample ID: **TP-4**

York Sample ID: **20J1329-03**

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
20J1329	20-0857	Soil	October 27, 2020 12:00 am	10/29/2020

Metals, Target Analyte

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3050B

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7440-48-4	**Cobalt**	**6.20**		mg/kg dry	0.459	1	EPA 6010D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	10/29/2020 16:34	11/02/2020 15:58	WJM
7440-50-8	**Copper**	**140**		mg/kg dry	2.30	1	EPA 6010D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	10/29/2020 16:34	11/02/2020 15:58	WJM
7439-89-6	**Iron**	**20000**		mg/kg dry	28.7	1	EPA 6010D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	10/29/2020 16:34	11/02/2020 15:58	WJM
7439-92-1	**Lead**	**382**		mg/kg dry	0.574	1	EPA 6010D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	10/29/2020 16:34	11/02/2020 15:58	WJM
7439-95-4	**Magnesium**	**2200**		mg/kg dry	5.74	1	EPA 6010D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	10/29/2020 16:34	11/02/2020 15:58	WJM
7439-96-5	**Manganese**	**328**		mg/kg dry	0.574	1	EPA 6010D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	10/29/2020 16:34	11/02/2020 15:58	WJM
7440-02-0	**Nickel**	**12.5**		mg/kg dry	1.15	1	EPA 6010D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	10/29/2020 16:34	11/02/2020 15:58	WJM
7440-09-7	**Potassium**	**838**		mg/kg dry	5.74	1	EPA 6010D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	10/29/2020 16:34	11/02/2020 15:58	WJM
7782-49-2	Selenium	ND		mg/kg dry	2.87	1	EPA 6010D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	10/29/2020 16:34	11/02/2020 15:58	WJM
7440-22-4	Silver	ND		mg/kg dry	0.574	1	EPA 6010D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	10/29/2020 16:34	11/02/2020 15:58	WJM
7440-23-5	Sodium	ND		mg/kg dry	57.4	1	EPA 6010D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	10/29/2020 16:34	11/02/2020 15:58	WJM
7440-28-0	Thallium	ND		mg/kg dry	2.87	1	EPA 6010D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	10/29/2020 16:34	11/02/2020 15:58	WJM
7440-62-2	**Vanadium**	**17.7**		mg/kg dry	1.15	1	EPA 6010D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	10/29/2020 16:34	11/02/2020 15:58	WJM
7440-66-6	**Zinc**	**162**	B	mg/kg dry	2.87	1	EPA 6010D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	10/29/2020 16:34	11/02/2020 15:58	WJM

Mercury by 7473

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 7473 soil

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7439-97-6	**Mercury**	**0.157**		mg/kg dry	0.0344	1	EPA 7473 Certifications: CTDOH,NJDEP,NELAC-NY10854,PADEP	10/29/2020 16:32	10/29/2020 19:05	MAO

Total Solids

Log-in Notes:

Sample Notes:

Sample Prepared by Method: % Solids Prep

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
solids	*** % Solids**	**87.1**		%	0.100	1	SM 2540G Certifications: CTDOH	10/30/2020 08:47	10/30/2020 14:41	SK

Sample Information

Client Sample ID: **TP-5** **York Sample ID:** **20J1329-04**

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
20J1329	20-0857	Soil	October 27, 2020 12:00 am	10/29/2020

Volatile Organics, 8260 - Comprehensive **Log-in Notes:** **Sample Notes:**

Sample Prepared by Method: EPA 5035A

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
630-20-6	1,1,1,2-Tetrachloroethane	ND		mg/kg dry	0.0041	0.0082	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 19:38	TMP
71-55-6	1,1,1-Trichloroethane	ND		mg/kg dry	0.0041	0.0082	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 19:38	TMP
79-34-5	1,1,2,2-Tetrachloroethane	ND		mg/kg dry	0.0041	0.0082	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 19:38	TMP
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND		mg/kg dry	0.0041	0.0082	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP	11/03/2020 07:00	11/03/2020 19:38	TMP
79-00-5	1,1,2-Trichloroethane	ND		mg/kg dry	0.0041	0.0082	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 19:38	TMP
75-34-3	1,1-Dichloroethane	ND		mg/kg dry	0.0041	0.0082	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 19:38	TMP
75-35-4	1,1-Dichloroethylene	ND		mg/kg dry	0.0041	0.0082	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 19:38	TMP
87-61-6	1,2,3-Trichlorobenzene	ND		mg/kg dry	0.0041	0.0082	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 19:38	TMP
96-18-4	1,2,3-Trichloropropane	ND		mg/kg dry	0.0041	0.0082	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP	11/03/2020 07:00	11/03/2020 19:38	TMP
120-82-1	1,2,4-Trichlorobenzene	ND		mg/kg dry	0.0041	0.0082	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 19:38	TMP
95-63-6	1,2,4-Trimethylbenzene	ND		mg/kg dry	0.0041	0.0082	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 19:38	TMP
96-12-8	1,2-Dibromo-3-chloropropane	ND		mg/kg dry	0.0041	0.0082	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 19:38	TMP
106-93-4	1,2-Dibromoethane	ND		mg/kg dry	0.0041	0.0082	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 19:38	TMP
95-50-1	1,2-Dichlorobenzene	ND		mg/kg dry	0.0041	0.0082	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 19:38	TMP
107-06-2	1,2-Dichloroethane	ND		mg/kg dry	0.0041	0.0082	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 19:38	TMP
78-87-5	1,2-Dichloropropane	ND		mg/kg dry	0.0041	0.0082	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 19:38	TMP
108-67-8	1,3,5-Trimethylbenzene	ND		mg/kg dry	0.0041	0.0082	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 19:38	TMP
541-73-1	1,3-Dichlorobenzene	ND		mg/kg dry	0.0041	0.0082	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 19:38	TMP
106-46-7	1,4-Dichlorobenzene	ND		mg/kg dry	0.0041	0.0082	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 19:38	TMP
123-91-1	1,4-Dioxane	ND		mg/kg dry	0.082	0.16	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 19:38	TMP
78-93-3	2-Butanone	ND		mg/kg dry	0.0041	0.0082	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 19:38	TMP
591-78-6	2-Hexanone	ND		mg/kg dry	0.0041	0.0082	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 19:38	TMP
108-10-1	4-Methyl-2-pentanone	ND		mg/kg dry	0.0041	0.0082	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 19:38	TMP

Sample Information

Client Sample ID: TP-5

York Sample ID: 20J1329-04

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
20J1329	20-0857	Soil	October 27, 2020 12:00 am	10/29/2020

Volatile Organics, 8260 - Comprehensive

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5035A

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
67-64-1	Acetone	ND		mg/kg dry	0.0082	0.016	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 19:38	TMP
107-02-8	Acrolein	ND		mg/kg dry	0.0082	0.016	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 19:38	TMP
107-13-1	Acrylonitrile	ND		mg/kg dry	0.0041	0.0082	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 19:38	TMP
71-43-2	Benzene	ND		mg/kg dry	0.0041	0.0082	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 19:38	TMP
74-97-5	Bromochloromethane	ND		mg/kg dry	0.0041	0.0082	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 19:38	TMP
75-27-4	Bromodichloromethane	ND		mg/kg dry	0.0041	0.0082	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 19:38	TMP
75-25-2	Bromoform	ND		mg/kg dry	0.0041	0.0082	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 19:38	TMP
74-83-9	Bromomethane	ND		mg/kg dry	0.0041	0.0082	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 19:38	TMP
75-15-0	Carbon disulfide	ND		mg/kg dry	0.0041	0.0082	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 19:38	TMP
56-23-5	Carbon tetrachloride	ND		mg/kg dry	0.0041	0.0082	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 19:38	TMP
108-90-7	Chlorobenzene	ND		mg/kg dry	0.0041	0.0082	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 19:38	TMP
75-00-3	Chloroethane	ND		mg/kg dry	0.0041	0.0082	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 19:38	TMP
67-66-3	Chloroform	ND		mg/kg dry	0.0041	0.0082	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 19:38	TMP
74-87-3	Chloromethane	ND		mg/kg dry	0.0041	0.0082	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 19:38	TMP
156-59-2	cis-1,2-Dichloroethylene	ND		mg/kg dry	0.0041	0.0082	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 19:38	TMP
10061-01-5	cis-1,3-Dichloropropylene	ND		mg/kg dry	0.0041	0.0082	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 19:38	TMP
110-82-7	Cyclohexane	ND		mg/kg dry	0.0041	0.0082	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 19:38	TMP
124-48-1	Dibromochloromethane	ND		mg/kg dry	0.0041	0.0082	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 19:38	TMP
74-95-3	Dibromomethane	ND		mg/kg dry	0.0041	0.0082	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 19:38	TMP
75-71-8	Dichlorodifluoromethane	ND		mg/kg dry	0.0041	0.0082	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 19:38	TMP
100-41-4	Ethyl Benzene	ND		mg/kg dry	0.0041	0.0082	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 19:38	TMP
87-68-3	Hexachlorobutadiene	ND		mg/kg dry	0.0041	0.0082	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 19:38	TMP
98-82-8	Isopropylbenzene	ND		mg/kg dry	0.0041	0.0082	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 19:38	TMP

Sample Information

Client Sample ID: **TP-5** **York Sample ID:** **20J1329-04**

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
20J1329	20-0857	Soil	October 27, 2020 12:00 am	10/29/2020

Volatile Organics, 8260 - Comprehensive

Log-in Notes: **Sample Notes:**

Sample Prepared by Method: EPA 5035A

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
79-20-9	Methyl acetate	ND		mg/kg dry	0.0041	0.0082	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 19:38	TMP
1634-04-4	Methyl tert-butyl ether (MTBE)	ND		mg/kg dry	0.0041	0.0082	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 19:38	TMP
108-87-2	Methylcyclohexane	ND		mg/kg dry	0.0041	0.0082	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 19:38	TMP
75-09-2	Methylene chloride	ND		mg/kg dry	0.0082	0.016	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 19:38	TMP
104-51-8	n-Butylbenzene	ND		mg/kg dry	0.0041	0.0082	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 19:38	TMP
103-65-1	n-Propylbenzene	ND		mg/kg dry	0.0041	0.0082	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 19:38	TMP
95-47-6	o-Xylene	ND		mg/kg dry	0.0041	0.0082	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,PADEP	11/03/2020 07:00	11/03/2020 19:38	TMP
179601-23-1	p- & m- Xylenes	ND		mg/kg dry	0.0082	0.016	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,PADEP	11/03/2020 07:00	11/03/2020 19:38	TMP
99-87-6	p-Isopropyltoluene	ND		mg/kg dry	0.0041	0.0082	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 19:38	TMP
135-98-8	sec-Butylbenzene	ND		mg/kg dry	0.0041	0.0082	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 19:38	TMP
100-42-5	Styrene	ND		mg/kg dry	0.0041	0.0082	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 19:38	TMP
75-65-0	tert-Butyl alcohol (TBA)	ND		mg/kg dry	0.0041	0.0082	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 19:38	TMP
98-06-6	tert-Butylbenzene	ND		mg/kg dry	0.0041	0.0082	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 19:38	TMP
127-18-4	Tetrachloroethylene	ND		mg/kg dry	0.0041	0.0082	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 19:38	TMP
108-88-3	Toluene	ND		mg/kg dry	0.0041	0.0082	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 19:38	TMP
156-60-5	trans-1,2-Dichloroethylene	ND		mg/kg dry	0.0041	0.0082	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 19:38	TMP
10061-02-6	trans-1,3-Dichloropropylene	ND		mg/kg dry	0.0041	0.0082	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 19:38	TMP
79-01-6	Trichloroethylene	ND		mg/kg dry	0.0041	0.0082	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 19:38	TMP
75-69-4	Trichlorofluoromethane	ND		mg/kg dry	0.0041	0.0082	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 19:38	TMP
75-01-4	Vinyl Chloride	ND		mg/kg dry	0.0041	0.0082	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 19:38	TMP
1330-20-7	Xylenes, Total	ND		mg/kg dry	0.012	0.025	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP	11/03/2020 07:00	11/03/2020 19:38	TMP

	Surrogate Recoveries	Result	Acceptance Range
17060-07-0	*Surrogate: SURR: 1,2-Dichloroethane-d4*	*106 %*	*77-125*
2037-26-5	*Surrogate: SURR: Toluene-d8*	*99.8 %*	*85-120*

Sample Information

Client Sample ID: **TP-5** **York Sample ID:** **20J1329-04**

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
20J1329	20-0857	Soil	October 27, 2020 12:00 am	10/29/2020

Volatile Organics, 8260 - Comprehensive

Log-in Notes: **Sample Notes:**

Sample Prepared by Method: EPA 5035A

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
460-00-4	*Surrogate: SURR: p-Bromofluorobenzene*	*98.2 %*			*76-130*						

Semi-Volatiles, 8270 - Comprehensive

Log-in Notes: **Sample Notes:**

Sample Prepared by Method: EPA 3550C

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
92-52-4	1,1-Biphenyl	ND		ug/kg dry	48.6	97.0	2	EPA 8270D Certifications: NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 20:42	KH
95-94-3	1,2,4,5-Tetrachlorobenzene	ND		ug/kg dry	97.0	194	2	EPA 8270D Certifications: NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 20:42	KH
120-82-1	1,2,4-Trichlorobenzene	ND		ug/kg dry	48.6	97.0	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 20:42	KH
95-50-1	1,2-Dichlorobenzene	ND		ug/kg dry	48.6	97.0	2	EPA 8270D Certifications: NELAC-NY10854,PADEP	11/05/2020 07:27	11/05/2020 20:42	KH
122-66-7	1,2-Diphenylhydrazine (as Azobenzene)	ND		ug/kg dry	48.6	97.0	2	EPA 8270D Certifications: NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 20:42	KH
541-73-1	1,3-Dichlorobenzene	ND		ug/kg dry	48.6	97.0	2	EPA 8270D Certifications: NELAC-NY10854,PADEP	11/05/2020 07:27	11/05/2020 20:42	KH
106-46-7	1,4-Dichlorobenzene	ND		ug/kg dry	48.6	97.0	2	EPA 8270D Certifications: NELAC-NY10854,PADEP	11/05/2020 07:27	11/05/2020 20:42	KH
58-90-2	2,3,4,6-Tetrachlorophenol	ND		ug/kg dry	97.0	194	2	EPA 8270D Certifications: NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 20:42	KH
95-95-4	2,4,5-Trichlorophenol	ND		ug/kg dry	48.6	97.0	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 20:42	KH
88-06-2	2,4,6-Trichlorophenol	ND		ug/kg dry	48.6	97.0	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 20:42	KH
120-83-2	2,4-Dichlorophenol	ND		ug/kg dry	48.6	97.0	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 20:42	KH
105-67-9	2,4-Dimethylphenol	ND		ug/kg dry	48.6	97.0	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 20:42	KH
51-28-5	2,4-Dinitrophenol	ND		ug/kg dry	97.0	194	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 20:42	KH
121-14-2	2,4-Dinitrotoluene	ND		ug/kg dry	48.6	97.0	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 20:42	KH
606-20-2	2,6-Dinitrotoluene	ND		ug/kg dry	48.6	97.0	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 20:42	KH
91-58-7	2-Chloronaphthalene	ND		ug/kg dry	48.6	97.0	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 20:42	KH
95-57-8	2-Chlorophenol	ND		ug/kg dry	48.6	97.0	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 20:42	KH
91-57-6	2-Methylnaphthalene	ND		ug/kg dry	48.6	97.0	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 20:42	KH
95-48-7	2-Methylphenol	ND		ug/kg dry	48.6	97.0	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 20:42	KH

Sample Information

Client Sample ID: TP-5

York Sample ID: 20J1329-04

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
20J1329	20-0857	Soil	October 27, 2020 12:00 am	10/29/2020

Semi-Volatiles, 8270 - Comprehensive

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3550C

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
88-74-4	2-Nitroaniline	ND		ug/kg dry	97.0	194	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 20:42	KH
88-75-5	2-Nitrophenol	ND		ug/kg dry	48.6	97.0	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 20:42	KH
65794-96-9	3- & 4-Methylphenols	ND		ug/kg dry	48.6	97.0	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 20:42	KH
91-94-1	3,3-Dichlorobenzidine	ND		ug/kg dry	48.6	97.0	2	EPA 8270D Certifications: NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 20:42	KH
99-09-2	3-Nitroaniline	ND		ug/kg dry	97.0	194	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 20:42	KH
534-52-1	4,6-Dinitro-2-methylphenol	ND		ug/kg dry	97.0	194	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 20:42	KH
101-55-3	4-Bromophenyl phenyl ether	ND		ug/kg dry	48.6	97.0	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 20:42	KH
59-50-7	4-Chloro-3-methylphenol	ND		ug/kg dry	48.6	97.0	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 20:42	KH
106-47-8	4-Chloroaniline	ND		ug/kg dry	48.6	97.0	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 20:42	KH
7005-72-3	4-Chlorophenyl phenyl ether	ND		ug/kg dry	48.6	97.0	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 20:42	KH
100-01-6	4-Nitroaniline	ND		ug/kg dry	97.0	194	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 20:42	KH
100-02-7	4-Nitrophenol	ND		ug/kg dry	97.0	194	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 20:42	KH
83-32-9	Acenaphthene	ND		ug/kg dry	48.6	97.0	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 20:42	KH
208-96-8	Acenaphthylene	ND		ug/kg dry	48.6	97.0	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 20:42	KH
98-86-2	Acetophenone	ND		ug/kg dry	48.6	97.0	2	EPA 8270D Certifications: NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 20:42	KH
62-53-3	Aniline	ND		ug/kg dry	194	388	2	EPA 8270D Certifications: NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 20:42	KH
120-12-7	Anthracene	ND		ug/kg dry	48.6	97.0	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 20:42	KH
1912-24-9	Atrazine	ND		ug/kg dry	48.6	97.0	2	EPA 8270D Certifications: NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 20:42	KH
100-52-7	Benzaldehyde	ND		ug/kg dry	48.6	97.0	2	EPA 8270D Certifications: NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 20:42	KH
92-87-5	Benzidine	ND		ug/kg dry	194	388	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,PADEP	11/05/2020 07:27	11/05/2020 20:42	KH
56-55-3	**Benzo(a)anthracene**	**53.5**	J	ug/kg dry	48.6	97.0	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 20:42	KH
50-32-8	**Benzo(a)pyrene**	**58.1**	J	ug/kg dry	48.6	97.0	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 20:42	KH
205-99-2	**Benzo(b)fluoranthene**	**50.4**	J	ug/kg dry	48.6	97.0	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 20:42	KH

Sample Information

Client Sample ID: **TP-5**

York Sample ID: **20J1329-04**

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
20J1329	20-0857	Soil	October 27, 2020 12:00 am	10/29/2020

Semi-Volatiles, 8270 - Comprehensive

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3550C

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
191-24-2	Benzo(g,h,i)perylene	ND		ug/kg dry	48.6	97.0	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 20:42	KH
207-08-9	Benzo(k)fluoranthene	ND		ug/kg dry	48.6	97.0	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 20:42	KH
65-85-0	Benzoic acid	ND		ug/kg dry	48.6	97.0	2	EPA 8270D Certifications: NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 20:42	KH
100-51-6	Benzyl alcohol	ND		ug/kg dry	48.6	97.0	2	EPA 8270D Certifications: NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 20:42	KH
85-68-7	Benzyl butyl phthalate	ND		ug/kg dry	48.6	97.0	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 20:42	KH
111-91-1	Bis(2-chloroethoxy)methane	ND		ug/kg dry	48.6	97.0	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 20:42	KH
111-44-4	Bis(2-chloroethyl)ether	ND		ug/kg dry	48.6	97.0	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 20:42	KH
108-60-1	Bis(2-chloroisopropyl)ether	ND		ug/kg dry	48.6	97.0	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 20:42	KH
117-81-7	**Bis(2-ethylhexyl)phthalate**	**72.9**	J	ug/kg dry	48.6	97.0	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 20:42	KH
105-60-2	Caprolactam	ND		ug/kg dry	97.0	194	2	EPA 8270D Certifications: NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 20:42	KH
86-74-8	Carbazole	ND		ug/kg dry	48.6	97.0	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 20:42	KH
218-01-9	**Chrysene**	**63.6**	J	ug/kg dry	48.6	97.0	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 20:42	KH
53-70-3	Dibenzo(a,h)anthracene	ND		ug/kg dry	48.6	97.0	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 20:42	KH
132-64-9	Dibenzofuran	ND		ug/kg dry	48.6	97.0	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 20:42	KH
84-66-2	Diethyl phthalate	ND		ug/kg dry	48.6	97.0	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 20:42	KH
131-11-3	Dimethyl phthalate	ND		ug/kg dry	48.6	97.0	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 20:42	KH
84-74-2	Di-n-butyl phthalate	ND		ug/kg dry	48.6	97.0	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 20:42	KH
117-84-0	Di-n-octyl phthalate	ND		ug/kg dry	48.6	97.0	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 20:42	KH
122-39-4	* Diphenylamine	ND		ug/kg dry	97.0	194	2	EPA 8270D Certifications:	11/05/2020 07:27	11/05/2020 20:42	KH
206-44-0	**Fluoranthene**	**94.6**	J	ug/kg dry	48.6	97.0	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 20:42	KH
86-73-7	Fluorene	ND		ug/kg dry	48.6	97.0	2	EPA 8270D Certifications: NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 20:42	KH
118-74-1	Hexachlorobenzene	ND		ug/kg dry	48.6	97.0	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 20:42	KH
87-68-3	Hexachlorobutadiene	ND		ug/kg dry	48.6	97.0	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 20:42	KH

Sample Information

Client Sample ID: **TP-5** **York Sample ID:** **20J1329-04**

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
20J1329	20-0857	Soil	October 27, 2020 12:00 am	10/29/2020

Semi-Volatiles, 8270 - Comprehensive

Log-in Notes: **Sample Notes:**

Sample Prepared by Method: EPA 3550C

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
77-47-4	Hexachlorocyclopentadiene	ND		ug/kg dry	48.6	97.0	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 20:42	KH
67-72-1	Hexachloroethane	ND		ug/kg dry	48.6	97.0	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 20:42	KH
193-39-5	Indeno(1,2,3-cd)pyrene	ND		ug/kg dry	48.6	97.0	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 20:42	KH
78-59-1	Isophorone	ND		ug/kg dry	48.6	97.0	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 20:42	KH
91-20-3	Naphthalene	ND		ug/kg dry	48.6	97.0	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 20:42	KH
98-95-3	Nitrobenzene	ND		ug/kg dry	48.6	97.0	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 20:42	KH
62-75-9	N-Nitrosodimethylamine	ND		ug/kg dry	48.6	97.0	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 20:42	KH
621-64-7	N-nitroso-di-n-propylamine	ND		ug/kg dry	48.6	97.0	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 20:42	KH
86-30-6	N-Nitrosodiphenylamine	ND		ug/kg dry	48.6	97.0	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 20:42	KH
87-86-5	Pentachlorophenol	ND		ug/kg dry	48.6	97.0	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 20:42	KH
85-01-8	**Phenanthrene**	**48.8**	J	ug/kg dry	48.6	97.0	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 20:42	KH
108-95-2	Phenol	ND		ug/kg dry	48.6	97.0	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 20:42	KH
129-00-0	**Pyrene**	**87.6**	J	ug/kg dry	48.6	97.0	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 20:42	KH

	Surrogate Recoveries	Result	Acceptance Range
367-12-4	*Surrogate: SURR: 2-Fluorophenol*	*59.1 %*	*20-108*
4165-62-2	*Surrogate: SURR: Phenol-d5*	*58.6 %*	*23-114*
4165-60-0	*Surrogate: SURR: Nitrobenzene-d5*	*74.2 %*	*22-108*
321-60-8	*Surrogate: SURR: 2-Fluorobiphenyl*	*73.2 %*	*21-113*
118-79-6	*Surrogate: SURR: 2,4,6-Tribromophenol*	*108 %*	*19-110*
1718-51-0	*Surrogate: SURR: Terphenyl-d14*	*81.4 %*	*24-116*

Pesticides, 8081 target list

Log-in Notes: **Sample Notes:**

Sample Prepared by Method: EPA 3550C

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
72-54-8	4,4'-DDD	ND		mg/kg dry	0.00192	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/04/2020 06:56	11/05/2020 09:17	CM
72-55-9	4,4'-DDE	ND		mg/kg dry	0.00192	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/04/2020 06:56	11/05/2020 09:17	CM
50-29-3	4,4'-DDT	ND		mg/kg dry	0.00192	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/04/2020 06:56	11/05/2020 09:17	CM

Sample Information

Client Sample ID: **TP-5** **York Sample ID:** **20J1329-04**

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
20J1329	20-0857	Soil	October 27, 2020 12:00 am	10/29/2020

Pesticides, 8081 target list

Log-in Notes: **Sample Notes:**

Sample Prepared by Method: EPA 3550C

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
309-00-2	Aldrin	ND		mg/kg dry	0.00192	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/04/2020 06:56	11/05/2020 09:17	CM
319-84-6	alpha-BHC	ND		mg/kg dry	0.00192	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/04/2020 06:56	11/05/2020 09:17	CM
5103-71-9	alpha-Chlordane	ND		mg/kg dry	0.00192	5	EPA 8081B Certifications: NELAC-NY10854,NJDEP	11/04/2020 06:56	11/05/2020 09:17	CM
319-85-7	beta-BHC	ND		mg/kg dry	0.00192	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/04/2020 06:56	11/05/2020 09:17	CM
57-74-9	Chlordane, total	ND		mg/kg dry	0.0385	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/04/2020 06:56	11/05/2020 09:17	CM
319-86-8	delta-BHC	ND		mg/kg dry	0.00192	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/04/2020 06:56	11/05/2020 09:17	CM
60-57-1	Dieldrin	ND		mg/kg dry	0.00192	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/04/2020 06:56	11/05/2020 09:17	CM
959-98-8	Endosulfan I	ND		mg/kg dry	0.00192	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/04/2020 06:56	11/05/2020 09:17	CM
33213-65-9	Endosulfan II	ND		mg/kg dry	0.00192	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854	11/04/2020 06:56	11/05/2020 09:17	CM
1031-07-8	Endosulfan sulfate	ND		mg/kg dry	0.00192	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/04/2020 06:56	11/05/2020 09:17	CM
72-20-8	Endrin	ND		mg/kg dry	0.00192	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/04/2020 06:56	11/05/2020 09:17	CM
7421-93-4	Endrin aldehyde	ND		mg/kg dry	0.00192	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/04/2020 06:56	11/05/2020 09:17	CM
53494-70-5	Endrin ketone	ND		mg/kg dry	0.00192	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/04/2020 06:56	11/05/2020 09:17	CM
58-89-9	gamma-BHC (Lindane)	ND		mg/kg dry	0.00192	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/04/2020 06:56	11/05/2020 09:17	CM
5566-34-7	gamma-Chlordane	ND		mg/kg dry	0.00192	5	EPA 8081B Certifications: NELAC-NY10854,NJDEP	11/04/2020 06:56	11/05/2020 09:17	CM
76-44-8	Heptachlor	ND		mg/kg dry	0.00192	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/04/2020 06:56	11/05/2020 09:17	CM
1024-57-3	Heptachlor epoxide	ND		mg/kg dry	0.00192	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/04/2020 06:56	11/05/2020 09:17	CM
72-43-5	Methoxychlor	ND		mg/kg dry	0.00962	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/04/2020 06:56	11/05/2020 09:17	CM
8001-35-2	Toxaphene	ND		mg/kg dry	0.0974	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/04/2020 06:56	11/05/2020 09:17	CM

	Surrogate Recoveries	Result	Acceptance Range
2051-24-3	*Surrogate: Decachlorobiphenyl*	*106 %*	*30-150*
877-09-8	*Surrogate: Tetrachloro-m-xylene*	*83.9 %*	*30-150*

Polychlorinated Biphenyls (PCB)

Log-in Notes: **Sample Notes:**

Sample Prepared by Method: EPA 3550C

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst

Sample Information

Client Sample ID: TP-5 **York Sample ID:** 20J1329-04

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
20J1329	20-0857	Soil	October 27, 2020 12:00 am	10/29/2020

12674-11-2	Aroclor 1016	ND	mg/kg dry	0.0194	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	11/04/2020 06:56	11/05/2020 11:54	BJ
11104-28-2	Aroclor 1221	ND	mg/kg dry	0.0194	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	11/04/2020 06:56	11/05/2020 11:54	BJ
11141-16-5	Aroclor 1232	ND	mg/kg dry	0.0194	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	11/04/2020 06:56	11/05/2020 11:54	BJ
53469-21-9	Aroclor 1242	ND	mg/kg dry	0.0194	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	11/04/2020 06:56	11/05/2020 11:54	BJ
12672-29-6	Aroclor 1248	ND	mg/kg dry	0.0194	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	11/04/2020 06:56	11/05/2020 11:54	BJ
11097-69-1	Aroclor 1254	ND	mg/kg dry	0.0194	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	11/04/2020 06:56	11/05/2020 11:54	BJ
11096-82-5	Aroclor 1260	ND	mg/kg dry	0.0194	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	11/04/2020 06:56	11/05/2020 11:54	BJ
37324-23-5	Aroclor 1262	ND	mg/kg dry	0.0194	1	EPA 8082A Certifications: NELAC-NY10854,NJDEP,PADEP	11/04/2020 06:56	11/05/2020 11:54	BJ
11100-14-4	Aroclor 1268	ND	mg/kg dry	0.0194	1	EPA 8082A Certifications: NELAC-NY10854,NJDEP,PADEP	11/04/2020 06:56	11/05/2020 11:54	BJ
1336-36-3	* Total PCBs	ND	mg/kg dry	0.0194	1	EPA 8082A Certifications:	11/04/2020 06:56	11/05/2020 11:54	BJ

	Surrogate Recoveries	Result	Acceptance Range
877-09-8	*Surrogate: Tetrachloro-m-xylene*	*71.0 %*	*30-140*
2051-24-3	*Surrogate: Decachlorobiphenyl*	*76.0 %*	*30-140*

Metals, Target Analyte

Log-in Notes: **Sample Notes:**

Sample Prepared by Method: EPA 3050B

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7429-90-5	**Aluminum**	**10800**		mg/kg dry	5.87	1	EPA 6010D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	10/29/2020 16:34	11/02/2020 16:07	WJM
7440-36-0	Antimony	ND		mg/kg dry	2.94	1	EPA 6010D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	10/29/2020 16:34	11/02/2020 16:07	WJM
7440-38-2	**Arsenic**	**2.93**		mg/kg dry	1.76	1	EPA 6010D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	10/29/2020 16:34	11/02/2020 16:07	WJM
7440-39-3	**Barium**	**43.6**		mg/kg dry	2.94	1	EPA 6010D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	10/29/2020 16:34	11/02/2020 16:07	WJM
7440-41-7	Beryllium	ND		mg/kg dry	0.059	1	EPA 6010D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	10/29/2020 16:34	11/02/2020 16:07	WJM
7440-43-9	Cadmium	ND		mg/kg dry	0.352	1	EPA 6010D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	10/29/2020 16:34	11/02/2020 16:07	WJM
7440-70-2	**Calcium**	**2360**		mg/kg dry	5.87	1	EPA 6010D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	10/29/2020 16:34	11/02/2020 16:07	WJM
7440-47-3	**Chromium**	**10.1**		mg/kg dry	0.587	1	EPA 6010D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	10/29/2020 16:34	11/02/2020 16:07	WJM
7440-48-4	**Cobalt**	**4.35**		mg/kg dry	0.470	1	EPA 6010D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	10/29/2020 16:34	11/02/2020 16:07	WJM
7440-50-8	**Copper**	**22.8**		mg/kg dry	2.35	1	EPA 6010D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	10/29/2020 16:34	11/02/2020 16:07	WJM

Sample Information

Client Sample ID: **TP-5**

York Sample ID: **20J1329-04**

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
20J1329	20-0857	Soil	October 27, 2020 12:00 am	10/29/2020

Metals, Target Analyte

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3050B

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7439-89-6	**Iron**	**14100**		mg/kg dry	29.4	1	EPA 6010D	10/29/2020 16:34	11/02/2020 16:07	WJM
							Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP			
7439-92-1	**Lead**	**45.0**		mg/kg dry	0.587	1	EPA 6010D	10/29/2020 16:34	11/02/2020 16:07	WJM
							Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP			
7439-95-4	**Magnesium**	**1690**		mg/kg dry	5.87	1	EPA 6010D	10/29/2020 16:34	11/02/2020 16:07	WJM
							Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP			
7439-96-5	**Manganese**	**402**		mg/kg dry	0.587	1	EPA 6010D	10/29/2020 16:34	11/02/2020 16:07	WJM
							Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP			
7440-02-0	**Nickel**	**8.87**		mg/kg dry	1.17	1	EPA 6010D	10/29/2020 16:34	11/02/2020 16:07	WJM
							Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP			
7440-09-7	**Potassium**	**783**		mg/kg dry	5.87	1	EPA 6010D	10/29/2020 16:34	11/02/2020 16:07	WJM
							Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP			
7782-49-2	Selenium	ND		mg/kg dry	2.94	1	EPA 6010D	10/29/2020 16:34	11/02/2020 16:07	WJM
							Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP			
7440-22-4	Silver	ND		mg/kg dry	0.587	1	EPA 6010D	10/29/2020 16:34	11/02/2020 16:07	WJM
							Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP			
7440-23-5	Sodium	ND		mg/kg dry	58.7	1	EPA 6010D	10/29/2020 16:34	11/02/2020 16:07	WJM
							Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP			
7440-28-0	Thallium	ND		mg/kg dry	2.94	1	EPA 6010D	10/29/2020 16:34	11/02/2020 16:07	WJM
							Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP			
7440-62-2	**Vanadium**	**13.2**		mg/kg dry	1.17	1	EPA 6010D	10/29/2020 16:34	11/02/2020 16:07	WJM
							Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP			
7440-66-6	**Zinc**	**57.7**	B	mg/kg dry	2.94	1	EPA 6010D	10/29/2020 16:34	11/02/2020 16:07	WJM
							Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP			

Mercury by 7473

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 7473 soil

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7439-97-6	**Mercury**	**0.137**		mg/kg dry	0.0352	1	EPA 7473	10/29/2020 16:32	10/29/2020 19:14	MAO
							Certifications: CTDOH,NJDEP,NELAC-NY10854,PADEP			

Total Solids

Log-in Notes:

Sample Notes:

Sample Prepared by Method: % Solids Prep

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
solids	*** % Solids**	**85.2**		%	0.100	1	SM 2540G	10/30/2020 08:47	10/30/2020 14:41	SK
							Certifications: CTDOH			

Sample Information

Client Sample ID: **TP-6** **York Sample ID:** **20J1329-05**

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
20J1329	20-0857	Soil	October 27, 2020 12:00 am	10/29/2020

Volatile Organics, 8260 - Comprehensive

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5035A

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
630-20-6	1,1,1,2-Tetrachloroethane	ND		mg/kg dry	0.0036	0.0072	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 20:05	TMP
71-55-6	1,1,1-Trichloroethane	ND		mg/kg dry	0.0036	0.0072	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 20:05	TMP
79-34-5	1,1,2,2-Tetrachloroethane	ND		mg/kg dry	0.0036	0.0072	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 20:05	TMP
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND		mg/kg dry	0.0036	0.0072	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP	11/03/2020 07:00	11/03/2020 20:05	TMP
79-00-5	1,1,2-Trichloroethane	ND		mg/kg dry	0.0036	0.0072	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 20:05	TMP
75-34-3	1,1-Dichloroethane	ND		mg/kg dry	0.0036	0.0072	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 20:05	TMP
75-35-4	1,1-Dichloroethylene	ND		mg/kg dry	0.0036	0.0072	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 20:05	TMP
87-61-6	1,2,3-Trichlorobenzene	ND		mg/kg dry	0.0036	0.0072	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 20:05	TMP
96-18-4	1,2,3-Trichloropropane	ND		mg/kg dry	0.0036	0.0072	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP	11/03/2020 07:00	11/03/2020 20:05	TMP
120-82-1	1,2,4-Trichlorobenzene	ND		mg/kg dry	0.0036	0.0072	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 20:05	TMP
95-63-6	1,2,4-Trimethylbenzene	ND		mg/kg dry	0.0036	0.0072	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 20:05	TMP
96-12-8	1,2-Dibromo-3-chloropropane	ND		mg/kg dry	0.0036	0.0072	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 20:05	TMP
106-93-4	1,2-Dibromoethane	ND		mg/kg dry	0.0036	0.0072	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 20:05	TMP
95-50-1	1,2-Dichlorobenzene	ND		mg/kg dry	0.0036	0.0072	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 20:05	TMP
107-06-2	1,2-Dichloroethane	ND		mg/kg dry	0.0036	0.0072	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 20:05	TMP
78-87-5	1,2-Dichloropropane	ND		mg/kg dry	0.0036	0.0072	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 20:05	TMP
108-67-8	1,3,5-Trimethylbenzene	ND		mg/kg dry	0.0036	0.0072	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 20:05	TMP
541-73-1	1,3-Dichlorobenzene	ND		mg/kg dry	0.0036	0.0072	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 20:05	TMP
106-46-7	1,4-Dichlorobenzene	ND		mg/kg dry	0.0036	0.0072	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 20:05	TMP
123-91-1	1,4-Dioxane	ND		mg/kg dry	0.072	0.14	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 20:05	TMP
78-93-3	2-Butanone	ND		mg/kg dry	0.0036	0.0072	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 20:05	TMP
591-78-6	2-Hexanone	ND		mg/kg dry	0.0036	0.0072	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 20:05	TMP
108-10-1	4-Methyl-2-pentanone	ND		mg/kg dry	0.0036	0.0072	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 20:05	TMP

Sample Information

Client Sample ID: **TP-6**

York Sample ID: **20J1329-05**

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
20J1329	20-0857	Soil	October 27, 2020 12:00 am	10/29/2020

Volatile Organics, 8260 - Comprehensive

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5035A

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
67-64-1	Acetone	ND		mg/kg dry	0.0072	0.014	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 20:05	TMP
107-02-8	Acrolein	ND		mg/kg dry	0.0072	0.014	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 20:05	TMP
107-13-1	Acrylonitrile	ND		mg/kg dry	0.0036	0.0072	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 20:05	TMP
71-43-2	Benzene	ND		mg/kg dry	0.0036	0.0072	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 20:05	TMP
74-97-5	Bromochloromethane	ND		mg/kg dry	0.0036	0.0072	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 20:05	TMP
75-27-4	Bromodichloromethane	ND		mg/kg dry	0.0036	0.0072	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 20:05	TMP
75-25-2	Bromoform	ND		mg/kg dry	0.0036	0.0072	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 20:05	TMP
74-83-9	Bromomethane	ND		mg/kg dry	0.0036	0.0072	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 20:05	TMP
75-15-0	Carbon disulfide	ND		mg/kg dry	0.0036	0.0072	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 20:05	TMP
56-23-5	Carbon tetrachloride	ND		mg/kg dry	0.0036	0.0072	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 20:05	TMP
108-90-7	Chlorobenzene	ND		mg/kg dry	0.0036	0.0072	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 20:05	TMP
75-00-3	Chloroethane	ND		mg/kg dry	0.0036	0.0072	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 20:05	TMP
67-66-3	Chloroform	ND		mg/kg dry	0.0036	0.0072	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 20:05	TMP
74-87-3	Chloromethane	ND		mg/kg dry	0.0036	0.0072	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 20:05	TMP
156-59-2	cis-1,2-Dichloroethylene	ND		mg/kg dry	0.0036	0.0072	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 20:05	TMP
10061-01-5	cis-1,3-Dichloropropylene	ND		mg/kg dry	0.0036	0.0072	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 20:05	TMP
110-82-7	Cyclohexane	ND		mg/kg dry	0.0036	0.0072	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 20:05	TMP
124-48-1	Dibromochloromethane	ND		mg/kg dry	0.0036	0.0072	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 20:05	TMP
74-95-3	Dibromomethane	ND		mg/kg dry	0.0036	0.0072	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 20:05	TMP
75-71-8	Dichlorodifluoromethane	ND		mg/kg dry	0.0036	0.0072	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 20:05	TMP
100-41-4	Ethyl Benzene	ND		mg/kg dry	0.0036	0.0072	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 20:05	TMP
87-68-3	Hexachlorobutadiene	ND		mg/kg dry	0.0036	0.0072	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 20:05	TMP
98-82-8	Isopropylbenzene	ND		mg/kg dry	0.0036	0.0072	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 20:05	TMP

Sample Information

Client Sample ID: **TP-6** **York Sample ID:** **20J1329-05**

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
20J1329	20-0857	Soil	October 27, 2020 12:00 am	10/29/2020

Volatile Organics, 8260 - Comprehensive **Log-in Notes:** **Sample Notes:**

Sample Prepared by Method: EPA 5035A

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
79-20-9	Methyl acetate	ND		mg/kg dry	0.0036	0.0072	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 20:05	TMP
1634-04-4	Methyl tert-butyl ether (MTBE)	ND		mg/kg dry	0.0036	0.0072	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 20:05	TMP
108-87-2	Methylcyclohexane	ND		mg/kg dry	0.0036	0.0072	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 20:05	TMP
75-09-2	**Methylene chloride**	**0.012**	J	mg/kg dry	0.0072	0.014	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 20:05	TMP
104-51-8	n-Butylbenzene	ND		mg/kg dry	0.0036	0.0072	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 20:05	TMP
103-65-1	n-Propylbenzene	ND		mg/kg dry	0.0036	0.0072	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 20:05	TMP
95-47-6	o-Xylene	ND		mg/kg dry	0.0036	0.0072	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,PADEP	11/03/2020 07:00	11/03/2020 20:05	TMP
179601-23-1	p- & m- Xylenes	ND		mg/kg dry	0.0072	0.014	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,PADEP	11/03/2020 07:00	11/03/2020 20:05	TMP
99-87-6	p-Isopropyltoluene	ND		mg/kg dry	0.0036	0.0072	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 20:05	TMP
135-98-8	sec-Butylbenzene	ND		mg/kg dry	0.0036	0.0072	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 20:05	TMP
100-42-5	Styrene	ND		mg/kg dry	0.0036	0.0072	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 20:05	TMP
75-65-0	tert-Butyl alcohol (TBA)	ND		mg/kg dry	0.0036	0.0072	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 20:05	TMP
98-06-6	tert-Butylbenzene	ND		mg/kg dry	0.0036	0.0072	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 20:05	TMP
127-18-4	Tetrachloroethylene	ND		mg/kg dry	0.0036	0.0072	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 20:05	TMP
108-88-3	Toluene	ND		mg/kg dry	0.0036	0.0072	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 20:05	TMP
156-60-5	trans-1,2-Dichloroethylene	ND		mg/kg dry	0.0036	0.0072	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 20:05	TMP
10061-02-6	trans-1,3-Dichloropropylene	ND		mg/kg dry	0.0036	0.0072	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 20:05	TMP
79-01-6	Trichloroethylene	ND		mg/kg dry	0.0036	0.0072	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 20:05	TMP
75-69-4	Trichlorofluoromethane	ND		mg/kg dry	0.0036	0.0072	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 20:05	TMP
75-01-4	Vinyl Chloride	ND		mg/kg dry	0.0036	0.0072	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 20:05	TMP
1330-20-7	Xylenes, Total	ND		mg/kg dry	0.011	0.022	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP	11/03/2020 07:00	11/03/2020 20:05	TMP

	Surrogate Recoveries	Result	Acceptance Range
17060-07-0	*Surrogate: SURR: 1,2-Dichloroethane-d4*	*106 %*	*77-125*
2037-26-5	*Surrogate: SURR: Toluene-d8*	*100 %*	*85-120*

Sample Information

Client Sample ID: **TP-6** **York Sample ID:** **20J1329-05**

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
20J1329	20-0857	Soil	October 27, 2020 12:00 am	10/29/2020

Volatile Organics, 8260 - Comprehensive

Log-in Notes: **Sample Notes:**

Sample Prepared by Method: EPA 5035A

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
460-00-4	*Surrogate: SURR: p-Bromofluorobenzene*	*98.5 %*			*76-130*						

Semi-Volatiles, 8270 - Comprehensive

Log-in Notes: **Sample Notes:**

Sample Prepared by Method: EPA 3550C

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
92-52-4	1,1-Biphenyl	ND		ug/kg dry	46.6	92.9	2	EPA 8270D Certifications: NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 21:11	KH
95-94-3	1,2,4,5-Tetrachlorobenzene	ND		ug/kg dry	92.9	186	2	EPA 8270D Certifications: NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 21:11	KH
120-82-1	1,2,4-Trichlorobenzene	ND		ug/kg dry	46.6	92.9	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 21:11	KH
95-50-1	1,2-Dichlorobenzene	ND		ug/kg dry	46.6	92.9	2	EPA 8270D Certifications: NELAC-NY10854,PADEP	11/05/2020 07:27	11/05/2020 21:11	KH
122-66-7	1,2-Diphenylhydrazine (as Azobenzene)	ND		ug/kg dry	46.6	92.9	2	EPA 8270D Certifications: NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 21:11	KH
541-73-1	1,3-Dichlorobenzene	ND		ug/kg dry	46.6	92.9	2	EPA 8270D Certifications: NELAC-NY10854,PADEP	11/05/2020 07:27	11/05/2020 21:11	KH
106-46-7	1,4-Dichlorobenzene	ND		ug/kg dry	46.6	92.9	2	EPA 8270D Certifications: NELAC-NY10854,PADEP	11/05/2020 07:27	11/05/2020 21:11	KH
58-90-2	2,3,4,6-Tetrachlorophenol	ND		ug/kg dry	92.9	186	2	EPA 8270D Certifications: NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 21:11	KH
95-95-4	2,4,5-Trichlorophenol	ND		ug/kg dry	46.6	92.9	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 21:11	KH
88-06-2	2,4,6-Trichlorophenol	ND		ug/kg dry	46.6	92.9	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 21:11	KH
120-83-2	2,4-Dichlorophenol	ND		ug/kg dry	46.6	92.9	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 21:11	KH
105-67-9	2,4-Dimethylphenol	ND		ug/kg dry	46.6	92.9	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 21:11	KH
51-28-5	2,4-Dinitrophenol	ND		ug/kg dry	92.9	186	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 21:11	KH
121-14-2	2,4-Dinitrotoluene	ND		ug/kg dry	46.6	92.9	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 21:11	KH
606-20-2	2,6-Dinitrotoluene	ND		ug/kg dry	46.6	92.9	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 21:11	KH
91-58-7	2-Chloronaphthalene	ND		ug/kg dry	46.6	92.9	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 21:11	KH
95-57-8	2-Chlorophenol	ND		ug/kg dry	46.6	92.9	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 21:11	KH
91-57-6	2-Methylnaphthalene	ND		ug/kg dry	46.6	92.9	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 21:11	KH
95-48-7	2-Methylphenol	ND		ug/kg dry	46.6	92.9	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 21:11	KH

Sample Information

Client Sample ID:	**TP-6**	**York Sample ID:**	**20J1329-05**

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
20J1329	20-0857	Soil	October 27, 2020 12:00 am	10/29/2020

Semi-Volatiles, 8270 - Comprehensive

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3550C

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
88-74-4	2-Nitroaniline	ND		ug/kg dry	92.9	186	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 21:11	KH
88-75-5	2-Nitrophenol	ND		ug/kg dry	46.6	92.9	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 21:11	KH
65794-96-9	3- & 4-Methylphenols	ND		ug/kg dry	46.6	92.9	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 21:11	KH
91-94-1	3,3-Dichlorobenzidine	ND		ug/kg dry	46.6	92.9	2	EPA 8270D Certifications: NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 21:11	KH
99-09-2	3-Nitroaniline	ND		ug/kg dry	92.9	186	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 21:11	KH
534-52-1	4,6-Dinitro-2-methylphenol	ND		ug/kg dry	92.9	186	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 21:11	KH
101-55-3	4-Bromophenyl phenyl ether	ND		ug/kg dry	46.6	92.9	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 21:11	KH
59-50-7	4-Chloro-3-methylphenol	ND		ug/kg dry	46.6	92.9	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 21:11	KH
106-47-8	4-Chloroaniline	ND		ug/kg dry	46.6	92.9	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 21:11	KH
7005-72-3	4-Chlorophenyl phenyl ether	ND		ug/kg dry	46.6	92.9	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 21:11	KH
100-01-6	4-Nitroaniline	ND		ug/kg dry	92.9	186	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 21:11	KH
100-02-7	4-Nitrophenol	ND		ug/kg dry	92.9	186	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 21:11	KH
83-32-9	Acenaphthene	ND		ug/kg dry	46.6	92.9	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 21:11	KH
208-96-8	Acenaphthylene	ND		ug/kg dry	46.6	92.9	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 21:11	KH
98-86-2	Acetophenone	ND		ug/kg dry	46.6	92.9	2	EPA 8270D Certifications: NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 21:11	KH
62-53-3	Aniline	ND		ug/kg dry	186	372	2	EPA 8270D Certifications: NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 21:11	KH
120-12-7	Anthracene	ND		ug/kg dry	46.6	92.9	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 21:11	KH
1912-24-9	Atrazine	ND		ug/kg dry	46.6	92.9	2	EPA 8270D Certifications: NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 21:11	KH
100-52-7	Benzaldehyde	ND		ug/kg dry	46.6	92.9	2	EPA 8270D Certifications: NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 21:11	KH
92-87-5	Benzidine	ND		ug/kg dry	186	372	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,PADEP	11/05/2020 07:27	11/05/2020 21:11	KH
56-55-3	Benzo(a)anthracene	ND		ug/kg dry	46.6	92.9	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 21:11	KH
50-32-8	Benzo(a)pyrene	ND		ug/kg dry	46.6	92.9	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 21:11	KH
205-99-2	Benzo(b)fluoranthene	ND		ug/kg dry	46.6	92.9	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 21:11	KH

Sample Information

Client Sample ID: **TP-6** **York Sample ID:** **20J1329-05**

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
20J1329	20-0857	Soil	October 27, 2020 12:00 am	10/29/2020

Semi-Volatiles, 8270 - Comprehensive **Log-in Notes:** **Sample Notes:**

Sample Prepared by Method: EPA 3550C

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
191-24-2	Benzo(g,h,i)perylene	ND		ug/kg dry	46.6	92.9	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 21:11	KH
207-08-9	Benzo(k)fluoranthene	ND		ug/kg dry	46.6	92.9	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 21:11	KH
65-85-0	Benzoic acid	ND		ug/kg dry	46.6	92.9	2	EPA 8270D Certifications: NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 21:11	KH
100-51-6	Benzyl alcohol	ND		ug/kg dry	46.6	92.9	2	EPA 8270D Certifications: NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 21:11	KH
85-68-7	Benzyl butyl phthalate	ND		ug/kg dry	46.6	92.9	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 21:11	KH
111-91-1	Bis(2-chloroethoxy)methane	ND		ug/kg dry	46.6	92.9	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 21:11	KH
111-44-4	Bis(2-chloroethyl)ether	ND		ug/kg dry	46.6	92.9	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 21:11	KH
108-60-1	Bis(2-chloroisopropyl)ether	ND		ug/kg dry	46.6	92.9	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 21:11	KH
117-81-7	Bis(2-ethylhexyl)phthalate	ND		ug/kg dry	46.6	92.9	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 21:11	KH
105-60-2	Caprolactam	ND		ug/kg dry	92.9	186	2	EPA 8270D Certifications: NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 21:11	KH
86-74-8	Carbazole	ND		ug/kg dry	46.6	92.9	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 21:11	KH
218-01-9	Chrysene	ND		ug/kg dry	46.6	92.9	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 21:11	KH
53-70-3	Dibenzo(a,h)anthracene	ND		ug/kg dry	46.6	92.9	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 21:11	KH
132-64-9	Dibenzofuran	ND		ug/kg dry	46.6	92.9	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 21:11	KH
84-66-2	Diethyl phthalate	ND		ug/kg dry	46.6	92.9	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 21:11	KH
131-11-3	Dimethyl phthalate	ND		ug/kg dry	46.6	92.9	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 21:11	KH
84-74-2	Di-n-butyl phthalate	ND		ug/kg dry	46.6	92.9	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 21:11	KH
117-84-0	Di-n-octyl phthalate	ND		ug/kg dry	46.6	92.9	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 21:11	KH
122-39-4	* Diphenylamine	ND		ug/kg dry	92.9	186	2	EPA 8270D Certifications:	11/05/2020 07:27	11/05/2020 21:11	KH
206-44-0	**Fluoranthene**	**80.9**	J	ug/kg dry	46.6	92.9	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 21:11	KH
86-73-7	Fluorene	ND		ug/kg dry	46.6	92.9	2	EPA 8270D Certifications: NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 21:11	KH
118-74-1	Hexachlorobenzene	ND		ug/kg dry	46.6	92.9	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 21:11	KH
87-68-3	Hexachlorobutadiene	ND		ug/kg dry	46.6	92.9	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 21:11	KH

Sample Information

Client Sample ID: TP-6 **York Sample ID:** 20J1329-05

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
20J1329	20-0857	Soil	October 27, 2020 12:00 am	10/29/2020

Semi-Volatiles, 8270 - Comprehensive

Log-in Notes: **Sample Notes:**

Sample Prepared by Method: EPA 3550C

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
77-47-4	Hexachlorocyclopentadiene	ND		ug/kg dry	46.6	92.9	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 21:11	KH
67-72-1	Hexachloroethane	ND		ug/kg dry	46.6	92.9	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 21:11	KH
193-39-5	Indeno(1,2,3-cd)pyrene	ND		ug/kg dry	46.6	92.9	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 21:11	KH
78-59-1	Isophorone	ND		ug/kg dry	46.6	92.9	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 21:11	KH
91-20-3	Naphthalene	ND		ug/kg dry	46.6	92.9	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 21:11	KH
98-95-3	Nitrobenzene	ND		ug/kg dry	46.6	92.9	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 21:11	KH
62-75-9	N-Nitrosodimethylamine	ND		ug/kg dry	46.6	92.9	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 21:11	KH
621-64-7	N-nitroso-di-n-propylamine	ND		ug/kg dry	46.6	92.9	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 21:11	KH
86-30-6	N-Nitrosodiphenylamine	ND		ug/kg dry	46.6	92.9	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 21:11	KH
87-86-5	Pentachlorophenol	ND		ug/kg dry	46.6	92.9	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 21:11	KH
85-01-8	Phenanthrene	ND		ug/kg dry	46.6	92.9	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 21:11	KH
108-95-2	Phenol	ND		ug/kg dry	46.6	92.9	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 21:11	KH
129-00-0	**Pyrene**	**69.1**	J	ug/kg dry	46.6	92.9	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 21:11	KH

	Surrogate Recoveries	Result	Acceptance Range
367-12-4	*Surrogate: SURR: 2-Fluorophenol*	*55.5 %*	*20-108*
4165-62-2	*Surrogate: SURR: Phenol-d5*	*57.7 %*	*23-114*
4165-60-0	*Surrogate: SURR: Nitrobenzene-d5*	*66.5 %*	*22-108*
321-60-8	*Surrogate: SURR: 2-Fluorobiphenyl*	*68.7 %*	*21-113*
118-79-6	*Surrogate: SURR: 2,4,6-Tribromophenol*	*108 %*	*19-110*
1718-51-0	*Surrogate: SURR: Terphenyl-d14*	*81.9 %*	*24-116*

Pesticides, 8081 target list

Log-in Notes: **Sample Notes:**

Sample Prepared by Method: EPA 3550C

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
72-54-8	4,4'-DDD	ND		mg/kg dry	0.00184	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/04/2020 06:56	11/05/2020 13:27	CM
72-55-9	4,4'-DDE	ND		mg/kg dry	0.00184	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/04/2020 06:56	11/05/2020 13:27	CM
50-29-3	4,4'-DDT	ND		mg/kg dry	0.00184	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/04/2020 06:56	11/05/2020 13:27	CM

Sample Information

Client Sample ID: **TP-6** **York Sample ID:** **20J1329-05**

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
20J1329	20-0857	Soil	October 27, 2020 12:00 am	10/29/2020

Pesticides, 8081 target list

Log-in Notes: **Sample Notes:**

Sample Prepared by Method: EPA 3550C

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
309-00-2	Aldrin	ND		mg/kg dry	0.00184	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/04/2020 06:56	11/05/2020 13:27	CM
319-84-6	alpha-BHC	ND		mg/kg dry	0.00184	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/04/2020 06:56	11/05/2020 13:27	CM
5103-71-9	alpha-Chlordane	ND		mg/kg dry	0.00184	5	EPA 8081B Certifications: NELAC-NY10854,NJDEP	11/04/2020 06:56	11/05/2020 13:27	CM
319-85-7	beta-BHC	ND		mg/kg dry	0.00184	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/04/2020 06:56	11/05/2020 13:27	CM
57-74-9	Chlordane, total	ND		mg/kg dry	0.0369	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/04/2020 06:56	11/05/2020 13:27	CM
319-86-8	delta-BHC	ND		mg/kg dry	0.00184	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/04/2020 06:56	11/05/2020 13:27	CM
60-57-1	Dieldrin	ND		mg/kg dry	0.00184	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/04/2020 06:56	11/05/2020 13:27	CM
959-98-8	Endosulfan I	ND		mg/kg dry	0.00184	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/04/2020 06:56	11/05/2020 13:27	CM
33213-65-9	Endosulfan II	ND		mg/kg dry	0.00184	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854	11/04/2020 06:56	11/05/2020 13:27	CM
1031-07-8	Endosulfan sulfate	ND		mg/kg dry	0.00184	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/04/2020 06:56	11/05/2020 13:27	CM
72-20-8	Endrin	ND		mg/kg dry	0.00184	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/04/2020 06:56	11/05/2020 13:27	CM
7421-93-4	Endrin aldehyde	ND		mg/kg dry	0.00184	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/04/2020 06:56	11/05/2020 13:27	CM
53494-70-5	Endrin ketone	ND		mg/kg dry	0.00184	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/04/2020 06:56	11/05/2020 13:27	CM
58-89-9	gamma-BHC (Lindane)	ND		mg/kg dry	0.00184	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/04/2020 06:56	11/05/2020 13:27	CM
5566-34-7	gamma-Chlordane	ND		mg/kg dry	0.00184	5	EPA 8081B Certifications: NELAC-NY10854,NJDEP	11/04/2020 06:56	11/05/2020 13:27	CM
76-44-8	Heptachlor	ND		mg/kg dry	0.00184	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/04/2020 06:56	11/05/2020 13:27	CM
1024-57-3	Heptachlor epoxide	ND		mg/kg dry	0.00184	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/04/2020 06:56	11/05/2020 13:27	CM
72-43-5	Methoxychlor	ND		mg/kg dry	0.00922	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/04/2020 06:56	11/05/2020 13:27	CM
8001-35-2	Toxaphene	ND		mg/kg dry	0.0933	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/04/2020 06:56	11/05/2020 13:27	CM

	Surrogate Recoveries	Result	Acceptance Range
2051-24-3	*Surrogate: Decachlorobiphenyl*	*105 %*	*30-150*
877-09-8	*Surrogate: Tetrachloro-m-xylene*	*57.7 %*	*30-150*

Polychlorinated Biphenyls (PCB)

Log-in Notes: **Sample Notes:**

Sample Prepared by Method: EPA 3550C

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst

Sample Information

Client Sample ID: **TP-6** **York Sample ID:** **20J1329-05**

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
20J1329	20-0857	Soil	October 27, 2020 12:00 am	10/29/2020

12674-11-2	Aroclor 1016	ND	mg/kg dry	0.0186	1	EPA 8082A	11/04/2020 06:56	11/05/2020 12:07	BJ
						Certifications:	NELAC-NY10854,CTDOH,NJDEP,PADEP		
11104-28-2	Aroclor 1221	ND	mg/kg dry	0.0186	1	EPA 8082A	11/04/2020 06:56	11/05/2020 12:07	BJ
						Certifications:	NELAC-NY10854,CTDOH,NJDEP,PADEP		
11141-16-5	Aroclor 1232	ND	mg/kg dry	0.0186	1	EPA 8082A	11/04/2020 06:56	11/05/2020 12:07	BJ
						Certifications:	NELAC-NY10854,CTDOH,NJDEP,PADEP		
53469-21-9	Aroclor 1242	ND	mg/kg dry	0.0186	1	EPA 8082A	11/04/2020 06:56	11/05/2020 12:07	BJ
						Certifications:	NELAC-NY10854,CTDOH,NJDEP,PADEP		
12672-29-6	Aroclor 1248	ND	mg/kg dry	0.0186	1	EPA 8082A	11/04/2020 06:56	11/05/2020 12:07	BJ
						Certifications:	NELAC-NY10854,CTDOH,NJDEP,PADEP		
11097-69-1	Aroclor 1254	ND	mg/kg dry	0.0186	1	EPA 8082A	11/04/2020 06:56	11/05/2020 12:07	BJ
						Certifications:	NELAC-NY10854,CTDOH,NJDEP,PADEP		
11096-82-5	Aroclor 1260	ND	mg/kg dry	0.0186	1	EPA 8082A	11/04/2020 06:56	11/05/2020 12:07	BJ
						Certifications:	NELAC-NY10854,CTDOH,NJDEP,PADEP		
37324-23-5	Aroclor 1262	ND	mg/kg dry	0.0186	1	EPA 8082A	11/04/2020 06:56	11/05/2020 12:07	BJ
						Certifications:	NELAC-NY10854,NJDEP,PADEP		
11100-14-4	Aroclor 1268	ND	mg/kg dry	0.0186	1	EPA 8082A	11/04/2020 06:56	11/05/2020 12:07	BJ
						Certifications:	NELAC-NY10854,NJDEP,PADEP		
1336-36-3	* Total PCBs	ND	mg/kg dry	0.0186	1	EPA 8082A	11/04/2020 06:56	11/05/2020 12:07	BJ
						Certifications:			

	Surrogate Recoveries	Result	Acceptance Range
877-09-8	*Surrogate: Tetrachloro-m-xylene*	*70.5 %*	*30-140*
2051-24-3	*Surrogate: Decachlorobiphenyl*	*75.5 %*	*30-140*

Metals, Target Analyte

Log-in Notes: **Sample Notes:**

Sample Prepared by Method: EPA 3050B

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7429-90-5	**Aluminum**	**8970**		mg/kg dry	5.63	1	EPA 6010D	10/29/2020 16:34	11/02/2020 16:09	WJM
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP		
7440-36-0	Antimony	ND		mg/kg dry	2.81	1	EPA 6010D	10/29/2020 16:34	11/02/2020 16:09	WJM
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP		
7440-38-2	**Arsenic**	**4.15**		mg/kg dry	1.69	1	EPA 6010D	10/29/2020 16:34	11/02/2020 16:09	WJM
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP		
7440-39-3	**Barium**	**62.7**		mg/kg dry	2.81	1	EPA 6010D	10/29/2020 16:34	11/02/2020 16:09	WJM
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP		
7440-41-7	**Beryllium**	**0.136**		mg/kg dry	0.056	1	EPA 6010D	10/29/2020 16:34	11/02/2020 16:09	WJM
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP		
7440-43-9	Cadmium	ND		mg/kg dry	0.338	1	EPA 6010D	10/29/2020 16:34	11/02/2020 16:09	WJM
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP		
7440-70-2	**Calcium**	**1450**		mg/kg dry	5.63	1	EPA 6010D	10/29/2020 16:34	11/02/2020 16:09	WJM
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP		
7440-47-3	**Chromium**	**8.00**		mg/kg dry	0.563	1	EPA 6010D	10/29/2020 16:34	11/02/2020 16:09	WJM
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP		
7440-48-4	**Cobalt**	**7.35**		mg/kg dry	0.450	1	EPA 6010D	10/29/2020 16:34	11/02/2020 16:09	WJM
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP		
7440-50-8	**Copper**	**22.7**		mg/kg dry	2.25	1	EPA 6010D	10/29/2020 16:34	11/02/2020 16:09	WJM
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP		

Sample Information

Client Sample ID: **TP-6**

York Sample ID: **20J1329-05**

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
20J1329	20-0857	Soil	October 27, 2020 12:00 am	10/29/2020

Metals, Target Analyte

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3050B

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7439-89-6	**Iron**	**14900**		mg/kg dry	28.1	1	EPA 6010D	10/29/2020 16:34	11/02/2020 16:09	WJM
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP		
7439-92-1	**Lead**	**43.1**		mg/kg dry	0.563	1	EPA 6010D	10/29/2020 16:34	11/02/2020 16:09	WJM
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP		
7439-95-4	**Magnesium**	**2770**		mg/kg dry	5.63	1	EPA 6010D	10/29/2020 16:34	11/02/2020 16:09	WJM
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP		
7439-96-5	**Manganese**	**456**		mg/kg dry	0.563	1	EPA 6010D	10/29/2020 16:34	11/02/2020 16:09	WJM
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP		
7440-02-0	**Nickel**	**12.8**		mg/kg dry	1.13	1	EPA 6010D	10/29/2020 16:34	11/02/2020 16:09	WJM
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP		
7440-09-7	**Potassium**	**1020**		mg/kg dry	5.63	1	EPA 6010D	10/29/2020 16:34	11/02/2020 16:09	WJM
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP		
7782-49-2	Selenium	ND		mg/kg dry	2.81	1	EPA 6010D	10/29/2020 16:34	11/02/2020 16:09	WJM
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP		
7440-22-4	Silver	ND		mg/kg dry	0.563	1	EPA 6010D	10/29/2020 16:34	11/02/2020 16:09	WJM
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP		
7440-23-5	Sodium	ND		mg/kg dry	56.3	1	EPA 6010D	10/29/2020 16:34	11/02/2020 16:09	WJM
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP		
7440-28-0	Thallium	ND		mg/kg dry	2.81	1	EPA 6010D	10/29/2020 16:34	11/02/2020 16:09	WJM
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP		
7440-62-2	**Vanadium**	**10.2**		mg/kg dry	1.13	1	EPA 6010D	10/29/2020 16:34	11/02/2020 16:09	WJM
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP		
7440-66-6	**Zinc**	**62.9**	B	mg/kg dry	2.81	1	EPA 6010D	10/29/2020 16:34	11/02/2020 16:09	WJM
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP		

Mercury by 7473

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 7473 soil

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7439-97-6	**Mercury**	**0.0901**		mg/kg dry	0.0338	1	EPA 7473	10/29/2020 16:32	10/29/2020 19:23	MAO
							Certifications:	CTDOH,NJDEP,NELAC-NY10854,PADEP		

Total Solids

Log-in Notes:

Sample Notes:

Sample Prepared by Method: % Solids Prep

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
solids	*** % Solids**	**88.9**		%	0.100	1	SM 2540G	10/30/2020 08:47	10/30/2020 14:41	SK
							Certifications:	CTDOH		

Sample Information

Client Sample ID: **TP-12** **York Sample ID:** **20J1329-06**

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
20J1329	20-0857	Soil	October 27, 2020 12:00 am	10/29/2020

Volatile Organics, 8260 - Comprehensive

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5035A

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
630-20-6	1,1,1,2-Tetrachloroethane	ND		mg/kg dry	0.0046	0.0092	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 20:32	TMP
71-55-6	1,1,1-Trichloroethane	ND		mg/kg dry	0.0046	0.0092	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 20:32	TMP
79-34-5	1,1,2,2-Tetrachloroethane	ND		mg/kg dry	0.0046	0.0092	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 20:32	TMP
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND		mg/kg dry	0.0046	0.0092	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP	11/03/2020 07:00	11/03/2020 20:32	TMP
79-00-5	1,1,2-Trichloroethane	ND		mg/kg dry	0.0046	0.0092	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 20:32	TMP
75-34-3	1,1-Dichloroethane	ND		mg/kg dry	0.0046	0.0092	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 20:32	TMP
75-35-4	1,1-Dichloroethylene	ND		mg/kg dry	0.0046	0.0092	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 20:32	TMP
87-61-6	1,2,3-Trichlorobenzene	ND		mg/kg dry	0.0046	0.0092	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 20:32	TMP
96-18-4	1,2,3-Trichloropropane	ND		mg/kg dry	0.0046	0.0092	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP	11/03/2020 07:00	11/03/2020 20:32	TMP
120-82-1	1,2,4-Trichlorobenzene	ND		mg/kg dry	0.0046	0.0092	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 20:32	TMP
95-63-6	1,2,4-Trimethylbenzene	ND		mg/kg dry	0.0046	0.0092	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 20:32	TMP
96-12-8	1,2-Dibromo-3-chloropropane	ND		mg/kg dry	0.0046	0.0092	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 20:32	TMP
106-93-4	1,2-Dibromoethane	ND		mg/kg dry	0.0046	0.0092	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 20:32	TMP
95-50-1	1,2-Dichlorobenzene	ND		mg/kg dry	0.0046	0.0092	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 20:32	TMP
107-06-2	1,2-Dichloroethane	ND		mg/kg dry	0.0046	0.0092	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 20:32	TMP
78-87-5	1,2-Dichloropropane	ND		mg/kg dry	0.0046	0.0092	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 20:32	TMP
108-67-8	1,3,5-Trimethylbenzene	ND		mg/kg dry	0.0046	0.0092	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 20:32	TMP
541-73-1	1,3-Dichlorobenzene	ND		mg/kg dry	0.0046	0.0092	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 20:32	TMP
106-46-7	1,4-Dichlorobenzene	ND		mg/kg dry	0.0046	0.0092	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 20:32	TMP
123-91-1	1,4-Dioxane	ND		mg/kg dry	0.092	0.18	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 20:32	TMP
78-93-3	2-Butanone	ND		mg/kg dry	0.0046	0.0092	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 20:32	TMP
591-78-6	2-Hexanone	ND		mg/kg dry	0.0046	0.0092	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 20:32	TMP
108-10-1	4-Methyl-2-pentanone	ND		mg/kg dry	0.0046	0.0092	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 20:32	TMP

Sample Information

Client Sample ID: **TP-12** **York Sample ID:** **20J1329-06**

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
20J1329	20-0857	Soil	October 27, 2020 12:00 am	10/29/2020

Volatile Organics, 8260 - Comprehensive

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5035A

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
67-64-1	Acetone	ND		mg/kg dry	0.0092	0.018	1	EPA 8260C	11/03/2020 07:00	11/03/2020 20:32	TMP
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP		
107-02-8	Acrolein	ND		mg/kg dry	0.0092	0.018	1	EPA 8260C	11/03/2020 07:00	11/03/2020 20:32	TMP
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP		
107-13-1	Acrylonitrile	ND		mg/kg dry	0.0046	0.0092	1	EPA 8260C	11/03/2020 07:00	11/03/2020 20:32	TMP
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP		
71-43-2	Benzene	ND		mg/kg dry	0.0046	0.0092	1	EPA 8260C	11/03/2020 07:00	11/03/2020 20:32	TMP
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP		
74-97-5	Bromochloromethane	ND		mg/kg dry	0.0046	0.0092	1	EPA 8260C	11/03/2020 07:00	11/03/2020 20:32	TMP
								Certifications:	NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP		
75-27-4	Bromodichloromethane	ND		mg/kg dry	0.0046	0.0092	1	EPA 8260C	11/03/2020 07:00	11/03/2020 20:32	TMP
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP		
75-25-2	Bromoform	ND		mg/kg dry	0.0046	0.0092	1	EPA 8260C	11/03/2020 07:00	11/03/2020 20:32	TMP
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP		
74-83-9	Bromomethane	ND		mg/kg dry	0.0046	0.0092	1	EPA 8260C	11/03/2020 07:00	11/03/2020 20:32	TMP
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP		
75-15-0	Carbon disulfide	ND		mg/kg dry	0.0046	0.0092	1	EPA 8260C	11/03/2020 07:00	11/03/2020 20:32	TMP
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP		
56-23-5	Carbon tetrachloride	ND		mg/kg dry	0.0046	0.0092	1	EPA 8260C	11/03/2020 07:00	11/03/2020 20:32	TMP
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP		
108-90-7	Chlorobenzene	ND		mg/kg dry	0.0046	0.0092	1	EPA 8260C	11/03/2020 07:00	11/03/2020 20:32	TMP
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP		
75-00-3	Chloroethane	ND		mg/kg dry	0.0046	0.0092	1	EPA 8260C	11/03/2020 07:00	11/03/2020 20:32	TMP
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP		
67-66-3	Chloroform	ND		mg/kg dry	0.0046	0.0092	1	EPA 8260C	11/03/2020 07:00	11/03/2020 20:32	TMP
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP		
74-87-3	Chloromethane	ND		mg/kg dry	0.0046	0.0092	1	EPA 8260C	11/03/2020 07:00	11/03/2020 20:32	TMP
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP		
156-59-2	cis-1,2-Dichloroethylene	ND		mg/kg dry	0.0046	0.0092	1	EPA 8260C	11/03/2020 07:00	11/03/2020 20:32	TMP
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP		
10061-01-5	cis-1,3-Dichloropropylene	ND		mg/kg dry	0.0046	0.0092	1	EPA 8260C	11/03/2020 07:00	11/03/2020 20:32	TMP
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP		
110-82-7	Cyclohexane	ND		mg/kg dry	0.0046	0.0092	1	EPA 8260C	11/03/2020 07:00	11/03/2020 20:32	TMP
								Certifications:	NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP		
124-48-1	Dibromochloromethane	ND		mg/kg dry	0.0046	0.0092	1	EPA 8260C	11/03/2020 07:00	11/03/2020 20:32	TMP
								Certifications:	NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP		
74-95-3	Dibromomethane	ND		mg/kg dry	0.0046	0.0092	1	EPA 8260C	11/03/2020 07:00	11/03/2020 20:32	TMP
								Certifications:	NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP		
75-71-8	Dichlorodifluoromethane	ND		mg/kg dry	0.0046	0.0092	1	EPA 8260C	11/03/2020 07:00	11/03/2020 20:32	TMP
								Certifications:	NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP		
100-41-4	Ethyl Benzene	ND		mg/kg dry	0.0046	0.0092	1	EPA 8260C	11/03/2020 07:00	11/03/2020 20:32	TMP
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP		
87-68-3	Hexachlorobutadiene	ND		mg/kg dry	0.0046	0.0092	1	EPA 8260C	11/03/2020 07:00	11/03/2020 20:32	TMP
								Certifications:	NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP		
98-82-8	Isopropylbenzene	ND		mg/kg dry	0.0046	0.0092	1	EPA 8260C	11/03/2020 07:00	11/03/2020 20:32	TMP
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP		

Sample Information

Client Sample ID: **TP-12**

York Sample ID: **20J1329-06**

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
20J1329	20-0857	Soil	October 27, 2020 12:00 am	10/29/2020

Volatile Organics, 8260 - Comprehensive

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5035A

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
79-20-9	Methyl acetate	ND		mg/kg dry	0.0046	0.0092	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 20:32	TMP
1634-04-4	Methyl tert-butyl ether (MTBE)	ND		mg/kg dry	0.0046	0.0092	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 20:32	TMP
108-87-2	Methylcyclohexane	ND		mg/kg dry	0.0046	0.0092	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 20:32	TMP
75-09-2	Methylene chloride	ND		mg/kg dry	0.0092	0.018	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 20:32	TMP
104-51-8	n-Butylbenzene	ND		mg/kg dry	0.0046	0.0092	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 20:32	TMP
103-65-1	n-Propylbenzene	ND		mg/kg dry	0.0046	0.0092	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 20:32	TMP
95-47-6	o-Xylene	ND		mg/kg dry	0.0046	0.0092	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,PADEP	11/03/2020 07:00	11/03/2020 20:32	TMP
179601-23-1	p- & m- Xylenes	ND		mg/kg dry	0.0092	0.018	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,PADEP	11/03/2020 07:00	11/03/2020 20:32	TMP
99-87-6	p-Isopropyltoluene	ND		mg/kg dry	0.0046	0.0092	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 20:32	TMP
135-98-8	sec-Butylbenzene	ND		mg/kg dry	0.0046	0.0092	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 20:32	TMP
100-42-5	Styrene	ND		mg/kg dry	0.0046	0.0092	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 20:32	TMP
75-65-0	tert-Butyl alcohol (TBA)	ND		mg/kg dry	0.0046	0.0092	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 20:32	TMP
98-06-6	tert-Butylbenzene	ND		mg/kg dry	0.0046	0.0092	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 20:32	TMP
127-18-4	Tetrachloroethylene	ND		mg/kg dry	0.0046	0.0092	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 20:32	TMP
108-88-3	Toluene	ND		mg/kg dry	0.0046	0.0092	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 20:32	TMP
156-60-5	trans-1,2-Dichloroethylene	ND		mg/kg dry	0.0046	0.0092	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 20:32	TMP
10061-02-6	trans-1,3-Dichloropropylene	ND		mg/kg dry	0.0046	0.0092	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 20:32	TMP
79-01-6	Trichloroethylene	ND		mg/kg dry	0.0046	0.0092	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 20:32	TMP
75-69-4	Trichlorofluoromethane	ND		mg/kg dry	0.0046	0.0092	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 20:32	TMP
75-01-4	Vinyl Chloride	ND		mg/kg dry	0.0046	0.0092	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 20:32	TMP
1330-20-7	Xylenes, Total	ND		mg/kg dry	0.014	0.027	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP	11/03/2020 07:00	11/03/2020 20:32	TMP

	Surrogate Recoveries	Result	Acceptance Range
17060-07-0	*Surrogate: SURR: 1,2-Dichloroethane-d4*	*106 %*	*77-125*
2037-26-5	*Surrogate: SURR: Toluene-d8*	*100 %*	*85-120*

Sample Information

Client Sample ID:	**TP-12**		**York Sample ID:**	**20J1329-06**
York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
20J1329	20-0857	Soil	October 27, 2020 12:00 am	10/29/2020

Volatile Organics, 8260 - Comprehensive

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5035A

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
460-00-4	*Surrogate: SURR: p-Bromofluorobenzene*	*101 %*			*76-130*						

Semi-Volatiles, 8270 - Comprehensive

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3550C

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
92-52-4	1,1-Biphenyl	ND		ug/kg dry	46.9	93.5	2	EPA 8270D Certifications: NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 21:41	KH
95-94-3	1,2,4,5-Tetrachlorobenzene	ND		ug/kg dry	93.5	187	2	EPA 8270D Certifications: NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 21:41	KH
120-82-1	1,2,4-Trichlorobenzene	ND		ug/kg dry	46.9	93.5	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 21:41	KH
95-50-1	1,2-Dichlorobenzene	ND		ug/kg dry	46.9	93.5	2	EPA 8270D Certifications: NELAC-NY10854,PADEP	11/05/2020 07:27	11/05/2020 21:41	KH
122-66-7	1,2-Diphenylhydrazine (as Azobenzene)	ND		ug/kg dry	46.9	93.5	2	EPA 8270D Certifications: NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 21:41	KH
541-73-1	1,3-Dichlorobenzene	ND		ug/kg dry	46.9	93.5	2	EPA 8270D Certifications: NELAC-NY10854,PADEP	11/05/2020 07:27	11/05/2020 21:41	KH
106-46-7	1,4-Dichlorobenzene	ND		ug/kg dry	46.9	93.5	2	EPA 8270D Certifications: NELAC-NY10854,PADEP	11/05/2020 07:27	11/05/2020 21:41	KH
58-90-2	2,3,4,6-Tetrachlorophenol	ND		ug/kg dry	93.5	187	2	EPA 8270D Certifications: NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 21:41	KH
95-95-4	2,4,5-Trichlorophenol	ND		ug/kg dry	46.9	93.5	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 21:41	KH
88-06-2	2,4,6-Trichlorophenol	ND		ug/kg dry	46.9	93.5	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 21:41	KH
120-83-2	2,4-Dichlorophenol	ND		ug/kg dry	46.9	93.5	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 21:41	KH
105-67-9	2,4-Dimethylphenol	ND		ug/kg dry	46.9	93.5	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 21:41	KH
51-28-5	2,4-Dinitrophenol	ND		ug/kg dry	93.5	187	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 21:41	KH
121-14-2	2,4-Dinitrotoluene	ND		ug/kg dry	46.9	93.5	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 21:41	KH
606-20-2	2,6-Dinitrotoluene	ND		ug/kg dry	46.9	93.5	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 21:41	KH
91-58-7	2-Chloronaphthalene	ND		ug/kg dry	46.9	93.5	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 21:41	KH
95-57-8	2-Chlorophenol	ND		ug/kg dry	46.9	93.5	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 21:41	KH
91-57-6	2-Methylnaphthalene	ND		ug/kg dry	46.9	93.5	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 21:41	KH
95-48-7	2-Methylphenol	ND		ug/kg dry	46.9	93.5	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 21:41	KH

Sample Information

Client Sample ID: **TP-12** **York Sample ID:** **20J1329-06**

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
20J1329	20-0857	Soil	October 27, 2020 12:00 am	10/29/2020

Semi-Volatiles, 8270 - Comprehensive **Log-in Notes:** **Sample Notes:**

Sample Prepared by Method: EPA 3550C

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
88-74-4	2-Nitroaniline	ND		ug/kg dry	93.5	187	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 21:41	KH
88-75-5	2-Nitrophenol	ND		ug/kg dry	46.9	93.5	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 21:41	KH
65794-96-9	3- & 4-Methylphenols	ND		ug/kg dry	46.9	93.5	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 21:41	KH
91-94-1	3,3-Dichlorobenzidine	ND		ug/kg dry	46.9	93.5	2	EPA 8270D Certifications: NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 21:41	KH
99-09-2	3-Nitroaniline	ND		ug/kg dry	93.5	187	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 21:41	KH
534-52-1	4,6-Dinitro-2-methylphenol	ND		ug/kg dry	93.5	187	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 21:41	KH
101-55-3	4-Bromophenyl phenyl ether	ND		ug/kg dry	46.9	93.5	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 21:41	KH
59-50-7	4-Chloro-3-methylphenol	ND		ug/kg dry	46.9	93.5	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 21:41	KH
106-47-8	4-Chloroaniline	ND		ug/kg dry	46.9	93.5	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 21:41	KH
7005-72-3	4-Chlorophenyl phenyl ether	ND		ug/kg dry	46.9	93.5	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 21:41	KH
100-01-6	4-Nitroaniline	ND		ug/kg dry	93.5	187	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 21:41	KH
100-02-7	4-Nitrophenol	ND		ug/kg dry	93.5	187	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 21:41	KH
83-32-9	Acenaphthene	ND		ug/kg dry	46.9	93.5	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 21:41	KH
208-96-8	Acenaphthylene	ND		ug/kg dry	46.9	93.5	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 21:41	KH
98-86-2	Acetophenone	ND		ug/kg dry	46.9	93.5	2	EPA 8270D Certifications: NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 21:41	KH
62-53-3	Aniline	ND		ug/kg dry	187	374	2	EPA 8270D Certifications: NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 21:41	KH
120-12-7	Anthracene	ND		ug/kg dry	46.9	93.5	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 21:41	KH
1912-24-9	Atrazine	ND		ug/kg dry	46.9	93.5	2	EPA 8270D Certifications: NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 21:41	KH
100-52-7	Benzaldehyde	ND		ug/kg dry	46.9	93.5	2	EPA 8270D Certifications: NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 21:41	KH
92-87-5	Benzidine	ND		ug/kg dry	187	374	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,PADEP	11/05/2020 07:27	11/05/2020 21:41	KH
56-55-3	**Benzo(a)anthracene**	**74.0**	J	ug/kg dry	46.9	93.5	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 21:41	KH
50-32-8	**Benzo(a)pyrene**	**73.2**	J	ug/kg dry	46.9	93.5	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 21:41	KH
205-99-2	**Benzo(b)fluoranthene**	**74.0**	J	ug/kg dry	46.9	93.5	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 21:41	KH

Sample Information

Client Sample ID: TP-12 **York Sample ID:** 20J1329-06

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
20J1329	20-0857	Soil	October 27, 2020 12:00 am	10/29/2020

Semi-Volatiles, 8270 - Comprehensive

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3550C

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
191-24-2	**Benzo(g,h,i)perylene**	**50.8**	J	ug/kg dry	46.9	93.5	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 21:41	KH
207-08-9	**Benzo(k)fluoranthene**	**61.3**	J	ug/kg dry	46.9	93.5	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 21:41	KH
65-85-0	Benzoic acid	ND		ug/kg dry	46.9	93.5	2	EPA 8270D Certifications: NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 21:41	KH
100-51-6	Benzyl alcohol	ND		ug/kg dry	46.9	93.5	2	EPA 8270D Certifications: NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 21:41	KH
85-68-7	**Benzyl butyl phthalate**	**984**		ug/kg dry	46.9	93.5	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 21:41	KH
111-91-1	Bis(2-chloroethoxy)methane	ND		ug/kg dry	46.9	93.5	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 21:41	KH
111-44-4	Bis(2-chloroethyl)ether	ND		ug/kg dry	46.9	93.5	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 21:41	KH
108-60-1	Bis(2-chloroisopropyl)ether	ND		ug/kg dry	46.9	93.5	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 21:41	KH
117-81-7	**Bis(2-ethylhexyl)phthalate**	**146**		ug/kg dry	46.9	93.5	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 21:41	KH
105-60-2	Caprolactam	ND		ug/kg dry	93.5	187	2	EPA 8270D Certifications: NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 21:41	KH
86-74-8	Carbazole	ND		ug/kg dry	46.9	93.5	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 21:41	KH
218-01-9	**Chrysene**	**74.0**	J	ug/kg dry	46.9	93.5	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 21:41	KH
53-70-3	Dibenzo(a,h)anthracene	ND		ug/kg dry	46.9	93.5	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 21:41	KH
132-64-9	Dibenzofuran	ND		ug/kg dry	46.9	93.5	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 21:41	KH
84-66-2	Diethyl phthalate	ND		ug/kg dry	46.9	93.5	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 21:41	KH
131-11-3	Dimethyl phthalate	ND		ug/kg dry	46.9	93.5	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 21:41	KH
84-74-2	Di-n-butyl phthalate	ND		ug/kg dry	46.9	93.5	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 21:41	KH
117-84-0	Di-n-octyl phthalate	ND		ug/kg dry	46.9	93.5	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 21:41	KH
122-39-4	* Diphenylamine	ND		ug/kg dry	93.5	187	2	EPA 8270D Certifications:	11/05/2020 07:27	11/05/2020 21:41	KH
206-44-0	**Fluoranthene**	**149**		ug/kg dry	46.9	93.5	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 21:41	KH
86-73-7	Fluorene	ND		ug/kg dry	46.9	93.5	2	EPA 8270D Certifications: NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 21:41	KH
118-74-1	Hexachlorobenzene	ND		ug/kg dry	46.9	93.5	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 21:41	KH
87-68-3	Hexachlorobutadiene	ND		ug/kg dry	46.9	93.5	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 21:41	KH

Sample Information

Client Sample ID:	**TP-12**	**York Sample ID:**	**20J1329-06**

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
20J1329	20-0857	Soil	October 27, 2020 12:00 am	10/29/2020

Semi-Volatiles, 8270 - Comprehensive

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3550C

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
77-47-4	Hexachlorocyclopentadiene	ND		ug/kg dry	46.9	93.5	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 21:41	KH
67-72-1	Hexachloroethane	ND		ug/kg dry	46.9	93.5	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 21:41	KH
193-39-5	**Indeno(1,2,3-cd)pyrene**	**54.6**	J	ug/kg dry	46.9	93.5	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 21:41	KH
78-59-1	Isophorone	ND		ug/kg dry	46.9	93.5	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 21:41	KH
91-20-3	Naphthalene	ND		ug/kg dry	46.9	93.5	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 21:41	KH
98-95-3	Nitrobenzene	ND		ug/kg dry	46.9	93.5	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 21:41	KH
62-75-9	N-Nitrosodimethylamine	ND		ug/kg dry	46.9	93.5	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 21:41	KH
621-64-7	N-nitroso-di-n-propylamine	ND		ug/kg dry	46.9	93.5	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 21:41	KH
86-30-6	N-Nitrosodiphenylamine	ND		ug/kg dry	46.9	93.5	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 21:41	KH
87-86-5	Pentachlorophenol	ND		ug/kg dry	46.9	93.5	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 21:41	KH
85-01-8	**Phenanthrene**	**73.2**	J	ug/kg dry	46.9	93.5	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 21:41	KH
108-95-2	Phenol	ND		ug/kg dry	46.9	93.5	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 21:41	KH
129-00-0	**Pyrene**	**123**		ug/kg dry	46.9	93.5	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 21:41	KH

	Surrogate Recoveries	Result	Acceptance Range
367-12-4	*Surrogate: SURR: 2-Fluorophenol*	*50.4 %*	*20-108*
4165-62-2	*Surrogate: SURR: Phenol-d5*	*53.3 %*	*23-114*
4165-60-0	*Surrogate: SURR: Nitrobenzene-d5*	*67.8 %*	*22-108*
321-60-8	*Surrogate: SURR: 2-Fluorobiphenyl*	*64.2 %*	*21-113*
118-79-6	*Surrogate: SURR: 2,4,6-Tribromophenol*	*102 %*	*19-110*
1718-51-0	*Surrogate: SURR: Terphenyl-d14*	*72.9 %*	*24-116*

Pesticides, 8081 target list

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3550C

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
72-54-8	4,4'-DDD	ND		mg/kg dry	0.00183	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/04/2020 06:56	11/05/2020 09:32	CM
72-55-9	4,4'-DDE	ND		mg/kg dry	0.00183	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/04/2020 06:56	11/05/2020 09:32	CM

Sample Information

Client Sample ID: **TP-12** **York Sample ID:** **20J1329-06**

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
20J1329	20-0857	Soil	October 27, 2020 12:00 am	10/29/2020

Pesticides, 8081 target list

Log-in Notes: **Sample Notes:**

Sample Prepared by Method: EPA 3550C

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
50-29-3	4,4'-DDT	ND		mg/kg dry	0.00183	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/04/2020 06:56	11/05/2020 09:32	CM
309-00-2	Aldrin	ND		mg/kg dry	0.00183	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/04/2020 06:56	11/05/2020 09:32	CM
319-84-6	alpha-BHC	ND		mg/kg dry	0.00183	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/04/2020 06:56	11/05/2020 09:32	CM
5103-71-9	alpha-Chlordane	ND		mg/kg dry	0.00183	5	EPA 8081B Certifications: NELAC-NY10854,NJDEP	11/04/2020 06:56	11/05/2020 09:32	CM
319-85-7	beta-BHC	ND		mg/kg dry	0.00183	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/04/2020 06:56	11/05/2020 09:32	CM
57-74-9	Chlordane, total	ND		mg/kg dry	0.0366	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/04/2020 06:56	11/05/2020 09:32	CM
319-86-8	delta-BHC	ND		mg/kg dry	0.00183	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/04/2020 06:56	11/05/2020 09:32	CM
60-57-1	Dieldrin	ND		mg/kg dry	0.00183	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/04/2020 06:56	11/05/2020 09:32	CM
959-98-8	Endosulfan I	ND		mg/kg dry	0.00183	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/04/2020 06:56	11/05/2020 09:32	CM
33213-65-9	Endosulfan II	ND		mg/kg dry	0.00183	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854	11/04/2020 06:56	11/05/2020 09:32	CM
1031-07-8	Endosulfan sulfate	ND		mg/kg dry	0.00183	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/04/2020 06:56	11/05/2020 09:32	CM
72-20-8	Endrin	ND		mg/kg dry	0.00183	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/04/2020 06:56	11/05/2020 09:32	CM
7421-93-4	Endrin aldehyde	ND		mg/kg dry	0.00183	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/04/2020 06:56	11/05/2020 09:32	CM
53494-70-5	Endrin ketone	ND		mg/kg dry	0.00183	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/04/2020 06:56	11/05/2020 09:32	CM
58-89-9	gamma-BHC (Lindane)	ND		mg/kg dry	0.00183	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/04/2020 06:56	11/05/2020 09:32	CM
5566-34-7	gamma-Chlordane	ND		mg/kg dry	0.00183	5	EPA 8081B Certifications: NELAC-NY10854,NJDEP	11/04/2020 06:56	11/05/2020 09:32	CM
76-44-8	Heptachlor	ND		mg/kg dry	0.00183	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/04/2020 06:56	11/05/2020 09:32	CM
1024-57-3	Heptachlor epoxide	ND		mg/kg dry	0.00183	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/04/2020 06:56	11/05/2020 09:32	CM
72-43-5	Methoxychlor	ND		mg/kg dry	0.00916	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/04/2020 06:56	11/05/2020 09:32	CM
8001-35-2	Toxaphene	ND		mg/kg dry	0.0927	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/04/2020 06:56	11/05/2020 09:32	CM

	Surrogate Recoveries	Result	Acceptance Range
2051-24-3	*Surrogate: Decachlorobiphenyl*	*93.2 %*	*30-150*
877-09-8	*Surrogate: Tetrachloro-m-xylene*	*78.6 %*	*30-150*

Polychlorinated Biphenyls (PCB)

Log-in Notes: **Sample Notes:**

Sample Information

Client Sample ID: **TP-12** **York Sample ID:** **20J1329-06**

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
20J1329	20-0857	Soil	October 27, 2020 12:00 am	10/29/2020

Sample Prepared by Method: EPA 3550C

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
12674-11-2	Aroclor 1016	ND		mg/kg dry	0.0185	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	11/04/2020 06:56	11/05/2020 12:21	BJ
11104-28-2	Aroclor 1221	ND		mg/kg dry	0.0185	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	11/04/2020 06:56	11/05/2020 12:21	BJ
11141-16-5	Aroclor 1232	ND		mg/kg dry	0.0185	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	11/04/2020 06:56	11/05/2020 12:21	BJ
53469-21-9	Aroclor 1242	ND		mg/kg dry	0.0185	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	11/04/2020 06:56	11/05/2020 12:21	BJ
12672-29-6	Aroclor 1248	ND		mg/kg dry	0.0185	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	11/04/2020 06:56	11/05/2020 12:21	BJ
11097-69-1	**Aroclor 1254**	**0.0275**		mg/kg dry	0.0185	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	11/04/2020 06:56	11/05/2020 12:21	BJ
11096-82-5	Aroclor 1260	ND		mg/kg dry	0.0185	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	11/04/2020 06:56	11/05/2020 12:21	BJ
37324-23-5	Aroclor 1262	ND		mg/kg dry	0.0185	1	EPA 8082A Certifications: NELAC-NY10854,NJDEP,PADEP	11/04/2020 06:56	11/05/2020 12:21	BJ
11100-14-4	Aroclor 1268	ND		mg/kg dry	0.0185	1	EPA 8082A Certifications: NELAC-NY10854,NJDEP,PADEP	11/04/2020 06:56	11/05/2020 12:21	BJ
1336-36-3	*** Total PCBs**	**0.0275**		mg/kg dry	0.0185	1	EPA 8082A Certifications:	11/04/2020 06:56	11/05/2020 12:21	BJ

	Surrogate Recoveries	Result	Acceptance Range
877-09-8	*Surrogate: Tetrachloro-m-xylene*	*66.5 %*	*30-140*
2051-24-3	*Surrogate: Decachlorobiphenyl*	*64.5 %*	*30-140*

Metals, Target Analyte

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3050B

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7429-90-5	**Aluminum**	**9200**		mg/kg dry	5.66	1	EPA 6010D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	10/29/2020 16:34	11/02/2020 16:12	WJM
7440-36-0	Antimony	ND		mg/kg dry	2.83	1	EPA 6010D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	10/29/2020 16:34	11/02/2020 16:12	WJM
7440-38-2	**Arsenic**	**5.24**		mg/kg dry	1.70	1	EPA 6010D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	10/29/2020 16:34	11/02/2020 16:12	WJM
7440-39-3	**Barium**	**264**		mg/kg dry	2.83	1	EPA 6010D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	10/29/2020 16:34	11/02/2020 16:12	WJM
7440-41-7	Beryllium	ND		mg/kg dry	0.057	1	EPA 6010D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	10/29/2020 16:34	11/02/2020 16:12	WJM
7440-43-9	Cadmium	ND		mg/kg dry	0.340	1	EPA 6010D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	10/29/2020 16:34	11/02/2020 16:12	WJM
7440-70-2	**Calcium**	**5310**		mg/kg dry	5.66	1	EPA 6010D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	10/29/2020 16:34	11/02/2020 16:12	WJM
7440-47-3	**Chromium**	**7.07**		mg/kg dry	0.566	1	EPA 6010D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	10/29/2020 16:34	11/02/2020 16:12	WJM

Sample Information

Client Sample ID: **TP-12** **York Sample ID:** **20J1329-06**

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
20J1329	20-0857	Soil	October 27, 2020 12:00 am	10/29/2020

Metals, Target Analyte

Log-in Notes: **Sample Notes:**

Sample Prepared by Method: EPA 3050B

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7440-48-4	**Cobalt**	**4.62**		mg/kg dry	0.453	1	EPA 6010D	10/29/2020 16:34	11/02/2020 16:12	WJM
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP		
7440-50-8	**Copper**	**9.15**		mg/kg dry	2.26	1	EPA 6010D	10/29/2020 16:34	11/02/2020 16:12	WJM
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP		
7439-89-6	**Iron**	**12200**		mg/kg dry	28.3	1	EPA 6010D	10/29/2020 16:34	11/02/2020 16:12	WJM
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP		
7439-92-1	**Lead**	**23.2**		mg/kg dry	0.566	1	EPA 6010D	10/29/2020 16:34	11/02/2020 16:12	WJM
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP		
7439-95-4	**Magnesium**	**1560**		mg/kg dry	5.66	1	EPA 6010D	10/29/2020 16:34	11/02/2020 16:12	WJM
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP		
7439-96-5	**Manganese**	**808**		mg/kg dry	0.566	1	EPA 6010D	10/29/2020 16:34	11/02/2020 16:12	WJM
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP		
7440-02-0	**Nickel**	**6.94**		mg/kg dry	1.13	1	EPA 6010D	10/29/2020 16:34	11/02/2020 16:12	WJM
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP		
7440-09-7	**Potassium**	**571**		mg/kg dry	5.66	1	EPA 6010D	10/29/2020 16:34	11/02/2020 16:12	WJM
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP		
7782-49-2	Selenium	ND		mg/kg dry	2.83	1	EPA 6010D	10/29/2020 16:34	11/02/2020 16:12	WJM
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP		
7440-22-4	Silver	ND		mg/kg dry	0.566	1	EPA 6010D	10/29/2020 16:34	11/02/2020 16:12	WJM
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP		
7440-23-5	Sodium	ND		mg/kg dry	56.6	1	EPA 6010D	10/29/2020 16:34	11/02/2020 16:12	WJM
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP		
7440-28-0	Thallium	ND		mg/kg dry	2.83	1	EPA 6010D	10/29/2020 16:34	11/02/2020 16:12	WJM
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP		
7440-62-2	**Vanadium**	**11.5**		mg/kg dry	1.13	1	EPA 6010D	10/29/2020 16:34	11/02/2020 16:12	WJM
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP		
7440-66-6	**Zinc**	**84.1**	B	mg/kg dry	2.83	1	EPA 6010D	10/29/2020 16:34	11/02/2020 16:12	WJM
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP		

Mercury by 7473

Log-in Notes: **Sample Notes:**

Sample Prepared by Method: EPA 7473 soil

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7439-97-6	**Mercury**	**0.528**		mg/kg dry	0.0340	1	EPA 7473	10/29/2020 16:32	10/29/2020 19:32	MAO
							Certifications:	CTDOH,NJDEP,NELAC-NY10854,PADEP		

Total Solids

Log-in Notes: **Sample Notes:**

Sample Prepared by Method: % Solids Prep

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
solids	*** % Solids**	**88.3**		%	0.100	1	SM 2540G	10/30/2020 08:47	10/30/2020 14:41	SK
							Certifications:	CTDOH		

Sample Information

Client Sample ID: **TP-14**

York Sample ID: **20J1329-07**

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
20J1329	20-0857	Soil	October 27, 2020 12:00 am	10/29/2020

Volatile Organics, 8260 - Comprehensive

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5035A

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
630-20-6	1,1,1,2-Tetrachloroethane	ND		mg/kg dry	0.0026	0.0052	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 21:00	TMP
71-55-6	1,1,1-Trichloroethane	ND		mg/kg dry	0.0026	0.0052	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 21:00	TMP
79-34-5	1,1,2,2-Tetrachloroethane	ND		mg/kg dry	0.0026	0.0052	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 21:00	TMP
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND		mg/kg dry	0.0026	0.0052	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP	11/03/2020 07:00	11/03/2020 21:00	TMP
79-00-5	1,1,2-Trichloroethane	ND		mg/kg dry	0.0026	0.0052	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 21:00	TMP
75-34-3	1,1-Dichloroethane	ND		mg/kg dry	0.0026	0.0052	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 21:00	TMP
75-35-4	1,1-Dichloroethylene	ND		mg/kg dry	0.0026	0.0052	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 21:00	TMP
87-61-6	1,2,3-Trichlorobenzene	ND		mg/kg dry	0.0026	0.0052	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 21:00	TMP
96-18-4	1,2,3-Trichloropropane	ND		mg/kg dry	0.0026	0.0052	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP	11/03/2020 07:00	11/03/2020 21:00	TMP
120-82-1	1,2,4-Trichlorobenzene	ND		mg/kg dry	0.0026	0.0052	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 21:00	TMP
95-63-6	1,2,4-Trimethylbenzene	ND		mg/kg dry	0.0026	0.0052	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 21:00	TMP
96-12-8	1,2-Dibromo-3-chloropropane	ND		mg/kg dry	0.0026	0.0052	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 21:00	TMP
106-93-4	1,2-Dibromoethane	ND		mg/kg dry	0.0026	0.0052	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 21:00	TMP
95-50-1	1,2-Dichlorobenzene	ND		mg/kg dry	0.0026	0.0052	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 21:00	TMP
107-06-2	1,2-Dichloroethane	ND		mg/kg dry	0.0026	0.0052	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 21:00	TMP
78-87-5	1,2-Dichloropropane	ND		mg/kg dry	0.0026	0.0052	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 21:00	TMP
108-67-8	1,3,5-Trimethylbenzene	ND		mg/kg dry	0.0026	0.0052	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 21:00	TMP
541-73-1	1,3-Dichlorobenzene	ND		mg/kg dry	0.0026	0.0052	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 21:00	TMP
106-46-7	1,4-Dichlorobenzene	ND		mg/kg dry	0.0026	0.0052	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 21:00	TMP
123-91-1	1,4-Dioxane	ND		mg/kg dry	0.052	0.10	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 21:00	TMP
78-93-3	2-Butanone	ND		mg/kg dry	0.0026	0.0052	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 21:00	TMP
591-78-6	2-Hexanone	ND		mg/kg dry	0.0026	0.0052	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 21:00	TMP
108-10-1	4-Methyl-2-pentanone	ND		mg/kg dry	0.0026	0.0052	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 21:00	TMP

Sample Information

Client Sample ID: **TP-14** **York Sample ID:** **20J1329-07**

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
20J1329	20-0857	Soil	October 27, 2020 12:00 am	10/29/2020

Volatile Organics, 8260 - Comprehensive

Log-in Notes: **Sample Notes:**

Sample Prepared by Method: EPA 5035A

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
67-64-1	**Acetone**	**0.0086**	CCV-E, J	mg/kg dry	0.0052	0.010	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 21:00	TMP
107-02-8	Acrolein	ND		mg/kg dry	0.0052	0.010	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 21:00	TMP
107-13-1	Acrylonitrile	ND		mg/kg dry	0.0026	0.0052	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 21:00	TMP
71-43-2	Benzene	ND		mg/kg dry	0.0026	0.0052	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 21:00	TMP
74-97-5	Bromochloromethane	ND		mg/kg dry	0.0026	0.0052	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 21:00	TMP
75-27-4	Bromodichloromethane	ND		mg/kg dry	0.0026	0.0052	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 21:00	TMP
75-25-2	Bromoform	ND		mg/kg dry	0.0026	0.0052	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 21:00	TMP
74-83-9	Bromomethane	ND		mg/kg dry	0.0026	0.0052	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 21:00	TMP
75-15-0	Carbon disulfide	ND		mg/kg dry	0.0026	0.0052	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 21:00	TMP
56-23-5	Carbon tetrachloride	ND		mg/kg dry	0.0026	0.0052	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 21:00	TMP
108-90-7	Chlorobenzene	ND		mg/kg dry	0.0026	0.0052	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 21:00	TMP
75-00-3	Chloroethane	ND		mg/kg dry	0.0026	0.0052	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 21:00	TMP
67-66-3	Chloroform	ND		mg/kg dry	0.0026	0.0052	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 21:00	TMP
74-87-3	Chloromethane	ND		mg/kg dry	0.0026	0.0052	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 21:00	TMP
156-59-2	cis-1,2-Dichloroethylene	ND		mg/kg dry	0.0026	0.0052	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 21:00	TMP
10061-01-5	cis-1,3-Dichloropropylene	ND		mg/kg dry	0.0026	0.0052	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 21:00	TMP
110-82-7	Cyclohexane	ND		mg/kg dry	0.0026	0.0052	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 21:00	TMP
124-48-1	Dibromochloromethane	ND		mg/kg dry	0.0026	0.0052	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 21:00	TMP
74-95-3	Dibromomethane	ND		mg/kg dry	0.0026	0.0052	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 21:00	TMP
75-71-8	Dichlorodifluoromethane	ND		mg/kg dry	0.0026	0.0052	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 21:00	TMP
100-41-4	Ethyl Benzene	ND		mg/kg dry	0.0026	0.0052	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 21:00	TMP
87-68-3	Hexachlorobutadiene	ND		mg/kg dry	0.0026	0.0052	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 21:00	TMP
98-82-8	Isopropylbenzene	ND		mg/kg dry	0.0026	0.0052	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 21:00	TMP

Sample Information

Client Sample ID: **TP-14** **York Sample ID:** **20J1329-07**

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
20J1329	20-0857	Soil	October 27, 2020 12:00 am	10/29/2020

Volatile Organics, 8260 - Comprehensive

Log-in Notes: **Sample Notes:**

Sample Prepared by Method: EPA 5035A

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
79-20-9	Methyl acetate	ND		mg/kg dry	0.0026	0.0052	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 21:00	TMP
1634-04-4	Methyl tert-butyl ether (MTBE)	ND		mg/kg dry	0.0026	0.0052	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 21:00	TMP
108-87-2	Methylcyclohexane	ND		mg/kg dry	0.0026	0.0052	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 21:00	TMP
75-09-2	Methylene chloride	ND		mg/kg dry	0.0052	0.010	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 21:00	TMP
104-51-8	n-Butylbenzene	ND		mg/kg dry	0.0026	0.0052	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 21:00	TMP
103-65-1	n-Propylbenzene	ND		mg/kg dry	0.0026	0.0052	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 21:00	TMP
95-47-6	o-Xylene	ND		mg/kg dry	0.0026	0.0052	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,PADEP	11/03/2020 07:00	11/03/2020 21:00	TMP
179601-23-1	p- & m- Xylenes	ND		mg/kg dry	0.0052	0.010	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,PADEP	11/03/2020 07:00	11/03/2020 21:00	TMP
99-87-6	p-Isopropyltoluene	ND		mg/kg dry	0.0026	0.0052	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 21:00	TMP
135-98-8	sec-Butylbenzene	ND		mg/kg dry	0.0026	0.0052	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 21:00	TMP
100-42-5	Styrene	ND		mg/kg dry	0.0026	0.0052	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 21:00	TMP
75-65-0	tert-Butyl alcohol (TBA)	ND		mg/kg dry	0.0026	0.0052	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 21:00	TMP
98-06-6	tert-Butylbenzene	ND		mg/kg dry	0.0026	0.0052	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 21:00	TMP
127-18-4	Tetrachloroethylene	ND		mg/kg dry	0.0026	0.0052	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 21:00	TMP
108-88-3	Toluene	ND		mg/kg dry	0.0026	0.0052	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 21:00	TMP
156-60-5	trans-1,2-Dichloroethylene	ND		mg/kg dry	0.0026	0.0052	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 21:00	TMP
10061-02-6	trans-1,3-Dichloropropylene	ND		mg/kg dry	0.0026	0.0052	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 21:00	TMP
79-01-6	Trichloroethylene	ND		mg/kg dry	0.0026	0.0052	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 21:00	TMP
75-69-4	Trichlorofluoromethane	ND		mg/kg dry	0.0026	0.0052	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 21:00	TMP
75-01-4	Vinyl Chloride	ND		mg/kg dry	0.0026	0.0052	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 21:00	TMP
1330-20-7	Xylenes, Total	ND		mg/kg dry	0.0077	0.015	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP	11/03/2020 07:00	11/03/2020 21:00	TMP

	Surrogate Recoveries	Result	Acceptance Range
17060-07-0	*Surrogate: SURR: 1,2-Dichloroethane-d4*	*106 %*	*77-125*
2037-26-5	*Surrogate: SURR: Toluene-d8*	*99.0 %*	*85-120*

Sample Information

Client Sample ID: **TP-14**

York Sample ID: **20J1329-07**

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
20J1329	20-0857	Soil	October 27, 2020 12:00 am	10/29/2020

Volatile Organics, 8260 - Comprehensive

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5035A

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
460-00-4	*Surrogate: SURR: p-Bromofluorobenzene*	*98.8 %*			*76-130*						

Semi-Volatiles, 8270 - Comprehensive

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3550C

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
92-52-4	1,1-Biphenyl	ND		ug/kg dry	46.9	93.5	2	EPA 8270D Certifications: NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 22:10	KH
95-94-3	1,2,4,5-Tetrachlorobenzene	ND		ug/kg dry	93.5	187	2	EPA 8270D Certifications: NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 22:10	KH
120-82-1	1,2,4-Trichlorobenzene	ND		ug/kg dry	46.9	93.5	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 22:10	KH
95-50-1	1,2-Dichlorobenzene	ND		ug/kg dry	46.9	93.5	2	EPA 8270D Certifications: NELAC-NY10854,PADEP	11/05/2020 07:27	11/05/2020 22:10	KH
122-66-7	1,2-Diphenylhydrazine (as Azobenzene)	ND		ug/kg dry	46.9	93.5	2	EPA 8270D Certifications: NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 22:10	KH
541-73-1	1,3-Dichlorobenzene	ND		ug/kg dry	46.9	93.5	2	EPA 8270D Certifications: NELAC-NY10854,PADEP	11/05/2020 07:27	11/05/2020 22:10	KH
106-46-7	1,4-Dichlorobenzene	ND		ug/kg dry	46.9	93.5	2	EPA 8270D Certifications: NELAC-NY10854,PADEP	11/05/2020 07:27	11/05/2020 22:10	KH
58-90-2	2,3,4,6-Tetrachlorophenol	ND		ug/kg dry	93.5	187	2	EPA 8270D Certifications: NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 22:10	KH
95-95-4	2,4,5-Trichlorophenol	ND		ug/kg dry	46.9	93.5	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 22:10	KH
88-06-2	2,4,6-Trichlorophenol	ND		ug/kg dry	46.9	93.5	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 22:10	KH
120-83-2	2,4-Dichlorophenol	ND		ug/kg dry	46.9	93.5	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 22:10	KH
105-67-9	2,4-Dimethylphenol	ND		ug/kg dry	46.9	93.5	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 22:10	KH
51-28-5	2,4-Dinitrophenol	ND		ug/kg dry	93.5	187	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 22:10	KH
121-14-2	2,4-Dinitrotoluene	ND		ug/kg dry	46.9	93.5	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 22:10	KH
606-20-2	2,6-Dinitrotoluene	ND		ug/kg dry	46.9	93.5	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 22:10	KH
91-58-7	2-Chloronaphthalene	ND		ug/kg dry	46.9	93.5	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 22:10	KH
95-57-8	2-Chlorophenol	ND		ug/kg dry	46.9	93.5	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 22:10	KH
91-57-6	2-Methylnaphthalene	ND		ug/kg dry	46.9	93.5	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 22:10	KH
95-48-7	2-Methylphenol	ND		ug/kg dry	46.9	93.5	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 22:10	KH

Sample Information

Client Sample ID: **TP-14** **York Sample ID:** **20J1329-07**

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
20J1329	20-0857	Soil	October 27, 2020 12:00 am	10/29/2020

Semi-Volatiles, 8270 - Comprehensive

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3550C

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
88-74-4	2-Nitroaniline	ND		ug/kg dry	93.5	187	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 22:10	KH
88-75-5	2-Nitrophenol	ND		ug/kg dry	46.9	93.5	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 22:10	KH
65794-96-9	3- & 4-Methylphenols	ND		ug/kg dry	46.9	93.5	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 22:10	KH
91-94-1	3,3-Dichlorobenzidine	ND		ug/kg dry	46.9	93.5	2	EPA 8270D Certifications: NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 22:10	KH
99-09-2	3-Nitroaniline	ND		ug/kg dry	93.5	187	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 22:10	KH
534-52-1	4,6-Dinitro-2-methylphenol	ND		ug/kg dry	93.5	187	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 22:10	KH
101-55-3	4-Bromophenyl phenyl ether	ND		ug/kg dry	46.9	93.5	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 22:10	KH
59-50-7	4-Chloro-3-methylphenol	ND		ug/kg dry	46.9	93.5	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 22:10	KH
106-47-8	4-Chloroaniline	ND		ug/kg dry	46.9	93.5	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 22:10	KH
7005-72-3	4-Chlorophenyl phenyl ether	ND		ug/kg dry	46.9	93.5	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 22:10	KH
100-01-6	4-Nitroaniline	ND		ug/kg dry	93.5	187	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 22:10	KH
100-02-7	4-Nitrophenol	ND		ug/kg dry	93.5	187	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 22:10	KH
83-32-9	Acenaphthene	ND		ug/kg dry	46.9	93.5	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 22:10	KH
208-96-8	Acenaphthylene	ND		ug/kg dry	46.9	93.5	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 22:10	KH
98-86-2	Acetophenone	ND		ug/kg dry	46.9	93.5	2	EPA 8270D Certifications: NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 22:10	KH
62-53-3	Aniline	ND		ug/kg dry	187	375	2	EPA 8270D Certifications: NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 22:10	KH
120-12-7	Anthracene	ND		ug/kg dry	46.9	93.5	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 22:10	KH
1912-24-9	Atrazine	ND		ug/kg dry	46.9	93.5	2	EPA 8270D Certifications: NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 22:10	KH
100-52-7	Benzaldehyde	ND		ug/kg dry	46.9	93.5	2	EPA 8270D Certifications: NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 22:10	KH
92-87-5	Benzidine	ND		ug/kg dry	187	375	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,PADEP	11/05/2020 07:27	11/05/2020 22:10	KH
56-55-3	Benzo(a)anthracene	ND		ug/kg dry	46.9	93.5	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 22:10	KH
50-32-8	Benzo(a)pyrene	ND		ug/kg dry	46.9	93.5	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 22:10	KH
205-99-2	Benzo(b)fluoranthene	ND		ug/kg dry	46.9	93.5	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 22:10	KH

Sample Information

Client Sample ID: TP-14

York Sample ID: 20J1329-07

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
20J1329	20-0857	Soil	October 27, 2020 12:00 am	10/29/2020

Semi-Volatiles, 8270 - Comprehensive

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3550C

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
191-24-2	Benzo(g,h,i)perylene	ND		ug/kg dry	46.9	93.5	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 22:10	KH
207-08-9	Benzo(k)fluoranthene	ND		ug/kg dry	46.9	93.5	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 22:10	KH
65-85-0	Benzoic acid	ND		ug/kg dry	46.9	93.5	2	EPA 8270D Certifications: NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 22:10	KH
100-51-6	Benzyl alcohol	ND		ug/kg dry	46.9	93.5	2	EPA 8270D Certifications: NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 22:10	KH
85-68-7	Benzyl butyl phthalate	ND		ug/kg dry	46.9	93.5	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 22:10	KH
111-91-1	Bis(2-chloroethoxy)methane	ND		ug/kg dry	46.9	93.5	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 22:10	KH
111-44-4	Bis(2-chloroethyl)ether	ND		ug/kg dry	46.9	93.5	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 22:10	KH
108-60-1	Bis(2-chloroisopropyl)ether	ND		ug/kg dry	46.9	93.5	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 22:10	KH
117-81-7	**Bis(2-ethylhexyl)phthalate**	**55.3**	J	ug/kg dry	46.9	93.5	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 22:10	KH
105-60-2	Caprolactam	ND		ug/kg dry	93.5	187	2	EPA 8270D Certifications: NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 22:10	KH
86-74-8	Carbazole	ND		ug/kg dry	46.9	93.5	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 22:10	KH
218-01-9	Chrysene	ND		ug/kg dry	46.9	93.5	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 22:10	KH
53-70-3	Dibenzo(a,h)anthracene	ND		ug/kg dry	46.9	93.5	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 22:10	KH
132-64-9	Dibenzofuran	ND		ug/kg dry	46.9	93.5	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 22:10	KH
84-66-2	Diethyl phthalate	ND		ug/kg dry	46.9	93.5	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 22:10	KH
131-11-3	Dimethyl phthalate	ND		ug/kg dry	46.9	93.5	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 22:10	KH
84-74-2	Di-n-butyl phthalate	ND		ug/kg dry	46.9	93.5	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 22:10	KH
117-84-0	Di-n-octyl phthalate	ND		ug/kg dry	46.9	93.5	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 22:10	KH
122-39-4	* Diphenylamine	ND		ug/kg dry	93.5	187	2	EPA 8270D Certifications:	11/05/2020 07:27	11/05/2020 22:10	KH
206-44-0	Fluoranthene	ND		ug/kg dry	46.9	93.5	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 22:10	KH
86-73-7	Fluorene	ND		ug/kg dry	46.9	93.5	2	EPA 8270D Certifications: NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 22:10	KH
118-74-1	Hexachlorobenzene	ND		ug/kg dry	46.9	93.5	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 22:10	KH
87-68-3	Hexachlorobutadiene	ND		ug/kg dry	46.9	93.5	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 22:10	KH

Sample Information

Client Sample ID: **TP-14** **York Sample ID:** **20J1329-07**

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
20J1329	20-0857	Soil	October 27, 2020 12:00 am	10/29/2020

Semi-Volatiles, 8270 - Comprehensive

Log-in Notes: **Sample Notes:**

Sample Prepared by Method: EPA 3550C

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
77-47-4	Hexachlorocyclopentadiene	ND		ug/kg dry	46.9	93.5	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 22:10	KH
67-72-1	Hexachloroethane	ND		ug/kg dry	46.9	93.5	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 22:10	KH
193-39-5	Indeno(1,2,3-cd)pyrene	ND		ug/kg dry	46.9	93.5	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 22:10	KH
78-59-1	Isophorone	ND		ug/kg dry	46.9	93.5	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 22:10	KH
91-20-3	Naphthalene	ND		ug/kg dry	46.9	93.5	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 22:10	KH
98-95-3	Nitrobenzene	ND		ug/kg dry	46.9	93.5	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 22:10	KH
62-75-9	N-Nitrosodimethylamine	ND		ug/kg dry	46.9	93.5	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 22:10	KH
621-64-7	N-nitroso-di-n-propylamine	ND		ug/kg dry	46.9	93.5	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 22:10	KH
86-30-6	N-Nitrosodiphenylamine	ND		ug/kg dry	46.9	93.5	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 22:10	KH
87-86-5	Pentachlorophenol	ND		ug/kg dry	46.9	93.5	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 22:10	KH
85-01-8	Phenanthrene	ND		ug/kg dry	46.9	93.5	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 22:10	KH
108-95-2	Phenol	ND		ug/kg dry	46.9	93.5	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 22:10	KH
129-00-0	Pyrene	ND		ug/kg dry	46.9	93.5	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 22:10	KH

	Surrogate Recoveries	Result	Acceptance Range
367-12-4	*Surrogate: SURR: 2-Fluorophenol*	*52.9 %*	*20-108*
4165-62-2	*Surrogate: SURR: Phenol-d5*	*54.2 %*	*23-114*
4165-60-0	*Surrogate: SURR: Nitrobenzene-d5*	*67.6 %*	*22-108*
321-60-8	*Surrogate: SURR: 2-Fluorobiphenyl*	*68.1 %*	*21-113*
118-79-6	*Surrogate: SURR: 2,4,6-Tribromophenol*	*103 %*	*19-110*
1718-51-0	*Surrogate: SURR: Terphenyl-d14*	*79.9 %*	*24-116*

Pesticides, 8081 target list

Log-in Notes: **Sample Notes:**

Sample Prepared by Method: EPA 3550C

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
72-54-8	4,4'-DDD	ND		mg/kg dry	0.00185	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/04/2020 06:56	11/05/2020 09:49	CM
72-55-9	4,4'-DDE	ND		mg/kg dry	0.00185	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/04/2020 06:56	11/05/2020 09:49	CM
50-29-3	4,4'-DDT	ND		mg/kg dry	0.00185	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/04/2020 06:56	11/05/2020 09:49	CM

Sample Information

Client Sample ID: **TP-14** **York Sample ID:** **20J1329-07**

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
20J1329	20-0857	Soil	October 27, 2020 12:00 am	10/29/2020

Pesticides, 8081 target list

Log-in Notes: **Sample Notes:**

Sample Prepared by Method: EPA 3550C

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
309-00-2	Aldrin	ND		mg/kg dry	0.00185	5	EPA 8081B	11/04/2020 06:56	11/05/2020 09:49	CM
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP		
319-84-6	alpha-BHC	ND		mg/kg dry	0.00185	5	EPA 8081B	11/04/2020 06:56	11/05/2020 09:49	CM
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP		
5103-71-9	alpha-Chlordane	ND		mg/kg dry	0.00185	5	EPA 8081B	11/04/2020 06:56	11/05/2020 09:49	CM
							Certifications:	NELAC-NY10854,NJDEP		
319-85-7	beta-BHC	ND		mg/kg dry	0.00185	5	EPA 8081B	11/04/2020 06:56	11/05/2020 09:49	CM
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP		
57-74-9	Chlordane, total	ND		mg/kg dry	0.0370	5	EPA 8081B	11/04/2020 06:56	11/05/2020 09:49	CM
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP		
319-86-8	delta-BHC	ND		mg/kg dry	0.00185	5	EPA 8081B	11/04/2020 06:56	11/05/2020 09:49	CM
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP		
60-57-1	Dieldrin	ND		mg/kg dry	0.00185	5	EPA 8081B	11/04/2020 06:56	11/05/2020 09:49	CM
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP		
959-98-8	Endosulfan I	ND		mg/kg dry	0.00185	5	EPA 8081B	11/04/2020 06:56	11/05/2020 09:49	CM
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP		
33213-65-9	Endosulfan II	ND		mg/kg dry	0.00185	5	EPA 8081B	11/04/2020 06:56	11/05/2020 09:49	CM
							Certifications:	CTDOH,NELAC-NY10854		
1031-07-8	Endosulfan sulfate	ND		mg/kg dry	0.00185	5	EPA 8081B	11/04/2020 06:56	11/05/2020 09:49	CM
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP		
72-20-8	Endrin	ND		mg/kg dry	0.00185	5	EPA 8081B	11/04/2020 06:56	11/05/2020 09:49	CM
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP		
7421-93-4	Endrin aldehyde	ND		mg/kg dry	0.00185	5	EPA 8081B	11/04/2020 06:56	11/05/2020 09:49	CM
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP		
53494-70-5	Endrin ketone	ND		mg/kg dry	0.00185	5	EPA 8081B	11/04/2020 06:56	11/05/2020 09:49	CM
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP		
58-89-9	gamma-BHC (Lindane)	ND		mg/kg dry	0.00185	5	EPA 8081B	11/04/2020 06:56	11/05/2020 09:49	CM
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP		
5566-34-7	gamma-Chlordane	ND		mg/kg dry	0.00185	5	EPA 8081B	11/04/2020 06:56	11/05/2020 09:49	CM
							Certifications:	NELAC-NY10854,NJDEP		
76-44-8	Heptachlor	ND		mg/kg dry	0.00185	5	EPA 8081B	11/04/2020 06:56	11/05/2020 09:49	CM
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP		
1024-57-3	Heptachlor epoxide	ND		mg/kg dry	0.00185	5	EPA 8081B	11/04/2020 06:56	11/05/2020 09:49	CM
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP		
72-43-5	Methoxychlor	ND		mg/kg dry	0.00925	5	EPA 8081B	11/04/2020 06:56	11/05/2020 09:49	CM
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP		
8001-35-2	Toxaphene	ND		mg/kg dry	0.0936	5	EPA 8081B	11/04/2020 06:56	11/05/2020 09:49	CM
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP		

	Surrogate Recoveries	Result	Acceptance Range
2051-24-3	*Surrogate: Decachlorobiphenyl*	*104 %*	*30-150*
877-09-8	*Surrogate: Tetrachloro-m-xylene*	*80.2 %*	*30-150*

Polychlorinated Biphenyls (PCB)

Log-in Notes: **Sample Notes:**

Sample Prepared by Method: EPA 3550C

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst

Sample Information

Client Sample ID: TP-14 **York Sample ID:** 20J1329-07

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
20J1329	20-0857	Soil	October 27, 2020 12:00 am	10/29/2020

12674-11-2	Aroclor 1016	ND	mg/kg dry	0.0187	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	11/04/2020 06:56	11/05/2020 12:34	BJ
11104-28-2	Aroclor 1221	ND	mg/kg dry	0.0187	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	11/04/2020 06:56	11/05/2020 12:34	BJ
11141-16-5	Aroclor 1232	ND	mg/kg dry	0.0187	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	11/04/2020 06:56	11/05/2020 12:34	BJ
53469-21-9	Aroclor 1242	ND	mg/kg dry	0.0187	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	11/04/2020 06:56	11/05/2020 12:34	BJ
12672-29-6	Aroclor 1248	ND	mg/kg dry	0.0187	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	11/04/2020 06:56	11/05/2020 12:34	BJ
11097-69-1	Aroclor 1254	ND	mg/kg dry	0.0187	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	11/04/2020 06:56	11/05/2020 12:34	BJ
11096-82-5	Aroclor 1260	ND	mg/kg dry	0.0187	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	11/04/2020 06:56	11/05/2020 12:34	BJ
37324-23-5	Aroclor 1262	ND	mg/kg dry	0.0187	1	EPA 8082A Certifications: NELAC-NY10854,NJDEP,PADEP	11/04/2020 06:56	11/05/2020 12:34	BJ
11100-14-4	Aroclor 1268	ND	mg/kg dry	0.0187	1	EPA 8082A Certifications: NELAC-NY10854,NJDEP,PADEP	11/04/2020 06:56	11/05/2020 12:34	BJ
1336-36-3	* Total PCBs	ND	mg/kg dry	0.0187	1	EPA 8082A Certifications:	11/04/2020 06:56	11/05/2020 12:34	BJ

	Surrogate Recoveries	Result	Acceptance Range
877-09-8	*Surrogate: Tetrachloro-m-xylene*	*70.5 %*	*30-140*
2051-24-3	*Surrogate: Decachlorobiphenyl*	*72.0 %*	*30-140*

Metals, Target Analyte

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3050B

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7429-90-5	**Aluminum**	**12100**		mg/kg dry	5.66	1	EPA 6010D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	10/29/2020 16:34	11/02/2020 16:15	WJM
7440-36-0	Antimony	ND		mg/kg dry	2.83	1	EPA 6010D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	10/29/2020 16:34	11/02/2020 16:15	WJM
7440-38-2	**Arsenic**	**5.54**		mg/kg dry	1.70	1	EPA 6010D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	10/29/2020 16:34	11/02/2020 16:15	WJM
7440-39-3	**Barium**	**40.2**		mg/kg dry	2.83	1	EPA 6010D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	10/29/2020 16:34	11/02/2020 16:15	WJM
7440-41-7	Beryllium	ND		mg/kg dry	0.057	1	EPA 6010D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	10/29/2020 16:34	11/02/2020 16:15	WJM
7440-43-9	Cadmium	ND		mg/kg dry	0.340	1	EPA 6010D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	10/29/2020 16:34	11/02/2020 16:15	WJM
7440-70-2	**Calcium**	**388**		mg/kg dry	5.66	1	EPA 6010D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	10/29/2020 16:34	11/02/2020 16:15	WJM
7440-47-3	**Chromium**	**10.8**		mg/kg dry	0.566	1	EPA 6010D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	10/29/2020 16:34	11/02/2020 16:15	WJM
7440-48-4	**Cobalt**	**7.08**		mg/kg dry	0.453	1	EPA 6010D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	10/29/2020 16:34	11/02/2020 16:15	WJM
7440-50-8	**Copper**	**16.7**		mg/kg dry	2.27	1	EPA 6010D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	10/29/2020 16:34	11/02/2020 16:15	WJM

Sample Information

Client Sample ID:	**TP-14**		**York Sample ID:**	**20J1329-07**
York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
20J1329	20-0857	Soil	October 27, 2020 12:00 am	10/29/2020

Metals, Target Analyte

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3050B

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7439-89-6	**Iron**	**19100**		mg/kg dry	28.3	1	EPA 6010D	10/29/2020 16:34	11/02/2020 16:15	WJM
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP		
7439-92-1	**Lead**	**13.1**		mg/kg dry	0.566	1	EPA 6010D	10/29/2020 16:34	11/02/2020 16:15	WJM
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP		
7439-95-4	**Magnesium**	**2870**		mg/kg dry	5.66	1	EPA 6010D	10/29/2020 16:34	11/02/2020 16:15	WJM
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP		
7439-96-5	**Manganese**	**302**		mg/kg dry	0.566	1	EPA 6010D	10/29/2020 16:34	11/02/2020 16:15	WJM
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP		
7440-02-0	**Nickel**	**13.6**		mg/kg dry	1.13	1	EPA 6010D	10/29/2020 16:34	11/02/2020 16:15	WJM
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP		
7440-09-7	**Potassium**	**985**		mg/kg dry	5.66	1	EPA 6010D	10/29/2020 16:34	11/02/2020 16:15	WJM
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP		
7782-49-2	Selenium	ND		mg/kg dry	2.83	1	EPA 6010D	10/29/2020 16:34	11/02/2020 16:15	WJM
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP		
7440-22-4	Silver	ND		mg/kg dry	0.566	1	EPA 6010D	10/29/2020 16:34	11/02/2020 16:15	WJM
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP		
7440-23-5	Sodium	ND		mg/kg dry	56.6	1	EPA 6010D	10/29/2020 16:34	11/02/2020 16:15	WJM
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP		
7440-28-0	Thallium	ND		mg/kg dry	2.83	1	EPA 6010D	10/29/2020 16:34	11/02/2020 16:15	WJM
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP		
7440-62-2	**Vanadium**	**15.7**		mg/kg dry	1.13	1	EPA 6010D	10/29/2020 16:34	11/02/2020 16:15	WJM
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP		
7440-66-6	**Zinc**	**44.6**	B	mg/kg dry	2.83	1	EPA 6010D	10/29/2020 16:34	11/02/2020 16:15	WJM
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP		

Mercury by 7473

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 7473 soil

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7439-97-6	**Mercury**	**0.0372**		mg/kg dry	0.0340	1	EPA 7473	10/29/2020 16:32	10/29/2020 19:41	MAO
							Certifications:	CTDOH,NJDEP,NELAC-NY10854,PADEP		

Total Solids

Log-in Notes:

Sample Notes:

Sample Prepared by Method: % Solids Prep

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
solids	*** % Solids**	**88.3**		%	0.100	1	SM 2540G	10/30/2020 08:47	10/30/2020 14:41	SK
							Certifications:	CTDOH		

Sample Information

Client Sample ID: **TP-18** **York Sample ID:** **20J1329-08**

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
20J1329	20-0857	Soil	October 27, 2020 12:00 am	10/29/2020

Volatile Organics, 8260 - Comprehensive

Log-in Notes: **Sample Notes:**

Sample Prepared by Method: EPA 5035A

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
630-20-6	1,1,1,2-Tetrachloroethane	ND		mg/kg dry	0.0029	0.0057	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 21:27	TMP
71-55-6	1,1,1-Trichloroethane	ND		mg/kg dry	0.0029	0.0057	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 21:27	TMP
79-34-5	1,1,2,2-Tetrachloroethane	ND		mg/kg dry	0.0029	0.0057	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 21:27	TMP
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND		mg/kg dry	0.0029	0.0057	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP	11/03/2020 07:00	11/03/2020 21:27	TMP
79-00-5	1,1,2-Trichloroethane	ND		mg/kg dry	0.0029	0.0057	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 21:27	TMP
75-34-3	1,1-Dichloroethane	ND		mg/kg dry	0.0029	0.0057	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 21:27	TMP
75-35-4	1,1-Dichloroethylene	ND		mg/kg dry	0.0029	0.0057	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 21:27	TMP
87-61-6	1,2,3-Trichlorobenzene	ND		mg/kg dry	0.0029	0.0057	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 21:27	TMP
96-18-4	1,2,3-Trichloropropane	ND		mg/kg dry	0.0029	0.0057	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP	11/03/2020 07:00	11/03/2020 21:27	TMP
120-82-1	1,2,4-Trichlorobenzene	ND		mg/kg dry	0.0029	0.0057	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 21:27	TMP
95-63-6	1,2,4-Trimethylbenzene	ND		mg/kg dry	0.0029	0.0057	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 21:27	TMP
96-12-8	1,2-Dibromo-3-chloropropane	ND		mg/kg dry	0.0029	0.0057	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 21:27	TMP
106-93-4	1,2-Dibromoethane	ND		mg/kg dry	0.0029	0.0057	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 21:27	TMP
95-50-1	1,2-Dichlorobenzene	ND		mg/kg dry	0.0029	0.0057	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 21:27	TMP
107-06-2	1,2-Dichloroethane	ND		mg/kg dry	0.0029	0.0057	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 21:27	TMP
78-87-5	1,2-Dichloropropane	ND		mg/kg dry	0.0029	0.0057	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 21:27	TMP
108-67-8	1,3,5-Trimethylbenzene	ND		mg/kg dry	0.0029	0.0057	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 21:27	TMP
541-73-1	1,3-Dichlorobenzene	ND		mg/kg dry	0.0029	0.0057	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 21:27	TMP
106-46-7	1,4-Dichlorobenzene	ND		mg/kg dry	0.0029	0.0057	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 21:27	TMP
123-91-1	1,4-Dioxane	ND		mg/kg dry	0.057	0.11	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 21:27	TMP
78-93-3	2-Butanone	ND		mg/kg dry	0.0029	0.0057	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 21:27	TMP
591-78-6	2-Hexanone	ND		mg/kg dry	0.0029	0.0057	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 21:27	TMP
108-10-1	4-Methyl-2-pentanone	ND		mg/kg dry	0.0029	0.0057	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 21:27	TMP

Sample Information

Client Sample ID: **TP-18** **York Sample ID:** **20J1329-08**

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
20J1329	20-0857	Soil	October 27, 2020 12:00 am	10/29/2020

Volatile Organics, 8260 - Comprehensive

Log-in Notes: **Sample Notes:**

Sample Prepared by Method: EPA 5035A

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
67-64-1	**Acetone**	**0.0070**	CCV-E, J	mg/kg dry	0.0057	0.011	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 21:27	TMP
107-02-8	Acrolein	ND		mg/kg dry	0.0057	0.011	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 21:27	TMP
107-13-1	Acrylonitrile	ND		mg/kg dry	0.0029	0.0057	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 21:27	TMP
71-43-2	Benzene	ND		mg/kg dry	0.0029	0.0057	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 21:27	TMP
74-97-5	Bromochloromethane	ND		mg/kg dry	0.0029	0.0057	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 21:27	TMP
75-27-4	Bromodichloromethane	ND		mg/kg dry	0.0029	0.0057	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 21:27	TMP
75-25-2	Bromoform	ND		mg/kg dry	0.0029	0.0057	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 21:27	TMP
74-83-9	Bromomethane	ND		mg/kg dry	0.0029	0.0057	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 21:27	TMP
75-15-0	Carbon disulfide	ND		mg/kg dry	0.0029	0.0057	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 21:27	TMP
56-23-5	Carbon tetrachloride	ND		mg/kg dry	0.0029	0.0057	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 21:27	TMP
108-90-7	Chlorobenzene	ND		mg/kg dry	0.0029	0.0057	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 21:27	TMP
75-00-3	Chloroethane	ND		mg/kg dry	0.0029	0.0057	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 21:27	TMP
67-66-3	Chloroform	ND		mg/kg dry	0.0029	0.0057	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 21:27	TMP
74-87-3	Chloromethane	ND		mg/kg dry	0.0029	0.0057	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 21:27	TMP
156-59-2	cis-1,2-Dichloroethylene	ND		mg/kg dry	0.0029	0.0057	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 21:27	TMP
10061-01-5	cis-1,3-Dichloropropylene	ND		mg/kg dry	0.0029	0.0057	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 21:27	TMP
110-82-7	Cyclohexane	ND		mg/kg dry	0.0029	0.0057	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 21:27	TMP
124-48-1	Dibromochloromethane	ND		mg/kg dry	0.0029	0.0057	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 21:27	TMP
74-95-3	Dibromomethane	ND		mg/kg dry	0.0029	0.0057	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 21:27	TMP
75-71-8	Dichlorodifluoromethane	ND		mg/kg dry	0.0029	0.0057	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 21:27	TMP
100-41-4	Ethyl Benzene	ND		mg/kg dry	0.0029	0.0057	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 21:27	TMP
87-68-3	Hexachlorobutadiene	ND		mg/kg dry	0.0029	0.0057	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 21:27	TMP
98-82-8	Isopropylbenzene	ND		mg/kg dry	0.0029	0.0057	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 21:27	TMP

Sample Information

Client Sample ID: **TP-18**

York Sample ID: **20J1329-08**

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
20J1329	20-0857	Soil	October 27, 2020 12:00 am	10/29/2020

Volatile Organics, 8260 - Comprehensive

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5035A

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
79-20-9	Methyl acetate	ND		mg/kg dry	0.0029	0.0057	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 21:27	TMP
1634-04-4	Methyl tert-butyl ether (MTBE)	ND		mg/kg dry	0.0029	0.0057	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 21:27	TMP
108-87-2	Methylcyclohexane	ND		mg/kg dry	0.0029	0.0057	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 21:27	TMP
75-09-2	Methylene chloride	ND		mg/kg dry	0.0057	0.011	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 21:27	TMP
104-51-8	n-Butylbenzene	ND		mg/kg dry	0.0029	0.0057	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 21:27	TMP
103-65-1	n-Propylbenzene	ND		mg/kg dry	0.0029	0.0057	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 21:27	TMP
95-47-6	o-Xylene	ND		mg/kg dry	0.0029	0.0057	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,PADEP	11/03/2020 07:00	11/03/2020 21:27	TMP
179601-23-1	p- & m- Xylenes	ND		mg/kg dry	0.0057	0.011	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,PADEP	11/03/2020 07:00	11/03/2020 21:27	TMP
99-87-6	p-Isopropyltoluene	ND		mg/kg dry	0.0029	0.0057	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 21:27	TMP
135-98-8	sec-Butylbenzene	ND		mg/kg dry	0.0029	0.0057	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 21:27	TMP
100-42-5	Styrene	ND		mg/kg dry	0.0029	0.0057	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 21:27	TMP
75-65-0	tert-Butyl alcohol (TBA)	ND		mg/kg dry	0.0029	0.0057	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 21:27	TMP
98-06-6	tert-Butylbenzene	ND		mg/kg dry	0.0029	0.0057	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 21:27	TMP
127-18-4	Tetrachloroethylene	ND		mg/kg dry	0.0029	0.0057	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 21:27	TMP
108-88-3	Toluene	ND		mg/kg dry	0.0029	0.0057	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 21:27	TMP
156-60-5	trans-1,2-Dichloroethylene	ND		mg/kg dry	0.0029	0.0057	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 21:27	TMP
10061-02-6	trans-1,3-Dichloropropylene	ND		mg/kg dry	0.0029	0.0057	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 21:27	TMP
79-01-6	Trichloroethylene	ND		mg/kg dry	0.0029	0.0057	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 21:27	TMP
75-69-4	Trichlorofluoromethane	ND		mg/kg dry	0.0029	0.0057	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 21:27	TMP
75-01-4	Vinyl Chloride	ND		mg/kg dry	0.0029	0.0057	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 21:27	TMP
1330-20-7	Xylenes, Total	ND		mg/kg dry	0.0086	0.017	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP	11/03/2020 07:00	11/03/2020 21:27	TMP

	Surrogate Recoveries	Result	Acceptance Range
17060-07-0	*Surrogate: SURR: 1,2-Dichloroethane-d4*	*107 %*	*77-125*
2037-26-5	*Surrogate: SURR: Toluene-d8*	*99.0 %*	*85-120*

Sample Information

Client Sample ID: **TP-18**　　**York Sample ID:** **20J1329-08**

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
20J1329	20-0857	Soil	October 27, 2020 12:00 am	10/29/2020

Volatile Organics, 8260 - Comprehensive

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5035A

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
460-00-4	*Surrogate: SURR: p-Bromofluorobenzene*	*98.0 %*			*76-130*						

Semi-Volatiles, 8270 - Comprehensive

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3550C

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
92-52-4	1,1-Biphenyl	ND		ug/kg dry	43.7	87.1	2	EPA 8270D Certifications: NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 22:40	KH
95-94-3	1,2,4,5-Tetrachlorobenzene	ND		ug/kg dry	87.1	174	2	EPA 8270D Certifications: NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 22:40	KH
120-82-1	1,2,4-Trichlorobenzene	ND		ug/kg dry	43.7	87.1	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 22:40	KH
95-50-1	1,2-Dichlorobenzene	ND		ug/kg dry	43.7	87.1	2	EPA 8270D Certifications: NELAC-NY10854,PADEP	11/05/2020 07:27	11/05/2020 22:40	KH
122-66-7	1,2-Diphenylhydrazine (as Azobenzene)	ND		ug/kg dry	43.7	87.1	2	EPA 8270D Certifications: NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 22:40	KH
541-73-1	1,3-Dichlorobenzene	ND		ug/kg dry	43.7	87.1	2	EPA 8270D Certifications: NELAC-NY10854,PADEP	11/05/2020 07:27	11/05/2020 22:40	KH
106-46-7	1,4-Dichlorobenzene	ND		ug/kg dry	43.7	87.1	2	EPA 8270D Certifications: NELAC-NY10854,PADEP	11/05/2020 07:27	11/05/2020 22:40	KH
58-90-2	2,3,4,6-Tetrachlorophenol	ND		ug/kg dry	87.1	174	2	EPA 8270D Certifications: NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 22:40	KH
95-95-4	2,4,5-Trichlorophenol	ND		ug/kg dry	43.7	87.1	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 22:40	KH
88-06-2	2,4,6-Trichlorophenol	ND		ug/kg dry	43.7	87.1	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 22:40	KH
120-83-2	2,4-Dichlorophenol	ND		ug/kg dry	43.7	87.1	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 22:40	KH
105-67-9	2,4-Dimethylphenol	ND		ug/kg dry	43.7	87.1	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 22:40	KH
51-28-5	2,4-Dinitrophenol	ND		ug/kg dry	87.1	174	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 22:40	KH
121-14-2	2,4-Dinitrotoluene	ND		ug/kg dry	43.7	87.1	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 22:40	KH
606-20-2	2,6-Dinitrotoluene	ND		ug/kg dry	43.7	87.1	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 22:40	KH
91-58-7	2-Chloronaphthalene	ND		ug/kg dry	43.7	87.1	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 22:40	KH
95-57-8	2-Chlorophenol	ND		ug/kg dry	43.7	87.1	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 22:40	KH
91-57-6	2-Methylnaphthalene	ND		ug/kg dry	43.7	87.1	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 22:40	KH
95-48-7	2-Methylphenol	ND		ug/kg dry	43.7	87.1	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 22:40	KH

Sample Information

Client Sample ID: **TP-18** **York Sample ID:** **20J1329-08**

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
20J1329	20-0857	Soil	October 27, 2020 12:00 am	10/29/2020

Semi-Volatiles, 8270 - Comprehensive

Log-in Notes: **Sample Notes:**

Sample Prepared by Method: EPA 3550C

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
88-74-4	2-Nitroaniline	ND		ug/kg dry	87.1	174	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 22:40	KH
88-75-5	2-Nitrophenol	ND		ug/kg dry	43.7	87.1	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 22:40	KH
65794-96-9	3- & 4-Methylphenols	ND		ug/kg dry	43.7	87.1	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 22:40	KH
91-94-1	3,3-Dichlorobenzidine	ND		ug/kg dry	43.7	87.1	2	EPA 8270D Certifications: NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 22:40	KH
99-09-2	3-Nitroaniline	ND		ug/kg dry	87.1	174	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 22:40	KH
534-52-1	4,6-Dinitro-2-methylphenol	ND		ug/kg dry	87.1	174	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 22:40	KH
101-55-3	4-Bromophenyl phenyl ether	ND		ug/kg dry	43.7	87.1	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 22:40	KH
59-50-7	4-Chloro-3-methylphenol	ND		ug/kg dry	43.7	87.1	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 22:40	KH
106-47-8	4-Chloroaniline	ND		ug/kg dry	43.7	87.1	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 22:40	KH
7005-72-3	4-Chlorophenyl phenyl ether	ND		ug/kg dry	43.7	87.1	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 22:40	KH
100-01-6	4-Nitroaniline	ND		ug/kg dry	87.1	174	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 22:40	KH
100-02-7	4-Nitrophenol	ND		ug/kg dry	87.1	174	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 22:40	KH
83-32-9	Acenaphthene	ND		ug/kg dry	43.7	87.1	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 22:40	KH
208-96-8	Acenaphthylene	ND		ug/kg dry	43.7	87.1	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 22:40	KH
98-86-2	Acetophenone	ND		ug/kg dry	43.7	87.1	2	EPA 8270D Certifications: NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 22:40	KH
62-53-3	Aniline	ND		ug/kg dry	174	349	2	EPA 8270D Certifications: NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 22:40	KH
120-12-7	Anthracene	ND		ug/kg dry	43.7	87.1	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 22:40	KH
1912-24-9	Atrazine	ND		ug/kg dry	43.7	87.1	2	EPA 8270D Certifications: NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 22:40	KH
100-52-7	Benzaldehyde	ND		ug/kg dry	43.7	87.1	2	EPA 8270D Certifications: NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 22:40	KH
92-87-5	Benzidine	ND		ug/kg dry	174	349	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,PADEP	11/05/2020 07:27	11/05/2020 22:40	KH
56-55-3	Benzo(a)anthracene	ND		ug/kg dry	43.7	87.1	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 22:40	KH
50-32-8	Benzo(a)pyrene	ND		ug/kg dry	43.7	87.1	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 22:40	KH
205-99-2	Benzo(b)fluoranthene	ND		ug/kg dry	43.7	87.1	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 22:40	KH

Sample Information

Client Sample ID: **TP-18** **York Sample ID:** **20J1329-08**

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
20J1329	20-0857	Soil	October 27, 2020 12:00 am	10/29/2020

Semi-Volatiles, 8270 - Comprehensive

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3550C

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
191-24-2	Benzo(g,h,i)perylene	ND		ug/kg dry	43.7	87.1	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 22:40	KH
207-08-9	Benzo(k)fluoranthene	ND		ug/kg dry	43.7	87.1	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 22:40	KH
65-85-0	Benzoic acid	ND		ug/kg dry	43.7	87.1	2	EPA 8270D Certifications: NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 22:40	KH
100-51-6	Benzyl alcohol	ND		ug/kg dry	43.7	87.1	2	EPA 8270D Certifications: NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 22:40	KH
85-68-7	Benzyl butyl phthalate	ND		ug/kg dry	43.7	87.1	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 22:40	KH
111-91-1	Bis(2-chloroethoxy)methane	ND		ug/kg dry	43.7	87.1	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 22:40	KH
111-44-4	Bis(2-chloroethyl)ether	ND		ug/kg dry	43.7	87.1	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 22:40	KH
108-60-1	Bis(2-chloroisopropyl)ether	ND		ug/kg dry	43.7	87.1	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 22:40	KH
117-81-7	Bis(2-ethylhexyl)phthalate	ND		ug/kg dry	43.7	87.1	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 22:40	KH
105-60-2	Caprolactam	ND		ug/kg dry	87.1	174	2	EPA 8270D Certifications: NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 22:40	KH
86-74-8	Carbazole	ND		ug/kg dry	43.7	87.1	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 22:40	KH
218-01-9	Chrysene	ND		ug/kg dry	43.7	87.1	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 22:40	KH
53-70-3	Dibenzo(a,h)anthracene	ND		ug/kg dry	43.7	87.1	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 22:40	KH
132-64-9	Dibenzofuran	ND		ug/kg dry	43.7	87.1	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 22:40	KH
84-66-2	Diethyl phthalate	ND		ug/kg dry	43.7	87.1	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 22:40	KH
131-11-3	Dimethyl phthalate	ND		ug/kg dry	43.7	87.1	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 22:40	KH
84-74-2	Di-n-butyl phthalate	ND		ug/kg dry	43.7	87.1	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 22:40	KH
117-84-0	Di-n-octyl phthalate	ND		ug/kg dry	43.7	87.1	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 22:40	KH
122-39-4	* Diphenylamine	ND		ug/kg dry	87.1	174	2	EPA 8270D Certifications:	11/05/2020 07:27	11/05/2020 22:40	KH
206-44-0	Fluoranthene	ND		ug/kg dry	43.7	87.1	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 22:40	KH
86-73-7	Fluorene	ND		ug/kg dry	43.7	87.1	2	EPA 8270D Certifications: NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 22:40	KH
118-74-1	Hexachlorobenzene	ND		ug/kg dry	43.7	87.1	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 22:40	KH
87-68-3	Hexachlorobutadiene	ND		ug/kg dry	43.7	87.1	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 22:40	KH

Sample Information

Client Sample ID: **TP-18** **York Sample ID:** **20J1329-08**

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
20J1329	20-0857	Soil	October 27, 2020 12:00 am	10/29/2020

Semi-Volatiles, 8270 - Comprehensive

Log-in Notes: **Sample Notes:**

Sample Prepared by Method: EPA 3550C

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
77-47-4	Hexachlorocyclopentadiene	ND		ug/kg dry	43.7	87.1	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 22:40	KH
67-72-1	Hexachloroethane	ND		ug/kg dry	43.7	87.1	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 22:40	KH
193-39-5	Indeno(1,2,3-cd)pyrene	ND		ug/kg dry	43.7	87.1	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 22:40	KH
78-59-1	Isophorone	ND		ug/kg dry	43.7	87.1	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 22:40	KH
91-20-3	Naphthalene	ND		ug/kg dry	43.7	87.1	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 22:40	KH
98-95-3	Nitrobenzene	ND		ug/kg dry	43.7	87.1	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 22:40	KH
62-75-9	N-Nitrosodimethylamine	ND		ug/kg dry	43.7	87.1	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 22:40	KH
621-64-7	N-nitroso-di-n-propylamine	ND		ug/kg dry	43.7	87.1	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 22:40	KH
86-30-6	N-Nitrosodiphenylamine	ND		ug/kg dry	43.7	87.1	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 22:40	KH
87-86-5	Pentachlorophenol	ND		ug/kg dry	43.7	87.1	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 22:40	KH
85-01-8	Phenanthrene	ND		ug/kg dry	43.7	87.1	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 22:40	KH
108-95-2	Phenol	ND		ug/kg dry	43.7	87.1	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 22:40	KH
129-00-0	Pyrene	ND		ug/kg dry	43.7	87.1	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/05/2020 22:40	KH

	Surrogate Recoveries	Result	Acceptance Range
367-12-4	*Surrogate: SURR: 2-Fluorophenol*	*47.4 %*	*20-108*
4165-62-2	*Surrogate: SURR: Phenol-d5*	*49.9 %*	*23-114*
4165-60-0	*Surrogate: SURR: Nitrobenzene-d5*	*60.3 %*	*22-108*
321-60-8	*Surrogate: SURR: 2-Fluorobiphenyl*	*66.8 %*	*21-113*
118-79-6	*Surrogate: SURR: 2,4,6-Tribromophenol*	*99.1 %*	*19-110*
1718-51-0	*Surrogate: SURR: Terphenyl-d14*	*81.9 %*	*24-116*

Pesticides, 8081 target list

Log-in Notes: **Sample Notes:**

Sample Prepared by Method: EPA 3550C

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
72-54-8	4,4'-DDD	ND		mg/kg dry	0.00173	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/04/2020 06:56	11/05/2020 10:06	CM
72-55-9	4,4'-DDE	ND		mg/kg dry	0.00173	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/04/2020 06:56	11/05/2020 10:06	CM
50-29-3	4,4'-DDT	ND		mg/kg dry	0.00173	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/04/2020 06:56	11/05/2020 10:06	CM

Sample Information

Client Sample ID: TP-18 **York Sample ID:** 20J1329-08

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
20J1329	20-0857	Soil	October 27, 2020 12:00 am	10/29/2020

Pesticides, 8081 target list

Log-in Notes: **Sample Notes:**

Sample Prepared by Method: EPA 3550C

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
309-00-2	Aldrin	ND		mg/kg dry	0.00173	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/04/2020 06:56	11/05/2020 10:06	CM
319-84-6	alpha-BHC	ND		mg/kg dry	0.00173	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/04/2020 06:56	11/05/2020 10:06	CM
5103-71-9	alpha-Chlordane	ND		mg/kg dry	0.00173	5	EPA 8081B Certifications: NELAC-NY10854,NJDEP	11/04/2020 06:56	11/05/2020 10:06	CM
319-85-7	beta-BHC	ND		mg/kg dry	0.00173	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/04/2020 06:56	11/05/2020 10:06	CM
57-74-9	Chlordane, total	ND		mg/kg dry	0.0346	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/04/2020 06:56	11/05/2020 10:06	CM
319-86-8	delta-BHC	ND		mg/kg dry	0.00173	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/04/2020 06:56	11/05/2020 10:06	CM
60-57-1	Dieldrin	ND		mg/kg dry	0.00173	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/04/2020 06:56	11/05/2020 10:06	CM
959-98-8	Endosulfan I	ND		mg/kg dry	0.00173	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/04/2020 06:56	11/05/2020 10:06	CM
33213-65-9	Endosulfan II	ND		mg/kg dry	0.00173	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854	11/04/2020 06:56	11/05/2020 10:06	CM
1031-07-8	Endosulfan sulfate	ND		mg/kg dry	0.00173	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/04/2020 06:56	11/05/2020 10:06	CM
72-20-8	Endrin	ND		mg/kg dry	0.00173	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/04/2020 06:56	11/05/2020 10:06	CM
7421-93-4	Endrin aldehyde	ND		mg/kg dry	0.00173	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/04/2020 06:56	11/05/2020 10:06	CM
53494-70-5	Endrin ketone	ND		mg/kg dry	0.00173	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/04/2020 06:56	11/05/2020 10:06	CM
58-89-9	gamma-BHC (Lindane)	ND		mg/kg dry	0.00173	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/04/2020 06:56	11/05/2020 10:06	CM
5566-34-7	gamma-Chlordane	ND		mg/kg dry	0.00173	5	EPA 8081B Certifications: NELAC-NY10854,NJDEP	11/04/2020 06:56	11/05/2020 10:06	CM
76-44-8	Heptachlor	ND		mg/kg dry	0.00173	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/04/2020 06:56	11/05/2020 10:06	CM
1024-57-3	Heptachlor epoxide	ND		mg/kg dry	0.00173	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/04/2020 06:56	11/05/2020 10:06	CM
72-43-5	Methoxychlor	ND		mg/kg dry	0.00865	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/04/2020 06:56	11/05/2020 10:06	CM
8001-35-2	Toxaphene	ND		mg/kg dry	0.0875	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/04/2020 06:56	11/05/2020 10:06	CM

	Surrogate Recoveries	Result	Acceptance Range
2051-24-3	*Surrogate: Decachlorobiphenyl*	*113 %*	*30-150*
877-09-8	*Surrogate: Tetrachloro-m-xylene*	*89.4 %*	*30-150*

Polychlorinated Biphenyls (PCB)

Log-in Notes: **Sample Notes:**

Sample Prepared by Method: EPA 3550C

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst

Sample Information

Client Sample ID: **TP-18**

York Sample ID: **20J1329-08**

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
20J1329	20-0857	Soil	October 27, 2020 12:00 am	10/29/2020

12674-11-2	Aroclor 1016	ND	mg/kg dry	0.0175	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	11/04/2020 06:56	11/05/2020 12:48	BJ
11104-28-2	Aroclor 1221	ND	mg/kg dry	0.0175	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	11/04/2020 06:56	11/05/2020 12:48	BJ
11141-16-5	Aroclor 1232	ND	mg/kg dry	0.0175	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	11/04/2020 06:56	11/05/2020 12:48	BJ
53469-21-9	Aroclor 1242	ND	mg/kg dry	0.0175	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	11/04/2020 06:56	11/05/2020 12:48	BJ
12672-29-6	Aroclor 1248	ND	mg/kg dry	0.0175	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	11/04/2020 06:56	11/05/2020 12:48	BJ
11097-69-1	Aroclor 1254	ND	mg/kg dry	0.0175	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	11/04/2020 06:56	11/05/2020 12:48	BJ
11096-82-5	Aroclor 1260	ND	mg/kg dry	0.0175	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	11/04/2020 06:56	11/05/2020 12:48	BJ
37324-23-5	Aroclor 1262	ND	mg/kg dry	0.0175	1	EPA 8082A Certifications: NELAC-NY10854,NJDEP,PADEP	11/04/2020 06:56	11/05/2020 12:48	BJ
11100-14-4	Aroclor 1268	ND	mg/kg dry	0.0175	1	EPA 8082A Certifications: NELAC-NY10854,NJDEP,PADEP	11/04/2020 06:56	11/05/2020 12:48	BJ
1336-36-3	* Total PCBs	ND	mg/kg dry	0.0175	1	EPA 8082A Certifications:	11/04/2020 06:56	11/05/2020 12:48	BJ

	Surrogate Recoveries	Result	Acceptance Range
877-09-8	*Surrogate: Tetrachloro-m-xylene*	*88.5 %*	*30-140*
2051-24-3	*Surrogate: Decachlorobiphenyl*	*88.0 %*	*30-140*

Metals, Target Analyte

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3050B

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7429-90-5	**Aluminum**	**10600**		mg/kg dry	5.28	1	EPA 6010D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	10/29/2020 16:34	11/02/2020 16:17	WJM
7440-36-0	Antimony	ND		mg/kg dry	2.64	1	EPA 6010D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	10/29/2020 16:34	11/02/2020 16:17	WJM
7440-38-2	**Arsenic**	**4.29**		mg/kg dry	1.58	1	EPA 6010D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	10/29/2020 16:34	11/02/2020 16:17	WJM
7440-39-3	**Barium**	**33.5**		mg/kg dry	2.64	1	EPA 6010D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	10/29/2020 16:34	11/02/2020 16:17	WJM
7440-41-7	Beryllium	ND		mg/kg dry	0.053	1	EPA 6010D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	10/29/2020 16:34	11/02/2020 16:17	WJM
7440-43-9	Cadmium	ND		mg/kg dry	0.317	1	EPA 6010D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	10/29/2020 16:34	11/02/2020 16:17	WJM
7440-70-2	**Calcium**	**315**		mg/kg dry	5.28	1	EPA 6010D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	10/29/2020 16:34	11/02/2020 16:17	WJM
7440-47-3	**Chromium**	**7.94**		mg/kg dry	0.528	1	EPA 6010D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	10/29/2020 16:34	11/02/2020 16:17	WJM
7440-48-4	**Cobalt**	**5.72**		mg/kg dry	0.422	1	EPA 6010D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	10/29/2020 16:34	11/02/2020 16:17	WJM
7440-50-8	**Copper**	**7.49**		mg/kg dry	2.11	1	EPA 6010D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	10/29/2020 16:34	11/02/2020 16:17	WJM

Sample Information

Client Sample ID: **TP-18** **York Sample ID:** **20J1329-08**

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
20J1329	20-0857	Soil	October 27, 2020 12:00 am	10/29/2020

Metalas, Target Analyte

Log-in Notes: **Sample Notes:**

Sample Prepared by Method: EPA 3050B

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7439-89-6	**Iron**	**14900**		mg/kg dry	26.4	1	EPA 6010D	10/29/2020 16:34	11/02/2020 16:17	WJM
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP		
7439-92-1	**Lead**	**51.6**		mg/kg dry	0.528	1	EPA 6010D	10/29/2020 16:34	11/02/2020 16:17	WJM
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP		
7439-95-4	**Magnesium**	**2030**		mg/kg dry	5.28	1	EPA 6010D	10/29/2020 16:34	11/02/2020 16:17	WJM
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP		
7439-96-5	**Manganese**	**292**		mg/kg dry	0.528	1	EPA 6010D	10/29/2020 16:34	11/02/2020 16:17	WJM
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP		
7440-02-0	**Nickel**	**11.2**		mg/kg dry	1.06	1	EPA 6010D	10/29/2020 16:34	11/02/2020 16:17	WJM
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP		
7440-09-7	**Potassium**	**646**		mg/kg dry	5.28	1	EPA 6010D	10/29/2020 16:34	11/02/2020 16:17	WJM
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP		
7782-49-2	Selenium	ND		mg/kg dry	2.64	1	EPA 6010D	10/29/2020 16:34	11/02/2020 16:17	WJM
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP		
7440-22-4	Silver	ND		mg/kg dry	0.528	1	EPA 6010D	10/29/2020 16:34	11/02/2020 16:17	WJM
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP		
7440-23-5	Sodium	ND		mg/kg dry	52.8	1	EPA 6010D	10/29/2020 16:34	11/02/2020 16:17	WJM
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP		
7440-28-0	Thallium	ND		mg/kg dry	2.64	1	EPA 6010D	10/29/2020 16:34	11/02/2020 16:17	WJM
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP		
7440-62-2	**Vanadium**	**10.8**		mg/kg dry	1.06	1	EPA 6010D	10/29/2020 16:34	11/02/2020 16:17	WJM
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP		
7440-66-6	**Zinc**	**78.8**	B	mg/kg dry	2.64	1	EPA 6010D	10/29/2020 16:34	11/02/2020 16:17	WJM
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP		

Mercury by 7473

Log-in Notes: **Sample Notes:**

Sample Prepared by Method: EPA 7473 soil

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7439-97-6	**Mercury**	**0.0925**		mg/kg dry	0.0317	1	EPA 7473	10/29/2020 16:32	10/29/2020 19:49	MAO
							Certifications:	CTDOH,NJDEP,NELAC-NY10854,PADEP		

Total Solids

Log-in Notes: **Sample Notes:**

Sample Prepared by Method: % Solids Prep

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
solids	*** % Solids**	**94.8**		%	0.100	1	SM 2540G	10/30/2020 08:47	10/30/2020 14:41	SK
							Certifications:	CTDOH		

Sample Information

Client Sample ID: **SS-01** **York Sample ID:** **20J1329-09**

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
20J1329	20-0857	Soil	October 27, 2020 12:00 am	10/29/2020

Volatile Organics, 8260 - Comprehensive **Log-in Notes:** **Sample Notes:**

Sample Prepared by Method: EPA 5035A

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
630-20-6	1,1,1,2-Tetrachloroethane	ND		mg/kg dry	0.0050	0.010	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 21:55	TMP
71-55-6	1,1,1-Trichloroethane	ND		mg/kg dry	0.0050	0.010	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 21:55	TMP
79-34-5	1,1,2,2-Tetrachloroethane	ND		mg/kg dry	0.0050	0.010	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 21:55	TMP
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND		mg/kg dry	0.0050	0.010	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP	11/03/2020 07:00	11/03/2020 21:55	TMP
79-00-5	1,1,2-Trichloroethane	ND		mg/kg dry	0.0050	0.010	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 21:55	TMP
75-34-3	1,1-Dichloroethane	ND		mg/kg dry	0.0050	0.010	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 21:55	TMP
75-35-4	1,1-Dichloroethylene	ND		mg/kg dry	0.0050	0.010	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 21:55	TMP
87-61-6	1,2,3-Trichlorobenzene	ND		mg/kg dry	0.0050	0.010	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 21:55	TMP
96-18-4	1,2,3-Trichloropropane	ND		mg/kg dry	0.0050	0.010	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP	11/03/2020 07:00	11/03/2020 21:55	TMP
120-82-1	1,2,4-Trichlorobenzene	ND		mg/kg dry	0.0050	0.010	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 21:55	TMP
95-63-6	1,2,4-Trimethylbenzene	ND		mg/kg dry	0.0050	0.010	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 21:55	TMP
96-12-8	1,2-Dibromo-3-chloropropane	ND		mg/kg dry	0.0050	0.010	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 21:55	TMP
106-93-4	1,2-Dibromoethane	ND		mg/kg dry	0.0050	0.010	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 21:55	TMP
95-50-1	1,2-Dichlorobenzene	ND		mg/kg dry	0.0050	0.010	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 21:55	TMP
107-06-2	1,2-Dichloroethane	ND		mg/kg dry	0.0050	0.010	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 21:55	TMP
78-87-5	1,2-Dichloropropane	ND		mg/kg dry	0.0050	0.010	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 21:55	TMP
108-67-8	1,3,5-Trimethylbenzene	ND		mg/kg dry	0.0050	0.010	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 21:55	TMP
541-73-1	1,3-Dichlorobenzene	ND		mg/kg dry	0.0050	0.010	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 21:55	TMP
106-46-7	1,4-Dichlorobenzene	ND		mg/kg dry	0.0050	0.010	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 21:55	TMP
123-91-1	1,4-Dioxane	ND		mg/kg dry	0.10	0.20	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 21:55	TMP
78-93-3	2-Butanone	ND		mg/kg dry	0.0050	0.010	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 21:55	TMP
591-78-6	2-Hexanone	ND		mg/kg dry	0.0050	0.010	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 21:55	TMP
108-10-1	4-Methyl-2-pentanone	ND		mg/kg dry	0.0050	0.010	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 21:55	TMP

Sample Information

Client Sample ID: **SS-01**

York Sample ID: **20J1329-09**

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
20J1329	20-0857	Soil	October 27, 2020 12:00 am	10/29/2020

Volatile Organics, 8260 - Comprehensive

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5035A

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
67-64-1	Acetone	ND		mg/kg dry	0.010	0.020	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 21:55	TMP
107-02-8	Acrolein	ND		mg/kg dry	0.010	0.020	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 21:55	TMP
107-13-1	Acrylonitrile	ND		mg/kg dry	0.0050	0.010	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 21:55	TMP
71-43-2	Benzene	ND		mg/kg dry	0.0050	0.010	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 21:55	TMP
74-97-5	Bromochloromethane	ND		mg/kg dry	0.0050	0.010	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 21:55	TMP
75-27-4	Bromodichloromethane	ND		mg/kg dry	0.0050	0.010	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 21:55	TMP
75-25-2	Bromoform	ND		mg/kg dry	0.0050	0.010	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 21:55	TMP
74-83-9	Bromomethane	ND		mg/kg dry	0.0050	0.010	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 21:55	TMP
75-15-0	Carbon disulfide	ND		mg/kg dry	0.0050	0.010	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 21:55	TMP
56-23-5	Carbon tetrachloride	ND		mg/kg dry	0.0050	0.010	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 21:55	TMP
108-90-7	Chlorobenzene	ND		mg/kg dry	0.0050	0.010	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 21:55	TMP
75-00-3	Chloroethane	ND		mg/kg dry	0.0050	0.010	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 21:55	TMP
67-66-3	Chloroform	ND		mg/kg dry	0.0050	0.010	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 21:55	TMP
74-87-3	Chloromethane	ND		mg/kg dry	0.0050	0.010	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 21:55	TMP
156-59-2	cis-1,2-Dichloroethylene	ND		mg/kg dry	0.0050	0.010	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 21:55	TMP
10061-01-5	cis-1,3-Dichloropropylene	ND		mg/kg dry	0.0050	0.010	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 21:55	TMP
110-82-7	Cyclohexane	ND		mg/kg dry	0.0050	0.010	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 21:55	TMP
124-48-1	Dibromochloromethane	ND		mg/kg dry	0.0050	0.010	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 21:55	TMP
74-95-3	Dibromomethane	ND		mg/kg dry	0.0050	0.010	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 21:55	TMP
75-71-8	Dichlorodifluoromethane	ND		mg/kg dry	0.0050	0.010	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 21:55	TMP
100-41-4	Ethyl Benzene	ND		mg/kg dry	0.0050	0.010	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 21:55	TMP
87-68-3	Hexachlorobutadiene	ND		mg/kg dry	0.0050	0.010	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 21:55	TMP
98-82-8	Isopropylbenzene	ND		mg/kg dry	0.0050	0.010	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 21:55	TMP

Sample Information

Client Sample ID: **SS-01** **York Sample ID:** **20J1329-09**

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
20J1329	20-0857	Soil	October 27, 2020 12:00 am	10/29/2020

Volatile Organics, 8260 - Comprehensive

Log-in Notes: **Sample Notes:**

Sample Prepared by Method: EPA 5035A

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
79-20-9	Methyl acetate	ND		mg/kg dry	0.0050	0.010	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 21:55	TMP
1634-04-4	Methyl tert-butyl ether (MTBE)	ND		mg/kg dry	0.0050	0.010	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 21:55	TMP
108-87-2	Methylcyclohexane	ND		mg/kg dry	0.0050	0.010	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 21:55	TMP
75-09-2	**Methylene chloride**	**0.011**	J	mg/kg dry	0.010	0.020	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 21:55	TMP
104-51-8	n-Butylbenzene	ND		mg/kg dry	0.0050	0.010	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 21:55	TMP
103-65-1	n-Propylbenzene	ND		mg/kg dry	0.0050	0.010	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 21:55	TMP
95-47-6	o-Xylene	ND		mg/kg dry	0.0050	0.010	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,PADEP	11/03/2020 07:00	11/03/2020 21:55	TMP
179601-23-1	p- & m- Xylenes	ND		mg/kg dry	0.010	0.020	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,PADEP	11/03/2020 07:00	11/03/2020 21:55	TMP
99-87-6	p-Isopropyltoluene	ND		mg/kg dry	0.0050	0.010	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 21:55	TMP
135-98-8	sec-Butylbenzene	ND		mg/kg dry	0.0050	0.010	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 21:55	TMP
100-42-5	Styrene	ND		mg/kg dry	0.0050	0.010	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 21:55	TMP
75-65-0	tert-Butyl alcohol (TBA)	ND		mg/kg dry	0.0050	0.010	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 21:55	TMP
98-06-6	tert-Butylbenzene	ND		mg/kg dry	0.0050	0.010	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 21:55	TMP
127-18-4	Tetrachloroethylene	ND		mg/kg dry	0.0050	0.010	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 21:55	TMP
108-88-3	Toluene	ND		mg/kg dry	0.0050	0.010	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 21:55	TMP
156-60-5	trans-1,2-Dichloroethylene	ND		mg/kg dry	0.0050	0.010	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 21:55	TMP
10061-02-6	trans-1,3-Dichloropropylene	ND		mg/kg dry	0.0050	0.010	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 21:55	TMP
79-01-6	Trichloroethylene	ND		mg/kg dry	0.0050	0.010	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 21:55	TMP
75-69-4	Trichlorofluoromethane	ND		mg/kg dry	0.0050	0.010	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 21:55	TMP
75-01-4	Vinyl Chloride	ND		mg/kg dry	0.0050	0.010	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 21:55	TMP
1330-20-7	Xylenes, Total	ND		mg/kg dry	0.015	0.030	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP	11/03/2020 07:00	11/03/2020 21:55	TMP

	Surrogate Recoveries	Result	Acceptance Range
17060-07-0	*Surrogate: SURR: 1,2-Dichloroethane-d4*	*106 %*	*77-125*
2037-26-5	*Surrogate: SURR: Toluene-d8*	*101 %*	*85-120*

Sample Information

Client Sample ID: **SS-01**

York Sample ID: **20J1329-09**

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
20J1329	20-0857	Soil	October 27, 2020 12:00 am	10/29/2020

Volatile Organics, 8260 - Comprehensive

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5035A

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
460-00-4	*Surrogate: SURR: p-Bromofluorobenzene*	*102 %*			*76-130*						

Semi-Volatiles, 8270 - Comprehensive

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3550C

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
92-52-4	1,1-Biphenyl	ND		ug/kg dry	248	496	10	EPA 8270D Certifications: NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/06/2020 00:09	KH
95-94-3	1,2,4,5-Tetrachlorobenzene	ND		ug/kg dry	496	990	10	EPA 8270D Certifications: NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/06/2020 00:09	KH
120-82-1	1,2,4-Trichlorobenzene	ND		ug/kg dry	248	496	10	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/06/2020 00:09	KH
95-50-1	1,2-Dichlorobenzene	ND		ug/kg dry	248	496	10	EPA 8270D Certifications: NELAC-NY10854,PADEP	11/05/2020 07:27	11/06/2020 00:09	KH
122-66-7	1,2-Diphenylhydrazine (as Azobenzene)	ND		ug/kg dry	248	496	10	EPA 8270D Certifications: NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/06/2020 00:09	KH
541-73-1	1,3-Dichlorobenzene	ND		ug/kg dry	248	496	10	EPA 8270D Certifications: NELAC-NY10854,PADEP	11/05/2020 07:27	11/06/2020 00:09	KH
106-46-7	1,4-Dichlorobenzene	ND		ug/kg dry	248	496	10	EPA 8270D Certifications: NELAC-NY10854,PADEP	11/05/2020 07:27	11/06/2020 00:09	KH
58-90-2	2,3,4,6-Tetrachlorophenol	ND		ug/kg dry	496	990	10	EPA 8270D Certifications: NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/06/2020 00:09	KH
95-95-4	2,4,5-Trichlorophenol	ND		ug/kg dry	248	496	10	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/06/2020 00:09	KH
88-06-2	2,4,6-Trichlorophenol	ND		ug/kg dry	248	496	10	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/06/2020 00:09	KH
120-83-2	2,4-Dichlorophenol	ND		ug/kg dry	248	496	10	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/06/2020 00:09	KH
105-67-9	2,4-Dimethylphenol	ND		ug/kg dry	248	496	10	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/06/2020 00:09	KH
51-28-5	2,4-Dinitrophenol	ND		ug/kg dry	496	990	10	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/06/2020 00:09	KH
121-14-2	2,4-Dinitrotoluene	ND		ug/kg dry	248	496	10	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/06/2020 00:09	KH
606-20-2	2,6-Dinitrotoluene	ND		ug/kg dry	248	496	10	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/06/2020 00:09	KH
91-58-7	2-Chloronaphthalene	ND		ug/kg dry	248	496	10	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/06/2020 00:09	KH
95-57-8	2-Chlorophenol	ND		ug/kg dry	248	496	10	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/06/2020 00:09	KH
91-57-6	2-Methylnaphthalene	ND		ug/kg dry	248	496	10	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/06/2020 00:09	KH
95-48-7	2-Methylphenol	ND		ug/kg dry	248	496	10	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/06/2020 00:09	KH

Sample Information

Client Sample ID: **SS-01** **York Sample ID:** **20J1329-09**

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
20J1329	20-0857	Soil	October 27, 2020 12:00 am	10/29/2020

Semi-Volatiles, 8270 - Comprehensive **Log-in Notes:** **Sample Notes:**

Sample Prepared by Method: EPA 3550C

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
88-74-4	2-Nitroaniline	ND		ug/kg dry	496	990	10	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/06/2020 00:09	KH
88-75-5	2-Nitrophenol	ND		ug/kg dry	248	496	10	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/06/2020 00:09	KH
65794-96-9	3- & 4-Methylphenols	ND		ug/kg dry	248	496	10	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/06/2020 00:09	KH
91-94-1	3,3-Dichlorobenzidine	ND		ug/kg dry	248	496	10	EPA 8270D Certifications: NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/06/2020 00:09	KH
99-09-2	3-Nitroaniline	ND		ug/kg dry	496	990	10	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/06/2020 00:09	KH
534-52-1	4,6-Dinitro-2-methylphenol	ND		ug/kg dry	496	990	10	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/06/2020 00:09	KH
101-55-3	4-Bromophenyl phenyl ether	ND		ug/kg dry	248	496	10	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/06/2020 00:09	KH
59-50-7	4-Chloro-3-methylphenol	ND		ug/kg dry	248	496	10	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/06/2020 00:09	KH
106-47-8	4-Chloroaniline	ND		ug/kg dry	248	496	10	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/06/2020 00:09	KH
7005-72-3	4-Chlorophenyl phenyl ether	ND		ug/kg dry	248	496	10	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/06/2020 00:09	KH
100-01-6	4-Nitroaniline	ND		ug/kg dry	496	990	10	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/06/2020 00:09	KH
100-02-7	4-Nitrophenol	ND		ug/kg dry	496	990	10	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/06/2020 00:09	KH
83-32-9	Acenaphthene	ND		ug/kg dry	248	496	10	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/06/2020 00:09	KH
208-96-8	Acenaphthylene	ND		ug/kg dry	248	496	10	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/06/2020 00:09	KH
98-86-2	**Acetophenone**	**610**		ug/kg dry	248	496	10	EPA 8270D Certifications: NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/06/2020 00:09	KH
62-53-3	Aniline	ND		ug/kg dry	993	1990	10	EPA 8270D Certifications: NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/06/2020 00:09	KH
120-12-7	Anthracene	ND		ug/kg dry	248	496	10	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/06/2020 00:09	KH
1912-24-9	Atrazine	ND		ug/kg dry	248	496	10	EPA 8270D Certifications: NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/06/2020 00:09	KH
100-52-7	Benzaldehyde	ND		ug/kg dry	248	496	10	EPA 8270D Certifications: NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/06/2020 00:09	KH
92-87-5	Benzidine	ND		ug/kg dry	993	1990	10	EPA 8270D Certifications: CTDOH,NELAC-NY10854,PADEP	11/05/2020 07:27	11/06/2020 00:09	KH
56-55-3	Benzo(a)anthracene	ND		ug/kg dry	248	496	10	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/06/2020 00:09	KH
50-32-8	Benzo(a)pyrene	ND		ug/kg dry	248	496	10	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/06/2020 00:09	KH
205-99-2	Benzo(b)fluoranthene	ND		ug/kg dry	248	496	10	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/06/2020 00:09	KH

Sample Information

Client Sample ID: **SS-01** **York Sample ID:** **20J1329-09**

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
20J1329	20-0857	Soil	October 27, 2020 12:00 am	10/29/2020

Semi-Volatiles, 8270 - Comprehensive

Log-in Notes: **Sample Notes:**

Sample Prepared by Method: EPA 3550C

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
191-24-2	Benzo(g,h,i)perylene	ND		ug/kg dry	248	496	10	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/06/2020 00:09	KH
207-08-9	Benzo(k)fluoranthene	ND		ug/kg dry	248	496	10	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/06/2020 00:09	KH
65-85-0	**Benzoic acid**	**590**		ug/kg dry	248	496	10	EPA 8270D Certifications: NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/06/2020 00:09	KH
100-51-6	Benzyl alcohol	ND		ug/kg dry	248	496	10	EPA 8270D Certifications: NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/06/2020 00:09	KH
85-68-7	Benzyl butyl phthalate	ND		ug/kg dry	248	496	10	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/06/2020 00:09	KH
111-91-1	Bis(2-chloroethoxy)methane	ND		ug/kg dry	248	496	10	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/06/2020 00:09	KH
111-44-4	Bis(2-chloroethyl)ether	ND		ug/kg dry	248	496	10	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/06/2020 00:09	KH
108-60-1	Bis(2-chloroisopropyl)ether	ND		ug/kg dry	248	496	10	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/06/2020 00:09	KH
117-81-7	**Bis(2-ethylhexyl)phthalate**	**694**		ug/kg dry	248	496	10	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/06/2020 00:09	KH
105-60-2	Caprolactam	ND		ug/kg dry	496	990	10	EPA 8270D Certifications: NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/06/2020 00:09	KH
86-74-8	Carbazole	ND		ug/kg dry	248	496	10	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/06/2020 00:09	KH
218-01-9	Chrysene	ND		ug/kg dry	248	496	10	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/06/2020 00:09	KH
53-70-3	Dibenzo(a,h)anthracene	ND		ug/kg dry	248	496	10	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/06/2020 00:09	KH
132-64-9	Dibenzofuran	ND		ug/kg dry	248	496	10	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/06/2020 00:09	KH
84-66-2	Diethyl phthalate	ND		ug/kg dry	248	496	10	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/06/2020 00:09	KH
131-11-3	Dimethyl phthalate	ND		ug/kg dry	248	496	10	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/06/2020 00:09	KH
84-74-2	Di-n-butyl phthalate	ND		ug/kg dry	248	496	10	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/06/2020 00:09	KH
117-84-0	Di-n-octyl phthalate	ND		ug/kg dry	248	496	10	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/06/2020 00:09	KH
122-39-4	* Diphenylamine	ND		ug/kg dry	496	990	10	EPA 8270D Certifications:	11/05/2020 07:27	11/06/2020 00:09	KH
206-44-0	Fluoranthene	ND		ug/kg dry	248	496	10	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/06/2020 00:09	KH
86-73-7	Fluorene	ND		ug/kg dry	248	496	10	EPA 8270D Certifications: NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/06/2020 00:09	KH
118-74-1	Hexachlorobenzene	ND		ug/kg dry	248	496	10	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/06/2020 00:09	KH
87-68-3	Hexachlorobutadiene	ND		ug/kg dry	248	496	10	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/06/2020 00:09	KH

Sample Information

Client Sample ID: **SS-01** **York Sample ID:** **20J1329-09**

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
20J1329	20-0857	Soil	October 27, 2020 12:00 am	10/29/2020

Semi-Volatiles, 8270 - Comprehensive

Log-in Notes: **Sample Notes:**

Sample Prepared by Method: EPA 3550C

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
77-47-4	Hexachlorocyclopentadiene	ND		ug/kg dry	248	496	10	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/06/2020 00:09	KH
67-72-1	Hexachloroethane	ND		ug/kg dry	248	496	10	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/06/2020 00:09	KH
193-39-5	Indeno(1,2,3-cd)pyrene	ND		ug/kg dry	248	496	10	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/06/2020 00:09	KH
78-59-1	Isophorone	ND		ug/kg dry	248	496	10	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/06/2020 00:09	KH
91-20-3	Naphthalene	ND		ug/kg dry	248	496	10	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/06/2020 00:09	KH
98-95-3	Nitrobenzene	ND		ug/kg dry	248	496	10	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/06/2020 00:09	KH
62-75-9	N-Nitrosodimethylamine	ND		ug/kg dry	248	496	10	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/06/2020 00:09	KH
621-64-7	N-nitroso-di-n-propylamine	ND		ug/kg dry	248	496	10	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/06/2020 00:09	KH
86-30-6	N-Nitrosodiphenylamine	ND		ug/kg dry	248	496	10	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/06/2020 00:09	KH
87-86-5	**Pentachlorophenol**	**1270**		ug/kg dry	248	496	10	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/06/2020 00:09	KH
85-01-8	Phenanthrene	ND		ug/kg dry	248	496	10	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/06/2020 00:09	KH
108-95-2	Phenol	ND		ug/kg dry	248	496	10	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/06/2020 00:09	KH
129-00-0	Pyrene	ND		ug/kg dry	248	496	10	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/06/2020 00:09	KH

	Surrogate Recoveries	Result	Acceptance Range
367-12-4	*Surrogate: SURR: 2-Fluorophenol*	*26.8 %*	*20-108*
4165-62-2	*Surrogate: SURR: Phenol-d5*	*34.0 %*	*23-114*
4165-60-0	*Surrogate: SURR: Nitrobenzene-d5*	*45.2 %*	*22-108*
321-60-8	*Surrogate: SURR: 2-Fluorobiphenyl*	*47.2 %*	*21-113*
118-79-6	*Surrogate: SURR: 2,4,6-Tribromophenol*	*69.2 %*	*19-110*
1718-51-0	*Surrogate: SURR: Terphenyl-d14*	*55.2 %*	*24-116*

Pesticides, 8081 target list

Log-in Notes: **Sample Notes:**

Sample Prepared by Method: EPA 3550C

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
72-54-8	**4,4'-DDD**	**0.0129**		mg/kg dry	0.00196	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/04/2020 06:56	11/05/2020 13:44	CM
72-55-9	**4,4'-DDE**	**0.0156**		mg/kg dry	0.00196	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/04/2020 06:56	11/05/2020 13:44	CM

Sample Information

Client Sample ID: **SS-01**

York Sample ID: **20J1329-09**

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
20J1329	20-0857	Soil	October 27, 2020 12:00 am	10/29/2020

Pesticides, 8081 target list

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3550C

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
50-29-3	**4,4'-DDT**	**0.232**		mg/kg dry	0.00196	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/04/2020 06:56	11/05/2020 13:44	CM
309-00-2	Aldrin	ND		mg/kg dry	0.00196	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/04/2020 06:56	11/05/2020 13:44	CM
319-84-6	alpha-BHC	ND		mg/kg dry	0.00196	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/04/2020 06:56	11/05/2020 13:44	CM
5103-71-9	**alpha-Chlordane**	**0.0418**		mg/kg dry	0.00196	5	EPA 8081B Certifications: NELAC-NY10854,NJDEP	11/04/2020 06:56	11/05/2020 13:44	CM
319-85-7	beta-BHC	ND		mg/kg dry	0.00196	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/04/2020 06:56	11/05/2020 13:44	CM
57-74-9	**Chlordane, total**	**0.361**		mg/kg dry	0.0392	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/04/2020 06:56	11/05/2020 13:44	CM
319-86-8	delta-BHC	ND		mg/kg dry	0.00196	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/04/2020 06:56	11/05/2020 13:44	CM
60-57-1	Dieldrin	ND		mg/kg dry	0.00196	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/04/2020 06:56	11/05/2020 13:44	CM
959-98-8	Endosulfan I	ND		mg/kg dry	0.00196	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/04/2020 06:56	11/05/2020 13:44	CM
33213-65-9	Endosulfan II	ND		mg/kg dry	0.00196	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854	11/04/2020 06:56	11/05/2020 13:44	CM
1031-07-8	Endosulfan sulfate	ND		mg/kg dry	0.00196	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/04/2020 06:56	11/05/2020 13:44	CM
72-20-8	Endrin	ND		mg/kg dry	0.00196	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/04/2020 06:56	11/05/2020 13:44	CM
7421-93-4	Endrin aldehyde	ND		mg/kg dry	0.00196	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/04/2020 06:56	11/05/2020 13:44	CM
53494-70-5	Endrin ketone	ND		mg/kg dry	0.00196	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/04/2020 06:56	11/05/2020 13:44	CM
58-89-9	gamma-BHC (Lindane)	ND		mg/kg dry	0.00196	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/04/2020 06:56	11/05/2020 13:44	CM
5566-34-7	**gamma-Chlordane**	**0.0248**		mg/kg dry	0.00196	5	EPA 8081B Certifications: NELAC-NY10854,NJDEP	11/04/2020 06:56	11/05/2020 13:44	CM
76-44-8	Heptachlor	ND		mg/kg dry	0.00196	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/04/2020 06:56	11/05/2020 13:44	CM
1024-57-3	Heptachlor epoxide	ND		mg/kg dry	0.00196	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/04/2020 06:56	11/05/2020 13:44	CM
72-43-5	Methoxychlor	ND		mg/kg dry	0.00981	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/04/2020 06:56	11/05/2020 13:44	CM
8001-35-2	Toxaphene	ND		mg/kg dry	0.0993	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/04/2020 06:56	11/05/2020 13:44	CM

	Surrogate Recoveries	Result	Acceptance Range
2051-24-3	*Surrogate: Decachlorobiphenyl*	*49.5 %*	*30-150*
877-09-8	*Surrogate: Tetrachloro-m-xylene*	*37.6 %*	*30-150*

Polychlorinated Biphenyls (PCB)

Log-in Notes:

Sample Notes:

Sample Information

Client Sample ID: **SS-01**　　**York Sample ID:** **20J1329-09**

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
20J1329	20-0857	Soil	October 27, 2020 12:00 am	10/29/2020

Sample Prepared by Method: EPA 3550C

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
12674-11-2	Aroclor 1016	ND		mg/kg dry	0.0198	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	11/04/2020 06:56	11/05/2020 13:01	BJ
11104-28-2	Aroclor 1221	ND		mg/kg dry	0.0198	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	11/04/2020 06:56	11/05/2020 13:01	BJ
11141-16-5	Aroclor 1232	ND		mg/kg dry	0.0198	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	11/04/2020 06:56	11/05/2020 13:01	BJ
53469-21-9	Aroclor 1242	ND		mg/kg dry	0.0198	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	11/04/2020 06:56	11/05/2020 13:01	BJ
12672-29-6	Aroclor 1248	ND		mg/kg dry	0.0198	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	11/04/2020 06:56	11/05/2020 13:01	BJ
11097-69-1	**Aroclor 1254**	**0.0411**		mg/kg dry	0.0198	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	11/04/2020 06:56	11/05/2020 13:01	BJ
11096-82-5	Aroclor 1260	ND		mg/kg dry	0.0198	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	11/04/2020 06:56	11/05/2020 13:01	BJ
37324-23-5	Aroclor 1262	ND		mg/kg dry	0.0198	1	EPA 8082A Certifications: NELAC-NY10854,NJDEP,PADEP	11/04/2020 06:56	11/05/2020 13:01	BJ
11100-14-4	Aroclor 1268	ND		mg/kg dry	0.0198	1	EPA 8082A Certifications: NELAC-NY10854,NJDEP,PADEP	11/04/2020 06:56	11/05/2020 13:01	BJ
1336-36-3	*** Total PCBs**	**0.0411**		mg/kg dry	0.0198	1	EPA 8082A Certifications:	11/04/2020 06:56	11/05/2020 13:01	BJ

	Surrogate Recoveries	Result	Acceptance Range
877-09-8	*Surrogate: Tetrachloro-m-xylene*	*39.0 %*	*30-140*
2051-24-3	*Surrogate: Decachlorobiphenyl*	*49.0 %*	*30-140*

Metals, Target Analyte

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3050B

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7429-90-5	**Aluminum**	**7310**		mg/kg dry	6.00	1	EPA 6010D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	10/29/2020 16:34	11/02/2020 16:20	WJM
7440-36-0	Antimony	ND		mg/kg dry	3.00	1	EPA 6010D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	10/29/2020 16:34	11/02/2020 16:20	WJM
7440-38-2	**Arsenic**	**4.61**		mg/kg dry	1.80	1	EPA 6010D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	10/29/2020 16:34	11/02/2020 16:20	WJM
7440-39-3	**Barium**	**4270**		mg/kg dry	3.00	1	EPA 6010D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	10/29/2020 16:34	11/02/2020 16:20	WJM
7440-41-7	Beryllium	ND		mg/kg dry	0.060	1	EPA 6010D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	10/29/2020 16:34	11/02/2020 16:20	WJM
7440-43-9	**Cadmium**	**0.776**		mg/kg dry	0.360	1	EPA 6010D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	10/29/2020 16:34	11/02/2020 16:20	WJM
7440-70-2	**Calcium**	**62200**		mg/kg dry	6.00	1	EPA 6010D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	10/29/2020 16:34	11/02/2020 16:20	WJM
7440-47-3	**Chromium**	**25.0**		mg/kg dry	0.600	1	EPA 6010D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	10/29/2020 16:34	11/02/2020 16:20	WJM

Sample Information

Client Sample ID: **SS-01** **York Sample ID:** **20J1329-09**

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
20J1329	20-0857	Soil	October 27, 2020 12:00 am	10/29/2020

Metals, Target Analyte

Log-in Notes: **Sample Notes:**

Sample Prepared by Method: EPA 3050B

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7440-48-4	**Cobalt**	**4.95**		mg/kg dry	0.480	1	EPA 6010D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	10/29/2020 16:34	11/02/2020 16:20	WJM
7440-50-8	**Copper**	**349**		mg/kg dry	2.40	1	EPA 6010D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	10/29/2020 16:34	11/02/2020 16:20	WJM
7439-89-6	**Iron**	**13400**		mg/kg dry	30.0	1	EPA 6010D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	10/29/2020 16:34	11/02/2020 16:20	WJM
7439-92-1	**Lead**	**362**		mg/kg dry	0.600	1	EPA 6010D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	10/29/2020 16:34	11/02/2020 16:20	WJM
7439-95-4	**Magnesium**	**4620**		mg/kg dry	6.00	1	EPA 6010D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	10/29/2020 16:34	11/02/2020 16:20	WJM
7439-96-5	**Manganese**	**1410**		mg/kg dry	0.600	1	EPA 6010D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	10/29/2020 16:34	11/02/2020 16:20	WJM
7440-02-0	**Nickel**	**10.1**		mg/kg dry	1.20	1	EPA 6010D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	10/29/2020 16:34	11/02/2020 16:20	WJM
7440-09-7	**Potassium**	**874**		mg/kg dry	6.00	1	EPA 6010D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	10/29/2020 16:34	11/02/2020 16:20	WJM
7782-49-2	Selenium	ND		mg/kg dry	3.00	1	EPA 6010D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	10/29/2020 16:34	11/02/2020 16:20	WJM
7440-22-4	**Silver**	**3.49**		mg/kg dry	0.600	1	EPA 6010D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	10/29/2020 16:34	11/02/2020 16:20	WJM
7440-23-5	**Sodium**	**93.7**		mg/kg dry	60.0	1	EPA 6010D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	10/29/2020 16:34	11/02/2020 16:20	WJM
7440-28-0	Thallium	ND		mg/kg dry	3.00	1	EPA 6010D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	10/29/2020 16:34	11/02/2020 16:20	WJM
7440-62-2	**Vanadium**	**9.33**		mg/kg dry	1.20	1	EPA 6010D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	10/29/2020 16:34	11/02/2020 16:20	WJM
7440-66-6	**Zinc**	**2290**	B	mg/kg dry	3.00	1	EPA 6010D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	10/29/2020 16:34	11/02/2020 16:20	WJM

Mercury by 7473

Log-in Notes: **Sample Notes:**

Sample Prepared by Method: EPA 7473 soil

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7439-97-6	**Mercury**	**1.53**		mg/kg dry	0.0360	1	EPA 7473 Certifications: CTDOH,NJDEP,NELAC-NY10854,PADEP	10/29/2020 16:32	10/29/2020 19:58	MAO

Total Solids

Log-in Notes: **Sample Notes:**

Sample Prepared by Method: % Solids Prep

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
solids	*** % Solids**	**83.3**		%	0.100	1	SM 2540G Certifications: CTDOH	10/30/2020 08:47	10/30/2020 14:41	SK

Sample Information

Client Sample ID: TP-7 **York Sample ID:** 20J1329-10

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
20J1329	20-0857	Soil	October 27, 2020 12:00 am	10/29/2020

Volatile Organics, CP-51 (formerly STARS) List

Log-in Notes: **Sample Notes:**

Sample Prepared by Method: EPA 5035A

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
95-63-6	1,2,4-Trimethylbenzene	ND		ug/kg dry	4.0	7.9	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 22:22	TMP
108-67-8	1,3,5-Trimethylbenzene	ND		ug/kg dry	4.0	7.9	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 22:22	TMP
71-43-2	Benzene	ND		ug/kg dry	4.0	7.9	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 22:22	TMP
100-41-4	Ethyl Benzene	ND		ug/kg dry	4.0	7.9	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 22:22	TMP
98-82-8	Isopropylbenzene	ND		ug/kg dry	4.0	7.9	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 22:22	TMP
1634-04-4	Methyl tert-butyl ether (MTBE)	ND		ug/kg dry	4.0	7.9	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 22:22	TMP
91-20-3	Naphthalene	ND		ug/kg dry	4.0	16	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 22:22	TMP
104-51-8	n-Butylbenzene	ND		ug/kg dry	4.0	7.9	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 22:22	TMP
103-65-1	n-Propylbenzene	ND		ug/kg dry	4.0	7.9	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 22:22	TMP
95-47-6	o-Xylene	ND		ug/kg dry	4.0	7.9	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,PADEP	11/03/2020 07:00	11/03/2020 22:22	TMP
179601-23-1	p- & m- Xylenes	ND		ug/kg dry	4.0	7.9	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,PADEP	11/03/2020 07:00	11/03/2020 22:22	TMP
99-87-6	p-Isopropyltoluene	ND		ug/kg dry	4.0	7.9	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 22:22	TMP
135-98-8	sec-Butylbenzene	ND		ug/kg dry	4.0	7.9	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 22:22	TMP
98-06-6	tert-Butylbenzene	ND		ug/kg dry	4.0	7.9	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 22:22	TMP
108-88-3	Toluene	ND		ug/kg dry	4.0	7.9	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/03/2020 22:22	TMP
1330-20-7	Xylenes, Total	ND		ug/kg dry	4.0	7.9	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP	11/03/2020 07:00	11/03/2020 22:22	TMP

	Surrogate Recoveries	Result	Acceptance Range
17060-07-0	*Surrogate: SURR: 1,2-Dichloroethane-d4*	*108 %*	*77-125*
2037-26-5	*Surrogate: SURR: Toluene-d8*	*99.7 %*	*85-120*
460-00-4	*Surrogate: SURR: p-Bromofluorobenzene*	*99.4 %*	*76-130*

Semi-Volatiles, CP-51 (formerly STARS) List

Log-in Notes: **Sample Notes:**

Sample Prepared by Method: EPA 3550C

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
83-32-9	Acenaphthene	ND		ug/kg dry	49	98	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/06/2020 00:38	KH

Sample Information

Client Sample ID: TP-7 **York Sample ID:** 20J1329-10

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
20J1329	20-0857	Soil	October 27, 2020 12:00 am	10/29/2020

Semi-Volatiles, CP-51 (formerly STARS) List

Log-in Notes: **Sample Notes:**

Sample Prepared by Method: EPA 3550C

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
208-96-8	Acenaphthylene	ND		ug/kg dry	49	98	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/06/2020 00:38	KH
120-12-7	**Anthracene**	**80**	J	ug/kg dry	49	98	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/06/2020 00:38	KH
56-55-3	**Benzo(a)anthracene**	**230**		ug/kg dry	49	98	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/06/2020 00:38	KH
50-32-8	**Benzo(a)pyrene**	**200**		ug/kg dry	49	98	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/06/2020 00:38	KH
205-99-2	**Benzo(b)fluoranthene**	**170**		ug/kg dry	49	98	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/06/2020 00:38	KH
191-24-2	**Benzo(g,h,i)perylene**	**130**		ug/kg dry	49	98	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/06/2020 00:38	KH
207-08-9	**Benzo(k)fluoranthene**	**190**		ug/kg dry	49	98	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/06/2020 00:38	KH
218-01-9	**Chrysene**	**210**		ug/kg dry	49	98	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/06/2020 00:38	KH
53-70-3	**Dibenzo(a,h)anthracene**	**49**	J	ug/kg dry	49	98	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/06/2020 00:38	KH
206-44-0	**Fluoranthene**	**400**		ug/kg dry	49	98	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/06/2020 00:38	KH
86-73-7	Fluorene	ND		ug/kg dry	49	98	2	EPA 8270D Certifications: NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/06/2020 00:38	KH
193-39-5	**Indeno(1,2,3-cd)pyrene**	**140**		ug/kg dry	49	98	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/06/2020 00:38	KH
91-20-3	Naphthalene	ND		ug/kg dry	49	98	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/06/2020 00:38	KH
85-01-8	**Phenanthrene**	**260**		ug/kg dry	49	98	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/06/2020 00:38	KH
129-00-0	**Pyrene**	**310**		ug/kg dry	49	98	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/05/2020 07:27	11/06/2020 00:38	KH

	Surrogate Recoveries	Result	Acceptance Range
4165-60-0	*Surrogate: SURR: Nitrobenzene-d5*	*66.8 %*	*22-108*
321-60-8	*Surrogate: SURR: 2-Fluorobiphenyl*	*65.8 %*	*21-113*
1718-51-0	*Surrogate: SURR: Terphenyl-d14*	*73.0 %*	*24-116*

Total Solids

Log-in Notes: **Sample Notes:**

Sample Prepared by Method: % Solids Prep

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
solids	*** % Solids**	**83.9**		%	0.100	1	SM 2540G Certifications: CTDOH	10/30/2020 08:47	10/30/2020 14:41	SK

Sample Information

Client Sample ID: **TP-8** **York Sample ID:** **20J1329-11**

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
20J1329	20-0857	Soil	October 27, 2020 12:00 am	10/29/2020

Volatile Organics, CP-51 (formerly STARS) List

Log-in Notes:

Sample Notes: **VOA-CONT**

Sample Prepared by Method: EPA 5035A

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
95-63-6	1,2,4-Trimethylbenzene	ND		ug/kg dry	3.2	6.3	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/02/2020 06:25	11/03/2020 06:20	TMP
108-67-8	1,3,5-Trimethylbenzene	ND		ug/kg dry	3.2	6.3	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/02/2020 06:25	11/03/2020 06:20	TMP
71-43-2	Benzene	ND		ug/kg dry	3.2	6.3	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/02/2020 06:25	11/03/2020 06:20	TMP
100-41-4	Ethyl Benzene	ND		ug/kg dry	3.2	6.3	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/02/2020 06:25	11/03/2020 06:20	TMP
98-82-8	Isopropylbenzene	ND		ug/kg dry	3.2	6.3	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/02/2020 06:25	11/03/2020 06:20	TMP
1634-04-4	Methyl tert-butyl ether (MTBE)	ND		ug/kg dry	3.2	6.3	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/02/2020 06:25	11/03/2020 06:20	TMP
91-20-3	Naphthalene	ND		ug/kg dry	3.2	13	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/02/2020 06:25	11/03/2020 06:20	TMP
104-51-8	**n-Butylbenzene**	**110**		ug/kg dry	3.2	6.3	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/02/2020 06:25	11/03/2020 06:20	TMP
103-65-1	n-Propylbenzene	ND		ug/kg dry	3.2	6.3	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/02/2020 06:25	11/03/2020 06:20	TMP
95-47-6	o-Xylene	ND		ug/kg dry	3.2	6.3	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,PADEP	11/02/2020 06:25	11/03/2020 06:20	TMP
179601-23-1	p- & m- Xylenes	ND		ug/kg dry	3.2	6.3	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,PADEP	11/02/2020 06:25	11/03/2020 06:20	TMP
99-87-6	**p-Isopropyltoluene**	**64**	CCV-E, QL-02	ug/kg dry	3.2	6.3	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/02/2020 06:25	11/03/2020 06:20	TMP
135-98-8	sec-Butylbenzene	ND		ug/kg dry	3.2	6.3	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/02/2020 06:25	11/03/2020 06:20	TMP
98-06-6	tert-Butylbenzene	ND		ug/kg dry	3.2	6.3	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/02/2020 06:25	11/03/2020 06:20	TMP
108-88-3	Toluene	ND		ug/kg dry	3.2	6.3	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/02/2020 06:25	11/03/2020 06:20	TMP
1330-20-7	Xylenes, Total	ND		ug/kg dry	3.2	6.3	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP	11/02/2020 06:25	11/03/2020 06:20	TMP

	Surrogate Recoveries	Result	Acceptance Range
17060-07-0	*Surrogate: SURR: 1,2-Dichloroethane-d4*	*98.8 %*	*77-125*
2037-26-5	*Surrogate: SURR: Toluene-d8*	*101 %*	*85-120*
460-00-4	*Surrogate: SURR: p-Bromofluorobenzene*	*121 %*	*76-130*

Semi-Volatiles, CP-51 (formerly STARS) List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3550C

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst

Sample Information

Client Sample ID: **TP-8** | **York Sample ID:** **20J1329-11**

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
20J1329	20-0857	Soil	October 27, 2020 12:00 am	10/29/2020

Semi-Volatiles, CP-51 (formerly STARS) List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3550C

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
83-32-9	Acenaphthene	ND		ug/kg dry	52	100	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/04/2020 13:28	11/06/2020 00:00	CD
208-96-8	Acenaphthylene	ND		ug/kg dry	52	100	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/04/2020 13:28	11/06/2020 00:00	CD
120-12-7	Anthracene	ND		ug/kg dry	52	100	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/04/2020 13:28	11/06/2020 00:00	CD
56-55-3	Benzo(a)anthracene	ND		ug/kg dry	52	100	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/04/2020 13:28	11/06/2020 00:00	CD
50-32-8	Benzo(a)pyrene	ND		ug/kg dry	52	100	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/04/2020 13:28	11/06/2020 00:00	CD
205-99-2	Benzo(b)fluoranthene	ND		ug/kg dry	52	100	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/04/2020 13:28	11/06/2020 00:00	CD
191-24-2	Benzo(g,h,i)perylene	ND		ug/kg dry	52	100	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/04/2020 13:28	11/06/2020 00:00	CD
207-08-9	Benzo(k)fluoranthene	ND		ug/kg dry	52	100	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/04/2020 13:28	11/06/2020 00:00	CD
218-01-9	Chrysene	ND		ug/kg dry	52	100	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/04/2020 13:28	11/06/2020 00:00	CD
53-70-3	Dibenzo(a,h)anthracene	ND		ug/kg dry	52	100	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/04/2020 13:28	11/06/2020 00:00	CD
206-44-0	Fluoranthene	ND		ug/kg dry	52	100	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/04/2020 13:28	11/06/2020 00:00	CD
86-73-7	Fluorene	ND		ug/kg dry	52	100	2	EPA 8270D Certifications: NELAC-NY10854,NJDEP,PADEP	11/04/2020 13:28	11/06/2020 00:00	CD
193-39-5	Indeno(1,2,3-cd)pyrene	ND		ug/kg dry	52	100	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/04/2020 13:28	11/06/2020 00:00	CD
91-20-3	Naphthalene	ND		ug/kg dry	52	100	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/04/2020 13:28	11/06/2020 00:00	CD
85-01-8	Phenanthrene	ND		ug/kg dry	52	100	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/04/2020 13:28	11/06/2020 00:00	CD
129-00-0	Pyrene	ND		ug/kg dry	52	100	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/04/2020 13:28	11/06/2020 00:00	CD

	Surrogate Recoveries	Result	Acceptance Range
4165-60-0	*Surrogate: SURR: Nitrobenzene-d5*	*68.9 %*	*22-108*
321-60-8	*Surrogate: SURR: 2-Fluorobiphenyl*	*74.8 %*	*21-113*
1718-51-0	*Surrogate: SURR: Terphenyl-d14*	*93.8 %*	*24-116*

Total Solids

Log-in Notes:

Sample Notes:

Sample Prepared by Method: % Solids Prep

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
solids	*** % Solids**	**79.0**		%	0.100	1	SM 2540G Certifications: CTDOH	10/30/2020 08:47	10/30/2020 14:41	SK

Sample Information

Client Sample ID: TP-9 **York Sample ID:** 20J1329-12

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
20J1329	20-0857	Soil	October 27, 2020 12:00 am	10/29/2020

Volatile Organics, CP-51 (formerly STARS) List

Log-in Notes:

Sample Notes: VOA-CONT

Sample Prepared by Method: EPA 5035A

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
95-63-6	1,2,4-Trimethylbenzene	ND		ug/kg dry	3.0	6.0	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/02/2020 06:25	11/03/2020 06:46	TMP
108-67-8	1,3,5-Trimethylbenzene	ND		ug/kg dry	3.0	6.0	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/02/2020 06:25	11/03/2020 06:46	TMP
71-43-2	Benzene	ND		ug/kg dry	3.0	6.0	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/02/2020 06:25	11/03/2020 06:46	TMP
100-41-4	Ethyl Benzene	ND		ug/kg dry	3.0	6.0	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/02/2020 06:25	11/03/2020 06:46	TMP
98-82-8	Isopropylbenzene	ND		ug/kg dry	3.0	6.0	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/02/2020 06:25	11/03/2020 06:46	TMP
1634-04-4	Methyl tert-butyl ether (MTBE)	ND		ug/kg dry	3.0	6.0	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/02/2020 06:25	11/03/2020 06:46	TMP
91-20-3	Naphthalene	ND		ug/kg dry	3.0	12	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/02/2020 06:25	11/03/2020 06:46	TMP
104-51-8	n-Butylbenzene	ND		ug/kg dry	3.0	6.0	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/02/2020 06:25	11/03/2020 06:46	TMP
103-65-1	n-Propylbenzene	ND		ug/kg dry	3.0	6.0	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/02/2020 06:25	11/03/2020 06:46	TMP
95-47-6	o-Xylene	ND		ug/kg dry	3.0	6.0	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,PADEP	11/02/2020 06:25	11/03/2020 06:46	TMP
179601-23-1	p- & m- Xylenes	ND		ug/kg dry	3.0	6.0	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,PADEP	11/02/2020 06:25	11/03/2020 06:46	TMP
99-87-6	p-Isopropyltoluene	ND		ug/kg dry	3.0	6.0	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/02/2020 06:25	11/03/2020 06:46	TMP
135-98-8	sec-Butylbenzene	ND		ug/kg dry	3.0	6.0	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/02/2020 06:25	11/03/2020 06:46	TMP
98-06-6	tert-Butylbenzene	ND		ug/kg dry	3.0	6.0	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/02/2020 06:25	11/03/2020 06:46	TMP
108-88-3	Toluene	ND		ug/kg dry	3.0	6.0	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/02/2020 06:25	11/03/2020 06:46	TMP
1330-20-7	Xylenes, Total	ND		ug/kg dry	3.0	6.0	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP	11/02/2020 06:25	11/03/2020 06:46	TMP

	Surrogate Recoveries	Result	Acceptance Range
17060-07-0	*Surrogate: SURR: 1,2-Dichloroethane-d4*	*100 %*	*77-125*
2037-26-5	*Surrogate: SURR: Toluene-d8*	*102 %*	*85-120*
460-00-4	*Surrogate: SURR: p-Bromofluorobenzene*	*116 %*	*76-130*

Semi-Volatiles, CP-51 (formerly STARS) List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3550C

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
83-32-9	Acenaphthene	ND		ug/kg dry	49	98	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/04/2020 13:25	11/06/2020 00:31	CD

Sample Information

Client Sample ID: TP-9 **York Sample ID:** 20J1329-12

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
20J1329	20-0857	Soil	October 27, 2020 12:00 am	10/29/2020

Semi-Volatiles, CP-51 (formerly STARS) List

Log-in Notes: **Sample Notes:**

Sample Prepared by Method: EPA 3550C

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
208-96-8	Acenaphthylene	ND		ug/kg dry	49	98	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/04/2020 13:25	11/06/2020 00:31	CD
120-12-7	Anthracene	ND		ug/kg dry	49	98	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/04/2020 13:25	11/06/2020 00:31	CD
56-55-3	Benzo(a)anthracene	ND		ug/kg dry	49	98	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/04/2020 13:25	11/06/2020 00:31	CD
50-32-8	Benzo(a)pyrene	ND		ug/kg dry	49	98	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/04/2020 13:25	11/06/2020 00:31	CD
205-99-2	Benzo(b)fluoranthene	ND		ug/kg dry	49	98	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/04/2020 13:25	11/06/2020 00:31	CD
191-24-2	Benzo(g,h,i)perylene	ND		ug/kg dry	49	98	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/04/2020 13:25	11/06/2020 00:31	CD
207-08-9	Benzo(k)fluoranthene	ND		ug/kg dry	49	98	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/04/2020 13:25	11/06/2020 00:31	CD
218-01-9	Chrysene	ND		ug/kg dry	49	98	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/04/2020 13:25	11/06/2020 00:31	CD
53-70-3	Dibenzo(a,h)anthracene	ND		ug/kg dry	49	98	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/04/2020 13:25	11/06/2020 00:31	CD
206-44-0	**Fluoranthene**	**53**	J	ug/kg dry	49	98	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/04/2020 13:25	11/06/2020 00:31	CD
86-73-7	Fluorene	ND		ug/kg dry	49	98	2	EPA 8270D Certifications: NELAC-NY10854,NJDEP,PADEP	11/04/2020 13:25	11/06/2020 00:31	CD
193-39-5	Indeno(1,2,3-cd)pyrene	ND		ug/kg dry	49	98	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/04/2020 13:25	11/06/2020 00:31	CD
91-20-3	Naphthalene	ND		ug/kg dry	49	98	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/04/2020 13:25	11/06/2020 00:31	CD
85-01-8	Phenanthrene	ND		ug/kg dry	49	98	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/04/2020 13:25	11/06/2020 00:31	CD
129-00-0	Pyrene	ND		ug/kg dry	49	98	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/04/2020 13:25	11/06/2020 00:31	CD

	Surrogate Recoveries	Result	Acceptance Range
4165-60-0	*Surrogate: SURR: Nitrobenzene-d5*	*67.0 %*	*22-108*
321-60-8	*Surrogate: SURR: 2-Fluorobiphenyl*	*65.9 %*	*21-113*
1718-51-0	*Surrogate: SURR: Terphenyl-d14*	*72.4 %*	*24-116*

Total Solids

Log-in Notes: **Sample Notes:**

Sample Prepared by Method: % Solids Prep

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
solids	*** % Solids**	**83.1**		%	0.100	1	SM 2540G Certifications: CTDOH	10/30/2020 08:47	10/30/2020 14:41	SK

Sample Information

Client Sample ID: **TP-10**

York Sample ID: **20J1329-13**

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
20J1329	20-0857	Soil	October 27, 2020 12:00 am	10/29/2020

Volatile Organics, CP-51 (formerly STARS) List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5035A

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
95-63-6	1,2,4-Trimethylbenzene	ND		ug/kg dry	3.2	6.4	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/04/2020 01:06	TMP
108-67-8	1,3,5-Trimethylbenzene	ND		ug/kg dry	3.2	6.4	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/04/2020 01:06	TMP
71-43-2	Benzene	ND		ug/kg dry	3.2	6.4	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/04/2020 01:06	TMP
100-41-4	Ethyl Benzene	ND		ug/kg dry	3.2	6.4	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/04/2020 01:06	TMP
98-82-8	Isopropylbenzene	ND		ug/kg dry	3.2	6.4	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/04/2020 01:06	TMP
1634-04-4	Methyl tert-butyl ether (MTBE)	ND		ug/kg dry	3.2	6.4	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/04/2020 01:06	TMP
91-20-3	Naphthalene	ND		ug/kg dry	3.2	13	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/04/2020 01:06	TMP
104-51-8	n-Butylbenzene	ND		ug/kg dry	3.2	6.4	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/04/2020 01:06	TMP
103-65-1	n-Propylbenzene	ND		ug/kg dry	3.2	6.4	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/04/2020 01:06	TMP
95-47-6	o-Xylene	ND		ug/kg dry	3.2	6.4	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,PADEP	11/03/2020 07:00	11/04/2020 01:06	TMP
179601-23-1	p- & m- Xylenes	ND		ug/kg dry	3.2	6.4	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,PADEP	11/03/2020 07:00	11/04/2020 01:06	TMP
99-87-6	p-Isopropyltoluene	ND		ug/kg dry	3.2	6.4	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/04/2020 01:06	TMP
135-98-8	sec-Butylbenzene	ND		ug/kg dry	3.2	6.4	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/04/2020 01:06	TMP
98-06-6	tert-Butylbenzene	ND		ug/kg dry	3.2	6.4	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/04/2020 01:06	TMP
108-88-3	Toluene	ND		ug/kg dry	3.2	6.4	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/03/2020 07:00	11/04/2020 01:06	TMP
1330-20-7	Xylenes, Total	ND		ug/kg dry	3.2	6.4	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP	11/03/2020 07:00	11/04/2020 01:06	TMP

	Surrogate Recoveries	Result	Acceptance Range
17060-07-0	*Surrogate: SURR: 1,2-Dichloroethane-d4*	*104 %*	*77-125*
2037-26-5	*Surrogate: SURR: Toluene-d8*	*99.2 %*	*85-120*
460-00-4	*Surrogate: SURR: p-Bromofluorobenzene*	*102 %*	*76-130*

Semi-Volatiles, CP-51 (formerly STARS) List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3550C

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
83-32-9	Acenaphthene	ND		ug/kg dry	51	100	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/04/2020 13:25	11/06/2020 01:02	CD

Sample Information

Client Sample ID: TP-10

York Sample ID: 20J1329-13

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
20J1329	20-0857	Soil	October 27, 2020 12:00 am	10/29/2020

Semi-Volatiles, CP-51 (formerly STARS) List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3550C

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
208-96-8	Acenaphthylene	ND		ug/kg dry	51	100	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/04/2020 13:25	11/06/2020 01:02	CD
120-12-7	Anthracene	ND		ug/kg dry	51	100	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/04/2020 13:25	11/06/2020 01:02	CD
56-55-3	**Benzo(a)anthracene**	**150**		ug/kg dry	51	100	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/04/2020 13:25	11/06/2020 01:02	CD
50-32-8	**Benzo(a)pyrene**	**180**		ug/kg dry	51	100	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/04/2020 13:25	11/06/2020 01:02	CD
205-99-2	**Benzo(b)fluoranthene**	**200**		ug/kg dry	51	100	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/04/2020 13:25	11/06/2020 01:02	CD
191-24-2	**Benzo(g,h,i)perylene**	**140**		ug/kg dry	51	100	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/04/2020 13:25	11/06/2020 01:02	CD
207-08-9	**Benzo(k)fluoranthene**	**160**		ug/kg dry	51	100	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/04/2020 13:25	11/06/2020 01:02	CD
218-01-9	**Chrysene**	**180**		ug/kg dry	51	100	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/04/2020 13:25	11/06/2020 01:02	CD
53-70-3	Dibenzo(a,h)anthracene	ND		ug/kg dry	51	100	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/04/2020 13:25	11/06/2020 01:02	CD
206-44-0	**Fluoranthene**	**330**		ug/kg dry	51	100	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/04/2020 13:25	11/06/2020 01:02	CD
86-73-7	Fluorene	ND		ug/kg dry	51	100	2	EPA 8270D Certifications: NELAC-NY10854,NJDEP,PADEP	11/04/2020 13:25	11/06/2020 01:02	CD
193-39-5	**Indeno(1,2,3-cd)pyrene**	**150**		ug/kg dry	51	100	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/04/2020 13:25	11/06/2020 01:02	CD
91-20-3	Naphthalene	ND		ug/kg dry	51	100	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/04/2020 13:25	11/06/2020 01:02	CD
85-01-8	**Phenanthrene**	**140**		ug/kg dry	51	100	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/04/2020 13:25	11/06/2020 01:02	CD
129-00-0	**Pyrene**	**270**		ug/kg dry	51	100	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/04/2020 13:25	11/06/2020 01:02	CD

	Surrogate Recoveries	Result	Acceptance Range
4165-60-0	*Surrogate: SURR: Nitrobenzene-d5*	*60.8 %*	*22-108*
321-60-8	*Surrogate: SURR: 2-Fluorobiphenyl*	*61.5 %*	*21-113*
1718-51-0	*Surrogate: SURR: Terphenyl-d14*	*66.2 %*	*24-116*

Total Solids

Log-in Notes:

Sample Notes:

Sample Prepared by Method: % Solids Prep

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
solids	*** % Solids**	**82.3**		%	0.100	1	SM 2540G Certifications: CTDOH	10/30/2020 08:47	10/30/2020 14:41	SK

Sample Information

Client Sample ID: TP-3 SS   **York Sample ID:** 20J1329-14

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
20J1329	20-0857	Soil	October 27, 2020 12:00 am	10/29/2020

Pesticides, 8081 target list

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3550C

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
72-54-8	4,4'-DDD	ND		mg/kg dry	0.00193	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/04/2020 06:56	11/05/2020 10:23	CM
72-55-9	4,4'-DDE	ND		mg/kg dry	0.00193	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/04/2020 06:56	11/05/2020 10:23	CM
50-29-3	4,4'-DDT	ND		mg/kg dry	0.00193	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/04/2020 06:56	11/05/2020 10:23	CM
309-00-2	Aldrin	ND		mg/kg dry	0.00193	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/04/2020 06:56	11/05/2020 10:23	CM
319-84-6	alpha-BHC	ND		mg/kg dry	0.00193	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/04/2020 06:56	11/05/2020 10:23	CM
5103-71-9	alpha-Chlordane	ND		mg/kg dry	0.00193	5	EPA 8081B Certifications: NELAC-NY10854,NJDEP	11/04/2020 06:56	11/05/2020 10:23	CM
319-85-7	beta-BHC	ND		mg/kg dry	0.00193	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/04/2020 06:56	11/05/2020 10:23	CM
57-74-9	Chlordane, total	ND		mg/kg dry	0.0385	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/04/2020 06:56	11/05/2020 10:23	CM
319-86-8	delta-BHC	ND		mg/kg dry	0.00193	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/04/2020 06:56	11/05/2020 10:23	CM
60-57-1	Dieldrin	ND		mg/kg dry	0.00193	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/04/2020 06:56	11/05/2020 10:23	CM
959-98-8	Endosulfan I	ND		mg/kg dry	0.00193	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/04/2020 06:56	11/05/2020 10:23	CM
33213-65-9	Endosulfan II	ND		mg/kg dry	0.00193	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854	11/04/2020 06:56	11/05/2020 10:23	CM
1031-07-8	Endosulfan sulfate	ND		mg/kg dry	0.00193	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/04/2020 06:56	11/05/2020 10:23	CM
72-20-8	Endrin	ND		mg/kg dry	0.00193	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/04/2020 06:56	11/05/2020 10:23	CM
7421-93-4	Endrin aldehyde	ND		mg/kg dry	0.00193	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/04/2020 06:56	11/05/2020 10:23	CM
53494-70-5	Endrin ketone	ND		mg/kg dry	0.00193	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/04/2020 06:56	11/05/2020 10:23	CM
58-89-9	gamma-BHC (Lindane)	ND		mg/kg dry	0.00193	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/04/2020 06:56	11/05/2020 10:23	CM
5566-34-7	gamma-Chlordane	ND		mg/kg dry	0.00193	5	EPA 8081B Certifications: NELAC-NY10854,NJDEP	11/04/2020 06:56	11/05/2020 10:23	CM
76-44-8	Heptachlor	ND		mg/kg dry	0.00193	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/04/2020 06:56	11/05/2020 10:23	CM
1024-57-3	Heptachlor epoxide	ND		mg/kg dry	0.00193	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/04/2020 06:56	11/05/2020 10:23	CM
72-43-5	Methoxychlor	ND		mg/kg dry	0.00963	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/04/2020 06:56	11/05/2020 10:23	CM
8001-35-2	Toxaphene	ND		mg/kg dry	0.0974	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/04/2020 06:56	11/05/2020 10:23	CM

	Surrogate Recoveries	Result	Acceptance Range
2051-24-3	*Surrogate: Decachlorobiphenyl*	*106 %*	*30-150*

Sample Information

Client Sample ID: **TP-3 SS** **York Sample ID:** **20J1329-14**

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
20J1329	20-0857	Soil	October 27, 2020 12:00 am	10/29/2020

Pesticides, 8081 target list

Log-in Notes: **Sample Notes:**

Sample Prepared by Method: EPA 3550C

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
877-09-8	*Surrogate: Tetrachloro-m-xylene*	*85.6 %*			*30-150*					

Polychlorinated Biphenyls (PCB)

Log-in Notes: **Sample Notes:**

Sample Prepared by Method: EPA 3550C

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
12674-11-2	Aroclor 1016	ND		mg/kg dry	0.0194	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	11/04/2020 06:56	11/05/2020 13:15	BJ
11104-28-2	Aroclor 1221	ND		mg/kg dry	0.0194	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	11/04/2020 06:56	11/05/2020 13:15	BJ
11141-16-5	Aroclor 1232	ND		mg/kg dry	0.0194	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	11/04/2020 06:56	11/05/2020 13:15	BJ
53469-21-9	Aroclor 1242	ND		mg/kg dry	0.0194	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	11/04/2020 06:56	11/05/2020 13:15	BJ
12672-29-6	Aroclor 1248	ND		mg/kg dry	0.0194	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	11/04/2020 06:56	11/05/2020 13:15	BJ
11097-69-1	Aroclor 1254	ND		mg/kg dry	0.0194	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	11/04/2020 06:56	11/05/2020 13:15	BJ
11096-82-5	Aroclor 1260	ND		mg/kg dry	0.0194	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	11/04/2020 06:56	11/05/2020 13:15	BJ
37324-23-5	Aroclor 1262	ND		mg/kg dry	0.0194	1	EPA 8082A Certifications: NELAC-NY10854,NJDEP,PADEP	11/04/2020 06:56	11/05/2020 13:15	BJ
11100-14-4	Aroclor 1268	ND		mg/kg dry	0.0194	1	EPA 8082A Certifications: NELAC-NY10854,NJDEP,PADEP	11/04/2020 06:56	11/05/2020 13:15	BJ
1336-36-3	* Total PCBs	ND		mg/kg dry	0.0194	1	EPA 8082A Certifications:	11/04/2020 06:56	11/05/2020 13:15	BJ

	Surrogate Recoveries	Result	Acceptance Range
877-09-8	*Surrogate: Tetrachloro-m-xylene*	*66.0 %*	*30-140*
2051-24-3	*Surrogate: Decachlorobiphenyl*	*75.0 %*	*30-140*

Metals, Target Analyte

Log-in Notes: **Sample Notes:**

Sample Prepared by Method: EPA 3050B

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7429-90-5	**Aluminum**	**10900**		mg/kg dry	5.99	1	EPA 6010D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	10/29/2020 16:34	11/02/2020 16:22	WJM
7440-36-0	Antimony	ND		mg/kg dry	2.99	1	EPA 6010D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	10/29/2020 16:34	11/02/2020 16:22	WJM
7440-38-2	**Arsenic**	**4.79**		mg/kg dry	1.80	1	EPA 6010D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	10/29/2020 16:34	11/02/2020 16:22	WJM
7440-39-3	**Barium**	**113**		mg/kg dry	2.99	1	EPA 6010D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	10/29/2020 16:34	11/02/2020 16:22	WJM

Sample Information

Client Sample ID: **TP-3 SS**

York Sample ID: **20J1329-14**

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
20J1329	20-0857	Soil	October 27, 2020 12:00 am	10/29/2020

Metals, Target Analyte

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3050B

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7440-41-7	Beryllium	ND		mg/kg dry	0.060	1	EPA 6010D	10/29/2020 16:34	11/02/2020 16:22	WJM
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP		
7440-43-9	**Cadmium**	**0.988**		mg/kg dry	0.359	1	EPA 6010D	10/29/2020 16:34	11/02/2020 16:22	WJM
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP		
7440-70-2	**Calcium**	**3920**		mg/kg dry	5.99	1	EPA 6010D	10/29/2020 16:34	11/02/2020 16:22	WJM
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP		
7440-47-3	**Chromium**	**17.1**		mg/kg dry	0.599	1	EPA 6010D	10/29/2020 16:34	11/02/2020 16:22	WJM
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP		
7440-48-4	**Cobalt**	**5.28**		mg/kg dry	0.479	1	EPA 6010D	10/29/2020 16:34	11/02/2020 16:22	WJM
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP		
7440-50-8	**Copper**	**326**		mg/kg dry	2.40	1	EPA 6010D	10/29/2020 16:34	11/02/2020 16:22	WJM
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP		
7439-89-6	**Iron**	**15400**		mg/kg dry	29.9	1	EPA 6010D	10/29/2020 16:34	11/02/2020 16:22	WJM
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP		
7439-92-1	**Lead**	**1070**		mg/kg dry	0.599	1	EPA 6010D	10/29/2020 16:34	11/02/2020 16:22	WJM
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP		
7439-95-4	**Magnesium**	**2670**		mg/kg dry	5.99	1	EPA 6010D	10/29/2020 16:34	11/02/2020 16:22	WJM
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP		
7439-96-5	**Manganese**	**524**		mg/kg dry	0.599	1	EPA 6010D	10/29/2020 16:34	11/02/2020 16:22	WJM
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP		
7440-02-0	**Nickel**	**14.0**		mg/kg dry	1.20	1	EPA 6010D	10/29/2020 16:34	11/02/2020 16:22	WJM
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP		
7440-09-7	**Potassium**	**794**		mg/kg dry	5.99	1	EPA 6010D	10/29/2020 16:34	11/02/2020 16:22	WJM
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP		
7782-49-2	Selenium	ND		mg/kg dry	2.99	1	EPA 6010D	10/29/2020 16:34	11/02/2020 16:22	WJM
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP		
7440-22-4	Silver	ND		mg/kg dry	0.599	1	EPA 6010D	10/29/2020 16:34	11/02/2020 16:22	WJM
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP		
7440-23-5	Sodium	ND		mg/kg dry	59.9	1	EPA 6010D	10/29/2020 16:34	11/02/2020 16:22	WJM
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP		
7440-28-0	Thallium	ND		mg/kg dry	2.99	1	EPA 6010D	10/29/2020 16:34	11/02/2020 16:22	WJM
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP		
7440-62-2	**Vanadium**	**14.3**		mg/kg dry	1.20	1	EPA 6010D	10/29/2020 16:34	11/02/2020 16:22	WJM
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP		
7440-66-6	**Zinc**	**325**	B	mg/kg dry	2.99	1	EPA 6010D	10/29/2020 16:34	11/02/2020 16:22	WJM
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP		

Mercury by 7473

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 7473 soil

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7439-97-6	**Mercury**	**0.281**		mg/kg dry	0.0359	1	EPA 7473	10/29/2020 16:32	10/29/2020 20:07	MAO
							Certifications:	CTDOH,NJDEP,NELAC-NY10854,PADEP		

Sample Information

Client Sample ID: **TP-3 SS** **York Sample ID:** **20J1329-14**

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
20J1329	20-0857	Soil	October 27, 2020 12:00 am	10/29/2020

Total Solids **Log-in Notes:** **Sample Notes:**

Sample Prepared by Method: % Solids Prep

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
solids	*** % Solids**	**83.5**		%	0.100	1	SM 2540G Certifications: CTDOH	10/30/2020 16:56	10/30/2020 21:36	BR

Sample Information

Client Sample ID: **TP-1** **York Sample ID:** **20J1329-15**

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
20J1329	20-0857	Soil	October 27, 2020 12:00 am	10/29/2020

Pesticides, 8081 target list **Log-in Notes:** **Sample Notes:**

Sample Prepared by Method: EPA 3550C

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
72-54-8	4,4'-DDD	ND	HT-04	mg/kg dry	0.00179	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/18/2020 07:13	11/18/2020 16:03	CM
72-55-9	4,4'-DDE	ND	HT-04	mg/kg dry	0.00179	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/18/2020 07:13	11/18/2020 16:03	CM
50-29-3	**4,4'-DDT**	**0.00623**	HT-04	mg/kg dry	0.00179	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/18/2020 07:13	11/18/2020 16:03	CM
309-00-2	Aldrin	ND	HT-04	mg/kg dry	0.00179	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/18/2020 07:13	11/18/2020 16:03	CM
319-84-6	alpha-BHC	ND	HT-04	mg/kg dry	0.00179	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/18/2020 07:13	11/18/2020 16:03	CM
5103-71-9	alpha-Chlordane	ND	HT-04	mg/kg dry	0.00179	5	EPA 8081B Certifications: NELAC-NY10854,NJDEP	11/18/2020 07:13	11/18/2020 16:03	CM
319-85-7	beta-BHC	ND	HT-04	mg/kg dry	0.00179	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/18/2020 07:13	11/18/2020 16:03	CM
57-74-9	Chlordane, total	ND	HT-04	mg/kg dry	0.0359	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/18/2020 07:13	11/18/2020 16:03	CM
319-86-8	delta-BHC	ND	HT-04	mg/kg dry	0.00179	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/18/2020 07:13	11/18/2020 16:03	CM
60-57-1	Dieldrin	ND	HT-04	mg/kg dry	0.00179	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/18/2020 07:13	11/18/2020 16:03	CM
959-98-8	Endosulfan I	ND	HT-04	mg/kg dry	0.00179	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/18/2020 07:13	11/18/2020 16:03	CM
33213-65-9	Endosulfan II	ND	HT-04	mg/kg dry	0.00179	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854	11/18/2020 07:13	11/18/2020 16:03	CM
1031-07-8	Endosulfan sulfate	ND	HT-04	mg/kg dry	0.00179	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/18/2020 07:13	11/18/2020 16:03	CM
72-20-8	Endrin	ND	HT-04	mg/kg dry	0.00179	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/18/2020 07:13	11/18/2020 16:03	CM

Sample Information

Client Sample ID: TP-1 **York Sample ID:** 20J1329-15

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
20J1329	20-0857	Soil	October 27, 2020 12:00 am	10/29/2020

Pesticides, 8081 target list

Log-in Notes: **Sample Notes:**

Sample Prepared by Method: EPA 3550C

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7421-93-4	Endrin aldehyde	ND	HT-04	mg/kg dry	0.00179	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/18/2020 07:13	11/18/2020 16:03	CM
53494-70-5	Endrin ketone	ND	HT-04	mg/kg dry	0.00179	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/18/2020 07:13	11/18/2020 16:03	CM
58-89-9	gamma-BHC (Lindane)	ND	HT-04	mg/kg dry	0.00179	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/18/2020 07:13	11/18/2020 16:03	CM
5566-34-7	gamma-Chlordane	ND	HT-04	mg/kg dry	0.00179	5	EPA 8081B Certifications: NELAC-NY10854,NJDEP	11/18/2020 07:13	11/18/2020 16:03	CM
76-44-8	Heptachlor	ND	HT-04	mg/kg dry	0.00179	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/18/2020 07:13	11/18/2020 16:03	CM
1024-57-3	Heptachlor epoxide	ND	HT-04	mg/kg dry	0.00179	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/18/2020 07:13	11/18/2020 16:03	CM
72-43-5	Methoxychlor	ND	HT-04	mg/kg dry	0.00896	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/18/2020 07:13	11/18/2020 16:03	CM
8001-35-2	Toxaphene	ND	HT-04	mg/kg dry	0.0907	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/18/2020 07:13	11/18/2020 16:03	CM

	Surrogate Recoveries	Result		Acceptance Range
2051-24-3	*Surrogate: Decachlorobiphenyl*	*128 %*	HT-04	*30-150*
877-09-8	*Surrogate: Tetrachloro-m-xylene*	*69.0 %*	HT-04	*30-150*

Metals, Target Analyte

Log-in Notes: **Sample Notes:**

Sample Prepared by Method: EPA 3050B

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7429-90-5	**Aluminum**	**8220**		mg/kg dry	5.49	1	EPA 6010D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/19/2020 08:56	11/19/2020 16:21	WJM
7440-36-0	Antimony	ND		mg/kg dry	2.74	1	EPA 6010D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/19/2020 08:56	11/19/2020 16:21	WJM
7440-38-2	**Arsenic**	**2.19**		mg/kg dry	1.65	1	EPA 6010D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/19/2020 08:56	11/19/2020 16:21	WJM
7440-39-3	**Barium**	**98.3**		mg/kg dry	2.74	1	EPA 6010D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/19/2020 08:56	11/19/2020 16:21	WJM
7440-41-7	Beryllium	ND		mg/kg dry	0.055	1	EPA 6010D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/19/2020 08:56	11/19/2020 16:21	WJM
7440-43-9	Cadmium	ND		mg/kg dry	0.329	1	EPA 6010D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/19/2020 08:56	11/19/2020 16:21	WJM
7440-70-2	**Calcium**	**6800**	B	mg/kg dry	5.49	1	EPA 6010D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/19/2020 08:56	11/19/2020 16:21	WJM
7440-47-3	**Chromium**	**8.32**		mg/kg dry	0.549	1	EPA 6010D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/19/2020 08:56	11/19/2020 16:21	WJM
7440-48-4	**Cobalt**	**6.59**		mg/kg dry	0.439	1	EPA 6010D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/19/2020 08:56	11/19/2020 16:21	WJM
7440-50-8	**Copper**	**19.9**		mg/kg dry	2.19	1	EPA 6010D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/19/2020 08:56	11/19/2020 16:21	WJM

Sample Information

Client Sample ID: **TP-1** **York Sample ID:** **20J1329-15**

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
20J1329	20-0857	Soil	October 27, 2020 12:00 am	10/29/2020

Metals, Target Analyte

Log-in Notes: **Sample Notes:**

Sample Prepared by Method: EPA 3050B

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7439-89-6	**Iron**	**13400**		mg/kg dry	27.4	1	EPA 6010D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/19/2020 08:56	11/19/2020 16:21	WJM
7439-92-1	**Lead**	**84.6**		mg/kg dry	0.549	1	EPA 6010D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/19/2020 08:56	11/19/2020 16:21	WJM
7439-95-4	**Magnesium**	**2890**		mg/kg dry	5.49	1	EPA 6010D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/19/2020 08:56	11/19/2020 16:21	WJM
7439-96-5	**Manganese**	**573**		mg/kg dry	0.549	1	EPA 6010D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/19/2020 08:56	11/19/2020 16:21	WJM
7440-02-0	**Nickel**	**13.1**		mg/kg dry	1.10	1	EPA 6010D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/19/2020 08:56	11/19/2020 16:21	WJM
7440-09-7	**Potassium**	**1190**		mg/kg dry	5.49	1	EPA 6010D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/19/2020 08:56	11/19/2020 16:21	WJM
7782-49-2	Selenium	ND		mg/kg dry	2.74	1	EPA 6010D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/19/2020 08:56	11/19/2020 16:21	WJM
7440-22-4	Silver	ND		mg/kg dry	0.549	1	EPA 6010D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/19/2020 08:56	11/19/2020 16:21	WJM
7440-23-5	**Sodium**	**55.2**		mg/kg dry	54.9	1	EPA 6010D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/19/2020 08:56	11/19/2020 16:21	WJM
7440-28-0	Thallium	ND		mg/kg dry	2.74	1	EPA 6010D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/19/2020 08:56	11/19/2020 16:21	WJM
7440-62-2	**Vanadium**	**11.2**		mg/kg dry	1.10	1	EPA 6010D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/19/2020 08:56	11/19/2020 16:21	WJM
7440-66-6	**Zinc**	**75.9**		mg/kg dry	2.74	1	EPA 6010D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/19/2020 08:56	11/19/2020 16:21	WJM

Mercury by 7470/7471

Log-in Notes: **Sample Notes:**

Sample Prepared by Method: EPA SW846-7471B

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7439-97-6	Mercury	ND		mg/kg dry	0.0362	1	EPA 7471B Certifications: CTDOH,NJDEP,NELAC-NY10854,PADEP	11/20/2020 16:01	11/20/2020 16:01	AA

Total Solids

Log-in Notes: **Sample Notes:**

Sample Prepared by Method: % Solids Prep

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
solids	*** % Solids**	**91.1**		%	0.100	1	SM 2540G Certifications: CTDOH	11/17/2020 15:28	11/18/2020 12:21	SK

Sample Information

Client Sample ID: **TP-3**

York Sample ID: **20J1329-16**

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
20J1329	20-0857	Soil	October 27, 2020 12:00 am	10/29/2020

Pesticides, 8081 target list

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3550C

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
72-54-8	4,4'-DDD	ND	HT-04	mg/kg dry	0.00189	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/18/2020 07:13	11/18/2020 16:20	CM
72-55-9	4,4'-DDE	ND	HT-04	mg/kg dry	0.00189	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/18/2020 07:13	11/18/2020 16:20	CM
50-29-3	4,4'-DDT	ND	HT-04	mg/kg dry	0.00189	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/18/2020 07:13	11/18/2020 16:20	CM
309-00-2	Aldrin	ND	HT-04	mg/kg dry	0.00189	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/18/2020 07:13	11/18/2020 16:20	CM
319-84-6	alpha-BHC	ND	HT-04	mg/kg dry	0.00189	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/18/2020 07:13	11/18/2020 16:20	CM
5103-71-9	alpha-Chlordane	ND	HT-04	mg/kg dry	0.00189	5	EPA 8081B Certifications: NELAC-NY10854,NJDEP	11/18/2020 07:13	11/18/2020 16:20	CM
319-85-7	beta-BHC	ND	HT-04	mg/kg dry	0.00189	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/18/2020 07:13	11/18/2020 16:20	CM
57-74-9	Chlordane, total	ND	HT-04	mg/kg dry	0.0378	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/18/2020 07:13	11/18/2020 16:20	CM
319-86-8	delta-BHC	ND	HT-04	mg/kg dry	0.00189	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/18/2020 07:13	11/18/2020 16:20	CM
60-57-1	Dieldrin	ND	HT-04	mg/kg dry	0.00189	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/18/2020 07:13	11/18/2020 16:20	CM
959-98-8	Endosulfan I	ND	HT-04	mg/kg dry	0.00189	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/18/2020 07:13	11/18/2020 16:20	CM
33213-65-9	Endosulfan II	ND	HT-04	mg/kg dry	0.00189	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854	11/18/2020 07:13	11/18/2020 16:20	CM
1031-07-8	Endosulfan sulfate	ND	HT-04	mg/kg dry	0.00189	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/18/2020 07:13	11/18/2020 16:20	CM
72-20-8	Endrin	ND	HT-04	mg/kg dry	0.00189	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/18/2020 07:13	11/18/2020 16:20	CM
7421-93-4	Endrin aldehyde	ND	HT-04	mg/kg dry	0.00189	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/18/2020 07:13	11/18/2020 16:20	CM
53494-70-5	Endrin ketone	ND	HT-04	mg/kg dry	0.00189	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/18/2020 07:13	11/18/2020 16:20	CM
58-89-9	gamma-BHC (Lindane)	ND	HT-04	mg/kg dry	0.00189	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/18/2020 07:13	11/18/2020 16:20	CM
5566-34-7	gamma-Chlordane	ND	HT-04	mg/kg dry	0.00189	5	EPA 8081B Certifications: NELAC-NY10854,NJDEP	11/18/2020 07:13	11/18/2020 16:20	CM
76-44-8	Heptachlor	ND	HT-04	mg/kg dry	0.00189	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/18/2020 07:13	11/18/2020 16:20	CM
1024-57-3	Heptachlor epoxide	ND	HT-04	mg/kg dry	0.00189	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/18/2020 07:13	11/18/2020 16:20	CM
72-43-5	Methoxychlor	ND	HT-04	mg/kg dry	0.00945	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/18/2020 07:13	11/18/2020 16:20	CM
8001-35-2	Toxaphene	ND	HT-04	mg/kg dry	0.0956	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/18/2020 07:13	11/18/2020 16:20	CM

	Surrogate Recoveries	Result		Acceptance Range
2051-24-3	*Surrogate: Decachlorobiphenyl*	*94.4 %*	HT-04	*30-150*

Sample Information

Client Sample ID: **TP-3** **York Sample ID:** **20J1329-16**

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
20J1329	20-0857	Soil	October 27, 2020 12:00 am	10/29/2020

Pesticides, 8081 target list

Log-in Notes: **Sample Notes:**

Sample Prepared by Method: EPA 3550C

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
877-09-8	*Surrogate: Tetrachloro-m-xylene*	*77.0 %*	HT-04		*30-150*					

Metals, Target Analyte

Log-in Notes: **Sample Notes:**

Sample Prepared by Method: EPA 3050B

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7429-90-5	**Aluminum**	**17700**		mg/kg dry	5.78	1	EPA 6010D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/19/2020 08:56	11/19/2020 16:24	WJM
7440-36-0	Antimony	ND		mg/kg dry	2.89	1	EPA 6010D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/19/2020 08:56	11/19/2020 16:24	WJM
7440-38-2	**Arsenic**	**3.57**		mg/kg dry	1.73	1	EPA 6010D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/19/2020 08:56	11/19/2020 16:24	WJM
7440-39-3	**Barium**	**62.5**		mg/kg dry	2.89	1	EPA 6010D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/19/2020 08:56	11/19/2020 16:24	WJM
7440-41-7	Beryllium	ND		mg/kg dry	0.058	1	EPA 6010D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/19/2020 08:56	11/19/2020 16:24	WJM
7440-43-9	Cadmium	ND		mg/kg dry	0.347	1	EPA 6010D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/19/2020 08:56	11/19/2020 16:24	WJM
7440-70-2	**Calcium**	**1760**	B	mg/kg dry	5.78	1	EPA 6010D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/19/2020 08:56	11/19/2020 16:24	WJM
7440-47-3	**Chromium**	**13.5**		mg/kg dry	0.578	1	EPA 6010D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/19/2020 08:56	11/19/2020 16:24	WJM
7440-48-4	**Cobalt**	**6.48**		mg/kg dry	0.463	1	EPA 6010D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/19/2020 08:56	11/19/2020 16:24	WJM
7440-50-8	**Copper**	**30.6**		mg/kg dry	2.31	1	EPA 6010D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/19/2020 08:56	11/19/2020 16:24	WJM
7439-89-6	**Iron**	**20300**		mg/kg dry	28.9	1	EPA 6010D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/19/2020 08:56	11/19/2020 16:24	WJM
7439-92-1	**Lead**	**148**		mg/kg dry	0.578	1	EPA 6010D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/19/2020 08:56	11/19/2020 16:24	WJM
7439-95-4	**Magnesium**	**2190**		mg/kg dry	5.78	1	EPA 6010D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/19/2020 08:56	11/19/2020 16:24	WJM
7439-96-5	**Manganese**	**698**		mg/kg dry	0.578	1	EPA 6010D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/19/2020 08:56	11/19/2020 16:24	WJM
7440-02-0	**Nickel**	**11.5**		mg/kg dry	1.16	1	EPA 6010D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/19/2020 08:56	11/19/2020 16:24	WJM
7440-09-7	**Potassium**	**770**		mg/kg dry	5.78	1	EPA 6010D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/19/2020 08:56	11/19/2020 16:24	WJM
7782-49-2	Selenium	ND		mg/kg dry	2.89	1	EPA 6010D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/19/2020 08:56	11/19/2020 16:24	WJM
7440-22-4	Silver	ND		mg/kg dry	0.578	1	EPA 6010D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/19/2020 08:56	11/19/2020 16:24	WJM
7440-23-5	Sodium	ND		mg/kg dry	57.8	1	EPA 6010D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/19/2020 08:56	11/19/2020 16:24	WJM

Sample Information

Client Sample ID: **TP-3** **York Sample ID:** **20J1329-16**

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
20J1329	20-0857	Soil	October 27, 2020 12:00 am	10/29/2020

Metals, Target Analyte

Log-in Notes: **Sample Notes:**

Sample Prepared by Method: EPA 3050B

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7440-28-0	Thallium	ND		mg/kg dry	2.89	1	EPA 6010D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/19/2020 08:56	11/19/2020 16:24	WJM
7440-62-2	**Vanadium**	**22.3**		mg/kg dry	1.16	1	EPA 6010D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/19/2020 08:56	11/19/2020 16:24	WJM
7440-66-6	**Zinc**	**73.5**		mg/kg dry	2.89	1	EPA 6010D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/19/2020 08:56	11/19/2020 16:24	WJM

Mercury by 7470/7471

Log-in Notes: **Sample Notes:**

Sample Prepared by Method: EPA SW846-7471B

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7439-97-6	Mercury	ND		mg/kg dry	0.0382	1	EPA 7471B Certifications: CTDOH,NJDEP,NELAC-NY10854,PADEP	11/20/2020 16:01	11/20/2020 16:01	AA

Total Solids

Log-in Notes: **Sample Notes:**

Sample Prepared by Method: % Solids Prep

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
solids	*** % Solids**	**86.5**		%	0.100	1	SM 2540G Certifications: CTDOH	11/17/2020 15:28	11/18/2020 12:21	SK

Sample Information

Client Sample ID: **TP-11** **York Sample ID:** **20J1329-17**

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
20J1329	20-0857	Soil	October 27, 2020 12:00 am	10/29/2020

Pesticides, 8081 target list

Log-in Notes: **Sample Notes:**

Sample Prepared by Method: EPA 3550C

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
72-54-8	4,4'-DDD	ND	HT-04	mg/kg dry	0.00198	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/18/2020 07:13	11/18/2020 16:36	CM
72-55-9	4,4'-DDE	ND	HT-04	mg/kg dry	0.00198	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/18/2020 07:13	11/18/2020 16:36	CM
50-29-3	4,4'-DDT	ND	HT-04	mg/kg dry	0.00198	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/18/2020 07:13	11/18/2020 16:36	CM
309-00-2	Aldrin	ND	HT-04	mg/kg dry	0.00198	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/18/2020 07:13	11/18/2020 16:36	CM

Sample Information

Client Sample ID: **TP-11**

York Sample ID: **20J1329-17**

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
20J1329	20-0857	Soil	October 27, 2020 12:00 am	10/29/2020

Pesticides, 8081 target list

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3550C

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
319-84-6	alpha-BHC	ND	HT-04	mg/kg dry	0.00198	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/18/2020 07:13	11/18/2020 16:36	CM
5103-71-9	alpha-Chlordane	ND	HT-04	mg/kg dry	0.00198	5	EPA 8081B Certifications: NELAC-NY10854,NJDEP	11/18/2020 07:13	11/18/2020 16:36	CM
319-85-7	beta-BHC	ND	HT-04	mg/kg dry	0.00198	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/18/2020 07:13	11/18/2020 16:36	CM
57-74-9	Chlordane, total	ND	HT-04	mg/kg dry	0.0396	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/18/2020 07:13	11/18/2020 16:36	CM
319-86-8	delta-BHC	ND	HT-04	mg/kg dry	0.00198	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/18/2020 07:13	11/18/2020 16:36	CM
60-57-1	Dieldrin	ND	HT-04	mg/kg dry	0.00198	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/18/2020 07:13	11/18/2020 16:36	CM
959-98-8	Endosulfan I	ND	HT-04	mg/kg dry	0.00198	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/18/2020 07:13	11/18/2020 16:36	CM
33213-65-9	Endosulfan II	ND	HT-04	mg/kg dry	0.00198	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854	11/18/2020 07:13	11/18/2020 16:36	CM
1031-07-8	Endosulfan sulfate	ND	HT-04	mg/kg dry	0.00198	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/18/2020 07:13	11/18/2020 16:36	CM
72-20-8	Endrin	ND	HT-04	mg/kg dry	0.00198	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/18/2020 07:13	11/18/2020 16:36	CM
7421-93-4	Endrin aldehyde	ND	HT-04	mg/kg dry	0.00198	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/18/2020 07:13	11/18/2020 16:36	CM
53494-70-5	Endrin ketone	ND	HT-04	mg/kg dry	0.00198	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/18/2020 07:13	11/18/2020 16:36	CM
58-89-9	gamma-BHC (Lindane)	ND	HT-04	mg/kg dry	0.00198	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/18/2020 07:13	11/18/2020 16:36	CM
5566-34-7	gamma-Chlordane	ND	HT-04	mg/kg dry	0.00198	5	EPA 8081B Certifications: NELAC-NY10854,NJDEP	11/18/2020 07:13	11/18/2020 16:36	CM
76-44-8	Heptachlor	ND	HT-04	mg/kg dry	0.00198	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/18/2020 07:13	11/18/2020 16:36	CM
1024-57-3	Heptachlor epoxide	ND	HT-04	mg/kg dry	0.00198	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/18/2020 07:13	11/18/2020 16:36	CM
72-43-5	Methoxychlor	ND	HT-04	mg/kg dry	0.00989	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/18/2020 07:13	11/18/2020 16:36	CM
8001-35-2	Toxaphene	ND	HT-04	mg/kg dry	0.100	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/18/2020 07:13	11/18/2020 16:36	CM

	Surrogate Recoveries	Result		Acceptance Range
2051-24-3	*Surrogate: Decachlorobiphenyl*	*133 %*	HT-04	*30-150*
877-09-8	*Surrogate: Tetrachloro-m-xylene*	*102 %*	HT-04	*30-150*

Metals, Target Analyte

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3050B

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst

Sample Information

Client Sample ID: TP-11 **York Sample ID:** 20J1329-17

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
20J1329	20-0857	Soil	October 27, 2020 12:00 am	10/29/2020

Metals, Target Analyte **Log-in Notes:** **Sample Notes:**

Sample Prepared by Method: EPA 3050B

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7429-90-5	**Aluminum**	**15100**		mg/kg dry	6.06	1	EPA 6010D	11/19/2020 08:56	11/19/2020 16:32	WJM
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP		
7440-36-0	Antimony	ND		mg/kg dry	3.03	1	EPA 6010D	11/19/2020 08:56	11/19/2020 16:32	WJM
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP		
7440-38-2	**Arsenic**	**2.26**		mg/kg dry	1.82	1	EPA 6010D	11/19/2020 08:56	11/19/2020 16:32	WJM
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP		
7440-39-3	**Barium**	**81.9**		mg/kg dry	3.03	1	EPA 6010D	11/19/2020 08:56	11/19/2020 16:32	WJM
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP		
7440-41-7	Beryllium	ND		mg/kg dry	0.061	1	EPA 6010D	11/19/2020 08:56	11/19/2020 16:32	WJM
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP		
7440-43-9	Cadmium	ND		mg/kg dry	0.363	1	EPA 6010D	11/19/2020 08:56	11/19/2020 16:32	WJM
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP		
7440-70-2	**Calcium**	**3550**	B	mg/kg dry	6.06	1	EPA 6010D	11/19/2020 08:56	11/19/2020 16:32	WJM
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP		
7440-47-3	**Chromium**	**13.6**		mg/kg dry	0.606	1	EPA 6010D	11/19/2020 08:56	11/19/2020 16:32	WJM
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP		
7440-48-4	**Cobalt**	**7.55**		mg/kg dry	0.484	1	EPA 6010D	11/19/2020 08:56	11/19/2020 16:32	WJM
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP		
7440-50-8	**Copper**	**19.4**		mg/kg dry	2.42	1	EPA 6010D	11/19/2020 08:56	11/19/2020 16:32	WJM
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP		
7439-89-6	**Iron**	**19500**		mg/kg dry	30.3	1	EPA 6010D	11/19/2020 08:56	11/19/2020 16:32	WJM
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP		
7439-92-1	**Lead**	**156**		mg/kg dry	0.606	1	EPA 6010D	11/19/2020 08:56	11/19/2020 16:32	WJM
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP		
7439-95-4	**Magnesium**	**2930**		mg/kg dry	6.06	1	EPA 6010D	11/19/2020 08:56	11/19/2020 16:32	WJM
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP		
7439-96-5	**Manganese**	**645**		mg/kg dry	0.606	1	EPA 6010D	11/19/2020 08:56	11/19/2020 16:32	WJM
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP		
7440-02-0	**Nickel**	**15.1**		mg/kg dry	1.21	1	EPA 6010D	11/19/2020 08:56	11/19/2020 16:32	WJM
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP		
7440-09-7	**Potassium**	**1030**		mg/kg dry	6.06	1	EPA 6010D	11/19/2020 08:56	11/19/2020 16:32	WJM
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP		
7782-49-2	Selenium	ND		mg/kg dry	3.03	1	EPA 6010D	11/19/2020 08:56	11/19/2020 16:32	WJM
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP		
7440-22-4	Silver	ND		mg/kg dry	0.606	1	EPA 6010D	11/19/2020 08:56	11/19/2020 16:32	WJM
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP		
7440-23-5	**Sodium**	**60.8**		mg/kg dry	60.6	1	EPA 6010D	11/19/2020 08:56	11/19/2020 16:32	WJM
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP		
7440-28-0	Thallium	ND		mg/kg dry	3.03	1	EPA 6010D	11/19/2020 08:56	11/19/2020 16:32	WJM
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP		
7440-62-2	**Vanadium**	**18.8**		mg/kg dry	1.21	1	EPA 6010D	11/19/2020 08:56	11/19/2020 16:32	WJM
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP		
7440-66-6	**Zinc**	**70.5**		mg/kg dry	3.03	1	EPA 6010D	11/19/2020 08:56	11/19/2020 16:32	WJM
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP		

Sample Information

Client Sample ID: **TP-11** **York Sample ID:** **20J1329-17**

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
20J1329	20-0857	Soil	October 27, 2020 12:00 am	10/29/2020

Mercury by 7470/7471

Log-in Notes: **Sample Notes:**

Sample Prepared by Method: EPA SW846-7471B

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7439-97-6	Mercury	ND		mg/kg dry	0.0400	1	EPA 7471B Certifications: CTDOH,NJDEP,NELAC-NY10854,PADEP	11/20/2020 16:01	11/20/2020 16:01	AA

Total Solids

Log-in Notes: **Sample Notes:**

Sample Prepared by Method: % Solids Prep

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
solids	*** % Solids**	**82.6**		%	0.100	1	SM 2540G Certifications: CTDOH	11/17/2020 15:28	11/18/2020 12:21	SK

Sample Information

Client Sample ID: **TP-16** **York Sample ID:** **20J1329-20**

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
20J1329	20-0857	Soil	October 27, 2020 12:00 am	10/29/2020

Pesticides, 8081 target list

Log-in Notes: **Sample Notes:**

Sample Prepared by Method: EPA 3550C

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
72-54-8	4,4'-DDD	ND	HT-04	mg/kg dry	0.00173	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/18/2020 07:13	11/18/2020 16:53	CM
72-55-9	4,4'-DDE	ND	HT-04	mg/kg dry	0.00173	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/18/2020 07:13	11/18/2020 16:53	CM
50-29-3	4,4'-DDT	ND	HT-04	mg/kg dry	0.00173	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/18/2020 07:13	11/18/2020 16:53	CM
309-00-2	Aldrin	ND	HT-04	mg/kg dry	0.00173	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/18/2020 07:13	11/18/2020 16:53	CM
319-84-6	alpha-BHC	ND	HT-04	mg/kg dry	0.00173	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/18/2020 07:13	11/18/2020 16:53	CM
5103-71-9	alpha-Chlordane	ND	HT-04	mg/kg dry	0.00173	5	EPA 8081B Certifications: NELAC-NY10854,NJDEP	11/18/2020 07:13	11/18/2020 16:53	CM
319-85-7	beta-BHC	ND	HT-04	mg/kg dry	0.00173	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/18/2020 07:13	11/18/2020 16:53	CM
57-74-9	Chlordane, total	ND	HT-04	mg/kg dry	0.0347	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/18/2020 07:13	11/18/2020 16:53	CM
319-86-8	delta-BHC	ND	HT-04	mg/kg dry	0.00173	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/18/2020 07:13	11/18/2020 16:53	CM
60-57-1	Dieldrin	ND	HT-04	mg/kg dry	0.00173	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/18/2020 07:13	11/18/2020 16:53	CM

Sample Information

Client Sample ID: **TP-16** **York Sample ID:** **20J1329-20**

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
20J1329	20-0857	Soil	October 27, 2020 12:00 am	10/29/2020

Pesticides, 8081 target list

Log-in Notes: **Sample Notes:**

Sample Prepared by Method: EPA 3550C

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
959-98-8	Endosulfan I	ND	HT-04	mg/kg dry	0.00173	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/18/2020 07:13	11/18/2020 16:53	CM
33213-65-9	Endosulfan II	ND	HT-04	mg/kg dry	0.00173	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854	11/18/2020 07:13	11/18/2020 16:53	CM
1031-07-8	Endosulfan sulfate	ND	HT-04	mg/kg dry	0.00173	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/18/2020 07:13	11/18/2020 16:53	CM
72-20-8	Endrin	ND	HT-04	mg/kg dry	0.00173	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/18/2020 07:13	11/18/2020 16:53	CM
7421-93-4	Endrin aldehyde	ND	HT-04	mg/kg dry	0.00173	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/18/2020 07:13	11/18/2020 16:53	CM
53494-70-5	Endrin ketone	ND	HT-04	mg/kg dry	0.00173	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/18/2020 07:13	11/18/2020 16:53	CM
58-89-9	gamma-BHC (Lindane)	ND	HT-04	mg/kg dry	0.00173	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/18/2020 07:13	11/18/2020 16:53	CM
5566-34-7	gamma-Chlordane	ND	HT-04	mg/kg dry	0.00173	5	EPA 8081B Certifications: NELAC-NY10854,NJDEP	11/18/2020 07:13	11/18/2020 16:53	CM
76-44-8	Heptachlor	ND	HT-04	mg/kg dry	0.00173	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/18/2020 07:13	11/18/2020 16:53	CM
1024-57-3	Heptachlor epoxide	ND	HT-04	mg/kg dry	0.00173	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/18/2020 07:13	11/18/2020 16:53	CM
72-43-5	Methoxychlor	ND	HT-04	mg/kg dry	0.00867	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/18/2020 07:13	11/18/2020 16:53	CM
8001-35-2	Toxaphene	ND	HT-04	mg/kg dry	0.0878	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/18/2020 07:13	11/18/2020 16:53	CM

	Surrogate Recoveries	Result		Acceptance Range
2051-24-3	*Surrogate: Decachlorobiphenyl*	*125 %*	HT-04	*30-150*
877-09-8	*Surrogate: Tetrachloro-m-xylene*	*99.0 %*	HT-04	*30-150*

Metals, Target Analyte

Log-in Notes: **Sample Notes:**

Sample Prepared by Method: EPA 3050B

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7429-90-5	**Aluminum**	**8270**		mg/kg dry	5.31	1	EPA 6010D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/19/2020 08:56	11/19/2020 16:35	WJM
7440-36-0	Antimony	ND		mg/kg dry	2.65	1	EPA 6010D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/19/2020 08:56	11/19/2020 16:35	WJM
7440-38-2	Arsenic	ND		mg/kg dry	1.59	1	EPA 6010D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/19/2020 08:56	11/19/2020 16:35	WJM
7440-39-3	**Barium**	**47.0**		mg/kg dry	2.65	1	EPA 6010D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/19/2020 08:56	11/19/2020 16:35	WJM
7440-41-7	Beryllium	ND		mg/kg dry	0.053	1	EPA 6010D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/19/2020 08:56	11/19/2020 16:35	WJM
7440-43-9	Cadmium	ND		mg/kg dry	0.318	1	EPA 6010D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/19/2020 08:56	11/19/2020 16:35	WJM

Sample Information

Client Sample ID: **TP-16**

York Sample ID: **20J1329-20**

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
20J1329	20-0857	Soil	October 27, 2020 12:00 am	10/29/2020

Metals, Target Analyte

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3050B

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7440-70-2	**Calcium**	**1200**	B	mg/kg dry	5.31	1	EPA 6010D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/19/2020 08:56	11/19/2020 16:35	WJM
7440-47-3	**Chromium**	**7.08**		mg/kg dry	0.531	1	EPA 6010D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/19/2020 08:56	11/19/2020 16:35	WJM
7440-48-4	**Cobalt**	**5.89**		mg/kg dry	0.425	1	EPA 6010D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/19/2020 08:56	11/19/2020 16:35	WJM
7440-50-8	**Copper**	**19.1**		mg/kg dry	2.12	1	EPA 6010D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/19/2020 08:56	11/19/2020 16:35	WJM
7439-89-6	**Iron**	**12900**		mg/kg dry	26.5	1	EPA 6010D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/19/2020 08:56	11/19/2020 16:35	WJM
7439-92-1	**Lead**	**63.6**		mg/kg dry	0.531	1	EPA 6010D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/19/2020 08:56	11/19/2020 16:35	WJM
7439-95-4	**Magnesium**	**2310**		mg/kg dry	5.31	1	EPA 6010D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/19/2020 08:56	11/19/2020 16:35	WJM
7439-96-5	**Manganese**	**362**		mg/kg dry	0.531	1	EPA 6010D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/19/2020 08:56	11/19/2020 16:35	WJM
7440-02-0	**Nickel**	**11.4**		mg/kg dry	1.06	1	EPA 6010D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/19/2020 08:56	11/19/2020 16:35	WJM
7440-09-7	**Potassium**	**744**		mg/kg dry	5.31	1	EPA 6010D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/19/2020 08:56	11/19/2020 16:35	WJM
7782-49-2	Selenium	ND		mg/kg dry	2.65	1	EPA 6010D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/19/2020 08:56	11/19/2020 16:35	WJM
7440-22-4	Silver	ND		mg/kg dry	0.531	1	EPA 6010D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/19/2020 08:56	11/19/2020 16:35	WJM
7440-23-5	Sodium	ND		mg/kg dry	53.1	1	EPA 6010D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/19/2020 08:56	11/19/2020 16:35	WJM
7440-28-0	Thallium	ND		mg/kg dry	2.65	1	EPA 6010D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/19/2020 08:56	11/19/2020 16:35	WJM
7440-62-2	**Vanadium**	**9.76**		mg/kg dry	1.06	1	EPA 6010D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/19/2020 08:56	11/19/2020 16:35	WJM
7440-66-6	**Zinc**	**59.9**		mg/kg dry	2.65	1	EPA 6010D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/19/2020 08:56	11/19/2020 16:35	WJM

Mercury by 7470/7471

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA SW846-7471B

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7439-97-6	Mercury	ND		mg/kg dry	0.0350	1	EPA 7471B Certifications: CTDOH,NJDEP,NELAC-NY10854,PADEP	11/20/2020 16:01	11/20/2020 16:01	AA

Total Solids

Log-in Notes:

Sample Notes:

Sample Information

Client Sample ID: **TP-16** **York Sample ID:** **20J1329-20**

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
20J1329	20-0857	Soil	October 27, 2020 12:00 am	10/29/2020

Sample Prepared by Method: % Solids Prep

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
solids	*** % Solids**	**94.2**		%	0.100	1	SM 2540G Certifications: CTDOH	11/17/2020 15:28	11/18/2020 12:21	SK

Analytical Batch Summary

Batch ID: BJ01733 **Preparation Method:** EPA 7473 soil **Prepared By:** SY

YORK Sample ID	Client Sample ID	Preparation Date
20J1329-01	TP-1 SS	10/29/20
20J1329-02	TP-2	10/29/20
20J1329-03	TP-4	10/29/20
20J1329-04	TP-5	10/29/20
20J1329-05	TP-6	10/29/20
20J1329-06	TP-12	10/29/20
20J1329-07	TP-14	10/29/20
20J1329-08	TP-18	10/29/20
20J1329-09	SS-01	10/29/20
20J1329-14	TP-3 SS	10/29/20
BJ01733-BLK1	Blank	10/29/20
BJ01733-SRM1	Reference	10/29/20

Batch ID: BJ01734 **Preparation Method:** EPA 3050B **Prepared By:** SY

YORK Sample ID	Client Sample ID	Preparation Date
20J1329-01	TP-1 SS	10/29/20
20J1329-02	TP-2	10/29/20
20J1329-03	TP-4	10/29/20
20J1329-04	TP-5	10/29/20
20J1329-05	TP-6	10/29/20
20J1329-06	TP-12	10/29/20
20J1329-07	TP-14	10/29/20
20J1329-08	TP-18	10/29/20
20J1329-09	SS-01	10/29/20
20J1329-14	TP-3 SS	10/29/20
BJ01734-BLK1	Blank	10/29/20
BJ01734-SRM1	Reference	10/29/20

Batch ID: BJ01762 **Preparation Method:** % Solids Prep **Prepared By:** SK

YORK Sample ID	Client Sample ID	Preparation Date
20J1329-01	TP-1 SS	10/30/20
20J1329-02	TP-2	10/30/20
20J1329-03	TP-4	10/30/20
20J1329-04	TP-5	10/30/20
20J1329-05	TP-6	10/30/20
20J1329-06	TP-12	10/30/20
20J1329-07	TP-14	10/30/20
20J1329-08	TP-18	10/30/20
20J1329-09	SS-01	10/30/20
20J1329-10	TP-7	10/30/20
20J1329-11	TP-8	10/30/20
20J1329-12	TP-9	10/30/20
20J1329-13	TP-10	10/30/20

BJ01762-DUP1	Duplicate	10/30/20

Batch ID: BJ01854 **Preparation Method:** % Solids Prep **Prepared By:** BR

YORK Sample ID	Client Sample ID	Preparation Date
20J1329-14	TP-3 SS	10/30/20

Batch ID: BK00151 **Preparation Method:** EPA 3550C **Prepared By:** NT

YORK Sample ID	Client Sample ID	Preparation Date
20J1329-04	TP-5	11/04/20
20J1329-04	TP-5	11/04/20
20J1329-05	TP-6	11/04/20
20J1329-05	TP-6	11/04/20
20J1329-06	TP-12	11/04/20
20J1329-06	TP-12	11/04/20
20J1329-07	TP-14	11/04/20
20J1329-07	TP-14	11/04/20
20J1329-08	TP-18	11/04/20
20J1329-08	TP-18	11/04/20
20J1329-09	SS-01	11/04/20
20J1329-09	SS-01	11/04/20
20J1329-14	TP-3 SS	11/04/20
20J1329-14	TP-3 SS	11/04/20
BK00151-BLK1	Blank	11/04/20
BK00151-BLK2	Blank	11/04/20
BK00151-BS1	LCS	11/04/20
BK00151-BS2	LCS	11/04/20
BK00151-MS1	Matrix Spike	11/04/20
BK00151-MS2	Matrix Spike	11/04/20
BK00151-MSD1	Matrix Spike Dup	11/04/20
BK00151-MSD2	Matrix Spike Dup	11/04/20

Batch ID: BK00171 **Preparation Method:** EPA 3550C **Prepared By:** JV

YORK Sample ID	Client Sample ID	Preparation Date
20J1329-01	TP-1 SS	11/04/20
20J1329-01	TP-1 SS	11/04/20
20J1329-02	TP-2	11/04/20
20J1329-02	TP-2	11/04/20
20J1329-03	TP-4	11/04/20
20J1329-03	TP-4	11/04/20
BK00171-BLK1	Blank	11/04/20
BK00171-BLK2	Blank	11/04/20
BK00171-BS1	LCS	11/04/20
BK00171-BS2	LCS	11/04/20

Batch ID: BK00183 **Preparation Method:** EPA 3550C **Prepared By:** MAM

YORK Sample ID	Client Sample ID	Preparation Date
20J1329-12	TP-9	11/04/20
20J1329-13	TP-10	11/04/20
BK00183-BLK1	Blank	11/04/20
BK00183-BS1	LCS	11/04/20

Batch ID: BK00185 **Preparation Method:** EPA 3550C **Prepared By:** MAM

YORK Sample ID	Client Sample ID	Preparation Date
20J1329-11	TP-8	11/04/20
BK00185-BLK1	Blank	11/04/20
BK00185-BS1	LCS	11/04/20

Batch ID: BK00206 **Preparation Method:** EPA 5035A **Prepared By:** KHA

YORK Sample ID	Client Sample ID	Preparation Date
20J1329-01	TP-1 SS	11/03/20
20J1329-02	TP-2	11/03/20
20J1329-03	TP-4	11/03/20
20J1329-04	TP-5	11/03/20
20J1329-05	TP-6	11/03/20
20J1329-06	TP-12	11/03/20
20J1329-07	TP-14	11/03/20
20J1329-08	TP-18	11/03/20
20J1329-09	SS-01	11/03/20
20J1329-10	TP-7	11/03/20
20J1329-13	TP-10	11/03/20
BK00206-BLK1	Blank	11/03/20
BK00206-BLK2	Blank	11/03/20
BK00206-BS1	LCS	11/03/20
BK00206-BSD1	LCS Dup	11/03/20

Batch ID: BK00218 **Preparation Method:** EPA 3550C **Prepared By:** NT

YORK Sample ID	Client Sample ID	Preparation Date
20J1329-01	TP-1 SS	11/05/20
20J1329-02	TP-2	11/05/20
20J1329-03	TP-4	11/05/20
20J1329-04	TP-5	11/05/20
20J1329-05	TP-6	11/05/20
20J1329-06	TP-12	11/05/20
20J1329-07	TP-14	11/05/20
20J1329-08	TP-18	11/05/20
20J1329-09	SS-01	11/05/20
20J1329-10	TP-7	11/05/20
BK00218-BLK1	Blank	11/05/20
BK00218-BS1	LCS	11/05/20
BK00218-MS1	Matrix Spike	11/05/20
BK00218-MSD1	Matrix Spike Dup	11/05/20

Batch ID: BK00262 **Preparation Method:** EPA 5035A **Prepared By:** TMP

YORK Sample ID	Client Sample ID	Preparation Date
20J1329-11	TP-8	11/02/20
20J1329-12	TP-9	11/02/20
BK00262-BLK1	Blank	11/02/20
BK00262-BS1	LCS	11/02/20

Batch ID: BK00949 **Preparation Method:** % Solids Prep **Prepared By:** JAG

YORK Sample ID	Client Sample ID	Preparation Date
20J1329-15	TP-1	11/17/20
20J1329-16	TP-3	11/17/20
20J1329-17	TP-11	11/17/20
20J1329-20	TP-16	11/17/20

Batch ID: BK00969 **Preparation Method:** EPA 3550C **Prepared By:** NT

YORK Sample ID	Client Sample ID	Preparation Date
20J1329-15	TP-1	11/18/20
20J1329-16	TP-3	11/18/20
20J1329-17	TP-11	11/18/20
20J1329-20	TP-16	11/18/20
BK00969-BLK1	Blank	11/18/20
BK00969-BS1	LCS	11/18/20

Batch ID: BK01042 **Preparation Method:** EPA 3050B **Prepared By:** OT

YORK Sample ID	Client Sample ID	Preparation Date
20J1329-15	TP-1	11/19/20
20J1329-16	TP-3	11/19/20
20J1329-17	TP-11	11/19/20
20J1329-20	TP-16	11/19/20
BK01042-BLK1	Blank	11/19/20
BK01042-SRM1	Reference	11/19/20

Batch ID: BK01136 **Preparation Method:** EPA SW846-7471B **Prepared By:** AA

YORK Sample ID	Client Sample ID	Preparation Date
20J1329-15	TP-1	11/20/20
20J1329-16	TP-3	11/20/20
20J1329-17	TP-11	11/20/20
20J1329-20	TP-16	11/20/20
BK01136-BLK1	Blank	11/20/20
BK01136-SRM1	Reference	11/20/20

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
Batch BK00206 - EPA 5035A											
Blank (BK00206-BLK1)							Prepared & Analyzed: 11/03/2020				
1,1,1,2-Tetrachloroethane	ND	0.0050	mg/kg wet								
1,1,1-Trichloroethane	ND	0.0050	"								
1,1,2,2-Tetrachloroethane	ND	0.0050	"								
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	0.0050	"								
1,1,2-Trichloroethane	ND	0.0050	"								
1,1-Dichloroethane	ND	0.0050	"								
1,1-Dichloroethylene	ND	0.0050	"								
1,2,3-Trichlorobenzene	ND	0.0050	"								
1,2,3-Trichloropropane	ND	0.0050	"								
1,2,4-Trichlorobenzene	ND	0.0050	"								
1,2,4-Trimethylbenzene	ND	5.0	ug/kg wet								
1,2,4-Trimethylbenzene	ND	0.0050	mg/kg wet								
1,2-Dibromo-3-chloropropane	ND	0.0050	"								
1,2-Dibromoethane	ND	0.0050	"								
1,2-Dichlorobenzene	ND	0.0050	"								
1,2-Dichloroethane	ND	0.0050	"								
1,2-Dichloropropane	ND	0.0050	"								
1,3,5-Trimethylbenzene	ND	0.0050	"								
1,3,5-Trimethylbenzene	ND	5.0	ug/kg wet								
1,3-Dichlorobenzene	ND	0.0050	mg/kg wet								
1,4-Dichlorobenzene	ND	0.0050	"								
1,4-Dioxane	ND	0.10	"								
2-Butanone	ND	0.0050	"								
2-Hexanone	ND	0.0050	"								
4-Methyl-2-pentanone	ND	0.0050	"								
Acetone	ND	0.010	"								
Acrolein	ND	0.010	"								
Acrylonitrile	ND	0.0050	"								
Benzene	ND	0.0050	"								
Benzene	ND	5.0	ug/kg wet								
Bromochloromethane	ND	0.0050	mg/kg wet								
Bromodichloromethane	ND	0.0050	"								
Bromoform	ND	0.0050	"								
Bromomethane	ND	0.0050	"								
Carbon disulfide	ND	0.0050	"								
Carbon tetrachloride	ND	0.0050	"								
Chlorobenzene	ND	0.0050	"								
Chloroethane	ND	0.0050	"								
Chloroform	ND	0.0050	"								
Chloromethane	ND	0.0050	"								
cis-1,2-Dichloroethylene	ND	0.0050	"								
cis-1,3-Dichloropropylene	ND	0.0050	"								
Cyclohexane	ND	0.0050	"								
Dibromochloromethane	ND	0.0050	"								
Dibromomethane	ND	0.0050	"								
Dichlorodifluoromethane	ND	0.0050	"								
Ethyl Benzene	ND	0.0050	"								
Ethyl Benzene	ND	5.0	ug/kg wet								
Hexachlorobutadiene	ND	0.0050	mg/kg wet								

Volatile Organic Compounds by GC/MS - Quality Control Data

York Analytical Laboratories, Inc.

Batch BK00206 - EPA 5035A

Blank (BK00206-BLK1) Prepared & Analyzed: 11/03/2020

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
Isopropylbenzene	ND	0.0050	mg/kg wet								
Isopropylbenzene	ND	5.0	ug/kg wet								
Methyl acetate	ND	0.0050	mg/kg wet								
Methyl tert-butyl ether (MTBE)	ND	0.0050	"								
Methyl tert-butyl ether (MTBE)	ND	5.0	ug/kg wet								
Methylcyclohexane	ND	0.0050	mg/kg wet								
Methylene chloride	ND	0.010	"								
Naphthalene	ND	10	ug/kg wet								
n-Butylbenzene	ND	0.0050	mg/kg wet								
n-Butylbenzene	ND	5.0	ug/kg wet								
n-Propylbenzene	ND	0.0050	mg/kg wet								
n-Propylbenzene	ND	5.0	ug/kg wet								
o-Xylene	ND	0.0050	mg/kg wet								
o-Xylene	ND	5.0	ug/kg wet								
p- & m- Xylenes	ND	0.010	mg/kg wet								
p- & m- Xylenes	ND	5.0	ug/kg wet								
p-Isopropyltoluene	ND	5.0	"								
p-Isopropyltoluene	ND	0.0050	mg/kg wet								
sec-Butylbenzene	ND	5.0	ug/kg wet								
sec-Butylbenzene	ND	0.0050	mg/kg wet								
Styrene	ND	0.0050	"								
tert-Butyl alcohol (TBA)	ND	0.0050	"								
tert-Butylbenzene	ND	0.0050	"								
tert-Butylbenzene	ND	5.0	ug/kg wet								
Tetrachloroethylene	ND	0.0050	mg/kg wet								
Toluene	ND	0.0050	"								
Toluene	ND	5.0	ug/kg wet								
trans-1,2-Dichloroethylene	ND	0.0050	mg/kg wet								
trans-1,3-Dichloropropylene	ND	0.0050	"								
Trichloroethylene	ND	0.0050	"								
Trichlorofluoromethane	ND	0.0050	"								
Vinyl Chloride	ND	0.0050	"								
Xylenes, Total	ND	0.015	"								
Xylenes, Total	ND	5.0	ug/kg wet								
Surrogate: SURR: 1,2-Dichloroethane-d4	*50.4*		*ug/L*	*50.0*		*101*	*77-125*				
Surrogate: SURR: 1,2-Dichloroethane-d4	*50.4*		*"*	*50.0*		*101*	*77-125*				
Surrogate: SURR: Toluene-d8	*49.7*		*"*	*50.0*		*99.5*	*85-120*				
Surrogate: SURR: Toluene-d8	*49.7*		*"*	*50.0*		*99.5*	*85-120*				
Surrogate: SURR: p-Bromofluorobenzene	*48.5*		*"*	*50.0*		*97.1*	*76-130*				
Surrogate: SURR: p-Bromofluorobenzene	*48.5*		*"*	*50.0*		*97.1*	*76-130*				

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
Batch BK00206 - EPA 5035A											
Blank (BK00206-BLK2)								Prepared & Analyzed: 11/03/2020			
1,2,4-Trimethylbenzene	ND	5.0	ug/kg wet								
1,3,5-Trimethylbenzene	ND	5.0	"								
Benzene	ND	5.0	"								
Ethyl Benzene	ND	5.0	"								
Isopropylbenzene	ND	5.0	"								
Methyl tert-butyl ether (MTBE)	ND	5.0	"								
Naphthalene	ND	10	"								
n-Butylbenzene	ND	5.0	"								
n-Propylbenzene	ND	5.0	"								
o-Xylene	ND	5.0	"								
p- & m- Xylenes	ND	5.0	"								
p-Isopropyltoluene	ND	5.0	"								
sec-Butylbenzene	ND	5.0	"								
tert-Butylbenzene	ND	5.0	"								
Toluene	ND	5.0	"								
Xylenes, Total	ND	5.0	"								
Surrogate: SURR: 1,2-Dichloroethane-d4	*49.4*		*ug/L*	*50.0*		*98.7*	*77-125*				
Surrogate: SURR: Toluene-d8	*49.9*		*"*	*50.0*		*99.8*	*85-120*				
Surrogate: SURR: p-Bromofluorobenzene	*48.5*		*"*	*50.0*		*96.9*	*76-130*				
LCS (BK00206-BS1)								Prepared & Analyzed: 11/03/2020			
1,1,1,2-Tetrachloroethane	60		ug/L	50.0		120	75-129				
1,1,1-Trichloroethane	62		"	50.0		123	71-137				
1,1,2,2-Tetrachloroethane	57		"	50.0		114	79-129				
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	64		"	50.0		129	58-146				
1,1,2-Trichloroethane	57		"	50.0		115	83-123				
1,1-Dichloroethane	55		"	50.0		111	75-130				
1,1-Dichloroethylene	59		"	50.0		119	64-137				
1,2,3-Trichlorobenzene	60		"	50.0		119	81-140				
1,2,3-Trichloropropane	59		"	50.0		118	81-126				
1,2,4-Trichlorobenzene	63		"	50.0		126	80-141				
1,2,4-Trimethylbenzene	62		"	50.0		125	84-125				
1,2,4-Trimethylbenzene	62		"	50.0		125	84-125				
1,2-Dibromo-3-chloropropane	55		"	50.0		109	74-142				
1,2-Dibromoethane	57		"	50.0		114	86-123				
1,2-Dichlorobenzene	59		"	50.0		118	85-122				
1,2-Dichloroethane	55		"	50.0		109	71-133				
1,2-Dichloropropane	52		"	50.0		103	81-122				
1,3,5-Trimethylbenzene	61		"	50.0		122	82-126				
1,3,5-Trimethylbenzene	61		"	50.0		122	82-126				
1,3-Dichlorobenzene	59		"	50.0		119	84-124				
1,4-Dichlorobenzene	60		"	50.0		120	84-124				
1,4-Dioxane	1300		"	1050		126	10-228				
2-Butanone	65		"	50.0		129	58-147				
2-Hexanone	49		"	50.0		98.3	70-139				
4-Methyl-2-pentanone	48		"	50.0		96.8	72-132				
Acetone	37		"	50.0		74.4	36-155				
Acrolein	57		"	50.0		114	10-238				
Acrylonitrile	53		"	50.0		107	66-141				
Benzene	60		"	50.0		120	77-127				

Volatile Organic Compounds by GC/MS - Quality Control Data

York Analytical Laboratories, Inc.

Batch BK00206 - EPA 5035A

LCS (BK00206-BS1) Prepared & Analyzed: 11/03/2020

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
Benzene	60		ug/L	50.0		120	77-127				
Bromochloromethane	50		"	50.0		100	74-129				
Bromodichloromethane	57		"	50.0		114	81-124				
Bromoform	57		"	50.0		115	80-136				
Bromomethane	76		"	50.0		152	32-177				
Carbon disulfide	61		"	50.0		122	10-136				
Carbon tetrachloride	64		"	50.0		128	66-143				
Chlorobenzene	58		"	50.0		116	86-120				
Chloroethane	75		"	50.0		151	51-142	High Bias			
Chloroform	60		"	50.0		121	76-131				
Chloromethane	57		"	50.0		115	49-132				
cis-1,2-Dichloroethylene	57		"	50.0		113	74-132				
cis-1,3-Dichloropropylene	57		"	50.0		114	81-129				
Cyclohexane	56		"	50.0		112	70-130				
Dibromochloromethane	59		"	50.0		119	10-200				
Dibromomethane	54		"	50.0		108	83-124				
Dichlorodifluoromethane	86		"	50.0		171	28-158	High Bias			
Ethyl Benzene	60		"	50.0		120	84-125				
Ethyl Benzene	60		"	50.0		120	84-125				
Hexachlorobutadiene	60		"	50.0		119	83-133				
Isopropylbenzene	59		"	50.0		119	81-127				
Isopropylbenzene	59		"	50.0		119	81-127				
Methyl acetate	50		"	50.0		99.8	41-143				
Methyl tert-butyl ether (MTBE)	58		"	50.0		117	74-131				
Methyl tert-butyl ether (MTBE)	58		"	50.0		117	74-131				
Methylcyclohexane	59		"	50.0		117	70-130				
Methylene chloride	54		"	50.0		107	57-141				
Naphthalene	58		"	50.0		115	86-141				
n-Butylbenzene	62		"	50.0		124	80-130				
n-Butylbenzene	62		"	50.0		124	80-130				
n-Propylbenzene	60		"	50.0		120	74-136				
n-Propylbenzene	60		"	50.0		120	74-136				
o-Xylene	59		"	50.0		118	83-123				
o-Xylene	59		"	50.0		118	83-123				
p- & m- Xylenes	120		"	100		121	82-128				
p- & m- Xylenes	120		"	100		121	82-128				
p-Isopropyltoluene	63		"	50.0		125	85-125				
p-Isopropyltoluene	63		"	50.0		125	85-125				
sec-Butylbenzene	64		"	50.0		128	83-125	High Bias			
sec-Butylbenzene	64		"	50.0		128	83-125	High Bias			
Styrene	61		"	50.0		123	86-126				
tert-Butyl alcohol (TBA)	240		"	250		96.9	70-130				
tert-Butylbenzene	52		"	50.0		105	80-127				
tert-Butylbenzene	52		"	50.0		105	80-127				
Tetrachloroethylene	52		"	50.0		103	80-129				
Toluene	58		"	50.0		116	85-121				
Toluene	58		"	50.0		116	85-121				
trans-1,2-Dichloroethylene	58		"	50.0		116	72-132				
trans-1,3-Dichloropropylene	55		"	50.0		111	78-132				
Trichloroethylene	59		"	50.0		118	84-123				
Trichlorofluoromethane	69		"	50.0		139	62-140				

Batch BK00206 - EPA 5035A

LCS (BK00206-BS1)

Prepared & Analyzed: 11/03/2020

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
Vinyl Chloride	66		ug/L	50.0		132	52-130	High Bias			
Surrogate: SURR: 1,2-Dichloroethane-d4	*50.2*		"	*50.0*		*100*	*77-125*				
Surrogate: SURR: 1,2-Dichloroethane-d4	*50.2*		"	*50.0*		*100*	*77-125*				
Surrogate: SURR: Toluene-d8	*50.4*		"	*50.0*		*101*	*85-120*				
Surrogate: SURR: Toluene-d8	*50.4*		"	*50.0*		*101*	*85-120*				
Surrogate: SURR: p-Bromofluorobenzene	*49.9*		"	*50.0*		*99.8*	*76-130*				
Surrogate: SURR: p-Bromofluorobenzene	*49.9*		"	*50.0*		*99.8*	*76-130*				

LCS Dup (BK00206-BSD1)

Prepared & Analyzed: 11/03/2020

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
1,1,1,2-Tetrachloroethane	47		ug/L	50.0		93.1	75-129		24.8	30	
1,1,1-Trichloroethane	49		"	50.0		98.8	71-137		21.9	30	
1,1,2,2-Tetrachloroethane	45		"	50.0		91.0	79-129		22.2	30	
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	53		"	50.0		105	58-146		20.1	30	
1,1,2-Trichloroethane	46		"	50.0		91.8	83-123		22.1	30	
1,1-Dichloroethane	45		"	50.0		89.2	75-130		21.5	30	
1,1-Dichloroethylene	47		"	50.0		93.9	64-137		23.5	30	
1,2,3-Trichlorobenzene	48		"	50.0		95.1	81-140		22.7	30	
1,2,3-Trichloropropane	46		"	50.0		91.8	81-126		24.7	30	
1,2,4-Trichlorobenzene	49		"	50.0		98.6	80-141		24.6	30	
1,2,4-Trimethylbenzene	50		"	50.0		99.4	84-125		22.6	30	
1,2,4-Trimethylbenzene	50		"	50.0		99.4	84-125		22.6	30	
1,2-Dibromo-3-chloropropane	40		"	50.0		79.2	74-142		31.7	30	Non-dir.
1,2-Dibromoethane	45		"	50.0		91.0	86-123		22.5	30	
1,2-Dichlorobenzene	47		"	50.0		93.8	85-122		22.7	30	
1,2-Dichloroethane	44		"	50.0		88.7	71-133		20.8	30	
1,2-Dichloropropane	42		"	50.0		83.2	81-122		21.3	30	
1,3,5-Trimethylbenzene	49		"	50.0		98.6	82-126		21.2	30	
1,3,5-Trimethylbenzene	49		"	50.0		98.6	82-126		21.2	30	
1,3-Dichlorobenzene	48		"	50.0		95.2	84-124		22.1	30	
1,4-Dichlorobenzene	48		"	50.0		95.9	84-124		22.3	30	
1,4-Dioxane	880		"	1050		83.5	10-228		40.9	30	Non-dir.
2-Butanone	52		"	50.0		104	58-147		21.9	30	
2-Hexanone	37		"	50.0		74.0	70-139		28.2	30	
4-Methyl-2-pentanone	38		"	50.0		75.2	72-132		25.0	30	
Acetone	30		"	50.0		60.4	36-155		20.7	30	
Acrolein	43		"	50.0		85.4	10-238		28.8	30	
Acrylonitrile	42		"	50.0		85.0	66-141		22.8	30	
Benzene	49		"	50.0		98.4	77-127		20.1	30	
Benzene	49		"	50.0		98.4	77-127		20.1	30	
Bromochloromethane	41		"	50.0		82.3	74-129		19.5	30	
Bromodichloromethane	44		"	50.0		88.9	81-124		25.0	30	
Bromoform	42		"	50.0		83.8	80-136		31.4	30	Non-dir.
Bromomethane	64		"	50.0		128	32-177		16.9	30	
Carbon disulfide	48		"	50.0		96.5	10-136		23.7	30	
Carbon tetrachloride	49		"	50.0		97.2	66-143		27.5	30	
Chlorobenzene	46		"	50.0		92.8	86-120		22.5	30	
Chloroethane	63		"	50.0		126	51-142		18.0	30	
Chloroform	49		"	50.0		98.8	76-131		19.8	30	
Chloromethane	47		"	50.0		94.6	49-132		19.1	30	
cis-1,2-Dichloroethylene	46		"	50.0		91.0	74-132		21.8	30	

Volatile Organic Compounds by GC/MS - Quality Control Data

York Analytical Laboratories, Inc.

Batch BK00206 - EPA 5035A

LCS Dup (BK00206-BSD1) Prepared & Analyzed: 11/03/2020

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
cis-1,3-Dichloropropylene	44		ug/L	50.0		87.4	81-129		26.2	30	
Cyclohexane	45		"	50.0		90.9	70-130		21.0	30	
Dibromochloromethane	45		"	50.0		90.4	10-200		27.3	30	
Dibromomethane	42		"	50.0		84.3	83-124		24.4	30	
Dichlorodifluoromethane	66		"	50.0		131	28-158		26.6	30	
Ethyl Benzene	48		"	50.0		97.0	84-125		20.8	30	
Ethyl Benzene	48		"	50.0		97.0	84-125		20.8	30	
Hexachlorobutadiene	48		"	50.0		95.7	83-133		22.1	30	
Isopropylbenzene	48		"	50.0		95.5	81-127		21.7	30	
Isopropylbenzene	48		"	50.0		95.5	81-127		21.7	30	
Methyl acetate	39		"	50.0		77.2	41-143		25.5	30	
Methyl tert-butyl ether (MTBE)	47		"	50.0		93.9	74-131		21.6	30	
Methyl tert-butyl ether (MTBE)	47		"	50.0		93.9	74-131		21.6	30	
Methylcyclohexane	46		"	50.0		92.9	70-130		23.2	30	
Methylene chloride	44		"	50.0		87.3	57-141		20.3	30	
Naphthalene	45		"	50.0		90.3	86-141		24.5	30	
n-Butylbenzene	50		"	50.0		99.1	80-130		22.2	30	
n-Butylbenzene	50		"	50.0		99.1	80-130		22.2	30	
n-Propylbenzene	48		"	50.0		96.5	74-136		22.0	30	
n-Propylbenzene	48		"	50.0		96.5	74-136		22.0	30	
o-Xylene	47		"	50.0		95.0	83-123		21.8	30	
o-Xylene	47		"	50.0		95.0	83-123		21.8	30	
p- & m- Xylenes	96		"	100		95.8	82-128		22.9	30	
p- & m- Xylenes	96		"	100		95.8	82-128		22.9	30	
p-Isopropyltoluene	50		"	50.0		99.5	85-125		22.8	30	
p-Isopropyltoluene	50		"	50.0		99.5	85-125		22.8	30	
sec-Butylbenzene	51		"	50.0		102	83-125		22.4	30	
sec-Butylbenzene	51		"	50.0		102	83-125		22.4	30	
Styrene	49		"	50.0		97.6	86-126		23.0	30	
tert-Butyl alcohol (TBA)	180		"	250		71.4	70-130		30.3	30	Non-dir.
tert-Butylbenzene	43		"	50.0		85.1	80-127		20.7	30	
tert-Butylbenzene	43		"	50.0		85.1	80-127		20.7	30	
Tetrachloroethylene	41		"	50.0		81.6	80-129		23.5	30	
Toluene	47		"	50.0		93.8	85-121		21.1	30	
Toluene	47		"	50.0		93.8	85-121		21.1	30	
trans-1,2-Dichloroethylene	47		"	50.0		93.7	72-132		21.4	30	
trans-1,3-Dichloropropylene	41		"	50.0		82.0	78-132		29.8	30	
Trichloroethylene	47		"	50.0		94.1	84-123		22.3	30	
Trichlorofluoromethane	54		"	50.0		108	62-140		24.9	30	
Vinyl Chloride	54		"	50.0		107	52-130		20.6	30	
Surrogate: SURR: 1,2-Dichloroethane-d4	*49.3*		*"*	*50.0*		*98.6*	*77-125*				
Surrogate: SURR: 1,2-Dichloroethane-d4	*49.3*		*"*	*50.0*		*98.6*	*77-125*				
Surrogate: SURR: Toluene-d8	*50.0*		*"*	*50.0*		*100*	*85-120*				
Surrogate: SURR: Toluene-d8	*50.0*		*"*	*50.0*		*100*	*85-120*				
Surrogate: SURR: p-Bromofluorobenzene	*49.4*		*"*	*50.0*		*98.8*	*76-130*				
Surrogate: SURR: p-Bromofluorobenzene	*49.4*		*"*	*50.0*		*98.8*	*76-130*				

Volatile Organic Compounds by GC/MS - Quality Control Data

York Analytical Laboratories, Inc.

Batch BK00262 - EPA 5035A

Blank (BK00262-BLK1) Prepared: 11/02/2020 Analyzed: 11/03/2020

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
1,2,4-Trimethylbenzene	ND	5.0	ug/kg wet								
1,3,5-Trimethylbenzene	ND	5.0	"								
Benzene	ND	5.0	"								
Ethyl Benzene	ND	5.0	"								
Isopropylbenzene	ND	5.0	"								
Methyl tert-butyl ether (MTBE)	ND	5.0	"								
Naphthalene	ND	10	"								
n-Butylbenzene	ND	5.0	"								
n-Propylbenzene	ND	5.0	"								
o-Xylene	ND	5.0	"								
p- & m- Xylenes	ND	5.0	"								
p-Isopropyltoluene	ND	5.0	"								
sec-Butylbenzene	ND	5.0	"								
tert-Butylbenzene	ND	5.0	"								
Toluene	ND	5.0	"								
Xylenes, Total	ND	5.0	"								
Surrogate: SURR: 1,2-Dichloroethane-d4	*47.4*		*ug/L*	*50.0*		*94.7*	*77-125*				
Surrogate: SURR: Toluene-d8	*47.0*		*"*	*50.0*		*94.1*	*85-120*				
Surrogate: SURR: p-Bromofluorobenzene	*45.7*		*"*	*50.0*		*91.4*	*76-130*				

LCS (BK00262-BS1) Prepared: 11/02/2020 Analyzed: 11/03/2020

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
1,2,4-Trimethylbenzene	45		ug/L	50.0		89.2	84-125				
1,3,5-Trimethylbenzene	43		"	50.0		85.6	82-126				
Benzene	49		"	50.0		97.0	77-127				
Ethyl Benzene	47		"	50.0		93.1	84-125				
Isopropylbenzene	40		"	50.0		80.3	81-127	Low Bias			
Methyl tert-butyl ether (MTBE)	56		"	50.0		112	74-131				
Naphthalene	49		"	50.0		98.4	86-141				
n-Butylbenzene	40		"	50.0		80.9	80-130				
n-Propylbenzene	40		"	50.0		80.5	74-136				
o-Xylene	47		"	50.0		95.0	83-123				
p- & m- Xylenes	94		"	100		93.7	82-128				
p-Isopropyltoluene	41		"	50.0		81.7	85-125	Low Bias			
sec-Butylbenzene	43		"	50.0		85.7	83-125				
tert-Butylbenzene	40		"	50.0		79.1	80-127	Low Bias			
Toluene	46		"	50.0		93.0	85-121				
Surrogate: SURR: 1,2-Dichloroethane-d4	*48.2*		*"*	*50.0*		*96.5*	*77-125*				
Surrogate: SURR: Toluene-d8	*47.5*		*"*	*50.0*		*94.9*	*85-120*				
Surrogate: SURR: p-Bromofluorobenzene	*46.2*		*"*	*50.0*		*92.4*	*76-130*				

Batch BK00183 - EPA 3550C

Blank (BK00183-BLK1) Prepared: 11/04/2020 Analyzed: 11/05/2020

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
Acenaphthene	ND	42	ug/kg wet								
Acenaphthylene	ND	42	"								
Anthracene	ND	42	"								
Benzo(a)anthracene	ND	42	"								
Benzo(a)pyrene	ND	42	"								
Benzo(b)fluoranthene	ND	42	"								
Benzo(g,h,i)perylene	ND	42	"								
Benzo(k)fluoranthene	ND	42	"								
Chrysene	ND	42	"								
Dibenzo(a,h)anthracene	ND	42	"								
Fluoranthene	ND	42	"								
Fluorene	ND	42	"								
Indeno(1,2,3-cd)pyrene	ND	42	"								
Naphthalene	ND	42	"								
Phenanthrene	ND	42	"								
Pyrene	ND	42	"								
Surrogate: SURR: Nitrobenzene-d5	*550*		*"*	*831*		*66.4*	*22-108*				
Surrogate: SURR: 2-Fluorobiphenyl	*640*		*"*	*831*		*76.6*	*21-113*				
Surrogate: SURR: Terphenyl-d14	*750*		*"*	*831*		*89.9*	*24-116*				

LCS (BK00183-BS1) Prepared: 11/04/2020 Analyzed: 11/05/2020

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
Acenaphthene	480	42	ug/kg wet	831		57.4	17-124				
Acenaphthylene	470	42	"	831		57.1	16-124				
Anthracene	490	42	"	831		59.5	24-124				
Benzo(a)anthracene	490	42	"	831		59.4	25-134				
Benzo(a)pyrene	480	42	"	831		57.8	29-144				
Benzo(b)fluoranthene	510	42	"	831		61.0	20-151				
Benzo(g,h,i)perylene	630	42	"	831		76.0	10-153				
Benzo(k)fluoranthene	510	42	"	831		61.2	10-148				
Chrysene	500	42	"	831		60.7	24-116				
Dibenzo(a,h)anthracene	500	42	"	831		60.8	17-147				
Fluoranthene	510	42	"	831		61.9	36-125				
Fluorene	500	42	"	831		59.7	16-130				
Indeno(1,2,3-cd)pyrene	600	42	"	831		72.5	10-155				
Naphthalene	490	42	"	831		58.8	20-121				
Phenanthrene	480	42	"	831		58.2	24-123				
Pyrene	480	42	"	831		57.6	24-132				
Surrogate: SURR: Nitrobenzene-d5	*450*		*"*	*831*		*53.6*	*22-108*				
Surrogate: SURR: 2-Fluorobiphenyl	*530*		*"*	*831*		*63.8*	*21-113*				
Surrogate: SURR: Terphenyl-d14	*610*		*"*	*831*		*73.9*	*24-116*				

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
Batch BK00185 - EPA 3550C											
Blank (BK00185-BLK1)								Prepared: 11/04/2020 Analyzed: 11/05/2020			
Acenaphthene	ND	42	ug/kg wet								
Acenaphthylene	ND	42	"								
Anthracene	ND	42	"								
Benzo(a)anthracene	ND	42	"								
Benzo(a)pyrene	ND	42	"								
Benzo(b)fluoranthene	ND	42	"								
Benzo(g,h,i)perylene	ND	42	"								
Benzo(k)fluoranthene	ND	42	"								
Chrysene	ND	42	"								
Dibenzo(a,h)anthracene	ND	42	"								
Fluoranthene	ND	42	"								
Fluorene	ND	42	"								
Indeno(1,2,3-cd)pyrene	ND	42	"								
Naphthalene	ND	42	"								
Phenanthrene	ND	42	"								
Pyrene	ND	42	"								
Surrogate: SURR: Nitrobenzene-d5	*750*		*"*	*831*		*90.4*	*22-108*				
Surrogate: SURR: 2-Fluorobiphenyl	*630*		*"*	*831*		*75.6*	*21-113*				
Surrogate: SURR: Terphenyl-d14	*790*		*"*	*831*		*94.7*	*24-116*				
LCS (BK00185-BS1)								Prepared: 11/04/2020 Analyzed: 11/05/2020			
Acenaphthene	430	42	ug/kg wet	831		51.7	17-124				
Acenaphthylene	430	42	"	831		52.1	16-124				
Anthracene	470	42	"	831		56.7	24-124				
Benzo(a)anthracene	520	42	"	831		62.8	25-134				
Benzo(a)pyrene	550	42	"	831		65.8	29-144				
Benzo(b)fluoranthene	580	42	"	831		70.0	20-151				
Benzo(g,h,i)perylene	520	42	"	831		62.8	10-153				
Benzo(k)fluoranthene	500	42	"	831		60.5	10-148				
Chrysene	490	42	"	831		58.5	24-116				
Dibenzo(a,h)anthracene	540	42	"	831		65.4	17-147				
Fluoranthene	460	42	"	831		55.8	36-125				
Fluorene	430	42	"	831		52.2	16-130				
Indeno(1,2,3-cd)pyrene	550	42	"	831		66.6	10-155				
Naphthalene	450	42	"	831		54.2	20-121				
Phenanthrene	450	42	"	831		54.4	24-123				
Pyrene	450	42	"	831		54.0	24-132				
Surrogate: SURR: Nitrobenzene-d5	*550*		*"*	*831*		*66.3*	*22-108*				
Surrogate: SURR: 2-Fluorobiphenyl	*440*		*"*	*831*		*52.8*	*21-113*				
Surrogate: SURR: Terphenyl-d14	*580*		*"*	*831*		*70.0*	*24-116*				

Semivolatile Organic Compounds by GC/MS - Quality Control Data

York Analytical Laboratories, Inc.

Batch BK00218 - EPA 3550C

Blank (BK00218-BLK1) Prepared & Analyzed: 11/05/2020

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
1,1-Biphenyl	ND	41.3	ug/kg wet								
1,2,4,5-Tetrachlorobenzene	ND	82.5	"								
1,2,4-Trichlorobenzene	ND	41.3	"								
1,2-Dichlorobenzene	ND	41.3	"								
1,2-Diphenylhydrazine (as Azobenzene)	ND	41.3	"								
1,3-Dichlorobenzene	ND	41.3	"								
1,4-Dichlorobenzene	ND	41.3	"								
2,3,4,6-Tetrachlorophenol	ND	82.5	"								
2,4,5-Trichlorophenol	ND	41.3	"								
2,4,6-Trichlorophenol	ND	41.3	"								
2,4-Dichlorophenol	ND	41.3	"								
2,4-Dimethylphenol	ND	41.3	"								
2,4-Dinitrophenol	ND	82.5	"								
2,4-Dinitrotoluene	ND	41.3	"								
2,6-Dinitrotoluene	ND	41.3	"								
2-Chloronaphthalene	ND	41.3	"								
2-Chlorophenol	ND	41.3	"								
2-Methylnaphthalene	ND	41.3	"								
2-Methylphenol	ND	41.3	"								
2-Nitroaniline	ND	82.5	"								
2-Nitrophenol	ND	41.3	"								
3- & 4-Methylphenols	ND	41.3	"								
3,3-Dichlorobenzidine	ND	41.3	"								
3-Nitroaniline	ND	82.5	"								
4,6-Dinitro-2-methylphenol	ND	82.5	"								
4-Bromophenyl phenyl ether	ND	41.3	"								
4-Chloro-3-methylphenol	ND	41.3	"								
4-Chloroaniline	ND	41.3	"								
4-Chlorophenyl phenyl ether	ND	41.3	"								
4-Nitroaniline	ND	82.5	"								
4-Nitrophenol	ND	82.5	"								
Acenaphthene	ND	41	"								
Acenaphthene	ND	41.3	"								
Acenaphthylene	ND	41	"								
Acenaphthylene	ND	41.3	"								
Acetophenone	ND	41.3	"								
Aniline	ND	165	"								
Anthracene	ND	41.3	"								
Anthracene	ND	41	"								
Atrazine	ND	41.3	"								
Benzaldehyde	ND	41.3	"								
Benzidine	ND	165	"								
Benzo(a)anthracene	ND	41.3	"								
Benzo(a)anthracene	ND	41	"								
Benzo(a)pyrene	ND	41.3	"								
Benzo(a)pyrene	ND	41	"								
Benzo(b)fluoranthene	ND	41.3	"								
Benzo(b)fluoranthene	ND	41	"								
Benzo(g,h,i)perylene	ND	41.3	"								
Benzo(g,h,i)perylene	ND	41	"								
Benzo(k)fluoranthene	ND	41.3	"								

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag

Batch BK00218 - EPA 3550C

Blank (BK00218-BLK1) Prepared & Analyzed: 11/05/2020

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
Benzo(k)fluoranthene	ND	41	ug/kg wet								
Benzoic acid	ND	41.3	"								
Benzyl alcohol	ND	41.3	"								
Benzyl butyl phthalate	ND	41.3	"								
Bis(2-chloroethoxy)methane	ND	41.3	"								
Bis(2-chloroethyl)ether	ND	41.3	"								
Bis(2-chloroisopropyl)ether	ND	41.3	"								
Bis(2-ethylhexyl)phthalate	ND	41.3	"								
Caprolactam	ND	82.5	"								
Carbazole	ND	41.3	"								
Chrysene	ND	41.3	"								
Chrysene	ND	41	"								
Dibenzo(a,h)anthracene	ND	41.3	"								
Dibenzo(a,h)anthracene	ND	41	"								
Dibenzofuran	ND	41.3	"								
Diethyl phthalate	ND	41.3	"								
Dimethyl phthalate	ND	41.3	"								
Di-n-butyl phthalate	ND	41.3	"								
Di-n-octyl phthalate	ND	41.3	"								
Diphenylamine	ND	82.5	"								
Fluoranthene	ND	41.3	"								
Fluoranthene	ND	41	"								
Fluorene	ND	41.3	"								
Fluorene	ND	41	"								
Hexachlorobenzene	ND	41.3	"								
Hexachlorobutadiene	ND	41.3	"								
Hexachlorocyclopentadiene	ND	41.3	"								
Hexachloroethane	ND	41.3	"								
Indeno(1,2,3-cd)pyrene	ND	41.3	"								
Indeno(1,2,3-cd)pyrene	ND	41	"								
Isophorone	ND	41.3	"								
Naphthalene	ND	41.3	"								
Naphthalene	ND	41	"								
Nitrobenzene	ND	41.3	"								
N-Nitrosodimethylamine	ND	41.3	"								
N-nitroso-di-n-propylamine	ND	41.3	"								
N-Nitrosodiphenylamine	ND	41.3	"								
Pentachlorophenol	ND	41.3	"								
Phenanthrene	ND	41.3	"								
Phenanthrene	ND	41	"								
Phenol	ND	41.3	"								
Pyrene	ND	41.3	"								
Pyrene	ND	41	"								
Surrogate: SURR: 2-Fluorophenol	*846*		*"*	*1650*		*51.3*	*20-108*				
Surrogate: SURR: Phenol-d5	*854*		*"*	*1650*		*51.8*	*23-114*				
Surrogate: SURR: Nitrobenzene-d5	*502*		*"*	*825*		*60.8*	*22-108*				
Surrogate: SURR: Nitrobenzene-d5	*500*		*"*	*825*		*60.8*	*22-108*				
Surrogate: SURR: 2-Fluorobiphenyl	*578*		*"*	*825*		*70.0*	*21-113*				
Surrogate: SURR: 2-Fluorobiphenyl	*580*		*"*	*825*		*70.0*	*21-113*				
Surrogate: SURR: 2,4,6-Tribromophenol	*1630*		*"*	*1650*		*98.8*	*19-110*				
Surrogate: SURR: Terphenyl-d14	*713*		*"*	*825*		*86.4*	*24-116*				

Semivolatile Organic Compounds by GC/MS - Quality Control Data

York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
Batch BK00218 - EPA 3550C											
Blank (BK00218-BLK1)								Prepared & Analyzed: 11/05/2020			
Surrogate: SURR: Terphenyl-d14	*710*		*ug/kg wet*	*825*		*86.4*	*24-116*				
LCS (BK00218-BS1)								Prepared & Analyzed: 11/05/2020			
1,1-Biphenyl	434	41.3	ug/kg wet	825		52.6	22-103				
1,2,4,5-Tetrachlorobenzene	480	82.5	"	825		58.2	10-144				
1,2,4-Trichlorobenzene	442	41.3	"	825		53.6	23-130				
1,2-Dichlorobenzene	356	41.3	"	825		43.1	26-113				
1,2-Diphenylhydrazine (as Azobenzene)	425	41.3	"	825		51.5	10-140				
1,3-Dichlorobenzene	358	41.3	"	825		43.4	32-113				
1,4-Dichlorobenzene	355	41.3	"	825		43.0	28-111				
2,3,4,6-Tetrachlorophenol	447	82.5	"	825		54.2	30-130				
2,4,5-Trichlorophenol	434	41.3	"	825		52.6	14-138				
2,4,6-Trichlorophenol	431	41.3	"	825		52.2	27-122				
2,4-Dichlorophenol	447	41.3	"	825		54.2	23-133				
2,4-Dimethylphenol	421	41.3	"	825		51.0	15-131				
2,4-Dinitrophenol	646	82.5	"	825		78.2	10-149				
2,4-Dinitrotoluene	589	41.3	"	825		71.4	30-123				
2,6-Dinitrotoluene	571	41.3	"	825		69.2	30-125				
2-Chloronaphthalene	391	41.3	"	825		47.4	22-115				
2-Chlorophenol	350	41.3	"	825		42.4	25-121				
2-Methylnaphthalene	443	41.3	"	825		53.6	16-127				
2-Methylphenol	359	41.3	"	825		43.5	10-146				
2-Nitroaniline	469	82.5	"	825		56.9	24-126				
2-Nitrophenol	524	41.3	"	825		63.6	17-129				
3- & 4-Methylphenols	320	41.3	"	825		38.8	20-109				
3,3-Dichlorobenzidine	445	41.3	"	825		53.9	10-147				
3-Nitroaniline	397	82.5	"	825		48.2	23-123				
4,6-Dinitro-2-methylphenol	815	82.5	"	825		98.7	10-149				
4-Bromophenyl phenyl ether	450	41.3	"	825		54.5	30-138				
4-Chloro-3-methylphenol	417	41.3	"	825		50.5	16-138				
4-Chloroaniline	268	41.3	"	825		32.5	10-117				
4-Chlorophenyl phenyl ether	444	41.3	"	825		53.8	18-132				
4-Nitroaniline	443	82.5	"	825		53.6	14-125				
4-Nitrophenol	376	82.5	"	825		45.6	10-136				
Acenaphthene	378	41.3	"	825		45.8	17-124				
Acenaphthene	380	41	"	825		45.8	17-124				
Acenaphthylene	389	41.3	"	825		47.2	16-124				
Acenaphthylene	390	41	"	825		47.2	16-124				
Acetophenone	373	41.3	"	825		45.2	28-105				
Aniline	265	165	"	825		32.1	10-111				
Anthracene	412	41.3	"	825		49.9	24-124				
Anthracene	410	41	"	825		49.9	24-124				
Atrazine	518	41.3	"	825		62.8	22-120				
Benzaldehyde	361	41.3	"	825		43.8	21-100				
Benzo(a)anthracene	426	41.3	"	825		51.7	25-134				
Benzo(a)anthracene	430	41	"	825		51.7	25-134				
Benzo(a)pyrene	408	41.3	"	825		49.5	29-144				
Benzo(a)pyrene	410	41	"	825		49.5	29-144				
Benzo(b)fluoranthene	434	41.3	"	825		52.6	20-151				
Benzo(b)fluoranthene	430	41	"	825		52.6	20-151				
Benzo(g,h,i)perylene	459	41.3	"	825		55.7	10-153				

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
Batch BK00218 - EPA 3550C											
LCS (BK00218-BS1)							Prepared & Analyzed: 11/05/2020				
Benzo(g,h,i)perylene	460	41	ug/kg wet	825		55.7	10-153				
Benzo(k)fluoranthene	404	41.3	"	825		49.0	10-148				
Benzo(k)fluoranthene	400	41	"	825		49.0	10-148				
Benzoic acid	385	41.3	"	825		46.7	10-116				
Benzyl alcohol	369	41.3	"	825		44.7	17-128				
Benzyl butyl phthalate	414	41.3	"	825		50.2	10-132				
Bis(2-chloroethoxy)methane	373	41.3	"	825		45.2	10-129				
Bis(2-chloroethyl)ether	324	41.3	"	825		39.3	14-125				
Bis(2-chloroisopropyl)ether	348	41.3	"	825		42.2	14-122				
Bis(2-ethylhexyl)phthalate	428	41.3	"	825		51.9	10-141				
Caprolactam	505	82.5	"	825		61.2	10-123				
Carbazole	424	41.3	"	825		51.4	31-120				
Chrysene	406	41.3	"	825		49.2	24-116				
Chrysene	410	41	"	825		49.2	24-116				
Dibenzo(a,h)anthracene	438	41.3	"	825		53.1	17-147				
Dibenzo(a,h)anthracene	440	41	"	825		53.1	17-147				
Dibenzofuran	403	41.3	"	825		48.8	23-123				
Diethyl phthalate	416	41.3	"	825		50.4	23-122				
Dimethyl phthalate	404	41.3	"	825		49.0	28-127				
Di-n-butyl phthalate	438	41.3	"	825		53.1	19-123				
Di-n-octyl phthalate	475	41.3	"	825		57.6	10-132				
Diphenylamine	644	82.5	"	825		78.1	40-140				
Fluoranthene	434	41.3	"	825		52.6	36-125				
Fluoranthene	430	41	"	825		52.6	36-125				
Fluorene	400	41	"	825		48.1	16-130				
Fluorene	397	41.3	"	825		48.1	16-130				
Hexachlorobenzene	367	41.3	"	825		44.4	10-129				
Hexachlorobutadiene	515	41.3	"	825		62.4	22-153				
Hexachlorocyclopentadiene	222	41.3	"	825		27.0	10-134				
Hexachloroethane	348	41.3	"	825		42.1	20-112				
Indeno(1,2,3-cd)pyrene	480	41	"	825		58.6	10-155				
Indeno(1,2,3-cd)pyrene	483	41.3	"	825		58.6	10-155				
Isophorone	381	41.3	"	825		46.2	14-131				
Naphthalene	400	41	"	825		49.1	20-121				
Naphthalene	405	41.3	"	825		49.1	20-121				
Nitrobenzene	383	41.3	"	825		46.5	20-121				
N-Nitrosodimethylamine	216	41.3	"	825		26.1	10-124				
N-nitroso-di-n-propylamine	327	41.3	"	825		39.6	21-119				
N-Nitrosodiphenylamine	593	41.3	"	825		71.8	10-163				
Pentachlorophenol	444	41.3	"	825		53.8	10-143				
Phenanthrene	410	41	"	825		49.8	24-123				
Phenanthrene	411	41.3	"	825		49.8	24-123				
Phenol	344	41.3	"	825		41.6	15-123				
Pyrene	415	41.3	"	825		50.3	24-132				
Pyrene	420	41	"	825		50.3	24-132				
Surrogate: SURR: 2-Fluorophenol	*605*		*"*	*1650*		*36.6*	*20-108*				
Surrogate: SURR: Phenol-d5	*615*		*"*	*1650*		*37.3*	*23-114*				
Surrogate: SURR: Nitrobenzene-d5	*401*		*"*	*825*		*48.6*	*22-108*				
Surrogate: SURR: Nitrobenzene-d5	*400*		*"*	*825*		*48.6*	*22-108*				
Surrogate: SURR: 2-Fluorobiphenyl	*398*		*"*	*825*		*48.2*	*21-113*				
Surrogate: SURR: 2-Fluorobiphenyl	*400*		*"*	*825*		*48.2*	*21-113*				

Semivolatile Organic Compounds by GC/MS - Quality Control Data

York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
Batch BK00218 - EPA 3550C											
LCS (BK00218-BS1)								Prepared & Analyzed: 11/05/2020			
Surrogate: SURR: 2,4,6-Tribromophenol	*1210*		*ug/kg wet*	*1650*		*73.2*	*19-110*				
Surrogate: SURR: Terphenyl-d14	*498*		*"*	*825*		*60.3*	*24-116*				
Surrogate: SURR: Terphenyl-d14	*500*		*"*	*825*		*60.3*	*24-116*				
Matrix Spike (BK00218-MS1)	*Source sample: 20J1329-08 (TP-18)							Prepared & Analyzed: 11/05/2020			
1,1-Biphenyl	600	87.1	ug/kg dry	871	ND	68.9	24-112				
1,2,4,5-Tetrachlorobenzene	693	174	"	871	ND	79.6	18-152				
1,2,4-Trichlorobenzene	603	87.1	"	871	ND	69.2	15-139				
1,2-Dichlorobenzene	495	87.1	"	871	ND	56.9	29-106				
1,2-Diphenylhydrazine (as Azobenzene)	582	87.1	"	871	ND	66.9	10-135				
1,3-Dichlorobenzene	477	87.1	"	871	ND	54.8	34-100				
1,4-Dichlorobenzene	472	87.1	"	871	ND	54.2	26-107				
2,3,4,6-Tetrachlorophenol	635	174	"	871	ND	72.9	30-130				
2,4,5-Trichlorophenol	658	87.1	"	871	ND	75.5	10-148				
2,4,6-Trichlorophenol	608	87.1	"	871	ND	69.8	12-138				
2,4-Dichlorophenol	575	87.1	"	871	ND	66.1	16-144				
2,4-Dimethylphenol	542	87.1	"	871	ND	62.2	11-133				
2,4-Dinitrophenol	99.6	174	"	871	ND	11.4	10-132				
2,4-Dinitrotoluene	709	87.1	"	871	ND	81.4	42-113				
2,6-Dinitrotoluene	735	87.1	"	871	ND	84.4	36-124				
2-Chloronaphthalene	557	87.1	"	871	ND	64.0	31-116				
2-Chlorophenol	479	87.1	"	871	ND	55.0	28-114				
2-Methylnaphthalene	601	87.1	"	871	ND	69.0	10-143				
2-Methylphenol	478	87.1	"	871	ND	54.9	10-160				
2-Nitroaniline	698	174	"	871	ND	80.2	33-122				
2-Nitrophenol	639	87.1	"	871	ND	73.4	12-127				
3- & 4-Methylphenols	433	87.1	"	871	ND	49.7	16-115				
3,3-Dichlorobenzidine	533	87.1	"	871	ND	61.2	10-134				
3-Nitroaniline	634	174	"	871	ND	72.8	24-128				
4,6-Dinitro-2-methylphenol	134	174	"	871	ND	15.4	10-149				
4-Bromophenyl phenyl ether	629	87.1	"	871	ND	72.2	32-148				
4-Chloro-3-methylphenol	554	87.1	"	871	ND	63.6	14-138				
4-Chloroaniline	399	87.1	"	871	ND	45.8	10-124				
4-Chlorophenyl phenyl ether	628	87.1	"	871	ND	72.1	10-153				
4-Nitroaniline	630	174	"	871	ND	72.3	10-151				
4-Nitrophenol	504	174	"	871	ND	57.8	10-141				
Acenaphthene	538	87.1	"	871	ND	61.8	13-133				
Acenaphthene	540	87	"	871	ND	61.8	13-133				
Acenaphthylene	570	87	"	871	ND	65.8	25-125				
Acenaphthylene	573	87.1	"	871	ND	65.8	25-125				
Acetophenone	512	87.1	"	871	ND	58.8	25-105				
Aniline	226	349	"	871	ND	26.0	10-112				
Anthracene	589	87.1	"	871	ND	67.7	27-128				
Anthracene	590	87	"	871	ND	67.7	27-128				
Atrazine	686	87.1	"	871	ND	78.8	10-139				
Benzaldehyde	485	87.1	"	871	ND	55.8	24-96				
Benzo(a)anthracene	630	87	"	871	ND	72.6	20-147				
Benzo(a)anthracene	632	87.1	"	871	ND	72.6	20-147				
Benzo(a)pyrene	590	87	"	871	ND	67.8	18-153				
Benzo(a)pyrene	590	87.1	"	871	ND	67.8	18-153				
Benzo(b)fluoranthene	623	87.1	"	871	ND	71.5	10-163				

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
Batch BK00218 - EPA 3550C											
Matrix Spike (BK00218-MS1)	*Source sample: 20J1329-08 (TP-18)						Prepared & Analyzed: 11/05/2020				
Benzo(b)fluoranthene	620	87	ug/kg dry	871	ND	71.5	10-163				
Benzo(g,h,i)perylene	660	87	"	871	ND	75.9	10-157				
Benzo(g,h,i)perylene	661	87.1	"	871	ND	75.9	10-157				
Benzo(k)fluoranthene	600	87	"	871	ND	69.4	10-157				
Benzo(k)fluoranthene	605	87.1	"	871	ND	69.4	10-157				
Benzoic acid	516	87.1	"	871	ND	59.3	10-130				
Benzyl alcohol	491	87.1	"	871	ND	56.4	20-122				
Benzyl butyl phthalate	597	87.1	"	871	ND	68.6	10-129				
Bis(2-chloroethoxy)methane	497	87.1	"	871	ND	57.0	12-128				
Bis(2-chloroethyl)ether	467	87.1	"	871	ND	53.7	18-113				
Bis(2-chloroisopropyl)ether	492	87.1	"	871	ND	56.5	10-130				
Bis(2-ethylhexyl)phthalate	605	87.1	"	871	ND	69.5	10-138				
Caprolactam	554	174	"	871	ND	63.7	10-100				
Carbazole	604	87.1	"	871	ND	69.4	24-139				
Chrysene	600	87.1	"	871	ND	69.0	18-133				
Chrysene	600	87	"	871	ND	69.0	18-133				
Dibenzo(a,h)anthracene	632	87.1	"	871	ND	72.6	10-146				
Dibenzo(a,h)anthracene	630	87	"	871	ND	72.6	10-146				
Dibenzofuran	584	87.1	"	871	ND	67.0	26-134				
Diethyl phthalate	577	87.1	"	871	ND	66.3	30-119				
Dimethyl phthalate	574	87.1	"	871	ND	65.9	34-120				
Di-n-butyl phthalate	607	87.1	"	871	ND	69.7	20-128				
Di-n-octyl phthalate	705	87.1	"	871	ND	81.0	10-133				
Diphenylamine	910	174	"	871	ND	104	40-140				
Fluoranthene	638	87.1	"	871	ND	73.3	10-155				
Fluoranthene	640	87	"	871	ND	73.3	10-155				
Fluorene	567	87.1	"	871	ND	65.1	12-150				
Fluorene	570	87	"	871	ND	65.1	12-150				
Hexachlorobenzene	515	87.1	"	871	ND	59.1	16-142				
Hexachlorobutadiene	692	87.1	"	871	ND	79.4	11-150				
Hexachlorocyclopentadiene	ND	87.1	"	871	ND		10-115	Low Bias			
Hexachloroethane	370	87.1	"	871	ND	42.5	14-106				
Indeno(1,2,3-cd)pyrene	750	87	"	871	ND	86.1	10-155				
Indeno(1,2,3-cd)pyrene	749	87.1	"	871	ND	86.1	10-155				
Isophorone	504	87.1	"	871	ND	57.9	14-127				
Naphthalene	550	87	"	871	ND	63.7	15-132				
Naphthalene	554	87.1	"	871	ND	63.7	15-132				
Nitrobenzene	492	87.1	"	871	ND	56.6	18-125				
N-Nitrosodimethylamine	280	87.1	"	871	ND	32.2	10-123				
N-nitroso-di-n-propylamine	440	87.1	"	871	ND	50.5	23-115				
N-Nitrosodiphenylamine	794	87.1	"	871	ND	91.2	16-166				
Pentachlorophenol	623	87.1	"	871	ND	71.5	10-160				
Phenanthrene	600	87.1	"	871	ND	68.9	10-151				
Phenanthrene	600	87	"	871	ND	68.9	10-151				
Phenol	472	87.1	"	871	ND	54.2	11-124				
Pyrene	621	87.1	"	871	ND	71.3	13-148				
Pyrene	620	87	"	871	ND	71.3	13-148				
Surrogate: SURR: 2-Fluorophenol	*849*		*"*	*1740*		*48.8*	*20-108*				
Surrogate: SURR: Phenol-d5	*878*		*"*	*1740*		*50.4*	*23-114*				
Surrogate: SURR: Nitrobenzene-d5	*554*		*"*	*871*		*63.7*	*22-108*				
Surrogate: SURR: Nitrobenzene-d5	*550*		*"*	*871*		*63.7*	*22-108*				

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
Batch BK00218 - EPA 3550C											
Matrix Spike (BK00218-MS1)	*Source sample: 20J1329-08 (TP-18)							Prepared & Analyzed: 11/05/2020			
Surrogate: SURR: 2-Fluorobiphenyl	*590*		*ug/kg dry*	*871*		*68.2*	*21-113*				
Surrogate: SURR: 2-Fluorobiphenyl	*594*		*"*	*871*		*68.2*	*21-113*				
Surrogate: SURR: 2,4,6-Tribromophenol	*1810*		*"*	*1740*		*104*	*19-110*				
Surrogate: SURR: Terphenyl-d14	*738*		*"*	*871*		*84.7*	*24-116*				
Surrogate: SURR: Terphenyl-d14	*740*		*"*	*871*		*84.7*	*24-116*				
Matrix Spike Dup (BK00218-MSD1)	*Source sample: 20J1329-08 (TP-18)							Prepared & Analyzed: 11/05/2020			
1,1-Biphenyl	581	87.1	ug/kg dry	871	ND	66.7	24-112		3.19	30	
1,2,4,5-Tetrachlorobenzene	675	174	"	871	ND	77.5	18-152		2.65	30	
1,2,4-Trichlorobenzene	607	87.1	"	871	ND	69.8	15-139		0.806	30	
1,2-Dichlorobenzene	490	87.1	"	871	ND	56.3	29-106		0.989	30	
1,2-Diphenylhydrazine (as Azobenzene)	547	87.1	"	871	ND	62.8	10-135		6.29	30	
1,3-Dichlorobenzene	465	87.1	"	871	ND	53.4	34-100		2.66	30	
1,4-Dichlorobenzene	486	87.1	"	871	ND	55.8	26-107		2.91	30	
2,3,4,6-Tetrachlorophenol	599	174	"	871	ND	68.8	30-130		5.76	30	
2,4,5-Trichlorophenol	614	87.1	"	871	ND	70.5	10-148		6.90	30	
2,4,6-Trichlorophenol	573	87.1	"	871	ND	65.8	12-138		5.90	30	
2,4-Dichlorophenol	583	87.1	"	871	ND	67.0	16-144		1.32	30	
2,4-Dimethylphenol	529	87.1	"	871	ND	60.8	11-133		2.34	30	
2,4-Dinitrophenol	ND	174	"	871	ND		10-132	Low Bias		30	
2,4-Dinitrotoluene	681	87.1	"	871	ND	78.2	42-113		4.01	30	
2,6-Dinitrotoluene	692	87.1	"	871	ND	79.5	36-124		5.95	30	
2-Chloronaphthalene	537	87.1	"	871	ND	61.7	31-116		3.69	30	
2-Chlorophenol	483	87.1	"	871	ND	55.4	28-114		0.724	30	
2-Methylnaphthalene	590	87.1	"	871	ND	67.8	10-143		1.87	30	
2-Methylphenol	472	87.1	"	871	ND	54.2	10-160		1.32	30	
2-Nitroaniline	653	174	"	871	ND	75.0	33-122		6.70	30	
2-Nitrophenol	650	87.1	"	871	ND	74.6	12-127		1.62	30	
3- & 4-Methylphenols	412	87.1	"	871	ND	47.4	16-115		4.78	30	
3,3-Dichlorobenzidine	483	87.1	"	871	ND	55.5	10-134		9.73	30	
3-Nitroaniline	586	174	"	871	ND	67.4	24-128		7.76	30	
4,6-Dinitro-2-methylphenol	159	174	"	871	ND	18.2	10-149		16.6	30	
4-Bromophenyl phenyl ether	611	87.1	"	871	ND	70.2	32-148		2.92	30	
4-Chloro-3-methylphenol	534	87.1	"	871	ND	61.3	14-138		3.72	30	
4-Chloroaniline	379	87.1	"	871	ND	43.5	10-124		5.19	30	
4-Chlorophenyl phenyl ether	603	87.1	"	871	ND	69.2	10-153		4.08	30	
4-Nitroaniline	593	174	"	871	ND	68.2	10-151		5.92	30	
4-Nitrophenol	476	174	"	871	ND	54.6	10-141		5.69	30	
Acenaphthene	520	87.1	"	871	ND	59.7	13-133		3.55	30	
Acenaphthene	520	87	"	871	ND	59.7	13-133		3.55	30	
Acenaphthylene	541	87.1	"	871	ND	62.1	25-125		5.88	30	
Acenaphthylene	540	87	"	871	ND	62.1	25-125		5.88	30	
Acetophenone	498	87.1	"	871	ND	57.2	25-105		2.76	30	
Aniline	187	349	"	871	ND	21.5	10-112		18.9	30	
Anthracene	540	87	"	871	ND	62.6	27-128		7.86	30	
Anthracene	545	87.1	"	871	ND	62.6	27-128		7.86	30	
Atrazine	621	87.1	"	871	ND	71.4	10-139		9.91	30	
Benzaldehyde	495	87.1	"	871	ND	56.8	24-96		1.85	30	
Benzo(a)anthracene	575	87.1	"	871	ND	66.1	20-147		9.46	30	
Benzo(a)anthracene	580	87	"	871	ND	66.1	20-147		9.46	30	
Benzo(a)pyrene	548	87.1	"	871	ND	63.0	18-153		7.34	30	

Semivolatile Organic Compounds by GC/MS - Quality Control Data

York Analytical Laboratories, Inc.

Batch BK00218 - EPA 3550C

Matrix Spike Dup (BK00218-MSD1) *Source sample: 20J1329-08 (TP-18) Prepared & Analyzed: 11/05/2020

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
Benzo(a)pyrene	550	87	ug/kg dry	871	ND	63.0	18-153		7.34	30	
Benzo(b)fluoranthene	580	87	"	871	ND	66.6	10-163		7.06	30	
Benzo(b)fluoranthene	580	87.1	"	871	ND	66.6	10-163		7.06	30	
Benzo(g,h,i)perylene	590	87	"	871	ND	67.8	10-157		11.4	30	
Benzo(g,h,i)perylene	590	87.1	"	871	ND	67.8	10-157		11.4	30	
Benzo(k)fluoranthene	550	87	"	871	ND	63.1	10-157		9.54	30	
Benzo(k)fluoranthene	550	87.1	"	871	ND	63.1	10-157		9.54	30	
Benzoic acid	536	87.1	"	871	ND	61.5	10-130		3.71	30	
Benzyl alcohol	490	87.1	"	871	ND	56.2	20-122		0.284	30	
Benzyl butyl phthalate	571	87.1	"	871	ND	65.6	10-129		4.41	30	
Bis(2-chloroethoxy)methane	488	87.1	"	871	ND	56.0	12-128		1.84	30	
Bis(2-chloroethyl)ether	469	87.1	"	871	ND	53.9	18-113		0.446	30	
Bis(2-chloroisopropyl)ether	483	87.1	"	871	ND	55.5	10-130		1.71	30	
Bis(2-ethylhexyl)phthalate	578	87.1	"	871	ND	66.4	10-138		4.59	30	
Caprolactam	540	174	"	871	ND	62.0	10-100		2.67	30	
Carbazole	559	87.1	"	871	ND	64.2	24-139		7.66	30	
Chrysene	560	87	"	871	ND	64.4	18-133		6.84	30	
Chrysene	561	87.1	"	871	ND	64.4	18-133		6.84	30	
Dibenzo(a,h)anthracene	580	87	"	871	ND	66.6	10-146		8.63	30	
Dibenzo(a,h)anthracene	580	87.1	"	871	ND	66.6	10-146		8.63	30	
Dibenzofuran	559	87.1	"	871	ND	64.2	26-134		4.39	30	
Diethyl phthalate	547	87.1	"	871	ND	62.8	30-119		5.45	30	
Dimethyl phthalate	545	87.1	"	871	ND	62.6	34-120		5.23	30	
Di-n-butyl phthalate	570	87.1	"	871	ND	65.5	20-128		6.15	30	
Di-n-octyl phthalate	660	87.1	"	871	ND	75.8	10-133		6.64	30	
Diphenylamine	839	174	"	871	ND	96.3	40-140		8.13	30	
Fluoranthene	570	87	"	871	ND	65.8	10-155		10.7	30	
Fluoranthene	573	87.1	"	871	ND	65.8	10-155		10.7	30	
Fluorene	540	87	"	871	ND	61.8	12-150		5.17	30	
Fluorene	538	87.1	"	871	ND	61.8	12-150		5.17	30	
Hexachlorobenzene	479	87.1	"	871	ND	55.0	16-142		7.29	30	
Hexachlorobutadiene	667	87.1	"	871	ND	76.6	11-150		3.69	30	
Hexachlorocyclopentadiene	ND	87.1	"	871	ND		10-115	Low Bias		30	
Hexachloroethane	342	87.1	"	871	ND	39.3	14-106		7.83	30	
Indeno(1,2,3-cd)pyrene	700	87	"	871	ND	79.9	10-155		7.42	30	
Indeno(1,2,3-cd)pyrene	696	87.1	"	871	ND	79.9	10-155		7.42	30	
Isophorone	495	87.1	"	871	ND	56.8	14-127		1.95	30	
Naphthalene	540	87	"	871	ND	62.3	15-132		2.16	30	
Naphthalene	543	87.1	"	871	ND	62.3	15-132		2.16	30	
Nitrobenzene	511	87.1	"	871	ND	58.6	18-125		3.61	30	
N-Nitrosodimethylamine	286	87.1	"	871	ND	32.9	10-123		2.21	30	
N-nitroso-di-n-propylamine	437	87.1	"	871	ND	50.2	23-115		0.636	30	
N-Nitrosodiphenylamine	764	87.1	"	871	ND	87.8	16-166		3.84	30	
Pentachlorophenol	564	87.1	"	871	ND	64.8	10-160		9.86	30	
Phenanthrene	540	87	"	871	ND	62.4	10-151		9.87	30	
Phenanthrene	543	87.1	"	871	ND	62.4	10-151		9.87	30	
Phenol	465	87.1	"	871	ND	53.4	11-124		1.34	30	
Pyrene	590	87	"	871	ND	67.5	13-148		5.42	30	
Pyrene	588	87.1	"	871	ND	67.5	13-148		5.42	30	
Surrogate: SURR: 2-Fluorophenol	*837*		*"*	*1740*		*48.1*	*20-108*				
Surrogate: SURR: Phenol-d5	*850*		*"*	*1740*		*48.8*	*23-114*				

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
Batch BK00218 - EPA 3550C											
Matrix Spike Dup (BK00218-MSD1)	*Source sample: 20J1329-08 (TP-18)						Prepared & Analyzed: 11/05/2020				
Surrogate: SURR: Nitrobenzene-d5	*560*		*ug/kg dry*	*871*		*64.3*	*22-108*				
Surrogate: SURR: Nitrobenzene-d5	*560*		*"*	*871*		*64.3*	*22-108*				
Surrogate: SURR: 2-Fluorobiphenyl	*570*		*"*	*871*		*65.4*	*21-113*				
Surrogate: SURR: 2-Fluorobiphenyl	*569*		*"*	*871*		*65.4*	*21-113*				
Surrogate: SURR: 2,4,6-Tribromophenol	*1670*		*"*	*1740*		*96.2*	*19-110*				
Surrogate: SURR: Terphenyl-d14	*710*		*"*	*871*		*81.1*	*24-116*				
Surrogate: SURR: Terphenyl-d14	*706*		*"*	*871*		*81.1*	*24-116*				

Batch BK00151 - EPA 3550C

Blank (BK00151-BLK1) Prepared: 11/04/2020 Analyzed: 11/05/2020

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
4,4'-DDD	ND	0.00164	mg/kg wet								
4,4'-DDE	ND	0.00164	"								
4,4'-DDT	ND	0.00164	"								
Aldrin	ND	0.00164	"								
alpha-BHC	ND	0.00164	"								
alpha-Chlordane	ND	0.00164	"								
beta-BHC	ND	0.00164	"								
Chlordane, total	ND	0.0329	"								
delta-BHC	ND	0.00164	"								
Dieldrin	ND	0.00164	"								
Endosulfan I	ND	0.00164	"								
Endosulfan II	ND	0.00164	"								
Endosulfan sulfate	ND	0.00164	"								
Endrin	ND	0.00164	"								
Endrin aldehyde	ND	0.00164	"								
Endrin ketone	ND	0.00164	"								
gamma-BHC (Lindane)	ND	0.00164	"								
gamma-Chlordane	ND	0.00164	"								
Heptachlor	ND	0.00164	"								
Heptachlor epoxide	ND	0.00164	"								
Methoxychlor	ND	0.00822	"								
Toxaphene	ND	0.0832	"								
Surrogate: Decachlorobiphenyl	*0.0861*		*"*	*0.0664*		*130*	*30-150*				
Surrogate: Tetrachloro-m-xylene	*0.0648*		*"*	*0.0664*		*97.5*	*30-150*				

LCS (BK00151-BS1) Prepared: 11/04/2020 Analyzed: 11/05/2020

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
4,4'-DDD	0.0351	0.00164	mg/kg wet	0.0332		106	40-140				
4,4'-DDE	0.0272	0.00164	"	0.0332		81.8	40-140				
4,4'-DDT	0.0282	0.00164	"	0.0332		84.7	40-140				
Aldrin	0.0359	0.00164	"	0.0332		108	40-140				
alpha-BHC	0.0308	0.00164	"	0.0332		92.8	40-140				
alpha-Chlordane	0.0328	0.00164	"	0.0332		98.6	40-140				
beta-BHC	0.0278	0.00164	"	0.0332		83.8	40-140				
delta-BHC	0.0345	0.00164	"	0.0332		104	40-140				
Dieldrin	0.0337	0.00164	"	0.0332		101	40-140				
Endosulfan I	0.0359	0.00164	"	0.0332		108	40-140				
Endosulfan II	0.0352	0.00164	"	0.0332		106	40-140				
Endosulfan sulfate	0.0361	0.00164	"	0.0332		109	40-140				
Endrin	0.0324	0.00164	"	0.0332		97.5	40-140				
Endrin aldehyde	0.0379	0.00164	"	0.0332		114	40-140				
Endrin ketone	0.0334	0.00164	"	0.0332		100	40-140				
gamma-BHC (Lindane)	0.0308	0.00164	"	0.0332		92.7	40-140				
gamma-Chlordane	0.0334	0.00164	"	0.0332		101	40-140				
Heptachlor	0.0338	0.00164	"	0.0332		102	40-140				
Heptachlor epoxide	0.0324	0.00164	"	0.0332		97.5	40-140				
Methoxychlor	0.0332	0.00822	"	0.0332		100	40-140				
Surrogate: Decachlorobiphenyl	*0.0955*		*"*	*0.0664*		*144*	*30-150*				
Surrogate: Tetrachloro-m-xylene	*0.0715*		*"*	*0.0664*		*108*	*30-150*				

Organochlorine Pesticides by GC/ECD - Quality Control Data

York Analytical Laboratories, Inc.

Batch BK00151 - EPA 3550C

Matrix Spike (BK00151-MS1) *Source sample: 20J1329-08 (TP-18) Prepared: 11/04/2020 Analyzed: 11/05/2020

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
4,4'-DDD	0.0382	0.00172	mg/kg dry	0.0347	ND	110	30-150				
4,4'-DDE	0.0318	0.00172	"	0.0347	ND	91.6	30-150				
4,4'-DDT	0.0322	0.00172	"	0.0347	ND	92.7	30-150				
Aldrin	0.0371	0.00172	"	0.0347	ND	107	30-150				
alpha-BHC	0.0329	0.00172	"	0.0347	ND	94.8	30-150				
alpha-Chlordane	0.0351	0.00172	"	0.0347	ND	101	30-150				
beta-BHC	0.0303	0.00172	"	0.0347	ND	87.2	30-150				
delta-BHC	0.0332	0.00172	"	0.0347	ND	95.7	30-150				
Dieldrin	0.0360	0.00172	"	0.0347	ND	104	30-150				
Endosulfan I	0.0388	0.00172	"	0.0347	ND	112	30-150				
Endosulfan II	0.0361	0.00172	"	0.0347	ND	104	30-150				
Endosulfan sulfate	0.0333	0.00172	"	0.0347	ND	96.1	30-150				
Endrin	0.0347	0.00172	"	0.0347	ND	99.9	30-150				
Endrin aldehyde	0.0328	0.00172	"	0.0347	ND	94.6	30-150				
Endrin ketone	0.0356	0.00172	"	0.0347	ND	103	30-150				
gamma-BHC (Lindane)	0.0330	0.00172	"	0.0347	ND	95.0	30-150				
gamma-Chlordane	0.0350	0.00172	"	0.0347	ND	101	30-150				
Heptachlor	0.0363	0.00172	"	0.0347	ND	105	30-150				
Heptachlor epoxide	0.0344	0.00172	"	0.0347	ND	99.0	30-150				
Methoxychlor	0.0373	0.00859	"	0.0347	ND	107	30-150				
Surrogate: Decachlorobiphenyl	*0.102*		*"*	*0.0694*		*147*	*30-150*				
Surrogate: Tetrachloro-m-xylene	*0.0737*		*"*	*0.0694*		*106*	*30-150*				

Matrix Spike Dup (BK00151-MSD1) *Source sample: 20J1329-08 (TP-18) Prepared: 11/04/2020 Analyzed: 11/05/2020

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
4,4'-DDD	0.0360	0.00172	mg/kg dry	0.0347	ND	104	30-150		5.82	30	
4,4'-DDE	0.0302	0.00172	"	0.0347	ND	87.0	30-150		5.12	30	
4,4'-DDT	0.0299	0.00172	"	0.0347	ND	86.1	30-150		7.40	30	
Aldrin	0.0353	0.00172	"	0.0347	ND	102	30-150		4.95	30	
alpha-BHC	0.0309	0.00172	"	0.0347	ND	89.0	30-150		6.27	30	
alpha-Chlordane	0.0332	0.00172	"	0.0347	ND	95.7	30-150		5.39	30	
beta-BHC	0.0279	0.00172	"	0.0347	ND	80.4	30-150		8.08	30	
delta-BHC	0.0315	0.00172	"	0.0347	ND	90.7	30-150		5.32	30	
Dieldrin	0.0341	0.00172	"	0.0347	ND	98.3	30-150		5.44	30	
Endosulfan I	0.0352	0.00172	"	0.0347	ND	101	30-150		9.71	30	
Endosulfan II	0.0342	0.00172	"	0.0347	ND	98.5	30-150		5.54	30	
Endosulfan sulfate	0.0316	0.00172	"	0.0347	ND	91.0	30-150		5.44	30	
Endrin	0.0328	0.00172	"	0.0347	ND	94.4	30-150		5.59	30	
Endrin aldehyde	0.0313	0.00172	"	0.0347	ND	90.2	30-150		4.75	30	
Endrin ketone	0.0335	0.00172	"	0.0347	ND	96.4	30-150		6.22	30	
gamma-BHC (Lindane)	0.0308	0.00172	"	0.0347	ND	88.8	30-150		6.70	30	
gamma-Chlordane	0.0331	0.00172	"	0.0347	ND	95.4	30-150		5.61	30	
Heptachlor	0.0339	0.00172	"	0.0347	ND	97.7	30-150		6.75	30	
Heptachlor epoxide	0.0326	0.00172	"	0.0347	ND	94.1	30-150		5.14	30	
Methoxychlor	0.0348	0.00859	"	0.0347	ND	100	30-150		6.82	30	
Surrogate: Decachlorobiphenyl	*0.0948*		*"*	*0.0694*		*137*	*30-150*				
Surrogate: Tetrachloro-m-xylene	*0.0697*		*"*	*0.0694*		*100*	*30-150*				

Organochlorine Pesticides by GC/ECD - Quality Control Data

York Analytical Laboratories, Inc.

Batch BK00171 - EPA 3550C

Blank (BK00171-BLK1) Prepared: 11/04/2020 Analyzed: 11/05/2020

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
4,4'-DDD	ND	0.00164	mg/kg wet								
4,4'-DDE	ND	0.00164	"								
4,4'-DDT	ND	0.00164	"								
Aldrin	ND	0.00164	"								
alpha-BHC	ND	0.00164	"								
alpha-Chlordane	ND	0.00164	"								
beta-BHC	ND	0.00164	"								
Chlordane, total	ND	0.0329	"								
delta-BHC	ND	0.00164	"								
Dieldrin	ND	0.00164	"								
Endosulfan I	ND	0.00164	"								
Endosulfan II	ND	0.00164	"								
Endosulfan sulfate	ND	0.00164	"								
Endrin	ND	0.00164	"								
Endrin aldehyde	ND	0.00164	"								
Endrin ketone	ND	0.00164	"								
gamma-BHC (Lindane)	ND	0.00164	"								
gamma-Chlordane	ND	0.00164	"								
Heptachlor	ND	0.00164	"								
Heptachlor epoxide	ND	0.00164	"								
Methoxychlor	ND	0.00822	"								
Toxaphene	ND	0.0832	"								
Surrogate: Decachlorobiphenyl	*0.0625*		*"*	*0.0664*		*94.0*	*30-150*				
Surrogate: Tetrachloro-m-xylene	*0.0464*		*"*	*0.0664*		*69.8*	*30-150*				

LCS (BK00171-BS1) Prepared: 11/04/2020 Analyzed: 11/05/2020

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
4,4'-DDD	0.0243	0.00164	mg/kg wet	0.0332		73.2	40-140				
4,4'-DDE	0.0178	0.00164	"	0.0332		53.6	40-140				
4,4'-DDT	0.0194	0.00164	"	0.0332		58.5	40-140				
Aldrin	0.0278	0.00164	"	0.0332		83.8	40-140				
alpha-BHC	0.0219	0.00164	"	0.0332		66.0	40-140				
alpha-Chlordane	0.0237	0.00164	"	0.0332		71.3	40-140				
beta-BHC	0.0195	0.00164	"	0.0332		58.6	40-140				
delta-BHC	0.0238	0.00164	"	0.0332		71.7	40-140				
Dieldrin	0.0243	0.00164	"	0.0332		73.2	40-140				
Endosulfan I	0.0254	0.00164	"	0.0332		76.4	40-140				
Endosulfan II	0.0249	0.00164	"	0.0332		74.9	40-140				
Endosulfan sulfate	0.0256	0.00164	"	0.0332		77.2	40-140				
Endrin	0.0233	0.00164	"	0.0332		70.1	40-140				
Endrin aldehyde	0.0260	0.00164	"	0.0332		78.3	40-140				
Endrin ketone	0.0235	0.00164	"	0.0332		70.7	40-140				
gamma-BHC (Lindane)	0.0221	0.00164	"	0.0332		66.4	40-140				
gamma-Chlordane	0.0241	0.00164	"	0.0332		72.5	40-140				
Heptachlor	0.0241	0.00164	"	0.0332		72.5	40-140				
Heptachlor epoxide	0.0236	0.00164	"	0.0332		71.0	40-140				
Methoxychlor	0.0197	0.00822	"	0.0332		59.4	40-140				
Surrogate: Decachlorobiphenyl	*0.0549*		*"*	*0.0664*		*82.6*	*30-150*				
Surrogate: Tetrachloro-m-xylene	*0.0451*		*"*	*0.0664*		*67.9*	*30-150*				

Batch BK00969 - EPA 3550C

Blank (BK00969-BLK1) Prepared & Analyzed: 11/18/2020

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
4,4'-DDD	ND	0.00162	mg/kg wet								
4,4'-DDE	ND	0.00162	"								
4,4'-DDT	ND	0.00162	"								
Aldrin	ND	0.00162	"								
alpha-BHC	ND	0.00162	"								
alpha-Chlordane	ND	0.00162	"								
beta-BHC	ND	0.00162	"								
Chlordane, total	ND	0.0325	"								
delta-BHC	ND	0.00162	"								
Dieldrin	ND	0.00162	"								
Endosulfan I	ND	0.00162	"								
Endosulfan II	ND	0.00162	"								
Endosulfan sulfate	ND	0.00162	"								
Endrin	ND	0.00162	"								
Endrin aldehyde	ND	0.00162	"								
Endrin ketone	ND	0.00162	"								
gamma-BHC (Lindane)	ND	0.00162	"								
gamma-Chlordane	ND	0.00162	"								
Heptachlor	ND	0.00162	"								
Heptachlor epoxide	ND	0.00162	"								
Methoxychlor	ND	0.00811	"								
Toxaphene	ND	0.0821	"								
Surrogate: Decachlorobiphenyl	*0.0886*		*"*	*0.0656*		*135*	*30-150*				
Surrogate: Tetrachloro-m-xylene	*0.0673*		*"*	*0.0656*		*103*	*30-150*				

LCS (BK00969-BS1) Prepared & Analyzed: 11/18/2020

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
4,4'-DDD	0.0405	0.00162	mg/kg wet	0.0328		123	40-140				
4,4'-DDE	0.0325	0.00162	"	0.0328		99.1	40-140				
4,4'-DDT	0.0341	0.00162	"	0.0328		104	40-140				
Aldrin	0.0395	0.00162	"	0.0328		120	40-140				
alpha-BHC	0.0418	0.00162	"	0.0328		128	40-140				
alpha-Chlordane	0.0401	0.00162	"	0.0328		122	40-140				
beta-BHC	0.0397	0.00162	"	0.0328		121	40-140				
delta-BHC	0.0414	0.00162	"	0.0328		126	40-140				
Dieldrin	0.0403	0.00162	"	0.0328		123	40-140				
Endosulfan I	0.0429	0.00162	"	0.0328		131	40-140				
Endosulfan II	0.0426	0.00162	"	0.0328		130	40-140				
Endosulfan sulfate	0.0424	0.00162	"	0.0328		129	40-140				
Endrin	0.0384	0.00162	"	0.0328		117	40-140				
Endrin aldehyde	0.0379	0.00162	"	0.0328		116	40-140				
Endrin ketone	0.0345	0.00162	"	0.0328		105	40-140				
gamma-BHC (Lindane)	0.0421	0.00162	"	0.0328		129	40-140				
gamma-Chlordane	0.0400	0.00162	"	0.0328		122	40-140				
Heptachlor	0.0417	0.00162	"	0.0328		127	40-140				
Heptachlor epoxide	0.0385	0.00162	"	0.0328		117	40-140				
Methoxychlor	0.0341	0.00811	"	0.0328		104	40-140				
Surrogate: Decachlorobiphenyl	*0.102*		*"*	*0.0656*		*155*	*30-150*				
Surrogate: Tetrachloro-m-xylene	*0.0766*		*"*	*0.0656*		*117*	*30-150*				

Organochlorine Pesticides by GC/ECD - Quality Control Data

York Analytical Laboratories, Inc.

Batch Y0I1101 - BI00252

Performance Mix (Y0I1101-PEM1) Prepared & Analyzed: 09/10/2020

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
4,4'-DDD	3.52		ng/mL	0.00			0-200				
4,4'-DDE	1.19		"	0.00			0-200				
4,4'-DDT	196		"	200		98.1	0-200				
Endrin	86.1		"	100		86.1	0-200				
Endrin aldehyde	2.77		"	0.00			0-200				
Endrin ketone	2.08		"	0.00			0-200				

Batch Y0K0629 - BJ01316

Performance Mix (Y0K0629-PEM1) Prepared & Analyzed: 11/05/2020

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
4,4'-DDD	7.70		ng/mL	0.00			0-200				
4,4'-DDE	1.04		"	0.00			0-200				
4,4'-DDT	139		"	200		69.3	0-200				
Endrin	71.1		"	100		71.1	0-200				
Endrin aldehyde	0.702		"	0.00			0-200				
Endrin ketone	3.30		"	0.00			0-200				

Performance Mix (Y0K0629-PEM2) Prepared & Analyzed: 11/05/2020

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
4,4'-DDD	7.49		ng/mL	0.00			0-200				
4,4'-DDE	1.06		"	0.00			0-200				
4,4'-DDT	152		"	200		76.2	0-200				
Endrin	76.2		"	100		76.2	0-200				
Endrin aldehyde	0.587		"	0.00			0-200				
Endrin ketone	3.61		"	0.00			0-200				

Batch Y0K1602 - BK00496

Performance Mix (Y0K1602-PEM1) Prepared & Analyzed: 11/13/2020

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
4,4'-DDD	7.41		ng/mL	0.00			0-200				
4,4'-DDE	3.72		"	0.00			0-200				
4,4'-DDT	142		"	200		71.1	0-200				
Endrin	70.8		"	100		70.8	0-200				
Endrin aldehyde	2.11		"	0.00			0-200				
Endrin ketone	3.75		"	0.00			0-200				

Organochlorine Pesticides by GC/ECD - Quality Control Data

York Analytical Laboratories, Inc.

Batch Y0K1903 - BJ01669

Performance Mix (Y0K1903-PEM1) Prepared & Analyzed: 11/18/2020

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
4,4'-DDD	10.5		ng/mL	0.00			0-200				
4,4'-DDE	1.27		"	0.00			0-200				
4,4'-DDT	161		"	200		80.7	0-200				
Endrin	84.2		"	100		84.2	0-200				
Endrin aldehyde	0.473		"	0.00			0-200				
Endrin ketone	3.41		"	0.00			0-200				

Performance Mix (Y0K1903-PEM2) Prepared & Analyzed: 11/18/2020

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
4,4'-DDD	16.0		ng/mL	0.00			0-200				
4,4'-DDE	1.69		"	0.00			0-200				
4,4'-DDT	144		"	200		72.2	0-200				
Endrin	77.9		"	100		77.9	0-200				
Endrin aldehyde	0.746		"	0.00			0-200				
Endrin ketone	5.63		"	0.00			0-200				

Polychlorinated Biphenyls by GC/ECD - Quality Control Data

York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
Batch BK00151 - EPA 3550C											
Blank (BK00151-BLK2)								Prepared: 11/04/2020 Analyzed: 11/05/2020			
Aroclor 1016	ND	0.0166	mg/kg wet								
Aroclor 1221	ND	0.0166	"								
Aroclor 1232	ND	0.0166	"								
Aroclor 1242	ND	0.0166	"								
Aroclor 1248	ND	0.0166	"								
Aroclor 1254	ND	0.0166	"								
Aroclor 1260	ND	0.0166	"								
Aroclor 1262	ND	0.0166	"								
Aroclor 1268	ND	0.0166	"								
Total PCBs	ND	0.0166	"								
Surrogate: Tetrachloro-m-xylene	*0.0635*		*"*	*0.0664*		*95.5*	*30-140*				
Surrogate: Decachlorobiphenyl	*0.0591*		*"*	*0.0664*		*89.0*	*30-140*				
LCS (BK00151-BS2)								Prepared: 11/04/2020 Analyzed: 11/05/2020			
Aroclor 1016	0.281	0.0166	mg/kg wet	0.332		84.6	40-130				
Aroclor 1260	0.267	0.0166	"	0.332		80.3	40-130				
Surrogate: Tetrachloro-m-xylene	*0.0522*		*"*	*0.0664*		*78.5*	*30-140*				
Surrogate: Decachlorobiphenyl	*0.0601*		*"*	*0.0664*		*90.5*	*30-140*				
Matrix Spike (BK00151-MS2)	*Source sample: 20J1329-08 (TP-18)							Prepared: 11/04/2020 Analyzed: 11/05/2020			
Aroclor 1016	0.145	0.0173	mg/kg dry	0.347	ND	41.8	40-140				
Aroclor 1260	0.132	0.0173	"	0.347	ND	38.2	40-140	Low Bias			
Surrogate: Tetrachloro-m-xylene	*0.0288*		*"*	*0.0694*		*41.5*	*30-140*				
Surrogate: Decachlorobiphenyl	*0.0295*		*"*	*0.0694*		*42.5*	*30-140*				
Matrix Spike Dup (BK00151-MSD2)	*Source sample: 20J1329-08 (TP-18)							Prepared: 11/04/2020 Analyzed: 11/05/2020			
Aroclor 1016	0.155	0.0173	mg/kg dry	0.347	ND	44.6	40-140		6.39	50	
Aroclor 1260	0.151	0.0173	"	0.347	ND	43.6	40-140		13.2	50	
Surrogate: Tetrachloro-m-xylene	*0.0302*		*"*	*0.0694*		*43.5*	*30-140*				
Surrogate: Decachlorobiphenyl	*0.0344*		*"*	*0.0694*		*49.5*	*30-140*				

Batch BK00171 - EPA 3550C

Blank (BK00171-BLK2) Prepared & Analyzed: 11/04/2020

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
Aroclor 1016	ND	0.0166	mg/kg wet								
Aroclor 1221	ND	0.0166	"								
Aroclor 1232	ND	0.0166	"								
Aroclor 1242	ND	0.0166	"								
Aroclor 1248	ND	0.0166	"								
Aroclor 1254	ND	0.0166	"								
Aroclor 1260	ND	0.0166	"								
Aroclor 1262	ND	0.0166	"								
Aroclor 1268	ND	0.0166	"								
Total PCBs	ND	0.0166	"								
Surrogate: Tetrachloro-m-xylene	*0.0392*		*"*	*0.0664*		*59.0*	*30-140*				
Surrogate: Decachlorobiphenyl	*0.0409*		*"*	*0.0664*		*61.5*	*30-140*				

LCS (BK00171-BS2) Prepared & Analyzed: 11/04/2020

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
Aroclor 1016	0.197	0.0166	mg/kg wet	0.332		59.4	40-130				
Aroclor 1260	0.171	0.0166	"	0.332		51.4	40-130				
Surrogate: Tetrachloro-m-xylene	*0.0475*		*"*	*0.0664*		*71.5*	*30-140*				
Surrogate: Decachlorobiphenyl	*0.0472*		*"*	*0.0664*		*71.0*	*30-140*				

Batch Y0K0443 - BK00171

Aroclor Reference (Y0K0443-ARC1) Prepared & Analyzed: 11/04/2020

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
Surrogate: Tetrachloro-m-xylene	*0.186*		*ug/mL*	*0.200*		*93.0*					
Surrogate: Decachlorobiphenyl	*0.182*		*"*	*0.200*		*91.0*					

Batch Y0K0526 - BK00151

Aroclor Reference (Y0K0526-ARC1) Prepared & Analyzed: 11/05/2020

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
Surrogate: Tetrachloro-m-xylene	*0.190*		*ug/mL*	*0.200*		*95.0*					
Surrogate: Decachlorobiphenyl	*0.172*		*"*	*0.200*		*86.0*					

Metals by ICP - Quality Control Data

York Analytical Laboratories, Inc.

Batch BJ01734 - EPA 3050B

Blank (BJ01734-BLK1) Prepared: 10/29/2020 Analyzed: 11/02/2020

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
Aluminum	ND	5.00	mg/kg wet								
Antimony	ND	2.50	"								
Arsenic	ND	1.50	"								
Barium	ND	2.50	"								
Beryllium	ND	0.050	"								
Cadmium	ND	0.300	"								
Calcium	ND	5.00	"								
Chromium	ND	0.500	"								
Cobalt	ND	0.400	"								
Copper	ND	2.00	"								
Iron	ND	25.0	"								
Lead	ND	0.500	"								
Magnesium	ND	5.00	"								
Manganese	ND	0.500	"								
Nickel	ND	1.00	"								
Potassium	ND	5.00	"								
Selenium	ND	2.50	"								
Silver	ND	0.500	"								
Sodium	ND	50.0	"								
Thallium	ND	2.50	"								
Vanadium	ND	1.00	"								
Zinc	3.38	2.50	"								

Reference (BJ01734-SRM1) Prepared: 10/29/2020 Analyzed: 11/02/2020

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
Aluminum	8630	5.00	mg/kg wet	8460		102	50.5-150.1				
Antimony	65.6	2.50	"	120		54.7	19-251.7				
Arsenic	98.0	1.50	"	95.5		103	70.1-129.8				
Barium	302	2.50	"	300		101	75-125				
Beryllium	99.8	0.050	"	103		96.9	75-125.2				
Cadmium	140	0.300	"	135		104	74.8-125.2				
Calcium	4640	5.00	"	4720		98.4	72.7-127.5				
Chromium	141	0.500	"	147		95.9	70.1-129.9				
Cobalt	45.1	0.400	"	43.2		104	75-125				
Copper	159	2.00	"	150		106	75.3-125.3				
Iron	13600	25.0	"	14400		94.6	35.8-164.6				
Lead	101	0.500	"	92.3		109	70-130				
Magnesium	2260	5.00	"	2300		98.1	61.7-137.8				
Manganese	691	0.500	"	677		102	78.1-122				
Nickel	68.7	1.00	"	59.8		115	70.1-130.1				
Potassium	2060	5.00	"	2030		101	59.1-140.9				
Selenium	28.1	2.50	"	42.0		66.9	55.7-144.5				
Silver	36.9	0.500	"	40.3		91.6	69.2-130.8				
Sodium	129	50.0	"	139		93.1	36.1-163.3				
Thallium	79.8	2.50	"	83.1		96.0	65.3-146.8				
Vanadium	91.6	1.00	"	96.9		94.5	67-133.1				
Zinc	372	2.50	"	369		101	69.9-130.1				

Batch BK01042 - EPA 3050B

Blank (BK01042-BLK1)

Prepared & Analyzed: 11/19/2020

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
Aluminum	ND	5.00	mg/kg wet								
Antimony	ND	2.50	"								
Arsenic	ND	1.50	"								
Barium	ND	2.50	"								
Beryllium	ND	0.050	"								
Cadmium	ND	0.300	"								
Calcium	11.0	5.00	"								
Chromium	ND	0.500	"								
Cobalt	ND	0.400	"								
Copper	ND	2.00	"								
Iron	ND	25.0	"								
Lead	ND	0.500	"								
Magnesium	ND	5.00	"								
Manganese	ND	0.500	"								
Nickel	ND	1.00	"								
Potassium	ND	5.00	"								
Selenium	ND	2.50	"								
Silver	ND	0.500	"								
Sodium	ND	50.0	"								
Thallium	ND	2.50	"								
Vanadium	ND	1.00	"								
Zinc	ND	2.50	"								

Reference (BK01042-SRM1)

Prepared & Analyzed: 11/19/2020

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
Aluminum	8630	5.00	mg/kg wet	8460		102	50.5-150.1				
Antimony	60.2	2.50	"	120		50.2	19-251.7				
Arsenic	94.3	1.50	"	95.5		98.7	70.1-129.8				
Barium	313	2.50	"	300		104	75-125				
Beryllium	104	0.050	"	103		100	75-125.2				
Cadmium	135	0.300	"	135		100	74.8-125.2				
Calcium	4870	5.00	"	4720		103	72.7-127.5				
Chromium	142	0.500	"	147		96.4	70.1-129.9				
Cobalt	47.3	0.400	"	43.2		110	75-125				
Copper	162	2.00	"	150		108	75.3-125.3				
Iron	13000	25.0	"	14400		90.0	35.8-164.6				
Lead	90.7	0.500	"	92.3		98.3	70-130				
Magnesium	2340	5.00	"	2300		102	61.7-137.8				
Manganese	706	0.500	"	677		104	78.1-122				
Nickel	72.0	1.00	"	59.8		120	70.1-130.1				
Potassium	2160	5.00	"	2030		106	59.1-140.9				
Selenium	28.3	2.50	"	42.0		67.3	55.7-144.5				
Silver	37.3	0.500	"	40.3		92.6	69.2-130.8				
Sodium	137	50.0	"	139		98.9	36.1-163.3				
Thallium	77.0	2.50	"	83.1		92.6	65.3-146.8				
Vanadium	90.9	1.00	"	96.9		93.8	67-133.1				
Zinc	379	2.50	"	369		103	69.9-130.1				

Mercury by EPA 7000/200 Series Methods - Quality Control Data

York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
Batch BJ01733 - EPA 7473 soil											
Blank (BJ01733-BLK1)							Prepared & Analyzed: 10/29/2020				
Mercury	ND	0.0300	mg/kg wet								
Reference (BJ01733-SRM1)							Prepared & Analyzed: 10/29/2020				
Mercury	2.5186		mg/kg	3.71		67.9	65-135				
Batch BK01136 - EPA SW846-7471B											
Blank (BK01136-BLK1)							Prepared & Analyzed: 11/20/2020				
Mercury	ND	0.0330	mg/kg wet								
Reference (BK01136-SRM1)							Prepared & Analyzed: 11/20/2020				
Mercury	3.49	0.330	mg/kg wet	4.85		71.9	46-107				

Miscellaneous Physical Parameters - Quality Control Data

York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
Batch BJ01762 - % Solids Prep											
Duplicate (BJ01762-DUP1)	*Source sample: 20J1329-13 (TP-10)							Prepared & Analyzed: 10/30/2020			
% Solids	85.2	0.100	%		82.3				3.50	20	

Volatile Analysis Sample Containers

Lab ID	Client Sample ID	Volatile Sample Container
20J1329-01	TP-1 SS	40mL Vial with Stir Bar-Cool 4° C
20J1329-02	TP-2	40mL Vial with Stir Bar-Cool 4° C
20J1329-03	TP-4	40mL Vial with Stir Bar-Cool 4° C
20J1329-04	TP-5	40mL Vial with Stir Bar-Cool 4° C
20J1329-05	TP-6	40mL Vial with Stir Bar-Cool 4° C
20J1329-06	TP-12	40mL Vial with Stir Bar-Cool 4° C
20J1329-07	TP-14	40mL Vial with Stir Bar-Cool 4° C
20J1329-08	TP-18	40mL Vial with Stir Bar-Cool 4° C
20J1329-09	SS-01	40mL Vial with Stir Bar-Cool 4° C
20J1329-10	TP-7	40mL Vial with Stir Bar-Cool 4° C
20J1329-11	TP-8	40mL Vial with Stir Bar-Cool 4° C
20J1329-12	TP-9	40mL Vial with Stir Bar-Cool 4° C
20J1329-13	TP-10	40mL Vial with Stir Bar-Cool 4° C

Sample and Data Qualifiers Relating to This Work Order

VOA-CONT	Non-Compliant - the container(s) provided by the client for soil volatiles do not meet the requirements of EPA SW846-5035A. Results reported below 200 ug/kg may be biased low due to samples not being collected according to EPA SW846 5035A requirements.
S-GC	Two surrogates are used for this analysis. One surrogate recovered within control limits therefore the analysis is acceptable.
S-08	The recovery of this surrogate was outside of QC limits.
QR-02	The RPD result exceeded the QC control limits; however, both percent recoveries were acceptable. Sample results for the QC batch were accepted based on percent recoveries and completeness of QC data.
QM-05	The spike recovery was outside acceptance limits for the MS and/or MSD due to matrix interference. The LCS and/or LCSD were within acceptance limits showing that the laboratory is in control and the data are acceptable.
QL-02	This LCS analyte is outside Laboratory Recovery limits due the analyte behavior using the referenced method. The reference method has certain limitations with respect to analytes of this nature.
M-ICV2	The recovery for this element in the ICV was outside the 90-110% recovery criteria.
M-CRL	The RL check for this element recovered outside of control limits.
M-BLK	The target analyte was detected above the RL in the batch method blank. All samples showed >10x the concentration in the blank for this analyte. Data are reported.
J	Detected below the Reporting Limit but greater than or equal to the Method Detection Limit (MDL/LOD) or in the case of a TIC, the result is an estimated concentration.
HT-04	NON-COMPLIANT- Client requested analysis be conducted outside of holding times.
CCV-L	The value reported is estimated due to its behavior during continuing calibration verification (>20% difference for average RF or >20% drift for linear or quadratic fit.) This value may be biased low.
CCV-H	The value reported is estimated due to its behavior during continuing calibration verification (>20% difference for average RF or >20% drift for linear or quadratic fit.) This value may be biased high.
CCV-E	The value reported is ESTIMATED. The value is estimated due to its behavior during continuing calibration verification (>20% Difference for average Rf or >20% Drift for quadratic fit).
B	Analyte is found in the associated analysis batch blank. For volatiles, methylene chloride and acetone are common lab contaminants.

Definitions and Other Explanations

*	Analyte is not certified or the state of the samples origination does not offer certification for the Analyte.
ND	NOT DETECTED - the analyte is not detected at the Reported to level (LOQ/RL or LOD/MDL)
RL	REPORTING LIMIT - the minimum reportable value based upon the lowest point in the analyte calibration curve.
LOQ	LIMIT OF QUANTITATION - the minimum concentration of a target analyte that can be reported within a specified degree of confidence. This is the lowest point in an analyte calibration curve that has been subjected to all steps of the processing/analysis and verified to meet defined criteria. This is based upon NELAC 2009 Standards and applies to all analyses.
LOD	LIMIT OF DETECTION - a verified estimate of the minimum concentration of a substance in a given matrix that an analytical process can reliably detect. This is based upon NELAC 2009 Standards and applies to all analyses conducted under the auspices of EPA SW-846.
MDL	METHOD DETECTION LIMIT - a statistically derived estimate of the minimum amount of a substance an analytical system can reliably detect with a 99% confidence that the concentration of the substance is greater than zero. This is based upon 40 CFR Part 136 Appendix B and applies only to EPA 600 and 200 series methods.
Reported to	This indicates that the data for a particular analysis is reported to either the LOD/MDL, or the LOQ/RL. In cases where the "Reported to" is located above the LOD/MDL, any value between this and the LOQ represents an estimated value which is "J" flagged accordingly. This applies to volatile and semi-volatile target compounds only.
NR	Not reported
RPD	Relative Percent Difference

Wet	The data has been reported on an as-received (wet weight) basis
Low Bias	Low Bias flag indicates that the recovery of the flagged analyte is below the laboratory or regulatory lower control limit. The data user should take note that this analyte may be biased low but should evaluate multiple lines of evidence including the LCS and site-specific MS/MSD data to draw bias conclusions. In cases where no site-specific MS/MSD was requested, only the LCS data can be used to evaluate such bias.
High Bias	High Bias flag indicates that the recovery of the flagged analyte is above the laboratory or regulatory upper control limit. The data user should take note that this analyte may be biased high but should evaluate multiple lines of evidence including the LCS and site-specific MS/MSD data to draw bias conclusions. In cases where no site-specific MS/MSD was requested, only the LCS data can be used to evaluate such bias.
Non-Dir.	Non-dir. flag (Non-Directional Bias) indicates that the Relative Percent Difference (RPD) (a measure of precision) among the MS and MSD data is outside the laboratory or regulatory control limit. This alerts the data user where the MS and MSD are from site-specific samples that the RPD is high due to either non-homogeneous distribution of target analyte between the MS/MSD or indicates poor reproducibility for other reasons.

If EPA SW-846 method 8270 is included herein it is noted that the target compound N-nitrosodiphenylamine (NDPA) decomposes in the gas chromatographic inlet and cannot be separated from diphenylamine (DPA). These results could actually represent 100% DPA, 100% NDPA or some combination of the two. For this reason, York reports the combined result for n-nitrosodiphenylamine and diphenylamine for either of these compounds as a combined concentration as Diphenylamine.

If Total PCBs are detected and the target aroclors reported are "Not detected", the Total PCB value is reported due to the presence of either or both Aroclors 1262 and 1268 which are non-target aroclors for some regulatory lists.

2-chloroethylvinyl ether readily breaks down under acidic conditions. Samples that are acid preserved, including standards will exhibit breakdown. The data user should take note.

Certification for pH is no longer offered by NYDOH ELAP.

Semi-Volatile and Volatile analyses are reported down to the LOD/MDL, with values between the LOD/MDL and the LOQ being "J" flagged as estimated results.

For analyses by EPA SW-846-8270D, the Limit of Quantitation (LOQ) reported for benzidine is based upon the lowest standard used for calibration and is not a verified LOQ due to this compound's propensity for oxidative losses during extraction/concentration procedures and non-reproducible chromatographic performance.

Revision Description: This report has been revised to include additional analyses.

YORK
ANALYTICAL LABORATORIES INC

York Analytical Laboratories
120 Research Dr.
Stratford, CT 06615
(203) 325-1371
Fax (203) 357-0166

Field Chain-of-Custody Record

NOTE: York's Std. Terms & Conditions are listed on the back side of this document. This document serves as your written authorization to York to proceed with the analyses requested and your signature binds you to York's Std. Terms & Conditions.

Page 1 of 3

York Project No. 20J1329

YOUR Information	**Report to:**	**Invoice To:**	**Your Project ID**	**Turn-Around Time**		**Report/Deliverable Type**	
Company: WCD Group	SAME ☒	SAME ☒	20-0857	RUSH-Same Day		Summary Report	X
Address: 24 Davis Avenue		Name:		RUSH-Next Day		QA Report	
Poughkeepsie, NY 12603	Company:	Company:	**Purchase Order #**	RUSH-Two Day		CT RCP	
Phone.: 845-452-1658	Address:	Address:		RUSH-Three Day		CT RCP DQA/DUE Pkg	
Contact: Erick Salazar		Brenda	20-0857.02	RUSH-Four Day		NY ASP A Package	
E-mail: esalazar@wcdgroup.com	E-mail:	E-mail	Samples from CT__NY__NJ__	Standard (5-7day)	X	NY ASP B Package	

Print Clearly and Legibly. All Information must be complete. Samples will NOT be logged in and the turn-around time clock will not begin until any questions by York are resolved.

Samples Collected/Authorized By (Signature)

ERICK SALAZAR
Name (printed)

Matrix Codes
S - soil
Other - specify(oil, etc.)
WW - wastewater
GW - groundwater
DW - drinking water
Air-A - ambient air
Air-SV - soil vapor

Volatiles		Semi-Vols.	Pest/PCB/Herb	Metals	Misc. Org.	Full Lists
8260 full	TICs	8270 or 625	8082PCB	RCRA8	TPH GRO	Pri.Poll.
624	Site Spec.	STARS list	8081Pest	PP13 list	TPH DRO	TCL Organics
STARS list	Nassau Co.	BN Only	8151Herb	TAL	CT ETPH	TAL Met/CN
BTEX	Suffolk Co.	Acids Only	CT RCP	CT15 list	NY 310-13	Full TCLP
MTBE	Ketones	PAH list	App. IX	TAGM list	TPH 1664	Full App. IX
TCL list	Oxygenates	TAGM list	Site Spec.	NJDEP list	Air TO14A	Part360-Routine
TAGM list	TCLP list	CT RCP list	SPLP or TCLP	Total	Air TO15	Part360-Baseline
CT RCP list	524.2	TCL list	TCLP Pest	Dissolved	Air STARS	Part360-Expanded No Dioxins/Furans
Arom. only	502.2	NJDEP list	TCLP Herb	SPLP or TCLP	Air VPH	Part360-Expanded Full List
Halog.only	NJDEP list	App. IX	Chlordane	Indiv. Metals	Air TICs	NYCDEP Sewer
App.IX list	SPLP or TCLP	TCLP BNA	608 Pest	LIST Below	Methane	NYSDEC Sewer
8021B list		SPLP or TCLP	608 PCB		Helium	TAGM

NJDEP Reduced Deliv
Excel X
NYSDEC EQuIS
NJDEP SRP HazSite EQuIS
GIS/KEY (std)
YORK Regulatory Comp Excel
compared to:

OTHER:

Sample Identification	Date+Time Sampled	Matrix	Analysis Requested (List above includes common analysis)	Container Description
TP-1 SS	10/27/2020	S	VOCs, SVOCs, Pest/PCBs, TAL Metals	1x VOA kit; 1x 8oz jar
TP-2	↓	↓	↓	1x VOA 1x 8oz jar
TP-4				
TP-5				
TP-6				
TP-12				
TP-14				
TP-18				
SS-01	↓	↓	↓	↓

Comments:

Preservation (check all appliciable) 4°C____ Frozen____ HCl____ MeOH____ HNO$_3$____ H$_2$SO$_4$____ NaOH____ ZnAc Ascorbic Acid Other

Special Instructions
Field Filtered ☐
Lab to Filter ☐

Samples Relinquished By	Date/Time	Samples Received By	Date/Time	Temperature on Receipt
	10:58		10-29-20 11:00	1.9 °C
Samples Relinquished By	Date/Time	Samples Received in LAB by	Date/Time	
10-29-20	1450	10/29/2020	1450	

York Analytical Laboratories
120 Research Dr.
Stratford, CT 06615
(203) 325-1371
Fax (203) 357-0166

Field Chain-of-Custody Record

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Page 2 of 3

York Project No. 20J1329

YOUR Information		**Report to:**	**Invoice To:**	**Your Project ID**	**Turn-Around Time**		**Report/Deliverable Type**	
Company:	WCD Group	SAME ☒	SAME ☒	20-0857	RUSH-Same Day		Summary Report	X
Address:	24 Davis Avenue		Name:		RUSH-Next Day		QA Report	
	Poughkeepsie, NY 12603	Company:	Company:	**Purchase Order #**	RUSH-Two Day		CT RCP	
Phone.:	845-452-1658	Address:	Address:		RUSH-Three Day		CT RCP DQA/DUE Pkg	
Contact:	Erick Salazar		Brenda	20-0857.02	RUSH-Four Day		NY ASP A Package	
E-mail:	esalazar@wcdgroup.com	E-mail:	E-mail	Samples from CT__NY__NJ__	Standard (5-7day)	X	NY ASP B Package	
							NJDEP Reduced Deliv	
							Excel	X
							NYSDEC EQuIS	
							NJDEP SRP HazSite	
							EQuIS	
							GIS/KEY (std)	
							YORK Regulatory Comp Excel	
							compared to:	
							OTHER:	

Print Clearly and Legibly. All Information must be complete. Samples will NOT be logged in and the turn-around time clock will not begin until any questions by York are resolved.

Samples Collected/Authorized By (Signature)

Erick Salazar
Name (printed)

Matrix Codes
S - soil
Other - specify(oil, etc.)
WW - wastewater
GW - groundwater
DW - drinking water
Air-A - ambient air
Air-SV - soil vapor

Volatiles		Semi-Vols.	Pest/PCB/Herb	Metals	Misc. Org.	Full Lists
8260 full	TICs	8270 or 625	8082PCB	RCRA8	TPH GRO	Pri.Poll.
624	Site Spec.	STARS list	8081Pest	PP13 list	TPH DRO	TCL Organics
STARS list	Nassau Co.	BN Only	8151Herb	TAL	CT ETPH	TAL Met/CN
BTEX	Suffolk Co.	Acids Only	CT RCP	CT15 list	NY 310-13	Full TCLP
MTBE	Ketones	PAH list	App. IX	TAGM list	TPH 1664	Full App. IX
TCL list	Oxygenates	TAGM list	Site Spec.	NJDEP list	Air TO14A	Part360-Routine
TAGM list	TCLP list	CT RCP list	SPLP or TCLP	Total	Air TO15	Part360-Baseline
CT RCP list	524.2	TCL list	TCLP Pest	Dissolved	Air STARS	Part360-Expanded No Dioxins/Furans
Arom. only	502.2	NJDEP list	TCLP Herb	SPLP or TCLP	Air VPH	Part360-Expanded Full List
Halog.only	NJDEP list	App. IX	Chlordane	Indiv. Metals	Air TICs	NYCDEP Sewer
App.IX list	SPLP or TCLP	TCLP BNA	608 Pest	LIST Below	Methane	NYSDEC Sewer
8021B list		SPLP or TCLP	608 PCB		Helium	TAGM

Sample Identification	Date+Time Sampled	Matrix	Analysis Requested (List above includes common analysis)	Container Description
TP-7	10/27/2020	S	CP-51 list VOCs, CP-51 list SVOCs	1x VOA kit; 1x 8oz jar
TP-8				
TP-9				
TP-10				
TP-3 SS			TAL metals, pest/PCBs	1x ~~8~~4oz jar
TP-1			HOLD	1x 8oz jar
TP-3				
TP-11				
TP-13				

Comments:

Preservation (check all appliciable): 4°C____ Frozen____ HCl____ MeOH____ HNO_3____ H_2SO_4____ NaOH____ ZnAc Ascorbic Acid Other

Special Instructions
Field Filtered ☐
Lab to Filter ☐

Samples Relinquished By	Date/Time	Samples Received By	Date/Time
	10/29/20 10:59		10-29-20 11:00

Samples Relinquished By	Date/Time	Samples Received in LAB by	Date/Time
	10-29-20 1450		10/29/2020 1450

Temperature on Receipt
1.9 °C

YORK ANALYTICAL LABORATORIES
120 RESEARCH DR.
STRATFORD, CT 06615
(203) 325-1371
FAX (203) 357-0166

Field Chain-of-Custody Record

Page 3 of 3

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York Project No. 20J1329

YOUR Information		Report to:	Invoice To:	Your Project ID	Turn-Around Time		Report/Deliverable Type	
Company:	WCD Group	SAME ☒	SAME ☒	20-0857	RUSH-Same Day		Summary Report	X
Address:	24 Davis Avenue		Name:		RUSH-Next Day		QA Report	
	Poughkeepsie, NY 12603	Company:	Company:	Purchase Order #	RUSH-Two Day		CT RCP	
Phone.:	845-452-1658	Address:	Address:		RUSH-Three Day		CT RCP DQA/DUE Pkg	
Contact:	Erick Salazar		Brenda	20-0857.02	RUSH-Four Day		NY ASP A Package	
E-mail:	esalazar@wcdgroup.com	E-mail:	E-mail	Samples from CT__NY__NJ__	Standard (5-7day)	X	NY ASP B Package	

Print Clearly and Legibly. All Information must be complete. Samples will NOT be logged in and the turn-around time clock will not begin until any questions by York are resolved.

Samples Collected/Authorized By (Signature)

ERICK SALAZAR
Name (printed)

Matrix Codes
S - soil
Other - specify(oil, etc.)
WW - wastewater
GW - groundwater
DW - drinking water
Air-A - ambient air
Air-SV - soil vapor

Volatiles		Semi-Vols.	Pest/PCB/Herb	Metals	Misc. Org.	Full Lists
8260 full	TICs	8270 or 625	8082PCB	RCRA8	TPH GRO	Pri.Poll.
624	Site Spec.	STARS list	8081Pest	PP13 list	TPH DRO	TCL Organics
STARS list	Nassau Co.	BN Only	8151Herb	TAL	CT ETPH	TAL Met/CN
BTEX	Suffolk Co.	Acids Only	CT RCP	CT15 list	NY 310-13	Full TCLP
MTBE	Ketones	PAH list	App. IX	TAGM list	TPH 1664	Full App. IX
TCL list	Oxygenates	TAGM list	Site Spec.	NJDEP list	Air TO14A	Part360-Routine
TAGM list	TCLP list	CT RCP list	SPLP or TCLP	Total	Air TO15	Part360-Baseline
CT RCP list	524.2	TCL list	TCLP Pest	Dissolved	Air STARS	Part360-Expanded No Dioxins/Furans
Arom. only	502.2	NJDEP list	TCLP Herb	SPLP or TCLP	Air VPH	Part360-Expanded Full List
Halog.only	NJDEP list	App. IX	Chlordane	Indiv. Metals	Air TICs	NYCDEP Sewer
App.IX list	SPLP or TCLP	TCLP BNA	608 Pest	LIST Below	Methane	NYSDEC Sewer
8021B list		SPLP or TCLP	608 PCB		Helium	TAGM

NJDEP Reduced Deliv	
Excel	X
NYSDEC EQuIS	
NJDEP SRP HazSite	
EQuIS	
GIS/KEY (std)	
YORK Regulatory Comp Excel	
compared to:	
OTHER:	

Sample Identification	Date+Time Sampled	Matrix	Analysis Requested (List above includes common analysis)	Container Description
TP-15	10/27/2020	S	HOLD	1x 8oz jar
TP-16	↓	↓	↓	↓
TP-17				
TP-19				

Comments:

Preservation (check all appliciable)
4°C____ Frozen____ HCl____ MeOH____ HNO_3____ H_2SO_4____ NaOH____
ZnAc Ascorbic Acid Other

Special Instructions
Field Filtered ☐
Lab to Filter ☐

Samples Relinquished By	Date/Time	Samples Received By	Date/Time	Temperature on Receipt
	10/29/20 11:00		10-29-20 11:00	1.9 °C
	10-29-20 1450		10/29/2020 1450	
Samples Relinquished By	Date/Time	Samples Received in LAB by	Date/Time	

Alpha Analytical, Inc. ID No.:**17873**
Facility: **Company-wide** Revision 17
Department: **Quality Assurance** Published Date: 4/28/2020 9:42:21 AM
Title: **Certificate/Approval Program Summary** Page 1 of 1

Certification Information

The following analytes are not included in our Primary NELAP Scope of Accreditation:

Westborough Facility
EPA 624/624.1: m/p-xylene, o-xylene, Naphthalene
EPA 8260C: NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.
EPA 8270D: NPW: Dimethylnaphthalene,1,4-Diphenylhydrazine; SCM: Dimethylnaphthalene,1,4-Diphenylhydrazine.
SM4500: NPW: Amenable Cyanide; SCM: Total Phosphorus, TKN, NO2, NO3.

Mansfield Facility
SM 2540D: TSS
EPA 8082A: NPW: PCB: 1, 5, 31, 87,101, 110, 141, 151, 153, 180, 183, 187.
EPA TO-15: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.
EPA TO-12 Non-methane organics
EPA 3C Fixed gases
Biological Tissue Matrix: EPA 3050B

The following analytes are included in our Massachusetts DEP Scope of Accreditation

Westborough Facility:

Drinking Water
EPA 300.0: Chloride, Nitrate-N, Fluoride, Sulfate; **EPA 353.2**: Nitrate-N, Nitrite-N; **SM4500NO3-F**: Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE, EPA 180.1, SM2130B, SM4500Cl-D, SM2320B, SM2540C, SM4500H-B, SM4500NO2-B**
EPA 332: Perchlorate; **EPA 524.2:** THMs and VOCs; **EPA 504.1:** EDB, DBCP.
Microbiology: **SM9215B; SM9223-P/A, SM9223B-Colilert-QT,SM9222D**.

Non-Potable Water
SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH: Ammonia-N and Kjeldahl-N, **EPA 350.1**: Ammonia-N, **LACHAT 10-107-06-1-B**: Ammonia-N, **EPA 351.1, SM4500NO3-F, EPA 353.2**: Nitrate-N**, SM4500P-E, SM4500P-B, E, SM4500SO4-E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D, EPA 300: Chloride, Sulfate, Nitrate.**
EPA 624.1: Volatile Halocarbons & Aromatics,
EPA 608.3: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs
EPA 625.1: SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045**: PCB-Oil.
Microbiology: **SM9223B-Colilert-QT; Enterolert-QT, SM9221E, EPA 1600, EPA 1603.**

Mansfield Facility:

Drinking Water
EPA 200.7: Al, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Na, Ag, Ca, Zn. **EPA 200.8:** Al, Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn. **EPA 245.1** Hg.
EPA 522.

Non-Potable Water
EPA 200.7: Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn.
EPA 200.8: Al, Sb, As, Be, Cd, Cr, Cu, Fe, Pb, Mn, Ni, K, Se, Ag, Na, TL, Zn.
EPA 245.1 Hg.
SM2340B

For a complete listing of analytes and methods, please contact your Alpha Project Manager.

AIR ANALYSIS

PAGE 1 OF 1

Date Rec'd in Lab: 12-17-20

ALPHA Job #: L2056373

ALPHA ANALYTICAL

CHAIN OF CUSTODY

320 Forbes Blvd, Mansfield, MA 02048
TEL: 508-822-9300 FAX: 508-822-3288

Client Information

Client: GBTS

Address: 22 IBM Road, Suite 101
Pok NY 12601

Phone: (845) 452 1658

Fax:

Email: erick_salazar@gbtpa.com

☐ These samples have been previously analyzed by Alpha

Project Information

Project Name: Monticello Manor

Project Location: 15 High St, Monticello NY

Project #: 20-0857

Project Manager: Erick Salazar

ALPHA Quote #

Turn-Around Time

☑ Standard ☐ RUSH (only confirmed if pre-approved!)

Date Due: Time:

Report Information - Data Deliverables

☐ FAX

☑ ADEx

Criteria Checker: NY SVI Matrices

(Default based on Regulatory Criteria Indicated)

Other Formats:

☑ EMAIL (standard pdf report)

☐ Additional Deliverables:

Report to: (if different than Project Manager)

Billing Information

☑ Same as Client info PO #:

Regulatory Requirements/Report Limits

State/Fed	Program	Res / Comm

Other Project Specific Requirements/Comments:

Project-Specific Target Compound List: ☐

ANALYSIS

All Columns Below Must Be Filled Out

ALPHA Lab ID (Lab Use Only)	Sample ID	COLLECTION End Date	Start Time	End Time	Initial Vacuum	Final Vacuum	Sample Matrix*	Sampler's Initials	Can Size	I D Can	I D - Flow Controller	TO-15	TO-15 SIM	APH Selected Non-petroleum HCs ☐	Fixed Gases	Sulfides & Mercaptans by TO-15			Sample Comments (i.e. PID)
56373-01	SV-01	12/15/20	12:00	14:00	-29.12	-4.15	SV	[illegible]	2.7L	2878	01034	✓							PID 22.9 ppm
02	SV-02	↓	11:50	13:50	-29.35	-3.79	↓	↓	↓	2819	01389	↓							4.7 ppm
03	SV-03	↓	11:40	13:40	-29.19	-5.48	↓	↓	↓	133	01948	↓							1.7 ppm
04	SV-04	↓	11:30	13:30	-26.86	-4.57	↓	↓	↓	2857	0975	↓							1.3 ppm
05	SV-05	↓	10:30	12:30	-29.40	-5.56	↓	↓	↓	321	0785	↓							6.8 ppm

*SAMPLE MATRIX CODES

AA = Ambient Air (Indoor/Outdoor)
SV = Soil Vapor/Landfill Gas/SVE
Other = Please Specify

Container Type

Relinquished By:	Date/Time	Received By:	Date/Time:
S. Hooker	12/16 10:40am		12/16 1040
	12/16	AAL	12/16/20 1625
AAL	12/17/20 0415		12/17/20 11:50

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. All samples submitted are subject to Alpha's Terms and Conditions. See reverse side.

Rev. (25-Sep-15)