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PRELIMINARY SITE CHARACTERIZATION REPORT

FORMER POTOMAC RIVER GENERATING STATION

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PRELIMINARY SITE CHARACTERIZATION REPORT
FORMER POTOMAC RIVER GENERATING STATION

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1. INTRODUCTION

On behalf of HRP Potomac, LLC (HRP), Ramboll US Consulting, Inc. (Ramboll) has prepared this preliminary Site Characterization Report (SCR) for the former Potomac River Generating Station (PRGS) located at 1400 North Royal Street in Alexandria, Virginia (the "Site") (**Figure 1-1**).

The objective of the preliminary site characterization activities was to evaluate the nature and extent of releases resulting from historical site activities and to collect the information necessary to inform corrective action decisions and complete a preliminary evaluation of human health risk. Certain areas of the site are not accessible due to the current condition of the Main Building and Laboratory and thus, investigation in those areas of the site will be performed as appropriate concurrent with, or subsequent to demolition of the structures. This preliminary SCR has been prepared in general accordance with Virginia Administrative Code 9VAC20-160-70. Section 2 of this report provides an overview of the site background and Section 3 of this report provides an overview of the site investigation methods employed during the preliminary site characterization investigation. Preliminary site characterization results are presented in Section 4, the preliminary conceptual site model (CSM) is presented in Section 5, and a summary of anticipated future actions is included in Section 6.

2. SITE BACKGROUND

2.1 Site Location and Use

The Site consists of 18.8 acres of land located at 1400 North Royal Street in Alexandria, Virginia at the intersection of Bashford Lane and North Royal Street.

HRP plans to redevelop the property as mixed-use development, which may include both commercial and residential uses. The former PRGS is no longer operating and will be deconstructed in coordination with redevelopment of the site. Current site use is limited to routine property maintenance and assessment activities in preparation for deconstruction and redevelopment. In addition, the Potomac Electric Power Company (Pepco) maintains a subsurface utility corridor along the western portion of the site.

2.2 Surrounding Area Use

The site is located in a mixed residential and commercial land use area. The Site is bounded to the south by an inactive railroad spur followed by residential and commercial development, to the west by a Pepco switchyard and parking lot followed by East Abingdon Drive and the George Washington Memorial Parkway, to the north by Slaters Lane and a condominium building, and to the east by the National Park Service (NPS) Mount Vernon Trail followed by the Potomac River.

2.3 Site and Surrounding Area History

The Site was developed as a power-generating facility in the 1940s. Prior to the generation station, the Site was mostly vacant but was occupied circa the 1920s to 1940s at the northern end by the Potomac River Clay Work and at the southern end by American Chlorophyll Company and Green Colors Manufacturing. From the 1940s to 2000, the generating station was operated by various entities as a coal-fired power plant. The Site ceased operations in October 2012. HRP acquired the PRGS Site in the fall of 2020 and plans to redevelop the property for mixed-used development.

The site is currently improved with a multi-story main power plant building constructed with a basement (Main Plant Building); a covered utility corridor (historically referred to as the "Precipitator Area"); and five coal-fired steam boilers and turbine generators (Units 1 to 5). Supporting features include air emissions equipment, a former (unlined) coal and ash storage area, a clay-lined sediment basin, a rail yard, water treatment facilities, one bottom ash and two fly ash silos, administration offices, an analytical laboratory, and storage facilities and ancillary buildings, which include maintenance areas.

2.4 Regional Geology

The site is located within the Atlantic Coastal Plain Physiographic Province, which is characterized by sequences of marine and terrestrial sedimentary deposits which thin to the east. According to local geologic mapping, the Site is underlain by the Old Town Quaternary terrace and floodplain (lowland) deposits of the Potomac River (Fleming 2015a). The terrace deposits beneath Old Town Alexandria approach a thickness of 85 to 125 feet (ft). The terrace deposits are described as a broadly fining upward sequence that is gravelly at its base and grades up through sand to finer-grained material at higher elevations. Regionally, above an elevation of about 30 to 35 ft above mean sea level (amsl), the terrace is composed primarily of silt and clay, and, below those elevations, the soils have been described as muddy sand. Below the Old Town Alexandria area is the Arell Clay, which is a regional, possibly discontinuous, lacustrine clay (Fleming 2015a, 2015b). Based on the 7.5-minute USGS topographic map, the nearest surface water body is the Potomac River. The elevation of the Potomac River is tidally influenced at the Site's location. Tidal fluctuation records collected by the National Oceanic and Atmospheric Administration (NOAA) for the Potomac River in the area of the site indicate typical tidal fluctuations in the range of -2.30 to 3.24 feet amsl for Alexandria, Virginia over the past 5 years.

2.5 Site-Specific Geology and Hydrogeology

The elevation of the Site ranges from approximately 12 to 33 ft amsl and slopes downhill to the east toward the Potomac River. The Site is underlain by terrace and floodplain deposits of the Potomac River, which are characterized primarily by sand and clay at elevations above 30 to 35 ft amsl and sandy soils beneath this elevation. In the area of the former underground storage tanks (USTs) (described in Section 2.6 below), the upper 20 feet of soil has been documented as fill material consisting of clayey soils with varying amounts of gravel and brick and concrete fragments (GES and Geosyntec 2014). The fill is underlain by native soils comprised of gravel, sandy clay to clayey sand, and sand. A fine-grained layer of lean clay measuring 2 to 6 feet thick is continuous beneath the release area except within the area of the screen and pump house, at a depth approximately 25 feet below ground surface (ft bgs) or 7 ft amsl; the shallow water table has been documented in the area east of the main plant building at a depth several feet above the lean clay layer, occurring in sand, silty sand, and mixed sand and gravel zones (GES and Geosyntec 2014).

Two hydrostratigraphic zones have previously been documented beneath portions of the Site. The shallow groundwater zone described above appears to be a perched groundwater zone and is not subject to tidal influence; insufficient water for sampling was identified within the shallow zone in some areas of the site. A deeper unconfined to partially confined groundwater zone, located beneath the lean clay layer, is tidally influenced proximal to the River. Preferential flow pathways have been documented in some areas of the Site in close proximity to subsurface structures or utilities and larger structures act as hydraulic barriers in some portions of the Site.

Based on fourth quarter 2021 (Q4 2021) gauging data from the sitewide monitoring well network, the documented depth to water ranges from approximately 3.70 to 25.63 ft bgs in the perched (i.e., shallow) zone and from approximately 4.78 to 26.26 ft bgs in the deep zone. Groundwater in both the shallow and deep zones generally flows eastward toward the Potomac River. As the perched water flows east toward the Potomac River, the clay layer that forms the aquitard becomes thinner and eventually pinches out altogether. As a result, the perched groundwater migrates downward and drains into the deeper regional aquifer prior to discharging to the Potomac River. This also appears to occur in the former UST area, where the clay layer has been penetrated and replaced with more

permeable fill. Additionally, groundwater mounding and redirection occurs in the vicinity of the screen and pump house and the sheet pile wall.

2.6 Prior Remedial Actions and Regulatory Status

The facility historically used No. 2 fuel oil to preheat its generating unit boilers with coal as its primary fuel to generate electricity. The No. 2 fuel oil was stored in two adjoining 25,000-gallon USTs centrally located within the power plant complex. As part of the October 2012 shutdown, the facility assessed these two USTs before their closure in-place. A release of petroleum hydrocarbons was identified during a Site characterization program triggered by the UST closure, and the Virginia Department of Environmental Quality (VDEQ) opened pollution complaint (PC) # 2013-3154. To address the presence of petroleum hydrocarbons in soil and groundwater near the USTs, GenOn conducted investigations and remediation, in coordination with the VDEQ, the NPS, and the District of Columbia Department of Energy and Environment (DC DOEE). At least 56 wells (26 shallow and 30 deep) have been installed in the area of the petroleum release. A corrective action plan (CAP) was approved by VDEQ in March 2015 and subsequently implemented at the site. Corrective action activities included the following:

- Implementation of total phase extraction (TPE) to remove light non-aqueous phase liquid (LNAPL) in the shallow groundwater zone and from overlying soils in and near the smear zone.
- Installation and operation of a pump and treat (P&T) system to remove LNAPL and remediate the dissolved phase plume in deep groundwater in the area of the source zone.
- Installation and operation of a biosparging system to address the dissolved phase plume downgradient of the source area.
- Sealing of six seeps observed at the bulkhead.

On September 29, 2019, the VDEQ approved the discontinuation of active remediation, and the Site transitioned to post-remediation monitoring. A CAP Addendum was approved by VDEQ in September 2021 which limited ongoing post-remediation monitoring to a network of 30 wells and reduced the quarterly sampling to semi-annual sampling. The most recent groundwater monitoring event was completed in the fourth quarter of 2021 and the results were documented in the Corrective Action Monitoring Report submitted to VDEQ on February 3, 2022. The results from recent groundwater monitoring events indicate that, although the concentrations of constituents of concern (COCs) exceed the remediation goals and DC DOEE Standards identified in the September 2021 VDEQ CAP Addendum in some individual wells located in close proximity to the former USTs, the groundwater conditions are stable, and the concentrations of COCs in groundwater at the point of discharge to the Potomac River are less than the remediation goals and the DC DOEE Surface Water Quality Standards.

2.7 Identified Concerns

The following known and potential areas of interest (AOI) have been identified at the Site (see **Figure 2-1**):

- ***AOI-1 - Known Petroleum Release (PC #2013-3154) and Petroleum Storage Areas.*** Prior investigations identified an area of known petroleum impacts associated with two (closed in place) 25,000-gallon fuel oil USTs located beneath the Open Bay Area in the east-central portion of the property. As described above, this release is being addressed under the Storage Tank Program; therefore, no additional sampling to evaluate impacts associated with this release was conducted as part of the site characterization activities. The site also operated a number of additional (smaller) petroleum tanks including a 3,500-gallon diesel UST; a 2,000-gallon kerosene UST; a

4,000-gallon kerosene UST; three 275-gallon lube oil ASTs, and a 4,000-gallon diesel fuel AST. These former USTs were closed in accordance with VDEQ requirements. Releases associated with certain of these tanks were identified and investigated under the direction of VDEQ and received "no further action" determinations.

- ***AOI-2 - Chemical Storage Areas.*** Chemical and hazardous substance storage areas include a former Chemical Storage Area; former resource conservation and recovery act (RCRA) Storage Area; former Drum Storage Area; Chlorine Storage Building, Chlorine House, a neutralization tank, an Alum House, a 10,000-gallon aluminum sulfate AST, a former 3,500-gallon antifreeze AST; a former hydrazine AST and two former 330-gallon ammonia ASTs.
- ***AOI-3a - Power Plant and Laboratory Buildings.*** The Power Plant building is equipped with floor drains and sumps. Visual evidence of spills from petroleum ASTs and possibly other types of chemicals was observed by others in 2020. At present, the Power Plant Building is unsafe for entry; as such, preliminary evaluation of potential impacts from these areas of the site included the collection and laboratory analysis of groundwater samples from several existing wells located downgradient of the Power Plant and Laboratory Buildings. Potential impacts associated with the Power Plant Building and Laboratory Building will be investigated further at a later date concurrent with, or subsequent to, building demolition.
- ***AOI-3b - Drain Lines and Outfalls.*** Numerous subsurface conveyances external to the Power Plant Building are present at the site. Ten outfalls discharging to the Potomac River were previously identified at the Site; the integrity of many of the subsurface conveyances is not known. Outfalls 003, 004, 009 and 010 have been plugged. The location of Outfall 002 is not presently known and the status of Outfalls 001, 005, 007, and 008 are not known. Limited investigation of some of the drain lines and associated Outfalls was completed in the fall of 2021, but access to these lines is currently limited due to safety concerns with the aging Power Plant Building. As such, additional investigation of these structures will be proposed, as appropriate, following or concurrent with demolition of the Power Plant Building.
- ***AOI-4 - Former Coal and Ash Handling and Storage Areas.*** Former coal and ash handling areas include the former unlined coal storage yard, the breaker house, the (clay-lined) sedimentation pond, the secondary ash pond, the rejects pile, and fly ash and bottom ash storage silos.
- ***AOI-5 - Former Transformer Areas.*** Former transformer areas include the generator/transformer areas north of the Power Plant Building, a former transformer area located between the switch yard and the Power Plant Building, which includes an oil reclaiming pit designated as Oil Reclaiming Pit #1, a sump pit located south of the transformer area, and a separate transformer located adjacent to the bulldozer shed.
- ***AOI-6 - Rail Yard.*** A rail yard has been present at the southwestern edge of the Site since the late 1800s. Ancillary structures serving the rail yard include the former coal car dumper and a warming shed which is serviced by a former UST.

3. SITE INVESTIGATION METHODOLOGY

Ramboll conducted preliminary site investigation activities to evaluate potential impacts relating to historical site activities. Prior to the start of field investigation activities, Ramboll prepared a site-specific Health and Safety Plan (HASP); the HASP was updated as needed to incorporate new information pertinent to the activities described herein. Ramboll requested a public subsurface utility markout from the Virginia One Call system, reviewed available drawings depicting subsurface utility lines, and conducted a site walk to review subsurface utility locations. Ramboll additionally retained the services of a private subsurface utility locator to check for subsurface utilities or obstructions in the vicinity of planned sample locations and also performed outreach to Pepco to obtain additional information relating to electrical lines associated with the adjacent substation. In conjunction with subsurface utility clearance activities, Ramboll retained a vacuum excavation contractor to confirm clearance by air knifing soils to 5 ft bgs for select locations proximal to known or suspect subsurface utilities.

Investigation activities are described below and were conducted in accordance with the approved Site Characterization Work Plan dated September 20, 2021 (see **Appendix A**) with the following modifications of note:

- The approved work scope included the installation of 4 shallow soil borings (SB-217 to SB-220) in the area of the transformers with the collection of one surface soil sample and one subsurface soil sample at each location for analysis of polychlorinated biphenyls (PCBs). Coring of concrete in the transformer bay alley revealed a previously unknown 16-foot-deep subsurface utility vault beneath the former transformer area (verified at two locations on either end of the alley); the utility vault or Power Plant basement appears to extend beneath the entire alley. As such, surface and shallow soil samples in the former transformer area were not collected. Additional evaluation for the potential presence of PCBs via the collection and analysis of surface wipe samples and/or soil samples will be collected concurrent with or following demolition.
- Due to the aforementioned utility vault and additional observed utilities during subsurface clearance activities, SB-204 was shifted approximately 90 feet southwest of the proposed location to avoid subsurface utility conflicts; the boring was relocated to the closest accessible location for which utility clearance could be achieved.
- Following discussions with Pepco to better understand subsurface utilities in the western portion of the site, it was revealed that multiple 24-inch diameter subsurface 230 kilovolt (kV) and 69 kV electrical transmission lines encased in oil run through utility easements on the western and southern portions of the site, proximal to proposed sample locations in the rail yard (SB/MW-223, SB/MW-224, SB-225, SB-226, SB-227, SB-228) and SB-210 (see **Figure 3-1**). Due to the presence of these subsurface electrical lines, surface soil samples were collected with a hand spade at SB-210, SB-224, SB-225, SB-226, and SB-227, but deeper soil samples could not be collected. As the area surrounding proposed sample SB-223 is surfaced in concrete, no surface soil sample was collected from this location. Proposed monitoring wells MW-223 and MW-224 were not installed due to these utility conflicts. However, Ramboll converted SB-214, located downgradient of proposed MW-223 and MW-224 into a monitoring well and collected groundwater at that location.
- SB-203 was advanced approximately 60 feet southwest from the proposed location due to drill rig accessibility limitations posed by steep topography. Additionally, as the revised SB-203 location is

proximal to pre-existing monitoring well MW-102, the proposed monitoring well MW-203 was not installed and groundwater was collected from existing monitoring well MW-102.

Field investigation methods are described below.

3.1 Soil Boring Installation

Ramboll collected surface and subsurface soil samples at the site for laboratory analysis to evaluate surface and subsurface conditions. Soil boring locations are presented on **Figure 3-2**. Ramboll advanced 22 soil borings using a combination of direct push and rotary auger drilling methods and borings were advanced to the first encountered of 1) the water table; 2) refusal; or 3) a depth of 35 ft bgs. At each boring location, continuous soil cores were collected and screened in two-foot intervals for the presence of volatile organic vapors using a photoionization detector (PID), observed for visual or olfactory indication of impact, and described in general accordance with the Unified Soil Classification System (USCS). Soil samples were collected at each boring location as described in Table 1 of the approved Site Characterization Work Plan (see **Appendix A**), with the exception of the modifications described above, resulting in the collection of up to one surface soil sample and up to two subsurface soil samples from each boring. Where field indications of impact were observed, one soil sample was collected from the interval exhibiting the greatest indication of impact and a second soil sample was collected from a deeper apparent clean soil interval or from the soil interval just above the water table. In the absence of apparent impacts, soil samples were collected from pre-determined depth intervals based on the likely depth of potential historical releases (i.e., closer to the surface for features of concern such as drum storage areas or at depth for evaluation of potential releases from underground storage tanks, sumps, etc.).

For the purposes of preliminary site investigation, analytes of potential concern for site soils included the following parameters, based on the potential area of concern being evaluated:

- Volatile organic compounds (VOCs) by United States Environmental Protection Agency (USEPA) method 8260[1],
- Semi-volatile organic compounds (SVOCs) by USEPA method 8270
- Polychlorinated biphenyls (PCBs) by USEPA method 8082
- pH
- Target analyte list metals (aluminum, antimony, arsenic, barium, beryllium, cadmium, calcium, chromium, cobalt, copper, iron, lead, magnesium, manganese, mercury, molybdenum, nickel, selenium, silver, sodium, thallium, vanadium, and zinc, by USEPA method 6010 or 6020 /7470 for mercury)
- Cyanide by SM4500
- Total petroleum hydrocarbons – diesel-range organics (TPH-DRO), – gasoline range organics (GRO), and – oil range organics (ORO) by USEPA method 8015C.

[1] Soil samples were collected for analysis of VOCs and/or TPH-GRO only if field screening indicated potential impact; samples were collected using TerraCores® in general accordance with USEPA method 5035.

Soil samples were collected into laboratory provided containers, labeled, and packaged on ice. Samples were shipped under chain-of-custody procedures to a qualified (i.e., Virginia Environmental Laboratory Accreditation Program [VELAP] certified) analytical laboratory for analysis.

Following collection of soil samples, select borings were converted into permanent groundwater monitoring wells; borings that were not converted into monitoring wells were abandoned by filling the borehole with drill cuttings and patching the surface with appropriate material to match the surrounding area.[2]

3.2 Monitoring Well Installation and Development

Select soil borings (see Table 1 of the approved Site Characterization Work Plan, included as **Appendix A**) with the exception of the modifications described above were converted into 2-inch diameter monitoring wells to support the collection and analysis of groundwater samples and documentation of groundwater flow direction. Monitoring well locations are presented on **Figure 3-2**.

To install monitoring wells, soil borings were over-drilled using 4.25-inch diameter hollow stem augers to a depth 5 to 10 feet below the water table. Insufficient water column was identified for sample collection within the perched groundwater zone at most locations, thus monitoring wells were installed in the deeper groundwater zone. Monitoring wells were constructed using 10 to 15 feet of 0.010-inch factory-slotted schedule 40 polyvinyl chloride (PVC) screen set at the base of the borehole with sufficient PVC riser to reach the surface. The annulus of the borehole was filled with #2 Morrie-type clean silica sand as the augers were removed, to a depth at least 2 feet above the top of the screen. A 2-foot layer of hydrated bentonite chips was placed above the sand and the remaining annulus was filled with a 2-percent bentonite/Portland cement grout mixture. Each monitoring well was completed with a traffic-rated, flush-mount manhole cover with a bolting lid set into a 2-foot by 2-foot concrete well pad. An expandable locking plug was placed at the top each well.

At least 24 hours after groundwater monitoring well installation, each well was developed by surging and purging to reduce turbidity below 50 nephelometric turbidity units (NTU) and to establish connection between the well and the surrounding formation in accordance with USEPA guidance.

3.3 Groundwater Gauging and Sampling

Prior to and following sample collection, Ramboll used an electronic oil-water interface probe to gauge the depth to water (and depth to free product, if present) below top of casing in each monitoring well to the nearest 0.01 foot. Well gauging was performed on October 25, 2021; no measurable free product was encountered.

Following well installation and development, a groundwater sample was collected from each newly installed groundwater monitoring well and from four existing monitoring wells (MW-30S; MW-72S; MW-100S; MW-102) using low-flow sampling techniques. Water quality parameters, including pH, dissolved oxygen (DO), oxidation-reduction potential (ORP), temperature, specific conductance and turbidity were monitored while purging at flow rates less than 500 milliliters per minute (mL/min) from the approximate mid-point of the screened interval in each well. Concurrent with low-flow

[2] Soil cuttings that exhibited indications of free product or other significant impact were containerized for appropriate off-site disposal following characterization. In these cases, boreholes were backfilled with a sodium bentonite slurry.

purging, the water level in the well was monitored. Stabilization over three consecutive 5-minute readings of the following parameters was utilized to determine groundwater stability for sampling[3]:

- pH ±0.1 unit
- Specific Conductance ±3%
- Temperature ±3%
- DO ±0.3 milligrams per liter (mg/L) or ±10%
- Turbidity <10 Nephelometric Turbidity Units (NTUs) or ±10%
- ORP ±10 millivolts
- Water Level Drawdown <0.3 foot from static or ±10% after flow adjustments

Groundwater samples were analyzed for some or all of the following parameters as outlined in Table 1 of the approved Site Characterization Work Plan (see **Appendix A**):

- VOCs by USEPA method 8260
- SVOCs by USEPA method 8270
- PCBs by USEPA method 8082
- Sulfate by SM 4500
- Ammonia (as N) by SM 4500
- Total and dissolved TAL metals (aluminum, antimony, arsenic, barium, beryllium, cadmium, calcium, chromium, cobalt, copper, iron, lead, magnesium, manganese, mercury, molybdenum, nickel, selenium, silver, sodium, thallium, vanadium, and zinc, by USEPA method 6010 or 6020 / 7470 for mercury) plus hardness
- Glycols by USEPA 8015M
- Hydrazines by USEPA 3815 or another approved method
- TPH-GRO, -DRO and -ORO by USEPA method 8015C.

Samples were collected into laboratory-provided containers, labeled, packaged on ice, and shipped under chain-of-custody procedures to a qualified analytical laboratory for analysis.

3.4 Equipment Decontamination & Investigation-Derived Waste Management

Re-useable sampling and/or monitoring equipment was decontaminated with a non-phosphate detergent wash, followed by a double distilled water rinse. Soil cuttings generated during the installation of soil borings were returned to the borehole following sample collection if the boring was not identified for conversion into a permanent monitoring well and if evidence of free product or other significant impact was not observed. Soil cuttings generated during the installation of soil borings exhibiting evidence of significant impact (SB-216) or during the installation of monitoring wells were

[3] MW-206 and MW-207 were sampled without complete stabilization of turbidity based on the length of time spent purging groundwater at each location and diminished return with additional purging. Due to a faulty turbidity meter, turbidity readings could not be recorded during sampling of MW-221; the final turbidity reading at this location was 15.01 NTU, which was measured once a replacement meter arrived.

containerized in US Department of Transportation (DOT) certified 55-gallon drums. Well development and purge water was returned to the ground surface in accordance with Petroleum Storage Tank Program Technical Guidance. Spent personal protective equipment (PPE), acetate liners and other trash was also containerized in 55-gallon drums. Drums were labeled, sealed, and staged on-site for future off-site disposal following waste characterization.

3.5 Slug Testing

Hydraulic conductivity tests were performed at three locations (MW-202, MW-206, and MW-209) on October 21, 2021 to assist in evaluating aquifer hydraulic conductivity. Physical slugs were used to perform rising head and falling head slug tests at each of the three wells. Groundwater levels were measured and recorded by deployed pressure transducers. Well construction information and test details are presented in Table 1 of **Appendix B**. Test response data (elapsed time and corresponding changes in water levels) were plotted as normalized displacement to evaluate similarity among repeat test data within each well. Plots of normalized head (h/ho) are presented in **Appendix B**. The first set (Falling Head 1, Rising Head 1) of tests at MW-209 was discarded due to incomplete recovery. A single test was selected for analysis at each well based on the quality of the test data.

3.6 Site Survey

The locations of monitoring wells were surveyed on November 2, 2021 by Precision Measurements, Inc. of Chantilly, Virginia; location data were also collected for surface soil samples and soil borings by Ramboll personnel using a high-accuracy (up to +/- 1 centimeter) global navigation satellite system (GNSS) receiver. Northings, eastings, and elevations (both ground surface and top of casing) were provided in the Virginia State Plane North Zone, referencing the North American Datum of 1983 (NAD 83; horizontal) and the National Geodetic Vertical Datum (NAVD 88; vertical) in U.S. Survey Feet. Horizontal coordinates were accurate +/- 1 foot; vertical coordinates were accurate +/- 0.1 foot.

3.7 Quality Assurance / Quality Control

To assist in documenting project quality assurance/quality control (QA/QC), Ramboll collected and/or submitted to the laboratory for analysis, a combination of trip blanks, field duplicates, and equipment rinse blanks as described below.

- At least one field duplicate per 20 samples was collected during the sampling event, resulting in a total of five field duplicate samples.
- At least one (1) equipment rinse blank was collected per 20 samples and for each substantially different type of sampling equipment used (e.g., hand spade, oil water interface probe, bladder pump, etc.) during the sampling event, resulting in a total of eight (8) equipment blanks. Laboratory-provided deionized water was collected into laboratory provided containers by pouring the water over the sampling tools.

One (1) laboratory-sealed trip blank was included in each sample shipment containing TPH or VOC samples, resulting in a total of 11 trip blanks.

4. RAMBOLL SITE INVESTIGATION RESULTS

Ramboll conducted preliminary subsurface investigation activities at the site in October 2021 to evaluate potential impacts to soil and groundwater. These preliminary investigation activities were conducted in general accordance with Virginia Administrative Code 9VAC20-160-70.

4.1 Field Observations

Site soils were observed to consist primarily of interbedded silty to clayey sands and lean to fat clays, with some portions of the site exhibiting minor gravel lenses. Interbedded clays were observed to act as minor aquitards, resulting in perched water lenses above the primary water table at most locations. Ramboll soil boring and well construction logs are included as **Appendix C** to this report. Elevated organic vapor readings were recorded at one location, SB-221, at a depth of 19 to 20 ft bgs, with a reading of 396.5 parts per million by volume (ppmv). Elevated organic vapor readings were not observed in site soils at remaining sample locations, however slight to moderate chemical-like odors were observed at numerous locations and depth intervals across the site.

Groundwater elevation data collected on October 25, 2021 are summarized in **Table 4-1**. Shallow groundwater elevations were recorded in the range of 5.04 to 10.25 ft amsl and deep groundwater elevations were recorded in the range of 1.49 to 10.12 ft amsl. Measurable free product was not encountered during well gauging. Elevated headspace organic vapor readings were observed at MW-202, MW-214, and MW-221 with readings of 53.2 ppmv, 44.6 ppmv, and 5.0 ppmv, respectively. Based on groundwater data collected to date, groundwater generally flows east toward the Potomac River (see **Figures 4-1A** and **4-1B**.[4]).

4.2 Soil Results

A total of 49 soil samples and four duplicates from 22 locations were analyzed for the presence of some or all of the following as outlined in Table 1 of the approved Site Characterization Work Plan (see **Appendix A**): VOCs, SVOCs, PCBs, TAL Metals, cyanide, TPH-DRO, TPH-GRO, and TPH-ORO. Analytical results for detected constituents in soil are summarized in **Tables 4-2A-D**; complete analytical results are included as **Appendix D** to this report.

Twenty-two (22) inorganic compounds, twenty-five (25) SVOCs, eighteen (18) VOCs, TPH-GRO, TPH-DRO, and TPH-ORO were detected in site soils. PCBs were not detected in site soil. For the purposes of preliminary data evaluation, Ramboll compared the concentrations of detected constituents to the VDEQ Tier II Residential and Tier III Industrial Soil Screening Levels (SSLs), as well as to the action level for TPH established under the Petroleum Storage Tank Program. VDEQ Tier II Residential and Tier III Industrial SSLs have not been established for TPH. The VDEQ Petroleum Storage Tank Program action level is used to evaluate when further evaluation is warranted. Tabular data summaries include comparison of collected data to screening levels established for residential site use, protection of construction workers, and commercial/industrial site use. The discussion below focuses primarily on observed exceedances of criteria established for protection of construction workers and commercial/industrial site use. Ramboll anticipates that further data evaluation with respect to residential use (as well as construction worker protection) will be completed following finalization of redevelopment plans. Observed exceedances of these criteria are discussed below.

[4] Ramboll notes that groundwater level data were collected from two distinct, concurrent sampling programs in October 2021. Data from both programs have been included in site potentiometric surface maps.

Inorganic Compounds

- Three (3) metals (iron, manganese, and thallium) were detected in soil at concentrations exceeding both residential and industrial SSLs and an additional five (5) metals (aluminum, arsenic, cobalt, copper, and vanadium) were detected at concentrations exceeding residential SSLs but below industrial SSLs. Exceedances of non-residential criteria for soil are depicted on **Figure 4.2**.
    - Iron was detected at a maximum concentration of 330,000 mg/kg in surface soil collected from SB-227, located along the rail alignment compared to the industrial SSL of 82,000 mg/kg and the residential SSL of 706 mg/kg; no other locations had industrial SSL exceedances for iron.
    - Manganese was detected at a maximum concentration of 2,700 mg/kg in surface soil at SB-227 compared to the industrial SSL of 2,600 mg/kg and the residential SSL of 56 mg/kg; no other locations had industrial SSL exceedances for manganese.
    - Thallium was detected at a maximum concentration of 1.6 mg/kg at SB-202 at a depth of 25-30 ft bgs compared to the industrial SSL of 1.2 mg/kg and the residential SSL of 0.078 mg/kg; thallium was also detected in excess of the industrial SSL at SB-201 (0-1 ft bgs, 10-12 ft bgs, 24-26 ft bgs), SB-202 (0-1 ft bgs), and SB-226 (0-1 ft bgs).

TPH

- TPH-DRO, TPH-GRO, and/or TPH-ORO either individually, or collectively, were detected in excess of the VDEQ action level of 100 mg/kg TPH in soil at the following locations within the rail alignment in the southwestern portion of the site, the sediment basin in the southeastern portion of the site, and near the ash silos in the central portion of the site:
    - In the area of the ash silos, total TPH (combined TPH-GRO, DRO and ORO) was measured at concentrations of 166.5 mg/kg at SB-215 (0-2 ft bgs) and at 152.52 mg/kg at SB-216 (1-3 ft bgs) as compared to the action level of 100 mg/kg. Total TPH was not detected at concentrations exceeding the action level in deeper soil samples collected at depths of 5 to 7 ft bgs and in the zone immediately above the water table at SB-215. Deeper soil samples were not collected at SB-216 for TPH analysis as the apparent water table began at 2.4 ft bgs and soils were saturated to depths of 15 ft bgs, at which point the boring was terminated.
    - In the sediment basin, total TPH (combined TPH-GRO, DRO, and ORO) was measured at a concentration of 120.2 mg/kg in surface soil (0-1 ft bgs) at SB-207 as compared to the action level of 100 mg/kg. Total TPH was not detected at concentrations exceeding the action level in deeper soils collected at depths of 6 to 8 ft bgs and in the zone immediately above the water table (16 to 18 ft bgs) at SB-207.
    - Within the rail alignment, total TPH was measured at concentrations exceeding the action level of 100 mg/kg at SB-224 (1,631 mg/kg), SB-225 (1,197 mg/kg), and SB-227 (180.6 mg/kg); deeper soil samples were not collected at these locations due to the presence of high voltage subsurface electrical lines.

SVOCs

- No SVOCs were detected in soil at concentrations exceeding both residential and industrial SSLs; five (5) SVOCs (1-methylnaphthalene, 2-methylnaphthalene, benzo(a)pyrene, dibenzofuran, and naphthalene) were detected at concentrations exceeding residential SSLs but below industrial

SSLs. Exceedances of residential criteria will be further evaluated in conjunction with future redevelopment plans.

VOCs

- No VOCs were detected in soil at concentrations exceeding both residential and industrial SSLs; five (5) VOCs (1,2,4-trimethylbenzene, 1,3,5-trimethylbenzene, benzene, naphthalene, and ortho-xylene) were detected at concentrations exceeding residential SSLs but below industrial SSLs in surface soil collected at SB-224 and/or SB-225, both located within the rail alignment. Exceedances of residential criteria will be further evaluated in conjunction with future redevelopment plans.

PCBs

- PCBs were not detected in soil above laboratory reporting limits.

4.3 Groundwater Results

A total of 13 groundwater samples and one duplicate from 13 locations were analyzed for the presence of some or all of the following as outlined in Table 1 of the approved Site Characterization Work Plan (see **Appendix A**): VOCs, SVOCs, PCBs, Sulfate, Ammonia (as N), total and dissolved TAL Metals, glycols, hydrazine (e.g., diamine), TPH-DRO, TPH-GRO, and TPH-ORO. Analytical results for detected constituents in groundwater are summarized in **Table 4-3A-D**; complete analytical results are included as **Appendix D** to this report.

Twenty-seven (27) inorganic compounds, two (2) SVOCs, seven (7) VOCs, TPH-GRO and TPH-DRO were detected in site groundwater. PCBs and glycols were not detected. Tabular data summaries include a comparison of measured concentrations of detected constituents to VDEQ Tier II Residential Groundwater Screening Levels (GSLs), Tier III Residential Vapor Intrusion GSLs, Tier III Industrial Vapor Intrusion GSLs, Tier III Construction Direct Contact (≤ 15 ft) GSLs, and Tier III Construction Indirect Contact (> 15 ft) GSLs. TPH results were compared to the action level established under the Petroleum Storage Tank Program because GSLs have not been established for total TPH. The VDEQ Petroleum Storage Tank Program action level is used to evaluate when further evaluation is warranted.

The discussion below focuses on a comparison of data to screening levels established to be protective of commercial/industrial workers and/or construction workers (e.g., the Tier III Industrial Vapor Intrusion GSLs, Tier III Construction Direct Contact (≤ 15 ft) GSLs, and Tier III Construction Indirect Contact (> 15 ft) GSLs), organized by constituent category (see **Figure 4-3**). Ramboll anticipates that further data evaluation with respect to residential use (as well as construction worker protection) will be completed following finalization of redevelopment plans.

Inorganic Compounds

- Three (3) inorganic compounds (manganese, mercury, and hydrazine) were detected in groundwater at concentrations exceeding both Tier II Residential GSLs and Tier III Construction Direct Contact (≤ 15 ft) GSLs and an additional six (6) inorganic compounds (aluminum, cadmium, cobalt, iron, nickel, and vanadium) were detected at concentrations exceeding residential GSLs but below industrial GSLs.
    - Manganese was detected at a maximum concentration of 26,000 µg/L (in both the total and dissolved phase) at MW-214 compared to the Tier III Construction Direct Contact (≤ 15 ft)

GSL of 1,442 µg/L and the Tier II Residential GSL of 43 µg/L; total and dissolved phase manganese were also detected in excess of the Tier III Construction Direct Contact (≤ 15 ft) GSL at MW-100S, MW-102, MW-202, MW-206, MW-207, MW-208, MW-209, MW-30S, and MW-72S. These locations, for which manganese was identified at concentrations exceeding screening levels, are generally located within the former coal storage area and downgradient of the Main Building.

- Total mercury was detected at a maximum concentration of 0.33 µg/L at MW-214, located in the former coal storage area, compared to the Tier III Construction Direct Contact (≤ 15 ft) GSL of 0.09 µg/L and the Tier II Residential Vapor Intrusion GSL of 0.09 µg/L; mercury was detected in groundwater at low concentrations, below both residential and non-residential screening levels, at MW-206 (located downgradient from MW-214) and MW-72S (located within the LUST area immediately downgradient of the power plant building), but was not detected in groundwater at other locations. As such, the presence of mercury in groundwater appears to be localized.
- Hydrazine was detected at a maximum concentration of 2 µg/L at MW-102 (located downgradient of the former chlorine house, chlorine storage building, and accelerator building) compared to the Tier III Construction Direct Contact (≤ 15 ft) GSL of 1.21 µg/L and the Tier II Residential GSL of 0.006 µg/L; hydrazine was not detected at other locations (MW-201, MW-202, MW-205); however, testing for this compound was not performed at additional monitoring wells in close proximity to MW-102.
- The presence of metals such as aluminum, cadmium, cobalt, iron, nickel and vanadium at similar concentrations in both the total and dissolved phases is accompanied by negative oxidation-reduction potential (ORP) readings at MW-202, MW-206, MW-207, MW-209, MW-30S and MW-72, thus indicating reducing conditions. Although reducing conditions were identified at these wells, no clear relationship between ORP and concentration was observed. Nevertheless, the similarity in concentrations of total and dissolved phase metals at most well locations indicates that most metals in groundwater are in solution and thus, may be mobile.

Total Petroleum Hydrocarbons

- Total TPH was detected in groundwater at a concentration of 6,070 µg/L at MW-72S, which is located within the area of the known petroleum release associated with the former heating oil USTS. TPH was not detected in groundwater at concentrations exceeding the action level of 1,000 µg/L at other locations samples as part of this assessment. Low concentrations of TPH-ORO were identified in groundwater collected from MW-206, MW-207, MW-209 and MW-214, all of which are located in former coal or ash handling areas in the southern portion of the site.

SVOCs

SVOCs were not detected in site groundwater in excess of residential or industrial GSLs.

VOCs

VOCs were not detected in site groundwater in excess of residential or industrial GSLs.

PCBs

- PCBs were not detected in groundwater above laboratory reporting limits.

Glycols

- Glycols were not detected in groundwater above laboratory reporting limits.

4.4 Slug Testing Results

Hydraulic conductivity tests were performed on three wells screened within the deeper zone (MW-202, MW-206 and MW-209 on October 21, 2021; results of the hydraulic conductivity testing are included as **Appendix B** to this report. Time-displacement data were analyzed using AQTESOLV® (Duffield, 2007) to obtain near-well hydraulic conductivity estimates. Appropriate and applicable analytical solutions available in AQTESOLV were selected following the guidelines presented in The Design, Performance, and Analysis of Slug Tests (Butler, 1998). Table 1 in **Appendix B** presents slug test details and hydraulic conductivity estimates for each well. AQTESOLV solution plots are provided in **Appendix B**. The three wells tested were screened across the water table, and test data consistent with filter pack drainage (double-straight-line effect) were observed. Rising head test data were used for analysis due to noisiness associated with physical slugs for falling-head tests. The Bouwer-Rice (1976) solution with the Butler 6.11b (Butler, 1998) effective casing correction was used to estimate hydraulic conductivity.

Review of lithologic information indicates that estimated hydraulic conductivities are consistent with the observed soil type present across the screened interval at each well. Boring logs for MW-202, MW-206, and MW-209 indicate that these wells are screened within interbedded clayey sands and clays, interbedded gravels and clays, and well-graded sand with gravel, respectively. The estimated hydraulic conductivities for these wells are 0.63 feet per day (ft/d), 15.5 ft/d, and 14 ft/d, respectively.

4.5 QA/QC

To ensure the collection of high quality, reliable data, Ramboll and the subcontracted analytical laboratory employed standardized quality assurance procedures and controls. Standard procedures included the calibration of field equipment, collection and analysis of duplicate samples, employment of standard QA/QC procedures by the analytical laboratory, and appropriate field sampling and equipment decontamination procedures.

- Electronic field equipment was calibrated each day prior to use. The PID was calibrated using fresh air and isobutylene gas (100 ppm) at the start of each field day as well as any time that field readings may have been questionable. The water quality meter and turbidity meter were calibrated against standard solutions provided by the equipment provider at the start of each sampling day.
- Re-useable sampling and/or monitoring equipment was decontaminated using appropriate procedures including a non-phosphate detergent wash, followed by a double distilled water rinse.
- Samples were collected using standard field collection methods developed to ensure the collection of representative data.

To evaluate and document the adequacy of QA/QC measures, Ramboll collected a total of eight (8) equipment blanks (EBs) to evaluate the adequacy of the field equipment decontamination procedures. Five (5) equipment blanks (EB-01, EB-02, EB-03, EB-04, EB-07) were collected from soil sampling equipment EB-05 and EB-06 were collected during well development activities; and EB-08) was collected from groundwater sampling equipment. Results indicate that various metals and TPH-DRO were detected in one or more EBs. Data associated with these field blanks was subjected to further review. Based on this review, the measured concentrations of constituents in the blank samples were at least 10 times less than the reported concentrations in associated samples and were below the

potentially applicable screening levels. Therefore, the data quality are sufficient for the intended purpose.

- To assist in evaluating the reproducibility of data, blind duplicate samples were collected for each media at a minimum rate of one duplicate per 20 samples and were submitted to the laboratory for analysis. A total of four soil and one groundwater duplicate samples were collected during the supplemental investigation. A review of results for samples and their duplicates indicated acceptable reproducibility.

- Trip blanks were prepared by the laboratory and included with sample shipments to check for cross-contamination during normal handling of the sample collection containers. A total of 11 trip blanks were submitted to the laboratory for analysis. No analytes were detected in the trip blanks thus confirming the absence of cross-contamination of the samples during handling of containers or sample shipment.

- The analytical laboratory evaluated the results of routine laboratory QA/QC samples including matrix spike (MS) samples, matrix spike duplicate (MSD) samples, and laboratory control samples (LCSs). Results for the laboratory QA/QC samples are generally within acceptable ranges with the following notes.

    - A review of laboratory QA/QC data indicate that measurements of select VOCs and SVOCs in some soil samples may be biased low. Based on sitewide results for VOCs and SVOCs in soil, the data are sufficient to evaluate presence or absence of impact by these constituents.

    - Nickel was detected in a laboratory blank associated with certain of the groundwater samples; these samples have been flagged with a "B." Results for these samples would be biased high, thus the data are considered to be of sufficient quality for the intended purpose.

- Laboratory analytical reporting limits were at or below the VDEQ screening levels with a few exceptions:

    - Cobalt- The analytical reporting limit for cobalt in soil exceeded the residential screening level, but is below typical background concentrations of cobalt in soil. Cobalt was detected in every soil sample at a concentration exceeding the residential screening level and measured concentrations may be representative of background.

    - Thallium – The analytical reporting limit for thallium exceeds both the residential and non-residential screening levels. The analytical laboratory noted that the reporting limit provided was the lowest achievable reporting limit for thallium.

    - Dibenzofuran – The analytical reporting limit for dibenzofuran exceeds the residential screening level for soil. The analytical laboratory noted that the reporting limit provided was the lowest achievable reporting limit for dibenzofuran.

    - Naphthalene – the analytical reporting limit exceeds the residential screening level for naphthalene in soil. The analytical laboratory noted that the reporting limit provided was the lowest achievable reporting limit for naphthalene; matrix interference resulted in an elevated reporting limit for some samples.

- Mercury – the analytical reporting limit for mercury in groundwater slightly exceeds the Tier II residential screening level for vapor intrusion. The analytical laboratory reported that the reporting limit provided was the lowest achievable reporting limit for mercury.

Based on the above, the quality of the data is sufficient for its intended use.

5. PRELIMINARY CONCEPTUAL SITE MODEL

A preliminary conceptual site model (CSM) was developed to provide a simplified and concise summary of currently understood contaminant sources and distribution; potential exposure pathways and potential current and future human/ecological receptors will be evaluated subsequent to future site redevelopment activities.

5.1 Preliminary Nature and Extent of Contamination

The extent of potential impacts by chemicals of concern (COCs) at the site has not been fully delineated; Ramboll anticipates further evaluation will be conducted in conjunction future site redevelopment activities. As described above, exceedances of potentially applicable VDEQ screening levels were identified in site soil and groundwater for the following compounds, which will be retained as constituents of concern for further evaluation.

5.1.1 Soil

The following soil impacts were identified[5]:

- **Rail Alignment.** Exceedances of the VDEQ action level for TPH in soil were noted in surface soil samples collected within or adjacent the rail alignment at SB-224, SB-225 and SB-227. Iron and manganese exceedances of the industrial SSLs are limited to soil collected from SB-227, which is in the southern portion of the rail alignment between the former coal car dumper, kerosene USTs, and the former warming shed and an elevated concentration of thallium was detected in surface soil collected from SB-226, located within the rail alignment. The depth of impact within the rail alignment is not known; the presence of high voltage subsurface electrical lines in this area of the site precluded the collection of deeper soil samples.
- **Former Ash Silos.** TPH was detected in surface soil at SB-215 and SB-216 in the area of the former ash silos. Analysis of deeper soil samples at SB-215 did not identify TPH at levels of concern suggesting that impacts do not extend greater than 5 ft bgs in this area of the site.
- **Sediment Basin.** TPH was detected in surface soil at SB-207 in the sediment basin. Analysis of deeper soil samples at SB-207 did not identify TPH at levels of concern suggesting that impacts do not extend greater than 6 ft bgs in this area of the site.
- **Former Chemical Storage Area and RCRA Waste Storage Area.** Thallium was detected in soil at concentrations slightly exceeding the non-residential screening levels at SB-201 and SB-202 in the northeastern corner of the property near the former chemical storage and RCRA waste storage areas. The lowest achievable reporting limit for thallium was used during analysis but in most cases was still above the non-residential screening level. Due to elevated analytical reporting limits for thallium in soil, it is unclear whether thallium may be present in soil at concentrations exceeding the screening levels in other areas of the site. However, the absence of thallium (total or dissolved phase) in groundwater at concentrations of concern further indicates that the presence of elevated thallium in site soil appears to the be limited in extent.

In addition to the exceedances of generic non-residential screening levels identified above, numerous constituents were detected in soil at concentrations exceeding generic residential screening levels at

[5] Ramboll notes that, in addition to the impacts described below, impacts to soil by petroleum compounds have been identified in the area of the former heating oil tanks; these petroleum impacts are being addressed under the Virginia Petroleum Storage Tank Program and thus, are not described in detail herein.

one or more locations including various metals (aluminum, arsenic, cobalt, copper, iron, manganese, thallium, and vanadium), several SVOCs (naphthalene, 1-methylnaphthalene, 2-methylnaphthalene, benzo(a)pyrene, and dibenzofuran), and several VOCs (1,2,4-trimethylbenzene; 1,3,5-trimethylbenzene; benzene, naphthalene[6], and ortho-xylene). Further evaluation of these exceedances will be conducted in the future and may include comparison to regional or site-specific background concentrations for naturally occurring constituents and/or human health risk evaluations.

Cyanide was not detected in site soil and will not be retained as a potential constituent of concern. PCBs were not detected in soil. However, because sampling has not yet been performed in certain areas of the site most likely to be affected by PCBs, PCBs are retained as a constituent of potential concern in site soil.

5.1.2 Groundwater

The following groundwater impacts were identified.

TPH was detected in groundwater at MW-72S, which is located downgradient to two former No. 2 fuel oil USTs; this region of the site is being addressed under the Petroleum Storage Tank Program and is subject to ongoing monitoring in compliance with VDEQ PC # 2013-3154, as described in Section 2.6 above.

Hydrazine exceeds the industrial GSL at one location, MW-102, in the east-central portion of the site near former chemical storage areas; notably, hydrazine was not detected in the vicinity of the former hydrazine AST.

Manganese exceedances are noted at all but three groundwater monitoring wells; locations with exceedances are distributed across the eastern portion of the site throughout the former coal and ash storage areas and downgradient of the Main Building.

Mercury was detected in groundwater at MW-214, located within the former coal storage area, at a concentration exceeding the construction worker direct contact level. Mercury was detected at downgradient locations MW-206 and MW-72S at an estimated concentration below each of the non-residential screening levels.

In addition to the groundwater impacts noted above, a number of additional metals were measured in both total and dissolved phase groundwater samples collected from one or more locations, at concentrations exceeding screening levels developed to be protective of residential sites. These metals, which include aluminum, arsenic, cadmium, cobalt, iron, lead, and nickel may be mobile; as such, further evaluation of groundwater-surface water interactions may be necessary. Aside from the contaminants present in groundwater at concentrations exceeding the non-residential screening levels, no other constituents were detected in site groundwater at concentrations exceeding the residential use criteria[7].

[6] Naphthalene is included in the standard analytical list for both VOCs and SVOCs.

[7] Ramboll notes that several VOCs associated with petroleum compounds are present in groundwater within the petroleum release area that is being addressed under the Petroleum Storage Tank Program.

Ramboll notes that while PCBs were not detected in site groundwater, potential source areas for PCBs were not fully accessible during preliminary site investigation activities; as such, PCBs will continue to be evaluated in potential source areas as redevelopment activities occur.

5.2 Limited Exposure Assessment

The site is currently unoccupied; is fully fenced and secured; groundwater at and in the vicinity of the site is not utilized as a source of drinking water; and, any workers performing duties on site are conducting work under an appropriate safety program. Based on the results of this investigation and on the results of routine groundwater monitoring performed in conjunction with the known petroleum release, site conditions do not currently pose an unacceptable risk to human health or the environment. Further assessment will be required to complete the site characterization and to further evaluate potential future exposures (i.e., during and following redevelopment). Additional assessment activities may include the collection of additional data, evaluation of background concentrations of naturally occurring constituents, and/or human health risk assessment.

6. FUTURE ACTIONS

- To date, soil sampling has been conducted near former chemical storage areas; former coal and ash storage areas; the rail yard; and the central portion of the site. Additional soil investigation in the vicinity of the main power plant and laboratory building and transformer/electrical areas will be conducted following or concurrent with building demolition.
- Additional sampling may be performed to refine areas of identified impact and to support human health risk assessment and/or decision-making during redevelopment.
- Further evaluation of groundwater to surface water migration may be necessary for dissolved phase metals.
- Based on the future development plans, once finalized, additional desktop data evaluation such as risk assessment and/or evaluation of background may be performed.

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TABLES

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TABLE 4-1: Summary of Well Construction and Gauging Information
Former Potomac River Generating Station
1400 N. Royal Street, Alexandria, Virginia

Well ID	Top of Casing Elevation (ft amsl)	Well Diameter (in)	Screen Length (ft)	Screened Interval (ft amsl)	Measured Depth to Bottom (ft btoc)	Measured Depth to Water (ft btoc)	Groundwater Elevation (ft amsl)	Headspace Organic Vapor Reading (ppmv)
Shallow Wells								
MW-01S	31.04	4	10	4.04 - 14.04	26.59	22.14	8.90	0.9
MW-100S	31.03	4	10	6.03 - 16.03	24.13	20.79	10.24	1.1
MW-107	15.74	2	8	4.74 - 12.74	11.01	9.70	6.04	0.3
MW-123S	31.22	4	10	6.22 - 16.22	24.91	21.49	9.73	0.6
MW-25S	31.22	4	10	5.22 - 15.22	25.49	21.46	9.76	0.9
MW-30S	30.67	4	10	4.67 - 14.67	26.87	25.63	5.04	0.1
MW-51S	31.00	4	10	5.00 - 15.00	25.30	20.99	10.01	0.4
MW-72S	30.63	4	10	5.63 - 15.63	23.86	21.13	9.50	0.5
RW-05S	31.98	4	10	5.98 - 15.98	26.10	21.75	10.23	0.9
RW-116S	31.61	4	10	5.61 - 15.61	25.85	21.82	9.79	0.4
RW-117S	32.31	4	10	7.31 - 17.31	24.18	22.06	10.25	0.3
RW-118S	30.81	4	10	5.81 - 15.81	24.15	20.71	10.10	0.4
RW-28S	31.55	4	10	4.55 - 14.55	26.45	24.24	7.31	0.5
TW-14	11.61	1	5	5.61 - 10.61	6.18	3.70	7.91	--
Deep Wells								
MW-05	32.20	4	10	-2.8 - 7.2	31.12	22.08	10.12	1.7
MW-100	30.78	2	10	-7.22 - 2.78	36.18	25.67	5.11	0.2
MW-102	29.72	2	15	-7.28 - 7.72	36.50	23.75	5.97	0.0
MW-104	12.00	2	10	0.00 - 10.00	11.92	4.78	7.22	1.2
MW-106	11.12	2	7	1.12 - 8.12	8.85	6.74	4.38	0.4
MW-122	31.64	4	10	-3.36 - 6.64	34.72	25.90	5.74	14.1
MW-14	31.22	4	10	-7.78 - 2.22	36.41	25.98	5.24	0.6
MW-25	32.75	4	10	-2.25 - 7.75	34.82	25.56	7.19	5.4
MW-27	31.44	4	10	-3.56 - 6.44	33.81	26.26	5.18	0.6
MW-31	31.23	4	10	-4.77 - 5.23	33.46	25.79	5.44	0.9
MW-33	30.88	4	10	-4.12 - 5.88	34.34	25.56	5.32	0.3
MW-51	31.62	4	10	-5.38 - 4.62	35.92	26.05	5.57	1.2
MW-201	29.53	2	15	-5.47 - 9.53	34.80	21.70	7.83	1.3
MW-202	29.94	2	15	-5.06 - 9.94	35.30	24.80	5.14	53.2
MW-205	29.81	2	15	-0.19 - 14.81	30.15	20.95	8.86	2.2
MW-206	23.97	2	15	-6.03 - 8.97	30.18	17.42	6.55	1.5
MW-207	20.78	2	15	-4.23 - 10.78	24.90	12.94	7.84	0.2
MW-208	24.57	2	15	-5.43 - 9.57	29.90	16.65	7.92	1.5
MW-209	23.14	2	15	-1.86 - 13.14	25.05	19.89	3.25	1.1
MW-214	23.65	2	15	-1.35 - 13.65	25.05	14.73	8.92	44.6
MW-221	30.97	2	10	0.97 - 10.97	30.20	21.51	9.46	5.0
TW-02	16.11	1	10	-7.89 - 2.11	21.45	14.62	1.49	0.3
TW-03	10.40	1	10	-4.60 - 5.40	13.70	7.75	2.65	0.3
TW-04	9.49	1	10	-5.51 - 4.49	14.85	5.44	4.05	0.4
TW-05	9.64	1	10	-0.36 - 9.64	13.47	5.63	4.01	0.5
TW-06	9.99	1	10	-5.01 - 4.99	12.75	6.02	3.97	0.9
TW-07	9.88	1	10	-5.12 - 4.88	13.74	6.58	3.30	0.3

Notes:
--: not recorded.
amsl: above mean sea level.
btoc: below top of casing.
ft: feet.
in: inches.
ppmv: parts per million by volume.

Elevations are referenced in the North American Vertical Datum of 1988 (NAVD88).
Headspace organic vapor readings were measured with a 10.6 electron volt (eV) photoionization detector (PID).
Water levels were measured using an electronic oil/water interface probe on October 25, 2021. No measureable free product was encountered.
[1]Depth to water measurements were collected from wells installed and sampled as part of the preliminary site characterization as well as from monitoring wells installed to evaluate the petroleum release that is separately being evaluated under the Virginia Petroleum Storage Tank Program.

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TABLE 4-2A: Soil Analytical Results - Detected Inorganic Compounds
Former Potomac River Generating Station
1400 N. Royal Street, Alexandria, Virginia

				Location	SB-201	SB-201	SB-201	SB-201	SB-202	SB-202	SB-203	SB-203	SB-204	SB-204	SB-204
				Sample Depth (ft bgs)	0 - 1	0 - 1	10 - 12	24 - 26	0 - 1	25 - 30	0 - 1	11 - 13	0.8 - 1.8	6 - 8	13 - 15
				Sample Date	05 Oct 2021	08 Oct 2021	08 Oct 2021	08 Oct 2021	07 Oct 2021	07 Oct 2021	12 Oct 2021	12 Oct 2021	18 Oct 2021	18 Oct 2021	18 Oct 2021
				Sample Type	N	FD	N	N	N	N	N	N	N	N	N
Constituent	**Background Mean**	**Tier II Res.**	**Tier III Ind.**												
Inorganics															
Aluminum	57,000	7,700	110,000		7,700	**8,300**	7,600	**9,600**	**8,300**	**12,000**	5,100	**13,000**	6,700	**11,000**	**10,000**
Antimony	1	3.1	47		< 2 U	< 1.9 U	< 1.9 U	< 1.9 U	< 2.2 U	< 2.1 U	< 1.9 U	< 2 U	< 1.8 U	< 1.9 U	< 1.9 U
Arsenic	5.1	3.5	30		**25**	**7.4**	**9.7**	2.7 J	**8.1**	**6.3**	**15**	**6.5**	**3.7**	< 3.8 U	2.9 J
Barium	436	1,500	22000		42	91	58	72	73	59	62	66	34	37	61
Beryllium	0.56	16	230		0.35	0.88	0.56	0.8	0.34	0.61	0.58	0.87	0.53	0.37	0.89
Cadmium	0.31	7.1	98		0.6	< 0.38 U	0.24 J	< 0.38 U	< 0.44 U	0.34 J	0.52	< 0.39 U	< 0.36 U	< 0.38 U	< 0.37 U
Calcium	6,300	NE	NE		1,300	1,800	2,000	1,200	280	1,000	4,600	630	2,200	2,100	380
Chromium (total)	54	3,600,000	NE		19	19	21	13	16	18	23	19	18	20	15
Cobalt	9.4	0.54	35		**5.1**	**9.5**	**8.3**	**14**	**4.5**	**8.5**	**5.3**	**7.6**	**11**	**4.7**	**9.2**
Copper	33	310	4,700		16	15	15	14	24	14	51	18	13	12	17
Cyanide (total)	NA	2.3	15		NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Iron	25,000	706	82,000		**25,000**	**31,000**	**23,000**	**24,000**	**30,000**	**30,000**	**13,000**	**64,000**	**23,000**	**17,000**	**26,000**
Lead	35	400	800		14	19	11	8.3	18	15	16	13	11	9.3	13
Magnesium	4,600	NE	NE		700	2,200	1,300	1,700	1,000	1,400	2,200	3,100	900	1,200	1,500
Manganese	283	56	2600		54	**210**	**260**	**130**	**98**	**120**	**100**	**140**	**640**	**61**	**86**
Mercury	0.108	1.1	4.6		0.05	0.029 J	0.022 J	0.018 J	< 0.038 U	0.031 J	0.049	< 0.031 U	0.021 J	0.017 J	< 0.029 U
Nickel	16	50.9	2,200		7.9	16	13	15	9.2	12	25	16	9.8	11	16
Potassium	12,000	NE	NE		710	1,100	800	860	850	920	550	810	840 J	1,000 J	920 J
Sodium	7,800	NE	NE		< 200 U	< 190 U	< 190 U	< 190 U	< 220 U	< 210 U	140 J	100 J	100 J	140 J	< 190 U
Thallium	0.07	0.078	1.2		**1.3 J**	**1.4 J**	**1.4 J**	**1.3 J**	**1.3 J**	**1.6 J**	< 1.9 U	< 2 U	< 1.8 U	< 1.9 U	< 1.9 U
Vanadium	77	39	580		30	30	22	25	26	28	19	30	29	36	28
Zinc	233	746	35,000		22	53	69	44	32	55	120	49	27	29	46
Physical Characteristics															
pH	NA	NE	NE		NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS

Notes:
ft bgs: feet below ground surface.
FD: field duplicate sample.
N: normal parent sample.
NA: not available.
NS: not sampled.
NE: screening level not established.
U: not detected above the analytical reporting limit shown.
J: Estimated concentration above the method detection limit, but below the reporting limit.
Tier II Res.: Virginia Department of Environmental Quality (VDEQ) Tier II Residential Soil Screening Level (SSL).
Tier III Ind.: VDEQ Tier III Industrial SSL.
All values are listed in milligrams per kilogram (mg/kg).
Boldface indicates the detection exceeds established Tier II Residential SSLs.
Underline and gray shading indicates the detection exceeds established Tier III Industrial SSLs.
Background mean concentrations of metals in soil are based on data presented for Virginia or the eastern coterminous United States in Dragun, J. and Chekiri, K, Elements in North American Soils, Second Ed. (2004).
Samples were analyzed for the presence of target analyte list (TAL) metals by United States Environmental Protection Agency (USEPA) method 6010 or 7420 (for mercury); seelct samples were additionally analyzed for pH and/or the presence of cyanide by SM4500.
Only detected constituents are summarized herein.

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TABLE 4-2A: Soil Analytical Results - Detected Inorganic Compounds
Former Potomac River Generating Station
1400 N. Royal Street, Alexandria, Virginia

			Location	SB-205	SB-205	SB-205	SB-206	SB-206	SB-206	SB-207	SB-207	SB-207	SB-207	SB-208
			Sample Depth (ft bgs)	0 - 1	13 - 15	13 - 15	0 - 1	5 - 7	15 - 17	0 - 1	6 - 8	6 - 8	16 - 18	0 - 1
			Sample Date	11 Oct 2021	11 Oct 2021	11 Oct 2021	12 Oct 2021	12 Oct 2021	12 Oct 2021	13 Oct 2021	13 Oct 2021	13 Oct 2021	13 Oct 2021	14 Oct 2021
			Sample Type	N	N	FD	N	N	N	N	N	FD	N	N
Constituent	**Background Mean**	**Tier II Res.**	**Tier III Ind.**											
Inorganics														
Aluminum	57,000	7,700	110,000	**9,400**	6,900	6,300	**8,500**	**9,400**	7,600	**11,000**	**9,800**	7,300	4,400	**11,000**
Antimony	1	3.1	47	< 1.9 U	< 1.8 U	< 1.8 U	< 1.9 U	< 1.9 U	< 2.1 U	< 2 U	< 1.9 U	< 1.9 U	< 1.7 U	< 2.1 U
Arsenic	5.1	3.5	30	**7.6**	3.1 J	**3.8**	**5.6**	**5.2**	**6.3**	**5**	**9.4**	**7.3**	3.5	**4.2**
Barium	436	1,500	22000	58	44	39	64	74	46	79	59	52	36	53
Beryllium	0.56	16	230	0.56	0.52	0.5	0.78	0.72	0.76	0.85	0.9	0.97	0.48	0.77
Cadmium	0.31	7.1	98	< 0.39 U	< 0.36 U	< 0.37 U	< 0.38 U	< 0.39 U	< 0.42 U	< 0.4 U	< 0.38 U	0.34 J	< 0.34 U	< 0.42 U
Calcium	6,300	NE	NE	470	650	640	630	820	640	1,800	250	190	290	800
Chromium (total)	54	3,600,000	NE	15	21	10	19	14	18	19	14	12	16	17
Cobalt	9.4	0.54	35	**5.2**	**6**	**4.8**	**13**	**14**	**7.5**	**14**	**25**	**13**	**7.3**	**15**
Copper	33	310	4,700	19	8.9	8.2	20	16	12	20	18	14	10	14
Cyanide (total)	NA	2.3	15	1.4	< 0.54 U	0.41 J	< 0.55 U	< 0.57 U	< 0.66 U	< 0.6 U	< 0.56 U	2.2	< 0.5 U	< 0.48 U
Iron	25,000	706	82,000	**23,000**	**14,000**	**14,000**	**21,000**	**18,000**	**20,000**	**21,000**	**18,000**	**20,000**	**18,000**	**35,000**
Lead	35	400	800	11	6.3	5.7	16	20	12	23	13	6.8	4.5	12
Magnesium	4,600	NE	NE	950	950	900	1,000	1,200	930	1,700	1,400	1,000	940	1,100
Manganese	283	56	2600	**82**	**68**	**62**	**180**	**120**	**120**	**370**	**84**	**110**	**67**	**140**
Mercury	0.108	1.1	4.6	0.073	< 0.028 U	< 0.029 U	0.041	0.049	0.042	0.053	0.019 J	< 0.035 U	< 0.03 U	0.034
Nickel	16	50.9	2,200	12	12	9.3	15	15	12	16	18	20	12	16
Potassium	12,000	NE	NE	670	550	510	720	800	650	940	690	560	350	800
Sodium	7,800	NE	NE	< 190 U	< 180 U	< 180 U	280	720	670	410	2,700	1,600	950	< 210 U
Thallium	0.07	0.078	1.2	< 1.9 U	< 1.8 U	< 1.8 U	< 1.9 U	< 1.9 U	< 2.1 U	< 2 U	< 1.9 U	< 1.9 U	< 1.7 U	< 2.1 U
Vanadium	77	39	580	25	18	17	25	24	23	30	36	29	24	32
Zinc	233	746	35,000	33	27	25	50	44	35	54	41	53	22	50
Physical Characteristics														
pH	NA	NE	NE	4.1	7.1	7.5	5.9	6.1	7.2	5.6	9.7	9.6	9.4	8.7

Notes:
ft bgs: feet below ground surface.
FD: field duplicate sample.
N: normal parent sample.
NA: not available.
NS: not sampled.
NE: screening level not established.
U: not detected above the analytical reporting limit shown.
J: Estimated concentration above the method detection limit, but below the reporting limit.
Tier II Res.: Virginia Department of Environmental Quality (VDEQ) Tier II Residential Soil Screening Level (SSL).
Tier III Ind.: VDEQ Tier III Industrial SSL.
All values are listed in milligrams per kilogram (mg/kg).
Boldface indicates the detection exceeds established Tier II Residential SSLs.
Underline and gray shading indicates the detection exceeds established Tier III Industrial SSLs.
Background mean concentrations of metals in soil are based on data presented for Virginia or the eastern coterminous United States in Dragun, J. and Chekiri, K, Elements in North American Soils, Second Ed. (2004).
Samples were analyzed for the presence of target analyte list (TAL) metals by United States Environmental Protection Agency (USEPA) method 6010 or 7420 (for mercury); seelct samples were additionally analyzed for pH and/or the presence of cyanide by SM4500.
Only detected constituents are summarized herein.

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TABLE 4-2A: Soil Analytical Results - Detected Inorganic Compounds
Former Potomac River Generating Station
1400 N. Royal Street, Alexandria, Virginia

			Location	SB-208	SB-208	SB-209	SB-209	SB-209	SB-210	SB-211	SB-211	SB-211	SB-212	SB-212
			Sample Depth (ft bgs)	5 - 7	18 - 20	0 - 1	5 - 7	15 - 17	0 - 1	0 - 1	5 - 7	15 - 17	0 - 2	0 - 2
			Sample Date	14 Oct 2021	14 Oct 2021	13 Oct 2021	13 Oct 2021	13 Oct 2021	28 Oct 2021	15 Oct 2021	15 Oct 2021	15 Oct 2021	15 Oct 2021	15 Oct 2021
			Sample Type	N	N	N	N	N	N	N	N	N	N	FD
Constituent	**Background Mean**	**Tier II Res.**	**Tier III Ind.**											
Inorganics														
Aluminum	57,000	7,700	110,000	**10,000**	4,500	**13,000**	**13,000**	**8,900**	**13,000**	7,700	**8,600**	3,900	**9,500**	**8,300**
Antimony	1	3.1	47	< 2.1 U	< 2 U	< 1.9 U	< 2 U	< 1.9 U	< 1.9 U	< 1.8 U	< 1.9 U	< 1.7 U	1.5	1.5
Arsenic	5.1	3.5	30	**5.8**	**4.5**	**4.1**	**4.5**	**6.3**	3 J	**6.5**	**7.5**	**5.6**	**4.7**	**5.5**
Barium	436	1,500	22000	38	32	75	46	30	78	64	68	24	57	86
Beryllium	0.56	16	230	0.62	0.58	0.81	0.66	0.68	0.88	0.67	0.75	0.53	0.77	0.81
Cadmium	0.31	7.1	98	< 0.42 U	< 0.4 U	< 0.38 U	< 0.4 U	< 0.38 U	< 0.39 U	< 0.36 U	< 0.38 U	< 0.35 U	0.32	0.39
Calcium	6,300	NE	NE	450	270	1,200	950	500	1,700	640	1,700	390	3,200	3,400
Chromium (total)	54	3,600,000	NE	17	15	23	17	19	26	14	15	12	17	14
Cobalt	9.4	0.54	35	**6.4**	**9.5**	**15**	**5.5**	**5.5**	**13**	**11**	**12**	**7.7**	**11**	**13**
Copper	33	310	4,700	15	12	18	16	14	25	15	23	8.3	17	18
Cyanide (total)	NA	2.3	15	< 0.47 U	< 0.48 U	< 0.56 U	1.4	< 0.53 U	< 0.58 U	< 0.46 U	< 0.42 U	< 0.53 U	< 0.47 U	< 0.49 U
Iron	25,000	706	82,000	**33,000**	**26,000**	**38,000**	**32,000**	**28,000**	**28,000**	**25,000**	**32,000**	**29,000**	**23,000**	**24,000**
Lead	35	400	800	11	5.5	19	11	9.3	16	18	22	5.1	11	14
Magnesium	4,600	NE	NE	1,000	880	2,700	1,500	890	2,900	910	1,000	690	1,300	1,100
Manganese	283	56	2600	**100**	**110**	**600**	53	**67**	**630**	**210**	**190**	**140**	**200**	**170**
Mercury	0.108	1.1	4.6	< 0.034 U	< 0.032 U	0.04	0.079	< 0.03 U	0.015 J	0.043	0.048	0.014	0.037	0.041
Nickel	16	50.9	2,200	12	12	13	16	11	11	12	17	11	12	13
Potassium	12,000	NE	NE	750	370	910	1,000	670	1,400 J	660	750	410	780	790
Sodium	7,800	NE	NE	< 210 U	78	110	870	990	2,500	< 180 U	740	880	100	120
Thallium	0.07	0.078	1.2	< 2.1 U	< 2 U	< 1.9 U	< 2 U	< 1.9 U	< 1.9 U	< 1.8 U	< 1.9 U	< 1.7 U	< 1.8 U	< 1.9 U
Vanadium	77	39	580	26	28	**40**	31	24	**54**	24	27	17	27	24
Zinc	233	746	35,000	33	24	51	41	35	37	37	59	21	33	40
Physical Characteristics														
pH	NA	NE	NE	5.5	5.5	8.5	8.6	8.8	8.9	4.7	5	9	4.9	6.3

Notes:
ft bgs: feet below ground surface.
FD: field duplicate sample.
N: normal parent sample.
NA: not available.
NS: not sampled.
NE: screening level not established.
U: not detected above the analytical reporting limit shown.
J: Estimated concentration above the method detection limit, but below the reporting limit.
Tier II Res.: Virginia Department of Environmental Quality (VDEQ) Tier II Residential Soil Screening Level (SSL).
Tier III Ind.: VDEQ Tier III Industrial SSL.
All values are listed in milligrams per kilogram (mg/kg).
Boldface indicates the detection exceeds established Tier II Residential SSLs.
Underline and gray shading indicates the detection exceeds established Tier III Industrial SSLs.
Background mean concentrations of metals in soil are based on data presented for Virginia or the eastern coterminous United States in Dragun, J. and Chekiri, K, Elements in North American Soils, Second Ed. (2004).
Samples were analyzed for the presence of target analyte list (TAL) metals by United States Environmental Protection Agency (USEPA) method 6010 or 7420 (for mercury); seelct samples were additionally analyzed for pH and/or the presence of cyanide by SM4500.
Only detected constituents are summarized herein.

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TABLE 4-2A: Soil Analytical Results - Detected Inorganic Compounds
Former Potomac River Generating Station
1400 N. Royal Street, Alexandria, Virginia

			Location	SB-212	SB-212	SB-213	SB-213	SB-213	SB-214	SB-214	SB-214	SB-215	SB-215	SB-215
			Sample Depth (ft bgs)	5 - 7	15 - 17	0 - 1	5 - 7	16 - 18	0 - 2	5 - 7	14 - 16	0 - 2	5 - 7	16 - 18
			Sample Date	15 Oct 2021	15 Oct 2021	15 Oct 2021	15 Oct 2021	15 Oct 2021	14 Oct 2021	14 Oct 2021	14 Oct 2021	18 Oct 2021	18 Oct 2021	18 Oct 2021
			Sample Type	N	N	N	N	N	N	N	N	N	N	N
Constituent	**Background Mean**	**Tier II Res.**	**Tier III Ind.**											
Inorganics														
Aluminum	57,000	7,700	110,000	**14,000**	3,300	**11,000**	**13,000**	2,600	**8,300**	**9,600**	2,200	**13,000**	**12,000**	**9,600**
Antimony	1	3.1	47	1.7	< 1.8 U	1.4	1.5	1.2	< 1.9 U	< 2 U	< 1.7 U	< 1.7 U	< 1.9 U	< 1.9 U
Arsenic	5.1	3.5	30	**9.5**	**3.6**	**5.8**	**4.2**	**6**	**6**	**5.6**	2.4	**3.7**	2.6 J	**4.4**
Barium	436	1,500	22000	42	28	40	89	18	130	43	11	29	58	67
Beryllium	0.56	16	230	0.94	0.47	0.6	0.99	0.27	0.65	0.6	0.14	0.34	0.96	0.71
Cadmium	0.31	7.1	98	0.4	< 0.35 U	0.28	0.31	0.28	0.31	< 0.4 U	< 0.34 U	< 0.35 U	< 0.38 U	< 0.38 U
Calcium	6,300	NE	NE	440	160	620	200	140	2,700	530	64	12,000	300	210
Chromium (total)	54	3,600,000	NE	20	31	17	18	7.4	16	15	3.3	8.4	15	18
Cobalt	9.4	0.54	35	**7.3**	**5.5**	**7.5**	**9.8**	**4.9**	**9.6**	**6.2**	**2.9**	**20**	**11**	**7**
Copper	33	310	4,700	23	7.8	14	24	6.9	40	15	2.9	120	20	16
Cyanide (total)	NA	2.3	15	< 0.57 U	< 0.47 U	< 0.54 U	< 0.44 U	< 0.41 U	< 0.54 U	< 0.6 U	< 0.48 U	< 0.53 U	< 0.57 U	< 0.58 U
Iron	25,000	706	82,000	**36,000**	**13,000**	**22,000**	**28,000**	**20,000**	**25,000**	**26,000**	**12,000**	**36,000**	**19,000**	**26,000**
Lead	35	400	800	11	7.5	9.5	12	1.7	180	12	1.9	25	11	11
Magnesium	4,600	NE	NE	1,200	470	1,500	2,100	560	1,000	940	180	10,000	1,000	1,200
Manganese	283	56	2600	**98**	**65**	**89**	**81**	**76**	**400**	**170**	56	**270**	**190**	**77**
Mercury	0.108	1.1	4.6	0.047	0.018	0.027	< 0.031 U	< 0.027 U	0.26	0.06	< 0.03 U	0.016 J	< 0.032 U	< 0.031 U
Nickel	16	50.9	2,200	12	7.9	10	14	6.4	9.2	13	3.2	22	14	15
Potassium	12,000	NE	NE	890	290	770	780	340	1,000	680	210	540	880 J	710
Sodium	7,800	NE	NE	< 200 U	< 180 U	< 190 U	110	< 170 U	92	< 200 U	< 170 U	2,000	580	< 190 U
Thallium	0.07	0.078	1.2	< 2 U	< 1.8 U	< 1.9 U	< 1.9 U	< 1.7 U	< 1.9 U	< 2 U	< 1.7 U	< 1.7 U	< 1.9 U	< 1.9 U
Vanadium	77	39	580	36	20	31	29	8.7	25	27	5.2	**89**	**40**	27
Zinc	233	746	35,000	53	15	35	41	15	150	36	7.7	62	39	40
Physical Characteristics														
pH	NA	NE	NE	5	9.4	5.6	4.4	5.8	5.8	6.1	5	9.9	4.3	4.6

Notes:
ft bgs: feet below ground surface.
FD: field duplicate sample.
N: normal parent sample.
NA: not available.
NS: not sampled.
NE: screening level not established.
U: not detected above the analytical reporting limit shown.
J: Estimated concentration above the method detection limit, but below the reporting limit.
Tier II Res.: Virginia Department of Environmental Quality (VDEQ) Tier II Residential Soil Screening Level (SSL).
Tier III Ind.: VDEQ Tier III Industrial SSL.
All values are listed in milligrams per kilogram (mg/kg).
Boldface indicates the detection exceeds established Tier II Residential SSLs.
Underline and gray shading indicates the detection exceeds established Tier III Industrial SSLs.
Background mean concentrations of metals in soil are based on data presented for Virginia or the eastern coterminous United States in Dragun, J. and Chekiri, K, Elements in North American Soils, Second Ed. (2004).
Samples were analyzed for the presence of target analyte list (TAL) metals by United States Environmental Protection Agency (USEPA) method 6010 or 7420 (for mercury); seelct samples were additionally analyzed for pH and/or the presence of cyanide by SM4500.
Only detected constituents are summarized herein.

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TABLE 4-2A: Soil Analytical Results - Detected Inorganic Compounds
Former Potomac River Generating Station
1400 N. Royal Street, Alexandria, Virginia

			Location	SB-216	SB-224	SB-225	SB-226	SB-227
			Sample Depth (ft bgs)	1 - 3	0 - 1	0 - 1	0 - 1	0 - 1
			Sample Date	18 Oct 2021	21 Oct 2021	21 Oct 2021	05 Oct 2021	21 Oct 2021
			Sample Type	N	N	N	N	N
Constituent	**Background Mean**	**Tier II Res.**	**Tier III Ind.**					
Inorganics								
Aluminum	57,000	7,700	110,000	6,100	1,200	2,300	**11,000**	3,400
Antimony	1	3.1	47	< 1.9 U	< 1.8 U	< 2.5 U	< 2 U	< 1.9 U
Arsenic	5.1	3.5	30	**7.7**	**9.9**	**6.5**	**4.5**	**25**
Barium	436	1,500	22000	64	81	100	56	140
Beryllium	0.56	16	230	0.31	1.5	2	0.53	0.86
Cadmium	0.31	7.1	98	< 0.39 U	0.21 J	< 0.5 U	< 0.4 U	< 0.37 U
Calcium	6,300	NE	NE	5,400	810	980	700	2,100
Chromium (total)	54	3,600,000	NE	15	14	27	15	1,400
Cobalt	9.4	0.54	35	**4.2**	**5.9**	**8.6**	**6.5**	**18**
Copper	33	310	4,700	29	27	39	11	**1,000**
Cyanide (total)	NA	2.3	15	0.66	< 0.52 U	< 0.65 U	< 0.6 U	< 0.38 U
Iron	25,000	706	82,000	**25,000**	**11,000**	**11,000**	**22,000**	**330,000**
Lead	35	400	800	7.2	28	12	12	13
Magnesium	4,600	NE	NE	3,000	280	530	1,300	1,700
Manganese	283	56	2600	**61**	**76**	**99**	**96**	**2,700**
Mercury	0.108	1.1	4.6	0.011 J	0.023 J	0.027 J	0.012 J	0.019 J
Nickel	16	50.9	2,200	9.2	13	22	9.2	**730**
Potassium	12,000	NE	NE	770	240	310	670	290
Sodium	7,800	NE	NE	< 190 U	80 J	110 J	< 200 U	400
Thallium	0.07	0.078	1.2	< 1.9 U	< 1.8 U	< 2.5 U	**1.4 J**	< 1.9 U
Vanadium	77	39	580	30	15	25	28	**110**
Zinc	233	746	35,000	25	54	48	30	67
Physical Characteristics								
pH	NA	NE	NE	6.5	5.9	6	5.4	7.4

Notes:
ft bgs: feet below ground surface.
FD: field duplicate sample.
N: normal parent sample.
NA: not available.
NS: not sampled.
NE: screening level not established.
U: not detected above the analytical reporting limit shown.
J: Estimated concentration above the method detection limit, but below the reporting limit.
Tier II Res.: Virginia Department of Environmental Quality (VDEQ) Tier II Residential Soil Screening Level (SSL).
Tier III Ind.: VDEQ Tier III Industrial SSL.
All values are listed in milligrams per kilogram (mg/kg).
Boldface indicates the detection exceeds established Tier II Residential SSLs.
Underline and gray shading indicates the detection exceeds established Tier III Industrial SSLs.
Background mean concentrations of metals in soil are based on data presented for Virginia or the eastern coterminous United States in Dragun, J. and Chekiri, K, Elements in North American Soils, Second Ed. (2004).
Samples were analyzed for the presence of target analyte list (TAL) metals by United States Environmental Protection Agency (USEPA) method 6010 or 7420 (for mercury); seelct samples were additionally analyzed for pH and/or the presence of cyanide by SM4500.
Only detected constituents are summarized herein.

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TABLE 4-2B: Soil Analytical Results - Detected Total Petroleum Hydrocarbons
Former Potomac River Generating Station
1400 N. Royal Street, Alexandria, Virginia

	Location	SB-205	SB-205	SB-205	SB-206	SB-206	SB-207	SB-207	SB-207	SB-207	SB-214	SB-214
	Sample Depth (ft bgs)	0 - 1	13 - 15	13 - 15	5 - 7	15 - 17	0 - 1	6 - 8	6 - 8	16 - 18	0 - 2	5 - 7
	Sample Date	11 Oct 2021	11 Oct 2021	11 Oct 2021	12 Oct 2021	12 Oct 2021	13 Oct 2021	13 Oct 2021	13 Oct 2021	13 Oct 2021	14 Oct 2021	14 Oct 2021
	Sample Type	N	N	FD	N	N	N	N	FD	N	N	N
Constituent	**VDEQ Action Level**											
Total Petroleum Hydrocarbons (TPH)												
Diesel Range Organics (DRO)	100[A]	6.2 J	< 9.1 U	< 9.3 U	27	39	64	< 9.6 U	< 10 U	< 9.1 U	41	< 4.8 U
Gasoline Range Organics (GRO)		< 3 U	< 3 U	< 3.4 U	< 1.1 U	< 3.5 U	< 2.8 U	< 2.7 U	< 3.1 U	< 2.8 U	< 1.2 U	< 1.3 U
Oil Range Organics (ORO)		1.72 J,B	0.452 J,B	< 4.66 U	6.11	2.08 J	56.2	1.14 J	1.64 J	< 4.36 U	< 4.49 U	< 4.68 U
Total TPH		7.92	0.452	U	33.11	41.08	**120.2**	1.14	1.64	U	41	U

Notes:
B: constituent was detected in the associated laboratory method blank.
ft bgs: feet below ground surface.
FD: field duplicate sample.
N: normal parent sample.
NS: not sampled.
NE: screening level not established.
U: not detected above the analytical reporting limit shown.
J: Estimated concentration above the method detection limit, but below the reporting limit.
All values are listed in milligrams per kilogram (mg/kg).
[A]Virginia Department of Environmental Quality (VDEQ) Tier II Residential and Tier III Industrial Soil Screening Levels (SSLs) have not been established for total TPH. The VDEQ Petroleum Storage Tank Program utilizes 100 mg/kg as an action level for total TPH to determine when further evaluation is warranted.
Boldface, underline, and gray shading indicates the detection exceeds the VDEQ action level for TPH.
Samples were analyzed for the presence of total petroleum hydrocarbons – diesel-range organics (TPH-DRO), – gasoline range organics (GRO), and – oil range organics (ORO) by by United States Environmental Protection Agency (USEPA) method 8015C and 8015M.

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TABLE 4-2B: Soil Analytical Results - Detected Total Petroleum Hydrocarbons
Former Potomac River Generating Station
1400 N. Royal Street, Alexandria, Virginia

	Location	SB-214	SB-215	SB-215	SB-215	SB-216	SB-224	SB-225	SB-227
	Sample Depth (ft bgs)	14 - 16	0 - 2	5 - 7	16 - 18	1 - 3	0 - 1	0 - 1	0 - 1
	Sample Date	14 Oct 2021	18 Oct 2021	18 Oct 2021	18 Oct 2021	18 Oct 2021	21 Oct 2021	21 Oct 2021	21 Oct 2021
	Sample Type	N	N	N	N	N	N	N	N
Constituent	**VDEQ Action Level**								
Total Petroleum Hydrocarbons (TPH)									
Diesel Range Organics (DRO)	100[A]	< 4 U	98	5.2 J	7 J	100	**1,200**	**1,000**	**150**
Gasoline Range Organics (GRO)		< 0.73 U	< 2.2 U	< 2.8 U	< 2.6 U	47	**320**	92	8.9
Oil Range Organics (ORO)		< 4.82 U	68.5	0.679 J,B	3.36 J,B	5.51	**111**	**105**	21.7
Total TPH		U	**166.5**	5.879	10.36	**152.51**	**1,631**	**1,197**	**180.6**

Notes:
B: constituent was detected in the associated laboratory method blank.
ft bgs: feet below ground surface.
FD: field duplicate sample.
N: normal parent sample.
NS: not sampled.
NE: screening level not established.
U: not detected above the analytical reporting limit shown.
J: Estimated concentration above the method detection limit, but below the reporting limit.
All values are listed in milligrams per kilogram (mg/kg).
[A]Virginia Department of Environmental Quality (VDEQ) Tier II Residential and Tier III Industrial Soil Screening Levels (SSLs) have not been established for total TPH. The VDEQ Petroleum Storage Tank Program utilizes 100 mg/kg as an action level for total TPH to determine when further evaluation is warranted.
Boldface, underline, and gray shading indicates the detection exceeds the VDEQ action level for TPH.
Samples were analyzed for the presence of total petroleum hydrocarbons – diesel-range organics (TPH-DRO), – gasoline range organics (GRO), and – oil range organics (ORO) by by United States Environmental Protection Agency (USEPA) method 8015C and 8015M.

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TABLE 4-2C: Soil Analytical Results - Detected Semi-Volatile Organic Compounds
Former Potomac River Generating Station
1400 N. Royal Street, Alexandria, Virginia

		Location	SB-201	SB-201	SB-201	SB-201	SB-202	SB-202	SB-203	SB-203	SB-204	SB-204	SB-204
		Sample Depth (ft bgs)	0 - 1	0 - 1	10 - 12	24 - 26	0 - 1	25 - 30	0 - 1	11 - 13	0.8 - 1.8	6 - 8	13 - 15
		Sample Date	05 Oct 2021	08 Oct 2021	08 Oct 2021	08 Oct 2021	07 Oct 2021	07 Oct 2021	12 Oct 2021	12 Oct 2021	18 Oct 2021	18 Oct 2021	18 Oct 2021
		Sample Type	N	FD	N	N	N	N	N	N	N	N	N
Constituent	**Tier II Res.**	**Tier III Ind.**											
Semi-Volatile Organic Compounds (SVOCs)													
1-Methylnaphthalene	1.157	730	0.072 J	< 0.2 U	< 0.2 U	< 0.2 U	< 0.23 U	< 0.21 U	0.068 J	< 0.2 U	< 0.18 U	< 0.2 U	< 0.2 U
2,4-Dimethylphenol	0.8522	1,600	< 0.43 U	< 0.4 U	< 0.39 U	< 0.4 U	< 0.46 U	< 0.42 U	< 0.4 U	< 0.4 U	< 0.37 U	< 0.4 U	< 0.4 U
2-Methylnaphthalene	0.3714	300	0.12 J	< 0.2 U	< 0.2 U	< 0.2 U	< 0.23 U	< 0.21 U	0.098 J	< 0.2 U	< 0.18 U	< 0.2 U	< 0.2 U
2-Methylphenol	1.512	4,100	< 0.43 U	< 0.4 U	< 0.39 U	< 0.4 U	< 0.46 U	< 0.42 U	< 0.4 U	< 0.4 U	< 0.37 U	< 0.4 U	< 0.4 U
3&4-Methylphenol	NE	NE	< 0.43 U	< 0.4 U	0.1 J	< 0.4 U	< 0.46 U	< 0.42 U	< 0.4 U	< 0.4 U	< 0.37 U	< 0.4 U	< 0.4 U
Acenaphthene	10.87	4,500	< 0.21 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.23 U	< 0.21 U	< 0.2 U	< 0.2 U	< 0.18 U	< 0.2 U	< 0.2 U
Acenaphthylene	26.131	2,300	< 0.21 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.23 U	< 0.21 U	< 0.2 U	< 0.2 U	< 0.18 U	< 0.2 U	< 0.2 U
Acetophenone	1.154	12,000	< 0.43 U	< 0.4 U	< 0.39 U	< 0.4 U	< 0.46 U	< 0.42 U	< 0.4 U	< 0.4 U	< 0.37 U	< 0.4 U	< 0.4 U
Anthracene	118.513	23,000	< 0.21 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.23 U	< 0.21 U	< 0.2 U	< 0.2 U	< 0.18 U	< 0.2 U	< 0.2 U
Benzo(a)anthracene	2.124	210	< 0.21 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.23 U	< 0.21 U	< 0.2 U	< 0.2 U	< 0.18 U	< 0.2 U	< 0.2 U
Benzo(a)pyrene	1.1	21	< 0.21 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.23 U	< 0.21 U	< 0.2 U	< 0.2 U	< 0.18 U	< 0.2 U	< 0.2 U
Benzo(b)fluoranthene	11	210	0.069 J	< 0.2 U	< 0.2 U	< 0.2 U	< 0.23 U	< 0.21 U	< 0.2 U	< 0.2 U	< 0.18 U	< 0.2 U	< 0.2 U
Benzo(g,h,i)perylene	26.131	2,300	< 0.21 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.23 U	< 0.21 U	< 0.2 U	< 0.2 U	< 0.18 U	< 0.2 U	< 0.2 U
Benzo(k)fluoranthene	110	2,100	< 0.21 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.23 U	< 0.21 U	< 0.2 U	< 0.2 U	< 0.18 U	< 0.2 U	< 0.2 U
Benzoic Acid	30.18	330,000	< 1.3 U	< 1.2 U	< 1.1 U	< 1.2 U	< 1.4 U	< 1.2 U	< 1.2 U	< 1.2 U	< 1.1 U	< 1.2 U	< 1.2 U
bis(2-Ethylhexyl)phthalate	28.728	1,600	< 0.43 U	< 0.4 U	< 0.39 U	< 0.4 U	< 0.46 U	< 0.42 U	< 0.4 U	< 0.4 U	< 0.37 U	< 0.4 U	< 0.4 U
Carbazole	NE	NE	< 0.21 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.23 U	< 0.21 U	< 0.2 U	< 0.2 U	< 0.18 U	< 0.2 U	< 0.2 U
Chrysene	1100	21,000	0.063 J	< 0.2 U	< 0.2 U	< 0.2 U	< 0.23 U	< 0.21 U	< 0.2 U	< 0.2 U	< 0.18 U	< 0.2 U	< 0.2 U
Dibenz(a,h)anthracene	1.1	21	< 0.21 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.23 U	< 0.21 U	< 0.2 U	< 0.2 U	< 0.18 U	< 0.2 U	< 0.2 U
Dibenzofuran	0.2927	120	< 0.43 U	< 0.4 U	< 0.39 U	< 0.4 U	< 0.46 U	< 0.42 U	< 0.4 U	< 0.4 U	< 0.37 U	< 0.4 U	< 0.4 U
Fluoranthene	177.76	3,000	0.072 J	< 0.2 U	0.093 J	< 0.2 U	< 0.23 U	< 0.21 U	< 0.2 U	< 0.2 U	< 0.18 U	< 0.2 U	< 0.2 U
Fluorene	10.742	3,000	< 0.21 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.23 U	< 0.21 U	< 0.2 U	< 0.2 U	< 0.18 U	< 0.2 U	< 0.2 U
Indeno(1,2,3-cd)pyrene	11	210	< 0.21 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.23 U	< 0.21 U	< 0.2 U	< 0.2 U	< 0.18 U	< 0.2 U	< 0.2 U
Naphthalene	0.04013	59	< 0.21 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.23 U	< 0.21 U	**0.076 J**	< 0.2 U	< 0.18 U	< 0.2 U	< 0.2 U
Phenanthrene	26.131	2,300	0.077 J	< 0.2 U	0.062 J	< 0.2 U	< 0.23 U	< 0.21 U	0.094 J	< 0.2 U	< 0.18 U	< 0.2 U	< 0.2 U
Pyrene	26.131	2,300	0.079 J	< 0.2 U	0.098 J	< 0.2 U	< 0.23 U	< 0.21 U	< 0.2 U	< 0.2 U	< 0.18 U	< 0.2 U	< 0.2 U

Notes:
ft bgs: feet below ground surface.
FD: field duplicate sample.
N: normal parent sample.
NS: not sampled.
NE: screening level not established.
U: not detected above the analytical reporting limit shown.
J: Estimated concentration above the method detection limit, but below the reporting limit.
Tier II Res.: Virginia Department of Environmental Quality (VDEQ) Tier II Residential Soil Screening Level (SSL).
Tier III Ind.: VDEQ Tier III Industrial SSL.
All values are listed in milligrams per kilogram (mg/kg).
Boldface indicates the detection exceeds established Tier II Residential SSLs.
Underline and gray shading indicates the detection exceeds established Tier III Industrial SSLs.
Samples were analyzed for the presence of SVOCs by United States Environmental Protection Agency (USEPA) method 8270. Only detected constituents are summarized herein.

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TABLE 4-2C: Soil Analytical Results - Detected Semi-Volatile Organic Compounds
Former Potomac River Generating Station
1400 N. Royal Street, Alexandria, Virginia

		Location	SB-205	SB-205	SB-205	SB-206	SB-206	SB-206	SB-207	SB-207	SB-207	SB-207	SB-208
		Sample Depth (ft bgs)	0 - 1	13 - 15	13 - 15	0 - 1	5 - 7	15 - 17	0 - 1	6 - 8	6 - 8	16 - 18	0 - 1
		Sample Date	11 Oct 2021	11 Oct 2021	11 Oct 2021	12 Oct 2021	12 Oct 2021	12 Oct 2021	13 Oct 2021	13 Oct 2021	13 Oct 2021	13 Oct 2021	14 Oct 2021
		Sample Type	N	N	FD	N	N	N	N	N	FD	N	N
Constituent	**Tier II Res.**	**Tier III Ind.**											
Semi-Volatile Organic Compounds (SVOCs)													
1-Methylnaphthalene	1.157	730	< 0.2 U	< 0.19 U	< 0.19 U	0.1 J	< 0.2 U	< 0.22 U	0.08 J	< 0.19 U	< 0.21 U	< 0.18 U	< 0.22 U
2,4-Dimethylphenol	0.8522	1,600	< 0.41 U	< 0.37 U	< 0.38 U	< 0.38 U	< 0.4 U	< 0.44 U	< 0.42 U	< 0.38 U	< 0.41 U	< 0.36 U	< 0.44 U
2-Methylnaphthalene	0.3714	300	< 0.2 U	< 0.19 U	< 0.19 U	0.17 J	< 0.2 U	0.071 J	0.13 J	< 0.19 U	< 0.21 U	< 0.18 U	< 0.22 U
2-Methylphenol	1.512	4,100	< 0.41 U	< 0.37 U	< 0.38 U	< 0.38 U	< 0.4 U	< 0.44 U	< 0.42 U	< 0.38 U	< 0.41 U	< 0.36 U	< 0.44 U
3&4-Methylphenol	NE	NE	< 0.41 U	< 0.37 U	< 0.38 U	< 0.38 U	< 0.4 U	< 0.44 U	< 0.42 U	< 0.38 U	< 0.41 U	< 0.36 U	< 0.44 U
Acenaphthene	10.87	4,500	< 0.2 U	< 0.19 U	< 0.19 U	< 0.19 U	< 0.2 U	< 0.22 U	< 0.21 U	< 0.19 U	< 0.21 U	< 0.18 U	< 0.22 U
Acenaphthylene	26.131	2,300	< 0.2 U	< 0.19 U	< 0.19 U	< 0.19 U	< 0.2 U	< 0.22 U	< 0.21 U	< 0.19 U	< 0.21 U	< 0.18 U	< 0.22 U
Acetophenone	1.154	12,000	< 0.41 U	< 0.37 U	< 0.38 U	< 0.38 U	< 0.4 U	< 0.44 U	< 0.42 U	< 0.38 U	< 0.41 U	< 0.36 U	< 0.44 U
Anthracene	118.513	23,000	< 0.2 U	< 0.19 U	< 0.19 U	< 0.19 U	< 0.2 U	< 0.22 U	< 0.21 U	< 0.19 U	< 0.21 U	< 0.18 U	< 0.22 U
Benzo(a)anthracene	2.124	210	< 0.2 U	< 0.19 U	< 0.19 U	< 0.19 U	< 0.2 U	< 0.22 U	0.11 J	< 0.19 U	< 0.21 U	< 0.18 U	< 0.22 U
Benzo(a)pyrene	1.1	21	< 0.2 U	< 0.19 U	< 0.19 U	< 0.19 U	< 0.2 U	< 0.22 U	0.083 J	< 0.19 U	< 0.21 U	< 0.18 U	< 0.22 U
Benzo(b)fluoranthene	11	210	< 0.2 U	< 0.19 U	< 0.19 U	< 0.19 U	< 0.2 U	< 0.22 U	0.11 J	< 0.19 U	< 0.21 U	< 0.18 U	< 0.22 U
Benzo(g,h,i)perylene	26.131	2,300	< 0.2 U	< 0.19 U	< 0.19 U	< 0.19 U	< 0.2 U	< 0.22 U	< 0.21 U	< 0.19 U	< 0.21 U	< 0.18 U	< 0.22 U
Benzo(k)fluoranthene	110	2,100	< 0.2 U	< 0.19 U	< 0.19 U	< 0.19 U	< 0.2 U	< 0.22 U	< 0.21 U	< 0.19 U	< 0.21 U	< 0.18 U	< 0.22 U
Benzoic Acid	30.18	330,000	< 1.2 U	< 1.1 U	< 1.1 U	< 1.1 U	< 1.2 U	< 1.3 U	< 1.2 U	< 1.1 U	< 1.2 U	< 1.1 U	< 1.3 U
bis(2-Ethylhexyl)phthalate	28.728	1,600	< 0.41 U	< 0.37 U	< 0.38 U	< 0.38 U	< 0.4 U	< 0.44 U	< 0.42 U	< 0.38 U	< 0.41 U	< 0.36 U	< 0.44 U
Carbazole	NE	NE	< 0.2 U	< 0.19 U	< 0.19 U	< 0.19 U	< 0.2 U	< 0.22 U	< 0.21 U	< 0.19 U	< 0.21 U	< 0.18 U	< 0.22 U
Chrysene	1100	21,000	< 0.2 U	< 0.19 U	< 0.19 U	< 0.19 U	< 0.2 U	< 0.22 U	0.12 J	< 0.19 U	< 0.21 U	< 0.18 U	< 0.22 U
Dibenz(a,h)anthracene	1.1	21	< 0.2 U	< 0.19 U	< 0.19 U	< 0.19 U	< 0.2 U	< 0.22 U	< 0.21 U	< 0.19 U	< 0.21 U	< 0.18 U	< 0.22 U
Dibenzofuran	0.2927	120	< 0.41 U	< 0.37 U	< 0.38 U	< 0.38 U	< 0.4 U	< 0.44 U	< 0.42 U	< 0.38 U	< 0.41 U	< 0.36 U	< 0.44 U
Fluoranthene	177.76	3,000	< 0.2 U	< 0.19 U	< 0.19 U	< 0.19 U	< 0.2 U	< 0.22 U	0.22	< 0.19 U	< 0.21 U	< 0.18 U	< 0.22 U
Fluorene	10.742	3,000	< 0.2 U	< 0.19 U	< 0.19 U	< 0.19 U	< 0.2 U	< 0.22 U	< 0.21 U	< 0.19 U	< 0.21 U	< 0.18 U	< 0.22 U
Indeno(1,2,3-cd)pyrene	11	210	< 0.2 U	< 0.19 U	< 0.19 U	< 0.19 U	< 0.2 U	< 0.22 U	< 0.21 U	< 0.19 U	< 0.21 U	< 0.18 U	< 0.22 U
Naphthalene	0.04013	59	< 0.2 U	< 0.19 U	< 0.19 U	**0.11 J**	< 0.2 U	< 0.22 U	**0.077 J**	< 0.19 U	< 0.21 U	< 0.18 U	< 0.22 U
Phenanthrene	26.131	2,300	< 0.2 U	< 0.19 U	< 0.19 U	0.088 J	< 0.2 U	< 0.22 U	0.25	< 0.19 U	< 0.21 U	< 0.18 U	< 0.22 U
Pyrene	26.131	2,300	< 0.2 U	< 0.19 U	< 0.19 U	< 0.19 U	< 0.2 U	< 0.22 U	0.19 J	< 0.19 U	< 0.21 U	< 0.18 U	< 0.22 U

Notes:
ft bgs: feet below ground surface.
FD: field duplicate sample.
N: normal parent sample.
NS: not sampled.
NE: screening level not established.
U: not detected above the analytical reporting limit shown.
J: Estimated concentration above the method detection limit, but below the reporting limit.
Tier II Res.: Virginia Department of Environmental Quality (VDEQ) Tier II Residential Soil Screening Level (SSL).
Tier III Ind.: VDEQ Tier III Industrial SSL.
All values are listed in milligrams per kilogram (mg/kg).
Boldface indicates the detection exceeds established Tier II Residential SSLs.
Underline and gray shading indicates the detection exceeds established Tier III Industrial SSLs.
Samples were analyzed for the presence of SVOCs by United States Environmental Protection Agency (USEPA) method 8270. Only detected constituents are summarized herein.

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TABLE 4-2C: Soil Analytical Results - Detected Semi-Volatile Organic Compounds
Former Potomac River Generating Station
1400 N. Royal Street, Alexandria, Virginia

		Location	SB-208	SB-208	SB-209	SB-209	SB-209	SB-210	SB-211	SB-211	SB-211	SB-212	SB-212
		Sample Depth (ft bgs)	5 - 7	18 - 20	0 - 1	5 - 7	15 - 17	0 - 1	0 - 1	5 - 7	15 - 17	0 - 2	0 - 2
		Sample Date	14 Oct 2021	14 Oct 2021	13 Oct 2021	13 Oct 2021	13 Oct 2021	28 Oct 2021	15 Oct 2021	15 Oct 2021	15 Oct 2021	15 Oct 2021	15 Oct 2021
		Sample Type	N	N	N	N	N	N	N	N	N	N	FD
Constituent	**Tier II Res.**	**Tier III Ind.**											
Semi-Volatile Organic Compounds (SVOCs)													
1-Methylnaphthalene	1.157	730	< 0.22 U	< 0.21 U	0.11 J	< 0.21 U	< 0.2 U	< 0.2 U	0.3	0.11 J	0.12 J	< 0.19 U	0.056 J
2,4-Dimethylphenol	0.8522	1,600	< 0.44 U	< 0.42 U	< 0.4 U	< 0.41 U	< 0.4 U	< 0.4 U	< 0.38 U	< 0.4 U	< 0.37 U	< 0.38 U	< 0.39 U
2-Methylnaphthalene	0.3714	300	< 0.22 U	< 0.21 U	0.16 J	< 0.21 U	< 0.2 U	< 0.2 U	**0.5**	0.2	0.2	< 0.19 U	0.084 J
2-Methylphenol	1.512	4,100	< 0.44 U	< 0.42 U	< 0.4 U	< 0.41 U	< 0.4 U	< 0.4 U	< 0.38 U	< 0.4 U	< 0.37 U	< 0.38 U	< 0.39 U
3&4-Methylphenol	NE	NE	< 0.44 U	< 0.42 U	< 0.4 U	< 0.41 U	< 0.4 U	< 0.4 U	< 0.38 U	< 0.4 U	< 0.37 U	< 0.38 U	< 0.39 U
Acenaphthene	10.87	4,500	< 0.22 U	< 0.21 U	< 0.2 U	< 0.21 U	< 0.2 U	< 0.2 U	< 0.19 U	< 0.2 U	< 0.19 U	< 0.19 U	< 0.2 U
Acenaphthylene	26.131	2,300	< 0.22 U	< 0.21 U	< 0.2 U	< 0.21 U	< 0.2 U	< 0.2 U	< 0.19 U	< 0.2 U	< 0.19 U	< 0.19 U	< 0.2 U
Acetophenone	1.154	12,000	< 0.44 U	< 0.42 U	< 0.4 U	< 0.41 U	< 0.4 U	< 0.4 U	< 0.38 U	< 0.4 U	< 0.37 U	< 0.38 U	< 0.39 U
Anthracene	118.513	23,000	< 0.22 U	< 0.21 U	< 0.2 U	< 0.21 U	< 0.2 U	< 0.2 U	< 0.19 U	< 0.2 U	< 0.19 U	< 0.19 U	< 0.2 U
Benzo(a)anthracene	2.124	210	< 0.22 U	< 0.21 U	< 0.2 U	< 0.21 U	< 0.2 U	< 0.2 U	0.07 J	< 0.2 U	< 0.19 U	< 0.19 U	< 0.2 U
Benzo(a)pyrene	1.1	21	< 0.22 U	< 0.21 U	< 0.2 U	< 0.21 U	< 0.2 U	< 0.2 U	0.065 J	< 0.2 U	< 0.19 U	< 0.19 U	< 0.2 U
Benzo(b)fluoranthene	11	210	< 0.22 U	< 0.21 U	< 0.2 U	< 0.21 U	< 0.2 U	< 0.2 U	0.091 J	< 0.2 U	< 0.19 U	< 0.19 U	< 0.2 U
Benzo(g,h,i)perylene	26.131	2,300	< 0.22 U	< 0.21 U	< 0.2 U	< 0.21 U	< 0.2 U	< 0.2 U	< 0.19 U	< 0.2 U	< 0.19 U	< 0.19 U	< 0.2 U
Benzo(k)fluoranthene	110	2,100	< 0.22 U	< 0.21 U	< 0.2 U	< 0.21 U	< 0.2 U	< 0.2 U	< 0.19 U	< 0.2 U	< 0.19 U	< 0.19 U	< 0.2 U
Benzoic Acid	30.18	330,000	< 1.3 U	< 1.2 U	< 1.2 U	< 1.2 U	< 1.2 U	< 1.2 U	< 1.1 U	< 1.2 U	< 1.1 U	< 1.1 U	< 1.1 U
bis(2-Ethylhexyl)phthalate	28.728	1,600	< 0.44 U	< 0.42 U	< 0.4 U	< 0.41 U	< 0.4 U	< 0.4 U	< 0.38 U	< 0.4 U	< 0.37 U	< 0.38 U	< 0.39 U
Carbazole	NE	NE	< 0.22 U	< 0.21 U	< 0.2 U	< 0.21 U	< 0.2 U	< 0.2 U	< 0.19 U	< 0.2 U	< 0.19 U	< 0.19 U	< 0.2 U
Chrysene	1100	21,000	< 0.22 U	< 0.21 U	< 0.2 U	< 0.21 U	< 0.2 U	< 0.2 U	0.1 J	< 0.2 U	< 0.19 U	< 0.19 U	< 0.2 U
Dibenz(a,h)anthracene	1.1	21	< 0.22 U	< 0.21 U	< 0.2 U	< 0.21 U	< 0.2 U	< 0.2 U	< 0.19 U	< 0.2 U	< 0.19 U	< 0.19 U	< 0.2 U
Dibenzofuran	0.2927	120	< 0.44 U	< 0.42 U	< 0.4 U	< 0.41 U	< 0.4 U	< 0.4 U	0.1 J	< 0.4 U	< 0.37 U	< 0.38 U	< 0.39 U
Fluoranthene	177.76	3,000	< 0.22 U	< 0.21 U	< 0.2 U	< 0.21 U	< 0.2 U	< 0.2 U	0.16 J	< 0.2 U	< 0.19 U	< 0.19 U	< 0.2 U
Fluorene	10.742	3,000	< 0.22 U	< 0.21 U	< 0.2 U	< 0.21 U	< 0.2 U	< 0.2 U	< 0.19 U	< 0.2 U	< 0.19 U	< 0.19 U	< 0.2 U
Indeno(1,2,3-cd)pyrene	11	210	< 0.22 U	< 0.21 U	< 0.2 U	< 0.21 U	< 0.2 U	< 0.2 U	< 0.19 U	< 0.2 U	< 0.19 U	< 0.19 U	< 0.2 U
Naphthalene	0.04013	59	< 0.22 U	< 0.21 U	**0.094 J**	< 0.21 U	< 0.2 U	< 0.2 U	**0.29**	**0.13 J**	**0.13 J**	< 0.19 U	**0.056 J**
Phenanthrene	26.131	2,300	< 0.22 U	< 0.21 U	0.1 J	< 0.21 U	< 0.2 U	< 0.2 U	0.31	0.077 J	0.074 J	< 0.19 U	0.071 J
Pyrene	26.131	2,300	< 0.22 U	< 0.21 U	< 0.2 U	< 0.21 U	< 0.2 U	< 0.2 U	0.16 J	< 0.2 U	< 0.19 U	< 0.19 U	< 0.2 U

Notes:
ft bgs: feet below ground surface.
FD: field duplicate sample.
N: normal parent sample.
NS: not sampled.
NE: screening level not established.
U: not detected above the analytical reporting limit shown.
J: Estimated concentration above the method detection limit, but below the reporting limit.
Tier II Res.: Virginia Department of Environmental Quality (VDEQ) Tier II Residential Soil Screening Level (SSL).
Tier III Ind.: VDEQ Tier III Industrial SSL.
All values are listed in milligrams per kilogram (mg/kg).
Boldface indicates the detection exceeds established Tier II Residential SSLs.
Underline and gray shading indicates the detection exceeds established Tier III Industrial SSLs.
Samples were analyzed for the presence of SVOCs by United States Environmental Protection Agency (USEPA) method 8270. Only detected constituents are summarized herein.

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TABLE 4-2C: Soil Analytical Results - Detected Semi-Volatile Organic Compounds
Former Potomac River Generating Station
1400 N. Royal Street, Alexandria, Virginia

		Location	SB-212	SB-212	SB-213	SB-213	SB-213	SB-214	SB-214	SB-214	SB-215	SB-215	SB-215
		Sample Depth (ft bgs)	5 - 7	15 - 17	0 - 1	5 - 7	16 - 18	0 - 2	5 - 7	14 - 16	0 - 2	5 - 7	16 - 18
		Sample Date	15 Oct 2021	15 Oct 2021	15 Oct 2021	15 Oct 2021	15 Oct 2021	14 Oct 2021	14 Oct 2021	14 Oct 2021	18 Oct 2021	18 Oct 2021	18 Oct 2021
		Sample Type	N	N	N	N	N	N	N	N	N	N	N
Constituent	**Tier II Res.**	**Tier III Ind.**											
Semi-Volatile Organic Compounds (SVOCs)													
1-Methylnaphthalene	1.157	730	< 0.2 U	< 0.18 U	0.083 J	< 0.2 U	< 0.18 U	0.058 J	< 0.21 U	< 0.18 U	0.23	< 0.19 U	< 0.19 U
2,4-Dimethylphenol	0.8522	1,600	< 0.4 U	< 0.36 U	< 0.4 U	< 0.41 U	< 0.37 U	< 0.39 U	< 0.43 U	< 0.35 U	< 0.36 U	< 0.39 U	< 0.39 U
2-Methylnaphthalene	0.3714	300	< 0.2 U	< 0.18 U	0.13 J	< 0.2 U	< 0.18 U	0.1 J	< 0.21 U	< 0.18 U	0.28	< 0.19 U	< 0.19 U
2-Methylphenol	1.512	4,100	< 0.4 U	< 0.36 U	< 0.4 U	< 0.41 U	< 0.37 U	< 0.39 U	< 0.43 U	< 0.35 U	< 0.36 U	< 0.39 U	< 0.39 U
3&4-Methylphenol	NE	NE	< 0.4 U	< 0.36 U	< 0.4 U	< 0.41 U	< 0.37 U	< 0.39 U	< 0.43 U	< 0.35 U	< 0.36 U	< 0.39 U	< 0.39 U
Acenaphthene	10.87	4,500	< 0.2 U	< 0.18 U	< 0.2 U	< 0.2 U	< 0.18 U	0.065 J	< 0.21 U	< 0.18 U	< 0.18 U	< 0.19 U	< 0.19 U
Acenaphthylene	26.131	2,300	< 0.2 U	< 0.18 U	< 0.2 U	< 0.2 U	< 0.18 U	0.067 J	< 0.21 U	< 0.18 U	< 0.18 U	< 0.19 U	< 0.19 U
Acetophenone	1.154	12,000	< 0.4 U	< 0.36 U	< 0.4 U	< 0.41 U	< 0.37 U	< 0.39 U	< 0.43 U	< 0.35 U	< 0.36 U	< 0.39 U	< 0.39 U
Anthracene	118.513	23,000	< 0.2 U	< 0.18 U	< 0.2 U	< 0.2 U	< 0.18 U	0.37	< 0.21 U	< 0.18 U	< 0.18 U	< 0.19 U	< 0.19 U
Benzo(a)anthracene	2.124	210	< 0.2 U	< 0.18 U	< 0.2 U	< 0.2 U	< 0.18 U	1.8	< 0.21 U	< 0.18 U	0.078 J	< 0.19 U	< 0.19 U
Benzo(a)pyrene	1.1	21	< 0.2 U	< 0.18 U	< 0.2 U	< 0.2 U	< 0.18 U	**1.5**	< 0.21 U	< 0.18 U	0.065 J	< 0.19 U	< 0.19 U
Benzo(b)fluoranthene	11	210	< 0.2 U	< 0.18 U	< 0.2 U	< 0.2 U	< 0.18 U	1.9	< 0.21 U	< 0.18 U	0.11 J	< 0.19 U	< 0.19 U
Benzo(g,h,i)perylene	26.131	2,300	< 0.2 U	< 0.18 U	< 0.2 U	< 0.2 U	< 0.18 U	0.64	< 0.21 U	< 0.18 U	< 0.18 U	< 0.19 U	< 0.19 U
Benzo(k)fluoranthene	110	2,100	< 0.2 U	< 0.18 U	< 0.2 U	< 0.2 U	< 0.18 U	0.84	< 0.21 U	< 0.18 U	< 0.18 U	< 0.19 U	< 0.19 U
Benzoic Acid	30.18	330,000	< 1.2 U	< 1.1 U	< 1.2 U	< 1.2 U	< 1.1 U	< 1.1 U	< 1.3 U	< 1 U	< 1.1 U	< 1.1 U	< 1.1 U
bis(2-Ethylhexyl)phthalate	28.728	1,600	< 0.4 U	< 0.36 U	< 0.4 U	< 0.41 U	< 0.37 U	< 0.39 U	< 0.43 U	< 0.35 U	< 0.36 U	< 0.39 U	< 0.39 U
Carbazole	NE	NE	< 0.2 U	< 0.18 U	< 0.2 U	< 0.2 U	< 0.18 U	0.23	< 0.21 U	< 0.18 U	< 0.18 U	< 0.19 U	< 0.19 U
Chrysene	1100	21,000	< 0.2 U	< 0.18 U	< 0.2 U	< 0.2 U	< 0.18 U	1.6	< 0.21 U	< 0.18 U	0.12 J	< 0.19 U	< 0.19 U
Dibenz(a,h)anthracene	1.1	21	< 0.2 U	< 0.18 U	< 0.2 U	< 0.2 U	< 0.18 U	0.21	< 0.21 U	< 0.18 U	< 0.18 U	< 0.19 U	< 0.19 U
Dibenzofuran	0.2927	120	< 0.4 U	< 0.36 U	< 0.4 U	< 0.41 U	< 0.37 U	0.099 J	< 0.43 U	< 0.35 U	0.077 J	< 0.39 U	< 0.39 U
Fluoranthene	177.76	3,000	< 0.2 U	< 0.18 U	< 0.2 U	< 0.2 U	< 0.18 U	3	< 0.21 U	< 0.18 U	0.1 J	< 0.19 U	< 0.19 U
Fluorene	10.742	3,000	< 0.2 U	< 0.18 U	< 0.2 U	< 0.2 U	< 0.18 U	0.11 J	< 0.21 U	< 0.18 U	< 0.18 U	< 0.19 U	< 0.19 U
Indeno(1,2,3-cd)pyrene	11	210	< 0.2 U	< 0.18 U	< 0.2 U	< 0.2 U	< 0.18 U	0.73	< 0.21 U	< 0.18 U	< 0.18 U	< 0.19 U	< 0.19 U
Naphthalene	0.04013	59	< 0.2 U	< 0.18 U	**0.076 J**	< 0.2 U	< 0.18 U	**0.15 J**	< 0.21 U	< 0.18 U	**0.098 J**	< 0.19 U	< 0.19 U
Phenanthrene	26.131	2,300	< 0.2 U	< 0.18 U	0.067 J	< 0.2 U	< 0.18 U	1.6	< 0.21 U	< 0.18 U	0.3	< 0.19 U	< 0.19 U
Pyrene	26.131	2,300	< 0.2 U	< 0.18 U	< 0.2 U	< 0.2 U	< 0.18 U	2.9	< 0.21 U	< 0.18 U	0.11 J	< 0.19 U	< 0.19 U

Notes:
ft bgs: feet below ground surface.
FD: field duplicate sample.
N: normal parent sample.
NS: not sampled.
NE: screening level not established.
U: not detected above the analytical reporting limit shown.
J: Estimated concentration above the method detection limit, but below the reporting limit.
Tier II Res.: Virginia Department of Environmental Quality (VDEQ) Tier II Residential Soil Screening Level (SSL).
Tier III Ind.: VDEQ Tier III Industrial SSL.
All values are listed in milligrams per kilogram (mg/kg).
Boldface indicates the detection exceeds established Tier II Residential SSLs.
Underline and gray shading indicates the detection exceeds established Tier III Industrial SSLs.
Samples were analyzed for the presence of SVOCs by United States Environmental Protection Agency (USEPA) method 8270. Only detected constituents are summarized herein.

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TABLE 4-2C: Soil Analytical Results - Detected Semi-Volatile Organic Compounds
Former Potomac River Generating Station
1400 N. Royal Street, Alexandria, Virginia

		Location	SB-216	SB-224	SB-225	SB-226	SB-227
		Sample Depth (ft bgs)	1 - 3	0 - 1	0 - 1	0 - 1	0 - 1
		Sample Date	18 Oct 2021	21 Oct 2021	21 Oct 2021	05 Oct 2021	21 Oct 2021
		Sample Type	N	N	N	N	N
Constituent	**Tier II Res.**	**Tier III Ind.**					
Semi-Volatile Organic Compounds (SVOCs)							
1-Methylnaphthalene	1.157	730	0.59	**9.8**	**8.8**	< 0.21 U	0.74
2,4-Dimethylphenol	0.8522	1,600	< 0.4 U	0.14 J	0.2 J	< 0.41 U	< 0.39 U
2-Methylnaphthalene	0.3714	300	**1.1**	**16**	**14**	< 0.21 U	**1.2**
2-Methylphenol	1.512	4,100	< 0.4 U	0.085 J	0.13 J	< 0.41 U	< 0.39 U
3&4-Methylphenol	NE	NE	< 0.4 U	0.088 J	0.12 J	< 0.41 U	< 0.39 U
Acenaphthene	10.87	4,500	0.55	0.17 J	0.13 J	< 0.21 U	< 0.19 U
Acenaphthylene	26.131	2,300	0.12 J	0.29	0.11 J	< 0.21 U	< 0.19 U
Acetophenone	1.154	12,000	0.068 J	0.56	< 0.51 U	< 0.41 U	< 0.39 U
Anthracene	118.513	23,000	0.69	0.41	0.14 J	< 0.21 U	< 0.19 U
Benzo(a)anthracene	2.124	210	0.49	1.5	0.58	< 0.21 U	0.074 J
Benzo(a)pyrene	1.1	21	0.33	0.71	0.25 J	< 0.21 U	< 0.19 U
Benzo(b)fluoranthene	11	210	0.49	2.8	0.79	< 0.21 U	0.13 J
Benzo(g,h,i)perylene	26.131	2,300	0.14 J	0.5	0.25 J	< 0.21 U	< 0.19 U
Benzo(k)fluoranthene	110	2,100	0.2 J	1	0.2 J	< 0.21 U	< 0.19 U
Benzoic Acid	30.18	330,000	< 1.2 U	1.2	< 1.5 U	< 1.2 U	< 1.1 U
bis(2-Ethylhexyl)phthalate	28.728	1,600	< 0.4 U	0.12 J	0.39 J	< 0.41 U	< 0.39 U
Carbazole	NE	NE	0.25	0.46	0.33	< 0.21 U	< 0.19 U
Chrysene	1100	21,000	0.45	2.9	1.3	< 0.21 U	0.16 J
Dibenz(a,h)anthracene	1.1	21	< 0.2 U	0.24	< 0.26 U	< 0.21 U	< 0.19 U
Dibenzofuran	0.2927	120	**0.69**	**3.6**	**2.7**	< 0.41 U	0.27 J
Fluoranthene	177.76	3,000	2	2.6	1.1	< 0.21 U	0.12 J
Fluorene	10.742	3,000	0.8	0.22	0.32	< 0.21 U	< 0.19 U
Indeno(1,2,3-cd)pyrene	11	210	0.17 J	0.62	0.15 J	< 0.21 U	< 0.19 U
Naphthalene	0.04013	59	**1**	**11**	**8.2**	< 0.21 U	**0.68**
Phenanthrene	26.131	2,300	3	7	5.1	< 0.21 U	0.57
Pyrene	26.131	2,300	1.4	2.9	1.1	< 0.21 U	0.14 J

Notes:
ft bgs: feet below ground surface.
FD: field duplicate sample.
N: normal parent sample.
NS: not sampled.
NE: screening level not established.
U: not detected above the analytical reporting limit shown.
J: Estimated concentration above the method detection limit, but below the reporting limit.
Tier II Res.: Virginia Department of Environmental Quality (VDEQ) Tier II Residential Soil Screening Level (SSL).
Tier III Ind.: VDEQ Tier III Industrial SSL.
All values are listed in milligrams per kilogram (mg/kg).
Boldface indicates the detection exceeds established Tier II Residential SSLs.
Underline and gray shading indicates the detection exceeds established Tier III Industrial SSLs.
Samples were analyzed for the presence of SVOCs by United States Environmental Protection Agency (USEPA) method 8270. Only detected constituents are summarized herein.

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TABLE 4-2D: Soil Analytical Results - Detected Volatile Organic Compounds
Former Potomac River Generating Station
1400 N. Royal Street, Alexandria, Virginia

		Location	SB-201	SB-201	SB-202	SB-204	SB-204	SB-206	SB-206	SB-207	SB-207	SB-207	SB-207
		Sample Depth (ft bgs)	10 - 12	24 - 26	25 - 30	6 - 8	13 - 15	5 - 7	15 - 17	0 - 1	6 - 8	6 - 8	16 - 18
		Sample Date	08 Oct 2021	08 Oct 2021	07 Oct 2021	18 Oct 2021	18 Oct 2021	12 Oct 2021	12 Oct 2021	13 Oct 2021	13 Oct 2021	13 Oct 2021	13 Oct 2021
		Sample Type	N	N	N	N	N	N	N	N	N	FD	N
Constituent	**Tier II Res.**	**Tier III Ind.**											
Volatile Organic Compounds (VOCs)													
1,2,4-Trimethylbenzene	0.1624	180	< 0.0016 U	< 0.0022 U	< 0.0017 U	< 0.0017 U	< 0.0017 U	< 0.0017 U	< 0.002 U	< 0.002 U	< 0.0017 U	< 0.0021 U	< 0.0016 U
1,3,5-Trimethylbenzene	0.1722	150	< 0.0016 U	< 0.0022 U	< 0.0017 U	< 0.0017 U	< 0.0017 U	< 0.0017 U	< 0.002 U	< 0.002 U	< 0.0017 U	< 0.0021 U	< 0.0016 U
2-Butanone	2.343	19,000	< 0.032 U	< 0.044 U	< 0.035 U	< 0.033 U	< 0.034 U	0.013 J	0.044	< 0.039 U	< 0.035 U	< 0.042 U	< 0.031 U
Acetone	5.736	67,000	< 0.081 U	< 0.11 U	< 0.086 U	< 0.084 U	< 0.085 U	< 0.083 U	< 0.099 U	< 0.098 U	< 0.087 U	< 0.11 U	< 0.078 U
Benzene	0.05113	42	< 0.0016 U	< 0.0022 U	< 0.0017 U	< 0.0017 U	< 0.0017 U	< 0.0017 U	< 0.002 U	< 0.002 U	< 0.0017 U	< 0.0021 U	< 0.0016 U
Cumene	1.473	990	< 0.0016 U	< 0.0022 U	< 0.0017 U	< 0.0017 U	< 0.0017 U	< 0.0017 U	< 0.002 U	< 0.002 U	< 0.0017 U	< 0.0021 U	< 0.0016 U
Ethyl Benzene	15.682	250	< 0.0016 U	< 0.0022 U	< 0.0017 U	< 0.0017 U	< 0.0017 U	< 0.0017 U	< 0.002 U	< 0.002 U	< 0.0017 U	< 0.0021 U	< 0.0016 U
m,p-xylene	NE	NE	< 0.0032 U	< 0.0044 U	< 0.0035 U	< 0.0033 U	< 0.0034 U	< 0.0033 U	< 0.0039 U	< 0.0039 U	< 0.0035 U	< 0.0042 U	< 0.0031 U
Methyl Acetate	8.261	120,000	< 0.0016 U	< 0.0022 U	< 0.0017 U	< 0.0017 U	< 0.0017 U	0.0041	< 0.002 U	< 0.002 U	< 0.0017 U	< 0.0021 U	< 0.0016 U
Methylcyclohexane	NE	NE	< 0.0016 U	< 0.0022 U	< 0.0017 U	< 0.0017 U	< 0.0017 U	< 0.0017 U	< 0.002 U	< 0.002 U	< 0.0017 U	< 0.0021 U	< 0.0016 U
Methylene Chloride	0.0255	320	< 0.016 U	0.00068 J	0.00062 J	< 0.017 U	< 0.017 U	0.00069 J	< 0.02 U	< 0.02 U	< 0.017 U	< 0.021 U	< 0.016 U
Naphthalene	0.04013	59	< 0.0032 U	< 0.0044 U	< 0.0035 U	< 0.0033 U	< 0.0034 U	< 0.0033 U	< 0.0039 U	< 0.0039 U	< 0.0035 U	< 0.0042 U	< 0.0031 U
n-Butylbenzene	6.441	5,800	< 0.0016 U	< 0.0022 U	< 0.0017 U	< 0.0017 U	< 0.0017 U	< 0.0017 U	< 0.002 U	< 0.002 U	< 0.0017 U	< 0.0021 U	< 0.0016 U
n-Propylbenzene	2.46	2,400	< 0.0016 U	< 0.0022 U	< 0.0017 U	< 0.0017 U	< 0.0017 U	< 0.0017 U	< 0.002 U	< 0.002 U	< 0.0017 U	< 0.0021 U	< 0.0016 U
ortho-xylene	0.374	280	< 0.0016 U	< 0.0022 U	< 0.0017 U	< 0.0017 U	< 0.0017 U	< 0.0017 U	< 0.002 U	< 0.002 U	< 0.0017 U	< 0.0021 U	< 0.0016 U
p-Cymene	1.473	990	< 0.0016 U	< 0.0022 U	< 0.0017 U	< 0.0017 U	< 0.0017 U	< 0.0017 U	< 0.002 U	< 0.002 U	< 0.0017 U	< 0.0021 U	< 0.0016 U
sec-Butylbenzene	11.697	12,000	< 0.0016 U	< 0.0022 U	< 0.0017 U	< 0.0017 U	< 0.0017 U	< 0.0017 U	< 0.002 U	< 0.002 U	< 0.0017 U	< 0.0021 U	< 0.0016 U
Toluene	13.827	4,700	< 0.0016 U	< 0.0022 U	< 0.0017 U	< 0.0017 U	< 0.0017 U	< 0.0017 U	< 0.002 U	< 0.002 U	< 0.0017 U	< 0.0021 U	< 0.0016 U

Notes:
ft bgs: feet below ground surface.
FD: field duplicate sample.
N: normal parent sample.
NS: not sampled.
NE: screening level not established.
U: not detected above the analytical reporting limit shown.
J: Estimated concentration above the method detection limit, but below the reporting limit.
Tier II Res.: Virginia Department of Environmental Quality (VDEQ) Tier II Residential Soil Screening Level (SSL).
Tier III Ind.: VDEQ Tier III Industrial SSL.
All values are listed in milligrams per kilogram (mg/kg).
Boldface indicates the detection exceeds established Tier II Residential SSLs.
Underline and gray shading indicates the detection exceeds established Tier III Industrial SSLs.
Samples were analyzed for the presence of VOCs by United States Environmental Protection Agency (USEPA) method 8260. Only detected constituents are summarized herein.

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TABLE 4-2D: Soil Analytical Results - Detected Volatile Organic Compounds
Former Potomac River Generating Station
1400 N. Royal Street, Alexandria, Virginia

		Location	SB-214	SB-214	SB-214	SB-215	SB-215	SB-215	SB-216	SB-224	SB-225	SB-227
		Sample Depth (ft bgs)	0 - 2	5 - 7	14 - 16	0 - 2	5 - 7	16 - 18	1 - 3	0 - 1	0 - 1	0 - 1
		Sample Date	14 Oct 2021	14 Oct 2021	14 Oct 2021	18 Oct 2021	18 Oct 2021	18 Oct 2021	18 Oct 2021	21 Oct 2021	21 Oct 2021	21 Oct 2021
		Sample Type	N	N	N	N	N	N	N	N	N	N
Constituent	**Tier II Res.**	**Tier III Ind.**										
Volatile Organic Compounds (VOCs)												
1,2,4-Trimethylbenzene	0.1624	180	< 0.00073 U	< 0.00064 U	< 0.00055 U	< 0.0022 U	< 0.0018 U	< 0.0015 U	< 0.0016 U	**4.4**	**0.96**	< 0.0017 U
1,3,5-Trimethylbenzene	0.1722	150	< 0.0005 U	< 0.00043 U	< 0.00037 U	< 0.0022 U	< 0.0018 U	< 0.0015 U	< 0.0016 U	**1.3**	**0.31**	< 0.0017 U
2-Butanone	2.343	19,000	< 0.014 U	< 0.012 U	< 0.01 U	< 0.044 U	< 0.036 U	< 0.03 U	< 0.031 U	1.8 J	0.51 J	< 0.034 U
Acetone	5.736	67,000	< 0.037 U	< 0.032 U	< 0.027 U	< 0.11 U	< 0.091 U	< 0.075 U	< 0.078 U	4.9 J	1.6 J	< 0.086 U
Benzene	0.05113	42	< 0.00053 U	< 0.00047 U	< 0.0004 U	< 0.0022 U	< 0.0018 U	< 0.0015 U	< 0.0016 U	**1.5**	**0.38**	< 0.0017 U
Cumene	1.473	990	< 0.00081 U	< 0.00071 U	< 0.00061 U	< 0.0022 U	< 0.0018 U	< 0.0015 U	< 0.0016 U	0.49	0.14	< 0.0017 U
Ethyl Benzene	15.682	250	< 0.00051 U	< 0.00044 U	< 0.00038 U	< 0.0022 U	< 0.0018 U	< 0.0015 U	< 0.0016 U	1.4	0.47	< 0.0017 U
m,p-xylene	NE	NE	< 0.00086 U	< 0.00075 U	< 0.00065 U	< 0.0044 U	< 0.0036 U	< 0.003 U	< 0.0031 U	12	2.4	< 0.0034 U
Methyl Acetate	8.261	120,000	< 0.0015 U	< 0.0013 U	< 0.0012 U	< 0.0022 U	< 0.0018 U	< 0.0015 U	< 0.0016 U	0.95 J	0.65 J	< 0.0017 U
Methylcyclohexane	NE	NE	< 0.00083 U	< 0.00072 U	< 0.00062 U	< 0.0022 U	< 0.0018 U	< 0.0015 U	< 0.0016 U	22	5.3	< 0.0017 U
Methylene Chloride	0.0255	320	< 0.00064 U	< 0.00056 U	< 0.00048 U	< 0.022 U	< 0.018 U	< 0.015 U	< 0.016 U	< 1.6 U	< 0.54 U	< 0.017 U
Naphthalene	0.04013	59	< 0.00059 U	< 0.00051 U	< 0.00044 U	< 0.0044 U	< 0.0036 U	< 0.003 U	0.0018 J	**7.6**	**1.1**	< 0.0034 U
n-Butylbenzene	6.441	5,800	< 0.00058 U	< 0.00051 U	< 0.00044 U	< 0.0022 U	< 0.0018 U	< 0.0015 U	< 0.0016 U	0.43	0.056 J	< 0.0017 U
n-Propylbenzene	2.46	2,400	< 0.00044 U	< 0.00038 U	< 0.00033 U	< 0.0022 U	< 0.0018 U	< 0.0015 U	< 0.0016 U	0.7	0.13	< 0.0017 U
ortho-xylene	0.374	280	< 0.00047 U	< 0.00041 U	< 0.00035 U	< 0.0022 U	< 0.0018 U	< 0.0015 U	< 0.0016 U	**7.5**	**2**	< 0.0017 U
p-Cymene	1.473	990	< 0.00052 U	< 0.00046 U	< 0.00039 U	< 0.0022 U	< 0.0018 U	< 0.0015 U	< 0.0016 U	0.3 J	0.057 J	< 0.0017 U
sec-Butylbenzene	11.697	12,000	< 0.0011 U	< 0.00096 U	< 0.00083 U	< 0.0022 U	< 0.0018 U	< 0.0015 U	< 0.0016 U	0.19 J	0.041 J	< 0.0017 U
Toluene	13.827	4,700	< 0.00064 U	< 0.00055 U	< 0.00048 U	< 0.0022 U	< 0.0018 U	< 0.0015 U	< 0.0016 U	13	3.2	0.00048 J

Notes:
ft bgs: feet below ground surface.
FD: field duplicate sample.
N: normal parent sample.
NS: not sampled.
NE: screening level not established.
U: not detected above the analytical reporting limit shown.
J: Estimated concentration above the method detection limit, but below the reporting limit.
Tier II Res.: Virginia Department of Environmental Quality (VDEQ) Tier II Residential Soil Screening Level (SSL).
Tier III Ind.: VDEQ Tier III Industrial SSL.
All values are listed in milligrams per kilogram (mg/kg).
Boldface indicates the detection exceeds established Tier II Residential SSLs.
Underline and gray shading indicates the detection exceeds established Tier III Industrial SSLs.
Samples were analyzed for the presence of VOCs by United States Environmental Protection Agency (USEPA) method 8260. Only detected constituents are summarized herein.

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TABLE 4-2E: Soil Analytical Results - Polychlorinated Biphenyls
Former Potomac River Generating Station
1400 N. Royal Street, Alexandria, Virginia

		Location	SB-221	SB-221	SB-222	SB-222	SB-224	SB-225	SB-226	SB-227
		Sample Depth (ft bgs)	0 - 1	4 - 5	0 - 1	2 - 5	0 - 1	0 - 1	0 - 1	0 - 1
		Sample Date	05 Oct 2021	05 Oct 2021	19 Oct 2021	19 Oct 2021	21 Oct 2021	21 Oct 2021	05 Oct 2021	21 Oct 2021
		Sample Type	N	N	N	N	N	N	N	N
Constituent	**Tier II Res.**	**Tier III Ind.**								
Polychlorinated Biphenyls (PCBs)										
Aroclor-1016	0.2677	5.1	< 0.09 U	< 0.094 U	< 0.09 U	< 0.091 U	< 0.09 U	< 0.12 U	< 0.097 U	< 0.091 U
Aroclor-1221	0.01598	8.3	< 0.09 U	< 0.094 U	< 0.09 U	< 0.091 U	< 0.09 U	< 0.12 U	< 0.097 U	< 0.091 U
Aroclor-1232	0.01598	7.2	< 0.09 U	< 0.094 U	< 0.09 U	< 0.091 U	< 0.09 U	< 0.12 U	< 0.097 U	< 0.091 U
Aroclor-1242	0.244	9.5	< 0.09 U	< 0.094 U	< 0.09 U	< 0.091 U	< 0.09 U	< 0.12 U	< 0.097 U	< 0.091 U
Aroclor-1248	0.2391	9.4	< 0.09 U	< 0.094 U	< 0.09 U	< 0.091 U	< 0.09 U	< 0.12 U	< 0.097 U	< 0.091 U
Aroclor-1254	0.12	1.5	< 0.09 U	< 0.094 U	< 0.09 U	< 0.091 U	< 0.09 U	< 0.12 U	< 0.097 U	< 0.091 U
Aroclor-1260	1.091	9.9	< 0.09 U	< 0.094 U	< 0.09 U	< 0.091 U	< 0.09 U	< 0.12 U	< 0.097 U	< 0.091 U
Aroclor-1262	1.564	9.4	< 0.09 U	< 0.094 U	< 0.09 U	< 0.091 U	< 0.09 U	< 0.12 U	< 0.097 U	< 0.091 U
Aroclor-1268	1.564	9.4	< 0.09 U	< 0.094 U	< 0.09 U	< 0.091 U	< 0.09 U	< 0.12 U	< 0.097 U	< 0.091 U

Notes:
ft bgs: feet below ground surface
FD: field duplicate sample.
N: normal parent sample.
NS: not sampled.
NE: screening level not established.
U: not detected above the analytical reporting limit shown.
J: Estimated concentration above the method detection limit, but below the reporting limit.
Tier II Res.: Virginia Department of Environmental Quality (VDEQ) Tier II Residential Soil Screening Level (SSL).
Tier III Ind.: VDEQ Tier III Industrial SSL.
All values are listed in milligrams per kilogram (mg/kg).
Samples were analyzed for the presence of PCBs by United States Environmental Protection Agency (USEPA) method 8082; no exceedances of established SSLs for PCBs were reported.

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TABLE 4-3A: Groundwater Analytical Results - Detected Inorganic Compounds
Former Potomac River Generating Station
1400 N. Royal Street, Alexandria, Virginia

					Location	MW-100S	MW-102	MW-201[A]	MW-202	MW-202	MW-205	MW-206	MW-207	MW-208	MW-209	MW-214	MW-30S	MW-72S
					Sample Date	28 Oct 2021	27 Oct 2021	25 Oct / 02 Nov 2021	26 Oct 2021	26 Oct 2021	26 Oct 2021	26 Oct 2021	26 Oct 2021	26 Oct 2021	28 Oct 2021	26 Oct 2021	27 Oct 2021	27 Oct 2021
					Sample Type	N	N	N	N	FD	N	N	N	N	N	N	N	N
Constituent	**Tier II Res.**	**Tier III Res. VI**	**Tier III Ind. VI**	**Tier III CDC (≤ 15 ft)**	**Tier III CIC (> 15 ft)**													
Metals																		
Dissolved																		
Aluminum	2,000	NE	NE	656,737	NE	< 50 U	< 50 U	110	280	270	< 50 U	67	< 50 U	< 50 U	< 50 U	2,000	< 50 U	58
Antimony	6	NE	NE	78.56	NE	< 1 U	0.49 J	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U
Arsenic	10	NE	NE	197.02	NE	0.91	2.5	0.77 J	4.1	4	< 0.8 U	5	5.2	3.6	7.1	5.4	0.71 J	1.4
Barium	2,000	NE	NE	20,222	NE	50	56	23	22	22	63	28	23	23	18	40	41	13
Beryllium	4	NE	NE	55.03	NE	0.94	< 0.4 U	0.11 J	1.3	1.2	< 0.4 U	< 0.4 U	< 0.4 U	0.067 J	< 0.4 U	1.7	< 0.4 U	0.083 J
Cadmium	5	NE	NE	37.07	NE	**11**	0.12 J	0.22	0.29	0.25	0.042 J	< 0.2 U	0.56	1.6	0.52	**7.7**	0.07 J	0.05 J
Calcium	NE	NE	NE	NE	NE	60,000	17,000	41,000	150,000	150,000	30,000	200,000	120,000	97,000	73,000	52,000	130,000	180,000
Cobalt	0.6	NE	NE	2,621	NE	**410**	**6.6**	**7.2**	**37**	**37**	**2.2**	**72**	**23**	**200**	**97**	**830**	**16**	**94**
Copper	1,300	NE	NE	6,567	NE	3	2.2	1.7	1.5	1.3	0.9 J	25	39	8	3.6	16	2.1	3.3
Iron	1,400	NE	NE	459,716	NE	**31,000**	**3,100**	< 50 U	**63,000**	**63,000**	< 50 U	**100,000**	1,100	**49,000**	**55,000**	310	**1,600**	**190,000**
Lead	15	NE	NE	NE	NE	0.17 J	< 0.5 U	< 0.5 U	0.16 J	0.15 J	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	1.5	0.52	0.4 J
Magnesium	NE	NE	NE	NE	NE	46,000	7,900	13,000	28,000	28,000	5,400	130,000	85,000	69,000	37,000	32,000	24,000	58,000
Manganese	43	NE	NE	1,442	NE	**13,000**	**1,800**	**340**	**5,700**	**5,800**	31	**14,000**	**16,000**	**16,000**	**9,200**	**26,000**	**1,800**	**4,800**
Mercury	2	0.09	0.37	0.09	7.2	< 0.1 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.1 U	***0.11 J***	< 0.1 U	< 0.1 U
Nickel	39	NE	NE	4,948	NE	**210**	12 B	5.5 B	25 B	24 B	1.6 B J	**41 B**	**54 B**	**100 B**	35	**190 B**	**42**	17
Potassium	NE	NE	NE	NE	NE	4,300	6,200	4,900	3,300	3,300	3,200	26,000	10,000	4,400	8,500	10,000	4,400	8,000
Selenium	50	NE	NE	3,284	NE	1.2 J	1.9 J	6.1	2.2 J	2.1 J	1.6 J	15	9.7	6	< 5 U	18	< 5 U	< 5 U
Sodium	NE	NE	NE	NE	NE	67,000	29,000	14,000	47,000	46,000	4,000	1,100,000	1,600,000	320,000	470,000	27,000	23,000	58,000
Thallium	2	NE	NE	26.27	NE	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	0.088 J	< 0.2 U	< 0.2 U
Zinc	600	NE	NE	236,081	NE	400	17	7.9 J	23	22	< 10 U	16	11	37	30	350	13	27
Total																		
Aluminum	2,000	NE	NE	656,737	NE	< 50 U	130	245	460	300	100	**19,000**	480	85	250	**2,200**	< 50 U	86
Antimony	6	NE	NE	78.56	NE	< 1 U	0.61 J	< 5 U	< 1 U	< 1 U	< 1 U	0.41 J	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U
Arsenic	10	NE	NE	197.02	NE	< 0.8 U	3.1	< 10 U	4.5	4.7	< 0.8 U	**18**	8	4.9	6.9	5.1	1.2	1.7
Barium	2,000	NE	NE	20,222	NE	49	68	27.3	22	24	68	220	28	27	19	42	38	13
Beryllium	4	NE	NE	55.03	NE	0.71	< 0.4 U	< 1 U	1.3	1.1	< 0.4 U	1.4	< 0.4 U	< 0.4 U	< 0.4 U	1.6	< 0.4 U	0.099 J
Cadmium	5	NE	NE	37.07	NE	**12**	0.2	< 1 U	0.11 J	0.097 J	0.043 J	0.053 J	0.44	1.6	0.78	**7.2**	0.082 J	0.079 J
Calcium	NE	NE	NE	NE	NE	61,000	16,000	46,900	160,000	150,000	31,000	200,000	120,000	100,000	71,000	52,000	120,000	180,000
Chromium (total)	100	NE	NE	NE	NE	< 1 U	1.1	< 5 U	0.99 J	< 1 U	< 1 U	36	2.1	0.96 J	< 1 U	1.4	< 1 U	< 1 U
Cobalt	0.6	NE	NE	2,621	NE	**360**	**6.9**	**6.2**	**40**	**40**	**2.6**	**100**	**25**	**210**	**110**	**780**	**17**	**95**
Copper	1,300	NE	NE	6,567	NE	2	3.1	< 5 U	1.3	1.2	0.43 J	52	31	6.7	6	12	2	13
Iron	1,400	NE	NE	459,716	NE	**15,000**	**2,100**	221	**60,000**	**64,000**	160	**150,000**	**1,700**	**51,000**	**55,000**	730	**1,500**	**180,000**
Lead	15	NE	NE	NE	NE	0.16 J	0.43 J	< 5 U	0.46 J	0.27 J	< 0.5 U	**25**	0.35 J	< 0.5 U	0.2 J	1.7	0.48 J	1.2
Magnesium	NE	NE	NE	NE	NE	43,000	8,000	12,800	26,000	28,000	5,600	130,000	84,000	69,000	35,000	31,000	23,000	53,000
Manganese	43	NE	NE	1,442	NE	**9,900**	**1,500**	**334**	**5,500**	**5,700**	33	**15,000**	**16,000**	**16,000**	**9,500**	**26,000**	**1,700**	**4,700**
Mercury	2	0.09	0.37	0.1	7.2	< 0.1 U	< 0.1 U	< 0.2 U	< 0.1 U	< 0.1 U	< 0.1 U	0.053 J	< 0.1 U	< 0.1 U	< 0.1 U	***0.33***	< 0.1 U	0.06 J
Nickel	39	NE	NE	4,948	NE	**220**	14	5.6	35	32	3.2 J	**89**	**62**	**110**	37	**190**	**43**	17
Potassium	NE	NE	NE	NE	NE	4,400	5,800	NS	3,300	3,300	3,300	26,000	10,000	4,400	8,300	9,900	4,300	7,600
Selenium	50	NE	NE	3,284	NE	1.6 J	1.6 J	< 10 U	1.7 J	1.6 J	1.5 J	14	10	5	0.94 J	18	< 5 U	< 5 U
Silver	9	NE	NE	484	NE	< 0.2 U	< 0.2 U	< 5 U	0.03 J	0.03 J	< 0.2 U	0.37	0.033 J	0.027 J	< 0.2 U	0.043 J	< 0.2 U	< 0.2 U
Sodium	NE	NE	NE	NE	NE	66,000	33,000	15,400	45,000	47,000	4,100	1,100,000	1,600,000	320,000	450,000	27,000	22,000	54,000
Thallium	2	NE	NE	26.3	NE	< 0.2 U	< 0.2 U	< 10 U	< 0.2 U	< 0.2 U	< 0.2 U	0.27	< 0.2 U	< 0.2 U	< 0.2 U	0.097 J	< 0.2 U	< 0.2 U
Vanadium	8.6	NE	NE	398	NE	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	**64**	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U
Zinc	600	NE	NE	236,081	NE	440	18	< 10 U	28	24	< 10 U	110	13	41	29	380	9.8 J	26
Miscellaneous																		
Ammonia (as N)	NE	NE	NE	NE	NE	< 100 U	120	NS	1,000	780	< 100 U	NS	NS	NS	NS	NS	150	860
Hardness (as $CaCO_3$)	NE	NE	NE	NE	NE	NS	NS	170,000	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Hydrazine [Diamine]	0.006	125	524	1.21	5,434	NS	**2**	< 2 U	< 2 U	< 2 U	< 2 U	NS	NS	NS	NS	NS	NS	NS
Sulfate	NE	NE	NE	NE	NE	380,000	110,000	150,000	590,000	580,000	66,000	2,600,000	2,500,000	1,200,000	1,200,000	320,000	190,000	1,000,000

Notes:
B: constituent was detected in the associated laboratory method blank.
FD: field duplicate sample.
N: normal parent sample.
NS: not sampled.
NE: screening level not established.
U: not detected above the analytical reporting limit shown.
J: Estimated concentration above the method detection limit, but below the reporting limit.
Tier II Res.: Virginia Department of Environmental Quality (VDEQ) Tier II Groundwater Screening Level (GSL).
Tier III Res. VI: VDEQ Tier III Residential Vapor Intrusion GSL.
Tier III Ind. VI: VDEQ Industrial Vapor Intrusion GSL.
Tier III CDC (≤ 15 ft): VDEQ Tier III Construction Direct Contact (≤ 15 ft) GSL.
Tier III CIC (> 15 ft): VDEQ Tier III Construction Indirect Contact (> 15 ft) GSL.
All values are listed in micrograms per liter (ug/L).
[A]Total metals were erroneously not collected on October 25, 2021; MW-201 was resampled for total metals only on November 2, 2021.
Boldface indicates the detection exceeds established Tier II Res. GSLs.
Italics indicates the detection exceeds established Tier III Res. VI GSLs.
Underline and gray shading indicates the detection exceeds established Tier III CDC (≤ 15 ft) GSLs.
Samples were analyzed for the presence of select total and dissolved metals by United States Environmental Protection Agency (USEPA) method 6010 or 7470 (for mercury), ammonia (as Nitrogen [N]) by SM4500, hydrazines by USEPA 3815, and sulfate by SM4500.
Only detected constituents are summarized herein.

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TABLE 4-3B: Groundwater Analytical Results - Detected Total Petroleum Hydrocarbons and Glycols
Former Potomac River Generating Station
1400 N. Royal Street, Alexandria, Virginia

	Location	MW-100S	MW-102	MW-201	MW-202	MW-202	MW-205	MW-206	MW-207	MW-208	MW-209	MW-214	MW-221	MW-30S	MW-72S
	Sample Date	28 Oct 2021	27 Oct 2021	25 Oct 2021	26 Oct 2021	26 Oct 2021	26 Oct 2021	26 Oct 2021	26 Oct 2021	26 Oct 2021	28 Oct 2021	26 Oct 2021	27 Oct 2021	27 Oct 2021	27 Oct 2021
	Sample Type	N	N	N	N	FD	N	N	N	N	N	N	N	N	N
Constituent	**VDEQ Action Level**														
Total Petroleum Hydrocarbons (TPH)															
Diesel Range Organics (DRO)	1,000[A]	130 J	NS	NS	NS	NS	210	560	110 J	170 J	210	370	NS	440	**4,900**
Oil Range Organics (ORO)		< 100 U	NS	NS	NS	NS	< 100 U	147	< 100 U	< 100 U	< 100 U	< 100 U	NS	< 100 U	**1,170**
Total TPH		130	NS	NS	NS	NS	210	707	110	170	210	370	NS	440	**6,070**

Notes:
FD: field duplicate sample.
N: normal parent sample.
NS: not sampled.
NE: screening level not established.
U: not detected above the analytical reporting limit shown.
J: Estimated concentration above the method detection limit, but below the reporting limit.
All values are listed in micrograms per liter (ug/L).
[A]Virginia Department of Environmental Quality (VDEQ) has not established Groundwater Screening Levels (GSLs) for TPH. The VDEQ Petroleum Storage Tank Program utilizes 1,000 ug/L as an action level for total TPH to determine when further evaluation is warranted.
Boldface, underline, and gray shading indicates the detection exceeds the VDEQ action level for TPH; no exceedances of established GSLs for glycols were reported.
Select samples (per the approved Work Plan) were analyzed for the presence of total petroleum hydrocarbons – diesel-range organics (TPH-DRO), – gasoline range organics (GRO), and – oil range organics (ORO) by by United States Environmental Protection Agency (USEPA) method 8015C and for glycols by USEPA method 8015M. Only detected constituents are summarized herein.

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TABLE 4-3C: Groundwater Analytical Results - Detected Semi-Volatile Organic Compounds
Former Potomac River Generating Station
1400 N. Royal Street, Alexandria, Virginia

					Location	MW-100S	MW-102	MW-201	MW-202	MW-202	MW-205	MW-206	MW-207	MW-208	MW-209
					Sample Date	28 Oct 2021	27 Oct 2021	25 Oct 2021	26 Oct 2021	26 Oct 2021	26 Oct 2021	26 Oct 2021	26 Oct 2021	26 Oct 2021	28 Oct 2021
					Sample Type	N	N	N	N	FD	N	N	N	N	N
Constituent	Tier II Res.	Tier III Res. VI	Tier III Ind. VI	Tier III CDC (≤ 15 ft)	Tier III CIC (> 15 ft)										
Semi-Volatile Organic Compounds (SVOCs)															
3&4-Methylphenol	NE	NE	NE	NE	NE	< 10 U	< 11 U	< 10 U	0.8 J	0.49 J	< 10 U	< 11 U	< 9.6 U	< 9.7 U	< 9.5 U
Acenaphthene	53	NE	NE	2,945.1	NE	< 5.1 U	< 5.4 U	< 5.1 U	< 5.3 U	< 4.8 U	< 5.2 U	< 5.6 U	< 4.8 U	< 4.8 U	< 4.8 U

Notes:
FD: field duplicate sample.
N: normal parent sample.
NS: not sampled.
NE: screening level not established.
U: not detected above the analytical reporting limit shown.
J: Estimated concentration above the method detection limit, but below the reporting limit.
Tier II Res.: Virginia Department of Environmental Quality (VDEQ) Tier II Groundwater Screening Level (GSL).
Tier III Res. VI: VDEQ Tier III Residential Vapor Intrusion GSL.
Tier III Ind. VI: VDEQ Industrial Vapor Intrusion GSL.
Tier III CDC (≤ 15 ft): VDEQ Tier III Construction Direct Contact (≤ 15 ft) GSL.
Tier III CIC (> 15 ft): VDEQ Tier III Construction Indirect Contact (> 15 ft) GSL.
All values are listed in micrograms per liter (ug/L).
Samples were analyzed for the presence of SVOCs by United States Environmental Protection Agency (USEPA) method 8270. Only detected constituents are summarized herein.

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TABLE 4-3C: Groundwater Analytical Results - Detected Semi-Volatile Organic Compounds
Former Potomac River Generating Station
1400 N. Royal Street, Alexandria, Virginia

					Location	MW-214	MW-221	MW-30S	MW-72S
					Sample Date	26 Oct 2021	27 Oct 2021	27 Oct 2021	27 Oct 2021
					Sample Type	N	N	N	N
Constituent	Tier II Res.	Tier III Res. VI	Tier III Ind. VI	Tier III CDC (≤ 15 ft)	Tier III CIC (> 15 ft)				
Semi-Volatile Organic Compounds (SVOCs)									
3&4-Methylphenol	NE	NE	NE	NE	NE	< 9.6 U	< 11 U	< 10 U	< 10 U
Acenaphthene	53	NE	NE	2,945.1	NE	< 4.8 U	0.78 J	< 5.2 U	< 5.2 U

Notes:
FD: field duplicate sample.
N: normal parent sample.
NS: not sampled.
NE: screening level not established.
U: not detected above the analytical reporting limit shown.
J: Estimated concentration above the method detection limit, but below the reporting limit.
Tier II Res.: Virginia Department of Environmental Quality (VDEQ) Tier II Groundwater Screening Level (GSL).
Tier III Res. VI: VDEQ Tier III Residential Vapor Intrusion GSL.
Tier III Ind. VI: VDEQ Industrial Vapor Intrusion GSL.
Tier III CDC (≤ 15 ft): VDEQ Tier III Construction Direct Contact (≤ 15 ft) GSL.
Tier III CIC (> 15 ft): VDEQ Tier III Construction Indirect Contact (> 15 ft) GSL.
All values are listed in micrograms per liter (ug/L).
Samples were analyzed for the presence of SVOCs by United States Environmental Protection Agency (USEPA) method 8270. Only detected constituents are summarized herein.

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TABLE 4-3D: Groundwater Analytical Results - Detected Volatile Organic Compounds
Former Potomac River Generating Station
1400 N. Royal Street, Alexandria, Virginia

					Location	MW-100S	MW-102	MW-201	MW-202	MW-202	MW-205	MW-206	MW-207	MW-208
					Sample Date	28 Oct 2021	27 Oct 2021	25 Oct 2021	26 Oct 2021	26 Oct 2021	26 Oct 2021	26 Oct 2021	26 Oct 2021	26 Oct 2021
					Sample Type	N	N	N	N	FD	N	N	N	N
Constituent	**Tier II Res.**	**Tier III Res. VI**	**Tier III Ind. VI**	**Tier III CDC (≤ 15 ft)**	**Tier III CIC (> 15 ft)**									
1,1-Dichloroethene	7	20	82	15	224	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U
Acetone	1,400	2,236,343	9,784,000	13,352	52,936,557	< 50 U	< 50 U	< 50 U	< 50 U	< 50 U	< 50 U	2.8 J	< 50 U	< 50 U
Chlorobenzene	100	41	173	105	14,165	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U
Diisopropyl ether	150	697	2,962	146	26,561	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	0.46 J
p-Cymene	45	89	383	20	825	< 1 U	< 1 U	< 1 U	5.1	5.4	< 1 U	< 1 U	< 1 U	< 1 U
Tetrachloroethene	5	6	25	10	289	< 1 U	< 1 U	0.88 J	< 1 U	< 1 U	0.68 J	< 1 U	0.25 J	< 1 U
Toluene	1,000	1,916	8,104	949	61,506	< 1 U	< 1 U	0.85 J	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U

Notes:
FD: field duplicate sample.
N: normal parent sample.
NS: not sampled.
NE: screening level not established.
U: not detected above the analytical reporting limit shown.
J: Estimated concentration above the method detection limit, but below the reporting limit.
Tier II Res.: Virginia Department of Environmental Quality (VDEQ) Tier II Groundwater Screening Level (GSL).
Tier III Res. VI: VDEQ Tier III Residential Vapor Intrusion GSL.
Tier III Ind. VI: VDEQ Industrial Vapor Intrusion GSL.
Tier III CDC (≤ 15 ft): VDEQ Tier III Construction Direct Contact (≤ 15 ft) GSL.
Tier III CIC (> 15 ft): VDEQ Tier III Construction Indirect Contact (> 15 ft) GSL.
All values are listed in micrograms per liter (ug/L).
Samples were analyzed for the presence of VOCs by United States Environmental Protection Agency (USEPA) method 8260. Only detected constituents are summarized herein.

Ramboll

TABLE 4-3D: Groundwater Analytical Results - Detected Volatile Organic Compounds
Former Potomac River Generating Station
1400 N. Royal Street, Alexandria, Virginia

					Location	MW-209	MW-214	MW-221	MW-30S	MW-72S
					Sample Date	28 Oct 2021	26 Oct 2021	27 Oct 2021	27 Oct 2021	27 Oct 2021
					Sample Type	N	N	N	N	N
Constituent	**Tier II Res.**	**Tier III Res. VI**	**Tier III Ind. VI**	**Tier III CDC (≤ 15 ft)**	**Tier III CIC (> 15 ft)**					
1,1-Dichloroethene	7	20	82	15	224	< 1 U	< 1 U	0.37 J	< 1 U	< 2 U
Acetone	1,400	2,236,343	9,784,000	13,352	52,936,557	< 50 U	3.4 J	< 50 U	< 50 U	< 100 U
Chlorobenzene	100	41	173	105	14,165	1	< 1 U	< 1 U	< 1 U	< 2 U
Diisopropyl ether	150	697	2,962	146	26,561	2.8	< 0.5 U	< 0.5 U	< 0.5 U	< 1 U
p-Cymene	45	89	383	20	825	< 1 U	< 1 U	2.2	< 1 U	< 2 U
Tetrachloroethene	5	6	25	10	289	< 1 U	< 1 U	< 1 U	< 1 U	< 2 U
Toluene	1,000	1,916	8,104	949	61,506	< 1 U	< 1 U	< 1 U	< 1 U	< 2 U

Notes:
FD: field duplicate sample.
N: normal parent sample.
NS: not sampled.
NE: screening level not established.
U: not detected above the analytical reporting limit shown.
J: Estimated concentration above the method detection limit, but below the reporting limit.
Tier II Res.: Virginia Department of Environmental Quality (VDEQ) Tier II Groundwater Screening Level (GSL).
Tier III Res. VI: VDEQ Tier III Residential Vapor Intrusion GSL.
Tier III Ind. VI: VDEQ Industrial Vapor Intrusion GSL.
Tier III CDC (≤ 15 ft): VDEQ Tier III Construction Direct Contact (≤ 15 ft) GSL.
Tier III CIC (> 15 ft): VDEQ Tier III Construction Indirect Contact (> 15 ft) GSL.
All values are listed in micrograms per liter (ug/L).
Samples were analyzed for the presence of VOCs by United States Environmental Protection Agency (USEPA) method 8260. Only detected constituents are summarized herein.

TABLE 4-3E: Groundwater Analytical Results - Polychlorinated Biphenyls
Former Potomac River Generating Station
1400 N. Royal Street, Alexandria, Virginia

					Location	MW-221
					Sample Date	27 Oct 2021
					Sample Type	N
Constituent	Tier II Res.	Tier III Res. VI	Tier III Ind. VI	Tier III CDC (≤ 15 ft)	Tier III CIC (> 15 ft)	
Polychlorinated Biphenyls (PCBs)						
Aroclor-1016	0.14	171.22	746.03	0.1713	457118.607	< 0.23 U
Aroclor-1221	0.047	5.257	22.529	3.661	10997.894	< 0.23 U
Aroclor-1232	0.047	1.628	6.979	3.252	3306.227	< 0.23 U
Aroclor-1242	0.078	3.494	14.976	2.548	9946.38	< 0.23 U
Aroclor-1248	0.078	2.724	11.674	2.679	7688.264	< 0.23 U
Aroclor-1254	0.04	4.235	18.151	0.03447	12124.248	< 0.23 U
Aroclor-1260	0.078	3.567	15.287	5.834	10998.426	< 0.23 U
Aroclor-1262	0.5	2.888	12.377	2.519	8057.536	< 0.23 U
Aroclor-1268	0.5	2.888	12.377	2.519	8057.536	< 0.23 U

Notes:
FD: field duplicate sample.
N: normal parent sample.
NS: not sampled.
NE: screening level not established.
U: not detected above the analytical reporting limit shown.
J: Estimated concentration above the method detection limit, but below the reporting limit.
Tier II Res.: Virginia Department of Environmental Quality (VDEQ) Tier II Groundwater Screening Level (GSL).
Tier III Res. VI: VDEQ Tier III Residential Vapor Intrusion GSL.
Tier III Ind. VI: VDEQ Industrial Vapor Intrusion GSL.
Tier III CDC (≤ 15 ft): VDEQ Tier III Construction Direct Contact (≤ 15 ft) GSL.
Tier III CIC (> 15 ft): VDEQ Tier III Construction Indirect Contact (> 15 ft) GSL.
All values are listed in micrograms per liter (ug/L).
Samples were analyzed for the presence of PCBs by United States Environmental Protection Agency (USEPA) method 8082; no exceedances of established GSLs for PCBs were reported.

FIGURES

PROJECT: 1690022371 | DATED: 7/2/2021 | DESIGNER: AKELLY C:\Users\akelly\Ramboll\HRP_Alexandria Power Plant - General\Ramboll Documents\GIS\HRP Alexandria Power Plant Redevelopment.aprx\1_Ramboll_SiteLocationMap

Map Scale: 1:24,000 | Map Center: 77°2'26"W 38°49'4"N

SITE LOCATION MAP

FIGURE 1-1

KEY MAP (not to scale)

0 500 1,000 Feet

Former Potomac River Generating Station
1400 North Royal Street
Alexandria, Virginia 22314

RAMBOLL US CONSULTING, INC.
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- Outfall Locations
- Site Boundary
- AOI 1: Known Releases from 25,000-gal USTs
- AOI 2: Potential Historical Releases from Chemical Storage Areas and Use
- AOI 3a: Power Plant and Laboratory Building (currently inaccessible)
- AOI 3b: Drain Lines and Outfalls
- AOI 4: Former Coal and Ash Storage Areas
- AOI 5: Transformers/Electrical Equipment
- AOI 6: Rail Yard

0 200 400 Feet

SITE LAYOUT MAP

Former Potomac River Generating Station
1400 North Royal Street
Alexandria, VA 22314

FIGURE 2-1

RAMBOLL US CONSULTING, INC.
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PINK - Temporary Survey Markings

RED - Electric Power Lines, Cables, Conduit, and Lighting Cables

YELLOW - Gas, Oil, Petroleum, or Gaseous Materials

ORANGE - Communication, Alarm or Signal Lines, Cables or Conduit

BLUE - Potable Water

PURPLE - Reclaimed Water, Irrigation and Slurry Lines

GREEN - Sewer and Drain Lines

0 125 250 Feet

Notes

Utilities are plotted based on undated Alta/ASCM Land Title Survey CAD files prepared by Dewberry and provided by Client, a site reconnaissance, and a private subsurface geophysical clearance. All locations are approximate.

SITE UTILITIES

Former Potomac River Generating Station
1400 North Royal Street
Alexandria, VA 22314

FIGURE 3-1

RAMBOLL US CONSULTING, INC.
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- AOI 1: Known Releases from 25,000-gal USTs
- AOI 2: Potential Historical Releases from Chemical Storage Areas and Use
- AOI 3a: Power Plant and Laboratory Building (currently inaccessible)
- AOI 3b: Drain Lines and Outfalls
- AOI 4: Former Coal and Ash Storage Areas
- AOI 5: Transformers/Electrical Equipment
- AOI 6: Rail Yard

- Property Boundary
- Former UST
- Soil Boring
- Existing Monitoring Well
- Newly Installed Soil Boring/Monitoring Well

0 50 100 Feet

SAMPLE LOCATIONS

Former Potomac River Generating Station
1400 North Royal Street
Alexandria, VA 22314

FIGURE 3-2

RAMBOLL US CONSULTING, INC.
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Shallow Zone Monitoring Well
1 foot Groundwater Contour
Sheet Pile Wall
Property Boundary

GROUNDWATER POTENTIOMETRIC SURFACE - SHALLOW ZONE
OCTOBER 25, 2021

FIGURE 4-1A

Notes
Groundwater elevations are shown in feet above mean sea level (amsl).
Blue arrows indicate groundwater flow direction.

0 50 100 Feet

Former Potomac River Generating Station
1400 North Royal Street
Alexandria, VA 22314

RAMBOLL US CONSULTING, INC.
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RAMBOLL

- Deep Zone Monitoring Well
- 1 foot Groundwater Contour
- Inferred
- Sheet Pile Wall
- Property Boundary

GROUNDWATER POTENTIOMETRIC SURFACE - DEEP ZONE
OCTOBER 25, 2021

Notes
Groundwater elevations are shown in feet above mean sea level (amsl).
Blue arrows indicate groundwater flow direction.

Former Potomac River Generating Station
1400 North Royal Street
Alexandria, VA 22314

FIGURE 4-1B

RAMBOLL US CONSULTING, INC.
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SB-201				
Sample Depth (ft bgs)	0 - 1	0 - 1	10 - 12	24 - 26
Sample Date	05 Oct 2021	08 Oct 2021	08 Oct 2021	08 Oct 2021
Sample Type	N	FD	N	N
Thallium	**1.3 J**	**1.4 J**	**1.4 J**	**1.3 J**

SB-202		
Sample Depth (ft bgs)	0 - 1	25 - 30
Sample Date	07 Oct 2021	07 Oct 2021
Sample Type	N	N
Thallium	**1.3 J**	**1.6 J**

SB-225	
Sample Depth (ft bgs)	0 - 1
Sample Date	21 Oct 2021
Sample Type	N
TPH-DRO	**1,000**
TPH-ORO	**105**
Total TPH	**1,197**

SB-216	
Sample Depth (ft bgs)	1 - 3
Sample Date	18 Oct 2021
Sample Type	N
Total TPH	**152.51**

SB-215	
Sample Depth (ft bgs)	0 - 2
Sample Date	18 Oct 2021
Sample Type	N
Total TPH	**166.5**

SB-224	
Sample Depth (ft bgs)	0 - 1
Sample Date	21 Oct 2021
Sample Type	N
TPH-DRO	**1,200**
TPH-GRO	**320**
TPH-ORO	**111**
Total TPH	**1,631**

SB-226	
Sample Depth (ft bgs)	0 - 1
Sample Date	05 Oct 2021
Sample Type	N
Thallium	**1.4 J**

SB-207	
Sample Depth (ft bgs)	0 - 1
Sample Date	13 Oct 2021
Sample Type	N
Total TPH	**120.2**

SB-227	
Sample Depth (ft bgs)	0 - 1
Sample Date	21 Oct 2021
Sample Type	N
TPH-DRO	**150**
Total TPH	**180.6**
Iron	**330,000**
Manganese	**2,700**

VDEQ Action Level	
TPH-DRO	100
TPH-GRO	
TPH-ORO	

Tier III Ind.	
Iron	82,000
Manganese	2,600
Thallium	1.2

Notes
ft bgs: feet below ground surface.
FD: field duplicate sample.
N: normal parent sample.
TPH: total petroleum hydrocarbons.
DRO: diesel range organics.
GRO: gasoline range organics.
ORO: oil range organics.
Tier III Ind.: Virginia Department of Environmental Quality (VDEQ) Tier III Industrial Soil Screening Level (SSL).
VDEQ Action Level: VDEQ action level for TPH. VDEQ has not established SSLs for TPH.

Boldface, underline, and gray shading indicates the detection exceeds established Tier III Industrial SSLs or the VDEQ Action Level for TPH.

Only constituents exceeding the industrial SSL or the VDEQ action level for TPH are summarized herein.

All values are listed in milligrams per kilogram (mg/kg).

AOI 1: Known Releases from 25,000-gal USTs
AOI 2: Potential Historical Releases from Chemical Storage Areas and Use
AOI 3a: Power Plant and Laboratory Building (currently inaccessible)
AOI 3b: Drain Lines and Outfalls
AOI 4: Former Coal and Ash Storage Areas
AOI 5: Transformers/Electrical Equipment
AOI 6: Rail Yard

Property Boundary
Former UST
Soil Boring

0 50 100 Feet

SOIL EXCEEDANCES NON-RESIDENTIAL CRITERIA OCTOBER 2021

FIGURE 4-2

Former Potomac River Generating Station
1400 North Royal Street
Alexandria, VA 22314

RAMBOLL US CONSULTING, INC.
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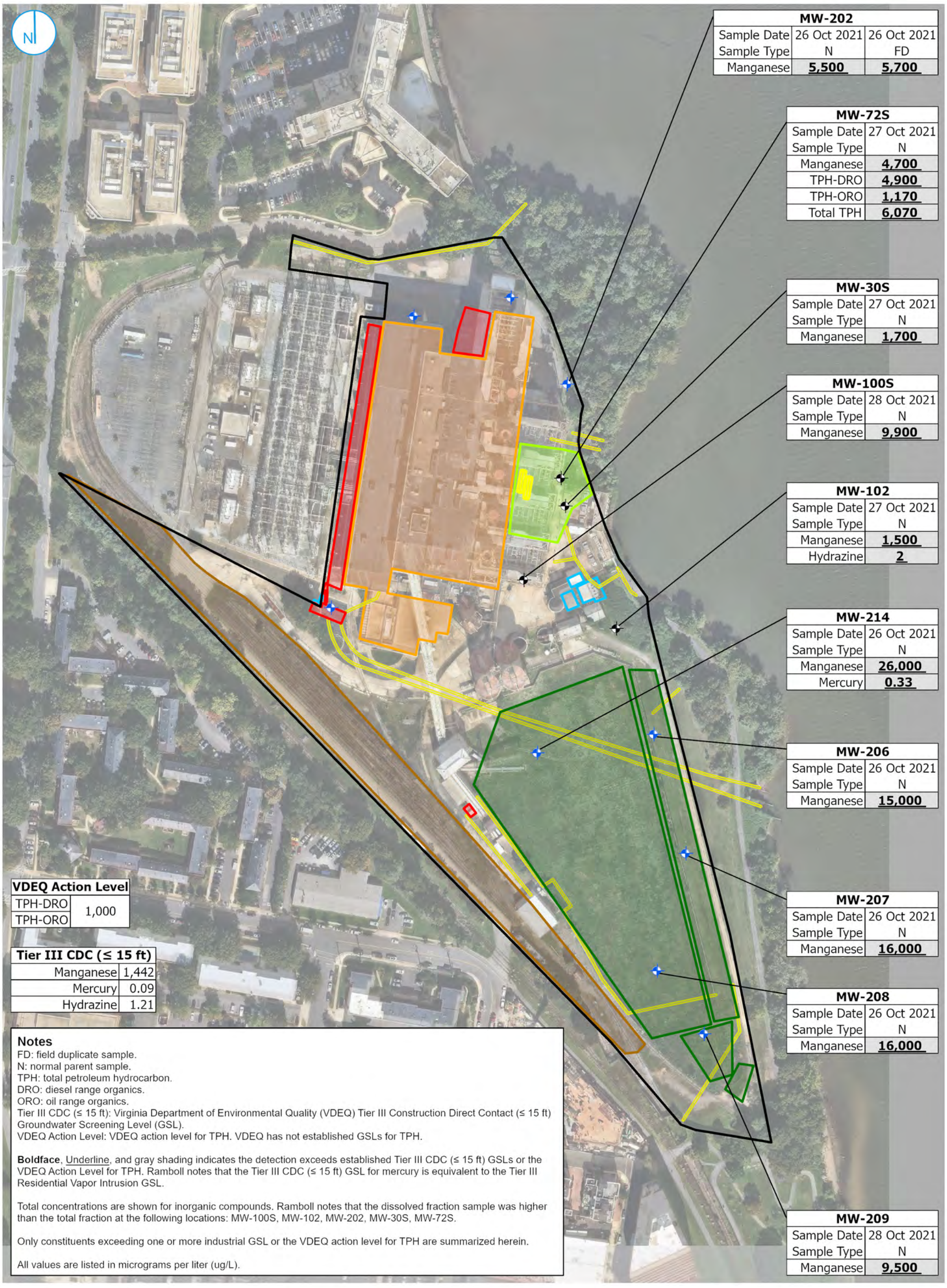

MW-202		
Sample Date	26 Oct 2021	26 Oct 2021
Sample Type	N	FD
Manganese	**5,500**	**5,700**

MW-72S	
Sample Date	27 Oct 2021
Sample Type	N
Manganese	**4,700**
TPH-DRO	**4,900**
TPH-ORO	**1,170**
Total TPH	**6,070**

MW-30S	
Sample Date	27 Oct 2021
Sample Type	N
Manganese	**1,700**

MW-100S	
Sample Date	28 Oct 2021
Sample Type	N
Manganese	**9,900**

MW-102	
Sample Date	27 Oct 2021
Sample Type	N
Manganese	**1,500**
Hydrazine	**2**

MW-214	
Sample Date	26 Oct 2021
Sample Type	N
Manganese	**26,000**
Mercury	**0.33**

MW-206	
Sample Date	26 Oct 2021
Sample Type	N
Manganese	**15,000**

MW-207	
Sample Date	26 Oct 2021
Sample Type	N
Manganese	**16,000**

MW-208	
Sample Date	26 Oct 2021
Sample Type	N
Manganese	**16,000**

MW-209	
Sample Date	28 Oct 2021
Sample Type	N
Manganese	**9,500**

VDEQ Action Level	
TPH-DRO	1,000
TPH-ORO	

Tier III CDC (≤ 15 ft)	
Manganese	1,442
Mercury	0.09
Hydrazine	1.21

Notes

FD: field duplicate sample.
N: normal parent sample.
TPH: total petroleum hydrocarbon.
DRO: diesel range organics.
ORO: oil range organics.
Tier III CDC (≤ 15 ft): Virginia Department of Environmental Quality (VDEQ) Tier III Construction Direct Contact (≤ 15 ft) Groundwater Screening Level (GSL).
VDEQ Action Level: VDEQ action level for TPH. VDEQ has not established GSLs for TPH.

Boldface, Underline, and gray shading indicates the detection exceeds established Tier III CDC (≤ 15 ft) GSLs or the VDEQ Action Level for TPH. Ramboll notes that the Tier III CDC (≤ 15 ft) GSL for mercury is equivalent to the Tier III Residential Vapor Intrusion GSL.

Total concentrations are shown for inorganic compounds. Ramboll notes that the dissolved fraction sample was higher than the total fraction at the following locations: MW-100S, MW-102, MW-202, MW-30S, MW-72S.

Only constituents exceeding one or more industrial GSL or the VDEQ action level for TPH are summarized herein.

All values are listed in micrograms per liter (ug/L).

- AOI 1: Known Releases from 25,000-gal USTs
- AOI 2: Potential Historical Releases from Chemical Storage Areas and Use
- AOI 3a: Power Plant and Laboratory Building (currently inaccessible)
- AOI 3b: Drain Lines and Outfalls
- AOI 4: Former Coal and Ash Storage Areas
- AOI 5: Transformers/Electrical Equipment
- AOI 6: Rail Yard

- Property Boundary
- Former UST
- Existing Monitoring Well
- Newly Installed Soil Boring/Monitoring Well

GROUNDWATER EXCEEDANCES NON-RESIDENTIAL CRITERIA OCTOBER 2021

FIGURE 4-3

0 50 100 Feet

Former Potomac River Generating Station
1400 North Royal Street
Alexandria, VA 22314

RAMBOLL US CONSULTING, INC.
A RAMBOLL COMPANY

RAMBOLL

APPENDICES

APPENDIX A
RAMBOLL SITE CHARACTERIZATION WORK PLAN

Prepared for
HRP Potomac, LLC

For Submittal to:
Virginia Department of Environmental Quality

Document type
Site Characterization Work Plan

Date
September 2021

SITE CHARACTERIZATION WORK PLAN

POTOMAC RIVER POWER GENERATING STATION

RAMBOLL Bright ideas. Sustainable change.

SITE CHARACTERIZATION WORK PLAN
POTOMAC RIVER POWER GENERATING STATION

Project name	**HRP_Potomac River Generating Station**
Project no.	**1690022371-001**
Recipient	**Meade Anderson**
Document type	**Site Characterization Work Plan**
Version	**001**
Date	**September 20, 2021**
Approved by	**Sarah Stoneking, PG**

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CONTENTS

TABLES

FIGURES

1. INTRODUCTION

On behalf of HRP Potomac, LLC (HRP Potomac), Ramboll US Consulting, Inc. (Ramboll) has prepared this Site Characterization Work Plan (Work Plan) for the former Potomac River Generating Station (PRGS) located at 1400 N. Royal Street, Alexandria, Virginia (the "Site"; Figure 1). This Work Plan has been prepared for submittal to the Virginia Department of Environmental Quality (VDEQ) Voluntary Remediation Program (VRP) in accordance with the Site's entrance into the VDEQ VRP (site ID 00783).

1.1 Objective

The objective of the proposed site characterization activities is to evaluate the nature and extent of releases resulting from historical site activities and to collect the information necessary to inform corrective action decisions and complete a preliminary evaluation of human health risk. Certain areas of the site are not accessible due to the current condition of the Main Building and Laboratory and thus, investigation in those areas of the site will be performed as appropriate concurrent with, or subsequent to demolition of the structures.

1.2 Organization

This work plan includes a brief overview of the site setting and background (Section 2); a summary of identified concerns based on prior investigations (Section 3); a proposed sampling and analysis plan (Section 4); and a quality assurance project plan (QAPP) (Section 5). Reporting and communications are discussed in Section 6 and a schedule for the proposed work is presented in Section 7. References are included as Section 8.

2. SITE SETTING AND BACKGROUND

2.1 Site Setting and Layout

The Site consists of 18.8 acres located at 1400 North Royal Street in Alexandria, Virginia at the intersection of Bashford Lane and North Royal Street. The Site is bounded to the south by an inactive railroad spur followed by residential and commercial development, to the west by a Potomac Electric Power Company (Pepco) switchyard and parking lot followed by East Abingdon Drive and the George Washington Memorial Parkway, to the north by Slaters Lane and a condominium building, and to the east by the National Park Service's Mount Vernon Trail followed by the Potomac River.

The site is currently developed with structures associated with the former Potomac River Power Generating Station which include a Main Power Plant Building, Administration/Laboratory Building, Accelerator Building, Chlorine Storage Building, Open Bay Area, Fly Ash Silos, Clarifier/Clarifier Building, Breaker House, Gate House, Coal Car Dumper, Bulldozer Shed, and multiple ASTs; the Main Power Plant and Administration/Laboratory Buildings are currently unsafe for entry (Figure 2).

2.2 Regional Geology

The site is located within the Atlantic Coastal Plain Physiographic Province, which is characterized by sequences of marine and terrestrial sedimentary deposits which thin to the east. According to local geologic mapping, the Site is underlain by Quaternary terrace (Old Town terrace) and floodplain (lowland) deposits of the Potomac River (Fleming 2015a). The terrace deposits beneath Old Town Alexandria and the Del Ray area approach a thickness of 85 to 125 feet (ft). The terrace deposits are described as a broadly fining upward sequence that is gravelly at its base and grades up through sand to finer-grained material at higher elevations. Regionally, above an elevation of about 30 to 35 ft above mean sea level (amsl), the terrace is composed primarily of silt and clay, and, below those elevations, the soils have been described as muddy sand. Below the Del Ray area is the Arell Clay, which is a regional, possibly discontinuous, lacustrine clay (Fleming 2015a, 2015b). Based on the 7.5-minute USGS topographic map, the nearest surface water body is the Potomac River. The elevation of the Potomac River is tidally influenced at the Subject Property's location. Tidal predictions by the National Oceanic and Atmospheric Administration for the Potomac River show a tidal fluctuation of approximately 3.44 feet for Alexandria, Virginia in June 2019.

2.3 Site-Specific Geology and Hydrogeology

The elevation of the Site ranges from approximately 12 to 33 feet above mean sea level (ft amsl) and slopes downhill to the east. Site-specific subsurface data is limited to the investigation area associated with VDEQ Petroleum Program Pollution Complaint (PC) #2013-3154. This PC# is related to a historical release from underground storage tanks (USTs) at the Property. Previous Site investigations in the vicinity of the USTs indicate that the upper 20 ft of soil is a clayey soil matrix containing rubble, including broken brick, river gravel, and concrete fragments. Below this 20-ft depth, there is a transition to native fluvial soil intervals (Groundwater & Environmental Services, Inc. [GES] and Geosyntec 2014a, 2014b). The native soils are comprised of gravel, sandy clays to clayey sands, and sand zones and are consistent with Old Town Terrace deposit mapped for the Site. Historical boring logs indicate the presence of a fine-grained lithologic feature beginning at approximately 25 ft below ground surface (bgs) (or 7 ft amsl) with a thickness ranging from 2 to 6 ft (GES and Geosyntec 2014a). This feature, typically described as lean clay, separates the perched shallow groundwater at the Site from the deeper regional aquifer. The clay layer appears to be continuous across the investigation area associated with PC#2013-3154, except in areas to the north of the screen/pump

house. A saturated zone of sand, silty sand, and sand and gravel zones has been encountered beneath the clay layer (GES and Geosyntec 2014a).

Site-specific hydrogeologic data is limited to the investigation area associated with PC#2013- 3154. As described above, a clay layer is present in the vicinity of the USTs. This clay layer acts as an aquitard dividing the groundwater into two zones: the perched water zone and the deeper regional aquifer. The groundwater elevations in the perched aquifer in the vicinity of the USTs are higher than the groundwater elevations in the deeper regional aquifer indicating a downward vertical gradient. Groundwater flow in the perched aquifer is generally to the east. As the perched water flows east toward the Potomac River, the clay layer that forms the aquitard becomes thinner and eventually pinches out altogether. As a result, the perched groundwater migrates downward and drains into the deeper regional aquifer prior to discharging to the Potomac River. The groundwater elevations in the deeper regional aquifer in the vicinity of the USTs indicate that flow in this area is controlled by the sheet pile wall along the Potomac River. The sheet pile wall acts as a barrier to flow, and groundwater flows either north or south around the wall to discharge to the river. Groundwater appears to mound behind the northern section of the wall, which might lead to stagnation points in the flow in this area.

2.4 Site Background

The Site was developed as a power-generating facility in the 1940s. Prior to the generation station, the Site was mostly vacant but was occupied circa the 1920s to 1940s at the northern end by the Potomac River Clay Work and at the southern end by American Chlorophyll Company and Green Colors Manufacturing. From the 1940s to 2000, the generating station was operated by the Potomac Electric Power Company (Pepco).[1] In 2000, the generating station was acquired (with ground lease) by an entity, which through mergers and other transactions, became GenOn Holdings, LLC (GenOn), while Pepco maintained ownership of the land. The Site ceased operations in October 2012. HRP acquired the PRGS Site and its generating facilities from Pepco and GenOn in the fall of 2020 and plans to redevelop the property as mixed-used development.

The site is currently improved with a multi-story industrial power plant building constructed with a basement (Main Plant Building); a covered utility corridor historically referred to as the "Precipitator Area"); and five coal-fired steam boilers and turbine generators (Units 1 to 5). Supporting features include the air emissions equipment, former (unlined) coal pile area, a clay-lined sediment basin, rail yard, water treatment facilities, one bottom ash and two fly ash silos, administration offices and analytical laboratory, and storage facilities and ancillary buildings, which include maintenance areas.

2.5 Prior Remedial Actions and Regulatory Status

The facility historically used No. 2 fuel oil to preheat its generating unit boilers with coal as its primary fuel to generate electricity. The No. 2 fuel oil was stored in two adjoining 25,000-gallon underground storage tanks (USTs) centrally located within the power plant complex. As part of the October 2012 shutdown, the facility assessed these two USTs before their closure in-place. A release of petroleum hydrocarbons was identified during a Site characterization program triggered by the UST closure, and VDEQ opened PC # 2013-3154. To address the detection of petroleum products in soil and groundwater near the USTs, GenOn conducted investigations and remediation, in coordination with the VDEQ, the National Park Service, and the DC DOEE. At least 56 wells (26 shallow and 30 deep) have been installed in the area of the petroleum release (Figure 3). A corrective action plan (CAP) was

[1] Initially under an entity called Braddock Light and Power Company, Inc., which was merged into Pepco.

approved by VDEQ in March 2015 and subsequently implemented at the site. Corrective action activities included the following:

- Implementation of total phase extraction (TPE) to remove LNAPL in the shallow groundwater zone and from overlying soils in and near the smear zone.
- Installation and operation of a pump and treat (P&T) system to remove LNAPL and remediate the dissolved phase plume in deep groundwater in the area of the source zone.
- Installation and operation of a biosparging system to address the dissolved phase plume downgradient of the source area.
- Sealing of holes at six seeps observed at the bulkhead.

On September 29, 2019, the VDEQ approved the discontinuation of active remediation, and the Site transitioned to post-remediation monitoring. The most recent groundwater monitoring event was completed in the first quarter of 2021. The results from recent groundwater monitoring events indicate that groundwater conditions are stable and that the concentrations of constituents of concern (COCs) in groundwater at the point of discharge to the Potomac River are less than the remediation goals identified in the March 2015 VDEQ CAP approval and the DOEE Surface Water Quality Standards. However, the concentrations of COCs exceed the remediation goals and DOEE Standards in some individual wells. Based on discussions between HRP and the VDEQ Petroleum Program on May 5, 2021, HRP plans to submit a CAP addendum during the late 3rd quarter of 2021. The CAP addendum will clarify the remediation end point(s) for this release in light of planned future site redevelopment.

3. IDENTIFIED CONCERNS

The following known and potential areas of interest (AOI) have been identified at the Site:

- ***AOI-1 - Known Petroleum Release (PC #2013-3154) and Petroleum Storage Areas.*** Prior investigations identified an area of known petroleum impacts associated with two (closed in place) 25,000-gallon fuel oil USTs located beneath the Open Bay Area in the east-central portion of the property. As described above, this release is being addressed under the Storage Tank Program; therefore, no additional sampling to evaluate impacts associated with this release is proposed as part of the site characterization activities. HRP will provide copies of future Petroleum Program submittals to the VDEQ VRP.

  The site also operated a number of additional (smaller) petroleum tanks including a 3,500-gallon diesel UST; a 2,000-gallon kerosene UST; a 4,000-gallon kerosene UST; three 275-gallon lube oil ASTs, and a 4,000-gallon diesel fuel AST. These former USTs were closed in accordance with VDEQ requirements. Releases associated with certain of these tanks were identified and investigated under the direction of VDEQ and received "no further action" determinations. Based on available information, residually impacted soils may be present near these former USTs, but site development plans are likely to include excavation and off-site disposal of significant volumes of soil from the site and as such, detailed characterization of residual petroleum impacts associated with these tanks is beyond the level of detail needed for the planned site characterization. Sampling of shallow soils in the vicinity of former petroleum ASTs is proposed if visual inspection indicates potential impact.
- ***AOI-2 - Chemical Storage Areas.*** Chemical and hazardous substance storage areas include a former Chemical Storage Area; former RCRA Storage Area; former Drum Storage Area; Chlorine Storage Building, Chlorine House, a neutralization tank, an Alum House, a 10,000-gallon aluminum sulfate AST, a former 3,500-gallon antifreeze AST; a former hydrazine AST and two former 330-gallon ammonia ASTs.
- ***AOI-3 - Power Plant and Laboratory Buildings.*** The Power Plant building is equipped with floor drains and sumps. Visual evidence of spills from petroleum ASTs and possibly other types of chemicals was observed by others in 2020. At present, the Power Plant Building is unsafe for entry; as such, potential impacts associated with the Power Plant Building and Laboratory Building will be investigated at a later date concurrent with, or subsequent to, building demolition. As such, Ramboll anticipates submission of a Work Plan Addendum for sampling beneath the Power Plant and Laboratory Buildings. However, groundwater sampling downgradient of the Power Plant and Laboratory Buildings will provide some indication of potential impacts resulting from historical operations in these buildings.
- ***AOI-3b - Drain Lines and Outfalls.*** Numerous subsurface conveyances external to the Power Plant Building are present at the site. Ten outfalls discharging to the Potomac River were previously identified at the Site; the integrity of many of the subsurface conveyances is not known. Outfalls 003, 004, 009 and 010 have been plugged. The location of Outfall 002 is not presently known and the status of Outfalls 001, 005, 007, and 008 are not known. The planned investigation will include limited investigation for some of the drain lines and associated Outfalls, but access to these lines is currently limited due to safety concerns with the aging Power Plant Building. As such, additional investigation of these structures will be proposed, as appropriate, following or concurrent with, demolition of the Power Plant Building.

- ***AOI-4 - Former Coal and Ash Handling and Storage Areas.*** Former coal and ash handling areas include the former unlined coal storage yard, the breaker house, the (clay-lined) sedimentation pond, the secondary ash pond, the rejects pile, and fly ash and bottom ash storage silos.
- ***AOI-5 Former Transformer Areas.*** Former transformer areas include the generator/transformer areas north of the Power Plant Building, a former transformer area located between the switch yard and the Power Plant Building, which includes an oil reclaiming pit designated as Oil Reclaiming Pit #1, a sump pit located south of the transformer area, and a separate transformer located adjacent to the bulldozer shed.
- ***AOI-6 - Rail Yard.*** A rail yard has been present at the southwestern edge of the Site since the late 1800s. Ancillary structures serving the rail yard include the former coal car dumper and a warming shed which is serviced by a former UST.

4. SAMPLING AND ANALYSIS PLAN

4.1 Field Preparation Activities

Ramboll will conduct a site reconnaissance visit with the Client prior to the commencement of field investigation activities. A visual inspection of the physical condition of the site will be performed to document indications of subsurface utilities and to evaluate access or other logistical constraints. Ramboll will also subcontract with vendors to provide subsurface utility locating or other geophysical services, a driller, and analytical laboratory. Ramboll will also prepare a site-specific health and safety plan (HASP) for use by Ramboll personnel during the execution of field activities at the site. The HASP will be developed to be protective of Ramboll workers as well as the surrounding community and will be updated as the project progresses.

4.2 Pre-Investigation Site Reconnaissance and Subsurface Utility Clearance

Prior to conducting invasive work, Ramboll will review available utility drawings and request a subsurface public utility mark-out from the Virginia 811 Call-Before-You-Dig service. Ramboll will also retain the services of a private subsurface utility locator to check individual boring locations for potential subsurface conflicts, confirm subsurface utility locations, and verify the locations of USTs. Proposed sample locations will be adjusted to avoid marked utilities or other obstructions. At a minimum, the private subsurface locator will be equipped with a magnetometer and ground-penetrating radar (GPR). Ramboll will also be prepared with a low-impact air knife and vacuum excavator to expose suspect pipes where proximal soil borings may be placed. As necessary, Ramboll may also utilize a remote downhole camera to assist with tracing subsurface piping.

4.3 Soil Sampling and Analysis Procedures

Ramboll proposes to collect surface and subsurface soil samples at the site for laboratory analysis to evaluate surface and subsurface conditions. A summary of proposed soil sampling activities is provided in Table 1 and proposed (approximate) soil boring locations are presented on Figure 4. More specifically, the proposed scope of work includes:

- Installation of 28 soil borings to allow for collection and laboratory analysis of 28 surface soil samples (0 to 1 foot below ground surface [ft bgs]) and up to 56 subsurface soil samples.
- Collection and analysis of up to five additional surface soil samples from AOI-1; these samples will be collected only if field screening indicates potential impact.

Soil borings will be advanced using a combination of direct push and rotary auger drilling and will be advanced to the first encountered of 1) the water table; 2) refusal; or 3) a depth of 35 ft bgs. At each boring location, continuous soil cores will be collected and screened in two-foot intervals for the presence of volatile organic vapors using a photoionization detector (PID), observed for visual or olfactory indication of impact, and described in general accordance with the Unified Soil Classification System (USCS). Soil samples will be collected at each boring location as described in Table 1, resulting in the collection of one surface soil sample and up to two subsurface soil samples from each boring. Where field indications of impact are observed, one soil sample will be collected from the interval exhibiting the greatest indication of impact and a second soil sample will be collected from a deeper apparent clean soil interval or from the soil interval just above the water table. In the absence of apparent impacts, soil samples will be collected from pre-determined depth intervals based on the likely depth of potential historical releases (i.e., closer to the surface for features of concern such as

drum storage areas or at depth for evaluation of potential releases from underground storage tanks, sumps, etc.).

For the purposes of preliminary site investigation, analytes of potential concern for site soils will include some or all of the following parameters, based on the potential concern being evaluated:

- Volatile organic compounds (VOCs) by United States Environmental Protection Agency (USEPA) method 8260[2],
- Semi-volatile organic compounds (SVOCs) by USEPA method 8270
- Polychlorinated biphenyls (PCBs) by USEPA method 8082
- pH
- Target analyte list metals (aluminum, antimony, arsenic, barium, beryllium, cadmium, calcium, chromium, cobalt, copper, iron, lead, magnesium, manganese, mercury, molybdenum, nickel, selenium, silver, sodium, thallium, vanadium, and zinc, by USEPA method 6010 or 6020 /7470 for mercury)
- Cyanide by SM4500
- Total petroleum hydrocarbons – diesel-range organics (TPH-DRO), – gasoline range organics (GRO), and– oil range organics (ORO) by USEPA method 8015C.

Soil samples will be collected into laboratory provided containers, labeled, and packaged on ice. Samples will be shipped under chain-of-custody procedures to a qualified (i.e., Virginia Environmental Laboratory Accreditation Program [VELAP] certified) analytical laboratory for analysis.

Following collection of soil samples, select borings will be converted into permanent groundwater monitoring wells; borings that are not converted into monitoring wells will be abandoned by filling the borehole with drill cuttings and patching the surface with appropriate material to match the surrounding area.[3]

4.4 Well Installation

In addition to soil sample collection, Ramboll proposes to collect groundwater samples at the site for laboratory analysis to further evaluate subsurface conditions. Select soil borings (see Table 1) will be converted into 2-inch diameter monitoring wells to support the collection and analysis of groundwater samples and documentation of groundwater flow direction. Proposed (approximate) well locations are depicted on Figure 4. Each monitoring well will generally be constructed using one of the following methods:

- Direct Push Pre-Packed Wells

  Wells may be installed as direct push 2-inch diameter wells in locations inaccessible to larger drilling equipment. Direct push wells will be installed using 10 to 15 feet of pre-packed 2-inch

[2] Soil samples will be collected for analysis of VOCs and/or TPH-GRO only if field screening indicates potential impact; if samples are collected, they will be collected using TerraCores® in general accordance with USEPA method 5035.

[3] Soil cuttings that exhibit indications of free product or other significant impact will be containerized for appropriate off-site disposal following characterization. In such case, boreholes will be backfilled with a sodium bentonite slurry.

diameter well screen, a two-foot section of bentonite-wrapped riser, and sufficient unwrapped riser to reach the ground surface.

- Traditional Wells

  Soil borings will be over-drilled using 5.25-inch diameter hollow stem augers to a depth 5 to 10 feet below the water table. Monitoring wells will be constructed using 10 to 15 feet of 0.010-inch factory-slotted schedule 40 polyvinyl chloride (PVC) screen set at the base of the borehole with sufficient PVC riser to reach the surface. The annulus of the borehole will be filled with #2 Morrie-type clean silica sand as the augers are removed, to a depth at least 2 feet above the top of the screen. A 2-foot layer of hydrated bentonite chips will be placed above the sand and the remaining annulus will be filled with a 2-percent bentonite/Portland cement grout mixture.

Each monitoring well will be completed with a traffic-rated, flush-mount manhole cover with a bolting lid set into a 2-foot by 2-foot concrete well pad or a stickup well cover set into a 2-foot by 2-foot concrete well pad. An expandable locking plug will be placed at the top each well.

4.5 Well Development

At least 24 hours after groundwater monitoring well installation, each well will be developed by surging and purging to reduce turbidity below 50 nephelometric turbidity units (NTU) and establish connection between the well and the surrounding formation in accordance with USEPA guidance.

4.6 Groundwater Sampling and Analysis Procedures

Following well installation and development, a groundwater sample will be collected from each newly installed groundwater monitoring well and from three existing monitoring wells (MW-30S; MW-72S; MW-100S) using low-flow sampling techniques.[4] Water quality parameters, including pH, dissolved oxygen (DO), oxidation-reduction potential (ORP), temperature, specific conductance and turbidity will be monitored while purging at flow rates less than 500 milliliters per minute (mL/min) from the approximate mid-point of the screened interval in each well. Concurrent with low-flow purging, the water level in the well will be monitored. Stabilization over three consecutive 5-minute readings of the following parameters will be utilized to determine groundwater stability for sampling:

- pH ±0.1 unit
- Specific Conductance ±3%
- Temperature ±3%
- DO ±0.3 milligrams per liter (mg/L) or ±10%
- Turbidity <10 Nephelometric Turbidity Units (NTUs) or ±10%
- ORP ±10 millivolts
- Water Level Drawdown <0.3 foot from static or ±10% after flow adjustments

[4] If any of the existing monitoring wells proposed for sampling is dry or bears insufficient water for sampling, Ramboll may substitute another nearby monitoring well.

Groundwater samples will be analyzed for some or all of the following parameters as outlined in Table 1:

- VOCs by USEPA method 8260
- SVOCs by USEPA method 8270
- PCBs by USEPA method 8082
- Sulfate by SM 4500
- Ammonia (as N) by SM 4500
- Total and dissolved TAL metals (aluminum, antimony, arsenic, barium, beryllium, cadmium, calcium, chromium, cobalt, copper, iron, lead, magnesium, manganese, mercury, molybdenum, nickel, selenium, silver, sodium, thallium, vanadium, and zinc, by USEPA method 6010 or 6020 / 7470 for mercury) plus hardness
- Glycols by USEPA 8015M
- Hydrazines by USEPA 3815 or another approved method
- TPH-GRO, -DRO and -ORO by USEPA method 8015C.

Samples will be collected into laboratory-provided containers, labeled, packaged on ice, and shipped under chain-of-custody procedures to a qualified analytical laboratory for analysis.

4.7 Well Gauging and Slug Testing

Prior to and following sample collection, Ramboll will use an electronic oil-water interface probe to gauge the depth to water (and depth to free product, if present) below top of casing in each monitoring well to the nearest 0.01 foot. Well gauging will be performed approximately 48 hours after installation and development are complete, and again following sample completion at all wells.

Ramboll will also conduct two to three rising head and falling-head slug tests on selected monitoring wells to calculate hydraulic conductivity for use, along with gradient and soil properties, to estimate hydraulic conductivity within the saturated zone at the site.

4.8 Site Survey

Following well installation, Ramboll plans to retain the services of a surveying contractor to establish the elevations of the top of the PVC well casing and ground surface at each newly installed groundwater monitoring well to the nearest 0.01 foot, referencing the North American Vertical Datum 1988 (NAVD88). The survey and gauging data will be used to confirm the local shallow groundwater flow direction and approximate gradient. Soil boring and monitoring well locations as well as the location of marked subsurface utilities will be established to the nearest 1.5 foot using a mobile global positioning system (GPS) unit.

4.9 Investigation-Derived Waste (IDW) Management

Soil cuttings generated during the installation of soil borings will be returned to the borehole following sample collection if the boring is not identified for conversion into a temporary groundwater point and evidence of free product is not observed. Soil cuttings generated during the installation of monitoring wells or other soil cuttings exhibiting evidence of free product or other significant contamination will be containerized in US Department of Transportation (DOT) certified 55-gallon drums. Well

development and purge water will be returned to the ground surface in accordance with Petroleum Storage Tank Program Technical Guidance or, if the fluids do not meet the requirements for returning to the ground surface, the fluids will be containerized in USDOT-approved 55-gallon drums for appropriate future off-site disposal. Spent personal protective equipment (PPE), acetate liners and other trash will be containerized in 55-gallon drums and staged on-site for future appropriate off-site disposal.

Drums will be labeled, sealed and staged on-site for future off-site disposal following waste characterization.

5. QUALITY ASSURANCE PROJECT PLAN

Chain-of-custody documents and field logbooks or electronic data logs will be maintained for all samples. Sample locations will be recorded using a combination of GPS and traditional survey methods.

Samples will be collected using standardized field operating procedures. Samples will be collected into laboratory-provided containers, labeled, and shipped or delivered under chain-of-custody procedures to an appropriately qualified laboratory. To evaluate the repeatability of the sampling procedures, at least one duplicate sample per 20 samples will be collected during the sampling event.

Re-useable sampling and/or monitoring equipment will be decontaminated using appropriate procedures including a non-phosphate detergent wash, followed by a double de-ionized water rinse. One equipment rinse blank will be collected for each substantially different type of sampling equipment used (e.g., hand auger, trowel, etc.) per day to document the effectiveness of equipment decontamination methods. Laboratory-provided deionized water will be collected into laboratory provided containers by pouring the water over the sampling tools. The samples will be submitted to the laboratory using the same procedures as described in Section 4. Additionally, electronic monitoring equipment will be calibrated in accordance with manufacturer recommendations and standard field operating procedures.

The analytical laboratory will employ standard QA/QC practices including the analysis of internal laboratory duplicates, reagent blanks, method blanks, matrix spikes and matrix spike duplicates, surrogate spikes, laboratory control samples, and continuing calibrations. Laboratory analytical methods will follow USEPA-approved protocols and quality control criteria.

Field Data Reduction

Field data reduction procedures will be minimal in scope compared to those implemented in the laboratory setting. Only direct read instrumentation will be employed in the field. Readings collected in the field will be generated from direct read instruments following calibration per manufacturer's recommendations as outlined in the SOPs. Such data will be recorded into field logs immediately after measurements are taken. If errors are made, results will be legibly crossed out, initialed and dated by the field member, and corrected in a space adjacent to the original (erroneous) entry. Electronic field data collection forms will be utilized for the collection of field data to the extent possible to reduce the potential for transcription errors. Electronic field data forms will be uploaded to a secure file server on a daily basis to avoid data loss. Where data transcription is necessary, the Project Manager will proof the forms to determine whether any transcription errors have been made by the field crew.

Data Usability Review

Following laboratory verification of the data, Ramboll will review analytical data reports for overall completeness and evaluate the usability of the data relative to the investigation objectives. The usability review will include a review of technical holding times and spot checks on instrument performance check sample results, initial and continuing calibration results, blanks, surrogate spikes, matrix spikes/matrix spike duplicates and laboratory control sample results, internal standards, target compound identification and quantitation and system performance checks.

Data not meeting the acceptable QA/QC limits will be flagged for further consideration.

6. REPORTING AND COMMUNICATIONS

Project stakeholders (i.e., VDEQ VRP program, City of Alexandria, and National Park Service) will be notified at least five days prior to commencing field work. The VDEQ VRP will also be notified when major project milestones are completed or if unexpected conditions requiring deviations from this Work Plan are encountered.

Notifications to the VDEQ VRP will be made via telephone and/or email.

Following the receipt of analytical results, Ramboll will tabulate and review analytical results and will discuss with HRP whether supplemental sampling is needed to complete the site characterization in accordance with VDEQ requirements. If supplemental sampling is required, a Work Plan addendum for supplemental sampling will be prepared for review by HRP and subsequent submittal to VDEQ. If the data generated during the implementation of this work plan are sufficient for completion of the site characterization, Ramboll will instead prepare a draft Site Characterization Report in accordance with VDEQ requirements. The draft report will be finalized and submitted to VDEQ following approval by HRP. As appropriate, Ramboll will also participate in a meeting with VDEQ to discuss the findings of the site characterization.

7. PROPOSED SCHEDULE

Ramboll anticipates that field activities will be initiated in early October. Ramboll anticipates that the field activities described herein will require approximately 6 to 7 weeks for completion absent unexpected delays resulting from weather, subcontractor availability or other causes outside of Ramboll's control. Accordingly, if VDEQ or the City of Alexandria have comments on or requested additions to the proposed sampling, there will be time to adjust the sampling activities during the sampling period.

Samples will be analyzed on a 10-business day analytical turn-around time. Following the receipt of initial sample results, Ramboll will quickly tabulate and review analytical data to determine whether samples placed on hold should be released for subsequent analysis. A draft Site Characterization Report will be prepared within approximately 3 to 4 months following receipt of all analytical results. As discussed in the scope of work section above, certain areas of the site are currently inaccessible and as such, further investigation of inaccessible areas will be conducted during a subsequent mobilization; the results of this investigation will be used to inform sampling of remaining areas of the site.

8. REFERENCES

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TABLES

TABLE 1: SUMMARY OF PROPOSED SAMPLING AND ANALYSIS
FORMER POTOMAC RIVER GENERATING STATION, ALEXANDRIA, VIRGINIA

Area of Interest and Rational	Proposed Investigation Activities	Soil						Groundwater								
		VOCs	SVOCs	PCBs	TAL Metals	TPH	pH	VOCs	SVOCs	PCBs	TAL Metals	TPH	Ammonia (N)	Sulfate	Hydrazine	Glycol
AOI-1: Known and Potential Petroleum Releases	Collect up to 5 surface soil samples in the vicinity of the former lube oil ASTs; the former antifreeze AST or other ASTs that were situated on unpaved surfaces. Samples will be collected only if field screening indicates potential impact. Proposed (provisional) surface soil sample locations are not shown on the proposed sample location map.	A									C					
AOI-2: Potential Historical Releases from Chemical Storage and Handling Areas.	Install 3 monitoring wells (SB201/MW201 to SB203/MW203) and 1 soil boring (SB-204) within or adjacent to former chemical storage areas. Collect soil samples from 0-1 ft bgs, interval exhibiting greatest impact plus a deeper apparent clean interval or an interval immediately above the water table. If no indication of impact, collect soil samples at 0 to 1 ft bgs plus 13 to 15 feet bgs.	A									C				D	
AOI-3a: Power Plant and Laboratory Buildings.	Collect groundwater samples from existing wells MW-30S, MW-72S and MW-100S. Install one new soil boring/monitoring well on north side of Main Power Plant Building (SB205/MW205). Collect soil samples at 0-1 ft bgs; apparent most impacted interval and immediately above water table. If no indication of impact; collect soil samples at 0-1 ft bgs and 13 to 15 ft bgs.	A									C					
AOI-3b: Drain Lines and Outfalls.	Specific borings are not proposed to evaluate possible releases from drain lines or outfalls. However, piping integrity inspections may be considered, if feasible. To the extent possible, Ramboll will also collect organic vapor readings at accessible pipe inlets and will make visual observations, to the extent possible, of outfalls to look for evidence of releases.															
AOI-4: Former Coal and Ash Storage and Management Areas.	Install 11 soil borings (SB206 to SB216) and convert 4 of the borings into monitoring wells (MW206 to MW209). Collect soil samples at 0 to 12 inches bgs (surface soil); 5 to 7 feet bgs; and immediately above water table. Collect groundwater from each of the monitoring well locations.	A				B					C					
AOI-5: Transformers.	Install 6 shallow soil borings (SB217 to SB222). Collect surface soil sample plus one subsurface soil sample (4 to 5 ft bgs) at each location. Place deeper soil sample on HOLD for potential analysis if field screening does not identify obvious impact at the deeper interval. Convert 1 boring into a monitoring well (if accessible to a drilling rig). Install one (additional)monitoring well adjacent the sump pit associated with the transformer area.															
AOI-6: Rail Yard.	Install 6 shallow soil borings (SB223 to SB228) and convert 2 of the borings into monitoring wells (MW223/MW224). Collect surface soil sample plus one subsurface soil sample (4 to 5 feet bgs) for laboratory analysis. Deeper soil sample to be placed on HOLD for potential analysis if field screening does not identify obvious impact at the deeper interval. At well locations, collect an additional soil sample at 13 to 15 ft bgs.	A				B					C					

Notes:

A - Sample to be collected only if field screening indicates potential impact by volatile constituents or petroleum constituents. Samples will be collected using Terracores® in conjunction with USEPA method 5035.

B - Sample to be collected only if field screening indicates potential impact by petroleum constituents. GRO will be collected using Terracores® in conjunction with USEPA method 5035.

C - Groundwater samples for metals analysis will be collected as both dissolved (field filtered) and total metals.

D - Only samples from MW201, MW-202 and MW205 will be analyzed for hydrazines (USEPA method 3815 or similar).

TAL Metals - Target analyte list metals by USEPA method 6010 or 6020 and 7470 for mercury. Groundwater samples will be collected as both dissolved and total metals and will be additionally analyzed for hardness.

PCBs - polychlorinated biphenyls (USEPA method 8081/8082).

SVOCs - semi-volatile organic compounds (USEPA method 8270).

TPH - total petroleum hydrocarbons - gasoline range organics (GRO), diesel range organics (DRO) and oil range organics (ORO) (USEPA method 8015C).

VOCs - volatile organic compounds (USEPA method 8260).

Ammonia and sulfate to be analyzed by SM 4500 .

FIGURES

PROJECT: 1690022371 | DATED: 7/2/2021 | DESIGNER: AKELLY C:\Users\akelly\Ramboll\HRP_Alexandria Power Plant - General\Ramboll Documents\GIS\HRP Alexandria Power Plant Redevelopment.aprx\1_Ramboll_SiteLocationMap

Map Scale: 1:24,000 | Map Center: 77°2'26"W 38°49'4"N

SITE LOCATION MAP

FIGURE 01

KEY MAP (not to scale)

0 500 1,000 Feet

Former Potomac River Generating Station
1400 North Royal Street
Alexandria, Virginia 22314

RAMBOLL US CONSULTING, INC.
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- Outfall Locations
- Site Boundary
- AOI 1: Known Releases from 25,000-gal USTs
- AOI 2: Potential Historical Releases from Chemical Storage Areas and Use
- AOI 3a: Power Plant and Laboratory Building (currently inaccessible)
- AOI 3b: Drain Lines and Outfalls
- AOI 4: Former Coal and Ash Storage Areas
- AOI 5: Transformers/Electrical Equipment
- AOI 6: Rail Yard

0 200 400 Feet

SITE LAYOUT MAP

Former Potomac River Generating Station
1400 North Royal Street
Alexandria, VA 22314

FIGURE 02

RAMBOLL US CONSULTING, INC.
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RAMBOLL

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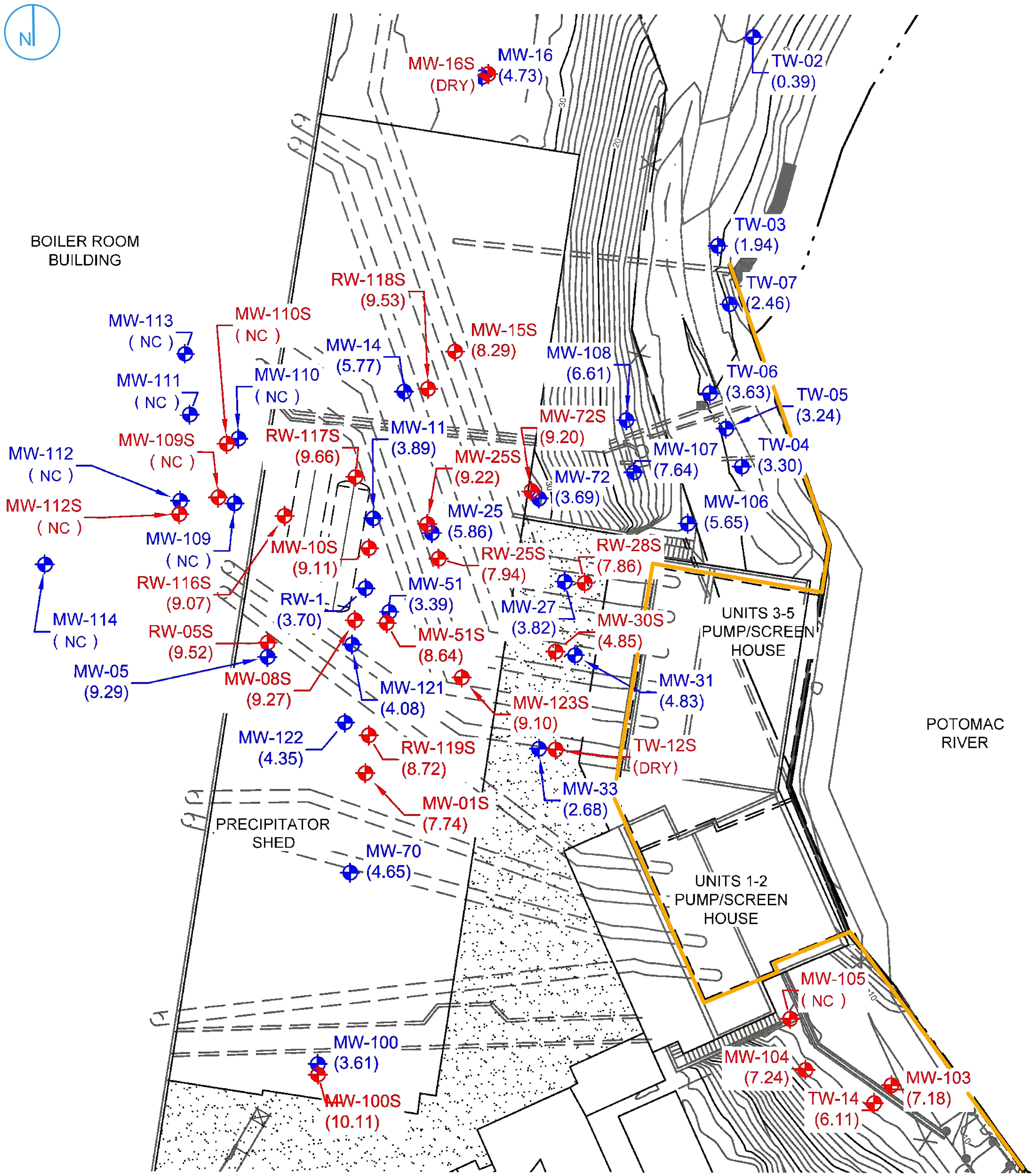
PROJECT: 1690022371 | DATED: 8/23/2021 | DESIGNER: SOBERTKASS... \Ramboll\HRP_Alexandria Power Plant - General\Ramboll Documents\GIS\HRP Alexandria Power Plant Redevelopment.aprx\3_Ramboll_ExistingWellLocations



Note: Groundwater elevation data are presented for **March, 2021**

Service Layer Credits: Figure and legend adapted from Geosyntec May 2021 'Site Characterization Work Plan' document

Sheet Pile Wall and Screen House Walls (Serve as a barrier to groundwater flow)

0 50 100 Feet

EXISTING MONITORING WELL LOCATIONS

FIGURE 03

Former Potomac River Generating Station
1400 North Royal Street
Alexandria, VA 22314

RAMBOLL US CONSULTING, INC.
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- Proposed Soil Boring
- Proposed Soil Boring/Monitoring Well
- Existing Monitoring Well
- Outfall Locations
- AOI 1: Known Releases from 25,000-gal USTs
- AOI 2: Potential Historical Releases from Chemical Storage Areas and Use
- AOI 3a: Power Plant and Laboratory Building (currently inaccessible)
- AOI 3b: Drain Lines and Outfalls
- AOI 4: Former Coal and Ash Storage Areas
- AOI 5: Transformers/Electrical Equipment
- AOI 6: Rail Yard

0 200 400 Feet

PROPOSED SAMPLE LOCATION MAP

Former Potomac River Generating Station
1400 North Royal Street
Alexandria, VA 22314

FIGURE 04

RAMBOLL US CONSULTING, INC.
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RAMBOLL

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PROJECT: 1690022371 | DATED: 9/21/2021 | DESIGNER: SOSTERTAG

APPENDIX B
HYDRAULIC CONDUCTIVITY TEST RESULTS

Table 1. Well Information and Slug Test Results

Well ID	Screened interval (ft bgs)	Test Date	Well Radius (Rw, ft)	Casing Radius (Rc, ft)	Static Water Level (ft bTOC)	Water Column in well (ft)	Test Analyzed	Initial Displacement (Ho, ft)	Estimated Hydraulic Conductivity (K, ft/d)	Analysis Method / Notes
MW-202	20-35	10/21/2021	0.35	0.08	24.83	9.7	RH2	1.53	0.63	Bouwer-Rice with 6.11b effective casing correction for filterpack drainage
MW-206	15-30	10/21/2021	0.35	0.08	17.40	12.3	RH2	1.5	15.5	Bouwer-Rice with 6.11b effective casing correction for filterpack drainage
MW-209	10-25	10/21/2021	0.35	0.08	19.82	4.7	RH2	1.46	14	Bouwer-Rice with 6.11b effective casing correction for filterpack drainage

Notes and Abbreviations

FH: Falling head test (slug in)

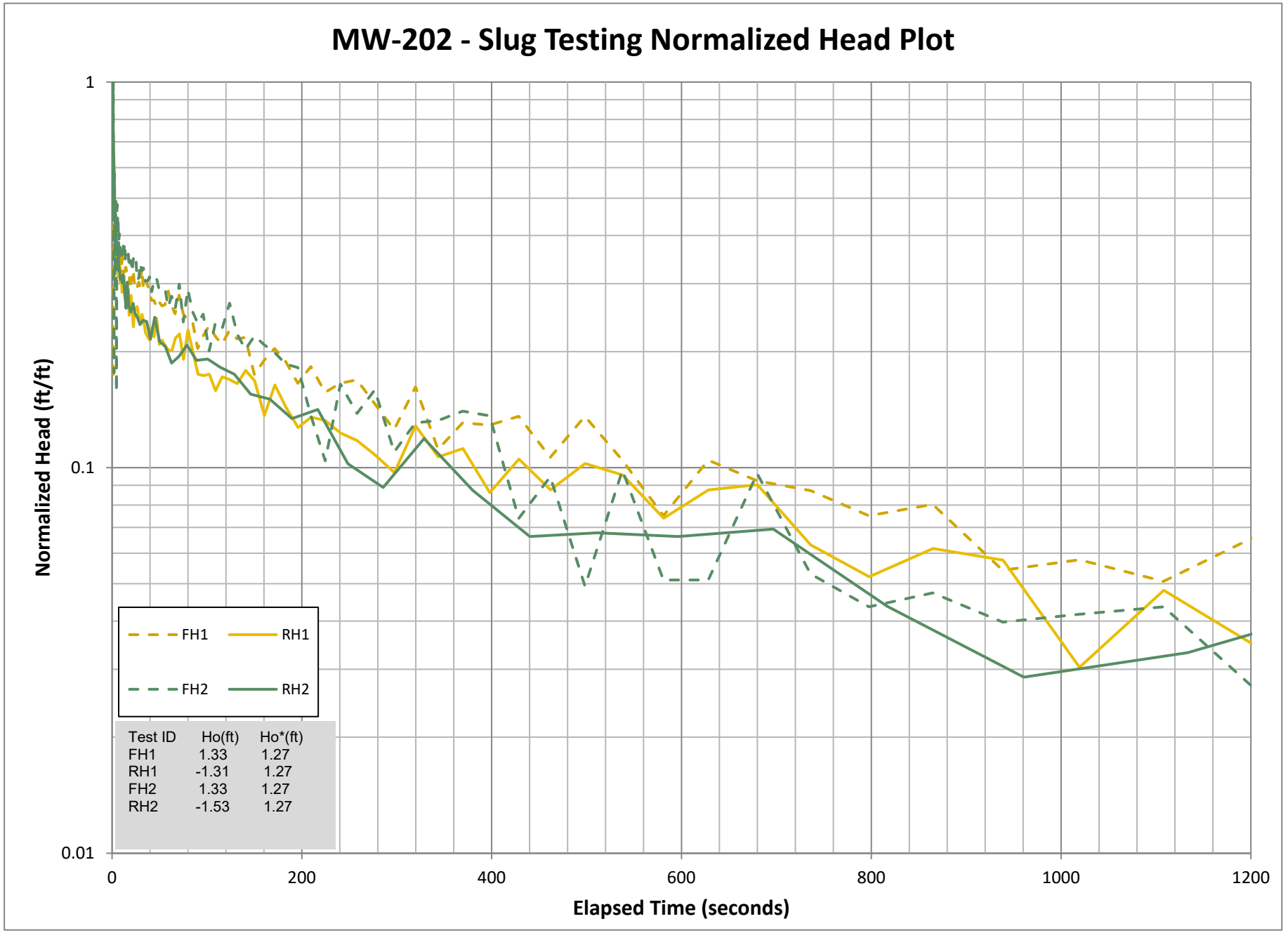
RH: Rising head test (slug out)

ft bTOC: feet below top-of-casing

Analytical Solutions

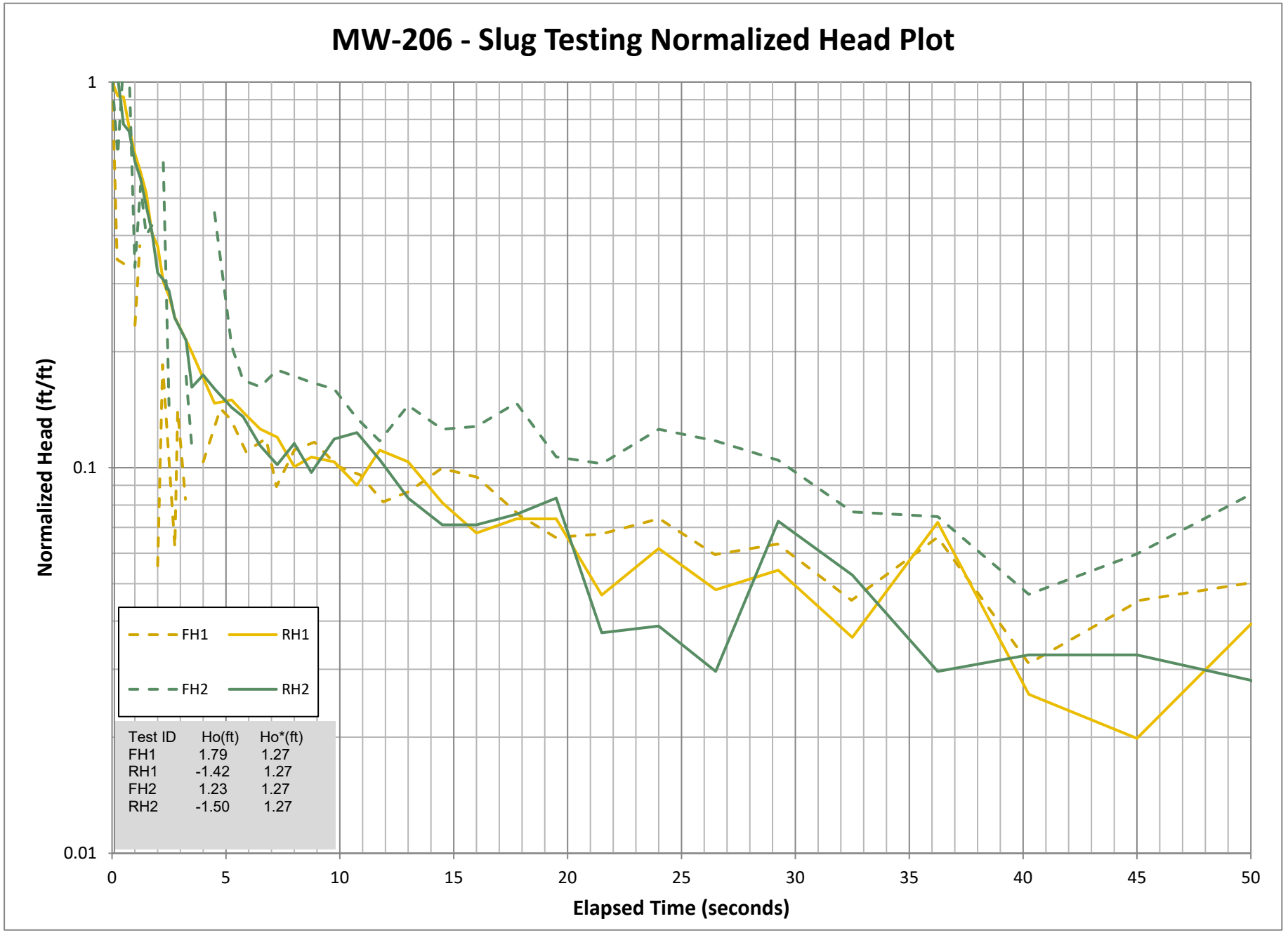
BR: Bouwer-Rice solution with the Butler 6.11b correction for filterpack drainage in wells screened across the water table

MW-202 - Slug Testing Normalized Head Plot



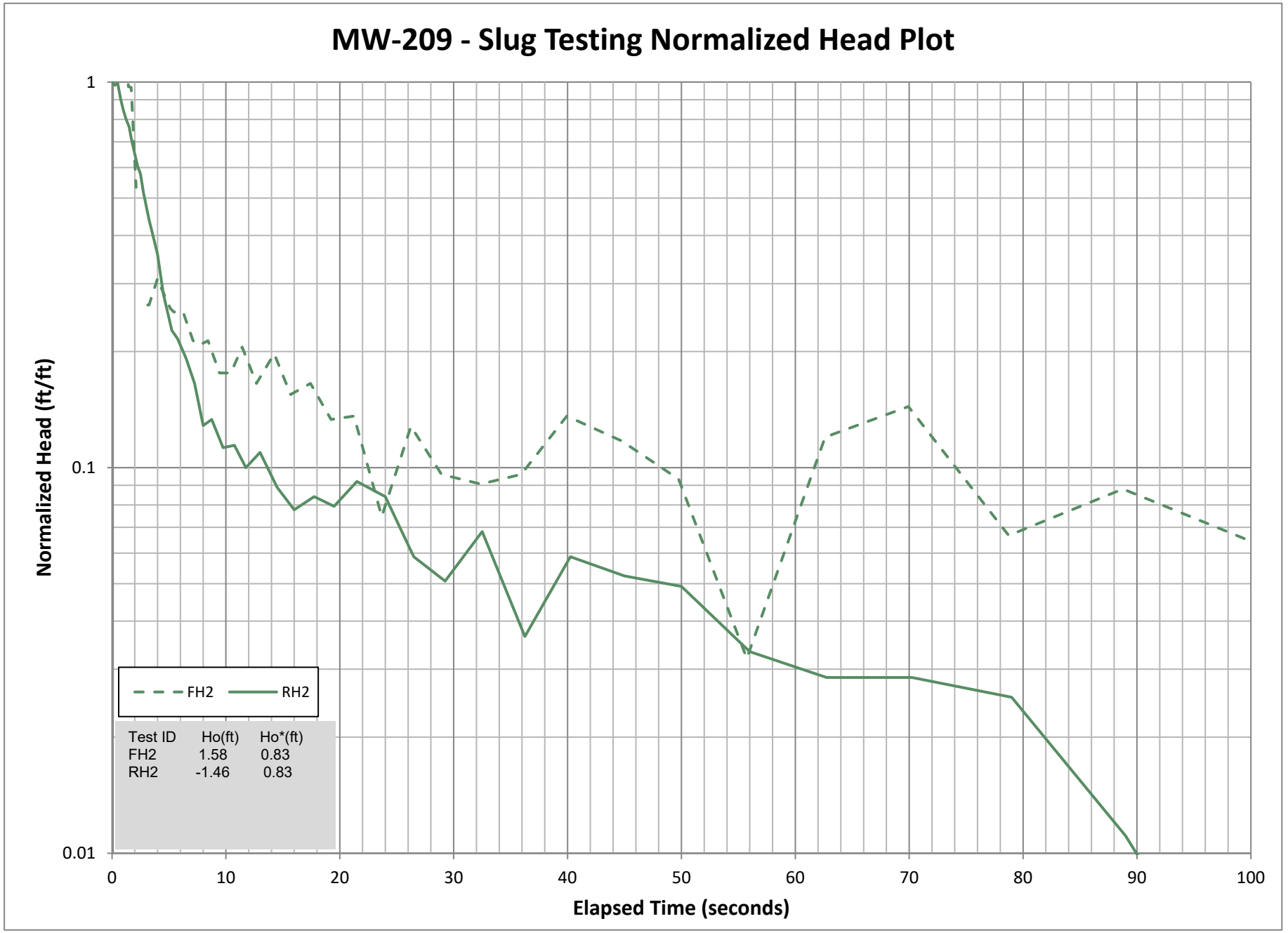
Test ID	Ho(ft)	Ho*(ft)
FH1	1.33	1.27
RH1	-1.31	1.27
FH2	1.33	1.27
RH2	-1.53	1.27

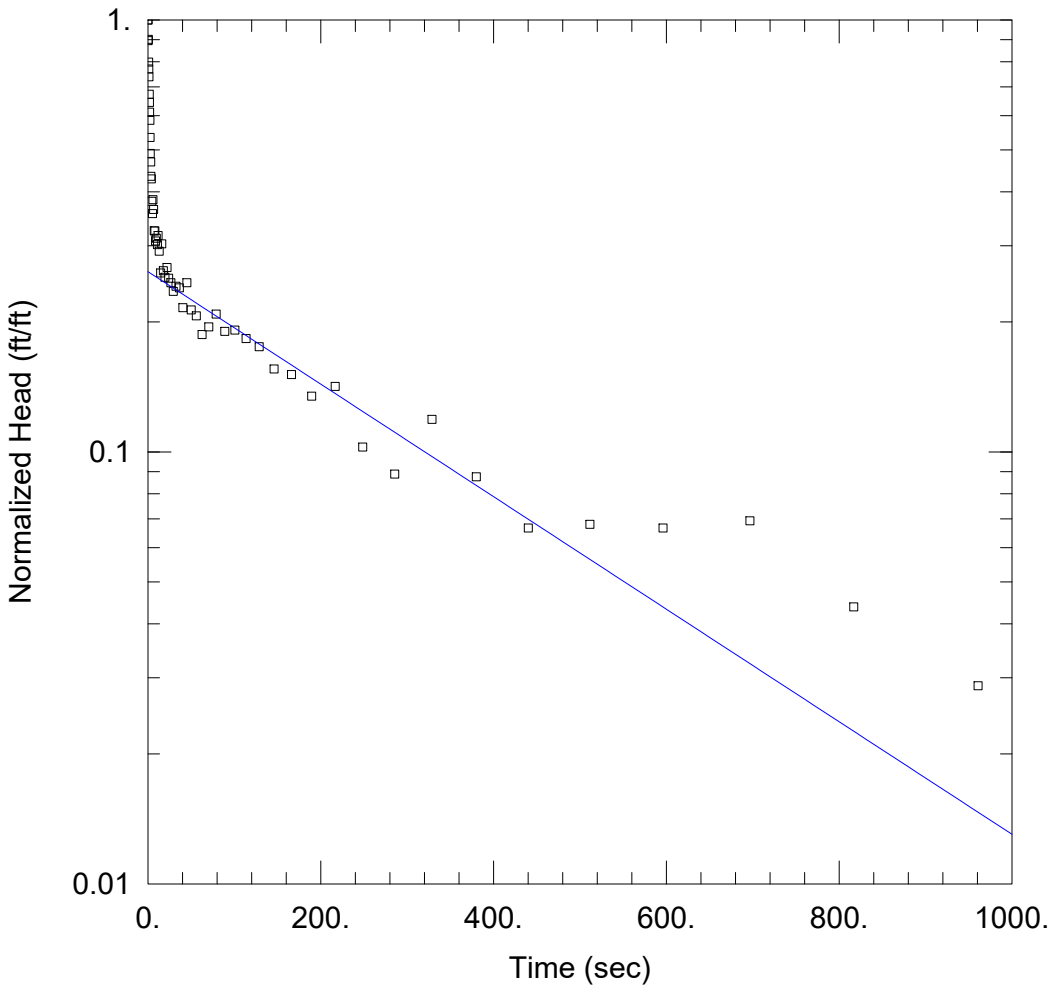
MW-206 - Slug Testing Normalized Head Plot



Test ID	Ho(ft)	Ho*(ft)
FH1	1.79	1.27
RH1	-1.42	1.27
FH2	1.23	1.27
RH2	-1.50	1.27

MW-209 - Slug Testing Normalized Head Plot





WELL TEST ANALYSIS

PROJECT INFORMATION

Company: Ramboll
Client: HRP PRGS

WELL DATA (MW-202)

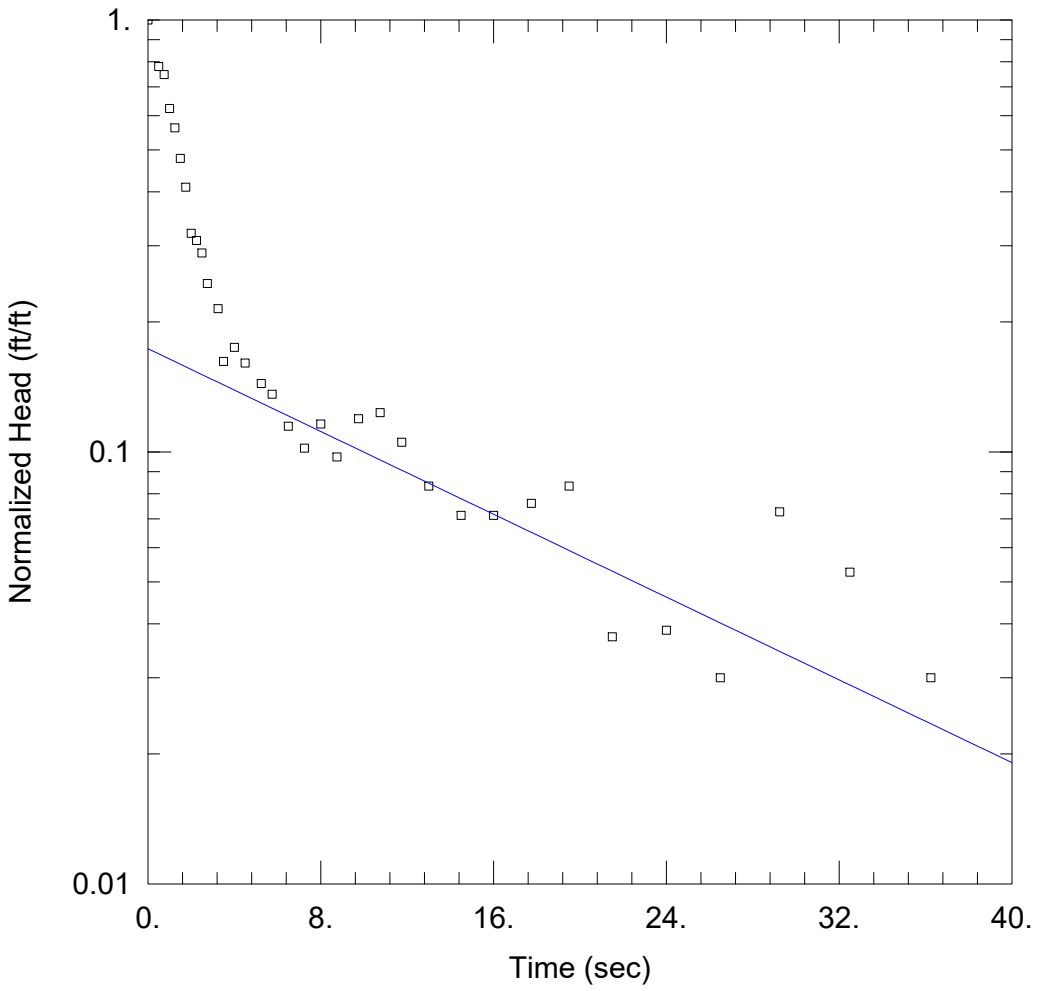
Initial Displacement: 1.53 ft
Total Well Penetration Depth: 9.7 ft
Casing Radius: 0.083 ft

Static Water Column Height: 9.7 ft
Screen Length: 9.7 ft
Well Radius: 0.35 ft
Gravel Pack Porosity: 0.

SOLUTION

Aquifer Model: Unconfined
K = 0.63 ft/day

Solution Method: Bouwer-Rice
y0 = 0.4 ft



WELL TEST ANALYSIS

PROJECT INFORMATION

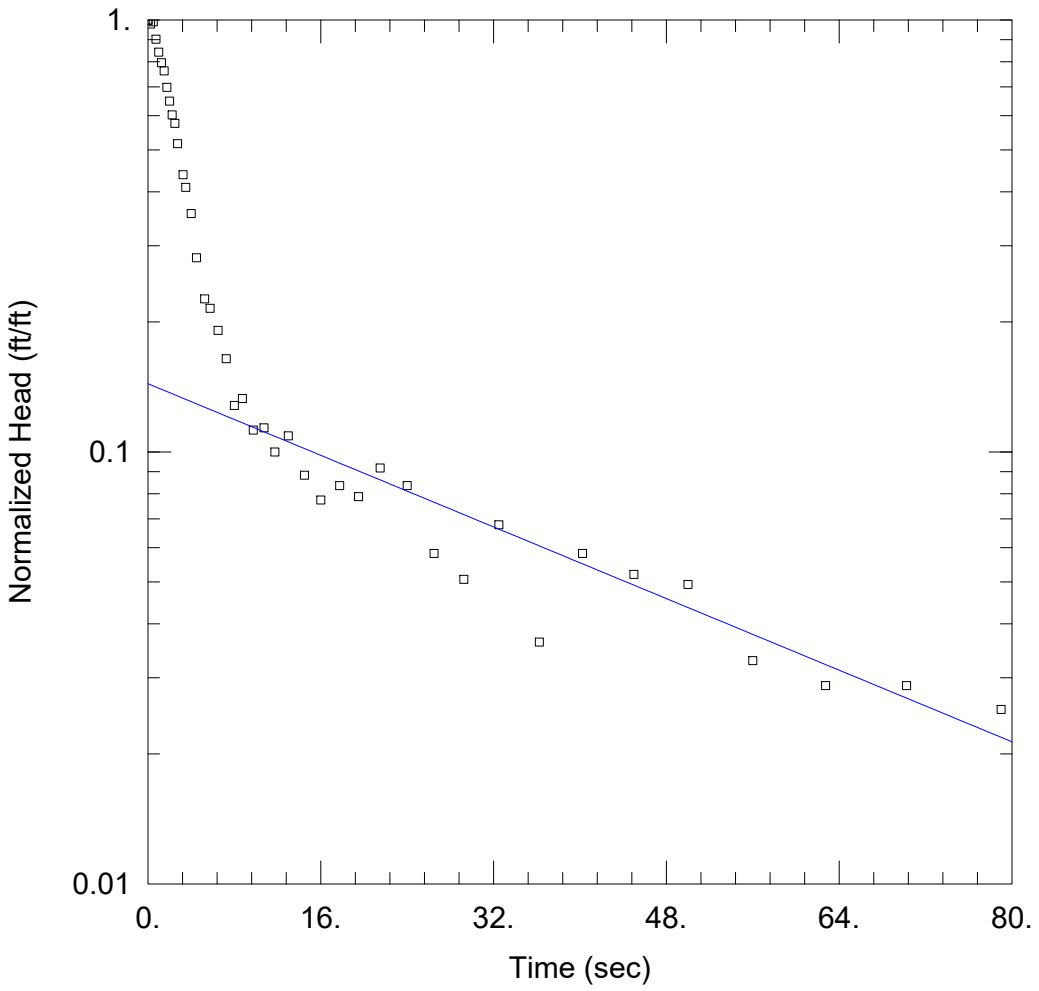
Company: Ramboll
Client: HRP PRGS

WELL DATA (MW-206)

Initial Displacement: 1.5 ft
Total Well Penetration Depth: 12.3 ft
Casing Radius: 0.083 ft
Static Water Column Height: 12.3 ft
Screen Length: 12.3 ft
Well Radius: 0.35 ft
Gravel Pack Porosity: 0.

SOLUTION

Aquifer Model: Unconfined
Solution Method: Bouwer-Rice
K = 15.5 ft/day
y0 = 0.26 ft



WELL TEST ANALYSIS

PROJECT INFORMATION

Company: Ramboll
Client: HRP PRGS

WELL DATA (MW-209)

Initial Displacement: 1.46 ft
Total Well Penetration Depth: 4.7 ft
Casing Radius: 0.083 ft

Static Water Column Height: 4.7 ft
Screen Length: 4.7 ft
Well Radius: 0.35 ft
Gravel Pack Porosity: 0.

SOLUTION

Aquifer Model: Unconfined
K = 14. ft/day

Solution Method: Bouwer-Rice
y0 = 0.21 ft

APPENDIX C
RAMBOLL SOIL BORING LOGS AND MONITORING WELL CONSTRUCTION DIAGRAMS

Soil Boring Log
HRP - Former PRGS SCR Implementation

SB201

Start Date:	10/08/2021	End Date:	10/08/2021
Inspector:	Sarah Ostertag	Project Manager:	Greg Grose
Surface Elevation (ft asml):	29.82	Drilling Contractor:	Eichelbergers
Drilling License Number:	V00442	Master Driller:	Paul Wirrick
Rig Type:	Geoprobe 7822DT with	Drilling Method:	Direct Push with HSA Overdrill
Auger Diameter (inches):	4.25	Drilling Fluid:	None
Borehole Diameter (inches):	8	Hammer Weight:	N/A
Hammer Drop:	N/A	Total Borehole Depth (ft	35.1
Sampler Refusal Depth (ft bgs):	N/A	Depth to Water (ft bgs):	22.6
Auger Refusal Depth (ft bgs):	N/A		
Remarks:			

Well Completion

Purpose	Starting Depth (ft)	End Depth (ft)	Segment	Material	Remarks
Permanent Well	0	20	RISER	2" PVC SCH 40	
	3	15	ANNULAR	BENT-CEMENT GROUT	
	15	18	ANNULAR SEAL	2% BENTONITE-CHIPS	
	18	35	FILTER PACK	No. 2 SAND	
	20	35	SCREEN	0.010 SLOTTED 2" PVC	

SB201

Depth (ft bgs)	Recovery (feet, %)	Analytical Sample	PID (ppm)	Material Description	USCS Code
0	3.7, 73%	HRP-SB201-0-1-211008		(0 - 0.5 ft) Asphalt	
1			0.0	(0.5 - 3 ft) Blackish brown CLAYEY SAND WITH GRAVEL; little medium gravel, some medium sand, little silt, some clay (medium dense, dry).	SC
2					
3			0.0	(3 - 3.67 ft) Grayish brown LEAN CLAY; trace fine gravel, some fine sand, some silt, some clay (soft, dry, low to medium plasticity, low toughness). No recovery 3.67 - 5 ft.	CL
4					
5	3.5, 69%			(5 - 12.67 ft) Orangish brown to gray to brown CLAYEY SAND WITH GRAVEL; few medium to coarse gravel, mostly fine sand, few silt, some clay (loose, moist) (slight chemical-like odor beginning at 8'). Rock fragments with blue-green staining at ~12 ft; possible slag fragments.	SC
6			0.0		
7					
8			0.0		
9					
10	2.7, 53%	HRP-SB201-10-12-211008	0.0		
11					
12			0.0	No recovery 12.67 to 15 ft.	
13					
14					
15	3.2, 63%			(15 - 22.50 ft) Orangish brown FAT CLAY; trace medium gravel, some fine sand, little silt, mostly clay (moist, medium to high plasticity, low toughness) (slight chemical-like odor).	CH
16			0.0		

SB201

Depth (ft bgs)	Recovery (feet, %)	Analytical Sample	PID (ppm)	Material Description	USCS Code
17					
18			0.0		
19					
20	4.0, 80%				
21			0.0		
22					
				(22.50 - 23.42 ft) Brown LEAN CLAY; no gravel, little fine sand, some silt, mostly clay (firm, moist, low to medium plasticity, low toughness).	CL
23				(23.42 - 24.0 ft) Grayish brown CLAYEY SAND; no gravel, mostly fine sand, little silt, some clay (medium dense, moist).	SC
24		HRP-SB201-24-26-211008	0.0	No recovery 24 to 25 ft.	
25	5.0, 100%			(25.0 - 27.0 ft) Grayish brown FAT CLAY; trace fine gravel, some fine sand, little silt, mostly clay (soft, moist, medium to high plasticity, low toughness) (slight chemical-like odor).	CH
26			0.0		
27				(27.0 - 34.75 ft) Orangish brown CLAYEY SAND; trace to no fine gravel, mostly fine sand, little to few silt, some to few clay (loose to very loose, moist to wet).	SC
28					
29			0.0		
30	5.0, 100%				
31					
32					
33			0.0		
34					
				(34.75 - 35.0 ft) Orangish brown WELL-GRADED SAND WITH GRAVEL; some coarse gravel, mostly fine sand, trace silt, few clay (very loose, wet).	SW
35			0.0		
36					
37					

Soil Boring Log
HRP - Former PRGS SCR Implementation

SB202

Start Date:	10/07/2021	End Date:	10/07/2021
Inspector:	Anne Kelly	Project Manager:	Greg Grose
Surface Elevation (ft asml):	30.41	Drilling Contractor:	Eichelbergers
Drilling License Number:	V00442	Master Driller:	Paul Wirrick
Rig Type:	Geoprobe 7822DT with	Drilling Method:	Direct Push with HSA Overdrill
Auger Diameter (inches):	4.25	Drilling Fluid:	None
Borehole Diameter (inches):	8	Hammer Weight:	N/A
Hammer Drop:	N/A	Total Borehole Depth (ft	35.3
Sampler Refusal Depth (ft bgs):	N/A	Depth to Water (ft bgs):	24.45
Auger Refusal Depth (ft bgs):	N/A		
Remarks:	Soils with significant moisture were encountered around 25 feet, however truly saturated		

Well Completion

Purpose	Starting Depth (ft)	End Depth (ft)	Segment	Material	Remarks
Permanent Well	0	20	RISER	2" PVC SCH 40	
	3	15	ANNULAR	BENT-CEMENT GROUT	
	15	18	ANNULAR SEAL	2% BENTONITE-CHIPS	
	18	35	FILTER PACK	No. 2 SAND	
	20	35	SCREEN	0.010 SLOTTED 2" PVC	

SB202

Depth (ft bgs)	Recovery (feet, %)	Analytical Sample	PID (ppm)	Material Description	USCS Code
0	2.6, 52%	HRP-SB202-0-1-211007	1.4	(0 - 2.58 ft) LEAN CLAY; trace fine gravel, some medium sand, trace silt, some clay (soft, dry, non-plastic to low plasticity, medium toughness).	CL
1			0.0		
2					
3				No recovery 2.58 to 5 ft.	
4					
5	1.3, 26%			(5 - 6.33 ft) Dark reddish brown CLAYEY SAND; trace medium gravel, some medium sand, trace silt, some clay (dense, moist).	SC
6			0.0		
7			0.0	No recovery 6.33 to 10 ft.	
8					
9					
10	1.3, 26%			(10 - 21.16 ft) Dark reddish brown FAT CLAY; trace fine gravel, few to little medium sand, trace silt, mostly clay (soft to firm , moist, medium plasticity, low to medium toughness) (black staining).	CH
11			0.0		
12			0.0		
13					
14					
15	2.4, 48%		0.0		
16					
17					
18			0.0		
19					

SB202

Depth (ft bgs)	Recovery (feet, %)	Analytical Sample	PID (ppm)	Material Description	USCS Code
20	3.0, 60%		0.0		
21					
22				(21.16 - 26.42 ft) Grayish brown CLAYEY SAND; trace fine gravel, mostly to some medium sand, trace silt, some clay (medium dense, wet to moist). Red and black inorganic plastic-like material observed 25 - 26.42 ft.	
23			0.0		SC
24					
25	5.0, 100%				
26		HRP-SB202-25-30-211007	0.0		
27				(26.42 - 30 ft) Grayish brown FAT CLAY; trace fine gravel, few fine sand, trace silt, mostly clay (hard, wet, medium toughness) (moderate chemical-like odor). At 28' there is a black layer of organic material (appears to be wood) with a moderate chemical-like odor.	CH
28					
29			0.0		
30	5.0, 100%			(30 - 33.17 ft) Brown CLAYEY SAND; trace fine gravel, mostly medium sand, trace silt, little clay (very loose, wet) (slight chemical-like odor).	
31			0.0		SC
32					
33				(33.17 - 35 ft) Dark reddish brown to grayish brown FAT CLAY; trace fine gravel, little medium sand, trace silt, mostly clay (firm, moist, medium plasticity, medium toughness) (slight chemical-like odor, black staining).	
34			0.0		CH
35					
36					
37					

SB203

Start Date:	10/12/2021	End Date:	10/12/2021
Inspector:	Sarah Ostertag	Project Manager:	Greg Grose
Surface Elevation (ft asml):		Drilling Contractor:	Eichelbergers
Drilling License Number:	V00442	Master Driller:	Paul Wirrick
Rig Type:	Geoprobe 7822DT with	Drilling Method:	Direct Push with HSA Overdrill
Auger Diameter (inches):	4.25	Drilling Fluid:	None
Borehole Diameter (inches):	8	Hammer Weight:	N/A
Hammer Drop:	N/A	Total Borehole Depth (ft	35
Sampler Refusal Depth (ft bgs):	N/A	Depth to Water (ft bgs):	23.45
Auger Refusal Depth (ft bgs):	N/A		
Remarks:			

Well Completion

Purpose	Starting Depth (ft)	End Depth (ft)	Material	Remarks
Abandonment	0	38	Drill Cuttings	

SB203

Depth (ft bgs)	Recovery (feet, %)	Analytical Sample	PID (ppm)	Material Description	USCS Code
0	1.3, 25%	HRP-SB203-0-1-211012		(0 - 7.17 ft) Brown CLAYEY SAND WITH GRAVEL; little to some medium to coarse gravel, mostly fine sand, little to few silt, some clay (loose, dry to moist). Organic and top cover gravel mixed in first 6".	SC
1			0.1		
2					
3					
4					
5	2.2, 43%		0.0		
6					
7			0.0	No recovery 7.17 ft to 10 ft.	
8					
9					
10	2.8, 57%		0.1	(10 - 12.83 ft) Brown FAT CLAY; little medium gravel, some fine sand, little silt, mostly clay (soft, moist, medium to high plasticity, low toughness). Apparent rock encountered last 2".	CH
11		HRP-SB203-11-13-211012			
12			0.1		
13				No recovery 12.83 to 15 ft.	
14					
15	1.8, 37%			(15 - 16.83 ft) Grayish white POORLY-GRADED GRAVEL; mostly coarse gravel, few fine sand, trace silt, trace clay (very loose, dry). Apparent rock, possibly quartz gravel backfill.	GP
16			0.0		
17				No recovery 16.83 to 20 ft.	
18					
19					

SB203

Depth (ft bgs)	Recovery (feet, %)	Analytical Sample	PID (ppm)	Material Description	USCS Code
20	4.6, 92%			(20 - 21 ft) Brown FAT CLAY; trace fine gravel, some fine sand, some silt, mostly clay (very soft, dry, medium to high plasticity, low toughness).	CH
21			0.0	(21 to 23.25 ft) Brown SILTY SAND WITH GRAVEL; little coarse gravel, mostly medium sand, few silt, trace clay (very loose, dry).	SM
22					
23			0.0		
24				(23.25 to 24.58 ft) Brown FAT CLAY; no gravel, no sand, some silt, mostly clay (firm, moist, high plasticity, medium toughness).	CH
25	5.0, 100%			(25 to 27.17 ft) Brown LEAN CLAY; no gravel, little fine sand, some silt, mostly clay (hard, dry, non-plastic to low plasticity, high toughness).	CL
26					
27				(27.17 to 30 ft) Brown FAT CLAY; no gravel, no sand, some silt, mostly clay (soft, moist, high plasticity, low toughness). Extremely high plasticity clay. Possible water table where gets more moist at ~28', but not saturated.	CH
28			0.0		
29					
30	3.3, 67%		0.0	(30 to 33.33 ft) Dark grayish brown FAT CLAY; trace fine gravel, trace fine sand, some silt, mostly clay (firm, moist, high plasticity, medium toughness). Possible within water table but not saturated, just very moist. Augers coming up wet. Extremely high plasticity clay.	CH
31					
32			0.0		
33				No recovery 33.33 to 35 ft.	
34					
35					
36					
37					

SB204

Start Date:	10/18/2021	End Date:	10/18/2021
Inspector:	Sarah Ostertag	Project Manager:	Greg Grose
Surface Elevation (ft asml):		Drilling Contractor:	Eichelbergers
Drilling License Number:	V00442	Master Driller:	Paul Wirrick
Rig Type:	Geoprobe 7822DT	Drilling Method:	Direct Push
Auger Diameter (inches):	4.25	Drilling Fluid:	None
Borehole Diameter (inches):	8	Hammer Weight:	N/A
Hammer Drop:	N/A	Total Borehole Depth (ft	20
Sampler Refusal Depth (ft bgs):	N/A	Depth to Water (ft bgs):	18.5
Auger Refusal Depth (ft bgs):	N/A		
Remarks:			

Well Completion

Purpose	Starting Depth (ft)	End Depth (ft)	Material	Remarks
Abandonment	0	20	Drill Cuttings	

SB204

Depth (ft bgs)	Recovery (feet, %)	Analytical Sample	PID (ppm)	Material Description	USCS Code
0	2.4, 48%			(0 - 0.8 ft) Concrete surface cover.	
1				(0.8 to 2.4 ft) Dark brown to orange brown SILTY SAND WITH GRAVEL; few to no fine gravel, mostly fine to medium sand, some silt, some to little clay (medium dense to loose, dry to moist) (slight chemical-like odor).	SM
		HRP-SB204-0.8-1.8-211005	0.1		
			0.1		
2				No recovery 2.4 to 5 ft.	
3					
4					
5	5.0, 100%			(5 - 10 ft) Orangish brown with some gray LEAN CLAY; trace fine gravel, some fine sand, some silt, mostly clay (firm, slightly moist, low plasticity, medium toughness) (moderate chemical-like odor).	CL
6		HRP-SB204-6-8-211018	0.0		
7					
8			0.0		
9					
10	5.0, 100%			(10 - 20 ft) Orangish brown to light gray CLAYEY SAND; trace fine gravel, some to mostly fine sand, some silt, some clay (medium dense to loose, slightly moist to wet). Presumed water table 18.5'.	SC
11			0.0		
12					
13		HRP-SB204-13-15-211018	0.0		
14					
15	5.0, 100%				
16					
17					
18					

SB204

Depth (ft bgs)	Recovery (feet, %)	Analytical Sample	PID (ppm)	Material Description	USCS Code
19					
20					
21					
22					

SB205

Start Date:	10/11/2021	End Date:	10/11/2021
Inspector:	Sarah Ostertag	Project Manager:	Greg Grose
Surface Elevation (ft asml):	30.24	Drilling Contractor:	Eichelbergers
Drilling License Number:	V00442	Master Driller:	Paul Wirrick
Rig Type:	Geoprobe 7822DT with	Drilling Method:	Direct Push with HSA Overdrill
Auger Diameter (inches):	4.25	Drilling Fluid:	None
Borehole Diameter (inches):	8	Hammer Weight:	N/A
Hammer Drop:	N/A	Total Borehole Depth (ft	30.23
Sampler Refusal Depth (ft bgs):	N/A	Depth to Water (ft bgs):	21.32
Auger Refusal Depth (ft bgs):	N/A		
Remarks:			

Well Completion

Purpose	Starting Depth (ft)	End Depth (ft)	Segment	Material	Remarks
Permanent Well	0	15	RISER	2" PVC SCH 40	
	3	10	ANNULAR	BENT-CEMENT GROUT	
	10	13	ANNULAR SEAL	2% BENTONITE-CHIPS	
	13	30	FILTER PACK	No. 2 SAND	
	15	30	SCREEN	0.010 SLOTTED 2" PVC	

SB205

Depth (ft bgs)	Recovery (feet, %)	Analytical Sample	PID (ppm)	Material Description	USCS Code
0	3.3, 67%	HRP-SB205-0-1-211011		(0 - 1 ft) Black Asphalt and organic cover.	
1				(1 - 11.5 ft) Light brown CLAYEY SAND; trace to few fine to coarse gravel, mostly fine sand, little silt, some clay (loose to medium dense, moist).	SC
2			0.0		
3			0.0		
4					
5	4.0, 80%				
6					
7			0.0		
8					
9			1.4		
10	3.7, 73%				
11					
12			0.0	(11.5 - 13.67 ft) Light brown SILTY SAND WITH GRAVEL; little coarse gravel, mostly medium sand, little silt, little clay (very loose, moist).	SM
13		HRP-SB205-13-15-211011	0.5	No recovery 13.67 to 15 ft.	
14					
15	3.8, 75%			(15 - 17 ft) Light brown POORLY-GRADED SAND WITH GRAVEL; some coarse gravel, mostly medium sand, little silt, few clay (loose, moist).	SP
16					
17			0.1	(17 - 18 ft) Grayish brown WELL-GRADED GRAVEL; mostly coarse gravel, little fine sand, trace silt, trace clay (very loose, dry). Presumed rock lens.	GW

SB205

Depth (ft bgs)	Recovery (feet, %)	Analytical Sample	PID (ppm)	Material Description	USCS Code
18				(18 - 24 ft) Light brown POORLY-GRADED SAND; no to little gravel, mostly medium to coarse sand, trace to few silt, trace to few clay (very loose, wet). Presumed water table at 18.67'.	
19			0.1		SP
20	5.0, 100%				
21			0.2		
22					
23			0.1		
24				(24 - 25 ft) Brown LEAN CLAY; no gravel, trace fine sand, little silt, mostly clay (firm, moist, low to medium plasticity, medium toughness).	CL
25					
26					
27					

SB206

Start Date:	10/12/2021	End Date:	10/12/2021
Inspector:	Sarah Ostertag	Project Manager:	Greg Grose
Surface Elevation (ft asml):	24.23	Drilling Contractor:	Eichelbergers
Drilling License Number:	V00442	Master Driller:	Paul Wirrick
Rig Type:	Geoprobe 7822DT with	Drilling Method:	Direct Push with HSA Overdrill
Auger Diameter (inches):	4.25	Drilling Fluid:	None
Borehole Diameter (inches):	8	Hammer Weight:	N/A
Hammer Drop:	N/A	Total Borehole Depth (ft	30.39
Sampler Refusal Depth (ft bgs):	N/A	Depth to Water (ft bgs):	17.31
Auger Refusal Depth (ft bgs):	N/A		
Remarks:			

Well Completion

Purpose	Starting Depth (ft)	End Depth (ft)	Segment	Material	Remarks
Permanent Well	0	15	RISER	2" PVC SCH 40	
	3	10	ANNULAR	BENT-CEMENT GROUT	
	10	13	ANNULAR SEAL	2% BENTONITE-CHIPS	
	13	30	FILTER PACK	No. 2 SAND	
	15	30	SCREEN	0.010 SLOTTED 2" PVC	

SB206

Depth (ft bgs)	Recovery (feet, %)	Analytical Sample	PID (ppm)	Material Description	USCS Code
0	2.3, 45%				
1		HRP-SB206-0-1-211012	0.1	(0 - 11.17 ft) Brown to grayish brown FAT CLAY; few medium gravel, some fine sand, little to some silt, mostly clay (soft, moist to wet, low to medium plasticity, low toughness) (slight chemical-like odor, minor black staining beginning at 5 ft).	CH
2					
3					
4					
5	1.8, 37%				
6		HRP-SB206-5-7-211012	0.2		
7					
8					
9					
10	3.3, 65%				
11				(11.17 - 13.25 ft) Brown SILTY SAND WITH GRAVEL; little coarse gravel, mostly coarse sand, little silt, little clay (loose, moist) (slight chemical-like odor). Apparent rock 12.5' to 12.83'.	SM
12			0.4		
13				No recovery 13.25 to 15 ft.	
14			0.2		
15	1.4, 28%			(15 - 15.5 ft) Tan to brown WELL-GRADED GRAVEL; mostly coarse gravel, some coarse sand, trace silt, trace clay (loose, moist) (slight chemical-like odor, slight purple green staining near bottom).	GW
		HRP-SB206-15-17-211012		(15.5 - 16.42 ft) Brown CLAYEY SAND; no gravel, mostly fine sand, some silt, mostly clay (loose, wet).	SC

SB206

Depth (ft bgs)	Recovery (feet, %)	Analytical Sample	PID (ppm)	Material Description	USCS Code
16					
17				No recovery 16.42 to 20 ft.	
18			0.3		
19					
20	1.0, 20%			(20 - 21 ft) Brown FAT CLAY; few medium gravel, some fine sand, little silt, mostly clay (wet, medium plasticity, low toughness).	CH
21			0.3	No recovery 21 to 25 ft.	
22					
23					
24					
25	0.5, 10%			(25 - 25.5 ft) Brown LEAN CLAY; no gravel, some fine sand, little silt, mostly clay (very soft, wet, low to medium plasticity, low toughness) (slight chemical-like odor).	CL
26			0.3	No recovery 25.5 to 30 ft.	
27					
28					
29					
30					
31					
32					

SB207

Start Date:	10/13/2021	End Date:	10/13/2021
Inspector:	Anne Kelly	Project Manager:	Greg Grose
Surface Elevation (ft asml):	21.08	Drilling Contractor:	Eichelbergers
Drilling License Number:	V00442	Master Driller:	Paul Wirrick
Rig Type:	Geoprobe 7822DT with	Drilling Method:	Direct Push with HSA Overdrill
Auger Diameter (inches):	4.25	Drilling Fluid:	None
Borehole Diameter (inches):	8	Hammer Weight:	N/A
Hammer Drop:	N/A	Total Borehole Depth (ft	25.24
Sampler Refusal Depth (ft bgs):	N/A	Depth to Water (ft bgs):	13.03
Auger Refusal Depth (ft bgs):	N/A		
Remarks:			

Well Completion

Purpose	Starting Depth (ft)	End Depth (ft)	Segment	Material	Remarks
Permanent Well	0	10	RISER	2" PVC SCH 40	
	2	5	ANNULAR	BENT-CEMENT GROUT	
	5	8	ANNULAR SEAL	2% BENTONITE-CHIPS	
	8	25	FILTER PACK	No. 2 SAND	
	10	25	SCREEN	0.010 SLOTTED 2" PVC	

SB207

Depth (ft bgs)	Recovery (feet, %)	Analytical Sample	PID (ppm)	Material Description	USCS Code
0	4.3, 85%				
		HRP-SB207-0-1-211013	0.2	(0 - 4.25 ft) Brown to reddish brown LEAN CLAY; trace fine gravel, some fine sand, trace silt, mostly clay (firm, dry, low to medium plasticity, medium toughness) (slight chemical-like odor, black staining throughout).	CL
1					
2					
3			0.2	No recovery 4.25 to 5 ft.	
4					
5	3.4, 68%		0.2	(5 - 6.75 ft) FAT CLAY; trace fine gravel, few fine sand, trace silt, mostly clay (very soft, wet, medium plasticity, low	CH
6		HRP-SB207-6-8-211013			
7				(6.75 - 12.75 ft) Brown CLAYEY SAND WITH GRAVEL; little medium gravel, mostly medium sand, trace silt, few to little clay (medium dense, dry to moist) (slight chemical-like odor, greenish to black staining).	
			0.3		SC
8					
9					
10	2.8, 55%		0.4		
11				No recovery 12.75 to 15 ft.	
12					
			0.4		
13					
14					
15	2.3, 47%			(15 - 17.33 ft) Brown WELL-GRADED SAND WITH GRAVEL; some medium gravel, some medium sand, trace silt, few clay (medium dense, wet) (black staining).	
			0.5		SW
16		HRP-SB207-16-18-211013			
			0.5		
17				No recovery 17.33 to 20 ft.	
18					
19					

SB207

Depth (ft bgs)	Recovery (feet, %)	Analytical Sample	PID (ppm)	Material Description	USCS Code
20	4.3, 85%			(20 - 21 ft) Brown WELL-GRADED SAND WITH GRAVEL; some medium gravel, mostly medium sand, trace silt, few clay (loose, wet).	SW
21			0.4	(21 - 24.25 ft) Brown to light brown FAT CLAY; trace fine gravel, trace fine sand, trace silt, mostly clay (firm, moist, high plasticity, medium toughness).	CH
22					
23			0.2		
24					
25					
26					
27					

SB208

Start Date:	10/14/2021	End Date:	10/14/2021
Inspector:	Anne Kelly	Project Manager:	Greg Grose
Surface Elevation (ft asml):	24.78	Drilling Contractor:	Eichelbergers
Drilling License Number:	V00442	Master Driller:	Paul Wirrick
Rig Type:	Geoprobe 7822DT with	Drilling Method:	Direct Push with HSA Overdrill
Auger Diameter (inches):	4.25	Drilling Fluid:	None
Borehole Diameter (inches):	8	Hammer Weight:	N/A
Hammer Drop:	N/A	Total Borehole Depth (ft	30.3
Sampler Refusal Depth (ft bgs):	N/A	Depth to Water (ft bgs):	16.45
Auger Refusal Depth (ft bgs):	N/A		
Remarks:			

Well Completion

Purpose	Starting Depth (ft)	End Depth (ft)	Segment	Material	Remarks
Permanent Well	0	15	RISER	2" PVC SCH 40	
	3	10	ANNULAR	BENT-CEMENT GROUT	
	10	13	ANNULAR SEAL	2% BENTONITE-CHIPS	
	13	30	FILTER PACK	No. 2 SAND	
	15	30	SCREEN	0.010 SLOTTED 2" PVC	

SB208

Depth (ft bgs)	Recovery (feet, %)	Analytical Sample	PID (ppm)	Material Description	USCS Code
0	1.0, 20%	HRP-SB208-0-1-211014	0.0	(0 - 1 ft) Brown CLAYEY SAND; trace fine gravel, mostly fine sand, trace silt, some clay (dense, dry) (black streaking). Organics present (roots) throughout top 0.5'.	SC
1				No recovery 1 to 5 ft.	
2					
3					
4					
5	2.2, 44%			(5 - 5.67 ft) Brown LEAN CLAY; trace fine gravel, few fine sand, trace silt, mostly clay (soft, slightly moist, medium plasticity).	CL
6		HRP-SB208-5-7-211014	0.1	(5.67 - 7.21 ft) Brown to light brown CLAYEY SAND WITH GRAVEL; few medium gravel, mostly medium sand, trace silt, little clay (loose). Smaller layers (~3") of clays interbedded	SC
7			0.2	No recovery 7.21 to 10 ft.	
8					
9					
10	4.0, 79%		0.3	(10 - 11.25 ft) Brown LEAN CLAY; trace fine gravel, little fine sand, trace silt, mostly clay (soft, slightly moist, medium	CL
11					
12				(11.25 - 19.33 ft) Light to grayish brown WELL-GRADED SAND WITH CLAY AND GRAVEL; little to some medium gravel, mostly medium sand, trace silt, few to little clay (loose, slightly moist). Smaller (~3") layers of interbedded	
13			0.2		SW-SC
14					
15	4.3, 87%				
16			0.2		
17					
			0.2		

SB208

Depth (ft bgs)	Recovery (feet, %)	Analytical Sample	PID (ppm)	Material Description	USCS Code
18		HRP-SB208-18-20-211014			
19					
20	5.0, 100%			(20 - 21 ft) Brown to grayish brown WELL-GRADED SAND WITH GRAVEL; some medium gravel, mostly coarse sand, trace silt, trace clay (medium dense, wet).	SW
21				(21 - 25 ft) Gray to grayish brown FAT CLAY; trace fine gravel, trace fine sand, trace silt, mostly clay (very hard to soft, moist to wet, medium to high plasticity).	CH
22			0.2		
23					
24			0.2		
25					
26					
27					

SB209

Start Date:	10/13/2021	End Date:	10/13/2021
Inspector:	Anne Kelly	Project Manager:	Greg Grose
Surface Elevation (ft asml):	23.59	Drilling Contractor:	Eichelbergers
Drilling License Number:	V00442	Master Driller:	Paul Wirrick
Rig Type:	Geoprobe 7822DT with	Drilling Method:	Direct Push with HSA Overdrill
Auger Diameter (inches):	4.25	Drilling Fluid:	None
Borehole Diameter (inches):	8	Hammer Weight:	N/A
Hammer Drop:	N/A	Total Borehole Depth (ft	25.02
Sampler Refusal Depth (ft bgs):	N/A	Depth to Water (ft bgs):	19.54
Auger Refusal Depth (ft bgs):	N/A		
Remarks:			

Well Completion

Purpose	Starting Depth (ft)	End Depth (ft)	Segment	Material	Remarks
Permanent Well	0	10	RISER	2" PVC SCH 40	
	2	5	ANNULAR		
	5	8	ANNULAR SEAL	2% BENTONITE-CHIPS	
	8	25	FILTER PACK	No. 2 SAND	
	10	25	SCREEN	0.010 SLOTTED 2" PVC	

SB209

Depth (ft bgs)	Recovery (feet, %)	Analytical Sample	PID (ppm)	Material Description	USCS Code
0	2.2, 44%	HRP-SB209-0-1-211013	0.2	(0 - 2.2 ft) Brown to dark brown LEAN CLAY; trace medium gravel, little fine sand, trace silt, mostly clay (firm, dry, non-plastic to low plasticity, medium toughness) (black staining/streaking).	CL
1			0.1	No recovery 2.2 to 5 ft.	
2					
3					
4					
5	3.8, 77%	HRP-SB209-5-7-211013	0.2	(5 - 7 ft) Brown to grayish brown FAT CLAY; trace fine gravel, little fine sand, trace silt, mostly clay (soft, moist, medium	CH
6					
7			0.2	(7 - 8.83 ft) Dark brown CLAYEY SAND WITH GRAVEL; some medium gravel, mostly medium sand, trace silt, few clay (medium dense, wet).	SC
8				No recovery 8.83 to 10 ft.	
9					
10	2.8, 57%			(10 - 16.21 ft) Dark brown WELL-GRADED SAND WITH GRAVEL; some medium to few fine gravel, mostly medium sand, trace silt, trace to few clay (medium dense to dense, moist) (greenish-black staining).	SW
11			0.1		
12					
13			0.1		
14					
15	2.9, 58%	HRP-SB209-15-17-211013	0.3		
16					
17				(16.21 - 23.1 ft) Brown to reddish brown WELL-GRADED GRAVEL WITH SAND; mostly to some medium gravel, some medium sand, trace silt, trace clay (loose to medium dense, dry to moist).	GW
			0.2		

SB209

Depth (ft bgs)	Recovery (feet, %)	Analytical Sample	PID (ppm)	Material Description	USCS Code
18					
19					
20	3.1, 62%		0.0		
21					
22					
			0.1		
23				No recovery 23.1 to 25 ft.	
24					
25					
26					
27					

SB211

Start Date:	10/15/2021	End Date:	10/15/2021
Inspector:	Anne Kelly	Project Manager:	Greg Grose
Surface Elevation (ft asml):		Drilling Contractor:	Eichelbergers
Drilling License Number:	V00442	Master Driller:	Paul Wirrick
Rig Type:	Geoprobe 7822DT	Drilling Method:	Direct Push
Auger Diameter (inches):	4.25	Drilling Fluid:	None
Borehole Diameter (inches):	8	Hammer Weight:	N/A
Hammer Drop:	N/A	Total Borehole Depth (ft	20
Sampler Refusal Depth (ft bgs):	N/A	Depth to Water (ft bgs):	17
Auger Refusal Depth (ft bgs):	N/A		
Remarks:			

Well Completion

Purpose	Starting Depth (ft)	End Depth (ft)	Material	Remarks
Abandonment	0	20	Drill Cuttings	

SB211

Depth (ft bgs)	Recovery (feet, %)	Analytical Sample	PID (ppm)	Material Description	USCS Code
0	2.8, 57%	HRP-SB211-0-1-211015		(0 - 7.2 ft) Brown to grayish black LEAN CLAY; trace fine gravel, little to some fine sand, trace silt, mostly clay (firm to soft, slightly moist to moist, low to medium plasticity).	
1			0.3		CL
2					
3			0.5		
4					
5	3.6, 72%	HRP-SB211-5-7-211015			
6					
7			0.8		
8			1.0	(7.2 - 8.58 ft) Dark brown WELL-GRADED SAND WITH GRAVEL; some medium gravel, mostly medium sand, trace silt, little clay (medium dense, moist).	
9				No recovery 8.58 to 10 ft.	SW
10	3.4, 68%			(10 - 11.5 ft) Dark brown to dark gray FAT CLAY; few fine gravel, little fine sand, trace silt, mostly clay (soft, very moist, low to medium plasticity). Possible perched water	
11			0.8		CH
12				(11.5 - 13.42 ft) White to dark brown to light brown WELL-GRADED SAND WITH GRAVEL; some medium gravel, mostly medium sand, trace silt, few clay (medium dense, slightly moist).	
13			0.9		SW
14				No recovery 13.42 to 15 ft.	
15	3.0, 60%	HRP-SB211-15-17-211015		(15 - 18 ft) Dark brown to dark gray to brown WELL-GRADED SAND WITH GRAVEL; some medium gravel, mostly medium sand, trace silt, few clay (medium dense, very moist).	
16			1.0	Presumed water table encountered at 17'.	SW
17			1.0		
18				No recovery 18 to 20 ft.	
19					

SB211

Depth (ft bgs)	Recovery (feet, %)	Analytical Sample	PID (ppm)	Material Description	USCS Code
20					
21					
22					

SB212

Start Date:	10/15/2021	End Date:	10/15/2021
Inspector:	Anne Kelly	Project Manager:	Greg Grose
Surface Elevation (ft asml):		Drilling Contractor:	Eichelbergers
Drilling License Number:	V00442	Master Driller:	Paul Wirrick
Rig Type:	Geoprobe 7822DT	Drilling Method:	Direct Push
Auger Diameter (inches):	4.25	Drilling Fluid:	None
Borehole Diameter (inches):	8	Hammer Weight:	N/A
Hammer Drop:	N/A	Total Borehole Depth (ft	25
Sampler Refusal Depth (ft bgs):	N/A	Depth to Water (ft bgs):	16.8
Auger Refusal Depth (ft bgs):	N/A		
Remarks:			

Well Completion

Purpose	Starting Depth (ft)	End Depth (ft)	Material	Remarks
Abandonment	0	25	Drill Cuttings	

SB212

Depth (ft bgs)	Recovery (feet, %)	Analytical Sample	PID (ppm)	Material Description	USCS Code
0	4.3, 85%	HRP-SB212-0-2-211015	0.1	(0 - 5 ft) Brown LEAN CLAY; trace coarse gravel, some fine sand, trace silt, mostly clay (hard, dry, non-plastic to low	CL
1					
2					
3			0.4		
4					
5	4.5, 90%	HRP-SB212-5-7-211015		(5 - 10 ft) Brown CLAYEY SAND; trace fine gravel, some medium sand, trace silt, mostly clay (dense, dry).	SC
6			0.5		
7					
8			0.5		
9					
10	3.6, 72%			(10 - 10.9 ft) Brown LEAN CLAY; trace fine gravel, little fine sand, trace silt, mostly clay (firm, slightly moist, low plasticity).	CL
11				(10.9 - 13.58 ft) Light brown to brown to greenish gray WELL-GRADED SAND WITH GRAVEL; little medium gravel, mostly medium sand, trace silt, few clay (loose, dry).	SW
12			0.7		
13				No recovery 13.58 to 15 ft.	
14			0.7		
15	2.1, 42%			(15 - 15.58 ft) Brown LEAN CLAY; trace fine gravel, some fine sand, trace silt, mostly clay (soft, dry, low plasticity).	CL
16		HRP-SB212-15-17-211015	0.8	(15.58 - 17.1 ft) Brown to light brown to white to grayish brown WELL-GRADED SAND WITH GRAVEL; some medium gravel, mostly medium sand, trace silt, trace clay (loose, slightly moist to wet). Presumed water table encountered at 16.8'.	SW
17			0.7		
18				No recovery 17.1 to 20 ft.	
19					

SB212

Depth (ft bgs)	Recovery (feet, %)	Analytical Sample	PID (ppm)	Material Description	USCS Code
20					
21					
22					

SB213

Start Date:	10/15/2021	End Date:	10/15/2021
Inspector:	Anne Kelly	Project Manager:	Greg Grose
Surface Elevation (ft asml):		Drilling Contractor:	Eichelbergers
Drilling License Number:	V00442	Master Driller:	Paul Wirrick
Rig Type:	Geoprobe 7822DT	Drilling Method:	Direct Push
Auger Diameter (inches):	4.25	Drilling Fluid:	None
Borehole Diameter (inches):	8	Hammer Weight:	N/A
Hammer Drop:	N/A	Total Borehole Depth (ft	20
Sampler Refusal Depth (ft bgs):	N/A	Depth to Water (ft bgs):	18.6
Auger Refusal Depth (ft bgs):	N/A		
Remarks:			

Well Completion

Purpose	Starting Depth (ft)	End Depth (ft)	Material	Remarks
Abandonment	0	20	Drill Cuttings	

SB213

Depth (ft bgs)	Recovery (feet, %)	Analytical Sample	PID (ppm)	Material Description	USCS Code
0	5.0, 100%			(0 - 11.58 ft) Brown LEAN CLAY; trace fine gravel, some to little fine sand, trace silt, mostly clay (firm, dry to slightly moist, non-plastic to medium plasticity). Rock inclusion at 11.5'.	CL
1		HRP-SB213-0-1-211015	0.1		
2					
3					
4			0.2		
5	5.0, 100%	HRP-SB213-5-7-211015			
6			0.2		
7					
8					
9			0.1		
10	3.3, 67%		0.2		
11					
12				(11.58 - 13.33 ft) Brown to light brown to light brownish gray WELL-GRADED SAND WITH GRAVEL; little medium gravel, mostly medium sand, trace silt, trace clay (loose, dry).	SW
13			0.4	No recovery 13.33 to 15 ft.	
14					
15	4.2, 83%			(15 - 16.1 ft) Brown LEAN CLAY; trace fine gravel, little fine sand, trace silt, mostly clay (firm, slightly moist, low	CL
16			0.5	(16.1 - 19.17 ft) Reddish brown to brown to light brown WELL-GRADED SAND WITH GRAVEL; little medium gravel, mostly medium sand, trace silt, trace clay (loose, very moist to wet). Presumed water table encountered at 18.6', soil is wet after that point.	SW
17		HRP-SB213-16-18-211015			
18			0.4		
19					

SB213

Depth (ft bgs)	Recovery (feet, %)	Analytical Sample	PID (ppm)	Material Description	USCS Code
20					
21					
22					

SB214

Start Date:	10/14/2021	End Date:	10/14/2021
Inspector:	Anne Kelly	Project Manager:	Greg Grose
Surface Elevation (ft asml):	24.07	Drilling Contractor:	Eichelbergers
Drilling License Number:	V00442	Master Driller:	Paul Wirrick
Rig Type:	Geoprobe 7822DT with	Drilling Method:	Direct Push with HSA Overdrill
Auger Diameter (inches):	4.25	Drilling Fluid:	None
Borehole Diameter (inches):	8	Hammer Weight:	N/A
Hammer Drop:	N/A	Total Borehole Depth (ft	25.0
Sampler Refusal Depth (ft bgs):	N/A	Depth to Water (ft bgs):	13.75
Auger Refusal Depth (ft bgs):	N/A		
Remarks:			

Well Completion

Purpose	Starting Depth (ft)	End Depth (ft)	Segment	Material	Remarks
Permanent Well	0	10	RISER	2" PVC SCH 40	
	2	5	ANNULAR	BENT-CEMENT GROUT	
	5	8	ANNULAR SEAL	2% BENTONITE-CHIPS	
	8	25	FILTER PACK	No. 2 SAND	
	10	25	SCREEN	0.010 SLOTTED 2" PVC	

SB214

Depth (ft bgs)	Recovery (feet, %)	Analytical Sample	PID (ppm)	Material Description	USCS Code
0	3.4, 68%				
1		HRP-SB214-0-2-211014	0.1	(0 - 3.38 ft) Brown CLAYEY SAND; trace fine gravel, mostly fine sand, trace silt, some clay (dense) (slight chemical-like odor, black staining/streaking). No recovery 3.38 to 5 ft.	SC
2					
3			0.3		
4					
5	4.7, 93%			(5 - 7.83 ft) Brown to dark gray LEAN CLAY; trace fine gravel, some fine sand, trace silt, mostly clay (hard, dry, low plasticity) (slight chemical-like odor, black staining through some layers).	CL
6		HRP-SB214-5-7-211014	0.6		
7					
8				(7.83 - 9.67 ft) Light brown to pinkish white to white WELL-GRADED SAND WITH GRAVEL; some medium gravel, some medium sand, trace silt, trace clay (loose, dry). No recovery 9.67 to 10 ft.	SW
9			0.2		
10	4.1, 82%			(10 - 10.67 ft) Brown LEAN CLAY; trace fine gravel, some fine sand, trace silt, mostly clay (firm, slightly moist, low plasticity).	CL
11			0.3	(10.67 - 14.1 ft) Light brown to white to light greenish gray to brown WELL-GRADED SAND WITH GRAVEL; some medium gravel, mostly coarse sand, trace silt, few clay (loose, very moist) (light greenish staining). No recovery 14.1 to 15 ft.	SW
12					
13			0.5		
14		HRP-SB214-14-16-211014			
15	5.0, 100%		0.4	(15 - 19.33 ft) Brown CLAYEY SAND; trace fine gravel, mostly medium sand, trace silt, little clay (dense, wet). Presumed water table at 16'.	SC

SB214

Depth (ft bgs)	Recovery (feet, %)	Analytical Sample	PID (ppm)	Material Description	USCS Code
16					
17					
18			0.4		
19				(19.33 - 20 ft) Brown LEAN CLAY; trace fine gravel, trace fine sand, trace silt, mostly clay (very hard, moist, low plasticity).	CL
20	5.0, 100%			(20 - 25 ft) Light brown to grayish purple FAT CLAY; trace fine gravel, trace fine sand, trace silt, mostly clay (firm, moist, medium to high plasticity).	CH
21			0.7		
22					
23			0.5		
24					
25					
26					
27					

SB215

Start Date:	10/18/2021	End Date:	10/18/2021
Inspector:	Sarah Ostertag	Project Manager:	Greg Grose
Surface Elevation (ft asml):		Drilling Contractor:	Eichelbergers
Drilling License Number:	V00442	Master Driller:	Paul Wirrick
Rig Type:	Geoprobe 7822DT	Drilling Method:	Direct Push
Auger Diameter (inches):	4.25	Drilling Fluid:	None
Borehole Diameter (inches):	8	Hammer Weight:	N/A
Hammer Drop:	N/A	Total Borehole Depth (ft	20
Sampler Refusal Depth (ft bgs):	N/A	Depth to Water (ft bgs):	19.1
Auger Refusal Depth (ft bgs):	N/A		
Remarks:			

Well Completion

Purpose	Starting Depth (ft)	End Depth (ft)	Material	Remarks
Abandonment	0	20	Drill Cuttings	

SB215

Depth (ft bgs)	Recovery (feet, %)	Analytical Sample	PID (ppm)	Material Description	USCS Code
0	2.3, 46%	HRP-SB215-0-2-211018		(0 - 0.7 ft) Gray WELL-GRADED GRAVEL; mostly medium gravel Presumed gravel surface cover.	GW
				(0.7 - 0.9 ft) Brown CLAYEY SAND; no gravel, no fine sand, some silt, some clay (loose, very moist).	SC
1				(0.9 - 8.3 ft) Black to tan to orangish brown SILTY SAND; no to trace fine gravel, mostly medium sand, little silt, few clay (loose to medium dense, dry).	SM
2			0.0		
3					
4					
5	3.3, 66%	HRP-SB215-5-7-211018			
6			0.0		
7				No recovery 8.3 to 10 ft.	
8			0.0		
9					
10	5.0, 100%			(10 - 16.8 ft) Orangish brown FAT CLAY; trace medium gravel, some fine sand, some silt, mostly clay (soft, moist, medium plasticity, low toughness).	CH
11			0.0		
12					
13			0.0		
14					
15	5.0, 100%				
16		HRP-SB215-16-18-211018	0.0		
17				(16.8 - 20 ft) Orange brown to greenish gray SILTY SAND WITH GRAVEL; little medium gravel, mostly medium sand, little silt, trace clay (loose, moist). Presumed water table at 19.1'.	SM
18			0.0		
19					

SB215

Depth (ft bgs)	Recovery (feet, %)	Analytical Sample	PID (ppm)	Material Description	USCS Code
20					
21					
22					

SB216

Start Date:	10/18/2021	End Date:	10/18/2021
Inspector:	Sarah Ostertag	Project Manager:	Greg Grose
Surface Elevation (ft asml):		Drilling Contractor:	Eichelbergers
Drilling License Number:	V00442	Master Driller:	Paul Wirrick
Rig Type:	Geoprobe 7822DT	Drilling Method:	Direct Push
Auger Diameter (inches):	4.25	Drilling Fluid:	None
Borehole Diameter (inches):	8	Hammer Weight:	N/A
Hammer Drop:	N/A	Total Borehole Depth (ft	15
Sampler Refusal Depth (ft bgs):	N/A	Depth to Water (ft bgs):	2.4
Auger Refusal Depth (ft bgs):	N/A		
Remarks:			

Well Completion

Purpose	Starting Depth (ft)	End Depth (ft)	Material	Remarks
Abandonment	0	15	Drill Cuttings	

SB216

Depth (ft bgs)	Recovery (feet, %)	Analytical Sample	PID (ppm)	Material Description	USCS Code
0	3.3, 66%	HRP-SB216-1-3-211018	0.6	(0 - 1.2 ft) Concrete and wood, appears punched through old rail line beam.	SM
1				(1.2 - 12.9 ft) Orange brown SILTY SAND; trace medium gravel, mostly fine to medium sand, some silt, little clay (loose, very moist to wet) (strong chemical-like odor). Presumed perched water table at 2.4'.	
2					
3					
4					
5	3.0, 59%		0.1		
6					
7					
8					
9					
10	2.9, 58%		0.1		
11					
12					
13				No recovery 12.9 to 15 ft.	
14					
15					
16					
17					

SB221

Start Date:	10/05/2021	End Date:	10/07/2021
Inspector:	Sarah Ostertag	Project Manager:	Greg Grose
Surface Elevation (ft asml):	31.34	Drilling Contractor:	Eichelbergers
Drilling License Number:	V00442	Master Driller:	Paul Wirrick
Rig Type:	VacMaster 4000; Geoprobe	Drilling Method:	Vacuum Excavation; Direct Push
Auger Diameter (inches):	4.25	Drilling Fluid:	None
Borehole Diameter (inches):	8	Hammer Weight:	N/A
Hammer Drop:	N/A	Total Borehole Depth (ft	30.45
Sampler Refusal Depth (ft bgs):	N/A	Depth to Water (ft bgs):	21.49
Auger Refusal Depth (ft bgs):	N/A		
Remarks:	VacMaster 4000 used to air knife upper 5' of boring; samples collected from air knife		

Well Completion

Purpose	Starting Depth (ft)	End Depth (ft)	Segment	Material	Remarks
Permanent Well	0	20	RISER	2" PVC SCH 40	
	3	15	ANNULAR	BENT-CEMENT GROUT	
	15	18	ANNULAR SEAL	2% BENTONITE-CHIPS	
	18	30	FILTER PACK	No. 2 SAND	
	20	30	SCREEN	0.010 SLOTTED 2" PVC	

SB221

Depth (ft bgs)	Recovery (feet, %)	Analytical Sample	PID (ppm)	Material Description	USCS Code
0	3.4, 68%	HRP-SB221-0-1-211005	0.0	(0 - 1 ft) Black LEAN CLAY; trace fine gravel, little fine sand, some silt, mostly clay (firm, dry, low to medium plasticity, medium toughness). Black asphalt cover.	
1				(1 - 3.375 ft) Brown LEAN CLAY; trace fine gravel, little fine sand, some silt, mostly clay (firm, dry, non-plastic to low plasticity, high toughness) (slight chemical-like odor, minor dark staining).	CL
2					
3					
4		HRP-SB221-4-5-211005	0.0		
5	2.8, 56%			(5 - 18 ft) Light to dark grayish brown FAT CLAY; trace to little fine gravel, few to some fine sand, some to little silt, mostly clay (soft to very soft, moist to wet, medium to high plasticity, low to medium toughness) (slight chemical-like odor). Presumed perched water table 10.5'. Dark black to bluish green staining, wood chips, and moderate odor noted 16'9" to 17'.	
6			0.0		CH
7					
8					
9					
10	2.8, 55%		0.0		
11					
12					
13					
14					
15	3.6, 72%		0.0		
16					

SB221

Depth (ft bgs)	Recovery (feet, %)	Analytical Sample	PID (ppm)	Material Description	USCS Code
17					
18				(18 - 18.58 ft) Bluish green to brown PEAT; Wood fragments. No recovery 18.58 to 20 ft.	PT
19			396.5		
20	4.0, 79%			(20 - 20.83 ft) Brown to gray FAT CLAY; no gravel, some fine sand, little silt, some clay (very soft, moist, low toughness) (moderate chemical-like odor).	CH
			2.6		
21				(20.83 - 22.75 ft) Grayish brown LEAN CLAY; no gravel, some fine sand, little silt, some clay (very hard, moist, non-plastic plasticity, high toughness) (slight chemical-like odor).	CL
22					
				(22.75 - 27 ft) Grayish brown CLAYEY SAND; trace fine gravel, mostly fine to medium sand, few silt, some clay (very loose, wet to moist) (moderate chemical-like odor). Presumed perched water table at 21.5' and 26.58'.	SC
23					
24					
25	5.0, 100%		0.0		
26					
27				(27 - 28 ft) Brown FAT CLAY; trace fine gravel, some medium sand, few silt, some clay (soft, moist, non-plastic to low plasticity, low toughness) (slight chemical-like odor).	CH
28				(28 - 30 ft) Brownish orange LEAN CLAY; no gravel, little medium sand, little silt, mostly clay (very hard, moist, medium plasticity, high toughness) (slight chemical-like odor).	CL
			0.0		
29					
30					
31					
32					

SB222

Start Date:	10/19/2021	End Date:	10/19/2021
Inspector:	Sarah Ostertag	Project Manager:	Greg Grose
Surface Elevation (ft asml):		Drilling Contractor:	Eichelbergers
Drilling License Number:	V00442	Master Driller:	Paul Wirrick
Rig Type:	Geoprobe 7822DT	Drilling Method:	Direct Push
Auger Diameter (inches):	4.25	Drilling Fluid:	None
Borehole Diameter (inches):	8	Hammer Weight:	N/A
Hammer Drop:	N/A	Total Borehole Depth (ft	10
Sampler Refusal Depth (ft bgs):	N/A	Depth to Water (ft bgs):	
Auger Refusal Depth (ft bgs):	N/A		
Remarks:			

Well Completion

Purpose	Starting Depth (ft)	End Depth (ft)	Material	Remarks
Abandonment	0	10	Drill Cuttings	

SB222

Depth (ft bgs)	Recovery (feet, %)	Analytical Sample	PID (ppm)	Material Description	USCS Code
0	2.0, 40%	HRP-SB222-0-1-211019	0.1	(0 - 8.4 ft) Light brown to brown SILTY SAND WITH GRAVEL; few fine gravel, mostly fine sand, little to some silt, trace clay (loose, slightly moist) (slight chemical-like odor, minor black staining).	SM
1					
2		HRP-SB222-2-5-211019			
3					
4					
5	3.4, 68%		0.1		
6					
7				No recovery 8.4 to 10 ft.	
8					
9					
10					
11					
12					

Soil Boring Log
HRP - Former PRGS SCR Implementation

SB226

Start Date:	10/05/2021	End Date:	10/05/2021
Inspector:	Sarah Ostertag	Project Manager:	Greg Grose
Surface Elevation (ft asml):		Drilling Contractor:	Eichelbergers
Drilling License Number:	V00442	Master Driller:	Paul Wirrick
Rig Type:	VacMaster 4000	Drilling Method:	Vacuum Excavation
Auger Diameter (inches):	4.25	Drilling Fluid:	None
Borehole Diameter (inches):	8	Hammer Weight:	N/A
Hammer Drop:	N/A	Total Borehole Depth (ft	5
Sampler Refusal Depth (ft bgs):	N/A	Depth to Water (ft bgs):	
Auger Refusal Depth (ft bgs):	N/A		
Remarks:	VacMaster 4000 used to air knife upper 5' of boring; samples collected from air knife		

Well Completion

Purpose	Starting Depth (ft)	End Depth (ft)	Material	Remarks
Abandonment	0	5	Drill Cuttings	

SB226

Depth (ft bgs)	Recovery (feet, %)	Analytical Sample	PID (ppm)	Material Description	USCS Code
0	0.0, 0%				
		HRP-SB226-0-1-211005	0.0	(0 - 1 ft) Brown WELL-GRADED SAND WITH GRAVEL; few medium gravel, mostly fine sand, few silt, few clay (loose, dry).	SW
1					
2					
3					
4				(4 - 5 ft) Brown CLAYEY SAND; trace medium gravel, some fine sand, little silt, some clay (dry).	
		HRP-SB226-4-5-211005	0.0		SC
5					
6					
7					

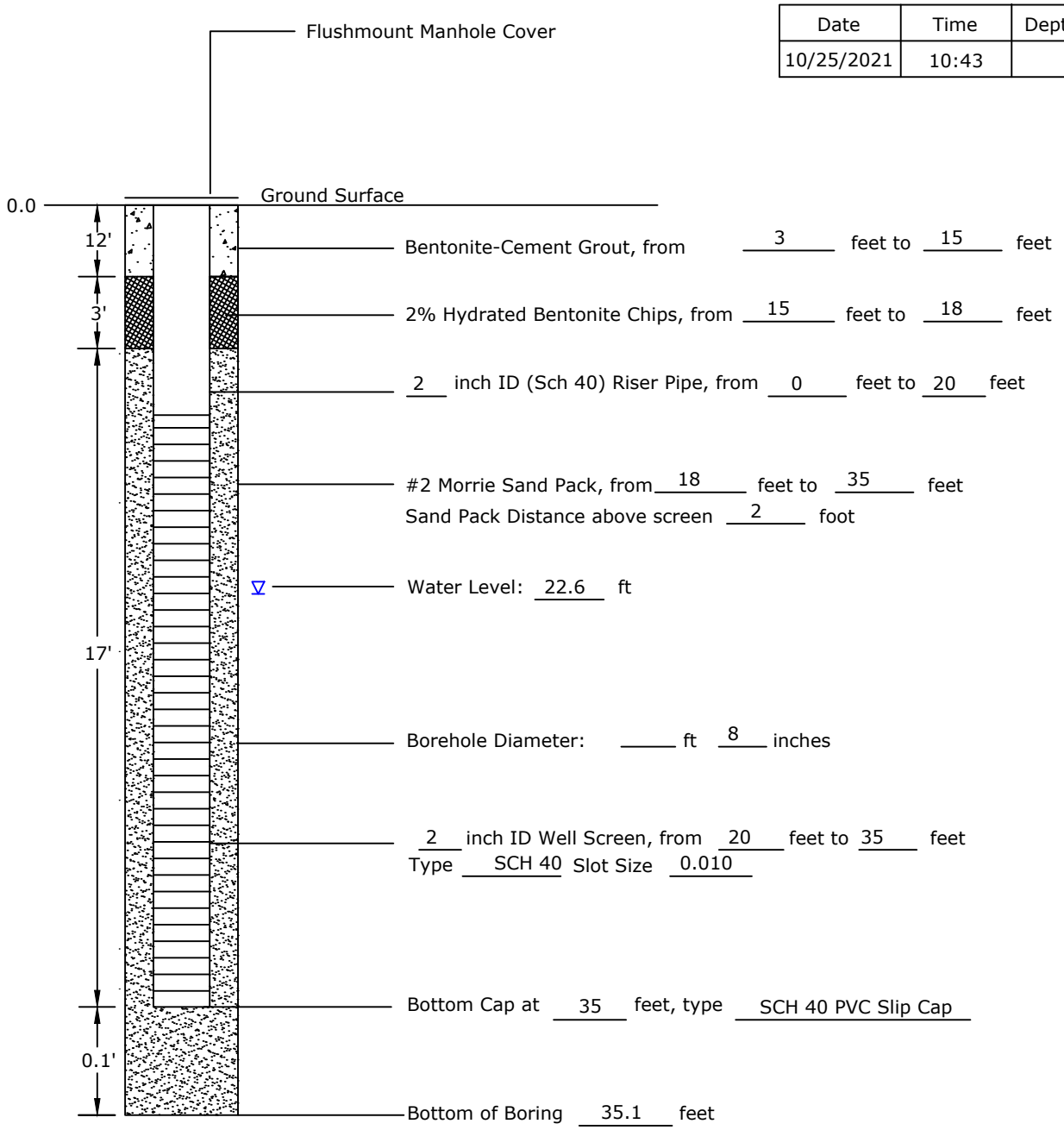
WELL CONSTRUCTION LOG: MW-201

DRILLING CONTRACTOR: Eichelbergers
DRILLER: Paul Wirrick
SURFACE ELEVATION: 29.821 ft amsl
TOP OF CASING: 29.531 ft amsl
HORIZONTAL DATUM: NAD88 / Virginia North (ft US)
VERTICAL DATUM: NAVD88
COORDINATES: 6985510.77, 11898687.25
(NORTHING, EASTING)

PROJECT NAME: HRP - Former Potomac River Generating Station
PROJECT NUMBER: 1690022371-003
LOCATION: MW-201
LOGGED BY: Sarah Ostertag
DATE(S): 10/08/2021
WELL PERMIT NO.: N/A

WATER LEVELS:

Date	Time	Depth (FT BTOC)
10/25/2021	10:43	21.70



COMMENTS:

All measurements based on ground surface at 0 feet. (+) above grade. (-) below grade.

Not To Scale

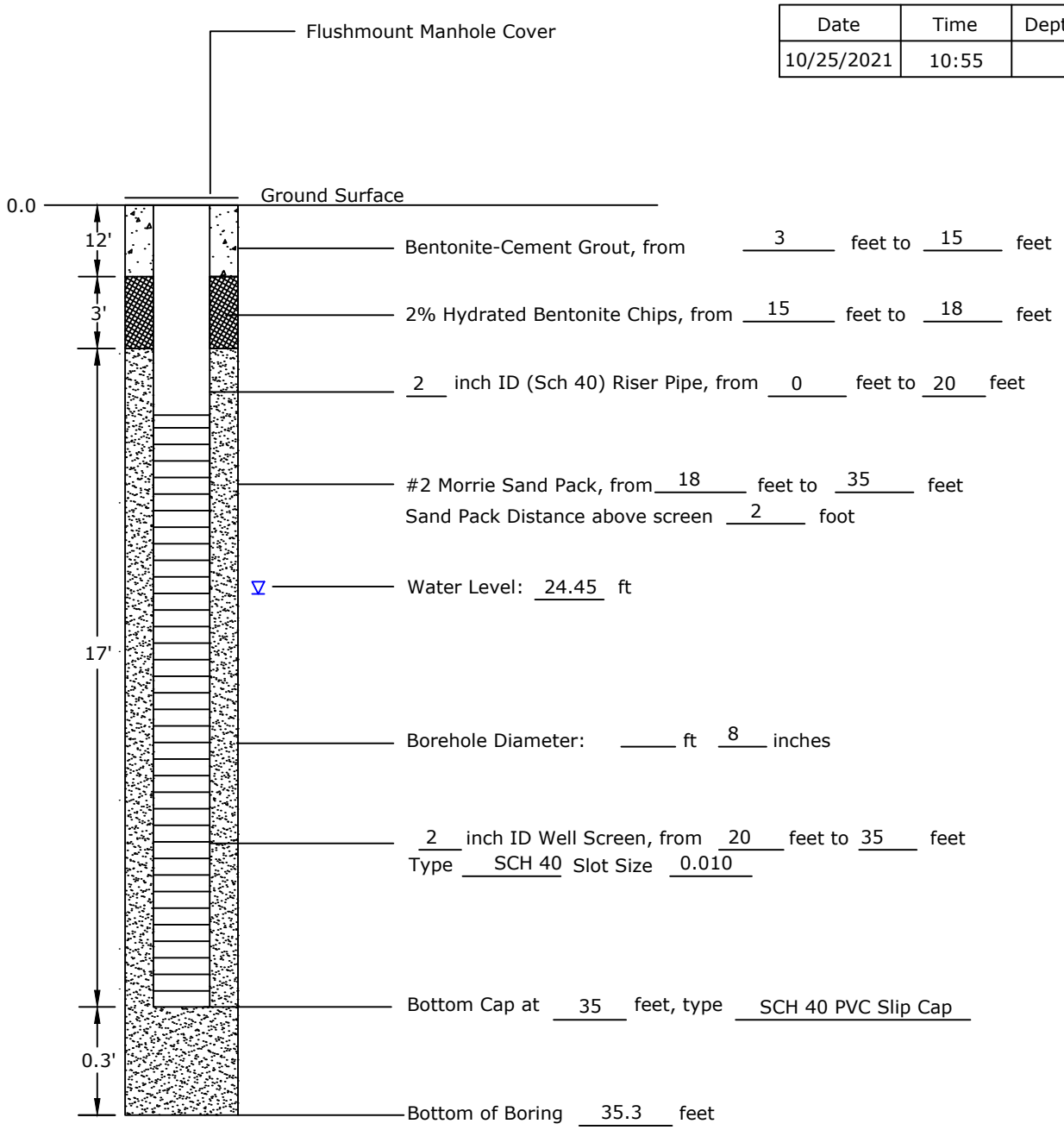
WELL CONSTRUCTION LOG: MW-202

DRILLING CONTRACTOR: Eichelbergers
DRILLER: Paul Wirrick
SURFACE ELEVATION: 30.405 ft amsl
TOP OF CASING: 29.94 ft amsl
HORIZONTAL DATUM: NAD88 / Virginia North (ft US)
VERTICAL DATUM: NAVD88
COORDINATES: 6985349.366, 11898791.84
(NORTHING, EASTING)

PROJECT NAME: HRP - Former Potomac River Generating Station
PROJECT NUMBER: 1690022371-003
LOCATION: MW-202
LOGGED BY: Anne Kelly
DATE(S): 10/07/2021
WELL PERMIT NO.: N/A

WATER LEVELS:

Date	Time	Depth (FT BTOC)
10/25/2021	10:55	24.80 ft



COMMENTS:

All measurements based on ground surface at 0 feet. (+) above grade. (-) below grade.

Not To Scale

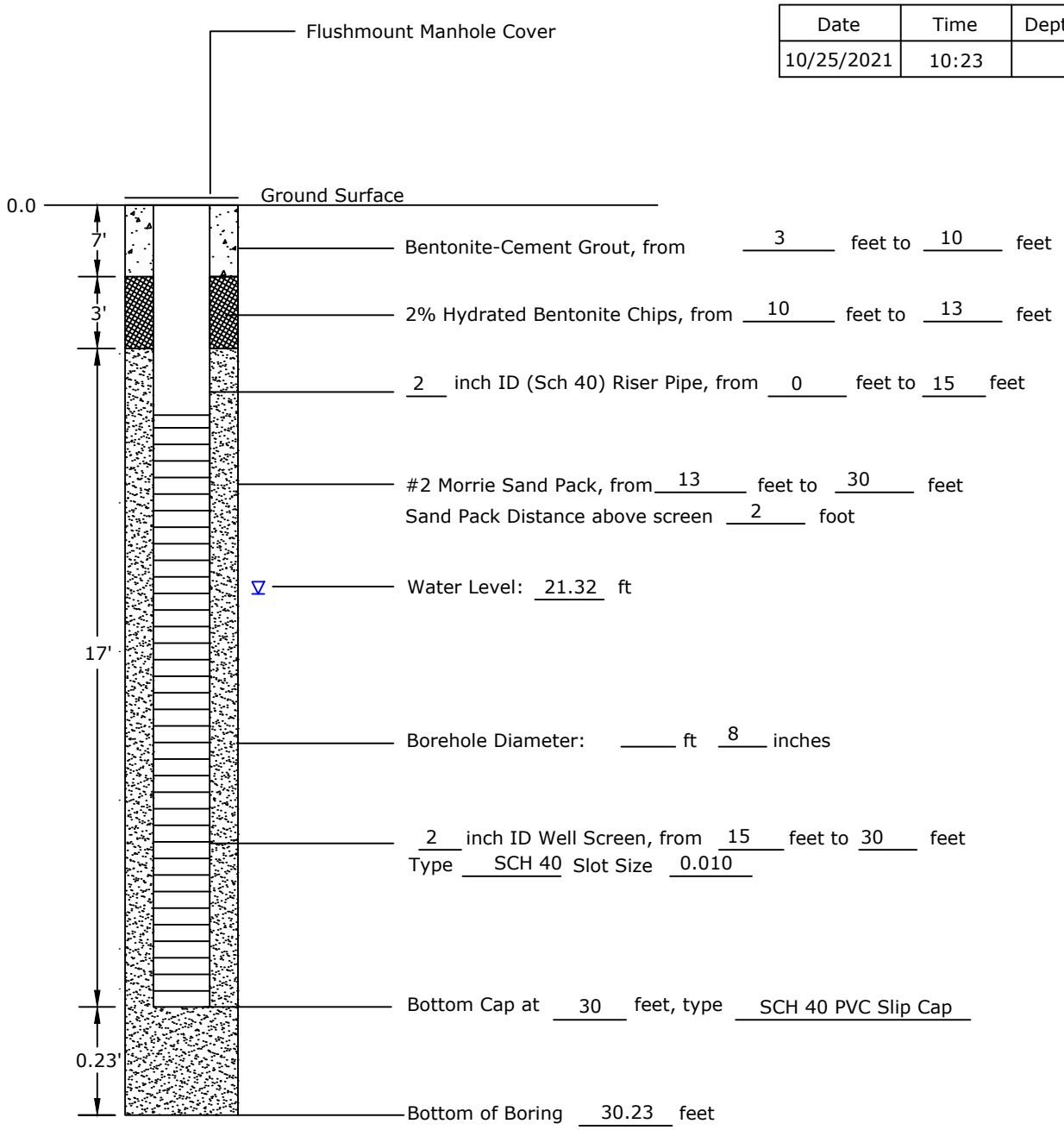
WELL CONSTRUCTION LOG: MW-205

DRILLING CONTRACTOR: Eichelbergers
DRILLER: Paul Wirrick
SURFACE ELEVATION: 30.238 ft amsl
TOP OF CASING: 29.813 ft amsl
HORIZONTAL DATUM: NAD88 / Virginia North (ft US)
VERTICAL DATUM: NAVD88
COORDINATES: 6985476.255, 11898506.29
(NORTHING, EASTING)

PROJECT NAME: HRP - Former Potomac River Generating Station
PROJECT NUMBER: 1690022371-003
LOCATION: MW-205
LOGGED BY: Sarah Ostertag
DATE(S): 10/11/2021
WELL PERMIT NO.: N/A

WATER LEVELS:

Date	Time	Depth (FT BTOC)
10/25/2021	10:23	20.95



COMMENTS:

All measurements based on ground surface at 0 feet. (+) above grade. (-) below grade.

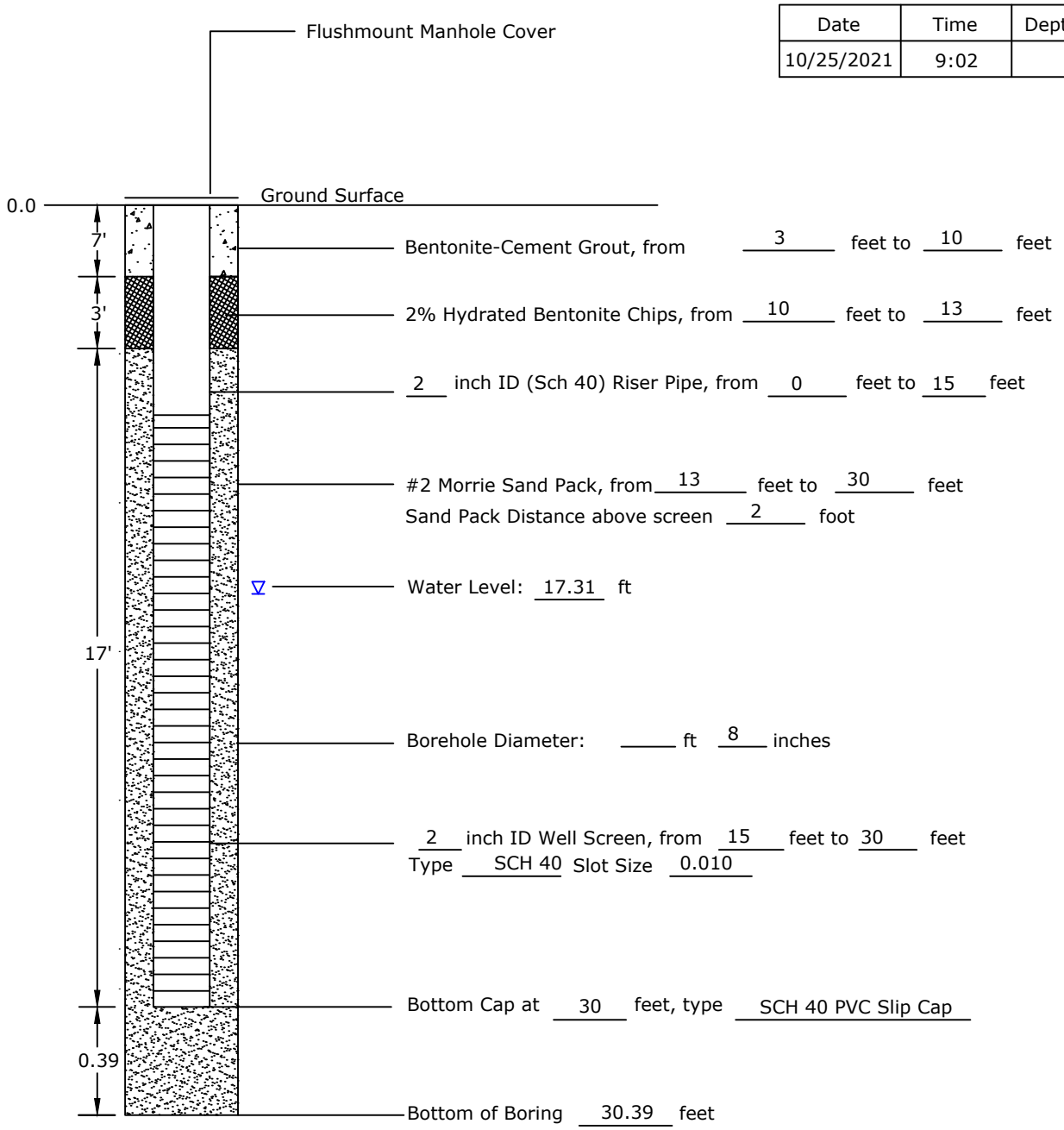
Not To Scale

DRILLING CONTRACTOR: Eichelbergers
DRILLER: Paul Wirrick
SURFACE ELEVATION: 24.23 ft amsl
TOP OF CASING: 2 ft amsl
HORIZONTAL DATUM: NAD88 / Virginia North (ft US)
VERTICAL DATUM: NAVD88
COORDINATES: 6984697.17811898953.32
(NORTHING, EASTING)

PROJECT NAME: HRP - Former Potomac River Generating Station
PROJECT NUMBER: 1690022371-003
LOCATION: MW-206
LOGGED BY: Sarah Ostertag
DATE(S): 10/12/2021
WELL PERMIT NO.: N/A

WATER LEVELS:

Date	Time	Depth (FT BTOC)
10/25/2021	9:02	17.42



COMMENTS:

All measurements based on ground surface at 0 feet. (+) above grade. (-) below grade.

Not To Scale

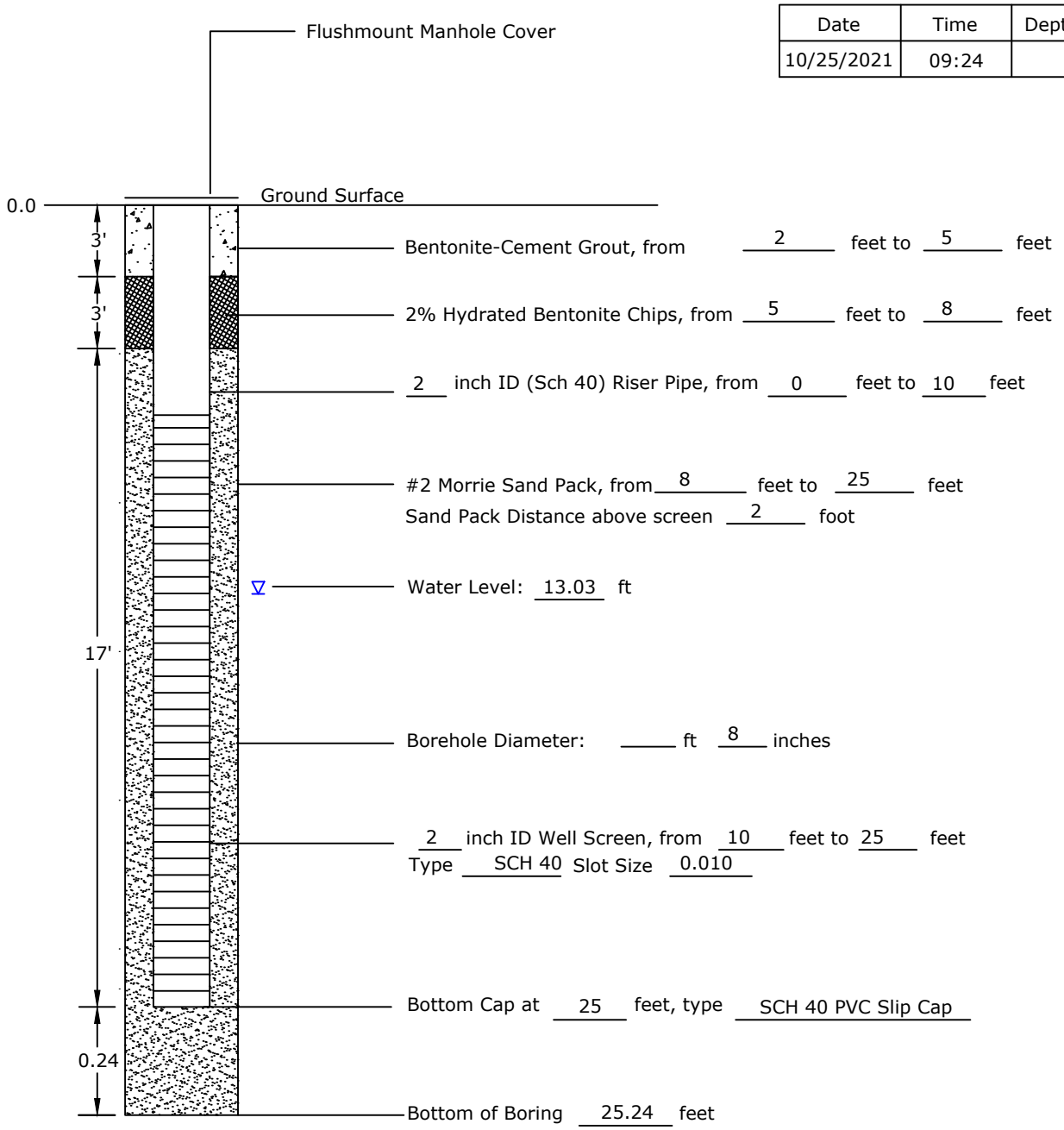
WELL CONSTRUCTION LOG: MW-207

DRILLING CONTRACTOR: Eichelbergers
DRILLER: Paul Wirrick
SURFACE ELEVATION: 21.077 ft amsl
TOP OF CASING: 20.775 ft amsl
HORIZONTAL DATUM: NAD88 / Virginia North (ft US)
VERTICAL DATUM: NAVD88
COORDINATES: 6984475.37 11899012.87
(NORTHING, EASTING)

PROJECT NAME: HRP - Former Potomac River Generating Station
PROJECT NUMBER: 1690022371-003
LOCATION: MW-207
LOGGED BY: Anne Kelly
DATE(S): 10/13/2021
WELL PERMIT NO.: N/A

WATER LEVELS:

Date	Time	Depth (FT BTOC)
10/25/2021	09:24	12.94



COMMENTS:

All measurements based on ground surface at 0 feet. (+) above grade. (-) below grade.

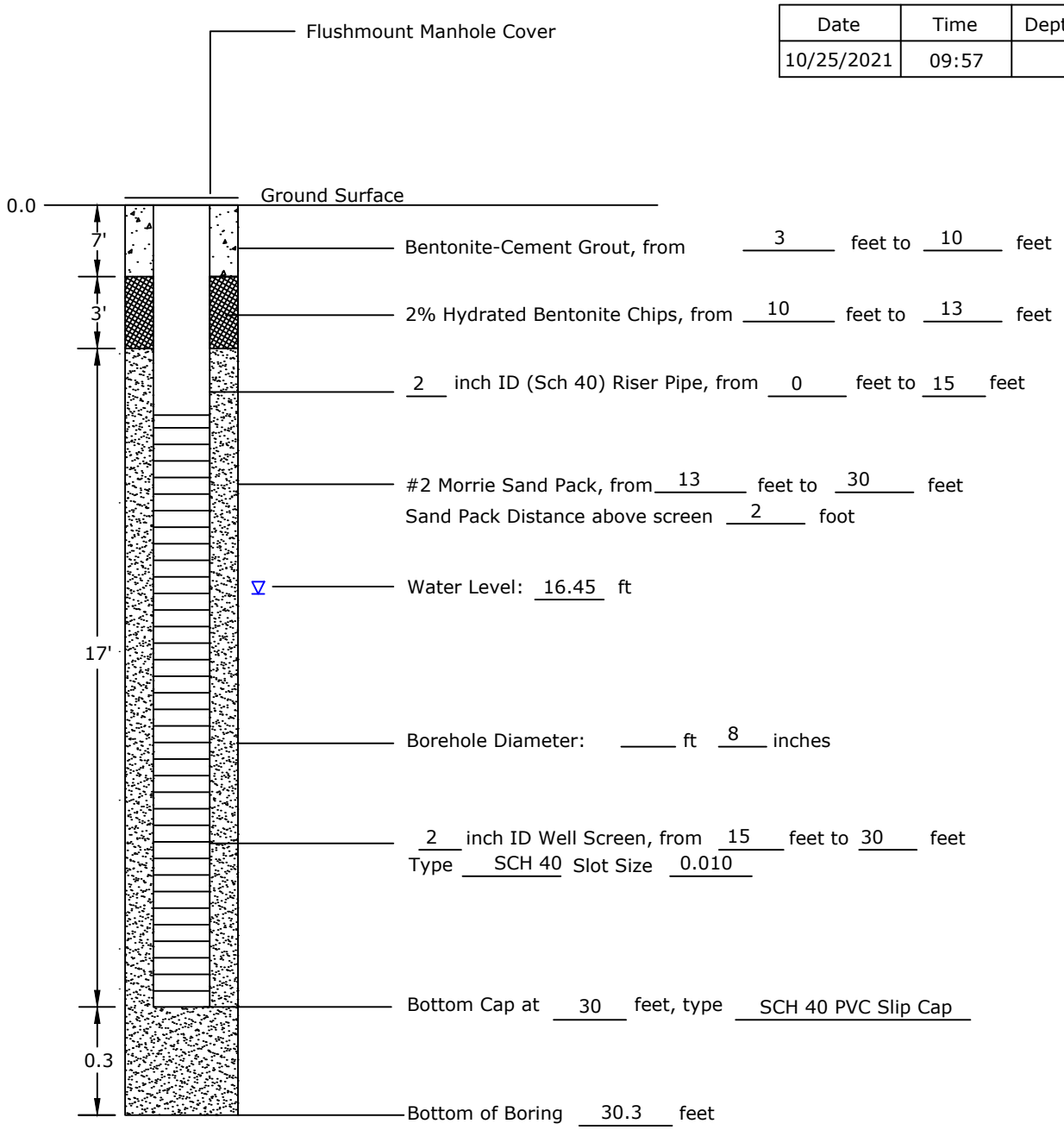
Not To Scale

DRILLING CONTRACTOR: Eichelbergers
DRILLER: Paul Wirrick
SURFACE ELEVATION: 24.783 ft amsl
TOP OF CASING: 24.567 ft amsl
HORIZONTAL DATUM: NAD88 / Virginia North (ft US)
VERTICAL DATUM: NAVD88
COORDINATES: 6984256.451 11898959.667
(NORTHING, EASTING)

PROJECT NAME: HRP - Former Potomac River Generating Station
PROJECT NUMBER: 1690022371-003
LOCATION: MW-208
LOGGED BY: Anne Kelly
DATE(S): 10/14/2021
WELL PERMIT NO.: N/A

WATER LEVELS:

Date	Time	Depth (FT BTOC)
10/25/2021	09:57	16.65



COMMENTS:

All measurements based on ground surface at 0 feet. (+) above grade. (-) below grade.

Not To Scale

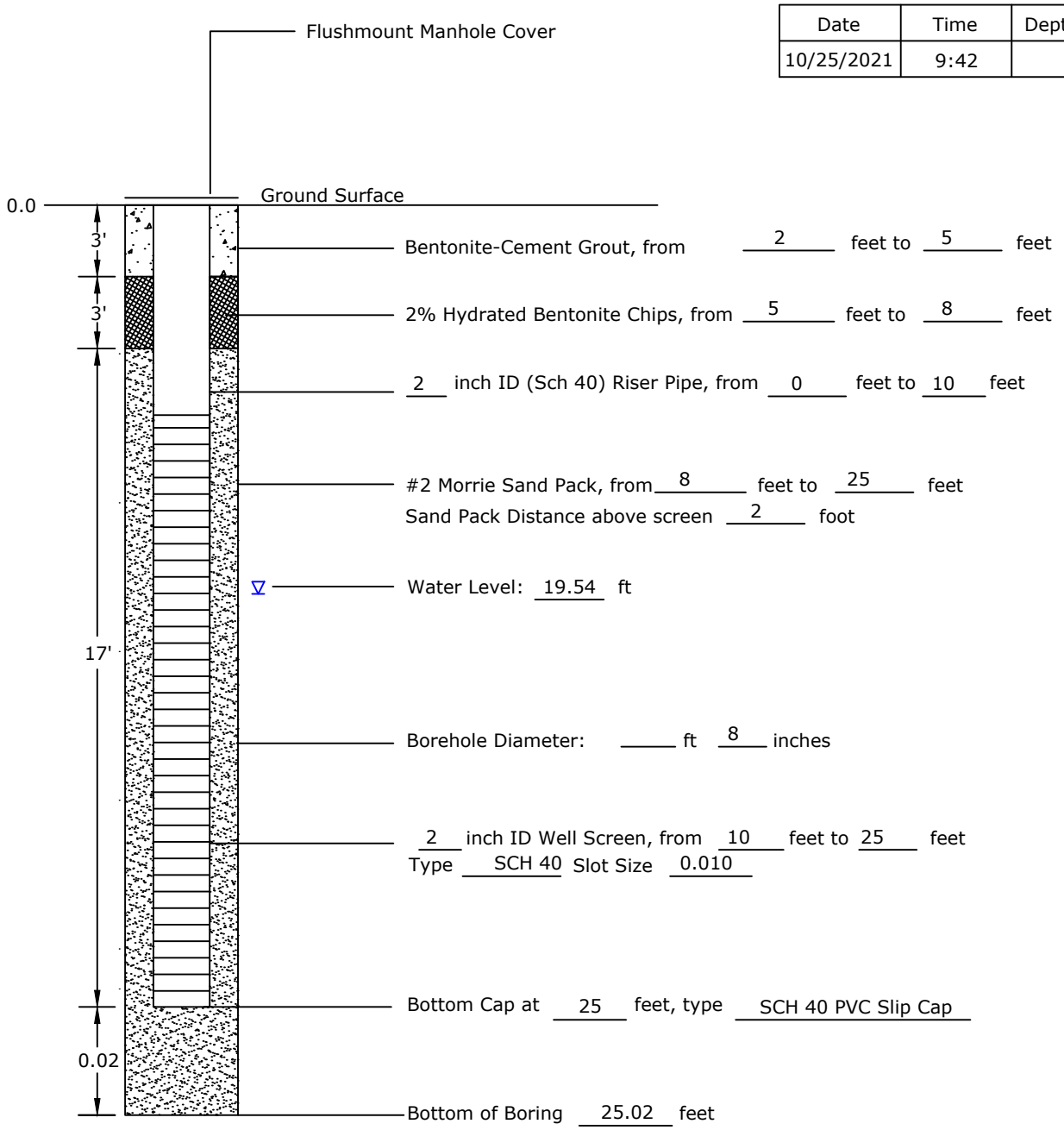
WELL CONSTRUCTION LOG: MW-209

DRILLING CONTRACTOR: Eichelbergers
DRILLER: Paul Wirrick
SURFACE ELEVATION: 23.585 ft amsl
TOP OF CASING: 23.139 ft amsl
HORIZONTAL DATUM: NAD88 / Virginia North (ft US)
VERTICAL DATUM: NAVD88
COORDINATES: 6984138.928, 11899047.01
(NORTHING, EASTING)

PROJECT NAME: HRP - Former Potomac River Generating Station
PROJECT NUMBER: 1690022371-003
LOCATION: MW-209
LOGGED BY: Anne Kelly
DATE(S): 10/13/2021
WELL PERMIT NO.: N/A

WATER LEVELS:

Date	Time	Depth (FT BTOC)
10/25/2021	9:42	19.89



COMMENTS:

All measurements based on ground surface at 0 feet. (+) above grade. (-) below grade.

Not To Scale

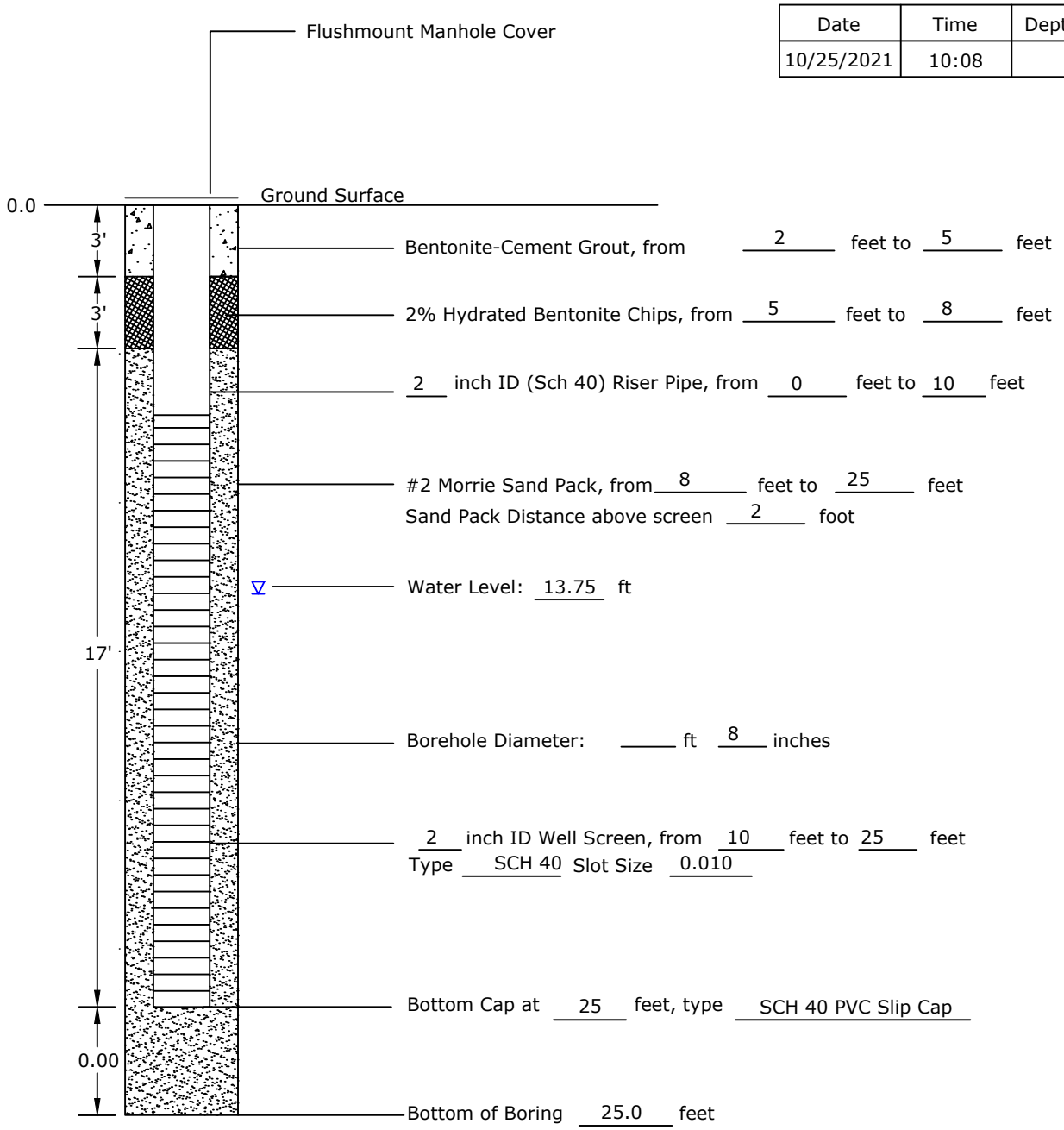
WELL CONSTRUCTION LOG: MW-214

DRILLING CONTRACTOR: Eichelbergers
DRILLER: Paul Wirrick
SURFACE ELEVATION: 24.066 ft amsl
TOP OF CASING: 23.647 ft amsl
HORIZONTAL DATUM: NAD88 / Virginia North (ft US)
VERTICAL DATUM: NAVD88
COORDINATES: 6984662.558, 11898736.21
(NORTHING, EASTING)

PROJECT NAME: HRP - Former Potomac River Generating Station
PROJECT NUMBER: 1690022371-003
LOCATION: MW-214
LOGGED BY: Anne Kelly
DATE(S): 10/14/2021
WELL PERMIT NO.: N/A

WATER LEVELS:

Date	Time	Depth (FT BTOC)
10/25/2021	10:08	14.73



COMMENTS:

All measurements based on ground surface at 0 feet. (+) above grade. (-) below grade.

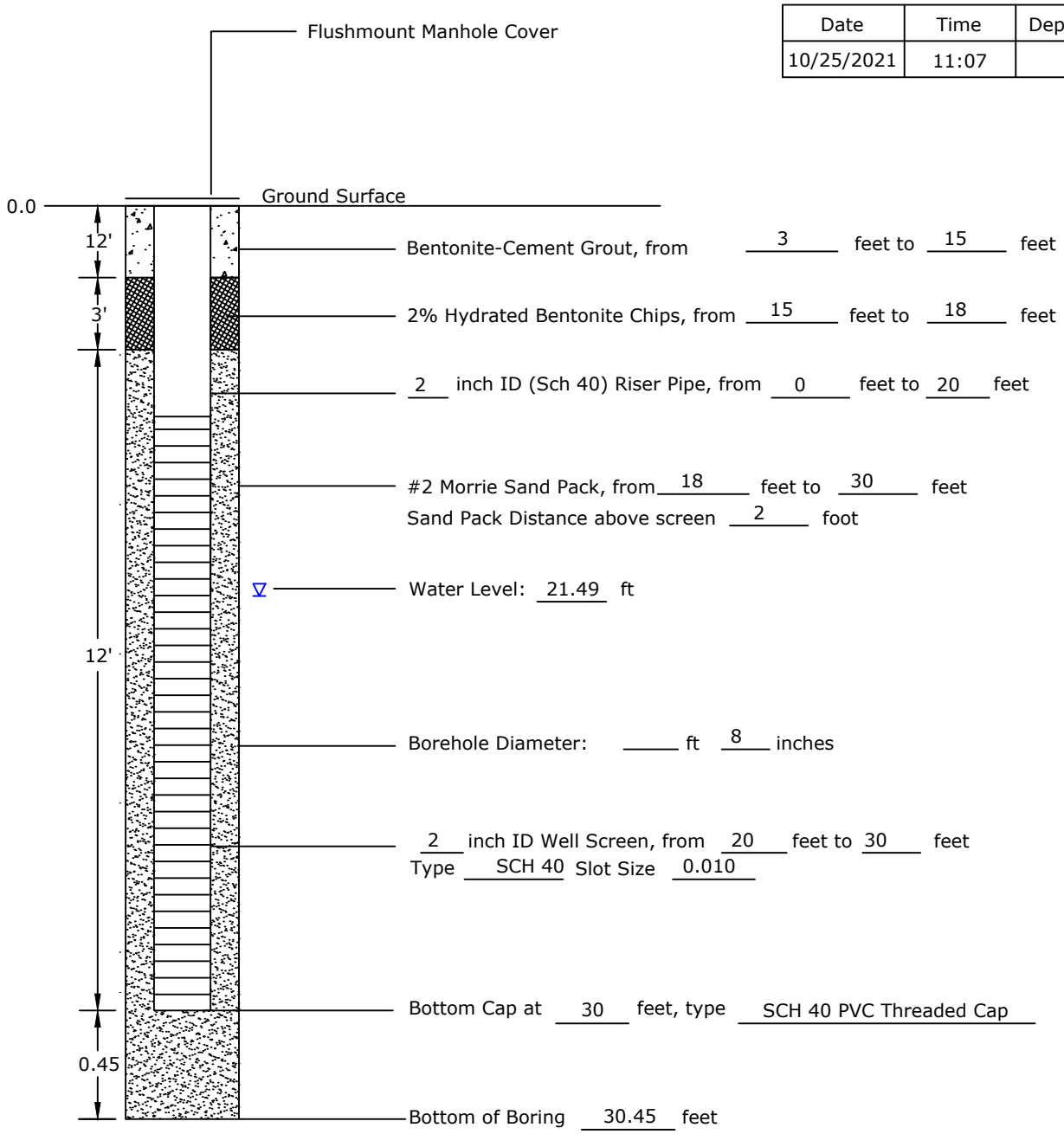
Not To Scale

DRILLING CONTRACTOR: Eichelbergers
DRILLER: Paul Wirrick
SURFACE ELEVATION: 31.343 ft amsl
TOP OF CASING: 30.968 ft amsl
HORIZONTAL DATUM: NAD88 / Virginia North (ft US)
VERTICAL DATUM: NAVD88
COORDINATES: 6984932.93, 11898352.37
(NORTHING, EASTING)

PROJECT NAME: HRP - Former Potomac River Generating Station
PROJECT NUMBER: 1690022371-003
LOCATION: MW-221
LOGGED BY: Sarah Ostertag
DATE(S): 10/07/2021
WELL PERMIT NO.: N/A

WATER LEVELS:

Date	Time	Depth (FT BTOC)
10/25/2021	11:07	21.51



COMMENTS:

All measurements based on ground surface at 0 feet. (+) above grade. (-) below grade.

Not To Scale

APPENDIX D
LABORATORY ANALYTICAL RESULTS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

January 20, 2022

Greg Grose
Ramboll
4350 North Fairfax Dr
Suite 300
Arlington, VA 22203

RE: Project: HRP PRGS SCR
Pace Project No.: 92569119

Dear Greg Grose:

Enclosed are the analytical results for sample(s) received by the laboratory between October 13, 2021 and November 04, 2021. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

Some analyses were subcontracted outside of the Pace Network. The test report from the external subcontractor is attached to this report in its entirety.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace National - Mt. Juliet
- Pace Analytical Services - Asheville
- Pace Analytical Services - Charlotte

A revised report is being submitted on 1/20/22 to include revised sample resultts.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Angela M. Baioni

Angela Baioni
angela.baioni@pacelabs.com
(704)875-9092
Project Manager

Enclosures

cc: Taylor Carroll, Ramboll
Anne Kelly, Ramboll US Consulting, Inc.
Sarah Ostertag, Ramboll

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

CERTIFICATIONS

Project: HRP PRGS SCR
Pace Project No.: 92569119

Pace Analytical Services National

12065 Lebanon Road, Mt. Juliet, TN 37122
Alabama Certification #: 40660
Alaska Certification 17-026
Arizona Certification #: AZ0612
Arkansas Certification #: 88-0469
California Certification #: 2932
Canada Certification #: 1461.01
Colorado Certification #: TN00003
Connecticut Certification #: PH-0197
DOD Certification: #1461.01
EPA# TN00003
Florida Certification #: E87487
Georgia DW Certification #: 923
Georgia Certification: NELAP
Idaho Certification #: TN00003
Illinois Certification #: 200008
Indiana Certification #: C-TN-01
Iowa Certification #: 364
Kansas Certification #: E-10277
Kentucky UST Certification #: 16
Kentucky Certification #: 90010
Louisiana Certification #: AI30792
Louisiana DW Certification #: LA180010
Maine Certification #: TN0002
Maryland Certification #: 324
Massachusetts Certification #: M-TN003
Michigan Certification #: 9958
Minnesota Certification #: 047-999-395
Mississippi Certification #: TN00003
Missouri Certification #: 340
Montana Certification #: CERT0086
Nebraska Certification #: NE-OS-15-05
Nevada Certification #: TN-03-2002-34
New Hampshire Certification #: 2975
New Jersey Certification #: TN002
New Mexico DW Certification
New York Certification #: 11742
North Carolina Aquatic Toxicity Certification #: 41
North Carolina Drinking Water Certification #: 21704
North Carolina Environmental Certificate #: 375
North Dakota Certification #: R-140
Ohio VAP Certification #: CL0069
Oklahoma Certification #: 9915
Oregon Certification #: TN200002
Pennsylvania Certification #: 68-02979
Rhode Island Certification #: LAO00356
South Carolina Certification #: 84004
South Dakota Certification
Tennessee DW/Chem/Micro Certification #: 2006
Texas Certification #: T 104704245-17-14
Texas Mold Certification #: LAB0152
USDA Soil Permit #: P330-15-00234
Utah Certification #: TN00003
Virginia Certification #: VT2006
Vermont Dept. of Health: ID# VT-2006
Virginia Certification #: 460132
Washington Certification #: C847
West Virginia Certification #: 233
Wisconsin Certification #: 998093910
Wyoming UST Certification #: via A2LA 2926.01
A2LA-ISO 17025 Certification #: 1461.01
A2LA-ISO 17025 Certification #: 1461.02
AIHA-LAP/LLC EMLAP Certification #:100789

Pace Analytical Services Charlotte

South Carolina Laboratory ID: 99006
9800 Kincey Ave. Ste 100, Huntersville, NC 28078
North Carolina Drinking Water Certification #: 37706
North Carolina Field Services Certification #: 5342
North Carolina Wastewater Certification #: 12
South Carolina Laboratory ID: 99006
South Carolina Certification #: 99006001
South Carolina Drinking Water Cert. #: 99006003
Florida/NELAP Certification #: E87627
Kentucky UST Certification #: 84
Louisiana DoH Drinking Water #: LA029
Virginia/VELAP Certification #: 460221

Pace Analytical Services Asheville

2225 Riverside Drive, Asheville, NC 28804
Florida/NELAP Certification #: E87648
North Carolina Drinking Water Certification #: 37712
North Carolina Wastewater Certification #: 40
South Carolina Laboratory ID: 99030
South Carolina Certification #: 99030001
Virginia/VELAP Certification #: 460222

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

SAMPLE SUMMARY

Project: HRP PRGS SCR
Pace Project No.: 92569119

Lab ID	Sample ID	Matrix	Date Collected	Date Received
92569119001	HRP-MW201-211025	Water	10/25/21 15:45	10/27/21 15:21
92569119002	HRP-MW202-211026	Water	10/26/21 09:50	10/27/21 15:21
92569119003	HRP-DUP05-211026	Water	10/26/21 10:00	10/27/21 15:21
92569119004	HRP-MW205-211026	Water	10/26/21 12:30	10/27/21 15:21
92569119005	HRP-MW206-211026	Water	10/26/21 16:55	10/27/21 15:21
92569119006	HRP-MW102-211027	Water	10/27/21 10:45	10/27/21 15:21
92569119007	HRP-MW214-211026	Water	10/26/21 10:10	10/27/21 15:21
92569119008	HRP-MW208-211026	Water	10/26/21 10:10	10/27/21 15:21
92569119009	HRP-MW207-211026	Water	10/26/21 10:10	10/27/21 15:21
92569427001	HRP-MW72S-211027	Water	10/27/21 14:40	10/28/21 12:56
92569427002	HRP-MW30S-211027	Water	10/27/21 14:58	10/28/21 12:56
92569427003	HRP-MW209-211028	Water	10/28/21 09:55	10/28/21 12:56
92569427004	HRP-MW100S-211028	Water	10/28/21 09:50	10/28/21 12:56
92570802001	HRP-MW201-211102	Water	11/02/21 09:15	11/04/21 10:30
92568327001	HRP-SB225-0-1-211021	Solid	10/21/21 07:45	10/21/21 13:15
92568327002	HRP-SB224-0-1-211021	Solid	10/21/21 08:25	10/21/21 13:15
92568327003	HRP-SB227-0-1-211021	Solid	10/21/21 08:50	10/21/21 13:15
92567560001	HRP-SB215-0-2-211018	Solid	10/18/21 12:20	10/19/21 13:26
92567560002	HRP-SB215-5-7-211018	Solid	10/18/21 12:30	10/19/21 13:26
92567560003	HRP-SB215-16-18-211018	Solid	10/18/21 12:50	10/19/21 13:26
92567560004	HRP-SB216-1-3-211018	Solid	10/18/21 14:55	10/19/21 13:26
92567218001	HRP-SB-214-0-2-211014	Solid	10/14/21 13:58	10/15/21 13:21
92567218002	HRP-SB-214-5-7-211014	Solid	10/14/21 14:10	10/15/21 13:21
92567218003	HRP-SB-214-14-16-211014	Solid	10/14/21 14:35	10/15/21 13:21
92566661001	HRP-SB205-0-1-211011	Solid	10/11/21 11:43	10/13/21 12:40
92566661002	HRP-SB205-13-15-21011	Solid	10/11/21 12:30	10/13/21 12:40
92566661003	HRP-DUP02-13-15-21011	Solid	10/11/21 12:30	10/13/21 12:40
92566661004	HRP-SB206-5-7-211012	Solid	10/12/21 12:58	10/13/21 12:40
92566661005	HRP-SB206-15-17-211012	Solid	10/12/21 13:45	10/13/21 12:40
92566661006	HRP-SB207-0-1-211013	Solid	10/13/21 08:37	10/13/21 12:40
92566661007	HRP-SB207-6-8-211013	Solid	10/13/21 09:15	10/13/21 12:40
92566661008	HRP-DUP03-6-8-211013	Solid	10/13/21 09:15	10/13/21 12:40
92566661009	HRP-SB207-16-18-211013	Solid	10/13/21 09:32	10/13/21 12:40

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

SAMPLE ANALYTE COUNT

Project: HRP PRGS SCR
Pace Project No.: 92569119

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
92569119004	**HRP-MW205-211026**	EPA 8015C	DMG	2	PAN
92569119005	**HRP-MW206-211026**	EPA 8015C	DMG	2	PAN
92569119007	**HRP-MW214-211026**	EPA 8015C	DMG	2	PAN
92569119008	**HRP-MW208-211026**	EPA 8015C	DMG	2	PAN
92569119009	**HRP-MW207-211026**	EPA 8015C	DMG	2	PAN
92569427001	**HRP-MW72S-211027**	EPA 8015C	CAG	2	PAN
92569427002	**HRP-MW30S-211027**	EPA 8015C	CAG	2	PAN
92569427003	**HRP-MW209-211028**	EPA 8015C	CLG	2	PAN
92569427004	**HRP-MW100S-211028**	EPA 8015C	CAG	2	PAN
92570802001	**HRP-MW201-211102**	EPA 6010D	CBV	23	PASI-A
		EPA 7470A	DBB1	1	PASI-A
		EPA 8260D	SAS	63	PASI-C
92568327001	**HRP-SB225-0-1-211021**	EPA 8015C	AP2	2	PASI-C
		SW-846	KDF	1	PASI-C
92568327002	**HRP-SB224-0-1-211021**	EPA 8015C	AP2	2	PASI-C
		SW-846	KDF	1	PASI-C
92568327003	**HRP-SB227-0-1-211021**	EPA 8015C	AP2	2	PASI-C
		SW-846	KDF	1	PASI-C
92567560001	**HRP-SB215-0-2-211018**	EPA 8015D	JDG	2	PAN
		SM 2540G	KDW	1	PAN
92567560002	**HRP-SB215-5-7-211018**	EPA 8015D	JDG	2	PAN
		SM 2540G	KDW	1	PAN
92567560003	**HRP-SB215-16-18-211018**	EPA 8015D	JDG	2	PAN
		SM 2540G	KDW	1	PAN
92567560004	**HRP-SB216-1-3-211018**	EPA 8015D	JDG	2	PAN
		SM 2540G	KDW	1	PAN
92567218001	**HRP-SB-214-0-2-211014**	EPA 8015D	JAS	2	PAN
		SM 2540G	KDW	1	PAN
92567218002	**HRP-SB-214-5-7-211014**	EPA 8015D	JAS	2	PAN
		SM 2540G	KDW	1	PAN
92567218003	**HRP-SB-214-14-16-211014**	EPA 8015D	JAS	2	PAN
		SM 2540G	KDW	1	PAN
92566661001	**HRP-SB205-0-1-211011**	EPA 8015D	WCR	2	PAN
		SM 2540G	KDW	1	PAN
92566661002	**HRP-SB205-13-15-21011**	EPA 8015D	WCR	2	PAN
		SM 2540G	KDW	1	PAN
92566661003	**HRP-DUP02-13-15-21011**	EPA 8015D	WCR	2	PAN

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SAMPLE ANALYTE COUNT

Project: HRP PRGS SCR
Pace Project No.: 92569119

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
		SM 2540G	KDW	1	PAN
92566661004	**HRP-SB206-5-7-211012**	EPA 8015D	JAS	2	PAN
		SM 2540G	KDW	1	PAN
92566661005	**HRP-SB206-15-17-211012**	EPA 8015D	JAS	2	PAN
		SM 2540G	KDW	1	PAN
92566661006	**HRP-SB207-0-1-211013**	EPA 8015D	JN	2	PAN
		SM 2540G	KDW	1	PAN
92566661007	**HRP-SB207-6-8-211013**	EPA 8015D	JN	2	PAN
		SM 2540G	KDW	1	PAN
92566661008	**HRP-DUP03-6-8-211013**	EPA 8015D	JN	2	PAN
		SM 2540G	KDW	1	PAN
92566661009	**HRP-SB207-16-18-211013**	EPA 8015D	JN	2	PAN
		SM 2540G	KDW	1	PAN

PAN = Pace National - Mt. Juliet
PASI-A = Pace Analytical Services - Asheville
PASI-C = Pace Analytical Services - Charlotte

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ANALYTICAL RESULTS

Project: HRP PRGS SCR
Pace Project No.: 92569119

Sample: HRP-MW205-211026 **Lab ID: 92569119004** Collected: 10/26/21 12:30 Received: 10/27/21 15:21 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
SVOA (GC) 8015C	Analytical Method: EPA 8015C Preparation Method: 3511/8015 Pace National - Mt. Juliet								
Oil Range Organics (C28-C40)	ND	ug/L	100	11.8	1	11/05/21 22:41	11/06/21 19:22		
Surrogates									
o-Terphenyl (S)	86.0	%	52.0-156		1	11/05/21 22:41	11/06/21 19:22	84-15-1	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: HRP PRGS SCR
Pace Project No.: 92569119

Sample: HRP-MW206-211026 **Lab ID: 92569119005** Collected: 10/26/21 16:55 Received: 10/27/21 15:21 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
SVOA (GC) 8015C	Analytical Method: EPA 8015C Preparation Method: 3511/8015 Pace National - Mt. Juliet								
Oil Range Organics (C28-C40)	**147**	ug/L	100	11.8	1	11/05/21 22:41	11/06/21 21:33		
Surrogates									
o-Terphenyl (S)	80.0	%	52.0-156		1	11/05/21 22:41	11/06/21 21:33	84-15-1	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: HRP PRGS SCR
Pace Project No.: 92569119

Sample: HRP-MW214-211026 **Lab ID: 92569119007** Collected: 10/26/21 10:10 Received: 10/27/21 15:21 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
SVOA (GC) 8015C	Analytical Method: EPA 8015C Preparation Method: 3511/8015 Pace National - Mt. Juliet								
Oil Range Organics (C28-C40)	ND	ug/L	100	11.8	1	11/05/21 22:41	11/06/21 19:48		
Surrogates									
o-Terphenyl (S)	100	%	52.0-156		1	11/05/21 22:41	11/06/21 19:48	84-15-1	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: HRP PRGS SCR
Pace Project No.: 92569119

Sample: HRP-MW208-211026 **Lab ID: 92569119008** Collected: 10/26/21 10:10 Received: 10/27/21 15:21 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
SVOA (GC) 8015C	Analytical Method: EPA 8015C Preparation Method: 3511/8015 Pace National - Mt. Juliet								
Oil Range Organics (C28-C40)	ND	ug/L	100	11.8	1	11/05/21 22:41	11/06/21 20:14		
Surrogates									
o-Terphenyl (S)	93.0	%	52.0-156		1	11/05/21 22:41	11/06/21 20:14	84-15-1	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: HRP PRGS SCR
Pace Project No.: 92569119

Sample: HRP-MW207-211026 **Lab ID: 92569119009** Collected: 10/26/21 10:10 Received: 10/27/21 15:21 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
SVOA (GC) 8015C	Analytical Method: EPA 8015C Preparation Method: 3511/8015 Pace National - Mt. Juliet								
Oil Range Organics (C28-C40)	ND	ug/L	100	11.8	1	11/05/21 22:41	11/06/21 20:40		
Surrogates									
o-Terphenyl (S)	92.0	%	52.0-156		1	11/05/21 22:41	11/06/21 20:40	84-15-1	

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ANALYTICAL RESULTS

Project: HRP PRGS SCR
Pace Project No.: 92569119

Sample: HRP-MW72S-211027 **Lab ID: 92569427001** Collected: 10/27/21 14:40 Received: 10/28/21 12:56 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
SVOA (GC) 8015C	Analytical Method: EPA 8015C Preparation Method: 3511/8015 Pace National - Mt. Juliet								
Oil Range Organics (C28-C40)	**1170**	ug/L	100	11.8	1	11/09/21 10:08	11/09/21 23:01		
Surrogates									
o-Terphenyl (S)	0.00	%	52.0-156		1	11/09/21 10:08	11/09/21 23:01	84-15-1	SR

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ANALYTICAL RESULTS

Project: HRP PRGS SCR
Pace Project No.: 92569119

Sample: HRP-MW30S-211027 **Lab ID: 92569427002** Collected: 10/27/21 14:58 Received: 10/28/21 12:56 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
SVOA (GC) 8015C	Analytical Method: EPA 8015C Preparation Method: 3511/8015 Pace National - Mt. Juliet								
Oil Range Organics (C28-C40)	**63.6J**	ug/L	100	11.8	1	11/09/21 10:08	11/09/21 19:19		J
Surrogates									
o-Terphenyl (S)	88.4	%	52.0-156		1	11/09/21 10:08	11/09/21 19:19	84-15-1	

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ANALYTICAL RESULTS

Project: HRP PRGS SCR
Pace Project No.: 92569119

Sample: HRP-MW209-211028 **Lab ID: 92569427003** Collected: 10/28/21 09:55 Received: 10/28/21 12:56 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
SVOA (GC) 8015C	Analytical Method: EPA 8015C Preparation Method: 3511/8015 Pace National - Mt. Juliet								
Oil Range Organics (C28-C40)	**33.8J**	ug/L	100	11.8	1	11/09/21 10:16	11/10/21 03:39		J
Surrogates									
o-Terphenyl (S)	85.3	%	52.0-156		1	11/09/21 10:16	11/10/21 03:39	84-15-1	

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ANALYTICAL RESULTS

Project: HRP PRGS SCR
Pace Project No.: 92569119

Sample: HRP-MW100S-211028 **Lab ID: 92569427004** Collected: 10/28/21 09:50 Received: 10/28/21 12:56 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
SVOA (GC) 8015C	Analytical Method: EPA 8015C Preparation Method: 3511/8015 Pace National - Mt. Juliet								
Oil Range Organics (C28-C40)	ND	ug/L	100	11.8	1	11/09/21 10:16	11/10/21 22:10		
Surrogates									
o-Terphenyl (S)	90.0	%	52.0-156		1	11/09/21 10:16	11/10/21 22:10	84-15-1	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: HRP PRGS SCR
Pace Project No.: 92569119

Sample: HRP-MW201-211102 **Lab ID: 92570802001** Collected: 11/02/21 09:15 Received: 11/04/21 10:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Asheville								
Aluminum	**245**	ug/L	100	72.0	1	11/12/21 12:13	11/16/21 02:45	7429-90-5	
Antimony	ND	ug/L	5.0	3.0	1	11/12/21 12:13	11/16/21 02:45	7440-36-0	
Arsenic	ND	ug/L	10.0	4.7	1	11/12/21 12:13	11/16/21 02:45	7440-38-2	
Barium	**27.3**	ug/L	5.0	3.5	1	11/12/21 12:13	11/16/21 02:45	7440-39-3	
Beryllium	ND	ug/L	1.0	0.70	1	11/12/21 12:13	11/16/21 02:45	7440-41-7	
Cadmium	**0.54J**	ug/L	1.0	0.40	1	11/12/21 12:13	11/16/21 02:45	7440-43-9	
Calcium	**46900**	ug/L	100	94.2	1	11/12/21 12:13	11/16/21 02:45	7440-70-2	
Chromium	ND	ug/L	5.0	3.7	1	11/12/21 12:13	11/15/21 05:35	7440-47-3	
Cobalt	**6.2**	ug/L	5.0	3.6	1	11/12/21 12:13	11/16/21 02:45	7440-48-4	
Copper	ND	ug/L	5.0	4.3	1	11/12/21 12:13	11/16/21 02:45	7440-50-8	
Iron	**221**	ug/L	50.0	41.5	1	11/12/21 12:13	11/16/21 02:45	7439-89-6	
Lead	ND	ug/L	5.0	4.5	1	11/12/21 12:13	11/16/21 02:45	7439-92-1	
Magnesium	**12800**	ug/L	100	67.8	1	11/12/21 12:13	11/15/21 05:35	7439-95-4	
Manganese	**334**	ug/L	5.0	3.4	1	11/12/21 12:13	11/16/21 02:45	7439-96-5	
Molybdenum	ND	ug/L	5.0	3.9	1	11/12/21 12:13	11/16/21 02:45	7439-98-7	
Nickel	**5.6**	ug/L	5.0	3.5	1	11/12/21 12:13	11/16/21 02:45	7440-02-0	
Selenium	ND	ug/L	10.0	4.7	1	11/12/21 12:13	11/16/21 02:45	7782-49-2	
Silver	ND	ug/L	5.0	2.5	1	11/12/21 12:13	11/16/21 02:45	7440-22-4	
Sodium	**15400**	ug/L	5000	611	1	11/12/21 12:13	11/16/21 02:45	7440-23-5	
Thallium	ND	ug/L	10.0	8.1	1	11/12/21 12:13	11/16/21 02:45	7440-28-0	
Hardness, Total(SM 2340B)	**170000**	ug/L	662	131	1	11/12/21 12:13	11/16/21 02:45		
Vanadium	ND	ug/L	5.0	3.9	1	11/12/21 12:13	11/16/21 02:45	7440-62-2	
Zinc	ND	ug/L	10.0	9.5	1	11/12/21 12:13	11/16/21 02:45	7440-66-6	
7470 Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Asheville								
Mercury	ND	ug/L	0.20	0.12	1	11/11/21 20:46	11/16/21 10:50	7439-97-6	
8260D MSV Low Level	Analytical Method: EPA 8260D Pace Analytical Services - Charlotte								
Acetone	ND	ug/L	25.0	5.1	1		11/06/21 21:26	67-64-1	
Benzene	ND	ug/L	1.0	0.34	1		11/06/21 21:26	71-43-2	
Bromobenzene	ND	ug/L	1.0	0.29	1		11/06/21 21:26	108-86-1	
Bromochloromethane	ND	ug/L	1.0	0.47	1		11/06/21 21:26	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	0.31	1		11/06/21 21:26	75-27-4	
Bromoform	ND	ug/L	1.0	0.34	1		11/06/21 21:26	75-25-2	
Bromomethane	ND	ug/L	2.0	1.7	1		11/06/21 21:26	74-83-9	
2-Butanone (MEK)	ND	ug/L	5.0	4.0	1		11/06/21 21:26	78-93-3	
Carbon tetrachloride	ND	ug/L	1.0	0.33	1		11/06/21 21:26	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.28	1		11/06/21 21:26	108-90-7	
Chloroethane	ND	ug/L	1.0	0.65	1		11/06/21 21:26	75-00-3	
Chloroform	ND	ug/L	1.0	0.43	1		11/06/21 21:26	67-66-3	
Chloromethane	ND	ug/L	1.0	0.54	1		11/06/21 21:26	74-87-3	
2-Chlorotoluene	ND	ug/L	1.0	0.32	1		11/06/21 21:26	95-49-8	
4-Chlorotoluene	ND	ug/L	1.0	0.32	1		11/06/21 21:26	106-43-4	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: HRP PRGS SCR
Pace Project No.: 92569119

Sample: HRP-MW201-211102 **Lab ID: 92570802001** Collected: 11/02/21 09:15 Received: 11/04/21 10:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260D MSV Low Level	Analytical Method: EPA 8260D Pace Analytical Services - Charlotte								
1,2-Dibromo-3-chloropropane	ND	ug/L	2.0	0.34	1		11/06/21 21:26	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	0.36	1		11/06/21 21:26	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	0.27	1		11/06/21 21:26	106-93-4	
Dibromomethane	ND	ug/L	1.0	0.39	1		11/06/21 21:26	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	0.34	1		11/06/21 21:26	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	0.34	1		11/06/21 21:26	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	0.33	1		11/06/21 21:26	106-46-7	
Dichlorodifluoromethane	ND	ug/L	1.0	0.35	1		11/06/21 21:26	75-71-8	
1,1-Dichloroethane	ND	ug/L	1.0	0.37	1		11/06/21 21:26	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.32	1		11/06/21 21:26	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	0.35	1		11/06/21 21:26	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	0.38	1		11/06/21 21:26	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.40	1		11/06/21 21:26	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.36	1		11/06/21 21:26	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	0.28	1		11/06/21 21:26	142-28-9	
2,2-Dichloropropane	ND	ug/L	1.0	0.39	1		11/06/21 21:26	594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	0.43	1		11/06/21 21:26	563-58-6	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.36	1		11/06/21 21:26	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.36	1		11/06/21 21:26	10061-02-6	
Diisopropyl ether	ND	ug/L	1.0	0.31	1		11/06/21 21:26	108-20-3	
Ethylbenzene	ND	ug/L	1.0	0.30	1		11/06/21 21:26	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	2.0	1.5	1		11/06/21 21:26	87-68-3	
2-Hexanone	ND	ug/L	5.0	0.48	1		11/06/21 21:26	591-78-6	
p-Isopropyltoluene	ND	ug/L	1.0	0.41	1		11/06/21 21:26	99-87-6	
Methylene Chloride	ND	ug/L	5.0	2.0	1		11/06/21 21:26	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	5.0	2.7	1		11/06/21 21:26	108-10-1	
Methyl-tert-butyl ether	ND	ug/L	1.0	0.42	1		11/06/21 21:26	1634-04-4	
Naphthalene	ND	ug/L	1.0	0.64	1		11/06/21 21:26	91-20-3	
Styrene	ND	ug/L	1.0	0.29	1		11/06/21 21:26	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	0.31	1		11/06/21 21:26	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.22	1		11/06/21 21:26	79-34-5	
Tetrachloroethene	**0.52J**	ug/L	1.0	0.29	1		11/06/21 21:26	127-18-4	
Toluene	ND	ug/L	1.0	0.48	1		11/06/21 21:26	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	1.0	0.81	1		11/06/21 21:26	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	1.0	0.64	1		11/06/21 21:26	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.33	1		11/06/21 21:26	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.32	1		11/06/21 21:26	79-00-5	
Trichloroethene	ND	ug/L	1.0	0.38	1		11/06/21 21:26	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	0.30	1		11/06/21 21:26	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	0.26	1		11/06/21 21:26	96-18-4	
Vinyl acetate	ND	ug/L	2.0	1.3	1		11/06/21 21:26	108-05-4	
Vinyl chloride	ND	ug/L	1.0	0.39	1		11/06/21 21:26	75-01-4	
Xylene (Total)	ND	ug/L	1.0	0.34	1		11/06/21 21:26	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	0.71	1		11/06/21 21:26	179601-23-1	
o-Xylene	ND	ug/L	1.0	0.34	1		11/06/21 21:26	95-47-6	

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ANALYTICAL RESULTS

Project: HRP PRGS SCR
Pace Project No.: 92569119

Sample: HRP-MW201-211102 **Lab ID: 92570802001** Collected: 11/02/21 09:15 Received: 11/04/21 10:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260D MSV Low Level	Analytical Method: EPA 8260D Pace Analytical Services - Charlotte								
Surrogates									
4-Bromofluorobenzene (S)	96	%	70-130		1		11/06/21 21:26	460-00-4	
1,2-Dichloroethane-d4 (S)	99	%	70-130		1		11/06/21 21:26	17060-07-0	
Toluene-d8 (S)	101	%	70-130		1		11/06/21 21:26	2037-26-5	

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ANALYTICAL RESULTS

Project: HRP PRGS SCR
Pace Project No.: 92569119

Sample: HRP-SB225-0-1-211021 **Lab ID: 92568327001** Collected: 10/21/21 07:45 Received: 10/21/21 13:15 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8015 GCS THC-ORO	Analytical Method: EPA 8015C Preparation Method: EPA 3546 Pace Analytical Services - Charlotte								
Oil Range Organics (C28-C40)	**105**	mg/kg	20.5	12.7	1	11/01/21 11:32	11/02/21 10:46		
Surrogates									
n-Pentacosane (S)	65	%	32-130		1	11/01/21 11:32	11/02/21 10:46	629-99-2	
Percent Moisture	Analytical Method: SW-846 Pace Analytical Services - Charlotte								
Percent Moisture	**26.3**	%	0.10	0.10	1		11/02/21 16:54		N2

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: HRP PRGS SCR
Pace Project No.: 92569119

Sample: HRP-SB224-0-1-211021 **Lab ID: 92568327002** Collected: 10/21/21 08:25 Received: 10/21/21 13:15 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8015 GCS THC-ORO	Analytical Method: EPA 8015C Preparation Method: EPA 3546 Pace Analytical Services - Charlotte								
Oil Range Organics (C28-C40)	**111**	mg/kg	29.0	18.0	1	11/02/21 14:24	11/02/21 16:41		
Surrogates									
n-Pentacosane (S)	66	%	32-130		1	11/02/21 14:24	11/02/21 16:41	629-99-2	
Percent Moisture	Analytical Method: SW-846 Pace Analytical Services - Charlotte								
Percent Moisture	**25.0**	%	0.10	0.10	1		11/02/21 16:55		N2

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: HRP PRGS SCR
Pace Project No.: 92569119

Sample: HRP-SB227-0-1-211021 **Lab ID: 92568327003** Collected: 10/21/21 08:50 Received: 10/21/21 13:15 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8015 GCS THC-ORO	Analytical Method: EPA 8015C Preparation Method: EPA 3546 Pace Analytical Services - Charlotte								
Oil Range Organics (C28-C40)	**21.7**	mg/kg	17.9	11.1	1	11/01/21 11:32	11/02/21 11:36		
Surrogates									
n-Pentacosane (S)	64	%	32-130		1	11/01/21 11:32	11/02/21 11:36	629-99-2	
Percent Moisture	Analytical Method: SW-846 Pace Analytical Services - Charlotte								
Percent Moisture	**15.3**	%	0.10	0.10	1		11/02/21 16:55		N2

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: HRP PRGS SCR
Pace Project No.: 92569119

Sample: HRP-SB215-0-2-211018 **Lab ID: 92567560001** Collected: 10/18/21 12:20 Received: 10/19/21 13:26 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
SVOA (GC) 8015D	Analytical Method: EPA 8015D Preparation Method: 3546 Pace National - Mt. Juliet								
Oil Range Organics (C28-C40)	**68.5**	mg/kg	4.28	0.293	1	10/29/21 22:39	10/30/21 23:41		
Surrogates									
o-Terphenyl (S)	55.9	%	18.0-148		1	10/29/21 22:39	10/30/21 23:41	84-15-1	
Total Solids 2540 G-2011	Analytical Method: SM 2540G Preparation Method: SM 2540 G Pace National - Mt. Juliet								
Total Solids	**93.6**	%			1	10/25/21 14:26	10/25/21 14:37		

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: HRP PRGS SCR
Pace Project No.: 92569119

Sample: HRP-SB215-5-7-211018 **Lab ID: 92567560002** Collected: 10/18/21 12:30 Received: 10/19/21 13:26 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
SVOA (GC) 8015D	Analytical Method: EPA 8015D Preparation Method: 3546 Pace National - Mt. Juliet								
Oil Range Organics (C28-C40)	**0.679J**	mg/kg	4.60	0.315	1	10/29/21 22:39	10/30/21 19:51		B,J
Surrogates									
o-Terphenyl (S)	57.3	%	18.0-148		1	10/29/21 22:39	10/30/21 19:51	84-15-1	
Total Solids 2540 G-2011	Analytical Method: SM 2540G Preparation Method: SM 2540 G Pace National - Mt. Juliet								
Total Solids	**87.0**	%			1	10/25/21 14:26	10/25/21 14:37		

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ANALYTICAL RESULTS

Project: HRP PRGS SCR
Pace Project No.: 92569119

Sample: HRP-SB215-16-18-211018 **Lab ID: 92567560003** Collected: 10/18/21 12:50 Received: 10/19/21 13:26 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
SVOA (GC) 8015D	Analytical Method: EPA 8015D Preparation Method: 3546 Pace National - Mt. Juliet								
Oil Range Organics (C28-C40)	**3.36J**	mg/kg	5.08	0.348	1	10/29/21 22:39	10/30/21 21:26		B,J
Surrogates									
o-Terphenyl (S)	63.3	%	18.0-148		1	10/29/21 22:39	10/30/21 21:26	84-15-1	
Total Solids 2540 G-2011	Analytical Method: SM 2540G Preparation Method: SM 2540 G Pace National - Mt. Juliet								
Total Solids	**78.7**	%			1	10/25/21 14:26	10/25/21 14:37		

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ANALYTICAL RESULTS

Project: HRP PRGS SCR
Pace Project No.: 92569119

Sample: HRP-SB216-1-3-211018 **Lab ID: 92567560004** Collected: 10/18/21 14:55 Received: 10/19/21 13:26 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
SVOA (GC) 8015D	Analytical Method: EPA 8015D Preparation Method: 3546 Pace National - Mt. Juliet								
Oil Range Organics (C28-C40)	**5.51**	mg/kg	4.92	0.337	1	10/29/21 22:39	10/30/21 22:47		
Surrogates									
o-Terphenyl (S)	67.5	%	18.0-148		1	10/29/21 22:39	10/30/21 22:47	84-15-1	
Total Solids 2540 G-2011	Analytical Method: SM 2540G Preparation Method: SM 2540 G Pace National - Mt. Juliet								
Total Solids	**81.3**	%			1	10/25/21 14:26	10/25/21 14:37		

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ANALYTICAL RESULTS

Project: HRP PRGS SCR
Pace Project No.: 92569119

Sample: HRP-SB-214-0-2-211014 **Lab ID: 92567218001** Collected: 10/14/21 13:58 Received: 10/15/21 13:21 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
SVOA (GC) 8015D	Analytical Method: EPA 8015D Preparation Method: 3546 Pace National - Mt. Juliet								
Oil Range Organics (C28-C40)	ND	mg/kg	4.49	0.308	1	10/27/21 16:09	10/28/21 04:53		
Surrogates									
o-Terphenyl (S)	74.4	%	18.0-148		1	10/27/21 16:09	10/28/21 04:53	84-15-1	
Total Solids 2540 G-2011	Analytical Method: SM 2540G Preparation Method: SM 2540 G Pace National - Mt. Juliet								
Total Solids	**89.0**	%			1	10/22/21 10:31	10/22/21 10:37		

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ANALYTICAL RESULTS

Project: HRP PRGS SCR
Pace Project No.: 92569119

Sample: HRP-SB-214-5-7-211014 **Lab ID: 92567218002** Collected: 10/14/21 14:10 Received: 10/15/21 13:21 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
SVOA (GC) 8015D	Analytical Method: EPA 8015D Preparation Method: 3546 Pace National - Mt. Juliet								
Oil Range Organics (C28-C40)	ND	mg/kg	4.68	0.320	1	10/27/21 16:09	10/28/21 05:06		
Surrogates									
o-Terphenyl (S)	71.0	%	18.0-148		1	10/27/21 16:09	10/28/21 05:06	84-15-1	
Total Solids 2540 G-2011	Analytical Method: SM 2540G Preparation Method: SM 2540 G Pace National - Mt. Juliet								
Total Solids	**85.5**	%			1	10/22/21 10:31	10/22/21 10:37		

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ANALYTICAL RESULTS

Project: HRP PRGS SCR
Pace Project No.: 92569119

Sample: HRP-SB-214-14-16-211014 **Lab ID: 92567218003** Collected: 10/14/21 14:35 Received: 10/15/21 13:21 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
SVOA (GC) 8015D	Analytical Method: EPA 8015D Preparation Method: 3546 Pace National - Mt. Juliet								
Oil Range Organics (C28-C40)	ND	mg/kg	4.82	0.330	1	10/27/21 16:09	10/28/21 05:19		
Surrogates									
o-Terphenyl (S)	72.7	%	18.0-148		1	10/27/21 16:09	10/28/21 05:19	84-15-1	
Total Solids 2540 G-2011	Analytical Method: SM 2540G Preparation Method: SM 2540 G Pace National - Mt. Juliet								
Total Solids	**83.0**	%			1	10/22/21 10:31	10/22/21 10:37		

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ANALYTICAL RESULTS

Project: HRP PRGS SCR
Pace Project No.: 92569119

Sample: HRP-SB205-0-1-211011 **Lab ID: 92566661001** Collected: 10/11/21 11:43 Received: 10/13/21 12:40 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
SVOA (GC) 8015D	Analytical Method: EPA 8015D Preparation Method: 3546 Pace National - Mt. Juliet								
Oil Range Organics (C28-C40)	**1.72J**	mg/kg	4.79	0.328	1	10/22/21 07:39	10/22/21 15:09		B,J
Surrogates									
o-Terphenyl (S)	42.1	%	18.0-148		1	10/22/21 07:39	10/22/21 15:09	84-15-1	
Total Solids 2540 G-2011	Analytical Method: SM 2540G Preparation Method: SM 2540 G Pace National - Mt. Juliet								
Total Solids	**83.5**	%			1	10/20/21 10:46	10/20/21 10:53		

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ANALYTICAL RESULTS

Project: HRP PRGS SCR
Pace Project No.: 92569119

Sample: HRP-SB205-13-15-21011 **Lab ID: 92566661002** Collected: 10/11/21 12:30 Received: 10/13/21 12:40 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
SVOA (GC) 8015D	Analytical Method: EPA 8015D Preparation Method: 3546 Pace National - Mt. Juliet								
Oil Range Organics (C28-C40)	**0.452J**	mg/kg	4.33	0.296	1	10/22/21 07:39	10/22/21 14:44		B,J
Surrogates									
o-Terphenyl (S)	72.7	%	18.0-148		1	10/22/21 07:39	10/22/21 14:44	84-15-1	
Total Solids 2540 G-2011	Analytical Method: SM 2540G Preparation Method: SM 2540 G Pace National - Mt. Juliet								
Total Solids	**92.5**	%			1	10/20/21 10:55	10/20/21 11:02		

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: HRP PRGS SCR
Pace Project No.: 92569119

Sample: HRP-DUP02-13-15-21011 **Lab ID: 92566661003** Collected: 10/11/21 12:30 Received: 10/13/21 12:40 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
SVOA (GC) 8015D	Analytical Method: EPA 8015D Preparation Method: 3546 Pace National - Mt. Juliet								
Oil Range Organics (C28-C40)	ND	mg/kg	4.66	0.319	1	10/22/21 07:39	10/22/21 14:58		
Surrogates									
o-Terphenyl (S)	46.2	%	18.0-148		1	10/22/21 07:39	10/22/21 14:58	84-15-1	
Total Solids 2540 G-2011	Analytical Method: SM 2540G Preparation Method: SM 2540 G Pace National - Mt. Juliet								
Total Solids	**85.8**	%			1	10/20/21 10:55	10/20/21 11:02		

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: HRP PRGS SCR
Pace Project No.: 92569119

Sample: HRP-SB206-5-7-211012 **Lab ID: 92566661004** Collected: 10/12/21 12:58 Received: 10/13/21 12:40 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
SVOA (GC) 8015D	Analytical Method: EPA 8015D Preparation Method: 3546 Pace National - Mt. Juliet								
Oil Range Organics (C28-C40)	**6.11**	mg/kg	4.60	0.315	1	10/25/21 04:13	10/25/21 15:38		
Surrogates									
o-Terphenyl (S)	52.5	%	18.0-148		1	10/25/21 04:13	10/25/21 15:38	84-15-1	
Total Solids 2540 G-2011	Analytical Method: SM 2540G Preparation Method: SM 2540 G Pace National - Mt. Juliet								
Total Solids	**87.0**	%			1	10/20/21 10:55	10/20/21 11:02		

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: HRP PRGS SCR
Pace Project No.: 92569119

Sample: HRP-SB206-15-17-211012 **Lab ID: 92566661005** Collected: 10/12/21 13:45 Received: 10/13/21 12:40 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
SVOA (GC) 8015D	Analytical Method: EPA 8015D Preparation Method: 3546 Pace National - Mt. Juliet								
Oil Range Organics (C28-C40)	**2.08J**	mg/kg	4.28	0.293	1	10/25/21 04:13	10/25/21 15:24		J
Surrogates									
o-Terphenyl (S)	70.7	%	18.0-148		1	10/25/21 04:13	10/25/21 15:24	84-15-1	
Total Solids 2540 G-2011	Analytical Method: SM 2540G Preparation Method: SM 2540 G Pace National - Mt. Juliet								
Total Solids	**93.4**	%			1	10/20/21 10:55	10/20/21 11:02		

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ANALYTICAL RESULTS

Project: HRP PRGS SCR
Pace Project No.: 92569119

Sample: HRP-SB207-0-1-211013 **Lab ID: 92566661006** Collected: 10/13/21 08:37 Received: 10/13/21 12:40 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
SVOA (GC) 8015D	Analytical Method: EPA 8015D Preparation Method: 3546 Pace National - Mt. Juliet								
Oil Range Organics (C28-C40)	**56.2**	mg/kg	4.46	0.305	1	10/26/21 15:29	10/27/21 02:40		
Surrogates									
o-Terphenyl (S)	62.0	%	18.0-148		1	10/26/21 15:29	10/27/21 02:40	84-15-1	
Total Solids 2540 G-2011	Analytical Method: SM 2540G Preparation Method: SM 2540 G Pace National - Mt. Juliet								
Total Solids	**89.7**	%			1	10/20/21 10:55	10/20/21 11:02		

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ANALYTICAL RESULTS

Project: HRP PRGS SCR
Pace Project No.: 92569119

Sample: HRP-SB207-6-8-211013 **Lab ID: 92566661007** Collected: 10/13/21 09:15 Received: 10/13/21 12:40 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
SVOA (GC) 8015D	Analytical Method: EPA 8015D Preparation Method: 3546 Pace National - Mt. Juliet								
Oil Range Organics (C28-C40)	**1.14J**	mg/kg	4.29	0.294	1	10/26/21 15:29	10/27/21 01:10		J
Surrogates									
o-Terphenyl (S)	72.6	%	18.0-148		1	10/26/21 15:29	10/27/21 01:10	84-15-1	
Total Solids 2540 G-2011	Analytical Method: SM 2540G Preparation Method: SM 2540 G Pace National - Mt. Juliet								
Total Solids	**93.2**	%			1	10/20/21 10:55	10/20/21 11:02		

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ANALYTICAL RESULTS

Project: HRP PRGS SCR
Pace Project No.: 92569119

Sample: HRP-DUP03-6-8-211013 **Lab ID: 92566661008** Collected: 10/13/21 09:15 Received: 10/13/21 12:40 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
SVOA (GC) 8015D	Analytical Method: EPA 8015D Preparation Method: 3546 Pace National - Mt. Juliet								
Oil Range Organics (C28-C40)	**1.64J**	mg/kg	4.32	0.296	1	10/26/21 15:29	10/27/21 00:31		J
Surrogates									
o-Terphenyl (S)	73.5	%	18.0-148		1	10/26/21 15:29	10/27/21 00:31	84-15-1	
Total Solids 2540 G-2011	Analytical Method: SM 2540G Preparation Method: SM 2540 G Pace National - Mt. Juliet								
Total Solids	**92.7**	%			1	10/20/21 10:55	10/20/21 11:02		

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: HRP PRGS SCR
Pace Project No.: 92569119

Sample: HRP-SB207-16-18-211013 **Lab ID: 92566661009** Collected: 10/13/21 09:32 Received: 10/13/21 12:40 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
SVOA (GC) 8015D	Analytical Method: EPA 8015D Preparation Method: 3546 Pace National - Mt. Juliet								
Oil Range Organics (C28-C40)	ND	mg/kg	4.36	0.299	1	10/26/21 15:29	10/27/21 00:44		
Surrogates									
o-Terphenyl (S)	76.1	%	18.0-148		1	10/26/21 15:29	10/27/21 00:44	84-15-1	
Total Solids 2540 G-2011	Analytical Method: SM 2540G Preparation Method: SM 2540 G Pace National - Mt. Juliet								
Total Solids	**91.7**	%			1	10/20/21 10:55	10/20/21 11:02		

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: HRP PRGS SCR
Pace Project No.: 92569119

QC Batch: 1769494
QC Batch Method: 3511/8015
Analysis Method: EPA 8015C
Analysis Description: SVOA (GC) 8015C
Laboratory: Pace National - Mt. Juliet
Associated Lab Samples: 92569119004, 92569119005, 92569119007, 92569119008, 92569119009

METHOD BLANK: R3726680-1 Matrix: Water
Associated Lab Samples: 92569119004, 92569119005, 92569119007, 92569119008, 92569119009

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Oil Range Organics (C28-C40)	ug/L	ND	100	11.8	11/06/21 12:24	
o-Terphenyl (S)	%	89.5	52.0-156		11/06/21 12:24	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

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QUALITY CONTROL DATA

Project: HRP PRGS SCR
Pace Project No.: 92569119

QC Batch: 1770405
QC Batch Method: 3511/8015
Analysis Method: EPA 8015C
Analysis Description: SVOA (GC) 8015C
Laboratory: Pace National - Mt. Juliet
Associated Lab Samples: 92569427001, 92569427002

METHOD BLANK: R3727558-1 Matrix: Water
Associated Lab Samples: 92569427001, 92569427002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Oil Range Organics (C28-C40)	ug/L	ND	100	11.8	11/09/21 15:38	
o-Terphenyl (S)	%	96.5	52.0-156		11/09/21 15:38	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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(704)875-9092

QUALITY CONTROL DATA

Project: HRP PRGS SCR
Pace Project No.: 92569119

QC Batch: 1770820
QC Batch Method: 3511/8015
Analysis Method: EPA 8015C
Analysis Description: SVOA (GC) 8015C
Laboratory: Pace National - Mt. Juliet
Associated Lab Samples: 92569427003, 92569427004

METHOD BLANK: R3727822-1 Matrix: Water
Associated Lab Samples: 92569427003, 92569427004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Oil Range Organics (C28-C40)	ug/L	ND	100	11.8	11/09/21 19:25	
o-Terphenyl (S)	%	85.5	52.0-156		11/09/21 19:25	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: HRP PRGS SCR
Pace Project No.: 92569119

QC Batch: 1761238
QC Batch Method: 3546
Analysis Method: EPA 8015D
Analysis Description: SVOA (GC) 8015D
Laboratory: Pace National - Mt. Juliet
Associated Lab Samples: 92566661001, 92566661002, 92566661003

METHOD BLANK: R3720300-1 Matrix: Solid
Associated Lab Samples: 92566661001, 92566661002, 92566661003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Oil Range Organics (C28-C40)	mg/kg	2.13J	4.00	0.274	10/22/21 11:39	J
o-Terphenyl (S)	%	68.5	18.0-148		10/22/21 11:39	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: HRP PRGS SCR
Pace Project No.: 92569119

QC Batch: 1761241
QC Batch Method: 3546
Analysis Method: EPA 8015D
Analysis Description: SVOA (GC) 8015D
Laboratory: Pace National - Mt. Juliet
Associated Lab Samples: 92566661004, 92566661005

METHOD BLANK: R3721248-1 Matrix: Solid
Associated Lab Samples: 92566661004, 92566661005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Oil Range Organics (C28-C40)	mg/kg	ND	4.00	0.274	10/25/21 12:55	
o-Terphenyl (S)	%	58	18.0-148		10/25/21 12:55	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: HRP PRGS SCR
Pace Project No.: 92569119

QC Batch: 1763083 — Analysis Method: EPA 8015D
QC Batch Method: 3546 — Analysis Description: SVOA (GC) 8015D
Laboratory: Pace National - Mt. Juliet
Associated Lab Samples: 92566661006, 92566661007, 92566661008, 92566661009

METHOD BLANK: R3721895-1 — Matrix: Solid
Associated Lab Samples: 92566661006, 92566661007, 92566661008, 92566661009

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Oil Range Organics (C28-C40)	mg/kg	ND	4.00	0.274	10/26/21 22:09	
o-Terphenyl (S)	%	77.5	18.0-148		10/26/21 22:09	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: HRP PRGS SCR
Pace Project No.: 92569119

QC Batch: 1764424
QC Batch Method: 3546
Analysis Method: EPA 8015D
Analysis Description: SVOA (GC) 8015D
Laboratory: Pace National - Mt. Juliet
Associated Lab Samples: 92567218001, 92567218002, 92567218003

METHOD BLANK: R3722375-1 Matrix: Solid
Associated Lab Samples: 92567218001, 92567218002, 92567218003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Oil Range Organics (C28-C40)	mg/kg	ND	4.00	0.274	10/28/21 02:17	
o-Terphenyl (S)	%	78.8	18.0-148		10/28/21 02:17	

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QUALITY CONTROL DATA

Project: HRP PRGS SCR
Pace Project No.: 92569119

QC Batch: 1765155
QC Batch Method: 3546
Analysis Method: EPA 8015D
Analysis Description: SVOA (GC) 8015D
Laboratory: Pace National - Mt. Juliet
Associated Lab Samples: 92567560001, 92567560002, 92567560003, 92567560004

METHOD BLANK: R3723717-1 Matrix: Solid
Associated Lab Samples: 92567560001, 92567560002, 92567560003, 92567560004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Oil Range Organics (C28-C40)	mg/kg	0.389J	4.00	0.274	10/30/21 19:24	J
o-Terphenyl (S)	%	65.8	18.0-148		10/30/21 19:24	

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QUALITY CONTROL DATA

Project: HRP PRGS SCR
Pace Project No.: 92569119

QC Batch: 659243
QC Batch Method: EPA 7470A
Analysis Method: EPA 7470A
Analysis Description: 7470 Mercury
Laboratory: Pace Analytical Services - Asheville
Associated Lab Samples: 92570802001

METHOD BLANK: 3455097 Matrix: Water
Associated Lab Samples: 92570802001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	ug/L	ND	0.20	0.12	11/16/21 09:40	

LABORATORY CONTROL SAMPLE: 3455098

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	ug/L	2.5	2.5	98	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3455099 3455100

Parameter	Units	92570374001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Mercury	ug/L	ND	2.5	2.5	2.8	2.7	110	108	75-125	1	25	

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QUALITY CONTROL DATA

Project: HRP PRGS SCR
Pace Project No.: 92569119

QC Batch: 659439
QC Batch Method: EPA 3010A
Analysis Method: EPA 6010D
Analysis Description: 6010 MET
Laboratory: Pace Analytical Services - Asheville

Associated Lab Samples: 92570802001

METHOD BLANK: 3455976 Matrix: Water
Associated Lab Samples: 92570802001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Aluminum	ug/L	ND	100	72.0	11/15/21 15:37	
Antimony	ug/L	ND	5.0	3.0	11/15/21 04:27	
Arsenic	ug/L	ND	10.0	4.7	11/15/21 04:27	
Barium	ug/L	ND	5.0	3.5	11/15/21 04:27	
Beryllium	ug/L	ND	1.0	0.70	11/15/21 04:27	
Cadmium	ug/L	ND	1.0	0.40	11/15/21 04:27	
Calcium	ug/L	ND	100	94.2	11/15/21 04:27	
Chromium	ug/L	ND	5.0	3.7	11/15/21 04:27	
Cobalt	ug/L	ND	5.0	3.6	11/15/21 04:27	
Copper	ug/L	ND	5.0	4.3	11/15/21 15:37	
Hardness, Total(SM 2340B)	ug/L	ND	662	131	11/15/21 04:27	
Iron	ug/L	ND	50.0	41.5	11/15/21 04:27	
Lead	ug/L	ND	5.0	4.5	11/15/21 04:27	
Magnesium	ug/L	ND	100	67.8	11/15/21 04:27	
Manganese	ug/L	ND	5.0	3.4	11/15/21 15:37	
Molybdenum	ug/L	ND	5.0	3.9	11/15/21 04:27	
Nickel	ug/L	ND	5.0	3.5	11/15/21 04:27	
Selenium	ug/L	ND	10.0	4.7	11/15/21 04:27	
Silver	ug/L	ND	5.0	2.5	11/15/21 04:27	
Sodium	ug/L	ND	5000	611	11/15/21 04:27	
Thallium	ug/L	ND	10.0	8.1	11/15/21 04:27	
Vanadium	ug/L	ND	5.0	3.9	11/15/21 04:27	
Zinc	ug/L	ND	10.0	9.5	11/15/21 04:27	

LABORATORY CONTROL SAMPLE: 3455977

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Aluminum	ug/L	5000	5030	101	80-120	
Antimony	ug/L	500	499	100	80-120	
Arsenic	ug/L	500	469	94	80-120	
Barium	ug/L	500	495	99	80-120	
Beryllium	ug/L	500	495	99	80-120	
Cadmium	ug/L	500	486	97	80-120	
Calcium	ug/L	5000	4910	98	80-120	
Chromium	ug/L	500	473	95	80-120	
Cobalt	ug/L	500	484	97	80-120	
Copper	ug/L	500	490	98	80-120	
Hardness, Total(SM 2340B)	ug/L	33100	31900	96	80-120	
Iron	ug/L	5000	4870	97	80-120	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: HRP PRGS SCR
Pace Project No.: 92569119

LABORATORY CONTROL SAMPLE: 3455977

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Lead	ug/L	500	502	100	80-120	
Magnesium	ug/L	5000	4760	95	80-120	
Manganese	ug/L	500	462	92	80-120	
Molybdenum	ug/L	500	507	101	80-120	
Nickel	ug/L	500	484	97	80-120	
Selenium	ug/L	500	496	99	80-120	
Silver	ug/L	250	239	95	80-120	
Sodium	ug/L	5000	4840J	97	80-120	
Thallium	ug/L	500	478	96	80-120	
Vanadium	ug/L	500	478	96	80-120	
Zinc	ug/L	500	508	102	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3455978 3455979

Parameter	Units	92569641006 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Aluminum	ug/L	1360	5000	5000	8550	9140	144	156	75-125	7	20	M1
Antimony	ug/L	ND	500	500	486	591	97	118	75-125	19	20	
Arsenic	ug/L	ND	500	500	479	564	96	112	75-125	16	20	
Barium	ug/L	79.9	500	500	565	666	97	117	75-125	16	20	
Beryllium	ug/L	ND	500	500	492	584	98	117	75-125	17	20	
Cadmium	ug/L	ND	500	500	486	590	97	118	75-125	19	20	
Calcium	ug/L	31400	5000	5000	34000	40100	52	175	75-125	17	20	M1
Chromium	ug/L	ND	500	500	471	581	94	116	75-125	21	20	R1
Cobalt	ug/L	ND	500	500	473	578	95	115	75-125	20	20	
Copper	ug/L	ND	500	500	517	536	103	107	75-125	4	20	
Hardness, Total(SM 2340B)	ug/L	129000	33100	33100	152000	182000	69	159	75-125	18		
Iron	ug/L	478	5000	5000	5530	6620	101	123	75-125	18	20	
Lead	ug/L	ND	500	500	491	590	98	118	75-125	18	20	
Magnesium	ug/L	12400	5000	5000	16300	19900	78	150	75-125	20	20	M1
Manganese	ug/L	836	500	500	1350	1380	102	108	75-125	2	20	
Molybdenum	ug/L	ND	500	500	493	599	98	120	75-125	19	20	
Nickel	ug/L	ND	500	500	474	578	94	115	75-125	20	20	
Selenium	ug/L	ND	500	500	518	556	103	110	75-125	7	20	
Silver	ug/L	ND	250	250	242	281	97	112	75-125	15	20	
Sodium	ug/L	28500	5000	5000	31600	36300	61	156	75-125	14	20	M1
Thallium	ug/L	ND	500	500	467	552	93	110	75-125	17	20	
Vanadium	ug/L	6.4	500	500	487	590	96	117	75-125	19	20	
Zinc	ug/L	ND	500	500	516	520	102	103	75-125	1	20	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: HRP PRGS SCR
Pace Project No.: 92569119

QC Batch: 657968
QC Batch Method: EPA 8260D
Analysis Method: EPA 8260D
Analysis Description: 8260D MSV Low Level
Laboratory: Pace Analytical Services - Charlotte

Associated Lab Samples: 92570802001

METHOD BLANK: 3448956 Matrix: Water
Associated Lab Samples: 92570802001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	ND	1.0	0.31	11/06/21 12:58	
1,1,1-Trichloroethane	ug/L	ND	1.0	0.33	11/06/21 12:58	
1,1,2,2-Tetrachloroethane	ug/L	ND	1.0	0.22	11/06/21 12:58	
1,1,2-Trichloroethane	ug/L	ND	1.0	0.32	11/06/21 12:58	
1,1-Dichloroethane	ug/L	ND	1.0	0.37	11/06/21 12:58	
1,1-Dichloroethene	ug/L	ND	1.0	0.35	11/06/21 12:58	
1,1-Dichloropropene	ug/L	ND	1.0	0.43	11/06/21 12:58	
1,2,3-Trichlorobenzene	ug/L	ND	1.0	0.81	11/06/21 12:58	
1,2,3-Trichloropropane	ug/L	ND	1.0	0.26	11/06/21 12:58	
1,2,4-Trichlorobenzene	ug/L	ND	1.0	0.64	11/06/21 12:58	
1,2-Dibromo-3-chloropropane	ug/L	ND	2.0	0.34	11/06/21 12:58	
1,2-Dibromoethane (EDB)	ug/L	ND	1.0	0.27	11/06/21 12:58	
1,2-Dichlorobenzene	ug/L	ND	1.0	0.34	11/06/21 12:58	
1,2-Dichloroethane	ug/L	ND	1.0	0.32	11/06/21 12:58	
1,2-Dichloropropane	ug/L	ND	1.0	0.36	11/06/21 12:58	
1,3-Dichlorobenzene	ug/L	ND	1.0	0.34	11/06/21 12:58	
1,3-Dichloropropane	ug/L	ND	1.0	0.28	11/06/21 12:58	
1,4-Dichlorobenzene	ug/L	ND	1.0	0.33	11/06/21 12:58	
2,2-Dichloropropane	ug/L	ND	1.0	0.39	11/06/21 12:58	
2-Butanone (MEK)	ug/L	ND	5.0	4.0	11/06/21 12:58	
2-Chlorotoluene	ug/L	ND	1.0	0.32	11/06/21 12:58	
2-Hexanone	ug/L	ND	5.0	0.48	11/06/21 12:58	
4-Chlorotoluene	ug/L	ND	1.0	0.32	11/06/21 12:58	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	5.0	2.7	11/06/21 12:58	
Acetone	ug/L	ND	25.0	5.1	11/06/21 12:58	
Benzene	ug/L	ND	1.0	0.34	11/06/21 12:58	
Bromobenzene	ug/L	ND	1.0	0.29	11/06/21 12:58	
Bromochloromethane	ug/L	ND	1.0	0.47	11/06/21 12:58	
Bromodichloromethane	ug/L	ND	1.0	0.31	11/06/21 12:58	
Bromoform	ug/L	ND	1.0	0.34	11/06/21 12:58	
Bromomethane	ug/L	ND	2.0	1.7	11/06/21 12:58	
Carbon tetrachloride	ug/L	ND	1.0	0.33	11/06/21 12:58	
Chlorobenzene	ug/L	ND	1.0	0.28	11/06/21 12:58	
Chloroethane	ug/L	ND	1.0	0.65	11/06/21 12:58	
Chloroform	ug/L	ND	1.0	0.43	11/06/21 12:58	
Chloromethane	ug/L	ND	1.0	0.54	11/06/21 12:58	
cis-1,2-Dichloroethene	ug/L	ND	1.0	0.38	11/06/21 12:58	
cis-1,3-Dichloropropene	ug/L	ND	1.0	0.36	11/06/21 12:58	
Dibromochloromethane	ug/L	ND	1.0	0.36	11/06/21 12:58	
Dibromomethane	ug/L	ND	1.0	0.39	11/06/21 12:58	

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QUALITY CONTROL DATA

Project: HRP PRGS SCR
Pace Project No.: 92569119

METHOD BLANK: 3448956 Matrix: Water
Associated Lab Samples: 92570802001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Dichlorodifluoromethane	ug/L	ND	1.0	0.35	11/06/21 12:58	
Diisopropyl ether	ug/L	ND	1.0	0.31	11/06/21 12:58	
Ethylbenzene	ug/L	ND	1.0	0.30	11/06/21 12:58	
Hexachloro-1,3-butadiene	ug/L	ND	2.0	1.5	11/06/21 12:58	
m&p-Xylene	ug/L	ND	2.0	0.71	11/06/21 12:58	
Methyl-tert-butyl ether	ug/L	ND	1.0	0.42	11/06/21 12:58	
Methylene Chloride	ug/L	ND	5.0	2.0	11/06/21 12:58	
Naphthalene	ug/L	ND	1.0	0.64	11/06/21 12:58	
o-Xylene	ug/L	ND	1.0	0.34	11/06/21 12:58	
p-Isopropyltoluene	ug/L	ND	1.0	0.41	11/06/21 12:58	
Styrene	ug/L	ND	1.0	0.29	11/06/21 12:58	
Tetrachloroethene	ug/L	ND	1.0	0.29	11/06/21 12:58	
Toluene	ug/L	ND	1.0	0.48	11/06/21 12:58	
trans-1,2-Dichloroethene	ug/L	ND	1.0	0.40	11/06/21 12:58	
trans-1,3-Dichloropropene	ug/L	ND	1.0	0.36	11/06/21 12:58	
Trichloroethene	ug/L	ND	1.0	0.38	11/06/21 12:58	
Trichlorofluoromethane	ug/L	ND	1.0	0.30	11/06/21 12:58	
Vinyl acetate	ug/L	ND	2.0	1.3	11/06/21 12:58	
Vinyl chloride	ug/L	ND	1.0	0.39	11/06/21 12:58	
Xylene (Total)	ug/L	ND	1.0	0.34	11/06/21 12:58	
1,2-Dichloroethane-d4 (S)	%	96	70-130		11/06/21 12:58	
4-Bromofluorobenzene (S)	%	102	70-130		11/06/21 12:58	
Toluene-d8 (S)	%	104	70-130		11/06/21 12:58	

LABORATORY CONTROL SAMPLE: 3448957

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	50	53.7	107	70-130	
1,1,1-Trichloroethane	ug/L	50	49.6	99	70-130	
1,1,2,2-Tetrachloroethane	ug/L	50	51.7	103	70-130	
1,1,2-Trichloroethane	ug/L	50	52.4	105	70-130	
1,1-Dichloroethane	ug/L	50	49.4	99	70-130	
1,1-Dichloroethene	ug/L	50	46.9	94	70-132	
1,1-Dichloropropene	ug/L	50	53.2	106	70-131	
1,2,3-Trichlorobenzene	ug/L	50	49.4	99	70-134	
1,2,3-Trichloropropane	ug/L	50	50.8	102	70-130	
1,2,4-Trichlorobenzene	ug/L	50	50.1	100	70-130	
1,2-Dibromo-3-chloropropane	ug/L	50	46.8	94	70-132	
1,2-Dibromoethane (EDB)	ug/L	50	55.1	110	70-130	
1,2-Dichlorobenzene	ug/L	50	47.2	94	70-130	
1,2-Dichloroethane	ug/L	50	48.2	96	70-130	
1,2-Dichloropropane	ug/L	50	52.5	105	70-130	
1,3-Dichlorobenzene	ug/L	50	48.7	97	70-130	
1,3-Dichloropropane	ug/L	50	51.3	103	70-130	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: HRP PRGS SCR
Pace Project No.: 92569119

LABORATORY CONTROL SAMPLE: 3448957

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,4-Dichlorobenzene	ug/L	50	47.0	94	70-130	
2,2-Dichloropropane	ug/L	50	50.4	101	70-130	
2-Butanone (MEK)	ug/L	100	106	106	70-133	
2-Chlorotoluene	ug/L	50	49.2	98	70-130	
2-Hexanone	ug/L	100	106	106	70-130	
4-Chlorotoluene	ug/L	50	48.8	98	70-130	
4-Methyl-2-pentanone (MIBK)	ug/L	100	101	101	70-130	
Acetone	ug/L	100	98.6	99	70-144	
Benzene	ug/L	50	48.7	97	70-130	
Bromobenzene	ug/L	50	47.5	95	70-130	
Bromochloromethane	ug/L	50	50.1	100	70-130	
Bromodichloromethane	ug/L	50	49.0	98	70-130	
Bromoform	ug/L	50	54.0	108	70-131	
Bromomethane	ug/L	50	52.0	104	30-177	
Carbon tetrachloride	ug/L	50	49.1	98	70-130	
Chlorobenzene	ug/L	50	49.3	99	70-130	
Chloroethane	ug/L	50	59.5	119	46-131	
Chloroform	ug/L	50	50.5	101	70-130	
Chloromethane	ug/L	50	49.4	99	49-130	
cis-1,2-Dichloroethene	ug/L	50	48.0	96	70-130	
cis-1,3-Dichloropropene	ug/L	50	53.1	106	70-130	
Dibromochloromethane	ug/L	50	56.3	113	70-130	
Dibromomethane	ug/L	50	48.5	97	70-130	
Dichlorodifluoromethane	ug/L	50	49.5	99	52-134	
Diisopropyl ether	ug/L	50	51.2	102	70-131	
Ethylbenzene	ug/L	50	49.7	99	70-130	
Hexachloro-1,3-butadiene	ug/L	50	51.4	103	70-131	
m&p-Xylene	ug/L	100	100	100	70-130	
Methyl-tert-butyl ether	ug/L	50	52.2	104	70-130	
Methylene Chloride	ug/L	50	49.8	100	68-130	
Naphthalene	ug/L	50	48.3	97	70-133	
o-Xylene	ug/L	50	49.6	99	70-130	
p-Isopropyltoluene	ug/L	50	49.5	99	70-130	
Styrene	ug/L	50	52.3	105	70-130	
Tetrachloroethene	ug/L	50	49.6	99	70-130	
Toluene	ug/L	50	46.2	92	70-130	
trans-1,2-Dichloroethene	ug/L	50	47.8	96	70-130	
trans-1,3-Dichloropropene	ug/L	50	52.3	105	70-130	
Trichloroethene	ug/L	50	50.7	101	70-130	
Trichlorofluoromethane	ug/L	50	47.7	95	61-130	
Vinyl acetate	ug/L	100	105	105	70-140	
Vinyl chloride	ug/L	50	50.8	102	59-142	
Xylene (Total)	ug/L	150	150	100	70-130	
1,2-Dichloroethane-d4 (S)	%			101	70-130	
4-Bromofluorobenzene (S)	%			102	70-130	
Toluene-d8 (S)	%			96	70-130	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: HRP PRGS SCR
Pace Project No.: 92569119

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3448958 3448959

Parameter	Units	92570812005 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1,1,1,2-Tetrachloroethane	ug/L	ND	20	20	21.0	19.9	105	99	70-135	5	30	
1,1,1-Trichloroethane	ug/L	ND	20	20	23.4	22.1	117	110	70-148	6	30	
1,1,2,2-Tetrachloroethane	ug/L	ND	20	20	19.9	18.7	99	94	70-131	6	30	
1,1,2-Trichloroethane	ug/L	ND	20	20	20.9	21.8	104	109	70-136	4	30	
1,1-Dichloroethane	ug/L	ND	20	20	22.6	22.5	113	112	70-147	1	30	
1,1-Dichloroethene	ug/L	ND	20	20	22.4	21.7	112	108	70-158	3	30	
1,1-Dichloropropene	ug/L	ND	20	20	22.9	22.2	114	111	70-149	3	30	
1,2,3-Trichlorobenzene	ug/L	ND	20	20	21.5	20.6	107	103	68-140	4	30	
1,2,3-Trichloropropane	ug/L	ND	20	20	19.5	18.5	97	93	67-137	5	30	
1,2,4-Trichlorobenzene	ug/L	ND	20	20	20.5	20.4	103	102	70-139	1	30	
1,2-Dibromo-3-chloropropane	ug/L	ND	20	20	19.0	18.7	95	94	69-136	2	30	
1,2-Dibromoethane (EDB)	ug/L	ND	20	20	21.4	20.1	107	100	70-137	6	30	
1,2-Dichlorobenzene	ug/L	ND	20	20	20.9	20.5	105	102	70-133	2	30	
1,2-Dichloroethane	ug/L	ND	20	20	21.1	20.7	106	104	67-138	2	30	
1,2-Dichloropropane	ug/L	ND	20	20	21.4	22.0	107	110	70-138	3	30	
1,3-Dichlorobenzene	ug/L	ND	20	20	20.2	19.9	101	100	70-133	2	30	
1,3-Dichloropropane	ug/L	ND	20	20	20.4	20.4	102	102	70-136	0	30	
1,4-Dichlorobenzene	ug/L	ND	20	20	19.6	19.8	98	99	70-133	1	30	
2,2-Dichloropropane	ug/L	ND	20	20	22.0	21.8	110	109	52-155	1	30	
2-Butanone (MEK)	ug/L	ND	40	40	43.9	41.1	110	103	61-147	6	30	
2-Chlorotoluene	ug/L	ND	20	20	21.0	20.9	105	105	70-141	0	30	
2-Hexanone	ug/L	ND	40	40	39.9	38.8	100	97	67-139	3	30	
4-Chlorotoluene	ug/L	ND	20	20	19.8	19.9	99	100	70-135	1	30	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	40	40	37.6	38.4	94	96	67-136	2	30	
Acetone	ug/L	ND	40	40	41.2	38.8	103	97	55-159	6	30	
Benzene	ug/L	ND	20	20	21.0	20.8	105	104	67-150	1	30	
Bromobenzene	ug/L	ND	20	20	21.1	20.3	106	102	70-134	4	30	
Bromochloromethane	ug/L	ND	20	20	22.6	22.6	113	113	70-146	0	30	
Bromodichloromethane	ug/L	ND	20	20	20.6	20.5	103	102	70-138	1	30	
Bromoform	ug/L	ND	20	20	19.5	18.8	98	94	57-138	3	30	
Bromomethane	ug/L	ND	20	20	27.3	25.5	137	127	10-200	7	30	
Carbon tetrachloride	ug/L	ND	20	20	20.9	20.5	104	103	70-147	2	30	
Chlorobenzene	ug/L	ND	20	20	21.0	20.4	105	102	70-137	3	30	
Chloroethane	ug/L	ND	20	20	28.6	27.4	143	137	51-166	4	30	v1
Chloroform	ug/L	ND	20	20	23.4	22.2	117	111	70-144	5	30	
Chloromethane	ug/L	ND	20	20	22.4	20.7	112	104	24-161	8	30	
cis-1,2-Dichloroethene	ug/L	ND	20	20	21.5	21.7	108	109	67-148	1	30	
cis-1,3-Dichloropropene	ug/L	ND	20	20	20.0	20.8	100	104	70-142	4	30	
Dibromochloromethane	ug/L	ND	20	20	21.9	19.9	110	99	68-138	10	30	
Dibromomethane	ug/L	ND	20	20	20.7	20.4	103	102	70-134	1	30	
Dichlorodifluoromethane	ug/L	ND	20	20	22.4	21.7	112	109	43-155	3	30	
Diisopropyl ether	ug/L	ND	20	20	20.8	19.8	104	99	65-146	5	30	
Ethylbenzene	ug/L	ND	20	20	21.4	20.6	107	103	68-143	4	30	
Hexachloro-1,3-butadiene	ug/L	ND	20	20	21.9	21.7	110	108	62-151	1	30	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
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(704)875-9092

QUALITY CONTROL DATA

Project: HRP PRGS SCR
Pace Project No.: 92569119

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3448958 3448959

Parameter	Units	92570812005 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
m&p-Xylene	ug/L	ND	40	40	43.2	41.1	108	103	53-157	5	30	
Methyl-tert-butyl ether	ug/L	ND	20	20	20.7	19.3	103	96	59-156	7	30	
Methylene Chloride	ug/L	ND	20	20	23.2	22.6	116	113	64-148	2	30	
Naphthalene	ug/L	ND	20	20	21.0	20.2	105	101	57-150	4	30	
o-Xylene	ug/L	ND	20	20	20.8	20.1	104	100	68-143	3	30	
p-Isopropyltoluene	ug/L	ND	20	20	20.9	20.5	104	102	70-141	2	30	
Styrene	ug/L	ND	20	20	21.1	20.2	105	101	70-136	4	30	
Tetrachloroethene	ug/L	ND	20	20	19.9	19.8	99	99	70-139	1	30	
Toluene	ug/L	ND	20	20	19.8	20.0	99	100	47-157	1	30	
trans-1,2-Dichloroethene	ug/L	ND	20	20	22.8	22.2	114	111	70-149	3	30	
trans-1,3-Dichloropropene	ug/L	ND	20	20	19.7	18.9	99	94	70-138	4	30	
Trichloroethene	ug/L	ND	20	20	21.5	21.0	107	105	70-149	2	30	
Trichlorofluoromethane	ug/L	ND	20	20	22.4	22.0	112	110	61-154	2	30	
Vinyl acetate	ug/L	ND	40	40	40.7	39.5	102	99	48-156	3	30	
Vinyl chloride	ug/L	ND	20	20	23.8	23.4	119	117	55-172	1	30	
Xylene (Total)	ug/L	ND	60	60	64.0	61.2	107	102	66-145	5	30	
1,2-Dichloroethane-d4 (S)	%						111	108	70-130			
4-Bromofluorobenzene (S)	%						103	101	70-130			
Toluene-d8 (S)	%						97	99	70-130			

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QUALITY CONTROL DATA

Project: HRP PRGS SCR
Pace Project No.: 92569119

QC Batch: 656534
QC Batch Method: EPA 3546
Analysis Method: EPA 8015C
Analysis Description: 8015 Solid GCSV ORO
Laboratory: Pace Analytical Services - Charlotte
Associated Lab Samples: 92568327001, 92568327003

METHOD BLANK: 3441651 Matrix: Solid
Associated Lab Samples: 92568327001, 92568327003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Oil Range Organics (C28-C40)	mg/kg	ND	14.9	9.2	11/02/21 10:12	
n-Pentacosane (S)	%	51	32-130		11/02/21 10:12	

LABORATORY CONTROL SAMPLE: 3441652

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Oil Range Organics (C28-C40)	mg/kg	84.2	53.2	63	50-130	
n-Pentacosane (S)	%			60	32-130	

SAMPLE DUPLICATE: 3441654

Parameter	Units	92568327003 Result	Dup Result	RPD	Max RPD	Qualifiers
Oil Range Organics (C28-C40)	mg/kg	21.7	16.3J		30	
n-Pentacosane (S)	%	64	40			

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: HRP PRGS SCR
Pace Project No.: 92569119

QC Batch: 656925
QC Batch Method: EPA 3546
Analysis Method: EPA 8015C
Analysis Description: 8015 Solid GCSV ORO
Laboratory: Pace Analytical Services - Charlotte

Associated Lab Samples: 92568327002

METHOD BLANK: 3443518 Matrix: Solid
Associated Lab Samples: 92568327002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Oil Range Organics (C28-C40)	mg/kg	ND	15.0	9.3	11/02/21 16:24	
n-Pentacosane (S)	%	52	32-130		11/02/21 16:24	

LABORATORY CONTROL SAMPLE & LCSD: 3443519 3443520

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
Oil Range Organics (C28-C40)	mg/kg	83.3	61.6	64.2	74	77	50-130	4	30	
n-Pentacosane (S)	%				68	68	32-130			

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: HRP PRGS SCR
Pace Project No.: 92569119

QC Batch: 657008
QC Batch Method: SW-846
Analysis Method: SW-846
Analysis Description: Dry Weight/Percent Moisture
Laboratory: Pace Analytical Services - Charlotte
Associated Lab Samples: 92568327001, 92568327002, 92568327003

SAMPLE DUPLICATE: 3444109

Parameter	Units	92568327001 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	26.3	26.6	1	25	N2

SAMPLE DUPLICATE: 3444111

Parameter	Units	92570104001 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	27.5	25.0	9	25	N2

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: HRP PRGS SCR
Pace Project No.: 92569119

QC Batch: 1759416
QC Batch Method: SM 2540 G
Analysis Method: SM 2540G
Analysis Description: Total Solids 2540 G-2011
Laboratory: Pace National - Mt. Juliet
Associated Lab Samples: 92566661001

METHOD BLANK: R3719273-1 Matrix: Solid
Associated Lab Samples: 92566661001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Solids	%	0.00200			10/20/21 10:53	

LABORATORY CONTROL SAMPLE: R3719273-2

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Solids	%	50.0	50.0	100	85.0-115	

SAMPLE DUPLICATE: R3719273-3

Parameter	Units	L1418000-05 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Solids	%	78.5	78.5	0.00484	10	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: HRP PRGS SCR
Pace Project No.: 92569119

QC Batch: 1759420 — Analysis Method: SM 2540G
QC Batch Method: SM 2540 G — Analysis Description: Total Solids 2540 G-2011
Laboratory: Pace National - Mt. Juliet
Associated Lab Samples: 92566661002, 92566661003, 92566661004, 92566661005, 92566661006, 92566661007, 92566661008, 92566661009

METHOD BLANK: R3719276-1 — Matrix: Solid
Associated Lab Samples: 92566661002, 92566661003, 92566661004, 92566661005, 92566661006, 92566661007, 92566661008, 92566661009

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Solids	%	0.00200			10/20/21 11:02	

LABORATORY CONTROL SAMPLE: R3719276-2

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Solids	%	50.0	50.0	100	85.0-115	

SAMPLE DUPLICATE: R3719276-3

Parameter	Units	92566661004 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Solids	%	87.0	86.9	0.169	10	

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QUALITY CONTROL DATA

Project: HRP PRGS SCR
Pace Project No.: 92569119

QC Batch: 1761662
QC Batch Method: SM 2540 G
Analysis Method: SM 2540G
Analysis Description: Total Solids 2540 G-2011
Laboratory: Pace National - Mt. Juliet
Associated Lab Samples: 92567218001, 92567218002, 92567218003

METHOD BLANK: R3720406-1 Matrix: Solid
Associated Lab Samples: 92567218001, 92567218002, 92567218003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Solids	%	0.00100			10/22/21 10:37	

LABORATORY CONTROL SAMPLE: R3720406-2

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Solids	%	50.0	50.0	100	85.0-115	

SAMPLE DUPLICATE: R3720406-3

Parameter	Units	L1419711-01 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Solids	%	79.4	79.2	0.237	10	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: HRP PRGS SCR
Pace Project No.: 92569119

QC Batch: 1762750 — Analysis Method: SM 2540G
QC Batch Method: SM 2540 G — Analysis Description: Total Solids 2540 G-2011
Laboratory: Pace National - Mt. Juliet
Associated Lab Samples: 92567560001, 92567560002, 92567560003, 92567560004

METHOD BLANK: R3721347-1 Matrix: Solid
Associated Lab Samples: 92567560001, 92567560002, 92567560003, 92567560004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Solids	%	0.00100			10/25/21 14:37	

LABORATORY CONTROL SAMPLE: R3721347-2

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Solids	%	50.0	50.0	100	85.0-115	

SAMPLE DUPLICATE: R3721347-3

Parameter	Units	92567560001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Solids	%	93.6	92.8	0.829	10	

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REPORT OF LABORATORY ANALYSIS

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QUALIFIERS

Project: HRP PRGS SCR
Pace Project No.: 92569119

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

Acid preservation may not be appropriate for 2 Chloroethylvinyl ether.

A separate vial preserved to a pH of 4-5 is recommended in SW846 Chapter 4 for the analysis of Acrolein and Acrylonitrile by EPA Method 8260.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

WORKORDER QUALIFIERS

WO: 92569119

[1]

SAMPLE QUALIFIERS

Sample: 92569427001

[1]	Semi-Volatile Organic Compounds (GC) by Method 8015C - Surrogate failure due to matrix interference

ANALYTE QUALIFIERS

B	Analyte was detected in the associated method blank.
J	Analyte detected below the reporting limit, therefore result is an estimate. This qualifier is also used for all TICs.
M1	Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.
N2	The lab does not hold NELAC/TNI accreditation for this parameter but other accreditations/certifications may apply. A complete list of accreditations/certifications is available upon request.
R1	RPD value was outside control limits.
SR	Surrogate recovery was below laboratory control limits. Results may be biased low.

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QUALIFIERS

Project: HRP PRGS SCR
Pace Project No.: 92569119

ANALYTE QUALIFIERS

v1	The continuing calibration verification was above the method acceptance limit. Any detection for the analyte in the associated samples may have a high bias.

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: HRP PRGS SCR
Pace Project No.: 92569119

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92569119004	**HRP-MW205-211026**	3511/8015	1769494	EPA 8015C	1769494
92569119005	**HRP-MW206-211026**	3511/8015	1769494	EPA 8015C	1769494
92569119007	**HRP-MW214-211026**	3511/8015	1769494	EPA 8015C	1769494
92569119008	**HRP-MW208-211026**	3511/8015	1769494	EPA 8015C	1769494
92569119009	**HRP-MW207-211026**	3511/8015	1769494	EPA 8015C	1769494
92569427001	**HRP-MW72S-211027**	3511/8015	1770405	EPA 8015C	1770405
92569427002	**HRP-MW30S-211027**	3511/8015	1770405	EPA 8015C	1770405
92569427003	**HRP-MW209-211028**	3511/8015	1770820	EPA 8015C	1770820
92569427004	**HRP-MW100S-211028**	3511/8015	1770820	EPA 8015C	1770820
92566661001	**HRP-SB205-0-1-211011**	3546	1761238	EPA 8015D	1761238
92566661002	**HRP-SB205-13-15-21011**	3546	1761238	EPA 8015D	1761238
92566661003	**HRP-DUP02-13-15-21011**	3546	1761238	EPA 8015D	1761238
92566661004	**HRP-SB206-5-7-211012**	3546	1761241	EPA 8015D	1761241
92566661005	**HRP-SB206-15-17-211012**	3546	1761241	EPA 8015D	1761241
92566661006	**HRP-SB207-0-1-211013**	3546	1763083	EPA 8015D	1763083
92566661007	**HRP-SB207-6-8-211013**	3546	1763083	EPA 8015D	1763083
92566661008	**HRP-DUP03-6-8-211013**	3546	1763083	EPA 8015D	1763083
92566661009	**HRP-SB207-16-18-211013**	3546	1763083	EPA 8015D	1763083
92567218001	**HRP-SB-214-0-2-211014**	3546	1764424	EPA 8015D	1764424
92567218002	**HRP-SB-214-5-7-211014**	3546	1764424	EPA 8015D	1764424
92567218003	**HRP-SB-214-14-16-211014**	3546	1764424	EPA 8015D	1764424
92567560001	**HRP-SB215-0-2-211018**	3546	1765155	EPA 8015D	1765155
92567560002	**HRP-SB215-5-7-211018**	3546	1765155	EPA 8015D	1765155
92567560003	**HRP-SB215-16-18-211018**	3546	1765155	EPA 8015D	1765155
92567560004	**HRP-SB216-1-3-211018**	3546	1765155	EPA 8015D	1765155
92568327001	**HRP-SB225-0-1-211021**	EPA 3546	656534	EPA 8015C	656780
92568327002	**HRP-SB224-0-1-211021**	EPA 3546	656925	EPA 8015C	657096
92568327003	**HRP-SB227-0-1-211021**	EPA 3546	656534	EPA 8015C	656780
92570802001	**HRP-MW201-211102**	EPA 3010A	659439	EPA 6010D	659582
92570802001	**HRP-MW201-211102**	EPA 7470A	659243	EPA 7470A	659349
92570802001	**HRP-MW201-211102**	EPA 8260D	657968		
92568327001	**HRP-SB225-0-1-211021**	SW-846	657008		
92568327002	**HRP-SB224-0-1-211021**	SW-846	657008		
92568327003	**HRP-SB227-0-1-211021**	SW-846	657008		
92566661001	**HRP-SB205-0-1-211011**	SM 2540 G	1759416	SM 2540G	1759416
92566661002	**HRP-SB205-13-15-21011**	SM 2540 G	1759420	SM 2540G	1759420
92566661003	**HRP-DUP02-13-15-21011**	SM 2540 G	1759420	SM 2540G	1759420
92566661004	**HRP-SB206-5-7-211012**	SM 2540 G	1759420	SM 2540G	1759420
92566661005	**HRP-SB206-15-17-211012**	SM 2540 G	1759420	SM 2540G	1759420
92566661006	**HRP-SB207-0-1-211013**	SM 2540 G	1759420	SM 2540G	1759420
92566661007	**HRP-SB207-6-8-211013**	SM 2540 G	1759420	SM 2540G	1759420

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: HRP PRGS SCR
Pace Project No.: 92569119

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92566661008	**HRP-DUP03-6-8-211013**	SM 2540 G	1759420	SM 2540G	1759420
92566661009	**HRP-SB207-16-18-211013**	SM 2540 G	1759420	SM 2540G	1759420
92567218001	**HRP-SB-214-0-2-211014**	SM 2540 G	1761662	SM 2540G	1761662
92567218002	**HRP-SB-214-5-7-211014**	SM 2540 G	1761662	SM 2540G	1761662
92567218003	**HRP-SB-214-14-16-211014**	SM 2540 G	1761662	SM 2540G	1761662
92567560001	**HRP-SB215-0-2-211018**	SM 2540 G	1762750	SM 2540G	1762750
92567560002	**HRP-SB215-5-7-211018**	SM 2540 G	1762750	SM 2540G	1762750
92567560003	**HRP-SB215-16-18-211018**	SM 2540 G	1762750	SM 2540G	1762750
92567560004	**HRP-SB216-1-3-211018**	SM 2540 G	1762750	SM 2540G	1762750

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CHAIN OF CUSTODY RECORD

39 Spruce Street
East Longmeadow, MA 01028

Doc # 381 Rev 5_07/13/2021

Company Name:	
Address:	4350 N. Fairfax Dr Ste 300
Phone:	703-516-8383
Project Name:	HRP-PRGS-SCR
Project Location:	1400 N. Royal St. Alexandria VA
Project Number:	
Project Manager:	Greg Gross
Pace Quote Name/Number:	
Invoice Recipient:	SOstertag@Ramboll.com
Sampled By:	Anne Kelly

Requested Turnaround Time
7-Day ☐ 10-Day ☒ 5 day TAT
PFAS 10-Day (std) ☐ Due Date:

Rush-Approval Required
1-Day ☐ 3-Day ☐
2-Day ☐ 4-Day ☐

Data Delivery
Format: PDF ☐ EXCEL ☐
Other: Ramboll EDD
CLP Like Data Pkg Required: ☐
Email To: sostertag@Ramboll.com
Fax To #:

Dissolved Metals Samples
☒ Field Filtered
○ Lab to Filter

Orthophosphate Samples
○ Field Filtered
○ Lab to Filter

PCB ONLY
SOXHLET ☐
NON SOXHLET ☐

ANALYSIS REQUESTED

Pace Work Order #	Client Sample ID / Description	Beginning Date/Time	Ending Date/Time	COMP/GRAB	[1] Matrix Code	Conc Code	VIALS	GLASS	PLASTIC	BACTERIA	ENCORE	HI VOC	I SVOC	NI Total Metals	NI Dissolved Metals	S Ammonia	I Sulfate	I Glycol	HI Hydrazine 7SOW	I TPH DRO	HI TPH DRO-7 Nal.	HI TPH GRO
92569119-001	HRP-MW201-211025	10/25 1545	—	Grab	GW	L	4	2	5			X	X	X	X	X	X	X	X			
002	HRP-MW202-211026	10/26 0950	—	Grab	GW	L	5	2	5			X	X	X	X	X	X	X	X			
003	HRP-DUP05-211026	10/26 1000	—	Grab	GW	L	5	2	5			X	X	X	X	X	X	X	X			
004	HRP-MW205-211026	10/26 1230	—	Grab	GW	L	9	4	5			X	X	X	X	X	X	X	X	X	X	V
~~HRP-TB09-211026~~																						
~~HRP-TB10-211026~~		~~10/26 1655~~	—	Grab	GW	C	2					X										
005	HRP-MW206-211026	10/26 1055	—	Grab	GW	L	6	4	3			X	X	X	X		X			X	X	X
	HRP-TB07-211025	10/25 1545	—	Grab	W	C	2					X										
~~HRP-TB08-211026~~		~~10/26 1230~~	—	Grab	W	C	2					X										
006	HRP-MW102-211027	10/27 1045	—	Grab	GW	L	5	2	5			X	X	X	X	X	X	X	X			

[2] Preservation Code

Courier Use Only
Total Number Of:
VIALS
GLASS
PLASTIC
BACTERIA
ENCORE

Glassware in the fridge? Y / N
Glassware in freezer? Y / N
Prepackaged Cooler? Y / N

*Pace Analytical is not responsible for missing samples from prepacked coolers

[1] Matrix Codes:
GW = Ground Water
WW = Waste Water
DW = Drinking Water
A = Air
S = Soil
SL = Sludge
SOL = Solid
O = Other (please define)

[2] Preservation Codes:
I = Iced
H = HCL
M = Methanol
N = Nitric Acid
S = Sulfuric Acid
B = Sodium Bisulfate
X = Sodium Hydroxide
T = Sodium Thiosulfate
O = Other (please define)

Relinquished by: (signature)	Date/Time: 10/27 1330
Received by: (signature)	Date/Time: 10/27 1330
Relinquished by: (signature)	Date/Time: 10_27-21 3:21
Received by: (signature)	Date/Time: 10/27/21 1521
Relinquished by: (signature)	Date/Time:
Received by: (signature)	Date/Time:
Relinquished by: (signature)	Date/Time:
Received by: (signature)	Date/Time:

Client Comments:
- For HRP-MW201-211025, please try and run total metals from the dissolved metals sample if possible - if there is enough volume
- For HRP-MW201-211025, one VOC vial broke, please try and run VOCs w/ the remaining cracked vial

Detection Limit Requirements
MA
CT
Other: VA DEQ

Special Requirements
☐ MA MCP Required
MCP Certification Form Required
☐ CT RCP Required
RCP Certification Form Required
☐ MA State DW Required
PWSID #

Please use the following codes to indicate possible sample concentration within the Conc Code column above:
H - High; M - Medium; L - Low; C - Clean; U - Unknown

NELAC

Project Entity
Government ☐ Municipality ☐ MWRA ☐ WRTA ☐
Federal ☐ 21 J ☐ School ☐
City ☐ Brownfield ☐ MBTA ☐

Other
☐ Chromatogram
☐ AIHA-LAP,LLC

Lab Comments:

WO# : 92569119

92569119

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CHAIN OF CUSTODY RECORD

39 Spruce Street
East Longmeadow, MA 01028

Doc # 381 Rev 5_07/13/2021

Company Name: Ramboll
Address: 4350 N. Fairfax Dr. Ste 300
Phone: 7035162383
Project Name: HRP PRGS SCR
Project Location: 1400 N. Royal St, Alexandria VA
Project Number:
Project Manager: Greg Grose
Pace Quote Name/Number:
Invoice Recipient: Sostertag@ramboll.com
Sampled By: Sarah Osterfag

Requested Turnaround Time:
7-Day ☐ 10-Day ☒ 5 day RD
PFAS 10-Day (std) ☐ Due Date:

Rush-Approval Required:
1-Day ☐ 3-Day ☐
2-Day ☐ 4-Day ☐

Data Delivery:
Format: PDF ☒ EXCEL ☒
Other: Ramboll EDD
CLP Like Data Pkg Required: ☐
Email To: Sostertag@ramboll.com
Fax To #:

Dissolved Metals Samples:
☒ Field Filtered
○ Lab to Filter

Orthophosphate Samples:
○ Field Filtered
○ Lab to Filter

PCB ONLY
SOXHLET ☐
NON SOXHLET ☐

ANALYSIS REQUESTED

Pace Work Order#	Client Sample ID / Description	Beginning Date/Time	Ending Date/Time	COMP/GRAB	Matrix Code	Conc Code	VIALS	GLASS	PLASTIC	BACTERIA	ENCORE	VOCs	SVOCs	Dissolved TAL Metals	Total TAL Metals	TPH-GRO	TPH-DRO	TPH-ORO	Sulfate	PCBs			
92569119 007	HRP-MW214-211026	10.26.21	1010	G	GW	L	6	4	3			X	X	X	X	X	X	X	X				
	HRP-TB12-211026 TR	10.26.21	1010	G	D-TB	C	2					X											
008	HRP-MW208-211026	10.26.21	1310	G	GW	L	6	4	3			X	X	X	X	X	X	X	X				
	HRP-TB13-211026 TR	10.26.21	1310	G	D-TB	C	2					X											
009	HRP-MW207-211026	10.26.21	1655	G	GW	L	6	4	3			X	X	X	X	X	X	X	X				
	HRP-TB11-211026	10.26.21	1655	G	D-TB	C	2					X											
	HRP-TB14-211027	10.27.21	1045	G	D-TB	C	2					X											
	HRP-MW221-211027	10.27.21	1010	G	GW	L	2	4				X	X							X			

Relinquished by: (signature) — Date/Time: 10/27, 1330
Received by: (signature) — Date/Time: 10/27 1330
Relinquished by: (signature) — Date/Time: 10.27.21 1520
Received by: (signature) — Date/Time: 10/27/21 1521
Relinquished by: (signature) — Date/Time:
Received by: (signature) — Date/Time:
Relinquished by: (signature) — Date/Time:
Received by: (signature) — Date/Time:

Client Comments:
TB: Trip Blank

Detection Limit Requirements:
MA
CT
Other: VA DEQ

Special Requirements:
☐ MA MCP Required
MCP Certification Form Required
☐ CT RCP Required
RCP Certification Form Required
☐ MA State DW Required
PWSID #

Please use the following codes to indicate possible sample concentration within the Conc Code column above:
H - High; M - Medium; L - Low; C - Clean; U - Unknown

Project Entity:
Government ☐ Municipality ☐ MWRA ☐ WRTA ☐
Federal ☐ 21 J ☐ School ☐
City ☐ Brownfield ☐ MBTA ☐

Other:
☐ Chromatogram
☐ AIHA-LAP, LLC

Lab Comments:

WO#: 92569119

PM: AMB Due Date: 11/10/21

CLIENT: 92-RambollEn

Disclaimer: Pace Analytical is not responsible for any omitted information on the Chain of Custody. The Chain of Custody is a legal document that must be complete and accurate and is used to determine what analyses the laboratory will perform. Any missing information is not the laboratory's responsibility. Pace Analytical values your partnership on each project and will try to assist with missing information, but will not be held accountable.

[2] Preservation Code
Courier Use Only
Total Number Of:
VIALS
GLASS
PLASTIC
BACTERIA
ENCORE

Glassware in the fridge? Y / N
Glassware in freezer? Y / N
Prepackaged Cooler? Y / N
*Pace Analytical is not responsible for missing samples from prepacked coolers

[1] Matrix Codes:
GW = Ground Water
WW = Waste Water
DW = Drinking Water
A = Air
S = Soil
SL = Sludge
SOL = Solid
O = Other (please define)

[2] Preservation Codes:
I = Iced
H = HCL
M = Methanol
N = Nitric Acid
S = Sulfuric Acid
B = Sodium Bisulfate
X = Sodium Hydroxide
T = Sodium Thiosulfate
O = Other (please define)

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CHAIN OF CUSTODY RECORD

39 Spruce Street
East Longmeadow, MA 01028

Doc # 381 Rev 5_07/13/2021

Page 1 of 1

Company Name:
Address: 4350 N. Fairfax Dr., Arlington VA
Phone: 703-516-2328
Project Name: HRP-PRGS-SCR
Project Location: 1400 N. Royal St., Alexandria VA
Project Number:
Project Manager: Greg Grose
Pace Quote Name/Number:
Invoice Recipient: sostertag@Ramboll.com
Sampled By: Anne Kelly / Taylor Carroll / Sarah Ostertag

Requested Turnaround Time
7-Day ☐ 10-Day ☒ 5 day PO
PFAS 10-Day (std) ☐ Due Date:

Rush-Approval Required
1-Day ☐ 3-Day ☐
2-Day ☐ 4-Day ☐

Data Delivery
Format: PDF ☒ EXCEL ☒
Other: Ramboll EDD
CLP Like Data Pkg Required: ☐
Email To: Sostertag@Ramboll.com
Fax To #:

Dissolved Metals Samples
◉ Field Filtered
○ Lab to Filter

Orthophosphate Samples
○ Field Filtered
○ Lab to Filter

PCB ONLY
SOXHLET ☐
NON SOXHLET ☐

ANALYSIS REQUESTED

Pace Work Order#	Client Sample ID / Description	Beginning Date/Time	Ending Date/Time	COMP/GRAB	Matrix Code	Conc Code	VIALS	GLASS	PLASTIC	BACTERIA	ENCORE	VOCs	SVOCs	Total Metals	Dissolved Metals	TPH GRO	TPH DRO	TPH ORO	Ammonia	Sulfate	Glycols	pH + Cyanide
92569427-001	HRP-MW723-211027	10/27	1440	Grab	GW	L	9	4	5			X	X	X	X	X	X	X	X	X	X	
-002	HRP-MW303-211027	10/27	1458	Grab	GW	L	9	4	5			X	X	X	X	X	X	X	X	X	X	
	HRP-SB210-0-1-211028	10/28	0730	Grab	S	C		1						X								X
-003	HRP-MW209-211028	10.28.21	0955	G	GW	L	6	4	3			X	X	X	X	X	X	X		X		
-004	HRP-MW105-211028	10/28	0950	G	GW	L	9	4	4			X	X	X	X	X	X	X	X	X	X	
	HRP-TB08-211028	10/28	0950	G	~~GW~~ TB	C	2					X										
	HRP-EB08-211028	10.28.21	1140	G	O-EB	C		4	2				X	X			X			X		~~X~~ NaOH

Relinquished by: (signature) — Date/Time: 10.28.21 / 1256
Received by: (signature) — Date/Time: 10/28/21 1256
Relinquished by: (signature) — Date/Time:
Received by: (signature) — Date/Time: 10/28/21 15:45
Relinquished by: (signature) — Date/Time:
Received by: (signature) — Date/Time:
Relinquished by: (signature) — Date/Time:
Received by: (signature) — Date/Time:

Client Comments: HRP-SB210-0-1-211028: Soil sample collected into 1L amber jar since we had no soil jars left. Run for ~~Total Metals~~ TAL Metals, pH, and cyanide.
TB: Trip Blank
EB: Equipment Blank

Detection Limit Requirements
MA
CT
Other: VA DEQ

Special Requirements
☐ MA MCP Required
MCP Certification Form Required
☐ CT RCP Required
RCP Certification Form Required
☐ MA State DW Required
PWSID #

Please use the following codes to indicate possible sample concentration within the Conc Code column above:
H - High; M - Medium; L - Low; C - Clean; U - Unknown

Project Entity
Government ☐ Municipality ☐ MWRA ☐ WRTA ☐
Federal ☐ 21 J ☐ School ☐
City ☐ Brownfield ☐ MBTA ☐

Other
☐ Chromatogram
☐ AIHA-LAP,LLC

Courier Use Only
Total Number Of:
VIALS
GLASS
PLASTIC
BACTERIA
ENCORE

Glassware in the fridge? Y / N
Glassware in freezer? Y / N
Prepackaged Cooler? Y / N
*Pace Analytical is not responsible for missing samples from prepacked coolers

[1] Matrix Codes:
GW = Ground Water
WW = Waste Water
DW = Drinking Water
A = Air
S = Soil
SL = Sludge
SOL = Solid
O = Other (please define)

[2] Preservation Codes:
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H = HCL
M = Methanol
N = Nitric Acid
S = Sulfuric Acid
B = Sodium Bisulfate
X = Sodium Hydroxide
T = Sodium Thiosulfate
O = Other (please define)

Lab Comments

WO# : 92569427

92569427

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Pace Analytical	Document Name: Sample Condition Upon Receipt(SCUR)	Document Revised: October 28, 2020 Page 1 of 2
	Document No.: F-CAR-CS-033-Rev.07	Issuing Authority: Pace Carolinas Quality Office

Laboratory receiving samples:

Asheville ☐ Eden ☐ Greenwood ☐ Huntersville ☒ Raleigh ☐ Mechanicsville ☐ Atlanta ☐ Kernersville ☐

Sample Condition Upon Receipt

Client Name: Rambol

Project #: **WO# : 92570802**

92570802

Courier: ☐ Commercial ☒ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Pace ☐ Other:___

Custody Seal Present? ☐ Yes ☒ No Seals Intact? ☐ Yes ☒ No

Date/Initials Person Examining Contents: KH 11/4/21

Packing Material: ☒ Bubble Wrap ☒ Bubble Bags ☐ None ☐ Other

Biological Tissue Frozen? ☐ Yes ☐ No ☒ N/A

Thermometer: ☒ IR Gun ID: 92T064 ☑ Wet ☐ Blue ☐ None

Type of Ice:

Cooler Temp: 5.9 Correction Factor: Add/Subtract (°C) 0

Temp should be above freezing to 6°C

☐ Samples out of temp criteria. Samples on ice, cooling process has begun

Cooler Temp Corrected (°C): 5.9

USDA Regulated Soil (☐ N/A, water sample)

Did samples originate in a quarantine zone within the United States: CA, NY, or SC (check maps)? ☐ Yes ☐ No

Did samples originate from a foreign source (Internationally, including Hawaii and Puerto Rico)? ☐ Yes ☐ No

KH 11/4/21

				Comments/Discrepancy:
Chain of Custody Present?	☒ Yes	☒ No	☐ N/A	1.
Samples Arrived within Hold Time?	☒ Yes	☐ No	☐ N/A	2.
Short Hold Time Analysis (<72 hr.)?	☐ Yes	☒ No	☐ N/A	3.
Rush Turn Around Time Requested?	☐ Yes	☐ No	☐ N/A	4.
Sufficient Volume?	☒ Yes	☐ No	☐ N/A	5.
Correct Containers Used?	☒ Yes	☐ No	☐ N/A	6.
-Pace Containers Used?	☒ Yes	☐ No	☐ N/A	
Containers Intact?	☒ Yes	☐ No	☐ N/A	7.
Dissolved analysis: Samples Field Filtered?	☐ Yes	☐ No	☒ N/A	8.
Sample Labels Match COC? -Includes Date/Time/ID/Analysis Matrix:___	☐ Yes	☐ No	☐ N/A	9.
Headspace in VOA Vials (>5-6mm)?	☐ Yes	☐ No	☒ N/A	10.
Trip Blank Present?	☐ Yes	☒ No	☐ N/A	11.
Trip Blank Custody Seals Present?	☐ Yes	☐ No	☒ N/A	

COMMENTS/SAMPLE DISCREPANCY

Field Data Required? ☐ Yes ☐ No

Lot ID of split containers:

CLIENT NOTIFICATION/RESOLUTION

Person contacted: Date/Time:

Project Manager SCURF Review: Date:

Project Manager SRF Review: Date:

WO#: 92570802

PM: AMB Due Date: 11/18/21

CLIENT: 92-RambollEn

**Check mark top half of box if pH and/or dechlorination is verified and within the acceptance range for preservation samples.

Project

Exceptions: VOA, Coliform, TOC, Oil and Grease, DRO/8015 (water) DOC, LLHg

**Bottom half of box is to list number of bottles

Item#	BP4U-125 mL Plastic Unpreserved (N/A) (Cl-)	BP3U-250 mL Plastic Unpreserved (N/A)	BP2U-500 mL Plastic Unpreserved (N/A)	BP1U-1 liter Plastic Unpreserved (N/A)	BP4S-125 mL Plastic H2SO4 (pH < 2) (Cl-)	BP3N-250 mL plastic HNO3 (pH < 2)	BP4Z-125 mL Plastic ZN Acetate & NaOH (>9)	BP4C-125 mL Plastic NaOH (pH > 12) (Cl-)	WGFU-Wide-mouthed Glass jar Unpreserved	AG1U-1 liter Amber Unpreserved (N/A) (Cl-)	AG1H-1 liter Amber HCl (pH < 2)	AG3U-250 mL Amber Unpreserved (N/A) (Cl-)	AG1S-1 liter Amber H2SO4 (pH < 2)	AG3S-250 mL Amber H2SO4 (pH < 2)	AG3A(DG3A)-250 mL Amber NH4Cl (N/A)(Cl-)	DG9H-40 mL VOA HCl (N/A)	VG9T-40 mL VOA Na2S2O3 (N/A)	VG9U-40 mL VOA Unp (N/A)	DG9P-40 mL VOA H3PO4 (N/A)	VOAK (6 vials per kit)-5035 kit (N/A)	V/GK (3 vials per kit)-VPH/Gas kit (N/A)	SP5T-125 mL Sterile Plastic (N/A – lab)	SP2T-250 mL Sterile Plastic (N/A – lab)		BP3A-250 mL Plastic (NH2)2SO4 (9.3-9.7)	AG0U-100 mL Amber Unpreserved vials (N/A)	VSGU-20 mL Scintillation vials (N/A)	DG9U-40 mL Amber Unpreserved vials (N/A)
1						1										3												
2																												
3																												
4																												
5																												
6																												
7																												
8																												
9																												
10																												
11																												
12																												

pH Adjustment Log for Preserved Samples

Sample ID	Type of Preservative	pH upon receipt	Date preservation adjusted	Time preservation adjusted	Amount of Preservative added	Lot #

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e. Out of hold, Incorrect preservative, out of temp, incorrect containers.

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CHAIN OF CUSTODY RECORD

39 Spruce Street
East Longmeadow, MA 01028

Doc # 381 Rev 5_07/13/2021

Page 1 of 1

Company Name: Ramboll
Address: 4350 N Fairfax Dr. Arlington VA
Phone:
Project Name: HRP PRGS SCR
Project Location: 1400 N Royal St Alexandria VA
Project Number:
Project Manager: Greg Grose
Pace Quote Name/Number:
Invoice Recipient: Sostertag@Ramboll.com
Sampled By: Anne Kelly

Requested Turnaround Time
7-Day ☐ 10-Day ☐
PFAS 10-Day (std) ☐ Due Date:

Rush-Approval Required
1-Day ☐ 3-Day ☐
2-Day ☐ 4-Day ☐

Data Delivery
Format: PDF ☒ EXCEL ☒
Other: Ramboll EDD
CLP Like Data Pkg Required: ☐
Email To: Sostertag@ramboll.com
Fax To #:

Dissolved Metals Samples
○ Field Filtered
○ Lab to Filter

Orthophosphate Samples
○ Field Filtered
○ Lab to Filter

PCB ONLY
SOXHLET ☐
NON SOXHLET ☐

ANALYSIS REQUESTED

Pace Work Order#	Client Sample ID / Description	Beginning Date/Time	Ending Date/Time	COMP/GRAB	[1]Matrix Code	Conc Code	VIALS	GLASS	PLASTIC	BACTERIA	ENCORE	VOCs (H)	Total Metals (N)
92570802-001	HRP-MW201-211102	11/2/21	0915	G	GW	L	3		1			X	X

[2] Preservation Code

Courier Use Only
Total Number Of:
VIALS ____
GLASS ____
PLASTIC ____
BACTERIA ____
ENCORE ____

Glassware in the fridge? Y / N
Glassware in freezer? Y / N
Prepackaged Cooler? Y / N

*Pace Analytical is not responsible for missing samples from prepacked coolers

[1] **Matrix Codes:**
GW = Ground Water
WW = Waste Water
DW = Drinking Water
A = Air
S = Soil
SL = Sludge
SOL = Solid
O = Other (please define)

[2] **Preservation Codes:**
I = Iced
H = HCL
M = Methanol
N = Nitric Acid
S = Sulfuric Acid
B = Sodium Bisulfate
X = Sodium Hydroxide
T = Sodium Thiosulfate
O = Other (please define)

Signature	Date/Time
Relinquished by: (signature) Anne A Kelly	11/3/21 / 1250
Received by: (signature) [signature]	11/3/21
Relinquished by: (signature) [signature]	11/3/21 1250
Received by: (signature) PACE	11/3/21 1455
Relinquished by: (signature) PACE	11/3/21 1530
Received by: (signature) [signature] / Pace HVL	11/3/21 1530
Relinquished by: (signature)	Date/Time: 11/4/21 10:30
Received by: (signature)	Date/Time:

Lab Comments:

Client Comments:

Detection Limit Requirements
MA
CT
Other: VA DEQ

Special Requirements
☐ MA MCP Required
MCP Certification Form Required
☐ CT RCP Required
RCP Certification Form Required
☐ MA State DW Required
PWSID #

Please use the following codes to indicate possible sample concentration within the Conc Code column above:
H - High; M - Medium; L - Low; C - Clean; U - Unknown

NELAC and AIHA-LAP, LLC Accredited

Project Entity
Government ☐ Municipality ☐ MWRA ☐ WRTA ☐
Federal ☐ 21 J ☐ School ☐
City ☐ Brownfield ☐ MBTA ☐

Other
☐ Chromatogram
☐ AIHA-LAP,LLC

Disclaimer: Pace Analytical is not responsible for any omitted information on the Chain of Custody. The Chain of Custody is a legal document that must be complete and accurate and is used to determine what analyses the laboratory will perform. Any missing information is not the laboratory's responsibility. Pace Analytical values your partnership on each project and will try to assist with missing information, but will not be held accountable.

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CHAIN OF

19 Spruce Street
East Longmeadow, MA 01028

Doc # 381 Rev 5 07/13/2021

Company Name: [illegible]
Address: 4350 N Fairfax Dr. Ste 300
Phone:
Project Name: HRP PRGS SCR
Project Location: 1400 N. Royal St. Alexandria, VA
Project Number:
Project Manager: Greg Goose
Pace Quote Name/Number:
Invoice Recipient: sostertag@rambll.com
Sampled By: Sarah Osterstag

Requested Turnaround Time:
7-Day ☐ 10-Day ☒
PFAS 10-Day (std) ☐ Due Date: 5-Day w/ [illegible]

Rush-Approval Required:
1-Day ☐ 3-Day ☐
2-Day ☐ 4-Day ☐

Data Delivery:
Format: PDF ☒ EXCEL ☒
Other: Rambell E.DD
CLP Like Data Pkg Required: ☐
Email To: Sostertag@rambll.com
Fax To #:

Options:
○ Field Filtered
○ Lab to Filter

Options:
○ Field Filtered
○ Lab to Filter

PCB ONLY
SOXHLET ☐
NON SOXHLET ☒

ANALYSIS REQUESTED

Pace Work Order#	Client Sample ID / Description	Beginning Date/Time	Ending Date/Time	COMP/GRAB	[1]Matrix Code	Conc Code	VIALS	GLASS	PLASTIC	BACTERIA	ENCORE	M TPH-GRO	I TPH-DRO	I TPH-ORO	MBI VOCs	I SVOCs	I TAL Metals	I Cyanide	I pH			
92566661	~~FB-01~~ HRP-TB01-211011	10.11.21	1300	[TB]	O. Trip Blank	C	2					X			X							
001	HRP-SB205-0-1-211011	10.11.21	1143	G	S	C	1	2				X	X	X		X	X	X	X			
002	HRP-SB205-13-15-211011	10.11.21	1230	G	S	C	1	2				X	X	X		X	X	X	X			
003	HRP-DUP02-13-15-211011	10.11.21	1230	G	S	C	1	2				X	X	X		X	X	X	X			
	HRP-SB203-0-1-211012	10.12.21	0740	G	S	C		1								X	X					
	HRP-SB203-11-13-211012	10.12.21	0757	G	S	C		2								X	X					
	HRP-SB206-0-1-211012	10.12.21	1243	G	S	L		2									X	X	X			
004	HRP-SB206-5-7-211012	10.12.21	1258	G	S	L	4	3				X	X	X	X		X	X	X			
005	HRP-SB206-15-17-211012	10.12.21	1345	G	S	L	4	1.5	[low recovery]			X	X	X	X		X	X	X			

Preservation Code
Courier Use Only
Total Number of
GLASS
PLASTIC
BACTERIA
ENCORE

Glassware in the fridge? Y / N
Glassware in freezer? Y / N
Prepackaged Cooler? Y / N
*Pace Analytical is not responsible for missing samples from prepacked coolers

[1] Matrix Codes:
GW = Ground Water
WW = Waste Water
DW = Drinking Water
A = Air
S = Soil
SL = Sludge
SOL = Solid
O = Other (please define)

[2] Preservation Codes:
I = Iced
H = HCL
M = Methanol
N = Nitric Acid
S = Sulfuric Acid
B = Sodium Bisulfate
X = Sodium Hydroxide
T = Sodium Thiosulfate
O = Other (please define)

Relinquished by: (signature)	Date/Time:
[illegible]	10.13.21 / 1240
Received by: (signature)	Date/Time:
[illegible]	[illegible]
Relinquished by: (signature)	Date/Time:
[illegible]	[illegible]
Received by: (signature)	Date/Time:
Rachel Burruss	10-13-21 1500
Relinquished by: (signature)	Date/Time:
Rachel Burruss	10-13-21 1700
Received by: (signature)	Date/Time:
Relinquished by: (signature)	Date/Time:
Received by: (signature)	Date/Time:

Client Comments:
TB01 = Trip Blank

Detection Limit Requirements
MA:
CT:
Other: Virginia DEQ

Special Requirements
☐ MA MCP Required
MCP Certification Form Required
☐ CT RCP Required
RCP Certification Form Required
☐ MA State DW Required
PWSID #

Please use the following codes to indicate possible sample concentration within the Conc Code column above:
H - High; M - Medium; L - Low; C - Clean; U - Unknown

NELAC and AIHA-LAP, LLC Accredited

Project Entity
Government ☐ Municipality ☐ MWRA ☐ WRTA ☐
Federal ☐ 21 J ☐ School ☐
City ☐ Brownfield ☐ MBTA ☐

Other
☐ Chromatogram
☐ AIHA-LAP,LLC

Lab Comments:

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WO# : 92566661

92566661

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CHAIN OF CUSTODY RECORD

Doc # 381 Rev 5 07/13/2021

39 Spruce Street
East Longmeadow, MA 01028

Company Name: [illegible]
Address: 4350 N. Fairfax Drive
Phone: 7035162383
Project Name: [illegible] PR65 SCR
Project Location: 1460 N. Royal St. Alexandria VA
Project Number:
Project Manager: G. Grose
Pace Quote Name/Number:
Invoice Recipient: sostertag@ramboll.com
Sampled By: Anne Kelly

Regulatory Turnaround Time: 7-Day ☐ 10-Day ☒ PFAS 10-Day (std) ☐ Due Date: 5 days
Rush Approval Required: 1-Day ☐ 2-Day ☐ 3-Day ☐ 4-Day ☐
Dissolved Metals Samples: ○ Field Filtered ○ Lab to Filter
PCB: ○ Field Filtered ○ Lab to Filter
Deliverables: Format: PDF ☒ EXCEL ☒ Other: Ramboll EDD
CLP Like Data Pkg Required: ☐
Email To: Sostertag@ramboll.com
Fax To #:
PCB ONLY: SOXHLET ☐ NON SOXHLET ☐

ANALYSIS REQUESTED

Pace Work Order#	Client Sample ID / Description	Beginning Date/Time	Ending Date/Time	COMP/GRAB	[1]Matrix Code	Conc Code	VIALS	GLASS	PLASTIC	BACTERIA	ENCORE	VOCs	TAL Metals	TPH GRO	TPH ORO	TPH DRO	Cyanide	pH
006	HRP-MW207-0-1-211013	10/13/21 0837	—	Grab	S	L	4	3				X	X	X	X	X	X	X
007	HRP-MW207-6-8-211013	10/13/21 0915	—	Grab	S	L	4	3				X	X	X	X	X	X	X
008	HRP-DUP03-6-8-211013	10/13/21 0915	—	Grab	S	L	4	3				X	X	X	X	X	X	X
009	HRP-MW207-16-18-211013	10/13/21 0952	—	Grab	S	L	4	3				X	X	X	X	X	X	X
	HRP-TB02-211013	10-13-21	1235	[TB]	Trip Blank		2											

[2] Preservation Code
Courier Use Only
Total Number Of:
VIALS
GLASS
PLASTIC
BACTERIA
ENCORE

Glassware in the fridge? Y / N
Glassware in freezer? Y / N
Prepackaged Cooler? Y / N
*Pace Analytical is not responsible for missing samples from prepacked coolers

[1] Matrix Codes:
GW = Ground Water
WW = Waste Water
DW = Drinking Water
A = Air
S = Soil
SL = Sludge
SOL = Solid
O = Other (please define)

[2] Preservation Codes:
I = Iced
H = HCL
M = Methanol
N = Nitric Acid
S = Sulfuric Acid
B = Sodium Bisulfate
X = Sodium Hydroxide
T = Sodium Thiosulfate
O = Other (please define)

Relinquished by: (signature)	Date/Time:
Sarah Ostertag	10-13-21 1240
Received by: (signature)	Date/Time:
DC Fed-Ex	10/13/21 1240
Relinquished by: (signature)	Date/Time:
DC Fed-Ex (10/14)	3 am
Received by: (signature)	Date/Time: 10-13-21
Rachel Burruss	1500
Relinquished by: (signature)	Date/Time: 10-14
Rachel Burruss	1100
Received by: (signature)	Date/Time:
Relinquished by: (signature)	Date/Time:
Received by: (signature)	Date/Time:

Client Comments:

Detection Limit Requirements
MA
CT
Other: VA DEQ

Special Requirements
☐ MA MCP Required
MCP Certification Form Required
☐ CT RCP Required
RCP Certification Form Required
☐ MA State DW Required
PWSID #

Please use the following codes to indicate possible sample concentration within the Conc Code column above:
H - High; M - Medium; L - Low; C - Clean; U - Unknown

NELAC and AIHA-LAP, LLC Accredited

Project Entity
Government ☐ Municipality ☐ MWRA ☐ WRTA ☐
Federal ☐ 21 J ☐ School ☐
City ☐ Brownfield ☐ MBTA ☐

Other
☐ Chromatogram
☐ AIHA-LAP,LLC

Lab Comments:

WO#: 92566661

PM: AMB Due Date: 10/27/21
CLIENT: 92-RambollEn

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East Longmeadow, MA 01028

Doc # 381 Rev 5_07/13/2021

CHAIN OF CUSTODY RECORD

Page 2 of 3

Company Name:
Address: 4350 N. Fairfax Dr., Arlington, VA 22203
Phone:
Project Name: RGS SCR
Project Location: 1400 N. Royal St Alexandria VA
Project Number:
Project Manager: Greg Grose
Pace Quote Name/Number:
Invoice Recipient: Sostertag@ramboll.com
Sampled By: Anne Kelly

Requested Turnaround: 7-Day ☐ 10-Day ☐ PFAS 10-Day (std) ☐ Due Date: 5 days
Rush Approval Req: 1 Day ☐ 2 Day ☐ 3-Day ☐ 4-Day ☐
Dissolved: ○ Field Filtered ○ Lab to Filter
Orthophosphate Samples: ○ Field Filtered ○ Lab to Filter
Delivery: Format: PDF ☒ EXCEL ☒ Other: Ramboll EDD CLP Like Data Pkg Required: ☐ Email To: Sostertag@ramboll.com Fax To #:
PCB ONLY: SOXHLET ☐ NON SOXHLET ☐

ANALYSIS REQUESTED

Pace Work Order#	Client Sample ID / Description	Beginning Date/Time	Ending Date/Time	COMP/GRAB	[1]Matrix Code	Conc Code	VIALS	GLASS	PLASTIC	BACTERIA	ENCORE	TAL Metals	pH	Cyanide	VOCs	TPH GRO	TPH ORO	TPH DRO					[2] Preservation Code
	HRP-MW209-0-1-211013	10/13/21 1346	—	Grab	S	L		2				X	X	X									
	HRP-MW209-5-7-211013	10/13/21 1347	—	Grab	S	L		2				X	X	X									
	HRP-MW209-15-17-211013	10/13/21 1355	—	Grab	S	L		2				X	X	X									
	HRP-EB03-211013	10/13/21 1645	—	Grab	W	C			2			X	X	X									
	HRP-MW208-0-1-211014	10/14/21 0912	—	Grab	S	L		2				X	X	X									
	HRP-MW208-5-7-211014	10/14/21 0920	—	Grab	S	L		2				X	X	X									
	HRP-MW208-15-20-211014	10/14/21 0930	—	Grab	S	L		2				X	X	X									
92567218 001	HRP-MW214-0-2-211014	10/14/21 1358	—	Grab	S	L	4	3				X	X	X	X	X	X	X					
-002	HRP-MW214-5-7-211014	10/14/21 1410	—	Grab	S	L	4	3				X	X	X	X	X	X	X					
-003	HRP-MW214-14-16-211014	10/14/21 1435	—	Grab	S	L	4	3				X	X	X	X	X	X	X					

Relinquished by: (signature) — Date/Time: 10/15 1410
Received by: (signature) LaShae Morris — Date/Time: 10/15/21 1210
Relinquished by: (signature) LaShae Morris — Date/Time: 4pm 10/15/21
Received by: (signature) Rachel Burruss — Date/Time: 10-15-21 1600
Relinquished by: (signature) Rachel Burruss — Date/Time: 10-18-21 1700
Received by: (signature) — Date/Time:
Relinquished by: (signature) — Date/Time:
Received by: (signature) — Date/Time:
Lab Comments:

Client Comments: EB: Equipment Blank

Detection Limit Requirements
MA
GT

Special Requirements
☐ MA MCP Required
MCP Certification Form Required
☐ CT RCP Required
RCP Certification Form Required
☐ MA State DW Required

Please use the following codes to indicate possible sample concentration within the Conc Code column above:
H - High; M - Medium; L - Low; C - Clean; U - Unknown

Other: VA DEQ
PWSID #
NELAC and AIHA-LAP, LLC Accredited

Project Entity
Government ☐ Municipality ☐ MWRA ☐ WRTA ☐
Federal ☐ 21 J ☐ School ☐
City ☐ Brownfield ☐ MBTA ☐

Other
☐ Chromatogram
☐ AIHA-LAP,LLC

Courier Use Only
Total Number Of:
VIALS
GLASS
PLASTIC
BACTERIA
ENCORE

Glassware in the fridge? Y / N
Glassware in freezer? Y / N
Prepackaged Cooler? Y / N
*Pace Analytical is not responsible for missing samples from prepacked coolers

[1] Matrix Codes:
GW = Ground Water
WW = Waste Water
DW = Drinking Water
A = Air
S = Soil
SL = Sludge
SOL = Solid
O = Other (please define)

[2] Preservation Codes:
I = Iced
H = HCl
M = Methanol
N = Nitric Acid
S = Sulfuric Acid
B = Sodium Bisulfate
X = Sodium Hydroxide
T = Sodium Thiosulfate
O = Other (please define)

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WO# : 92567218
92567218

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CHAIN OF CUSTODY RECORD

39 Spruce Street East Longmeadow, MA 01028

Doc # 381 Rev 5_07/13/2021

Page 1 of 2

Company Name:	[illegible]mboll
Address:	4350 N Fairfax Dr Ste 300, Arlington, VA
Phone:	7035162383
Project Name:	HRP PR6S SCR
Project Location:	1400 N. Royal St. Alexandria, VA
Project Number:	
Project Manager:	Greg Grose
Pace Quote Name/Number:	
Invoice Recipient:	Sostertag@ramboll.com
Sampled By:	Sarah Ostertag

Requested Turnaround Time: 7-Day ☐ 10-Day ☒ (4.5 day in PO) PFAS 10-Day (std) ☐ Due Date:

Rush-Approval Required: 1-Day ☐ 2-Day ☐ 3-Day ☐ 4-Day ☐

Data Delivery: Format: PDF ☒ EXCEL ☒; Other: Ramboll EDD; CLP Like Data Pkg Required: ☐; Email To: sostertag@ramboll.com; Fax To #:

Dissolved Metals Samples: ○ Field Filtered ○ Lab to Filter

Orthophosphate Samples: ○ Field Filtered ○ Lab to Filter

PCB ONLY: SOXHLET ☐ NON SOXHLET ☒

ANALYSIS REQUESTED

Pace Work Order#	Client Sample ID / Description	Beginning Date/Time	Ending Date/Time	COMP/GRAB	¹Matrix Code	Conc Code	VIALS	GLASS	PLASTIC	BACTERIA	ENCORE	SVOCs	TAL Metals	Cyanide	TPH-GRO	TPH-DRO	TPH-ORO	VOCs	PCBs	pH
² Preservation Code												I	I/N	I/X	M	I	I	MBI	I	I
	HRP-EB05-211018	10-18-21	840	G	O-EB	C		4	2			X	X	X		X				
	HRP-EB06-211018	10-18-21	850	G	O-EB	C		4	2			X	X	X		X				
	HRP-SB204-0.8-1.8-211018	10-18-21	1103	G	S	E		1				X	X							
	HRP-SB204-6-8-211018	10-18-21	1130	G	S	L	3	1				X	X					X		
	HRP-SB204-13-15-211018	10-18-21	1135	G	S	L	3	1				X	X					X		
92567560-001	HRP-SB215-0-2-211018	10-18-21	1220	G	S	L	4	3					X	X	X	X	X	X		X
-002	HRP-SB215-5-7-211018	10-18-21	1230	G	S	L	4	3					X	X	X	X	X	X		X
-003	HRP-SB215-16-18-211018	10-18-21	1250	G	S	L	4	3					X	X	X	X	X	X		X
-004	HRP-SB216-1-3-211018	10-18-21	1455	G	S	H	4	3				X	X	X	X	X	X	X		X
	HRP-TB05-211018	10-18-21	1610	N/A	O-TB	C	2											X		

Courier Use Only — Total Number Of: VIALS ___ GLASS ___ PLASTIC ___ BACTERIA ___ ENCORE ___

Glassware in the fridge? Y / N

Glassware in freezer? Y / N

Prepackaged Cooler? Y / N

*Pace Analytical is not responsible for missing samples from prepacked coolers

Relinquished by: (signature) [signature]	Date/Time: 10.19.21 / 1326
Received by: (signature) [signature] 1043	Date/Time: 10/19/21 1326
Relinquished by: (signature) [signature] 1043	Date/Time: 10/19/21 1520
Received by: (signature) Rachel Burruss	Date/Time: 10-19-21 1525
Relinquished by: (signature)	Date/Time:
Received by: (signature)	Date/Time:
Relinquished by: (signature)	Date/Time:
Received by: (signature)	Date/Time:

Client Comments:
EB: Equipment Blank
TB: Trip Blank

Detection Limit Requirements: MA; CT; Other: VA DEQ

Special Requirements: ☐ MA MCP Required; MCP Certification Form Required; ☐ CT RCP Required; RCP Certification Form Required; ☐ MA State DW Required; PWSID #

Please use the following codes to indicate possible sample concentration within the Conc Code column above:
H - High; M - Medium; L - Low; C - Clean; U - Unknown

Project Entity: Government ☐ Federal ☐ City ☐ Municipality ☐ 21 J ☐ Brownfield ☐ MWRA ☐ School ☐ MBTA ☐ WRTA ☐

NELAC and AIHA-LAP, LLC Accredited — Other: ☐ Chromatogram ☐ AIHA-LAP,LLC

¹ Matrix Codes:
GW = Ground Water
WW = Waste Water
DW = Drinking Water
A = Air
S = Soil
SL = Sludge
SOL = Solid
O = Other (please define)

² Preservation Codes:
I = Iced
H = HCL
M = Methanol
N = Nitric Acid
S = Sulfuric Acid
B = Sodium Bisulfate
X = Sodium Hydroxide
T = Sodium Thiosulfate
O = Other (please define)

Lab Comments:

WO#: 92567560
92567560

Pace Analytical®

Phone: 413-525-2332
Fax: 413-525-6405
Access COC's and Support Requests

http://www.pacelabs.com

CHAIN OF CUSTODY RECORD

39 Spruce Street
East Longmeadow, MA 01028

Doc # 381 Rev 5_07/13/2021

Page 1 of 1

Company Name:	Ramboll
Address:	4350 N Fairfax Dr. Ste 300, Arlington VA
Phone:	703 516 2383
Project Name:	HRPPRGS SCR
Project Location:	1400 N Royal St, Alexandria VA
Project Number:	
Project Manager:	Greg Grose
Pace Quote Name/Number:	
Invoice Recipient:	Sostertag@ramboll.com
Sampled By:	Sarah Ostertag

Requested Turnaround Time
7-Day ☐ 10-Day ☒ 15 day PO
PFAS 10-Day (std) ☐ Due Date:

Rush-Approval Required
1-Day ☐ 3-Day ☐
2-Day ☐ 4-Day ☐

Data Delivery
Format: PDF ☒ EXCEL ☒
Other: Ramboll EDD
CLP Like Data Pkg Required: ☐
Email To: Sostertag@ramboll.com
Fax To #:

Dissolved Metals Samples
○ Field Filtered
○ Lab to Filter

Orthophosphate Samples
○ Field Filtered
○ Lab to Filter

PCB ONLY
SOXHLET ☐
NON SOXHLET ☒

ANALYSIS REQUESTED

Pace Work Order#	Client Sample ID / Description	Beginning Date/Time	Ending Date/Time	COMP/GRAB	[1]Matrix Code	Conc Code	VIALS	GLASS	PLASTIC	BACTERIA	ENCORE	MBS	VOCs	TPH-GRO	TPH-DRO	TPH-DRO	PCBs	SVOCs	TAL Metals	pH	Cyanide		
92568327-001	HRP-SB225-0-1-211021	10.21.21	0745	G	S	M	4	3					X	X	X	X	X	X	X	X	X		
002	HRP-SB224-0-1-211021	10.21.21	0825	G	S	M	4	3					X	X	X	X	X	X	X	X	X		
003	HRP-SB227-0-1-211021	10.21.21	0850	G	S	M	4	3					X	X	X	X	X	X	X	X	X		
	HRP-EB07-211021	10.21.21	0925	G	O-EB	C		6	2							X	X	X	X		X		
	HRP-TB06-211021	10.21.21	0925	N/A	D-TB	C	2						X										

[2] Preservation Code

Courier Use Only
Total Number Of:
VIALS
GLASS
PLASTIC
BACTERIA
ENCORE

Glassware in the fridge? Y / N
Glassware in freezer? Y / N
Prepackaged Cooler? Y / N

*Pace Analytical is not responsible for missing samples from prepacked coolers

[1] Matrix Codes:
GW = Ground Water
WW = Waste Water
DW = Drinking Water
A = Air
S = Soil
SL = Sludge
SOL = Solid
O = Other (please define)

[2] Preservation Codes:
I = Iced
H = HCL
M = Methanol
N = Nitric Acid
S = Sulfuric Acid
B = Sodium Bisulfate
X = Sodium Hydroxide
T = Sodium Thiosulfate
O = Other (please define)

Relinquished by: (signature)	Date/Time:	10.21.21 1315
Received by: (signature)	Date/Time:	10/21/21 15:15
Relinquished by: (signature)	Date/Time:	10/21/21 15:[illegible]
Received by: (signature)	Date/Time:	
Relinquished by: (signature)	Date/Time:	
Received by: (signature)	Date/Time:	
Relinquished by: (signature)	Date/Time:	
Received by: (signature)	Date/Time:	

Client Comments:
EB = Equipment Blank
TB = Trip Blank

Detection Limit Requirements
MA
CT
Other: VADEQ

Special Requirements
☐ MA MCP Required
MCP Certification Form Required
☐ CT RCP Required
RCP Certification Form Required
☐ MA State DW Required
PWSID #

Please use the following codes to indicate possible sample concentration within the Conc Code column above:
H - High; M - Medium; L - Low; C - Clean; U - Unknown

NELAC and AIHA-LAP, LLC Accredited

Project Entity
Government ☐ Municipality ☐ MWRA ☐ WRTA ☐
Federal ☐ 21 J ☐ School ☐
City ☐ Brownfield ☐ MBTA ☐

Other
☐ Chromatogram
☐ AIHA-LAP,LLC

Lab Comments:

WO# : 92568327

92568327

Disclaimer: Pace Analytical is not responsible for any omitted information on the Chain of Custody. The Chain of Custody is a legal document that must be complete and accurate and is used to determine what analyses the laboratory will perform. Any missing information is not the laboratory's responsibility. Pace Analytical values your partnership on each project and will try to assist with missing information, but will not be held accountable.

CWM Environmental
101 Parkview Drive Ext.
Kittanning, Pennsylvania 16201
724-543-3011
Lab # 03-457

Lab Analysis Report

Customer: Pace Analytical Charlotte
Project: Subcontracted
Sample: HRP-MW-201-211025
Collection Method: Grab

Sample Number: 21J2720-01
Collection: 10/25/2021 15:45
Received: 10/29/2021 10:00
Matrix: NPW

Cert	Analyte	Result	Reporting Limit	Units	Analysis Date	Analyst	Method
General Chemistry							
PA-DEP	Hydrazine	<0.002	0.002	mg/L	10/30/2021 20:11	EAS	ASTM D1385-88

Paul Bookmyer, Technical Director

PA DEP - Analytes associated with this are accredited under this matrix through 03-00457 scope expiring January 30, 2022. If no Cert appears next to the analyte no accreditation should be assumed for this matrix. Subcontracted analytes ran under associated laboratory scope of accreditation.

CWM Environmental
101 Parkview Drive Ext.
Kittanning, Pennsylvania 16201
724-543-3011
Lab # 03-457

Lab Analysis Report

Customer: Pace Analytical Charlotte
Project: Subcontracted
Sample: HRP-MW-202-211026
Collection Method: Grab

Sample Number: 21J2720-02
Collection: 10/26/2021 09:50
Received: 10/29/2021 10:00
Matrix: NPW

Cert	Analyte	Result	Reporting Limit	Units	Analysis Date	Analyst	Method
General Chemistry							
PA-DEP	Hydrazine	<0.002	0.002	mg/L	10/30/2021 20:11	EAS	ASTM D1385-88

Paul Bookmyer, Technical Director

PA DEP - Analytes associated with this are accredited under this matrix through 03-00457 scope expiring January 30, 2022. If no Cert appears next to the analyte no accreditation should be assumed for this matrix. Subcontracted analytes ran under associated laboratory scope of accreditation.

CWM Environmental
101 Parkview Drive Ext.
Kittanning, Pennsylvania 16201
724-543-3011
Lab # 03-457

Lab Analysis Report

Customer: Pace Analytical Charlotte
Project: Subcontracted
Sample: HRP-DUP-211026
Collection Method: Grab

Sample Number: 21J2720-03
Collection: 10/26/2021 10:00
Received: 10/29/2021 10:00
Matrix: NPW

Cert	Analyte	Result	Reporting Limit	Units	Analysis Date	Analyst	Method
General Chemistry							
PA-DEP	Hydrazine	<0.002	0.002	mg/L	10/30/2021 20:11	EAS	ASTM D1385-88

Paul Bookmyer, Technical Director

PA DEP - Analytes associated with this are accredited under this matrix through 03-00457 scope expiring January 30, 2022. If no Cert appears next to the analyte no accreditation should be assumed for this matrix. Subcontracted analytes ran under associated laboratory scope of accreditation.

CWM Environmental
101 Parkview Drive Ext.
Kittanning, Pennsylvania 16201
724-543-3011
Lab # 03-457

Lab Analysis Report

Customer: Pace Analytical Charlotte
Project: Subcontracted
Sample: HRP-MW205-211026
Collection Method: Grab

Sample Number: 21J2720-04
Collection: 10/26/2021 12:30
Received: 10/29/2021 10:00
Matrix: NPW

Cert	Analyte	Result	Reporting Limit	Units	Analysis Date	Analyst	Method
General Chemistry							
PA-DEP	Hydrazine	<0.002	0.002	mg/L	10/30/2021 20:11	EAS	ASTM D1385-88

Paul Bookmyer, Technical Director

PA DEP - Analytes associated with this are accredited under this matrix through 03-00457 scope expiring January 30, 2022. If no Cert appears next to the analyte no accreditation should be assumed for this matrix. Subcontracted analytes ran under associated laboratory scope of accreditation.

CWM Environmental
101 Parkview Drive Ext.
Kittanning, Pennsylvania 16201
724-543-3011
Lab # 03-457

Lab Analysis Report

Customer: Pace Analytical Charlotte
Project: Subcontracted
Sample: HRP-MW102-211027
Collection Method: Grab

Sample Number: 21J2720-05
Collection: 10/27/2021 10:45
Received: 10/29/2021 10:00
Matrix: NPW

Cert	Analyte	Result	Reporting Limit	Units	Analysis Date	Analyst	Method
General Chemistry							
PA-DEP	Hydrazine	0.002	0.002	mg/L	10/30/2021 20:11	EAS	ASTM D1385-88

Paul Bookmyer, Technical Director

PA DEP - Analytes associated with this are accredited under this matrix through 03-00457 scope expiring January 30, 2022. If no Cert appears next to the analyte no accreditation should be assumed for this matrix. Subcontracted analytes ran under associated laboratory scope of accreditation.

Chain of Custody

PASI Charlotte Laboratory

Pace Analytical
www.pacelabs.com

Workorder: 92569119 **Workorder Name:** HRP PRGS SCR **Results Requested By:** 11/10/2021

Report / Invoice To	Subcontract To
Angela Baioni Pace Analytical Charlotte 9800 Kincey Ave. Suite 100 Huntersville, NC 28078 Phone (704)875-9092 Email: angela.baioni@pacelabs.com	CWM Environmental 101 Parkview Dr. Extension Kittanning, PA 16201 724-543-3011 P.O. AMB 92569119

State of Sample Origin: VA

Item	Sample ID	Collect Date/Time	Lab ID	Matrix	Preserved Containers: HCL	Preserved Containers: Unpreserved 4ml	Requested Analysis: Hydrazine	LAB USE ONLY
1	HRP-MW201-211025	10/25/2021 15:45	92569119001	Water	1		X	3.6
2	HRP-MW202-211026	10/26/2021 09:50	92569119002	Water	1		X	4.1
3	HRP-DUP05-211026	10/26/2021 10:00	92569119003	Water	1		X	4.0
4	HRP-MW205-211026	10/26/2021 12:30	92569119004	Water	1		X	4.0
5	HRP-MW102-211027	10/27/2021 10:45	92569119006	Water	1		X	3.8

Transfers	Released By	Date/Time	Received By	Date/Time
1		10/28/21 1354	K Kake	10/29/21
2				
3				

Comments: 1000

Cooler Temperature on Receipt °C | Custody Seal (Y) or N | Received on Ice (Y) or N | Samples Intact (Y) or N

21J2720

RECEIVED on ICE

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January 11, 2022

Sarah Ostertag
Ramboll US Consulting, Inc. - Arlington, VA
4350 North Fairfax Drive
Arlington, VA 22203

Project Location: 144 N Royal St, Alexandria, VA
Client Job Number:
Project Number: [none]
Laboratory Work Order Number: 21J1472

Enclosed are results of analyses for samples as received by the laboratory on October 23, 2021. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Kaitlyn A. Feliciano
Project Manager

Table of Contents

Table of Contents (continued)

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Ramboll US Consulting, Inc. - Arlington, VA
4350 North Fairfax Drive
Arlington, VA 22203
ATTN: Sarah Ostertag

REPORT DATE: 1/11/2022

PURCHASE ORDER NUMBER:

PROJECT NUMBER: [none]

ANALYTICAL SUMMARY

WORK ORDER NUMBER: 21J1472

The results of analyses performed on the following samples submitted to CON-TEST, a Pace Analytical Laboratory, are found in this report.

PROJECT LOCATION: 144 N Royal St, Alexandria, VA

FIELD SAMPLE #	LAB ID:	MATRIX	SAMPLE DESCRIPTION	TEST	SUB LAB
HRP-SB225-0-1-211021	21J1472-01	Soil		-	
				SM 2540G	
				SW-846 6010D	
				SW-846 7471B	
				SW-846 8015C	
				SW-846 8082A	
				SW-846 8260D	
				SW-846 8270E	
				SW-846 9014	
				SW-846 9045C	
HRP-SB224-0-1-211021	21J1472-02	Soil		SM 2540G	
				SW-846 6010D	
				SW-846 7471B	
				SW-846 8015C	
				SW-846 8082A	
				SW-846 8260D	
				SW-846 8270E	
				SW-846 9014	
				SW-846 9045C	
HRP-SB227-0-1-211021	21J1472-03	Soil		SM 2540G	
				SW-846 6010D	
				SW-846 7471B	
				SW-846 8015C	
				SW-846 8082A	
				SW-846 8260D	
				SW-846 8270E	
				SW-846 9014	
				SW-846 9045C	
HRP-EB07-211021	21J1472-04	Water		SW-846 6010D	
				SW-846 6020B	
				SW-846 7470A	
				SW-846 8015C	
				SW-846 8082A	
				SW-846 8270E	
				SW-846 9014	
HRP-TB06-211021	21J1472-05	Water		SW-846 8260D	

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CASE NARRATIVE SUMMARY

All reported results are within defined laboratory quality control objectives unless listed below or otherwise qualified in this report.

REVISED REPORT - Thallium results for 21J1472-03 was rerun in order to meet lower reporting limit.

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SW-846 6010D

Qualifications:

DL-03

Elevated reporting limit due to matrix interference.

Analyte & Samples(s) Qualified:

Silver
21J1472-03[HRP-SB227-0-1-211021]

SW-846 7471B

Qualifications:

L-07

Either laboratory fortified blank/laboratory control sample or duplicate recovery is outside of control limits, but the other is within limits. RPD between the two LFB/LCS results is within method specified criteria.

Analyte & Samples(s) Qualified:

Mercury
B293278-BSD1

SW-846 8015C

Qualifications:

MS-19

Sample to spike ratio is greater than or equal to 4:1. Spiked amount is not representative of the native amount in the sample. Appropriate or meaningful recoveries cannot be calculated.

Analyte & Samples(s) Qualified:

Diesel Range Organics
B293199-MS1, B293199-MSD1

SW-846 8260D

Qualifications:

L-04

Laboratory fortified blank/laboratory control sample recovery and duplicate recovery are outside of control limits. Reported value for this compound is likely to be biased on the low side.

Analyte & Samples(s) Qualified:

1,2,3-Trichlorobenzene
21J1472-01[HRP-SB225-0-1-211021], 21J1472-02[HRP-SB224-0-1-211021], 21J1472-05[HRP-TB06-211021], B293105-BLK1, B293105-BS1, B293105-BSD1, B293183-BLK1, B293183-BS1, B293183-BSD1

L-07

Either laboratory fortified blank/laboratory control sample or duplicate recovery is outside of control limits, but the other is within limits. RPD between the two LFB/LCS results is within method specified criteria.

Analyte & Samples(s) Qualified:

1,2,4-Trichlorobenzene
B293105-BSD1, B293183-BSD1

RL-11

Elevated reporting limit due to high concentration of target compounds.

Analyte & Samples(s) Qualified:

21J1472-02[HRP-SB224-0-1-211021]

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V-05

Continuing calibration verification (CCV) did not meet method specifications and was biased on the low side for this compound.

Analyte & Samples(s) Qualified:

1,2,3-Trichlorobenzene
21J1472-01[HRP-SB225-0-1-211021], 21J1472-02[HRP-SB224-0-1-211021], 21J1472-05[HRP-TB06-211021], B293105-BLK1, B293105-BS1, B293105-BSD1, B293183-BLK1, B293183-BS1, B293183-BSD1, S064642-CCV1, S064643-CCV1

1,2,4-Trichlorobenzene
21J1472-01[HRP-SB225-0-1-211021], 21J1472-02[HRP-SB224-0-1-211021], 21J1472-05[HRP-TB06-211021], B293105-BLK1, B293105-BS1, B293105-BSD1, B293183-BLK1, B293183-BS1, B293183-BSD1, S064642-CCV1, S064643-CCV1

2,2-Dichloropropane
21J1472-01[HRP-SB225-0-1-211021], 21J1472-02[HRP-SB224-0-1-211021], 21J1472-05[HRP-TB06-211021], B293105-BLK1, B293105-BS1, B293105-BSD1, B293183-BLK1, B293183-BS1, B293183-BSD1, S064642-CCV1, S064643-CCV1

Dichlorodifluoromethane (Freon 12
21J1472-03[HRP-SB227-0-1-211021], B293187-BLK1, B293187-BS1, B293187-BSD1, S064620-CCV1

Naphthalene
21J1472-01[HRP-SB225-0-1-211021], 21J1472-02[HRP-SB224-0-1-211021], 21J1472-05[HRP-TB06-211021], B293105-BLK1, B293105-BS1, B293105-BSD1, B293183-BLK1, B293183-BS1, B293183-BSD1, S064642-CCV1, S064643-CCV1

V-20

Continuing calibration verification (CCV) did not meet method specifications and was biased on the high side. Data validation is not affected since sample result was "not detected" for this compound.

Analyte & Samples(s) Qualified:

Chloroethane
B293187-BS1, B293187-BSD1, S064620-CCV1

Chloromethane
B293105-BS1, B293105-BSD1, B293183-BS1, B293183-BSD1, S064642-CCV1, S064643-CCV1

V-34

Initial calibration verification (ICV) did not meet method specifications and was biased on the low side for this compound. Reported result is estimated.

Analyte & Samples(s) Qualified:

Bromomethane
21J1472-03[HRP-SB227-0-1-211021], B293187-BLK1, B293187-BS1, B293187-BSD1, S064620-CCV1

V-35

Initial calibration verification (ICV) did not meet method specifications and was biased on the high side for this compound. Reported result is estimated.

Analyte & Samples(s) Qualified:

2-Hexanone (MBK)
B293187-BS1, B293187-BSD1, S064620-CCV1

Acetone
B293187-BS1, B293187-BSD1, S064620-CCV1

SW-846 8270E

Qualifications:

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L-04

Laboratory fortified blank/laboratory control sample recovery and duplicate recovery are outside of control limits. Reported value for this compound is likely to be biased on the low side.

Analyte & Samples(s) Qualified:

1,2-Dichlorobenzene
21J1472-04[HRP-EB07-211021], B293321-BLK1, B293321-BS1, B293321-BSD1

1,3-Dichlorobenzene
21J1472-04[HRP-EB07-211021], B293321-BLK1, B293321-BS1, B293321-BSD1

1,4-Dichlorobenzene
21J1472-04[HRP-EB07-211021], B293321-BLK1, B293321-BS1, B293321-BSD1

2,4-Dinitrophenol
21J1472-01[HRP-SB225-0-1-211021], 21J1472-02[HRP-SB224-0-1-211021], 21J1472-03[HRP-SB227-0-1-211021], B293200-BLK1, B293200-BS1, B293200-BSD1

Benzoic Acid
21J1472-01[HRP-SB225-0-1-211021], 21J1472-02[HRP-SB224-0-1-211021], 21J1472-03[HRP-SB227-0-1-211021], B293200-BLK1, B293200-BS1, B293200-BSD1

Hexachlorobutadiene
21J1472-04[HRP-EB07-211021], B293321-BLK1, B293321-BS1, B293321-BSD1

Hexachlorocyclopentadiene
21J1472-01[HRP-SB225-0-1-211021], 21J1472-02[HRP-SB224-0-1-211021], 21J1472-03[HRP-SB227-0-1-211021], B293200-BLK1, B293200-BS1, B293200-BSD1

Hexachloroethane
21J1472-04[HRP-EB07-211021], B293321-BLK1, B293321-BS1, B293321-BSD1

Pyridine
21J1472-01[HRP-SB225-0-1-211021], 21J1472-02[HRP-SB224-0-1-211021], 21J1472-03[HRP-SB227-0-1-211021], B293200-BLK1, B293200-BS1, B293200-BSD1

L-07

Either laboratory fortified blank/laboratory control sample or duplicate recovery is outside of control limits, but the other is within limits. RPD between the two LFB/LCS results is within method specified criteria.

Analyte & Samples(s) Qualified:

Hexachloroethane
B293200-BSD1

L-07A

Either laboratory fortified blank/laboratory control sample or duplicate recovery is outside of control limits, but the other is within limits. RPD outside of control limits. Reduced precision anticipated for any reported result for this compound.

Analyte & Samples(s) Qualified:

Benzidine
B293321-BS1

MS-09

Matrix spike recovery and/or matrix spike duplicate recovery outside of control limits. Possibility of sample matrix effects that lead to a low bias for reported result or non-homogeneous sample aliquots cannot be eliminated.

Analyte & Samples(s) Qualified:

2,4-Dimethylphenol
21J1472-03[HRP-SB227-0-1-211021], B293200-MS1, B293200-MSD1

3,3-Dichlorobenzidine
21J1472-03[HRP-SB227-0-1-211021], B293200-MS1, B293200-MSD1

4-Chloroaniline
21J1472-03[HRP-SB227-0-1-211021], B293200-MS1, B293200-MSD1

Aniline
21J1472-03[HRP-SB227-0-1-211021], B293200-MS1, B293200-MSD1

Benzidine
21J1472-03[HRP-SB227-0-1-211021], B293200-MS1, B293200-MSD1

Hexachlorocyclopentadiene
21J1472-03[HRP-SB227-0-1-211021], B293200-MS1, B293200-MSD1

Pentachlorophenol
21J1472-03[HRP-SB227-0-1-211021], B293200-MS1, B293200-MSD1

Pyridine
21J1472-03[HRP-SB227-0-1-211021], B293200-MS1, B293200-MSD1

MS-22

Either matrix spike or MS duplicate is outside of control limits, but the other is within limits. RPD between the two MS/MSD results is within method specified criteria.

Analyte & Samples(s) Qualified:

4-Nitroaniline
B293200-MS1

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MS-23

Either matrix spike or MS duplicate is outside of control limits, but the other is within limits. RPD between the two MS/MSD results is outside of the method specified criteria. Reduced precision anticipated for any reported result for this compound.

Analyte & Samples(s) Qualified:

3-Nitroaniline
B293200-MS1

R-05

Laboratory fortified blank duplicate RPD is outside of control limits. Reduced precision is anticipated for any reported value for this compound.

Analyte & Samples(s) Qualified:

Benzidine
21J1472-04[HRP-EB07-211021], B293321-BLK1, B293321-BSD1

R-06

Matrix spike duplicate RPD is outside of control limits. Reduced precision is anticipated for reported result for this compound in this sample.

Analyte & Samples(s) Qualified:

3-Nitroaniline
21J1472-03[HRP-SB227-0-1-211021], B293200-MSD1

Aniline
21J1472-03[HRP-SB227-0-1-211021], B293200-MS1, B293200-MSD1

V-04

Initial calibration did not meet method specifications. Compound was calibrated using a response factor where %RSD is outside of method specified criteria. Reported result is estimated.

Analyte & Samples(s) Qualified:

2,4-Dinitrophenol
21J1472-01[HRP-SB225-0-1-211021], 21J1472-02[HRP-SB224-0-1-211021], 21J1472-03[HRP-SB227-0-1-211021], 21J1472-04[HRP-EB07-211021], B293200-BLK1, B293200-BS1, B293200-BSD1, B293200-MS1, B293200-MSD1, B293321-BLK1, B293321-BS1, B293321-BSD1, S064782-CCV1, S064784-CCV1, S064791-CCV1

Benzidine
21J1472-04[HRP-EB07-211021], B293321-BLK1, B293321-BS1, B293321-BSD1, S064784-CCV1, S064791-CCV1

V-05

Continuing calibration verification (CCV) did not meet method specifications and was biased on the low side for this compound.

Analyte & Samples(s) Qualified:

1,2-Diphenylhydrazine/Azobenzen
21J1472-01[HRP-SB225-0-1-211021], 21J1472-02[HRP-SB224-0-1-211021], 21J1472-03[HRP-SB227-0-1-211021], 21J1472-04[HRP-EB07-211021], B293200-BLK1, B293200-BS1, B293200-BSD1, B293200-MS1, B293200-MSD1, B293321-BLK1, B293321-BS1, B293321-BSD1, S064782-CCV1, S064784-CCV1

Benzidine
21J1472-01[HRP-SB225-0-1-211021], 21J1472-02[HRP-SB224-0-1-211021], 21J1472-03[HRP-SB227-0-1-211021], B293200-BLK1, B293200-BS1, B293200-BSD1, B293200-MS1, B293200-MSD1, S064782-CCV1

Bis(2-chloroisopropyl)ether
21J1472-04[HRP-EB07-211021], B293321-BLK1, B293321-BS1, B293321-BSD1, S064784-CCV1

Hexachlorocyclopentadiene
21J1472-01[HRP-SB225-0-1-211021], 21J1472-02[HRP-SB224-0-1-211021], 21J1472-03[HRP-SB227-0-1-211021], B293200-BLK1, B293200-BS1, B293200-BSD1, B293200-MS1, B293200-MSD1, S064782-CCV1

Pentachlorophenol
21J1472-01[HRP-SB225-0-1-211021], 21J1472-02[HRP-SB224-0-1-211021], 21J1472-03[HRP-SB227-0-1-211021], B293200-BLK1, B293200-BS1, B293200-BSD1, B293200-MS1, B293200-MSD1, S064782-CCV1

V-06

Continuing calibration verification (CCV) did not meet method specifications and was biased on the high side for this compound.

Analyte & Samples(s) Qualified:

2,4-Dinitrophenol
S064791-CCV1

V-34

Initial calibration verification (ICV) did not meet method specifications and was biased on the low side for this compound. Reported result is estimated.

Analyte & Samples(s) Qualified:

3,3-Dichlorobenzidine
21J1472-04[HRP-EB07-211021], B293321-BLK1, B293321-BS1, B293321-BSD1, S064784-CCV1

4-Chloroaniline
21J1472-01[HRP-SB225-0-1-211021], 21J1472-02[HRP-SB224-0-1-211021], 21J1472-03[HRP-SB227-0-1-211021], 21J1472-04[HRP-EB07-211021], B293200-BLK1, B293200-BS1, B293200-BSD1, B293200-MS1, B293200-MSD1, B293321-BLK1, B293321-BS1, B293321-BSD1, S064782-CCV1, S064784-CCV1

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Qualifications:

H-03

Sample received after recommended holding time was exceeded.

Analyte & Samples(s) Qualified:

pH

21J1472-01[HRP-SB225-0-1-211021], 21J1472-02[HRP-SB224-0-1-211021], 21J1472-03[HRP-SB227-0-1-211021]

SW-846 8015C

Gasoline Range Organics (2-Methylpentane through 1,2,4-Trimethylbenzene) is quantitated against a calibration made with an unleaded gasoline composite standard.
Diesel Range Organics (C10-C28) is quantitated against a calibration made with a #2 fuel oil standard.

The results of analyses reported only relate to samples submitted to Con-Test, a Pace Analytical Laboratory, for testing.
I certify that the analyses listed above, unless specifically listed as subcontracted, if any, were performed under my direction according to the approved methodologies listed in this document, and that based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

Lisa A. Worthington
Technical Representative

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Project Location: 144 N Royal St, Alexandria, VA Sample Description: Work Order: 21J1472

Date Received: 10/23/2021

Field Sample #: HRP-SB225-0-1-211021 Sampled: 10/21/2021 07:45

Sample ID: 21J1472-01

Sample Matrix: Soil

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acetone	1.6	5.4	0.25	mg/Kg dry	1	J	SW-846 8260D	10/25/21	10/26/21 6:18	MFF
Acrylonitrile	ND	0.54	0.074	mg/Kg dry	1		SW-846 8260D	10/25/21	10/26/21 6:18	MFF
tert-Amyl Methyl Ether (TAME)	ND	0.054	0.016	mg/Kg dry	1		SW-846 8260D	10/25/21	10/26/21 6:18	MFF
Benzene	0.38	0.11	0.014	mg/Kg dry	1		SW-846 8260D	10/25/21	10/26/21 6:18	MFF
Bromobenzene	ND	0.11	0.014	mg/Kg dry	1		SW-846 8260D	10/25/21	10/26/21 6:18	MFF
Bromochloromethane	ND	0.11	0.039	mg/Kg dry	1		SW-846 8260D	10/25/21	10/26/21 6:18	MFF
Bromodichloromethane	ND	0.11	0.015	mg/Kg dry	1		SW-846 8260D	10/25/21	10/26/21 6:18	MFF
Bromoform	ND	0.11	0.031	mg/Kg dry	1		SW-846 8260D	10/25/21	10/26/21 6:18	MFF
Bromomethane	ND	0.22	0.12	mg/Kg dry	1		SW-846 8260D	10/25/21	10/26/21 6:18	MFF
2-Butanone (MEK)	0.51	2.2	0.20	mg/Kg dry	1	J	SW-846 8260D	10/25/21	10/26/21 6:18	MFF
tert-Butyl Alcohol (TBA)	ND	2.2	0.57	mg/Kg dry	1		SW-846 8260D	10/25/21	10/26/21 6:18	MFF
n-Butylbenzene	0.056	0.11	0.015	mg/Kg dry	1	J	SW-846 8260D	10/25/21	10/26/21 6:18	MFF
sec-Butylbenzene	0.041	0.11	0.011	mg/Kg dry	1	J	SW-846 8260D	10/25/21	10/26/21 6:18	MFF
tert-Butylbenzene	ND	0.11	0.0097	mg/Kg dry	1		SW-846 8260D	10/25/21	10/26/21 6:18	MFF
tert-Butyl Ethyl Ether (TBEE)	ND	0.054	0.012	mg/Kg dry	1		SW-846 8260D	10/25/21	10/26/21 6:18	MFF
Carbon Disulfide	ND	0.54	0.16	mg/Kg dry	1		SW-846 8260D	10/25/21	10/26/21 6:18	MFF
Carbon Tetrachloride	ND	0.11	0.018	mg/Kg dry	1		SW-846 8260D	10/25/21	10/26/21 6:18	MFF
Chlorobenzene	ND	0.11	0.0086	mg/Kg dry	1		SW-846 8260D	10/25/21	10/26/21 6:18	MFF
Chlorodibromomethane	ND	0.054	0.017	mg/Kg dry	1		SW-846 8260D	10/25/21	10/26/21 6:18	MFF
Chloroethane	ND	0.22	0.040	mg/Kg dry	1		SW-846 8260D	10/25/21	10/26/21 6:18	MFF
Chloroform	ND	0.22	0.020	mg/Kg dry	1		SW-846 8260D	10/25/21	10/26/21 6:18	MFF
Chloromethane	ND	0.22	0.041	mg/Kg dry	1		SW-846 8260D	10/25/21	10/26/21 6:18	MFF
2-Chlorotoluene	ND	0.11	0.0097	mg/Kg dry	1		SW-846 8260D	10/25/21	10/26/21 6:18	MFF
4-Chlorotoluene	ND	0.11	0.011	mg/Kg dry	1		SW-846 8260D	10/25/21	10/26/21 6:18	MFF
1,2-Dibromo-3-chloropropane (DBCP)	ND	0.54	0.077	mg/Kg dry	1		SW-846 8260D	10/25/21	10/26/21 6:18	MFF
1,2-Dibromoethane (EDB)	ND	0.054	0.016	mg/Kg dry	1		SW-846 8260D	10/25/21	10/26/21 6:18	MFF
Dibromomethane	ND	0.11	0.031	mg/Kg dry	1		SW-846 8260D	10/25/21	10/26/21 6:18	MFF
1,2-Dichlorobenzene	ND	0.11	0.011	mg/Kg dry	1		SW-846 8260D	10/25/21	10/26/21 6:18	MFF
1,3-Dichlorobenzene	ND	0.11	0.0097	mg/Kg dry	1		SW-846 8260D	10/25/21	10/26/21 6:18	MFF
1,4-Dichlorobenzene	ND	0.11	0.012	mg/Kg dry	1		SW-846 8260D	10/25/21	10/26/21 6:18	MFF
trans-1,4-Dichloro-2-butene	ND	0.22	0.19	mg/Kg dry	1		SW-846 8260D	10/25/21	10/26/21 6:18	MFF
Dichlorodifluoromethane (Freon 12)	ND	0.22	0.022	mg/Kg dry	1		SW-846 8260D	10/25/21	10/26/21 6:18	MFF
1,1-Dichloroethane	ND	0.11	0.017	mg/Kg dry	1		SW-846 8260D	10/25/21	10/26/21 6:18	MFF
1,2-Dichloroethane	ND	0.11	0.034	mg/Kg dry	1		SW-846 8260D	10/25/21	10/26/21 6:18	MFF
1,1-Dichloroethylene	ND	0.11	0.017	mg/Kg dry	1		SW-846 8260D	10/25/21	10/26/21 6:18	MFF
cis-1,2-Dichloroethylene	ND	0.11	0.016	mg/Kg dry	1		SW-846 8260D	10/25/21	10/26/21 6:18	MFF
trans-1,2-Dichloroethylene	ND	0.11	0.018	mg/Kg dry	1		SW-846 8260D	10/25/21	10/26/21 6:18	MFF
1,2-Dichloropropane	ND	0.11	0.019	mg/Kg dry	1		SW-846 8260D	10/25/21	10/26/21 6:18	MFF
1,3-Dichloropropane	ND	0.054	0.013	mg/Kg dry	1		SW-846 8260D	10/25/21	10/26/21 6:18	MFF
2,2-Dichloropropane	ND	0.11	0.033	mg/Kg dry	1	V-05	SW-846 8260D	10/25/21	10/26/21 6:18	MFF
1,1-Dichloropropene	ND	0.22	0.028	mg/Kg dry	1		SW-846 8260D	10/25/21	10/26/21 6:18	MFF
cis-1,3-Dichloropropene	ND	0.054	0.013	mg/Kg dry	1		SW-846 8260D	10/25/21	10/26/21 6:18	MFF
trans-1,3-Dichloropropene	ND	0.054	0.016	mg/Kg dry	1		SW-846 8260D	10/25/21	10/26/21 6:18	MFF
Diethyl Ether	ND	0.22	0.024	mg/Kg dry	1		SW-846 8260D	10/25/21	10/26/21 6:18	MFF

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Project Location: 144 N Royal St, Alexandria, VA Sample Description: Work Order: 21J1472

Date Received: 10/23/2021

Field Sample #: HRP-SB225-0-1-211021 Sampled: 10/21/2021 07:45

Sample ID: 21J1472-01

Sample Matrix: Soil

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Diisopropyl Ether (DIPE)	ND	0.054	0.016	mg/Kg dry	1		SW-846 8260D	10/25/21	10/26/21 6:18	MFF
1,4-Dioxane	ND	5.4	2.3	mg/Kg dry	1		SW-846 8260D	10/25/21	10/26/21 6:18	MFF
Ethylbenzene	0.47	0.11	0.0097	mg/Kg dry	1		SW-846 8260D	10/25/21	10/26/21 6:18	MFF
Hexachlorobutadiene	ND	0.11	0.044	mg/Kg dry	1		SW-846 8260D	10/25/21	10/26/21 6:18	MFF
2-Hexanone (MBK)	ND	1.1	0.15	mg/Kg dry	1		SW-846 8260D	10/25/21	10/26/21 6:18	MFF
Isopropylbenzene (Cumene)	0.14	0.11	0.011	mg/Kg dry	1		SW-846 8260D	10/25/21	10/26/21 6:18	MFF
p-Isopropyltoluene (p-Cymene)	0.057	0.11	0.0097	mg/Kg dry	1	J	SW-846 8260D	10/25/21	10/26/21 6:18	MFF
Methyl Acetate	0.65	1.1	0.042	mg/Kg dry	1	J	SW-846 8260D	10/25/21	10/26/21 6:18	MFF
Methyl tert-Butyl Ether (MTBE)	ND	0.11	0.018	mg/Kg dry	1		SW-846 8260D	10/25/21	10/26/21 6:18	MFF
Methyl Cyclohexane	5.3	0.11	0.035	mg/Kg dry	1		SW-846 8260D	10/25/21	10/26/21 6:18	MFF
Methylene Chloride	ND	0.54	0.032	mg/Kg dry	1		SW-846 8260D	10/25/21	10/26/21 6:18	MFF
4-Methyl-2-pentanone (MIBK)	ND	1.1	0.17	mg/Kg dry	1		SW-846 8260D	10/25/21	10/26/21 6:18	MFF
Naphthalene	1.1	0.22	0.016	mg/Kg dry	1	V-05	SW-846 8260D	10/25/21	10/26/21 6:18	MFF
n-Propylbenzene	0.13	0.11	0.0086	mg/Kg dry	1		SW-846 8260D	10/25/21	10/26/21 6:18	MFF
Styrene	ND	0.11	0.0086	mg/Kg dry	1		SW-846 8260D	10/25/21	10/26/21 6:18	MFF
1,1,1,2-Tetrachloroethane	ND	0.11	0.015	mg/Kg dry	1		SW-846 8260D	10/25/21	10/26/21 6:18	MFF
1,1,2,2-Tetrachloroethane	ND	0.054	0.0097	mg/Kg dry	1		SW-846 8260D	10/25/21	10/26/21 6:18	MFF
Tetrachloroethylene	ND	0.11	0.022	mg/Kg dry	1		SW-846 8260D	10/25/21	10/26/21 6:18	MFF
Tetrahydrofuran	ND	1.1	0.062	mg/Kg dry	1		SW-846 8260D	10/25/21	10/26/21 6:18	MFF
Toluene	3.2	0.11	0.012	mg/Kg dry	1		SW-846 8260D	10/25/21	10/26/21 6:18	MFF
1,2,3-Trichlorobenzene	ND	0.54	0.015	mg/Kg dry	1	V-05, L-04	SW-846 8260D	10/25/21	10/26/21 6:18	MFF
1,2,4-Trichlorobenzene	ND	0.11	0.017	mg/Kg dry	1	V-05	SW-846 8260D	10/25/21	10/26/21 6:18	MFF
1,3,5-Trichlorobenzene	ND	0.11	0.019	mg/Kg dry	1		SW-846 8260D	10/25/21	10/26/21 6:18	MFF
1,1,1-Trichloroethane	ND	0.11	0.018	mg/Kg dry	1		SW-846 8260D	10/25/21	10/26/21 6:18	MFF
1,1,2-Trichloroethane	ND	0.11	0.016	mg/Kg dry	1		SW-846 8260D	10/25/21	10/26/21 6:18	MFF
Trichloroethylene	ND	0.11	0.019	mg/Kg dry	1		SW-846 8260D	10/25/21	10/26/21 6:18	MFF
Trichlorofluoromethane (Freon 11)	ND	0.22	0.020	mg/Kg dry	1		SW-846 8260D	10/25/21	10/26/21 6:18	MFF
1,2,3-Trichloropropane	ND	0.22	0.033	mg/Kg dry	1		SW-846 8260D	10/25/21	10/26/21 6:18	MFF
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	0.11	0.026	mg/Kg dry	1		SW-846 8260D	10/25/21	10/26/21 6:18	MFF
1,2,4-Trimethylbenzene	0.96	0.11	0.011	mg/Kg dry	1		SW-846 8260D	10/25/21	10/26/21 6:18	MFF
1,3,5-Trimethylbenzene	0.31	0.11	0.011	mg/Kg dry	1		SW-846 8260D	10/25/21	10/26/21 6:18	MFF
Vinyl Chloride	ND	0.22	0.022	mg/Kg dry	1		SW-846 8260D	10/25/21	10/26/21 6:18	MFF
m+p Xylene	2.4	0.22	0.019	mg/Kg dry	1		SW-846 8260D	10/25/21	10/26/21 6:18	MFF
o-Xylene	2.0	0.11	0.0097	mg/Kg dry	1		SW-846 8260D	10/25/21	10/26/21 6:18	MFF

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
1,2-Dichloroethane-d4	107	70-130		10/26/21 6:18
Toluene-d8	110	70-130		10/26/21 6:18
4-Bromofluorobenzene	106	70-130		10/26/21 6:18

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Project Location: 144 N Royal St, Alexandria, VA Sample Description: Work Order: 21J1472

Date Received: 10/23/2021

Field Sample #: HRP-SB225-0-1-211021 Sampled: 10/21/2021 07:45

Sample ID: 21J1472-01

Sample Matrix: Soil

Semivolatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acenaphthene	0.13	0.26	0.080	mg/Kg dry	1	J	SW-846 8270E	10/25/21	10/27/21 17:14	BGL
Acenaphthylene	0.11	0.26	0.078	mg/Kg dry	1	J	SW-846 8270E	10/25/21	10/27/21 17:14	BGL
Acetophenone	ND	0.51	0.070	mg/Kg dry	1		SW-846 8270E	10/25/21	10/27/21 17:14	BGL
Aniline	ND	0.51	0.11	mg/Kg dry	1		SW-846 8270E	10/25/21	10/27/21 17:14	BGL
Anthracene	0.14	0.26	0.083	mg/Kg dry	1	J	SW-846 8270E	10/25/21	10/27/21 17:14	BGL
Benzidine	ND	0.99	0.23	mg/Kg dry	1	V-05	SW-846 8270E	10/25/21	10/27/21 17:14	BGL
Benzo(a)anthracene	0.58	0.26	0.071	mg/Kg dry	1		SW-846 8270E	10/25/21	10/27/21 17:14	BGL
Benzo(a)pyrene	0.25	0.26	0.078	mg/Kg dry	1	J	SW-846 8270E	10/25/21	10/27/21 17:14	BGL
Benzo(b)fluoranthene	0.79	0.26	0.077	mg/Kg dry	1		SW-846 8270E	10/25/21	10/27/21 17:14	BGL
Benzo(g,h,i)perylene	0.25	0.26	0.11	mg/Kg dry	1	J	SW-846 8270E	10/25/21	10/27/21 17:14	BGL
Benzo(k)fluoranthene	0.20	0.26	0.069	mg/Kg dry	1	J	SW-846 8270E	10/25/21	10/27/21 17:14	BGL
Benzoic Acid	ND	1.5	0.61	mg/Kg dry	1	L-04	SW-846 8270E	10/25/21	10/27/21 17:14	BGL
Bis(2-chloroethoxy)methane	ND	0.51	0.066	mg/Kg dry	1		SW-846 8270E	10/25/21	10/27/21 17:14	BGL
Bis(2-chloroethyl)ether	ND	0.51	0.070	mg/Kg dry	1		SW-846 8270E	10/25/21	10/27/21 17:14	BGL
Bis(2-chloroisopropyl)ether	ND	0.51	0.12	mg/Kg dry	1		SW-846 8270E	10/25/21	10/27/21 17:14	BGL
Bis(2-Ethylhexyl)phthalate	0.39	0.51	0.086	mg/Kg dry	1	J	SW-846 8270E	10/25/21	10/27/21 17:14	BGL
4-Bromophenylphenylether	ND	0.51	0.065	mg/Kg dry	1		SW-846 8270E	10/25/21	10/27/21 17:14	BGL
Butylbenzylphthalate	ND	0.51	0.081	mg/Kg dry	1		SW-846 8270E	10/25/21	10/27/21 17:14	BGL
Carbazole	0.33	0.26	0.084	mg/Kg dry	1		SW-846 8270E	10/25/21	10/27/21 17:14	BGL
4-Chloroaniline	ND	0.99	0.068	mg/Kg dry	1	V-34	SW-846 8270E	10/25/21	10/27/21 17:14	BGL
4-Chloro-3-methylphenol	ND	0.99	0.085	mg/Kg dry	1		SW-846 8270E	10/25/21	10/27/21 17:14	BGL
2-Chloronaphthalene	ND	0.51	0.059	mg/Kg dry	1		SW-846 8270E	10/25/21	10/27/21 17:14	BGL
2-Chlorophenol	ND	0.51	0.071	mg/Kg dry	1		SW-846 8270E	10/25/21	10/27/21 17:14	BGL
4-Chlorophenylphenylether	ND	0.51	0.073	mg/Kg dry	1		SW-846 8270E	10/25/21	10/27/21 17:14	BGL
Chrysene	1.3	0.26	0.074	mg/Kg dry	1		SW-846 8270E	10/25/21	10/27/21 17:14	BGL
Dibenz(a,h)anthracene	ND	0.26	0.10	mg/Kg dry	1		SW-846 8270E	10/25/21	10/27/21 17:14	BGL
Dibenzofuran	2.7	0.51	0.075	mg/Kg dry	1		SW-846 8270E	10/25/21	10/27/21 17:14	BGL
Di-n-butylphthalate	ND	0.51	0.072	mg/Kg dry	1		SW-846 8270E	10/25/21	10/27/21 17:14	BGL
1,2-Dichlorobenzene	ND	0.51	0.058	mg/Kg dry	1		SW-846 8270E	10/25/21	10/27/21 17:14	BGL
1,3-Dichlorobenzene	ND	0.51	0.056	mg/Kg dry	1		SW-846 8270E	10/25/21	10/27/21 17:14	BGL
1,4-Dichlorobenzene	ND	0.51	0.053	mg/Kg dry	1		SW-846 8270E	10/25/21	10/27/21 17:14	BGL
3,3-Dichlorobenzidine	ND	0.26	0.074	mg/Kg dry	1		SW-846 8270E	10/25/21	10/27/21 17:14	BGL
2,4-Dichlorophenol	ND	0.51	0.076	mg/Kg dry	1		SW-846 8270E	10/25/21	10/27/21 17:14	BGL
Diethylphthalate	ND	0.51	0.078	mg/Kg dry	1		SW-846 8270E	10/25/21	10/27/21 17:14	BGL
2,4-Dimethylphenol	0.20	0.51	0.14	mg/Kg dry	1	J	SW-846 8270E	10/25/21	10/27/21 17:14	BGL
Dimethylphthalate	ND	0.51	0.074	mg/Kg dry	1		SW-846 8270E	10/25/21	10/27/21 17:14	BGL
4,6-Dinitro-2-methylphenol	ND	0.51	0.34	mg/Kg dry	1		SW-846 8270E	10/25/21	10/27/21 17:14	BGL
2,4-Dinitrophenol	ND	0.99	0.44	mg/Kg dry	1	L-04, V-04	SW-846 8270E	10/25/21	10/27/21 17:14	BGL
2,4-Dinitrotoluene	ND	0.51	0.10	mg/Kg dry	1		SW-846 8270E	10/25/21	10/27/21 17:14	BGL
2,6-Dinitrotoluene	ND	0.51	0.085	mg/Kg dry	1		SW-846 8270E	10/25/21	10/27/21 17:14	BGL
Di-n-octylphthalate	ND	0.51	0.18	mg/Kg dry	1		SW-846 8270E	10/25/21	10/27/21 17:14	BGL
1,2-Diphenylhydrazine/Azobenzene	ND	0.51	0.073	mg/Kg dry	1	V-05	SW-846 8270E	10/25/21	10/27/21 17:14	BGL
Fluoranthene	1.1	0.26	0.081	mg/Kg dry	1		SW-846 8270E	10/25/21	10/27/21 17:14	BGL
Fluorene	0.32	0.26	0.086	mg/Kg dry	1		SW-846 8270E	10/25/21	10/27/21 17:14	BGL

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Project Location: 144 N Royal St, Alexandria, VA Sample Description: Work Order: 21J1472

Date Received: 10/23/2021

Field Sample #: HRP-SB225-0-1-211021 Sampled: 10/21/2021 07:45

Sample ID: 21J1472-01

Sample Matrix: Soil

Semivolatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Hexachlorobenzene	ND	0.51	0.069	mg/Kg dry	1		SW-846 8270E	10/25/21	10/27/21 17:14	BGL
Hexachlorobutadiene	ND	0.51	0.065	mg/Kg dry	1		SW-846 8270E	10/25/21	10/27/21 17:14	BGL
Hexachlorocyclopentadiene	ND	0.51	0.21	mg/Kg dry	1	L-04, V-05	SW-846 8270E	10/25/21	10/27/21 17:14	BGL
Hexachloroethane	ND	0.51	0.061	mg/Kg dry	1		SW-846 8270E	10/25/21	10/27/21 17:14	BGL
Indeno(1,2,3-cd)pyrene	0.15	0.26	0.12	mg/Kg dry	1	J	SW-846 8270E	10/25/21	10/27/21 17:14	BGL
Isophorone	ND	0.51	0.085	mg/Kg dry	1		SW-846 8270E	10/25/21	10/27/21 17:14	BGL
1-Methylnaphthalene	8.8	1.3	0.35	mg/Kg dry	5		SW-846 8270E	10/25/21	10/28/21 15:00	IMR
2-Methylnaphthalene	14	1.3	0.40	mg/Kg dry	5		SW-846 8270E	10/25/21	10/28/21 15:00	IMR
2-Methylphenol	0.13	0.51	0.094	mg/Kg dry	1	J	SW-846 8270E	10/25/21	10/27/21 17:14	BGL
3/4-Methylphenol	0.12	0.51	0.082	mg/Kg dry	1	J	SW-846 8270E	10/25/21	10/27/21 17:14	BGL
Naphthalene	8.2	1.3	0.35	mg/Kg dry	5		SW-846 8270E	10/25/21	10/28/21 15:00	IMR
2-Nitroaniline	ND	0.51	0.11	mg/Kg dry	1		SW-846 8270E	10/25/21	10/27/21 17:14	BGL
3-Nitroaniline	ND	0.51	0.087	mg/Kg dry	1		SW-846 8270E	10/25/21	10/27/21 17:14	BGL
4-Nitroaniline	ND	0.51	0.11	mg/Kg dry	1		SW-846 8270E	10/25/21	10/27/21 17:14	BGL
Nitrobenzene	ND	0.51	0.074	mg/Kg dry	1		SW-846 8270E	10/25/21	10/27/21 17:14	BGL
2-Nitrophenol	ND	0.51	0.080	mg/Kg dry	1		SW-846 8270E	10/25/21	10/27/21 17:14	BGL
4-Nitrophenol	ND	0.99	0.21	mg/Kg dry	1		SW-846 8270E	10/25/21	10/27/21 17:14	BGL
N-Nitrosodimethylamine	ND	0.51	0.076	mg/Kg dry	1		SW-846 8270E	10/25/21	10/27/21 17:14	BGL
N-Nitrosodiphenylamine/Diphenylamine	ND	0.51	0.077	mg/Kg dry	1		SW-846 8270E	10/25/21	10/27/21 17:14	BGL
N-Nitrosodi-n-propylamine	ND	0.51	0.070	mg/Kg dry	1		SW-846 8270E	10/25/21	10/27/21 17:14	BGL
Pentachloronitrobenzene	ND	0.51	0.086	mg/Kg dry	1		SW-846 8270E	10/25/21	10/27/21 17:14	BGL
Pentachlorophenol	ND	0.51	0.22	mg/Kg dry	1	V-05	SW-846 8270E	10/25/21	10/27/21 17:14	BGL
Phenanthrene	5.1	0.26	0.080	mg/Kg dry	1		SW-846 8270E	10/25/21	10/27/21 17:14	BGL
Phenol	ND	0.51	0.073	mg/Kg dry	1		SW-846 8270E	10/25/21	10/27/21 17:14	BGL
Pyrene	1.1	0.26	0.081	mg/Kg dry	1		SW-846 8270E	10/25/21	10/27/21 17:14	BGL
Pyridine	ND	0.51	0.052	mg/Kg dry	1	L-04	SW-846 8270E	10/25/21	10/27/21 17:14	BGL
1,2,4,5-Tetrachlorobenzene	ND	0.51	0.066	mg/Kg dry	1		SW-846 8270E	10/25/21	10/27/21 17:14	BGL
1,2,4-Trichlorobenzene	ND	0.51	0.064	mg/Kg dry	1		SW-846 8270E	10/25/21	10/27/21 17:14	BGL
2,4,5-Trichlorophenol	ND	0.51	0.079	mg/Kg dry	1		SW-846 8270E	10/25/21	10/27/21 17:14	BGL
2,4,6-Trichlorophenol	ND	0.51	0.079	mg/Kg dry	1		SW-846 8270E	10/25/21	10/27/21 17:14	BGL

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
2-Fluorophenol	43.4	30-130		10/27/21 17:14
2-Fluorophenol	55.9	30-130		10/28/21 15:00
Phenol-d6	43.0	30-130		10/27/21 17:14
Phenol-d6	64.7	30-130		10/28/21 15:00
Nitrobenzene-d5	44.7	30-130		10/27/21 17:14
Nitrobenzene-d5	58.0	30-130		10/28/21 15:00
2-Fluorobiphenyl	54.3	30-130		10/27/21 17:14
2-Fluorobiphenyl	66.7	30-130		10/28/21 15:00
2,4,6-Tribromophenol	53.3	30-130		10/27/21 17:14
2,4,6-Tribromophenol	58.0	30-130		10/28/21 15:00
p-Terphenyl-d14	85.9	30-130		10/27/21 17:14
p-Terphenyl-d14	82.5	30-130		10/28/21 15:00

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Project Location: 144 N Royal St, Alexandria, VA Sample Description: Work Order: 21J1472

Date Received: 10/23/2021

Field Sample #: HRP-SB225-0-1-211021 Sampled: 10/21/2021 07:45

Sample ID: 21J1472-01

Sample Matrix: Soil

Polychlorinated Biphenyls By GC/ECD

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Aroclor-1016 [1]	ND	0.12	0.072	mg/Kg dry	4		SW-846 8082A	10/25/21	10/27/21 15:50	TG
Aroclor-1221 [1]	ND	0.12	0.078	mg/Kg dry	4		SW-846 8082A	10/25/21	10/27/21 15:50	TG
Aroclor-1232 [1]	ND	0.12	0.054	mg/Kg dry	4		SW-846 8082A	10/25/21	10/27/21 15:50	TG
Aroclor-1242 [1]	ND	0.12	0.060	mg/Kg dry	4		SW-846 8082A	10/25/21	10/27/21 15:50	TG
Aroclor-1248 [1]	ND	0.12	0.072	mg/Kg dry	4		SW-846 8082A	10/25/21	10/27/21 15:50	TG
Aroclor-1254 [1]	ND	0.12	0.078	mg/Kg dry	4		SW-846 8082A	10/25/21	10/27/21 15:50	TG
Aroclor-1260 [1]	ND	0.12	0.084	mg/Kg dry	4		SW-846 8082A	10/25/21	10/27/21 15:50	TG
Aroclor-1262 [1]	ND	0.12	0.060	mg/Kg dry	4		SW-846 8082A	10/25/21	10/27/21 15:50	TG
Aroclor-1268 [1]	ND	0.12	0.048	mg/Kg dry	4		SW-846 8082A	10/25/21	10/27/21 15:50	TG

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
Decachlorobiphenyl [1]	83.3	30-150		10/27/21 15:50
Decachlorobiphenyl [2]	72.7	30-150		10/27/21 15:50
Tetrachloro-m-xylene [1]	77.8	30-150		10/27/21 15:50
Tetrachloro-m-xylene [2]	71.3	30-150		10/27/21 15:50

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Project Location: 144 N Royal St, Alexandria, VA Sample Description: Work Order: 21J1472

Date Received: 10/23/2021

Field Sample #: HRP-SB225-0-1-211021 Sampled: 10/21/2021 07:45

Sample ID: 21J1472-01

Sample Matrix: Soil

Petroleum Hydrocarbons Analyses

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Gasoline Range Organics (GRO)	92	2.2	2.1	mg/Kg dry	1		SW-846 8015C	10/27/21	10/28/21 4:58	KMB
Diesel Range Organics	1000	62	29	mg/Kg dry	5		SW-846 8015C	10/25/21	10/29/21 8:04	SFM

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
1-Chloro-3-fluorobenzene	89.5	70-130		10/28/21 4:58
2-Fluorobiphenyl	60.5	40-140		10/29/21 8:04

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Project Location: 144 N Royal St, Alexandria, VA Sample Description: Work Order: 21J1472

Date Received: 10/23/2021

Field Sample #: HRP-SB225-0-1-211021 Sampled: 10/21/2021 07:45

Sample ID: 21J1472-01

Sample Matrix: Soil

Metals Analyses (Total)

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Aluminum	2300	25	9.1	mg/Kg dry	1		SW-846 6010D	10/25/21	10/26/21 16:22	QNW
Antimony	ND	2.5	1.0	mg/Kg dry	1		SW-846 6010D	10/25/21	10/26/21 16:22	QNW
Arsenic	6.5	5.0	1.8	mg/Kg dry	1		SW-846 6010D	10/25/21	10/26/21 16:22	QNW
Barium	100	2.5	0.95	mg/Kg dry	1		SW-846 6010D	10/25/21	10/26/21 16:22	QNW
Beryllium	2.0	0.25	0.094	mg/Kg dry	1		SW-846 6010D	10/25/21	10/26/21 16:22	QNW
Cadmium	ND	0.50	0.25	mg/Kg dry	1		SW-846 6010D	10/25/21	10/26/21 16:22	QNW
Calcium	980	25	9.7	mg/Kg dry	1		SW-846 6010D	10/25/21	10/26/21 16:22	QNW
Chromium	27	0.99	0.57	mg/Kg dry	1		SW-846 6010D	10/25/21	10/26/21 16:22	QNW
Cobalt	8.6	2.5	0.92	mg/Kg dry	1		SW-846 6010D	10/25/21	10/26/21 16:22	QNW
Copper	39	0.99	0.48	mg/Kg dry	1		SW-846 6010D	10/25/21	10/26/21 16:22	QNW
Iron	11000	25	10	mg/Kg dry	1		SW-846 6010D	10/25/21	10/26/21 16:22	QNW
Lead	12	0.75	0.36	mg/Kg dry	1		SW-846 6010D	10/25/21	10/26/21 16:22	QNW
Magnesium	530	25	8.7	mg/Kg dry	1		SW-846 6010D	10/25/21	10/26/21 16:22	QNW
Manganese	99	0.50	0.19	mg/Kg dry	1		SW-846 6010D	10/25/21	10/26/21 16:22	QNW
Mercury	0.027	0.042	0.014	mg/Kg dry	1	J	SW-846 7471B	10/26/21	10/28/21 10:47	DRL
Nickel	22	0.99	0.51	mg/Kg dry	1		SW-846 6010D	10/25/21	10/26/21 16:22	QNW
Potassium	310	250	94	mg/Kg dry	1		SW-846 6010D	10/25/21	10/26/21 16:22	QNW
Selenium	ND	5.0	1.8	mg/Kg dry	1		SW-846 6010D	10/25/21	10/26/21 16:22	QNW
Silver	ND	0.50	0.23	mg/Kg dry	1		SW-846 6010D	10/25/21	10/26/21 16:22	QNW
Sodium	110	250	97	mg/Kg dry	1	J	SW-846 6010D	10/25/21	10/26/21 16:22	QNW
Thallium	ND	2.5	1.2	mg/Kg dry	1		SW-846 6010D	10/25/21	10/26/21 16:18	QNW
Vanadium	25	0.99	0.49	mg/Kg dry	1		SW-846 6010D	10/25/21	10/26/21 16:22	QNW
Zinc	48	0.99	0.64	mg/Kg dry	1		SW-846 6010D	10/25/21	10/26/21 16:22	QNW

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Project Location: 144 N Royal St, Alexandria, VA Sample Description: Work Order: 21J1472

Date Received: 10/23/2021

Field Sample #: HRP-SB225-0-1-211021 Sampled: 10/21/2021 07:45

Sample ID: 21J1472-01

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	66.7			% Wt	1		SM 2540G	10/27/21	10/28/21 15:27	AP
Cyanide	ND	0.65	0.46	mg/Kg dry	1		SW-846 9014	10/25/21	10/25/21 19:45	DJM
pH @17.3°C	6.0			pH Units	1	H-03	SW-846 9045C	10/25/21	10/25/21 18:10	CB2

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Project Location: 144 N Royal St, Alexandria, VA Sample Description: Work Order: 21J1472

Date Received: 10/23/2021

Field Sample #: HRP-SB224-0-1-211021 Sampled: 10/21/2021 08:25

Sample ID: 21J1472-02

Sample Matrix: Soil

Sample Flags: RL-11

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acetone	4.9	16	0.76	mg/Kg dry	4	J	SW-846 8260D	10/25/21	10/26/21 6:42	MFF
Acrylonitrile	ND	1.6	0.22	mg/Kg dry	4		SW-846 8260D	10/25/21	10/26/21 6:42	MFF
tert-Amyl Methyl Ether (TAME)	ND	0.16	0.049	mg/Kg dry	4		SW-846 8260D	10/25/21	10/26/21 6:42	MFF
Benzene	1.5	0.32	0.042	mg/Kg dry	4		SW-846 8260D	10/25/21	10/26/21 6:42	MFF
Bromobenzene	ND	0.32	0.042	mg/Kg dry	4		SW-846 8260D	10/25/21	10/26/21 6:42	MFF
Bromochloromethane	ND	0.32	0.12	mg/Kg dry	4		SW-846 8260D	10/25/21	10/26/21 6:42	MFF
Bromodichloromethane	ND	0.32	0.045	mg/Kg dry	4		SW-846 8260D	10/25/21	10/26/21 6:42	MFF
Bromoform	ND	0.32	0.094	mg/Kg dry	4		SW-846 8260D	10/25/21	10/26/21 6:42	MFF
Bromomethane	ND	0.65	0.35	mg/Kg dry	4		SW-846 8260D	10/25/21	10/26/21 6:42	MFF
2-Butanone (MEK)	1.8	6.5	0.61	mg/Kg dry	4	J	SW-846 8260D	10/25/21	10/26/21 6:42	MFF
tert-Butyl Alcohol (TBA)	ND	6.5	1.7	mg/Kg dry	4		SW-846 8260D	10/25/21	10/26/21 6:42	MFF
n-Butylbenzene	0.43	0.32	0.045	mg/Kg dry	4		SW-846 8260D	10/25/21	10/26/21 6:42	MFF
sec-Butylbenzene	0.19	0.32	0.032	mg/Kg dry	4	J	SW-846 8260D	10/25/21	10/26/21 6:42	MFF
tert-Butylbenzene	ND	0.32	0.029	mg/Kg dry	4		SW-846 8260D	10/25/21	10/26/21 6:42	MFF
tert-Butyl Ethyl Ether (TBEE)	ND	0.16	0.036	mg/Kg dry	4		SW-846 8260D	10/25/21	10/26/21 6:42	MFF
Carbon Disulfide	ND	1.6	0.49	mg/Kg dry	4		SW-846 8260D	10/25/21	10/26/21 6:42	MFF
Carbon Tetrachloride	ND	0.32	0.055	mg/Kg dry	4		SW-846 8260D	10/25/21	10/26/21 6:42	MFF
Chlorobenzene	ND	0.32	0.026	mg/Kg dry	4		SW-846 8260D	10/25/21	10/26/21 6:42	MFF
Chlorodibromomethane	ND	0.16	0.052	mg/Kg dry	4		SW-846 8260D	10/25/21	10/26/21 6:42	MFF
Chloroethane	ND	0.65	0.12	mg/Kg dry	4		SW-846 8260D	10/25/21	10/26/21 6:42	MFF
Chloroform	ND	0.65	0.062	mg/Kg dry	4		SW-846 8260D	10/25/21	10/26/21 6:42	MFF
Chloromethane	ND	0.65	0.12	mg/Kg dry	4		SW-846 8260D	10/25/21	10/26/21 6:42	MFF
2-Chlorotoluene	ND	0.32	0.029	mg/Kg dry	4		SW-846 8260D	10/25/21	10/26/21 6:42	MFF
4-Chlorotoluene	ND	0.32	0.032	mg/Kg dry	4		SW-846 8260D	10/25/21	10/26/21 6:42	MFF
1,2-Dibromo-3-chloropropane (DBCP)	ND	1.6	0.23	mg/Kg dry	4		SW-846 8260D	10/25/21	10/26/21 6:42	MFF
1,2-Dibromoethane (EDB)	ND	0.16	0.049	mg/Kg dry	4		SW-846 8260D	10/25/21	10/26/21 6:42	MFF
Dibromomethane	ND	0.32	0.094	mg/Kg dry	4		SW-846 8260D	10/25/21	10/26/21 6:42	MFF
1,2-Dichlorobenzene	ND	0.32	0.032	mg/Kg dry	4		SW-846 8260D	10/25/21	10/26/21 6:42	MFF
1,3-Dichlorobenzene	ND	0.32	0.029	mg/Kg dry	4		SW-846 8260D	10/25/21	10/26/21 6:42	MFF
1,4-Dichlorobenzene	ND	0.32	0.036	mg/Kg dry	4		SW-846 8260D	10/25/21	10/26/21 6:42	MFF
trans-1,4-Dichloro-2-butene	ND	0.65	0.58	mg/Kg dry	4		SW-846 8260D	10/25/21	10/26/21 6:42	MFF
Dichlorodifluoromethane (Freon 12)	ND	0.65	0.065	mg/Kg dry	4		SW-846 8260D	10/25/21	10/26/21 6:42	MFF
1,1-Dichloroethane	ND	0.32	0.052	mg/Kg dry	4		SW-846 8260D	10/25/21	10/26/21 6:42	MFF
1,2-Dichloroethane	ND	0.32	0.10	mg/Kg dry	4		SW-846 8260D	10/25/21	10/26/21 6:42	MFF
1,1-Dichloroethylene	ND	0.32	0.052	mg/Kg dry	4		SW-846 8260D	10/25/21	10/26/21 6:42	MFF
cis-1,2-Dichloroethylene	ND	0.32	0.049	mg/Kg dry	4		SW-846 8260D	10/25/21	10/26/21 6:42	MFF
trans-1,2-Dichloroethylene	ND	0.32	0.055	mg/Kg dry	4		SW-846 8260D	10/25/21	10/26/21 6:42	MFF
1,2-Dichloropropane	ND	0.32	0.058	mg/Kg dry	4		SW-846 8260D	10/25/21	10/26/21 6:42	MFF
1,3-Dichloropropane	ND	0.16	0.039	mg/Kg dry	4		SW-846 8260D	10/25/21	10/26/21 6:42	MFF
2,2-Dichloropropane	ND	0.32	0.10	mg/Kg dry	4	V-05	SW-846 8260D	10/25/21	10/26/21 6:42	MFF
1,1-Dichloropropene	ND	0.65	0.084	mg/Kg dry	4		SW-846 8260D	10/25/21	10/26/21 6:42	MFF
cis-1,3-Dichloropropene	ND	0.16	0.039	mg/Kg dry	4		SW-846 8260D	10/25/21	10/26/21 6:42	MFF
trans-1,3-Dichloropropene	ND	0.16	0.049	mg/Kg dry	4		SW-846 8260D	10/25/21	10/26/21 6:42	MFF
Diethyl Ether	ND	0.65	0.071	mg/Kg dry	4		SW-846 8260D	10/25/21	10/26/21 6:42	MFF

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Project Location: 144 N Royal St, Alexandria, VA Sample Description: Work Order: 21J1472

Date Received: 10/23/2021

Field Sample #: HRP-SB224-0-1-211021 Sampled: 10/21/2021 08:25

Sample ID: 21J1472-02

Sample Matrix: Soil

Sample Flags: RL-11

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Diisopropyl Ether (DIPE)	ND	0.16	0.049	mg/Kg dry	4		SW-846 8260D	10/25/21	10/26/21 6:42	MFF
1,4-Dioxane	ND	16	7.0	mg/Kg dry	4		SW-846 8260D	10/25/21	10/26/21 6:42	MFF
Ethylbenzene	1.4	0.32	0.029	mg/Kg dry	4		SW-846 8260D	10/25/21	10/26/21 6:42	MFF
Hexachlorobutadiene	ND	0.32	0.13	mg/Kg dry	4		SW-846 8260D	10/25/21	10/26/21 6:42	MFF
2-Hexanone (MBK)	ND	3.2	0.45	mg/Kg dry	4		SW-846 8260D	10/25/21	10/26/21 6:42	MFF
Isopropylbenzene (Cumene)	0.49	0.32	0.032	mg/Kg dry	4		SW-846 8260D	10/25/21	10/26/21 6:42	MFF
p-Isopropyltoluene (p-Cymene)	0.30	0.32	0.029	mg/Kg dry	4	J	SW-846 8260D	10/25/21	10/26/21 6:42	MFF
Methyl Acetate	0.95	3.2	0.13	mg/Kg dry	4	J	SW-846 8260D	10/25/21	10/26/21 6:42	MFF
Methyl tert-Butyl Ether (MTBE)	ND	0.32	0.055	mg/Kg dry	4		SW-846 8260D	10/25/21	10/26/21 6:42	MFF
Methyl Cyclohexane	22	0.32	0.11	mg/Kg dry	4		SW-846 8260D	10/25/21	10/26/21 6:42	MFF
Methylene Chloride	ND	1.6	0.097	mg/Kg dry	4		SW-846 8260D	10/25/21	10/26/21 6:42	MFF
4-Methyl-2-pentanone (MIBK)	ND	3.2	0.53	mg/Kg dry	4		SW-846 8260D	10/25/21	10/26/21 6:42	MFF
Naphthalene	7.6	0.65	0.049	mg/Kg dry	4	V-05	SW-846 8260D	10/25/21	10/26/21 6:42	MFF
n-Propylbenzene	0.70	0.32	0.026	mg/Kg dry	4		SW-846 8260D	10/25/21	10/26/21 6:42	MFF
Styrene	ND	0.32	0.026	mg/Kg dry	4		SW-846 8260D	10/25/21	10/26/21 6:42	MFF
1,1,1,2-Tetrachloroethane	ND	0.32	0.045	mg/Kg dry	4		SW-846 8260D	10/25/21	10/26/21 6:42	MFF
1,1,2,2-Tetrachloroethane	ND	0.16	0.029	mg/Kg dry	4		SW-846 8260D	10/25/21	10/26/21 6:42	MFF
Tetrachloroethylene	ND	0.32	0.065	mg/Kg dry	4		SW-846 8260D	10/25/21	10/26/21 6:42	MFF
Tetrahydrofuran	ND	3.2	0.19	mg/Kg dry	4		SW-846 8260D	10/25/21	10/26/21 6:42	MFF
Toluene	13	0.32	0.036	mg/Kg dry	4		SW-846 8260D	10/25/21	10/26/21 6:42	MFF
1,2,3-Trichlorobenzene	ND	1.6	0.045	mg/Kg dry	4	L-04, V-05	SW-846 8260D	10/25/21	10/26/21 6:42	MFF
1,2,4-Trichlorobenzene	ND	0.32	0.052	mg/Kg dry	4	V-05	SW-846 8260D	10/25/21	10/26/21 6:42	MFF
1,3,5-Trichlorobenzene	ND	0.32	0.058	mg/Kg dry	4		SW-846 8260D	10/25/21	10/26/21 6:42	MFF
1,1,1-Trichloroethane	ND	0.32	0.055	mg/Kg dry	4		SW-846 8260D	10/25/21	10/26/21 6:42	MFF
1,1,2-Trichloroethane	ND	0.32	0.049	mg/Kg dry	4		SW-846 8260D	10/25/21	10/26/21 6:42	MFF
Trichloroethylene	ND	0.32	0.058	mg/Kg dry	4		SW-846 8260D	10/25/21	10/26/21 6:42	MFF
Trichlorofluoromethane (Freon 11)	ND	0.65	0.062	mg/Kg dry	4		SW-846 8260D	10/25/21	10/26/21 6:42	MFF
1,2,3-Trichloropropane	ND	0.65	0.10	mg/Kg dry	4		SW-846 8260D	10/25/21	10/26/21 6:42	MFF
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	0.32	0.078	mg/Kg dry	4		SW-846 8260D	10/25/21	10/26/21 6:42	MFF
1,2,4-Trimethylbenzene	4.4	0.32	0.032	mg/Kg dry	4		SW-846 8260D	10/25/21	10/26/21 6:42	MFF
1,3,5-Trimethylbenzene	1.3	0.32	0.032	mg/Kg dry	4		SW-846 8260D	10/25/21	10/26/21 6:42	MFF
Vinyl Chloride	ND	0.65	0.065	mg/Kg dry	4		SW-846 8260D	10/25/21	10/26/21 6:42	MFF
m+p Xylene	12	0.65	0.058	mg/Kg dry	4		SW-846 8260D	10/25/21	10/26/21 6:42	MFF
o-Xylene	7.5	0.32	0.029	mg/Kg dry	4		SW-846 8260D	10/25/21	10/26/21 6:42	MFF

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
1,2-Dichloroethane-d4	106	70-130		10/26/21 6:42
Toluene-d8	106	70-130		10/26/21 6:42
4-Bromofluorobenzene	109	70-130		10/26/21 6:42

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Project Location: 144 N Royal St, Alexandria, VA Sample Description: Work Order: 21J1472

Date Received: 10/23/2021

Field Sample #: HRP-SB224-0-1-211021 Sampled: 10/21/2021 08:25

Sample ID: 21J1472-02

Sample Matrix: Soil

Semivolatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acenaphthene	0.17	0.19	0.060	mg/Kg dry	1	J	SW-846 8270E	10/25/21	10/27/21 17:41	BGL
Acenaphthylene	0.29	0.19	0.059	mg/Kg dry	1		SW-846 8270E	10/25/21	10/27/21 17:41	BGL
Acetophenone	0.56	0.38	0.052	mg/Kg dry	1		SW-846 8270E	10/25/21	10/27/21 17:41	BGL
Aniline	ND	0.38	0.080	mg/Kg dry	1		SW-846 8270E	10/25/21	10/27/21 17:41	BGL
Anthracene	0.41	0.19	0.063	mg/Kg dry	1		SW-846 8270E	10/25/21	10/27/21 17:41	BGL
Benzidine	ND	0.74	0.18	mg/Kg dry	1	V-05	SW-846 8270E	10/25/21	10/27/21 17:41	BGL
Benzo(a)anthracene	1.5	0.19	0.053	mg/Kg dry	1		SW-846 8270E	10/25/21	10/27/21 17:41	BGL
Benzo(a)pyrene	0.71	0.19	0.059	mg/Kg dry	1		SW-846 8270E	10/25/21	10/27/21 17:41	BGL
Benzo(b)fluoranthene	2.8	0.19	0.058	mg/Kg dry	1		SW-846 8270E	10/25/21	10/27/21 17:41	BGL
Benzo(g,h,i)perylene	0.50	0.19	0.081	mg/Kg dry	1		SW-846 8270E	10/25/21	10/27/21 17:41	BGL
Benzo(k)fluoranthene	1.0	0.19	0.052	mg/Kg dry	1		SW-846 8270E	10/25/21	10/27/21 17:41	BGL
Benzoic Acid	1.2	1.1	0.46	mg/Kg dry	1	L-04	SW-846 8270E	10/25/21	10/27/21 17:41	BGL
Bis(2-chloroethoxy)methane	ND	0.38	0.050	mg/Kg dry	1		SW-846 8270E	10/25/21	10/27/21 17:41	BGL
Bis(2-chloroethyl)ether	ND	0.38	0.053	mg/Kg dry	1		SW-846 8270E	10/25/21	10/27/21 17:41	BGL
Bis(2-chloroisopropyl)ether	ND	0.38	0.087	mg/Kg dry	1		SW-846 8270E	10/25/21	10/27/21 17:41	BGL
Bis(2-Ethylhexyl)phthalate	0.12	0.38	0.065	mg/Kg dry	1	J	SW-846 8270E	10/25/21	10/27/21 17:41	BGL
4-Bromophenylphenylether	ND	0.38	0.049	mg/Kg dry	1		SW-846 8270E	10/25/21	10/27/21 17:41	BGL
Butylbenzylphthalate	ND	0.38	0.061	mg/Kg dry	1		SW-846 8270E	10/25/21	10/27/21 17:41	BGL
Carbazole	0.46	0.19	0.063	mg/Kg dry	1		SW-846 8270E	10/25/21	10/27/21 17:41	BGL
4-Chloroaniline	ND	0.74	0.051	mg/Kg dry	1	V-34	SW-846 8270E	10/25/21	10/27/21 17:41	BGL
4-Chloro-3-methylphenol	ND	0.74	0.064	mg/Kg dry	1		SW-846 8270E	10/25/21	10/27/21 17:41	BGL
2-Chloronaphthalene	ND	0.38	0.045	mg/Kg dry	1		SW-846 8270E	10/25/21	10/27/21 17:41	BGL
2-Chlorophenol	ND	0.38	0.053	mg/Kg dry	1		SW-846 8270E	10/25/21	10/27/21 17:41	BGL
4-Chlorophenylphenylether	ND	0.38	0.055	mg/Kg dry	1		SW-846 8270E	10/25/21	10/27/21 17:41	BGL
Chrysene	2.9	0.19	0.055	mg/Kg dry	1		SW-846 8270E	10/25/21	10/27/21 17:41	BGL
Dibenz(a,h)anthracene	0.24	0.19	0.078	mg/Kg dry	1		SW-846 8270E	10/25/21	10/27/21 17:41	BGL
Dibenzofuran	3.6	0.38	0.057	mg/Kg dry	1		SW-846 8270E	10/25/21	10/27/21 17:41	BGL
Di-n-butylphthalate	ND	0.38	0.054	mg/Kg dry	1		SW-846 8270E	10/25/21	10/27/21 17:41	BGL
1,2-Dichlorobenzene	ND	0.38	0.044	mg/Kg dry	1		SW-846 8270E	10/25/21	10/27/21 17:41	BGL
1,3-Dichlorobenzene	ND	0.38	0.042	mg/Kg dry	1		SW-846 8270E	10/25/21	10/27/21 17:41	BGL
1,4-Dichlorobenzene	ND	0.38	0.040	mg/Kg dry	1		SW-846 8270E	10/25/21	10/27/21 17:41	BGL
3,3-Dichlorobenzidine	ND	0.19	0.056	mg/Kg dry	1		SW-846 8270E	10/25/21	10/27/21 17:41	BGL
2,4-Dichlorophenol	ND	0.38	0.057	mg/Kg dry	1		SW-846 8270E	10/25/21	10/27/21 17:41	BGL
Diethylphthalate	ND	0.38	0.059	mg/Kg dry	1		SW-846 8270E	10/25/21	10/27/21 17:41	BGL
2,4-Dimethylphenol	0.14	0.38	0.10	mg/Kg dry	1	J	SW-846 8270E	10/25/21	10/27/21 17:41	BGL
Dimethylphthalate	ND	0.38	0.056	mg/Kg dry	1		SW-846 8270E	10/25/21	10/27/21 17:41	BGL
4,6-Dinitro-2-methylphenol	ND	0.38	0.26	mg/Kg dry	1		SW-846 8270E	10/25/21	10/27/21 17:41	BGL
2,4-Dinitrophenol	ND	0.74	0.33	mg/Kg dry	1	L-04, V-04	SW-846 8270E	10/25/21	10/27/21 17:41	BGL
2,4-Dinitrotoluene	ND	0.38	0.075	mg/Kg dry	1		SW-846 8270E	10/25/21	10/27/21 17:41	BGL
2,6-Dinitrotoluene	ND	0.38	0.064	mg/Kg dry	1		SW-846 8270E	10/25/21	10/27/21 17:41	BGL
Di-n-octylphthalate	ND	0.38	0.14	mg/Kg dry	1		SW-846 8270E	10/25/21	10/27/21 17:41	BGL
1,2-Diphenylhydrazine/Azobenzene	ND	0.38	0.055	mg/Kg dry	1	V-05	SW-846 8270E	10/25/21	10/27/21 17:41	BGL
Fluoranthene	2.6	0.19	0.061	mg/Kg dry	1		SW-846 8270E	10/25/21	10/27/21 17:41	BGL
Fluorene	0.22	0.19	0.065	mg/Kg dry	1		SW-846 8270E	10/25/21	10/27/21 17:41	BGL

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Project Location: 144 N Royal St, Alexandria, VA Sample Description: Work Order: 21J1472

Date Received: 10/23/2021

Field Sample #: HRP-SB224-0-1-211021 Sampled: 10/21/2021 08:25

Sample ID: 21J1472-02

Sample Matrix: Soil

Semivolatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Hexachlorobenzene	ND	0.38	0.052	mg/Kg dry	1		SW-846 8270E	10/25/21	10/27/21 17:41	BGL
Hexachlorobutadiene	ND	0.38	0.049	mg/Kg dry	1		SW-846 8270E	10/25/21	10/27/21 17:41	BGL
Hexachlorocyclopentadiene	ND	0.38	0.16	mg/Kg dry	1	L-04, V-05	SW-846 8270E	10/25/21	10/27/21 17:41	BGL
Hexachloroethane	ND	0.38	0.046	mg/Kg dry	1		SW-846 8270E	10/25/21	10/27/21 17:41	BGL
Indeno(1,2,3-cd)pyrene	0.62	0.19	0.087	mg/Kg dry	1		SW-846 8270E	10/25/21	10/27/21 17:41	BGL
Isophorone	ND	0.38	0.064	mg/Kg dry	1		SW-846 8270E	10/25/21	10/27/21 17:41	BGL
1-Methylnaphthalene	9.8	0.96	0.27	mg/Kg dry	5		SW-846 8270E	10/25/21	10/28/21 15:29	IMR
2-Methylnaphthalene	16	0.96	0.30	mg/Kg dry	5		SW-846 8270E	10/25/21	10/28/21 15:29	IMR
2-Methylphenol	0.085	0.38	0.071	mg/Kg dry	1	J	SW-846 8270E	10/25/21	10/27/21 17:41	BGL
3/4-Methylphenol	0.088	0.38	0.062	mg/Kg dry	1	J	SW-846 8270E	10/25/21	10/27/21 17:41	BGL
Naphthalene	11	0.96	0.26	mg/Kg dry	5		SW-846 8270E	10/25/21	10/28/21 15:29	IMR
2-Nitroaniline	ND	0.38	0.082	mg/Kg dry	1		SW-846 8270E	10/25/21	10/27/21 17:41	BGL
3-Nitroaniline	ND	0.38	0.065	mg/Kg dry	1		SW-846 8270E	10/25/21	10/27/21 17:41	BGL
4-Nitroaniline	ND	0.38	0.082	mg/Kg dry	1		SW-846 8270E	10/25/21	10/27/21 17:41	BGL
Nitrobenzene	ND	0.38	0.056	mg/Kg dry	1		SW-846 8270E	10/25/21	10/27/21 17:41	BGL
2-Nitrophenol	ND	0.38	0.060	mg/Kg dry	1		SW-846 8270E	10/25/21	10/27/21 17:41	BGL
4-Nitrophenol	ND	0.74	0.16	mg/Kg dry	1		SW-846 8270E	10/25/21	10/27/21 17:41	BGL
N-Nitrosodimethylamine	ND	0.38	0.057	mg/Kg dry	1		SW-846 8270E	10/25/21	10/27/21 17:41	BGL
N-Nitrosodiphenylamine/Diphenylamine	ND	0.38	0.058	mg/Kg dry	1		SW-846 8270E	10/25/21	10/27/21 17:41	BGL
N-Nitrosodi-n-propylamine	ND	0.38	0.053	mg/Kg dry	1		SW-846 8270E	10/25/21	10/27/21 17:41	BGL
Pentachloronitrobenzene	ND	0.38	0.065	mg/Kg dry	1		SW-846 8270E	10/25/21	10/27/21 17:41	BGL
Pentachlorophenol	ND	0.38	0.17	mg/Kg dry	1	V-05	SW-846 8270E	10/25/21	10/27/21 17:41	BGL
Phenanthrene	7.0	0.96	0.30	mg/Kg dry	5		SW-846 8270E	10/25/21	10/28/21 15:29	IMR
Phenol	ND	0.38	0.055	mg/Kg dry	1		SW-846 8270E	10/25/21	10/27/21 17:41	BGL
Pyrene	2.9	0.19	0.061	mg/Kg dry	1		SW-846 8270E	10/25/21	10/27/21 17:41	BGL
Pyridine	ND	0.38	0.039	mg/Kg dry	1	L-04	SW-846 8270E	10/25/21	10/27/21 17:41	BGL
1,2,4,5-Tetrachlorobenzene	ND	0.38	0.050	mg/Kg dry	1		SW-846 8270E	10/25/21	10/27/21 17:41	BGL
1,2,4-Trichlorobenzene	ND	0.38	0.048	mg/Kg dry	1		SW-846 8270E	10/25/21	10/27/21 17:41	BGL
2,4,5-Trichlorophenol	ND	0.38	0.060	mg/Kg dry	1		SW-846 8270E	10/25/21	10/27/21 17:41	BGL
2,4,6-Trichlorophenol	ND	0.38	0.059	mg/Kg dry	1		SW-846 8270E	10/25/21	10/27/21 17:41	BGL

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
2-Fluorophenol	46.9	30-130		10/27/21 17:41
2-Fluorophenol	57.1	30-130		10/28/21 15:29
Phenol-d6	43.7	30-130		10/27/21 17:41
Phenol-d6	61.4	30-130		10/28/21 15:29
Nitrobenzene-d5	48.9	30-130		10/27/21 17:41
Nitrobenzene-d5	59.2	30-130		10/28/21 15:29
2-Fluorobiphenyl	55.1	30-130		10/27/21 17:41
2-Fluorobiphenyl	64.0	30-130		10/28/21 15:29
2,4,6-Tribromophenol	57.3	30-130		10/27/21 17:41
2,4,6-Tribromophenol	57.1	30-130		10/28/21 15:29
p-Terphenyl-d14	89.2	30-130		10/27/21 17:41
p-Terphenyl-d14	77.5	30-130		10/28/21 15:29

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Project Location: 144 N Royal St, Alexandria, VA Sample Description: Work Order: 21J1472

Date Received: 10/23/2021

Field Sample #: HRP-SB224-0-1-211021 Sampled: 10/21/2021 08:25

Sample ID: 21J1472-02

Sample Matrix: Soil

Polychlorinated Biphenyls By GC/ECD

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Aroclor-1016 [1]	ND	0.090	0.054	mg/Kg dry	4		SW-846 8082A	10/25/21	10/27/21 16:07	TG
Aroclor-1221 [1]	ND	0.090	0.059	mg/Kg dry	4		SW-846 8082A	10/25/21	10/27/21 16:07	TG
Aroclor-1232 [1]	ND	0.090	0.041	mg/Kg dry	4		SW-846 8082A	10/25/21	10/27/21 16:07	TG
Aroclor-1242 [1]	ND	0.090	0.045	mg/Kg dry	4		SW-846 8082A	10/25/21	10/27/21 16:07	TG
Aroclor-1248 [1]	ND	0.090	0.054	mg/Kg dry	4		SW-846 8082A	10/25/21	10/27/21 16:07	TG
Aroclor-1254 [1]	ND	0.090	0.059	mg/Kg dry	4		SW-846 8082A	10/25/21	10/27/21 16:07	TG
Aroclor-1260 [1]	ND	0.090	0.063	mg/Kg dry	4		SW-846 8082A	10/25/21	10/27/21 16:07	TG
Aroclor-1262 [1]	ND	0.090	0.045	mg/Kg dry	4		SW-846 8082A	10/25/21	10/27/21 16:07	TG
Aroclor-1268 [1]	ND	0.090	0.036	mg/Kg dry	4		SW-846 8082A	10/25/21	10/27/21 16:07	TG

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
Decachlorobiphenyl [1]	83.8	30-150		10/27/21 16:07
Decachlorobiphenyl [2]	80.7	30-150		10/27/21 16:07
Tetrachloro-m-xylene [1]	77.8	30-150		10/27/21 16:07
Tetrachloro-m-xylene [2]	71.4	30-150		10/27/21 16:07

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Project Location: 144 N Royal St, Alexandria, VA Sample Description: Work Order: 21J1472

Date Received: 10/23/2021

Field Sample #: HRP-SB224-0-1-211021 Sampled: 10/21/2021 08:25

Sample ID: 21J1472-02

Sample Matrix: Soil

Petroleum Hydrocarbons Analyses

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Gasoline Range Organics (GRO)	320	1.6	1.6	mg/Kg dry	1		SW-846 8015C	10/27/21	10/28/21 5:39	KMB
Diesel Range Organics	1200	47	22	mg/Kg dry	5		SW-846 8015C	10/25/21	10/29/21 7:33	SFM

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
1-Chloro-3-fluorobenzene	95.9	70-130		10/28/21 5:39
2-Fluorobiphenyl	61.9	40-140		10/29/21 7:33

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Project Location: 144 N Royal St, Alexandria, VA Sample Description: Work Order: 21J1472

Date Received: 10/23/2021

Field Sample #: HRP-SB224-0-1-211021 Sampled: 10/21/2021 08:25

Sample ID: 21J1472-02

Sample Matrix: Soil

Metals Analyses (Total)

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Aluminum	1200	18	6.7	mg/Kg dry	1		SW-846 6010D	10/25/21	10/26/21 16:28	QNW
Antimony	ND	1.8	0.74	mg/Kg dry	1		SW-846 6010D	10/25/21	10/26/21 16:28	QNW
Arsenic	9.9	3.7	1.3	mg/Kg dry	1		SW-846 6010D	10/25/21	10/26/21 16:28	QNW
Barium	81	1.8	0.70	mg/Kg dry	1		SW-846 6010D	10/25/21	10/26/21 16:28	QNW
Beryllium	1.5	0.18	0.069	mg/Kg dry	1		SW-846 6010D	10/25/21	10/26/21 16:28	QNW
Cadmium	0.21	0.37	0.19	mg/Kg dry	1	J	SW-846 6010D	10/25/21	10/26/21 16:28	QNW
Calcium	810	18	7.1	mg/Kg dry	1		SW-846 6010D	10/25/21	10/26/21 16:28	QNW
Chromium	14	0.73	0.42	mg/Kg dry	1		SW-846 6010D	10/25/21	10/26/21 16:28	QNW
Cobalt	5.9	1.8	0.67	mg/Kg dry	1		SW-846 6010D	10/25/21	10/26/21 16:28	QNW
Copper	27	0.73	0.35	mg/Kg dry	1		SW-846 6010D	10/25/21	10/26/21 16:28	QNW
Iron	11000	18	7.4	mg/Kg dry	1		SW-846 6010D	10/25/21	10/26/21 16:28	QNW
Lead	28	0.55	0.27	mg/Kg dry	1		SW-846 6010D	10/25/21	10/26/21 16:28	QNW
Magnesium	280	18	6.4	mg/Kg dry	1		SW-846 6010D	10/25/21	10/26/21 16:28	QNW
Manganese	76	0.37	0.14	mg/Kg dry	1		SW-846 6010D	10/25/21	10/26/21 16:28	QNW
Mercury	0.023	0.029	0.0097	mg/Kg dry	1	J	SW-846 7471B	10/26/21	10/28/21 10:49	DRL
Nickel	13	0.73	0.37	mg/Kg dry	1		SW-846 6010D	10/25/21	10/26/21 16:28	QNW
Potassium	240	180	69	mg/Kg dry	1		SW-846 6010D	10/25/21	10/26/21 16:28	QNW
Selenium	ND	3.7	1.3	mg/Kg dry	1		SW-846 6010D	10/25/21	10/26/21 16:28	QNW
Silver	ND	0.37	0.17	mg/Kg dry	1		SW-846 6010D	10/25/21	10/26/21 16:28	QNW
Sodium	80	180	71	mg/Kg dry	1	J	SW-846 6010D	10/25/21	10/26/21 16:28	QNW
Thallium	ND	1.8	0.88	mg/Kg dry	1		SW-846 6010D	10/25/21	10/26/21 16:25	QNW
Vanadium	15	0.73	0.36	mg/Kg dry	1		SW-846 6010D	10/25/21	10/26/21 16:28	QNW
Zinc	54	0.73	0.47	mg/Kg dry	1		SW-846 6010D	10/25/21	10/26/21 16:28	QNW

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Project Location: 144 N Royal St, Alexandria, VA Sample Description: Work Order: 21J1472

Date Received: 10/23/2021

Field Sample #: HRP-SB224-0-1-211021 Sampled: 10/21/2021 08:25

Sample ID: 21J1472-02

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	88.6			% Wt	1		SM 2540G	10/27/21	10/28/21 15:27	AP
Cyanide	ND	0.52	0.36	mg/Kg dry	1		SW-846 9014	10/25/21	10/25/21 19:45	DJM
pH @19.4°C	5.9			pH Units	1	H-03	SW-846 9045C	10/25/21	10/25/21 18:10	CB2

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Project Location: 144 N Royal St, Alexandria, VA Sample Description: Work Order: 21J1472

Date Received: 10/23/2021

Field Sample #: HRP-SB227-0-1-211021 Sampled: 10/21/2021 08:50

Sample ID: 21J1472-03

Sample Matrix: Soil

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acetone	ND	0.086	0.027	mg/Kg dry	1		SW-846 8260D	10/25/21	10/25/21 10:51	MFF
Acrylonitrile	ND	0.0051	0.00083	mg/Kg dry	1		SW-846 8260D	10/25/21	10/25/21 10:51	MFF
tert-Amyl Methyl Ether (TAME)	ND	0.00086	0.00039	mg/Kg dry	1		SW-846 8260D	10/25/21	10/25/21 10:51	MFF
Benzene	ND	0.0017	0.00040	mg/Kg dry	1		SW-846 8260D	10/25/21	10/25/21 10:51	MFF
Bromobenzene	ND	0.0017	0.00029	mg/Kg dry	1		SW-846 8260D	10/25/21	10/25/21 10:51	MFF
Bromochloromethane	ND	0.0017	0.00081	mg/Kg dry	1		SW-846 8260D	10/25/21	10/25/21 10:51	MFF
Bromodichloromethane	ND	0.0017	0.00041	mg/Kg dry	1		SW-846 8260D	10/25/21	10/25/21 10:51	MFF
Bromoform	ND	0.0017	0.00052	mg/Kg dry	1		SW-846 8260D	10/25/21	10/25/21 10:51	MFF
Bromomethane	ND	0.0086	0.0031	mg/Kg dry	1	V-34	SW-846 8260D	10/25/21	10/25/21 10:51	MFF
2-Butanone (MEK)	ND	0.034	0.010	mg/Kg dry	1		SW-846 8260D	10/25/21	10/25/21 10:51	MFF
tert-Butyl Alcohol (TBA)	ND	0.086	0.041	mg/Kg dry	1		SW-846 8260D	10/25/21	10/25/21 10:51	MFF
n-Butylbenzene	ND	0.0017	0.00044	mg/Kg dry	1		SW-846 8260D	10/25/21	10/25/21 10:51	MFF
sec-Butylbenzene	ND	0.0017	0.00083	mg/Kg dry	1		SW-846 8260D	10/25/21	10/25/21 10:51	MFF
tert-Butylbenzene	ND	0.0034	0.00072	mg/Kg dry	1		SW-846 8260D	10/25/21	10/25/21 10:51	MFF
tert-Butyl Ethyl Ether (TBEE)	ND	0.00086	0.00044	mg/Kg dry	1		SW-846 8260D	10/25/21	10/25/21 10:51	MFF
Carbon Disulfide	ND	0.0086	0.0061	mg/Kg dry	1		SW-846 8260D	10/25/21	10/25/21 10:51	MFF
Carbon Tetrachloride	ND	0.0017	0.00066	mg/Kg dry	1		SW-846 8260D	10/25/21	10/25/21 10:51	MFF
Chlorobenzene	ND	0.0017	0.00046	mg/Kg dry	1		SW-846 8260D	10/25/21	10/25/21 10:51	MFF
Chlorodibromomethane	ND	0.00086	0.00044	mg/Kg dry	1		SW-846 8260D	10/25/21	10/25/21 10:51	MFF
Chloroethane	ND	0.017	0.0030	mg/Kg dry	1		SW-846 8260D	10/25/21	10/25/21 10:51	MFF
Chloroform	ND	0.0034	0.00085	mg/Kg dry	1		SW-846 8260D	10/25/21	10/25/21 10:51	MFF
Chloromethane	ND	0.0086	0.0028	mg/Kg dry	1		SW-846 8260D	10/25/21	10/25/21 10:51	MFF
2-Chlorotoluene	ND	0.0017	0.00039	mg/Kg dry	1		SW-846 8260D	10/25/21	10/25/21 10:51	MFF
4-Chlorotoluene	ND	0.0017	0.00030	mg/Kg dry	1		SW-846 8260D	10/25/21	10/25/21 10:51	MFF
1,2-Dibromo-3-chloropropane (DBCP)	ND	0.0017	0.00057	mg/Kg dry	1		SW-846 8260D	10/25/21	10/25/21 10:51	MFF
1,2-Dibromoethane (EDB)	ND	0.00086	0.00053	mg/Kg dry	1		SW-846 8260D	10/25/21	10/25/21 10:51	MFF
Dibromomethane	ND	0.0017	0.00062	mg/Kg dry	1		SW-846 8260D	10/25/21	10/25/21 10:51	MFF
1,2-Dichlorobenzene	ND	0.0017	0.00034	mg/Kg dry	1		SW-846 8260D	10/25/21	10/25/21 10:51	MFF
1,3-Dichlorobenzene	ND	0.0017	0.00036	mg/Kg dry	1		SW-846 8260D	10/25/21	10/25/21 10:51	MFF
1,4-Dichlorobenzene	ND	0.0017	0.00044	mg/Kg dry	1		SW-846 8260D	10/25/21	10/25/21 10:51	MFF
trans-1,4-Dichloro-2-butene	ND	0.0034	0.00048	mg/Kg dry	1		SW-846 8260D	10/25/21	10/25/21 10:51	MFF
Dichlorodifluoromethane (Freon 12)	ND	0.017	0.00099	mg/Kg dry	1	V-05	SW-846 8260D	10/25/21	10/25/21 10:51	MFF
1,1-Dichloroethane	ND	0.0017	0.00043	mg/Kg dry	1		SW-846 8260D	10/25/21	10/25/21 10:51	MFF
1,2-Dichloroethane	ND	0.0017	0.00052	mg/Kg dry	1		SW-846 8260D	10/25/21	10/25/21 10:51	MFF
1,1-Dichloroethylene	ND	0.0034	0.0011	mg/Kg dry	1		SW-846 8260D	10/25/21	10/25/21 10:51	MFF
cis-1,2-Dichloroethylene	ND	0.0017	0.00045	mg/Kg dry	1		SW-846 8260D	10/25/21	10/25/21 10:51	MFF
trans-1,2-Dichloroethylene	ND	0.0017	0.00048	mg/Kg dry	1		SW-846 8260D	10/25/21	10/25/21 10:51	MFF
1,2-Dichloropropane	ND	0.0017	0.00040	mg/Kg dry	1		SW-846 8260D	10/25/21	10/25/21 10:51	MFF
1,3-Dichloropropane	ND	0.00086	0.00041	mg/Kg dry	1		SW-846 8260D	10/25/21	10/25/21 10:51	MFF
2,2-Dichloropropane	ND	0.0017	0.00066	mg/Kg dry	1		SW-846 8260D	10/25/21	10/25/21 10:51	MFF
1,1-Dichloropropene	ND	0.0017	0.00067	mg/Kg dry	1		SW-846 8260D	10/25/21	10/25/21 10:51	MFF
cis-1,3-Dichloropropene	ND	0.00086	0.00033	mg/Kg dry	1		SW-846 8260D	10/25/21	10/25/21 10:51	MFF
trans-1,3-Dichloropropene	ND	0.00086	0.00042	mg/Kg dry	1		SW-846 8260D	10/25/21	10/25/21 10:51	MFF
Diethyl Ether	ND	0.017	0.0019	mg/Kg dry	1		SW-846 8260D	10/25/21	10/25/21 10:51	MFF

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Project Location: 144 N Royal St, Alexandria, VA Sample Description: Work Order: 21J1472

Date Received: 10/23/2021

Field Sample #: HRP-SB227-0-1-211021 Sampled: 10/21/2021 08:50

Sample ID: 21J1472-03

Sample Matrix: Soil

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Diisopropyl Ether (DIPE)	ND	0.00086	0.00046	mg/Kg dry	1		SW-846 8260D	10/25/21	10/25/21 10:51	MFF
1,4-Dioxane	ND	0.086	0.019	mg/Kg dry	1		SW-846 8260D	10/25/21	10/25/21 10:51	MFF
Ethylbenzene	ND	0.0017	0.00038	mg/Kg dry	1		SW-846 8260D	10/25/21	10/25/21 10:51	MFF
Hexachlorobutadiene	ND	0.0017	0.00061	mg/Kg dry	1		SW-846 8260D	10/25/21	10/25/21 10:51	MFF
2-Hexanone (MBK)	ND	0.017	0.0050	mg/Kg dry	1		SW-846 8260D	10/25/21	10/25/21 10:51	MFF
Isopropylbenzene (Cumene)	ND	0.0017	0.00061	mg/Kg dry	1		SW-846 8260D	10/25/21	10/25/21 10:51	MFF
p-Isopropyltoluene (p-Cymene)	ND	0.0017	0.00039	mg/Kg dry	1		SW-846 8260D	10/25/21	10/25/21 10:51	MFF
Methyl Acetate	ND	0.0017	0.0012	mg/Kg dry	1		SW-846 8260D	10/25/21	10/25/21 10:51	MFF
Methyl tert-Butyl Ether (MTBE)	ND	0.0034	0.00032	mg/Kg dry	1		SW-846 8260D	10/25/21	10/25/21 10:51	MFF
Methyl Cyclohexane	ND	0.0017	0.00062	mg/Kg dry	1		SW-846 8260D	10/25/21	10/25/21 10:51	MFF
Methylene Chloride	ND	0.017	0.00048	mg/Kg dry	1		SW-846 8260D	10/25/21	10/25/21 10:51	MFF
4-Methyl-2-pentanone (MIBK)	ND	0.017	0.0038	mg/Kg dry	1		SW-846 8260D	10/25/21	10/25/21 10:51	MFF
Naphthalene	ND	0.0034	0.00044	mg/Kg dry	1		SW-846 8260D	10/25/21	10/25/21 10:51	MFF
n-Propylbenzene	ND	0.0017	0.00033	mg/Kg dry	1		SW-846 8260D	10/25/21	10/25/21 10:51	MFF
Styrene	ND	0.0017	0.00036	mg/Kg dry	1		SW-846 8260D	10/25/21	10/25/21 10:51	MFF
1,1,1,2-Tetrachloroethane	ND	0.0017	0.00047	mg/Kg dry	1		SW-846 8260D	10/25/21	10/25/21 10:51	MFF
1,1,2,2-Tetrachloroethane	ND	0.00086	0.00047	mg/Kg dry	1		SW-846 8260D	10/25/21	10/25/21 10:51	MFF
Tetrachloroethylene	ND	0.0017	0.00047	mg/Kg dry	1		SW-846 8260D	10/25/21	10/25/21 10:51	MFF
Tetrahydrofuran	ND	0.0086	0.0022	mg/Kg dry	1		SW-846 8260D	10/25/21	10/25/21 10:51	MFF
Toluene	0.00048	0.0017	0.00048	mg/Kg dry	1	J	SW-846 8260D	10/25/21	10/25/21 10:51	MFF
1,2,3-Trichlorobenzene	ND	0.0017	0.00047	mg/Kg dry	1		SW-846 8260D	10/25/21	10/25/21 10:51	MFF
1,2,4-Trichlorobenzene	ND	0.0017	0.00041	mg/Kg dry	1		SW-846 8260D	10/25/21	10/25/21 10:51	MFF
1,3,5-Trichlorobenzene	ND	0.0017	0.00042	mg/Kg dry	1		SW-846 8260D	10/25/21	10/25/21 10:51	MFF
1,1,1-Trichloroethane	ND	0.0017	0.00058	mg/Kg dry	1		SW-846 8260D	10/25/21	10/25/21 10:51	MFF
1,1,2-Trichloroethane	ND	0.0017	0.00040	mg/Kg dry	1		SW-846 8260D	10/25/21	10/25/21 10:51	MFF
Trichloroethylene	ND	0.0017	0.00042	mg/Kg dry	1		SW-846 8260D	10/25/21	10/25/21 10:51	MFF
Trichlorofluoromethane (Freon 11)	ND	0.0086	0.0031	mg/Kg dry	1		SW-846 8260D	10/25/21	10/25/21 10:51	MFF
1,2,3-Trichloropropane	ND	0.0017	0.00082	mg/Kg dry	1		SW-846 8260D	10/25/21	10/25/21 10:51	MFF
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	0.0086	0.0023	mg/Kg dry	1		SW-846 8260D	10/25/21	10/25/21 10:51	MFF
1,2,4-Trimethylbenzene	ND	0.0017	0.00055	mg/Kg dry	1		SW-846 8260D	10/25/21	10/25/21 10:51	MFF
1,3,5-Trimethylbenzene	ND	0.0017	0.00037	mg/Kg dry	1		SW-846 8260D	10/25/21	10/25/21 10:51	MFF
Vinyl Chloride	ND	0.0086	0.0026	mg/Kg dry	1		SW-846 8260D	10/25/21	10/25/21 10:51	MFF
m+p Xylene	ND	0.0034	0.00065	mg/Kg dry	1		SW-846 8260D	10/25/21	10/25/21 10:51	MFF
o-Xylene	ND	0.0017	0.00035	mg/Kg dry	1		SW-846 8260D	10/25/21	10/25/21 10:51	MFF

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
1,2-Dichloroethane-d4	99.9	70-130		10/25/21 10:51
Toluene-d8	97.9	70-130		10/25/21 10:51
4-Bromofluorobenzene	88.8	70-130		10/25/21 10:51

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Project Location: 144 N Royal St, Alexandria, VA Sample Description: Work Order: 21J1472

Date Received: 10/23/2021

Field Sample #: HRP-SB227-0-1-211021 Sampled: 10/21/2021 08:50

Sample ID: 21J1472-03

Sample Matrix: Soil

Semivolatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acenaphthene	ND	0.19	0.061	mg/Kg dry	1		SW-846 8270E	10/25/21	10/27/21 18:09	BGL
Acenaphthylene	ND	0.19	0.059	mg/Kg dry	1		SW-846 8270E	10/25/21	10/27/21 18:09	BGL
Acetophenone	ND	0.39	0.053	mg/Kg dry	1		SW-846 8270E	10/25/21	10/27/21 18:09	BGL
Aniline	ND	0.39	0.081	mg/Kg dry	1	MS-09, R-06	SW-846 8270E	10/25/21	10/27/21 18:09	BGL
Anthracene	ND	0.19	0.063	mg/Kg dry	1		SW-846 8270E	10/25/21	10/27/21 18:09	BGL
Benzidine	ND	0.75	0.18	mg/Kg dry	1	MS-09, V-05	SW-846 8270E	10/25/21	10/27/21 18:09	BGL
Benzo(a)anthracene	0.074	0.19	0.054	mg/Kg dry	1	J	SW-846 8270E	10/25/21	10/27/21 18:09	BGL
Benzo(a)pyrene	ND	0.19	0.059	mg/Kg dry	1		SW-846 8270E	10/25/21	10/27/21 18:09	BGL
Benzo(b)fluoranthene	0.13	0.19	0.059	mg/Kg dry	1	J	SW-846 8270E	10/25/21	10/27/21 18:09	BGL
Benzo(g,h,i)perylene	ND	0.19	0.081	mg/Kg dry	1		SW-846 8270E	10/25/21	10/27/21 18:09	BGL
Benzo(k)fluoranthene	ND	0.19	0.052	mg/Kg dry	1		SW-846 8270E	10/25/21	10/27/21 18:09	BGL
Benzoic Acid	ND	1.1	0.46	mg/Kg dry	1	L-04	SW-846 8270E	10/25/21	10/27/21 18:09	BGL
Bis(2-chloroethoxy)methane	ND	0.39	0.050	mg/Kg dry	1		SW-846 8270E	10/25/21	10/27/21 18:09	BGL
Bis(2-chloroethyl)ether	ND	0.39	0.053	mg/Kg dry	1		SW-846 8270E	10/25/21	10/27/21 18:09	BGL
Bis(2-chloroisopropyl)ether	ND	0.39	0.088	mg/Kg dry	1		SW-846 8270E	10/25/21	10/27/21 18:09	BGL
Bis(2-Ethylhexyl)phthalate	ND	0.39	0.065	mg/Kg dry	1		SW-846 8270E	10/25/21	10/27/21 18:09	BGL
4-Bromophenylphenylether	ND	0.39	0.049	mg/Kg dry	1		SW-846 8270E	10/25/21	10/27/21 18:09	BGL
Butylbenzylphthalate	ND	0.39	0.062	mg/Kg dry	1		SW-846 8270E	10/25/21	10/27/21 18:09	BGL
Carbazole	ND	0.19	0.064	mg/Kg dry	1		SW-846 8270E	10/25/21	10/27/21 18:09	BGL
4-Chloroaniline	ND	0.75	0.051	mg/Kg dry	1	MS-09, V-34	SW-846 8270E	10/25/21	10/27/21 18:09	BGL
4-Chloro-3-methylphenol	ND	0.75	0.064	mg/Kg dry	1		SW-846 8270E	10/25/21	10/27/21 18:09	BGL
2-Chloronaphthalene	ND	0.39	0.045	mg/Kg dry	1		SW-846 8270E	10/25/21	10/27/21 18:09	BGL
2-Chlorophenol	ND	0.39	0.054	mg/Kg dry	1		SW-846 8270E	10/25/21	10/27/21 18:09	BGL
4-Chlorophenylphenylether	ND	0.39	0.055	mg/Kg dry	1		SW-846 8270E	10/25/21	10/27/21 18:09	BGL
Chrysene	0.16	0.19	0.056	mg/Kg dry	1	J	SW-846 8270E	10/25/21	10/27/21 18:09	BGL
Dibenz(a,h)anthracene	ND	0.19	0.079	mg/Kg dry	1		SW-846 8270E	10/25/21	10/27/21 18:09	BGL
Dibenzofuran	0.27	0.39	0.057	mg/Kg dry	1	J	SW-846 8270E	10/25/21	10/27/21 18:09	BGL
Di-n-butylphthalate	ND	0.39	0.055	mg/Kg dry	1		SW-846 8270E	10/25/21	10/27/21 18:09	BGL
1,2-Dichlorobenzene	ND	0.39	0.044	mg/Kg dry	1		SW-846 8270E	10/25/21	10/27/21 18:09	BGL
1,3-Dichlorobenzene	ND	0.39	0.042	mg/Kg dry	1		SW-846 8270E	10/25/21	10/27/21 18:09	BGL
1,4-Dichlorobenzene	ND	0.39	0.040	mg/Kg dry	1		SW-846 8270E	10/25/21	10/27/21 18:09	BGL
3,3-Dichlorobenzidine	ND	0.19	0.057	mg/Kg dry	1	MS-09	SW-846 8270E	10/25/21	10/27/21 18:09	BGL
2,4-Dichlorophenol	ND	0.39	0.057	mg/Kg dry	1		SW-846 8270E	10/25/21	10/27/21 18:09	BGL
Diethylphthalate	ND	0.39	0.059	mg/Kg dry	1		SW-846 8270E	10/25/21	10/27/21 18:09	BGL
2,4-Dimethylphenol	ND	0.39	0.11	mg/Kg dry	1	MS-09	SW-846 8270E	10/25/21	10/27/21 18:09	BGL
Dimethylphthalate	ND	0.39	0.056	mg/Kg dry	1		SW-846 8270E	10/25/21	10/27/21 18:09	BGL
4,6-Dinitro-2-methylphenol	ND	0.39	0.26	mg/Kg dry	1		SW-846 8270E	10/25/21	10/27/21 18:09	BGL
2,4-Dinitrophenol	ND	0.75	0.33	mg/Kg dry	1	L-04, V-04	SW-846 8270E	10/25/21	10/27/21 18:09	BGL
2,4-Dinitrotoluene	ND	0.39	0.076	mg/Kg dry	1		SW-846 8270E	10/25/21	10/27/21 18:09	BGL
2,6-Dinitrotoluene	ND	0.39	0.064	mg/Kg dry	1		SW-846 8270E	10/25/21	10/27/21 18:09	BGL
Di-n-octylphthalate	ND	0.39	0.14	mg/Kg dry	1		SW-846 8270E	10/25/21	10/27/21 18:09	BGL
1,2-Diphenylhydrazine/Azobenzene	ND	0.39	0.056	mg/Kg dry	1	V-05	SW-846 8270E	10/25/21	10/27/21 18:09	BGL
Fluoranthene	0.12	0.19	0.062	mg/Kg dry	1	J	SW-846 8270E	10/25/21	10/27/21 18:09	BGL
Fluorene	ND	0.19	0.065	mg/Kg dry	1		SW-846 8270E	10/25/21	10/27/21 18:09	BGL

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Project Location: 144 N Royal St, Alexandria, VA Sample Description: Work Order: 21J1472

Date Received: 10/23/2021

Field Sample #: HRP-SB227-0-1-211021 Sampled: 10/21/2021 08:50

Sample ID: 21J1472-03

Sample Matrix: Soil

Semivolatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Hexachlorobenzene	ND	0.39	0.053	mg/Kg dry	1		SW-846 8270E	10/25/21	10/27/21 18:09	BGL
Hexachlorobutadiene	ND	0.39	0.049	mg/Kg dry	1		SW-846 8270E	10/25/21	10/27/21 18:09	BGL
Hexachlorocyclopentadiene	ND	0.39	0.16	mg/Kg dry	1	L-04, MS-09, V-05	SW-846 8270E	10/25/21	10/27/21 18:09	BGL
Hexachloroethane	ND	0.39	0.046	mg/Kg dry	1		SW-846 8270E	10/25/21	10/27/21 18:09	BGL
Indeno(1,2,3-cd)pyrene	ND	0.19	0.088	mg/Kg dry	1		SW-846 8270E	10/25/21	10/27/21 18:09	BGL
Isophorone	ND	0.39	0.065	mg/Kg dry	1		SW-846 8270E	10/25/21	10/27/21 18:09	BGL
1-Methylnaphthalene	0.74	0.19	0.054	mg/Kg dry	1		SW-846 8270E	10/25/21	10/27/21 18:09	BGL
2-Methylnaphthalene	1.2	0.19	0.061	mg/Kg dry	1		SW-846 8270E	10/25/21	10/27/21 18:09	BGL
2-Methylphenol	ND	0.39	0.072	mg/Kg dry	1		SW-846 8270E	10/25/21	10/27/21 18:09	BGL
3/4-Methylphenol	ND	0.39	0.062	mg/Kg dry	1		SW-846 8270E	10/25/21	10/27/21 18:09	BGL
Naphthalene	0.68	0.19	0.053	mg/Kg dry	1		SW-846 8270E	10/25/21	10/27/21 18:09	BGL
2-Nitroaniline	ND	0.39	0.082	mg/Kg dry	1		SW-846 8270E	10/25/21	10/27/21 18:09	BGL
3-Nitroaniline	ND	0.39	0.066	mg/Kg dry	1	R-06	SW-846 8270E	10/25/21	10/27/21 18:09	BGL
4-Nitroaniline	ND	0.39	0.083	mg/Kg dry	1		SW-846 8270E	10/25/21	10/27/21 18:09	BGL
Nitrobenzene	ND	0.39	0.056	mg/Kg dry	1		SW-846 8270E	10/25/21	10/27/21 18:09	BGL
2-Nitrophenol	ND	0.39	0.061	mg/Kg dry	1		SW-846 8270E	10/25/21	10/27/21 18:09	BGL
4-Nitrophenol	ND	0.75	0.16	mg/Kg dry	1		SW-846 8270E	10/25/21	10/27/21 18:09	BGL
N-Nitrosodimethylamine	ND	0.39	0.058	mg/Kg dry	1		SW-846 8270E	10/25/21	10/27/21 18:09	BGL
N-Nitrosodiphenylamine/Diphenylamine	ND	0.39	0.058	mg/Kg dry	1		SW-846 8270E	10/25/21	10/27/21 18:09	BGL
N-Nitrosodi-n-propylamine	ND	0.39	0.053	mg/Kg dry	1		SW-846 8270E	10/25/21	10/27/21 18:09	BGL
Pentachloronitrobenzene	ND	0.39	0.065	mg/Kg dry	1		SW-846 8270E	10/25/21	10/27/21 18:09	BGL
Pentachlorophenol	ND	0.39	0.17	mg/Kg dry	1	MS-09, V-05	SW-846 8270E	10/25/21	10/27/21 18:09	BGL
Phenanthrene	0.57	0.19	0.061	mg/Kg dry	1		SW-846 8270E	10/25/21	10/27/21 18:09	BGL
Phenol	ND	0.39	0.055	mg/Kg dry	1		SW-846 8270E	10/25/21	10/27/21 18:09	BGL
Pyrene	0.14	0.19	0.062	mg/Kg dry	1	J	SW-846 8270E	10/25/21	10/27/21 18:09	BGL
Pyridine	ND	0.39	0.040	mg/Kg dry	1	L-04, MS-09	SW-846 8270E	10/25/21	10/27/21 18:09	BGL
1,2,4,5-Tetrachlorobenzene	ND	0.39	0.050	mg/Kg dry	1		SW-846 8270E	10/25/21	10/27/21 18:09	BGL
1,2,4-Trichlorobenzene	ND	0.39	0.049	mg/Kg dry	1		SW-846 8270E	10/25/21	10/27/21 18:09	BGL
2,4,5-Trichlorophenol	ND	0.39	0.060	mg/Kg dry	1		SW-846 8270E	10/25/21	10/27/21 18:09	BGL
2,4,6-Trichlorophenol	ND	0.39	0.060	mg/Kg dry	1		SW-846 8270E	10/25/21	10/27/21 18:09	BGL

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
2-Fluorophenol	39.9	30-130		10/27/21 18:09
Phenol-d6	41.0	30-130		10/27/21 18:09
Nitrobenzene-d5	45.7	30-130		10/27/21 18:09
2-Fluorobiphenyl	55.9	30-130		10/27/21 18:09
2,4,6-Tribromophenol	42.2	30-130		10/27/21 18:09
p-Terphenyl-d14	83.6	30-130		10/27/21 18:09

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Project Location: 144 N Royal St, Alexandria, VA Sample Description: Work Order: 21J1472

Date Received: 10/23/2021

Field Sample #: HRP-SB227-0-1-211021 Sampled: 10/21/2021 08:50

Sample ID: 21J1472-03

Sample Matrix: Soil

Polychlorinated Biphenyls By GC/ECD

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Aroclor-1016 [1]	ND	0.091	0.055	mg/Kg dry	4		SW-846 8082A	10/25/21	10/27/21 16:25	TG
Aroclor-1221 [1]	ND	0.091	0.059	mg/Kg dry	4		SW-846 8082A	10/25/21	10/27/21 16:25	TG
Aroclor-1232 [1]	ND	0.091	0.041	mg/Kg dry	4		SW-846 8082A	10/25/21	10/27/21 16:25	TG
Aroclor-1242 [1]	ND	0.091	0.046	mg/Kg dry	4		SW-846 8082A	10/25/21	10/27/21 16:25	TG
Aroclor-1248 [1]	ND	0.091	0.055	mg/Kg dry	4		SW-846 8082A	10/25/21	10/27/21 16:25	TG
Aroclor-1254 [1]	ND	0.091	0.059	mg/Kg dry	4		SW-846 8082A	10/25/21	10/27/21 16:25	TG
Aroclor-1260 [1]	ND	0.091	0.064	mg/Kg dry	4		SW-846 8082A	10/25/21	10/27/21 16:25	TG
Aroclor-1262 [1]	ND	0.091	0.046	mg/Kg dry	4		SW-846 8082A	10/25/21	10/27/21 16:25	TG
Aroclor-1268 [1]	ND	0.091	0.036	mg/Kg dry	4		SW-846 8082A	10/25/21	10/27/21 16:25	TG

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
Decachlorobiphenyl [1]	84.3	30-150		10/27/21 16:25
Decachlorobiphenyl [2]	71.4	30-150		10/27/21 16:25
Tetrachloro-m-xylene [1]	79.8	30-150		10/27/21 16:25
Tetrachloro-m-xylene [2]	73.4	30-150		10/27/21 16:25

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Project Location: 144 N Royal St, Alexandria, VA Sample Description: Work Order: 21J1472

Date Received: 10/23/2021

Field Sample #: HRP-SB227-0-1-211021 Sampled: 10/21/2021 08:50

Sample ID: 21J1472-03

Sample Matrix: Soil

Petroleum Hydrocarbons Analyses

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Gasoline Range Organics (GRO)	8.9	0.89	0.88	mg/Kg dry	1		SW-846 8015C	10/27/21	10/28/21 4:20	KMB
Diesel Range Organics	150	9.5	4.4	mg/Kg dry	1		SW-846 8015C	10/25/21	10/29/21 7:03	SFM

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
1-Chloro-3-fluorobenzene	87.7	70-130		10/28/21 4:20
2-Fluorobiphenyl	60.4	40-140		10/29/21 7:03

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Project Location: 144 N Royal St, Alexandria, VA Sample Description: Work Order: 21J1472

Date Received: 10/23/2021

Field Sample #: HRP-SB227-0-1-211021 Sampled: 10/21/2021 08:50

Sample ID: 21J1472-03

Sample Matrix: Soil

Metals Analyses (Total)

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Aluminum	3400	19	6.8	mg/Kg dry	1		SW-846 6010D	10/25/21	10/26/21 16:35	QNW
Antimony	ND	1.9	0.75	mg/Kg dry	1		SW-846 6010D	10/25/21	10/26/21 16:35	QNW
Arsenic	25	3.7	1.4	mg/Kg dry	1		SW-846 6010D	10/25/21	10/26/21 16:35	QNW
Barium	140	1.9	0.70	mg/Kg dry	1		SW-846 6010D	10/25/21	10/26/21 16:35	QNW
Beryllium	0.86	0.19	0.070	mg/Kg dry	1		SW-846 6010D	10/25/21	10/26/21 16:35	QNW
Cadmium	ND	0.37	0.19	mg/Kg dry	1		SW-846 6010D	10/25/21	10/26/21 16:35	QNW
Calcium	2100	19	7.2	mg/Kg dry	1		SW-846 6010D	10/25/21	10/26/21 16:35	QNW
Chromium	1400	0.74	0.42	mg/Kg dry	1		SW-846 6010D	10/25/21	10/26/21 16:35	QNW
Cobalt	18	1.9	0.68	mg/Kg dry	1		SW-846 6010D	10/25/21	10/26/21 16:35	QNW
Copper	1000	0.74	0.35	mg/Kg dry	1		SW-846 6010D	10/25/21	10/26/21 16:35	QNW
Iron	330000	370	150	mg/Kg dry	20		SW-846 6010D	10/25/21	10/27/21 14:08	QNW
Lead	13	0.56	0.27	mg/Kg dry	1		SW-846 6010D	10/25/21	10/26/21 16:35	QNW
Magnesium	1700	19	6.5	mg/Kg dry	1		SW-846 6010D	10/25/21	10/26/21 16:35	QNW
Manganese	2700	0.37	0.14	mg/Kg dry	1		SW-846 6010D	10/25/21	10/26/21 16:35	QNW
Mercury	0.019	0.029	0.0099	mg/Kg dry	1	J	SW-846 7471B	10/26/21	10/28/21 10:55	DRL
Nickel	730	0.74	0.38	mg/Kg dry	1		SW-846 6010D	10/25/21	10/26/21 16:35	QNW
Potassium	290	190	70	mg/Kg dry	1		SW-846 6010D	10/25/21	10/26/21 16:35	QNW
Selenium	ND	74	26	mg/Kg dry	20		SW-846 6010D	10/25/21	10/26/21 16:11	QNW
Silver	ND	7.4	3.4	mg/Kg dry	20	DL-03	SW-846 6010D	10/25/21	10/27/21 14:08	QNW
Sodium	400	190	72	mg/Kg dry	1		SW-846 6010D	10/25/21	10/26/21 16:35	QNW
Thallium	ND	1.9	0.90	mg/Kg dry	1		SW-846 6010D	1/4/22	1/6/22 15:10	MJH
Vanadium	110	0.74	0.37	mg/Kg dry	1		SW-846 6010D	10/25/21	10/26/21 16:35	QNW
Zinc	67	0.74	0.47	mg/Kg dry	1		SW-846 6010D	10/25/21	10/26/21 16:35	QNW

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Project Location: 144 N Royal St, Alexandria, VA Sample Description: Work Order: 21J1472

Date Received: 10/23/2021

Field Sample #: HRP-SB227-0-1-211021 Sampled: 10/21/2021 08:50

Sample ID: 21J1472-03

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	87.8			% Wt	1		SM 2540G	10/27/21	10/28/21 15:27	AP
Cyanide	ND	0.38	0.27	mg/Kg dry	1		SW-846 9014	10/29/21	10/29/21 19:45	DJM
pH @20.7°C	7.4			pH Units	1	H-03	SW-846 9045C	10/25/21	10/25/21 18:10	CB2

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Project Location: 144 N Royal St, Alexandria, VA Sample Description: Work Order: 21J1472

Date Received: 10/23/2021

Field Sample #: HRP-EB07-211021 Sampled: 10/21/2021 09:25

Sample ID: 21J1472-04

Sample Matrix: Water

Semivolatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acenaphthene	ND	4.8	0.32	µg/L	1		SW-846 8270E	10/27/21	10/28/21 16:06	IMR
Acenaphthylene	ND	4.8	0.31	µg/L	1		SW-846 8270E	10/27/21	10/28/21 16:06	IMR
Acetophenone	ND	9.6	0.43	µg/L	1		SW-846 8270E	10/27/21	10/28/21 16:06	IMR
Aniline	ND	4.8	0.79	µg/L	1		SW-846 8270E	10/27/21	10/28/21 16:06	IMR
Anthracene	ND	4.8	0.38	µg/L	1		SW-846 8270E	10/27/21	10/28/21 16:06	IMR
Benzidine	ND	19	9.6	µg/L	1	R-05, V-04	SW-846 8270E	10/27/21	10/28/21 16:06	IMR
Benzo(a)anthracene	ND	4.8	0.36	µg/L	1		SW-846 8270E	10/27/21	10/28/21 16:06	IMR
Benzo(a)pyrene	ND	4.8	0.46	µg/L	1		SW-846 8270E	10/27/21	10/28/21 16:06	IMR
Benzo(b)fluoranthene	ND	4.8	0.40	µg/L	1		SW-846 8270E	10/27/21	10/28/21 16:06	IMR
Benzo(g,h,i)perylene	ND	4.8	0.62	µg/L	1		SW-846 8270E	10/27/21	10/28/21 16:06	IMR
Benzo(k)fluoranthene	ND	4.8	0.35	µg/L	1		SW-846 8270E	10/27/21	10/28/21 16:06	IMR
Benzoic Acid	ND	9.6	8.9	µg/L	1		SW-846 8270E	10/27/21	10/28/21 16:06	IMR
Bis(2-chloroethoxy)methane	ND	9.6	0.42	µg/L	1		SW-846 8270E	10/27/21	10/28/21 16:06	IMR
Bis(2-chloroethyl)ether	ND	9.6	0.50	µg/L	1		SW-846 8270E	10/27/21	10/28/21 16:06	IMR
Bis(2-chloroisopropyl)ether	ND	9.6	0.57	µg/L	1	V-05	SW-846 8270E	10/27/21	10/28/21 16:06	IMR
Bis(2-Ethylhexyl)phthalate	ND	9.6	0.89	µg/L	1		SW-846 8270E	10/27/21	10/28/21 16:06	IMR
4-Bromophenylphenylether	ND	9.6	0.37	µg/L	1		SW-846 8270E	10/27/21	10/28/21 16:06	IMR
Butylbenzylphthalate	ND	9.6	0.67	µg/L	1		SW-846 8270E	10/27/21	10/28/21 16:06	IMR
Carbazole	ND	9.6	0.40	µg/L	1		SW-846 8270E	10/27/21	10/28/21 16:06	IMR
4-Chloroaniline	ND	9.6	0.42	µg/L	1	V-34	SW-846 8270E	10/27/21	10/28/21 16:06	IMR
4-Chloro-3-methylphenol	ND	9.6	0.52	µg/L	1		SW-846 8270E	10/27/21	10/28/21 16:06	IMR
2-Chloronaphthalene	ND	9.6	0.25	µg/L	1		SW-846 8270E	10/27/21	10/28/21 16:06	IMR
2-Chlorophenol	ND	9.6	0.36	µg/L	1		SW-846 8270E	10/27/21	10/28/21 16:06	IMR
4-Chlorophenylphenylether	ND	9.6	0.32	µg/L	1		SW-846 8270E	10/27/21	10/28/21 16:06	IMR
Chrysene	ND	4.8	0.36	µg/L	1		SW-846 8270E	10/27/21	10/28/21 16:06	IMR
Dibenz(a,h)anthracene	ND	4.8	0.68	µg/L	1		SW-846 8270E	10/27/21	10/28/21 16:06	IMR
Dibenzofuran	ND	4.8	0.33	µg/L	1		SW-846 8270E	10/27/21	10/28/21 16:06	IMR
Di-n-butylphthalate	ND	9.6	0.48	µg/L	1		SW-846 8270E	10/27/21	10/28/21 16:06	IMR
1,2-Dichlorobenzene	ND	4.8	0.22	µg/L	1	L-04	SW-846 8270E	10/27/21	10/28/21 16:06	IMR
1,3-Dichlorobenzene	ND	4.8	0.23	µg/L	1	L-04	SW-846 8270E	10/27/21	10/28/21 16:06	IMR
1,4-Dichlorobenzene	ND	4.8	0.25	µg/L	1	L-04	SW-846 8270E	10/27/21	10/28/21 16:06	IMR
3,3-Dichlorobenzidine	ND	9.6	0.60	µg/L	1	V-34	SW-846 8270E	10/27/21	10/28/21 16:06	IMR
2,4-Dichlorophenol	ND	9.6	0.35	µg/L	1		SW-846 8270E	10/27/21	10/28/21 16:06	IMR
Diethylphthalate	ND	9.6	0.46	µg/L	1		SW-846 8270E	10/27/21	10/28/21 16:06	IMR
2,4-Dimethylphenol	ND	9.6	0.93	µg/L	1		SW-846 8270E	10/27/21	10/28/21 16:06	IMR
Dimethylphthalate	ND	9.6	0.39	µg/L	1		SW-846 8270E	10/27/21	10/28/21 16:06	IMR
4,6-Dinitro-2-methylphenol	ND	9.6	6.3	µg/L	1		SW-846 8270E	10/27/21	10/28/21 16:06	IMR
2,4-Dinitrophenol	ND	9.6	7.7	µg/L	1	V-04	SW-846 8270E	10/27/21	10/28/21 16:06	IMR
2,4-Dinitrotoluene	ND	9.6	0.59	µg/L	1		SW-846 8270E	10/27/21	10/28/21 16:06	IMR
2,6-Dinitrotoluene	ND	9.6	0.48	µg/L	1		SW-846 8270E	10/27/21	10/28/21 16:06	IMR
Di-n-octylphthalate	ND	9.6	5.4	µg/L	1		SW-846 8270E	10/27/21	10/28/21 16:06	IMR
1,2-Diphenylhydrazine/Azobenzene	ND	9.6	0.51	µg/L	1	V-05	SW-846 8270E	10/27/21	10/28/21 16:06	IMR
Fluoranthene	ND	4.8	0.36	µg/L	1		SW-846 8270E	10/27/21	10/28/21 16:06	IMR
Fluorene	ND	4.8	0.40	µg/L	1		SW-846 8270E	10/27/21	10/28/21 16:06	IMR

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Project Location: 144 N Royal St, Alexandria, VA Sample Description: Work Order: 21J1472

Date Received: 10/23/2021

Field Sample #: HRP-EB07-211021 Sampled: 10/21/2021 09:25

Sample ID: 21J1472-04

Sample Matrix: Water

Semivolatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Hexachlorobenzene	ND	9.6	0.35	µg/L	1		SW-846 8270E	10/27/21	10/28/21 16:06	IMR
Hexachlorobutadiene	ND	9.6	0.26	µg/L	1	L-04	SW-846 8270E	10/27/21	10/28/21 16:06	IMR
Hexachlorocyclopentadiene	ND	9.6	4.1	µg/L	1		SW-846 8270E	10/27/21	10/28/21 16:06	IMR
Hexachloroethane	ND	9.6	0.30	µg/L	1	L-04	SW-846 8270E	10/27/21	10/28/21 16:06	IMR
Indeno(1,2,3-cd)pyrene	ND	4.8	0.76	µg/L	1		SW-846 8270E	10/27/21	10/28/21 16:06	IMR
Isophorone	ND	9.6	0.47	µg/L	1		SW-846 8270E	10/27/21	10/28/21 16:06	IMR
1-Methylnaphthalene	ND	4.8	0.28	µg/L	1		SW-846 8270E	10/27/21	10/28/21 16:06	IMR
2-Methylnaphthalene	ND	4.8	0.32	µg/L	1		SW-846 8270E	10/27/21	10/28/21 16:06	IMR
2-Methylphenol	ND	9.6	0.35	µg/L	1		SW-846 8270E	10/27/21	10/28/21 16:06	IMR
3/4-Methylphenol	ND	9.6	0.37	µg/L	1		SW-846 8270E	10/27/21	10/28/21 16:06	IMR
Naphthalene	ND	4.8	0.28	µg/L	1		SW-846 8270E	10/27/21	10/28/21 16:06	IMR
2-Nitroaniline	ND	9.6	0.72	µg/L	1		SW-846 8270E	10/27/21	10/28/21 16:06	IMR
3-Nitroaniline	ND	9.6	0.49	µg/L	1		SW-846 8270E	10/27/21	10/28/21 16:06	IMR
4-Nitroaniline	ND	9.6	0.47	µg/L	1		SW-846 8270E	10/27/21	10/28/21 16:06	IMR
Nitrobenzene	ND	9.6	0.51	µg/L	1		SW-846 8270E	10/27/21	10/28/21 16:06	IMR
2-Nitrophenol	ND	9.6	0.45	µg/L	1		SW-846 8270E	10/27/21	10/28/21 16:06	IMR
4-Nitrophenol	ND	9.6	2.0	µg/L	1		SW-846 8270E	10/27/21	10/28/21 16:06	IMR
N-Nitrosodimethylamine	ND	9.6	0.79	µg/L	1		SW-846 8270E	10/27/21	10/28/21 16:06	IMR
N-Nitrosodiphenylamine/Diphenylamine	ND	9.6	0.38	µg/L	1		SW-846 8270E	10/27/21	10/28/21 16:06	IMR
N-Nitrosodi-n-propylamine	ND	9.6	0.51	µg/L	1		SW-846 8270E	10/27/21	10/28/21 16:06	IMR
Pentachloronitrobenzene	ND	9.6	0.61	µg/L	1		SW-846 8270E	10/27/21	10/28/21 16:06	IMR
Pentachlorophenol	ND	9.6	3.6	µg/L	1		SW-846 8270E	10/27/21	10/28/21 16:06	IMR
Phenanthrene	ND	4.8	0.38	µg/L	1		SW-846 8270E	10/27/21	10/28/21 16:06	IMR
Phenol	ND	9.6	0.24	µg/L	1		SW-846 8270E	10/27/21	10/28/21 16:06	IMR
Pyrene	ND	4.8	0.45	µg/L	1		SW-846 8270E	10/27/21	10/28/21 16:06	IMR
Pyridine	ND	4.8	2.5	µg/L	1		SW-846 8270E	10/27/21	10/28/21 16:06	IMR
1,2,4,5-Tetrachlorobenzene	ND	9.6	0.26	µg/L	1		SW-846 8270E	10/27/21	10/28/21 16:06	IMR
1,2,4-Trichlorobenzene	ND	4.8	0.24	µg/L	1		SW-846 8270E	10/27/21	10/28/21 16:06	IMR
2,4,5-Trichlorophenol	ND	9.6	0.45	µg/L	1		SW-846 8270E	10/27/21	10/28/21 16:06	IMR
2,4,6-Trichlorophenol	ND	9.6	0.39	µg/L	1		SW-846 8270E	10/27/21	10/28/21 16:06	IMR

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
2-Fluorophenol	43.7	15-110		10/28/21 16:06
Phenol-d6	32.3	15-110		10/28/21 16:06
Nitrobenzene-d5	60.4	30-130		10/28/21 16:06
2-Fluorobiphenyl	67.1	30-130		10/28/21 16:06
2,4,6-Tribromophenol	89.4	15-110		10/28/21 16:06
p-Terphenyl-d14	110	30-130		10/28/21 16:06

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39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: 144 N Royal St, Alexandria, VA Sample Description: Work Order: 21J1472

Date Received: 10/23/2021

Field Sample #: HRP-EB07-211021 Sampled: 10/21/2021 09:25

Sample ID: 21J1472-04

Sample Matrix: Water

Polychlorinated Biphenyls By GC/ECD

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Aroclor-1016 [1]	ND	0.19	0.17	µg/L	1		SW-846 8082A	10/26/21	10/27/21 19:19	TG
Aroclor-1221 [1]	ND	0.19	0.16	µg/L	1		SW-846 8082A	10/26/21	10/27/21 19:19	TG
Aroclor-1232 [1]	ND	0.19	0.16	µg/L	1		SW-846 8082A	10/26/21	10/27/21 19:19	TG
Aroclor-1242 [1]	ND	0.19	0.17	µg/L	1		SW-846 8082A	10/26/21	10/27/21 19:19	TG
Aroclor-1248 [1]	ND	0.19	0.16	µg/L	1		SW-846 8082A	10/26/21	10/27/21 19:19	TG
Aroclor-1254 [1]	ND	0.19	0.18	µg/L	1		SW-846 8082A	10/26/21	10/27/21 19:19	TG
Aroclor-1260 [1]	ND	0.19	0.16	µg/L	1		SW-846 8082A	10/26/21	10/27/21 19:19	TG
Aroclor-1262 [1]	ND	0.19	0.17	µg/L	1		SW-846 8082A	10/26/21	10/27/21 19:19	TG
Aroclor-1268 [1]	ND	0.19	0.18	µg/L	1		SW-846 8082A	10/26/21	10/27/21 19:19	TG

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
Decachlorobiphenyl [1]	52.1	30-150		10/27/21 19:19
Decachlorobiphenyl [2]	43.7	30-150		10/27/21 19:19
Tetrachloro-m-xylene [1]	89.1	30-150		10/27/21 19:19
Tetrachloro-m-xylene [2]	80.2	30-150		10/27/21 19:19

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Project Location: 144 N Royal St, Alexandria, VA Sample Description: Work Order: 21J1472

Date Received: 10/23/2021

Field Sample #: HRP-EB07-211021 Sampled: 10/21/2021 09:25

Sample ID: 21J1472-04

Sample Matrix: Water

Petroleum Hydrocarbons Analyses

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Diesel Range Organics	0.085	0.19	0.082	mg/L	1	J	SW-846 8015C	10/25/21	10/29/21 4:11	SFM

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
2-Fluorobiphenyl	69.4	40-140		10/29/21 4:11

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Project Location: 144 N Royal St, Alexandria, VA Sample Description: Work Order: 21J1472

Date Received: 10/23/2021

Field Sample #: HRP-EB07-211021 Sampled: 10/21/2021 09:25

Sample ID: 21J1472-04

Sample Matrix: Water

Metals Analyses (Total)

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Aluminum	ND	0.050	0.049	mg/L	1		SW-846 6010D	10/23/21	10/27/21 18:06	QNW
Antimony	ND	1.0	0.20	µg/L	1		SW-846 6020B	10/23/21	10/24/21 20:08	QNW
Arsenic	ND	0.80	0.46	µg/L	1		SW-846 6020B	10/23/21	10/24/21 20:08	QNW
Barium	ND	10	1.2	µg/L	1		SW-846 6020B	10/23/21	10/24/21 20:08	QNW
Beryllium	0.14	0.40	0.066	µg/L	1	J	SW-846 6020B	10/23/21	10/24/21 20:08	QNW
Cadmium	ND	0.20	0.027	µg/L	1		SW-846 6020B	10/23/21	10/24/21 20:08	QNW
Calcium	ND	0.50	0.11	mg/L	1		SW-846 6010D	10/23/21	10/27/21 18:06	QNW
Chromium	ND	1.0	0.92	µg/L	1		SW-846 6020B	10/23/21	10/25/21 15:58	MJH
Cobalt	ND	1.0	0.14	µg/L	1		SW-846 6020B	10/23/21	10/24/21 20:08	QNW
Copper	7.6	1.0	0.27	µg/L	1		SW-846 6020B	10/23/21	10/24/21 20:08	QNW
Iron	ND	0.050	0.032	mg/L	1		SW-846 6010D	10/23/21	10/27/21 18:06	QNW
Lead	ND	0.50	0.14	µg/L	1		SW-846 6020B	10/23/21	10/24/21 20:08	QNW
Magnesium	ND	0.050	0.023	mg/L	1		SW-846 6010D	10/23/21	10/27/21 18:06	QNW
Manganese	ND	1.0	0.24	µg/L	1		SW-846 6020B	10/23/21	10/24/21 20:08	QNW
Mercury	ND	0.00010	0.000050	mg/L	1		SW-846 7470A	10/25/21	10/26/21 7:33	DRL
Nickel	ND	5.0	0.52	µg/L	1		SW-846 6020B	10/23/21	10/24/21 20:08	QNW
Potassium	ND	2.0	0.40	mg/L	1		SW-846 6010D	10/23/21	10/27/21 18:06	QNW
Selenium	ND	5.0	0.78	µg/L	1		SW-846 6020B	10/23/21	10/24/21 20:08	QNW
Silver	ND	0.20	0.026	µg/L	1		SW-846 6020B	10/23/21	10/24/21 20:08	QNW
Sodium	ND	2.0	0.56	mg/L	1		SW-846 6010D	10/23/21	10/27/21 18:06	QNW
Thallium	ND	0.20	0.067	µg/L	1		SW-846 6020B	10/23/21	10/24/21 20:08	QNW
Vanadium	ND	5.0	3.5	µg/L	1		SW-846 6020B	10/23/21	10/24/21 20:08	QNW
Zinc	ND	10	3.4	µg/L	1		SW-846 6020B	10/23/21	10/24/21 20:08	QNW

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Project Location: 144 N Royal St, Alexandria, VA Sample Description: Work Order: 21J1472

Date Received: 10/23/2021

Field Sample #: HRP-EB07-211021 Sampled: 10/21/2021 09:25

Sample ID: 21J1472-04

Sample Matrix: Water

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Cyanide	ND	0.010	0.0073	mg/L	1		SW-846 9014	10/27/21	10/27/21 16:50	DJM

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Project Location: 144 N Royal St, Alexandria, VA Sample Description: Work Order: 21J1472

Date Received: 10/23/2021

Field Sample #: HRP-TB06-211021 Sampled: 10/21/2021 09:25

Sample ID: 21J1472-05

Sample Matrix: Water

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acetone	ND	50	2.4	µg/L	1		SW-846 8260D	10/25/21	10/26/21 1:27	MFF
Acrylonitrile	ND	5.0	0.69	µg/L	1		SW-846 8260D	10/25/21	10/26/21 1:27	MFF
tert-Amyl Methyl Ether (TAME)	ND	0.50	0.15	µg/L	1		SW-846 8260D	10/25/21	10/26/21 1:27	MFF
Benzene	ND	1.0	0.13	µg/L	1		SW-846 8260D	10/25/21	10/26/21 1:27	MFF
Bromobenzene	ND	1.0	0.13	µg/L	1		SW-846 8260D	10/25/21	10/26/21 1:27	MFF
Bromochloromethane	ND	1.0	0.36	µg/L	1		SW-846 8260D	10/25/21	10/26/21 1:27	MFF
Bromodichloromethane	ND	0.50	0.14	µg/L	1		SW-846 8260D	10/25/21	10/26/21 1:27	MFF
Bromoform	ND	1.0	0.29	µg/L	1		SW-846 8260D	10/25/21	10/26/21 1:27	MFF
Bromomethane	ND	2.0	1.1	µg/L	1		SW-846 8260D	10/25/21	10/26/21 1:27	MFF
2-Butanone (MEK)	ND	20	1.9	µg/L	1		SW-846 8260D	10/25/21	10/26/21 1:27	MFF
tert-Butyl Alcohol (TBA)	ND	20	5.3	µg/L	1		SW-846 8260D	10/25/21	10/26/21 1:27	MFF
n-Butylbenzene	ND	1.0	0.14	µg/L	1		SW-846 8260D	10/25/21	10/26/21 1:27	MFF
sec-Butylbenzene	ND	1.0	0.10	µg/L	1		SW-846 8260D	10/25/21	10/26/21 1:27	MFF
tert-Butylbenzene	ND	1.0	0.090	µg/L	1		SW-846 8260D	10/25/21	10/26/21 1:27	MFF
tert-Butyl Ethyl Ether (TBEE)	ND	0.50	0.11	µg/L	1		SW-846 8260D	10/25/21	10/26/21 1:27	MFF
Carbon Disulfide	ND	5.0	1.5	µg/L	1		SW-846 8260D	10/25/21	10/26/21 1:27	MFF
Carbon Tetrachloride	ND	5.0	0.17	µg/L	1		SW-846 8260D	10/25/21	10/26/21 1:27	MFF
Chlorobenzene	ND	1.0	0.080	µg/L	1		SW-846 8260D	10/25/21	10/26/21 1:27	MFF
Chlorodibromomethane	ND	0.50	0.16	µg/L	1		SW-846 8260D	10/25/21	10/26/21 1:27	MFF
Chloroethane	ND	2.0	0.37	µg/L	1		SW-846 8260D	10/25/21	10/26/21 1:27	MFF
Chloroform	ND	2.0	0.19	µg/L	1		SW-846 8260D	10/25/21	10/26/21 1:27	MFF
Chloromethane	ND	2.0	0.38	µg/L	1		SW-846 8260D	10/25/21	10/26/21 1:27	MFF
2-Chlorotoluene	ND	1.0	0.090	µg/L	1		SW-846 8260D	10/25/21	10/26/21 1:27	MFF
4-Chlorotoluene	ND	1.0	0.10	µg/L	1		SW-846 8260D	10/25/21	10/26/21 1:27	MFF
1,2-Dibromo-3-chloropropane (DBCP)	ND	5.0	0.72	µg/L	1		SW-846 8260D	10/25/21	10/26/21 1:27	MFF
1,2-Dibromoethane (EDB)	ND	0.50	0.15	µg/L	1		SW-846 8260D	10/25/21	10/26/21 1:27	MFF
Dibromomethane	ND	1.0	0.29	µg/L	1		SW-846 8260D	10/25/21	10/26/21 1:27	MFF
1,2-Dichlorobenzene	ND	1.0	0.10	µg/L	1		SW-846 8260D	10/25/21	10/26/21 1:27	MFF
1,3-Dichlorobenzene	ND	1.0	0.090	µg/L	1		SW-846 8260D	10/25/21	10/26/21 1:27	MFF
1,4-Dichlorobenzene	ND	1.0	0.11	µg/L	1		SW-846 8260D	10/25/21	10/26/21 1:27	MFF
trans-1,4-Dichloro-2-butene	ND	2.0	1.8	µg/L	1		SW-846 8260D	10/25/21	10/26/21 1:27	MFF
Dichlorodifluoromethane (Freon 12)	ND	2.0	0.20	µg/L	1		SW-846 8260D	10/25/21	10/26/21 1:27	MFF
1,1-Dichloroethane	ND	1.0	0.16	µg/L	1		SW-846 8260D	10/25/21	10/26/21 1:27	MFF
1,2-Dichloroethane	ND	1.0	0.32	µg/L	1		SW-846 8260D	10/25/21	10/26/21 1:27	MFF
1,1-Dichloroethylene	ND	1.0	0.16	µg/L	1		SW-846 8260D	10/25/21	10/26/21 1:27	MFF
cis-1,2-Dichloroethylene	ND	1.0	0.15	µg/L	1		SW-846 8260D	10/25/21	10/26/21 1:27	MFF
trans-1,2-Dichloroethylene	ND	1.0	0.17	µg/L	1		SW-846 8260D	10/25/21	10/26/21 1:27	MFF
1,2-Dichloropropane	ND	1.0	0.18	µg/L	1		SW-846 8260D	10/25/21	10/26/21 1:27	MFF
1,3-Dichloropropane	ND	0.50	0.12	µg/L	1		SW-846 8260D	10/25/21	10/26/21 1:27	MFF
2,2-Dichloropropane	ND	1.0	0.31	µg/L	1	V-05	SW-846 8260D	10/25/21	10/26/21 1:27	MFF
1,1-Dichloropropene	ND	2.0	0.26	µg/L	1		SW-846 8260D	10/25/21	10/26/21 1:27	MFF
cis-1,3-Dichloropropene	ND	0.50	0.12	µg/L	1		SW-846 8260D	10/25/21	10/26/21 1:27	MFF
trans-1,3-Dichloropropene	ND	0.50	0.15	µg/L	1		SW-846 8260D	10/25/21	10/26/21 1:27	MFF
Diethyl Ether	ND	2.0	0.22	µg/L	1		SW-846 8260D	10/25/21	10/26/21 1:27	MFF

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Project Location: 144 N Royal St, Alexandria, VA Sample Description: Work Order: 21J1472

Date Received: 10/23/2021

Field Sample #: HRP-TB06-211021 Sampled: 10/21/2021 09:25

Sample ID: 21J1472-05

Sample Matrix: Water

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Diisopropyl Ether (DIPE)	ND	0.50	0.15	µg/L	1		SW-846 8260D	10/25/21	10/26/21 1:27	MFF
1,4-Dioxane	ND	50	22	µg/L	1		SW-846 8260D	10/25/21	10/26/21 1:27	MFF
Ethylbenzene	ND	1.0	0.090	µg/L	1		SW-846 8260D	10/25/21	10/26/21 1:27	MFF
Hexachlorobutadiene	ND	0.60	0.41	µg/L	1		SW-846 8260D	10/25/21	10/26/21 1:27	MFF
2-Hexanone (MBK)	ND	10	1.4	µg/L	1		SW-846 8260D	10/25/21	10/26/21 1:27	MFF
Isopropylbenzene (Cumene)	ND	1.0	0.10	µg/L	1		SW-846 8260D	10/25/21	10/26/21 1:27	MFF
p-Isopropyltoluene (p-Cymene)	ND	1.0	0.090	µg/L	1		SW-846 8260D	10/25/21	10/26/21 1:27	MFF
Methyl Acetate	ND	1.0	0.39	µg/L	1		SW-846 8260D	10/25/21	10/26/21 1:27	MFF
Methyl tert-Butyl Ether (MTBE)	ND	1.0	0.17	µg/L	1		SW-846 8260D	10/25/21	10/26/21 1:27	MFF
Methyl Cyclohexane	ND	1.0	0.33	µg/L	1		SW-846 8260D	10/25/21	10/26/21 1:27	MFF
Methylene Chloride	ND	5.0	0.30	µg/L	1		SW-846 8260D	10/25/21	10/26/21 1:27	MFF
4-Methyl-2-pentanone (MIBK)	ND	10	1.6	µg/L	1		SW-846 8260D	10/25/21	10/26/21 1:27	MFF
Naphthalene	ND	2.0	0.15	µg/L	1	V-05	SW-846 8260D	10/25/21	10/26/21 1:27	MFF
n-Propylbenzene	ND	1.0	0.080	µg/L	1		SW-846 8260D	10/25/21	10/26/21 1:27	MFF
Styrene	ND	1.0	0.080	µg/L	1		SW-846 8260D	10/25/21	10/26/21 1:27	MFF
1,1,1,2-Tetrachloroethane	ND	1.0	0.14	µg/L	1		SW-846 8260D	10/25/21	10/26/21 1:27	MFF
1,1,2,2-Tetrachloroethane	ND	0.50	0.090	µg/L	1		SW-846 8260D	10/25/21	10/26/21 1:27	MFF
Tetrachloroethylene	ND	1.0	0.20	µg/L	1		SW-846 8260D	10/25/21	10/26/21 1:27	MFF
Tetrahydrofuran	ND	10	0.58	µg/L	1		SW-846 8260D	10/25/21	10/26/21 1:27	MFF
Toluene	ND	1.0	0.11	µg/L	1		SW-846 8260D	10/25/21	10/26/21 1:27	MFF
1,2,3-Trichlorobenzene	ND	5.0	0.14	µg/L	1	L-04, V-05	SW-846 8260D	10/25/21	10/26/21 1:27	MFF
1,2,4-Trichlorobenzene	ND	1.0	0.16	µg/L	1	V-05	SW-846 8260D	10/25/21	10/26/21 1:27	MFF
1,3,5-Trichlorobenzene	ND	1.0	0.18	µg/L	1		SW-846 8260D	10/25/21	10/26/21 1:27	MFF
1,1,1-Trichloroethane	ND	1.0	0.17	µg/L	1		SW-846 8260D	10/25/21	10/26/21 1:27	MFF
1,1,2-Trichloroethane	ND	1.0	0.15	µg/L	1		SW-846 8260D	10/25/21	10/26/21 1:27	MFF
Trichloroethylene	ND	1.0	0.18	µg/L	1		SW-846 8260D	10/25/21	10/26/21 1:27	MFF
Trichlorofluoromethane (Freon 11)	ND	2.0	0.19	µg/L	1		SW-846 8260D	10/25/21	10/26/21 1:27	MFF
1,2,3-Trichloropropane	ND	2.0	0.31	µg/L	1		SW-846 8260D	10/25/21	10/26/21 1:27	MFF
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	1.0	0.24	µg/L	1		SW-846 8260D	10/25/21	10/26/21 1:27	MFF
1,2,4-Trimethylbenzene	ND	1.0	0.10	µg/L	1		SW-846 8260D	10/25/21	10/26/21 1:27	MFF
1,3,5-Trimethylbenzene	ND	1.0	0.10	µg/L	1		SW-846 8260D	10/25/21	10/26/21 1:27	MFF
Vinyl Chloride	ND	2.0	0.20	µg/L	1		SW-846 8260D	10/25/21	10/26/21 1:27	MFF
m+p Xylene	ND	2.0	0.18	µg/L	1		SW-846 8260D	10/25/21	10/26/21 1:27	MFF
o-Xylene	ND	1.0	0.090	µg/L	1		SW-846 8260D	10/25/21	10/26/21 1:27	MFF

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
1,2-Dichloroethane-d4	108	70-130		10/26/21 1:27
Toluene-d8	109	70-130		10/26/21 1:27
4-Bromofluorobenzene	102	70-130		10/26/21 1:27

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Sample Extraction Data

Prep Method: % Solids **Analytical Method: SM 2540G**

Lab Number [Field ID]	Batch	Date
21J1472-01 [HRP-SB225-0-1-211021]	B293350	10/27/21
21J1472-02 [HRP-SB224-0-1-211021]	B293350	10/27/21
21J1472-03 [HRP-SB227-0-1-211021]	B293350	10/27/21

Prep Method: SW-846 3050B **Analytical Method: SW-846 6010D**

Lab Number [Field ID]	Batch	Initial [g]	Final [mL]	Date
21J1472-01 [HRP-SB225-0-1-211021]	B293193	1.51	50.0	10/25/21
21J1472-02 [HRP-SB224-0-1-211021]	B293193	1.54	50.0	10/25/21
21J1472-03 [HRP-SB227-0-1-211021]	B293193	1.54	50.0	10/25/21

Prep Method: SW-846 3050B **Analytical Method: SW-846 6010D**

Lab Number [Field ID]	Batch	Initial [g]	Final [mL]	Date
21J1472-03RE2 [HRP-SB227-0-1-211021]	B298295	1.52	50.0	01/04/22

Prep Method: SW-846 3005A **Analytical Method: SW-846 6010D**

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
21J1472-04 [HRP-EB07-211021]	B293093	50.0	50.0	10/23/21

Prep Method: SW-846 3005A **Analytical Method: SW-846 6020B**

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
21J1472-04 [HRP-EB07-211021]	B293091	50.0	50.0	10/23/21

Prep Method: SW-846 7470A Prep **Analytical Method: SW-846 7470A**

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
21J1472-04 [HRP-EB07-211021]	B293196	10.0	10.0	10/25/21

Prep Method: SW-846 7471 **Analytical Method: SW-846 7471B**

Lab Number [Field ID]	Batch	Initial [g]	Final [mL]	Date
21J1472-01 [HRP-SB225-0-1-211021]	B293278	0.540	50.0	10/26/21
21J1472-02 [HRP-SB224-0-1-211021]	B293278	0.591	50.0	10/26/21
21J1472-03 [HRP-SB227-0-1-211021]	B293278	0.584	50.0	10/26/21

Prep Method: SW-846 3546 **Analytical Method: SW-846 8015C**

Lab Number [Field ID]	Batch	Initial [g]	Final [mL]	Date
21J1472-01 [HRP-SB225-0-1-211021]	B293199	30.0	1.00	10/25/21
21J1472-02 [HRP-SB224-0-1-211021]	B293199	30.0	1.00	10/25/21
21J1472-03 [HRP-SB227-0-1-211021]	B293199	30.0	1.00	10/25/21

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Sample Extraction Data

Prep Method: SW-846 5030B **Analytical Method: SW-846 8015C**

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
21J1472-01 [HRP-SB225-0-1-211021]	B293367	4.54	6.51	10/27/21
21J1472-02 [HRP-SB224-0-1-211021]	B293367	3.78	5.43	10/27/21
21J1472-03 [HRP-SB227-0-1-211021]	B293367	7.59	5.93	10/27/21

Prep Method: SW-846 3510C **Analytical Method: SW-846 8015C**

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
21J1472-04 [HRP-EB07-211021]	B293116	1030	1.00	10/25/21

Prep Method: SW-846 3546 **Analytical Method: SW-846 8082A**

Lab Number [Field ID]	Batch	Initial [g]	Final [mL]	Date
21J1472-01 [HRP-SB225-0-1-211021]	B293133	10.0	10.0	10/25/21
21J1472-02 [HRP-SB224-0-1-211021]	B293133	10.0	10.0	10/25/21
21J1472-03 [HRP-SB227-0-1-211021]	B293133	10.0	10.0	10/25/21

Prep Method: SW-846 3510C **Analytical Method: SW-846 8082A**

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
21J1472-04 [HRP-EB07-211021]	B293271	1030	10.0	10/26/21

Prep Method: SW-846 5035 **Analytical Method: SW-846 8260D**

Lab Number [Field ID]	Batch	Sample Amount(g)	Methanol Volume(mL)	Methanol Aliquot(mL)	Final Volume(mL)	Date
21J1472-01 [HRP-SB225-0-1-211021]	B293105	4.54	6.51	1	50	10/25/21
21J1472-02 [HRP-SB224-0-1-211021]	B293105	3.78	5.43	0.25	50	10/25/21

Prep Method: SW-846 5035 **Analytical Method: SW-846 8260D**

Lab Number [Field ID]	Batch	Initial [g]	Final [mL]	Date
21J1472-03 [HRP-SB227-0-1-211021]	B293187	6.66	10.0	10/25/21

Prep Method: SW-846 5030B **Analytical Method: SW-846 8260D**

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
21J1472-05 [HRP-TB06-211021]	B293183	5	5.00	10/25/21

Prep Method: SW-846 3546 **Analytical Method: SW-846 8270E**

Lab Number [Field ID]	Batch	Initial [g]	Final [mL]	Date
21J1472-01 [HRP-SB225-0-1-211021]	B293200	30.0	1.00	10/25/21
21J1472-01RE1 [HRP-SB225-0-1-211021]	B293200	30.0	1.00	10/25/21
21J1472-02 [HRP-SB224-0-1-211021]	B293200	30.0	1.00	10/25/21
21J1472-02RE1 [HRP-SB224-0-1-211021]	B293200	30.0	1.00	10/25/21
21J1472-03 [HRP-SB227-0-1-211021]	B293200	30.0	1.00	10/25/21

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Sample Extraction Data

Prep Method: SW-846 3510C **Analytical Method: SW-846 8270E**

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
21J1472-04 [HRP-EB07-211021]	B293321	1040	1.00	10/27/21

Prep Method: SW-846 9010C **Analytical Method: SW-846 9014**

Lab Number [Field ID]	Batch	Initial [g]	Final [mL]	Date
21J1472-01 [HRP-SB225-0-1-211021]	B293120	1.16	50.0	10/25/21
21J1472-02 [HRP-SB224-0-1-211021]	B293120	1.10	50.0	10/25/21

Prep Method: SW-846 9010C **Analytical Method: SW-846 9014**

Lab Number [Field ID]	Batch	Initial [g]	Final [mL]	Date
21J1472-03 [HRP-SB227-0-1-211021]	B293536	1.48	50.0	10/29/21

Prep Method: SW-846 9010C **Analytical Method: SW-846 9014**

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
21J1472-04 [HRP-EB07-211021]	B293335	50.0	50.0	10/27/21

SW-846 9045C

Lab Number [Field ID]	Batch	Initial [g]	Date
21J1472-01 [HRP-SB225-0-1-211021]	B293214	20.0	10/25/21
21J1472-02 [HRP-SB224-0-1-211021]	B293214	20.0	10/25/21
21J1472-03 [HRP-SB227-0-1-211021]	B293214	20.0	10/25/21

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QUALITY CONTROL

Volatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B293105 - SW-846 5035										
Blank (B293105-BLK1)				Prepared: 10/25/21 Analyzed: 10/26/21						
Acetone	ND	2.5	mg/Kg wet							
Acrylonitrile	ND	0.25	mg/Kg wet							
tert-Amyl Methyl Ether (TAME)	ND	0.025	mg/Kg wet							
Benzene	ND	0.050	mg/Kg wet							
Bromobenzene	ND	0.050	mg/Kg wet							
Bromochloromethane	ND	0.050	mg/Kg wet							
Bromodichloromethane	ND	0.050	mg/Kg wet							
Bromoform	ND	0.050	mg/Kg wet							
Bromomethane	ND	0.10	mg/Kg wet							
2-Butanone (MEK)	ND	1.0	mg/Kg wet							
tert-Butyl Alcohol (TBA)	ND	1.0	mg/Kg wet							
n-Butylbenzene	ND	0.050	mg/Kg wet							
sec-Butylbenzene	ND	0.050	mg/Kg wet							
tert-Butylbenzene	ND	0.050	mg/Kg wet							
tert-Butyl Ethyl Ether (TBEE)	ND	0.025	mg/Kg wet							
Carbon Disulfide	ND	0.25	mg/Kg wet							
Carbon Tetrachloride	ND	0.050	mg/Kg wet							
Chlorobenzene	ND	0.050	mg/Kg wet							
Chlorodibromomethane	ND	0.025	mg/Kg wet							
Chloroethane	ND	0.10	mg/Kg wet							
Chloroform	ND	0.10	mg/Kg wet							
Chloromethane	ND	0.10	mg/Kg wet							
2-Chlorotoluene	ND	0.050	mg/Kg wet							
4-Chlorotoluene	ND	0.050	mg/Kg wet							
1,2-Dibromo-3-chloropropane (DBCP)	ND	0.25	mg/Kg wet							
1,2-Dibromoethane (EDB)	ND	0.025	mg/Kg wet							
Dibromomethane	ND	0.050	mg/Kg wet							
1,2-Dichlorobenzene	ND	0.050	mg/Kg wet							
1,3-Dichlorobenzene	ND	0.050	mg/Kg wet							
1,4-Dichlorobenzene	ND	0.050	mg/Kg wet							
trans-1,4-Dichloro-2-butene	ND	0.10	mg/Kg wet							
Dichlorodifluoromethane (Freon 12)	ND	0.10	mg/Kg wet							
1,1-Dichloroethane	ND	0.050	mg/Kg wet							
1,2-Dichloroethane	ND	0.050	mg/Kg wet							
1,1-Dichloroethylene	ND	0.050	mg/Kg wet							
cis-1,2-Dichloroethylene	ND	0.050	mg/Kg wet							
trans-1,2-Dichloroethylene	ND	0.050	mg/Kg wet							
Dichlorofluoromethane (Freon 21)	ND	0.050	mg/Kg wet							
1,2-Dichloropropane	ND	0.050	mg/Kg wet							
1,3-Dichloropropane	ND	0.025	mg/Kg wet							
2,2-Dichloropropane	ND	0.050	mg/Kg wet							V-05
1,1-Dichloropropene	ND	0.10	mg/Kg wet							
cis-1,3-Dichloropropene	ND	0.025	mg/Kg wet							
trans-1,3-Dichloropropene	ND	0.025	mg/Kg wet							
Diethyl Ether	ND	0.10	mg/Kg wet							
Difluorochloromethane (Freon 22)	ND	0.050	mg/Kg wet							
Diisopropyl Ether (DIPE)	ND	0.025	mg/Kg wet							
1,4-Dioxane	ND	2.5	mg/Kg wet							
Ethylbenzene	ND	0.050	mg/Kg wet							
Hexachlorobutadiene	ND	0.050	mg/Kg wet							
2-Hexanone (MBK)	ND	0.50	mg/Kg wet							
Isopropylbenzene (Cumene)	ND	0.050	mg/Kg wet							

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QUALITY CONTROL

Volatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B293105 - SW-846 5035										
Blank (B293105-BLK1)				Prepared: 10/25/21 Analyzed: 10/26/21						
p-Isopropyltoluene (p-Cymene)	ND	0.050	mg/Kg wet							
Methyl Acetate	ND	0.50	mg/Kg wet							
Methyl tert-Butyl Ether (MTBE)	ND	0.050	mg/Kg wet							
Methyl Cyclohexane	ND	0.050	mg/Kg wet							
Methylene Chloride	ND	0.25	mg/Kg wet							
4-Methyl-2-pentanone (MIBK)	ND	0.50	mg/Kg wet							
Naphthalene	ND	0.10	mg/Kg wet							V-05
n-Propylbenzene	ND	0.050	mg/Kg wet							
Styrene	ND	0.050	mg/Kg wet							
1,1,1,2-Tetrachloroethane	ND	0.050	mg/Kg wet							
1,1,2,2-Tetrachloroethane	ND	0.025	mg/Kg wet							
Tetrachloroethylene	ND	0.050	mg/Kg wet							
Tetrahydrofuran	ND	0.50	mg/Kg wet							
Toluene	ND	0.050	mg/Kg wet							
1,2,3-Trichlorobenzene	ND	0.25	mg/Kg wet							L-04, V-05
1,2,4-Trichlorobenzene	ND	0.050	mg/Kg wet							V-05
1,3,5-Trichlorobenzene	ND	0.050	mg/Kg wet							
1,1,1-Trichloroethane	ND	0.050	mg/Kg wet							
1,1,2-Trichloroethane	ND	0.050	mg/Kg wet							
Trichloroethylene	ND	0.050	mg/Kg wet							
Trichlorofluoromethane (Freon 11)	ND	0.10	mg/Kg wet							
1,2,3-Trichloropropane	ND	0.10	mg/Kg wet							
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	0.050	mg/Kg wet							
1,2,4-Trimethylbenzene	ND	0.050	mg/Kg wet							
1,3,5-Trimethylbenzene	ND	0.050	mg/Kg wet							
Vinyl Chloride	ND	0.10	mg/Kg wet							
m+p Xylene	ND	0.10	mg/Kg wet							
o-Xylene	ND	0.050	mg/Kg wet							
Surrogate: 1,2-Dichloroethane-d4	*0.0268*		mg/Kg wet	0.0250		107	70-130			
Surrogate: Toluene-d8	*0.0269*		mg/Kg wet	0.0250		107	70-130			
Surrogate: 4-Bromofluorobenzene	*0.0262*		mg/Kg wet	0.0250		105	70-130			
LCS (B293105-BS1)				Prepared & Analyzed: 10/25/21						
Acetone	0.112	0.057	mg/Kg wet	0.113		98.5	70-160			†
Acrylonitrile	0.00947	0.0057	mg/Kg wet	0.0113		83.6	70-130			
tert-Amyl Methyl Ether (TAME)	0.0111	0.00057	mg/Kg wet	0.0113		98.3	70-130			
Benzene	0.0114	0.0011	mg/Kg wet	0.0113		101	70-130			
Bromobenzene	0.0103	0.0011	mg/Kg wet	0.0113		90.6	70-130			
Bromochloromethane	0.0122	0.0011	mg/Kg wet	0.0113		108	70-130			
Bromodichloromethane	0.0116	0.0011	mg/Kg wet	0.0113		102	70-130			
Bromoform	0.0105	0.0011	mg/Kg wet	0.0113		92.7	70-130			
Bromomethane	0.0117	0.0023	mg/Kg wet	0.0113		104	40-130			†
2-Butanone (MEK)	0.113	0.023	mg/Kg wet	0.113		99.5	70-160			†
tert-Butyl Alcohol (TBA)	0.102	0.023	mg/Kg wet	0.113		90.1	40-130			†
n-Butylbenzene	0.00942	0.0011	mg/Kg wet	0.0113		83.1	70-130			
sec-Butylbenzene	0.0103	0.0011	mg/Kg wet	0.0113		90.7	70-130			
tert-Butylbenzene	0.0107	0.0011	mg/Kg wet	0.0113		94.1	70-160			†
tert-Butyl Ethyl Ether (TBEE)	0.0110	0.00057	mg/Kg wet	0.0113		97.3	70-130			
Carbon Disulfide	0.113	0.0057	mg/Kg wet	0.113		99.6	70-130			
Carbon Tetrachloride	0.0109	0.0011	mg/Kg wet	0.0113		96.1	70-130			
Chlorobenzene	0.0113	0.0011	mg/Kg wet	0.0113		99.5	70-130			
Chlorodibromomethane	0.0117	0.00057	mg/Kg wet	0.0113		103	70-130			

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QUALITY CONTROL

Volatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC		%REC Limits	RPD	RPD Limit	Notes	
Batch B293105 - SW-846 5035												
LCS (B293105-BS1)				Prepared & Analyzed: 10/25/21								
Chloroethane	0.0132	0.0023	mg/Kg wet	0.0113		116		70-130				
Chloroform	0.0114	0.0023	mg/Kg wet	0.0113		101		70-130				
Chloromethane	0.0144	0.0023	mg/Kg wet	0.0113		127		70-130			V-20	
2-Chlorotoluene	0.0107	0.0011	mg/Kg wet	0.0113		94.1		70-130				
4-Chlorotoluene	0.0105	0.0011	mg/Kg wet	0.0113		92.6		70-130				
1,2-Dibromo-3-chloropropane (DBCP)	0.00951	0.0057	mg/Kg wet	0.0113		83.9		70-130				
1,2-Dibromoethane (EDB)	0.0114	0.00057	mg/Kg wet	0.0113		101		70-130				
Dibromomethane	0.0114	0.0011	mg/Kg wet	0.0113		101		70-130				
1,2-Dichlorobenzene	0.0111	0.0011	mg/Kg wet	0.0113		97.8		70-130				
1,3-Dichlorobenzene	0.0109	0.0011	mg/Kg wet	0.0113		96.1		70-130				
1,4-Dichlorobenzene	0.0110	0.0011	mg/Kg wet	0.0113		97.1		70-130				
trans-1,4-Dichloro-2-butene	0.00991	0.0023	mg/Kg wet	0.0113		87.4		70-130				
Dichlorodifluoromethane (Freon 12)	0.0115	0.0023	mg/Kg wet	0.0113		101		40-160				†
1,1-Dichloroethane	0.0116	0.0011	mg/Kg wet	0.0113		103		70-130				
1,2-Dichloroethane	0.0109	0.0011	mg/Kg wet	0.0113		95.8		70-130				
1,1-Dichloroethylene	0.0114	0.0011	mg/Kg wet	0.0113		101		70-130				
cis-1,2-Dichloroethylene	0.0114	0.0011	mg/Kg wet	0.0113		101		70-130				
trans-1,2-Dichloroethylene	0.0110	0.0011	mg/Kg wet	0.0113		96.7		70-130				
Dichlorofluoromethane (Freon 21)	0.0108	0.0011	mg/Kg wet	0.0113		95.7		70-130				
1,2-Dichloropropane	0.0112	0.0011	mg/Kg wet	0.0113		99.2		70-130				
1,3-Dichloropropane	0.0112	0.00057	mg/Kg wet	0.0113		98.7		70-130				
2,2-Dichloropropane	0.00895	0.0011	mg/Kg wet	0.0113		79.0		70-130			V-05	
1,1-Dichloropropene	0.0109	0.0023	mg/Kg wet	0.0113		96.2		70-130				
cis-1,3-Dichloropropene	0.0113	0.00057	mg/Kg wet	0.0113		99.5		70-130				
trans-1,3-Dichloropropene	0.0104	0.00057	mg/Kg wet	0.0113		91.7		70-130				
Diethyl Ether	0.0105	0.0023	mg/Kg wet	0.0113		92.4		70-130				
Difluorochloromethane (Freon 22)	0.00940	0.0011	mg/Kg wet	0.0113		82.9		70-130				
Diisopropyl Ether (DIPE)	0.0110	0.00057	mg/Kg wet	0.0113		96.8		70-130				
1,4-Dioxane	0.106	0.057	mg/Kg wet	0.113		93.4		40-160				†
Ethylbenzene	0.0108	0.0011	mg/Kg wet	0.0113		95.0		70-130				
Hexachlorobutadiene	0.00936	0.0011	mg/Kg wet	0.0113		82.6		70-160				
2-Hexanone (MBK)	0.112	0.011	mg/Kg wet	0.113		98.9		70-160				†
Isopropylbenzene (Cumene)	0.0109	0.0011	mg/Kg wet	0.0113		96.0		70-130				
p-Isopropyltoluene (p-Cymene)	0.00997	0.0011	mg/Kg wet	0.0113		88.0		70-130				
Methyl Acetate	0.0126	0.011	mg/Kg wet	0.0113		111		70-130				
Methyl tert-Butyl Ether (MTBE)	0.0105	0.0011	mg/Kg wet	0.0113		92.3		70-130				
Methyl Cyclohexane	0.00926	0.0011	mg/Kg wet	0.0113		81.7		70-130				
Methylene Chloride	0.0119	0.0057	mg/Kg wet	0.0113		105		40-160				†
4-Methyl-2-pentanone (MIBK)	0.116	0.011	mg/Kg wet	0.113		102		70-160				†
Naphthalene	0.00662	0.0023	mg/Kg wet	0.0113		58.4		40-130			V-05	†
n-Propylbenzene	0.0104	0.0011	mg/Kg wet	0.0113		91.9		70-130				
Styrene	0.0113	0.0011	mg/Kg wet	0.0113		99.5		70-130				
1,1,1,2-Tetrachloroethane	0.0114	0.0011	mg/Kg wet	0.0113		101		70-130				
1,1,2,2-Tetrachloroethane	0.0115	0.00057	mg/Kg wet	0.0113		102		70-130				
Tetrachloroethylene	0.0114	0.0011	mg/Kg wet	0.0113		101		70-130				
Tetrahydrofuran	0.0114	0.011	mg/Kg wet	0.0113		101		70-130				
Toluene	0.0115	0.0011	mg/Kg wet	0.0113		101		70-130				
1,2,3-Trichlorobenzene	0.00762	0.0057	mg/Kg wet	0.0113		**67.2**	*	70-130			L-04, V-05	
1,2,4-Trichlorobenzene	0.00827	0.0011	mg/Kg wet	0.0113		73.0		70-130			V-05	
1,3,5-Trichlorobenzene	0.00909	0.0011	mg/Kg wet	0.0113		80.2		70-130				
1,1,1-Trichloroethane	0.0113	0.0011	mg/Kg wet	0.0113		100		70-130				
1,1,2-Trichloroethane	0.0118	0.0011	mg/Kg wet	0.0113		104		70-130				

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QUALITY CONTROL

Volatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B293105 - SW-846 5035										
LCS (B293105-BS1)				Prepared & Analyzed: 10/25/21						
Trichloroethylene	0.0112	0.0011	mg/Kg wet	0.0113		99.0	70-130			
Trichlorofluoromethane (Freon 11)	0.0109	0.0023	mg/Kg wet	0.0113		96.5	70-130			
1,2,3-Trichloropropane	0.0102	0.0023	mg/Kg wet	0.0113		89.6	70-130			
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	0.00963	0.0011	mg/Kg wet	0.0113		85.0	70-130			
1,2,4-Trimethylbenzene	0.0106	0.0011	mg/Kg wet	0.0113		93.5	70-130			
1,3,5-Trimethylbenzene	0.0104	0.0011	mg/Kg wet	0.0113		92.1	70-130			
Vinyl Chloride	0.0128	0.0023	mg/Kg wet	0.0113		113	40-130			†
m+p Xylene	0.0218	0.0023	mg/Kg wet	0.0227		96.2	70-130			
o-Xylene	0.0112	0.0011	mg/Kg wet	0.0113		98.4	70-130			
Surrogate: 1,2-Dichloroethane-d4	*0.0301*		mg/Kg wet	0.0283		106	70-130			
Surrogate: Toluene-d8	*0.0309*		mg/Kg wet	0.0283		109	70-130			
Surrogate: 4-Bromofluorobenzene	*0.0294*		mg/Kg wet	0.0283		104	70-130			
LCS Dup (B293105-BSD1)				Prepared: 10/25/21 Analyzed: 10/26/21						
Acetone	0.111	0.057	mg/Kg wet	0.113		98.3	70-160	0.122	25	†
Acrylonitrile	0.0102	0.0057	mg/Kg wet	0.0113		90.0	70-130	7.37	25	
tert-Amyl Methyl Ether (TAME)	0.0105	0.00057	mg/Kg wet	0.0113		92.7	70-130	5.86	25	
Benzene	0.0112	0.0011	mg/Kg wet	0.0113		99.1	70-130	1.80	25	
Bromobenzene	0.0102	0.0011	mg/Kg wet	0.0113		90.2	70-130	0.442	25	
Bromochloromethane	0.0113	0.0011	mg/Kg wet	0.0113		99.7	70-130	7.81	25	
Bromodichloromethane	0.0112	0.0011	mg/Kg wet	0.0113		98.8	70-130	3.19	25	
Bromoform	0.0102	0.0011	mg/Kg wet	0.0113		89.7	70-130	3.29	25	
Bromomethane	0.0116	0.0023	mg/Kg wet	0.0113		103	40-130	0.776	25	†
2-Butanone (MEK)	0.110	0.023	mg/Kg wet	0.113		96.8	70-160	2.66	25	†
tert-Butyl Alcohol (TBA)	0.104	0.023	mg/Kg wet	0.113		91.6	40-130	1.71	25	†
n-Butylbenzene	0.00891	0.0011	mg/Kg wet	0.0113		78.6	70-130	5.57	25	
sec-Butylbenzene	0.00986	0.0011	mg/Kg wet	0.0113		87.0	70-130	4.16	25	
tert-Butylbenzene	0.0103	0.0011	mg/Kg wet	0.0113		91.2	70-160	3.13	25	†
tert-Butyl Ethyl Ether (TBEE)	0.0106	0.00057	mg/Kg wet	0.0113		93.1	70-130	4.41	25	
Carbon Disulfide	0.108	0.0057	mg/Kg wet	0.113		95.5	70-130	4.14	25	
Carbon Tetrachloride	0.0105	0.0011	mg/Kg wet	0.0113		92.5	70-130	3.82	25	
Chlorobenzene	0.0108	0.0011	mg/Kg wet	0.0113		95.6	70-130	4.00	25	
Chlorodibromomethane	0.0111	0.00057	mg/Kg wet	0.0113		98.1	70-130	4.68	25	
Chloroethane	0.0131	0.0023	mg/Kg wet	0.0113		116	70-130	0.518	25	
Chloroform	0.0112	0.0023	mg/Kg wet	0.0113		98.9	70-130	1.80	25	
Chloromethane	0.0133	0.0023	mg/Kg wet	0.0113		118	70-130	7.53	25	V-20
2-Chlorotoluene	0.0104	0.0011	mg/Kg wet	0.0113		91.8	70-130	2.47	25	
4-Chlorotoluene	0.0101	0.0011	mg/Kg wet	0.0113		89.5	70-130	3.40	25	
1,2-Dibromo-3-chloropropane (DBCP)	0.00991	0.0057	mg/Kg wet	0.0113		87.4	70-130	4.09	25	
1,2-Dibromoethane (EDB)	0.0111	0.00057	mg/Kg wet	0.0113		98.1	70-130	2.81	25	
Dibromomethane	0.0113	0.0011	mg/Kg wet	0.0113		99.9	70-130	0.798	25	
1,2-Dichlorobenzene	0.0110	0.0011	mg/Kg wet	0.0113		97.0	70-130	0.821	25	
1,3-Dichlorobenzene	0.0107	0.0011	mg/Kg wet	0.0113		94.0	70-130	2.21	25	
1,4-Dichlorobenzene	0.0104	0.0011	mg/Kg wet	0.0113		91.5	70-130	5.94	25	
trans-1,4-Dichloro-2-butene	0.0101	0.0023	mg/Kg wet	0.0113		88.8	70-130	1.59	25	
Dichlorodifluoromethane (Freon 12)	0.0104	0.0023	mg/Kg wet	0.0113		91.7	40-160	9.95	25	†
1,1-Dichloroethane	0.0112	0.0011	mg/Kg wet	0.0113		98.4	70-130	4.28	25	
1,2-Dichloroethane	0.0107	0.0011	mg/Kg wet	0.0113		94.2	70-130	1.68	25	
1,1-Dichloroethylene	0.0112	0.0011	mg/Kg wet	0.0113		98.8	70-130	2.20	25	
cis-1,2-Dichloroethylene	0.0111	0.0011	mg/Kg wet	0.0113		97.6	70-130	3.42	25	
trans-1,2-Dichloroethylene	0.0105	0.0011	mg/Kg wet	0.0113		93.0	70-130	3.90	25	
Dichlorofluoromethane (Freon 21)	0.0103	0.0011	mg/Kg wet	0.0113		91.0	70-130	5.03	25	

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QUALITY CONTROL

Volatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC		%REC Limits	RPD	RPD Limit	Notes	
Batch B293105 - SW-846 5035												
LCS Dup (B293105-BSD1)				Prepared: 10/25/21 Analyzed: 10/26/21								
1,2-Dichloropropane	0.0110	0.0011	mg/Kg wet	0.0113		97.3		70-130	1.93	25		
1,3-Dichloropropane	0.0110	0.00057	mg/Kg wet	0.0113		97.2		70-130	1.53	25		
2,2-Dichloropropane	0.00861	0.0011	mg/Kg wet	0.0113		76.0		70-130	3.87	25	V-05	
1,1-Dichloropropene	0.0103	0.0023	mg/Kg wet	0.0113		91.2		70-130	5.34	25		
cis-1,3-Dichloropropene	0.0110	0.00057	mg/Kg wet	0.0113		97.0		70-130	2.54	25		
trans-1,3-Dichloropropene	0.00992	0.00057	mg/Kg wet	0.0113		87.5		70-130	4.69	25		
Diethyl Ether	0.0108	0.0023	mg/Kg wet	0.0113		94.9		70-130	2.67	25		
Difluorochloromethane (Freon 22)	0.00917	0.0011	mg/Kg wet	0.0113		80.9		70-130	2.44	25		
Diisopropyl Ether (DIPE)	0.0107	0.00057	mg/Kg wet	0.0113		94.1		70-130	2.83	25		
1,4-Dioxane	0.0948	0.057	mg/Kg wet	0.113		83.7		40-160	11.0	50		† ‡
Ethylbenzene	0.0104	0.0011	mg/Kg wet	0.0113		91.6		70-130	3.64	25		
Hexachlorobutadiene	0.00969	0.0011	mg/Kg wet	0.0113		85.5		70-160	3.45	25		
2-Hexanone (MBK)	0.108	0.011	mg/Kg wet	0.113		95.6		70-160	3.35	25		†
Isopropylbenzene (Cumene)	0.0104	0.0011	mg/Kg wet	0.0113		92.0		70-130	4.26	25		
p-Isopropyltoluene (p-Cymene)	0.00953	0.0011	mg/Kg wet	0.0113		84.1		70-130	4.53	25		
Methyl Acetate	0.0122	0.011	mg/Kg wet	0.0113		108		70-130	2.92	25		
Methyl tert-Butyl Ether (MTBE)	0.0104	0.0011	mg/Kg wet	0.0113		91.9		70-130	0.434	25		
Methyl Cyclohexane	0.00870	0.0011	mg/Kg wet	0.0113		76.8		70-130	6.18	25		
Methylene Chloride	0.0116	0.0057	mg/Kg wet	0.0113		102		40-160	2.80	25		†
4-Methyl-2-pentanone (MIBK)	0.112	0.011	mg/Kg wet	0.113		98.5		70-160	3.89	25		†
Naphthalene	0.00639	0.0023	mg/Kg wet	0.0113		56.4		40-130	3.48	25	V-05	†
n-Propylbenzene	0.00994	0.0011	mg/Kg wet	0.0113		87.7		70-130	4.68	25		
Styrene	0.0110	0.0011	mg/Kg wet	0.0113		96.7		70-130	2.85	25		
1,1,1,2-Tetrachloroethane	0.0110	0.0011	mg/Kg wet	0.0113		97.4		70-130	3.33	25		
1,1,2,2-Tetrachloroethane	0.0111	0.00057	mg/Kg wet	0.0113		98.1		70-130	3.51	25		
Tetrachloroethylene	0.0107	0.0011	mg/Kg wet	0.0113		94.5		70-130	6.25	25		
Tetrahydrofuran	0.0109	0.011	mg/Kg wet	0.0113		96.1		70-130	4.67	25	J	
Toluene	0.0108	0.0011	mg/Kg wet	0.0113		95.7		70-130	5.78	25		
1,2,3-Trichlorobenzene	0.00726	0.0057	mg/Kg wet	0.0113		**64.1**	*	70-130	4.72	25	L-04, V-05	
1,2,4-Trichlorobenzene	0.00751	0.0011	mg/Kg wet	0.0113		**66.3**	*	70-130	9.62	25	L-07, V-05	
1,3,5-Trichlorobenzene	0.00874	0.0011	mg/Kg wet	0.0113		77.1		70-130	3.94	25		
1,1,1-Trichloroethane	0.0107	0.0011	mg/Kg wet	0.0113		94.8		70-130	5.44	25		
1,1,2-Trichloroethane	0.0118	0.0011	mg/Kg wet	0.0113		104		70-130	0.00	25		
Trichloroethylene	0.0109	0.0011	mg/Kg wet	0.0113		96.2		70-130	2.87	25		
Trichlorofluoromethane (Freon 11)	0.0105	0.0023	mg/Kg wet	0.0113		92.6		70-130	4.12	25		
1,2,3-Trichloropropane	0.00971	0.0023	mg/Kg wet	0.0113		85.7		70-130	4.45	25		
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	0.00911	0.0011	mg/Kg wet	0.0113		80.4		70-130	5.56	25		
1,2,4-Trimethylbenzene	0.0101	0.0011	mg/Kg wet	0.0113		89.1		70-130	4.82	25		
1,3,5-Trimethylbenzene	0.00994	0.0011	mg/Kg wet	0.0113		87.7		70-130	4.89	25		
Vinyl Chloride	0.0120	0.0023	mg/Kg wet	0.0113		106		40-130	6.39	25		†
m+p Xylene	0.0208	0.0023	mg/Kg wet	0.0227		91.8		70-130	4.73	25		
o-Xylene	0.0108	0.0011	mg/Kg wet	0.0113		95.6		70-130	2.89	25		
Surrogate: 1,2-Dichloroethane-d4	*0.0302*		mg/Kg wet	0.0283		106		70-130				
Surrogate: Toluene-d8	*0.0307*		mg/Kg wet	0.0283		109		70-130				
Surrogate: 4-Bromofluorobenzene	*0.0299*		mg/Kg wet	0.0283		105		70-130				

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QUALITY CONTROL

Volatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B293183 - SW-846 5030B										
Blank (B293183-BLK1)				Prepared: 10/25/21 Analyzed: 10/26/21						
Acetone	ND	50	µg/L							
Acrylonitrile	ND	5.0	µg/L							
tert-Amyl Methyl Ether (TAME)	ND	0.50	µg/L							
Benzene	ND	1.0	µg/L							
Bromobenzene	ND	1.0	µg/L							
Bromochloromethane	ND	1.0	µg/L							
Bromodichloromethane	ND	0.50	µg/L							
Bromoform	ND	1.0	µg/L							
Bromomethane	ND	2.0	µg/L							
2-Butanone (MEK)	ND	20	µg/L							
tert-Butyl Alcohol (TBA)	ND	20	µg/L							
n-Butylbenzene	ND	1.0	µg/L							
sec-Butylbenzene	ND	1.0	µg/L							
tert-Butylbenzene	ND	1.0	µg/L							
tert-Butyl Ethyl Ether (TBEE)	ND	0.50	µg/L							
Carbon Disulfide	ND	5.0	µg/L							
Carbon Tetrachloride	ND	5.0	µg/L							
Chlorobenzene	ND	1.0	µg/L							
Chlorodibromomethane	ND	0.50	µg/L							
Chloroethane	ND	2.0	µg/L							
Chloroform	ND	2.0	µg/L							
Chloromethane	ND	2.0	µg/L							
2-Chlorotoluene	ND	1.0	µg/L							
4-Chlorotoluene	ND	1.0	µg/L							
1,2-Dibromo-3-chloropropane (DBCP)	ND	5.0	µg/L							
1,2-Dibromoethane (EDB)	ND	0.50	µg/L							
Dibromomethane	ND	1.0	µg/L							
1,2-Dichlorobenzene	ND	1.0	µg/L							
1,3-Dichlorobenzene	ND	1.0	µg/L							
1,4-Dichlorobenzene	ND	1.0	µg/L							
trans-1,4-Dichloro-2-butene	ND	2.0	µg/L							
Dichlorodifluoromethane (Freon 12)	ND	2.0	µg/L							
1,1-Dichloroethane	ND	1.0	µg/L							
1,2-Dichloroethane	ND	1.0	µg/L							
1,1-Dichloroethylene	ND	1.0	µg/L							
cis-1,2-Dichloroethylene	ND	1.0	µg/L							
trans-1,2-Dichloroethylene	ND	1.0	µg/L							
1,2-Dichloropropane	ND	1.0	µg/L							
1,3-Dichloropropane	ND	0.50	µg/L							
2,2-Dichloropropane	ND	1.0	µg/L							V-05
1,1-Dichloropropene	ND	2.0	µg/L							
cis-1,3-Dichloropropene	ND	0.50	µg/L							
trans-1,3-Dichloropropene	ND	0.50	µg/L							
Diethyl Ether	ND	2.0	µg/L							
Diisopropyl Ether (DIPE)	ND	0.50	µg/L							
1,4-Dioxane	ND	50	µg/L							
Ethylbenzene	ND	1.0	µg/L							
Hexachlorobutadiene	ND	0.60	µg/L							
2-Hexanone (MBK)	ND	10	µg/L							
Isopropylbenzene (Cumene)	ND	1.0	µg/L							
p-Isopropyltoluene (p-Cymene)	ND	1.0	µg/L							
Methyl Acetate	ND	1.0	µg/L							

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QUALITY CONTROL

Volatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B293183 - SW-846 5030B										
Blank (B293183-BLK1)				Prepared: 10/25/21 Analyzed: 10/26/21						
Methyl tert-Butyl Ether (MTBE)	ND	1.0	µg/L							
Methyl Cyclohexane	ND	1.0	µg/L							
Methylene Chloride	ND	5.0	µg/L							
4-Methyl-2-pentanone (MIBK)	ND	10	µg/L							
Naphthalene	ND	2.0	µg/L							V-05
n-Propylbenzene	ND	1.0	µg/L							
Styrene	ND	1.0	µg/L							
1,1,1,2-Tetrachloroethane	ND	1.0	µg/L							
1,1,2,2-Tetrachloroethane	ND	0.50	µg/L							
Tetrachloroethylene	ND	1.0	µg/L							
Tetrahydrofuran	ND	10	µg/L							
Toluene	ND	1.0	µg/L							
1,2,3-Trichlorobenzene	ND	5.0	µg/L							L-04, V-05
1,2,4-Trichlorobenzene	ND	1.0	µg/L							V-05
1,3,5-Trichlorobenzene	ND	1.0	µg/L							
1,1,1-Trichloroethane	ND	1.0	µg/L							
1,1,2-Trichloroethane	ND	1.0	µg/L							
Trichloroethylene	ND	1.0	µg/L							
Trichlorofluoromethane (Freon 11)	ND	2.0	µg/L							
1,2,3-Trichloropropane	ND	2.0	µg/L							
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	1.0	µg/L							
1,2,4-Trimethylbenzene	ND	1.0	µg/L							
1,3,5-Trimethylbenzene	ND	1.0	µg/L							
Vinyl Chloride	ND	2.0	µg/L							
m+p Xylene	ND	2.0	µg/L							
o-Xylene	ND	1.0	µg/L							
Surrogate: 1,2-Dichloroethane-d4	*26.8*		µg/L	25.0		107	70-130			
Surrogate: Toluene-d8	*26.9*		µg/L	25.0		107	70-130			
Surrogate: 4-Bromofluorobenzene	*26.2*		µg/L	25.0		105	70-130			
LCS (B293183-BS1)				Prepared & Analyzed: 10/25/21						
Acetone	98.5	50	µg/L	100		98.5	70-160			†
Acrylonitrile	8.36	5.0	µg/L	10.0		83.6	70-130			
tert-Amyl Methyl Ether (TAME)	9.83	0.50	µg/L	10.0		98.3	70-130			
Benzene	10.1	1.0	µg/L	10.0		101	70-130			
Bromobenzene	9.06	1.0	µg/L	10.0		90.6	70-130			
Bromochloromethane	10.8	1.0	µg/L	10.0		108	70-130			
Bromodichloromethane	10.2	0.50	µg/L	10.0		102	70-130			
Bromoform	9.27	1.0	µg/L	10.0		92.7	70-130			
Bromomethane	10.4	2.0	µg/L	10.0		104	40-160			†
2-Butanone (MEK)	99.5	20	µg/L	100		99.5	40-160			†
tert-Butyl Alcohol (TBA)	90.1	20	µg/L	100		90.1	40-160			†
n-Butylbenzene	8.31	1.0	µg/L	10.0		83.1	70-130			
sec-Butylbenzene	9.07	1.0	µg/L	10.0		90.7	70-130			
tert-Butylbenzene	9.41	1.0	µg/L	10.0		94.1	70-130			
tert-Butyl Ethyl Ether (TBEE)	9.73	0.50	µg/L	10.0		97.3	70-130			
Carbon Disulfide	99.6	5.0	µg/L	100		99.6	70-130			
Carbon Tetrachloride	9.61	5.0	µg/L	10.0		96.1	70-130			
Chlorobenzene	9.95	1.0	µg/L	10.0		99.5	70-130			
Chlorodibromomethane	10.3	0.50	µg/L	10.0		103	70-130			
Chloroethane	11.6	2.0	µg/L	10.0		116	70-130			
Chloroform	10.1	2.0	µg/L	10.0		101	70-130			

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QUALITY CONTROL

Volatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC		%REC Limits	RPD	RPD Limit	Notes	
Batch B293183 - SW-846 5030B												
LCS (B293183-BS1)				Prepared & Analyzed: 10/25/21								
Chloromethane	12.7	2.0	µg/L	10.0		127		40-160			V-20	†
2-Chlorotoluene	9.41	1.0	µg/L	10.0		94.1		70-130				
4-Chlorotoluene	9.26	1.0	µg/L	10.0		92.6		70-130				
1,2-Dibromo-3-chloropropane (DBCP)	8.39	5.0	µg/L	10.0		83.9		70-130				
1,2-Dibromoethane (EDB)	10.1	0.50	µg/L	10.0		101		70-130				
Dibromomethane	10.1	1.0	µg/L	10.0		101		70-130				
1,2-Dichlorobenzene	9.78	1.0	µg/L	10.0		97.8		70-130				
1,3-Dichlorobenzene	9.61	1.0	µg/L	10.0		96.1		70-130				
1,4-Dichlorobenzene	9.71	1.0	µg/L	10.0		97.1		70-130				
trans-1,4-Dichloro-2-butene	8.74	2.0	µg/L	10.0		87.4		70-130				
Dichlorodifluoromethane (Freon 12)	10.1	2.0	µg/L	10.0		101		40-160				†
1,1-Dichloroethane	10.3	1.0	µg/L	10.0		103		70-130				
1,2-Dichloroethane	9.58	1.0	µg/L	10.0		95.8		70-130				
1,1-Dichloroethylene	10.1	1.0	µg/L	10.0		101		70-130				
cis-1,2-Dichloroethylene	10.1	1.0	µg/L	10.0		101		70-130				
trans-1,2-Dichloroethylene	9.67	1.0	µg/L	10.0		96.7		70-130				
1,2-Dichloropropane	9.92	1.0	µg/L	10.0		99.2		70-130				
1,3-Dichloropropane	9.87	0.50	µg/L	10.0		98.7		70-130				
2,2-Dichloropropane	7.90	1.0	µg/L	10.0		79.0		40-130			V-05	†
1,1-Dichloropropene	9.62	2.0	µg/L	10.0		96.2		70-130				
cis-1,3-Dichloropropene	9.95	0.50	µg/L	10.0		99.5		70-130				
trans-1,3-Dichloropropene	9.17	0.50	µg/L	10.0		91.7		70-130				
Diethyl Ether	9.24	2.0	µg/L	10.0		92.4		70-130				
Diisopropyl Ether (DIPE)	9.68	0.50	µg/L	10.0		96.8		70-130				
1,4-Dioxane	93.4	50	µg/L	100		93.4		40-130				†
Ethylbenzene	9.50	1.0	µg/L	10.0		95.0		70-130				
Hexachlorobutadiene	8.26	0.60	µg/L	10.0		82.6		70-130				
2-Hexanone (MBK)	98.8	10	µg/L	100		98.8		70-160				†
Isopropylbenzene (Cumene)	9.60	1.0	µg/L	10.0		96.0		70-130				
p-Isopropyltoluene (p-Cymene)	8.80	1.0	µg/L	10.0		88.0		70-130				
Methyl Acetate	11.1	1.0	µg/L	10.0		111		70-130				
Methyl tert-Butyl Ether (MTBE)	9.23	1.0	µg/L	10.0		92.3		70-130				
Methyl Cyclohexane	8.17	1.0	µg/L	10.0		81.7		70-130				
Methylene Chloride	10.5	5.0	µg/L	10.0		105		70-130				
4-Methyl-2-pentanone (MIBK)	102	10	µg/L	100		102		70-160				†
Naphthalene	5.84	2.0	µg/L	10.0		58.4		40-130			V-05	†
n-Propylbenzene	9.19	1.0	µg/L	10.0		91.9		70-130				
Styrene	9.95	1.0	µg/L	10.0		99.5		70-130				
1,1,1,2-Tetrachloroethane	10.1	1.0	µg/L	10.0		101		70-130				
1,1,2,2-Tetrachloroethane	10.2	0.50	µg/L	10.0		102		70-130				
Tetrachloroethylene	10.1	1.0	µg/L	10.0		101		70-130				
Tetrahydrofuran	10.1	10	µg/L	10.0		101		70-130				
Toluene	10.1	1.0	µg/L	10.0		101		70-130				
1,2,3-Trichlorobenzene	6.72	5.0	µg/L	10.0		**67.2**	*	70-130			L-04, V-05	
1,2,4-Trichlorobenzene	7.30	1.0	µg/L	10.0		73.0		70-130			V-05	
1,3,5-Trichlorobenzene	8.02	1.0	µg/L	10.0		80.2		70-130				
1,1,1-Trichloroethane	10.0	1.0	µg/L	10.0		100		70-130				
1,1,2-Trichloroethane	10.4	1.0	µg/L	10.0		104		70-130				
Trichloroethylene	9.90	1.0	µg/L	10.0		99.0		70-130				
Trichlorofluoromethane (Freon 11)	9.65	2.0	µg/L	10.0		96.5		70-130				
1,2,3-Trichloropropane	8.96	2.0	µg/L	10.0		89.6		70-130				

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QUALITY CONTROL

Volatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes	
Batch B293183 - SW-846 5030B											
LCS (B293183-BS1)				Prepared & Analyzed: 10/25/21							
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	8.50	1.0	µg/L	10.0		85.0	70-130				
1,2,4-Trimethylbenzene	9.35	1.0	µg/L	10.0		93.5	70-130				
1,3,5-Trimethylbenzene	9.21	1.0	µg/L	10.0		92.1	70-130				
Vinyl Chloride	11.3	2.0	µg/L	10.0		113	40-160				†
m+p Xylene	19.2	2.0	µg/L	20.0		96.2	70-130				
o-Xylene	9.84	1.0	µg/L	10.0		98.4	70-130				
Surrogate: 1,2-Dichloroethane-d4	*26.6*		µg/L	25.0		106	70-130				
Surrogate: Toluene-d8	*27.3*		µg/L	25.0		109	70-130				
Surrogate: 4-Bromofluorobenzene	*26.0*		µg/L	25.0		104	70-130				
LCS Dup (B293183-BSD1)				Prepared: 10/25/21 Analyzed: 10/26/21							
Acetone	98.3	50	µg/L	100		98.3	70-160	0.122	25		†
Acrylonitrile	9.00	5.0	µg/L	10.0		90.0	70-130	7.37	25		
tert-Amyl Methyl Ether (TAME)	9.27	0.50	µg/L	10.0		92.7	70-130	5.86	25		
Benzene	9.91	1.0	µg/L	10.0		99.1	70-130	1.80	25		
Bromobenzene	9.02	1.0	µg/L	10.0		90.2	70-130	0.442	25		
Bromochloromethane	9.97	1.0	µg/L	10.0		99.7	70-130	7.81	25		
Bromodichloromethane	9.88	0.50	µg/L	10.0		98.8	70-130	3.19	25		
Bromoform	8.97	1.0	µg/L	10.0		89.7	70-130	3.29	25		
Bromomethane	10.3	2.0	µg/L	10.0		103	40-160	0.776	25		†
2-Butanone (MEK)	96.8	20	µg/L	100		96.8	40-160	2.66	25		†
tert-Butyl Alcohol (TBA)	91.6	20	µg/L	100		91.6	40-160	1.71	25		†
n-Butylbenzene	7.86	1.0	µg/L	10.0		78.6	70-130	5.57	25		
sec-Butylbenzene	8.70	1.0	µg/L	10.0		87.0	70-130	4.16	25		
tert-Butylbenzene	9.12	1.0	µg/L	10.0		91.2	70-130	3.13	25		
tert-Butyl Ethyl Ether (TBEE)	9.31	0.50	µg/L	10.0		93.1	70-130	4.41	25		
Carbon Disulfide	95.5	5.0	µg/L	100		95.5	70-130	4.14	25		
Carbon Tetrachloride	9.25	5.0	µg/L	10.0		92.5	70-130	3.82	25		
Chlorobenzene	9.56	1.0	µg/L	10.0		95.6	70-130	4.00	25		
Chlorodibromomethane	9.81	0.50	µg/L	10.0		98.1	70-130	4.68	25		
Chloroethane	11.6	2.0	µg/L	10.0		116	70-130	0.518	25		
Chloroform	9.89	2.0	µg/L	10.0		98.9	70-130	1.80	25		
Chloromethane	11.8	2.0	µg/L	10.0		118	40-160	7.53	25	V-20	†
2-Chlorotoluene	9.18	1.0	µg/L	10.0		91.8	70-130	2.47	25		
4-Chlorotoluene	8.95	1.0	µg/L	10.0		89.5	70-130	3.40	25		
1,2-Dibromo-3-chloropropane (DBCP)	8.74	5.0	µg/L	10.0		87.4	70-130	4.09	25		
1,2-Dibromoethane (EDB)	9.81	0.50	µg/L	10.0		98.1	70-130	2.81	25		
Dibromomethane	9.99	1.0	µg/L	10.0		99.9	70-130	0.798	25		
1,2-Dichlorobenzene	9.70	1.0	µg/L	10.0		97.0	70-130	0.821	25		
1,3-Dichlorobenzene	9.40	1.0	µg/L	10.0		94.0	70-130	2.21	25		
1,4-Dichlorobenzene	9.15	1.0	µg/L	10.0		91.5	70-130	5.94	25		
trans-1,4-Dichloro-2-butene	8.88	2.0	µg/L	10.0		88.8	70-130	1.59	25		
Dichlorodifluoromethane (Freon 12)	9.17	2.0	µg/L	10.0		91.7	40-160	9.95	25		†
1,1-Dichloroethane	9.84	1.0	µg/L	10.0		98.4	70-130	4.28	25		
1,2-Dichloroethane	9.42	1.0	µg/L	10.0		94.2	70-130	1.68	25		
1,1-Dichloroethylene	9.88	1.0	µg/L	10.0		98.8	70-130	2.20	25		
cis-1,2-Dichloroethylene	9.76	1.0	µg/L	10.0		97.6	70-130	3.42	25		
trans-1,2-Dichloroethylene	9.30	1.0	µg/L	10.0		93.0	70-130	3.90	25		
1,2-Dichloropropane	9.73	1.0	µg/L	10.0		97.3	70-130	1.93	25		
1,3-Dichloropropane	9.72	0.50	µg/L	10.0		97.2	70-130	1.53	25		
2,2-Dichloropropane	7.60	1.0	µg/L	10.0		76.0	40-130	3.87	25	V-05	†
1,1-Dichloropropene	9.12	2.0	µg/L	10.0		91.2	70-130	5.34	25		

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QUALITY CONTROL

Volatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC		%REC Limits	RPD	RPD Limit	Notes	
Batch B293183 - SW-846 5030B												
LCS Dup (B293183-BSD1)				Prepared: 10/25/21 Analyzed: 10/26/21								
cis-1,3-Dichloropropene	9.70	0.50	µg/L	10.0		97.0		70-130	2.54	25		
trans-1,3-Dichloropropene	8.75	0.50	µg/L	10.0		87.5		70-130	4.69	25		
Diethyl Ether	9.49	2.0	µg/L	10.0		94.9		70-130	2.67	25		
Diisopropyl Ether (DIPE)	9.41	0.50	µg/L	10.0		94.1		70-130	2.83	25		
1,4-Dioxane	83.6	50	µg/L	100		83.6		40-130	11.0	50		† ‡
Ethylbenzene	9.16	1.0	µg/L	10.0		91.6		70-130	3.64	25		
Hexachlorobutadiene	8.55	0.60	µg/L	10.0		85.5		70-130	3.45	25		
2-Hexanone (MBK)	95.6	10	µg/L	100		95.6		70-160	3.35	25		†
Isopropylbenzene (Cumene)	9.20	1.0	µg/L	10.0		92.0		70-130	4.26	25		
p-Isopropyltoluene (p-Cymene)	8.41	1.0	µg/L	10.0		84.1		70-130	4.53	25		
Methyl Acetate	10.8	1.0	µg/L	10.0		108		70-130	2.92	25		
Methyl tert-Butyl Ether (MTBE)	9.19	1.0	µg/L	10.0		91.9		70-130	0.434	25		
Methyl Cyclohexane	7.68	1.0	µg/L	10.0		76.8		70-130	6.18	25		
Methylene Chloride	10.2	5.0	µg/L	10.0		102		70-130	2.80	25		
4-Methyl-2-pentanone (MIBK)	98.5	10	µg/L	100		98.5		70-160	3.89	25		†
Naphthalene	5.64	2.0	µg/L	10.0		56.4		40-130	3.48	25	V-05	†
n-Propylbenzene	8.77	1.0	µg/L	10.0		87.7		70-130	4.68	25		
Styrene	9.67	1.0	µg/L	10.0		96.7		70-130	2.85	25		
1,1,1,2-Tetrachloroethane	9.74	1.0	µg/L	10.0		97.4		70-130	3.33	25		
1,1,2,2-Tetrachloroethane	9.81	0.50	µg/L	10.0		98.1		70-130	3.51	25		
Tetrachloroethylene	9.45	1.0	µg/L	10.0		94.5		70-130	6.25	25		
Tetrahydrofuran	9.61	10	µg/L	10.0		96.1		70-130	4.67	25	J	
Toluene	9.57	1.0	µg/L	10.0		95.7		70-130	5.78	25		
1,2,3-Trichlorobenzene	6.41	5.0	µg/L	10.0		**64.1**	*	70-130	4.72	25	L-04, V-05	
1,2,4-Trichlorobenzene	6.63	1.0	µg/L	10.0		**66.3**	*	70-130	9.62	25	L-07, V-05	
1,3,5-Trichlorobenzene	7.71	1.0	µg/L	10.0		77.1		70-130	3.94	25		
1,1,1-Trichloroethane	9.48	1.0	µg/L	10.0		94.8		70-130	5.44	25		
1,1,2-Trichloroethane	10.4	1.0	µg/L	10.0		104		70-130	0.00	25		
Trichloroethylene	9.62	1.0	µg/L	10.0		96.2		70-130	2.87	25		
Trichlorofluoromethane (Freon 11)	9.26	2.0	µg/L	10.0		92.6		70-130	4.12	25		
1,2,3-Trichloropropane	8.57	2.0	µg/L	10.0		85.7		70-130	4.45	25		
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	8.04	1.0	µg/L	10.0		80.4		70-130	5.56	25		
1,2,4-Trimethylbenzene	8.91	1.0	µg/L	10.0		89.1		70-130	4.82	25		
1,3,5-Trimethylbenzene	8.77	1.0	µg/L	10.0		87.7		70-130	4.89	25		
Vinyl Chloride	10.6	2.0	µg/L	10.0		106		40-160	6.39	25		†
m+p Xylene	18.4	2.0	µg/L	20.0		91.8		70-130	4.73	25		
o-Xylene	9.56	1.0	µg/L	10.0		95.6		70-130	2.89	25		
Surrogate: 1,2-Dichloroethane-d4	*26.6*		µg/L	25.0		106		70-130				
Surrogate: Toluene-d8	*27.1*		µg/L	25.0		109		70-130				
Surrogate: 4-Bromofluorobenzene	*26.3*		µg/L	25.0		105		70-130				
Batch B293187 - SW-846 5035												
Blank (B293187-BLK1)				Prepared & Analyzed: 10/25/21								
Acetone	ND	0.10	mg/Kg wet									
Acrylonitrile	ND	0.0060	mg/Kg wet									
tert-Amyl Methyl Ether (TAME)	ND	0.0010	mg/Kg wet									
Benzene	ND	0.0020	mg/Kg wet									
Bromobenzene	ND	0.0020	mg/Kg wet									
Bromochloromethane	ND	0.0020	mg/Kg wet									
Bromodichloromethane	ND	0.0020	mg/Kg wet									
Bromoform	ND	0.0020	mg/Kg wet									

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QUALITY CONTROL

Volatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B293187 - SW-846 5035										
Blank (B293187-BLK1)				Prepared & Analyzed: 10/25/21						
Bromomethane	ND	0.010	mg/Kg wet							V-34
2-Butanone (MEK)	ND	0.040	mg/Kg wet							
tert-Butyl Alcohol (TBA)	ND	0.10	mg/Kg wet							
n-Butylbenzene	ND	0.0020	mg/Kg wet							
sec-Butylbenzene	ND	0.0020	mg/Kg wet							
tert-Butylbenzene	ND	0.0020	mg/Kg wet							
tert-Butyl Ethyl Ether (TBEE)	ND	0.0010	mg/Kg wet							
Carbon Disulfide	ND	0.010	mg/Kg wet							
Carbon Tetrachloride	ND	0.0020	mg/Kg wet							
Chlorobenzene	ND	0.0020	mg/Kg wet							
Chlorodibromomethane	ND	0.0010	mg/Kg wet							
Chloroethane	ND	0.020	mg/Kg wet							
Chloroform	ND	0.0040	mg/Kg wet							
Chloromethane	ND	0.010	mg/Kg wet							
2-Chlorotoluene	ND	0.0020	mg/Kg wet							
4-Chlorotoluene	ND	0.0020	mg/Kg wet							
1,2-Dibromo-3-chloropropane (DBCP)	ND	0.0020	mg/Kg wet							
1,2-Dibromoethane (EDB)	ND	0.0010	mg/Kg wet							
Dibromomethane	ND	0.0020	mg/Kg wet							
1,2-Dichlorobenzene	ND	0.0020	mg/Kg wet							
1,3-Dichlorobenzene	ND	0.0020	mg/Kg wet							
1,4-Dichlorobenzene	ND	0.0020	mg/Kg wet							
trans-1,4-Dichloro-2-butene	ND	0.0040	mg/Kg wet							
Dichlorodifluoromethane (Freon 12)	ND	0.020	mg/Kg wet							V-05
1,1-Dichloroethane	ND	0.0020	mg/Kg wet							
1,2-Dichloroethane	ND	0.0020	mg/Kg wet							
1,1-Dichloroethylene	ND	0.0040	mg/Kg wet							
cis-1,2-Dichloroethylene	ND	0.0020	mg/Kg wet							
trans-1,2-Dichloroethylene	ND	0.0020	mg/Kg wet							
1,2-Dichloropropane	ND	0.0020	mg/Kg wet							
1,3-Dichloropropane	ND	0.0010	mg/Kg wet							
2,2-Dichloropropane	ND	0.0020	mg/Kg wet							
1,1-Dichloropropene	ND	0.0020	mg/Kg wet							
cis-1,3-Dichloropropene	ND	0.0010	mg/Kg wet							
trans-1,3-Dichloropropene	ND	0.0010	mg/Kg wet							
Diethyl Ether	ND	0.020	mg/Kg wet							
Diisopropyl Ether (DIPE)	ND	0.0010	mg/Kg wet							
1,4-Dioxane	ND	0.10	mg/Kg wet							
Ethylbenzene	ND	0.0020	mg/Kg wet							
Hexachlorobutadiene	ND	0.0020	mg/Kg wet							
2-Hexanone (MBK)	ND	0.020	mg/Kg wet							
Isopropylbenzene (Cumene)	ND	0.0020	mg/Kg wet							
p-Isopropyltoluene (p-Cymene)	ND	0.0020	mg/Kg wet							
Methyl Acetate	ND	0.0020	mg/Kg wet							
Methyl tert-Butyl Ether (MTBE)	ND	0.0040	mg/Kg wet							
Methyl Cyclohexane	ND	0.0020	mg/Kg wet							
Methylene Chloride	ND	0.020	mg/Kg wet							
4-Methyl-2-pentanone (MIBK)	ND	0.020	mg/Kg wet							
Naphthalene	ND	0.0040	mg/Kg wet							
n-Propylbenzene	ND	0.0020	mg/Kg wet							
Styrene	ND	0.0020	mg/Kg wet							
1,1,1,2-Tetrachloroethane	ND	0.0020	mg/Kg wet							

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QUALITY CONTROL

Volatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes	
Batch B293187 - SW-846 5035											
Blank (B293187-BLK1)				Prepared & Analyzed: 10/25/21							
1,1,2,2-Tetrachloroethane	ND	0.0010	mg/Kg wet								
Tetrachloroethylene	ND	0.0020	mg/Kg wet								
Tetrahydrofuran	ND	0.010	mg/Kg wet								
Toluene	ND	0.0020	mg/Kg wet								
1,2,3-Trichlorobenzene	ND	0.0020	mg/Kg wet								
1,2,4-Trichlorobenzene	ND	0.0020	mg/Kg wet								
1,3,5-Trichlorobenzene	ND	0.0020	mg/Kg wet								
1,1,1-Trichloroethane	ND	0.0020	mg/Kg wet								
1,1,2-Trichloroethane	ND	0.0020	mg/Kg wet								
Trichloroethylene	ND	0.0020	mg/Kg wet								
Trichlorofluoromethane (Freon 11)	ND	0.010	mg/Kg wet								
1,2,3-Trichloropropane	ND	0.0020	mg/Kg wet								
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	0.010	mg/Kg wet								
1,2,4-Trimethylbenzene	ND	0.0020	mg/Kg wet								
1,3,5-Trimethylbenzene	ND	0.0020	mg/Kg wet								
Vinyl Chloride	ND	0.010	mg/Kg wet								
m+p Xylene	ND	0.0040	mg/Kg wet								
o-Xylene	ND	0.0020	mg/Kg wet								
Surrogate: 1,2-Dichloroethane-d4	*0.0519*		mg/Kg wet	0.0500		104	70-130				
Surrogate: Toluene-d8	*0.0505*		mg/Kg wet	0.0500		101	70-130				
Surrogate: 4-Bromofluorobenzene	*0.0501*		mg/Kg wet	0.0500		100	70-130				
LCS (B293187-BS1)				Prepared & Analyzed: 10/25/21							
Acetone	0.206	0.10	mg/Kg wet	0.200		103	70-160			V-35	†
Acrylonitrile	0.0228	0.0060	mg/Kg wet	0.0200		114	70-130				
tert-Amyl Methyl Ether (TAME)	0.0187	0.0010	mg/Kg wet	0.0200		93.3	70-130				
Benzene	0.0205	0.0020	mg/Kg wet	0.0200		103	70-130				
Bromobenzene	0.0201	0.0020	mg/Kg wet	0.0200		100	70-130				
Bromochloromethane	0.0219	0.0020	mg/Kg wet	0.0200		109	70-130				
Bromodichloromethane	0.0216	0.0020	mg/Kg wet	0.0200		108	70-130				
Bromoform	0.0217	0.0020	mg/Kg wet	0.0200		108	70-130				
Bromomethane	0.0203	0.010	mg/Kg wet	0.0200		101	40-130			V-34	†
2-Butanone (MEK)	0.212	0.040	mg/Kg wet	0.200		106	70-160				†
tert-Butyl Alcohol (TBA)	0.192	0.10	mg/Kg wet	0.200		96.1	40-130				†
n-Butylbenzene	0.0208	0.0020	mg/Kg wet	0.0200		104	70-130				
sec-Butylbenzene	0.0202	0.0020	mg/Kg wet	0.0200		101	70-130				
tert-Butylbenzene	0.0194	0.0020	mg/Kg wet	0.0200		97.2	70-160				†
tert-Butyl Ethyl Ether (TBEE)	0.0183	0.0010	mg/Kg wet	0.0200		91.6	70-130				
Carbon Disulfide	0.198	0.010	mg/Kg wet	0.200		99.0	70-130				
Carbon Tetrachloride	0.0212	0.0020	mg/Kg wet	0.0200		106	70-130				
Chlorobenzene	0.0207	0.0020	mg/Kg wet	0.0200		103	70-130				
Chlorodibromomethane	0.0222	0.0010	mg/Kg wet	0.0200		111	70-130				
Chloroethane	0.0239	0.020	mg/Kg wet	0.0200		120	70-130			V-20	
Chloroform	0.0211	0.0040	mg/Kg wet	0.0200		105	70-130				
Chloromethane	0.0176	0.010	mg/Kg wet	0.0200		87.8	70-130				
2-Chlorotoluene	0.0214	0.0020	mg/Kg wet	0.0200		107	70-130				
4-Chlorotoluene	0.0225	0.0020	mg/Kg wet	0.0200		113	70-130				
1,2-Dibromo-3-chloropropane (DBCP)	0.0195	0.0020	mg/Kg wet	0.0200		97.4	70-130				
1,2-Dibromoethane (EDB)	0.0226	0.0010	mg/Kg wet	0.0200		113	70-130				
Dibromomethane	0.0225	0.0020	mg/Kg wet	0.0200		112	70-130				
1,2-Dichlorobenzene	0.0214	0.0020	mg/Kg wet	0.0200		107	70-130				
1,3-Dichlorobenzene	0.0207	0.0020	mg/Kg wet	0.0200		104	70-130				

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QUALITY CONTROL

Volatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes	
Batch B293187 - SW-846 5035											
LCS (B293187-BS1)				Prepared & Analyzed: 10/25/21							
1,4-Dichlorobenzene	0.0200	0.0020	mg/Kg wet	0.0200		99.9	70-130				
trans-1,4-Dichloro-2-butene	0.0218	0.0040	mg/Kg wet	0.0200		109	70-130				
Dichlorodifluoromethane (Freon 12)	0.0143	0.020	mg/Kg wet	0.0200		71.6	40-160			V-05, J	†
1,1-Dichloroethane	0.0207	0.0020	mg/Kg wet	0.0200		104	70-130				
1,2-Dichloroethane	0.0214	0.0020	mg/Kg wet	0.0200		107	70-130				
1,1-Dichloroethylene	0.0202	0.0040	mg/Kg wet	0.0200		101	70-130				
cis-1,2-Dichloroethylene	0.0218	0.0020	mg/Kg wet	0.0200		109	70-130				
trans-1,2-Dichloroethylene	0.0207	0.0020	mg/Kg wet	0.0200		104	70-130				
1,2-Dichloropropane	0.0207	0.0020	mg/Kg wet	0.0200		104	70-130				
1,3-Dichloropropane	0.0228	0.0010	mg/Kg wet	0.0200		114	70-130				
2,2-Dichloropropane	0.0211	0.0020	mg/Kg wet	0.0200		106	70-130				
1,1-Dichloropropene	0.0205	0.0020	mg/Kg wet	0.0200		102	70-130				
cis-1,3-Dichloropropene	0.0223	0.0010	mg/Kg wet	0.0200		112	70-130				
trans-1,3-Dichloropropene	0.0190	0.0010	mg/Kg wet	0.0200		94.9	70-130				
Diethyl Ether	0.0226	0.020	mg/Kg wet	0.0200		113	70-130				
Diisopropyl Ether (DIPE)	0.0220	0.0010	mg/Kg wet	0.0200		110	70-130				
1,4-Dioxane	0.184	0.10	mg/Kg wet	0.200		92.1	40-160				†
Ethylbenzene	0.0222	0.0020	mg/Kg wet	0.0200		111	70-130				
Hexachlorobutadiene	0.0206	0.0020	mg/Kg wet	0.0200		103	70-160				
2-Hexanone (MBK)	0.229	0.020	mg/Kg wet	0.200		115	70-160			V-35	†
Isopropylbenzene (Cumene)	0.0216	0.0020	mg/Kg wet	0.0200		108	70-130				
p-Isopropyltoluene (p-Cymene)	0.0213	0.0020	mg/Kg wet	0.0200		107	70-130				
Methyl Acetate	0.0200	0.0020	mg/Kg wet	0.0200		100	70-130				
Methyl tert-Butyl Ether (MTBE)	0.0222	0.0040	mg/Kg wet	0.0200		111	70-130				
Methyl Cyclohexane	0.0216	0.0020	mg/Kg wet	0.0200		108	70-130				
Methylene Chloride	0.0205	0.020	mg/Kg wet	0.0200		102	40-160				†
4-Methyl-2-pentanone (MIBK)	0.225	0.020	mg/Kg wet	0.200		113	70-160				†
Naphthalene	0.0208	0.0040	mg/Kg wet	0.0200		104	40-130				†
n-Propylbenzene	0.0227	0.0020	mg/Kg wet	0.0200		113	70-130				
Styrene	0.0230	0.0020	mg/Kg wet	0.0200		115	70-130				
1,1,1,2-Tetrachloroethane	0.0216	0.0020	mg/Kg wet	0.0200		108	70-130				
1,1,2,2-Tetrachloroethane	0.0222	0.0010	mg/Kg wet	0.0200		111	70-130				
Tetrachloroethylene	0.0207	0.0020	mg/Kg wet	0.0200		104	70-130				
Tetrahydrofuran	0.0200	0.010	mg/Kg wet	0.0200		100	70-130				
Toluene	0.0199	0.0020	mg/Kg wet	0.0200		99.6	70-130				
1,2,3-Trichlorobenzene	0.0220	0.0020	mg/Kg wet	0.0200		110	70-130				
1,2,4-Trichlorobenzene	0.0210	0.0020	mg/Kg wet	0.0200		105	70-130				
1,3,5-Trichlorobenzene	0.0202	0.0020	mg/Kg wet	0.0200		101	70-130				
1,1,1-Trichloroethane	0.0212	0.0020	mg/Kg wet	0.0200		106	70-130				
1,1,2-Trichloroethane	0.0223	0.0020	mg/Kg wet	0.0200		111	70-130				
Trichloroethylene	0.0208	0.0020	mg/Kg wet	0.0200		104	70-130				
Trichlorofluoromethane (Freon 11)	0.0229	0.010	mg/Kg wet	0.0200		115	70-130				
1,2,3-Trichloropropane	0.0186	0.0020	mg/Kg wet	0.0200		93.1	70-130				
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	0.0214	0.010	mg/Kg wet	0.0200		107	70-130				
1,2,4-Trimethylbenzene	0.0200	0.0020	mg/Kg wet	0.0200		100	70-130				
1,3,5-Trimethylbenzene	0.0229	0.0020	mg/Kg wet	0.0200		114	70-130				
Vinyl Chloride	0.0199	0.010	mg/Kg wet	0.0200		99.7	40-130				†
m+p Xylene	0.0455	0.0040	mg/Kg wet	0.0400		114	70-130				
o-Xylene	0.0227	0.0020	mg/Kg wet	0.0200		114	70-130				
Surrogate: 1,2-Dichloroethane-d4	*0.0511*		mg/Kg wet	0.0500		102	70-130				
Surrogate: Toluene-d8	*0.0509*		mg/Kg wet	0.0500		102	70-130				

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QUALITY CONTROL

Volatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes	
Batch B293187 - SW-846 5035											
LCS (B293187-BS1)				Prepared & Analyzed: 10/25/21							
Surrogate: 4-Bromofluorobenzene	*0.0517*		mg/Kg wet	0.0500		103	70-130				
LCS Dup (B293187-BSD1)				Prepared & Analyzed: 10/25/21							
Acetone	0.201	0.10	mg/Kg wet	0.200		100	70-160	2.69	25	V-35	†
Acrylonitrile	0.0223	0.0060	mg/Kg wet	0.0200		112	70-130	2.39	25		
tert-Amyl Methyl Ether (TAME)	0.0191	0.0010	mg/Kg wet	0.0200		95.6	70-130	2.44	25		
Benzene	0.0206	0.0020	mg/Kg wet	0.0200		103	70-130	0.292	25		
Bromobenzene	0.0197	0.0020	mg/Kg wet	0.0200		98.4	70-130	2.01	25		
Bromochloromethane	0.0215	0.0020	mg/Kg wet	0.0200		108	70-130	1.66	25		
Bromodichloromethane	0.0215	0.0020	mg/Kg wet	0.0200		107	70-130	0.742	25		
Bromoform	0.0219	0.0020	mg/Kg wet	0.0200		110	70-130	1.10	25		
Bromomethane	0.0228	0.010	mg/Kg wet	0.0200		114	40-130	12.0	25	V-34	†
2-Butanone (MEK)	0.208	0.040	mg/Kg wet	0.200		104	70-160	1.99	25		†
tert-Butyl Alcohol (TBA)	0.187	0.10	mg/Kg wet	0.200		93.6	40-130	2.66	25		†
n-Butylbenzene	0.0203	0.0020	mg/Kg wet	0.0200		102	70-130	2.53	25		
sec-Butylbenzene	0.0198	0.0020	mg/Kg wet	0.0200		99.0	70-130	2.00	25		
tert-Butylbenzene	0.0192	0.0020	mg/Kg wet	0.0200		96.0	70-160	1.24	25		†
tert-Butyl Ethyl Ether (TBEE)	0.0186	0.0010	mg/Kg wet	0.0200		92.9	70-130	1.41	25		
Carbon Disulfide	0.196	0.010	mg/Kg wet	0.200		98.1	70-130	0.944	25		
Carbon Tetrachloride	0.0211	0.0020	mg/Kg wet	0.0200		105	70-130	0.663	25		
Chlorobenzene	0.0208	0.0020	mg/Kg wet	0.0200		104	70-130	0.482	25		
Chlorodibromomethane	0.0226	0.0010	mg/Kg wet	0.0200		113	70-130	1.79	25		
Chloroethane	0.0242	0.020	mg/Kg wet	0.0200		121	70-130	0.998	25	V-20	
Chloroform	0.0212	0.0040	mg/Kg wet	0.0200		106	70-130	0.663	25		
Chloromethane	0.0170	0.010	mg/Kg wet	0.0200		85.1	70-130	3.12	25		
2-Chlorotoluene	0.0211	0.0020	mg/Kg wet	0.0200		105	70-130	1.41	25		
4-Chlorotoluene	0.0222	0.0020	mg/Kg wet	0.0200		111	70-130	1.34	25		
1,2-Dibromo-3-chloropropane (DBCP)	0.0189	0.0020	mg/Kg wet	0.0200		94.3	70-130	3.23	25		
1,2-Dibromoethane (EDB)	0.0226	0.0010	mg/Kg wet	0.0200		113	70-130	0.0886	25		
Dibromomethane	0.0224	0.0020	mg/Kg wet	0.0200		112	70-130	0.446	25		
1,2-Dichlorobenzene	0.0215	0.0020	mg/Kg wet	0.0200		108	70-130	0.372	25		
1,3-Dichlorobenzene	0.0205	0.0020	mg/Kg wet	0.0200		103	70-130	0.776	25		
1,4-Dichlorobenzene	0.0197	0.0020	mg/Kg wet	0.0200		98.7	70-130	1.21	25		
trans-1,4-Dichloro-2-butene	0.0216	0.0040	mg/Kg wet	0.0200		108	70-130	0.645	25		
Dichlorodifluoromethane (Freon 12)	0.0142	0.020	mg/Kg wet	0.0200		71.2	40-160	0.560	25	V-05, J	†
1,1-Dichloroethane	0.0204	0.0020	mg/Kg wet	0.0200		102	70-130	1.56	25		
1,2-Dichloroethane	0.0213	0.0020	mg/Kg wet	0.0200		106	70-130	0.750	25		
1,1-Dichloroethylene	0.0200	0.0040	mg/Kg wet	0.0200		99.9	70-130	1.10	25		
cis-1,2-Dichloroethylene	0.0217	0.0020	mg/Kg wet	0.0200		109	70-130	0.184	25		
trans-1,2-Dichloroethylene	0.0207	0.0020	mg/Kg wet	0.0200		104	70-130	0.00	25		
1,2-Dichloropropane	0.0209	0.0020	mg/Kg wet	0.0200		104	70-130	0.865	25		
1,3-Dichloropropane	0.0230	0.0010	mg/Kg wet	0.0200		115	70-130	1.22	25		
2,2-Dichloropropane	0.0208	0.0020	mg/Kg wet	0.0200		104	70-130	1.34	25		
1,1-Dichloropropene	0.0205	0.0020	mg/Kg wet	0.0200		102	70-130	0.0977	25		
cis-1,3-Dichloropropene	0.0221	0.0010	mg/Kg wet	0.0200		110	70-130	1.08	25		
trans-1,3-Dichloropropene	0.0186	0.0010	mg/Kg wet	0.0200		93.2	70-130	1.81	25		
Diethyl Ether	0.0226	0.020	mg/Kg wet	0.0200		113	70-130	0.0885	25		
Diisopropyl Ether (DIPE)	0.0227	0.0010	mg/Kg wet	0.0200		114	70-130	3.22	25		
1,4-Dioxane	0.178	0.10	mg/Kg wet	0.200		89.2	40-160	3.13	50		† ‡
Ethylbenzene	0.0220	0.0020	mg/Kg wet	0.0200		110	70-130	0.725	25		
Hexachlorobutadiene	0.0200	0.0020	mg/Kg wet	0.0200		100	70-160	2.66	25		
2-Hexanone (MBK)	0.227	0.020	mg/Kg wet	0.200		114	70-160	0.894	25	V-35	†

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QUALITY CONTROL

Volatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B293187 - SW-846 5035										
LCS Dup (B293187-BSD1)				Prepared & Analyzed: 10/25/21						
Isopropylbenzene (Cumene)	0.0212	0.0020	mg/Kg wet	0.0200		106	70-130	1.87	25	
p-Isopropyltoluene (p-Cymene)	0.0212	0.0020	mg/Kg wet	0.0200		106	70-130	0.847	25	
Methyl Acetate	0.0195	0.0020	mg/Kg wet	0.0200		97.7	70-130	2.43	25	
Methyl tert-Butyl Ether (MTBE)	0.0222	0.0040	mg/Kg wet	0.0200		111	70-130	0.270	25	
Methyl Cyclohexane	0.0208	0.0020	mg/Kg wet	0.0200		104	70-130	3.78	25	
Methylene Chloride	0.0206	0.020	mg/Kg wet	0.0200		103	40-160	0.682	25	†
4-Methyl-2-pentanone (MIBK)	0.227	0.020	mg/Kg wet	0.200		113	70-160	0.699	25	†
Naphthalene	0.0204	0.0040	mg/Kg wet	0.0200		102	40-130	1.94	25	†
n-Propylbenzene	0.0222	0.0020	mg/Kg wet	0.0200		111	70-130	1.96	25	
Styrene	0.0231	0.0020	mg/Kg wet	0.0200		115	70-130	0.435	25	
1,1,1,2-Tetrachloroethane	0.0221	0.0020	mg/Kg wet	0.0200		110	70-130	2.38	25	
1,1,2,2-Tetrachloroethane	0.0223	0.0010	mg/Kg wet	0.0200		112	70-130	0.629	25	
Tetrachloroethylene	0.0212	0.0020	mg/Kg wet	0.0200		106	70-130	2.48	25	
Tetrahydrofuran	0.0191	0.010	mg/Kg wet	0.0200		95.7	70-130	4.49	25	
Toluene	0.0199	0.0020	mg/Kg wet	0.0200		99.4	70-130	0.201	25	
1,2,3-Trichlorobenzene	0.0215	0.0020	mg/Kg wet	0.0200		107	70-130	2.39	25	
1,2,4-Trichlorobenzene	0.0203	0.0020	mg/Kg wet	0.0200		101	70-130	3.58	25	
1,3,5-Trichlorobenzene	0.0196	0.0020	mg/Kg wet	0.0200		97.8	70-130	3.42	25	
1,1,1-Trichloroethane	0.0210	0.0020	mg/Kg wet	0.0200		105	70-130	0.853	25	
1,1,2-Trichloroethane	0.0225	0.0020	mg/Kg wet	0.0200		112	70-130	1.07	25	
Trichloroethylene	0.0208	0.0020	mg/Kg wet	0.0200		104	70-130	0.00	25	
Trichlorofluoromethane (Freon 11)	0.0224	0.010	mg/Kg wet	0.0200		112	70-130	2.29	25	
1,2,3-Trichloropropane	0.0190	0.0020	mg/Kg wet	0.0200		95.1	70-130	2.13	25	
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	0.0213	0.010	mg/Kg wet	0.0200		106	70-130	0.843	25	
1,2,4-Trimethylbenzene	0.0201	0.0020	mg/Kg wet	0.0200		101	70-130	0.498	25	
1,3,5-Trimethylbenzene	0.0226	0.0020	mg/Kg wet	0.0200		113	70-130	1.32	25	
Vinyl Chloride	0.0197	0.010	mg/Kg wet	0.0200		98.7	40-130	1.01	25	†
m+p Xylene	0.0447	0.0040	mg/Kg wet	0.0400		112	70-130	1.68	25	
o-Xylene	0.0224	0.0020	mg/Kg wet	0.0200		112	70-130	1.42	25	
Surrogate: 1,2-Dichloroethane-d4	*0.0506*		mg/Kg wet	0.0500		101	70-130			
Surrogate: Toluene-d8	*0.0510*		mg/Kg wet	0.0500		102	70-130			
Surrogate: 4-Bromofluorobenzene	*0.0512*		mg/Kg wet	0.0500		102	70-130			

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QUALITY CONTROL

Semivolatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B293200 - SW-846 3546										
Blank (B293200-BLK1)				Prepared: 10/25/21 Analyzed: 10/27/21						
Acenaphthene	ND	0.17	mg/Kg wet							
Acenaphthylene	ND	0.17	mg/Kg wet							
Acetophenone	ND	0.34	mg/Kg wet							
Aniline	ND	0.34	mg/Kg wet							
Anthracene	ND	0.17	mg/Kg wet							
Benzidine	ND	0.66	mg/Kg wet							V-05
Benzo(a)anthracene	ND	0.17	mg/Kg wet							
Benzo(a)pyrene	ND	0.17	mg/Kg wet							
Benzo(b)fluoranthene	ND	0.17	mg/Kg wet							
Benzo(g,h,i)perylene	ND	0.17	mg/Kg wet							
Benzo(k)fluoranthene	ND	0.17	mg/Kg wet							
Benzoic Acid	ND	1.0	mg/Kg wet							L-04
Bis(2-chloroethoxy)methane	ND	0.34	mg/Kg wet							
Bis(2-chloroethyl)ether	ND	0.34	mg/Kg wet							
Bis(2-chloroisopropyl)ether	ND	0.34	mg/Kg wet							
Bis(2-Ethylhexyl)phthalate	ND	0.34	mg/Kg wet							
4-Bromophenylphenylether	ND	0.34	mg/Kg wet							
Butylbenzylphthalate	ND	0.34	mg/Kg wet							
Carbazole	ND	0.17	mg/Kg wet							
4-Chloroaniline	ND	0.66	mg/Kg wet							V-34
4-Chloro-3-methylphenol	ND	0.66	mg/Kg wet							
2-Chloronaphthalene	ND	0.34	mg/Kg wet							
2-Chlorophenol	ND	0.34	mg/Kg wet							
4-Chlorophenylphenylether	ND	0.34	mg/Kg wet							
Chrysene	ND	0.17	mg/Kg wet							
Dibenz(a,h)anthracene	ND	0.17	mg/Kg wet							
Dibenzofuran	ND	0.34	mg/Kg wet							
Di-n-butylphthalate	ND	0.34	mg/Kg wet							
1,2-Dichlorobenzene	ND	0.34	mg/Kg wet							
1,3-Dichlorobenzene	ND	0.34	mg/Kg wet							
1,4-Dichlorobenzene	ND	0.34	mg/Kg wet							
3,3-Dichlorobenzidine	ND	0.17	mg/Kg wet							
2,4-Dichlorophenol	ND	0.34	mg/Kg wet							
Diethylphthalate	ND	0.34	mg/Kg wet							
2,4-Dimethylphenol	ND	0.34	mg/Kg wet							
Dimethylphthalate	ND	0.34	mg/Kg wet							
4,6-Dinitro-2-methylphenol	ND	0.34	mg/Kg wet							
2,4-Dinitrophenol	ND	0.66	mg/Kg wet							L-04, V-04
2,4-Dinitrotoluene	ND	0.34	mg/Kg wet							
2,6-Dinitrotoluene	ND	0.34	mg/Kg wet							
Di-n-octylphthalate	ND	0.34	mg/Kg wet							
1,2-Diphenylhydrazine/Azobenzene	ND	0.34	mg/Kg wet							V-05
Fluoranthene	ND	0.17	mg/Kg wet							
Fluorene	ND	0.17	mg/Kg wet							
Hexachlorobenzene	ND	0.34	mg/Kg wet							
Hexachlorobutadiene	ND	0.34	mg/Kg wet							
Hexachlorocyclopentadiene	ND	0.34	mg/Kg wet							L-04, V-05
Hexachloroethane	ND	0.34	mg/Kg wet							
Indeno(1,2,3-cd)pyrene	ND	0.17	mg/Kg wet							
Isophorone	ND	0.34	mg/Kg wet							
1-Methylnaphthalene	ND	0.17	mg/Kg wet							
2-Methylnaphthalene	ND	0.17	mg/Kg wet							

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QUALITY CONTROL

Semivolatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC		%REC Limits	RPD	RPD Limit	Notes	
Batch B293200 - SW-846 3546												
Blank (B293200-BLK1)				Prepared: 10/25/21 Analyzed: 10/27/21								
2-Methylphenol	ND	0.34	mg/Kg wet									
3/4-Methylphenol	ND	0.34	mg/Kg wet									
Naphthalene	ND	0.17	mg/Kg wet									
2-Nitroaniline	ND	0.34	mg/Kg wet									
3-Nitroaniline	ND	0.34	mg/Kg wet									
4-Nitroaniline	ND	0.34	mg/Kg wet									
Nitrobenzene	ND	0.34	mg/Kg wet									
2-Nitrophenol	ND	0.34	mg/Kg wet									
4-Nitrophenol	ND	0.66	mg/Kg wet									
N-Nitrosodimethylamine	ND	0.34	mg/Kg wet									
N-Nitrosodiphenylamine/Diphenylamine	ND	0.34	mg/Kg wet									
N-Nitrosodi-n-propylamine	ND	0.34	mg/Kg wet									
Pentachloronitrobenzene	ND	0.34	mg/Kg wet									
Pentachlorophenol	ND	0.34	mg/Kg wet								V-05	
Phenanthrene	ND	0.17	mg/Kg wet									
Phenol	ND	0.34	mg/Kg wet									
Pyrene	ND	0.17	mg/Kg wet									
Pyridine	ND	0.34	mg/Kg wet								L-04	
1,2,4,5-Tetrachlorobenzene	ND	0.34	mg/Kg wet									
1,2,4-Trichlorobenzene	ND	0.34	mg/Kg wet									
2,4,5-Trichlorophenol	ND	0.34	mg/Kg wet									
2,4,6-Trichlorophenol	ND	0.34	mg/Kg wet									
Surrogate: 2-Fluorophenol	*3.59*		mg/Kg wet	6.67		53.8		30-130				
Surrogate: Phenol-d6	*3.37*		mg/Kg wet	6.67		50.5		30-130				
Surrogate: Nitrobenzene-d5	*1.60*		mg/Kg wet	3.33		48.0		30-130				
Surrogate: 2-Fluorobiphenyl	*2.06*		mg/Kg wet	3.33		61.7		30-130				
Surrogate: 2,4,6-Tribromophenol	*4.96*		mg/Kg wet	6.67		74.5		30-130				
Surrogate: p-Terphenyl-d14	*2.47*		mg/Kg wet	3.33		74.1		30-130				
LCS (B293200-BS1)				Prepared: 10/25/21 Analyzed: 10/27/21								
Acenaphthene	0.886	0.17	mg/Kg wet	1.67		53.2		40-140				
Acenaphthylene	1.02	0.17	mg/Kg wet	1.67		60.9		40-140				
Acetophenone	0.778	0.34	mg/Kg wet	1.67		46.7		40-140				
Aniline	0.639	0.34	mg/Kg wet	1.67		38.4		10-140				†
Anthracene	1.00	0.17	mg/Kg wet	1.67		60.1		40-140				
Benzidine	0.810	0.66	mg/Kg wet	1.67		48.6		40-140			V-05	
Benzo(a)anthracene	0.986	0.17	mg/Kg wet	1.67		59.2		40-140				
Benzo(a)pyrene	1.08	0.17	mg/Kg wet	1.67		64.6		40-140				
Benzo(b)fluoranthene	1.01	0.17	mg/Kg wet	1.67		60.9		40-140				
Benzo(g,h,i)perylene	1.11	0.17	mg/Kg wet	1.67		66.8		40-140				
Benzo(k)fluoranthene	1.10	0.17	mg/Kg wet	1.67		66.2		40-140				
Benzoic Acid	0.230	1.0	mg/Kg wet	1.67		**13.8**	*	30-130			L-04, J	
Bis(2-chloroethoxy)methane	0.849	0.34	mg/Kg wet	1.67		50.9		40-140				
Bis(2-chloroethyl)ether	0.817	0.34	mg/Kg wet	1.67		49.0		40-140				
Bis(2-chloroisopropyl)ether	1.03	0.34	mg/Kg wet	1.67		61.6		40-140				
Bis(2-Ethylhexyl)phthalate	0.996	0.34	mg/Kg wet	1.67		59.7		40-140				
4-Bromophenylphenylether	0.985	0.34	mg/Kg wet	1.67		59.1		40-140				
Butylbenzylphthalate	0.959	0.34	mg/Kg wet	1.67		57.5		40-140				
Carbazole	0.975	0.17	mg/Kg wet	1.67		58.5		40-140				
4-Chloroaniline	0.702	0.66	mg/Kg wet	1.67		42.1		10-140			V-34	†
4-Chloro-3-methylphenol	0.888	0.66	mg/Kg wet	1.67		53.3		30-130				
2-Chloronaphthalene	0.920	0.34	mg/Kg wet	1.67		55.2		40-140				

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QUALITY CONTROL

Semivolatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC		%REC Limits	RPD	RPD Limit	Notes	
Batch B293200 - SW-846 3546												
LCS (B293200-BS1)				Prepared: 10/25/21 Analyzed: 10/27/21								
2-Chlorophenol	0.898	0.34	mg/Kg wet	1.67		53.9		30-130				
4-Chlorophenylphenylether	0.961	0.34	mg/Kg wet	1.67		57.7		40-140				
Chrysene	1.01	0.17	mg/Kg wet	1.67		60.4		40-140				
Dibenz(a,h)anthracene	1.09	0.17	mg/Kg wet	1.67		65.3		40-140				
Dibenzofuran	1.01	0.34	mg/Kg wet	1.67		60.5		40-140				
Di-n-butylphthalate	0.957	0.34	mg/Kg wet	1.67		57.4		40-140				
1,2-Dichlorobenzene	0.833	0.34	mg/Kg wet	1.67		50.0		40-140				
1,3-Dichlorobenzene	0.813	0.34	mg/Kg wet	1.67		48.8		40-140				
1,4-Dichlorobenzene	0.819	0.34	mg/Kg wet	1.67		49.1		40-140				
3,3-Dichlorobenzidine	0.739	0.17	mg/Kg wet	1.67		44.4		20-140				†
2,4-Dichlorophenol	0.885	0.34	mg/Kg wet	1.67		53.1		30-130				
Diethylphthalate	0.978	0.34	mg/Kg wet	1.67		58.7		40-140				
2,4-Dimethylphenol	0.907	0.34	mg/Kg wet	1.67		54.4		30-130				
Dimethylphthalate	0.977	0.34	mg/Kg wet	1.67		58.6		40-140				
4,6-Dinitro-2-methylphenol	0.895	0.34	mg/Kg wet	1.67		53.7		30-130				
2,4-Dinitrophenol	0.462	0.66	mg/Kg wet	1.67		**27.7**	*	30-130			L-04, V-04, J	
2,4-Dinitrotoluene	1.14	0.34	mg/Kg wet	1.67		68.5		40-140				
2,6-Dinitrotoluene	1.15	0.34	mg/Kg wet	1.67		68.8		40-140				
Di-n-octylphthalate	0.882	0.34	mg/Kg wet	1.67		52.9		40-140				
1,2-Diphenylhydrazine/Azobenzene	0.825	0.34	mg/Kg wet	1.67		49.5		40-140			V-05	
Fluoranthene	0.945	0.17	mg/Kg wet	1.67		56.7		40-140				
Fluorene	0.987	0.17	mg/Kg wet	1.67		59.2		40-140				
Hexachlorobenzene	1.08	0.34	mg/Kg wet	1.67		64.7		40-140				
Hexachlorobutadiene	0.782	0.34	mg/Kg wet	1.67		46.9		40-140				
Hexachlorocyclopentadiene	0.539	0.34	mg/Kg wet	1.67		**32.3**	*	40-140			L-04, V-05	
Hexachloroethane	0.735	0.34	mg/Kg wet	1.67		44.1		40-140				
Indeno(1,2,3-cd)pyrene	1.11	0.17	mg/Kg wet	1.67		66.9		40-140				
Isophorone	0.845	0.34	mg/Kg wet	1.67		50.7		40-140				
1-Methylnaphthalene	0.809	0.17	mg/Kg wet	1.67		48.5		40-140				
2-Methylnaphthalene	1.01	0.17	mg/Kg wet	1.67		60.4		40-140				
2-Methylphenol	0.876	0.34	mg/Kg wet	1.67		52.5		30-130				
3/4-Methylphenol	0.888	0.34	mg/Kg wet	1.67		53.3		30-130				
Naphthalene	0.901	0.17	mg/Kg wet	1.67		54.1		40-140				
2-Nitroaniline	0.990	0.34	mg/Kg wet	1.67		59.4		40-140				
3-Nitroaniline	1.08	0.34	mg/Kg wet	1.67		64.9		30-140				†
4-Nitroaniline	1.14	0.34	mg/Kg wet	1.67		68.6		40-140				
Nitrobenzene	0.782	0.34	mg/Kg wet	1.67		46.9		40-140				
2-Nitrophenol	0.977	0.34	mg/Kg wet	1.67		58.6		30-130				
4-Nitrophenol	0.896	0.66	mg/Kg wet	1.67		53.8		30-130				
N-Nitrosodimethylamine	0.832	0.34	mg/Kg wet	1.67		49.9		40-140				
N-Nitrosodiphenylamine/Diphenylamine	1.06	0.34	mg/Kg wet	1.67		63.7		40-140				
N-Nitrosodi-n-propylamine	0.787	0.34	mg/Kg wet	1.67		47.2		40-140				
Pentachloronitrobenzene	1.05	0.34	mg/Kg wet	1.67		63.1		40-140				
Pentachlorophenol	0.659	0.34	mg/Kg wet	1.67		39.5		30-130			V-05	
Phenanthrene	1.00	0.17	mg/Kg wet	1.67		60.1		40-140				
Phenol	0.903	0.34	mg/Kg wet	1.67		54.2		30-130				
Pyrene	0.982	0.17	mg/Kg wet	1.67		58.9		40-140				
Pyridine	0.457	0.34	mg/Kg wet	1.67		**27.4**	*	30-140			L-04	†
1,2,4,5-Tetrachlorobenzene	0.905	0.34	mg/Kg wet	1.67		54.3		40-140				
1,2,4-Trichlorobenzene	0.853	0.34	mg/Kg wet	1.67		51.2		40-140				
2,4,5-Trichlorophenol	1.02	0.34	mg/Kg wet	1.67		61.0		30-130				
2,4,6-Trichlorophenol	0.963	0.34	mg/Kg wet	1.67		57.8		30-130				

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QUALITY CONTROL

Semivolatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC		%REC Limits	RPD	RPD Limit	Notes	
Batch B293200 - SW-846 3546												
LCS (B293200-BS1)				Prepared: 10/25/21 Analyzed: 10/27/21								
Surrogate: 2-Fluorophenol	*3.80*		mg/Kg wet	6.67		57.1		30-130				
Surrogate: Phenol-d6	*3.52*		mg/Kg wet	6.67		52.7		30-130				
Surrogate: Nitrobenzene-d5	*1.73*		mg/Kg wet	3.33		51.9		30-130				
Surrogate: 2-Fluorobiphenyl	*2.08*		mg/Kg wet	3.33		62.5		30-130				
Surrogate: 2,4,6-Tribromophenol	*5.10*		mg/Kg wet	6.67		76.5		30-130				
Surrogate: p-Terphenyl-d14	*2.25*		mg/Kg wet	3.33		67.4		30-130				
LCS Dup (B293200-BSD1)				Prepared: 10/25/21 Analyzed: 10/27/21								
Acenaphthene	0.847	0.17	mg/Kg wet	1.67		50.8		40-140	4.54	30		
Acenaphthylene	0.973	0.17	mg/Kg wet	1.67		58.4		40-140	4.33	30		
Acetophenone	0.720	0.34	mg/Kg wet	1.67		43.2		40-140	7.65	30		
Aniline	0.617	0.34	mg/Kg wet	1.67		37.0		10-140	3.61	50		† ‡
Anthracene	0.992	0.17	mg/Kg wet	1.67		59.5		40-140	1.04	30		
Benzidine	0.860	0.66	mg/Kg wet	1.67		51.6		40-140	6.07	30	V-05	
Benzo(a)anthracene	0.984	0.17	mg/Kg wet	1.67		59.0		40-140	0.271	30		
Benzo(a)pyrene	1.06	0.17	mg/Kg wet	1.67		63.8		40-140	1.15	30		
Benzo(b)fluoranthene	1.01	0.17	mg/Kg wet	1.67		60.6		40-140	0.395	30		
Benzo(g,h,i)perylene	1.13	0.17	mg/Kg wet	1.67		67.6		40-140	1.13	30		
Benzo(k)fluoranthene	1.10	0.17	mg/Kg wet	1.67		66.0		40-140	0.272	30		
Benzoic Acid	0.230	1.0	mg/Kg wet	1.67		**13.8**	*	30-130	0.290	50	L-04, J	‡
Bis(2-chloroethoxy)methane	0.745	0.34	mg/Kg wet	1.67		44.7		40-140	13.0	30		
Bis(2-chloroethyl)ether	0.734	0.34	mg/Kg wet	1.67		44.0		40-140	10.7	30		
Bis(2-chloroisopropyl)ether	0.927	0.34	mg/Kg wet	1.67		55.6		40-140	10.2	30		
Bis(2-Ethylhexyl)phthalate	0.975	0.34	mg/Kg wet	1.67		58.5		40-140	2.10	30		
4-Bromophenylphenylether	0.987	0.34	mg/Kg wet	1.67		59.2		40-140	0.270	30		
Butylbenzylphthalate	0.969	0.34	mg/Kg wet	1.67		58.2		40-140	1.07	30		
Carbazole	0.961	0.17	mg/Kg wet	1.67		57.7		40-140	1.41	30		
4-Chloroaniline	0.675	0.66	mg/Kg wet	1.67		40.5		10-140	3.97	30	V-34	†
4-Chloro-3-methylphenol	0.866	0.66	mg/Kg wet	1.67		52.0		30-130	2.51	30		
2-Chloronaphthalene	0.861	0.34	mg/Kg wet	1.67		51.7		40-140	6.59	30		
2-Chlorophenol	0.805	0.34	mg/Kg wet	1.67		48.3		30-130	11.0	30		
4-Chlorophenylphenylether	0.923	0.34	mg/Kg wet	1.67		55.4		40-140	4.07	30		
Chrysene	1.01	0.17	mg/Kg wet	1.67		60.4		40-140	0.0663	30		
Dibenz(a,h)anthracene	1.09	0.17	mg/Kg wet	1.67		65.6		40-140	0.367	30		
Dibenzofuran	0.988	0.34	mg/Kg wet	1.67		59.3		40-140	2.00	30		
Di-n-butylphthalate	0.955	0.34	mg/Kg wet	1.67		57.3		40-140	0.174	30		
1,2-Dichlorobenzene	0.757	0.34	mg/Kg wet	1.67		45.4		40-140	9.56	30		
1,3-Dichlorobenzene	0.734	0.34	mg/Kg wet	1.67		44.1		40-140	10.1	30		
1,4-Dichlorobenzene	0.741	0.34	mg/Kg wet	1.67		44.5		40-140	9.96	30		
3,3-Dichlorobenzidine	0.781	0.17	mg/Kg wet	1.67		46.9		20-140	5.52	50		† ‡
2,4-Dichlorophenol	0.820	0.34	mg/Kg wet	1.67		49.2		30-130	7.66	30		
Diethylphthalate	0.952	0.34	mg/Kg wet	1.67		57.1		40-140	2.70	30		
2,4-Dimethylphenol	0.842	0.34	mg/Kg wet	1.67		50.5		30-130	7.39	30		
Dimethylphthalate	0.956	0.34	mg/Kg wet	1.67		57.4		40-140	2.21	30		
4,6-Dinitro-2-methylphenol	0.903	0.34	mg/Kg wet	1.67		54.2		30-130	0.890	30		
2,4-Dinitrophenol	0.458	0.66	mg/Kg wet	1.67		**27.5**	*	30-130	0.942	30	L-04, V-04, J	
2,4-Dinitrotoluene	1.13	0.34	mg/Kg wet	1.67		67.7		40-140	1.15	30		
2,6-Dinitrotoluene	1.14	0.34	mg/Kg wet	1.67		68.4		40-140	0.671	30		
Di-n-octylphthalate	0.858	0.34	mg/Kg wet	1.67		51.5		40-140	2.68	30		
1,2-Diphenylhydrazine/Azobenzene	0.819	0.34	mg/Kg wet	1.67		49.1		40-140	0.811	30	V-05	
Fluoranthene	0.931	0.17	mg/Kg wet	1.67		55.8		40-140	1.53	30		
Fluorene	0.958	0.17	mg/Kg wet	1.67		57.5		40-140	2.91	30		

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QUALITY CONTROL

Semivolatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC		%REC Limits	RPD	RPD Limit	Notes	
Batch B293200 - SW-846 3546												
LCS Dup (B293200-BSD1)				Prepared: 10/25/21 Analyzed: 10/27/21								
Hexachlorobenzene	1.06	0.34	mg/Kg wet	1.67		63.5		40-140	1.84	30		
Hexachlorobutadiene	0.707	0.34	mg/Kg wet	1.67		42.4		40-140	10.1	30		
Hexachlorocyclopentadiene	0.476	0.34	mg/Kg wet	1.67		**28.6**	*	40-140	12.3	30	L-04, V-05	
Hexachloroethane	0.652	0.34	mg/Kg wet	1.67		**39.1**	*	40-140	12.0	30	L-07	
Indeno(1,2,3-cd)pyrene	1.11	0.17	mg/Kg wet	1.67		66.4		40-140	0.660	30		
Isophorone	0.782	0.34	mg/Kg wet	1.67		46.9		40-140	7.70	30		
1-Methylnaphthalene	0.763	0.17	mg/Kg wet	1.67		45.8		40-140	5.81	30		
2-Methylnaphthalene	0.925	0.17	mg/Kg wet	1.67		55.5		40-140	8.56	30		
2-Methylphenol	0.827	0.34	mg/Kg wet	1.67		49.6		30-130	5.68	30		
3/4-Methylphenol	0.831	0.34	mg/Kg wet	1.67		49.9		30-130	6.63	30		
Naphthalene	0.811	0.17	mg/Kg wet	1.67		48.6		40-140	10.6	30		
2-Nitroaniline	0.978	0.34	mg/Kg wet	1.67		58.7		40-140	1.22	30		
3-Nitroaniline	1.04	0.34	mg/Kg wet	1.67		62.6		30-140	3.58	30		†
4-Nitroaniline	1.12	0.34	mg/Kg wet	1.67		67.5		40-140	1.73	30		
Nitrobenzene	0.705	0.34	mg/Kg wet	1.67		42.3		40-140	10.4	30		
2-Nitrophenol	0.870	0.34	mg/Kg wet	1.67		52.2		30-130	11.6	30		
4-Nitrophenol	0.887	0.66	mg/Kg wet	1.67		53.2		30-130	0.972	50		‡
N-Nitrosodimethylamine	0.748	0.34	mg/Kg wet	1.67		44.9		40-140	10.6	30		
N-Nitrosodiphenylamine/Diphenylamine	1.06	0.34	mg/Kg wet	1.67		63.8		40-140	0.157	30		
N-Nitrosodi-n-propylamine	0.723	0.34	mg/Kg wet	1.67		43.4		40-140	8.48	30		
Pentachloronitrobenzene	1.04	0.34	mg/Kg wet	1.67		62.2		40-140	1.50	30		
Pentachlorophenol	0.654	0.34	mg/Kg wet	1.67		39.3		30-130	0.711	30	V-05	
Phenanthrene	0.985	0.17	mg/Kg wet	1.67		59.1		40-140	1.61	30		
Phenol	0.815	0.34	mg/Kg wet	1.67		48.9		30-130	10.2	30		
Pyrene	0.982	0.17	mg/Kg wet	1.67		58.9		40-140	0.0339	30		
Pyridine	0.420	0.34	mg/Kg wet	1.67		**25.2**	*	30-140	8.43	30	L-04	†
1,2,4,5-Tetrachlorobenzene	0.837	0.34	mg/Kg wet	1.67		50.2		40-140	7.77	30		
1,2,4-Trichlorobenzene	0.760	0.34	mg/Kg wet	1.67		45.6		40-140	11.5	30		
2,4,5-Trichlorophenol	1.02	0.34	mg/Kg wet	1.67		60.9		30-130	0.131	30		
2,4,6-Trichlorophenol	0.946	0.34	mg/Kg wet	1.67		56.7		30-130	1.78	30		
Surrogate: 2-Fluorophenol	*3.41*		mg/Kg wet	6.67		51.1		30-130				
Surrogate: Phenol-d6	*3.20*		mg/Kg wet	6.67		48.0		30-130				
Surrogate: Nitrobenzene-d5	*1.53*		mg/Kg wet	3.33		45.9		30-130				
Surrogate: 2-Fluorobiphenyl	*1.94*		mg/Kg wet	3.33		58.2		30-130				
Surrogate: 2,4,6-Tribromophenol	*4.93*		mg/Kg wet	6.67		74.0		30-130				
Surrogate: p-Terphenyl-d14	*2.25*		mg/Kg wet	3.33		67.5		30-130				
Matrix Spike (B293200-MS1)	**Source: 21J1472-03**			Prepared: 10/25/21 Analyzed: 10/27/21								
Acenaphthene	1.04	0.19	mg/Kg dry	1.90	ND	54.6		40-140				
Acenaphthylene	1.17	0.19	mg/Kg dry	1.90	ND	61.4		40-140				
Acetophenone	1.06	0.39	mg/Kg dry	1.90	ND	55.9		40-140				
Aniline	0.171	0.39	mg/Kg dry	1.90	ND	**9.00**	*	40-140			MS-09, R-06, J	
Anthracene	1.10	0.19	mg/Kg dry	1.90	ND	58.1		40-140				
Benzidine	0.00494	0.75	mg/Kg dry	1.90	ND	**0.260**	*	40-140			MS-09, V-05, J	
Benzo(a)anthracene	1.11	0.19	mg/Kg dry	1.90	0.0741	54.4		40-140				
Benzo(a)pyrene	0.969	0.19	mg/Kg dry	1.90	ND	51.0		40-140				
Benzo(b)fluoranthene	1.06	0.19	mg/Kg dry	1.90	0.125	49.4		40-140				
Benzo(g,h,i)perylene	0.860	0.19	mg/Kg dry	1.90	ND	45.3		40-140				
Benzo(k)fluoranthene	1.07	0.19	mg/Kg dry	1.90	ND	56.5		40-140				
Benzoic Acid	0.913	1.1	mg/Kg dry	1.90	ND	48.1		40-140			J	
Bis(2-chloroethoxy)methane	0.982	0.39	mg/Kg dry	1.90	ND	51.7		40-140				
Bis(2-chloroethyl)ether	0.941	0.39	mg/Kg dry	1.90	ND	49.6		40-140				

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QUALITY CONTROL

Semivolatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC		%REC Limits	RPD	RPD Limit	Notes
Batch B293200 - SW-846 3546											
Matrix Spike (B293200-MS1)	**Source: 21J1472-03**			Prepared: 10/25/21 Analyzed: 10/27/21							
Bis(2-chloroisopropyl)ether	1.19	0.39	mg/Kg dry	1.90	ND	62.8		40-140			
Bis(2-Ethylhexyl)phthalate	1.35	0.39	mg/Kg dry	1.90	ND	71.0		40-140			
4-Bromophenylphenylether	1.13	0.39	mg/Kg dry	1.90	ND	59.5		40-140			
Butylbenzylphthalate	1.28	0.39	mg/Kg dry	1.90	ND	67.5		40-140			
Carbazole	1.10	0.19	mg/Kg dry	1.90	ND	58.0		40-140			
4-Chloroaniline	0.299	0.75	mg/Kg dry	1.90	ND	**15.7**	*	40-140			MS-09, V-34, J
4-Chloro-3-methylphenol	1.02	0.75	mg/Kg dry	1.90	ND	53.9		30-130			
2-Chloronaphthalene	0.994	0.39	mg/Kg dry	1.90	ND	52.3		40-140			
2-Chlorophenol	0.994	0.39	mg/Kg dry	1.90	ND	52.3		30-130			
4-Chlorophenylphenylether	1.10	0.39	mg/Kg dry	1.90	ND	57.7		40-140			
Chrysene	1.20	0.19	mg/Kg dry	1.90	0.160	55.0		40-140			
Dibenz(a,h)anthracene	0.958	0.19	mg/Kg dry	1.90	ND	50.5		40-140			
Dibenzofuran	1.53	0.39	mg/Kg dry	1.90	0.272	66.5		40-140			
Di-n-butylphthalate	1.10	0.39	mg/Kg dry	1.90	ND	57.7		40-140			
1,2-Dichlorobenzene	0.941	0.39	mg/Kg dry	1.90	ND	49.5		40-140			
1,3-Dichlorobenzene	0.897	0.39	mg/Kg dry	1.90	ND	47.2		40-140			
1,4-Dichlorobenzene	0.902	0.39	mg/Kg dry	1.90	ND	47.5		40-140			
3,3-Dichlorobenzidine	0.00684	0.19	mg/Kg dry	1.90	ND	**0.360**	*	40-140			MS-09, J
2,4-Dichlorophenol	1.01	0.39	mg/Kg dry	1.90	ND	53.0		30-130			
Diethylphthalate	1.12	0.39	mg/Kg dry	1.90	ND	58.9		40-140			
2,4-Dimethylphenol	0.566	0.39	mg/Kg dry	1.90	ND	**29.8**	*	30-130			MS-09
Dimethylphthalate	1.12	0.39	mg/Kg dry	1.90	ND	59.1		40-140			
4,6-Dinitro-2-methylphenol	0.896	0.39	mg/Kg dry	1.90	ND	47.2		30-130			
2,4-Dinitrophenol	0.610	0.75	mg/Kg dry	1.90	ND	32.1		30-130			V-04, J
2,4-Dinitrotoluene	1.29	0.39	mg/Kg dry	1.90	ND	68.0		40-140			
2,6-Dinitrotoluene	1.31	0.39	mg/Kg dry	1.90	ND	68.9		40-140			
Di-n-octylphthalate	1.17	0.39	mg/Kg dry	1.90	ND	61.7		40-140			
1,2-Diphenylhydrazine/Azobenzene	0.985	0.39	mg/Kg dry	1.90	ND	51.9		40-140			V-05
Fluoranthene	1.16	0.19	mg/Kg dry	1.90	0.117	54.8		40-140			
Fluorene	1.15	0.19	mg/Kg dry	1.90	ND	60.5		40-140			
Hexachlorobenzene	1.13	0.39	mg/Kg dry	1.90	ND	59.5		40-140			
Hexachlorobutadiene	0.907	0.39	mg/Kg dry	1.90	ND	47.8		40-140			
Hexachlorocyclopentadiene	0.120	0.39	mg/Kg dry	1.90	ND	**6.34**	*	30-130			MS-09, V-05, J
Hexachloroethane	0.864	0.39	mg/Kg dry	1.90	ND	45.5		40-140			
Indeno(1,2,3-cd)pyrene	0.892	0.19	mg/Kg dry	1.90	ND	47.0		40-140			
Isophorone	0.994	0.39	mg/Kg dry	1.90	ND	52.4		40-140			
1-Methylnaphthalene	1.98	0.19	mg/Kg dry	1.90	0.739	65.3		40-140			
2-Methylnaphthalene	2.85	0.19	mg/Kg dry	1.90	1.17	88.3		40-140			
2-Methylphenol	0.904	0.39	mg/Kg dry	1.90	ND	47.6		30-130			
3/4-Methylphenol	0.969	0.39	mg/Kg dry	1.90	ND	51.0		30-130			
Naphthalene	1.96	0.19	mg/Kg dry	1.90	0.676	67.5		40-140			
2-Nitroaniline	1.09	0.39	mg/Kg dry	1.90	ND	57.4		40-140			
3-Nitroaniline	0.526	0.39	mg/Kg dry	1.90	ND	**27.7**	*	40-140			MS-23
4-Nitroaniline	0.659	0.39	mg/Kg dry	1.90	ND	**34.7**	*	40-140			MS-22
Nitrobenzene	0.896	0.39	mg/Kg dry	1.90	ND	47.2		40-140			
2-Nitrophenol	1.10	0.39	mg/Kg dry	1.90	ND	58.1		30-130			
4-Nitrophenol	1.00	0.75	mg/Kg dry	1.90	ND	52.9		30-130			
N-Nitrosodimethylamine	0.892	0.39	mg/Kg dry	1.90	ND	47.0		40-140			
N-Nitrosodiphenylamine/Diphenylamine	1.18	0.39	mg/Kg dry	1.90	ND	62.2		40-140			
N-Nitrosodi-n-propylamine	0.935	0.39	mg/Kg dry	1.90	ND	49.3		40-140			
Pentachloronitrobenzene	1.18	0.39	mg/Kg dry	1.90	ND	61.9		40-140			
Pentachlorophenol	0.434	0.39	mg/Kg dry	1.90	ND	**22.9**	*	30-130			MS-09, V-05

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QUALITY CONTROL

Semivolatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC		%REC Limits	RPD		RPD Limit	Notes
Batch B293200 - SW-846 3546												
Matrix Spike (B293200-MS1)		**Source: 21J1472-03**		Prepared: 10/25/21 Analyzed: 10/27/21								
Phenanthrene	1.87	0.19	mg/Kg dry	1.90	0.570	68.4		40-140				
Phenol	0.970	0.39	mg/Kg dry	1.90	ND	51.1		30-130				
Pyrene	1.43	0.19	mg/Kg dry	1.90	0.138	68.3		40-140				
Pyridine	0.439	0.39	mg/Kg dry	1.90	ND	**23.1**	*	40-140				MS-09
1,2,4,5-Tetrachlorobenzene	1.05	0.39	mg/Kg dry	1.90	ND	55.3		40-140				
1,2,4-Trichlorobenzene	0.965	0.39	mg/Kg dry	1.90	ND	50.8		40-140				
2,4,5-Trichlorophenol	1.15	0.39	mg/Kg dry	1.90	ND	60.3		30-130				
2,4,6-Trichlorophenol	1.05	0.39	mg/Kg dry	1.90	ND	55.3		30-130				
Surrogate: 2-Fluorophenol	*3.84*		mg/Kg dry	7.60		50.5		30-130				
Surrogate: Phenol-d6	*3.87*		mg/Kg dry	7.60		51.0		30-130				
Surrogate: Nitrobenzene-d5	*1.91*		mg/Kg dry	3.80		50.3		30-130				
Surrogate: 2-Fluorobiphenyl	*2.41*		mg/Kg dry	3.80		63.4		30-130				
Surrogate: 2,4,6-Tribromophenol	*4.27*		mg/Kg dry	7.60		56.2		30-130				
Surrogate: p-Terphenyl-d14	*2.92*		mg/Kg dry	3.80		76.8		30-130				
Matrix Spike Dup (B293200-MSD1)		**Source: 21J1472-03**		Prepared: 10/25/21 Analyzed: 10/27/21								
Acenaphthene	1.13	0.19	mg/Kg dry	1.90	ND	59.5		40-140	8.59		30	
Acenaphthylene	1.26	0.19	mg/Kg dry	1.90	ND	66.6		40-140	8.16		30	
Acetophenone	1.11	0.39	mg/Kg dry	1.90	ND	58.6		40-140	4.72		30	
Aniline	0.114	0.39	mg/Kg dry	1.90	ND	**6.00**	*	40-140	**40.0**	*	30	MS-09, R-06, J
Anthracene	1.21	0.19	mg/Kg dry	1.90	ND	64.0		40-140	9.53		30	
Benzidine	0.0125	0.75	mg/Kg dry	1.90	ND	**0.660**	*	40-140			30	MS-09, V-05, J
Benzo(a)anthracene	1.21	0.19	mg/Kg dry	1.90	0.0741	59.8		40-140	8.88		30	
Benzo(a)pyrene	1.03	0.19	mg/Kg dry	1.90	ND	54.1		40-140	5.82		30	
Benzo(b)fluoranthene	1.14	0.19	mg/Kg dry	1.90	0.125	53.4		40-140	6.79		30	
Benzo(g,h,i)perylene	0.881	0.19	mg/Kg dry	1.90	ND	46.4		40-140	2.40		30	
Benzo(k)fluoranthene	1.13	0.19	mg/Kg dry	1.90	ND	59.7		40-140	5.58		30	
Benzoic Acid	0.825	1.1	mg/Kg dry	1.90	ND	43.5		40-140	10.1		30	J
Bis(2-chloroethoxy)methane	1.09	0.39	mg/Kg dry	1.90	ND	57.1		40-140	9.96		30	
Bis(2-chloroethyl)ether	1.04	0.39	mg/Kg dry	1.90	ND	55.0		40-140	10.4		30	
Bis(2-chloroisopropyl)ether	1.30	0.39	mg/Kg dry	1.90	ND	68.4		40-140	8.60		30	
Bis(2-Ethylhexyl)phthalate	1.46	0.39	mg/Kg dry	1.90	ND	76.7		40-140	7.77		30	
4-Bromophenylphenylether	1.25	0.39	mg/Kg dry	1.90	ND	65.9		40-140	10.1		30	
Butylbenzylphthalate	1.42	0.39	mg/Kg dry	1.90	ND	74.7		40-140	10.2		30	
Carbazole	1.20	0.19	mg/Kg dry	1.90	ND	63.1		40-140	8.36		30	
4-Chloroaniline	0.337	0.75	mg/Kg dry	1.90	ND	**17.8**	*	40-140	12.1		30	MS-09, V-34, J
4-Chloro-3-methylphenol	1.09	0.75	mg/Kg dry	1.90	ND	57.4		30-130	6.18		30	
2-Chloronaphthalene	1.07	0.39	mg/Kg dry	1.90	ND	56.3		40-140	7.36		30	
2-Chlorophenol	1.06	0.39	mg/Kg dry	1.90	ND	56.0		30-130	6.69		30	
4-Chlorophenylphenylether	1.20	0.39	mg/Kg dry	1.90	ND	63.2		40-140	9.10		30	
Chrysene	1.30	0.19	mg/Kg dry	1.90	0.160	59.9		40-140	7.50		30	
Dibenz(a,h)anthracene	1.12	0.19	mg/Kg dry	1.90	ND	58.8		40-140	15.3		30	
Dibenzofuran	1.59	0.39	mg/Kg dry	1.90	0.272	69.5		40-140	3.72		30	
Di-n-butylphthalate	1.21	0.39	mg/Kg dry	1.90	ND	63.7		40-140	9.88		30	
1,2-Dichlorobenzene	1.02	0.39	mg/Kg dry	1.90	ND	53.8		40-140	8.21		30	
1,3-Dichlorobenzene	0.973	0.39	mg/Kg dry	1.90	ND	51.3		40-140	8.16		30	
1,4-Dichlorobenzene	0.996	0.39	mg/Kg dry	1.90	ND	52.5		40-140	9.92		30	
3,3-Dichlorobenzidine	0.0653	0.19	mg/Kg dry	1.90	ND	**3.44**	*	40-140			30	MS-09, J
2,4-Dichlorophenol	1.08	0.39	mg/Kg dry	1.90	ND	56.7		30-130	6.85		30	
Diethylphthalate	1.21	0.39	mg/Kg dry	1.90	ND	63.7		40-140	7.76		30	
2,4-Dimethylphenol	0.536	0.39	mg/Kg dry	1.90	ND	**28.2**	*	30-130	5.51		30	MS-09
Dimethylphthalate	1.23	0.39	mg/Kg dry	1.90	ND	64.6		40-140	8.76		30	

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QUALITY CONTROL

Semivolatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC		%REC Limits	RPD		RPD Limit	Notes
Batch B293200 - SW-846 3546												
Matrix Spike Dup (B293200-MSD1)	**Source: 21J1472-03**			Prepared: 10/25/21 Analyzed: 10/27/21								
4,6-Dinitro-2-methylphenol	1.00	0.39	mg/Kg dry	1.90	ND	52.8		30-130	11.3		30	
2,4-Dinitrophenol	0.703	0.75	mg/Kg dry	1.90	ND	37.0		30-130	14.2		30	V-04, J
2,4-Dinitrotoluene	1.37	0.39	mg/Kg dry	1.90	ND	72.2		40-140	6.08		30	
2,6-Dinitrotoluene	1.42	0.39	mg/Kg dry	1.90	ND	74.9		40-140	8.35		30	
Di-n-octylphthalate	1.22	0.39	mg/Kg dry	1.90	ND	64.3		40-140	4.06		30	
1,2-Diphenylhydrazine/Azobenzene	1.10	0.39	mg/Kg dry	1.90	ND	57.9		40-140	11.0		30	V-05
Fluoranthene	1.28	0.19	mg/Kg dry	1.90	0.117	61.2		40-140	9.92		30	
Fluorene	1.24	0.19	mg/Kg dry	1.90	ND	65.2		40-140	7.45		30	
Hexachlorobenzene	1.26	0.39	mg/Kg dry	1.90	ND	66.3		40-140	10.8		30	
Hexachlorobutadiene	1.00	0.39	mg/Kg dry	1.90	ND	52.9		40-140	10.2		30	
Hexachlorocyclopentadiene	0.126	0.39	mg/Kg dry	1.90	ND	**6.62**	*	30-130			30	MS-09, V-05, J
Hexachloroethane	0.929	0.39	mg/Kg dry	1.90	ND	48.9		40-140	7.24		30	
Indeno(1,2,3-cd)pyrene	0.924	0.19	mg/Kg dry	1.90	ND	48.7		40-140	3.60		30	
Isophorone	1.09	0.39	mg/Kg dry	1.90	ND	57.7		40-140	9.63		30	
1-Methylnaphthalene	1.94	0.19	mg/Kg dry	1.90	0.739	63.5		40-140	1.72		30	
2-Methylnaphthalene	2.73	0.19	mg/Kg dry	1.90	1.17	82.2		40-140	4.11		30	
2-Methylphenol	0.943	0.39	mg/Kg dry	1.90	ND	49.6		30-130	4.20		30	
3/4-Methylphenol	1.01	0.39	mg/Kg dry	1.90	ND	53.1		30-130	4.03		30	
Naphthalene	1.96	0.19	mg/Kg dry	1.90	0.676	67.3		40-140	0.175		30	
2-Nitroaniline	1.20	0.39	mg/Kg dry	1.90	ND	63.0		40-140	9.30		30	
3-Nitroaniline	0.800	0.39	mg/Kg dry	1.90	ND	42.1		40-140	**41.4**	*	30	R-06
4-Nitroaniline	0.888	0.39	mg/Kg dry	1.90	ND	46.8		40-140	29.6		30	
Nitrobenzene	1.00	0.39	mg/Kg dry	1.90	ND	52.9		40-140	11.4		30	
2-Nitrophenol	1.22	0.39	mg/Kg dry	1.90	ND	64.2		30-130	10.1		30	
4-Nitrophenol	1.05	0.75	mg/Kg dry	1.90	ND	55.2		30-130	4.22		30	
N-Nitrosodimethylamine	1.00	0.39	mg/Kg dry	1.90	ND	52.9		40-140	11.9		30	
N-Nitrosodiphenylamine/Diphenylamine	1.26	0.39	mg/Kg dry	1.90	ND	66.1		40-140	6.05		30	
N-Nitrosodi-n-propylamine	1.01	0.39	mg/Kg dry	1.90	ND	53.1		40-140	7.47		30	
Pentachloronitrobenzene	1.32	0.39	mg/Kg dry	1.90	ND	69.6		40-140	11.7		30	
Pentachlorophenol	0.471	0.39	mg/Kg dry	1.90	ND	**24.8**	*	30-130	8.22		30	MS-09, V-05
Phenanthrene	1.92	0.19	mg/Kg dry	1.90	0.570	71.1		40-140	2.65		30	
Phenol	1.07	0.39	mg/Kg dry	1.90	ND	56.1		30-130	9.44		30	
Pyrene	1.56	0.19	mg/Kg dry	1.90	0.138	74.8		40-140	8.32		30	
Pyridine	0.477	0.39	mg/Kg dry	1.90	ND	**25.1**	*	40-140	8.13		30	MS-09
1,2,4,5-Tetrachlorobenzene	1.19	0.39	mg/Kg dry	1.90	ND	62.4		40-140	12.2		30	
1,2,4-Trichlorobenzene	1.08	0.39	mg/Kg dry	1.90	ND	56.7		40-140	10.9		30	
2,4,5-Trichlorophenol	1.25	0.39	mg/Kg dry	1.90	ND	65.7		30-130	8.54		30	
2,4,6-Trichlorophenol	1.13	0.39	mg/Kg dry	1.90	ND	59.3		30-130	6.95		30	
Surrogate: 2-Fluorophenol	*4.21*		mg/Kg dry	7.60		55.4		30-130				
Surrogate: Phenol-d6	*4.18*		mg/Kg dry	7.60		55.0		30-130				
Surrogate: Nitrobenzene-d5	*2.19*		mg/Kg dry	3.80		57.8		30-130				
Surrogate: 2-Fluorobiphenyl	*2.70*		mg/Kg dry	3.80		71.0		30-130				
Surrogate: 2,4,6-Tribromophenol	*4.44*		mg/Kg dry	7.60		58.5		30-130				
Surrogate: p-Terphenyl-d14	*3.25*		mg/Kg dry	3.80		85.5		30-130				

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QUALITY CONTROL

Semivolatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B293321 - SW-846 3510C										
Blank (B293321-BLK1)				Prepared: 10/27/21 Analyzed: 10/28/21						
Acenaphthene	ND	5.0	µg/L							
Acenaphthylene	ND	5.0	µg/L							
Acetophenone	ND	10	µg/L							
Aniline	ND	5.0	µg/L							
Anthracene	ND	5.0	µg/L							
Benzidine	ND	20	µg/L							R-05, V-04
Benzo(a)anthracene	ND	5.0	µg/L							
Benzo(a)pyrene	ND	5.0	µg/L							
Benzo(b)fluoranthene	ND	5.0	µg/L							
Benzo(g,h,i)perylene	ND	5.0	µg/L							
Benzo(k)fluoranthene	ND	5.0	µg/L							
Benzoic Acid	ND	10	µg/L							
Bis(2-chloroethoxy)methane	ND	10	µg/L							
Bis(2-chloroethyl)ether	ND	10	µg/L							
Bis(2-chloroisopropyl)ether	ND	10	µg/L							V-05
Bis(2-Ethylhexyl)phthalate	ND	10	µg/L							
4-Bromophenylphenylether	ND	10	µg/L							
Butylbenzylphthalate	ND	10	µg/L							
Carbazole	ND	10	µg/L							
4-Chloroaniline	ND	10	µg/L							V-34
4-Chloro-3-methylphenol	ND	10	µg/L							
2-Chloronaphthalene	ND	10	µg/L							
2-Chlorophenol	ND	10	µg/L							
4-Chlorophenylphenylether	ND	10	µg/L							
Chrysene	ND	5.0	µg/L							
Dibenz(a,h)anthracene	ND	5.0	µg/L							
Dibenzofuran	ND	5.0	µg/L							
Di-n-butylphthalate	ND	10	µg/L							
1,2-Dichlorobenzene	ND	5.0	µg/L							L-04
1,3-Dichlorobenzene	ND	5.0	µg/L							L-04
1,4-Dichlorobenzene	ND	5.0	µg/L							L-04
3,3-Dichlorobenzidine	ND	10	µg/L							V-34
2,4-Dichlorophenol	ND	10	µg/L							
Diethylphthalate	ND	10	µg/L							
2,4-Dimethylphenol	ND	10	µg/L							
Dimethylphthalate	ND	10	µg/L							
4,6-Dinitro-2-methylphenol	ND	10	µg/L							
2,4-Dinitrophenol	ND	10	µg/L							V-04
2,4-Dinitrotoluene	ND	10	µg/L							
2,6-Dinitrotoluene	ND	10	µg/L							
Di-n-octylphthalate	ND	10	µg/L							
1,2-Diphenylhydrazine/Azobenzene	ND	10	µg/L							V-05
Fluoranthene	ND	5.0	µg/L							
Fluorene	ND	5.0	µg/L							
Hexachlorobenzene	ND	10	µg/L							
Hexachlorobutadiene	ND	10	µg/L							L-04
Hexachlorocyclopentadiene	ND	10	µg/L							
Hexachloroethane	ND	10	µg/L							L-04
Indeno(1,2,3-cd)pyrene	ND	5.0	µg/L							
Isophorone	ND	10	µg/L							
1-Methylnaphthalene	ND	5.0	µg/L							
2-Methylnaphthalene	ND	5.0	µg/L							

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QUALITY CONTROL

Semivolatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC		%REC Limits	RPD	RPD Limit	Notes
Batch B293321 - SW-846 3510C											
Blank (B293321-BLK1)				Prepared: 10/27/21 Analyzed: 10/28/21							
2-Methylphenol	ND	10	µg/L								
3/4-Methylphenol	ND	10	µg/L								
Naphthalene	ND	5.0	µg/L								
2-Nitroaniline	ND	10	µg/L								
3-Nitroaniline	ND	10	µg/L								
4-Nitroaniline	ND	10	µg/L								
Nitrobenzene	ND	10	µg/L								
2-Nitrophenol	ND	10	µg/L								
4-Nitrophenol	ND	10	µg/L								
N-Nitrosodimethylamine	ND	10	µg/L								
N-Nitrosodiphenylamine/Diphenylamine	ND	10	µg/L								
N-Nitrosodi-n-propylamine	ND	10	µg/L								
Pentachloronitrobenzene	ND	10	µg/L								
Pentachlorophenol	ND	10	µg/L								
Phenanthrene	ND	5.0	µg/L								
Phenol	ND	10	µg/L								
Pyrene	ND	5.0	µg/L								
Pyridine	ND	5.0	µg/L								
1,2,4,5-Tetrachlorobenzene	ND	10	µg/L								
1,2,4-Trichlorobenzene	ND	5.0	µg/L								
2,4,5-Trichlorophenol	ND	10	µg/L								
2,4,6-Trichlorophenol	ND	10	µg/L								
Surrogate: 2-Fluorophenol	*108*		µg/L	200		54.1		15-110			
Surrogate: Phenol-d6	*79.9*		µg/L	200		40.0		15-110			
Surrogate: Nitrobenzene-d5	*64.0*		µg/L	100		64.0		30-130			
Surrogate: 2-Fluorobiphenyl	*64.5*		µg/L	100		64.5		30-130			
Surrogate: 2,4,6-Tribromophenol	*185*		µg/L	200		92.7		15-110			
Surrogate: p-Terphenyl-d14	*117*		µg/L	100		117		30-130			
LCS (B293321-BS1)				Prepared: 10/27/21 Analyzed: 10/28/21							
Acenaphthene	32.7	5.0	µg/L	50.0		65.3		40-140			
Acenaphthylene	33.4	5.0	µg/L	50.0		66.9		40-140			
Acetophenone	33.9	10	µg/L	50.0		67.8		40-140			
Aniline	35.8	5.0	µg/L	50.0		71.6		40-140			
Anthracene	35.6	5.0	µg/L	50.0		71.2		40-140			
Benzidine	16.1	20	µg/L	50.0		**32.1**	*	40-140			L-07A, V-04, J
Benzo(a)anthracene	34.1	5.0	µg/L	50.0		68.2		40-140			
Benzo(a)pyrene	37.4	5.0	µg/L	50.0		74.7		40-140			
Benzo(b)fluoranthene	34.1	5.0	µg/L	50.0		68.3		40-140			
Benzo(g,h,i)perylene	37.6	5.0	µg/L	50.0		75.3		40-140			
Benzo(k)fluoranthene	37.6	5.0	µg/L	50.0		75.2		40-140			
Benzoic Acid	17.7	10	µg/L	50.0		35.4		10-130			†
Bis(2-chloroethoxy)methane	34.7	10	µg/L	50.0		69.4		40-140			
Bis(2-chloroethyl)ether	33.8	10	µg/L	50.0		67.6		40-140			
Bis(2-chloroisopropyl)ether	35.6	10	µg/L	50.0		71.3		40-140			V-05
Bis(2-Ethylhexyl)phthalate	36.9	10	µg/L	50.0		73.8		40-140			
4-Bromophenylphenylether	32.8	10	µg/L	50.0		65.7		40-140			
Butylbenzylphthalate	35.4	10	µg/L	50.0		70.7		40-140			
Carbazole	33.9	10	µg/L	50.0		67.8		40-140			
4-Chloroaniline	33.6	10	µg/L	50.0		67.2		40-140			V-34
4-Chloro-3-methylphenol	35.0	10	µg/L	50.0		70.0		30-130			
2-Chloronaphthalene	28.0	10	µg/L	50.0		56.1		40-140			

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QUALITY CONTROL

Semivolatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC		%REC Limits	RPD	RPD Limit	Notes	
Batch B293321 - SW-846 3510C												
LCS (B293321-BS1)				Prepared: 10/27/21 Analyzed: 10/28/21								
2-Chlorophenol	31.7	10	µg/L	50.0		63.5		30-130				
4-Chlorophenylphenylether	34.4	10	µg/L	50.0		68.7		40-140				
Chrysene	35.5	5.0	µg/L	50.0		71.0		40-140				
Dibenz(a,h)anthracene	38.0	5.0	µg/L	50.0		75.9		40-140				
Dibenzofuran	35.4	5.0	µg/L	50.0		70.8		40-140				
Di-n-butylphthalate	34.3	10	µg/L	50.0		68.5		40-140				
1,2-Dichlorobenzene	18.4	5.0	µg/L	50.0		**36.9**	*	40-140			L-04	
1,3-Dichlorobenzene	16.4	5.0	µg/L	50.0		**32.9**	*	40-140			L-04	
1,4-Dichlorobenzene	17.0	5.0	µg/L	50.0		**34.0**	*	40-140			L-04	
3,3-Dichlorobenzidine	32.9	10	µg/L	50.0		65.9		40-140			V-34	
2,4-Dichlorophenol	34.0	10	µg/L	50.0		68.0		30-130				
Diethylphthalate	34.6	10	µg/L	50.0		69.2		40-140				
2,4-Dimethylphenol	32.6	10	µg/L	50.0		65.3		30-130				
Dimethylphthalate	34.9	10	µg/L	50.0		69.8		40-140				
4,6-Dinitro-2-methylphenol	33.5	10	µg/L	50.0		67.1		30-130				
2,4-Dinitrophenol	34.4	10	µg/L	50.0		68.8		30-130			V-04	
2,4-Dinitrotoluene	36.1	10	µg/L	50.0		72.2		40-140				
2,6-Dinitrotoluene	39.0	10	µg/L	50.0		78.0		40-140				
Di-n-octylphthalate	33.1	10	µg/L	50.0		66.2		40-140				
1,2-Diphenylhydrazine/Azobenzene	34.8	10	µg/L	50.0		69.7		40-140			V-05	
Fluoranthene	34.8	5.0	µg/L	50.0		69.7		40-140				
Fluorene	34.6	5.0	µg/L	50.0		69.2		40-140				
Hexachlorobenzene	35.8	10	µg/L	50.0		71.5		40-140				
Hexachlorobutadiene	18.3	10	µg/L	50.0		**36.6**	*	40-140			L-04	
Hexachlorocyclopentadiene	23.4	10	µg/L	50.0		46.8		30-140				†
Hexachloroethane	15.2	10	µg/L	50.0		**30.4**	*	40-140			L-04	
Indeno(1,2,3-cd)pyrene	37.5	5.0	µg/L	50.0		75.0		40-140				
Isophorone	37.8	10	µg/L	50.0		75.6		40-140				
1-Methylnaphthalene	27.2	5.0	µg/L	50.0		54.5		40-140				
2-Methylnaphthalene	31.9	5.0	µg/L	50.0		63.8		40-140				
2-Methylphenol	33.1	10	µg/L	50.0		66.2		30-130				
3/4-Methylphenol	31.3	10	µg/L	50.0		62.6		30-130				
Naphthalene	26.4	5.0	µg/L	50.0		52.7		40-140				
2-Nitroaniline	43.9	10	µg/L	50.0		87.8		40-140				
3-Nitroaniline	37.7	10	µg/L	50.0		75.5		40-140				
4-Nitroaniline	37.6	10	µg/L	50.0		75.3		40-140				
Nitrobenzene	33.8	10	µg/L	50.0		67.6		40-140				
2-Nitrophenol	34.4	10	µg/L	50.0		68.9		30-130				
4-Nitrophenol	21.2	10	µg/L	50.0		42.3		10-130				†
N-Nitrosodimethylamine	23.4	10	µg/L	50.0		46.9		40-140				
N-Nitrosodiphenylamine/Diphenylamine	36.6	10	µg/L	50.0		73.3		40-140				
N-Nitrosodi-n-propylamine	35.7	10	µg/L	50.0		71.4		40-140				
Pentachloronitrobenzene	35.2	10	µg/L	50.0		70.5		40-140				
Pentachlorophenol	31.7	10	µg/L	50.0		63.5		30-130				
Phenanthrene	34.8	5.0	µg/L	50.0		69.6		40-140				
Phenol	17.1	10	µg/L	50.0		34.2		20-130				†
Pyrene	35.1	5.0	µg/L	50.0		70.3		40-140				
Pyridine	11.4	5.0	µg/L	50.0		22.8		10-140				†
1,2,4,5-Tetrachlorobenzene	29.7	10	µg/L	50.0		59.5		40-140				
1,2,4-Trichlorobenzene	21.6	5.0	µg/L	50.0		43.1		40-140				
2,4,5-Trichlorophenol	37.2	10	µg/L	50.0		74.4		30-130				
2,4,6-Trichlorophenol	35.7	10	µg/L	50.0		71.5		30-130				

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QUALITY CONTROL

Semivolatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC		%REC Limits	RPD		RPD Limit	Notes	
Batch B293321 - SW-846 3510C													
LCS (B293321-BS1)				Prepared: 10/27/21 Analyzed: 10/28/21									
Surrogate: 2-Fluorophenol	*102*		µg/L	200		50.8		15-110					
Surrogate: Phenol-d6	*72.9*		µg/L	200		36.4		15-110					
Surrogate: Nitrobenzene-d5	*62.3*		µg/L	100		62.3		30-130					
Surrogate: 2-Fluorobiphenyl	*64.4*		µg/L	100		64.4		30-130					
Surrogate: 2,4,6-Tribromophenol	*173*		µg/L	200		86.3		15-110					
Surrogate: p-Terphenyl-d14	*92.5*		µg/L	100		92.5		30-130					
LCS Dup (B293321-BSD1)				Prepared: 10/27/21 Analyzed: 10/28/21									
Acenaphthene	30.8	5.0	µg/L	50.0		61.7		40-140	5.76		20		
Acenaphthylene	30.9	5.0	µg/L	50.0		61.8		40-140	7.90		20		
Acetophenone	31.7	10	µg/L	50.0		63.4		40-140	6.83		20		
Aniline	39.5	5.0	µg/L	50.0		79.1		40-140	9.88		50		‡
Anthracene	34.8	5.0	µg/L	50.0		69.6		40-140	2.27		20		
Benzidine	45.5	20	µg/L	50.0		91.0		40-140	**95.6**	*	20	R-05, V-04	
Benzo(a)anthracene	33.6	5.0	µg/L	50.0		67.3		40-140	1.45		20		
Benzo(a)pyrene	37.1	5.0	µg/L	50.0		74.2		40-140	0.671		20		
Benzo(b)fluoranthene	34.2	5.0	µg/L	50.0		68.5		40-140	0.322		20		
Benzo(g,h,i)perylene	36.6	5.0	µg/L	50.0		73.3		40-140	2.75		20		
Benzo(k)fluoranthene	37.2	5.0	µg/L	50.0		74.4		40-140	1.18		20		
Benzoic Acid	15.7	10	µg/L	50.0		31.5		10-130	11.8		50		† ‡
Bis(2-chloroethoxy)methane	32.6	10	µg/L	50.0		65.3		40-140	6.21		20		
Bis(2-chloroethyl)ether	32.0	10	µg/L	50.0		63.9		40-140	5.69		20		
Bis(2-chloroisopropyl)ether	33.3	10	µg/L	50.0		66.7		40-140	6.67		20	V-05	
Bis(2-Ethylhexyl)phthalate	36.5	10	µg/L	50.0		73.0		40-140	1.20		20		
4-Bromophenylphenylether	32.5	10	µg/L	50.0		64.9		40-140	1.19		20		
Butylbenzylphthalate	35.6	10	µg/L	50.0		71.1		40-140	0.564		20		
Carbazole	33.7	10	µg/L	50.0		67.4		40-140	0.562		20		
4-Chloroaniline	36.4	10	µg/L	50.0		72.9		40-140	8.08		20	V-34	
4-Chloro-3-methylphenol	34.6	10	µg/L	50.0		69.2		30-130	1.21		20		
2-Chloronaphthalene	25.8	10	µg/L	50.0		51.5		40-140	8.51		20		
2-Chlorophenol	30.4	10	µg/L	50.0		60.8		30-130	4.35		20		
4-Chlorophenylphenylether	32.5	10	µg/L	50.0		64.9		40-140	5.66		20		
Chrysene	35.0	5.0	µg/L	50.0		70.0		40-140	1.39		20		
Dibenz(a,h)anthracene	37.4	5.0	µg/L	50.0		74.9		40-140	1.35		20		
Dibenzofuran	33.2	5.0	µg/L	50.0		66.3		40-140	6.56		20		
Di-n-butylphthalate	34.0	10	µg/L	50.0		68.1		40-140	0.644		20		
1,2-Dichlorobenzene	17.9	5.0	µg/L	50.0		**35.8**	*	40-140	2.91		20	L-04	
1,3-Dichlorobenzene	16.4	5.0	µg/L	50.0		**32.8**	*	40-140	0.305		20	L-04	
1,4-Dichlorobenzene	16.9	5.0	µg/L	50.0		**33.8**	*	40-140	0.531		20	L-04	
3,3-Dichlorobenzidine	33.4	10	µg/L	50.0		66.7		40-140	1.33		20	V-34	
2,4-Dichlorophenol	32.4	10	µg/L	50.0		64.8		30-130	4.79		20		
Diethylphthalate	34.4	10	µg/L	50.0		68.8		40-140	0.579		20		
2,4-Dimethylphenol	31.8	10	µg/L	50.0		63.6		30-130	2.64		20		
Dimethylphthalate	34.3	10	µg/L	50.0		68.7		40-140	1.67		50		‡
4,6-Dinitro-2-methylphenol	34.5	10	µg/L	50.0		69.0		30-130	2.79		50		‡
2,4-Dinitrophenol	37.6	10	µg/L	50.0		75.3		30-130	9.05		50	V-04	‡
2,4-Dinitrotoluene	35.5	10	µg/L	50.0		70.9		40-140	1.76		20		
2,6-Dinitrotoluene	37.7	10	µg/L	50.0		75.4		40-140	3.34		20		
Di-n-octylphthalate	33.2	10	µg/L	50.0		66.4		40-140	0.392		20		
1,2-Diphenylhydrazine/Azobenzene	33.8	10	µg/L	50.0		67.6		40-140	3.06		20	V-05	
Fluoranthene	34.7	5.0	µg/L	50.0		69.5		40-140	0.259		20		
Fluorene	32.6	5.0	µg/L	50.0		65.3		40-140	5.92		20		

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QUALITY CONTROL

Semivolatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC		%REC Limits	RPD	RPD Limit	Notes	
Batch B293321 - SW-846 3510C												
LCS Dup (B293321-BSD1)				Prepared: 10/27/21 Analyzed: 10/28/21								
Hexachlorobenzene	34.8	10	µg/L	50.0		69.5		40-140	2.81	20		
Hexachlorobutadiene	17.3	10	µg/L	50.0		**34.6**	*	40-140	5.51	20	L-04	
Hexachlorocyclopentadiene	20.3	10	µg/L	50.0		40.5		30-140	14.4	50		† ‡
Hexachloroethane	15.4	10	µg/L	50.0		**30.7**	*	40-140	1.11	50	L-04	‡
Indeno(1,2,3-cd)pyrene	36.6	5.0	µg/L	50.0		73.2		40-140	2.40	50		‡
Isophorone	36.2	10	µg/L	50.0		72.3		40-140	4.41	20		
1-Methylnaphthalene	24.4	5.0	µg/L	50.0		48.7		40-140	11.2	20		
2-Methylnaphthalene	28.3	5.0	µg/L	50.0		56.5		40-140	12.1	20		
2-Methylphenol	32.6	10	µg/L	50.0		65.2		30-130	1.58	20		
3/4-Methylphenol	31.0	10	µg/L	50.0		62.0		30-130	1.06	20		
Naphthalene	24.3	5.0	µg/L	50.0		48.6		40-140	8.05	20		
2-Nitroaniline	43.0	10	µg/L	50.0		86.1		40-140	2.00	20		
3-Nitroaniline	39.4	10	µg/L	50.0		78.7		40-140	4.23	20		
4-Nitroaniline	38.5	10	µg/L	50.0		77.0		40-140	2.26	20		
Nitrobenzene	31.9	10	µg/L	50.0		63.8		40-140	5.79	20		
2-Nitrophenol	32.4	10	µg/L	50.0		64.9		30-130	5.98	20		
4-Nitrophenol	21.7	10	µg/L	50.0		43.4		10-130	2.47	50		† ‡
N-Nitrosodimethylamine	24.2	10	µg/L	50.0		48.4		40-140	3.19	20		
N-Nitrosodiphenylamine/Diphenylamine	35.3	10	µg/L	50.0		70.7		40-140	3.61	20		
N-Nitrosodi-n-propylamine	33.4	10	µg/L	50.0		66.8		40-140	6.63	20		
Pentachloronitrobenzene	34.8	10	µg/L	50.0		69.6		40-140	1.26	20		
Pentachlorophenol	32.8	10	µg/L	50.0		65.6		30-130	3.26	50		‡
Phenanthrene	34.1	5.0	µg/L	50.0		68.1		40-140	2.21	20		
Phenol	17.0	10	µg/L	50.0		34.0		20-130	0.528	20		†
Pyrene	34.2	5.0	µg/L	50.0		68.3		40-140	2.86	20		
Pyridine	15.8	5.0	µg/L	50.0		31.5		10-140	32.0	50		† ‡
1,2,4,5-Tetrachlorobenzene	26.6	10	µg/L	50.0		53.2		40-140	11.2	20		
1,2,4-Trichlorobenzene	20.1	5.0	µg/L	50.0		40.2		40-140	6.86	20		
2,4,5-Trichlorophenol	36.1	10	µg/L	50.0		72.1		30-130	3.08	20		
2,4,6-Trichlorophenol	34.4	10	µg/L	50.0		68.9		30-130	3.68	50		‡
Surrogate: 2-Fluorophenol	*99.2*		µg/L	200		49.6		15-110				
Surrogate: Phenol-d6	*70.8*		µg/L	200		35.4		15-110				
Surrogate: Nitrobenzene-d5	*57.6*		µg/L	100		57.6		30-130				
Surrogate: 2-Fluorobiphenyl	*59.0*		µg/L	100		59.0		30-130				
Surrogate: 2,4,6-Tribromophenol	*165*		µg/L	200		82.5		15-110				
Surrogate: p-Terphenyl-d14	*89.5*		µg/L	100		89.5		30-130				

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QUALITY CONTROL

Polychlorinated Biphenyls By GC/ECD - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B293133 - SW-846 3546										
Blank (B293133-BLK1)				Prepared: 10/25/21 Analyzed: 10/27/21						
Aroclor-1016	ND	0.20	mg/Kg wet							
Aroclor-1016 [2C]	ND	0.20	mg/Kg wet							
Aroclor-1221	ND	0.20	mg/Kg wet							
Aroclor-1221 [2C]	ND	0.20	mg/Kg wet							
Aroclor-1232	ND	0.20	mg/Kg wet							
Aroclor-1232 [2C]	ND	0.20	mg/Kg wet							
Aroclor-1242	ND	0.20	mg/Kg wet							
Aroclor-1242 [2C]	ND	0.20	mg/Kg wet							
Aroclor-1248	ND	0.20	mg/Kg wet							
Aroclor-1248 [2C]	ND	0.20	mg/Kg wet							
Aroclor-1254	ND	0.20	mg/Kg wet							
Aroclor-1254 [2C]	ND	0.20	mg/Kg wet							
Aroclor-1260	ND	0.20	mg/Kg wet							
Aroclor-1260 [2C]	ND	0.20	mg/Kg wet							
Aroclor-1262	ND	0.20	mg/Kg wet							
Aroclor-1262 [2C]	ND	0.20	mg/Kg wet							
Aroclor-1268	ND	0.20	mg/Kg wet							
Aroclor-1268 [2C]	ND	0.20	mg/Kg wet							
Surrogate: Decachlorobiphenyl	*0.195*		mg/Kg wet	0.200		97.4	30-150			
Surrogate: Decachlorobiphenyl [2C]	*0.165*		mg/Kg wet	0.200		82.5	30-150			
Surrogate: Tetrachloro-m-xylene	*0.189*		mg/Kg wet	0.200		94.6	30-150			
Surrogate: Tetrachloro-m-xylene [2C]	*0.173*		mg/Kg wet	0.200		86.7	30-150			
LCS (B293133-BS1)				Prepared: 10/25/21 Analyzed: 10/27/21						
Aroclor-1016	ND	0.20	mg/Kg wet	0.200		*	40-140			
Aroclor-1016 [2C]	ND	0.20	mg/Kg wet	0.200		*	40-140			
Aroclor-1260	0.17	0.20	mg/Kg wet	0.200		84.5	40-140			J
Aroclor-1260 [2C]	ND	0.20	mg/Kg wet	0.200		*	40-140			
Surrogate: Decachlorobiphenyl	*0.181*		mg/Kg wet	0.200		90.6	30-150			
Surrogate: Decachlorobiphenyl [2C]	*0.154*		mg/Kg wet	0.200		76.9	30-150			
Surrogate: Tetrachloro-m-xylene	*0.177*		mg/Kg wet	0.200		88.7	30-150			
Surrogate: Tetrachloro-m-xylene [2C]	*0.163*		mg/Kg wet	0.200		81.3	30-150			
LCS Dup (B293133-BSD1)				Prepared: 10/25/21 Analyzed: 10/27/21						
Aroclor-1016	0.19	0.20	mg/Kg wet	0.200		93.3	40-140		30	J
Aroclor-1016 [2C]	ND	0.20	mg/Kg wet	0.200		*	40-140		30	
Aroclor-1260	0.18	0.20	mg/Kg wet	0.200		92.2	40-140	8.79	30	J
Aroclor-1260 [2C]	ND	0.20	mg/Kg wet	0.200		*	40-140		30	
Surrogate: Decachlorobiphenyl	*0.201*		mg/Kg wet	0.200		101	30-150			
Surrogate: Decachlorobiphenyl [2C]	*0.171*		mg/Kg wet	0.200		85.6	30-150			
Surrogate: Tetrachloro-m-xylene	*0.198*		mg/Kg wet	0.200		99.2	30-150			
Surrogate: Tetrachloro-m-xylene [2C]	*0.180*		mg/Kg wet	0.200		89.8	30-150			

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QUALITY CONTROL

Polychlorinated Biphenyls By GC/ECD - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B293133 - SW-846 3546										
Matrix Spike (B293133-MS1)	**Source: 21J1472-02**			Prepared: 10/25/21 Analyzed: 10/27/21						
Aroclor-1016	ND	0.90	mg/Kg dry	0.226	ND	*	40-140			
Aroclor-1016 [2C]	ND	0.90	mg/Kg dry	0.226	ND	*	40-140			
Aroclor-1260	ND	0.90	mg/Kg dry	0.226	ND	*	40-140			
Aroclor-1260 [2C]	ND	0.90	mg/Kg dry	0.226	ND	*	40-140			
Surrogate: Decachlorobiphenyl	*0.189*		mg/Kg dry	0.226		83.8	30-150			
Surrogate: Decachlorobiphenyl [2C]	*0.174*		mg/Kg dry	0.226		77.2	30-150			
Surrogate: Tetrachloro-m-xylene	*0.173*		mg/Kg dry	0.226		76.5	30-150			
Surrogate: Tetrachloro-m-xylene [2C]	*0.160*		mg/Kg dry	0.226		70.7	30-150			
Matrix Spike Dup (B293133-MSD1)	**Source: 21J1472-02**			Prepared: 10/25/21 Analyzed: 10/27/21						
Aroclor-1016	ND	0.90	mg/Kg dry	0.226	ND	*	40-140		30	
Aroclor-1016 [2C]	ND	0.90	mg/Kg dry	0.226	ND	*	40-140		30	
Aroclor-1260	ND	0.90	mg/Kg dry	0.226	ND	*	40-140		30	
Aroclor-1260 [2C]	ND	0.90	mg/Kg dry	0.226	ND	*	40-140		30	
Surrogate: Decachlorobiphenyl	*0.191*		mg/Kg dry	0.226		84.4	30-150			
Surrogate: Decachlorobiphenyl [2C]	*0.181*		mg/Kg dry	0.226		80.1	30-150			
Surrogate: Tetrachloro-m-xylene	*0.172*		mg/Kg dry	0.226		76.1	30-150			
Surrogate: Tetrachloro-m-xylene [2C]	*0.160*		mg/Kg dry	0.226		70.7	30-150			
Batch B293271 - SW-846 3510C										
Blank (B293271-BLK1)				Prepared: 10/26/21 Analyzed: 10/27/21						
Aroclor-1016	ND	0.20	µg/L							
Aroclor-1016 [2C]	ND	0.20	µg/L							
Aroclor-1221	ND	0.20	µg/L							
Aroclor-1221 [2C]	ND	0.20	µg/L							
Aroclor-1232	ND	0.20	µg/L							
Aroclor-1232 [2C]	ND	0.20	µg/L							
Aroclor-1242	ND	0.20	µg/L							
Aroclor-1242 [2C]	ND	0.20	µg/L							
Aroclor-1248	ND	0.20	µg/L							
Aroclor-1248 [2C]	ND	0.20	µg/L							
Aroclor-1254	ND	0.20	µg/L							
Aroclor-1254 [2C]	ND	0.20	µg/L							
Aroclor-1260	ND	0.20	µg/L							
Aroclor-1260 [2C]	ND	0.20	µg/L							
Aroclor-1262	ND	0.20	µg/L							
Aroclor-1262 [2C]	ND	0.20	µg/L							
Aroclor-1268	ND	0.20	µg/L							
Aroclor-1268 [2C]	ND	0.20	µg/L							
Surrogate: Decachlorobiphenyl	*1.80*		µg/L	2.00		90.0	30-150			
Surrogate: Decachlorobiphenyl [2C]	*1.51*		µg/L	2.00		75.6	30-150			
Surrogate: Tetrachloro-m-xylene	*1.62*		µg/L	2.00		81.0	30-150			
Surrogate: Tetrachloro-m-xylene [2C]	*1.48*		µg/L	2.00		73.9	30-150			

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QUALITY CONTROL

Polychlorinated Biphenyls By GC/ECD - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B293271 - SW-846 3510C										
LCS (B293271-BS1)				Prepared: 10/26/21 Analyzed: 10/27/21						
Aroclor-1016	0.46	0.20	µg/L	0.500		91.4	40-140			
Aroclor-1016 [2C]	0.39	0.20	µg/L	0.500		78.1	40-140			
Aroclor-1260	0.41	0.20	µg/L	0.500		81.7	40-140			
Aroclor-1260 [2C]	0.35	0.20	µg/L	0.500		69.6	40-140			
Surrogate: Decachlorobiphenyl	*1.04*		µg/L	2.00		51.8	30-150			
Surrogate: Decachlorobiphenyl [2C]	*0.874*		µg/L	2.00		43.7	30-150			
Surrogate: Tetrachloro-m-xylene	*1.53*		µg/L	2.00		76.5	30-150			
Surrogate: Tetrachloro-m-xylene [2C]	*1.40*		µg/L	2.00		70.0	30-150			
LCS Dup (B293271-BSD1)				Prepared: 10/26/21 Analyzed: 10/27/21						
Aroclor-1016	0.43	0.20	µg/L	0.500		85.2	40-140	7.07	20	
Aroclor-1016 [2C]	0.36	0.20	µg/L	0.500		72.1	40-140	7.95	20	
Aroclor-1260	0.38	0.20	µg/L	0.500		75.7	40-140	7.56	20	
Aroclor-1260 [2C]	0.32	0.20	µg/L	0.500		63.8	40-140	8.65	20	
Surrogate: Decachlorobiphenyl	*0.860*		µg/L	2.00		43.0	30-150			
Surrogate: Decachlorobiphenyl [2C]	*0.715*		µg/L	2.00		35.8	30-150			
Surrogate: Tetrachloro-m-xylene	*1.38*		µg/L	2.00		69.0	30-150			
Surrogate: Tetrachloro-m-xylene [2C]	*1.25*		µg/L	2.00		62.4	30-150			

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QUALITY CONTROL

Petroleum Hydrocarbons Analyses - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC		%REC Limits	RPD	RPD Limit	Notes
Batch B293116 - SW-846 3510C											
Blank (B293116-BLK1)				Prepared: 10/25/21 Analyzed: 10/26/21							
Diesel Range Organics	ND	0.20	mg/L								
Surrogate: 2-Fluorobiphenyl	*0.0591*		mg/L	0.100		59.1		40-140			
LCS (B293116-BS1)				Prepared: 10/25/21 Analyzed: 10/26/21							
Diesel Range Organics	0.631	0.20	mg/L	1.00		63.1		40-140			
Surrogate: 2-Fluorobiphenyl	*0.0707*		mg/L	0.100		70.7		40-140			
LCS Dup (B293116-BSD1)				Prepared: 10/25/21 Analyzed: 10/26/21							
Diesel Range Organics	0.660	0.20	mg/L	1.00		66.0		40-140	4.50	30	
Surrogate: 2-Fluorobiphenyl	*0.0694*		mg/L	0.100		69.4		40-140			
Batch B293199 - SW-846 3546											
Blank (B293199-BLK1)				Prepared: 10/25/21 Analyzed: 10/27/21							
Diesel Range Organics	ND	8.3	mg/Kg wet								
Surrogate: 2-Fluorobiphenyl	*2.38*		mg/Kg wet	3.33		71.5		40-140			
LCS (B293199-BS1)				Prepared: 10/25/21 Analyzed: 10/27/21							
Diesel Range Organics	26.2	8.3	mg/Kg wet	33.3		78.5		40-140			
Surrogate: 2-Fluorobiphenyl	*2.77*		mg/Kg wet	3.33		83.0		40-140			
LCS Dup (B293199-BSD1)				Prepared: 10/25/21 Analyzed: 10/27/21							
Diesel Range Organics	25.3	8.3	mg/Kg wet	33.3		75.8		40-140	3.46	30	
Surrogate: 2-Fluorobiphenyl	*2.75*		mg/Kg wet	3.33		82.4		40-140			
Matrix Spike (B293199-MS1)	**Source: 21J1472-01**			Prepared: 10/25/21 Analyzed: 10/29/21							
Diesel Range Organics	1270	62	mg/Kg dry	50.0	1030	**482**	*	40-140			MS-19
Surrogate: 2-Fluorobiphenyl	*3.77*		mg/Kg dry	5.00		75.4		40-140			
Matrix Spike Dup (B293199-MSD1)	**Source: 21J1472-01**			Prepared: 10/25/21 Analyzed: 10/29/21							
Diesel Range Organics	989	62	mg/Kg dry	50.0	1030	**-89.9**	*	40-140	25.3	30	MS-19
Surrogate: 2-Fluorobiphenyl	*2.96*		mg/Kg dry	5.00		59.1		40-140			
Batch B293367 - SW-846 5030B											
Blank (B293367-BLK1)				Prepared & Analyzed: 10/27/21							
Gasoline Range Organics (GRO)	ND	1.0	mg/Kg wet								
Surrogate: 1-Chloro-3-fluorobenzene	*14.5*		µg/L	15.0		96.5		70-130			
LCS (B293367-BS1)				Prepared & Analyzed: 10/27/21							
Gasoline Range Organics (GRO)	24.1	1.0	mg/Kg wet	25.0		96.4		80-120			
Surrogate: 1-Chloro-3-fluorobenzene	*14.5*		µg/L	15.0		96.8		70-130			

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QUALITY CONTROL

Petroleum Hydrocarbons Analyses - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B293367 - SW-846 5030B										
LCS Dup (B293367-BSD1)				Prepared & Analyzed: 10/27/21						
Gasoline Range Organics (GRO)	25.0	1.0	mg/Kg wet	25.0		100	80-120	3.59	30	
Surrogate: 1-Chloro-3-fluorobenzene	*14.8*		µg/L	15.0		98.7	70-130			
Matrix Spike (B293367-MS1)		**Source: 21J1472-03**		Prepared: 10/27/21 Analyzed: 10/28/21						
Gasoline Range Organics (GRO)	34.5	0.89	mg/Kg dry	22.3	8.87	115	80-120			
Surrogate: 1-Chloro-3-fluorobenzene	*13.8*		µg/L	15.0		91.9	70-130			
Matrix Spike Dup (B293367-MSD1)		**Source: 21J1472-03**		Prepared: 10/27/21 Analyzed: 10/28/21						
Gasoline Range Organics (GRO)	34.9	0.89	mg/Kg dry	22.3	8.87	117	80-120	1.09	30	
Surrogate: 1-Chloro-3-fluorobenzene	*14.2*		µg/L	15.0		94.8	70-130			

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QUALITY CONTROL

Metals Analyses (Total) - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B293091 - SW-846 3005A										
Blank (B293091-BLK1)				Prepared: 10/23/21 Analyzed: 10/24/21						
Antimony	ND	1.0	µg/L							
Arsenic	ND	0.80	µg/L							
Barium	ND	10	µg/L							
Beryllium	ND	0.40	µg/L							
Cadmium	ND	0.20	µg/L							
Chromium	ND	1.0	µg/L							
Cobalt	ND	1.0	µg/L							
Copper	ND	1.0	µg/L							
Lead	ND	0.50	µg/L							
Manganese	ND	1.0	µg/L							
Nickel	ND	5.0	µg/L							
Selenium	ND	5.0	µg/L							
Silver	ND	0.20	µg/L							
Thallium	ND	0.20	µg/L							
Vanadium	ND	5.0	µg/L							
Zinc	ND	10	µg/L							
LCS (B293091-BS1)				Prepared: 10/23/21 Analyzed: 10/24/21						
Antimony	554	10	µg/L	500		111	80-120			
Arsenic	519	8.0	µg/L	500		104	80-120			
Barium	520	100	µg/L	500		104	80-120			
Beryllium	530	4.0	µg/L	500		106	80-120			
Cadmium	526	2.0	µg/L	500		105	80-120			
Chromium	553	10	µg/L	500		111	80-120			
Cobalt	498	10	µg/L	500		99.5	80-120			
Copper	997	10	µg/L	1000		99.7	80-120			
Lead	514	5.0	µg/L	500		103	80-120			
Manganese	507	10	µg/L	500		101	80-120			
Nickel	524	50	µg/L	500		105	80-120			
Selenium	504	50	µg/L	500		101	80-120			
Silver	496	2.0	µg/L	500		99.1	80-120			
Thallium	512	2.0	µg/L	500		102	80-120			
Vanadium	500	50	µg/L	500		100	80-120			
Zinc	1010	100	µg/L	1000		101	80-120			
LCS Dup (B293091-BSD1)				Prepared: 10/23/21 Analyzed: 10/24/21						
Antimony	549	10	µg/L	500		110	80-120	0.987	20	
Arsenic	518	8.0	µg/L	500		104	80-120	0.179	20	
Barium	517	100	µg/L	500		103	80-120	0.552	20	
Beryllium	526	4.0	µg/L	500		105	80-120	0.908	20	
Cadmium	519	2.0	µg/L	500		104	80-120	1.34	20	
Chromium	507	10	µg/L	500		101	80-120	8.57	20	
Cobalt	487	10	µg/L	500		97.4	80-120	2.18	20	
Copper	975	10	µg/L	1000		97.5	80-120	2.24	20	
Lead	507	5.0	µg/L	500		101	80-120	1.27	20	
Manganese	497	10	µg/L	500		99.5	80-120	2.00	20	
Nickel	508	50	µg/L	500		102	80-120	3.11	20	
Selenium	501	50	µg/L	500		100	80-120	0.576	20	
Silver	496	2.0	µg/L	500		99.1	80-120	0.00228	20	
Thallium	508	2.0	µg/L	500		102	80-120	0.784	20	
Vanadium	498	50	µg/L	500		99.6	80-120	0.537	20	
Zinc	992	100	µg/L	1000		99.2	80-120	1.68	20	

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QUALITY CONTROL

Metals Analyses (Total) - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B293093 - SW-846 3005A										
Blank (B293093-BLK1)				Prepared: 10/23/21 Analyzed: 10/27/21						
Aluminum	ND	0.050	mg/L							
Calcium	ND	0.50	mg/L							
Iron	ND	0.050	mg/L							
Magnesium	ND	0.050	mg/L							
Potassium	ND	2.0	mg/L							
Sodium	ND	2.0	mg/L							
LCS (B293093-BS1)				Prepared: 10/23/21 Analyzed: 10/27/21						
Aluminum	0.501	0.050	mg/L	0.500		100	80-120			
Calcium	4.08	0.50	mg/L	4.00		102	80-120			
Iron	4.10	0.050	mg/L	4.00		103	80-120			
Magnesium	3.93	0.050	mg/L	4.00		98.3	80-120			
Potassium	3.91	2.0	mg/L	4.00		97.9	80-120			
Sodium	3.96	2.0	mg/L	4.00		99.0	80-120			
LCS Dup (B293093-BSD1)				Prepared: 10/23/21 Analyzed: 10/27/21						
Aluminum	0.537	0.050	mg/L	0.500		107	80-120	6.89	20	
Calcium	4.27	0.50	mg/L	4.00		107	80-120	4.36	20	
Iron	4.29	0.050	mg/L	4.00		107	80-120	4.56	20	
Magnesium	4.12	0.050	mg/L	4.00		103	80-120	4.82	20	
Potassium	4.18	2.0	mg/L	4.00		104	80-120	6.53	20	
Sodium	4.08	2.0	mg/L	4.00		102	80-120	3.00	20	
Batch B293193 - SW-846 3050B										
Blank (B293193-BLK1)				Prepared: 10/25/21 Analyzed: 10/26/21						
Aluminum	ND	17	mg/Kg wet							
Antimony	ND	1.7	mg/Kg wet							
Arsenic	ND	3.3	mg/Kg wet							
Barium	ND	1.7	mg/Kg wet							
Beryllium	ND	0.17	mg/Kg wet							
Cadmium	ND	0.33	mg/Kg wet							
Calcium	ND	17	mg/Kg wet							
Chromium	ND	0.67	mg/Kg wet							
Cobalt	ND	1.7	mg/Kg wet							
Copper	ND	0.67	mg/Kg wet							
Iron	ND	17	mg/Kg wet							
Lead	ND	0.50	mg/Kg wet							
Magnesium	ND	17	mg/Kg wet							
Manganese	ND	0.33	mg/Kg wet							
Nickel	ND	0.67	mg/Kg wet							
Potassium	ND	170	mg/Kg wet							
Selenium	ND	3.3	mg/Kg wet							
Silver	ND	0.33	mg/Kg wet							
Sodium	ND	170	mg/Kg wet							
Thallium	ND	1.7	mg/Kg wet							
Vanadium	ND	0.67	mg/Kg wet							
Zinc	ND	0.67	mg/Kg wet							

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QUALITY CONTROL

Metals Analyses (Total) - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B293193 - SW-846 3050B										
LCS (B293193-BS1)				Prepared: 10/25/21 Analyzed: 10/26/21						
Aluminum	7130	48	mg/Kg wet	8020		89.0	48.1-151.7			
Antimony	107	4.8	mg/Kg wet	132		80.7	1.9-200.7			
Arsenic	155	9.7	mg/Kg wet	168		92.2	82.9-117.6			
Barium	182	4.8	mg/Kg wet	181		101	82.5-117.5			
Beryllium	113	0.48	mg/Kg wet	115		98.2	83.4-116.4			
Cadmium	86.2	0.97	mg/Kg wet	88.5		97.4	82.8-117.3			
Calcium	4520	48	mg/Kg wet	4750		95.2	81.7-118.1			
Chromium	96.1	1.9	mg/Kg wet	99.8		96.2	82.1-117.8			
Cobalt	82.6	4.8	mg/Kg wet	83.8		98.5	83.5-116.5			
Copper	149	1.9	mg/Kg wet	147		101	83.9-116.1			
Iron	13200	48	mg/Kg wet	13900		95.1	60-139.7			
Lead	136	1.5	mg/Kg wet	138		97.9	82.9-117.1			
Magnesium	2210	48	mg/Kg wet	2320		95.3	76.2-123.8			
Manganese	627	0.97	mg/Kg wet	640		98.0	81.8-118.2			
Nickel	64.9	1.9	mg/Kg wet	67.5		96.1	82.1-117.7			
Potassium	2030	480	mg/Kg wet	2030		100	69.8-129.8			
Selenium	168	9.7	mg/Kg wet	180		93.3	79.7-120.3			
Silver	49.0	0.97	mg/Kg wet	49.5		99.0	80.2-120			
Sodium	122	480	mg/Kg wet	134		90.9	71.6-127.9			J
Thallium	102	4.8	mg/Kg wet	86.7		118	81.1-118.6			
Vanadium	149	1.9	mg/Kg wet	151		98.4	79.1-120.9			
Zinc	223	1.9	mg/Kg wet	225		98.8	80.7-118.9			
LCS Dup (B293193-BSD1)				Prepared: 10/25/21 Analyzed: 10/26/21						
Aluminum	7070	49	mg/Kg wet	8110		87.2	48.1-151.7	0.863	30	
Antimony	103	4.9	mg/Kg wet	134		77.2	1.9-200.7	3.36	30	
Arsenic	149	9.8	mg/Kg wet	170		87.8	82.9-117.6	3.69	30	
Barium	175	4.9	mg/Kg wet	183		95.4	82.5-117.5	4.31	20	
Beryllium	110	0.49	mg/Kg wet	116		94.6	83.4-116.4	2.58	30	
Cadmium	82.7	0.98	mg/Kg wet	89.5		92.4	82.8-117.3	4.10	20	
Calcium	4540	49	mg/Kg wet	4810		94.4	81.7-118.1	0.370	30	
Chromium	92.9	2.0	mg/Kg wet	101		91.9	82.1-117.8	3.39	30	
Cobalt	79.9	4.9	mg/Kg wet	84.8		94.2	83.5-116.5	3.29	20	
Copper	144	2.0	mg/Kg wet	149		96.7	83.9-116.1	3.01	30	
Iron	12500	49	mg/Kg wet	14100		88.8	60-139.7	5.62	30	
Lead	130	1.5	mg/Kg wet	140		92.7	82.9-117.1	4.31	30	
Magnesium	2190	49	mg/Kg wet	2350		93.3	76.2-123.8	0.971	30	
Manganese	615	0.98	mg/Kg wet	648		94.9	81.8-118.2	2.06	30	
Nickel	64.3	2.0	mg/Kg wet	68.3		94.2	82.1-117.7	0.831	30	
Potassium	2000	490	mg/Kg wet	2050		97.7	69.8-129.8	1.10	30	
Selenium	161	9.8	mg/Kg wet	182		88.7	79.7-120.3	3.86	30	
Silver	47.4	0.98	mg/Kg wet	50.1		94.6	80.2-120	3.44	30	
Sodium	122	490	mg/Kg wet	136		89.4	71.6-127.9	0.427	30	J
Thallium	99.5	4.9	mg/Kg wet	87.7		113	81.1-118.6	2.56	30	
Vanadium	145	2.0	mg/Kg wet	153		94.6	79.1-120.9	2.84	30	
Zinc	212	2.0	mg/Kg wet	228		92.8	80.7-118.9	5.14	30	

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QUALITY CONTROL

Metals Analyses (Total) - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B293193 - SW-846 3050B										
Reference (B293193-SRM1) MRL CHECK				Prepared: 10/25/21 Analyzed: 10/26/21						
Lead	0.490	0.50	mg/Kg wet	0.500		98.2	80-120			J
Batch B293196 - SW-846 7470A Prep										
Blank (B293196-BLK1)				Prepared: 10/25/21 Analyzed: 10/26/21						
Mercury	ND	0.00010	mg/L							
LCS (B293196-BS1)				Prepared: 10/25/21 Analyzed: 10/26/21						
Mercury	0.00442	0.00010	mg/L	0.00402		110	80-120			
LCS Dup (B293196-BSD1)				Prepared: 10/25/21 Analyzed: 10/26/21						
Mercury	0.00437	0.00010	mg/L	0.00402		109	80-120	1.17	20	
Duplicate (B293196-DUP1)		**Source: 21J1472-04**		Prepared: 10/25/21 Analyzed: 10/26/21						
Mercury	ND	0.00010	mg/L		ND			NC	20	
Matrix Spike (B293196-MS1)		**Source: 21J1472-04**		Prepared: 10/25/21 Analyzed: 10/26/21						
Mercury	0.00450	0.00010	mg/L	0.00402	ND	112	75-125			
Batch B293278 - SW-846 7471										
Blank (B293278-BLK1)				Prepared: 10/26/21 Analyzed: 10/28/21						
Mercury	ND	0.025	mg/Kg wet							
LCS (B293278-BS1)				Prepared: 10/26/21 Analyzed: 10/28/21						
Mercury	20.5	0.75	mg/Kg wet	15.6		132	59.3-140.4			
LCS Dup (B293278-BSD1)				Prepared: 10/26/21 Analyzed: 10/28/21						
Mercury	22.6	0.75	mg/Kg wet	15.6		**145** *	59.3-140.4	9.60	20	L-07
Batch B296454 - SW-846 3050B										
Blank (B296454-BLK1)				Prepared: 12/09/21 Analyzed: 12/10/21						
Thallium	ND	1.7	mg/Kg wet							
LCS (B296454-BS1)				Prepared: 12/09/21 Analyzed: 12/10/21						
Thallium	87.7	4.6	mg/Kg wet	87.7		100	81.1-118.6			
LCS Dup (B296454-BSD1)				Prepared: 12/09/21 Analyzed: 12/10/21						
Thallium	95.4	4.8	mg/Kg wet	87.7		109	81.1-118.6	8.44	30	

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QUALITY CONTROL

Metals Analyses (Total) - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B298295 - SW-846 3050B										
Blank (B298295-BLK1)				Prepared: 01/04/22 Analyzed: 01/06/22						
Thallium	ND	1.7	mg/Kg wet							
LCS (B298295-BS1)				Prepared: 01/04/22 Analyzed: 01/06/22						
Thallium	93.9	4.7	mg/Kg wet	87.7		107	81.1-118.6			
LCS Dup (B298295-BSD1)				Prepared: 01/04/22 Analyzed: 01/06/22						
Thallium	92.1	4.8	mg/Kg wet	87.7		105	81.1-118.6	1.92	30	

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QUALITY CONTROL

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total) - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B293120 - SW-846 9010C										
Blank (B293120-BLK1)				Prepared & Analyzed: 10/25/21						
Cyanide	ND	0.50	mg/Kg wet							
LCS (B293120-BS1)				Prepared & Analyzed: 10/25/21						
Cyanide	77	2.5	mg/Kg wet	69.9		110	80-120			
LCS Dup (B293120-BSD1)				Prepared & Analyzed: 10/25/21						
Cyanide	78	2.5	mg/Kg wet	70.0		112	80-120	2.17	20	
Batch B293214 - SW-846 9045C										
LCS (B293214-BS1)				Prepared & Analyzed: 10/25/21						
pH	6.04		pH Units	6.00		101	90-110			
Batch B293335 - SW-846 9010C										
Blank (B293335-BLK1)				Prepared & Analyzed: 10/27/21						
Cyanide	ND	0.010	mg/L							
LCS (B293335-BS1)				Prepared & Analyzed: 10/27/21						
Cyanide	0.76	0.020	mg/L	0.724		106	80-120			
LCS Dup (B293335-BSD1)				Prepared & Analyzed: 10/27/21						
Cyanide	0.76	0.020	mg/L	0.724		105	80-120	0.556	20	
Batch B293536 - SW-846 9010C										
Blank (B293536-BLK1)				Prepared & Analyzed: 10/29/21						
Cyanide	ND	0.43	mg/Kg wet							
LCS (B293536-BS1)				Prepared & Analyzed: 10/29/21						
Cyanide	82	2.5	mg/Kg wet	69.5		118	80-120			
LCS Dup (B293536-BSD1)				Prepared & Analyzed: 10/29/21						
Cyanide	79	2.4	mg/Kg wet	68.6		115	80-120	3.77	20	
MRL Check (B293536-MRL1)				Prepared & Analyzed: 10/29/21						
Cyanide	0.611	0.50	mg/Kg wet	0.500		122	0-200			
MRL Check (B293536-MRL2)				Prepared & Analyzed: 10/29/21						
Cyanide	0.502	0.50	mg/Kg wet	0.500		100	0-200			

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IDENTIFICATION SUMMARY FOR SINGLE COMPONENT ANALYTES

SW-846 8082A

LCS

Lab Sample ID: B293271-BS1

Date(s) Analyzed: 10/27/2021 10/27/2021

Instrument ID (1): ECD4

Instrument ID (2): ECD4

GC Column (1): ID: (mm)

GC Column (2): ID: (mm)

ANALYTE	COL	RT	RT WINDOW		CONCENTRATION	%RPD
			FROM	TO		
Aroclor-1016	1	0.000	0.000	0.000	0.46	
	2	0.000	0.000	0.000	0.39	16.5
Aroclor-1260	1	0.000	0.000	0.000	0.41	
	2	0.000	0.000	0.000	0.35	15.8

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IDENTIFICATION SUMMARY FOR SINGLE COMPONENT ANALYTES

SW-846 8082A

LCS Dup

Lab Sample ID: B293271-BSD1 Date(s) Analyzed: 10/27/2021 10/27/2021

Instrument ID (1): ECD4 Instrument ID (2): ECD4

GC Column (1): ID: (mm) GC Column (2): ID: (mm)

ANALYTE	COL	RT	RT WINDOW		CONCENTRATION	%RPD
			FROM	TO		
Aroclor-1016	1	0.000	0.000	0.000	0.43	
	2	0.000	0.000	0.000	0.36	17.7
Aroclor-1260	1	0.000	0.000	0.000	0.38	
	2	0.000	0.000	0.000	0.32	17.1

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FLAG/QUALIFIER SUMMARY

*	QC result is outside of established limits.
†	Wide recovery limits established for difficult compound.
‡	Wide RPD limits established for difficult compound.
#	Data exceeded client recommended or regulatory level
ND	Not Detected
RL	Reporting Limit is at the level of quantitation (LOQ)
DL	Detection Limit is the lower limit of detection determined by the MDL study
MCL	Maximum Contaminant Level
	Percent recoveries and relative percent differences (RPDs) are determined by the software using values in the calculation which have not been rounded.
	No results have been blank subtracted unless specified in the case narrative section.
DL-03	Elevated reporting limit due to matrix interference.
H-03	Sample received after recommended holding time was exceeded.
J	Detected but below the Reporting Limit (lowest calibration standard); therefore, result is an estimated concentration (CLP J-Flag).
L-04	Laboratory fortified blank/laboratory control sample recovery and duplicate recovery are outside of control limits. Reported value for this compound is likely to be biased on the low side.
L-07	Either laboratory fortified blank/laboratory control sample or duplicate recovery is outside of control limits, but the other is within limits. RPD between the two LFB/LCS results is within method specified criteria.
L-07A	Either laboratory fortified blank/laboratory control sample or duplicate recovery is outside of control limits, but the other is within limits. RPD outside of control limits. Reduced precision anticipated for any reported result for this compound.
MS-09	Matrix spike recovery and/or matrix spike duplicate recovery outside of control limits. Possibility of sample matrix effects that lead to a low bias for reported result or non-homogeneous sample aliquots cannot be eliminated.
MS-19	Sample to spike ratio is greater than or equal to 4:1. Spiked amount is not representative of the native amount in the sample. Appropriate or meaningful recoveries cannot be calculated.
MS-22	Either matrix spike or MS duplicate is outside of control limits, but the other is within limits. RPD between the two MS/MSD results is within method specified criteria.
MS-23	Either matrix spike or MS duplicate is outside of control limits, but the other is within limits. RPD between the two MS/MSD results is outside of the method specified criteria. Reduced precision anticipated for any reported result for this compound.
R-05	Laboratory fortified blank duplicate RPD is outside of control limits. Reduced precision is anticipated for any reported value for this compound.
R-06	Matrix spike duplicate RPD is outside of control limits. Reduced precision is anticipated for reported result for this compound in this sample.
RL-11	Elevated reporting limit due to high concentration of target compounds.
V-04	Initial calibration did not meet method specifications. Compound was calibrated using a response factor where %RSD is outside of method specified criteria. Reported result is estimated.
V-05	Continuing calibration verification (CCV) did not meet method specifications and was biased on the low side for this compound.
V-06	Continuing calibration verification (CCV) did not meet method specifications and was biased on the high side for this compound.
V-20	Continuing calibration verification (CCV) did not meet method specifications and was biased on the high side. Data validation is not affected since sample result was "not detected" for this compound.
V-34	Initial calibration verification (ICV) did not meet method specifications and was biased on the low side for this compound. Reported result is estimated.
V-35	Initial calibration verification (ICV) did not meet method specifications and was biased on the high side for this compound. Reported result is estimated.

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CERTIFICATIONS

Certified Analyses included in this Report

Analyte	Certifications
SW-846 6010D in Soil	
Aluminum	CT,NH,NY,ME,VA,NC
Antimony	CT,NH,NY,ME,VA,NC
Arsenic	CT,NH,NY,ME,VA,NC
Barium	CT,NH,NY,ME,VA,NC
Beryllium	CT,NH,NY,ME,VA,NC
Cadmium	CT,NH,NY,ME,VA,NC
Calcium	CT,NH,NY,ME,VA,NC
Chromium	CT,NH,NY,ME,VA,NC
Cobalt	CT,NH,NY,ME,VA,NC
Copper	CT,NH,NY,ME,VA,NC
Iron	CT,NH,NY,ME,VA,NC
Lead	CT,NH,NY,AIHA,ME,VA,NC
Magnesium	CT,NH,NY,ME,VA,NC
Manganese	CT,NH,NY,ME,VA,NC
Nickel	CT,NH,NY,ME,VA,NC
Potassium	CT,NH,NY,ME,VA,NC
Selenium	CT,NH,NY,ME,VA,NC
Silver	CT,NH,NY,ME,VA,NC
Sodium	CT,NH,NY,ME,VA,NC
Thallium	CT,NH,NY,ME,VA,NC
Vanadium	CT,NH,NY,ME,VA,NC
Zinc	CT,NH,NY,ME,VA,NC
SW-846 6010D in Water	
Aluminum	CT,NH,NY,ME,VA,NC
Calcium	CT,NH,NY,ME,VA,NC
Iron	CT,NH,NY,ME,VA,NC
Magnesium	CT,NH,NY,ME,VA,NC
Potassium	CT,NH,NY,ME,VA,NC
Sodium	CT,NH,NY,ME,VA,NC
SW-846 6020B in Water	
Antimony	CT,NH,NY,ME,VA,NC
Arsenic	CT,NH,NY,ME,VA,NC
Barium	CT,NH,NY,ME,VA,NC
Beryllium	CT,NH,NY,ME,VA,NC
Cadmium	CT,NH,NY,RI,ME,VA,NC
Chromium	CT,NH,NY,ME,VA,NC
Cobalt	CT,NH,NY,ME,VA,NC
Copper	CT,NH,NY,ME,VA,NC
Lead	CT,NH,NY,ME,VA,NC
Manganese	CT,NH,NY,ME,VA,NC
Nickel	CT,NH,NY,ME,VA,NC
Selenium	CT,NH,NY,ME,VA,NC
Silver	CT,NH,NY,ME,VA,NC
Thallium	CT,NH,NY,ME,VA,NC
Vanadium	CT,NH,NY,ME,VA,NC
Zinc	CT,NH,NY,ME,VA,NC

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CERTIFICATIONS

Certified Analyses included in this Report

Analyte	Certifications
SW-846 7470A in Water	
Mercury	CT,NH,NY,NC,ME,VA
SW-846 7471B in Soil	
Mercury	CT,NH,NY,NC,ME,VA
SW-846 8015C in Soil	
Gasoline Range Organics (GRO)	NY,VA,NH,NC
Diesel Range Organics	NY,VA,NH,NC
SW-846 8015C in Water	
Diesel Range Organics	NY,VA,NH,NC
SW-846 8082A in Soil	
Aroclor-1016	CT,NH,NY,NC,ME,VA,PA
Aroclor-1016 [2C]	CT,NH,NY,NC,ME,VA,PA
Aroclor-1221	CT,NH,NY,NC,ME,VA,PA
Aroclor-1221 [2C]	CT,NH,NY,NC,ME,VA,PA
Aroclor-1232	CT,NH,NY,NC,ME,VA,PA
Aroclor-1232 [2C]	CT,NH,NY,NC,ME,VA,PA
Aroclor-1242	CT,NH,NY,NC,ME,VA,PA
Aroclor-1242 [2C]	CT,NH,NY,NC,ME,VA,PA
Aroclor-1248	CT,NH,NY,NC,ME,VA,PA
Aroclor-1248 [2C]	CT,NH,NY,NC,ME,VA,PA
Aroclor-1254	CT,NH,NY,NC,ME,VA,PA
Aroclor-1254 [2C]	CT,NH,NY,NC,ME,VA,PA
Aroclor-1260	CT,NH,NY,NC,ME,VA,PA
Aroclor-1260 [2C]	CT,NH,NY,NC,ME,VA,PA
Aroclor-1262	NH,NY,NC,ME,VA,PA
Aroclor-1262 [2C]	NH,NY,NC,ME,VA,PA
Aroclor-1268	NH,NY,NC,ME,VA,PA
Aroclor-1268 [2C]	NH,NY,NC,ME,VA,PA
SW-846 8082A in Water	
Aroclor-1016	CT,NH,NY,NC,ME,VA,PA
Aroclor-1016 [2C]	CT,NH,NY,NC,ME,VA,PA
Aroclor-1221	CT,NH,NY,NC,ME,VA,PA
Aroclor-1221 [2C]	CT,NH,NY,NC,ME,VA,PA
Aroclor-1232	CT,NH,NY,NC,ME,VA,PA
Aroclor-1232 [2C]	CT,NH,NY,NC,ME,VA,PA
Aroclor-1242	CT,NH,NY,NC,ME,VA,PA
Aroclor-1242 [2C]	CT,NH,NY,NC,ME,VA,PA
Aroclor-1248	CT,NH,NY,NC,ME,VA,PA
Aroclor-1248 [2C]	CT,NH,NY,NC,ME,VA,PA
Aroclor-1254	CT,NH,NY,NC,ME,VA,PA
Aroclor-1254 [2C]	CT,NH,NY,NC,ME,VA,PA
Aroclor-1260	CT,NH,NY,NC,ME,VA,PA
Aroclor-1260 [2C]	CT,NH,NY,NC,ME,VA,PA
Aroclor-1262	NH,NY,NC,ME,VA,PA
Aroclor-1262 [2C]	NH,NY,NC,ME,VA,PA
Aroclor-1268	NH,NY,NC,ME,VA,PA

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CERTIFICATIONS

Certified Analyses included in this Report

Analyte	Certifications
SW-846 8082A in Water	
Aroclor-1268 [2C]	NH,NY,NC,ME,VA,PA
SW-846 8260D in Soil	
Acetone	CT,NH,NY,ME,VA
Acetone	CT,NH,NY,ME,VA
Acrylonitrile	CT,NH,NY,ME,VA
Acrylonitrile	CT,NH,NY,ME,VA
Benzene	CT,NH,NY,ME,VA
Benzene	CT,NH,NY,ME,VA
Bromobenzene	NH,NY,ME,VA
Bromobenzene	NH,NY,ME,VA
Bromochloromethane	NH,NY,ME,VA
Bromochloromethane	NH,NY,ME,VA
Bromodichloromethane	CT,NH,NY,ME,VA
Bromodichloromethane	CT,NH,NY,ME,VA
Bromoform	CT,NH,NY,ME,VA
Bromoform	CT,NH,NY,ME,VA
Bromomethane	CT,NH,NY,ME,VA
Bromomethane	CT,NH,NY,ME,VA
2-Butanone (MEK)	CT,NH,NY,ME,VA
2-Butanone (MEK)	CT,NH,NY,ME,VA
tert-Butyl Alcohol (TBA)	NY,ME
n-Butylbenzene	CT,NH,NY,ME,VA
n-Butylbenzene	CT,NH,NY,ME,VA
sec-Butylbenzene	CT,NH,NY,ME,VA
sec-Butylbenzene	CT,NH,NY,ME,VA
tert-Butylbenzene	CT,NH,NY,ME,VA
tert-Butylbenzene	CT,NH,NY,ME,VA
Carbon Disulfide	CT,NH,NY,ME,VA
Carbon Disulfide	CT,NH,NY,ME,VA
Carbon Tetrachloride	CT,NH,NY,ME,VA
Carbon Tetrachloride	CT,NH,NY,ME,VA
Chlorobenzene	CT,NH,NY,ME,VA
Chlorobenzene	CT,NH,NY,ME,VA
Chlorodibromomethane	CT,NH,NY,ME,VA
Chlorodibromomethane	CT,NH,NY,ME,VA
Chloroethane	CT,NH,NY,ME,VA
Chloroethane	CT,NH,NY,ME,VA
Chloroform	CT,NH,NY,ME,VA
Chloroform	CT,NH,NY,ME,VA
Chloromethane	CT,NH,NY,ME,VA
Chloromethane	CT,NH,NY,ME,VA
2-Chlorotoluene	CT,NH,NY,ME,VA
2-Chlorotoluene	CT,NH,NY,ME,VA
4-Chlorotoluene	CT,NH,NY,ME,VA
4-Chlorotoluene	CT,NH,NY,ME,VA
1,2-Dibromo-3-chloropropane (DBCP)	NY,ME

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Analyte	Certifications
SW-846 8260D in Soil	
1,2-Dibromo-3-chloropropane (DBCP)	NY
1,2-Dibromoethane (EDB)	NH,NY
1,2-Dibromoethane (EDB)	NH,NY
Dibromomethane	NH,NY,ME,VA
Dibromomethane	NH,NY,ME,VA
1,2-Dichlorobenzene	CT,NH,NY,ME,VA
1,2-Dichlorobenzene	CT,NH,NY,ME,VA
1,3-Dichlorobenzene	CT,NH,NY,ME,VA
1,3-Dichlorobenzene	CT,NH,NY,ME,VA
1,4-Dichlorobenzene	CT,NH,NY,ME,VA
1,4-Dichlorobenzene	CT,NH,NY,ME,VA
trans-1,4-Dichloro-2-butene	NY,ME
Dichlorodifluoromethane (Freon 12)	NH,NY,ME,VA
Dichlorodifluoromethane (Freon 12)	NY,ME,VA
1,1-Dichloroethane	CT,NH,NY,ME,VA
1,1-Dichloroethane	CT,NH,NY,ME,VA
1,2-Dichloroethane	CT,NH,NY,ME,VA
1,2-Dichloroethane	CT,NH,NY,ME,VA
1,1-Dichloroethylene	CT,NH,NY,ME,VA
1,1-Dichloroethylene	CT,NH,NY,ME,VA
cis-1,2-Dichloroethylene	CT,NH,NY,ME,VA
cis-1,2-Dichloroethylene	CT,NH,NY,ME,VA
trans-1,2-Dichloroethylene	CT,NH,NY,ME,VA
trans-1,2-Dichloroethylene	CT,NH,NY,ME,VA
1,2-Dichloropropane	CT,NH,NY,ME,VA
1,2-Dichloropropane	CT,NH,NY,ME,VA
1,3-Dichloropropane	NH,NY,ME,VA
1,3-Dichloropropane	NH,NY,ME,VA
2,2-Dichloropropane	NH,NY,ME,VA
2,2-Dichloropropane	NH,NY,ME,VA
1,1-Dichloropropene	NH,NY,ME,VA
1,1-Dichloropropene	NH,NY,ME,VA
cis-1,3-Dichloropropene	CT,NH,NY,ME,VA
cis-1,3-Dichloropropene	CT,NH,NY,ME,VA
trans-1,3-Dichloropropene	CT,NH,NY,ME,VA
trans-1,3-Dichloropropene	CT,NH,NY,ME,VA
Diethyl Ether	ME
1,4-Dioxane	NY,ME
Ethylbenzene	CT,NH,NY,ME,VA
Ethylbenzene	CT,NH,NY,ME,VA
Hexachlorobutadiene	NH,NY,ME,VA
Hexachlorobutadiene	NH,NY,ME,VA
2-Hexanone (MBK)	CT,NH,NY,ME,VA
2-Hexanone (MBK)	CT,NH,NY,ME,VA
Isopropylbenzene (Cumene)	CT,NH,NY,ME,VA
Isopropylbenzene (Cumene)	CT,NH,NY,ME,VA
p-Isopropyltoluene (p-Cymene)	NH,NY

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Analyte	Certifications
SW-846 8260D in Soil	
p-Isopropyltoluene (p-Cymene)	NH,NY
Methyl Acetate	NY,ME
Methyl tert-Butyl Ether (MTBE)	NY,VA
Methyl tert-Butyl Ether (MTBE)	NY,ME,VA
Methyl Cyclohexane	NY
Methylene Chloride	CT,NH,NY,ME,VA
Methylene Chloride	CT,NH,NY,ME,VA
4-Methyl-2-pentanone (MIBK)	CT,NH,NY,ME,VA
4-Methyl-2-pentanone (MIBK)	CT,NH,NY,VA
Naphthalene	NH,NY,ME,VA
Naphthalene	NH,NY,ME,VA
n-Propylbenzene	NH,NY,ME
n-Propylbenzene	NH,NY
Styrene	CT,NH,NY,ME,VA
Styrene	CT,NH,NY,ME,VA
1,1,1,2-Tetrachloroethane	CT,NH,NY,ME,VA
1,1,1,2-Tetrachloroethane	CT,NH,NY,ME,VA
1,1,2,2-Tetrachloroethane	CT,NH,NY,ME,VA
1,1,2,2-Tetrachloroethane	CT,NH,NY,ME,VA
Tetrachloroethylene	CT,NH,NY,ME,VA
Tetrachloroethylene	CT,NH,NY,ME,VA
Toluene	CT,NH,NY,ME,VA
Toluene	CT,NH,NY,ME,VA
1,2,3-Trichlorobenzene	NY,ME
1,2,4-Trichlorobenzene	NH,NY,ME,VA
1,2,4-Trichlorobenzene	NH,NY,ME,VA
1,3,5-Trichlorobenzene	ME
1,1,1-Trichloroethane	CT,NH,NY,ME,VA
1,1,1-Trichloroethane	CT,NH,NY,ME,VA
1,1,2-Trichloroethane	CT,NH,NY,ME,VA
1,1,2-Trichloroethane	CT,NH,NY,ME,VA
Trichloroethylene	CT,NH,NY,ME,VA
Trichloroethylene	CT,NH,NY,ME,VA
Trichlorofluoromethane (Freon 11)	CT,NH,NY,ME,VA
Trichlorofluoromethane (Freon 11)	CT,NH,NY,VA
1,2,3-Trichloropropane	NH,NY,ME,VA
1,2,3-Trichloropropane	NH,NY,ME,VA
1,2,4-Trimethylbenzene	CT,NH,NY,ME,VA
1,2,4-Trimethylbenzene	CT,NH,NY,ME,VA
1,3,5-Trimethylbenzene	CT,NH,NY,ME,VA
1,3,5-Trimethylbenzene	CT,NH,NY,ME,VA
Vinyl Chloride	CT,NH,NY,ME,VA
Vinyl Chloride	CT,NH,NY,ME,VA
m+p Xylene	CT,NH,NY,ME,VA
m+p Xylene	CT,NH,NY,ME,VA
o-Xylene	CT,NH,NY,ME,VA
o-Xylene	CT,NH,NY,ME,VA

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Analyte	Certifications
SW-846 8260D in Water	
Acetone	CT,ME,NH,VA,NY
Acrylonitrile	CT,ME,NH,VA,NY
tert-Amyl Methyl Ether (TAME)	ME,NH,VA,NY
Benzene	CT,ME,NH,VA,NY
Bromobenzene	ME,NY
Bromochloromethane	ME,NH,VA,NY
Bromodichloromethane	CT,ME,NH,VA,NY
Bromoform	CT,ME,NH,VA,NY
Bromomethane	CT,ME,NH,VA,NY
2-Butanone (MEK)	CT,ME,NH,VA,NY
tert-Butyl Alcohol (TBA)	ME,NH,VA,NY
n-Butylbenzene	ME,VA,NY
sec-Butylbenzene	ME,VA,NY
tert-Butylbenzene	ME,VA,NY
tert-Butyl Ethyl Ether (TBEE)	ME,NH,VA,NY
Carbon Disulfide	CT,ME,NH,VA,NY
Carbon Tetrachloride	CT,ME,NH,VA,NY
Chlorobenzene	CT,ME,NH,VA,NY
Chlorodibromomethane	CT,ME,NH,VA,NY
Chloroethane	CT,ME,NH,VA,NY
Chloroform	CT,ME,NH,VA,NY
Chloromethane	CT,ME,NH,VA,NY
2-Chlorotoluene	ME,NH,VA,NY
4-Chlorotoluene	ME,NH,VA,NY
1,2-Dibromo-3-chloropropane (DBCP)	ME,NY
1,2-Dibromoethane (EDB)	ME,NY
Dibromomethane	ME,NH,VA,NY
1,2-Dichlorobenzene	CT,ME,NH,VA,NY
1,3-Dichlorobenzene	CT,ME,NH,VA,NY
1,4-Dichlorobenzene	CT,ME,NH,VA,NY
trans-1,4-Dichloro-2-butene	ME,NH,VA,NY
Dichlorodifluoromethane (Freon 12)	ME,NH,VA,NY
1,1-Dichloroethane	CT,ME,NH,VA,NY
1,2-Dichloroethane	CT,ME,NH,VA,NY
1,1-Dichloroethylene	CT,ME,NH,VA,NY
cis-1,2-Dichloroethylene	ME,NY
trans-1,2-Dichloroethylene	CT,ME,NH,VA,NY
1,2-Dichloropropane	CT,ME,NH,VA,NY
1,3-Dichloropropane	ME,VA,NY
2,2-Dichloropropane	ME,NH,VA,NY
1,1-Dichloropropene	ME,NH,VA,NY
cis-1,3-Dichloropropene	CT,ME,NH,VA,NY
trans-1,3-Dichloropropene	CT,ME,NH,VA,NY
Diethyl Ether	ME,NY
Diisopropyl Ether (DIPE)	ME,NH,VA,NY
1,4-Dioxane	ME,NY
Ethylbenzene	CT,ME,NH,VA,NY

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Analyte	Certifications
SW-846 8260D in Water	
Hexachlorobutadiene	CT,ME,NH,VA,NY
2-Hexanone (MBK)	CT,ME,NH,VA,NY
Isopropylbenzene (Cumene)	ME,VA,NY
p-Isopropyltoluene (p-Cymene)	CT,ME,NH,VA,NY
Methyl Acetate	ME,NY
Methyl tert-Butyl Ether (MTBE)	CT,ME,NH,VA,NY
Methyl Cyclohexane	NY
Methylene Chloride	CT,ME,NH,VA,NY
4-Methyl-2-pentanone (MIBK)	CT,ME,NH,VA,NY
Naphthalene	ME,NH,VA,NY
n-Propylbenzene	CT,ME,NH,VA,NY
Styrene	CT,ME,NH,VA,NY
1,1,1,2-Tetrachloroethane	CT,ME,NH,VA,NY
1,1,2,2-Tetrachloroethane	CT,ME,NH,VA,NY
Tetrachloroethylene	CT,ME,NH,VA,NY
Toluene	CT,ME,NH,VA,NY
1,2,3-Trichlorobenzene	ME,NH,VA,NY
1,2,4-Trichlorobenzene	CT,ME,NH,VA,NY
1,3,5-Trichlorobenzene	ME
1,1,1-Trichloroethane	CT,ME,NH,VA,NY
1,1,2-Trichloroethane	CT,ME,NH,VA,NY
Trichloroethylene	CT,ME,NH,VA,NY
Trichlorofluoromethane (Freon 11)	CT,ME,NH,VA,NY
1,2,3-Trichloropropane	ME,NH,VA,NY
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	VA,NY
1,2,4-Trimethylbenzene	ME,VA,NY
1,3,5-Trimethylbenzene	ME,VA,NY
Vinyl Chloride	CT,ME,NH,VA,NY
m+p Xylene	CT,ME,NH,VA,NY
o-Xylene	CT,ME,NH,VA,NY
SW-846 8270E in Soil	
Acenaphthene	CT,NY,NH,ME,NC,VA
Acenaphthylene	CT,NY,NH,ME,NC,VA
Acetophenone	NY,NH,ME,NC,VA
Aniline	NY,NH,ME,NC,VA
Anthracene	CT,NY,NH,ME,NC,VA
Benzidine	CT,NY,NH,ME,NC,VA
Benzo(a)anthracene	CT,NY,NH,ME,NC,VA
Benzo(a)pyrene	CT,NY,NH,ME,NC,VA
Benzo(b)fluoranthene	CT,NY,NH,ME,NC,VA
Benzo(g,h,i)perylene	CT,NY,NH,ME,NC,VA
Benzo(k)fluoranthene	CT,NY,NH,ME,NC,VA
Benzoic Acid	NY,NH,ME,NC,VA
Bis(2-chloroethoxy)methane	CT,NY,NH,ME,NC,VA
Bis(2-chloroethyl)ether	CT,NY,NH,ME,NC,VA
Bis(2-chloroisopropyl)ether	CT,NY,NH,ME,NC,VA

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Analyte	Certifications
SW-846 8270E in Soil	
Bis(2-Ethylhexyl)phthalate	CT,NY,NH,ME,NC,VA
4-Bromophenylphenylether	CT,NY,NH,ME,NC,VA
Butylbenzylphthalate	CT,NY,NH,ME,NC,VA
Carbazole	NC
4-Chloroaniline	CT,NY,NH,ME,NC,VA
4-Chloro-3-methylphenol	CT,NY,NH,ME,NC,VA
2-Chloronaphthalene	CT,NY,NH,NC,VA
2-Chlorophenol	CT,NY,NH,ME,NC,VA
4-Chlorophenylphenylether	CT,NY,NH,ME,NC,VA
Chrysene	CT,NY,NH,ME,NC,VA
Dibenz(a,h)anthracene	CT,NY,NH,ME,NC,VA
Dibenzofuran	CT,NY,NH,ME,NC,VA
Di-n-butylphthalate	CT,NY,NH,ME,NC,VA
1,2-Dichlorobenzene	NY,NH,ME,NC,VA
1,3-Dichlorobenzene	NY,NH,ME,NC,VA
1,4-Dichlorobenzene	NY,NH,ME,NC,VA
3,3-Dichlorobenzidine	CT,NY,NH,ME,NC,VA
2,4-Dichlorophenol	CT,NY,NH,ME,NC,VA
Diethylphthalate	CT,NY,NH,ME,NC,VA
2,4-Dimethylphenol	CT,NY,NH,ME,NC,VA
Dimethylphthalate	CT,NY,NH,ME,NC,VA
4,6-Dinitro-2-methylphenol	CT,NY,NH,ME,NC,VA
2,4-Dinitrophenol	CT,NY,NH,ME,NC,VA
2,4-Dinitrotoluene	CT,NY,NH,ME,NC,VA
2,6-Dinitrotoluene	CT,NY,NH,ME,NC,VA
Di-n-octylphthalate	CT,NY,NH,ME,NC,VA
1,2-Diphenylhydrazine/Azobenzene	NY,NH,ME,NC,VA
Fluoranthene	CT,NY,NH,ME,NC,VA
Fluorene	NY,NH,ME,NC,VA
Hexachlorobenzene	CT,NY,NH,ME,NC,VA
Hexachlorobutadiene	CT,NY,NH,ME,NC,VA
Hexachlorocyclopentadiene	CT,NY,NH,ME,NC,VA
Hexachloroethane	CT,NY,NH,ME,NC,VA
Indeno(1,2,3-cd)pyrene	CT,NY,NH,ME,NC,VA
Isophorone	CT,NY,NH,ME,NC,VA
1-Methylnaphthalene	NC
2-Methylnaphthalene	CT,NY,NH,ME,NC,VA
2-Methylphenol	CT,NY,NH,ME,NC,VA
3/4-Methylphenol	CT,NY,NH,ME,NC,VA
Naphthalene	CT,NY,NH,ME,NC,VA
2-Nitroaniline	CT,NY,NH,ME,NC,VA
3-Nitroaniline	CT,NY,NH,ME,NC,VA
4-Nitroaniline	CT,NY,NH,ME,NC,VA
Nitrobenzene	CT,NY,NH,ME,NC,VA
2-Nitrophenol	CT,NY,NH,ME,NC,VA
4-Nitrophenol	CT,NY,NH,ME,NC,VA
N-Nitrosodimethylamine	CT,NY,NH,ME,NC,VA

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Analyte	Certifications
SW-846 8270E in Soil	
N-Nitrosodi-n-propylamine	CT,NY,NH,ME,NC,VA
Pentachloronitrobenzene	NY,NC
Pentachlorophenol	CT,NY,NH,ME,NC,VA
Phenanthrene	CT,NY,NH,ME,NC,VA
Phenol	CT,NY,NH,ME,NC,VA
Pyrene	CT,NY,NH,ME,NC,VA
Pyridine	CT,NY,NH,ME,NC,VA
1,2,4,5-Tetrachlorobenzene	NY,NC
1,2,4-Trichlorobenzene	CT,NY,NH,ME,NC,VA
2,4,5-Trichlorophenol	CT,NY,NH,ME,NC,VA
2,4,6-Trichlorophenol	CT,NY,NH,ME,NC,VA
2-Fluorophenol	NC
SW-846 8270E in Water	
Acenaphthene	CT,NY,NC,ME,NH,VA
Acenaphthylene	CT,NY,NC,ME,NH,VA
Acetophenone	NY,NC
Aniline	CT,NY,NC,ME,VA
Anthracene	CT,NY,NC,ME,NH,VA
Benzidine	CT,NY,NC,ME,NH,VA
Benzo(a)anthracene	CT,NY,NC,ME,NH,VA
Benzo(a)pyrene	CT,NY,NC,ME,NH,VA
Benzo(b)fluoranthene	CT,NY,NC,ME,NH,VA
Benzo(g,h,i)perylene	CT,NY,NC,ME,NH,VA
Benzo(k)fluoranthene	CT,NY,NC,ME,NH,VA
Benzoic Acid	NY,NC,ME,NH,VA
Bis(2-chloroethoxy)methane	CT,NY,NC,ME,NH,VA
Bis(2-chloroethyl)ether	CT,NY,NC,ME,NH,VA
Bis(2-chloroisopropyl)ether	CT,NY,NC,ME,NH,VA
Bis(2-Ethylhexyl)phthalate	CT,NY,NC,ME,NH,VA
4-Bromophenylphenylether	CT,NY,NC,ME,NH,VA
Butylbenzylphthalate	CT,NY,NC,ME,NH,VA
Carbazole	NC
4-Chloroaniline	CT,NY,NC,ME,NH,VA
4-Chloro-3-methylphenol	CT,NY,NC,ME,NH,VA
2-Chloronaphthalene	CT,NY,NC,ME,NH,VA
2-Chlorophenol	CT,NY,NC,ME,NH,VA
4-Chlorophenylphenylether	CT,NY,NC,ME,NH,VA
Chrysene	CT,NY,NC,ME,NH,VA
Dibenz(a,h)anthracene	CT,NY,NC,ME,NH,VA
Dibenzofuran	CT,NY,NC,ME,NH,VA
Di-n-butylphthalate	CT,NY,NC,ME,NH,VA
1,2-Dichlorobenzene	CT,NY,NC,ME,NH,VA
1,3-Dichlorobenzene	CT,NY,NC,ME,NH,VA
1,4-Dichlorobenzene	CT,NY,NC,ME,NH,VA
3,3-Dichlorobenzidine	CT,NY,NC,ME,NH,VA
2,4-Dichlorophenol	CT,NY,NC,ME,NH,VA

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Analyte	Certifications
SW-846 8270E in Water	
Diethylphthalate	CT,NY,NC,ME,NH,VA
2,4-Dimethylphenol	CT,NY,NC,ME,NH,VA
Dimethylphthalate	CT,NY,NC,ME,NH,VA
4,6-Dinitro-2-methylphenol	CT,NY,NC,ME,NH,VA
2,4-Dinitrophenol	CT,NY,NC,ME,NH,VA
2,4-Dinitrotoluene	CT,NY,NC,ME,NH,VA
2,6-Dinitrotoluene	CT,NY,NC,ME,NH,VA
Di-n-octylphthalate	CT,NY,NC,ME,NH,VA
1,2-Diphenylhydrazine/Azobenzene	NY,NC
Fluoranthene	CT,NY,NC,ME,NH,VA
Fluorene	NY,NC,ME,NH,VA
Hexachlorobenzene	CT,NY,NC,ME,NH,VA
Hexachlorobutadiene	CT,NY,NC,ME,NH,VA
Hexachlorocyclopentadiene	CT,NY,NC,ME,NH,VA
Hexachloroethane	CT,NY,NC,ME,NH,VA
Indeno(1,2,3-cd)pyrene	CT,NY,NC,ME,NH,VA
Isophorone	CT,NY,NC,ME,NH,VA
1-Methylnaphthalene	NC
2-Methylnaphthalene	CT,NY,NC,ME,NH,VA
2-Methylphenol	CT,NY,NC,NH,VA
3/4-Methylphenol	CT,NY,NC,NH,VA
Naphthalene	CT,NY,NC,ME,NH,VA
2-Nitroaniline	CT,NY,NC,ME,NH,VA
3-Nitroaniline	CT,NY,NC,ME,NH,VA
4-Nitroaniline	CT,NY,NC,ME,NH,VA
Nitrobenzene	CT,NY,NC,ME,NH,VA
2-Nitrophenol	CT,NY,NC,ME,NH,VA
4-Nitrophenol	CT,NY,NC,ME,NH,VA
N-Nitrosodimethylamine	CT,NY,NC,ME,NH,VA
N-Nitrosodi-n-propylamine	CT,NY,NC,ME,NH,VA
Pentachloronitrobenzene	NC
Pentachlorophenol	CT,NY,NC,ME,NH,VA
Phenanthrene	CT,NY,NC,ME,NH,VA
Phenol	CT,NY,NC,ME,NH,VA
Pyrene	CT,NY,NC,ME,NH,VA
Pyridine	CT,NY,NC,ME,NH,VA
1,2,4,5-Tetrachlorobenzene	NY,NC
1,2,4-Trichlorobenzene	CT,NY,NC,ME,NH,VA
2,4,5-Trichlorophenol	CT,NY,NC,ME,NH,VA
2,4,6-Trichlorophenol	CT,NY,NC,ME,NH,VA
2-Fluorophenol	NC
SW-846 9014 in Soil	
Cyanide	NY,CT,NC,ME,NH,VA
SW-846 9014 in Water	
Cyanide	NY,CT,NH,NC,ME,VA

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Con-Test, a Pace Environmental Laboratory, operates under the following certifications and accreditations:

Code	Description	Number	Expires
AIHA	AIHA-LAP, LLC - ISO17025:2017	100033	03/1/2024
MA	Massachusetts DEP	M-MA100	06/30/2022
CT	Connecticut Department of Publilc Health	PH-0165	12/31/2022
NY	New York State Department of Health	10899 NELAP	04/1/2022
NH-S	New Hampshire Environmental Lab	2516 NELAP	02/5/2022
RI	Rhode Island Department of Health	LAO00373	12/30/2022
NC	North Carolina Div. of Water Quality	652	12/31/2022
NJ	New Jersey DEP	MA007 NELAP	06/30/2022
FL	Florida Department of Health	E871027 NELAP	06/30/2022
VT	Vermont Department of Health Lead Laboratory	LL720741	07/30/2022
ME	State of Maine	MA00100	06/9/2023
VA	Commonwealth of Virginia	460217	12/14/2022
NH-P	New Hampshire Environmental Lab	2557 NELAP	09/6/2022
VT-DW	Vermont Department of Health Drinking Water	VT-255716	06/12/2022
NC-DW	North Carolina Department of Health	25703	07/31/2022
PA	Commonwealth of Pennsylvania DEP	68-05812	06/30/2022
MI	Dept. of Env, Great Lakes, and Energy	9100	09/6/2022

215472

Pace Analytical®

Phone: 413-525-2332
Fax: 413-525-6405
Access COC's and Support Requests

http://www.pacelabs.com

CHAIN OF CUSTODY RECORD

39 Spruce Street
East Longmeadow, MA 01028

Doc # 381 Rev 5_07/13/2021

Page 1 of 1

Company Name:	Ramboll
Address:	4350 N Fairfax Dr. Ste 300, Arlington VA
Phone:	703 516 2383
Project Name:	HRP PRGS SCR
Project Location:	1400 N Royal St, Alexandria VA
Project Number:	
Project Manager:	Greg Grose
Pace Quote Name/Number:	
Invoice Recipient:	Sostertag@ramboll.com
Sampled By:	Sarah Ostertag

Requested Turnaround Time
7-Day ☐ 10-Day ☒ 5 day PO
PFAS 10-Day (std) ☐ Due Date:

Rush Approval Required
1-Day ☐ 3-Day ☐
2-Day ☐ 4-Day ☐

Data Delivery
Format: PDF ☒ EXCEL ☒
Other: Ramboll EDD
CLP Like Data Pkg Required: ☐
Email To: Sostertag@ramboll.com
Fax To #:

Dissolved Metals Samples
○ Field Filtered
○ Lab to Filter

Orthophosphate Samples
○ Field Filtered
○ Lab to Filter

PCB ONLY
SOXHLET ☐
NON SOXHLET ☒

ANALYSIS REQUESTED

Pace Work Order#	Client Sample ID / Description	Beginning Date/Time	Ending Date/Time	COMP/GRAB	Matrix Code	Conc Code	VIALS	GLASS	PLASTIC	BACTERIA	ENCORE	MBS	M	I	I	I	I	I	I	I		
												VOCs	TPH-GRO	TPH-ORO	TPH-ORO	PCBs	SVOCs	TAL Metals	pH	Cyanide		
1	HRP-SB225-0-1-211021	10.21.21	0745	G	S	M	4	3				X	X	X	X	X	X	X	X	X		
2	HRP-SB224-0-1-211021	10.21.21	0825	G	S	M	4	3				X	X	X	X	X	X	X	X	X		
3	HRP-SB227-0-1-211021	10.21.21	0850	G	S	M	4	3				X	X	X	X	X	X	X	X	X		
4	HRP-EB07-211021	10.21.21	0925	G	O-EB	C		6	2						X	X	X	X		X		
5	HRP-TB06-211021	10.21.21	0925	N/A	O-TB	C	2					X										

Relinquished by: (signature) — Date/Time: 10.21.21 1315
Received by: (signature) — Date/Time: 10/21/21 15:15
Relinquished by: (signature) — Date/Time: 10/21/15:25
Received by: (signature) — Date/Time: 10-22-21 1525
Relinquished by: (signature) — Date/Time: 10-22-21 1700
Received by: (signature) — Date/Time: 10/23 915
Relinquished by: (signature) — Date/Time:
Received by: (signature) — Date/Time:

Client Comments:
EB = Equipment Blank
TB = Trip Blank

Detection Limit Requirements
MA:
GW:
Other: VA DEQ

Special Requirements
☐ MA MCP Required
MCP Certification Form Required
☐ CT RCP Required
RCP Certification Form Required
☐ MA State DW Required
PWSID #

Please use the following codes to indicate possible sample concentration within the Conc Code column above:
H - High; M - Medium; L - Low; C - Clean; U - Unknown

NELAC and AIHA-LAP, LLC Accredited

Project Entity
Government ☐ Municipality ☐ MWRA ☐ WRTA ☐
Federal ☐ 21 J ☐ School ☐
City ☐ Brownfield ☐ MBTA ☐

Other
☐ Chromatogram
☐ AIHA-LAP,LLC

[2] Preservation Code
Courier Use Only
Total Number Of:
VIALS
GLASS
PLASTIC
BACTERIA
ENCORE

Glassware in the fridge? Y / N
Glassware in freezer? Y / N
Prepackaged Cooler? Y / N
*Pace Analytical is not responsible for missing samples from prepacked coolers

[1] Matrix Codes:
GW = Ground Water
WW = Waste Water
DW = Drinking Water
A = Air
S = Soil
SL = Sludge
SOL = Solid
O = Other (please define)

[2] Preservation Codes:
I = Iced
H = HCL
M = Methanol
N = Nitric Acid
S = Sulfuric Acid
B = Sodium Bisulfate
X = Sodium Hydroxide
T = Sodium Thiosulfate
O = Other (please define)

Lab Comments:

Disclaimer: Pace Analytical is not responsible for any omitted information on the Chain of Custody. The Chain of Custody is a legal document that must be complete and accurate and is used to determine wha analyses the laboratory will perform. Any missing information is not the laboratory's responsibility. Pac Analytical values your partnership on each project and will try to assist with missing information, but wi not be held accountable.

Table of Contents

FedEx

TRACK ANOTHER SHIPMENT

774998231363

ADD NICKNAME

Delivered

THIS IS 1 OF 2 PIECES

DELIVERED

Signed for by: C.AVENTOR

GET STATUS UPDATES

OBTAIN PROOF OF DELIVERY

FROM	TO
Mechanicsville, VA US	EAST LONGMEADOW, MA US

2 Piece Shipment

TRACKING ID	STATUS	SHIP DATE	DELIVERY DATE	HANDLING PIECE UNITS	SHIPPER CITY, STATE	RECIPIENT CITY, STATE
774998231179 (master)	Delivered	10/22/21	10/23/21	0	Mechanicsville VA	EAST LONGMEADOW MA
774998231363	Delivered	10/22/21	10/23/21	0	Mechanicsville VA	EAST LONGMEADOW MA

Travel History

TIME ZONE
Local Scan Time

Saturday, October 23, 2021

9:15 AM	EAST LONGMEADOW, MA	Delivered
8:19 AM	WINDSOR LOCKS, CT	On FedEx vehicle for delivery
8:15 AM	WINDSOR LOCKS, CT	At local FedEx facility
6:49 AM	EAST GRANBY, CT	At destination sort facility

I Have Not Confirmed Sample Container Numbers With Lab Staff Before Relinquishing Over Samples_____

con-test® ANALYTICAL LABORATORY

Doc# 277 Rev 5 2017

Login Sample Receipt Checklist - (Rejection Criteria Listing - Using Acceptance Policy) Any False Statement will be brought to the attention of the Client - State True or False

Client Rumbell

Received By MP Date 10/23 Time 905

How were the samples received? In Cooler T No Cooler _____ On Ice T No Ice _____ Direct from Sampling _____ Ambient _____ Melted Ice _____

Were samples within Temperature? 2-6°C T By Gun # 3 Actual Temp - 43/53 By Blank # _____ Actual Temp - _____

Was Custody Seal Intact? NA Were Samples Tampered with? NA

Was COC Relinquished ? T Does Chain Agree With Samples? T

Are there broken/leaking/loose caps on any samples? F

Is COC in ink/ Legible? T Were samples received within holding time? T*

Did COC include all pertinent Information? Client T Analysis T Sampler Name T Project T ID's T Collection Dates/Times T

Are Sample labels filled out and legible? T

Are there Lab to Filters? F Who was notified? _____

Are there Rushes? F Who was notified? _____

Are there Short Holds? F Who was notified? _____

Is there enough Volume? T

Is there Headspace where applicable? F MS/MSD? F

Proper Media/Containers Used? T Is splitting samples required? _____

Were trip blanks received? T On COC? T

Do all samples have the proper pH? Acid ph<2 Base ph>7

Vials	#	Containers:	#		#		#
Unp-		1 Liter Amb.	6	1 Liter Plastic		16 oz Amb.	
HCL-	2	500 mL Amb.		500 mL Plastic		8oz Amb/Clear	6
Meoh-	6	250 mL Amb.		250 mL Plastic	1	4oz Amb/Clear	
Bisulfate-	6	Flashpoint		Col./Bacteria		2oz Amb/Clear	
DI-		Other Glass		Other Plastic	1	Encore	
Thiosulfate-		SOC Kit		Plastic Bag		Frozen:	
Sulfuric-		Perchlorate		Ziplock			

Unused Media

Vials	#	Containers:	#		#		#
Unp-		1 Liter Amb.		1 Liter Plastic		16 oz Amb.	
HCL-		500 mL Amb.		500 mL Plastic		8oz Amb/Clear	
Meoh-		250 mL Amb.		250 mL Plastic		4oz Amb/Clear	
Bisulfate-		Col./Bacteria		Flashpoint		2oz Amb/Clear	
DI-		Other Plastic		Other Glass		Encore	
Thiosulfate-		SOC Kit		Plastic Bag		Frozen:	
Sulfuric-		Perchlorate		Ziplock			

Comments:

* ph past hold

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December 3, 2021

Sarah Ostertag
Ramboll US Consulting, Inc. - Arlington, VA
4350 North Fairfax Drive
Arlington, VA 22203

Project Location: 1400 N. Royal St., Alexandria, VA
Client Job Number:
Project Number: [none]
Laboratory Work Order Number: 21J1070

Enclosed are results of analyses for samples as received by the laboratory on October 19, 2021. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Kaitlyn A. Feliciano
Project Manager

Table of Contents

Table of Contents (continued)

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Ramboll US Consulting, Inc. - Arlington, VA
4350 North Fairfax Drive
Arlington, VA 22203
ATTN: Sarah Ostertag

REPORT DATE: 12/3/2021

PURCHASE ORDER NUMBER:

PROJECT NUMBER: [none]

ANALYTICAL SUMMARY

WORK ORDER NUMBER: 21J1070

The results of analyses performed on the following samples submitted to CON-TEST, a Pace Analytical Laboratory, are found in this report.

PROJECT LOCATION: 1400 N. Royal St., Alexandria, VA

FIELD SAMPLE #	LAB ID:	MATRIX	SAMPLE DESCRIPTION	TEST	SUB LAB
HRP-TB03-211015	21J1070-01	Water		-	
				SW-846 8015C	
				SW-846 8260D	
HRP-SB213-0-1-211015	21J1070-02	Soil		SM 2540G	
				SW-846 6010D	
				SW-846 7471B	
				SW-846 9014	
				SW-846 9045C	
HRP-SB213-5-7-211015	21J1070-03	Soil		SM 2540G	
				SW-846 6010D	
				SW-846 7471B	
				SW-846 9014	
				SW-846 9045C	
HRP-SB213-16-18-211015	21J1070-04	Soil		SM 2540G	
				SW-846 6010D	
				SW-846 7471B	
				SW-846 9014	
				SW-846 9045C	
HRP-SB212-0-2-211015	21J1070-05	Soil		SM 2540G	
				SW-846 6010D	
				SW-846 7471B	
				SW-846 9014	
				SW-846 9045C	
HRP-DUP04-0-2-211015	21J1070-06	Soil		SM 2540G	
				SW-846 6010D	
				SW-846 7471B	
				SW-846 9014	
				SW-846 9045C	
HRP-SB212-5-7-211015	21J1070-07	Soil		SM 2540G	
				SW-846 6010D	
				SW-846 7471B	
				SW-846 9014	
				SW-846 9045C	
HRP-SB212-15-17-211015	21J1070-08	Soil		SM 2540G	
				SW-846 6010D	
				SW-846 7471B	
				SW-846 9014	
				SW-846 9045C	

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Ramboll US Consulting, Inc. - Arlington, VA
4350 North Fairfax Drive
Arlington, VA 22203
ATTN: Sarah Ostertag

REPORT DATE: 12/3/2021

PURCHASE ORDER NUMBER:

PROJECT NUMBER: [none]

ANALYTICAL SUMMARY

WORK ORDER NUMBER: 21J1070

The results of analyses performed on the following samples submitted to CON-TEST, a Pace Analytical Laboratory, are found in this report.

PROJECT LOCATION: 1400 N. Royal St., Alexandria, VA

FIELD SAMPLE #	LAB ID:	MATRIX	SAMPLE DESCRIPTION	TEST	SUB LAB
HRP-SB211-0-1-211015	21J1070-09	Soil		SM 2540G	
				SW-846 6010D	
				SW-846 7471B	
				SW-846 9014	
				SW-846 9045C	
HRP-SB211-5-7-211015	21J1070-10	Soil		SM 2540G	
				SW-846 6010D	
				SW-846 7471B	
				SW-846 9014	
				SW-846 9045C	
HRP-SB209-0-1-211013	21J1070-11	Soil		SM 2540G	
				SW-846 6010D	
				SW-846 7471B	
				SW-846 9014	
				SW-846 9045C	
HRP-SB209-5-7-211013	21J1070-12	Soil		SM 2540G	
				SW-846 6010D	
				SW-846 7471B	
				SW-846 9014	
				SW-846 9045C	
HRP-SB209-15-17-211013	21J1070-13	Soil		SM 2540G	
				SW-846 6010D	
				SW-846 7471B	
				SW-846 9014	
				SW-846 9045C	
HRP-EB03-211013	21J1070-14	Water		SW-846 6010D	
				SW-846 6020B	
				SW-846 7470A	
				SW-846 9014	
HRP-SB208-0-1-211014	21J1070-15	Soil		SM 2540G	
				SW-846 6010D	
				SW-846 7471B	
				SW-846 9014	
				SW-846 9045C	
HRP-SB208-5-7-211014	21J1070-16	Soil		SM 2540G	
				SW-846 6010D	
				SW-846 7471B	
				SW-846 9014	
				SW-846 9045C	

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Ramboll US Consulting, Inc. - Arlington, VA
4350 North Fairfax Drive
Arlington, VA 22203
ATTN: Sarah Ostertag

REPORT DATE: 12/3/2021

PURCHASE ORDER NUMBER:

PROJECT NUMBER: [none]

ANALYTICAL SUMMARY

WORK ORDER NUMBER: 21J1070

The results of analyses performed on the following samples submitted to CON-TEST, a Pace Analytical Laboratory, are found in this report.

PROJECT LOCATION: 1400 N. Royal St., Alexandria, VA

FIELD SAMPLE #	LAB ID:	MATRIX	SAMPLE DESCRIPTION	TEST	SUB LAB
HRP-SB208-18-20-211014	21J1070-17	Soil		SM 2540G	
				SW-846 6010D	
				SW-846 7471B	
				SW-846 9014	
				SW-846 9045C	
HRP-SB214-0-2-211014	21J1070-18	Soil		SM 2540G	
				SW-846 6010D	
				SW-846 7471B	
				SW-846 8015C	
				SW-846 8260D	
				SW-846 9014	
				SW-846 9045C	
HRP-SB214-5-7-211014	21J1070-19	Soil		SM 2540G	
				SW-846 6010D	
				SW-846 7471B	
				SW-846 8015C	
				SW-846 8260D	
				SW-846 9014	
				SW-846 9045C	
HRP-SB214-14-16-211014	21J1070-20	Soil		SM 2540G	
				SW-846 6010D	
				SW-846 7471B	
				SW-846 8015C	
				SW-846 8260D	
				SW-846 9014	
				SW-846 9045C	
HRP-SB211-15-17-211015	21J1070-21	Soil		SM 2540G	
				SW-846 6010D	
				SW-846 7471B	
				SW-846 9014	
				SW-846 9045C	
HRP-EB04-211015	21J1070-22	Water		SW-846 6010D	
				SW-846 6020B	
				SW-846 7470A	
				SW-846 9014	
HRP-TB04-211015	21J1070-23	Water		SW-846 8260D	

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CASE NARRATIVE SUMMARY

All reported results are within defined laboratory quality control objectives unless listed below or otherwise qualified in this report.

REVISED REPORT 12/2/2021- Samples -02 through -13 and -15 through -21 IDs revised

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

SW-846 6010D

Qualifications:

V-20

Continuing calibration verification (CCV) did not meet method specifications and was biased on the high side. Data validation is not affected since sample result was "not detected" for this compound.

Analyte & Samples(s) Qualified:

Selenium
21J1070-08[HRP-SB212-15-17-211015], 21J1070-09[HRP-SB211-0-1-211015], 21J1070-10[HRP-SB211-5-7-211015]

Thallium
21J1070-08[HRP-SB212-15-17-211015], 21J1070-09[HRP-SB211-0-1-211015], 21J1070-10[HRP-SB211-5-7-211015]

SW-846 7471B

Qualifications:

R-04

Duplicate relative percent difference (RPD) is a less useful indicator of sample precision for sample results that are <5 times the reporting limit (RL).

Analyte & Samples(s) Qualified:

Mercury
21J1070-02[HRP-SB213-0-1-211015], B292806-DUP1

SW-846 8260D

Qualifications:

L-02

Laboratory fortified blank/laboratory control sample recovery and duplicate recoveries outside of control limits. Data validation is not affected since all results are "not detected" for associated samples in this batch and bias is on the high side.

Analyte & Samples(s) Qualified:

1,2,3-Trimethylbenzene
B293011-BS1, B293011-BSD1

L-04

Laboratory fortified blank/laboratory control sample recovery and duplicate recovery are outside of control limits. Reported value for this compound is likely to be biased on the low side.

Analyte & Samples(s) Qualified:

1,2,3-Trichlorobenzene
21J1070-01[HRP-TB03-211015], 21J1070-23[HRP-TB04-211015], B293011-BLK1, B293011-BS1, B293011-BSD1

V-05

Continuing calibration verification (CCV) did not meet method specifications and was biased on the low side for this compound.

Analyte & Samples(s) Qualified:

1,2,3-Trichlorobenzene
21J1070-01[HRP-TB03-211015], 21J1070-23[HRP-TB04-211015], B293011-BLK1, B293011-BS1, B293011-BSD1, S064541-CCV1

1,2,4-Trichlorobenzene
21J1070-01[HRP-TB03-211015], 21J1070-23[HRP-TB04-211015], B293011-BLK1, B293011-BS1, B293011-BSD1, S064541-CCV1

Dichlorodifluoromethane (Freon 12
21J1070-18[HRP-SB214-0-2-211014], 21J1070-19[HRP-SB214-5-7-211014], 21J1070-20[HRP-SB214-14-16-211014], B292812-BLK1, B292812-BS1, B292812-BSD1, S064471-CCV1

Naphthalene
21J1070-01[HRP-TB03-211015], 21J1070-23[HRP-TB04-211015], B293011-BLK1, B293011-BS1, B293011-BSD1, S064541-CCV1

V-20

Continuing calibration verification (CCV) did not meet method specifications and was biased on the high side. Data validation is not affected since sample result was "not detected" for this compound.

Analyte & Samples(s) Qualified:

1,2,3-Trimethylbenzene
B293011-BS1, B293011-BSD1, S064541-CCV1

Chloroethane
B293011-BS1, B293011-BSD1, S064541-CCV1

Chloromethane
B293011-BS1, B293011-BSD1, S064541-CCV1

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V-34

Initial calibration verification (ICV) did not meet method specifications and was biased on the low side for this compound. Reported result is estimated.

Analyte & Samples(s) Qualified:

Bromomethane

21J1070-18[HRP-SB214-0-2-211014], 21J1070-19[HRP-SB214-5-7-211014], 21J1070-20[HRP-SB214-14-16-211014], B292812-BLK1, B292812-BS1, B292812-BSD1, S064471-CCV1

V-36

Initial calibration verification (ICV) did not meet method specifications and was biased on the high side. Data validation is not affected since sample result was "not detected" for this compound.

Analyte & Samples(s) Qualified:

2-Hexanone (MBK)

B292812-BS1, B292812-BSD1, S064471-CCV1

Acetone

B292812-BS1, B292812-BSD1, S064471-CCV1

SW-846 9045C

Qualifications:

H-03

Sample received after recommended holding time was exceeded.

Analyte & Samples(s) Qualified:

pH

21J1070-02[HRP-SB213-0-1-211015], 21J1070-03[HRP-SB213-5-7-211015], 21J1070-04[HRP-SB213-16-18-211015], 21J1070-05[HRP-SB212-0-2-211015], 21J1070-06[HRP-DUP04-0-2-211015], 21J1070-07[HRP-SB212-5-7-211015], 21J1070-08[HRP-SB212-15-17-211015], 21J1070-09[HRP-SB211-0-1-211015], 21J1070-10[HRP-SB211-5-7-211015], 21J1070-11[HRP-SB209-0-1-211013], 21J1070-12[HRP-SB209-5-7-211013], 21J1070-13[HRP-SB209-15-17-211013], 21J1070-15[HRP-SB208-0-1-211014], 21J1070-16[HRP-SB208-5-7-211014], 21J1070-17[HRP-SB208-18-20-211014], 21J1070-18[HRP-SB214-0-2-211014], 21J1070-19[HRP-SB214-5-7-211014], 21J1070-20[HRP-SB214-14-16-211014], 21J1070-21[HRP-SB211-15-17-211015]

SW-846 8015C

Gasoline Range Organics (2-Methylpentane through 1,2,4-Trimethylbenzene) is quantitated against a calibration made with an unleaded gasoline composite standard.

Diesel Range Organics (C10-C28) is quantitated against a calibration made with a #2 fuel oil standard.

The results of analyses reported only relate to samples submitted to Con-Test, a Pace Analytical Laboratory, for testing.
I certify that the analyses listed above, unless specifically listed as subcontracted, if any, were performed under my direction according to the approved methodologies listed in this document, and that based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

Kaitlyn A. Feliciano
Project Manager

con-test®
A Pace Analytical® Laboratory
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: 1400 N. Royal St., Alexandria, VA Sample Description: Work Order: 21J1070

Date Received: 10/19/2021

Field Sample #: HRP-TB03-211015 Sampled: 10/15/2021 07:20

Sample ID: 21J1070-01

Sample Matrix: Water

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acetone	ND	50	2.4	µg/L	1		SW-846 8260D	10/21/21	10/21/21 12:22	MFF
Acrylonitrile	ND	5.0	0.69	µg/L	1		SW-846 8260D	10/21/21	10/21/21 12:22	MFF
tert-Amyl Methyl Ether (TAME)	ND	0.50	0.15	µg/L	1		SW-846 8260D	10/21/21	10/21/21 12:22	MFF
Benzene	ND	1.0	0.13	µg/L	1		SW-846 8260D	10/21/21	10/21/21 12:22	MFF
Bromobenzene	ND	1.0	0.13	µg/L	1		SW-846 8260D	10/21/21	10/21/21 12:22	MFF
Bromochloromethane	ND	1.0	0.36	µg/L	1		SW-846 8260D	10/21/21	10/21/21 12:22	MFF
Bromodichloromethane	ND	0.50	0.14	µg/L	1		SW-846 8260D	10/21/21	10/21/21 12:22	MFF
Bromoform	ND	1.0	0.29	µg/L	1		SW-846 8260D	10/21/21	10/21/21 12:22	MFF
Bromomethane	ND	2.0	1.1	µg/L	1		SW-846 8260D	10/21/21	10/21/21 12:22	MFF
2-Butanone (MEK)	ND	20	1.9	µg/L	1		SW-846 8260D	10/21/21	10/21/21 12:22	MFF
tert-Butyl Alcohol (TBA)	ND	20	5.3	µg/L	1		SW-846 8260D	10/21/21	10/21/21 12:22	MFF
n-Butylbenzene	ND	1.0	0.14	µg/L	1		SW-846 8260D	10/21/21	10/21/21 12:22	MFF
sec-Butylbenzene	ND	1.0	0.10	µg/L	1		SW-846 8260D	10/21/21	10/21/21 12:22	MFF
tert-Butylbenzene	ND	1.0	0.090	µg/L	1		SW-846 8260D	10/21/21	10/21/21 12:22	MFF
tert-Butyl Ethyl Ether (TBEE)	ND	0.50	0.11	µg/L	1		SW-846 8260D	10/21/21	10/21/21 12:22	MFF
Carbon Disulfide	ND	5.0	1.5	µg/L	1		SW-846 8260D	10/21/21	10/21/21 12:22	MFF
Carbon Tetrachloride	ND	5.0	0.17	µg/L	1		SW-846 8260D	10/21/21	10/21/21 12:22	MFF
Chlorobenzene	ND	1.0	0.080	µg/L	1		SW-846 8260D	10/21/21	10/21/21 12:22	MFF
Chlorodibromomethane	ND	0.50	0.16	µg/L	1		SW-846 8260D	10/21/21	10/21/21 12:22	MFF
Chloroethane	ND	2.0	0.37	µg/L	1		SW-846 8260D	10/21/21	10/21/21 12:22	MFF
Chloroform	ND	2.0	0.19	µg/L	1		SW-846 8260D	10/21/21	10/21/21 12:22	MFF
Chloromethane	ND	2.0	0.38	µg/L	1		SW-846 8260D	10/21/21	10/21/21 12:22	MFF
2-Chlorotoluene	ND	1.0	0.090	µg/L	1		SW-846 8260D	10/21/21	10/21/21 12:22	MFF
4-Chlorotoluene	ND	1.0	0.10	µg/L	1		SW-846 8260D	10/21/21	10/21/21 12:22	MFF
1,2-Dibromo-3-chloropropane (DBCP)	ND	5.0	0.72	µg/L	1		SW-846 8260D	10/21/21	10/21/21 12:22	MFF
1,2-Dibromoethane (EDB)	ND	0.50	0.15	µg/L	1		SW-846 8260D	10/21/21	10/21/21 12:22	MFF
Dibromomethane	ND	1.0	0.29	µg/L	1		SW-846 8260D	10/21/21	10/21/21 12:22	MFF
1,2-Dichlorobenzene	ND	1.0	0.10	µg/L	1		SW-846 8260D	10/21/21	10/21/21 12:22	MFF
1,3-Dichlorobenzene	ND	1.0	0.090	µg/L	1		SW-846 8260D	10/21/21	10/21/21 12:22	MFF
1,4-Dichlorobenzene	ND	1.0	0.11	µg/L	1		SW-846 8260D	10/21/21	10/21/21 12:22	MFF
trans-1,4-Dichloro-2-butene	ND	2.0	1.8	µg/L	1		SW-846 8260D	10/21/21	10/21/21 12:22	MFF
Dichlorodifluoromethane (Freon 12)	ND	2.0	0.20	µg/L	1		SW-846 8260D	10/21/21	10/21/21 12:22	MFF
1,1-Dichloroethane	ND	1.0	0.16	µg/L	1		SW-846 8260D	10/21/21	10/21/21 12:22	MFF
1,2-Dichloroethane	ND	1.0	0.32	µg/L	1		SW-846 8260D	10/21/21	10/21/21 12:22	MFF
1,1-Dichloroethylene	ND	1.0	0.16	µg/L	1		SW-846 8260D	10/21/21	10/21/21 12:22	MFF
cis-1,2-Dichloroethylene	ND	1.0	0.15	µg/L	1		SW-846 8260D	10/21/21	10/21/21 12:22	MFF
trans-1,2-Dichloroethylene	ND	1.0	0.17	µg/L	1		SW-846 8260D	10/21/21	10/21/21 12:22	MFF
1,2-Dichloropropane	ND	1.0	0.18	µg/L	1		SW-846 8260D	10/21/21	10/21/21 12:22	MFF
1,3-Dichloropropane	ND	0.50	0.12	µg/L	1		SW-846 8260D	10/21/21	10/21/21 12:22	MFF
2,2-Dichloropropane	ND	1.0	0.31	µg/L	1		SW-846 8260D	10/21/21	10/21/21 12:22	MFF
1,1-Dichloropropene	ND	2.0	0.26	µg/L	1		SW-846 8260D	10/21/21	10/21/21 12:22	MFF
cis-1,3-Dichloropropene	ND	0.50	0.12	µg/L	1		SW-846 8260D	10/21/21	10/21/21 12:22	MFF
trans-1,3-Dichloropropene	ND	0.50	0.15	µg/L	1		SW-846 8260D	10/21/21	10/21/21 12:22	MFF
Diethyl Ether	ND	2.0	0.22	µg/L	1		SW-846 8260D	10/21/21	10/21/21 12:22	MFF

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Project Location: 1400 N. Royal St., Alexandria, VA Sample Description: Work Order: 21J1070

Date Received: 10/19/2021

Field Sample #: HRP-TB03-211015 Sampled: 10/15/2021 07:20

Sample ID: 21J1070-01

Sample Matrix: Water

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Diisopropyl Ether (DIPE)	ND	0.50	0.15	µg/L	1		SW-846 8260D	10/21/21	10/21/21 12:22	MFF
1,4-Dioxane	ND	50	22	µg/L	1		SW-846 8260D	10/21/21	10/21/21 12:22	MFF
Ethylbenzene	ND	1.0	0.090	µg/L	1		SW-846 8260D	10/21/21	10/21/21 12:22	MFF
Hexachlorobutadiene	ND	0.60	0.41	µg/L	1		SW-846 8260D	10/21/21	10/21/21 12:22	MFF
2-Hexanone (MBK)	ND	10	1.4	µg/L	1		SW-846 8260D	10/21/21	10/21/21 12:22	MFF
Isopropylbenzene (Cumene)	ND	1.0	0.10	µg/L	1		SW-846 8260D	10/21/21	10/21/21 12:22	MFF
p-Isopropyltoluene (p-Cymene)	ND	1.0	0.090	µg/L	1		SW-846 8260D	10/21/21	10/21/21 12:22	MFF
Methyl Acetate	ND	1.0	0.39	µg/L	1		SW-846 8260D	10/21/21	10/21/21 12:22	MFF
Methyl tert-Butyl Ether (MTBE)	ND	1.0	0.17	µg/L	1		SW-846 8260D	10/21/21	10/21/21 12:22	MFF
Methyl Cyclohexane	ND	1.0	0.33	µg/L	1		SW-846 8260D	10/21/21	10/21/21 12:22	MFF
Methylene Chloride	ND	5.0	0.30	µg/L	1		SW-846 8260D	10/21/21	10/21/21 12:22	MFF
4-Methyl-2-pentanone (MIBK)	ND	10	1.6	µg/L	1		SW-846 8260D	10/21/21	10/21/21 12:22	MFF
Naphthalene	ND	2.0	0.15	µg/L	1	V-05	SW-846 8260D	10/21/21	10/21/21 12:22	MFF
n-Propylbenzene	ND	1.0	0.080	µg/L	1		SW-846 8260D	10/21/21	10/21/21 12:22	MFF
Styrene	ND	1.0	0.080	µg/L	1		SW-846 8260D	10/21/21	10/21/21 12:22	MFF
1,1,1,2-Tetrachloroethane	ND	1.0	0.14	µg/L	1		SW-846 8260D	10/21/21	10/21/21 12:22	MFF
1,1,2,2-Tetrachloroethane	ND	0.50	0.090	µg/L	1		SW-846 8260D	10/21/21	10/21/21 12:22	MFF
Tetrachloroethylene	ND	1.0	0.20	µg/L	1		SW-846 8260D	10/21/21	10/21/21 12:22	MFF
Tetrahydrofuran	ND	10	0.58	µg/L	1		SW-846 8260D	10/21/21	10/21/21 12:22	MFF
Toluene	ND	1.0	0.11	µg/L	1		SW-846 8260D	10/21/21	10/21/21 12:22	MFF
1,2,3-Trichlorobenzene	ND	5.0	0.14	µg/L	1	L-04, V-05	SW-846 8260D	10/21/21	10/21/21 12:22	MFF
1,2,4-Trichlorobenzene	ND	1.0	0.16	µg/L	1	V-05	SW-846 8260D	10/21/21	10/21/21 12:22	MFF
1,3,5-Trichlorobenzene	ND	1.0	0.18	µg/L	1		SW-846 8260D	10/21/21	10/21/21 12:22	MFF
1,1,1-Trichloroethane	ND	1.0	0.17	µg/L	1		SW-846 8260D	10/21/21	10/21/21 12:22	MFF
1,1,2-Trichloroethane	ND	1.0	0.15	µg/L	1		SW-846 8260D	10/21/21	10/21/21 12:22	MFF
Trichloroethylene	ND	1.0	0.18	µg/L	1		SW-846 8260D	10/21/21	10/21/21 12:22	MFF
Trichlorofluoromethane (Freon 11)	ND	2.0	0.19	µg/L	1		SW-846 8260D	10/21/21	10/21/21 12:22	MFF
1,2,3-Trichloropropane	ND	2.0	0.31	µg/L	1		SW-846 8260D	10/21/21	10/21/21 12:22	MFF
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	1.0	0.24	µg/L	1		SW-846 8260D	10/21/21	10/21/21 12:22	MFF
1,2,4-Trimethylbenzene	ND	1.0	0.10	µg/L	1		SW-846 8260D	10/21/21	10/21/21 12:22	MFF
1,3,5-Trimethylbenzene	ND	1.0	0.10	µg/L	1		SW-846 8260D	10/21/21	10/21/21 12:22	MFF
Vinyl Chloride	ND	2.0	0.20	µg/L	1		SW-846 8260D	10/21/21	10/21/21 12:22	MFF
m+p Xylene	ND	2.0	0.18	µg/L	1		SW-846 8260D	10/21/21	10/21/21 12:22	MFF
o-Xylene	ND	1.0	0.090	µg/L	1		SW-846 8260D	10/21/21	10/21/21 12:22	MFF

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
1,2-Dichloroethane-d4	109	70-130		10/21/21 12:22
Toluene-d8	109	70-130		10/21/21 12:22
4-Bromofluorobenzene	105	70-130		10/21/21 12:22

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Project Location: 1400 N. Royal St., Alexandria, VA Sample Description: Work Order: 21J1070

Date Received: 10/19/2021

Field Sample #: HRP-TB03-211015 Sampled: 10/15/2021 07:20

Sample ID: 21J1070-01

Sample Matrix: Water

Petroleum Hydrocarbons Analyses

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Gasoline Range Organics (GRO)	ND	0.010	0.0094	mg/L	1		SW-846 8015C	10/20/21	10/21/21 4:08	KMB

Surrogates	% Recovery	Recovery Limits	Flag/Qual		
1-Chloro-3-fluorobenzene	109	70-130		10/21/21 4:08	

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Project Location: 1400 N. Royal St., Alexandria, VA Sample Description: Work Order: 21J1070

Date Received: 10/19/2021

Field Sample #: HRP-SB213-0-1-211015 Sampled: 10/15/2021 09:56

Sample ID: 21J1070-02

Sample Matrix: Soil

Metals Analyses (Total)

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Aluminum	11000	19	6.9	mg/Kg dry	1		SW-846 6010D	10/21/21	10/24/21 21:59	QNW
Antimony	1.4	1.9	0.77	mg/Kg dry	1	J	SW-846 6010D	10/21/21	10/24/21 21:59	QNW
Arsenic	5.8	3.8	1.4	mg/Kg dry	1		SW-846 6010D	10/21/21	10/22/21 19:50	QNW
Barium	40	1.9	0.72	mg/Kg dry	1		SW-846 6010D	10/21/21	10/24/21 21:59	QNW
Beryllium	0.60	0.19	0.072	mg/Kg dry	1		SW-846 6010D	10/21/21	10/24/21 21:59	QNW
Cadmium	0.28	0.38	0.19	mg/Kg dry	1	J	SW-846 6010D	10/21/21	10/24/21 21:59	QNW
Calcium	620	19	7.4	mg/Kg dry	1		SW-846 6010D	10/21/21	10/24/21 21:59	QNW
Chromium	17	0.76	0.43	mg/Kg dry	1		SW-846 6010D	10/21/21	10/24/21 21:59	QNW
Cobalt	7.5	1.9	0.70	mg/Kg dry	1		SW-846 6010D	10/21/21	10/24/21 21:59	QNW
Copper	14	0.76	0.36	mg/Kg dry	1		SW-846 6010D	10/21/21	10/24/21 21:59	QNW
Iron	22000	380	150	mg/Kg dry	20		SW-846 6010D	10/21/21	10/24/21 20:42	QNW
Lead	9.5	0.57	0.28	mg/Kg dry	1		SW-846 6010D	10/21/21	10/24/21 21:59	QNW
Magnesium	1500	19	6.7	mg/Kg dry	1		SW-846 6010D	10/21/21	10/24/21 21:59	QNW
Manganese	89	0.38	0.15	mg/Kg dry	1		SW-846 6010D	10/21/21	10/24/21 21:59	QNW
Mercury	0.027	0.032	0.011	mg/Kg dry	1	R-04, J	SW-846 7471B	10/20/21	10/21/21 14:09	DRL
Nickel	10	0.76	0.39	mg/Kg dry	1		SW-846 6010D	10/21/21	10/24/21 21:59	QNW
Potassium	770	190	72	mg/Kg dry	1		SW-846 6010D	10/21/21	10/24/21 21:59	QNW
Selenium	ND	3.8	1.4	mg/Kg dry	1		SW-846 6010D	10/21/21	10/24/21 21:59	QNW
Silver	ND	0.38	0.17	mg/Kg dry	1		SW-846 6010D	10/21/21	10/24/21 21:59	QNW
Sodium	ND	190	74	mg/Kg dry	1		SW-846 6010D	10/21/21	10/24/21 21:59	QNW
Thallium	ND	1.9	0.91	mg/Kg dry	1		SW-846 6010D	10/21/21	10/24/21 21:59	QNW
Vanadium	31	0.76	0.38	mg/Kg dry	1		SW-846 6010D	10/21/21	10/24/21 21:59	QNW
Zinc	35	0.76	0.49	mg/Kg dry	1		SW-846 6010D	10/21/21	10/24/21 21:59	QNW

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Project Location: 1400 N. Royal St., Alexandria, VA Sample Description: Work Order: 21J1070

Date Received: 10/19/2021

Field Sample #: HRP-SB213-0-1-211015 Sampled: 10/15/2021 09:56

Sample ID: 21J1070-02

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	85.2			% Wt	1		SM 2540G	10/20/21	10/21/21 11:10	AL2
Cyanide	ND	0.54	0.38	mg/Kg dry	1		SW-846 9014	10/19/21	10/20/21 17:15	DJM
pH @17.6°C	5.6			pH Units	1	H-03	SW-846 9045C	10/19/21	10/19/21 23:00	DJM

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Project Location: 1400 N. Royal St., Alexandria, VA Sample Description: Work Order: 21J1070

Date Received: 10/19/2021

Field Sample #: HRP-SB213-5-7-211015 Sampled: 10/15/2021 10:05

Sample ID: 21J1070-03

Sample Matrix: Soil

Metals Analyses (Total)

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Aluminum	13000	19	6.9	mg/Kg dry	1		SW-846 6010D	10/21/21	10/24/21 22:06	QNW
Antimony	1.5	1.9	0.76	mg/Kg dry	1	J	SW-846 6010D	10/21/21	10/24/21 22:06	QNW
Arsenic	4.2	3.8	1.4	mg/Kg dry	1		SW-846 6010D	10/21/21	10/22/21 19:57	QNW
Barium	89	1.9	0.72	mg/Kg dry	1		SW-846 6010D	10/21/21	10/24/21 22:06	QNW
Beryllium	0.99	0.19	0.072	mg/Kg dry	1		SW-846 6010D	10/21/21	10/24/21 22:06	QNW
Cadmium	0.31	0.38	0.19	mg/Kg dry	1	J	SW-846 6010D	10/21/21	10/24/21 22:06	QNW
Calcium	200	19	7.4	mg/Kg dry	1		SW-846 6010D	10/21/21	10/24/21 22:06	QNW
Chromium	18	0.76	0.43	mg/Kg dry	1		SW-846 6010D	10/21/21	10/24/21 22:06	QNW
Cobalt	9.8	1.9	0.70	mg/Kg dry	1		SW-846 6010D	10/21/21	10/24/21 22:06	QNW
Copper	24	0.76	0.36	mg/Kg dry	1		SW-846 6010D	10/21/21	10/24/21 22:06	QNW
Iron	28000	380	150	mg/Kg dry	20		SW-846 6010D	10/21/21	10/24/21 20:49	QNW
Lead	12	0.57	0.28	mg/Kg dry	1		SW-846 6010D	10/21/21	10/24/21 22:06	QNW
Magnesium	2100	19	6.6	mg/Kg dry	1		SW-846 6010D	10/21/21	10/24/21 22:06	QNW
Manganese	81	0.38	0.15	mg/Kg dry	1		SW-846 6010D	10/21/21	10/24/21 22:06	QNW
Mercury	ND	0.031	0.011	mg/Kg dry	1		SW-846 7471B	10/20/21	10/21/21 12:25	DRL
Nickel	14	0.76	0.38	mg/Kg dry	1		SW-846 6010D	10/21/21	10/24/21 22:06	QNW
Potassium	780	190	71	mg/Kg dry	1		SW-846 6010D	10/21/21	10/24/21 22:06	QNW
Selenium	ND	3.8	1.3	mg/Kg dry	1		SW-846 6010D	10/21/21	10/24/21 22:06	QNW
Silver	ND	0.38	0.17	mg/Kg dry	1		SW-846 6010D	10/21/21	10/24/21 22:06	QNW
Sodium	110	190	74	mg/Kg dry	1	J	SW-846 6010D	10/21/21	10/24/21 22:06	QNW
Thallium	ND	1.9	0.91	mg/Kg dry	1		SW-846 6010D	10/21/21	10/24/21 22:06	QNW
Vanadium	29	0.76	0.38	mg/Kg dry	1		SW-846 6010D	10/21/21	10/24/21 22:06	QNW
Zinc	41	0.76	0.48	mg/Kg dry	1		SW-846 6010D	10/21/21	10/24/21 22:06	QNW

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Project Location: 1400 N. Royal St., Alexandria, VA Sample Description: Work Order: 21J1070

Date Received: 10/19/2021

Field Sample #: HRP-SB213-5-7-211015 Sampled: 10/15/2021 10:05

Sample ID: 21J1070-03

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	83.0			% Wt	1		SM 2540G	10/20/21	10/21/21 11:10	AL2
Cyanide	ND	0.44	0.31	mg/Kg dry	1		SW-846 9014	10/19/21	10/20/21 17:15	DJM
pH @18.4°C	4.4			pH Units	1	H-03	SW-846 9045C	10/19/21	10/19/21 23:00	DJM

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Project Location: 1400 N. Royal St., Alexandria, VA Sample Description: Work Order: 21J1070

Date Received: 10/19/2021

Field Sample #: HRP-SB213-16-18-211015 Sampled: 10/15/2021 10:10

Sample ID: 21J1070-04

Sample Matrix: Soil

Metals Analyses (Total)

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Aluminum	2600	17	6.2	mg/Kg dry	1		SW-846 6010D	10/21/21	10/24/21 22:13	QNW
Antimony	1.2	1.7	0.69	mg/Kg dry	1	J	SW-846 6010D	10/21/21	10/24/21 22:13	QNW
Arsenic	6.0	3.4	1.3	mg/Kg dry	1		SW-846 6010D	10/21/21	10/22/21 20:03	QNW
Barium	18	1.7	0.65	mg/Kg dry	1		SW-846 6010D	10/21/21	10/24/21 22:13	QNW
Beryllium	0.27	0.17	0.065	mg/Kg dry	1		SW-846 6010D	10/21/21	10/24/21 22:13	QNW
Cadmium	0.28	0.34	0.17	mg/Kg dry	1	J	SW-846 6010D	10/21/21	10/24/21 22:13	QNW
Calcium	140	17	6.7	mg/Kg dry	1		SW-846 6010D	10/21/21	10/24/21 22:13	QNW
Chromium	7.4	0.68	0.39	mg/Kg dry	1		SW-846 6010D	10/21/21	10/24/21 22:13	QNW
Cobalt	4.9	1.7	0.63	mg/Kg dry	1		SW-846 6010D	10/21/21	10/24/21 22:13	QNW
Copper	6.9	0.68	0.33	mg/Kg dry	1		SW-846 6010D	10/21/21	10/24/21 22:13	QNW
Iron	20000	340	140	mg/Kg dry	20		SW-846 6010D	10/21/21	10/24/21 20:56	QNW
Lead	1.7	0.51	0.25	mg/Kg dry	1		SW-846 6010D	10/21/21	10/24/21 22:13	QNW
Magnesium	560	17	6.0	mg/Kg dry	1		SW-846 6010D	10/21/21	10/24/21 22:13	QNW
Manganese	76	0.34	0.13	mg/Kg dry	1		SW-846 6010D	10/21/21	10/24/21 22:13	QNW
Mercury	ND	0.027	0.0093	mg/Kg dry	1		SW-846 7471B	10/20/21	10/21/21 12:27	DRL
Nickel	6.4	0.68	0.35	mg/Kg dry	1		SW-846 6010D	10/21/21	10/24/21 22:13	QNW
Potassium	340	170	64	mg/Kg dry	1		SW-846 6010D	10/21/21	10/24/21 22:13	QNW
Selenium	ND	3.4	1.2	mg/Kg dry	1		SW-846 6010D	10/21/21	10/24/21 22:13	QNW
Silver	ND	0.34	0.16	mg/Kg dry	1		SW-846 6010D	10/21/21	10/24/21 22:13	QNW
Sodium	ND	170	67	mg/Kg dry	1		SW-846 6010D	10/21/21	10/24/21 22:13	QNW
Thallium	ND	1.7	0.82	mg/Kg dry	1		SW-846 6010D	10/21/21	10/24/21 22:13	QNW
Vanadium	8.7	0.68	0.34	mg/Kg dry	1		SW-846 6010D	10/21/21	10/24/21 22:13	QNW
Zinc	15	0.68	0.44	mg/Kg dry	1		SW-846 6010D	10/21/21	10/24/21 22:13	QNW

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Project Location: 1400 N. Royal St., Alexandria, VA Sample Description: Work Order: 21J1070

Date Received: 10/19/2021

Field Sample #: HRP-SB213-16-18-211015 Sampled: 10/15/2021 10:10

Sample ID: 21J1070-04

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	93.1			% Wt	1		SM 2540G	10/20/21	10/21/21 11:10	AL2
Cyanide	ND	0.41	0.29	mg/Kg dry	1		SW-846 9014	10/19/21	10/20/21 17:15	DJM
pH @19.7°C	5.8			pH Units	1	H-03	SW-846 9045C	10/19/21	10/19/21 23:00	DJM

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Project Location: 1400 N. Royal St., Alexandria, VA Sample Description: Work Order: 21J1070

Date Received: 10/19/2021

Field Sample #: HRP-SB212-0-2-211015 Sampled: 10/15/2021 11:25

Sample ID: 21J1070-05

Sample Matrix: Soil

Metals Analyses (Total)

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Aluminum	9500	18	6.7	mg/Kg dry	1		SW-846 6010D	10/21/21	10/24/21 22:19	QNW
Antimony	1.5	1.8	0.75	mg/Kg dry	1	J	SW-846 6010D	10/21/21	10/24/21 22:19	QNW
Arsenic	4.7	3.7	1.4	mg/Kg dry	1		SW-846 6010D	10/21/21	10/22/21 20:22	QNW
Barium	57	1.8	0.70	mg/Kg dry	1		SW-846 6010D	10/21/21	10/24/21 22:19	QNW
Beryllium	0.77	0.18	0.070	mg/Kg dry	1		SW-846 6010D	10/21/21	10/24/21 22:19	QNW
Cadmium	0.32	0.37	0.19	mg/Kg dry	1	J	SW-846 6010D	10/21/21	10/24/21 22:19	QNW
Calcium	3200	18	7.2	mg/Kg dry	1		SW-846 6010D	10/21/21	10/24/21 22:19	QNW
Chromium	17	0.74	0.42	mg/Kg dry	1		SW-846 6010D	10/21/21	10/24/21 22:19	QNW
Cobalt	11	1.8	0.68	mg/Kg dry	1		SW-846 6010D	10/21/21	10/24/21 22:19	QNW
Copper	17	0.74	0.35	mg/Kg dry	1		SW-846 6010D	10/21/21	10/24/21 22:19	QNW
Iron	23000	370	150	mg/Kg dry	20		SW-846 6010D	10/21/21	10/24/21 21:16	QNW
Lead	11	0.55	0.27	mg/Kg dry	1		SW-846 6010D	10/21/21	10/24/21 22:19	QNW
Magnesium	1300	18	6.5	mg/Kg dry	1		SW-846 6010D	10/21/21	10/24/21 22:19	QNW
Manganese	200	0.37	0.14	mg/Kg dry	1		SW-846 6010D	10/21/21	10/24/21 22:19	QNW
Mercury	0.037	0.032	0.011	mg/Kg dry	1		SW-846 7471B	10/20/21	10/21/21 12:29	DRL
Nickel	12	0.74	0.38	mg/Kg dry	1		SW-846 6010D	10/21/21	10/24/21 22:19	QNW
Potassium	780	180	70	mg/Kg dry	1		SW-846 6010D	10/21/21	10/24/21 22:19	QNW
Selenium	ND	3.7	1.3	mg/Kg dry	1		SW-846 6010D	10/21/21	10/24/21 22:19	QNW
Silver	ND	0.37	0.17	mg/Kg dry	1		SW-846 6010D	10/21/21	10/24/21 22:19	QNW
Sodium	100	180	72	mg/Kg dry	1	J	SW-846 6010D	10/21/21	10/24/21 22:19	QNW
Thallium	ND	1.8	0.89	mg/Kg dry	1		SW-846 6010D	10/21/21	10/24/21 22:19	QNW
Vanadium	27	0.74	0.37	mg/Kg dry	1		SW-846 6010D	10/21/21	10/24/21 22:19	QNW
Zinc	33	0.74	0.47	mg/Kg dry	1		SW-846 6010D	10/21/21	10/24/21 22:19	QNW

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Project Location: 1400 N. Royal St., Alexandria, VA Sample Description: Work Order: 21J1070

Date Received: 10/19/2021

Field Sample #: HRP-SB212-0-2-211015 Sampled: 10/15/2021 11:25

Sample ID: 21J1070-05

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	89.4			% Wt	1		SM 2540G	10/20/21	10/21/21 11:10	AL2
Cyanide	ND	0.47	0.33	mg/Kg dry	1		SW-846 9014	10/19/21	10/20/21 17:15	DJM
pH @17.9°C	4.9			pH Units	1	H-03	SW-846 9045C	10/19/21	10/19/21 23:00	DJM

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Project Location: 1400 N. Royal St., Alexandria, VA Sample Description: Work Order: 21J1070

Date Received: 10/19/2021

Field Sample #: HRP-DUP04-0-2-211015 Sampled: 10/15/2021 11:25

Sample ID: 21J1070-06

Sample Matrix: Soil

Metals Analyses (Total)

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Aluminum	8300	19	6.9	mg/Kg dry	1		SW-846 6010D	10/21/21	10/24/21 22:38	QNW
Antimony	1.5	1.9	0.77	mg/Kg dry	1	J	SW-846 6010D	10/21/21	10/24/21 22:38	QNW
Arsenic	5.5	3.8	1.4	mg/Kg dry	1		SW-846 6010D	10/21/21	10/22/21 20:28	QNW
Barium	86	1.9	0.72	mg/Kg dry	1		SW-846 6010D	10/21/21	10/24/21 22:38	QNW
Beryllium	0.81	0.19	0.072	mg/Kg dry	1		SW-846 6010D	10/21/21	10/24/21 22:38	QNW
Cadmium	0.39	0.38	0.19	mg/Kg dry	1		SW-846 6010D	10/21/21	10/24/21 22:38	QNW
Calcium	3400	19	7.4	mg/Kg dry	1		SW-846 6010D	10/21/21	10/24/21 22:38	QNW
Chromium	14	0.76	0.43	mg/Kg dry	1		SW-846 6010D	10/21/21	10/24/21 22:38	QNW
Cobalt	13	1.9	0.70	mg/Kg dry	1		SW-846 6010D	10/21/21	10/24/21 22:38	QNW
Copper	18	0.76	0.36	mg/Kg dry	1		SW-846 6010D	10/21/21	10/24/21 22:38	QNW
Iron	24000	380	150	mg/Kg dry	20		SW-846 6010D	10/21/21	10/24/21 21:24	QNW
Lead	14	0.57	0.28	mg/Kg dry	1		SW-846 6010D	10/21/21	10/24/21 22:38	QNW
Magnesium	1100	19	6.7	mg/Kg dry	1		SW-846 6010D	10/21/21	10/24/21 22:38	QNW
Manganese	170	0.38	0.15	mg/Kg dry	1		SW-846 6010D	10/21/21	10/24/21 22:38	QNW
Mercury	0.041	0.030	0.010	mg/Kg dry	1		SW-846 7471B	10/20/21	10/21/21 12:30	DRL
Nickel	13	0.76	0.39	mg/Kg dry	1		SW-846 6010D	10/21/21	10/24/21 22:38	QNW
Potassium	790	190	72	mg/Kg dry	1		SW-846 6010D	10/21/21	10/24/21 22:38	QNW
Selenium	ND	3.8	1.4	mg/Kg dry	1		SW-846 6010D	10/21/21	10/24/21 22:38	QNW
Silver	ND	0.38	0.17	mg/Kg dry	1		SW-846 6010D	10/21/21	10/24/21 22:38	QNW
Sodium	120	190	74	mg/Kg dry	1	J	SW-846 6010D	10/21/21	10/24/21 22:38	QNW
Thallium	ND	1.9	0.91	mg/Kg dry	1		SW-846 6010D	10/21/21	10/24/21 22:38	QNW
Vanadium	24	0.76	0.38	mg/Kg dry	1		SW-846 6010D	10/21/21	10/24/21 22:38	QNW
Zinc	40	0.76	0.49	mg/Kg dry	1		SW-846 6010D	10/21/21	10/24/21 22:38	QNW

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Project Location: 1400 N. Royal St., Alexandria, VA Sample Description: Work Order: 21J1070

Date Received: 10/19/2021

Field Sample #: HRP-DUP04-0-2-211015 Sampled: 10/15/2021 11:25

Sample ID: 21J1070-06

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	87.0			% Wt	1		SM 2540G	10/20/21	10/21/21 11:10	AL2
Cyanide	ND	0.49	0.35	mg/Kg dry	1		SW-846 9014	10/19/21	10/20/21 17:15	DJM
pH @18.1°C	6.3			pH Units	1	H-03	SW-846 9045C	10/19/21	10/19/21 23:00	DJM

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Project Location: 1400 N. Royal St., Alexandria, VA Sample Description: Work Order: 21J1070

Date Received: 10/19/2021

Field Sample #: HRP-SB212-5-7-211015 Sampled: 10/15/2021 11:35

Sample ID: 21J1070-07

Sample Matrix: Soil

Metals Analyses (Total)

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Aluminum	14000	20	7.2	mg/Kg dry	1		SW-846 6010D	10/21/21	10/24/21 22:45	QNW
Antimony	1.7	2.0	0.79	mg/Kg dry	1	J	SW-846 6010D	10/21/21	10/24/21 22:45	QNW
Arsenic	9.5	3.9	1.4	mg/Kg dry	1		SW-846 6010D	10/21/21	10/22/21 20:35	QNW
Barium	42	2.0	0.75	mg/Kg dry	1		SW-846 6010D	10/21/21	10/24/21 22:45	QNW
Beryllium	0.94	0.20	0.075	mg/Kg dry	1		SW-846 6010D	10/21/21	10/24/21 22:45	QNW
Cadmium	0.40	0.39	0.20	mg/Kg dry	1		SW-846 6010D	10/21/21	10/24/21 22:45	QNW
Calcium	440	20	7.7	mg/Kg dry	1		SW-846 6010D	10/21/21	10/24/21 22:45	QNW
Chromium	20	0.79	0.45	mg/Kg dry	1		SW-846 6010D	10/21/21	10/24/21 22:45	QNW
Cobalt	7.3	2.0	0.72	mg/Kg dry	1		SW-846 6010D	10/21/21	10/24/21 22:45	QNW
Copper	23	0.79	0.38	mg/Kg dry	1		SW-846 6010D	10/21/21	10/24/21 22:45	QNW
Iron	36000	390	160	mg/Kg dry	20		SW-846 6010D	10/21/21	10/24/21 21:31	QNW
Lead	11	0.59	0.29	mg/Kg dry	1		SW-846 6010D	10/21/21	10/24/21 22:45	QNW
Magnesium	1200	20	6.9	mg/Kg dry	1		SW-846 6010D	10/21/21	10/24/21 22:45	QNW
Manganese	98	0.39	0.15	mg/Kg dry	1		SW-846 6010D	10/21/21	10/24/21 22:45	QNW
Mercury	0.047	0.030	0.010	mg/Kg dry	1		SW-846 7471B	10/20/21	10/21/21 12:32	DRL
Nickel	12	0.79	0.40	mg/Kg dry	1		SW-846 6010D	10/21/21	10/24/21 22:45	QNW
Potassium	890	200	74	mg/Kg dry	1		SW-846 6010D	10/21/21	10/24/21 22:45	QNW
Selenium	ND	3.9	1.4	mg/Kg dry	1		SW-846 6010D	10/21/21	10/24/21 22:45	QNW
Silver	ND	0.39	0.18	mg/Kg dry	1		SW-846 6010D	10/21/21	10/24/21 22:45	QNW
Sodium	ND	200	77	mg/Kg dry	1		SW-846 6010D	10/21/21	10/24/21 22:45	QNW
Thallium	ND	2.0	0.94	mg/Kg dry	1		SW-846 6010D	10/21/21	10/24/21 22:45	QNW
Vanadium	36	0.79	0.39	mg/Kg dry	1		SW-846 6010D	10/21/21	10/24/21 22:45	QNW
Zinc	53	0.79	0.50	mg/Kg dry	1		SW-846 6010D	10/21/21	10/24/21 22:45	QNW

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Project Location: 1400 N. Royal St., Alexandria, VA Sample Description: Work Order: 21J1070

Date Received: 10/19/2021

Field Sample #: HRP-SB212-5-7-211015 Sampled: 10/15/2021 11:35

Sample ID: 21J1070-07

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	84.0			% Wt	1		SM 2540G	10/20/21	10/21/21 11:11	AL2
Cyanide	ND	0.57	0.40	mg/Kg dry	1		SW-846 9014	10/19/21	10/20/21 17:15	DJM
pH @17.8°C	5.0			pH Units	1	H-03	SW-846 9045C	10/19/21	10/19/21 23:00	DJM

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Project Location: 1400 N. Royal St., Alexandria, VA Sample Description: Work Order: 21J1070

Date Received: 10/19/2021

Field Sample #: HRP-SB212-15-17-211015 Sampled: 10/15/2021 11:40

Sample ID: 21J1070-08

Sample Matrix: Soil

Metals Analyses (Total)

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Aluminum	3300	18	6.4	mg/Kg dry	1		SW-846 6010D	10/20/21	10/22/21 11:38	MJH
Antimony	ND	1.8	0.71	mg/Kg dry	1		SW-846 6010D	10/20/21	10/22/21 11:38	MJH
Arsenic	3.6	3.5	1.3	mg/Kg dry	1		SW-846 6010D	10/20/21	10/22/21 11:38	MJH
Barium	28	1.8	0.67	mg/Kg dry	1		SW-846 6010D	10/20/21	10/22/21 11:38	MJH
Beryllium	0.47	0.18	0.067	mg/Kg dry	1		SW-846 6010D	10/20/21	10/22/21 11:38	MJH
Cadmium	ND	0.35	0.18	mg/Kg dry	1		SW-846 6010D	10/20/21	10/22/21 11:38	MJH
Calcium	160	18	6.9	mg/Kg dry	1		SW-846 6010D	10/20/21	10/22/21 11:38	MJH
Chromium	31	0.71	0.40	mg/Kg dry	1		SW-846 6010D	10/20/21	10/22/21 11:38	MJH
Cobalt	5.5	1.8	0.65	mg/Kg dry	1		SW-846 6010D	10/20/21	10/22/21 11:38	MJH
Copper	7.8	0.71	0.34	mg/Kg dry	1		SW-846 6010D	10/20/21	10/22/21 11:38	MJH
Iron	13000	18	7.1	mg/Kg dry	1		SW-846 6010D	10/20/21	10/22/21 11:38	MJH
Lead	7.5	0.53	0.26	mg/Kg dry	1		SW-846 6010D	10/20/21	10/22/21 11:38	MJH
Magnesium	470	18	6.2	mg/Kg dry	1		SW-846 6010D	10/20/21	10/22/21 11:38	MJH
Manganese	65	0.35	0.14	mg/Kg dry	1		SW-846 6010D	10/20/21	10/22/21 11:38	MJH
Mercury	0.018	0.027	0.0093	mg/Kg dry	1	J	SW-846 7471B	10/20/21	10/21/21 12:34	DRL
Nickel	7.9	0.71	0.36	mg/Kg dry	1		SW-846 6010D	10/20/21	10/22/21 11:38	MJH
Potassium	290	180	66	mg/Kg dry	1		SW-846 6010D	10/20/21	10/22/21 11:38	MJH
Selenium	ND	3.5	1.3	mg/Kg dry	1	V-20	SW-846 6010D	10/20/21	10/22/21 11:38	MJH
Silver	ND	0.35	0.16	mg/Kg dry	1		SW-846 6010D	10/20/21	10/22/21 11:38	MJH
Sodium	ND	180	69	mg/Kg dry	1		SW-846 6010D	10/20/21	10/22/21 11:38	MJH
Thallium	ND	1.8	0.85	mg/Kg dry	1	V-20	SW-846 6010D	10/20/21	10/22/21 11:38	MJH
Vanadium	20	0.71	0.35	mg/Kg dry	1		SW-846 6010D	10/20/21	10/22/21 11:38	MJH
Zinc	15	0.71	0.45	mg/Kg dry	1		SW-846 6010D	10/20/21	10/22/21 11:38	MJH

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Project Location: 1400 N. Royal St., Alexandria, VA Sample Description: Work Order: 21J1070

Date Received: 10/19/2021

Field Sample #: HRP-SB212-15-17-211015 Sampled: 10/15/2021 11:40

Sample ID: 21J1070-08

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	94.3			% Wt	1		SM 2540G	10/20/21	10/21/21 11:11	AL2
Cyanide	ND	0.47	0.33	mg/Kg dry	1		SW-846 9014	10/19/21	10/20/21 17:15	DJM
pH @17.3°C	9.4			pH Units	1	H-03	SW-846 9045C	10/19/21	10/19/21 23:00	DJM

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Project Location: 1400 N. Royal St., Alexandria, VA Sample Description: Work Order: 21J1070

Date Received: 10/19/2021

Field Sample #: HRP-SB211-0-1-211015 Sampled: 10/15/2021 12:40

Sample ID: 21J1070-09

Sample Matrix: Soil

Metals Analyses (Total)

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Aluminum	7700	18	6.6	mg/Kg dry	1		SW-846 6010D	10/20/21	10/22/21 11:45	MJH
Antimony	ND	1.8	0.74	mg/Kg dry	1		SW-846 6010D	10/20/21	10/22/21 11:45	MJH
Arsenic	6.5	3.6	1.3	mg/Kg dry	1		SW-846 6010D	10/20/21	10/22/21 11:45	MJH
Barium	64	1.8	0.69	mg/Kg dry	1		SW-846 6010D	10/20/21	10/22/21 11:45	MJH
Beryllium	0.67	0.18	0.069	mg/Kg dry	1		SW-846 6010D	10/20/21	10/22/21 11:45	MJH
Cadmium	ND	0.36	0.19	mg/Kg dry	1		SW-846 6010D	10/20/21	10/22/21 11:45	MJH
Calcium	640	18	7.1	mg/Kg dry	1		SW-846 6010D	10/20/21	10/22/21 11:45	MJH
Chromium	14	0.73	0.41	mg/Kg dry	1		SW-846 6010D	10/20/21	10/22/21 11:45	MJH
Cobalt	11	1.8	0.67	mg/Kg dry	1		SW-846 6010D	10/20/21	10/22/21 11:45	MJH
Copper	15	0.73	0.35	mg/Kg dry	1		SW-846 6010D	10/20/21	10/22/21 11:45	MJH
Iron	25000	360	150	mg/Kg dry	20		SW-846 6010D	10/20/21	10/25/21 0:25	ICP
Lead	18	0.55	0.27	mg/Kg dry	1		SW-846 6010D	10/20/21	10/22/21 11:45	MJH
Magnesium	910	18	6.4	mg/Kg dry	1		SW-846 6010D	10/20/21	10/22/21 11:45	MJH
Manganese	210	0.36	0.14	mg/Kg dry	1		SW-846 6010D	10/20/21	10/22/21 11:45	MJH
Mercury	0.043	0.030	0.010	mg/Kg dry	1		SW-846 7471B	10/20/21	10/21/21 12:36	DRL
Nickel	12	0.73	0.37	mg/Kg dry	1		SW-846 6010D	10/20/21	10/22/21 11:45	MJH
Potassium	660	180	69	mg/Kg dry	1		SW-846 6010D	10/20/21	10/22/21 11:45	MJH
Selenium	ND	3.6	1.3	mg/Kg dry	1	V-20	SW-846 6010D	10/20/21	10/22/21 11:45	MJH
Silver	ND	0.36	0.17	mg/Kg dry	1		SW-846 6010D	10/20/21	10/22/21 11:45	MJH
Sodium	ND	180	71	mg/Kg dry	1		SW-846 6010D	10/20/21	10/22/21 11:45	MJH
Thallium	ND	1.8	0.87	mg/Kg dry	1	V-20	SW-846 6010D	10/20/21	10/22/21 11:45	MJH
Vanadium	24	0.73	0.36	mg/Kg dry	1		SW-846 6010D	10/20/21	10/22/21 11:45	MJH
Zinc	37	0.73	0.47	mg/Kg dry	1		SW-846 6010D	10/20/21	10/22/21 11:45	MJH

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Project Location: 1400 N. Royal St., Alexandria, VA Sample Description: Work Order: 21J1070

Date Received: 10/19/2021

Field Sample #: HRP-SB211-0-1-211015 Sampled: 10/15/2021 12:40

Sample ID: 21J1070-09

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	89.7			% Wt	1		SM 2540G	10/20/21	10/21/21 11:11	AL2
Cyanide	ND	0.46	0.33	mg/Kg dry	1		SW-846 9014	10/19/21	10/20/21 17:15	DJM
pH @17.6°C	4.7			pH Units	1	H-03	SW-846 9045C	10/19/21	10/19/21 23:00	DJM

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Project Location: 1400 N. Royal St., Alexandria, VA Sample Description: Work Order: 21J1070

Date Received: 10/19/2021

Field Sample #: HRP-SB211-5-7-211015 Sampled: 10/15/2021 12:45

Sample ID: 21J1070-10

Sample Matrix: Soil

Metals Analyses (Total)

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Aluminum	8600	19	7.0	mg/Kg dry	1		SW-846 6010D	10/20/21	10/22/21 11:52	MJH
Antimony	ND	1.9	0.77	mg/Kg dry	1		SW-846 6010D	10/20/21	10/22/21 11:52	MJH
Arsenic	7.5	3.8	1.4	mg/Kg dry	1		SW-846 6010D	10/20/21	10/22/21 11:52	MJH
Barium	68	1.9	0.73	mg/Kg dry	1		SW-846 6010D	10/20/21	10/22/21 11:52	MJH
Beryllium	0.75	0.19	0.072	mg/Kg dry	1		SW-846 6010D	10/20/21	10/22/21 11:52	MJH
Cadmium	ND	0.38	0.19	mg/Kg dry	1		SW-846 6010D	10/20/21	10/22/21 11:52	MJH
Calcium	1700	19	7.4	mg/Kg dry	1		SW-846 6010D	10/20/21	10/22/21 11:52	MJH
Chromium	15	0.76	0.43	mg/Kg dry	1		SW-846 6010D	10/20/21	10/22/21 11:52	MJH
Cobalt	12	1.9	0.70	mg/Kg dry	1		SW-846 6010D	10/20/21	10/22/21 11:52	MJH
Copper	23	0.76	0.37	mg/Kg dry	1		SW-846 6010D	10/20/21	10/22/21 11:52	MJH
Iron	32000	380	150	mg/Kg dry	20		SW-846 6010D	10/20/21	10/25/21 0:32	ICP
Lead	22	0.57	0.28	mg/Kg dry	1		SW-846 6010D	10/20/21	10/22/21 11:52	MJH
Magnesium	1000	19	6.7	mg/Kg dry	1		SW-846 6010D	10/20/21	10/22/21 11:52	MJH
Manganese	190	3.8	1.5	mg/Kg dry	10		SW-846 6010D	10/20/21	10/26/21 14:10	MJH
Mercury	0.048	0.032	0.011	mg/Kg dry	1		SW-846 7471B	10/20/21	10/21/21 12:42	DRL
Nickel	17	0.76	0.39	mg/Kg dry	1		SW-846 6010D	10/20/21	10/22/21 11:52	MJH
Potassium	750	190	72	mg/Kg dry	1		SW-846 6010D	10/20/21	10/22/21 11:52	MJH
Selenium	ND	3.8	1.4	mg/Kg dry	1	V-20	SW-846 6010D	10/20/21	10/22/21 11:52	MJH
Silver	ND	0.38	0.17	mg/Kg dry	1		SW-846 6010D	10/20/21	10/22/21 11:52	MJH
Sodium	740	190	74	mg/Kg dry	1		SW-846 6010D	10/20/21	10/22/21 11:52	MJH
Thallium	ND	1.9	0.92	mg/Kg dry	1	V-20	SW-846 6010D	10/20/21	10/22/21 11:52	MJH
Vanadium	27	0.76	0.38	mg/Kg dry	1		SW-846 6010D	10/20/21	10/22/21 11:52	MJH
Zinc	59	0.76	0.49	mg/Kg dry	1		SW-846 6010D	10/20/21	10/22/21 11:52	MJH

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Project Location: 1400 N. Royal St., Alexandria, VA Sample Description: Work Order: 21J1070

Date Received: 10/19/2021

Field Sample #: HRP-SB211-5-7-211015 Sampled: 10/15/2021 12:45

Sample ID: 21J1070-10

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	84.9			% Wt	1		SM 2540G	10/20/21	10/21/21 11:11	AL2
Cyanide	ND	0.42	0.30	mg/Kg dry	1		SW-846 9014	10/19/21	10/20/21 17:15	DJM
pH @17.3°C	5.0			pH Units	1	H-03	SW-846 9045C	10/19/21	10/19/21 23:00	DJM

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Project Location: 1400 N. Royal St., Alexandria, VA Sample Description: Work Order: 21J1070

Date Received: 10/19/2021

Field Sample #: HRP-SB209-0-1-211013 Sampled: 10/13/2021 13:40

Sample ID: 21J1070-11

Sample Matrix: Soil

Metals Analyses (Total)

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Aluminum	13000	19	7.0	mg/Kg dry	1		SW-846 6010D	10/20/21	10/22/21 14:57	QNW
Antimony	ND	1.9	0.77	mg/Kg dry	1		SW-846 6010D	10/20/21	10/22/21 14:57	QNW
Arsenic	4.1	3.8	1.4	mg/Kg dry	1		SW-846 6010D	10/20/21	10/22/21 14:57	QNW
Barium	75	1.9	0.73	mg/Kg dry	1		SW-846 6010D	10/20/21	10/22/21 14:57	QNW
Beryllium	0.81	0.19	0.073	mg/Kg dry	1		SW-846 6010D	10/20/21	10/22/21 14:57	QNW
Cadmium	ND	0.38	0.19	mg/Kg dry	1		SW-846 6010D	10/20/21	10/22/21 14:57	QNW
Calcium	1200	19	7.4	mg/Kg dry	1		SW-846 6010D	10/20/21	10/22/21 14:57	QNW
Chromium	23	0.76	0.43	mg/Kg dry	1		SW-846 6010D	10/20/21	10/22/21 14:57	QNW
Cobalt	15	1.9	0.70	mg/Kg dry	1		SW-846 6010D	10/20/21	10/22/21 14:57	QNW
Copper	18	0.76	0.37	mg/Kg dry	1		SW-846 6010D	10/20/21	10/22/21 14:57	QNW
Iron	38000	380	150	mg/Kg dry	20		SW-846 6010D	10/20/21	10/25/21 0:40	ICP
Lead	19	0.57	0.28	mg/Kg dry	1		SW-846 6010D	10/20/21	10/22/21 14:57	QNW
Magnesium	2700	19	6.7	mg/Kg dry	1		SW-846 6010D	10/20/21	10/22/21 14:57	QNW
Manganese	600	0.38	0.15	mg/Kg dry	1		SW-846 6010D	10/20/21	10/22/21 14:57	QNW
Mercury	0.040	0.031	0.010	mg/Kg dry	1		SW-846 7471B	10/20/21	10/21/21 12:44	DRL
Nickel	13	0.76	0.39	mg/Kg dry	1		SW-846 6010D	10/20/21	10/22/21 14:57	QNW
Potassium	910	190	72	mg/Kg dry	1		SW-846 6010D	10/20/21	10/25/21 2:28	QNW
Selenium	ND	3.8	1.4	mg/Kg dry	1		SW-846 6010D	10/20/21	10/25/21 2:28	QNW
Silver	ND	0.38	0.17	mg/Kg dry	1		SW-846 6010D	10/20/21	10/22/21 14:57	QNW
Sodium	110	190	74	mg/Kg dry	1	J	SW-846 6010D	10/20/21	10/22/21 14:57	QNW
Thallium	ND	1.9	0.92	mg/Kg dry	1		SW-846 6010D	10/20/21	10/25/21 2:28	QNW
Vanadium	40	0.76	0.38	mg/Kg dry	1		SW-846 6010D	10/20/21	10/22/21 14:57	QNW
Zinc	51	0.76	0.49	mg/Kg dry	1		SW-846 6010D	10/20/21	10/22/21 14:57	QNW

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Project Location: 1400 N. Royal St., Alexandria, VA Sample Description: Work Order: 21J1070

Date Received: 10/19/2021

Field Sample #: HRP-SB209-0-1-211013 Sampled: 10/13/2021 13:40

Sample ID: 21J1070-11

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	85.9			% Wt	1		SM 2540G	10/20/21	10/21/21 11:11	AL2
Cyanide	ND	0.56	0.39	mg/Kg dry	1		SW-846 9014	10/19/21	10/20/21 17:15	DJM
pH @16.1°C	8.5			pH Units	1	H-03	SW-846 9045C	10/19/21	10/19/21 23:00	DJM

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Project Location: 1400 N. Royal St., Alexandria, VA Sample Description: Work Order: 21J1070

Date Received: 10/19/2021

Field Sample #: HRP-SB209-5-7-211013 Sampled: 10/13/2021 13:47

Sample ID: 21J1070-12

Sample Matrix: Soil

Metals Analyses (Total)

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Aluminum	13000	20	7.3	mg/Kg dry	1		SW-846 6010D	10/20/21	10/22/21 15:03	QNW
Antimony	ND	2.0	0.81	mg/Kg dry	1		SW-846 6010D	10/20/21	10/22/21 15:03	QNW
Arsenic	4.5	4.0	1.5	mg/Kg dry	1		SW-846 6010D	10/20/21	10/22/21 15:03	QNW
Barium	46	2.0	0.76	mg/Kg dry	1		SW-846 6010D	10/20/21	10/22/21 15:03	QNW
Beryllium	0.66	0.20	0.076	mg/Kg dry	1		SW-846 6010D	10/20/21	10/22/21 15:03	QNW
Cadmium	ND	0.40	0.20	mg/Kg dry	1		SW-846 6010D	10/20/21	10/22/21 15:03	QNW
Calcium	950	20	7.8	mg/Kg dry	1		SW-846 6010D	10/20/21	10/22/21 15:03	QNW
Chromium	17	0.80	0.46	mg/Kg dry	1		SW-846 6010D	10/20/21	10/22/21 15:03	QNW
Cobalt	5.5	2.0	0.74	mg/Kg dry	1		SW-846 6010D	10/20/21	10/22/21 15:03	QNW
Copper	16	0.80	0.38	mg/Kg dry	1		SW-846 6010D	10/20/21	10/22/21 15:03	QNW
Iron	32000	400	160	mg/Kg dry	20		SW-846 6010D	10/20/21	10/25/21 0:47	ICP
Lead	11	0.60	0.29	mg/Kg dry	1		SW-846 6010D	10/20/21	10/22/21 15:03	QNW
Magnesium	1500	20	7.0	mg/Kg dry	1		SW-846 6010D	10/20/21	10/22/21 15:03	QNW
Manganese	53	0.40	0.16	mg/Kg dry	1		SW-846 6010D	10/20/21	10/22/21 15:03	QNW
Mercury	0.079	0.032	0.011	mg/Kg dry	1		SW-846 7471B	10/20/21	10/21/21 12:46	DRL
Nickel	16	0.80	0.41	mg/Kg dry	1		SW-846 6010D	10/20/21	10/22/21 15:03	QNW
Potassium	1000	200	75	mg/Kg dry	1		SW-846 6010D	10/20/21	10/25/21 2:34	QNW
Selenium	ND	4.0	1.4	mg/Kg dry	1		SW-846 6010D	10/20/21	10/25/21 2:34	QNW
Silver	ND	0.40	0.18	mg/Kg dry	1		SW-846 6010D	10/20/21	10/22/21 15:03	QNW
Sodium	870	200	78	mg/Kg dry	1		SW-846 6010D	10/20/21	10/22/21 15:03	QNW
Thallium	ND	2.0	0.96	mg/Kg dry	1		SW-846 6010D	10/20/21	10/25/21 2:34	QNW
Vanadium	31	0.80	0.40	mg/Kg dry	1		SW-846 6010D	10/20/21	10/22/21 15:03	QNW
Zinc	41	0.80	0.51	mg/Kg dry	1		SW-846 6010D	10/20/21	10/22/21 15:03	QNW

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Project Location: 1400 N. Royal St., Alexandria, VA Sample Description: Work Order: 21J1070

Date Received: 10/19/2021

Field Sample #: HRP-SB209-5-7-211013 Sampled: 10/13/2021 13:47

Sample ID: 21J1070-12

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	82.0			% Wt	1		SM 2540G	10/20/21	10/21/21 11:11	AL2
Cyanide	1.4	0.58	0.41	mg/Kg dry	1		SW-846 9014	10/19/21	10/20/21 17:15	DJM
pH @17.1°C	8.6			pH Units	1	H-03	SW-846 9045C	10/19/21	10/19/21 23:00	DJM

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Project Location: 1400 N. Royal St., Alexandria, VA Sample Description: Work Order: 21J1070

Date Received: 10/19/2021

Field Sample #: HRP-SB209-15-17-211013 Sampled: 10/13/2021 13:55

Sample ID: 21J1070-13

Sample Matrix: Soil

Metals Analyses (Total)

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Aluminum	8900	19	7.0	mg/Kg dry	1		SW-846 6010D	10/20/21	10/22/21 15:10	QNW
Antimony	ND	1.9	0.78	mg/Kg dry	1		SW-846 6010D	10/20/21	10/22/21 15:10	QNW
Arsenic	6.3	3.8	1.4	mg/Kg dry	1		SW-846 6010D	10/20/21	10/22/21 15:10	QNW
Barium	30	1.9	0.73	mg/Kg dry	1		SW-846 6010D	10/20/21	10/22/21 15:10	QNW
Beryllium	0.68	0.19	0.073	mg/Kg dry	1		SW-846 6010D	10/20/21	10/22/21 15:10	QNW
Cadmium	ND	0.38	0.20	mg/Kg dry	1		SW-846 6010D	10/20/21	10/22/21 15:10	QNW
Calcium	500	19	7.5	mg/Kg dry	1		SW-846 6010D	10/20/21	10/22/21 15:10	QNW
Chromium	19	0.77	0.44	mg/Kg dry	1		SW-846 6010D	10/20/21	10/22/21 15:10	QNW
Cobalt	5.5	1.9	0.71	mg/Kg dry	1		SW-846 6010D	10/20/21	10/22/21 15:10	QNW
Copper	14	0.77	0.37	mg/Kg dry	1		SW-846 6010D	10/20/21	10/22/21 15:10	QNW
Iron	28000	380	150	mg/Kg dry	20		SW-846 6010D	10/20/21	10/25/21 0:55	ICP
Lead	9.3	0.58	0.28	mg/Kg dry	1		SW-846 6010D	10/20/21	10/22/21 15:10	QNW
Magnesium	890	19	6.7	mg/Kg dry	1		SW-846 6010D	10/20/21	10/22/21 15:10	QNW
Manganese	67	0.38	0.15	mg/Kg dry	1		SW-846 6010D	10/20/21	10/22/21 15:10	QNW
Mercury	ND	0.030	0.010	mg/Kg dry	1		SW-846 7471B	10/20/21	10/21/21 12:48	DRL
Nickel	11	0.77	0.39	mg/Kg dry	1		SW-846 6010D	10/20/21	10/22/21 15:10	QNW
Potassium	670	190	72	mg/Kg dry	1		SW-846 6010D	10/20/21	10/22/21 15:10	QNW
Selenium	ND	3.8	1.4	mg/Kg dry	1		SW-846 6010D	10/20/21	10/25/21 2:53	QNW
Silver	ND	0.38	0.18	mg/Kg dry	1		SW-846 6010D	10/20/21	10/22/21 15:10	QNW
Sodium	990	190	75	mg/Kg dry	1		SW-846 6010D	10/20/21	10/22/21 15:10	QNW
Thallium	ND	1.9	0.92	mg/Kg dry	1		SW-846 6010D	10/20/21	10/25/21 2:53	QNW
Vanadium	24	0.77	0.38	mg/Kg dry	1		SW-846 6010D	10/20/21	10/22/21 15:10	QNW
Zinc	35	0.77	0.49	mg/Kg dry	1		SW-846 6010D	10/20/21	10/22/21 15:10	QNW

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Project Location: 1400 N. Royal St., Alexandria, VA Sample Description: Work Order: 21J1070

Date Received: 10/19/2021

Field Sample #: HRP-SB209-15-17-211013 Sampled: 10/13/2021 13:55

Sample ID: 21J1070-13

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	84.3			% Wt	1		SM 2540G	10/20/21	10/21/21 11:12	AL2
Cyanide	ND	0.53	0.37	mg/Kg dry	1		SW-846 9014	10/19/21	10/20/21 17:15	DJM
pH @17°C	8.8			pH Units	1	H-03	SW-846 9045C	10/19/21	10/19/21 23:00	DJM

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Project Location: 1400 N. Royal St., Alexandria, VA Sample Description: Work Order: 21J1070

Date Received: 10/19/2021

Field Sample #: HRP-EB03-211013 Sampled: 10/13/2021 16:45

Sample ID: 21J1070-14

Sample Matrix: Water

Metals Analyses (Total)

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Aluminum	ND	0.050	0.049	mg/L	1		SW-846 6010D	10/20/21	10/24/21 18:47	QNW
Antimony	0.21	1.0	0.20	µg/L	1	J	SW-846 6020B	10/20/21	10/22/21 10:05	QNW
Arsenic	ND	0.80	0.46	µg/L	1		SW-846 6020B	10/20/21	10/22/21 10:05	QNW
Barium	31	10	1.2	µg/L	1		SW-846 6020B	10/20/21	10/22/21 10:05	QNW
Beryllium	ND	0.40	0.066	µg/L	1		SW-846 6020B	10/20/21	10/22/21 10:05	QNW
Cadmium	ND	0.20	0.027	µg/L	1		SW-846 6020B	10/20/21	10/22/21 10:05	QNW
Calcium	7.8	0.50	0.11	mg/L	1		SW-846 6010D	10/20/21	10/24/21 18:47	QNW
Chromium	ND	1.0	0.92	µg/L	1		SW-846 6020B	10/20/21	10/22/21 10:05	QNW
Cobalt	ND	1.0	0.14	µg/L	1		SW-846 6020B	10/20/21	10/22/21 10:05	QNW
Copper	0.36	1.0	0.27	µg/L	1	J	SW-846 6020B	10/20/21	10/22/21 10:05	QNW
Iron	ND	0.050	0.032	mg/L	1		SW-846 6010D	10/20/21	10/24/21 18:47	QNW
Lead	ND	0.50	0.14	µg/L	1		SW-846 6020B	10/20/21	10/22/21 10:05	QNW
Magnesium	1.7	0.050	0.023	mg/L	1		SW-846 6010D	10/20/21	10/24/21 18:47	QNW
Manganese	8.8	1.0	0.24	µg/L	1		SW-846 6020B	10/20/21	10/22/21 10:05	QNW
Mercury	ND	0.00010	0.000050	mg/L	1		SW-846 7470A	10/22/21	10/23/21 11:09	DRL
Nickel	1.9	5.0	0.52	µg/L	1	J	SW-846 6020B	10/20/21	10/22/21 10:05	QNW
Potassium	1.6	2.0	0.40	mg/L	1	J	SW-846 6010D	10/20/21	10/24/21 18:47	QNW
Selenium	ND	5.0	0.78	µg/L	1		SW-846 6020B	10/20/21	10/22/21 10:05	QNW
Silver	ND	0.20	0.026	µg/L	1		SW-846 6020B	10/20/21	10/22/21 10:05	QNW
Sodium	3.5	2.0	0.56	mg/L	1		SW-846 6010D	10/20/21	10/24/21 18:47	QNW
Thallium	ND	0.20	0.067	µg/L	1		SW-846 6020B	10/20/21	10/22/21 10:05	QNW
Vanadium	ND	5.0	3.5	µg/L	1		SW-846 6020B	10/20/21	10/22/21 10:05	QNW
Zinc	150	10	3.4	µg/L	1		SW-846 6020B	10/20/21	10/22/21 10:05	QNW

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Project Location: 1400 N. Royal St., Alexandria, VA Sample Description: Work Order: 21J1070

Date Received: 10/19/2021

Field Sample #: HRP-EB03-211013 Sampled: 10/13/2021 16:45

Sample ID: 21J1070-14

Sample Matrix: Water

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Cyanide	ND	0.010	0.0073	mg/L	1		SW-846 9014	10/21/21	10/22/21 15:40	DJM

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Project Location: 1400 N. Royal St., Alexandria, VA Sample Description: Work Order: 21J1070

Date Received: 10/19/2021

Field Sample #: HRP-SB208-0-1-211014 Sampled: 10/14/2021 09:12

Sample ID: 21J1070-15

Sample Matrix: Soil

Metals Analyses (Total)

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Aluminum	11000	21	7.6	mg/Kg dry	1		SW-846 6010D	10/20/21	10/22/21 15:16	QNW
Antimony	ND	2.1	0.85	mg/Kg dry	1		SW-846 6010D	10/20/21	10/22/21 15:16	QNW
Arsenic	4.2	4.2	1.5	mg/Kg dry	1	J	SW-846 6010D	10/20/21	10/22/21 15:16	QNW
Barium	53	2.1	0.80	mg/Kg dry	1		SW-846 6010D	10/20/21	10/22/21 15:16	QNW
Beryllium	0.77	0.21	0.080	mg/Kg dry	1		SW-846 6010D	10/20/21	10/22/21 15:16	QNW
Cadmium	ND	0.42	0.21	mg/Kg dry	1		SW-846 6010D	10/20/21	10/22/21 15:16	QNW
Calcium	800	21	8.2	mg/Kg dry	1		SW-846 6010D	10/20/21	10/22/21 15:16	QNW
Chromium	17	0.84	0.48	mg/Kg dry	1		SW-846 6010D	10/20/21	10/22/21 15:16	QNW
Cobalt	15	2.1	0.77	mg/Kg dry	1		SW-846 6010D	10/20/21	10/22/21 15:16	QNW
Copper	14	0.84	0.40	mg/Kg dry	1		SW-846 6010D	10/20/21	10/22/21 15:16	QNW
Iron	35000	420	170	mg/Kg dry	20		SW-846 6010D	10/20/21	10/25/21 1:02	ICP
Lead	12	0.63	0.31	mg/Kg dry	1		SW-846 6010D	10/20/21	10/22/21 15:16	QNW
Magnesium	1100	21	7.3	mg/Kg dry	1		SW-846 6010D	10/20/21	10/22/21 15:16	QNW
Manganese	140	0.42	0.16	mg/Kg dry	1		SW-846 6010D	10/20/21	10/22/21 15:16	QNW
Mercury	0.034	0.036	0.012	mg/Kg dry	1	J	SW-846 7471B	10/20/21	10/21/21 12:49	DRL
Nickel	16	0.84	0.43	mg/Kg dry	1		SW-846 6010D	10/20/21	10/22/21 15:16	QNW
Potassium	800	210	79	mg/Kg dry	1		SW-846 6010D	10/20/21	10/22/21 15:16	QNW
Selenium	ND	4.2	1.5	mg/Kg dry	1		SW-846 6010D	10/20/21	10/25/21 3:00	QNW
Silver	ND	0.42	0.19	mg/Kg dry	1		SW-846 6010D	10/20/21	10/22/21 15:16	QNW
Sodium	ND	210	82	mg/Kg dry	1		SW-846 6010D	10/20/21	10/22/21 15:16	QNW
Thallium	ND	2.1	1.0	mg/Kg dry	1		SW-846 6010D	10/20/21	10/25/21 3:00	QNW
Vanadium	32	0.84	0.42	mg/Kg dry	1		SW-846 6010D	10/20/21	10/22/21 15:16	QNW
Zinc	50	0.84	0.54	mg/Kg dry	1		SW-846 6010D	10/20/21	10/22/21 15:16	QNW

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Project Location: 1400 N. Royal St., Alexandria, VA Sample Description: Work Order: 21J1070

Date Received: 10/19/2021

Field Sample #: HRP-SB208-0-1-211014 Sampled: 10/14/2021 09:12

Sample ID: 21J1070-15

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	77.7			% Wt	1		SM 2540G	10/20/21	10/21/21 11:12	AL2
Cyanide	ND	0.48	0.34	mg/Kg dry	1		SW-846 9014	10/19/21	10/20/21 17:15	DJM
pH @16.8°C	8.7			pH Units	1	H-03	SW-846 9045C	10/19/21	10/19/21 23:00	DJM

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Project Location: 1400 N. Royal St., Alexandria, VA Sample Description: Work Order: 21J1070

Date Received: 10/19/2021

Field Sample #: HRP-SB208-5-7-211014 Sampled: 10/14/2021 09:20

Sample ID: 21J1070-16

Sample Matrix: Soil

Metals Analyses (Total)

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Aluminum	10000	21	7.6	mg/Kg dry	1		SW-846 6010D	10/20/21	10/22/21 15:23	QNW
Antimony	ND	2.1	0.84	mg/Kg dry	1		SW-846 6010D	10/20/21	10/22/21 15:23	QNW
Arsenic	5.8	4.2	1.5	mg/Kg dry	1		SW-846 6010D	10/20/21	10/22/21 15:23	QNW
Barium	38	2.1	0.80	mg/Kg dry	1		SW-846 6010D	10/20/21	10/22/21 15:23	QNW
Beryllium	0.62	0.21	0.079	mg/Kg dry	1		SW-846 6010D	10/20/21	10/22/21 15:23	QNW
Cadmium	ND	0.42	0.21	mg/Kg dry	1		SW-846 6010D	10/20/21	10/22/21 15:23	QNW
Calcium	450	21	8.1	mg/Kg dry	1		SW-846 6010D	10/20/21	10/22/21 15:23	QNW
Chromium	17	0.84	0.48	mg/Kg dry	1		SW-846 6010D	10/20/21	10/22/21 15:23	QNW
Cobalt	6.4	2.1	0.77	mg/Kg dry	1		SW-846 6010D	10/20/21	10/22/21 15:23	QNW
Copper	15	0.84	0.40	mg/Kg dry	1		SW-846 6010D	10/20/21	10/22/21 15:23	QNW
Iron	33000	420	170	mg/Kg dry	20		SW-846 6010D	10/20/21	10/25/21 1:10	ICP
Lead	11	0.63	0.30	mg/Kg dry	1		SW-846 6010D	10/20/21	10/22/21 15:23	QNW
Magnesium	1000	21	7.3	mg/Kg dry	1		SW-846 6010D	10/20/21	10/22/21 15:23	QNW
Manganese	100	0.42	0.16	mg/Kg dry	1		SW-846 6010D	10/20/21	10/22/21 15:23	QNW
Mercury	ND	0.034	0.011	mg/Kg dry	1		SW-846 7471B	10/20/21	10/21/21 12:51	DRL
Nickel	12	0.84	0.43	mg/Kg dry	1		SW-846 6010D	10/20/21	10/22/21 15:23	QNW
Potassium	750	210	79	mg/Kg dry	1		SW-846 6010D	10/20/21	10/22/21 15:23	QNW
Selenium	ND	4.2	1.5	mg/Kg dry	1		SW-846 6010D	10/20/21	10/25/21 3:07	QNW
Silver	ND	0.42	0.19	mg/Kg dry	1		SW-846 6010D	10/20/21	10/22/21 15:23	QNW
Sodium	ND	210	81	mg/Kg dry	1		SW-846 6010D	10/20/21	10/22/21 15:23	QNW
Thallium	ND	2.1	1.0	mg/Kg dry	1		SW-846 6010D	10/20/21	10/25/21 3:07	QNW
Vanadium	26	0.84	0.42	mg/Kg dry	1		SW-846 6010D	10/20/21	10/22/21 15:23	QNW
Zinc	33	0.84	0.53	mg/Kg dry	1		SW-846 6010D	10/20/21	10/22/21 15:23	QNW

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Project Location: 1400 N. Royal St., Alexandria, VA Sample Description: Work Order: 21J1070

Date Received: 10/19/2021

Field Sample #: HRP-SB208-5-7-211014 Sampled: 10/14/2021 09:20

Sample ID: 21J1070-16

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	76.9			% Wt	1		SM 2540G	10/20/21	10/21/21 11:12	AL2
Cyanide	ND	0.47	0.33	mg/Kg dry	1		SW-846 9014	10/19/21	10/20/21 17:15	DJM
pH @16.6°C	5.5			pH Units	1	H-03	SW-846 9045C	10/19/21	10/19/21 23:00	DJM

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Project Location: 1400 N. Royal St., Alexandria, VA Sample Description: Work Order: 21J1070

Date Received: 10/19/2021

Field Sample #: HRP-SB208-18-20-211014 Sampled: 10/14/2021 09:30

Sample ID: 21J1070-17

Sample Matrix: Soil

Metals Analyses (Total)

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Aluminum	4500	20	7.3	mg/Kg dry	1		SW-846 6010D	10/20/21	10/22/21 15:41	QNW
Antimony	ND	2.0	0.81	mg/Kg dry	1		SW-846 6010D	10/20/21	10/22/21 15:41	QNW
Arsenic	4.5	4.0	1.5	mg/Kg dry	1		SW-846 6010D	10/20/21	10/22/21 15:41	QNW
Barium	32	2.0	0.76	mg/Kg dry	1		SW-846 6010D	10/20/21	10/22/21 15:41	QNW
Beryllium	0.58	0.20	0.076	mg/Kg dry	1		SW-846 6010D	10/20/21	10/22/21 15:41	QNW
Cadmium	ND	0.40	0.20	mg/Kg dry	1		SW-846 6010D	10/20/21	10/22/21 15:41	QNW
Calcium	270	20	7.8	mg/Kg dry	1		SW-846 6010D	10/20/21	10/22/21 15:41	QNW
Chromium	15	0.80	0.46	mg/Kg dry	1		SW-846 6010D	10/20/21	10/22/21 15:41	QNW
Cobalt	9.5	2.0	0.74	mg/Kg dry	1		SW-846 6010D	10/20/21	10/22/21 15:41	QNW
Copper	12	0.80	0.38	mg/Kg dry	1		SW-846 6010D	10/20/21	10/22/21 15:41	QNW
Iron	26000	400	160	mg/Kg dry	20		SW-846 6010D	10/20/21	10/25/21 1:30	ICP
Lead	5.5	0.60	0.29	mg/Kg dry	1		SW-846 6010D	10/20/21	10/22/21 15:41	QNW
Magnesium	880	20	7.0	mg/Kg dry	1		SW-846 6010D	10/20/21	10/22/21 15:41	QNW
Manganese	110	0.40	0.16	mg/Kg dry	1		SW-846 6010D	10/20/21	10/22/21 15:41	QNW
Mercury	ND	0.032	0.011	mg/Kg dry	1		SW-846 7471B	10/20/21	10/21/21 12:53	DRL
Nickel	12	0.80	0.41	mg/Kg dry	1		SW-846 6010D	10/20/21	10/22/21 15:41	QNW
Potassium	370	200	76	mg/Kg dry	1		SW-846 6010D	10/20/21	10/22/21 15:41	QNW
Selenium	ND	4.0	1.4	mg/Kg dry	1		SW-846 6010D	10/20/21	10/25/21 3:13	QNW
Silver	ND	0.40	0.18	mg/Kg dry	1		SW-846 6010D	10/20/21	10/22/21 15:41	QNW
Sodium	78	200	78	mg/Kg dry	1	J	SW-846 6010D	10/20/21	10/22/21 15:41	QNW
Thallium	ND	2.0	0.96	mg/Kg dry	1		SW-846 6010D	10/20/21	10/25/21 3:13	QNW
Vanadium	28	0.80	0.40	mg/Kg dry	1		SW-846 6010D	10/20/21	10/22/21 15:41	QNW
Zinc	24	0.80	0.51	mg/Kg dry	1		SW-846 6010D	10/20/21	10/22/21 15:41	QNW

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Project Location: 1400 N. Royal St., Alexandria, VA Sample Description: Work Order: 21J1070

Date Received: 10/19/2021

Field Sample #: HRP-SB208-18-20-211014 Sampled: 10/14/2021 09:30

Sample ID: 21J1070-17

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	81.9			% Wt	1		SM 2540G	10/20/21	10/21/21 11:12	AL2
Cyanide	ND	0.48	0.34	mg/Kg dry	1		SW-846 9014	10/19/21	10/20/21 17:15	DJM
pH @17°C	5.5			pH Units	1	H-03	SW-846 9045C	10/19/21	10/19/21 23:00	DJM

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Project Location: 1400 N. Royal St., Alexandria, VA Sample Description: Work Order: 21J1070

Date Received: 10/19/2021

Field Sample #: HRP-SB214-0-2-211014 Sampled: 10/14/2021 13:58

Sample ID: 21J1070-18

Sample Matrix: Soil

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acetone	ND	0.11	0.037	mg/Kg dry	1		SW-846 8260D	10/20/21	10/20/21 7:44	MFF
Acrylonitrile	ND	0.0068	0.0011	mg/Kg dry	1		SW-846 8260D	10/20/21	10/20/21 7:44	MFF
tert-Amyl Methyl Ether (TAME)	ND	0.0011	0.00051	mg/Kg dry	1		SW-846 8260D	10/20/21	10/20/21 7:44	MFF
Benzene	ND	0.0023	0.00053	mg/Kg dry	1		SW-846 8260D	10/20/21	10/20/21 7:44	MFF
Bromobenzene	ND	0.0023	0.00038	mg/Kg dry	1		SW-846 8260D	10/20/21	10/20/21 7:44	MFF
Bromochloromethane	ND	0.0023	0.0011	mg/Kg dry	1		SW-846 8260D	10/20/21	10/20/21 7:44	MFF
Bromodichloromethane	ND	0.0023	0.00054	mg/Kg dry	1		SW-846 8260D	10/20/21	10/20/21 7:44	MFF
Bromoform	ND	0.0023	0.00069	mg/Kg dry	1		SW-846 8260D	10/20/21	10/20/21 7:44	MFF
Bromomethane	ND	0.011	0.0042	mg/Kg dry	1	V-34	SW-846 8260D	10/20/21	10/20/21 7:44	MFF
2-Butanone (MEK)	ND	0.045	0.014	mg/Kg dry	1		SW-846 8260D	10/20/21	10/20/21 7:44	MFF
tert-Butyl Alcohol (TBA)	ND	0.11	0.055	mg/Kg dry	1		SW-846 8260D	10/20/21	10/20/21 7:44	MFF
n-Butylbenzene	ND	0.0023	0.00058	mg/Kg dry	1		SW-846 8260D	10/20/21	10/20/21 7:44	MFF
sec-Butylbenzene	ND	0.0023	0.0011	mg/Kg dry	1		SW-846 8260D	10/20/21	10/20/21 7:44	MFF
tert-Butylbenzene	ND	0.0045	0.00096	mg/Kg dry	1		SW-846 8260D	10/20/21	10/20/21 7:44	MFF
tert-Butyl Ethyl Ether (TBEE)	ND	0.0011	0.00059	mg/Kg dry	1		SW-846 8260D	10/20/21	10/20/21 7:44	MFF
Carbon Disulfide	ND	0.011	0.0081	mg/Kg dry	1		SW-846 8260D	10/20/21	10/20/21 7:44	MFF
Carbon Tetrachloride	ND	0.0023	0.00088	mg/Kg dry	1		SW-846 8260D	10/20/21	10/20/21 7:44	MFF
Chlorobenzene	ND	0.0023	0.00061	mg/Kg dry	1		SW-846 8260D	10/20/21	10/20/21 7:44	MFF
Chlorodibromomethane	ND	0.0011	0.00058	mg/Kg dry	1		SW-846 8260D	10/20/21	10/20/21 7:44	MFF
Chloroethane	ND	0.023	0.0040	mg/Kg dry	1		SW-846 8260D	10/20/21	10/20/21 7:44	MFF
Chloroform	ND	0.0045	0.0011	mg/Kg dry	1		SW-846 8260D	10/20/21	10/20/21 7:44	MFF
Chloromethane	ND	0.011	0.0037	mg/Kg dry	1		SW-846 8260D	10/20/21	10/20/21 7:44	MFF
2-Chlorotoluene	ND	0.0023	0.00052	mg/Kg dry	1		SW-846 8260D	10/20/21	10/20/21 7:44	MFF
4-Chlorotoluene	ND	0.0023	0.00040	mg/Kg dry	1		SW-846 8260D	10/20/21	10/20/21 7:44	MFF
1,2-Dibromo-3-chloropropane (DBCP)	ND	0.0023	0.00076	mg/Kg dry	1		SW-846 8260D	10/20/21	10/20/21 7:44	MFF
1,2-Dibromoethane (EDB)	ND	0.0011	0.00071	mg/Kg dry	1		SW-846 8260D	10/20/21	10/20/21 7:44	MFF
Dibromomethane	ND	0.0023	0.00083	mg/Kg dry	1		SW-846 8260D	10/20/21	10/20/21 7:44	MFF
1,2-Dichlorobenzene	ND	0.0023	0.00045	mg/Kg dry	1		SW-846 8260D	10/20/21	10/20/21 7:44	MFF
1,3-Dichlorobenzene	ND	0.0023	0.00048	mg/Kg dry	1		SW-846 8260D	10/20/21	10/20/21 7:44	MFF
1,4-Dichlorobenzene	ND	0.0023	0.00058	mg/Kg dry	1		SW-846 8260D	10/20/21	10/20/21 7:44	MFF
trans-1,4-Dichloro-2-butene	ND	0.0045	0.00064	mg/Kg dry	1		SW-846 8260D	10/20/21	10/20/21 7:44	MFF
Dichlorodifluoromethane (Freon 12)	ND	0.023	0.0013	mg/Kg dry	1	V-05	SW-846 8260D	10/20/21	10/20/21 7:44	MFF
1,1-Dichloroethane	ND	0.0023	0.00057	mg/Kg dry	1		SW-846 8260D	10/20/21	10/20/21 7:44	MFF
1,2-Dichloroethane	ND	0.0023	0.00070	mg/Kg dry	1		SW-846 8260D	10/20/21	10/20/21 7:44	MFF
1,1-Dichloroethylene	ND	0.0045	0.0014	mg/Kg dry	1		SW-846 8260D	10/20/21	10/20/21 7:44	MFF
cis-1,2-Dichloroethylene	ND	0.0023	0.00060	mg/Kg dry	1		SW-846 8260D	10/20/21	10/20/21 7:44	MFF
trans-1,2-Dichloroethylene	ND	0.0023	0.00064	mg/Kg dry	1		SW-846 8260D	10/20/21	10/20/21 7:44	MFF
1,2-Dichloropropane	ND	0.0023	0.00054	mg/Kg dry	1		SW-846 8260D	10/20/21	10/20/21 7:44	MFF
1,3-Dichloropropane	ND	0.0011	0.00055	mg/Kg dry	1		SW-846 8260D	10/20/21	10/20/21 7:44	MFF
2,2-Dichloropropane	ND	0.0023	0.00087	mg/Kg dry	1		SW-846 8260D	10/20/21	10/20/21 7:44	MFF
1,1-Dichloropropene	ND	0.0023	0.00089	mg/Kg dry	1		SW-846 8260D	10/20/21	10/20/21 7:44	MFF
cis-1,3-Dichloropropene	ND	0.0011	0.00044	mg/Kg dry	1		SW-846 8260D	10/20/21	10/20/21 7:44	MFF
trans-1,3-Dichloropropene	ND	0.0011	0.00056	mg/Kg dry	1		SW-846 8260D	10/20/21	10/20/21 7:44	MFF
Diethyl Ether	ND	0.023	0.0025	mg/Kg dry	1		SW-846 8260D	10/20/21	10/20/21 7:44	MFF

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Project Location: 1400 N. Royal St., Alexandria, VA Sample Description: Work Order: 21J1070

Date Received: 10/19/2021

Field Sample #: HRP-SB214-0-2-211014 Sampled: 10/14/2021 13:58

Sample ID: 21J1070-18

Sample Matrix: Soil

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Diisopropyl Ether (DIPE)	ND	0.0011	0.00061	mg/Kg dry	1		SW-846 8260D	10/20/21	10/20/21 7:44	MFF
1,4-Dioxane	ND	0.11	0.025	mg/Kg dry	1		SW-846 8260D	10/20/21	10/20/21 7:44	MFF
Ethylbenzene	ND	0.0023	0.00051	mg/Kg dry	1		SW-846 8260D	10/20/21	10/20/21 7:44	MFF
Hexachlorobutadiene	ND	0.0023	0.00081	mg/Kg dry	1		SW-846 8260D	10/20/21	10/20/21 7:44	MFF
2-Hexanone (MBK)	ND	0.023	0.0066	mg/Kg dry	1		SW-846 8260D	10/20/21	10/20/21 7:44	MFF
Isopropylbenzene (Cumene)	ND	0.0023	0.00081	mg/Kg dry	1		SW-846 8260D	10/20/21	10/20/21 7:44	MFF
p-Isopropyltoluene (p-Cymene)	ND	0.0023	0.00052	mg/Kg dry	1		SW-846 8260D	10/20/21	10/20/21 7:44	MFF
Methyl Acetate	ND	0.0023	0.0015	mg/Kg dry	1		SW-846 8260D	10/20/21	10/20/21 7:44	MFF
Methyl tert-Butyl Ether (MTBE)	ND	0.0045	0.00043	mg/Kg dry	1		SW-846 8260D	10/20/21	10/20/21 7:44	MFF
Methyl Cyclohexane	ND	0.0023	0.00083	mg/Kg dry	1		SW-846 8260D	10/20/21	10/20/21 7:44	MFF
Methylene Chloride	ND	0.023	0.00064	mg/Kg dry	1		SW-846 8260D	10/20/21	10/20/21 7:44	MFF
4-Methyl-2-pentanone (MIBK)	ND	0.023	0.0050	mg/Kg dry	1		SW-846 8260D	10/20/21	10/20/21 7:44	MFF
Naphthalene	ND	0.0045	0.00059	mg/Kg dry	1		SW-846 8260D	10/20/21	10/20/21 7:44	MFF
n-Propylbenzene	ND	0.0023	0.00044	mg/Kg dry	1		SW-846 8260D	10/20/21	10/20/21 7:44	MFF
Styrene	ND	0.0023	0.00048	mg/Kg dry	1		SW-846 8260D	10/20/21	10/20/21 7:44	MFF
1,1,1,2-Tetrachloroethane	ND	0.0023	0.00063	mg/Kg dry	1		SW-846 8260D	10/20/21	10/20/21 7:44	MFF
1,1,2,2-Tetrachloroethane	ND	0.0011	0.00062	mg/Kg dry	1		SW-846 8260D	10/20/21	10/20/21 7:44	MFF
Tetrachloroethylene	ND	0.0023	0.00062	mg/Kg dry	1		SW-846 8260D	10/20/21	10/20/21 7:44	MFF
Tetrahydrofuran	ND	0.011	0.0029	mg/Kg dry	1		SW-846 8260D	10/20/21	10/20/21 7:44	MFF
Toluene	ND	0.0023	0.00064	mg/Kg dry	1		SW-846 8260D	10/20/21	10/20/21 7:44	MFF
1,2,3-Trichlorobenzene	ND	0.0023	0.00062	mg/Kg dry	1		SW-846 8260D	10/20/21	10/20/21 7:44	MFF
1,2,4-Trichlorobenzene	ND	0.0023	0.00055	mg/Kg dry	1		SW-846 8260D	10/20/21	10/20/21 7:44	MFF
1,3,5-Trichlorobenzene	ND	0.0023	0.00055	mg/Kg dry	1		SW-846 8260D	10/20/21	10/20/21 7:44	MFF
1,1,1-Trichloroethane	ND	0.0023	0.00077	mg/Kg dry	1		SW-846 8260D	10/20/21	10/20/21 7:44	MFF
1,1,2-Trichloroethane	ND	0.0023	0.00053	mg/Kg dry	1		SW-846 8260D	10/20/21	10/20/21 7:44	MFF
Trichloroethylene	ND	0.0023	0.00056	mg/Kg dry	1		SW-846 8260D	10/20/21	10/20/21 7:44	MFF
Trichlorofluoromethane (Freon 11)	ND	0.011	0.0041	mg/Kg dry	1		SW-846 8260D	10/20/21	10/20/21 7:44	MFF
1,2,3-Trichloropropane	ND	0.0023	0.0011	mg/Kg dry	1		SW-846 8260D	10/20/21	10/20/21 7:44	MFF
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	0.011	0.0031	mg/Kg dry	1		SW-846 8260D	10/20/21	10/20/21 7:44	MFF
1,2,4-Trimethylbenzene	ND	0.0023	0.00073	mg/Kg dry	1		SW-846 8260D	10/20/21	10/20/21 7:44	MFF
1,3,5-Trimethylbenzene	ND	0.0023	0.00050	mg/Kg dry	1		SW-846 8260D	10/20/21	10/20/21 7:44	MFF
Vinyl Chloride	ND	0.011	0.0034	mg/Kg dry	1		SW-846 8260D	10/20/21	10/20/21 7:44	MFF
m+p Xylene	ND	0.0045	0.00086	mg/Kg dry	1		SW-846 8260D	10/20/21	10/20/21 7:44	MFF
o-Xylene	ND	0.0023	0.00047	mg/Kg dry	1		SW-846 8260D	10/20/21	10/20/21 7:44	MFF

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
1,2-Dichloroethane-d4	104	70-130		10/20/21 7:44
Toluene-d8	96.2	70-130		10/20/21 7:44
4-Bromofluorobenzene	98.8	70-130		10/20/21 7:44

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Project Location: 1400 N. Royal St., Alexandria, VA Sample Description: Work Order: 21J1070

Date Received: 10/19/2021

Field Sample #: HRP-SB214-0-2-211014 Sampled: 10/14/2021 13:58

Sample ID: 21J1070-18

Sample Matrix: Soil

Petroleum Hydrocarbons Analyses

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Gasoline Range Organics (GRO)	ND	1.2	1.2	mg/Kg dry	1		SW-846 8015C	10/20/21	10/21/21 4:46	KMB
Diesel Range Organics	41	9.5	4.4	mg/Kg dry	1		SW-846 8015C	10/19/21	10/22/21 21:14	SFM

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
1-Chloro-3-fluorobenzene	86.8	70-130		10/21/21 4:46
2-Fluorobiphenyl	60.6	40-140		10/22/21 21:14

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Project Location: 1400 N. Royal St., Alexandria, VA Sample Description: Work Order: 21J1070

Date Received: 10/19/2021

Field Sample #: HRP-SB214-0-2-211014 Sampled: 10/14/2021 13:58

Sample ID: 21J1070-18

Sample Matrix: Soil

Metals Analyses (Total)

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Aluminum	8300	19	6.8	mg/Kg dry	1		SW-846 6010D	10/20/21	10/22/21 15:48	QNW
Antimony	ND	1.9	0.76	mg/Kg dry	1		SW-846 6010D	10/20/21	10/22/21 15:48	QNW
Arsenic	6.0	3.7	1.4	mg/Kg dry	1		SW-846 6010D	10/20/21	10/22/21 15:48	QNW
Barium	130	1.9	0.71	mg/Kg dry	1		SW-846 6010D	10/20/21	10/22/21 15:48	QNW
Beryllium	0.65	0.19	0.071	mg/Kg dry	1		SW-846 6010D	10/20/21	10/22/21 15:48	QNW
Cadmium	0.31	0.37	0.19	mg/Kg dry	1	J	SW-846 6010D	10/20/21	10/22/21 15:48	QNW
Calcium	2700	19	7.3	mg/Kg dry	1		SW-846 6010D	10/20/21	10/22/21 15:48	QNW
Chromium	16	0.75	0.43	mg/Kg dry	1		SW-846 6010D	10/20/21	10/22/21 15:48	QNW
Cobalt	9.6	1.9	0.69	mg/Kg dry	1		SW-846 6010D	10/20/21	10/22/21 15:48	QNW
Copper	40	0.75	0.36	mg/Kg dry	1		SW-846 6010D	10/20/21	10/22/21 15:48	QNW
Iron	25000	370	150	mg/Kg dry	20		SW-846 6010D	10/20/21	10/25/21 1:38	ICP
Lead	180	0.56	0.27	mg/Kg dry	1		SW-846 6010D	10/20/21	10/22/21 15:48	QNW
Magnesium	1000	19	6.6	mg/Kg dry	1		SW-846 6010D	10/20/21	10/22/21 15:48	QNW
Manganese	400	0.37	0.15	mg/Kg dry	1		SW-846 6010D	10/20/21	10/22/21 15:48	QNW
Mercury	0.26	0.030	0.010	mg/Kg dry	1		SW-846 7471B	10/20/21	10/21/21 12:55	DRL
Nickel	9.2	0.75	0.38	mg/Kg dry	1		SW-846 6010D	10/20/21	10/22/21 15:48	QNW
Potassium	1000	1900	710	mg/Kg dry	10	J	SW-846 6010D	10/20/21	10/26/21 14:15	MJH
Selenium	ND	3.7	1.3	mg/Kg dry	1		SW-846 6010D	10/20/21	10/25/21 14:09	QNW
Silver	ND	0.37	0.17	mg/Kg dry	1		SW-846 6010D	10/20/21	10/22/21 15:48	QNW
Sodium	92	190	73	mg/Kg dry	1	J	SW-846 6010D	10/20/21	10/22/21 15:48	QNW
Thallium	ND	37	18	mg/Kg dry	20		SW-846 6010D	10/20/21	10/25/21 1:38	ICP
Vanadium	25	0.75	0.37	mg/Kg dry	1		SW-846 6010D	10/20/21	10/22/21 15:48	QNW
Zinc	150	0.75	0.48	mg/Kg dry	1		SW-846 6010D	10/20/21	10/22/21 15:48	QNW

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Project Location: 1400 N. Royal St., Alexandria, VA Sample Description: Work Order: 21J1070

Date Received: 10/19/2021

Field Sample #: HRP-SB214-0-2-211014 Sampled: 10/14/2021 13:58

Sample ID: 21J1070-18

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	87.8			% Wt	1		SM 2540G	10/20/21	10/22/21 13:57	GLH
Cyanide	ND	0.54	0.38	mg/Kg dry	1		SW-846 9014	10/19/21	10/20/21 17:15	DJM
pH @18°C	5.8			pH Units	1	H-03	SW-846 9045C	10/19/21	10/19/21 23:00	DJM

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Project Location: 1400 N. Royal St., Alexandria, VA Sample Description: Work Order: 21J1070

Date Received: 10/19/2021

Field Sample #: HRP-SB214-5-7-211014 Sampled: 10/14/2021 14:10

Sample ID: 21J1070-19

Sample Matrix: Soil

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acetone	ND	0.099	0.032	mg/Kg dry	1		SW-846 8260D	10/20/21	10/20/21 8:09	MFF
Acrylonitrile	ND	0.0059	0.00097	mg/Kg dry	1		SW-846 8260D	10/20/21	10/20/21 8:09	MFF
tert-Amyl Methyl Ether (TAME)	ND	0.00099	0.00045	mg/Kg dry	1		SW-846 8260D	10/20/21	10/20/21 8:09	MFF
Benzene	ND	0.0020	0.00047	mg/Kg dry	1		SW-846 8260D	10/20/21	10/20/21 8:09	MFF
Bromobenzene	ND	0.0020	0.00033	mg/Kg dry	1		SW-846 8260D	10/20/21	10/20/21 8:09	MFF
Bromochloromethane	ND	0.0020	0.00094	mg/Kg dry	1		SW-846 8260D	10/20/21	10/20/21 8:09	MFF
Bromodichloromethane	ND	0.0020	0.00047	mg/Kg dry	1		SW-846 8260D	10/20/21	10/20/21 8:09	MFF
Bromoform	ND	0.0020	0.00060	mg/Kg dry	1		SW-846 8260D	10/20/21	10/20/21 8:09	MFF
Bromomethane	ND	0.0099	0.0036	mg/Kg dry	1	V-34	SW-846 8260D	10/20/21	10/20/21 8:09	MFF
2-Butanone (MEK)	ND	0.040	0.012	mg/Kg dry	1		SW-846 8260D	10/20/21	10/20/21 8:09	MFF
tert-Butyl Alcohol (TBA)	ND	0.099	0.048	mg/Kg dry	1		SW-846 8260D	10/20/21	10/20/21 8:09	MFF
n-Butylbenzene	ND	0.0020	0.00051	mg/Kg dry	1		SW-846 8260D	10/20/21	10/20/21 8:09	MFF
sec-Butylbenzene	ND	0.0020	0.00096	mg/Kg dry	1		SW-846 8260D	10/20/21	10/20/21 8:09	MFF
tert-Butylbenzene	ND	0.0040	0.00084	mg/Kg dry	1		SW-846 8260D	10/20/21	10/20/21 8:09	MFF
tert-Butyl Ethyl Ether (TBEE)	ND	0.00099	0.00051	mg/Kg dry	1		SW-846 8260D	10/20/21	10/20/21 8:09	MFF
Carbon Disulfide	ND	0.0099	0.0071	mg/Kg dry	1		SW-846 8260D	10/20/21	10/20/21 8:09	MFF
Carbon Tetrachloride	ND	0.0020	0.00077	mg/Kg dry	1		SW-846 8260D	10/20/21	10/20/21 8:09	MFF
Chlorobenzene	ND	0.0020	0.00053	mg/Kg dry	1		SW-846 8260D	10/20/21	10/20/21 8:09	MFF
Chlorodibromomethane	ND	0.00099	0.00051	mg/Kg dry	1		SW-846 8260D	10/20/21	10/20/21 8:09	MFF
Chloroethane	ND	0.020	0.0035	mg/Kg dry	1		SW-846 8260D	10/20/21	10/20/21 8:09	MFF
Chloroform	ND	0.0040	0.00099	mg/Kg dry	1		SW-846 8260D	10/20/21	10/20/21 8:09	MFF
Chloromethane	ND	0.0099	0.0032	mg/Kg dry	1		SW-846 8260D	10/20/21	10/20/21 8:09	MFF
2-Chlorotoluene	ND	0.0020	0.00045	mg/Kg dry	1		SW-846 8260D	10/20/21	10/20/21 8:09	MFF
4-Chlorotoluene	ND	0.0020	0.00035	mg/Kg dry	1		SW-846 8260D	10/20/21	10/20/21 8:09	MFF
1,2-Dibromo-3-chloropropane (DBCP)	ND	0.0020	0.00066	mg/Kg dry	1		SW-846 8260D	10/20/21	10/20/21 8:09	MFF
1,2-Dibromoethane (EDB)	ND	0.00099	0.00062	mg/Kg dry	1		SW-846 8260D	10/20/21	10/20/21 8:09	MFF
Dibromomethane	ND	0.0020	0.00072	mg/Kg dry	1		SW-846 8260D	10/20/21	10/20/21 8:09	MFF
1,2-Dichlorobenzene	ND	0.0020	0.00040	mg/Kg dry	1		SW-846 8260D	10/20/21	10/20/21 8:09	MFF
1,3-Dichlorobenzene	ND	0.0020	0.00042	mg/Kg dry	1		SW-846 8260D	10/20/21	10/20/21 8:09	MFF
1,4-Dichlorobenzene	ND	0.0020	0.00051	mg/Kg dry	1		SW-846 8260D	10/20/21	10/20/21 8:09	MFF
trans-1,4-Dichloro-2-butene	ND	0.0040	0.00056	mg/Kg dry	1		SW-846 8260D	10/20/21	10/20/21 8:09	MFF
Dichlorodifluoromethane (Freon 12)	ND	0.020	0.0011	mg/Kg dry	1	V-05	SW-846 8260D	10/20/21	10/20/21 8:09	MFF
1,1-Dichloroethane	ND	0.0020	0.00050	mg/Kg dry	1		SW-846 8260D	10/20/21	10/20/21 8:09	MFF
1,2-Dichloroethane	ND	0.0020	0.00061	mg/Kg dry	1		SW-846 8260D	10/20/21	10/20/21 8:09	MFF
1,1-Dichloroethylene	ND	0.0040	0.0012	mg/Kg dry	1		SW-846 8260D	10/20/21	10/20/21 8:09	MFF
cis-1,2-Dichloroethylene	ND	0.0020	0.00052	mg/Kg dry	1		SW-846 8260D	10/20/21	10/20/21 8:09	MFF
trans-1,2-Dichloroethylene	ND	0.0020	0.00055	mg/Kg dry	1		SW-846 8260D	10/20/21	10/20/21 8:09	MFF
1,2-Dichloropropane	ND	0.0020	0.00047	mg/Kg dry	1		SW-846 8260D	10/20/21	10/20/21 8:09	MFF
1,3-Dichloropropane	ND	0.00099	0.00048	mg/Kg dry	1		SW-846 8260D	10/20/21	10/20/21 8:09	MFF
2,2-Dichloropropane	ND	0.0020	0.00076	mg/Kg dry	1		SW-846 8260D	10/20/21	10/20/21 8:09	MFF
1,1-Dichloropropene	ND	0.0020	0.00078	mg/Kg dry	1		SW-846 8260D	10/20/21	10/20/21 8:09	MFF
cis-1,3-Dichloropropene	ND	0.00099	0.00039	mg/Kg dry	1		SW-846 8260D	10/20/21	10/20/21 8:09	MFF
trans-1,3-Dichloropropene	ND	0.00099	0.00048	mg/Kg dry	1		SW-846 8260D	10/20/21	10/20/21 8:09	MFF
Diethyl Ether	ND	0.020	0.0022	mg/Kg dry	1		SW-846 8260D	10/20/21	10/20/21 8:09	MFF

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Project Location: 1400 N. Royal St., Alexandria, VA Sample Description: Work Order: 21J1070

Date Received: 10/19/2021

Field Sample #: HRP-SB214-5-7-211014 Sampled: 10/14/2021 14:10

Sample ID: 21J1070-19

Sample Matrix: Soil

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Diisopropyl Ether (DIPE)	ND	0.00099	0.00053	mg/Kg dry	1		SW-846 8260D	10/20/21	10/20/21 8:09	MFF
1,4-Dioxane	ND	0.099	0.022	mg/Kg dry	1		SW-846 8260D	10/20/21	10/20/21 8:09	MFF
Ethylbenzene	ND	0.0020	0.00044	mg/Kg dry	1		SW-846 8260D	10/20/21	10/20/21 8:09	MFF
Hexachlorobutadiene	ND	0.0020	0.00071	mg/Kg dry	1		SW-846 8260D	10/20/21	10/20/21 8:09	MFF
2-Hexanone (MBK)	ND	0.020	0.0057	mg/Kg dry	1		SW-846 8260D	10/20/21	10/20/21 8:09	MFF
Isopropylbenzene (Cumene)	ND	0.0020	0.00071	mg/Kg dry	1		SW-846 8260D	10/20/21	10/20/21 8:09	MFF
p-Isopropyltoluene (p-Cymene)	ND	0.0020	0.00046	mg/Kg dry	1		SW-846 8260D	10/20/21	10/20/21 8:09	MFF
Methyl Acetate	ND	0.0020	0.0013	mg/Kg dry	1		SW-846 8260D	10/20/21	10/20/21 8:09	MFF
Methyl tert-Butyl Ether (MTBE)	ND	0.0040	0.00037	mg/Kg dry	1		SW-846 8260D	10/20/21	10/20/21 8:09	MFF
Methyl Cyclohexane	ND	0.0020	0.00072	mg/Kg dry	1		SW-846 8260D	10/20/21	10/20/21 8:09	MFF
Methylene Chloride	ND	0.020	0.00056	mg/Kg dry	1		SW-846 8260D	10/20/21	10/20/21 8:09	MFF
4-Methyl-2-pentanone (MIBK)	ND	0.020	0.0044	mg/Kg dry	1		SW-846 8260D	10/20/21	10/20/21 8:09	MFF
Naphthalene	ND	0.0040	0.00051	mg/Kg dry	1		SW-846 8260D	10/20/21	10/20/21 8:09	MFF
n-Propylbenzene	ND	0.0020	0.00038	mg/Kg dry	1		SW-846 8260D	10/20/21	10/20/21 8:09	MFF
Styrene	ND	0.0020	0.00042	mg/Kg dry	1		SW-846 8260D	10/20/21	10/20/21 8:09	MFF
1,1,1,2-Tetrachloroethane	ND	0.0020	0.00055	mg/Kg dry	1		SW-846 8260D	10/20/21	10/20/21 8:09	MFF
1,1,2,2-Tetrachloroethane	ND	0.00099	0.00054	mg/Kg dry	1		SW-846 8260D	10/20/21	10/20/21 8:09	MFF
Tetrachloroethylene	ND	0.0020	0.00054	mg/Kg dry	1		SW-846 8260D	10/20/21	10/20/21 8:09	MFF
Tetrahydrofuran	ND	0.0099	0.0025	mg/Kg dry	1		SW-846 8260D	10/20/21	10/20/21 8:09	MFF
Toluene	ND	0.0020	0.00055	mg/Kg dry	1		SW-846 8260D	10/20/21	10/20/21 8:09	MFF
1,2,3-Trichlorobenzene	ND	0.0020	0.00054	mg/Kg dry	1		SW-846 8260D	10/20/21	10/20/21 8:09	MFF
1,2,4-Trichlorobenzene	ND	0.0020	0.00048	mg/Kg dry	1		SW-846 8260D	10/20/21	10/20/21 8:09	MFF
1,3,5-Trichlorobenzene	ND	0.0020	0.00048	mg/Kg dry	1		SW-846 8260D	10/20/21	10/20/21 8:09	MFF
1,1,1-Trichloroethane	ND	0.0020	0.00068	mg/Kg dry	1		SW-846 8260D	10/20/21	10/20/21 8:09	MFF
1,1,2-Trichloroethane	ND	0.0020	0.00046	mg/Kg dry	1		SW-846 8260D	10/20/21	10/20/21 8:09	MFF
Trichloroethylene	ND	0.0020	0.00049	mg/Kg dry	1		SW-846 8260D	10/20/21	10/20/21 8:09	MFF
Trichlorofluoromethane (Freon 11)	ND	0.0099	0.0036	mg/Kg dry	1		SW-846 8260D	10/20/21	10/20/21 8:09	MFF
1,2,3-Trichloropropane	ND	0.0020	0.00095	mg/Kg dry	1		SW-846 8260D	10/20/21	10/20/21 8:09	MFF
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	0.0099	0.0027	mg/Kg dry	1		SW-846 8260D	10/20/21	10/20/21 8:09	MFF
1,2,4-Trimethylbenzene	ND	0.0020	0.00064	mg/Kg dry	1		SW-846 8260D	10/20/21	10/20/21 8:09	MFF
1,3,5-Trimethylbenzene	ND	0.0020	0.00043	mg/Kg dry	1		SW-846 8260D	10/20/21	10/20/21 8:09	MFF
Vinyl Chloride	ND	0.0099	0.0030	mg/Kg dry	1		SW-846 8260D	10/20/21	10/20/21 8:09	MFF
m+p Xylene	ND	0.0040	0.00075	mg/Kg dry	1		SW-846 8260D	10/20/21	10/20/21 8:09	MFF
o-Xylene	ND	0.0020	0.00041	mg/Kg dry	1		SW-846 8260D	10/20/21	10/20/21 8:09	MFF

Surrogates	% Recovery	Recovery Limits	Flag/Qual		
1,2-Dichloroethane-d4	101	70-130		10/20/21	8:09
Toluene-d8	100	70-130		10/20/21	8:09
4-Bromofluorobenzene	99.4	70-130		10/20/21	8:09

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Project Location: 1400 N. Royal St., Alexandria, VA Sample Description: Work Order: 21J1070

Date Received: 10/19/2021

Field Sample #: HRP-SB214-5-7-211014 Sampled: 10/14/2021 14:10

Sample ID: 21J1070-19

Sample Matrix: Soil

Petroleum Hydrocarbons Analyses

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Gasoline Range Organics (GRO)	ND	1.3	1.3	mg/Kg dry	1		SW-846 8015C	10/20/21	10/21/21 5:27	KMB
Diesel Range Organics	ND	10	4.8	mg/Kg dry	1		SW-846 8015C	10/19/21	10/22/21 19:12	SFM

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
1-Chloro-3-fluorobenzene	91.0	70-130		10/21/21 5:27
2-Fluorobiphenyl	55.1	40-140		10/22/21 19:12

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Project Location: 1400 N. Royal St., Alexandria, VA Sample Description: Work Order: 21J1070

Date Received: 10/19/2021

Field Sample #: HRP-SB214-5-7-211014 Sampled: 10/14/2021 14:10

Sample ID: 21J1070-19

Sample Matrix: Soil

Metals Analyses (Total)

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Aluminum	9600	20	7.3	mg/Kg dry	1		SW-846 6010D	10/20/21	10/22/21 15:55	QNW
Antimony	ND	2.0	0.80	mg/Kg dry	1		SW-846 6010D	10/20/21	10/22/21 15:55	QNW
Arsenic	5.6	4.0	1.5	mg/Kg dry	1		SW-846 6010D	10/20/21	10/22/21 15:55	QNW
Barium	43	2.0	0.76	mg/Kg dry	1		SW-846 6010D	10/20/21	10/22/21 15:55	QNW
Beryllium	0.60	0.20	0.076	mg/Kg dry	1		SW-846 6010D	10/20/21	10/22/21 15:55	QNW
Cadmium	ND	0.40	0.20	mg/Kg dry	1		SW-846 6010D	10/20/21	10/22/21 15:55	QNW
Calcium	530	20	7.8	mg/Kg dry	1		SW-846 6010D	10/20/21	10/22/21 15:55	QNW
Chromium	15	0.80	0.45	mg/Kg dry	1		SW-846 6010D	10/20/21	10/22/21 15:55	QNW
Cobalt	6.2	2.0	0.73	mg/Kg dry	1		SW-846 6010D	10/20/21	10/22/21 15:55	QNW
Copper	15	0.80	0.38	mg/Kg dry	1		SW-846 6010D	10/20/21	10/22/21 15:55	QNW
Iron	26000	200	80	mg/Kg dry	10		SW-846 6010D	10/20/21	10/26/21 14:20	MJH
Lead	12	0.60	0.29	mg/Kg dry	1		SW-846 6010D	10/20/21	10/22/21 15:55	QNW
Magnesium	940	20	7.0	mg/Kg dry	1		SW-846 6010D	10/20/21	10/22/21 15:55	QNW
Manganese	170	0.40	0.16	mg/Kg dry	1		SW-846 6010D	10/20/21	10/22/21 15:55	QNW
Mercury	0.060	0.031	0.011	mg/Kg dry	1		SW-846 7471B	10/20/21	10/21/21 12:56	DRL
Nickel	13	0.80	0.41	mg/Kg dry	1		SW-846 6010D	10/20/21	10/22/21 15:55	QNW
Potassium	680	200	75	mg/Kg dry	1		SW-846 6010D	10/20/21	10/22/21 15:55	QNW
Selenium	ND	4.0	1.4	mg/Kg dry	1		SW-846 6010D	10/20/21	10/25/21 3:26	QNW
Silver	ND	0.40	0.18	mg/Kg dry	1		SW-846 6010D	10/20/21	10/22/21 15:55	QNW
Sodium	ND	200	78	mg/Kg dry	1		SW-846 6010D	10/20/21	10/22/21 15:55	QNW
Thallium	ND	2.0	0.95	mg/Kg dry	1		SW-846 6010D	10/20/21	10/25/21 3:26	QNW
Vanadium	27	0.80	0.40	mg/Kg dry	1		SW-846 6010D	10/20/21	10/22/21 15:55	QNW
Zinc	36	0.80	0.51	mg/Kg dry	1		SW-846 6010D	10/20/21	10/22/21 15:55	QNW

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Project Location: 1400 N. Royal St., Alexandria, VA Sample Description: Work Order: 21J1070

Date Received: 10/19/2021

Field Sample #: HRP-SB214-5-7-211014 Sampled: 10/14/2021 14:10

Sample ID: 21J1070-19

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	79.9			% Wt	1		SM 2540G	10/20/21	10/21/21 11:12	AL2
Cyanide	ND	0.60	0.42	mg/Kg dry	1		SW-846 9014	10/19/21	10/20/21 17:15	DJM
pH @18.9°C	6.1			pH Units	1	H-03	SW-846 9045C	10/19/21	10/19/21 23:00	DJM

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Project Location: 1400 N. Royal St., Alexandria, VA Sample Description: Work Order: 21J1070

Date Received: 10/19/2021

Field Sample #: HRP-SB214-14-16-211014 Sampled: 10/14/2021 14:35

Sample ID: 21J1070-20

Sample Matrix: Soil

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acetone	ND	0.085	0.027	mg/Kg dry	1		SW-846 8260D	10/20/21	10/20/21 8:34	MFF
Acrylonitrile	ND	0.0051	0.00083	mg/Kg dry	1		SW-846 8260D	10/20/21	10/20/21 8:34	MFF
tert-Amyl Methyl Ether (TAME)	ND	0.00085	0.00039	mg/Kg dry	1		SW-846 8260D	10/20/21	10/20/21 8:34	MFF
Benzene	ND	0.0017	0.00040	mg/Kg dry	1		SW-846 8260D	10/20/21	10/20/21 8:34	MFF
Bromobenzene	ND	0.0017	0.00029	mg/Kg dry	1		SW-846 8260D	10/20/21	10/20/21 8:34	MFF
Bromochloromethane	ND	0.0017	0.00081	mg/Kg dry	1		SW-846 8260D	10/20/21	10/20/21 8:34	MFF
Bromodichloromethane	ND	0.0017	0.00041	mg/Kg dry	1		SW-846 8260D	10/20/21	10/20/21 8:34	MFF
Bromoform	ND	0.0017	0.00052	mg/Kg dry	1		SW-846 8260D	10/20/21	10/20/21 8:34	MFF
Bromomethane	ND	0.0085	0.0031	mg/Kg dry	1	V-34	SW-846 8260D	10/20/21	10/20/21 8:34	MFF
2-Butanone (MEK)	ND	0.034	0.010	mg/Kg dry	1		SW-846 8260D	10/20/21	10/20/21 8:34	MFF
tert-Butyl Alcohol (TBA)	ND	0.085	0.041	mg/Kg dry	1		SW-846 8260D	10/20/21	10/20/21 8:34	MFF
n-Butylbenzene	ND	0.0017	0.00044	mg/Kg dry	1		SW-846 8260D	10/20/21	10/20/21 8:34	MFF
sec-Butylbenzene	ND	0.0017	0.00083	mg/Kg dry	1		SW-846 8260D	10/20/21	10/20/21 8:34	MFF
tert-Butylbenzene	ND	0.0034	0.00072	mg/Kg dry	1		SW-846 8260D	10/20/21	10/20/21 8:34	MFF
tert-Butyl Ethyl Ether (TBEE)	ND	0.00085	0.00044	mg/Kg dry	1		SW-846 8260D	10/20/21	10/20/21 8:34	MFF
Carbon Disulfide	ND	0.0085	0.0061	mg/Kg dry	1		SW-846 8260D	10/20/21	10/20/21 8:34	MFF
Carbon Tetrachloride	ND	0.0017	0.00066	mg/Kg dry	1		SW-846 8260D	10/20/21	10/20/21 8:34	MFF
Chlorobenzene	ND	0.0017	0.00046	mg/Kg dry	1		SW-846 8260D	10/20/21	10/20/21 8:34	MFF
Chlorodibromomethane	ND	0.00085	0.00044	mg/Kg dry	1		SW-846 8260D	10/20/21	10/20/21 8:34	MFF
Chloroethane	ND	0.017	0.0030	mg/Kg dry	1		SW-846 8260D	10/20/21	10/20/21 8:34	MFF
Chloroform	ND	0.0034	0.00085	mg/Kg dry	1		SW-846 8260D	10/20/21	10/20/21 8:34	MFF
Chloromethane	ND	0.0085	0.0028	mg/Kg dry	1		SW-846 8260D	10/20/21	10/20/21 8:34	MFF
2-Chlorotoluene	ND	0.0017	0.00039	mg/Kg dry	1		SW-846 8260D	10/20/21	10/20/21 8:34	MFF
4-Chlorotoluene	ND	0.0017	0.00030	mg/Kg dry	1		SW-846 8260D	10/20/21	10/20/21 8:34	MFF
1,2-Dibromo-3-chloropropane (DBCP)	ND	0.0017	0.00057	mg/Kg dry	1		SW-846 8260D	10/20/21	10/20/21 8:34	MFF
1,2-Dibromoethane (EDB)	ND	0.00085	0.00053	mg/Kg dry	1		SW-846 8260D	10/20/21	10/20/21 8:34	MFF
Dibromomethane	ND	0.0017	0.00062	mg/Kg dry	1		SW-846 8260D	10/20/21	10/20/21 8:34	MFF
1,2-Dichlorobenzene	ND	0.0017	0.00034	mg/Kg dry	1		SW-846 8260D	10/20/21	10/20/21 8:34	MFF
1,3-Dichlorobenzene	ND	0.0017	0.00036	mg/Kg dry	1		SW-846 8260D	10/20/21	10/20/21 8:34	MFF
1,4-Dichlorobenzene	ND	0.0017	0.00044	mg/Kg dry	1		SW-846 8260D	10/20/21	10/20/21 8:34	MFF
trans-1,4-Dichloro-2-butene	ND	0.0034	0.00048	mg/Kg dry	1		SW-846 8260D	10/20/21	10/20/21 8:34	MFF
Dichlorodifluoromethane (Freon 12)	ND	0.017	0.00099	mg/Kg dry	1	V-05	SW-846 8260D	10/20/21	10/20/21 8:34	MFF
1,1-Dichloroethane	ND	0.0017	0.00043	mg/Kg dry	1		SW-846 8260D	10/20/21	10/20/21 8:34	MFF
1,2-Dichloroethane	ND	0.0017	0.00052	mg/Kg dry	1		SW-846 8260D	10/20/21	10/20/21 8:34	MFF
1,1-Dichloroethylene	ND	0.0034	0.0011	mg/Kg dry	1		SW-846 8260D	10/20/21	10/20/21 8:34	MFF
cis-1,2-Dichloroethylene	ND	0.0017	0.00045	mg/Kg dry	1		SW-846 8260D	10/20/21	10/20/21 8:34	MFF
trans-1,2-Dichloroethylene	ND	0.0017	0.00048	mg/Kg dry	1		SW-846 8260D	10/20/21	10/20/21 8:34	MFF
1,2-Dichloropropane	ND	0.0017	0.00040	mg/Kg dry	1		SW-846 8260D	10/20/21	10/20/21 8:34	MFF
1,3-Dichloropropane	ND	0.00085	0.00041	mg/Kg dry	1		SW-846 8260D	10/20/21	10/20/21 8:34	MFF
2,2-Dichloropropane	ND	0.0017	0.00066	mg/Kg dry	1		SW-846 8260D	10/20/21	10/20/21 8:34	MFF
1,1-Dichloropropene	ND	0.0017	0.00067	mg/Kg dry	1		SW-846 8260D	10/20/21	10/20/21 8:34	MFF
cis-1,3-Dichloropropene	ND	0.00085	0.00033	mg/Kg dry	1		SW-846 8260D	10/20/21	10/20/21 8:34	MFF
trans-1,3-Dichloropropene	ND	0.00085	0.00042	mg/Kg dry	1		SW-846 8260D	10/20/21	10/20/21 8:34	MFF
Diethyl Ether	ND	0.017	0.0019	mg/Kg dry	1		SW-846 8260D	10/20/21	10/20/21 8:34	MFF

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Project Location: 1400 N. Royal St., Alexandria, VA Sample Description: Work Order: 21J1070

Date Received: 10/19/2021

Field Sample #: HRP-SB214-14-16-211014 Sampled: 10/14/2021 14:35

Sample ID: 21J1070-20

Sample Matrix: Soil

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Diisopropyl Ether (DIPE)	ND	0.00085	0.00046	mg/Kg dry	1		SW-846 8260D	10/20/21	10/20/21 8:34	MFF
1,4-Dioxane	ND	0.085	0.019	mg/Kg dry	1		SW-846 8260D	10/20/21	10/20/21 8:34	MFF
Ethylbenzene	ND	0.0017	0.00038	mg/Kg dry	1		SW-846 8260D	10/20/21	10/20/21 8:34	MFF
Hexachlorobutadiene	ND	0.0017	0.00061	mg/Kg dry	1		SW-846 8260D	10/20/21	10/20/21 8:34	MFF
2-Hexanone (MBK)	ND	0.017	0.0050	mg/Kg dry	1		SW-846 8260D	10/20/21	10/20/21 8:34	MFF
Isopropylbenzene (Cumene)	ND	0.0017	0.00061	mg/Kg dry	1		SW-846 8260D	10/20/21	10/20/21 8:34	MFF
p-Isopropyltoluene (p-Cymene)	ND	0.0017	0.00039	mg/Kg dry	1		SW-846 8260D	10/20/21	10/20/21 8:34	MFF
Methyl Acetate	ND	0.0017	0.0012	mg/Kg dry	1		SW-846 8260D	10/20/21	10/20/21 8:34	MFF
Methyl tert-Butyl Ether (MTBE)	ND	0.0034	0.00032	mg/Kg dry	1		SW-846 8260D	10/20/21	10/20/21 8:34	MFF
Methyl Cyclohexane	ND	0.0017	0.00062	mg/Kg dry	1		SW-846 8260D	10/20/21	10/20/21 8:34	MFF
Methylene Chloride	ND	0.017	0.00048	mg/Kg dry	1		SW-846 8260D	10/20/21	10/20/21 8:34	MFF
4-Methyl-2-pentanone (MIBK)	ND	0.017	0.0038	mg/Kg dry	1		SW-846 8260D	10/20/21	10/20/21 8:34	MFF
Naphthalene	ND	0.0034	0.00044	mg/Kg dry	1		SW-846 8260D	10/20/21	10/20/21 8:34	MFF
n-Propylbenzene	ND	0.0017	0.00033	mg/Kg dry	1		SW-846 8260D	10/20/21	10/20/21 8:34	MFF
Styrene	ND	0.0017	0.00036	mg/Kg dry	1		SW-846 8260D	10/20/21	10/20/21 8:34	MFF
1,1,1,2-Tetrachloroethane	ND	0.0017	0.00047	mg/Kg dry	1		SW-846 8260D	10/20/21	10/20/21 8:34	MFF
1,1,2,2-Tetrachloroethane	ND	0.00085	0.00047	mg/Kg dry	1		SW-846 8260D	10/20/21	10/20/21 8:34	MFF
Tetrachloroethylene	ND	0.0017	0.00047	mg/Kg dry	1		SW-846 8260D	10/20/21	10/20/21 8:34	MFF
Tetrahydrofuran	ND	0.0085	0.0022	mg/Kg dry	1		SW-846 8260D	10/20/21	10/20/21 8:34	MFF
Toluene	ND	0.0017	0.00048	mg/Kg dry	1		SW-846 8260D	10/20/21	10/20/21 8:34	MFF
1,2,3-Trichlorobenzene	ND	0.0017	0.00047	mg/Kg dry	1		SW-846 8260D	10/20/21	10/20/21 8:34	MFF
1,2,4-Trichlorobenzene	ND	0.0017	0.00041	mg/Kg dry	1		SW-846 8260D	10/20/21	10/20/21 8:34	MFF
1,3,5-Trichlorobenzene	ND	0.0017	0.00042	mg/Kg dry	1		SW-846 8260D	10/20/21	10/20/21 8:34	MFF
1,1,1-Trichloroethane	ND	0.0017	0.00058	mg/Kg dry	1		SW-846 8260D	10/20/21	10/20/21 8:34	MFF
1,1,2-Trichloroethane	ND	0.0017	0.00040	mg/Kg dry	1		SW-846 8260D	10/20/21	10/20/21 8:34	MFF
Trichloroethylene	ND	0.0017	0.00042	mg/Kg dry	1		SW-846 8260D	10/20/21	10/20/21 8:34	MFF
Trichlorofluoromethane (Freon 11)	ND	0.0085	0.0031	mg/Kg dry	1		SW-846 8260D	10/20/21	10/20/21 8:34	MFF
1,2,3-Trichloropropane	ND	0.0017	0.00082	mg/Kg dry	1		SW-846 8260D	10/20/21	10/20/21 8:34	MFF
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	0.0085	0.0023	mg/Kg dry	1		SW-846 8260D	10/20/21	10/20/21 8:34	MFF
1,2,4-Trimethylbenzene	ND	0.0017	0.00055	mg/Kg dry	1		SW-846 8260D	10/20/21	10/20/21 8:34	MFF
1,3,5-Trimethylbenzene	ND	0.0017	0.00037	mg/Kg dry	1		SW-846 8260D	10/20/21	10/20/21 8:34	MFF
Vinyl Chloride	ND	0.0085	0.0026	mg/Kg dry	1		SW-846 8260D	10/20/21	10/20/21 8:34	MFF
m+p Xylene	ND	0.0034	0.00065	mg/Kg dry	1		SW-846 8260D	10/20/21	10/20/21 8:34	MFF
o-Xylene	ND	0.0017	0.00035	mg/Kg dry	1		SW-846 8260D	10/20/21	10/20/21 8:34	MFF

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
1,2-Dichloroethane-d4	102	70-130		10/20/21 8:34
Toluene-d8	99.4	70-130		10/20/21 8:34
4-Bromofluorobenzene	104	70-130		10/20/21 8:34

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Project Location: 1400 N. Royal St., Alexandria, VA Sample Description: Work Order: 21J1070

Date Received: 10/19/2021

Field Sample #: HRP-SB214-14-16-211014 Sampled: 10/14/2021 14:35

Sample ID: 21J1070-20

Sample Matrix: Soil

Petroleum Hydrocarbons Analyses

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Gasoline Range Organics (GRO)	ND	0.74	0.73	mg/Kg dry	1		SW-846 8015C	10/20/21	10/21/21 6:04	KMB
Diesel Range Organics	ND	8.6	4.0	mg/Kg dry	1		SW-846 8015C	10/19/21	10/22/21 19:32	SFM

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
1-Chloro-3-fluorobenzene	87.8	70-130		10/21/21 6:04
2-Fluorobiphenyl	69.7	40-140		10/22/21 19:32

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Project Location: 1400 N. Royal St., Alexandria, VA Sample Description: Work Order: 21J1070

Date Received: 10/19/2021

Field Sample #: HRP-SB214-14-16-211014 Sampled: 10/14/2021 14:35

Sample ID: 21J1070-20

Sample Matrix: Soil

Metals Analyses (Total)

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Aluminum	2200	17	6.3	mg/Kg dry	1		SW-846 6010D	10/20/21	10/22/21 16:43	QNW
Antimony	ND	1.7	0.70	mg/Kg dry	1		SW-846 6010D	10/20/21	10/22/21 16:43	QNW
Arsenic	2.4	3.4	1.3	mg/Kg dry	1	J	SW-846 6010D	10/20/21	10/22/21 16:43	QNW
Barium	11	1.7	0.66	mg/Kg dry	1		SW-846 6010D	10/20/21	10/22/21 16:43	QNW
Beryllium	0.14	0.17	0.066	mg/Kg dry	1	J	SW-846 6010D	10/20/21	10/22/21 16:43	QNW
Cadmium	ND	0.34	0.18	mg/Kg dry	1		SW-846 6010D	10/20/21	10/22/21 16:43	QNW
Calcium	64	17	6.7	mg/Kg dry	1		SW-846 6010D	10/20/21	10/22/21 16:43	QNW
Chromium	3.3	0.69	0.39	mg/Kg dry	1		SW-846 6010D	10/20/21	10/22/21 16:43	QNW
Cobalt	2.9	1.7	0.64	mg/Kg dry	1		SW-846 6010D	10/20/21	10/22/21 16:43	QNW
Copper	2.9	0.69	0.33	mg/Kg dry	1		SW-846 6010D	10/20/21	10/22/21 16:43	QNW
Iron	12000	340	140	mg/Kg dry	20		SW-846 6010D	10/20/21	10/25/21 1:52	ICP
Lead	1.9	0.52	0.25	mg/Kg dry	1		SW-846 6010D	10/20/21	10/22/21 16:43	QNW
Magnesium	180	17	6.0	mg/Kg dry	1		SW-846 6010D	10/20/21	10/22/21 16:43	QNW
Manganese	56	0.34	0.13	mg/Kg dry	1		SW-846 6010D	10/20/21	10/22/21 16:43	QNW
Mercury	ND	0.030	0.010	mg/Kg dry	1		SW-846 7471B	10/20/21	10/21/21 12:58	DRL
Nickel	3.2	0.69	0.35	mg/Kg dry	1		SW-846 6010D	10/20/21	10/22/21 16:43	QNW
Potassium	210	170	65	mg/Kg dry	1		SW-846 6010D	10/20/21	10/22/21 16:43	QNW
Selenium	ND	3.4	1.2	mg/Kg dry	1		SW-846 6010D	10/20/21	10/25/21 3:33	QNW
Silver	ND	0.34	0.16	mg/Kg dry	1		SW-846 6010D	10/20/21	10/22/21 16:43	QNW
Sodium	ND	170	67	mg/Kg dry	1		SW-846 6010D	10/20/21	10/22/21 16:43	QNW
Thallium	ND	1.7	0.83	mg/Kg dry	1		SW-846 6010D	10/20/21	10/25/21 3:33	QNW
Vanadium	5.2	0.69	0.34	mg/Kg dry	1		SW-846 6010D	10/20/21	10/22/21 16:43	QNW
Zinc	7.7	0.69	0.44	mg/Kg dry	1		SW-846 6010D	10/20/21	10/22/21 16:43	QNW

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Project Location: 1400 N. Royal St., Alexandria, VA Sample Description: Work Order: 21J1070

Date Received: 10/19/2021

Field Sample #: HRP-SB214-14-16-211014 Sampled: 10/14/2021 14:35

Sample ID: 21J1070-20

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	96.6			% Wt	1		SM 2540G	10/20/21	10/21/21 11:13	AL2
Cyanide	ND	0.48	0.34	mg/Kg dry	1		SW-846 9014	10/19/21	10/20/21 17:15	DJM
pH @17.9°C	5.0			pH Units	1	H-03	SW-846 9045C	10/19/21	10/19/21 23:00	DJM

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Project Location: 1400 N. Royal St., Alexandria, VA Sample Description: Work Order: 21J1070

Date Received: 10/19/2021

Field Sample #: HRP-SB211-15-17-211015 Sampled: 10/15/2021 12:50

Sample ID: 21J1070-21

Sample Matrix: Soil

Metals Analyses (Total)

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Aluminum	3900	17	6.4	mg/Kg dry	1		SW-846 6010D	10/20/21	10/22/21 16:49	QNW
Antimony	ND	1.7	0.70	mg/Kg dry	1		SW-846 6010D	10/20/21	10/22/21 16:49	QNW
Arsenic	5.6	3.5	1.3	mg/Kg dry	1		SW-846 6010D	10/20/21	10/22/21 16:49	QNW
Barium	24	1.7	0.66	mg/Kg dry	1		SW-846 6010D	10/20/21	10/22/21 16:49	QNW
Beryllium	0.53	0.17	0.066	mg/Kg dry	1		SW-846 6010D	10/20/21	10/22/21 16:49	QNW
Cadmium	ND	0.35	0.18	mg/Kg dry	1		SW-846 6010D	10/20/21	10/22/21 16:49	QNW
Calcium	390	17	6.8	mg/Kg dry	1		SW-846 6010D	10/20/21	10/22/21 16:49	QNW
Chromium	12	0.70	0.40	mg/Kg dry	1		SW-846 6010D	10/20/21	10/22/21 16:49	QNW
Cobalt	7.7	1.7	0.64	mg/Kg dry	1		SW-846 6010D	10/20/21	10/22/21 16:49	QNW
Copper	8.3	0.70	0.33	mg/Kg dry	1		SW-846 6010D	10/20/21	10/22/21 16:49	QNW
Iron	29000	350	140	mg/Kg dry	20		SW-846 6010D	10/20/21	10/25/21 1:59	ICP
Lead	5.1	0.52	0.25	mg/Kg dry	1		SW-846 6010D	10/20/21	10/22/21 16:49	QNW
Magnesium	690	17	6.1	mg/Kg dry	1		SW-846 6010D	10/20/21	10/22/21 16:49	QNW
Manganese	140	0.35	0.14	mg/Kg dry	1		SW-846 6010D	10/20/21	10/22/21 16:49	QNW
Mercury	0.014	0.029	0.0098	mg/Kg dry	1	J	SW-846 7471B	10/20/21	10/21/21 13:05	DRL
Nickel	11	0.70	0.35	mg/Kg dry	1		SW-846 6010D	10/20/21	10/22/21 16:49	QNW
Potassium	410	170	66	mg/Kg dry	1		SW-846 6010D	10/20/21	10/22/21 16:49	QNW
Selenium	ND	3.5	1.2	mg/Kg dry	1		SW-846 6010D	10/20/21	10/25/21 3:40	QNW
Silver	ND	0.35	0.16	mg/Kg dry	1		SW-846 6010D	10/20/21	10/22/21 16:49	QNW
Sodium	880	170	68	mg/Kg dry	1		SW-846 6010D	10/20/21	10/22/21 16:49	QNW
Thallium	ND	1.7	0.84	mg/Kg dry	1		SW-846 6010D	10/20/21	10/25/21 3:40	QNW
Vanadium	17	0.70	0.35	mg/Kg dry	1		SW-846 6010D	10/20/21	10/22/21 16:49	QNW
Zinc	21	0.70	0.45	mg/Kg dry	1		SW-846 6010D	10/20/21	10/22/21 16:49	QNW

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Project Location: 1400 N. Royal St., Alexandria, VA Sample Description: Work Order: 21J1070

Date Received: 10/19/2021

Field Sample #: HRP-SB211-15-17-211015 Sampled: 10/15/2021 12:50

Sample ID: 21J1070-21

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	91.3			% Wt	1		SM 2540G	10/20/21	10/22/21 13:58	GLH
Cyanide	ND	0.53	0.37	mg/Kg dry	1		SW-846 9014	10/21/21	10/22/21 15:40	DJM
pH @18.5°C	9.0			pH Units	1	H-03	SW-846 9045C	10/19/21	10/19/21 23:00	DJM

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Project Location: 1400 N. Royal St., Alexandria, VA Sample Description: Work Order: 21J1070

Date Received: 10/19/2021

Field Sample #: HRP-EB04-211015 Sampled: 10/15/2021 14:05

Sample ID: 21J1070-22

Sample Matrix: Water

Metals Analyses (Total)

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Aluminum	ND	0.050	0.049	mg/L	1		SW-846 6010D	10/20/21	10/24/21 18:53	QNW
Antimony	ND	1.0	0.20	µg/L	1		SW-846 6020B	10/20/21	10/21/21 15:41	QNW
Arsenic	ND	0.80	0.46	µg/L	1		SW-846 6020B	10/20/21	10/21/21 15:41	QNW
Barium	48	10	1.2	µg/L	1		SW-846 6020B	10/20/21	10/21/21 15:41	QNW
Beryllium	ND	0.40	0.066	µg/L	1		SW-846 6020B	10/20/21	10/21/21 15:41	QNW
Cadmium	ND	0.20	0.027	µg/L	1		SW-846 6020B	10/20/21	10/21/21 15:41	QNW
Calcium	7.8	0.50	0.11	mg/L	1		SW-846 6010D	10/20/21	10/24/21 18:53	QNW
Chromium	ND	1.0	0.92	µg/L	1		SW-846 6020B	10/20/21	10/21/21 15:41	QNW
Cobalt	0.16	1.0	0.14	µg/L	1	J	SW-846 6020B	10/20/21	10/21/21 15:41	QNW
Copper	0.35	1.0	0.27	µg/L	1	J	SW-846 6020B	10/20/21	10/21/21 15:41	QNW
Iron	ND	0.050	0.032	mg/L	1		SW-846 6010D	10/20/21	10/24/21 18:53	QNW
Lead	ND	0.50	0.14	µg/L	1		SW-846 6020B	10/20/21	10/21/21 15:41	QNW
Magnesium	1.7	0.050	0.023	mg/L	1		SW-846 6010D	10/20/21	10/24/21 18:53	QNW
Manganese	8.5	1.0	0.24	µg/L	1		SW-846 6020B	10/20/21	10/21/21 15:41	QNW
Mercury	ND	0.00010	0.000050	mg/L	1		SW-846 7470A	10/22/21	10/23/21 11:11	DRL
Nickel	2.4	5.0	0.52	µg/L	1	J	SW-846 6020B	10/20/21	10/21/21 15:41	QNW
Potassium	1.6	2.0	0.40	mg/L	1	J	SW-846 6010D	10/20/21	10/24/21 18:53	QNW
Selenium	ND	5.0	0.78	µg/L	1		SW-846 6020B	10/20/21	10/21/21 15:41	QNW
Silver	ND	0.20	0.026	µg/L	1		SW-846 6020B	10/20/21	10/21/21 15:41	QNW
Sodium	3.5	2.0	0.56	mg/L	1		SW-846 6010D	10/20/21	10/24/21 18:53	QNW
Thallium	ND	0.20	0.067	µg/L	1		SW-846 6020B	10/20/21	10/21/21 15:41	QNW
Vanadium	ND	5.0	3.5	µg/L	1		SW-846 6020B	10/20/21	10/21/21 15:41	QNW
Zinc	140	10	3.4	µg/L	1		SW-846 6020B	10/20/21	10/21/21 15:41	QNW

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Project Location: 1400 N. Royal St., Alexandria, VA Sample Description: Work Order: 21J1070

Date Received: 10/19/2021

Field Sample #: HRP-EB04-211015 Sampled: 10/15/2021 14:05

Sample ID: 21J1070-22

Sample Matrix: Water

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Cyanide	ND	0.010	0.0073	mg/L	1		SW-846 9014	10/21/21	10/22/21 15:40	DJM

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Project Location: 1400 N. Royal St., Alexandria, VA Sample Description: Work Order: 21J1070

Date Received: 10/19/2021

Field Sample #: HRP-TB04-211015 Sampled: 10/15/2021 14:10

Sample ID: 21J1070-23

Sample Matrix: Water

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acetone	ND	50	2.4	µg/L	1		SW-846 8260D	10/21/21	10/21/21 12:46	MFF
Acrylonitrile	ND	5.0	0.69	µg/L	1		SW-846 8260D	10/21/21	10/21/21 12:46	MFF
tert-Amyl Methyl Ether (TAME)	ND	0.50	0.15	µg/L	1		SW-846 8260D	10/21/21	10/21/21 12:46	MFF
Benzene	ND	1.0	0.13	µg/L	1		SW-846 8260D	10/21/21	10/21/21 12:46	MFF
Bromobenzene	ND	1.0	0.13	µg/L	1		SW-846 8260D	10/21/21	10/21/21 12:46	MFF
Bromochloromethane	ND	1.0	0.36	µg/L	1		SW-846 8260D	10/21/21	10/21/21 12:46	MFF
Bromodichloromethane	ND	0.50	0.14	µg/L	1		SW-846 8260D	10/21/21	10/21/21 12:46	MFF
Bromoform	ND	1.0	0.29	µg/L	1		SW-846 8260D	10/21/21	10/21/21 12:46	MFF
Bromomethane	ND	2.0	1.1	µg/L	1		SW-846 8260D	10/21/21	10/21/21 12:46	MFF
2-Butanone (MEK)	ND	20	1.9	µg/L	1		SW-846 8260D	10/21/21	10/21/21 12:46	MFF
tert-Butyl Alcohol (TBA)	ND	20	5.3	µg/L	1		SW-846 8260D	10/21/21	10/21/21 12:46	MFF
n-Butylbenzene	ND	1.0	0.14	µg/L	1		SW-846 8260D	10/21/21	10/21/21 12:46	MFF
sec-Butylbenzene	ND	1.0	0.10	µg/L	1		SW-846 8260D	10/21/21	10/21/21 12:46	MFF
tert-Butylbenzene	ND	1.0	0.090	µg/L	1		SW-846 8260D	10/21/21	10/21/21 12:46	MFF
tert-Butyl Ethyl Ether (TBEE)	ND	0.50	0.11	µg/L	1		SW-846 8260D	10/21/21	10/21/21 12:46	MFF
Carbon Disulfide	ND	5.0	1.5	µg/L	1		SW-846 8260D	10/21/21	10/21/21 12:46	MFF
Carbon Tetrachloride	ND	5.0	0.17	µg/L	1		SW-846 8260D	10/21/21	10/21/21 12:46	MFF
Chlorobenzene	ND	1.0	0.080	µg/L	1		SW-846 8260D	10/21/21	10/21/21 12:46	MFF
Chlorodibromomethane	ND	0.50	0.16	µg/L	1		SW-846 8260D	10/21/21	10/21/21 12:46	MFF
Chloroethane	ND	2.0	0.37	µg/L	1		SW-846 8260D	10/21/21	10/21/21 12:46	MFF
Chloroform	ND	2.0	0.19	µg/L	1		SW-846 8260D	10/21/21	10/21/21 12:46	MFF
Chloromethane	ND	2.0	0.38	µg/L	1		SW-846 8260D	10/21/21	10/21/21 12:46	MFF
2-Chlorotoluene	ND	1.0	0.090	µg/L	1		SW-846 8260D	10/21/21	10/21/21 12:46	MFF
4-Chlorotoluene	ND	1.0	0.10	µg/L	1		SW-846 8260D	10/21/21	10/21/21 12:46	MFF
1,2-Dibromo-3-chloropropane (DBCP)	ND	5.0	0.72	µg/L	1		SW-846 8260D	10/21/21	10/21/21 12:46	MFF
1,2-Dibromoethane (EDB)	ND	0.50	0.15	µg/L	1		SW-846 8260D	10/21/21	10/21/21 12:46	MFF
Dibromomethane	ND	1.0	0.29	µg/L	1		SW-846 8260D	10/21/21	10/21/21 12:46	MFF
1,2-Dichlorobenzene	ND	1.0	0.10	µg/L	1		SW-846 8260D	10/21/21	10/21/21 12:46	MFF
1,3-Dichlorobenzene	ND	1.0	0.090	µg/L	1		SW-846 8260D	10/21/21	10/21/21 12:46	MFF
1,4-Dichlorobenzene	ND	1.0	0.11	µg/L	1		SW-846 8260D	10/21/21	10/21/21 12:46	MFF
trans-1,4-Dichloro-2-butene	ND	2.0	1.8	µg/L	1		SW-846 8260D	10/21/21	10/21/21 12:46	MFF
Dichlorodifluoromethane (Freon 12)	ND	2.0	0.20	µg/L	1		SW-846 8260D	10/21/21	10/21/21 12:46	MFF
1,1-Dichloroethane	ND	1.0	0.16	µg/L	1		SW-846 8260D	10/21/21	10/21/21 12:46	MFF
1,2-Dichloroethane	ND	1.0	0.32	µg/L	1		SW-846 8260D	10/21/21	10/21/21 12:46	MFF
1,1-Dichloroethylene	ND	1.0	0.16	µg/L	1		SW-846 8260D	10/21/21	10/21/21 12:46	MFF
cis-1,2-Dichloroethylene	ND	1.0	0.15	µg/L	1		SW-846 8260D	10/21/21	10/21/21 12:46	MFF
trans-1,2-Dichloroethylene	ND	1.0	0.17	µg/L	1		SW-846 8260D	10/21/21	10/21/21 12:46	MFF
1,2-Dichloropropane	ND	1.0	0.18	µg/L	1		SW-846 8260D	10/21/21	10/21/21 12:46	MFF
1,3-Dichloropropane	ND	0.50	0.12	µg/L	1		SW-846 8260D	10/21/21	10/21/21 12:46	MFF
2,2-Dichloropropane	ND	1.0	0.31	µg/L	1		SW-846 8260D	10/21/21	10/21/21 12:46	MFF
1,1-Dichloropropene	ND	2.0	0.26	µg/L	1		SW-846 8260D	10/21/21	10/21/21 12:46	MFF
cis-1,3-Dichloropropene	ND	0.50	0.12	µg/L	1		SW-846 8260D	10/21/21	10/21/21 12:46	MFF
trans-1,3-Dichloropropene	ND	0.50	0.15	µg/L	1		SW-846 8260D	10/21/21	10/21/21 12:46	MFF
Diethyl Ether	ND	2.0	0.22	µg/L	1		SW-846 8260D	10/21/21	10/21/21 12:46	MFF

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Project Location: 1400 N. Royal St., Alexandria, VA Sample Description: Work Order: 21J1070

Date Received: 10/19/2021

Field Sample #: HRP-TB04-211015 Sampled: 10/15/2021 14:10

Sample ID: 21J1070-23

Sample Matrix: Water

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Diisopropyl Ether (DIPE)	ND	0.50	0.15	µg/L	1		SW-846 8260D	10/21/21	10/21/21 12:46	MFF
1,4-Dioxane	ND	50	22	µg/L	1		SW-846 8260D	10/21/21	10/21/21 12:46	MFF
Ethylbenzene	ND	1.0	0.090	µg/L	1		SW-846 8260D	10/21/21	10/21/21 12:46	MFF
Hexachlorobutadiene	ND	0.60	0.41	µg/L	1		SW-846 8260D	10/21/21	10/21/21 12:46	MFF
2-Hexanone (MBK)	ND	10	1.4	µg/L	1		SW-846 8260D	10/21/21	10/21/21 12:46	MFF
Isopropylbenzene (Cumene)	ND	1.0	0.10	µg/L	1		SW-846 8260D	10/21/21	10/21/21 12:46	MFF
p-Isopropyltoluene (p-Cymene)	ND	1.0	0.090	µg/L	1		SW-846 8260D	10/21/21	10/21/21 12:46	MFF
Methyl Acetate	ND	1.0	0.39	µg/L	1		SW-846 8260D	10/21/21	10/21/21 12:46	MFF
Methyl tert-Butyl Ether (MTBE)	ND	1.0	0.17	µg/L	1		SW-846 8260D	10/21/21	10/21/21 12:46	MFF
Methyl Cyclohexane	ND	1.0	0.33	µg/L	1		SW-846 8260D	10/21/21	10/21/21 12:46	MFF
Methylene Chloride	ND	5.0	0.30	µg/L	1		SW-846 8260D	10/21/21	10/21/21 12:46	MFF
4-Methyl-2-pentanone (MIBK)	ND	10	1.6	µg/L	1		SW-846 8260D	10/21/21	10/21/21 12:46	MFF
Naphthalene	ND	2.0	0.15	µg/L	1	V-05	SW-846 8260D	10/21/21	10/21/21 12:46	MFF
n-Propylbenzene	ND	1.0	0.080	µg/L	1		SW-846 8260D	10/21/21	10/21/21 12:46	MFF
Styrene	ND	1.0	0.080	µg/L	1		SW-846 8260D	10/21/21	10/21/21 12:46	MFF
1,1,1,2-Tetrachloroethane	ND	1.0	0.14	µg/L	1		SW-846 8260D	10/21/21	10/21/21 12:46	MFF
1,1,2,2-Tetrachloroethane	ND	0.50	0.090	µg/L	1		SW-846 8260D	10/21/21	10/21/21 12:46	MFF
Tetrachloroethylene	ND	1.0	0.20	µg/L	1		SW-846 8260D	10/21/21	10/21/21 12:46	MFF
Tetrahydrofuran	ND	10	0.58	µg/L	1		SW-846 8260D	10/21/21	10/21/21 12:46	MFF
Toluene	ND	1.0	0.11	µg/L	1		SW-846 8260D	10/21/21	10/21/21 12:46	MFF
1,2,3-Trichlorobenzene	ND	5.0	0.14	µg/L	1	L-04, V-05	SW-846 8260D	10/21/21	10/21/21 12:46	MFF
1,2,4-Trichlorobenzene	ND	1.0	0.16	µg/L	1	V-05	SW-846 8260D	10/21/21	10/21/21 12:46	MFF
1,3,5-Trichlorobenzene	ND	1.0	0.18	µg/L	1		SW-846 8260D	10/21/21	10/21/21 12:46	MFF
1,1,1-Trichloroethane	ND	1.0	0.17	µg/L	1		SW-846 8260D	10/21/21	10/21/21 12:46	MFF
1,1,2-Trichloroethane	ND	1.0	0.15	µg/L	1		SW-846 8260D	10/21/21	10/21/21 12:46	MFF
Trichloroethylene	ND	1.0	0.18	µg/L	1		SW-846 8260D	10/21/21	10/21/21 12:46	MFF
Trichlorofluoromethane (Freon 11)	ND	2.0	0.19	µg/L	1		SW-846 8260D	10/21/21	10/21/21 12:46	MFF
1,2,3-Trichloropropane	ND	2.0	0.31	µg/L	1		SW-846 8260D	10/21/21	10/21/21 12:46	MFF
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	1.0	0.24	µg/L	1		SW-846 8260D	10/21/21	10/21/21 12:46	MFF
1,2,4-Trimethylbenzene	ND	1.0	0.10	µg/L	1		SW-846 8260D	10/21/21	10/21/21 12:46	MFF
1,3,5-Trimethylbenzene	ND	1.0	0.10	µg/L	1		SW-846 8260D	10/21/21	10/21/21 12:46	MFF
Vinyl Chloride	ND	2.0	0.20	µg/L	1		SW-846 8260D	10/21/21	10/21/21 12:46	MFF
m+p Xylene	ND	2.0	0.18	µg/L	1		SW-846 8260D	10/21/21	10/21/21 12:46	MFF
o-Xylene	ND	1.0	0.090	µg/L	1		SW-846 8260D	10/21/21	10/21/21 12:46	MFF

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
1,2-Dichloroethane-d4	112	70-130		10/21/21 12:46
Toluene-d8	111	70-130		10/21/21 12:46
4-Bromofluorobenzene	107	70-130		10/21/21 12:46

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Sample Extraction Data

Prep Method: % Solids **Analytical Method: SM 2540G**

Lab Number [Field ID]	Batch	Date
21J1070-02 [HRP-SB213-0-1-211015]	B292869	10/20/21
21J1070-03 [HRP-SB213-5-7-211015]	B292869	10/20/21
21J1070-04 [HRP-SB213-16-18-211015]	B292869	10/20/21
21J1070-05 [HRP-SB212-0-2-211015]	B292869	10/20/21
21J1070-06 [HRP-DUP04-0-2-211015]	B292869	10/20/21
21J1070-07 [HRP-SB212-5-7-211015]	B292869	10/20/21
21J1070-08 [HRP-SB212-15-17-211015]	B292869	10/20/21
21J1070-09 [HRP-SB211-0-1-211015]	B292869	10/20/21
21J1070-10 [HRP-SB211-5-7-211015]	B292869	10/20/21
21J1070-11 [HRP-SB209-0-1-211013]	B292869	10/20/21
21J1070-12 [HRP-SB209-5-7-211013]	B292869	10/20/21
21J1070-13 [HRP-SB209-15-17-211013]	B292869	10/20/21
21J1070-15 [HRP-SB208-0-1-211014]	B292869	10/20/21
21J1070-16 [HRP-SB208-5-7-211014]	B292869	10/20/21
21J1070-17 [HRP-SB208-18-20-211014]	B292869	10/20/21
21J1070-19 [HRP-SB214-5-7-211014]	B292869	10/20/21
21J1070-20 [HRP-SB214-14-16-211014]	B292869	10/20/21

Prep Method: % Solids **Analytical Method: SM 2540G**

Lab Number [Field ID]	Batch	Date
21J1070-18 [HRP-SB214-0-2-211014]	B292891	10/20/21
21J1070-21 [HRP-SB211-15-17-211015]	B292891	10/20/21

Prep Method: SW-846 3050B **Analytical Method: SW-846 6010D**

Lab Number [Field ID]	Batch	Initial [g]	Final [mL]	Date
21J1070-08 [HRP-SB212-15-17-211015]	B292839	1.50	50.0	10/20/21
21J1070-09 [HRP-SB211-0-1-211015]	B292839	1.53	50.0	10/20/21
21J1070-10 [HRP-SB211-5-7-211015]	B292839	1.54	50.0	10/20/21
21J1070-11 [HRP-SB209-0-1-211013]	B292839	1.52	50.0	10/20/21
21J1070-12 [HRP-SB209-5-7-211013]	B292839	1.52	50.0	10/20/21
21J1070-13 [HRP-SB209-15-17-211013]	B292839	1.54	50.0	10/20/21
21J1070-15 [HRP-SB208-0-1-211014]	B292839	1.54	50.0	10/20/21
21J1070-16 [HRP-SB208-5-7-211014]	B292839	1.56	50.0	10/20/21
21J1070-17 [HRP-SB208-18-20-211014]	B292839	1.52	50.0	10/20/21
21J1070-18 [HRP-SB214-0-2-211014]	B292839	1.52	50.0	10/20/21
21J1070-19 [HRP-SB214-5-7-211014]	B292839	1.57	50.0	10/20/21
21J1070-20 [HRP-SB214-14-16-211014]	B292839	1.50	50.0	10/20/21
21J1070-21 [HRP-SB211-15-17-211015]	B292839	1.57	50.0	10/20/21

Prep Method: SW-846 3050B **Analytical Method: SW-846 6010D**

Lab Number [Field ID]	Batch	Initial [g]	Final [mL]	Date
21J1070-02 [HRP-SB213-0-1-211015]	B292933	1.55	50.0	10/21/21
21J1070-03 [HRP-SB213-5-7-211015]	B292933	1.60	50.0	10/21/21
21J1070-04 [HRP-SB213-16-18-211015]	B292933	1.57	50.0	10/21/21
21J1070-05 [HRP-SB212-0-2-211015]	B292933	1.52	50.0	10/21/21
21J1070-06 [HRP-DUP04-0-2-211015]	B292933	1.51	50.0	10/21/21
21J1070-07 [HRP-SB212-5-7-211015]	B292933	1.51	50.0	10/21/21

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Sample Extraction Data

Prep Method: SW-846 3005A **Analytical Method: SW-846 6010D**

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
21J1070-14 [HRP-EB03-211013]	B292880	50.0	50.0	10/20/21
21J1070-22 [HRP-EB04-211015]	B292880	50.0	50.0	10/20/21

Prep Method: SW-846 3005A **Analytical Method: SW-846 6020B**

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
21J1070-14 [HRP-EB03-211013]	B292879	50.0	50.0	10/20/21
21J1070-22 [HRP-EB04-211015]	B292879	50.0	50.0	10/20/21

Prep Method: SW-846 7470A Prep **Analytical Method: SW-846 7470A**

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
21J1070-14 [HRP-EB03-211013]	B292987	10.0	10.0	10/22/21
21J1070-22 [HRP-EB04-211015]	B292987	10.0	10.0	10/22/21

Prep Method: SW-846 7471 **Analytical Method: SW-846 7471B**

Lab Number [Field ID]	Batch	Initial [g]	Final [mL]	Date
21J1070-02 [HRP-SB213-0-1-211015]	B292806	0.542	50.0	10/20/21
21J1070-03 [HRP-SB213-5-7-211015]	B292806	0.576	50.0	10/20/21
21J1070-04 [HRP-SB213-16-18-211015]	B292806	0.592	50.0	10/20/21
21J1070-05 [HRP-SB212-0-2-211015]	B292806	0.531	50.0	10/20/21
21J1070-06 [HRP-DUP04-0-2-211015]	B292806	0.566	50.0	10/20/21
21J1070-07 [HRP-SB212-5-7-211015]	B292806	0.602	50.0	10/20/21
21J1070-08 [HRP-SB212-15-17-211015]	B292806	0.583	50.0	10/20/21
21J1070-09 [HRP-SB211-0-1-211015]	B292806	0.564	50.0	10/20/21
21J1070-10 [HRP-SB211-5-7-211015]	B292806	0.557	50.0	10/20/21
21J1070-11 [HRP-SB209-0-1-211013]	B292806	0.570	50.0	10/20/21
21J1070-12 [HRP-SB209-5-7-211013]	B292806	0.566	50.0	10/20/21
21J1070-13 [HRP-SB209-15-17-211013]	B292806	0.585	50.0	10/20/21
21J1070-15 [HRP-SB208-0-1-211014]	B292806	0.531	50.0	10/20/21
21J1070-16 [HRP-SB208-5-7-211014]	B292806	0.581	50.0	10/20/21
21J1070-17 [HRP-SB208-18-20-211014]	B292806	0.564	50.0	10/20/21
21J1070-18 [HRP-SB214-0-2-211014]	B292806	0.568	50.0	10/20/21
21J1070-19 [HRP-SB214-5-7-211014]	B292806	0.604	50.0	10/20/21
21J1070-20 [HRP-SB214-14-16-211014]	B292806	0.522	50.0	10/20/21
21J1070-21 [HRP-SB211-15-17-211015]	B292806	0.569	50.0	10/20/21

Prep Method: SW-846 3546 **Analytical Method: SW-846 8015C**

Lab Number [Field ID]	Batch	Initial [g]	Final [mL]	Date
21J1070-18 [HRP-SB214-0-2-211014]	B292781	30.0	1.00	10/19/21
21J1070-19 [HRP-SB214-5-7-211014]	B292781	30.0	1.00	10/19/21
21J1070-20 [HRP-SB214-14-16-211014]	B292781	30.0	1.00	10/19/21

Prep Method: SW-846 5030B **Analytical Method: SW-846 8015C**

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
21J1070-18 [HRP-SB214-0-2-211014]	B292858	5.27	5.64	10/20/21

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Sample Extraction Data

Prep Method: SW-846 5030B **Analytical Method: SW-846 8015C**

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
21J1070-19 [HRP-SB214-5-7-211014]	B292858	6.04	6.21	10/20/21
21J1070-20 [HRP-SB214-14-16-211014]	B292858	7.36	5.25	10/20/21

Prep Method: SW-846 5030B **Analytical Method: SW-846 8015C**

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
21J1070-01 [HRP-TB03-211015]	B292856	5	5.00	10/20/21

Prep Method: SW-846 5035 **Analytical Method: SW-846 8260D**

Lab Number [Field ID]	Batch	Initial [g]	Final [mL]	Date
21J1070-18 [HRP-SB214-0-2-211014]	B292812	5.01	10.0	10/20/21
21J1070-19 [HRP-SB214-5-7-211014]	B292812	6.31	10.0	10/20/21
21J1070-20 [HRP-SB214-14-16-211014]	B292812	6.06	10.0	10/20/21

Prep Method: SW-846 5030B **Analytical Method: SW-846 8260D**

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
21J1070-01 [HRP-TB03-211015]	B293011	5	5.00	10/21/21
21J1070-23 [HRP-TB04-211015]	B293011	5	5.00	10/21/21

Prep Method: SW-846 9010C **Analytical Method: SW-846 9014**

Lab Number [Field ID]	Batch	Initial [g]	Final [mL]	Date
21J1070-02 [HRP-SB213-0-1-211015]	B292770	1.09	50.0	10/19/21
21J1070-03 [HRP-SB213-5-7-211015]	B292770	1.37	50.0	10/19/21
21J1070-04 [HRP-SB213-16-18-211015]	B292770	1.29	50.0	10/19/21
21J1070-05 [HRP-SB212-0-2-211015]	B292770	1.18	50.0	10/19/21
21J1070-06 [HRP-DUP04-0-2-211015]	B292770	1.16	50.0	10/19/21
21J1070-07 [HRP-SB212-5-7-211015]	B292770	1.04	50.0	10/19/21
21J1070-08 [HRP-SB212-15-17-211015]	B292770	1.13	50.0	10/19/21
21J1070-09 [HRP-SB211-0-1-211015]	B292770	1.20	50.0	10/19/21
21J1070-10 [HRP-SB211-5-7-211015]	B292770	1.39	50.0	10/19/21
21J1070-11 [HRP-SB209-0-1-211013]	B292770	1.04	50.0	10/19/21
21J1070-12 [HRP-SB209-5-7-211013]	B292770	1.05	50.0	10/19/21
21J1070-13 [HRP-SB209-15-17-211013]	B292770	1.13	50.0	10/19/21
21J1070-15 [HRP-SB208-0-1-211014]	B292770	1.33	50.0	10/19/21
21J1070-16 [HRP-SB208-5-7-211014]	B292770	1.38	50.0	10/19/21
21J1070-17 [HRP-SB208-18-20-211014]	B292770	1.27	50.0	10/19/21
21J1070-18 [HRP-SB214-0-2-211014]	B292770	1.05	50.0	10/19/21
21J1070-19 [HRP-SB214-5-7-211014]	B292770	1.04	50.0	10/19/21
21J1070-20 [HRP-SB214-14-16-211014]	B292770	1.08	50.0	10/19/21

Prep Method: SW-846 9010C **Analytical Method: SW-846 9014**

Lab Number [Field ID]	Batch	Initial [g]	Final [mL]	Date
21J1070-21 [HRP-SB211-15-17-211015]	B292922	1.04	50.0	10/21/21

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Sample Extraction Data

Prep Method: SW-846 9010C **Analytical Method: SW-846 9014**

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
21J1070-14 [HRP-EB03-211013]	B292917	50.0	50.0	10/21/21
21J1070-22 [HRP-EB04-211015]	B292917	50.0	50.0	10/21/21

SW-846 9045C

Lab Number [Field ID]	Batch	Initial [g]	Date
21J1070-02 [HRP-SB213-0-1-211015]	B292801	20.0	10/19/21
21J1070-03 [HRP-SB213-5-7-211015]	B292801	20.0	10/19/21
21J1070-04 [HRP-SB213-16-18-211015]	B292801	20.0	10/19/21
21J1070-05 [HRP-SB212-0-2-211015]	B292801	20.0	10/19/21
21J1070-06 [HRP-DUP04-0-2-211015]	B292801	20.0	10/19/21
21J1070-07 [HRP-SB212-5-7-211015]	B292801	20.0	10/19/21
21J1070-08 [HRP-SB212-15-17-211015]	B292801	20.0	10/19/21
21J1070-09 [HRP-SB211-0-1-211015]	B292801	20.0	10/19/21
21J1070-10 [HRP-SB211-5-7-211015]	B292801	20.0	10/19/21
21J1070-11 [HRP-SB209-0-1-211013]	B292801	20.0	10/19/21
21J1070-12 [HRP-SB209-5-7-211013]	B292801	20.0	10/19/21
21J1070-13 [HRP-SB209-15-17-211013]	B292801	20.0	10/19/21
21J1070-15 [HRP-SB208-0-1-211014]	B292801	20.0	10/19/21
21J1070-16 [HRP-SB208-5-7-211014]	B292801	20.0	10/19/21
21J1070-17 [HRP-SB208-18-20-211014]	B292801	20.0	10/19/21
21J1070-18 [HRP-SB214-0-2-211014]	B292801	20.0	10/19/21
21J1070-19 [HRP-SB214-5-7-211014]	B292801	20.0	10/19/21
21J1070-20 [HRP-SB214-14-16-211014]	B292801	20.0	10/19/21
21J1070-21 [HRP-SB211-15-17-211015]	B292801	20.0	10/19/21

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QUALITY CONTROL

Volatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B292812 - SW-846 5035										
Blank (B292812-BLK1)				Prepared & Analyzed: 10/20/21						
Acetone	ND	0.10	mg/Kg wet							
Acrylonitrile	ND	0.0060	mg/Kg wet							
tert-Amyl Methyl Ether (TAME)	ND	0.0010	mg/Kg wet							
Benzene	ND	0.0020	mg/Kg wet							
Bromobenzene	ND	0.0020	mg/Kg wet							
Bromochloromethane	ND	0.0020	mg/Kg wet							
Bromodichloromethane	ND	0.0020	mg/Kg wet							
Bromoform	ND	0.0020	mg/Kg wet							
Bromomethane	ND	0.010	mg/Kg wet							V-34
2-Butanone (MEK)	ND	0.040	mg/Kg wet							
tert-Butyl Alcohol (TBA)	ND	0.10	mg/Kg wet							
n-Butylbenzene	ND	0.0020	mg/Kg wet							
sec-Butylbenzene	ND	0.0020	mg/Kg wet							
tert-Butylbenzene	ND	0.0020	mg/Kg wet							
tert-Butyl Ethyl Ether (TBEE)	ND	0.0010	mg/Kg wet							
Carbon Disulfide	ND	0.010	mg/Kg wet							
Carbon Tetrachloride	ND	0.0020	mg/Kg wet							
Chlorobenzene	ND	0.0020	mg/Kg wet							
Chlorodibromomethane	ND	0.0010	mg/Kg wet							
Chloroethane	ND	0.020	mg/Kg wet							
Chloroform	ND	0.0040	mg/Kg wet							
Chloromethane	ND	0.010	mg/Kg wet							
2-Chlorotoluene	ND	0.0020	mg/Kg wet							
4-Chlorotoluene	ND	0.0020	mg/Kg wet							
1,2-Dibromo-3-chloropropane (DBCP)	ND	0.0020	mg/Kg wet							
1,2-Dibromoethane (EDB)	ND	0.0010	mg/Kg wet							
Dibromomethane	ND	0.0020	mg/Kg wet							
1,2-Dichlorobenzene	ND	0.0020	mg/Kg wet							
1,3-Dichlorobenzene	ND	0.0020	mg/Kg wet							
1,4-Dichlorobenzene	ND	0.0020	mg/Kg wet							
trans-1,4-Dichloro-2-butene	ND	0.0040	mg/Kg wet							
Dichlorodifluoromethane (Freon 12)	ND	0.020	mg/Kg wet							V-05
1,1-Dichloroethane	ND	0.0020	mg/Kg wet							
1,2-Dichloroethane	ND	0.0020	mg/Kg wet							
1,1-Dichloroethylene	ND	0.0040	mg/Kg wet							
cis-1,2-Dichloroethylene	ND	0.0020	mg/Kg wet							
trans-1,2-Dichloroethylene	ND	0.0020	mg/Kg wet							
1,2-Dichloropropane	ND	0.0020	mg/Kg wet							
1,3-Dichloropropane	ND	0.0010	mg/Kg wet							
2,2-Dichloropropane	ND	0.0020	mg/Kg wet							
1,1-Dichloropropene	ND	0.0020	mg/Kg wet							
cis-1,3-Dichloropropene	ND	0.0010	mg/Kg wet							
trans-1,3-Dichloropropene	ND	0.0010	mg/Kg wet							
Diethyl Ether	ND	0.020	mg/Kg wet							
Diisopropyl Ether (DIPE)	ND	0.0010	mg/Kg wet							
1,4-Dioxane	ND	0.10	mg/Kg wet							
Ethylbenzene	ND	0.0020	mg/Kg wet							
Hexachlorobutadiene	ND	0.0020	mg/Kg wet							
2-Hexanone (MBK)	ND	0.020	mg/Kg wet							
Isopropylbenzene (Cumene)	ND	0.0020	mg/Kg wet							
p-Isopropyltoluene (p-Cymene)	ND	0.0020	mg/Kg wet							
Methyl Acetate	ND	0.0020	mg/Kg wet							

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QUALITY CONTROL

Volatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes	
Batch B292812 - SW-846 5035											
Blank (B292812-BLK1)				Prepared & Analyzed: 10/20/21							
Methyl tert-Butyl Ether (MTBE)	ND	0.0040	mg/Kg wet								
Methyl Cyclohexane	ND	0.0020	mg/Kg wet								
Methylene Chloride	ND	0.020	mg/Kg wet								
4-Methyl-2-pentanone (MIBK)	ND	0.020	mg/Kg wet								
Naphthalene	ND	0.0040	mg/Kg wet								
n-Propylbenzene	ND	0.0020	mg/Kg wet								
Styrene	ND	0.0020	mg/Kg wet								
1,1,1,2-Tetrachloroethane	ND	0.0020	mg/Kg wet								
1,1,2,2-Tetrachloroethane	ND	0.0010	mg/Kg wet								
Tetrachloroethylene	ND	0.0020	mg/Kg wet								
Tetrahydrofuran	ND	0.010	mg/Kg wet								
Toluene	ND	0.0020	mg/Kg wet								
1,2,3-Trichlorobenzene	ND	0.0020	mg/Kg wet								
1,2,4-Trichlorobenzene	ND	0.0020	mg/Kg wet								
1,3,5-Trichlorobenzene	ND	0.0020	mg/Kg wet								
1,1,1-Trichloroethane	ND	0.0020	mg/Kg wet								
1,1,2-Trichloroethane	ND	0.0020	mg/Kg wet								
Trichloroethylene	ND	0.0020	mg/Kg wet								
Trichlorofluoromethane (Freon 11)	ND	0.010	mg/Kg wet								
1,2,3-Trichloropropane	ND	0.0020	mg/Kg wet								
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	0.010	mg/Kg wet								
1,2,4-Trimethylbenzene	ND	0.0020	mg/Kg wet								
1,3,5-Trimethylbenzene	ND	0.0020	mg/Kg wet								
Vinyl Chloride	ND	0.010	mg/Kg wet								
m+p Xylene	ND	0.0040	mg/Kg wet								
o-Xylene	ND	0.0020	mg/Kg wet								
Surrogate: 1,2-Dichloroethane-d4	*0.0501*		mg/Kg wet	0.0500		100	70-130				
Surrogate: Toluene-d8	*0.0504*		mg/Kg wet	0.0500		101	70-130				
Surrogate: 4-Bromofluorobenzene	*0.0506*		mg/Kg wet	0.0500		101	70-130				
LCS (B292812-BS1)				Prepared & Analyzed: 10/20/21							
Acetone	0.191	0.10	mg/Kg wet	0.200		95.4	70-160			V-36	†
Acrylonitrile	0.0221	0.0060	mg/Kg wet	0.0200		111	70-130				
tert-Amyl Methyl Ether (TAME)	0.0178	0.0010	mg/Kg wet	0.0200		89.1	70-130				
Benzene	0.0196	0.0020	mg/Kg wet	0.0200		97.8	70-130				
Bromobenzene	0.0204	0.0020	mg/Kg wet	0.0200		102	70-130				
Bromochloromethane	0.0207	0.0020	mg/Kg wet	0.0200		103	70-130				
Bromodichloromethane	0.0212	0.0020	mg/Kg wet	0.0200		106	70-130				
Bromoform	0.0221	0.0020	mg/Kg wet	0.0200		111	70-130				
Bromomethane	0.0211	0.010	mg/Kg wet	0.0200		106	40-130			V-34	†
2-Butanone (MEK)	0.200	0.040	mg/Kg wet	0.200		100	70-160				†
tert-Butyl Alcohol (TBA)	0.177	0.10	mg/Kg wet	0.200		88.7	40-130				†
n-Butylbenzene	0.0211	0.0020	mg/Kg wet	0.0200		105	70-130				
sec-Butylbenzene	0.0204	0.0020	mg/Kg wet	0.0200		102	70-130				
tert-Butylbenzene	0.0198	0.0020	mg/Kg wet	0.0200		98.9	70-160				†
tert-Butyl Ethyl Ether (TBEE)	0.0174	0.0010	mg/Kg wet	0.0200		86.8	70-130				
Carbon Disulfide	0.190	0.010	mg/Kg wet	0.200		94.9	70-130				
Carbon Tetrachloride	0.0203	0.0020	mg/Kg wet	0.0200		101	70-130				
Chlorobenzene	0.0206	0.0020	mg/Kg wet	0.0200		103	70-130				
Chlorodibromomethane	0.0220	0.0010	mg/Kg wet	0.0200		110	70-130				
Chloroethane	0.0214	0.020	mg/Kg wet	0.0200		107	70-130				
Chloroform	0.0201	0.0040	mg/Kg wet	0.0200		100	70-130				

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QUALITY CONTROL

Volatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes	
Batch B292812 - SW-846 5035											
LCS (B292812-BS1)				Prepared & Analyzed: 10/20/21							
Chloromethane	0.0167	0.010	mg/Kg wet	0.0200		83.3	70-130				
2-Chlorotoluene	0.0216	0.0020	mg/Kg wet	0.0200		108	70-130				
4-Chlorotoluene	0.0230	0.0020	mg/Kg wet	0.0200		115	70-130				
1,2-Dibromo-3-chloropropane (DBCP)	0.0197	0.0020	mg/Kg wet	0.0200		98.7	70-130				
1,2-Dibromoethane (EDB)	0.0221	0.0010	mg/Kg wet	0.0200		110	70-130				
Dibromomethane	0.0218	0.0020	mg/Kg wet	0.0200		109	70-130				
1,2-Dichlorobenzene	0.0215	0.0020	mg/Kg wet	0.0200		107	70-130				
1,3-Dichlorobenzene	0.0209	0.0020	mg/Kg wet	0.0200		105	70-130				
1,4-Dichlorobenzene	0.0200	0.0020	mg/Kg wet	0.0200		100	70-130				
trans-1,4-Dichloro-2-butene	0.0215	0.0040	mg/Kg wet	0.0200		108	70-130				
Dichlorodifluoromethane (Freon 12)	0.0145	0.020	mg/Kg wet	0.0200		72.4	40-160			V-05, J	†
1,1-Dichloroethane	0.0195	0.0020	mg/Kg wet	0.0200		97.4	70-130				
1,2-Dichloroethane	0.0210	0.0020	mg/Kg wet	0.0200		105	70-130				
1,1-Dichloroethylene	0.0193	0.0040	mg/Kg wet	0.0200		96.6	70-130				
cis-1,2-Dichloroethylene	0.0208	0.0020	mg/Kg wet	0.0200		104	70-130				
trans-1,2-Dichloroethylene	0.0200	0.0020	mg/Kg wet	0.0200		99.8	70-130				
1,2-Dichloropropane	0.0201	0.0020	mg/Kg wet	0.0200		101	70-130				
1,3-Dichloropropane	0.0225	0.0010	mg/Kg wet	0.0200		113	70-130				
2,2-Dichloropropane	0.0197	0.0020	mg/Kg wet	0.0200		98.4	70-130				
1,1-Dichloropropene	0.0197	0.0020	mg/Kg wet	0.0200		98.5	70-130				
cis-1,3-Dichloropropene	0.0214	0.0010	mg/Kg wet	0.0200		107	70-130				
trans-1,3-Dichloropropene	0.0183	0.0010	mg/Kg wet	0.0200		91.4	70-130				
Diethyl Ether	0.0218	0.020	mg/Kg wet	0.0200		109	70-130				
Diisopropyl Ether (DIPE)	0.0201	0.0010	mg/Kg wet	0.0200		101	70-130				
1,4-Dioxane	0.171	0.10	mg/Kg wet	0.200		85.3	40-160				†
Ethylbenzene	0.0222	0.0020	mg/Kg wet	0.0200		111	70-130				
Hexachlorobutadiene	0.0207	0.0020	mg/Kg wet	0.0200		104	70-160				
2-Hexanone (MBK)	0.218	0.020	mg/Kg wet	0.200		109	70-160			V-36	†
Isopropylbenzene (Cumene)	0.0220	0.0020	mg/Kg wet	0.0200		110	70-130				
p-Isopropyltoluene (p-Cymene)	0.0214	0.0020	mg/Kg wet	0.0200		107	70-130				
Methyl Acetate	0.0187	0.0020	mg/Kg wet	0.0200		93.6	70-130				
Methyl tert-Butyl Ether (MTBE)	0.0208	0.0040	mg/Kg wet	0.0200		104	70-130				
Methyl Cyclohexane	0.0209	0.0020	mg/Kg wet	0.0200		104	70-130				
Methylene Chloride	0.0193	0.020	mg/Kg wet	0.0200		96.7	40-160			J	†
4-Methyl-2-pentanone (MIBK)	0.219	0.020	mg/Kg wet	0.200		109	70-160				†
Naphthalene	0.0207	0.0040	mg/Kg wet	0.0200		103	40-130				†
n-Propylbenzene	0.0232	0.0020	mg/Kg wet	0.0200		116	70-130				
Styrene	0.0236	0.0020	mg/Kg wet	0.0200		118	70-130				
1,1,1,2-Tetrachloroethane	0.0217	0.0020	mg/Kg wet	0.0200		109	70-130				
1,1,2,2-Tetrachloroethane	0.0224	0.0010	mg/Kg wet	0.0200		112	70-130				
Tetrachloroethylene	0.0204	0.0020	mg/Kg wet	0.0200		102	70-130				
Tetrahydrofuran	0.0187	0.010	mg/Kg wet	0.0200		93.7	70-130				
Toluene	0.0191	0.0020	mg/Kg wet	0.0200		95.5	70-130				
1,2,3-Trichlorobenzene	0.0219	0.0020	mg/Kg wet	0.0200		110	70-130				
1,2,4-Trichlorobenzene	0.0211	0.0020	mg/Kg wet	0.0200		106	70-130				
1,3,5-Trichlorobenzene	0.0204	0.0020	mg/Kg wet	0.0200		102	70-130				
1,1,1-Trichloroethane	0.0197	0.0020	mg/Kg wet	0.0200		98.7	70-130				
1,1,2-Trichloroethane	0.0217	0.0020	mg/Kg wet	0.0200		109	70-130				
Trichloroethylene	0.0203	0.0020	mg/Kg wet	0.0200		101	70-130				
Trichlorofluoromethane (Freon 11)	0.0215	0.010	mg/Kg wet	0.0200		108	70-130				
1,2,3-Trichloropropane	0.0193	0.0020	mg/Kg wet	0.0200		96.7	70-130				

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QUALITY CONTROL

Volatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes	
Batch B292812 - SW-846 5035											
LCS (B292812-BS1)				Prepared & Analyzed: 10/20/21							
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	0.0205	0.010	mg/Kg wet	0.0200		102	70-130				
1,2,4-Trimethylbenzene	0.0205	0.0020	mg/Kg wet	0.0200		103	70-130				
1,3,5-Trimethylbenzene	0.0231	0.0020	mg/Kg wet	0.0200		116	70-130				
Vinyl Chloride	0.0195	0.010	mg/Kg wet	0.0200		97.5	40-130				†
m+p Xylene	0.0458	0.0040	mg/Kg wet	0.0400		114	70-130				
o-Xylene	0.0230	0.0020	mg/Kg wet	0.0200		115	70-130				
Surrogate: 1,2-Dichloroethane-d4	*0.0490*		mg/Kg wet	0.0500		98.0	70-130				
Surrogate: Toluene-d8	*0.0493*		mg/Kg wet	0.0500		98.6	70-130				
Surrogate: 4-Bromofluorobenzene	*0.0518*		mg/Kg wet	0.0500		104	70-130				
LCS Dup (B292812-BSD1)				Prepared & Analyzed: 10/20/21							
Acetone	0.192	0.10	mg/Kg wet	0.200		95.8	70-160	0.366	25	V-36	†
Acrylonitrile	0.0221	0.0060	mg/Kg wet	0.0200		111	70-130	0.0904	25		
tert-Amyl Methyl Ether (TAME)	0.0178	0.0010	mg/Kg wet	0.0200		89.2	70-130	0.112	25		
Benzene	0.0190	0.0020	mg/Kg wet	0.0200		94.8	70-130	3.12	25		
Bromobenzene	0.0193	0.0020	mg/Kg wet	0.0200		96.3	70-130	5.65	25		
Bromochloromethane	0.0201	0.0020	mg/Kg wet	0.0200		101	70-130	2.65	25		
Bromodichloromethane	0.0210	0.0020	mg/Kg wet	0.0200		105	70-130	0.854	25		
Bromoform	0.0220	0.0020	mg/Kg wet	0.0200		110	70-130	0.453	25		
Bromomethane	0.0196	0.010	mg/Kg wet	0.0200		97.9	40-130	7.47	25	V-34	†
2-Butanone (MEK)	0.200	0.040	mg/Kg wet	0.200		100	70-160	0.00998	25		†
tert-Butyl Alcohol (TBA)	0.182	0.10	mg/Kg wet	0.200		90.8	40-130	2.33	25		†
n-Butylbenzene	0.0203	0.0020	mg/Kg wet	0.0200		102	70-130	3.68	25		
sec-Butylbenzene	0.0196	0.0020	mg/Kg wet	0.0200		97.9	70-130	4.10	25		
tert-Butylbenzene	0.0192	0.0020	mg/Kg wet	0.0200		96.2	70-160	2.77	25		†
tert-Butyl Ethyl Ether (TBEE)	0.0175	0.0010	mg/Kg wet	0.0200		87.3	70-130	0.574	25		
Carbon Disulfide	0.182	0.010	mg/Kg wet	0.200		90.8	70-130	4.45	25		
Carbon Tetrachloride	0.0195	0.0020	mg/Kg wet	0.0200		97.4	70-130	3.93	25		
Chlorobenzene	0.0201	0.0020	mg/Kg wet	0.0200		100	70-130	2.65	25		
Chlorodibromomethane	0.0223	0.0010	mg/Kg wet	0.0200		111	70-130	0.993	25		
Chloroethane	0.0207	0.020	mg/Kg wet	0.0200		103	70-130	3.71	25		
Chloroform	0.0194	0.0040	mg/Kg wet	0.0200		97.1	70-130	3.44	25		
Chloromethane	0.0160	0.010	mg/Kg wet	0.0200		80.0	70-130	4.04	25		
2-Chlorotoluene	0.0213	0.0020	mg/Kg wet	0.0200		106	70-130	1.59	25		
4-Chlorotoluene	0.0224	0.0020	mg/Kg wet	0.0200		112	70-130	3.00	25		
1,2-Dibromo-3-chloropropane (DBCP)	0.0192	0.0020	mg/Kg wet	0.0200		96.1	70-130	2.67	25		
1,2-Dibromoethane (EDB)	0.0221	0.0010	mg/Kg wet	0.0200		110	70-130	0.0905	25		
Dibromomethane	0.0220	0.0020	mg/Kg wet	0.0200		110	70-130	0.912	25		
1,2-Dichlorobenzene	0.0212	0.0020	mg/Kg wet	0.0200		106	70-130	1.41	25		
1,3-Dichlorobenzene	0.0204	0.0020	mg/Kg wet	0.0200		102	70-130	2.32	25		
1,4-Dichlorobenzene	0.0197	0.0020	mg/Kg wet	0.0200		98.5	70-130	1.61	25		
trans-1,4-Dichloro-2-butene	0.0213	0.0040	mg/Kg wet	0.0200		106	70-130	1.22	25		
Dichlorodifluoromethane (Freon 12)	0.0138	0.020	mg/Kg wet	0.0200		69.0	40-160	4.81	25	V-05, J	†
1,1-Dichloroethane	0.0189	0.0020	mg/Kg wet	0.0200		94.3	70-130	3.23	25		
1,2-Dichloroethane	0.0209	0.0020	mg/Kg wet	0.0200		105	70-130	0.572	25		
1,1-Dichloroethylene	0.0185	0.0040	mg/Kg wet	0.0200		92.6	70-130	4.23	25		
cis-1,2-Dichloroethylene	0.0199	0.0020	mg/Kg wet	0.0200		99.7	70-130	4.41	25		
trans-1,2-Dichloroethylene	0.0191	0.0020	mg/Kg wet	0.0200		95.7	70-130	4.19	25		
1,2-Dichloropropane	0.0204	0.0020	mg/Kg wet	0.0200		102	70-130	1.18	25		
1,3-Dichloropropane	0.0226	0.0010	mg/Kg wet	0.0200		113	70-130	0.177	25		
2,2-Dichloropropane	0.0184	0.0020	mg/Kg wet	0.0200		92.1	70-130	6.61	25		
1,1-Dichloropropene	0.0189	0.0020	mg/Kg wet	0.0200		94.3	70-130	4.36	25		

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QUALITY CONTROL

Volatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes	
Batch B292812 - SW-846 5035											
LCS Dup (B292812-BSD1)				Prepared & Analyzed: 10/20/21							
cis-1,3-Dichloropropene	0.0215	0.0010	mg/Kg wet	0.0200		107	70-130	0.467	25		
trans-1,3-Dichloropropene	0.0182	0.0010	mg/Kg wet	0.0200		91.1	70-130	0.329	25		
Diethyl Ether	0.0213	0.020	mg/Kg wet	0.0200		107	70-130	2.41	25		
Diisopropyl Ether (DIPE)	0.0200	0.0010	mg/Kg wet	0.0200		99.9	70-130	0.698	25		
1,4-Dioxane	0.185	0.10	mg/Kg wet	0.200		92.4	40-160	8.00	50		† ‡
Ethylbenzene	0.0216	0.0020	mg/Kg wet	0.0200		108	70-130	3.02	25		
Hexachlorobutadiene	0.0197	0.0020	mg/Kg wet	0.0200		98.7	70-160	4.75	25		
2-Hexanone (MBK)	0.224	0.020	mg/Kg wet	0.200		112	70-160	2.77	25	V-36	†
Isopropylbenzene (Cumene)	0.0214	0.0020	mg/Kg wet	0.0200		107	70-130	2.67	25		
p-Isopropyltoluene (p-Cymene)	0.0208	0.0020	mg/Kg wet	0.0200		104	70-130	2.93	25		
Methyl Acetate	0.0192	0.0020	mg/Kg wet	0.0200		96.1	70-130	2.64	25		
Methyl tert-Butyl Ether (MTBE)	0.0206	0.0040	mg/Kg wet	0.0200		103	70-130	1.16	25		
Methyl Cyclohexane	0.0209	0.0020	mg/Kg wet	0.0200		105	70-130	0.383	25		
Methylene Chloride	0.0189	0.020	mg/Kg wet	0.0200		94.7	40-160	2.09	25	J	†
4-Methyl-2-pentanone (MIBK)	0.222	0.020	mg/Kg wet	0.200		111	70-160	1.66	25		†
Naphthalene	0.0206	0.0040	mg/Kg wet	0.0200		103	40-130	0.388	25		†
n-Propylbenzene	0.0226	0.0020	mg/Kg wet	0.0200		113	70-130	2.53	25		
Styrene	0.0231	0.0020	mg/Kg wet	0.0200		116	70-130	1.80	25		
1,1,1,2-Tetrachloroethane	0.0215	0.0020	mg/Kg wet	0.0200		108	70-130	0.925	25		
1,1,2,2-Tetrachloroethane	0.0223	0.0010	mg/Kg wet	0.0200		111	70-130	0.538	25		
Tetrachloroethylene	0.0202	0.0020	mg/Kg wet	0.0200		101	70-130	0.986	25		
Tetrahydrofuran	0.0191	0.010	mg/Kg wet	0.0200		95.4	70-130	1.80	25		
Toluene	0.0191	0.0020	mg/Kg wet	0.0200		95.4	70-130	0.105	25		
1,2,3-Trichlorobenzene	0.0216	0.0020	mg/Kg wet	0.0200		108	70-130	1.38	25		
1,2,4-Trichlorobenzene	0.0203	0.0020	mg/Kg wet	0.0200		101	70-130	4.06	25		
1,3,5-Trichlorobenzene	0.0196	0.0020	mg/Kg wet	0.0200		97.9	70-130	4.30	25		
1,1,1-Trichloroethane	0.0193	0.0020	mg/Kg wet	0.0200		96.4	70-130	2.36	25		
1,1,2-Trichloroethane	0.0218	0.0020	mg/Kg wet	0.0200		109	70-130	0.368	25		
Trichloroethylene	0.0201	0.0020	mg/Kg wet	0.0200		101	70-130	0.693	25		
Trichlorofluoromethane (Freon 11)	0.0204	0.010	mg/Kg wet	0.0200		102	70-130	5.54	25		
1,2,3-Trichloropropane	0.0190	0.0020	mg/Kg wet	0.0200		94.8	70-130	1.98	25		
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	0.0197	0.010	mg/Kg wet	0.0200		98.6	70-130	3.88	25		
1,2,4-Trimethylbenzene	0.0199	0.0020	mg/Kg wet	0.0200		99.3	70-130	3.27	25		
1,3,5-Trimethylbenzene	0.0224	0.0020	mg/Kg wet	0.0200		112	70-130	3.08	25		
Vinyl Chloride	0.0181	0.010	mg/Kg wet	0.0200		90.4	40-130	7.56	25		†
m+p Xylene	0.0449	0.0040	mg/Kg wet	0.0400		112	70-130	1.85	25		
o-Xylene	0.0226	0.0020	mg/Kg wet	0.0200		113	70-130	1.58	25		
Surrogate: 1,2-Dichloroethane-d4	*0.0490*		mg/Kg wet	0.0500		97.9	70-130				
Surrogate: Toluene-d8	*0.0501*		mg/Kg wet	0.0500		100	70-130				
Surrogate: 4-Bromofluorobenzene	*0.0522*		mg/Kg wet	0.0500		104	70-130				
Batch B293011 - SW-846 5030B											
Blank (B293011-BLK1)				Prepared & Analyzed: 10/21/21							
Acetone	ND	50	µg/L								
Acrylonitrile	ND	5.0	µg/L								
tert-Amyl Methyl Ether (TAME)	ND	0.50	µg/L								
Benzene	ND	1.0	µg/L								
Bromobenzene	ND	1.0	µg/L								
Bromochloromethane	ND	1.0	µg/L								
Bromodichloromethane	ND	0.50	µg/L								
Bromoform	ND	1.0	µg/L								

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QUALITY CONTROL

Volatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B293011 - SW-846 5030B										
Blank (B293011-BLK1)				Prepared & Analyzed: 10/21/21						
Bromomethane	ND	2.0	µg/L							
2-Butanone (MEK)	ND	20	µg/L							
tert-Butyl Alcohol (TBA)	ND	20	µg/L							
n-Butylbenzene	ND	1.0	µg/L							
sec-Butylbenzene	ND	1.0	µg/L							
tert-Butylbenzene	ND	1.0	µg/L							
tert-Butyl Ethyl Ether (TBEE)	ND	0.50	µg/L							
Carbon Disulfide	ND	5.0	µg/L							
Carbon Tetrachloride	ND	5.0	µg/L							
Chlorobenzene	ND	1.0	µg/L							
Chlorodibromomethane	ND	0.50	µg/L							
Chloroethane	ND	2.0	µg/L							
Chloroform	ND	2.0	µg/L							
Chloromethane	ND	2.0	µg/L							
2-Chlorotoluene	ND	1.0	µg/L							
4-Chlorotoluene	ND	1.0	µg/L							
1,2-Dibromo-3-chloropropane (DBCP)	ND	5.0	µg/L							
1,2-Dibromoethane (EDB)	ND	0.50	µg/L							
Dibromomethane	ND	1.0	µg/L							
1,2-Dichlorobenzene	ND	1.0	µg/L							
1,3-Dichlorobenzene	ND	1.0	µg/L							
1,4-Dichlorobenzene	ND	1.0	µg/L							
trans-1,4-Dichloro-2-butene	ND	2.0	µg/L							
Dichlorodifluoromethane (Freon 12)	ND	2.0	µg/L							
1,1-Dichloroethane	ND	1.0	µg/L							
1,2-Dichloroethane	ND	1.0	µg/L							
1,1-Dichloroethylene	ND	1.0	µg/L							
cis-1,2-Dichloroethylene	ND	1.0	µg/L							
trans-1,2-Dichloroethylene	ND	1.0	µg/L							
1,2-Dichloropropane	ND	1.0	µg/L							
1,3-Dichloropropane	ND	0.50	µg/L							
2,2-Dichloropropane	ND	1.0	µg/L							
1,1-Dichloropropene	ND	2.0	µg/L							
cis-1,3-Dichloropropene	ND	0.50	µg/L							
trans-1,3-Dichloropropene	ND	0.50	µg/L							
Diethyl Ether	ND	2.0	µg/L							
Diisopropyl Ether (DIPE)	ND	0.50	µg/L							
1,4-Dioxane	ND	50	µg/L							
Ethylbenzene	ND	1.0	µg/L							
Hexachlorobutadiene	ND	0.60	µg/L							
2-Hexanone (MBK)	ND	10	µg/L							
Isopropylbenzene (Cumene)	ND	1.0	µg/L							
p-Isopropyltoluene (p-Cymene)	ND	1.0	µg/L							
Methyl Acetate	ND	1.0	µg/L							
Methyl tert-Butyl Ether (MTBE)	ND	1.0	µg/L							
Methyl Cyclohexane	ND	1.0	µg/L							
Methylene Chloride	ND	5.0	µg/L							
4-Methyl-2-pentanone (MIBK)	ND	10	µg/L							
Naphthalene	ND	2.0	µg/L							V-05
n-Propylbenzene	ND	1.0	µg/L							
Styrene	ND	1.0	µg/L							
1,1,1,2-Tetrachloroethane	ND	1.0	µg/L							

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QUALITY CONTROL

Volatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes	
Batch B293011 - SW-846 5030B											
Blank (B293011-BLK1)				Prepared & Analyzed: 10/21/21							
1,1,2,2-Tetrachloroethane	ND	0.50	µg/L								
Tetrachloroethylene	ND	1.0	µg/L								
Tetrahydrofuran	ND	10	µg/L								
Toluene	ND	1.0	µg/L								
1,2,3-Trichlorobenzene	ND	5.0	µg/L							L-04, V-05	
1,2,4-Trichlorobenzene	ND	1.0	µg/L							V-05	
1,3,5-Trichlorobenzene	ND	1.0	µg/L								
1,1,1-Trichloroethane	ND	1.0	µg/L								
1,1,2-Trichloroethane	ND	1.0	µg/L								
Trichloroethylene	ND	1.0	µg/L								
Trichlorofluoromethane (Freon 11)	ND	2.0	µg/L								
1,2,3-Trichloropropane	ND	2.0	µg/L								
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	1.0	µg/L								
1,2,3-Trimethylbenzene	ND	0.50	µg/L								
1,2,4-Trimethylbenzene	ND	1.0	µg/L								
1,3,5-Trimethylbenzene	ND	1.0	µg/L								
Vinyl Chloride	ND	2.0	µg/L								
m+p Xylene	ND	2.0	µg/L								
o-Xylene	ND	1.0	µg/L								
Surrogate: 1,2-Dichloroethane-d4	*27.5*		µg/L	25.0		110	70-130				
Surrogate: Toluene-d8	*27.7*		µg/L	25.0		111	70-130				
Surrogate: 4-Bromofluorobenzene	*26.4*		µg/L	25.0		106	70-130				
LCS (B293011-BS1)				Prepared & Analyzed: 10/21/21							
Acetone	96.9	50	µg/L	100		96.9	70-160				†
Acrylonitrile	8.19	5.0	µg/L	10.0		81.9	70-130				
tert-Amyl Methyl Ether (TAME)	9.76	0.50	µg/L	10.0		97.6	70-130				
Benzene	10.5	1.0	µg/L	10.0		105	70-130				
Bromobenzene	9.82	1.0	µg/L	10.0		98.2	70-130				
Bromochloromethane	10.9	1.0	µg/L	10.0		109	70-130				
Bromodichloromethane	10.6	0.50	µg/L	10.0		106	70-130				
Bromoform	9.52	1.0	µg/L	10.0		95.2	70-130				
Bromomethane	11.6	2.0	µg/L	10.0		116	40-160				†
2-Butanone (MEK)	96.8	20	µg/L	100		96.8	40-160				†
tert-Butyl Alcohol (TBA)	88.8	20	µg/L	100		88.8	40-160				†
n-Butylbenzene	9.24	1.0	µg/L	10.0		92.4	70-130				
sec-Butylbenzene	9.55	1.0	µg/L	10.0		95.5	70-130				
tert-Butylbenzene	9.77	1.0	µg/L	10.0		97.7	70-130				
tert-Butyl Ethyl Ether (TBEE)	9.83	0.50	µg/L	10.0		98.3	70-130				
Carbon Disulfide	106	5.0	µg/L	100		106	70-130				
Carbon Tetrachloride	10.0	5.0	µg/L	10.0		100	70-130				
Chlorobenzene	10.3	1.0	µg/L	10.0		103	70-130				
Chlorodibromomethane	10.4	0.50	µg/L	10.0		104	70-130				
Chloroethane	13.0	2.0	µg/L	10.0		130	70-130			V-20	
Chloroform	10.4	2.0	µg/L	10.0		104	70-130				
Chloromethane	12.6	2.0	µg/L	10.0		126	40-160			V-20	†
2-Chlorotoluene	9.92	1.0	µg/L	10.0		99.2	70-130				
4-Chlorotoluene	9.65	1.0	µg/L	10.0		96.5	70-130				
1,2-Dibromo-3-chloropropane (DBCP)	8.17	5.0	µg/L	10.0		81.7	70-130				
1,2-Dibromoethane (EDB)	10.4	0.50	µg/L	10.0		104	70-130				
Dibromomethane	10.4	1.0	µg/L	10.0		104	70-130				
1,2-Dichlorobenzene	10.4	1.0	µg/L	10.0		104	70-130				

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QUALITY CONTROL

Volatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC		%REC Limits	RPD	RPD Limit	Notes	
Batch B293011 - SW-846 5030B												
LCS (B293011-BS1)				Prepared & Analyzed: 10/21/21								
1,3-Dichlorobenzene	10.3	1.0	µg/L	10.0		103		70-130				
1,4-Dichlorobenzene	9.55	1.0	µg/L	10.0		95.5		70-130				
trans-1,4-Dichloro-2-butene	9.86	2.0	µg/L	10.0		98.6		70-130				
Dichlorodifluoromethane (Freon 12)	11.1	2.0	µg/L	10.0		111		40-160				†
1,1-Dichloroethane	10.3	1.0	µg/L	10.0		103		70-130				
1,2-Dichloroethane	9.99	1.0	µg/L	10.0		99.9		70-130				
1,1-Dichloroethylene	10.3	1.0	µg/L	10.0		103		70-130				
cis-1,2-Dichloroethylene	10.5	1.0	µg/L	10.0		105		70-130				
trans-1,2-Dichloroethylene	9.99	1.0	µg/L	10.0		99.9		70-130				
1,2-Dichloropropane	10.5	1.0	µg/L	10.0		105		70-130				
1,3-Dichloropropane	10.0	0.50	µg/L	10.0		100		70-130				
2,2-Dichloropropane	10.2	1.0	µg/L	10.0		102		40-130				†
1,1-Dichloropropene	9.74	2.0	µg/L	10.0		97.4		70-130				
cis-1,3-Dichloropropene	10.6	0.50	µg/L	10.0		106		70-130				
trans-1,3-Dichloropropene	9.99	0.50	µg/L	10.0		99.9		70-130				
Diethyl Ether	10.2	2.0	µg/L	10.0		102		70-130				
Diisopropyl Ether (DIPE)	10.1	0.50	µg/L	10.0		101		70-130				
1,4-Dioxane	89.9	50	µg/L	100		89.9		40-130				†
Ethylbenzene	9.81	1.0	µg/L	10.0		98.1		70-130				
Hexachlorobutadiene	9.55	0.60	µg/L	10.0		95.5		70-130				
2-Hexanone (MBK)	93.9	10	µg/L	100		93.9		70-160				†
Isopropylbenzene (Cumene)	10.0	1.0	µg/L	10.0		100		70-130				
p-Isopropyltoluene (p-Cymene)	9.36	1.0	µg/L	10.0		93.6		70-130				
Methyl Acetate	10.2	1.0	µg/L	10.0		102		70-130				
Methyl tert-Butyl Ether (MTBE)	9.52	1.0	µg/L	10.0		95.2		70-130				
Methyl Cyclohexane	8.85	1.0	µg/L	10.0		88.5		70-130				
Methylene Chloride	10.6	5.0	µg/L	10.0		106		70-130				
4-Methyl-2-pentanone (MIBK)	101	10	µg/L	100		101		70-160				†
Naphthalene	5.84	2.0	µg/L	10.0		58.4		40-130			V-05	†
n-Propylbenzene	9.63	1.0	µg/L	10.0		96.3		70-130				
Styrene	10.4	1.0	µg/L	10.0		104		70-130				
1,1,1,2-Tetrachloroethane	10.4	1.0	µg/L	10.0		104		70-130				
1,1,2,2-Tetrachloroethane	10.2	0.50	µg/L	10.0		102		70-130				
Tetrachloroethylene	10.3	1.0	µg/L	10.0		103		70-130				
Tetrahydrofuran	9.28	10	µg/L	10.0		92.8		70-130			J	
Toluene	10.6	1.0	µg/L	10.0		106		70-130				
1,2,3-Trichlorobenzene	6.78	5.0	µg/L	10.0		**67.8**	*	70-130			V-05, L-04	
1,2,4-Trichlorobenzene	7.32	1.0	µg/L	10.0		73.2		70-130			V-05	
1,3,5-Trichlorobenzene	8.56	1.0	µg/L	10.0		85.6		70-130				
1,1,1-Trichloroethane	10.0	1.0	µg/L	10.0		100		70-130				
1,1,2-Trichloroethane	10.7	1.0	µg/L	10.0		107		70-130				
Trichloroethylene	10.2	1.0	µg/L	10.0		102		70-130				
Trichlorofluoromethane (Freon 11)	10.2	2.0	µg/L	10.0		102		70-130				
1,2,3-Trichloropropane	9.42	2.0	µg/L	10.0		94.2		70-130				
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	9.30	1.0	µg/L	10.0		93.0		70-130				
1,2,3-Trimethylbenzene	13.6	0.50	µg/L	10.0		**136**	*	70-130			L-02, V-20	
1,2,4-Trimethylbenzene	9.93	1.0	µg/L	10.0		99.3		70-130				
1,3,5-Trimethylbenzene	9.63	1.0	µg/L	10.0		96.3		70-130				
Vinyl Chloride	12.0	2.0	µg/L	10.0		120		40-160				†
m+p Xylene	20.0	2.0	µg/L	20.0		100		70-130				
o-Xylene	10.2	1.0	µg/L	10.0		102		70-130				

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QUALITY CONTROL

Volatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes	
Batch B293011 - SW-846 5030B											
LCS (B293011-BS1)				Prepared & Analyzed: 10/21/21							
Surrogate: 1,2-Dichloroethane-d4	*28.3*		µg/L	25.0		113	70-130				
Surrogate: Toluene-d8	*29.1*		µg/L	25.0		116	70-130				
Surrogate: 4-Bromofluorobenzene	*29.2*		µg/L	25.0		117	70-130				
LCS Dup (B293011-BSD1)				Prepared & Analyzed: 10/21/21							
Acetone	88.8	50	µg/L	100		88.8	70-160	8.81	25		†
Acrylonitrile	8.10	5.0	µg/L	10.0		81.0	70-130	1.10	25		
tert-Amyl Methyl Ether (TAME)	9.73	0.50	µg/L	10.0		97.3	70-130	0.308	25		
Benzene	11.3	1.0	µg/L	10.0		113	70-130	7.71	25		
Bromobenzene	9.74	1.0	µg/L	10.0		97.4	70-130	0.818	25		
Bromochloromethane	11.1	1.0	µg/L	10.0		111	70-130	1.64	25		
Bromodichloromethane	10.6	0.50	µg/L	10.0		106	70-130	0.0946	25		
Bromoform	9.47	1.0	µg/L	10.0		94.7	70-130	0.527	25		
Bromomethane	11.2	2.0	µg/L	10.0		112	40-160	3.78	25		†
2-Butanone (MEK)	89.2	20	µg/L	100		89.2	40-160	8.25	25		†
tert-Butyl Alcohol (TBA)	78.6	20	µg/L	100		78.6	40-160	12.2	25		†
n-Butylbenzene	9.25	1.0	µg/L	10.0		92.5	70-130	0.108	25		
sec-Butylbenzene	9.75	1.0	µg/L	10.0		97.5	70-130	2.07	25		
tert-Butylbenzene	10.2	1.0	µg/L	10.0		102	70-130	4.80	25		
tert-Butyl Ethyl Ether (TBEE)	9.72	0.50	µg/L	10.0		97.2	70-130	1.13	25		
Carbon Disulfide	108	5.0	µg/L	100		108	70-130	2.50	25		
Carbon Tetrachloride	10.2	5.0	µg/L	10.0		102	70-130	1.48	25		
Chlorobenzene	10.6	1.0	µg/L	10.0		106	70-130	2.87	25		
Chlorodibromomethane	10.5	0.50	µg/L	10.0		105	70-130	0.954	25		
Chloroethane	12.2	2.0	µg/L	10.0		122	70-130	6.44	25	V-20	
Chloroform	10.4	2.0	µg/L	10.0		104	70-130	0.0957	25		
Chloromethane	11.7	2.0	µg/L	10.0		117	40-160	6.83	25	V-20	†
2-Chlorotoluene	9.97	1.0	µg/L	10.0		99.7	70-130	0.503	25		
4-Chlorotoluene	10.1	1.0	µg/L	10.0		101	70-130	4.95	25		
1,2-Dibromo-3-chloropropane (DBCP)	8.55	5.0	µg/L	10.0		85.5	70-130	4.55	25		
1,2-Dibromoethane (EDB)	10.0	0.50	µg/L	10.0		100	70-130	3.14	25		
Dibromomethane	10.3	1.0	µg/L	10.0		103	70-130	0.484	25		
1,2-Dichlorobenzene	10.4	1.0	µg/L	10.0		104	70-130	0.0966	25		
1,3-Dichlorobenzene	10.3	1.0	µg/L	10.0		103	70-130	0.0970	25		
1,4-Dichlorobenzene	9.74	1.0	µg/L	10.0		97.4	70-130	1.97	25		
trans-1,4-Dichloro-2-butene	8.72	2.0	µg/L	10.0		87.2	70-130	12.3	25		
Dichlorodifluoromethane (Freon 12)	11.2	2.0	µg/L	10.0		112	40-160	1.34	25		†
1,1-Dichloroethane	10.4	1.0	µg/L	10.0		104	70-130	1.26	25		
1,2-Dichloroethane	9.99	1.0	µg/L	10.0		99.9	70-130	0.00	25		
1,1-Dichloroethylene	10.9	1.0	µg/L	10.0		109	70-130	5.76	25		
cis-1,2-Dichloroethylene	10.5	1.0	µg/L	10.0		105	70-130	0.00	25		
trans-1,2-Dichloroethylene	10.1	1.0	µg/L	10.0		101	70-130	0.897	25		
1,2-Dichloropropane	10.4	1.0	µg/L	10.0		104	70-130	0.575	25		
1,3-Dichloropropane	10.2	0.50	µg/L	10.0		102	70-130	1.49	25		
2,2-Dichloropropane	10.6	1.0	µg/L	10.0		106	40-130	3.76	25		†
1,1-Dichloropropene	10.0	2.0	µg/L	10.0		100	70-130	2.93	25		
cis-1,3-Dichloropropene	10.8	0.50	µg/L	10.0		108	70-130	1.59	25		
trans-1,3-Dichloropropene	9.90	0.50	µg/L	10.0		99.0	70-130	0.905	25		
Diethyl Ether	9.80	2.0	µg/L	10.0		98.0	70-130	3.71	25		
Diisopropyl Ether (DIPE)	9.92	0.50	µg/L	10.0		99.2	70-130	1.40	25		
1,4-Dioxane	88.1	50	µg/L	100		88.1	40-130	2.02	50		† ‡
Ethylbenzene	10.6	1.0	µg/L	10.0		106	70-130	8.21	25		

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QUALITY CONTROL

Volatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC		%REC Limits	RPD	RPD Limit	Notes	
Batch B293011 - SW-846 5030B												
LCS Dup (B293011-BSD1)				Prepared & Analyzed: 10/21/21								
Hexachlorobutadiene	9.89	0.60	µg/L	10.0		98.9		70-130	3.50	25		
2-Hexanone (MBK)	86.9	10	µg/L	100		86.9		70-160	7.69	25		†
Isopropylbenzene (Cumene)	10.0	1.0	µg/L	10.0		100		70-130	0.199	25		
p-Isopropyltoluene (p-Cymene)	9.55	1.0	µg/L	10.0		95.5		70-130	2.01	25		
Methyl Acetate	9.61	1.0	µg/L	10.0		96.1		70-130	5.96	25		
Methyl tert-Butyl Ether (MTBE)	9.34	1.0	µg/L	10.0		93.4		70-130	1.91	25		
Methyl Cyclohexane	9.40	1.0	µg/L	10.0		94.0		70-130	6.03	25		
Methylene Chloride	10.7	5.0	µg/L	10.0		107		70-130	0.564	25		
4-Methyl-2-pentanone (MIBK)	93.6	10	µg/L	100		93.6		70-160	7.15	25		†
Naphthalene	5.46	2.0	µg/L	10.0		54.6		40-130	6.73	25	V-05	†
n-Propylbenzene	9.86	1.0	µg/L	10.0		98.6		70-130	2.36	25		
Styrene	10.5	1.0	µg/L	10.0		105		70-130	1.25	25		
1,1,1,2-Tetrachloroethane	10.5	1.0	µg/L	10.0		105		70-130	1.72	25		
1,1,2,2-Tetrachloroethane	9.99	0.50	µg/L	10.0		99.9		70-130	2.37	25		
Tetrachloroethylene	10.6	1.0	µg/L	10.0		106		70-130	3.35	25		
Tetrahydrofuran	8.77	10	µg/L	10.0		87.7		70-130	5.65	25	J	
Toluene	11.1	1.0	µg/L	10.0		111		70-130	4.43	25		
1,2,3-Trichlorobenzene	6.42	5.0	µg/L	10.0		**64.2**	*	70-130	5.45	25	L-04, V-05	
1,2,4-Trichlorobenzene	7.23	1.0	µg/L	10.0		72.3		70-130	1.24	25	V-05	
1,3,5-Trichlorobenzene	8.61	1.0	µg/L	10.0		86.1		70-130	0.582	25		
1,1,1-Trichloroethane	10.2	1.0	µg/L	10.0		102		70-130	1.78	25		
1,1,2-Trichloroethane	10.4	1.0	µg/L	10.0		104		70-130	2.85	25		
Trichloroethylene	10.4	1.0	µg/L	10.0		104		70-130	1.94	25		
Trichlorofluoromethane (Freon 11)	10.6	2.0	µg/L	10.0		106		70-130	4.03	25		
1,2,3-Trichloropropane	8.59	2.0	µg/L	10.0		85.9		70-130	9.22	25		
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	9.69	1.0	µg/L	10.0		96.9		70-130	4.11	25		
1,2,3-Trimethylbenzene	13.8	0.50	µg/L	10.0		**138**	*	70-130	1.38	25	L-02, V-20	
1,2,4-Trimethylbenzene	10.6	1.0	µg/L	10.0		106		70-130	6.72	25		
1,3,5-Trimethylbenzene	10.0	1.0	µg/L	10.0		100		70-130	3.97	25		
Vinyl Chloride	12.2	2.0	µg/L	10.0		122		40-160	1.49	25		†
m+p Xylene	21.5	2.0	µg/L	20.0		107		70-130	6.99	25		
o-Xylene	11.1	1.0	µg/L	10.0		111		70-130	8.82	25		
Surrogate: 1,2-Dichloroethane-d4	*27.7*		µg/L	25.0		111		70-130				
Surrogate: Toluene-d8	*28.8*		µg/L	25.0		115		70-130				
Surrogate: 4-Bromofluorobenzene	*28.6*		µg/L	25.0		115		70-130				

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QUALITY CONTROL

Petroleum Hydrocarbons Analyses - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B292781 - SW-846 3546										
Blank (B292781-BLK1)				Prepared: 10/19/21 Analyzed: 10/21/21						
Diesel Range Organics	ND	8.3	mg/Kg wet							
Surrogate: 2-Fluorobiphenyl	*1.88*		mg/Kg wet	3.33		56.4	40-140			
LCS (B292781-BS1)				Prepared: 10/19/21 Analyzed: 10/21/21						
Diesel Range Organics	21.8	8.3	mg/Kg wet	33.3		65.3	40-140			
Surrogate: 2-Fluorobiphenyl	*2.08*		mg/Kg wet	3.33		62.5	40-140			
LCS Dup (B292781-BSD1)				Prepared: 10/19/21 Analyzed: 10/21/21						
Diesel Range Organics	23.9	8.3	mg/Kg wet	33.3		71.8	40-140	9.43	30	
Surrogate: 2-Fluorobiphenyl	*2.30*		mg/Kg wet	3.33		69.1	40-140			
Batch B292856 - SW-846 5030B										
Blank (B292856-BLK1)				Prepared: 10/20/21 Analyzed: 10/21/21						
Gasoline Range Organics (GRO)	ND	0.010	mg/L							
Surrogate: 1-Chloro-3-fluorobenzene	*16.9*		µg/L	15.0		113	70-130			
LCS (B292856-BS1)				Prepared: 10/20/21 Analyzed: 10/21/21						
Gasoline Range Organics (GRO)	0.242	0.010	mg/L	0.250		96.7	80-120			
Surrogate: 1-Chloro-3-fluorobenzene	*16.1*		µg/L	15.0		107	70-130			
LCS Dup (B292856-BSD1)				Prepared: 10/20/21 Analyzed: 10/21/21						
Gasoline Range Organics (GRO)	0.245	0.010	mg/L	0.250		98.1	80-120	1.52	30	
Surrogate: 1-Chloro-3-fluorobenzene	*16.4*		µg/L	15.0		110	70-130			
Batch B292858 - SW-846 5030B										
Blank (B292858-BLK1)				Prepared: 10/20/21 Analyzed: 10/21/21						
Gasoline Range Organics (GRO)	ND	1.0	mg/Kg wet							
Surrogate: 1-Chloro-3-fluorobenzene	*16.9*		µg/L	15.0		113	70-130			
LCS (B292858-BS1)				Prepared: 10/20/21 Analyzed: 10/21/21						
Gasoline Range Organics (GRO)	24.2	1.0	mg/Kg wet	25.0		96.7	80-120			
Surrogate: 1-Chloro-3-fluorobenzene	*16.1*		µg/L	15.0		107	70-130			
LCS Dup (B292858-BSD1)				Prepared: 10/20/21 Analyzed: 10/21/21						
Gasoline Range Organics (GRO)	24.5	1.0	mg/Kg wet	25.0		98.1	80-120	1.52	30	
Surrogate: 1-Chloro-3-fluorobenzene	*16.4*		µg/L	15.0		110	70-130			

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QUALITY CONTROL

Metals Analyses (Total) - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD		RPD Limit	Notes
Batch B292806 - SW-846 7471											
Blank (B292806-BLK1)				Prepared: 10/20/21 Analyzed: 10/21/21							
Mercury	ND	0.025	mg/Kg wet								
LCS (B292806-BS1)				Prepared: 10/20/21 Analyzed: 10/21/21							
Mercury	17.6	0.74	mg/Kg wet	15.6		113	59.3-140.4				
LCS Dup (B292806-BSD1)				Prepared: 10/20/21 Analyzed: 10/21/21							
Mercury	15.5	0.74	mg/Kg wet	15.6		99.4	59.3-140.4	12.4		20	
Duplicate (B292806-DUP1)	**Source: 21J1070-02**			Prepared: 10/20/21 Analyzed: 10/21/21							
Mercury	0.0442	0.031	mg/Kg dry		0.0275			**46.6**	*	20	R-04
Matrix Spike (B292806-MS1)	**Source: 21J1070-02**			Prepared: 10/20/21 Analyzed: 10/21/21							
Mercury	0.449	0.031	mg/Kg dry	0.418	0.0275	101	80-120				
Batch B292839 - SW-846 3050B											
Blank (B292839-BLK1)				Prepared: 10/20/21 Analyzed: 10/22/21							
Aluminum	ND	16	mg/Kg wet								
Antimony	ND	1.6	mg/Kg wet								
Arsenic	ND	3.3	mg/Kg wet								
Barium	ND	1.6	mg/Kg wet								
Beryllium	ND	0.16	mg/Kg wet								
Cadmium	ND	0.33	mg/Kg wet								
Calcium	ND	16	mg/Kg wet								
Chromium	ND	0.66	mg/Kg wet								
Cobalt	ND	1.6	mg/Kg wet								
Copper	ND	0.66	mg/Kg wet								
Iron	ND	16	mg/Kg wet								
Lead	ND	0.49	mg/Kg wet								
Magnesium	ND	16	mg/Kg wet								
Manganese	ND	0.33	mg/Kg wet								
Nickel	ND	0.66	mg/Kg wet								
Potassium	ND	160	mg/Kg wet								
Selenium	ND	3.3	mg/Kg wet								
Silver	ND	0.33	mg/Kg wet								
Sodium	ND	160	mg/Kg wet								
Thallium	ND	1.6	mg/Kg wet								
Vanadium	ND	0.66	mg/Kg wet								
Zinc	ND	0.66	mg/Kg wet								
LCS (B292839-BS1)				Prepared: 10/20/21 Analyzed: 10/22/21							
Aluminum	6420	50	mg/Kg wet	8110		79.2	48.1-151.7				
Antimony	113	5.0	mg/Kg wet	134		84.1	1.9-200.7				
Arsenic	160	9.9	mg/Kg wet	170		94.3	82.9-117.6				
Barium	180	5.0	mg/Kg wet	183		98.5	82.5-117.5				
Beryllium	113	0.50	mg/Kg wet	116		97.7	83.4-116.4				
Cadmium	90.6	0.99	mg/Kg wet	89.5		101	82.8-117.3				
Calcium	4390	50	mg/Kg wet	4810		91.2	81.7-118.1				
Chromium	99.6	2.0	mg/Kg wet	101		98.6	82.1-117.8				
Cobalt	86.8	5.0	mg/Kg wet	84.8		102	83.5-116.5				
Copper	149	2.0	mg/Kg wet	149		100	83.9-116.1				
Iron	12300	50	mg/Kg wet	14100		87.3	60-139.7				
Lead	133	1.5	mg/Kg wet	140		95.0	82.9-117.1				
Magnesium	2030	50	mg/Kg wet	2350		86.3	76.2-123.8				

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QUALITY CONTROL

Metals Analyses (Total) - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B292839 - SW-846 3050B										
LCS (B292839-BS1)				Prepared: 10/20/21 Analyzed: 10/22/21						
Manganese	620	0.99	mg/Kg wet	648		95.7	81.8-118.2			
Nickel	69.5	2.0	mg/Kg wet	68.3		102	82.1-117.7			
Potassium	1780	500	mg/Kg wet	2050		86.6	69.8-129.8			
Selenium	195	9.9	mg/Kg wet	182		107	79.7-120.3			
Silver	47.3	0.99	mg/Kg wet	50.1		94.5	80.2-120			
Sodium	106	500	mg/Kg wet	136		78.1	71.6-127.9			J
Thallium	95.0	5.0	mg/Kg wet	87.7		108	81.1-118.6			
Vanadium	151	2.0	mg/Kg wet	153		98.8	79.1-120.9			
Zinc	221	2.0	mg/Kg wet	228		96.9	80.7-118.9			
LCS Dup (B292839-BSD1)				Prepared: 10/20/21 Analyzed: 10/22/21						
Aluminum	6730	50	mg/Kg wet	8110		82.9	48.1-151.7	4.62	30	
Antimony	113	5.0	mg/Kg wet	134		84.0	1.9-200.7	0.126	30	
Arsenic	167	10	mg/Kg wet	170		98.4	82.9-117.6	4.26	30	
Barium	192	5.0	mg/Kg wet	183		105	82.5-117.5	6.04	20	
Beryllium	118	0.50	mg/Kg wet	116		102	83.4-116.4	4.40	30	
Cadmium	96.2	1.0	mg/Kg wet	89.5		107	82.8-117.3	6.01	20	
Calcium	4580	50	mg/Kg wet	4810		95.2	81.7-118.1	4.25	30	
Chromium	104	2.0	mg/Kg wet	101		103	82.1-117.8	4.22	30	
Cobalt	91.4	5.0	mg/Kg wet	84.8		108	83.5-116.5	5.14	20	
Copper	159	2.0	mg/Kg wet	149		107	83.9-116.1	6.16	30	
Iron	13300	50	mg/Kg wet	14100		94.7	60-139.7	8.13	30	
Lead	138	1.5	mg/Kg wet	140		98.7	82.9-117.1	3.82	30	
Magnesium	2130	50	mg/Kg wet	2350		90.4	76.2-123.8	4.69	30	
Manganese	644	1.0	mg/Kg wet	648		99.3	81.8-118.2	3.69	30	
Nickel	73.3	2.0	mg/Kg wet	68.3		107	82.1-117.7	5.31	30	
Potassium	1880	500	mg/Kg wet	2050		91.7	69.8-129.8	5.70	30	
Selenium	204	10	mg/Kg wet	182		112	79.7-120.3	4.49	30	
Silver	50.1	1.0	mg/Kg wet	50.1		100	80.2-120	5.75	30	
Sodium	113	500	mg/Kg wet	136		83.1	71.6-127.9	6.24	30	J
Thallium	98.2	5.0	mg/Kg wet	87.7		112	81.1-118.6	3.32	30	
Vanadium	158	2.0	mg/Kg wet	153		103	79.1-120.9	4.62	30	
Zinc	236	2.0	mg/Kg wet	228		104	80.7-118.9	6.67	30	
Reference (B292839-SRM1) MRL CHECK				Prepared: 10/20/21 Analyzed: 10/22/21						
Lead	0.485	0.50	mg/Kg wet	0.499		97.2	80-120			J
Batch B292879 - SW-846 3005A										
Blank (B292879-BLK1)				Prepared: 10/20/21 Analyzed: 10/21/21						
Antimony	ND	1.0	µg/L							
Arsenic	ND	0.80	µg/L							
Barium	ND	10	µg/L							
Beryllium	ND	0.40	µg/L							
Cadmium	ND	0.20	µg/L							
Chromium	ND	1.0	µg/L							
Cobalt	ND	1.0	µg/L							
Copper	ND	1.0	µg/L							
Lead	ND	0.50	µg/L							
Manganese	ND	1.0	µg/L							
Nickel	ND	5.0	µg/L							
Selenium	ND	5.0	µg/L							
Silver	ND	0.20	µg/L							

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QUALITY CONTROL

Metals Analyses (Total) - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B292879 - SW-846 3005A										
Blank (B292879-BLK1)				Prepared: 10/20/21 Analyzed: 10/21/21						
Thallium	ND	0.20	µg/L							
Vanadium	ND	5.0	µg/L							
Zinc	ND	10	µg/L							
LCS (B292879-BS1)				Prepared: 10/20/21 Analyzed: 10/21/21						
Antimony	549	10	µg/L	500		110	80-120			
Arsenic	503	8.0	µg/L	500		101	80-120			
Barium	511	100	µg/L	500		102	80-120			
Beryllium	526	4.0	µg/L	500		105	80-120			
Cadmium	509	2.0	µg/L	500		102	80-120			
Chromium	487	10	µg/L	500		97.4	80-120			
Cobalt	483	10	µg/L	500		96.5	80-120			
Copper	973	10	µg/L	1000		97.3	80-120			
Lead	505	5.0	µg/L	500		101	80-120			
Manganese	486	10	µg/L	500		97.3	80-120			
Nickel	506	50	µg/L	500		101	80-120			
Selenium	484	50	µg/L	500		96.8	80-120			
Silver	504	2.0	µg/L	500		101	80-120			
Thallium	510	2.0	µg/L	500		102	80-120			
Vanadium	489	50	µg/L	500		97.8	80-120			
Zinc	1030	100	µg/L	1000		103	80-120			
LCS Dup (B292879-BSD1)				Prepared: 10/20/21 Analyzed: 10/21/21						
Antimony	565	10	µg/L	500		113	80-120	2.92	20	
Arsenic	519	8.0	µg/L	500		104	80-120	3.15	20	
Barium	529	100	µg/L	500		106	80-120	3.36	20	
Beryllium	543	4.0	µg/L	500		109	80-120	3.08	20	
Cadmium	524	2.0	µg/L	500		105	80-120	2.84	20	
Chromium	499	10	µg/L	500		99.9	80-120	2.49	20	
Cobalt	498	10	µg/L	500		99.5	80-120	3.03	20	
Copper	999	10	µg/L	1000		99.9	80-120	2.68	20	
Lead	521	5.0	µg/L	500		104	80-120	3.10	20	
Manganese	499	10	µg/L	500		99.9	80-120	2.62	20	
Nickel	527	50	µg/L	500		105	80-120	4.08	20	
Selenium	496	50	µg/L	500		99.3	80-120	2.52	20	
Silver	516	2.0	µg/L	500		103	80-120	2.48	20	
Thallium	521	2.0	µg/L	500		104	80-120	2.16	20	
Vanadium	506	50	µg/L	500		101	80-120	3.43	20	
Zinc	1060	100	µg/L	1000		106	80-120	3.12	20	
Batch B292880 - SW-846 3005A										
Blank (B292880-BLK1)				Prepared: 10/20/21 Analyzed: 10/24/21						
Aluminum	ND	0.050	mg/L							
Calcium	ND	0.50	mg/L							
Iron	ND	0.050	mg/L							
Magnesium	ND	0.050	mg/L							
Potassium	ND	2.0	mg/L							
Sodium	ND	2.0	mg/L							

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QUALITY CONTROL

Metals Analyses (Total) - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B292880 - SW-846 3005A										
LCS (B292880-BS1)				Prepared: 10/20/21 Analyzed: 10/24/21						
Aluminum	0.500	0.050	mg/L	0.500		99.9	80-120			
Calcium	3.97	0.50	mg/L	4.00		99.1	80-120			
Iron	4.03	0.050	mg/L	4.00		101	80-120			
Magnesium	3.86	0.050	mg/L	4.00		96.4	80-120			
Potassium	3.81	2.0	mg/L	4.00		95.2	80-120			
Sodium	3.87	2.0	mg/L	4.00		96.7	80-120			
LCS Dup (B292880-BSD1)				Prepared: 10/20/21 Analyzed: 10/24/21						
Aluminum	0.509	0.050	mg/L	0.500		102	80-120	1.88	20	
Calcium	4.10	0.50	mg/L	4.00		102	80-120	3.24	20	
Iron	4.19	0.050	mg/L	4.00		105	80-120	3.80	20	
Magnesium	3.98	0.050	mg/L	4.00		99.5	80-120	3.07	20	
Potassium	3.91	2.0	mg/L	4.00		97.8	80-120	2.74	20	
Sodium	4.02	2.0	mg/L	4.00		101	80-120	3.97	20	
Batch B292933 - SW-846 3050B										
Blank (B292933-BLK1)				Prepared: 10/21/21 Analyzed: 10/24/21						
Aluminum	ND	17	mg/Kg wet							
Antimony	ND	1.7	mg/Kg wet							
Arsenic	ND	3.3	mg/Kg wet							
Barium	ND	1.7	mg/Kg wet							
Beryllium	ND	0.17	mg/Kg wet							
Cadmium	ND	0.33	mg/Kg wet							
Calcium	ND	17	mg/Kg wet							
Chromium	ND	0.66	mg/Kg wet							
Cobalt	ND	1.7	mg/Kg wet							
Copper	ND	0.66	mg/Kg wet							
Iron	ND	17	mg/Kg wet							
Lead	ND	0.50	mg/Kg wet							
Magnesium	ND	17	mg/Kg wet							
Manganese	ND	0.33	mg/Kg wet							
Nickel	ND	0.66	mg/Kg wet							
Potassium	ND	170	mg/Kg wet							
Selenium	ND	3.3	mg/Kg wet							
Silver	ND	0.33	mg/Kg wet							
Sodium	ND	170	mg/Kg wet							
Thallium	ND	1.7	mg/Kg wet							
Vanadium	ND	0.66	mg/Kg wet							
Zinc	ND	0.66	mg/Kg wet							
LCS (B292933-BS1)				Prepared: 10/21/21 Analyzed: 10/24/21						
Aluminum	6960	49	mg/Kg wet	8110		85.9	48.1-151.7			
Antimony	104	4.9	mg/Kg wet	134		77.7	1.9-200.7			
Arsenic	159	9.9	mg/Kg wet	170		93.3	82.9-117.6			
Barium	178	4.9	mg/Kg wet	183		97.1	82.5-117.5			
Beryllium	118	0.49	mg/Kg wet	116		102	83.4-116.4			
Cadmium	86.7	0.99	mg/Kg wet	89.5		96.9	82.8-117.3			
Calcium	4700	49	mg/Kg wet	4810		97.7	81.7-118.1			
Chromium	100	2.0	mg/Kg wet	101		99.1	82.1-117.8			
Cobalt	85.9	4.9	mg/Kg wet	84.8		101	83.5-116.5			
Copper	153	2.0	mg/Kg wet	149		103	83.9-116.1			
Iron	12400	49	mg/Kg wet	14100		87.8	60-139.7			

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QUALITY CONTROL

Metals Analyses (Total) - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC		%REC Limits	RPD	RPD Limit	Notes
Batch B292933 - SW-846 3050B											
LCS (B292933-BS1)				Prepared: 10/21/21 Analyzed: 10/24/21							
Lead	160	1.5	mg/Kg wet	140		114		82.9-117.1			
Magnesium	2210	49	mg/Kg wet	2350		94.2		76.2-123.8			
Manganese	655	0.99	mg/Kg wet	648		101		81.8-118.2			
Nickel	68.8	2.0	mg/Kg wet	68.3		101		82.1-117.7			
Potassium	2010	490	mg/Kg wet	2050		98.2		69.8-129.8			
Selenium	171	9.9	mg/Kg wet	182		93.7		79.7-120.3			
Silver	47.9	0.99	mg/Kg wet	50.1		95.5		80.2-120			
Sodium	ND	490	mg/Kg wet	136			*	71.6-127.9			
Thallium	98.5	4.9	mg/Kg wet	87.7		112		81.1-118.6			
Vanadium	153	2.0	mg/Kg wet	153		99.8		79.1-120.9			
Zinc	221	2.0	mg/Kg wet	228		97.1		80.7-118.9			
LCS Dup (B292933-BSD1)				Prepared: 10/21/21 Analyzed: 10/24/21							
Aluminum	7370	50	mg/Kg wet	8110		90.8		48.1-151.7	5.62	30	
Antimony	109	5.0	mg/Kg wet	134		81.6		1.9-200.7	4.95	30	
Arsenic	163	9.9	mg/Kg wet	170		95.8		82.9-117.6	2.74	30	
Barium	186	5.0	mg/Kg wet	183		102		82.5-117.5	4.44	20	
Beryllium	123	0.50	mg/Kg wet	116		106		83.4-116.4	3.47	30	
Cadmium	89.5	0.99	mg/Kg wet	89.5		100		82.8-117.3	3.19	20	
Calcium	4900	50	mg/Kg wet	4810		102		81.7-118.1	4.14	30	
Chromium	104	2.0	mg/Kg wet	101		103		82.1-117.8	4.11	30	
Cobalt	89.3	5.0	mg/Kg wet	84.8		105		83.5-116.5	3.87	20	
Copper	157	2.0	mg/Kg wet	149		105		83.9-116.1	2.40	30	
Iron	13000	50	mg/Kg wet	14100		92.4		60-139.7	5.05	30	
Lead	139	1.5	mg/Kg wet	140		99.1		82.9-117.1	14.2	30	
Magnesium	2320	50	mg/Kg wet	2350		98.6		76.2-123.8	4.49	30	
Manganese	681	0.99	mg/Kg wet	648		105		81.8-118.2	3.86	30	
Nickel	71.4	2.0	mg/Kg wet	68.3		104		82.1-117.7	3.67	30	
Potassium	2050	500	mg/Kg wet	2050		100		69.8-129.8	2.02	30	
Selenium	179	9.9	mg/Kg wet	182		98.3		79.7-120.3	4.75	30	
Silver	50.2	0.99	mg/Kg wet	50.1		100		80.2-120	4.79	30	
Sodium	ND	500	mg/Kg wet	136			*	71.6-127.9		30	
Thallium	103	5.0	mg/Kg wet	87.7		117		81.1-118.6	4.26	30	
Vanadium	159	2.0	mg/Kg wet	153		104		79.1-120.9	3.83	30	
Zinc	226	2.0	mg/Kg wet	228		99.1		80.7-118.9	2.03	30	
Reference (B292933-SRM1) MRL CHECK				Prepared: 10/21/21 Analyzed: 10/22/21							
Lead	0.404	0.49	mg/Kg wet	0.495		81.5		80-120			J
Batch B292987 - SW-846 7470A Prep											
Blank (B292987-BLK1)				Prepared: 10/22/21 Analyzed: 10/23/21							
Mercury	ND	0.00010	mg/L								

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QUALITY CONTROL

Metals Analyses (Total) - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B292987 - SW-846 7470A Prep										
LCS (B292987-BS1)				Prepared: 10/22/21 Analyzed: 10/23/21						
Mercury	0.00442	0.00010	mg/L	0.00402		110	80-120			
LCS Dup (B292987-BSD1)				Prepared: 10/22/21 Analyzed: 10/23/21						
Mercury	0.00441	0.00010	mg/L	0.00402		110	80-120	0.151	20	

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QUALITY CONTROL

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total) - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B292770 - SW-846 9010C										
Blank (B292770-BLK1)				Prepared: 10/19/21 Analyzed: 10/20/21						
Cyanide	ND	0.43	mg/Kg wet							
LCS (B292770-BS1)				Prepared: 10/19/21 Analyzed: 10/20/21						
Cyanide	74	2.4	mg/Kg wet	68.5		108	80-120			
LCS Dup (B292770-BSD1)				Prepared: 10/19/21 Analyzed: 10/20/21						
Cyanide	72	2.4	mg/Kg wet	68.1		105	80-120	2.77	20	
Matrix Spike (B292770-MS1)		**Source: 21J1070-04**		Prepared: 10/19/21 Analyzed: 10/20/21						
Cyanide	16	0.42	mg/Kg dry	15.7	ND	105	75-125			
Matrix Spike Dup (B292770-MSD1)		**Source: 21J1070-04**		Prepared: 10/19/21 Analyzed: 10/20/21						
Cyanide	16	0.42	mg/Kg dry	15.8	ND	104	75-125	0.128	35	
Batch B292801 - SW-846 9045C										
LCS (B292801-BS1)				Prepared & Analyzed: 10/19/21						
pH	6.02		pH Units	6.00		100	90-110			
LCS (B292801-BS2)				Prepared & Analyzed: 10/19/21						
pH	6.04		pH Units	6.00		101	90-110			
Duplicate (B292801-DUP1)		**Source: 21J1070-10**		Prepared & Analyzed: 10/19/21						
pH	5.0		pH Units		5.0			0.915	10	
Duplicate (B292801-DUP2)		**Source: 21J1070-21**		Prepared & Analyzed: 10/19/21						
pH	9.2		pH Units		9.0			1.42	10	
Batch B292917 - SW-846 9010C										
Blank (B292917-BLK1)				Prepared: 10/21/21 Analyzed: 10/22/21						
Cyanide	ND	0.010	mg/L							
LCS (B292917-BS1)				Prepared: 10/21/21 Analyzed: 10/22/21						
Cyanide	0.71	0.020	mg/L	0.724		97.6	80-120			
LCS Dup (B292917-BSD1)				Prepared: 10/21/21 Analyzed: 10/22/21						
Cyanide	0.69	0.020	mg/L	0.724		94.7	80-120	3.00	20	
Batch B292922 - SW-846 9010C										
Blank (B292922-BLK1)				Prepared: 10/21/21 Analyzed: 10/22/21						
Cyanide	ND	0.49	mg/Kg wet							

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QUALITY CONTROL

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total) - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B292922 - SW-846 9010C										
LCS (B292922-BS1)				Prepared: 10/21/21 Analyzed: 10/22/21						
Cyanide	76	2.5	mg/Kg wet	75.5		100	80-120			
LCS Dup (B292922-BSD1)				Prepared: 10/21/21 Analyzed: 10/22/21						
Cyanide	78	2.5	mg/Kg wet	75.5		104	80-120	3.39	20	

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FLAG/QUALIFIER SUMMARY

*	QC result is outside of established limits.
†	Wide recovery limits established for difficult compound.
‡	Wide RPD limits established for difficult compound.
#	Data exceeded client recommended or regulatory level
ND	Not Detected
RL	Reporting Limit is at the level of quantitation (LOQ)
DL	Detection Limit is the lower limit of detection determined by the MDL study
MCL	Maximum Contaminant Level
	Percent recoveries and relative percent differences (RPDs) are determined by the software using values in the calculation which have not been rounded.
	No results have been blank subtracted unless specified in the case narrative section.
H-03	Sample received after recommended holding time was exceeded.
J	Detected but below the Reporting Limit (lowest calibration standard); therefore, result is an estimated concentration (CLP J-Flag).
L-02	Laboratory fortified blank/laboratory control sample recovery and duplicate recoveries outside of control limits. Data validation is not affected since all results are "not detected" for associated samples in this batch and bias is on the high side.
L-04	Laboratory fortified blank/laboratory control sample recovery and duplicate recovery are outside of control limits. Reported value for this compound is likely to be biased on the low side.
R-04	Duplicate relative percent difference (RPD) is a less useful indicator of sample precision for sample results that are <5 times the reporting limit (RL).
V-05	Continuing calibration verification (CCV) did not meet method specifications and was biased on the low side for this compound.
V-20	Continuing calibration verification (CCV) did not meet method specifications and was biased on the high side. Data validation is not affected since sample result was "not detected" for this compound.
V-34	Initial calibration verification (ICV) did not meet method specifications and was biased on the low side for this compound. Reported result is estimated.
V-36	Initial calibration verification (ICV) did not meet method specifications and was biased on the high side. Data validation is not affected since sample result was "not detected" for this compound.

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CERTIFICATIONS

Certified Analyses included in this Report

Analyte	Certifications
SW-846 6010D in Soil	
Aluminum	CT,NH,NY,ME,VA,NC
Antimony	CT,NH,NY,ME,VA,NC
Arsenic	CT,NH,NY,ME,VA,NC
Barium	CT,NH,NY,ME,VA,NC
Beryllium	CT,NH,NY,ME,VA,NC
Cadmium	CT,NH,NY,ME,VA,NC
Calcium	CT,NH,NY,ME,VA,NC
Chromium	CT,NH,NY,ME,VA,NC
Cobalt	CT,NH,NY,ME,VA,NC
Copper	CT,NH,NY,ME,VA,NC
Iron	CT,NH,NY,ME,VA,NC
Lead	CT,NH,NY,AIHA,ME,VA,NC
Magnesium	CT,NH,NY,ME,VA,NC
Manganese	CT,NH,NY,ME,VA,NC
Nickel	CT,NH,NY,ME,VA,NC
Potassium	CT,NH,NY,ME,VA,NC
Selenium	CT,NH,NY,ME,VA,NC
Silver	CT,NH,NY,ME,VA,NC
Sodium	CT,NH,NY,ME,VA,NC
Thallium	CT,NH,NY,ME,VA,NC
Vanadium	CT,NH,NY,ME,VA,NC
Zinc	CT,NH,NY,ME,VA,NC
SW-846 6010D in Water	
Aluminum	CT,NH,NY,ME,VA,NC
Calcium	CT,NH,NY,ME,VA,NC
Iron	CT,NH,NY,ME,VA,NC
Magnesium	CT,NH,NY,ME,VA,NC
Potassium	CT,NH,NY,ME,VA,NC
Sodium	CT,NH,NY,ME,VA,NC
SW-846 6020B in Water	
Antimony	CT,NH,NY,ME,VA,NC
Arsenic	CT,NH,NY,ME,VA,NC
Barium	CT,NH,NY,ME,VA,NC
Beryllium	CT,NH,NY,ME,VA,NC
Cadmium	CT,NH,NY,RI,ME,VA,NC
Chromium	CT,NH,NY,ME,VA,NC
Cobalt	CT,NH,NY,ME,VA,NC
Copper	CT,NH,NY,ME,VA,NC
Lead	CT,NH,NY,ME,VA,NC
Manganese	CT,NH,NY,ME,VA,NC
Nickel	CT,NH,NY,ME,VA,NC
Selenium	CT,NH,NY,ME,VA,NC
Silver	CT,NH,NY,ME,VA,NC
Thallium	CT,NH,NY,ME,VA,NC
Vanadium	CT,NH,NY,ME,VA,NC
Zinc	CT,NH,NY,ME,VA,NC

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CERTIFICATIONS

Certified Analyses included in this Report

Analyte	Certifications
SW-846 7470A in Water	
Mercury	CT,NH,NY,NC,ME,VA
SW-846 7471B in Soil	
Mercury	CT,NH,NY,NC,ME,VA
SW-846 8015C in Soil	
Gasoline Range Organics (GRO)	NY,VA,NH,NC
Diesel Range Organics	NY,VA,NH,NC
SW-846 8015C in Water	
Gasoline Range Organics (GRO)	NY,VA,NH,NC
Diesel Range Organics	NY,VA,NH,NC
SW-846 8260D in Soil	
Acetone	CT,NH,NY,ME,VA
Acrylonitrile	CT,NH,NY,ME,VA
Benzene	CT,NH,NY,ME,VA
Bromobenzene	NH,NY,ME,VA
Bromochloromethane	NH,NY,ME,VA
Bromodichloromethane	CT,NH,NY,ME,VA
Bromoform	CT,NH,NY,ME,VA
Bromomethane	CT,NH,NY,ME,VA
2-Butanone (MEK)	CT,NH,NY,ME,VA
tert-Butyl Alcohol (TBA)	NY,ME
n-Butylbenzene	CT,NH,NY,ME,VA
sec-Butylbenzene	CT,NH,NY,ME,VA
tert-Butylbenzene	CT,NH,NY,ME,VA
Carbon Disulfide	CT,NH,NY,ME,VA
Carbon Tetrachloride	CT,NH,NY,ME,VA
Chlorobenzene	CT,NH,NY,ME,VA
Chlorodibromomethane	CT,NH,NY,ME,VA
Chloroethane	CT,NH,NY,ME,VA
Chloroform	CT,NH,NY,ME,VA
Chloromethane	CT,NH,NY,ME,VA
2-Chlorotoluene	CT,NH,NY,ME,VA
4-Chlorotoluene	CT,NH,NY,ME,VA
1,2-Dibromo-3-chloropropane (DBCP)	NY,ME
1,2-Dibromoethane (EDB)	NH,NY
Dibromomethane	NH,NY,ME,VA
1,2-Dichlorobenzene	CT,NH,NY,ME,VA
1,3-Dichlorobenzene	CT,NH,NY,ME,VA
1,4-Dichlorobenzene	CT,NH,NY,ME,VA
trans-1,4-Dichloro-2-butene	NY,ME
Dichlorodifluoromethane (Freon 12)	NH,NY,ME,VA
1,1-Dichloroethane	CT,NH,NY,ME,VA
1,2-Dichloroethane	CT,NH,NY,ME,VA
1,1-Dichloroethylene	CT,NH,NY,ME,VA
cis-1,2-Dichloroethylene	CT,NH,NY,ME,VA
trans-1,2-Dichloroethylene	CT,NH,NY,ME,VA

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CERTIFICATIONS

Certified Analyses included in this Report

Analyte	Certifications
SW-846 8260D in Soil	
1,2-Dichloropropane	CT,NH,NY,ME,VA
1,3-Dichloropropane	NH,NY,ME,VA
2,2-Dichloropropane	NH,NY,ME,VA
1,1-Dichloropropene	NH,NY,ME,VA
cis-1,3-Dichloropropene	CT,NH,NY,ME,VA
trans-1,3-Dichloropropene	CT,NH,NY,ME,VA
Diethyl Ether	ME
1,4-Dioxane	NY,ME
Ethylbenzene	CT,NH,NY,ME,VA
Hexachlorobutadiene	NH,NY,ME,VA
2-Hexanone (MBK)	CT,NH,NY,ME,VA
Isopropylbenzene (Cumene)	CT,NH,NY,ME,VA
p-Isopropyltoluene (p-Cymene)	NH,NY
Methyl Acetate	NY,ME
Methyl tert-Butyl Ether (MTBE)	NY,ME,VA
Methyl Cyclohexane	NY
Methylene Chloride	CT,NH,NY,ME,VA
4-Methyl-2-pentanone (MIBK)	CT,NH,NY,ME,VA
Naphthalene	NH,NY,ME,VA
n-Propylbenzene	NH,NY,ME
Styrene	CT,NH,NY,ME,VA
1,1,1,2-Tetrachloroethane	CT,NH,NY,ME,VA
1,1,2,2-Tetrachloroethane	CT,NH,NY,ME,VA
Tetrachloroethylene	CT,NH,NY,ME,VA
Toluene	CT,NH,NY,ME,VA
1,2,3-Trichlorobenzene	NY,ME
1,2,4-Trichlorobenzene	NH,NY,ME,VA
1,3,5-Trichlorobenzene	ME
1,1,1-Trichloroethane	CT,NH,NY,ME,VA
1,1,2-Trichloroethane	CT,NH,NY,ME,VA
Trichloroethylene	CT,NH,NY,ME,VA
Trichlorofluoromethane (Freon 11)	CT,NH,NY,ME,VA
1,2,3-Trichloropropane	NH,NY,ME,VA
1,2,4-Trimethylbenzene	CT,NH,NY,ME,VA
1,3,5-Trimethylbenzene	CT,NH,NY,ME,VA
Vinyl Chloride	CT,NH,NY,ME,VA
m+p Xylene	CT,NH,NY,ME,VA
o-Xylene	CT,NH,NY,ME,VA
SW-846 8260D in Water	
Acetone	CT,ME,NH,VA,NY
Acrylonitrile	CT,ME,NH,VA,NY
tert-Amyl Methyl Ether (TAME)	ME,NH,VA,NY
Benzene	CT,ME,NH,VA,NY
Bromobenzene	ME,NY
Bromochloromethane	ME,NH,VA,NY
Bromodichloromethane	CT,ME,NH,VA,NY

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CERTIFICATIONS

Certified Analyses included in this Report

Analyte	Certifications
SW-846 8260D in Water	
Bromoform	CT,ME,NH,VA,NY
Bromomethane	CT,ME,NH,VA,NY
2-Butanone (MEK)	CT,ME,NH,VA,NY
tert-Butyl Alcohol (TBA)	ME,NH,VA,NY
n-Butylbenzene	ME,VA,NY
sec-Butylbenzene	ME,VA,NY
tert-Butylbenzene	ME,VA,NY
tert-Butyl Ethyl Ether (TBEE)	ME,NH,VA,NY
Carbon Disulfide	CT,ME,NH,VA,NY
Carbon Tetrachloride	CT,ME,NH,VA,NY
Chlorobenzene	CT,ME,NH,VA,NY
Chlorodibromomethane	CT,ME,NH,VA,NY
Chloroethane	CT,ME,NH,VA,NY
Chloroform	CT,ME,NH,VA,NY
Chloromethane	CT,ME,NH,VA,NY
2-Chlorotoluene	ME,NH,VA,NY
4-Chlorotoluene	ME,NH,VA,NY
1,2-Dibromo-3-chloropropane (DBCP)	ME,NY
1,2-Dibromoethane (EDB)	ME,NY
Dibromomethane	ME,NH,VA,NY
1,2-Dichlorobenzene	CT,ME,NH,VA,NY
1,3-Dichlorobenzene	CT,ME,NH,VA,NY
1,4-Dichlorobenzene	CT,ME,NH,VA,NY
trans-1,4-Dichloro-2-butene	ME,NH,VA,NY
Dichlorodifluoromethane (Freon 12)	ME,NH,VA,NY
1,1-Dichloroethane	CT,ME,NH,VA,NY
1,2-Dichloroethane	CT,ME,NH,VA,NY
1,1-Dichloroethylene	CT,ME,NH,VA,NY
cis-1,2-Dichloroethylene	ME,NY
trans-1,2-Dichloroethylene	CT,ME,NH,VA,NY
1,2-Dichloropropane	CT,ME,NH,VA,NY
1,3-Dichloropropane	ME,VA,NY
2,2-Dichloropropane	ME,NH,VA,NY
1,1-Dichloropropene	ME,NH,VA,NY
cis-1,3-Dichloropropene	CT,ME,NH,VA,NY
trans-1,3-Dichloropropene	CT,ME,NH,VA,NY
Diethyl Ether	ME,NY
Diisopropyl Ether (DIPE)	ME,NH,VA,NY
1,4-Dioxane	ME,NY
Ethylbenzene	CT,ME,NH,VA,NY
Hexachlorobutadiene	CT,ME,NH,VA,NY
2-Hexanone (MBK)	CT,ME,NH,VA,NY
Isopropylbenzene (Cumene)	ME,VA,NY
p-Isopropyltoluene (p-Cymene)	CT,ME,NH,VA,NY
Methyl Acetate	ME,NY
Methyl tert-Butyl Ether (MTBE)	CT,ME,NH,VA,NY
Methyl Cyclohexane	NY

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CERTIFICATIONS

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Analyte	Certifications
SW-846 8260D in Water	
Methylene Chloride	CT,ME,NH,VA,NY
4-Methyl-2-pentanone (MIBK)	CT,ME,NH,VA,NY
Naphthalene	ME,NH,VA,NY
n-Propylbenzene	CT,ME,NH,VA,NY
Styrene	CT,ME,NH,VA,NY
1,1,1,2-Tetrachloroethane	CT,ME,NH,VA,NY
1,1,2,2-Tetrachloroethane	CT,ME,NH,VA,NY
Tetrachloroethylene	CT,ME,NH,VA,NY
Toluene	CT,ME,NH,VA,NY
1,2,3-Trichlorobenzene	ME,NH,VA,NY
1,2,4-Trichlorobenzene	CT,ME,NH,VA,NY
1,3,5-Trichlorobenzene	ME
1,1,1-Trichloroethane	CT,ME,NH,VA,NY
1,1,2-Trichloroethane	CT,ME,NH,VA,NY
Trichloroethylene	CT,ME,NH,VA,NY
Trichlorofluoromethane (Freon 11)	CT,ME,NH,VA,NY
1,2,3-Trichloropropane	ME,NH,VA,NY
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	VA,NY
1,2,4-Trimethylbenzene	ME,VA,NY
1,3,5-Trimethylbenzene	ME,VA,NY
Vinyl Chloride	CT,ME,NH,VA,NY
m+p Xylene	CT,ME,NH,VA,NY
o-Xylene	CT,ME,NH,VA,NY
SW-846 9014 in Soil	
Cyanide	NY,CT,NC,ME,NH,VA
SW-846 9014 in Water	
Cyanide	NY,CT,NH,NC,ME,VA

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Con-Test, a Pace Environmental Laboratory, operates under the following certifications and accreditations:

Code	Description	Number	Expires
AIHA	AIHA-LAP, LLC - ISO17025:2017	100033	03/1/2022
MA	Massachusetts DEP	M-MA100	06/30/2022
CT	Connecticut Department of Publilc Health	PH-0165	12/31/2022
NY	New York State Department of Health	10899 NELAP	04/1/2022
NH-S	New Hampshire Environmental Lab	2516 NELAP	02/5/2022
RI	Rhode Island Department of Health	LAO00112	12/30/2021
NC	North Carolina Div. of Water Quality	652	12/31/2021
NJ	New Jersey DEP	MA007 NELAP	06/30/2022
FL	Florida Department of Health	E871027 NELAP	06/30/2022
VT	Vermont Department of Health Lead Laboratory	LL720741	07/30/2022
ME	State of Maine	MA00100	06/9/2023
VA	Commonwealth of Virginia	460217	12/14/2021
NH-P	New Hampshire Environmental Lab	2557 NELAP	09/6/2022
VT-DW	Vermont Department of Health Drinking Water	VT-255716	06/12/2022
NC-DW	North Carolina Department of Health	25703	07/31/2022
PA	Commonwealth of Pennsylvania DEP	68-05812	06/30/2022
MI	Dept. of Env, Great Lakes, and Energy	9100	09/6/2022

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Doc # 381 Rev 5_07/13/2021

Company Name: Ramboll
Address: 4350 N Fairfax Dr, Arlington, VA 22203
Phone: 703 516 2383
Project Name: HRP SCR PRGS SCR
Project Location: 1400 N. Royal St. Alexandria, VA
Project Number:
Project Manager: Greg Grose
Pace Quote Name/Number:
Invoice Recipient: Sostertag@ramboll.com
Sampled By: Anne Kelly

Requested Turnaround Time
7-Day ☐ 10-Day ☒
PFAS 10-Day (std) ☐ Due Date: 25% 5 day
Rush-Approval Required
1-Day ☐ 3-Day ☐
2-Day ☐ 4-Day ☐
Data Delivery
Format: PDF ☒ EXCEL ☒
Other: Ramboll EDD
CLP Like Data Pkg Required: ☐
Email To: Sostertag@ramboll.com
Fax To #:

Dissolved Metals Samples
○ Field Filtered
○ Lab to Filter
Orthophosphate Samples
○ Field Filtered
○ Lab to Filter
PCB ONLY
SOXHLET ☐
NON SOXHLET ☐

ANALYSIS REQUESTED

Pace Work Order#	Client Sample ID / Description	Beginning Date/Time	Ending Date/Time	COMP/GRAB	Matrix Code[1]	Conc Code	VIALS	GLASS	PLASTIC	BACTERIA	ENCORE	VOCs	TPH GRO	TAL Metals	pH	Cyanide
Preservation Code[2]												I	I	I	I	I
01	HRP-TB03-211015	10/15/21 0720	—	Grab	W	C	2					X	X			
02	HRP-SB213-0-1-211015	10/15/21 0956	—	Grab	S	L		2						X	X	X
03	HRP-SB213-5-7-211015	10/15/21 1005	—	Grab	S	L		2						X	X	X
04	HRP-SB213-16-18-211015	10/15/21 1010	—	Grab	S	L		2						X	X	X
05	HRP-SB212-0-2-211015	10/15/21 1125	—	Grab	S	L		2						X	X	X
06	HRP-DUP04-0-2-211015	10/15/21 1125	—	Grab	S	L		2						X	X	X
07	HRP-SB212-5-7-211015	10/15/21 1135	—	Grab	S	L		2						X	X	X
08	HRP-SB212-15-17-211015	10/15/21 1140	—	Grab	S	L		2						X	X	X
09	HRP-SB211-0-1-211015	10/15/21 1240	—	Grab	S	L		1						X	X	X
10	HRP-SB211-5-7-211015	10/15/21 1245	—	Grab	S	L		2						X	X	X

Signature	Date/Time
Relinquished by: (signature) Ann B. Kelly	10/15 1421
Received by: (signature) LaShai Morris	10/15/21 1421
Relinquished by: (signature) LaShai Morris	10/15/21 4pm
Received by: (signature) Rachel Burruss	10-15-21 1600
Relinquished by: (signature) Rachel Burruss	10-18-21 1700
Received by: (signature) 4.0/5.0/6.1	10/19 954
Relinquished by: (signature)	Date/Time:
Received by: (signature)	Date/Time:

Client Comments:
TB: Trip Blank
EB: Equip blank

Detection Limit Requirements
MA
CT
Other: VA DEQ

Special Requirements
☐ MA MCP Required
MCP Certification Form Required
☐ CT RCP Required
RCP Certification Form Required
☐ MA State DW Required
PWSID #

Please use the following codes to indicate possible sample concentration within the Conc Code column above:
H - High; M - Medium; L - Low; C - Clean; U - Unknown

NELAC and AIHA-LAP, LLC Accredited

Project Entity
Government ☐ Municipality ☐ MWRA ☐ WRTA ☐
Federal ☐ 21 J ☐ School ☐
City ☐ Brownfield ☐ MBTA ☐

Other
☐ Chromatogram
☐ AIHA-LAP,LLC

Lab Comments:

[2] Preservation Code
Courier Use Only
Total Number Of:
VIALS ____
GLASS ____
PLASTIC ____
BACTERIA ____
ENCORE ____

Glassware in the fridge? Y / N
Glassware in freezer? Y / N
Prepackaged Cooler? Y / N
*Pace Analytical is not responsible for missing samples from prepacked coolers

[1] **Matrix Codes:**
GW = Ground Water
WW = Waste Water
DW = Drinking Water
A = Air
S = Soil
SL = Sludge
SOL = Solid
O = Other (please define)

[2] **Preservation Codes:**
I = Iced
H = HCL
M = Methanol
N = Nitric Acid
S = Sulfuric Acid
B = Sodium Bisulfate
X = Sodium Hydroxide
T = Sodium Thiosulfate
O = Other (please define)

211070

Pace Analytical®

Phone: 413-525-2332
Fax: 413-525-6405
Access COC's and Support Requests

http://www.pacelabs.com

CHAIN OF CUSTODY RECORD

39 Spruce Street
East Longmeadow, MA 01028

Doc # 381 Rev 5_07/13/2021

Company Name: Ramboll
Address: 4350 N. Fairfax Dr., Arlington, VA 22203
Phone:
Project Name: HRP PRGS SCR
Project Location: 1400 N Royal St Alexandria VA
Project Number:
Project Manager: Greg Grose
Pace Quote Name/Number:
Invoice Recipient: Sostertag@ramboll.com
Sampled By: Anne Kelly

Requested Turnaround Time
7-Day ☐ 10-Day ☒ (5 days)
PFAS 10-Day (std) ☐ Due Date:

Rush Approval Required
1-Day ☐ 3-Day ☐
2-Day ☐ 4-Day ☐

Data Delivery
Format: PDF ☒ EXCEL ☒
Other: Ramboll EDD
CLP Like Data Pkg Required: ☐
Email To: Sostertag@ramboll.com
Fax To #:

Dissolved Metals Samples
○ Field Filtered
○ Lab to Filter

Orthophosphate Samples
○ Field Filtered
○ Lab to Filter

PCB ONLY
SOXHLET ☐
NON SOXHLET ☐

ANALYSIS REQUESTED

Pace Work Order#	Client Sample ID / Description	Beginning Date/Time	Ending Date/Time	COMP/GRAB	[1]Matrix Code	Conc Code	VIALS	GLASS	PLASTIC	BACTERIA	ENCORE	TAL Metals	pH	Cyanide	VOCs	TPH GRO	TPH ORO	TPH DRO
11	HRP-MW209-0-1-211013	10/13/21 1340	—	Grab	S	L		2				X	X	X				
12	HRP-MW209-5-7-211013	10/13/21 1347	—	Grab	S	L		2				X	X	X				
13	HRP-MW209-15-17-211013	10/13/21 1355	—	Grab	S	L		2				X	X	X				
14	HRP-EB03-211013	10/13/21 1645	—	Grab	W	C			2			X	X	X				
15	HRP-MW208-0-1-211014	10/14/21 0912	—	Grab	S	L		2				X	X	X				
16	HRP-MW208-5-7-211014	10/14/21 0920	—	Grab	S	L		2				X	X	X				
17	HRP-MW208-18-20-211014	10/14/21 0930	—	Grab	S	L		2				X	X	X				
18	HRP-MW214-0-2-211014	10/14/21 1358	—	Grab	S	L	4	3				X	X	X	X	X	X	X
19	HRP-MW214-5-7-211014	10/14/21 1410	—	Grab	S	L	4	3				X	X	X	X	X	X	X
20	HRP-MW214-14-16-211014	10/14/21 1435	—	Grab	S	L	4	3				X	X	X	X	X	X	X

Relinquished by: (signature) — Date/Time: 10/15 1410
Received by: (signature) LaShae Morris — Date/Time: 10/15/21 1210
Relinquished by: (signature) LaShae Morris — Date/Time: 10/15/21 4pm
Received by: (signature) Rachel Burruss — Date/Time: 10-15-21 1600
Relinquished by: (signature) Rachel Burruss — Date/Time: 10-18-21 1700
Received by: (signature) — Date/Time: 10/19 9:14
Relinquished by: (signature) — Date/Time:
Received by: (signature) — Date/Time:

Client Comments: EB: Equipment Blank

Detection Limit Requirements
MA
GW
Other: VA DEQ

Special Requirements
☐ MA MCP Required
MCP Certification Form Required
☐ CT RCP Required
RCP Certification Form Required
☐ MA State DW Required
PWSID #

Please use the following codes to indicate possible sample concentration within the Conc Code column above:
H - High; M - Medium; L - Low; C - Clean; U - Unknown

NELAC and AIHA-LAP, LLC Accredited

Project Entity
Government ☐ Municipality ☐ MWRA ☐ WRTA ☐
Federal ☐ 21 J ☐ School ☐
City ☐ Brownfield ☐ MBTA ☐

Other
☐ Chromatogram
☐ AIHA-LAP,LLC

Lab Comments:

Disclaimer: Pace Analytical is not responsible for any omitted information on the Chain of Custody. The Chain of Custody is a legal document that must be complete and accurate and is used to determine what analyses the laboratory will perform. Any missing information is not the laboratory's responsibility. Pace Analytical values your partnership on each project and will try to assist with missing information, but will not be held accountable.

[2] Preservation Code
Courier Use Only
Total Number Of:
VIALS
GLASS
PLASTIC
BACTERIA
ENCORE

Glassware in the fridge? Y / N
Glassware in freezer? Y / N
Prepackaged Cooler? Y / N
*Pace Analytical is not responsible for missing samples from prepacked coolers

[1] Matrix Codes:
GW = Ground Water
WW = Waste Water
DW = Drinking Water
A = Air
S = Soil
SL = Sludge
SOL = Solid
O = Other (please define)

[2] Preservation Codes:
I = Iced
H = HCL
M = Methanol
N = Nitric Acid
S = Sulfuric Acid
B = Sodium Bisulfate
X = Sodium Hydroxide
T = Sodium Thiosulfate
O = Other (please define)

211070

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Fax: 413-525-6405
Access COC's and Support Requests

http://www.pacelabs.com

CHAIN OF CUSTODY RECORD

39 Spruce Street
East Longmeadow, MA 01028

Doc # 381 Rev 5_07/13/2021

Company Name: Ramboll
Address: 4350 N. Fairfax Dr. Arlington VA
Phone: 703-516-2383
Project Name: HRP - [redacted] PROS SCR
Project Location: 1400 N Royal St Alexandria, VA
Project Number:
Project Manager: Greg Grose
Pace Quote Name/Number:
Invoice Recipient: Sostertag@Ramboll.com
Sampled By: Anne Kelly

Requested Turnaround Time
7-Day ☐ 10-Day ☒ (5 day RP)
PFAS 10-Day (std) ☐ Due Date:

Rush-Approval Required
1-Day ☐ 3-Day ☐
2-Day ☐ 4-Day ☐

Data Delivery
Format: PDF ☒ EXCEL ☒
Other: Ramboll EDD
CLP Like Data Pkg Required: ☐
Email To: Sostertag@Ramboll.com
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Dissolved Metals Samples
○ Field Filtered
○ Lab to Filter

Orthophosphate Samples
○ Field Filtered
○ Lab to Filter

PCB ONLY
SOXHLET ☐
NON SOXHLET ☐

ANALYSIS REQUESTED

Pace Work Order#	Client Sample ID / Description	Beginning Date/Time	Ending Date/Time	COMP/GRAB	Matrix Code	Conc Code	VIALS	GLASS	PLASTIC	BACTERIA	ENCORE	TAL Metals	pH	Cyanide	VOCs
21	HRP-SB211-15-17-211015	10/15/21 1250	—	Grab	S	L		2				X	X	X	
22	HRP-EB04-211015	10/15/21 1405	—	Grab	W	C			2			X	X	X	
23	HRP-TB04-211015	10/15/21 1410	—	Grab	W	C		2							4

Relinquished by: (signature) — Date/Time: 10/15 1410
Received by: (signature) Tasha Morris — Date/Time: 10/15/21 1417
Relinquished by: (signature) Tasha Morris — Date/Time: 10/15/21 4pm
Received by: (signature) Rachel Burruss — Date/Time: 10-15-21 1800
Relinquished by: (signature) Rachel Burruss — Date/Time: 10-18-21 1700
Received by: (signature) — Date/Time: 10/19 9:54
Relinquished by: (signature) — Date/Time:
Received by: (signature) — Date/Time:

Client Comments:
TB: Trip Blank
EB: Equipment Blank

Detection Limit Requirements
MA
CT
Other: VA DEQ

Special Requirements
MA MCP Required ☐
MCP Certification Form Required
CT RCP Required ☐
RCP Certification Form Required
MA State DW Required ☐
PWSID #

Please use the following codes to indicate possible sample concentration within the Conc Code column above:
H - High; M - Medium; L - Low; C - Clean; U - Unknown

NELAC and AIHA-LAP, LLC Accredited

Project Entity
Government ☐ Municipality ☐ MWRA ☐ WRTA ☐
Federal ☐ 21 J ☐ School ☐
City ☐ Brownfield ☐ MBTA ☐

Other
☐ Chromatogram
☐ AIHA-LAP,LLC

Lab Comments:

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Courier Use Only
Total Number Of:
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PLASTIC
BACTERIA
ENCORE

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I = Iced
H = HCL
M = Methanol
N = Nitric Acid
S = Sulfuric Acid
B = Sodium Bisulfate
X = Sodium Hydroxide
T = Sodium Thiosulfate
O = Other (please define)

FedEx

TRACK ANOTHER SHIPMENT

285036984893

ADD NICKNAME

Delivered

THIS IS 1 OF 3 PIECES

DELIVERED

Signed for by: R.PIETRIAS

GET STATUS UPDATES

OBTAIN PROOF OF DELIVERY

FROM	TO
Mechanicsville, VA US	EAST LONGMEADOW, MA US

3 Piece Shipment

TRACKING ID	STATUS	SHIP DATE	DELIVERY DATE	HANDLING PIECE UNITS	SHIPPER CITY, STATE	RECIPIENT CITY, STATE
285036984893 (master)	Delivered	10/18/21	10/19/21	0	Mechanicsville VA	EAST LONGMEADOW MA
285036986793	Delivered	10/18/21	10/19/21	0	Mechanicsville VA	EAST LONGMEADOW MA
285036988752	Delivered	10/18/21	10/19/21	0	Mechanicsville VA	EAST LONGMEADOW MA

Travel History

TIME ZONE
Local Scan Time

Tuesday, October 19, 2021

9:54 AM	EAST LONGMEADOW, MA	Delivered
8:26 AM	WINDSOR LOCKS, CT	On FedEx vehicle for delivery

I Have Not Confirmed Sample Container Numbers With Lab Staff Before Relinquishing Over Samples_____

con-test® ANALYTICAL LABORATORY

Doc# 277 Rev 5 2017

Login Sample Receipt Checklist - (Rejection Criteria Listing - Using Acceptance Policy) Any False Statement will be brought to the attention of the Client - State True or False

Client Ramboll

Received By RLF Date 10/19/21 Time 954

How were the samples received? In Cooler T No Cooler _____ On Ice T No Ice _____ Direct from Sampling _____ Ambient _____ Melted Ice _____

Were samples within Temperature? 2-6°C T By Gun # 5 Actual Temp - 4, 5, 2.1 C By Blank # _____ Actual Temp - _____

Was Custody Seal Intact? NA Were Samples Tampered with? NT

Was COC Relinquished ? T Does Chain Agree With Samples? T

Are there broken/leaking/loose caps on any samples? F

Is COC in ink/ Legible? T Were samples received within holding time? F pH past hold

Did COC include all pertinent Information? Client T Project T Analysis T ID's T Sampler Name T Collection Dates/Times T

Are Sample labels filled out and legible? T

Are there Lab to Filters? F Who was notified? _____

Are there Rushes? F Who was notified? _____

Are there Short Holds? T Who was notified? Frank

Is there enough Volume? T

Is there Headspace where applicable? F MS/MSD? F

Proper Media/Containers Used? T Is splitting samples required? F

Were trip blanks received? T On COC? T

Do all samples have the proper pH? Acid T Base T

Vials	#	Containers:	#		#		#
Unp-		1 Liter Amb.		1 Liter Plastic		16 oz Amb.	
HCL-	4	500 mL Amb.		500 mL Plastic		8oz Amb/Clear	33
Meoh-	6	250 mL Amb.		250 mL Plastic	2	4oz Amb/Clear	3
Bisulfate-	6	Flashpoint		Col./Bacteria		2oz Amb/Clear	
DI-		Other Glass		Other Plastic	2	Encore	
Thiosulfate-		SOC Kit		Plastic Bag		Frozen:	
Sulfuric-		Perchlorate		Ziplock			

Unused Media

Vials	#	Containers:	#		#		#
Unp-		1 Liter Amb.		1 Liter Plastic		16 oz Amb.	
HCL-		500 mL Amb.		500 mL Plastic		8oz Amb/Clear	
Meoh-		250 mL Amb.		250 mL Plastic		4oz Amb/Clear	
Bisulfate-		Col./Bacteria		Flashpoint		2oz Amb/Clear	
DI-		Other Plastic		Other Glass		Encore	
Thiosulfate-		SOC Kit		Plastic Bag		Frozen:	
Sulfuric-		Perchlorate		Ziplock			

Comments:

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A Pace Analytical® Laboratory

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

October 19, 2021

Sarah Ostertag
Ramboll US Consulting, Inc. - Arlington, VA
4350 North Fairfax Drive
Arlington, VA 22203

Project Location: 1400 N. Royal St, Alexandria, VA
Client Job Number:
Project Number: [none]
Laboratory Work Order Number: 21J0524

Enclosed are results of analyses for samples as received by the laboratory on October 9, 2021. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Kaitlyn A. Feliciano
Project Manager

Table of Contents

Table of Contents (continued)

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Ramboll US Consulting, Inc. - Arlington, VA
4350 North Fairfax Drive
Arlington, VA 22203
ATTN: Sarah Ostertag

REPORT DATE: 10/19/2021

PURCHASE ORDER NUMBER:

PROJECT NUMBER: [none]

ANALYTICAL SUMMARY

WORK ORDER NUMBER: 21J0524

The results of analyses performed on the following samples submitted to CON-TEST, a Pace Analytical Laboratory, are found in this report.

PROJECT LOCATION: 1400 N. Royal St, Alexandria, VA

FIELD SAMPLE #	LAB ID:	MATRIX	SAMPLE DESCRIPTION	TEST	SUB LAB
HRP-SB221-0-1-211005	21J0524-01	Soil		SM 2540G	
				SW-846 8082A	
HRP-SB221-4-5-211005	21J0524-02	Soil		SM 2540G	
				SW-846 8082A	
HRP-SB226-0-1-211005	21J0524-03	Soil		SM 2540G	
				SW-846 6010D	
				SW-846 7471B	
				SW-846 8082A	
				SW-846 8270E	
				SW-846 9014	
				SW-846 9045C	
HRP-EB01-211007	21J0524-05	Water		SW-846 8082A	
HRP-SB202-0-1-211007	21J0524-06	Soil		SM 2540G	
				SW-846 6010D	
				SW-846 7471B	
				SW-846 8270E	
HRP-SB202-25-30-211007	21J0524-07	Soil		SM 2540G	
				SW-846 6010D	
				SW-846 7471B	
				SW-846 8260D	
				SW-846 8270E	
HRP-EB02-211007	21J0524-08	Water		SW-846 6010D	
				SW-846 6020B	
				SW-846 7470A	
				SW-846 8270E	
HRP-SB201-0-1-211008	21J0524-09	Soil		SM 2540G	
				SW-846 6010D	
				SW-846 7471B	
				SW-846 8270E	
HRP-DUP01-0-1-211008	21J0524-10	Soil		SM 2540G	
				SW-846 6010D	
				SW-846 7471B	
				SW-846 8270E	
HRP-SB201-10-12-211008	21J0524-11	Soil		SM 2540G	
				SW-846 6010D	
				SW-846 7471B	
				SW-846 8260D	
				SW-846 8270E	

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Ramboll US Consulting, Inc. - Arlington, VA
4350 North Fairfax Drive
Arlington, VA 22203
ATTN: Sarah Ostertag

REPORT DATE: 10/19/2021

PURCHASE ORDER NUMBER:

PROJECT NUMBER: [none]

ANALYTICAL SUMMARY

WORK ORDER NUMBER: 21J0524

The results of analyses performed on the following samples submitted to CON-TEST, a Pace Analytical Laboratory, are found in this report.

PROJECT LOCATION: 1400 N. Royal St, Alexandria, VA

FIELD SAMPLE #	LAB ID:	MATRIX	SAMPLE DESCRIPTION	TEST	SUB LAB
HRP-SB201-24-26-211008	21J0524-12	Soil		SM 2540G	
				SW-846 6010D	
				SW-846 7471B	
				SW-846 8260D	
				SW-846 8270E	

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

CASE NARRATIVE SUMMARY

All reported results are within defined laboratory quality control objectives unless listed below or otherwise qualified in this report.

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

SW-846 8260D

Qualifications:

V-05

Continuing calibration verification (CCV) did not meet method specifications and was biased on the low side for this compound.

Analyte & Samples(s) Qualified:

Dichlorodifluoromethane (Freon 12
21J0524-07[HRP-SB202-25-30-211007], 21J0524-11[HRP-SB201-10-12-211008], 21J0524-12[HRP-SB201-24-26-211008], B292273-BLK1, B292273-BS1, B292273-BSD1, S064182-CCV1

tert-Butyl Alcohol (TBA)
21J0524-07[HRP-SB202-25-30-211007], 21J0524-11[HRP-SB201-10-12-211008], 21J0524-12[HRP-SB201-24-26-211008], B292273-BLK1, B292273-BS1, B292273-BSD1, S064182-CCV1

V-34

Initial calibration verification (ICV) did not meet method specifications and was biased on the low side for this compound. Reported result is estimated.

Analyte & Samples(s) Qualified:

Bromomethane
21J0524-07[HRP-SB202-25-30-211007], 21J0524-11[HRP-SB201-10-12-211008], 21J0524-12[HRP-SB201-24-26-211008], B292273-BLK1, B292273-BS1, B292273-BSD1, S064182-CCV1

V-36

Initial calibration verification (ICV) did not meet method specifications and was biased on the high side. Data validation is not affected since sample result was "not detected" for this compound.

Analyte & Samples(s) Qualified:

2-Hexanone (MBK)
B292273-BS1, B292273-BSD1, S064182-CCV1

Acetone
B292273-BS1, B292273-BSD1, S064182-CCV1

SW-846 8270E

Qualifications:

L-04

Laboratory fortified blank/laboratory control sample recovery and duplicate recovery are outside of control limits. Reported value for this compound is likely to be biased on the low side.

Analyte & Samples(s) Qualified:

N-Nitrosodimethylamine
21J0524-08[HRP-EB02-211007], B292324-BLK1, B292324-BS1, B292324-BSD1

V-04

Initial calibration did not meet method specifications. Compound was calibrated using a response factor where %RSD is outside of method specified criteria. Reported result is estimated.

Analyte & Samples(s) Qualified:

2,4-Dinitrophenol
21J0524-03[HRP-SB226-0-1-211005], 21J0524-06[HRP-SB202-0-1-211007], 21J0524-07[HRP-SB202-25-30-211007], 21J0524-09[HRP-SB201-0-1-211008], 21J0524-10[HRP-DUP01-0-1-211008], 21J0524-11[HRP-SB201-10-12-211008], 21J0524-12[HRP-SB201-24-26-211008], B292394-BLK1, B292394-BS1, B292394-BSD1, S064307-CCV1, S064335-CCV1

Benzidine
21J0524-08[HRP-EB02-211007], B292324-BLK1, B292324-BS1, B292324-BSD1, S064314-CCV1

V-05

Continuing calibration verification (CCV) did not meet method specifications and was biased on the low side for this compound.

Analyte & Samples(s) Qualified:

4-Nitrophenol
21J0524-07[HRP-SB202-25-30-211007], 21J0524-09[HRP-SB201-0-1-211008], 21J0524-10[HRP-DUP01-0-1-211008], 21J0524-11[HRP-SB201-10-12-211008], 21J0524-12[HRP-SB201-24-26-211008], S064335-CCV1

Benzidine
21J0524-08[HRP-EB02-211007], B292324-BLK1, B292324-BS1, B292324-BSD1, S064314-CCV1

Bis(2-chloroisopropyl)ether
21J0524-08[HRP-EB02-211007], B292324-BLK1, B292324-BS1, B292324-BSD1, S064314-CCV1

Hexachlorocyclopentadiene
21J0524-08[HRP-EB02-211007], B292324-BLK1, B292324-BS1, B292324-BSD1, S064314-CCV1

N-Nitrosodimethylamine
21J0524-08[HRP-EB02-211007], B292324-BLK1, B292324-BS1, B292324-BSD1, S064314-CCV1

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

V-06

Continuing calibration verification (CCV) did not meet method specifications and was biased on the high side for this compound.

Analyte & Samples(s) Qualified:

2,4-Dinitrophenol

B292394-BS1, B292394-BSD1, S064307-CCV1, S064335-CCV1

V-20

Continuing calibration verification (CCV) did not meet method specifications and was biased on the high side. Data validation is not affected since sample result was "not detected" for this compound.

Analyte & Samples(s) Qualified:

2,4-Dinitrophenol

21J0524-03[HRP-SB226-0-1-211005], 21J0524-06[HRP-SB202-0-1-211007], 21J0524-07[HRP-SB202-25-30-211007], 21J0524-09[HRP-SB201-0-1-211008], 21J0524-10[HRP-DUP01-0-1-211008], 21J0524-11[HRP-SB201-10-12-211008], 21J0524-12[HRP-SB201-24-26-211008], B292394-BLK1

V-34

Initial calibration verification (ICV) did not meet method specifications and was biased on the low side for this compound. Reported result is estimated.

Analyte & Samples(s) Qualified:

4-Chloroaniline

21J0524-03[HRP-SB226-0-1-211005], 21J0524-06[HRP-SB202-0-1-211007], 21J0524-07[HRP-SB202-25-30-211007], 21J0524-08[HRP-EB02-211007], 21J0524-09[HRP-SB201-0-1-211008], 21J0524-10[HRP-DUP01-0-1-211008], 21J0524-11[HRP-SB201-10-12-211008], 21J0524-12[HRP-SB201-24-26-211008], B292324-BLK1, B292324-BS1, B292324-BSD1, B292394-BLK1, B292394-BS1, B292394-BSD1, S064307-CCV1, S064314-CCV1, S064335-CCV1

Pyridine

21J0524-08[HRP-EB02-211007], B292324-BLK1, B292324-BS1, B292324-BSD1, S064314-CCV1

SW-846 9045C

Qualifications:

H-03

Sample received after recommended holding time was exceeded.

Analyte & Samples(s) Qualified:

pH

21J0524-03[HRP-SB226-0-1-211005]

The results of analyses reported only relate to samples submitted to Con-Test, a Pace Analytical Laboratory, for testing.
I certify that the analyses listed above, unless specifically listed as subcontracted, if any, were performed under my direction according to the approved methodologies listed in this document, and that based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

Lisa A. Worthington
Technical Representative

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39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: 1400 N. Royal St, Alexandria, VA Sample Description: Work Order: 21J0524

Date Received: 10/9/2021

Field Sample #: HRP-SB221-0-1-211005 Sampled: 10/5/2021 13:40

Sample ID: 21J0524-01

Sample Matrix: Soil

Polychlorinated Biphenyls By GC/ECD

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Aroclor-1016 [1]	ND	0.090	0.054	mg/Kg dry	4		SW-846 8082A	10/12/21	10/15/21 12:46	TG
Aroclor-1221 [1]	ND	0.090	0.059	mg/Kg dry	4		SW-846 8082A	10/12/21	10/15/21 12:46	TG
Aroclor-1232 [1]	ND	0.090	0.041	mg/Kg dry	4		SW-846 8082A	10/12/21	10/15/21 12:46	TG
Aroclor-1242 [1]	ND	0.090	0.045	mg/Kg dry	4		SW-846 8082A	10/12/21	10/15/21 12:46	TG
Aroclor-1248 [1]	ND	0.090	0.054	mg/Kg dry	4		SW-846 8082A	10/12/21	10/15/21 12:46	TG
Aroclor-1254 [1]	ND	0.090	0.059	mg/Kg dry	4		SW-846 8082A	10/12/21	10/15/21 12:46	TG
Aroclor-1260 [1]	ND	0.090	0.063	mg/Kg dry	4		SW-846 8082A	10/12/21	10/15/21 12:46	TG
Aroclor-1262 [1]	ND	0.090	0.045	mg/Kg dry	4		SW-846 8082A	10/12/21	10/15/21 12:46	TG
Aroclor-1268 [1]	ND	0.090	0.036	mg/Kg dry	4		SW-846 8082A	10/12/21	10/15/21 12:46	TG

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
Decachlorobiphenyl [1]	90.7	30-150		10/15/21 12:46
Decachlorobiphenyl [2]	78.1	30-150		10/15/21 12:46
Tetrachloro-m-xylene [1]	90.5	30-150		10/15/21 12:46
Tetrachloro-m-xylene [2]	85.8	30-150		10/15/21 12:46

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Project Location: 1400 N. Royal St, Alexandria, VA Sample Description: Work Order: 21J0524

Date Received: 10/9/2021

Field Sample #: HRP-SB221-0-1-211005 Sampled: 10/5/2021 13:40

Sample ID: 21J0524-01

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	88.7			% Wt	1		SM 2540G	10/12/21	10/14/21 15:45	BMB

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Project Location: 1400 N. Royal St, Alexandria, VA Sample Description: Work Order: 21J0524

Date Received: 10/9/2021

Field Sample #: HRP-SB221-4-5-211005 Sampled: 10/5/2021 14:27

Sample ID: 21J0524-02

Sample Matrix: Soil

Polychlorinated Biphenyls By GC/ECD

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Aroclor-1016 [1]	ND	0.094	0.056	mg/Kg dry	4		SW-846 8082A	10/12/21	10/15/21 13:03	TG
Aroclor-1221 [1]	ND	0.094	0.061	mg/Kg dry	4		SW-846 8082A	10/12/21	10/15/21 13:03	TG
Aroclor-1232 [1]	ND	0.094	0.042	mg/Kg dry	4		SW-846 8082A	10/12/21	10/15/21 13:03	TG
Aroclor-1242 [1]	ND	0.094	0.047	mg/Kg dry	4		SW-846 8082A	10/12/21	10/15/21 13:03	TG
Aroclor-1248 [1]	ND	0.094	0.056	mg/Kg dry	4		SW-846 8082A	10/12/21	10/15/21 13:03	TG
Aroclor-1254 [1]	ND	0.094	0.061	mg/Kg dry	4		SW-846 8082A	10/12/21	10/15/21 13:03	TG
Aroclor-1260 [1]	ND	0.094	0.066	mg/Kg dry	4		SW-846 8082A	10/12/21	10/15/21 13:03	TG
Aroclor-1262 [1]	ND	0.094	0.047	mg/Kg dry	4		SW-846 8082A	10/12/21	10/15/21 13:03	TG
Aroclor-1268 [1]	ND	0.094	0.038	mg/Kg dry	4		SW-846 8082A	10/12/21	10/15/21 13:03	TG

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
Decachlorobiphenyl [1]	76.8	30-150		10/15/21 13:03
Decachlorobiphenyl [2]	65.6	30-150		10/15/21 13:03
Tetrachloro-m-xylene [1]	74.1	30-150		10/15/21 13:03
Tetrachloro-m-xylene [2]	71.1	30-150		10/15/21 13:03

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Project Location: 1400 N. Royal St, Alexandria, VA Sample Description: Work Order: 21J0524

Date Received: 10/9/2021

Field Sample #: HRP-SB221-4-5-211005 Sampled: 10/5/2021 14:27

Sample ID: 21J0524-02

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	85.1			% Wt	1		SM 2540G	10/12/21	10/14/21 15:45	BMB

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Project Location: 1400 N. Royal St, Alexandria, VA Sample Description: Work Order: 21J0524

Date Received: 10/9/2021

Field Sample #: HRP-SB226-0-1-211005 Sampled: 10/5/2021 15:40

Sample ID: 21J0524-03

Sample Matrix: Soil

Semivolatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acenaphthene	ND	0.21	0.064	mg/Kg dry	1		SW-846 8270E	10/13/21	10/14/21 19:19	BGL
Acenaphthylene	ND	0.21	0.063	mg/Kg dry	1		SW-846 8270E	10/13/21	10/14/21 19:19	BGL
Acetophenone	ND	0.41	0.056	mg/Kg dry	1		SW-846 8270E	10/13/21	10/14/21 19:19	BGL
Aniline	ND	0.41	0.086	mg/Kg dry	1		SW-846 8270E	10/13/21	10/14/21 19:19	BGL
Anthracene	ND	0.21	0.067	mg/Kg dry	1		SW-846 8270E	10/13/21	10/14/21 19:19	BGL
Benzidine	ND	0.80	0.19	mg/Kg dry	1		SW-846 8270E	10/13/21	10/14/21 19:19	BGL
Benzo(a)anthracene	ND	0.21	0.057	mg/Kg dry	1		SW-846 8270E	10/13/21	10/14/21 19:19	BGL
Benzo(a)pyrene	ND	0.21	0.063	mg/Kg dry	1		SW-846 8270E	10/13/21	10/14/21 19:19	BGL
Benzo(b)fluoranthene	ND	0.21	0.062	mg/Kg dry	1		SW-846 8270E	10/13/21	10/14/21 19:19	BGL
Benzo(g,h,i)perylene	ND	0.21	0.086	mg/Kg dry	1		SW-846 8270E	10/13/21	10/14/21 19:19	BGL
Benzo(k)fluoranthene	ND	0.21	0.056	mg/Kg dry	1		SW-846 8270E	10/13/21	10/14/21 19:19	BGL
Benzoic Acid	ND	1.2	0.49	mg/Kg dry	1		SW-846 8270E	10/13/21	10/14/21 19:19	BGL
Bis(2-chloroethoxy)methane	ND	0.41	0.053	mg/Kg dry	1		SW-846 8270E	10/13/21	10/14/21 19:19	BGL
Bis(2-chloroethyl)ether	ND	0.41	0.056	mg/Kg dry	1		SW-846 8270E	10/13/21	10/14/21 19:19	BGL
Bis(2-chloroisopropyl)ether	ND	0.41	0.094	mg/Kg dry	1		SW-846 8270E	10/13/21	10/14/21 19:19	BGL
Bis(2-Ethylhexyl)phthalate	ND	0.41	0.069	mg/Kg dry	1		SW-846 8270E	10/13/21	10/14/21 19:19	BGL
4-Bromophenylphenylether	ND	0.41	0.052	mg/Kg dry	1		SW-846 8270E	10/13/21	10/14/21 19:19	BGL
Butylbenzylphthalate	ND	0.41	0.065	mg/Kg dry	1		SW-846 8270E	10/13/21	10/14/21 19:19	BGL
Carbazole	ND	0.21	0.068	mg/Kg dry	1		SW-846 8270E	10/13/21	10/14/21 19:19	BGL
4-Chloroaniline	ND	0.80	0.055	mg/Kg dry	1	V-34	SW-846 8270E	10/13/21	10/14/21 19:19	BGL
4-Chloro-3-methylphenol	ND	0.80	0.068	mg/Kg dry	1		SW-846 8270E	10/13/21	10/14/21 19:19	BGL
2-Chloronaphthalene	ND	0.41	0.048	mg/Kg dry	1		SW-846 8270E	10/13/21	10/14/21 19:19	BGL
2-Chlorophenol	ND	0.41	0.057	mg/Kg dry	1		SW-846 8270E	10/13/21	10/14/21 19:19	BGL
4-Chlorophenylphenylether	ND	0.41	0.059	mg/Kg dry	1		SW-846 8270E	10/13/21	10/14/21 19:19	BGL
Chrysene	ND	0.21	0.059	mg/Kg dry	1		SW-846 8270E	10/13/21	10/14/21 19:19	BGL
Dibenz(a,h)anthracene	ND	0.21	0.083	mg/Kg dry	1		SW-846 8270E	10/13/21	10/14/21 19:19	BGL
Dibenzofuran	ND	0.41	0.061	mg/Kg dry	1		SW-846 8270E	10/13/21	10/14/21 19:19	BGL
Di-n-butylphthalate	ND	0.41	0.058	mg/Kg dry	1		SW-846 8270E	10/13/21	10/14/21 19:19	BGL
1,2-Dichlorobenzene	ND	0.41	0.047	mg/Kg dry	1		SW-846 8270E	10/13/21	10/14/21 19:19	BGL
1,3-Dichlorobenzene	ND	0.41	0.045	mg/Kg dry	1		SW-846 8270E	10/13/21	10/14/21 19:19	BGL
1,4-Dichlorobenzene	ND	0.41	0.043	mg/Kg dry	1		SW-846 8270E	10/13/21	10/14/21 19:19	BGL
3,3-Dichlorobenzidine	ND	0.21	0.060	mg/Kg dry	1		SW-846 8270E	10/13/21	10/14/21 19:19	BGL
2,4-Dichlorophenol	ND	0.41	0.061	mg/Kg dry	1		SW-846 8270E	10/13/21	10/14/21 19:19	BGL
Diethylphthalate	ND	0.41	0.063	mg/Kg dry	1		SW-846 8270E	10/13/21	10/14/21 19:19	BGL
2,4-Dimethylphenol	ND	0.41	0.11	mg/Kg dry	1		SW-846 8270E	10/13/21	10/14/21 19:19	BGL
Dimethylphthalate	ND	0.41	0.060	mg/Kg dry	1		SW-846 8270E	10/13/21	10/14/21 19:19	BGL
4,6-Dinitro-2-methylphenol	ND	0.41	0.28	mg/Kg dry	1		SW-846 8270E	10/13/21	10/14/21 19:19	BGL
2,4-Dinitrophenol	ND	0.80	0.35	mg/Kg dry	1	V-04, V-20	SW-846 8270E	10/13/21	10/14/21 19:19	BGL
2,4-Dinitrotoluene	ND	0.41	0.080	mg/Kg dry	1		SW-846 8270E	10/13/21	10/14/21 19:19	BGL
2,6-Dinitrotoluene	ND	0.41	0.068	mg/Kg dry	1		SW-846 8270E	10/13/21	10/14/21 19:19	BGL
Di-n-octylphthalate	ND	0.41	0.15	mg/Kg dry	1		SW-846 8270E	10/13/21	10/14/21 19:19	BGL
1,2-Diphenylhydrazine/Azobenzene	ND	0.41	0.059	mg/Kg dry	1		SW-846 8270E	10/13/21	10/14/21 19:19	BGL
Fluoranthene	ND	0.21	0.065	mg/Kg dry	1		SW-846 8270E	10/13/21	10/14/21 19:19	BGL
Fluorene	ND	0.21	0.069	mg/Kg dry	1		SW-846 8270E	10/13/21	10/14/21 19:19	BGL

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Project Location: 1400 N. Royal St, Alexandria, VA Sample Description: Work Order: 21J0524

Date Received: 10/9/2021

Field Sample #: HRP-SB226-0-1-211005 Sampled: 10/5/2021 15:40

Sample ID: 21J0524-03

Sample Matrix: Soil

Semivolatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Hexachlorobenzene	ND	0.41	0.056	mg/Kg dry	1		SW-846 8270E	10/13/21	10/14/21 19:19	BGL
Hexachlorobutadiene	ND	0.41	0.052	mg/Kg dry	1		SW-846 8270E	10/13/21	10/14/21 19:19	BGL
Hexachlorocyclopentadiene	ND	0.41	0.17	mg/Kg dry	1		SW-846 8270E	10/13/21	10/14/21 19:19	BGL
Hexachloroethane	ND	0.41	0.049	mg/Kg dry	1		SW-846 8270E	10/13/21	10/14/21 19:19	BGL
Indeno(1,2,3-cd)pyrene	ND	0.21	0.093	mg/Kg dry	1		SW-846 8270E	10/13/21	10/14/21 19:19	BGL
Isophorone	ND	0.41	0.068	mg/Kg dry	1		SW-846 8270E	10/13/21	10/14/21 19:19	BGL
1-Methylnaphthalene	ND	0.21	0.057	mg/Kg dry	1		SW-846 8270E	10/13/21	10/14/21 19:19	BGL
2-Methylnaphthalene	ND	0.21	0.065	mg/Kg dry	1		SW-846 8270E	10/13/21	10/14/21 19:19	BGL
2-Methylphenol	ND	0.41	0.076	mg/Kg dry	1		SW-846 8270E	10/13/21	10/14/21 19:19	BGL
3/4-Methylphenol	ND	0.41	0.066	mg/Kg dry	1		SW-846 8270E	10/13/21	10/14/21 19:19	BGL
Naphthalene	ND	0.21	0.056	mg/Kg dry	1		SW-846 8270E	10/13/21	10/14/21 19:19	BGL
2-Nitroaniline	ND	0.41	0.087	mg/Kg dry	1		SW-846 8270E	10/13/21	10/14/21 19:19	BGL
3-Nitroaniline	ND	0.41	0.070	mg/Kg dry	1		SW-846 8270E	10/13/21	10/14/21 19:19	BGL
4-Nitroaniline	ND	0.41	0.088	mg/Kg dry	1		SW-846 8270E	10/13/21	10/14/21 19:19	BGL
Nitrobenzene	ND	0.41	0.060	mg/Kg dry	1		SW-846 8270E	10/13/21	10/14/21 19:19	BGL
2-Nitrophenol	ND	0.41	0.064	mg/Kg dry	1		SW-846 8270E	10/13/21	10/14/21 19:19	BGL
4-Nitrophenol	ND	0.80	0.17	mg/Kg dry	1		SW-846 8270E	10/13/21	10/14/21 19:19	BGL
N-Nitrosodimethylamine	ND	0.41	0.061	mg/Kg dry	1		SW-846 8270E	10/13/21	10/14/21 19:19	BGL
N-Nitrosodiphenylamine/Diphenylamine	ND	0.41	0.062	mg/Kg dry	1		SW-846 8270E	10/13/21	10/14/21 19:19	BGL
N-Nitrosodi-n-propylamine	ND	0.41	0.057	mg/Kg dry	1		SW-846 8270E	10/13/21	10/14/21 19:19	BGL
Pentachloronitrobenzene	ND	0.41	0.069	mg/Kg dry	1		SW-846 8270E	10/13/21	10/14/21 19:19	BGL
Pentachlorophenol	ND	0.41	0.18	mg/Kg dry	1		SW-846 8270E	10/13/21	10/14/21 19:19	BGL
Phenanthrene	ND	0.21	0.065	mg/Kg dry	1		SW-846 8270E	10/13/21	10/14/21 19:19	BGL
Phenol	ND	0.41	0.058	mg/Kg dry	1		SW-846 8270E	10/13/21	10/14/21 19:19	BGL
Pyrene	ND	0.21	0.065	mg/Kg dry	1		SW-846 8270E	10/13/21	10/14/21 19:19	BGL
Pyridine	ND	0.41	0.042	mg/Kg dry	1		SW-846 8270E	10/13/21	10/14/21 19:19	BGL
1,2,4,5-Tetrachlorobenzene	ND	0.41	0.053	mg/Kg dry	1		SW-846 8270E	10/13/21	10/14/21 19:19	BGL
1,2,4-Trichlorobenzene	ND	0.41	0.052	mg/Kg dry	1		SW-846 8270E	10/13/21	10/14/21 19:19	BGL
2,4,5-Trichlorophenol	ND	0.41	0.064	mg/Kg dry	1		SW-846 8270E	10/13/21	10/14/21 19:19	BGL
2,4,6-Trichlorophenol	ND	0.41	0.063	mg/Kg dry	1		SW-846 8270E	10/13/21	10/14/21 19:19	BGL

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
2-Fluorophenol	49.3	30-130		10/14/21 19:19
Phenol-d6	46.8	30-130		10/14/21 19:19
Nitrobenzene-d5	44.6	30-130		10/14/21 19:19
2-Fluorobiphenyl	55.1	30-130		10/14/21 19:19
2,4,6-Tribromophenol	67.2	30-130		10/14/21 19:19
p-Terphenyl-d14	67.3	30-130		10/14/21 19:19

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Project Location: 1400 N. Royal St, Alexandria, VA Sample Description: Work Order: 21J0524

Date Received: 10/9/2021

Field Sample #: HRP-SB226-0-1-211005 Sampled: 10/5/2021 15:40

Sample ID: 21J0524-03

Sample Matrix: Soil

Polychlorinated Biphenyls By GC/ECD

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Aroclor-1016 [1]	ND	0.097	0.058	mg/Kg dry	4		SW-846 8082A	10/12/21	10/13/21 22:15	TG
Aroclor-1221 [1]	ND	0.097	0.063	mg/Kg dry	4		SW-846 8082A	10/12/21	10/13/21 22:15	TG
Aroclor-1232 [1]	ND	0.097	0.043	mg/Kg dry	4		SW-846 8082A	10/12/21	10/13/21 22:15	TG
Aroclor-1242 [1]	ND	0.097	0.048	mg/Kg dry	4		SW-846 8082A	10/12/21	10/13/21 22:15	TG
Aroclor-1248 [1]	ND	0.097	0.058	mg/Kg dry	4		SW-846 8082A	10/12/21	10/13/21 22:15	TG
Aroclor-1254 [1]	ND	0.097	0.063	mg/Kg dry	4		SW-846 8082A	10/12/21	10/13/21 22:15	TG
Aroclor-1260 [1]	ND	0.097	0.068	mg/Kg dry	4		SW-846 8082A	10/12/21	10/13/21 22:15	TG
Aroclor-1262 [1]	ND	0.097	0.048	mg/Kg dry	4		SW-846 8082A	10/12/21	10/13/21 22:15	TG
Aroclor-1268 [1]	ND	0.097	0.039	mg/Kg dry	4		SW-846 8082A	10/12/21	10/13/21 22:15	TG

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
Decachlorobiphenyl [1]	79.2	30-150		10/13/21 22:15
Decachlorobiphenyl [2]	82.4	30-150		10/13/21 22:15
Tetrachloro-m-xylene [1]	75.2	30-150		10/13/21 22:15
Tetrachloro-m-xylene [2]	74.9	30-150		10/13/21 22:15

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Project Location: 1400 N. Royal St, Alexandria, VA Sample Description: Work Order: 21J0524

Date Received: 10/9/2021

Field Sample #: HRP-SB226-0-1-211005 Sampled: 10/5/2021 15:40

Sample ID: 21J0524-03

Sample Matrix: Soil

Metals Analyses (Total)

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Aluminum	11000	20	7.2	mg/Kg dry	1		SW-846 6010D	10/11/21	10/13/21 12:48	QNW
Antimony	ND	2.0	0.80	mg/Kg dry	1		SW-846 6010D	10/11/21	10/13/21 12:48	QNW
Arsenic	4.5	4.0	1.4	mg/Kg dry	1		SW-846 6010D	10/11/21	10/13/21 12:48	QNW
Barium	56	2.0	0.75	mg/Kg dry	1		SW-846 6010D	10/11/21	10/13/21 12:48	QNW
Beryllium	0.53	0.20	0.075	mg/Kg dry	1		SW-846 6010D	10/11/21	10/13/21 12:48	QNW
Cadmium	ND	0.40	0.20	mg/Kg dry	1		SW-846 6010D	10/11/21	10/13/21 12:48	QNW
Calcium	700	20	7.7	mg/Kg dry	1		SW-846 6010D	10/11/21	10/13/21 12:48	QNW
Chromium	15	0.79	0.45	mg/Kg dry	1		SW-846 6010D	10/11/21	10/13/21 12:48	QNW
Cobalt	6.5	2.0	0.73	mg/Kg dry	1		SW-846 6010D	10/11/21	10/13/21 12:48	QNW
Copper	11	0.79	0.38	mg/Kg dry	1		SW-846 6010D	10/11/21	10/13/21 12:48	QNW
Iron	22000	400	160	mg/Kg dry	20		SW-846 6010D	10/11/21	10/14/21 15:08	MJH
Lead	12	0.59	0.29	mg/Kg dry	1		SW-846 6010D	10/11/21	10/13/21 12:48	QNW
Magnesium	1300	400	140	mg/Kg dry	20		SW-846 6010D	10/11/21	10/14/21 15:08	MJH
Manganese	96	0.40	0.15	mg/Kg dry	1		SW-846 6010D	10/11/21	10/13/21 12:48	QNW
Mercury	0.012	0.032	0.011	mg/Kg dry	1	J	SW-846 7471B	10/11/21	10/12/21 9:43	DRL
Nickel	9.2	0.79	0.40	mg/Kg dry	1		SW-846 6010D	10/11/21	10/13/21 12:48	QNW
Potassium	670	200	75	mg/Kg dry	1		SW-846 6010D	10/11/21	10/13/21 12:48	QNW
Selenium	ND	4.0	1.4	mg/Kg dry	1		SW-846 6010D	10/11/21	10/13/21 12:48	QNW
Silver	ND	0.40	0.18	mg/Kg dry	1		SW-846 6010D	10/11/21	10/13/21 12:48	QNW
Sodium	ND	200	77	mg/Kg dry	1		SW-846 6010D	10/11/21	10/13/21 12:48	QNW
Thallium	1.4	2.0	0.95	mg/Kg dry	1	J	SW-846 6010D	10/11/21	10/13/21 12:48	QNW
Vanadium	28	0.79	0.39	mg/Kg dry	1		SW-846 6010D	10/11/21	10/13/21 12:48	QNW
Zinc	30	0.79	0.51	mg/Kg dry	1		SW-846 6010D	10/11/21	10/13/21 12:48	QNW

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Project Location: 1400 N. Royal St, Alexandria, VA Sample Description: Work Order: 21J0524

Date Received: 10/9/2021

Field Sample #: HRP-SB226-0-1-211005 Sampled: 10/5/2021 15:40

Sample ID: 21J0524-03

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	82.8			% Wt	1		SM 2540G	10/12/21	10/14/21 15:45	BMB
Cyanide	ND	0.60	0.42	mg/Kg dry	1		SW-846 9014	10/12/21	10/12/21 21:10	DJM
pH @17.3°C	5.4			pH Units	1	H-03	SW-846 9045C	10/11/21	10/11/21 21:50	DJM

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Project Location: 1400 N. Royal St, Alexandria, VA Sample Description: Work Order: 21J0524

Date Received: 10/9/2021

Field Sample #: HRP-EB01-211007 Sampled: 10/7/2021 11:15

Sample ID: 21J0524-05

Sample Matrix: Water

Polychlorinated Biphenyls By GC/ECD

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Aroclor-1016 [1]	ND	0.20	0.17	µg/L	1		SW-846 8082A	10/12/21	10/13/21 18:54	TG
Aroclor-1221 [1]	ND	0.20	0.16	µg/L	1		SW-846 8082A	10/12/21	10/13/21 18:54	TG
Aroclor-1232 [1]	ND	0.20	0.16	µg/L	1		SW-846 8082A	10/12/21	10/13/21 18:54	TG
Aroclor-1242 [1]	ND	0.20	0.17	µg/L	1		SW-846 8082A	10/12/21	10/13/21 18:54	TG
Aroclor-1248 [1]	ND	0.20	0.16	µg/L	1		SW-846 8082A	10/12/21	10/13/21 18:54	TG
Aroclor-1254 [1]	ND	0.20	0.18	µg/L	1		SW-846 8082A	10/12/21	10/13/21 18:54	TG
Aroclor-1260 [1]	ND	0.20	0.16	µg/L	1		SW-846 8082A	10/12/21	10/13/21 18:54	TG
Aroclor-1262 [1]	ND	0.20	0.17	µg/L	1		SW-846 8082A	10/12/21	10/13/21 18:54	TG
Aroclor-1268 [1]	ND	0.20	0.18	µg/L	1		SW-846 8082A	10/12/21	10/13/21 18:54	TG

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
Decachlorobiphenyl [1]	77.8	30-150		10/13/21 18:54
Decachlorobiphenyl [2]	76.1	30-150		10/13/21 18:54
Tetrachloro-m-xylene [1]	72.0	30-150		10/13/21 18:54
Tetrachloro-m-xylene [2]	71.8	30-150		10/13/21 18:54

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Project Location: 1400 N. Royal St, Alexandria, VA Sample Description: Work Order: 21J0524

Date Received: 10/9/2021

Field Sample #: HRP-SB202-0-1-211007 Sampled: 10/7/2021 13:23

Sample ID: 21J0524-06

Sample Matrix: Soil

Semivolatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acenaphthene	ND	0.23	0.073	mg/Kg dry	1		SW-846 8270E	10/13/21	10/14/21 19:45	BGL
Acenaphthylene	ND	0.23	0.071	mg/Kg dry	1		SW-846 8270E	10/13/21	10/14/21 19:45	BGL
Acetophenone	ND	0.46	0.063	mg/Kg dry	1		SW-846 8270E	10/13/21	10/14/21 19:45	BGL
Aniline	ND	0.46	0.096	mg/Kg dry	1		SW-846 8270E	10/13/21	10/14/21 19:45	BGL
Anthracene	ND	0.23	0.076	mg/Kg dry	1		SW-846 8270E	10/13/21	10/14/21 19:45	BGL
Benzidine	ND	0.90	0.21	mg/Kg dry	1		SW-846 8270E	10/13/21	10/14/21 19:45	BGL
Benzo(a)anthracene	ND	0.23	0.064	mg/Kg dry	1		SW-846 8270E	10/13/21	10/14/21 19:45	BGL
Benzo(a)pyrene	ND	0.23	0.071	mg/Kg dry	1		SW-846 8270E	10/13/21	10/14/21 19:45	BGL
Benzo(b)fluoranthene	ND	0.23	0.070	mg/Kg dry	1		SW-846 8270E	10/13/21	10/14/21 19:45	BGL
Benzo(g,h,i)perylene	ND	0.23	0.097	mg/Kg dry	1		SW-846 8270E	10/13/21	10/14/21 19:45	BGL
Benzo(k)fluoranthene	ND	0.23	0.063	mg/Kg dry	1		SW-846 8270E	10/13/21	10/14/21 19:45	BGL
Benzoic Acid	ND	1.4	0.55	mg/Kg dry	1		SW-846 8270E	10/13/21	10/14/21 19:45	BGL
Bis(2-chloroethoxy)methane	ND	0.46	0.060	mg/Kg dry	1		SW-846 8270E	10/13/21	10/14/21 19:45	BGL
Bis(2-chloroethyl)ether	ND	0.46	0.063	mg/Kg dry	1		SW-846 8270E	10/13/21	10/14/21 19:45	BGL
Bis(2-chloroisopropyl)ether	ND	0.46	0.11	mg/Kg dry	1		SW-846 8270E	10/13/21	10/14/21 19:45	BGL
Bis(2-Ethylhexyl)phthalate	ND	0.46	0.078	mg/Kg dry	1		SW-846 8270E	10/13/21	10/14/21 19:45	BGL
4-Bromophenylphenylether	ND	0.46	0.059	mg/Kg dry	1		SW-846 8270E	10/13/21	10/14/21 19:45	BGL
Butylbenzylphthalate	ND	0.46	0.074	mg/Kg dry	1		SW-846 8270E	10/13/21	10/14/21 19:45	BGL
Carbazole	ND	0.23	0.076	mg/Kg dry	1		SW-846 8270E	10/13/21	10/14/21 19:45	BGL
4-Chloroaniline	ND	0.90	0.062	mg/Kg dry	1	V-34	SW-846 8270E	10/13/21	10/14/21 19:45	BGL
4-Chloro-3-methylphenol	ND	0.90	0.077	mg/Kg dry	1		SW-846 8270E	10/13/21	10/14/21 19:45	BGL
2-Chloronaphthalene	ND	0.46	0.054	mg/Kg dry	1		SW-846 8270E	10/13/21	10/14/21 19:45	BGL
2-Chlorophenol	ND	0.46	0.064	mg/Kg dry	1		SW-846 8270E	10/13/21	10/14/21 19:45	BGL
4-Chlorophenylphenylether	ND	0.46	0.066	mg/Kg dry	1		SW-846 8270E	10/13/21	10/14/21 19:45	BGL
Chrysene	ND	0.23	0.067	mg/Kg dry	1		SW-846 8270E	10/13/21	10/14/21 19:45	BGL
Dibenz(a,h)anthracene	ND	0.23	0.094	mg/Kg dry	1		SW-846 8270E	10/13/21	10/14/21 19:45	BGL
Dibenzofuran	ND	0.46	0.068	mg/Kg dry	1		SW-846 8270E	10/13/21	10/14/21 19:45	BGL
Di-n-butylphthalate	ND	0.46	0.065	mg/Kg dry	1		SW-846 8270E	10/13/21	10/14/21 19:45	BGL
1,2-Dichlorobenzene	ND	0.46	0.053	mg/Kg dry	1		SW-846 8270E	10/13/21	10/14/21 19:45	BGL
1,3-Dichlorobenzene	ND	0.46	0.051	mg/Kg dry	1		SW-846 8270E	10/13/21	10/14/21 19:45	BGL
1,4-Dichlorobenzene	ND	0.46	0.048	mg/Kg dry	1		SW-846 8270E	10/13/21	10/14/21 19:45	BGL
3,3-Dichlorobenzidine	ND	0.23	0.068	mg/Kg dry	1		SW-846 8270E	10/13/21	10/14/21 19:45	BGL
2,4-Dichlorophenol	ND	0.46	0.069	mg/Kg dry	1		SW-846 8270E	10/13/21	10/14/21 19:45	BGL
Diethylphthalate	ND	0.46	0.071	mg/Kg dry	1		SW-846 8270E	10/13/21	10/14/21 19:45	BGL
2,4-Dimethylphenol	ND	0.46	0.13	mg/Kg dry	1		SW-846 8270E	10/13/21	10/14/21 19:45	BGL
Dimethylphthalate	ND	0.46	0.067	mg/Kg dry	1		SW-846 8270E	10/13/21	10/14/21 19:45	BGL
4,6-Dinitro-2-methylphenol	ND	0.46	0.31	mg/Kg dry	1		SW-846 8270E	10/13/21	10/14/21 19:45	BGL
2,4-Dinitrophenol	ND	0.90	0.40	mg/Kg dry	1	V-04, V-20	SW-846 8270E	10/13/21	10/14/21 19:45	BGL
2,4-Dinitrotoluene	ND	0.46	0.090	mg/Kg dry	1		SW-846 8270E	10/13/21	10/14/21 19:45	BGL
2,6-Dinitrotoluene	ND	0.46	0.077	mg/Kg dry	1		SW-846 8270E	10/13/21	10/14/21 19:45	BGL
Di-n-octylphthalate	ND	0.46	0.16	mg/Kg dry	1		SW-846 8270E	10/13/21	10/14/21 19:45	BGL
1,2-Diphenylhydrazine/Azobenzene	ND	0.46	0.066	mg/Kg dry	1		SW-846 8270E	10/13/21	10/14/21 19:45	BGL
Fluoranthene	ND	0.23	0.074	mg/Kg dry	1		SW-846 8270E	10/13/21	10/14/21 19:45	BGL
Fluorene	ND	0.23	0.078	mg/Kg dry	1		SW-846 8270E	10/13/21	10/14/21 19:45	BGL

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Project Location: 1400 N. Royal St, Alexandria, VA Sample Description: Work Order: 21J0524

Date Received: 10/9/2021

Field Sample #: HRP-SB202-0-1-211007 Sampled: 10/7/2021 13:23

Sample ID: 21J0524-06

Sample Matrix: Soil

Semivolatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Hexachlorobenzene	ND	0.46	0.063	mg/Kg dry	1		SW-846 8270E	10/13/21	10/14/21 19:45	BGL
Hexachlorobutadiene	ND	0.46	0.059	mg/Kg dry	1		SW-846 8270E	10/13/21	10/14/21 19:45	BGL
Hexachlorocyclopentadiene	ND	0.46	0.19	mg/Kg dry	1		SW-846 8270E	10/13/21	10/14/21 19:45	BGL
Hexachloroethane	ND	0.46	0.055	mg/Kg dry	1		SW-846 8270E	10/13/21	10/14/21 19:45	BGL
Indeno(1,2,3-cd)pyrene	ND	0.23	0.10	mg/Kg dry	1		SW-846 8270E	10/13/21	10/14/21 19:45	BGL
Isophorone	ND	0.46	0.077	mg/Kg dry	1		SW-846 8270E	10/13/21	10/14/21 19:45	BGL
1-Methylnaphthalene	ND	0.23	0.064	mg/Kg dry	1		SW-846 8270E	10/13/21	10/14/21 19:45	BGL
2-Methylnaphthalene	ND	0.23	0.073	mg/Kg dry	1		SW-846 8270E	10/13/21	10/14/21 19:45	BGL
2-Methylphenol	ND	0.46	0.086	mg/Kg dry	1		SW-846 8270E	10/13/21	10/14/21 19:45	BGL
3/4-Methylphenol	ND	0.46	0.075	mg/Kg dry	1		SW-846 8270E	10/13/21	10/14/21 19:45	BGL
Naphthalene	ND	0.23	0.063	mg/Kg dry	1		SW-846 8270E	10/13/21	10/14/21 19:45	BGL
2-Nitroaniline	ND	0.46	0.099	mg/Kg dry	1		SW-846 8270E	10/13/21	10/14/21 19:45	BGL
3-Nitroaniline	ND	0.46	0.079	mg/Kg dry	1		SW-846 8270E	10/13/21	10/14/21 19:45	BGL
4-Nitroaniline	ND	0.46	0.099	mg/Kg dry	1		SW-846 8270E	10/13/21	10/14/21 19:45	BGL
Nitrobenzene	ND	0.46	0.067	mg/Kg dry	1		SW-846 8270E	10/13/21	10/14/21 19:45	BGL
2-Nitrophenol	ND	0.46	0.072	mg/Kg dry	1		SW-846 8270E	10/13/21	10/14/21 19:45	BGL
4-Nitrophenol	ND	0.90	0.19	mg/Kg dry	1		SW-846 8270E	10/13/21	10/14/21 19:45	BGL
N-Nitrosodimethylamine	ND	0.46	0.069	mg/Kg dry	1		SW-846 8270E	10/13/21	10/14/21 19:45	BGL
N-Nitrosodiphenylamine/Diphenylamine	ND	0.46	0.069	mg/Kg dry	1		SW-846 8270E	10/13/21	10/14/21 19:45	BGL
N-Nitrosodi-n-propylamine	ND	0.46	0.064	mg/Kg dry	1		SW-846 8270E	10/13/21	10/14/21 19:45	BGL
Pentachloronitrobenzene	ND	0.46	0.078	mg/Kg dry	1		SW-846 8270E	10/13/21	10/14/21 19:45	BGL
Pentachlorophenol	ND	0.46	0.20	mg/Kg dry	1		SW-846 8270E	10/13/21	10/14/21 19:45	BGL
Phenanthrene	ND	0.23	0.073	mg/Kg dry	1		SW-846 8270E	10/13/21	10/14/21 19:45	BGL
Phenol	ND	0.46	0.066	mg/Kg dry	1		SW-846 8270E	10/13/21	10/14/21 19:45	BGL
Pyrene	ND	0.23	0.074	mg/Kg dry	1		SW-846 8270E	10/13/21	10/14/21 19:45	BGL
Pyridine	ND	0.46	0.047	mg/Kg dry	1		SW-846 8270E	10/13/21	10/14/21 19:45	BGL
1,2,4,5-Tetrachlorobenzene	ND	0.46	0.060	mg/Kg dry	1		SW-846 8270E	10/13/21	10/14/21 19:45	BGL
1,2,4-Trichlorobenzene	ND	0.46	0.058	mg/Kg dry	1		SW-846 8270E	10/13/21	10/14/21 19:45	BGL
2,4,5-Trichlorophenol	ND	0.46	0.072	mg/Kg dry	1		SW-846 8270E	10/13/21	10/14/21 19:45	BGL
2,4,6-Trichlorophenol	ND	0.46	0.071	mg/Kg dry	1		SW-846 8270E	10/13/21	10/14/21 19:45	BGL

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
2-Fluorophenol	46.8	30-130		10/14/21 19:45
Phenol-d6	44.3	30-130		10/14/21 19:45
Nitrobenzene-d5	43.8	30-130		10/14/21 19:45
2-Fluorobiphenyl	53.4	30-130		10/14/21 19:45
2,4,6-Tribromophenol	61.4	30-130		10/14/21 19:45
p-Terphenyl-d14	62.7	30-130		10/14/21 19:45

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Project Location: 1400 N. Royal St, Alexandria, VA Sample Description: Work Order: 21J0524

Date Received: 10/9/2021

Field Sample #: HRP-SB202-0-1-211007 Sampled: 10/7/2021 13:23

Sample ID: 21J0524-06

Sample Matrix: Soil

Metals Analyses (Total)

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Aluminum	8300	22	8.0	mg/Kg dry	1		SW-846 6010D	10/11/21	10/13/21 12:55	QNW
Antimony	ND	2.2	0.88	mg/Kg dry	1		SW-846 6010D	10/11/21	10/13/21 12:55	QNW
Arsenic	8.1	4.4	1.6	mg/Kg dry	1		SW-846 6010D	10/11/21	10/13/21 12:55	QNW
Barium	73	2.2	0.83	mg/Kg dry	1		SW-846 6010D	10/11/21	10/13/21 12:55	QNW
Beryllium	0.34	0.22	0.083	mg/Kg dry	1		SW-846 6010D	10/11/21	10/13/21 12:55	QNW
Cadmium	ND	0.44	0.22	mg/Kg dry	1		SW-846 6010D	10/11/21	10/13/21 12:55	QNW
Calcium	280	22	8.5	mg/Kg dry	1		SW-846 6010D	10/11/21	10/13/21 12:55	QNW
Chromium	16	0.88	0.50	mg/Kg dry	1		SW-846 6010D	10/11/21	10/13/21 12:55	QNW
Cobalt	4.5	2.2	0.81	mg/Kg dry	1		SW-846 6010D	10/11/21	10/13/21 12:55	QNW
Copper	24	0.88	0.42	mg/Kg dry	1		SW-846 6010D	10/11/21	10/13/21 12:55	QNW
Iron	30000	440	180	mg/Kg dry	20		SW-846 6010D	10/11/21	10/14/21 15:16	MJH
Lead	18	0.66	0.32	mg/Kg dry	1		SW-846 6010D	10/11/21	10/13/21 12:55	QNW
Magnesium	1000	440	150	mg/Kg dry	20		SW-846 6010D	10/11/21	10/14/21 15:16	MJH
Manganese	98	0.44	0.17	mg/Kg dry	1		SW-846 6010D	10/11/21	10/13/21 12:55	QNW
Mercury	ND	0.038	0.013	mg/Kg dry	1		SW-846 7471B	10/11/21	10/12/21 9:46	DRL
Nickel	9.2	0.88	0.45	mg/Kg dry	1		SW-846 6010D	10/11/21	10/13/21 12:55	QNW
Potassium	850	220	82	mg/Kg dry	1		SW-846 6010D	10/11/21	10/13/21 12:55	QNW
Selenium	ND	4.4	1.6	mg/Kg dry	1		SW-846 6010D	10/11/21	10/13/21 12:55	QNW
Silver	ND	0.44	0.20	mg/Kg dry	1		SW-846 6010D	10/11/21	10/13/21 12:55	QNW
Sodium	ND	220	85	mg/Kg dry	1		SW-846 6010D	10/11/21	10/13/21 12:55	QNW
Thallium	1.3	2.2	1.1	mg/Kg dry	1	J	SW-846 6010D	10/11/21	10/13/21 12:55	QNW
Vanadium	26	0.88	0.44	mg/Kg dry	1		SW-846 6010D	10/11/21	10/13/21 12:55	QNW
Zinc	32	0.88	0.56	mg/Kg dry	1		SW-846 6010D	10/11/21	10/13/21 12:55	QNW

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Project Location: 1400 N. Royal St, Alexandria, VA Sample Description: Work Order: 21J0524

Date Received: 10/9/2021

Field Sample #: HRP-SB202-0-1-211007 Sampled: 10/7/2021 13:23

Sample ID: 21J0524-06

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	73.4			% Wt	1		SM 2540G	10/12/21	10/14/21 15:45	BMB

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Project Location: 1400 N. Royal St, Alexandria, VA Sample Description: Work Order: 21J0524

Date Received: 10/9/2021

Field Sample #: HRP-SB202-25-30-211007 Sampled: 10/7/2021 15:02

Sample ID: 21J0524-07

Sample Matrix: Soil

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acetone	ND	0.086	0.028	mg/Kg dry	1		SW-846 8260D	10/12/21	10/12/21 13:52	MFF
Acrylonitrile	ND	0.0052	0.00084	mg/Kg dry	1		SW-846 8260D	10/12/21	10/12/21 13:52	MFF
tert-Amyl Methyl Ether (TAME)	ND	0.00086	0.00039	mg/Kg dry	1		SW-846 8260D	10/12/21	10/12/21 13:52	MFF
Benzene	ND	0.0017	0.00041	mg/Kg dry	1		SW-846 8260D	10/12/21	10/12/21 13:52	MFF
Bromobenzene	ND	0.0017	0.00029	mg/Kg dry	1		SW-846 8260D	10/12/21	10/12/21 13:52	MFF
Bromochloromethane	ND	0.0017	0.00082	mg/Kg dry	1		SW-846 8260D	10/12/21	10/12/21 13:52	MFF
Bromodichloromethane	ND	0.0017	0.00041	mg/Kg dry	1		SW-846 8260D	10/12/21	10/12/21 13:52	MFF
Bromoform	ND	0.0017	0.00052	mg/Kg dry	1		SW-846 8260D	10/12/21	10/12/21 13:52	MFF
Bromomethane	ND	0.0086	0.0032	mg/Kg dry	1	V-34	SW-846 8260D	10/12/21	10/12/21 13:52	MFF
2-Butanone (MEK)	ND	0.035	0.010	mg/Kg dry	1		SW-846 8260D	10/12/21	10/12/21 13:52	MFF
tert-Butyl Alcohol (TBA)	ND	0.086	0.042	mg/Kg dry	1	V-05	SW-846 8260D	10/12/21	10/12/21 13:52	MFF
n-Butylbenzene	ND	0.0017	0.00044	mg/Kg dry	1		SW-846 8260D	10/12/21	10/12/21 13:52	MFF
sec-Butylbenzene	ND	0.0017	0.00084	mg/Kg dry	1		SW-846 8260D	10/12/21	10/12/21 13:52	MFF
tert-Butylbenzene	ND	0.0035	0.00073	mg/Kg dry	1		SW-846 8260D	10/12/21	10/12/21 13:52	MFF
tert-Butyl Ethyl Ether (TBEE)	ND	0.00086	0.00044	mg/Kg dry	1		SW-846 8260D	10/12/21	10/12/21 13:52	MFF
Carbon Disulfide	ND	0.0086	0.0061	mg/Kg dry	1		SW-846 8260D	10/12/21	10/12/21 13:52	MFF
Carbon Tetrachloride	ND	0.0017	0.00067	mg/Kg dry	1		SW-846 8260D	10/12/21	10/12/21 13:52	MFF
Chlorobenzene	ND	0.0017	0.00046	mg/Kg dry	1		SW-846 8260D	10/12/21	10/12/21 13:52	MFF
Chlorodibromomethane	ND	0.00086	0.00044	mg/Kg dry	1		SW-846 8260D	10/12/21	10/12/21 13:52	MFF
Chloroethane	ND	0.017	0.0030	mg/Kg dry	1		SW-846 8260D	10/12/21	10/12/21 13:52	MFF
Chloroform	ND	0.0035	0.00086	mg/Kg dry	1		SW-846 8260D	10/12/21	10/12/21 13:52	MFF
Chloromethane	ND	0.0086	0.0028	mg/Kg dry	1		SW-846 8260D	10/12/21	10/12/21 13:52	MFF
2-Chlorotoluene	ND	0.0017	0.00039	mg/Kg dry	1		SW-846 8260D	10/12/21	10/12/21 13:52	MFF
4-Chlorotoluene	ND	0.0017	0.00030	mg/Kg dry	1		SW-846 8260D	10/12/21	10/12/21 13:52	MFF
1,2-Dibromo-3-chloropropane (DBCP)	ND	0.0017	0.00058	mg/Kg dry	1		SW-846 8260D	10/12/21	10/12/21 13:52	MFF
1,2-Dibromoethane (EDB)	ND	0.00086	0.00054	mg/Kg dry	1		SW-846 8260D	10/12/21	10/12/21 13:52	MFF
Dibromomethane	ND	0.0017	0.00063	mg/Kg dry	1		SW-846 8260D	10/12/21	10/12/21 13:52	MFF
1,2-Dichlorobenzene	ND	0.0017	0.00034	mg/Kg dry	1		SW-846 8260D	10/12/21	10/12/21 13:52	MFF
1,3-Dichlorobenzene	ND	0.0017	0.00037	mg/Kg dry	1		SW-846 8260D	10/12/21	10/12/21 13:52	MFF
1,4-Dichlorobenzene	ND	0.0017	0.00044	mg/Kg dry	1		SW-846 8260D	10/12/21	10/12/21 13:52	MFF
trans-1,4-Dichloro-2-butene	ND	0.0035	0.00049	mg/Kg dry	1		SW-846 8260D	10/12/21	10/12/21 13:52	MFF
Dichlorodifluoromethane (Freon 12)	ND	0.017	0.0010	mg/Kg dry	1	V-05	SW-846 8260D	10/12/21	10/12/21 13:52	MFF
1,1-Dichloroethane	ND	0.0017	0.00043	mg/Kg dry	1		SW-846 8260D	10/12/21	10/12/21 13:52	MFF
1,2-Dichloroethane	ND	0.0017	0.00053	mg/Kg dry	1		SW-846 8260D	10/12/21	10/12/21 13:52	MFF
1,1-Dichloroethylene	ND	0.0035	0.0011	mg/Kg dry	1		SW-846 8260D	10/12/21	10/12/21 13:52	MFF
cis-1,2-Dichloroethylene	ND	0.0017	0.00046	mg/Kg dry	1		SW-846 8260D	10/12/21	10/12/21 13:52	MFF
trans-1,2-Dichloroethylene	ND	0.0017	0.00048	mg/Kg dry	1		SW-846 8260D	10/12/21	10/12/21 13:52	MFF
1,2-Dichloropropane	ND	0.0017	0.00041	mg/Kg dry	1		SW-846 8260D	10/12/21	10/12/21 13:52	MFF
1,3-Dichloropropane	ND	0.00086	0.00042	mg/Kg dry	1		SW-846 8260D	10/12/21	10/12/21 13:52	MFF
2,2-Dichloropropane	ND	0.0017	0.00066	mg/Kg dry	1		SW-846 8260D	10/12/21	10/12/21 13:52	MFF
1,1-Dichloropropene	ND	0.0017	0.00068	mg/Kg dry	1		SW-846 8260D	10/12/21	10/12/21 13:52	MFF
cis-1,3-Dichloropropene	ND	0.00086	0.00034	mg/Kg dry	1		SW-846 8260D	10/12/21	10/12/21 13:52	MFF
trans-1,3-Dichloropropene	ND	0.00086	0.00042	mg/Kg dry	1		SW-846 8260D	10/12/21	10/12/21 13:52	MFF
Diethyl Ether	ND	0.017	0.0019	mg/Kg dry	1		SW-846 8260D	10/12/21	10/12/21 13:52	MFF

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Project Location: 1400 N. Royal St, Alexandria, VA Sample Description: Work Order: 21J0524

Date Received: 10/9/2021

Field Sample #: HRP-SB202-25-30-211007 Sampled: 10/7/2021 15:02

Sample ID: 21J0524-07

Sample Matrix: Soil

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Diisopropyl Ether (DIPE)	ND	0.00086	0.00046	mg/Kg dry	1		SW-846 8260D	10/12/21	10/12/21 13:52	MFF
1,4-Dioxane	ND	0.086	0.019	mg/Kg dry	1		SW-846 8260D	10/12/21	10/12/21 13:52	MFF
Ethylbenzene	ND	0.0017	0.00039	mg/Kg dry	1		SW-846 8260D	10/12/21	10/12/21 13:52	MFF
Hexachlorobutadiene	ND	0.0017	0.00062	mg/Kg dry	1		SW-846 8260D	10/12/21	10/12/21 13:52	MFF
2-Hexanone (MBK)	ND	0.017	0.0050	mg/Kg dry	1		SW-846 8260D	10/12/21	10/12/21 13:52	MFF
Isopropylbenzene (Cumene)	ND	0.0017	0.00062	mg/Kg dry	1		SW-846 8260D	10/12/21	10/12/21 13:52	MFF
p-Isopropyltoluene (p-Cymene)	ND	0.0017	0.00040	mg/Kg dry	1		SW-846 8260D	10/12/21	10/12/21 13:52	MFF
Methyl Acetate	ND	0.0017	0.0012	mg/Kg dry	1		SW-846 8260D	10/12/21	10/12/21 13:52	MFF
Methyl tert-Butyl Ether (MTBE)	ND	0.0035	0.00032	mg/Kg dry	1		SW-846 8260D	10/12/21	10/12/21 13:52	MFF
Methyl Cyclohexane	ND	0.0017	0.00063	mg/Kg dry	1		SW-846 8260D	10/12/21	10/12/21 13:52	MFF
Methylene Chloride	0.00062	0.017	0.00048	mg/Kg dry	1	J	SW-846 8260D	10/12/21	10/12/21 13:52	MFF
4-Methyl-2-pentanone (MIBK)	ND	0.017	0.0038	mg/Kg dry	1		SW-846 8260D	10/12/21	10/12/21 13:52	MFF
Naphthalene	ND	0.0035	0.00045	mg/Kg dry	1		SW-846 8260D	10/12/21	10/12/21 13:52	MFF
n-Propylbenzene	ND	0.0017	0.00033	mg/Kg dry	1		SW-846 8260D	10/12/21	10/12/21 13:52	MFF
Styrene	ND	0.0017	0.00037	mg/Kg dry	1		SW-846 8260D	10/12/21	10/12/21 13:52	MFF
1,1,1,2-Tetrachloroethane	ND	0.0017	0.00047	mg/Kg dry	1		SW-846 8260D	10/12/21	10/12/21 13:52	MFF
1,1,2,2-Tetrachloroethane	ND	0.00086	0.00047	mg/Kg dry	1		SW-846 8260D	10/12/21	10/12/21 13:52	MFF
Tetrachloroethylene	ND	0.0017	0.00047	mg/Kg dry	1		SW-846 8260D	10/12/21	10/12/21 13:52	MFF
Tetrahydrofuran	ND	0.0086	0.0022	mg/Kg dry	1		SW-846 8260D	10/12/21	10/12/21 13:52	MFF
Toluene	ND	0.0017	0.00048	mg/Kg dry	1		SW-846 8260D	10/12/21	10/12/21 13:52	MFF
1,2,3-Trichlorobenzene	ND	0.0017	0.00047	mg/Kg dry	1		SW-846 8260D	10/12/21	10/12/21 13:52	MFF
1,2,4-Trichlorobenzene	ND	0.0017	0.00042	mg/Kg dry	1		SW-846 8260D	10/12/21	10/12/21 13:52	MFF
1,3,5-Trichlorobenzene	ND	0.0017	0.00042	mg/Kg dry	1		SW-846 8260D	10/12/21	10/12/21 13:52	MFF
1,1,1-Trichloroethane	ND	0.0017	0.00059	mg/Kg dry	1		SW-846 8260D	10/12/21	10/12/21 13:52	MFF
1,1,2-Trichloroethane	ND	0.0017	0.00040	mg/Kg dry	1		SW-846 8260D	10/12/21	10/12/21 13:52	MFF
Trichloroethylene	ND	0.0017	0.00043	mg/Kg dry	1		SW-846 8260D	10/12/21	10/12/21 13:52	MFF
Trichlorofluoromethane (Freon 11)	ND	0.0086	0.0031	mg/Kg dry	1		SW-846 8260D	10/12/21	10/12/21 13:52	MFF
1,2,3-Trichloropropane	ND	0.0017	0.00083	mg/Kg dry	1		SW-846 8260D	10/12/21	10/12/21 13:52	MFF
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	0.0086	0.0023	mg/Kg dry	1		SW-846 8260D	10/12/21	10/12/21 13:52	MFF
1,2,4-Trimethylbenzene	ND	0.0017	0.00056	mg/Kg dry	1		SW-846 8260D	10/12/21	10/12/21 13:52	MFF
1,3,5-Trimethylbenzene	ND	0.0017	0.00038	mg/Kg dry	1		SW-846 8260D	10/12/21	10/12/21 13:52	MFF
Vinyl Chloride	ND	0.0086	0.0026	mg/Kg dry	1		SW-846 8260D	10/12/21	10/12/21 13:52	MFF
m+p Xylene	ND	0.0035	0.00065	mg/Kg dry	1		SW-846 8260D	10/12/21	10/12/21 13:52	MFF
o-Xylene	ND	0.0017	0.00035	mg/Kg dry	1		SW-846 8260D	10/12/21	10/12/21 13:52	MFF

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
1,2-Dichloroethane-d4	97.6	70-130		10/12/21 13:52
Toluene-d8	100	70-130		10/12/21 13:52
4-Bromofluorobenzene	101	70-130		10/12/21 13:52

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Project Location: 1400 N. Royal St, Alexandria, VA Sample Description: Work Order: 21J0524

Date Received: 10/9/2021

Field Sample #: HRP-SB202-25-30-211007 Sampled: 10/7/2021 15:02

Sample ID: 21J0524-07

Sample Matrix: Soil

Semivolatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acenaphthene	ND	0.21	0.066	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 16:16	IMR
Acenaphthylene	ND	0.21	0.065	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 16:16	IMR
Acetophenone	ND	0.42	0.058	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 16:16	IMR
Aniline	ND	0.42	0.088	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 16:16	IMR
Anthracene	ND	0.21	0.069	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 16:16	IMR
Benzidine	ND	0.82	0.19	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 16:16	IMR
Benzo(a)anthracene	ND	0.21	0.059	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 16:16	IMR
Benzo(a)pyrene	ND	0.21	0.065	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 16:16	IMR
Benzo(b)fluoranthene	ND	0.21	0.064	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 16:16	IMR
Benzo(g,h,i)perylene	ND	0.21	0.089	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 16:16	IMR
Benzo(k)fluoranthene	ND	0.21	0.057	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 16:16	IMR
Benzoic Acid	ND	1.2	0.50	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 16:16	IMR
Bis(2-chloroethoxy)methane	ND	0.42	0.055	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 16:16	IMR
Bis(2-chloroethyl)ether	ND	0.42	0.058	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 16:16	IMR
Bis(2-chloroisopropyl)ether	ND	0.42	0.096	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 16:16	IMR
Bis(2-Ethylhexyl)phthalate	ND	0.42	0.071	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 16:16	IMR
4-Bromophenylphenylether	ND	0.42	0.054	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 16:16	IMR
Butylbenzylphthalate	ND	0.42	0.067	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 16:16	IMR
Carbazole	ND	0.21	0.070	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 16:16	IMR
4-Chloroaniline	ND	0.82	0.056	mg/Kg dry	1	V-34	SW-846 8270E	10/13/21	10/15/21 16:16	IMR
4-Chloro-3-methylphenol	ND	0.82	0.070	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 16:16	IMR
2-Chloronaphthalene	ND	0.42	0.049	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 16:16	IMR
2-Chlorophenol	ND	0.42	0.059	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 16:16	IMR
4-Chlorophenylphenylether	ND	0.42	0.060	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 16:16	IMR
Chrysene	ND	0.21	0.061	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 16:16	IMR
Dibenz(a,h)anthracene	ND	0.21	0.086	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 16:16	IMR
Dibenzofuran	ND	0.42	0.062	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 16:16	IMR
Di-n-butylphthalate	ND	0.42	0.060	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 16:16	IMR
1,2-Dichlorobenzene	ND	0.42	0.048	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 16:16	IMR
1,3-Dichlorobenzene	ND	0.42	0.046	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 16:16	IMR
1,4-Dichlorobenzene	ND	0.42	0.044	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 16:16	IMR
3,3-Dichlorobenzidine	ND	0.21	0.062	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 16:16	IMR
2,4-Dichlorophenol	ND	0.42	0.063	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 16:16	IMR
Diethylphthalate	ND	0.42	0.065	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 16:16	IMR
2,4-Dimethylphenol	ND	0.42	0.12	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 16:16	IMR
Dimethylphthalate	ND	0.42	0.062	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 16:16	IMR
4,6-Dinitro-2-methylphenol	ND	0.42	0.28	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 16:16	IMR
2,4-Dinitrophenol	ND	0.82	0.37	mg/Kg dry	1	V-04, V-20	SW-846 8270E	10/13/21	10/15/21 16:16	IMR
2,4-Dinitrotoluene	ND	0.42	0.083	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 16:16	IMR
2,6-Dinitrotoluene	ND	0.42	0.070	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 16:16	IMR
Di-n-octylphthalate	ND	0.42	0.15	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 16:16	IMR
1,2-Diphenylhydrazine/Azobenzene	ND	0.42	0.061	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 16:16	IMR
Fluoranthene	ND	0.21	0.067	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 16:16	IMR
Fluorene	ND	0.21	0.071	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 16:16	IMR

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Project Location: 1400 N. Royal St, Alexandria, VA Sample Description: Work Order: 21J0524

Date Received: 10/9/2021

Field Sample #: HRP-SB202-25-30-211007 Sampled: 10/7/2021 15:02

Sample ID: 21J0524-07

Sample Matrix: Soil

Semivolatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Hexachlorobenzene	ND	0.42	0.057	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 16:16	IMR
Hexachlorobutadiene	ND	0.42	0.054	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 16:16	IMR
Hexachlorocyclopentadiene	ND	0.42	0.18	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 16:16	IMR
Hexachloroethane	ND	0.42	0.050	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 16:16	IMR
Indeno(1,2,3-cd)pyrene	ND	0.21	0.096	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 16:16	IMR
Isophorone	ND	0.42	0.071	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 16:16	IMR
1-Methylnaphthalene	ND	0.21	0.059	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 16:16	IMR
2-Methylnaphthalene	ND	0.21	0.067	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 16:16	IMR
2-Methylphenol	ND	0.42	0.078	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 16:16	IMR
3/4-Methylphenol	ND	0.42	0.068	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 16:16	IMR
Naphthalene	ND	0.21	0.058	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 16:16	IMR
2-Nitroaniline	ND	0.42	0.090	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 16:16	IMR
3-Nitroaniline	ND	0.42	0.072	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 16:16	IMR
4-Nitroaniline	ND	0.42	0.091	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 16:16	IMR
Nitrobenzene	ND	0.42	0.061	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 16:16	IMR
2-Nitrophenol	ND	0.42	0.066	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 16:16	IMR
4-Nitrophenol	ND	0.82	0.17	mg/Kg dry	1	V-05	SW-846 8270E	10/13/21	10/15/21 16:16	IMR
N-Nitrosodimethylamine	ND	0.42	0.063	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 16:16	IMR
N-Nitrosodiphenylamine/Diphenylamine	ND	0.42	0.064	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 16:16	IMR
N-Nitrosodi-n-propylamine	ND	0.42	0.058	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 16:16	IMR
Pentachloronitrobenzene	ND	0.42	0.071	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 16:16	IMR
Pentachlorophenol	ND	0.42	0.18	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 16:16	IMR
Phenanthrene	ND	0.21	0.067	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 16:16	IMR
Phenol	ND	0.42	0.060	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 16:16	IMR
Pyrene	ND	0.21	0.067	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 16:16	IMR
Pyridine	ND	0.42	0.043	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 16:16	IMR
1,2,4,5-Tetrachlorobenzene	ND	0.42	0.055	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 16:16	IMR
1,2,4-Trichlorobenzene	ND	0.42	0.053	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 16:16	IMR
2,4,5-Trichlorophenol	ND	0.42	0.066	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 16:16	IMR
2,4,6-Trichlorophenol	ND	0.42	0.065	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 16:16	IMR

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
2-Fluorophenol	53.6	30-130		10/15/21 16:16
Phenol-d6	49.7	30-130		10/15/21 16:16
Nitrobenzene-d5	50.6	30-130		10/15/21 16:16
2-Fluorobiphenyl	60.7	30-130		10/15/21 16:16
2,4,6-Tribromophenol	73.4	30-130		10/15/21 16:16
p-Terphenyl-d14	72.1	30-130		10/15/21 16:16

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39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: 1400 N. Royal St, Alexandria, VA Sample Description: Work Order: 21J0524

Date Received: 10/9/2021

Field Sample #: HRP-SB202-25-30-211007 Sampled: 10/7/2021 15:02

Sample ID: 21J0524-07

Sample Matrix: Soil

Metals Analyses (Total)

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Aluminum	12000	21	7.6	mg/Kg dry	1		SW-846 6010D	10/11/21	10/13/21 13:12	QNW
Antimony	ND	2.1	0.84	mg/Kg dry	1		SW-846 6010D	10/11/21	10/13/21 13:12	QNW
Arsenic	6.3	4.1	1.5	mg/Kg dry	1		SW-846 6010D	10/11/21	10/13/21 13:12	QNW
Barium	59	2.1	0.79	mg/Kg dry	1		SW-846 6010D	10/11/21	10/13/21 13:12	QNW
Beryllium	0.61	0.21	0.079	mg/Kg dry	1		SW-846 6010D	10/11/21	10/13/21 13:12	QNW
Cadmium	0.34	0.41	0.21	mg/Kg dry	1	J	SW-846 6010D	10/11/21	10/13/21 13:12	QNW
Calcium	1000	21	8.1	mg/Kg dry	1		SW-846 6010D	10/11/21	10/13/21 13:12	QNW
Chromium	18	0.83	0.47	mg/Kg dry	1		SW-846 6010D	10/11/21	10/13/21 13:12	QNW
Cobalt	8.5	2.1	0.76	mg/Kg dry	1		SW-846 6010D	10/11/21	10/13/21 13:12	QNW
Copper	14	0.83	0.40	mg/Kg dry	1		SW-846 6010D	10/11/21	10/13/21 13:12	QNW
Iron	30000	410	170	mg/Kg dry	20		SW-846 6010D	10/11/21	10/14/21 15:23	MJH
Lead	15	0.62	0.30	mg/Kg dry	1		SW-846 6010D	10/11/21	10/13/21 13:12	QNW
Magnesium	1400	410	150	mg/Kg dry	20		SW-846 6010D	10/11/21	10/14/21 15:23	MJH
Manganese	120	0.41	0.16	mg/Kg dry	1		SW-846 6010D	10/11/21	10/13/21 13:12	QNW
Mercury	0.031	0.032	0.011	mg/Kg dry	1	J	SW-846 7471B	10/11/21	10/12/21 9:10	DRL
Nickel	12	0.83	0.42	mg/Kg dry	1		SW-846 6010D	10/11/21	10/13/21 13:12	QNW
Potassium	920	210	78	mg/Kg dry	1		SW-846 6010D	10/11/21	10/15/21 19:32	MJH
Selenium	ND	4.1	1.5	mg/Kg dry	1		SW-846 6010D	10/11/21	10/13/21 13:12	QNW
Silver	ND	0.41	0.19	mg/Kg dry	1		SW-846 6010D	10/11/21	10/13/21 13:12	QNW
Sodium	ND	210	81	mg/Kg dry	1		SW-846 6010D	10/11/21	10/13/21 13:12	QNW
Thallium	1.6	2.1	0.99	mg/Kg dry	1	J	SW-846 6010D	10/11/21	10/13/21 13:12	QNW
Vanadium	28	0.83	0.41	mg/Kg dry	1		SW-846 6010D	10/11/21	10/13/21 13:12	QNW
Zinc	55	0.83	0.53	mg/Kg dry	1		SW-846 6010D	10/11/21	10/13/21 13:12	QNW

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: 1400 N. Royal St, Alexandria, VA Sample Description: Work Order: 21J0524

Date Received: 10/9/2021

Field Sample #: HRP-SB202-25-30-211007 Sampled: 10/7/2021 15:02

Sample ID: 21J0524-07

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	80.3			% Wt	1		SM 2540G	10/12/21	10/14/21 15:46	BMB

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Project Location: 1400 N. Royal St, Alexandria, VA Sample Description: Work Order: 21J0524

Date Received: 10/9/2021

Field Sample #: HRP-EB02-211007 Sampled: 10/7/2021 13:40

Sample ID: 21J0524-08

Sample Matrix: Water

Semivolatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acenaphthene	ND	5.0	0.34	µg/L	1		SW-846 8270E	10/13/21	10/14/21 16:47	BGL
Acenaphthylene	ND	5.0	0.32	µg/L	1		SW-846 8270E	10/13/21	10/14/21 16:47	BGL
Acetophenone	ND	10	0.45	µg/L	1		SW-846 8270E	10/13/21	10/14/21 16:47	BGL
Aniline	ND	5.0	0.82	µg/L	1		SW-846 8270E	10/13/21	10/14/21 16:47	BGL
Anthracene	ND	5.0	0.40	µg/L	1		SW-846 8270E	10/13/21	10/14/21 16:47	BGL
Benzidine	ND	20	9.9	µg/L	1	V-04, V-05	SW-846 8270E	10/13/21	10/14/21 16:47	BGL
Benzo(a)anthracene	ND	5.0	0.38	µg/L	1		SW-846 8270E	10/13/21	10/14/21 16:47	BGL
Benzo(a)pyrene	ND	5.0	0.48	µg/L	1		SW-846 8270E	10/13/21	10/14/21 16:47	BGL
Benzo(b)fluoranthene	ND	5.0	0.42	µg/L	1		SW-846 8270E	10/13/21	10/14/21 16:47	BGL
Benzo(g,h,i)perylene	ND	5.0	0.64	µg/L	1		SW-846 8270E	10/13/21	10/14/21 16:47	BGL
Benzo(k)fluoranthene	ND	5.0	0.37	µg/L	1		SW-846 8270E	10/13/21	10/14/21 16:47	BGL
Benzoic Acid	ND	10	9.2	µg/L	1		SW-846 8270E	10/13/21	10/14/21 16:47	BGL
Bis(2-chloroethoxy)methane	ND	10	0.43	µg/L	1		SW-846 8270E	10/13/21	10/14/21 16:47	BGL
Bis(2-chloroethyl)ether	ND	10	0.52	µg/L	1		SW-846 8270E	10/13/21	10/14/21 16:47	BGL
Bis(2-chloroisopropyl)ether	ND	10	0.60	µg/L	1	V-05	SW-846 8270E	10/13/21	10/14/21 16:47	BGL
Bis(2-Ethylhexyl)phthalate	ND	10	0.92	µg/L	1		SW-846 8270E	10/13/21	10/14/21 16:47	BGL
4-Bromophenylphenylether	ND	10	0.38	µg/L	1		SW-846 8270E	10/13/21	10/14/21 16:47	BGL
Butylbenzylphthalate	ND	10	0.70	µg/L	1		SW-846 8270E	10/13/21	10/14/21 16:47	BGL
Carbazole	ND	10	0.41	µg/L	1		SW-846 8270E	10/13/21	10/14/21 16:47	BGL
4-Chloroaniline	ND	10	0.44	µg/L	1	V-34	SW-846 8270E	10/13/21	10/14/21 16:47	BGL
4-Chloro-3-methylphenol	ND	10	0.54	µg/L	1		SW-846 8270E	10/13/21	10/14/21 16:47	BGL
2-Chloronaphthalene	ND	10	0.26	µg/L	1		SW-846 8270E	10/13/21	10/14/21 16:47	BGL
2-Chlorophenol	ND	10	0.37	µg/L	1		SW-846 8270E	10/13/21	10/14/21 16:47	BGL
4-Chlorophenylphenylether	ND	10	0.33	µg/L	1		SW-846 8270E	10/13/21	10/14/21 16:47	BGL
Chrysene	ND	5.0	0.38	µg/L	1		SW-846 8270E	10/13/21	10/14/21 16:47	BGL
Dibenz(a,h)anthracene	ND	5.0	0.71	µg/L	1		SW-846 8270E	10/13/21	10/14/21 16:47	BGL
Dibenzofuran	ND	5.0	0.34	µg/L	1		SW-846 8270E	10/13/21	10/14/21 16:47	BGL
Di-n-butylphthalate	ND	10	0.50	µg/L	1		SW-846 8270E	10/13/21	10/14/21 16:47	BGL
1,2-Dichlorobenzene	ND	5.0	0.23	µg/L	1		SW-846 8270E	10/13/21	10/14/21 16:47	BGL
1,3-Dichlorobenzene	ND	5.0	0.24	µg/L	1		SW-846 8270E	10/13/21	10/14/21 16:47	BGL
1,4-Dichlorobenzene	ND	5.0	0.26	µg/L	1		SW-846 8270E	10/13/21	10/14/21 16:47	BGL
3,3-Dichlorobenzidine	ND	10	0.62	µg/L	1		SW-846 8270E	10/13/21	10/14/21 16:47	BGL
2,4-Dichlorophenol	ND	10	0.36	µg/L	1		SW-846 8270E	10/13/21	10/14/21 16:47	BGL
Diethylphthalate	ND	10	0.48	µg/L	1		SW-846 8270E	10/13/21	10/14/21 16:47	BGL
2,4-Dimethylphenol	ND	10	0.97	µg/L	1		SW-846 8270E	10/13/21	10/14/21 16:47	BGL
Dimethylphthalate	ND	10	0.40	µg/L	1		SW-846 8270E	10/13/21	10/14/21 16:47	BGL
4,6-Dinitro-2-methylphenol	ND	10	6.6	µg/L	1		SW-846 8270E	10/13/21	10/14/21 16:47	BGL
2,4-Dinitrophenol	ND	10	8.0	µg/L	1		SW-846 8270E	10/13/21	10/14/21 16:47	BGL
2,4-Dinitrotoluene	ND	10	0.61	µg/L	1		SW-846 8270E	10/13/21	10/14/21 16:47	BGL
2,6-Dinitrotoluene	ND	10	0.50	µg/L	1		SW-846 8270E	10/13/21	10/14/21 16:47	BGL
Di-n-octylphthalate	ND	10	5.6	µg/L	1		SW-846 8270E	10/13/21	10/14/21 16:47	BGL
1,2-Diphenylhydrazine/Azobenzene	ND	10	0.53	µg/L	1		SW-846 8270E	10/13/21	10/14/21 16:47	BGL
Fluoranthene	ND	5.0	0.37	µg/L	1		SW-846 8270E	10/13/21	10/14/21 16:47	BGL
Fluorene	ND	5.0	0.42	µg/L	1		SW-846 8270E	10/13/21	10/14/21 16:47	BGL

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Project Location: 1400 N. Royal St, Alexandria, VA Sample Description: Work Order: 21J0524

Date Received: 10/9/2021

Field Sample #: HRP-EB02-211007 Sampled: 10/7/2021 13:40

Sample ID: 21J0524-08

Sample Matrix: Water

Semivolatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Hexachlorobenzene	ND	10	0.36	µg/L	1		SW-846 8270E	10/13/21	10/14/21 16:47	BGL
Hexachlorobutadiene	ND	10	0.27	µg/L	1		SW-846 8270E	10/13/21	10/14/21 16:47	BGL
Hexachlorocyclopentadiene	ND	10	4.2	µg/L	1	V-05	SW-846 8270E	10/13/21	10/14/21 16:47	BGL
Hexachloroethane	ND	10	0.31	µg/L	1		SW-846 8270E	10/13/21	10/14/21 16:47	BGL
Indeno(1,2,3-cd)pyrene	ND	5.0	0.79	µg/L	1		SW-846 8270E	10/13/21	10/14/21 16:47	BGL
Isophorone	ND	10	0.49	µg/L	1		SW-846 8270E	10/13/21	10/14/21 16:47	BGL
1-Methylnaphthalene	ND	5.0	0.29	µg/L	1		SW-846 8270E	10/13/21	10/14/21 16:47	BGL
2-Methylnaphthalene	ND	5.0	0.33	µg/L	1		SW-846 8270E	10/13/21	10/14/21 16:47	BGL
2-Methylphenol	ND	10	0.36	µg/L	1		SW-846 8270E	10/13/21	10/14/21 16:47	BGL
3/4-Methylphenol	ND	10	0.38	µg/L	1		SW-846 8270E	10/13/21	10/14/21 16:47	BGL
Naphthalene	ND	5.0	0.30	µg/L	1		SW-846 8270E	10/13/21	10/14/21 16:47	BGL
2-Nitroaniline	ND	10	0.75	µg/L	1		SW-846 8270E	10/13/21	10/14/21 16:47	BGL
3-Nitroaniline	ND	10	0.51	µg/L	1		SW-846 8270E	10/13/21	10/14/21 16:47	BGL
4-Nitroaniline	ND	10	0.49	µg/L	1		SW-846 8270E	10/13/21	10/14/21 16:47	BGL
Nitrobenzene	ND	10	0.53	µg/L	1		SW-846 8270E	10/13/21	10/14/21 16:47	BGL
2-Nitrophenol	ND	10	0.47	µg/L	1		SW-846 8270E	10/13/21	10/14/21 16:47	BGL
4-Nitrophenol	ND	10	2.1	µg/L	1		SW-846 8270E	10/13/21	10/14/21 16:47	BGL
N-Nitrosodimethylamine	ND	10	0.82	µg/L	1	L-04, V-05	SW-846 8270E	10/13/21	10/14/21 16:47	BGL
N-Nitrosodiphenylamine/Diphenylamine	ND	10	0.40	µg/L	1		SW-846 8270E	10/13/21	10/14/21 16:47	BGL
N-Nitrosodi-n-propylamine	ND	10	0.53	µg/L	1		SW-846 8270E	10/13/21	10/14/21 16:47	BGL
Pentachloronitrobenzene	ND	10	0.64	µg/L	1		SW-846 8270E	10/13/21	10/14/21 16:47	BGL
Pentachlorophenol	ND	10	3.7	µg/L	1		SW-846 8270E	10/13/21	10/14/21 16:47	BGL
Phenanthrene	ND	5.0	0.40	µg/L	1		SW-846 8270E	10/13/21	10/14/21 16:47	BGL
Phenol	ND	10	0.25	µg/L	1		SW-846 8270E	10/13/21	10/14/21 16:47	BGL
Pyrene	ND	5.0	0.47	µg/L	1		SW-846 8270E	10/13/21	10/14/21 16:47	BGL
Pyridine	ND	5.0	2.6	µg/L	1	V-34	SW-846 8270E	10/13/21	10/14/21 16:47	BGL
1,2,4,5-Tetrachlorobenzene	ND	10	0.27	µg/L	1		SW-846 8270E	10/13/21	10/14/21 16:47	BGL
1,2,4-Trichlorobenzene	ND	5.0	0.24	µg/L	1		SW-846 8270E	10/13/21	10/14/21 16:47	BGL
2,4,5-Trichlorophenol	ND	10	0.46	µg/L	1		SW-846 8270E	10/13/21	10/14/21 16:47	BGL
2,4,6-Trichlorophenol	ND	10	0.41	µg/L	1		SW-846 8270E	10/13/21	10/14/21 16:47	BGL

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
2-Fluorophenol	33.3	15-110		10/14/21 16:47
Phenol-d6	23.6	15-110		10/14/21 16:47
Nitrobenzene-d5	52.5	30-130		10/14/21 16:47
2-Fluorobiphenyl	61.6	30-130		10/14/21 16:47
2,4,6-Tribromophenol	83.4	15-110		10/14/21 16:47
p-Terphenyl-d14	88.9	30-130		10/14/21 16:47

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Project Location: 1400 N. Royal St, Alexandria, VA Sample Description: Work Order: 21J0524

Date Received: 10/9/2021

Field Sample #: HRP-EB02-211007 Sampled: 10/7/2021 13:40

Sample ID: 21J0524-08

Sample Matrix: Water

Metals Analyses (Total)

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Aluminum	ND	0.050	0.049	mg/L	1		SW-846 6010D	10/15/21	10/15/21 20:57	MJH
Antimony	ND	1.0	0.20	µg/L	1		SW-846 6020B	10/14/21	10/18/21 15:04	TBC
Arsenic	ND	0.80	0.46	µg/L	1		SW-846 6020B	10/14/21	10/15/21 17:30	MJH
Barium	31	10	1.2	µg/L	1		SW-846 6020B	10/14/21	10/15/21 17:30	MJH
Beryllium	ND	0.40	0.066	µg/L	1		SW-846 6020B	10/14/21	10/15/21 17:30	MJH
Cadmium	ND	0.20	0.027	µg/L	1		SW-846 6020B	10/14/21	10/15/21 17:30	MJH
Calcium	7.9	0.50	0.11	mg/L	1		SW-846 6010D	10/15/21	10/15/21 20:57	MJH
Chromium	ND	1.0	0.92	µg/L	1		SW-846 6020B	10/14/21	10/15/21 17:30	MJH
Cobalt	ND	1.0	0.14	µg/L	1		SW-846 6020B	10/14/21	10/15/21 17:30	MJH
Copper	0.36	1.0	0.27	µg/L	1	J	SW-846 6020B	10/14/21	10/15/21 17:30	MJH
Iron	ND	0.050	0.032	mg/L	1		SW-846 6010D	10/15/21	10/15/21 20:57	MJH
Lead	ND	0.50	0.14	µg/L	1		SW-846 6020B	10/14/21	10/15/21 17:30	MJH
Magnesium	1.7	0.050	0.023	mg/L	1		SW-846 6010D	10/15/21	10/15/21 20:57	MJH
Manganese	7.0	1.0	0.24	µg/L	1		SW-846 6020B	10/14/21	10/15/21 17:30	MJH
Mercury	ND	0.00010	0.000050	mg/L	1		SW-846 7470A	10/15/21	10/18/21 8:03	DRL
Nickel	1.7	5.0	0.52	µg/L	1	J	SW-846 6020B	10/14/21	10/15/21 17:30	MJH
Potassium	1.7	2.0	0.40	mg/L	1	J	SW-846 6010D	10/15/21	10/15/21 20:57	MJH
Selenium	ND	5.0	0.78	µg/L	1		SW-846 6020B	10/14/21	10/15/21 17:30	MJH
Silver	ND	0.20	0.026	µg/L	1		SW-846 6020B	10/14/21	10/15/21 17:30	MJH
Sodium	3.6	2.0	0.56	mg/L	1		SW-846 6010D	10/15/21	10/15/21 20:57	MJH
Thallium	ND	0.20	0.067	µg/L	1		SW-846 6020B	10/14/21	10/15/21 17:30	MJH
Vanadium	ND	5.0	3.5	µg/L	1		SW-846 6020B	10/14/21	10/15/21 17:30	MJH
Zinc	160	10	3.4	µg/L	1		SW-846 6020B	10/14/21	10/15/21 17:30	MJH

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Project Location: 1400 N. Royal St, Alexandria, VA Sample Description: Work Order: 21J0524

Date Received: 10/9/2021

Field Sample #: HRP-SB201-0-1-211008 Sampled: 10/5/2021 08:55

Sample ID: 21J0524-09

Sample Matrix: Soil

Semivolatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acenaphthene	ND	0.21	0.067	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 16:42	IMR
Acenaphthylene	ND	0.21	0.065	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 16:42	IMR
Acetophenone	ND	0.43	0.058	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 16:42	IMR
Aniline	ND	0.43	0.089	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 16:42	IMR
Anthracene	ND	0.21	0.070	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 16:42	IMR
Benzidine	ND	0.83	0.20	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 16:42	IMR
Benzo(a)anthracene	ND	0.21	0.059	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 16:42	IMR
Benzo(a)pyrene	ND	0.21	0.066	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 16:42	IMR
Benzo(b)fluoranthene	0.069	0.21	0.065	mg/Kg dry	1	J	SW-846 8270E	10/13/21	10/15/21 16:42	IMR
Benzo(g,h,i)perylene	ND	0.21	0.090	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 16:42	IMR
Benzo(k)fluoranthene	ND	0.21	0.058	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 16:42	IMR
Benzoic Acid	ND	1.3	0.51	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 16:42	IMR
Bis(2-chloroethoxy)methane	ND	0.43	0.056	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 16:42	IMR
Bis(2-chloroethyl)ether	ND	0.43	0.059	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 16:42	IMR
Bis(2-chloroisopropyl)ether	ND	0.43	0.097	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 16:42	IMR
Bis(2-Ethylhexyl)phthalate	ND	0.43	0.072	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 16:42	IMR
4-Bromophenylphenylether	ND	0.43	0.055	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 16:42	IMR
Butylbenzylphthalate	ND	0.43	0.068	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 16:42	IMR
Carbazole	ND	0.21	0.070	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 16:42	IMR
4-Chloroaniline	ND	0.83	0.057	mg/Kg dry	1	V-34	SW-846 8270E	10/13/21	10/15/21 16:42	IMR
4-Chloro-3-methylphenol	ND	0.83	0.071	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 16:42	IMR
2-Chloronaphthalene	ND	0.43	0.050	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 16:42	IMR
2-Chlorophenol	ND	0.43	0.059	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 16:42	IMR
4-Chlorophenylphenylether	ND	0.43	0.061	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 16:42	IMR
Chrysene	0.063	0.21	0.062	mg/Kg dry	1	J	SW-846 8270E	10/13/21	10/15/21 16:42	IMR
Dibenz(a,h)anthracene	ND	0.21	0.087	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 16:42	IMR
Dibenzofuran	ND	0.43	0.063	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 16:42	IMR
Di-n-butylphthalate	ND	0.43	0.060	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 16:42	IMR
1,2-Dichlorobenzene	ND	0.43	0.049	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 16:42	IMR
1,3-Dichlorobenzene	ND	0.43	0.047	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 16:42	IMR
1,4-Dichlorobenzene	ND	0.43	0.045	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 16:42	IMR
3,3-Dichlorobenzidine	ND	0.21	0.062	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 16:42	IMR
2,4-Dichlorophenol	ND	0.43	0.063	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 16:42	IMR
Diethylphthalate	ND	0.43	0.065	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 16:42	IMR
2,4-Dimethylphenol	ND	0.43	0.12	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 16:42	IMR
Dimethylphthalate	ND	0.43	0.062	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 16:42	IMR
4,6-Dinitro-2-methylphenol	ND	0.43	0.29	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 16:42	IMR
2,4-Dinitrophenol	ND	0.83	0.37	mg/Kg dry	1	V-04, V-20	SW-846 8270E	10/13/21	10/15/21 16:42	IMR
2,4-Dinitrotoluene	ND	0.43	0.083	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 16:42	IMR
2,6-Dinitrotoluene	ND	0.43	0.071	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 16:42	IMR
Di-n-octylphthalate	ND	0.43	0.15	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 16:42	IMR
1,2-Diphenylhydrazine/Azobenzene	ND	0.43	0.061	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 16:42	IMR
Fluoranthene	0.072	0.21	0.068	mg/Kg dry	1	J	SW-846 8270E	10/13/21	10/15/21 16:42	IMR
Fluorene	ND	0.21	0.072	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 16:42	IMR

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Project Location: 1400 N. Royal St, Alexandria, VA Sample Description: Work Order: 21J0524

Date Received: 10/9/2021

Field Sample #: HRP-SB201-0-1-211008 Sampled: 10/5/2021 08:55

Sample ID: 21J0524-09

Sample Matrix: Soil

Semivolatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Hexachlorobenzene	ND	0.43	0.058	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 16:42	IMR
Hexachlorobutadiene	ND	0.43	0.055	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 16:42	IMR
Hexachlorocyclopentadiene	ND	0.43	0.18	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 16:42	IMR
Hexachloroethane	ND	0.43	0.051	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 16:42	IMR
Indeno(1,2,3-cd)pyrene	ND	0.21	0.097	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 16:42	IMR
Isophorone	ND	0.43	0.071	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 16:42	IMR
1-Methylnaphthalene	0.072	0.21	0.059	mg/Kg dry	1	J	SW-846 8270E	10/13/21	10/15/21 16:42	IMR
2-Methylnaphthalene	0.12	0.21	0.068	mg/Kg dry	1	J	SW-846 8270E	10/13/21	10/15/21 16:42	IMR
2-Methylphenol	ND	0.43	0.079	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 16:42	IMR
3/4-Methylphenol	ND	0.43	0.069	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 16:42	IMR
Naphthalene	ND	0.21	0.058	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 16:42	IMR
2-Nitroaniline	ND	0.43	0.091	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 16:42	IMR
3-Nitroaniline	ND	0.43	0.073	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 16:42	IMR
4-Nitroaniline	ND	0.43	0.092	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 16:42	IMR
Nitrobenzene	ND	0.43	0.062	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 16:42	IMR
2-Nitrophenol	ND	0.43	0.067	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 16:42	IMR
4-Nitrophenol	ND	0.83	0.17	mg/Kg dry	1	V-05	SW-846 8270E	10/13/21	10/15/21 16:42	IMR
N-Nitrosodimethylamine	ND	0.43	0.064	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 16:42	IMR
N-Nitrosodiphenylamine/Diphenylamine	ND	0.43	0.064	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 16:42	IMR
N-Nitrosodi-n-propylamine	ND	0.43	0.059	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 16:42	IMR
Pentachloronitrobenzene	ND	0.43	0.072	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 16:42	IMR
Pentachlorophenol	ND	0.43	0.19	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 16:42	IMR
Phenanthrene	0.077	0.21	0.067	mg/Kg dry	1	J	SW-846 8270E	10/13/21	10/15/21 16:42	IMR
Phenol	ND	0.43	0.061	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 16:42	IMR
Pyrene	0.079	0.21	0.068	mg/Kg dry	1	J	SW-846 8270E	10/13/21	10/15/21 16:42	IMR
Pyridine	ND	0.43	0.044	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 16:42	IMR
1,2,4,5-Tetrachlorobenzene	ND	0.43	0.056	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 16:42	IMR
1,2,4-Trichlorobenzene	ND	0.43	0.054	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 16:42	IMR
2,4,5-Trichlorophenol	ND	0.43	0.066	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 16:42	IMR
2,4,6-Trichlorophenol	ND	0.43	0.066	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 16:42	IMR

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
2-Fluorophenol	57.8	30-130		10/15/21 16:42
Phenol-d6	54.3	30-130		10/15/21 16:42
Nitrobenzene-d5	51.8	30-130		10/15/21 16:42
2-Fluorobiphenyl	67.0	30-130		10/15/21 16:42
2,4,6-Tribromophenol	77.6	30-130		10/15/21 16:42
p-Terphenyl-d14	77.3	30-130		10/15/21 16:42

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Project Location: 1400 N. Royal St, Alexandria, VA Sample Description: Work Order: 21J0524

Date Received: 10/9/2021

Field Sample #: HRP-SB201-0-1-211008 Sampled: 10/5/2021 08:55

Sample ID: 21J0524-09

Sample Matrix: Soil

Metals Analyses (Total)

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Aluminum	7700	20	7.4	mg/Kg dry	1		SW-846 6010D	10/11/21	10/13/21 13:19	QNW
Antimony	ND	2.0	0.82	mg/Kg dry	1		SW-846 6010D	10/11/21	10/13/21 13:19	QNW
Arsenic	25	4.1	1.5	mg/Kg dry	1		SW-846 6010D	10/11/21	10/13/21 13:19	QNW
Barium	42	2.0	0.77	mg/Kg dry	1		SW-846 6010D	10/11/21	10/13/21 13:19	QNW
Beryllium	0.35	0.20	0.077	mg/Kg dry	1		SW-846 6010D	10/11/21	10/13/21 13:19	QNW
Cadmium	0.60	0.41	0.21	mg/Kg dry	1		SW-846 6010D	10/11/21	10/13/21 13:19	QNW
Calcium	1300	20	7.9	mg/Kg dry	1		SW-846 6010D	10/11/21	10/13/21 13:19	QNW
Chromium	19	0.81	0.46	mg/Kg dry	1		SW-846 6010D	10/11/21	10/13/21 13:19	QNW
Cobalt	5.1	2.0	0.75	mg/Kg dry	1		SW-846 6010D	10/11/21	10/13/21 13:19	QNW
Copper	16	0.81	0.39	mg/Kg dry	1		SW-846 6010D	10/11/21	10/13/21 13:19	QNW
Iron	25000	410	160	mg/Kg dry	20		SW-846 6010D	10/11/21	10/15/21 18:32	MJH
Lead	14	0.61	0.30	mg/Kg dry	1		SW-846 6010D	10/11/21	10/13/21 13:19	QNW
Magnesium	700	410	140	mg/Kg dry	20		SW-846 6010D	10/11/21	10/15/21 18:32	MJH
Manganese	54	0.41	0.16	mg/Kg dry	1		SW-846 6010D	10/11/21	10/13/21 13:19	QNW
Mercury	0.050	0.032	0.011	mg/Kg dry	1		SW-846 7471B	10/11/21	10/12/21 9:48	DRL
Nickel	7.9	0.81	0.41	mg/Kg dry	1		SW-846 6010D	10/11/21	10/13/21 13:19	QNW
Potassium	710	200	76	mg/Kg dry	1		SW-846 6010D	10/11/21	10/13/21 13:19	QNW
Selenium	ND	4.1	1.4	mg/Kg dry	1		SW-846 6010D	10/11/21	10/13/21 13:19	QNW
Silver	ND	0.41	0.19	mg/Kg dry	1		SW-846 6010D	10/11/21	10/13/21 13:19	QNW
Sodium	ND	200	79	mg/Kg dry	1		SW-846 6010D	10/11/21	10/13/21 13:19	QNW
Thallium	1.3	2.0	0.97	mg/Kg dry	1	J	SW-846 6010D	10/11/21	10/13/21 13:19	QNW
Vanadium	30	0.81	0.40	mg/Kg dry	1		SW-846 6010D	10/11/21	10/13/21 13:19	QNW
Zinc	22	0.81	0.52	mg/Kg dry	1		SW-846 6010D	10/11/21	10/13/21 13:19	QNW

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Project Location: 1400 N. Royal St, Alexandria, VA Sample Description: Work Order: 21J0524

Date Received: 10/9/2021

Field Sample #: HRP-SB201-0-1-211008 Sampled: 10/5/2021 08:55

Sample ID: 21J0524-09

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	79.5			% Wt	1		SM 2540G	10/12/21	10/14/21 15:46	BMB

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Project Location: 1400 N. Royal St, Alexandria, VA Sample Description: Work Order: 21J0524

Date Received: 10/9/2021

Field Sample #: HRP-DUP01-0-1-211008 Sampled: 10/8/2021 08:55

Sample ID: 21J0524-10

Sample Matrix: Soil

Semivolatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acenaphthene	ND	0.20	0.063	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 18:51	IMR
Acenaphthylene	ND	0.20	0.062	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 18:51	IMR
Acetophenone	ND	0.40	0.055	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 18:51	IMR
Aniline	ND	0.40	0.084	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 18:51	IMR
Anthracene	ND	0.20	0.066	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 18:51	IMR
Benzidine	ND	0.78	0.19	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 18:51	IMR
Benzo(a)anthracene	ND	0.20	0.056	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 18:51	IMR
Benzo(a)pyrene	ND	0.20	0.062	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 18:51	IMR
Benzo(b)fluoranthene	ND	0.20	0.061	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 18:51	IMR
Benzo(g,h,i)perylene	ND	0.20	0.085	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 18:51	IMR
Benzo(k)fluoranthene	ND	0.20	0.055	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 18:51	IMR
Benzoic Acid	ND	1.2	0.48	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 18:51	IMR
Bis(2-chloroethoxy)methane	ND	0.40	0.053	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 18:51	IMR
Bis(2-chloroethyl)ether	ND	0.40	0.055	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 18:51	IMR
Bis(2-chloroisopropyl)ether	ND	0.40	0.092	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 18:51	IMR
Bis(2-Ethylhexyl)phthalate	ND	0.40	0.068	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 18:51	IMR
4-Bromophenylphenylether	ND	0.40	0.052	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 18:51	IMR
Butylbenzylphthalate	ND	0.40	0.064	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 18:51	IMR
Carbazole	ND	0.20	0.067	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 18:51	IMR
4-Chloroaniline	ND	0.78	0.054	mg/Kg dry	1	V-34	SW-846 8270E	10/13/21	10/15/21 18:51	IMR
4-Chloro-3-methylphenol	ND	0.78	0.067	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 18:51	IMR
2-Chloronaphthalene	ND	0.40	0.047	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 18:51	IMR
2-Chlorophenol	ND	0.40	0.056	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 18:51	IMR
4-Chlorophenylphenylether	ND	0.40	0.058	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 18:51	IMR
Chrysene	ND	0.20	0.058	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 18:51	IMR
Dibenz(a,h)anthracene	ND	0.20	0.082	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 18:51	IMR
Dibenzofuran	ND	0.40	0.060	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 18:51	IMR
Di-n-butylphthalate	ND	0.40	0.057	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 18:51	IMR
1,2-Dichlorobenzene	ND	0.40	0.046	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 18:51	IMR
1,3-Dichlorobenzene	ND	0.40	0.044	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 18:51	IMR
1,4-Dichlorobenzene	ND	0.40	0.042	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 18:51	IMR
3,3-Dichlorobenzidine	ND	0.20	0.059	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 18:51	IMR
2,4-Dichlorophenol	ND	0.40	0.060	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 18:51	IMR
Diethylphthalate	ND	0.40	0.062	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 18:51	IMR
2,4-Dimethylphenol	ND	0.40	0.11	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 18:51	IMR
Dimethylphthalate	ND	0.40	0.059	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 18:51	IMR
4,6-Dinitro-2-methylphenol	ND	0.40	0.27	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 18:51	IMR
2,4-Dinitrophenol	ND	0.78	0.35	mg/Kg dry	1	V-04, V-20	SW-846 8270E	10/13/21	10/15/21 18:51	IMR
2,4-Dinitrotoluene	ND	0.40	0.079	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 18:51	IMR
2,6-Dinitrotoluene	ND	0.40	0.067	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 18:51	IMR
Di-n-octylphthalate	ND	0.40	0.14	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 18:51	IMR
1,2-Diphenylhydrazine/Azobenzene	ND	0.40	0.058	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 18:51	IMR
Fluoranthene	ND	0.20	0.064	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 18:51	IMR
Fluorene	ND	0.20	0.068	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 18:51	IMR

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Project Location: 1400 N. Royal St, Alexandria, VA Sample Description: Work Order: 21J0524

Date Received: 10/9/2021

Field Sample #: HRP-DUP01-0-1-211008 Sampled: 10/8/2021 08:55

Sample ID: 21J0524-10

Sample Matrix: Soil

Semivolatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Hexachlorobenzene	ND	0.40	0.055	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 18:51	IMR
Hexachlorobutadiene	ND	0.40	0.052	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 18:51	IMR
Hexachlorocyclopentadiene	ND	0.40	0.17	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 18:51	IMR
Hexachloroethane	ND	0.40	0.048	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 18:51	IMR
Indeno(1,2,3-cd)pyrene	ND	0.20	0.091	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 18:51	IMR
Isophorone	ND	0.40	0.067	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 18:51	IMR
1-Methylnaphthalene	ND	0.20	0.056	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 18:51	IMR
2-Methylnaphthalene	ND	0.20	0.064	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 18:51	IMR
2-Methylphenol	ND	0.40	0.075	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 18:51	IMR
3/4-Methylphenol	ND	0.40	0.065	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 18:51	IMR
Naphthalene	ND	0.20	0.055	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 18:51	IMR
2-Nitroaniline	ND	0.40	0.086	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 18:51	IMR
3-Nitroaniline	ND	0.40	0.069	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 18:51	IMR
4-Nitroaniline	ND	0.40	0.087	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 18:51	IMR
Nitrobenzene	ND	0.40	0.059	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 18:51	IMR
2-Nitrophenol	ND	0.40	0.063	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 18:51	IMR
4-Nitrophenol	ND	0.78	0.16	mg/Kg dry	1	V-05	SW-846 8270E	10/13/21	10/15/21 18:51	IMR
N-Nitrosodimethylamine	ND	0.40	0.060	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 18:51	IMR
N-Nitrosodiphenylamine/Diphenylamine	ND	0.40	0.061	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 18:51	IMR
N-Nitrosodi-n-propylamine	ND	0.40	0.056	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 18:51	IMR
Pentachloronitrobenzene	ND	0.40	0.068	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 18:51	IMR
Pentachlorophenol	ND	0.40	0.18	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 18:51	IMR
Phenanthrene	ND	0.20	0.064	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 18:51	IMR
Phenol	ND	0.40	0.057	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 18:51	IMR
Pyrene	ND	0.20	0.064	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 18:51	IMR
Pyridine	ND	0.40	0.041	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 18:51	IMR
1,2,4,5-Tetrachlorobenzene	ND	0.40	0.053	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 18:51	IMR
1,2,4-Trichlorobenzene	ND	0.40	0.051	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 18:51	IMR
2,4,5-Trichlorophenol	ND	0.40	0.063	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 18:51	IMR
2,4,6-Trichlorophenol	ND	0.40	0.062	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 18:51	IMR

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
2-Fluorophenol	46.2	30-130		10/15/21 18:51
Phenol-d6	44.2	30-130		10/15/21 18:51
Nitrobenzene-d5	42.3	30-130		10/15/21 18:51
2-Fluorobiphenyl	55.1	30-130		10/15/21 18:51
2,4,6-Tribromophenol	63.4	30-130		10/15/21 18:51
p-Terphenyl-d14	68.0	30-130		10/15/21 18:51

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Project Location: 1400 N. Royal St, Alexandria, VA Sample Description: Work Order: 21J0524

Date Received: 10/9/2021

Field Sample #: HRP-DUP01-0-1-211008 Sampled: 10/8/2021 08:55

Sample ID: 21J0524-10

Sample Matrix: Soil

Metals Analyses (Total)

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Aluminum	8300	20	7.2	mg/Kg dry	1		SW-846 6010D	10/12/21	10/14/21 18:55	MJH
Antimony	ND	1.9	0.78	mg/Kg dry	1		SW-846 6010D	10/11/21	10/13/21 13:26	QNW
Arsenic	7.4	3.8	1.4	mg/Kg dry	1		SW-846 6010D	10/11/21	10/13/21 13:26	QNW
Barium	91	1.9	0.73	mg/Kg dry	1		SW-846 6010D	10/11/21	10/13/21 13:26	QNW
Beryllium	0.88	0.19	0.073	mg/Kg dry	1		SW-846 6010D	10/11/21	10/13/21 13:26	QNW
Cadmium	ND	0.38	0.20	mg/Kg dry	1		SW-846 6010D	10/11/21	10/13/21 13:26	QNW
Calcium	1800	19	7.5	mg/Kg dry	1		SW-846 6010D	10/11/21	10/13/21 13:26	QNW
Chromium	19	0.77	0.44	mg/Kg dry	1		SW-846 6010D	10/11/21	10/13/21 13:26	QNW
Cobalt	9.5	1.9	0.71	mg/Kg dry	1		SW-846 6010D	10/11/21	10/13/21 13:26	QNW
Copper	15	0.77	0.37	mg/Kg dry	1		SW-846 6010D	10/11/21	10/13/21 13:26	QNW
Iron	31000	380	150	mg/Kg dry	20		SW-846 6010D	10/11/21	10/15/21 18:37	MJH
Lead	19	0.58	0.28	mg/Kg dry	1		SW-846 6010D	10/11/21	10/13/21 13:26	QNW
Magnesium	2200	380	130	mg/Kg dry	20		SW-846 6010D	10/11/21	10/15/21 18:37	MJH
Manganese	210	0.38	0.15	mg/Kg dry	1		SW-846 6010D	10/11/21	10/13/21 13:26	QNW
Mercury	0.029	0.032	0.011	mg/Kg dry	1	J	SW-846 7471B	10/11/21	10/12/21 9:50	DRL
Nickel	16	0.77	0.39	mg/Kg dry	1		SW-846 6010D	10/11/21	10/13/21 13:26	QNW
Potassium	1100	190	72	mg/Kg dry	1		SW-846 6010D	10/11/21	10/15/21 19:45	MJH
Selenium	ND	3.8	1.4	mg/Kg dry	1		SW-846 6010D	10/11/21	10/13/21 13:26	QNW
Silver	ND	0.38	0.18	mg/Kg dry	1		SW-846 6010D	10/11/21	10/13/21 13:26	QNW
Sodium	ND	190	75	mg/Kg dry	1		SW-846 6010D	10/11/21	10/13/21 13:26	QNW
Thallium	1.4	1.9	0.92	mg/Kg dry	1	J	SW-846 6010D	10/11/21	10/13/21 13:26	QNW
Vanadium	30	0.77	0.38	mg/Kg dry	1		SW-846 6010D	10/11/21	10/13/21 13:26	QNW
Zinc	53	0.77	0.49	mg/Kg dry	1		SW-846 6010D	10/11/21	10/13/21 13:26	QNW

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: 1400 N. Royal St, Alexandria, VA Sample Description: Work Order: 21J0524

Date Received: 10/9/2021

Field Sample #: HRP-DUP01-0-1-211008 Sampled: 10/8/2021 08:55

Sample ID: 21J0524-10

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	84.1			% Wt	1		SM 2540G	10/12/21	10/14/21 15:46	BMB

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Project Location: 1400 N. Royal St, Alexandria, VA Sample Description: Work Order: 21J0524

Date Received: 10/9/2021

Field Sample #: HRP-SB201-10-12-211008 Sampled: 10/8/2021 11:00

Sample ID: 21J0524-11

Sample Matrix: Soil

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acetone	ND	0.081	0.026	mg/Kg dry	1		SW-846 8260D	10/12/21	10/12/21 14:17	MFF
Acrylonitrile	ND	0.0049	0.00079	mg/Kg dry	1		SW-846 8260D	10/12/21	10/12/21 14:17	MFF
tert-Amyl Methyl Ether (TAME)	ND	0.00081	0.00037	mg/Kg dry	1		SW-846 8260D	10/12/21	10/12/21 14:17	MFF
Benzene	ND	0.0016	0.00038	mg/Kg dry	1		SW-846 8260D	10/12/21	10/12/21 14:17	MFF
Bromobenzene	ND	0.0016	0.00027	mg/Kg dry	1		SW-846 8260D	10/12/21	10/12/21 14:17	MFF
Bromochloromethane	ND	0.0016	0.00077	mg/Kg dry	1		SW-846 8260D	10/12/21	10/12/21 14:17	MFF
Bromodichloromethane	ND	0.0016	0.00039	mg/Kg dry	1		SW-846 8260D	10/12/21	10/12/21 14:17	MFF
Bromoform	ND	0.0016	0.00049	mg/Kg dry	1		SW-846 8260D	10/12/21	10/12/21 14:17	MFF
Bromomethane	ND	0.0081	0.0030	mg/Kg dry	1	V-34	SW-846 8260D	10/12/21	10/12/21 14:17	MFF
2-Butanone (MEK)	ND	0.032	0.0098	mg/Kg dry	1		SW-846 8260D	10/12/21	10/12/21 14:17	MFF
tert-Butyl Alcohol (TBA)	ND	0.081	0.039	mg/Kg dry	1	V-05	SW-846 8260D	10/12/21	10/12/21 14:17	MFF
n-Butylbenzene	ND	0.0016	0.00042	mg/Kg dry	1		SW-846 8260D	10/12/21	10/12/21 14:17	MFF
sec-Butylbenzene	ND	0.0016	0.00079	mg/Kg dry	1		SW-846 8260D	10/12/21	10/12/21 14:17	MFF
tert-Butylbenzene	ND	0.0032	0.00069	mg/Kg dry	1		SW-846 8260D	10/12/21	10/12/21 14:17	MFF
tert-Butyl Ethyl Ether (TBEE)	ND	0.00081	0.00042	mg/Kg dry	1		SW-846 8260D	10/12/21	10/12/21 14:17	MFF
Carbon Disulfide	ND	0.0081	0.0058	mg/Kg dry	1		SW-846 8260D	10/12/21	10/12/21 14:17	MFF
Carbon Tetrachloride	ND	0.0016	0.00063	mg/Kg dry	1		SW-846 8260D	10/12/21	10/12/21 14:17	MFF
Chlorobenzene	ND	0.0016	0.00043	mg/Kg dry	1		SW-846 8260D	10/12/21	10/12/21 14:17	MFF
Chlorodibromomethane	ND	0.00081	0.00042	mg/Kg dry	1		SW-846 8260D	10/12/21	10/12/21 14:17	MFF
Chloroethane	ND	0.016	0.0029	mg/Kg dry	1		SW-846 8260D	10/12/21	10/12/21 14:17	MFF
Chloroform	ND	0.0032	0.00081	mg/Kg dry	1		SW-846 8260D	10/12/21	10/12/21 14:17	MFF
Chloromethane	ND	0.0081	0.0026	mg/Kg dry	1		SW-846 8260D	10/12/21	10/12/21 14:17	MFF
2-Chlorotoluene	ND	0.0016	0.00037	mg/Kg dry	1		SW-846 8260D	10/12/21	10/12/21 14:17	MFF
4-Chlorotoluene	ND	0.0016	0.00028	mg/Kg dry	1		SW-846 8260D	10/12/21	10/12/21 14:17	MFF
1,2-Dibromo-3-chloropropane (DBCP)	ND	0.0016	0.00054	mg/Kg dry	1		SW-846 8260D	10/12/21	10/12/21 14:17	MFF
1,2-Dibromoethane (EDB)	ND	0.00081	0.00051	mg/Kg dry	1		SW-846 8260D	10/12/21	10/12/21 14:17	MFF
Dibromomethane	ND	0.0016	0.00059	mg/Kg dry	1		SW-846 8260D	10/12/21	10/12/21 14:17	MFF
1,2-Dichlorobenzene	ND	0.0016	0.00032	mg/Kg dry	1		SW-846 8260D	10/12/21	10/12/21 14:17	MFF
1,3-Dichlorobenzene	ND	0.0016	0.00035	mg/Kg dry	1		SW-846 8260D	10/12/21	10/12/21 14:17	MFF
1,4-Dichlorobenzene	ND	0.0016	0.00042	mg/Kg dry	1		SW-846 8260D	10/12/21	10/12/21 14:17	MFF
trans-1,4-Dichloro-2-butene	ND	0.0032	0.00046	mg/Kg dry	1		SW-846 8260D	10/12/21	10/12/21 14:17	MFF
Dichlorodifluoromethane (Freon 12)	ND	0.016	0.00094	mg/Kg dry	1	V-05	SW-846 8260D	10/12/21	10/12/21 14:17	MFF
1,1-Dichloroethane	ND	0.0016	0.00041	mg/Kg dry	1		SW-846 8260D	10/12/21	10/12/21 14:17	MFF
1,2-Dichloroethane	ND	0.0016	0.00050	mg/Kg dry	1		SW-846 8260D	10/12/21	10/12/21 14:17	MFF
1,1-Dichloroethylene	ND	0.0032	0.0010	mg/Kg dry	1		SW-846 8260D	10/12/21	10/12/21 14:17	MFF
cis-1,2-Dichloroethylene	ND	0.0016	0.00043	mg/Kg dry	1		SW-846 8260D	10/12/21	10/12/21 14:17	MFF
trans-1,2-Dichloroethylene	ND	0.0016	0.00045	mg/Kg dry	1		SW-846 8260D	10/12/21	10/12/21 14:17	MFF
1,2-Dichloropropane	ND	0.0016	0.00038	mg/Kg dry	1		SW-846 8260D	10/12/21	10/12/21 14:17	MFF
1,3-Dichloropropane	ND	0.00081	0.00039	mg/Kg dry	1		SW-846 8260D	10/12/21	10/12/21 14:17	MFF
2,2-Dichloropropane	ND	0.0016	0.00062	mg/Kg dry	1		SW-846 8260D	10/12/21	10/12/21 14:17	MFF
1,1-Dichloropropene	ND	0.0016	0.00063	mg/Kg dry	1		SW-846 8260D	10/12/21	10/12/21 14:17	MFF
cis-1,3-Dichloropropene	ND	0.00081	0.00032	mg/Kg dry	1		SW-846 8260D	10/12/21	10/12/21 14:17	MFF
trans-1,3-Dichloropropene	ND	0.00081	0.00040	mg/Kg dry	1		SW-846 8260D	10/12/21	10/12/21 14:17	MFF
Diethyl Ether	ND	0.016	0.0018	mg/Kg dry	1		SW-846 8260D	10/12/21	10/12/21 14:17	MFF

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Project Location: 1400 N. Royal St, Alexandria, VA Sample Description: Work Order: 21J0524

Date Received: 10/9/2021

Field Sample #: HRP-SB201-10-12-211008 Sampled: 10/8/2021 11:00

Sample ID: 21J0524-11

Sample Matrix: Soil

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Diisopropyl Ether (DIPE)	ND	0.00081	0.00044	mg/Kg dry	1		SW-846 8260D	10/12/21	10/12/21 14:17	MFF
1,4-Dioxane	ND	0.081	0.018	mg/Kg dry	1		SW-846 8260D	10/12/21	10/12/21 14:17	MFF
Ethylbenzene	ND	0.0016	0.00036	mg/Kg dry	1		SW-846 8260D	10/12/21	10/12/21 14:17	MFF
Hexachlorobutadiene	ND	0.0016	0.00058	mg/Kg dry	1		SW-846 8260D	10/12/21	10/12/21 14:17	MFF
2-Hexanone (MBK)	ND	0.016	0.0047	mg/Kg dry	1		SW-846 8260D	10/12/21	10/12/21 14:17	MFF
Isopropylbenzene (Cumene)	ND	0.0016	0.00058	mg/Kg dry	1		SW-846 8260D	10/12/21	10/12/21 14:17	MFF
p-Isopropyltoluene (p-Cymene)	ND	0.0016	0.00037	mg/Kg dry	1		SW-846 8260D	10/12/21	10/12/21 14:17	MFF
Methyl Acetate	ND	0.0016	0.0011	mg/Kg dry	1		SW-846 8260D	10/12/21	10/12/21 14:17	MFF
Methyl tert-Butyl Ether (MTBE)	ND	0.0032	0.00030	mg/Kg dry	1		SW-846 8260D	10/12/21	10/12/21 14:17	MFF
Methyl Cyclohexane	ND	0.0016	0.00059	mg/Kg dry	1		SW-846 8260D	10/12/21	10/12/21 14:17	MFF
Methylene Chloride	ND	0.016	0.00045	mg/Kg dry	1		SW-846 8260D	10/12/21	10/12/21 14:17	MFF
4-Methyl-2-pentanone (MIBK)	ND	0.016	0.0036	mg/Kg dry	1		SW-846 8260D	10/12/21	10/12/21 14:17	MFF
Naphthalene	ND	0.0032	0.00042	mg/Kg dry	1		SW-846 8260D	10/12/21	10/12/21 14:17	MFF
n-Propylbenzene	ND	0.0016	0.00031	mg/Kg dry	1		SW-846 8260D	10/12/21	10/12/21 14:17	MFF
Styrene	ND	0.0016	0.00034	mg/Kg dry	1		SW-846 8260D	10/12/21	10/12/21 14:17	MFF
1,1,1,2-Tetrachloroethane	ND	0.0016	0.00045	mg/Kg dry	1		SW-846 8260D	10/12/21	10/12/21 14:17	MFF
1,1,2,2-Tetrachloroethane	ND	0.00081	0.00044	mg/Kg dry	1		SW-846 8260D	10/12/21	10/12/21 14:17	MFF
Tetrachloroethylene	ND	0.0016	0.00044	mg/Kg dry	1		SW-846 8260D	10/12/21	10/12/21 14:17	MFF
Tetrahydrofuran	ND	0.0081	0.0021	mg/Kg dry	1		SW-846 8260D	10/12/21	10/12/21 14:17	MFF
Toluene	ND	0.0016	0.00045	mg/Kg dry	1		SW-846 8260D	10/12/21	10/12/21 14:17	MFF
1,2,3-Trichlorobenzene	ND	0.0016	0.00044	mg/Kg dry	1		SW-846 8260D	10/12/21	10/12/21 14:17	MFF
1,2,4-Trichlorobenzene	ND	0.0016	0.00039	mg/Kg dry	1		SW-846 8260D	10/12/21	10/12/21 14:17	MFF
1,3,5-Trichlorobenzene	ND	0.0016	0.00040	mg/Kg dry	1		SW-846 8260D	10/12/21	10/12/21 14:17	MFF
1,1,1-Trichloroethane	ND	0.0016	0.00055	mg/Kg dry	1		SW-846 8260D	10/12/21	10/12/21 14:17	MFF
1,1,2-Trichloroethane	ND	0.0016	0.00038	mg/Kg dry	1		SW-846 8260D	10/12/21	10/12/21 14:17	MFF
Trichloroethylene	ND	0.0016	0.00040	mg/Kg dry	1		SW-846 8260D	10/12/21	10/12/21 14:17	MFF
Trichlorofluoromethane (Freon 11)	ND	0.0081	0.0029	mg/Kg dry	1		SW-846 8260D	10/12/21	10/12/21 14:17	MFF
1,2,3-Trichloropropane	ND	0.0016	0.00078	mg/Kg dry	1		SW-846 8260D	10/12/21	10/12/21 14:17	MFF
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	0.0081	0.0022	mg/Kg dry	1		SW-846 8260D	10/12/21	10/12/21 14:17	MFF
1,2,4-Trimethylbenzene	ND	0.0016	0.00052	mg/Kg dry	1		SW-846 8260D	10/12/21	10/12/21 14:17	MFF
1,3,5-Trimethylbenzene	ND	0.0016	0.00035	mg/Kg dry	1		SW-846 8260D	10/12/21	10/12/21 14:17	MFF
Vinyl Chloride	ND	0.0081	0.0025	mg/Kg dry	1		SW-846 8260D	10/12/21	10/12/21 14:17	MFF
m+p Xylene	ND	0.0032	0.00062	mg/Kg dry	1		SW-846 8260D	10/12/21	10/12/21 14:17	MFF
o-Xylene	ND	0.0016	0.00033	mg/Kg dry	1		SW-846 8260D	10/12/21	10/12/21 14:17	MFF

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
1,2-Dichloroethane-d4	99.8	70-130		10/12/21 14:17
Toluene-d8	96.4	70-130		10/12/21 14:17
4-Bromofluorobenzene	103	70-130		10/12/21 14:17

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Project Location: 1400 N. Royal St, Alexandria, VA Sample Description: Work Order: 21J0524

Date Received: 10/9/2021

Field Sample #: HRP-SB201-10-12-211008 Sampled: 10/8/2021 11:00

Sample ID: 21J0524-11

Sample Matrix: Soil

Semivolatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acenaphthene	ND	0.20	0.061	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 19:17	IMR
Acenaphthylene	ND	0.20	0.060	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 19:17	IMR
Acetophenone	ND	0.39	0.053	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 19:17	IMR
Aniline	ND	0.39	0.081	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 19:17	IMR
Anthracene	ND	0.20	0.064	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 19:17	IMR
Benzidine	ND	0.76	0.18	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 19:17	IMR
Benzo(a)anthracene	ND	0.20	0.054	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 19:17	IMR
Benzo(a)pyrene	ND	0.20	0.060	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 19:17	IMR
Benzo(b)fluoranthene	ND	0.20	0.059	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 19:17	IMR
Benzo(g,h,i)perylene	ND	0.20	0.082	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 19:17	IMR
Benzo(k)fluoranthene	ND	0.20	0.053	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 19:17	IMR
Benzoic Acid	ND	1.1	0.47	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 19:17	IMR
Bis(2-chloroethoxy)methane	ND	0.39	0.051	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 19:17	IMR
Bis(2-chloroethyl)ether	ND	0.39	0.054	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 19:17	IMR
Bis(2-chloroisopropyl)ether	ND	0.39	0.089	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 19:17	IMR
Bis(2-Ethylhexyl)phthalate	ND	0.39	0.066	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 19:17	IMR
4-Bromophenylphenylether	ND	0.39	0.050	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 19:17	IMR
Butylbenzylphthalate	ND	0.39	0.062	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 19:17	IMR
Carbazole	ND	0.20	0.064	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 19:17	IMR
4-Chloroaniline	ND	0.76	0.052	mg/Kg dry	1	V-34	SW-846 8270E	10/13/21	10/15/21 19:17	IMR
4-Chloro-3-methylphenol	ND	0.76	0.065	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 19:17	IMR
2-Chloronaphthalene	ND	0.39	0.045	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 19:17	IMR
2-Chlorophenol	ND	0.39	0.054	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 19:17	IMR
4-Chlorophenylphenylether	ND	0.39	0.056	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 19:17	IMR
Chrysene	ND	0.20	0.056	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 19:17	IMR
Dibenz(a,h)anthracene	ND	0.20	0.079	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 19:17	IMR
Dibenzofuran	ND	0.39	0.058	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 19:17	IMR
Di-n-butylphthalate	ND	0.39	0.055	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 19:17	IMR
1,2-Dichlorobenzene	ND	0.39	0.045	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 19:17	IMR
1,3-Dichlorobenzene	ND	0.39	0.043	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 19:17	IMR
1,4-Dichlorobenzene	ND	0.39	0.041	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 19:17	IMR
3,3-Dichlorobenzidine	ND	0.20	0.057	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 19:17	IMR
2,4-Dichlorophenol	ND	0.39	0.058	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 19:17	IMR
Diethylphthalate	ND	0.39	0.060	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 19:17	IMR
2,4-Dimethylphenol	ND	0.39	0.11	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 19:17	IMR
Dimethylphthalate	ND	0.39	0.057	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 19:17	IMR
4,6-Dinitro-2-methylphenol	ND	0.39	0.26	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 19:17	IMR
2,4-Dinitrophenol	ND	0.76	0.34	mg/Kg dry	1	V-04, V-20	SW-846 8270E	10/13/21	10/15/21 19:17	IMR
2,4-Dinitrotoluene	ND	0.39	0.076	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 19:17	IMR
2,6-Dinitrotoluene	ND	0.39	0.065	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 19:17	IMR
Di-n-octylphthalate	ND	0.39	0.14	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 19:17	IMR
1,2-Diphenylhydrazine/Azobenzene	ND	0.39	0.056	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 19:17	IMR
Fluoranthene	0.093	0.20	0.062	mg/Kg dry	1	J	SW-846 8270E	10/13/21	10/15/21 19:17	IMR
Fluorene	ND	0.20	0.066	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 19:17	IMR

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Project Location: 1400 N. Royal St, Alexandria, VA Sample Description: Work Order: 21J0524

Date Received: 10/9/2021

Field Sample #: HRP-SB201-10-12-211008 Sampled: 10/8/2021 11:00

Sample ID: 21J0524-11

Sample Matrix: Soil

Semivolatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Hexachlorobenzene	ND	0.39	0.053	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 19:17	IMR
Hexachlorobutadiene	ND	0.39	0.050	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 19:17	IMR
Hexachlorocyclopentadiene	ND	0.39	0.16	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 19:17	IMR
Hexachloroethane	ND	0.39	0.046	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 19:17	IMR
Indeno(1,2,3-cd)pyrene	ND	0.20	0.088	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 19:17	IMR
Isophorone	ND	0.39	0.065	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 19:17	IMR
1-Methylnaphthalene	ND	0.20	0.054	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 19:17	IMR
2-Methylnaphthalene	ND	0.20	0.062	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 19:17	IMR
2-Methylphenol	ND	0.39	0.072	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 19:17	IMR
3/4-Methylphenol	0.10	0.39	0.063	mg/Kg dry	1	J	SW-846 8270E	10/13/21	10/15/21 19:17	IMR
Naphthalene	ND	0.20	0.053	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 19:17	IMR
2-Nitroaniline	ND	0.39	0.083	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 19:17	IMR
3-Nitroaniline	ND	0.39	0.067	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 19:17	IMR
4-Nitroaniline	ND	0.39	0.084	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 19:17	IMR
Nitrobenzene	ND	0.39	0.057	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 19:17	IMR
2-Nitrophenol	ND	0.39	0.061	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 19:17	IMR
4-Nitrophenol	ND	0.76	0.16	mg/Kg dry	1	V-05	SW-846 8270E	10/13/21	10/15/21 19:17	IMR
N-Nitrosodimethylamine	ND	0.39	0.058	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 19:17	IMR
N-Nitrosodiphenylamine/Diphenylamine	ND	0.39	0.059	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 19:17	IMR
N-Nitrosodi-n-propylamine	ND	0.39	0.054	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 19:17	IMR
Pentachloronitrobenzene	ND	0.39	0.066	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 19:17	IMR
Pentachlorophenol	ND	0.39	0.17	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 19:17	IMR
Phenanthrene	0.062	0.20	0.062	mg/Kg dry	1	J	SW-846 8270E	10/13/21	10/15/21 19:17	IMR
Phenol	ND	0.39	0.056	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 19:17	IMR
Pyrene	0.098	0.20	0.062	mg/Kg dry	1	J	SW-846 8270E	10/13/21	10/15/21 19:17	IMR
Pyridine	ND	0.39	0.040	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 19:17	IMR
1,2,4,5-Tetrachlorobenzene	ND	0.39	0.051	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 19:17	IMR
1,2,4-Trichlorobenzene	ND	0.39	0.049	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 19:17	IMR
2,4,5-Trichlorophenol	ND	0.39	0.061	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 19:17	IMR
2,4,6-Trichlorophenol	ND	0.39	0.060	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 19:17	IMR

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
2-Fluorophenol	47.9	30-130		10/15/21 19:17
Phenol-d6	45.2	30-130		10/15/21 19:17
Nitrobenzene-d5	42.5	30-130		10/15/21 19:17
2-Fluorobiphenyl	55.8	30-130		10/15/21 19:17
2,4,6-Tribromophenol	53.4	30-130		10/15/21 19:17
p-Terphenyl-d14	67.0	30-130		10/15/21 19:17

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Project Location: 1400 N. Royal St, Alexandria, VA Sample Description: Work Order: 21J0524

Date Received: 10/9/2021

Field Sample #: HRP-SB201-10-12-211008 Sampled: 10/8/2021 11:00

Sample ID: 21J0524-11

Sample Matrix: Soil

Metals Analyses (Total)

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Aluminum	7600	19	6.9	mg/Kg dry	1		SW-846 6010D	10/11/21	10/13/21 13:31	QNW
Antimony	ND	1.9	0.76	mg/Kg dry	1		SW-846 6010D	10/11/21	10/13/21 13:31	QNW
Arsenic	9.7	3.8	1.4	mg/Kg dry	1		SW-846 6010D	10/11/21	10/13/21 13:31	QNW
Barium	58	1.9	0.72	mg/Kg dry	1		SW-846 6010D	10/11/21	10/13/21 13:31	QNW
Beryllium	0.56	0.19	0.071	mg/Kg dry	1		SW-846 6010D	10/11/21	10/13/21 13:31	QNW
Cadmium	0.24	0.38	0.19	mg/Kg dry	1	J	SW-846 6010D	10/11/21	10/13/21 13:31	QNW
Calcium	2000	19	7.3	mg/Kg dry	1		SW-846 6010D	10/11/21	10/13/21 13:31	QNW
Chromium	21	0.75	0.43	mg/Kg dry	1		SW-846 6010D	10/11/21	10/13/21 13:31	QNW
Cobalt	8.3	1.9	0.69	mg/Kg dry	1		SW-846 6010D	10/11/21	10/13/21 13:31	QNW
Copper	15	0.75	0.36	mg/Kg dry	1		SW-846 6010D	10/11/21	10/13/21 13:31	QNW
Iron	23000	380	150	mg/Kg dry	20		SW-846 6010D	10/11/21	10/15/21 18:41	MJH
Lead	11	0.56	0.27	mg/Kg dry	1		SW-846 6010D	10/11/21	10/13/21 13:31	QNW
Magnesium	1300	380	130	mg/Kg dry	20		SW-846 6010D	10/11/21	10/15/21 18:41	MJH
Manganese	260	0.38	0.15	mg/Kg dry	1		SW-846 6010D	10/11/21	10/13/21 13:31	QNW
Mercury	0.022	0.029	0.0098	mg/Kg dry	1	J	SW-846 7471B	10/11/21	10/12/21 9:52	DRL
Nickel	13	0.75	0.38	mg/Kg dry	1		SW-846 6010D	10/11/21	10/13/21 13:31	QNW
Potassium	800	190	71	mg/Kg dry	1		SW-846 6010D	10/11/21	10/15/21 19:51	MJH
Selenium	ND	3.8	1.3	mg/Kg dry	1		SW-846 6010D	10/11/21	10/13/21 13:31	QNW
Silver	ND	0.38	0.17	mg/Kg dry	1		SW-846 6010D	10/11/21	10/13/21 13:31	QNW
Sodium	ND	190	73	mg/Kg dry	1		SW-846 6010D	10/11/21	10/13/21 13:31	QNW
Thallium	1.4	1.9	0.90	mg/Kg dry	1	J	SW-846 6010D	10/11/21	10/13/21 13:31	QNW
Vanadium	22	0.75	0.37	mg/Kg dry	1		SW-846 6010D	10/11/21	10/13/21 13:31	QNW
Zinc	69	0.75	0.48	mg/Kg dry	1		SW-846 6010D	10/11/21	10/13/21 13:31	QNW

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Project Location: 1400 N. Royal St, Alexandria, VA Sample Description: Work Order: 21J0524

Date Received: 10/9/2021

Field Sample #: HRP-SB201-10-12-211008 Sampled: 10/8/2021 11:00

Sample ID: 21J0524-11

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	87.0			% Wt	1		SM 2540G	10/12/21	10/14/21 15:46	BMB

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Project Location: 1400 N. Royal St, Alexandria, VA Sample Description: Work Order: 21J0524

Date Received: 10/9/2021

Field Sample #: HRP-SB201-24-26-211008 Sampled: 10/8/2021 11:05

Sample ID: 21J0524-12

Sample Matrix: Soil

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acetone	ND	0.11	0.035	mg/Kg dry	1		SW-846 8260D	10/12/21	10/12/21 14:42	MFF
Acrylonitrile	ND	0.0066	0.0011	mg/Kg dry	1		SW-846 8260D	10/12/21	10/12/21 14:42	MFF
tert-Amyl Methyl Ether (TAME)	ND	0.0011	0.00049	mg/Kg dry	1		SW-846 8260D	10/12/21	10/12/21 14:42	MFF
Benzene	ND	0.0022	0.00051	mg/Kg dry	1		SW-846 8260D	10/12/21	10/12/21 14:42	MFF
Bromobenzene	ND	0.0022	0.00037	mg/Kg dry	1		SW-846 8260D	10/12/21	10/12/21 14:42	MFF
Bromochloromethane	ND	0.0022	0.0010	mg/Kg dry	1		SW-846 8260D	10/12/21	10/12/21 14:42	MFF
Bromodichloromethane	ND	0.0022	0.00052	mg/Kg dry	1		SW-846 8260D	10/12/21	10/12/21 14:42	MFF
Bromoform	ND	0.0022	0.00066	mg/Kg dry	1		SW-846 8260D	10/12/21	10/12/21 14:42	MFF
Bromomethane	ND	0.011	0.0040	mg/Kg dry	1	V-34	SW-846 8260D	10/12/21	10/12/21 14:42	MFF
2-Butanone (MEK)	ND	0.044	0.013	mg/Kg dry	1		SW-846 8260D	10/12/21	10/12/21 14:42	MFF
tert-Butyl Alcohol (TBA)	ND	0.11	0.053	mg/Kg dry	1	V-05	SW-846 8260D	10/12/21	10/12/21 14:42	MFF
n-Butylbenzene	ND	0.0022	0.00056	mg/Kg dry	1		SW-846 8260D	10/12/21	10/12/21 14:42	MFF
sec-Butylbenzene	ND	0.0022	0.0011	mg/Kg dry	1		SW-846 8260D	10/12/21	10/12/21 14:42	MFF
tert-Butylbenzene	ND	0.0044	0.00093	mg/Kg dry	1		SW-846 8260D	10/12/21	10/12/21 14:42	MFF
tert-Butyl Ethyl Ether (TBEE)	ND	0.0011	0.00056	mg/Kg dry	1		SW-846 8260D	10/12/21	10/12/21 14:42	MFF
Carbon Disulfide	ND	0.011	0.0078	mg/Kg dry	1		SW-846 8260D	10/12/21	10/12/21 14:42	MFF
Carbon Tetrachloride	ND	0.0022	0.00085	mg/Kg dry	1		SW-846 8260D	10/12/21	10/12/21 14:42	MFF
Chlorobenzene	ND	0.0022	0.00058	mg/Kg dry	1		SW-846 8260D	10/12/21	10/12/21 14:42	MFF
Chlorodibromomethane	ND	0.0011	0.00056	mg/Kg dry	1		SW-846 8260D	10/12/21	10/12/21 14:42	MFF
Chloroethane	ND	0.022	0.0038	mg/Kg dry	1		SW-846 8260D	10/12/21	10/12/21 14:42	MFF
Chloroform	ND	0.0044	0.0011	mg/Kg dry	1		SW-846 8260D	10/12/21	10/12/21 14:42	MFF
Chloromethane	ND	0.011	0.0035	mg/Kg dry	1		SW-846 8260D	10/12/21	10/12/21 14:42	MFF
2-Chlorotoluene	ND	0.0022	0.00050	mg/Kg dry	1		SW-846 8260D	10/12/21	10/12/21 14:42	MFF
4-Chlorotoluene	ND	0.0022	0.00038	mg/Kg dry	1		SW-846 8260D	10/12/21	10/12/21 14:42	MFF
1,2-Dibromo-3-chloropropane (DBCP)	ND	0.0022	0.00073	mg/Kg dry	1		SW-846 8260D	10/12/21	10/12/21 14:42	MFF
1,2-Dibromoethane (EDB)	ND	0.0011	0.00068	mg/Kg dry	1		SW-846 8260D	10/12/21	10/12/21 14:42	MFF
Dibromomethane	ND	0.0022	0.00080	mg/Kg dry	1		SW-846 8260D	10/12/21	10/12/21 14:42	MFF
1,2-Dichlorobenzene	ND	0.0022	0.00044	mg/Kg dry	1		SW-846 8260D	10/12/21	10/12/21 14:42	MFF
1,3-Dichlorobenzene	ND	0.0022	0.00047	mg/Kg dry	1		SW-846 8260D	10/12/21	10/12/21 14:42	MFF
1,4-Dichlorobenzene	ND	0.0022	0.00056	mg/Kg dry	1		SW-846 8260D	10/12/21	10/12/21 14:42	MFF
trans-1,4-Dichloro-2-butene	ND	0.0044	0.00062	mg/Kg dry	1		SW-846 8260D	10/12/21	10/12/21 14:42	MFF
Dichlorodifluoromethane (Freon 12)	ND	0.022	0.0013	mg/Kg dry	1	V-05	SW-846 8260D	10/12/21	10/12/21 14:42	MFF
1,1-Dichloroethane	ND	0.0022	0.00055	mg/Kg dry	1		SW-846 8260D	10/12/21	10/12/21 14:42	MFF
1,2-Dichloroethane	ND	0.0022	0.00067	mg/Kg dry	1		SW-846 8260D	10/12/21	10/12/21 14:42	MFF
1,1-Dichloroethylene	ND	0.0044	0.0014	mg/Kg dry	1		SW-846 8260D	10/12/21	10/12/21 14:42	MFF
cis-1,2-Dichloroethylene	ND	0.0022	0.00058	mg/Kg dry	1		SW-846 8260D	10/12/21	10/12/21 14:42	MFF
trans-1,2-Dichloroethylene	ND	0.0022	0.00061	mg/Kg dry	1		SW-846 8260D	10/12/21	10/12/21 14:42	MFF
1,2-Dichloropropane	ND	0.0022	0.00052	mg/Kg dry	1		SW-846 8260D	10/12/21	10/12/21 14:42	MFF
1,3-Dichloropropane	ND	0.0011	0.00053	mg/Kg dry	1		SW-846 8260D	10/12/21	10/12/21 14:42	MFF
2,2-Dichloropropane	ND	0.0022	0.00084	mg/Kg dry	1		SW-846 8260D	10/12/21	10/12/21 14:42	MFF
1,1-Dichloropropene	ND	0.0022	0.00085	mg/Kg dry	1		SW-846 8260D	10/12/21	10/12/21 14:42	MFF
cis-1,3-Dichloropropene	ND	0.0011	0.00042	mg/Kg dry	1		SW-846 8260D	10/12/21	10/12/21 14:42	MFF
trans-1,3-Dichloropropene	ND	0.0011	0.00053	mg/Kg dry	1		SW-846 8260D	10/12/21	10/12/21 14:42	MFF
Diethyl Ether	ND	0.022	0.0024	mg/Kg dry	1		SW-846 8260D	10/12/21	10/12/21 14:42	MFF

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Project Location: 1400 N. Royal St, Alexandria, VA Sample Description: Work Order: 21J0524

Date Received: 10/9/2021

Field Sample #: HRP-SB201-24-26-211008 Sampled: 10/8/2021 11:05

Sample ID: 21J0524-12

Sample Matrix: Soil

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Diisopropyl Ether (DIPE)	ND	0.0011	0.00059	mg/Kg dry	1		SW-846 8260D	10/12/21	10/12/21 14:42	MFF
1,4-Dioxane	ND	0.11	0.024	mg/Kg dry	1		SW-846 8260D	10/12/21	10/12/21 14:42	MFF
Ethylbenzene	ND	0.0022	0.00049	mg/Kg dry	1		SW-846 8260D	10/12/21	10/12/21 14:42	MFF
Hexachlorobutadiene	ND	0.0022	0.00078	mg/Kg dry	1		SW-846 8260D	10/12/21	10/12/21 14:42	MFF
2-Hexanone (MBK)	ND	0.022	0.0063	mg/Kg dry	1		SW-846 8260D	10/12/21	10/12/21 14:42	MFF
Isopropylbenzene (Cumene)	ND	0.0022	0.00078	mg/Kg dry	1		SW-846 8260D	10/12/21	10/12/21 14:42	MFF
p-Isopropyltoluene (p-Cymene)	ND	0.0022	0.00050	mg/Kg dry	1		SW-846 8260D	10/12/21	10/12/21 14:42	MFF
Methyl Acetate	ND	0.0022	0.0015	mg/Kg dry	1		SW-846 8260D	10/12/21	10/12/21 14:42	MFF
Methyl tert-Butyl Ether (MTBE)	ND	0.0044	0.00041	mg/Kg dry	1		SW-846 8260D	10/12/21	10/12/21 14:42	MFF
Methyl Cyclohexane	ND	0.0022	0.00080	mg/Kg dry	1		SW-846 8260D	10/12/21	10/12/21 14:42	MFF
Methylene Chloride	0.00068	0.022	0.00061	mg/Kg dry	1	J	SW-846 8260D	10/12/21	10/12/21 14:42	MFF
4-Methyl-2-pentanone (MIBK)	ND	0.022	0.0048	mg/Kg dry	1		SW-846 8260D	10/12/21	10/12/21 14:42	MFF
Naphthalene	ND	0.0044	0.00056	mg/Kg dry	1		SW-846 8260D	10/12/21	10/12/21 14:42	MFF
n-Propylbenzene	ND	0.0022	0.00042	mg/Kg dry	1		SW-846 8260D	10/12/21	10/12/21 14:42	MFF
Styrene	ND	0.0022	0.00046	mg/Kg dry	1		SW-846 8260D	10/12/21	10/12/21 14:42	MFF
1,1,1,2-Tetrachloroethane	ND	0.0022	0.00060	mg/Kg dry	1		SW-846 8260D	10/12/21	10/12/21 14:42	MFF
1,1,2,2-Tetrachloroethane	ND	0.0011	0.00060	mg/Kg dry	1		SW-846 8260D	10/12/21	10/12/21 14:42	MFF
Tetrachloroethylene	ND	0.0022	0.00060	mg/Kg dry	1		SW-846 8260D	10/12/21	10/12/21 14:42	MFF
Tetrahydrofuran	ND	0.011	0.0028	mg/Kg dry	1		SW-846 8260D	10/12/21	10/12/21 14:42	MFF
Toluene	ND	0.0022	0.00061	mg/Kg dry	1		SW-846 8260D	10/12/21	10/12/21 14:42	MFF
1,2,3-Trichlorobenzene	ND	0.0022	0.00060	mg/Kg dry	1		SW-846 8260D	10/12/21	10/12/21 14:42	MFF
1,2,4-Trichlorobenzene	ND	0.0022	0.00053	mg/Kg dry	1		SW-846 8260D	10/12/21	10/12/21 14:42	MFF
1,3,5-Trichlorobenzene	ND	0.0022	0.00053	mg/Kg dry	1		SW-846 8260D	10/12/21	10/12/21 14:42	MFF
1,1,1-Trichloroethane	ND	0.0022	0.00074	mg/Kg dry	1		SW-846 8260D	10/12/21	10/12/21 14:42	MFF
1,1,2-Trichloroethane	ND	0.0022	0.00051	mg/Kg dry	1		SW-846 8260D	10/12/21	10/12/21 14:42	MFF
Trichloroethylene	ND	0.0022	0.00054	mg/Kg dry	1		SW-846 8260D	10/12/21	10/12/21 14:42	MFF
Trichlorofluoromethane (Freon 11)	ND	0.011	0.0039	mg/Kg dry	1		SW-846 8260D	10/12/21	10/12/21 14:42	MFF
1,2,3-Trichloropropane	ND	0.0022	0.0010	mg/Kg dry	1		SW-846 8260D	10/12/21	10/12/21 14:42	MFF
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	0.011	0.0029	mg/Kg dry	1		SW-846 8260D	10/12/21	10/12/21 14:42	MFF
1,2,4-Trimethylbenzene	ND	0.0022	0.00071	mg/Kg dry	1		SW-846 8260D	10/12/21	10/12/21 14:42	MFF
1,3,5-Trimethylbenzene	ND	0.0022	0.00048	mg/Kg dry	1		SW-846 8260D	10/12/21	10/12/21 14:42	MFF
Vinyl Chloride	ND	0.011	0.0033	mg/Kg dry	1		SW-846 8260D	10/12/21	10/12/21 14:42	MFF
m+p Xylene	ND	0.0044	0.00083	mg/Kg dry	1		SW-846 8260D	10/12/21	10/12/21 14:42	MFF
o-Xylene	ND	0.0022	0.00045	mg/Kg dry	1		SW-846 8260D	10/12/21	10/12/21 14:42	MFF

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
1,2-Dichloroethane-d4	98.5	70-130		10/12/21 14:42
Toluene-d8	99.1	70-130		10/12/21 14:42
4-Bromofluorobenzene	105	70-130		10/12/21 14:42

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Project Location: 1400 N. Royal St, Alexandria, VA Sample Description: Work Order: 21J0524

Date Received: 10/9/2021

Field Sample #: HRP-SB201-24-26-211008 Sampled: 10/8/2021 11:05

Sample ID: 21J0524-12

Sample Matrix: Soil

Semivolatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acenaphthene	ND	0.20	0.062	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 19:43	IMR
Acenaphthylene	ND	0.20	0.061	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 19:43	IMR
Acetophenone	ND	0.40	0.054	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 19:43	IMR
Aniline	ND	0.40	0.082	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 19:43	IMR
Anthracene	ND	0.20	0.065	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 19:43	IMR
Benzidine	ND	0.77	0.18	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 19:43	IMR
Benzo(a)anthracene	ND	0.20	0.055	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 19:43	IMR
Benzo(a)pyrene	ND	0.20	0.061	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 19:43	IMR
Benzo(b)fluoranthene	ND	0.20	0.060	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 19:43	IMR
Benzo(g,h,i)perylene	ND	0.20	0.083	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 19:43	IMR
Benzo(k)fluoranthene	ND	0.20	0.054	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 19:43	IMR
Benzoic Acid	ND	1.2	0.47	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 19:43	IMR
Bis(2-chloroethoxy)methane	ND	0.40	0.051	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 19:43	IMR
Bis(2-chloroethyl)ether	ND	0.40	0.054	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 19:43	IMR
Bis(2-chloroisopropyl)ether	ND	0.40	0.090	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 19:43	IMR
Bis(2-Ethylhexyl)phthalate	ND	0.40	0.067	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 19:43	IMR
4-Bromophenylphenylether	ND	0.40	0.051	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 19:43	IMR
Butylbenzylphthalate	ND	0.40	0.063	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 19:43	IMR
Carbazole	ND	0.20	0.065	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 19:43	IMR
4-Chloroaniline	ND	0.77	0.053	mg/Kg dry	1	V-34	SW-846 8270E	10/13/21	10/15/21 19:43	IMR
4-Chloro-3-methylphenol	ND	0.77	0.066	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 19:43	IMR
2-Chloronaphthalene	ND	0.40	0.046	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 19:43	IMR
2-Chlorophenol	ND	0.40	0.055	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 19:43	IMR
4-Chlorophenylphenylether	ND	0.40	0.056	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 19:43	IMR
Chrysene	ND	0.20	0.057	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 19:43	IMR
Dibenz(a,h)anthracene	ND	0.20	0.080	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 19:43	IMR
Dibenzofuran	ND	0.40	0.058	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 19:43	IMR
Di-n-butylphthalate	ND	0.40	0.056	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 19:43	IMR
1,2-Dichlorobenzene	ND	0.40	0.045	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 19:43	IMR
1,3-Dichlorobenzene	ND	0.40	0.043	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 19:43	IMR
1,4-Dichlorobenzene	ND	0.40	0.041	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 19:43	IMR
3,3-Dichlorobenzidine	ND	0.20	0.058	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 19:43	IMR
2,4-Dichlorophenol	ND	0.40	0.059	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 19:43	IMR
Diethylphthalate	ND	0.40	0.060	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 19:43	IMR
2,4-Dimethylphenol	ND	0.40	0.11	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 19:43	IMR
Dimethylphthalate	ND	0.40	0.058	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 19:43	IMR
4,6-Dinitro-2-methylphenol	ND	0.40	0.27	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 19:43	IMR
2,4-Dinitrophenol	ND	0.77	0.34	mg/Kg dry	1	V-04, V-20	SW-846 8270E	10/13/21	10/15/21 19:43	IMR
2,4-Dinitrotoluene	ND	0.40	0.077	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 19:43	IMR
2,6-Dinitrotoluene	ND	0.40	0.066	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 19:43	IMR
Di-n-octylphthalate	ND	0.40	0.14	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 19:43	IMR
1,2-Diphenylhydrazine/Azobenzene	ND	0.40	0.057	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 19:43	IMR
Fluoranthene	ND	0.20	0.063	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 19:43	IMR
Fluorene	ND	0.20	0.067	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 19:43	IMR

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Project Location: 1400 N. Royal St, Alexandria, VA Sample Description: Work Order: 21J0524

Date Received: 10/9/2021

Field Sample #: HRP-SB201-24-26-211008 Sampled: 10/8/2021 11:05

Sample ID: 21J0524-12

Sample Matrix: Soil

Semivolatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Hexachlorobenzene	ND	0.40	0.054	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 19:43	IMR
Hexachlorobutadiene	ND	0.40	0.051	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 19:43	IMR
Hexachlorocyclopentadiene	ND	0.40	0.17	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 19:43	IMR
Hexachloroethane	ND	0.40	0.047	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 19:43	IMR
Indeno(1,2,3-cd)pyrene	ND	0.20	0.090	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 19:43	IMR
Isophorone	ND	0.40	0.066	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 19:43	IMR
1-Methylnaphthalene	ND	0.20	0.055	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 19:43	IMR
2-Methylnaphthalene	ND	0.20	0.063	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 19:43	IMR
2-Methylphenol	ND	0.40	0.073	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 19:43	IMR
3/4-Methylphenol	ND	0.40	0.064	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 19:43	IMR
Naphthalene	ND	0.20	0.054	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 19:43	IMR
2-Nitroaniline	ND	0.40	0.084	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 19:43	IMR
3-Nitroaniline	ND	0.40	0.067	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 19:43	IMR
4-Nitroaniline	ND	0.40	0.085	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 19:43	IMR
Nitrobenzene	ND	0.40	0.057	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 19:43	IMR
2-Nitrophenol	ND	0.40	0.062	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 19:43	IMR
4-Nitrophenol	ND	0.77	0.16	mg/Kg dry	1	V-05	SW-846 8270E	10/13/21	10/15/21 19:43	IMR
N-Nitrosodimethylamine	ND	0.40	0.059	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 19:43	IMR
N-Nitrosodiphenylamine/Diphenylamine	ND	0.40	0.059	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 19:43	IMR
N-Nitrosodi-n-propylamine	ND	0.40	0.054	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 19:43	IMR
Pentachloronitrobenzene	ND	0.40	0.067	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 19:43	IMR
Pentachlorophenol	ND	0.40	0.17	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 19:43	IMR
Phenanthrene	ND	0.20	0.062	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 19:43	IMR
Phenol	ND	0.40	0.056	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 19:43	IMR
Pyrene	ND	0.20	0.063	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 19:43	IMR
Pyridine	ND	0.40	0.040	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 19:43	IMR
1,2,4,5-Tetrachlorobenzene	ND	0.40	0.052	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 19:43	IMR
1,2,4-Trichlorobenzene	ND	0.40	0.050	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 19:43	IMR
2,4,5-Trichlorophenol	ND	0.40	0.062	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 19:43	IMR
2,4,6-Trichlorophenol	ND	0.40	0.061	mg/Kg dry	1		SW-846 8270E	10/13/21	10/15/21 19:43	IMR

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
2-Fluorophenol	49.2	30-130		10/15/21 19:43
Phenol-d6	46.6	30-130		10/15/21 19:43
Nitrobenzene-d5	46.2	30-130		10/15/21 19:43
2-Fluorobiphenyl	58.2	30-130		10/15/21 19:43
2,4,6-Tribromophenol	70.8	30-130		10/15/21 19:43
p-Terphenyl-d14	75.9	30-130		10/15/21 19:43

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Project Location: 1400 N. Royal St, Alexandria, VA Sample Description: Work Order: 21J0524

Date Received: 10/9/2021

Field Sample #: HRP-SB201-24-26-211008 Sampled: 10/8/2021 11:05

Sample ID: 21J0524-12

Sample Matrix: Soil

Metals Analyses (Total)

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Aluminum	9600	19	7.0	mg/Kg dry	1		SW-846 6010D	10/11/21	10/13/21 13:38	QNW
Antimony	ND	1.9	0.78	mg/Kg dry	1		SW-846 6010D	10/11/21	10/13/21 13:38	QNW
Arsenic	2.7	3.8	1.4	mg/Kg dry	1	J	SW-846 6010D	10/11/21	10/13/21 13:38	QNW
Barium	72	1.9	0.73	mg/Kg dry	1		SW-846 6010D	10/11/21	10/13/21 13:38	QNW
Beryllium	0.80	0.19	0.073	mg/Kg dry	1		SW-846 6010D	10/11/21	10/13/21 13:38	QNW
Cadmium	ND	0.38	0.20	mg/Kg dry	1		SW-846 6010D	10/11/21	10/13/21 13:38	QNW
Calcium	1200	19	7.5	mg/Kg dry	1		SW-846 6010D	10/11/21	10/13/21 13:38	QNW
Chromium	13	0.77	0.44	mg/Kg dry	1		SW-846 6010D	10/11/21	10/13/21 13:38	QNW
Cobalt	14	1.9	0.71	mg/Kg dry	1		SW-846 6010D	10/11/21	10/13/21 13:38	QNW
Copper	14	0.77	0.37	mg/Kg dry	1		SW-846 6010D	10/11/21	10/13/21 13:38	QNW
Iron	24000	380	150	mg/Kg dry	20		SW-846 6010D	10/11/21	10/15/21 18:46	MJH
Lead	8.3	0.58	0.28	mg/Kg dry	1		SW-846 6010D	10/11/21	10/13/21 13:38	QNW
Magnesium	1700	380	130	mg/Kg dry	20		SW-846 6010D	10/11/21	10/15/21 18:46	MJH
Manganese	130	0.38	0.15	mg/Kg dry	1		SW-846 6010D	10/11/21	10/13/21 13:38	QNW
Mercury	0.018	0.032	0.011	mg/Kg dry	1	J	SW-846 7471B	10/11/21	10/12/21 9:54	DRL
Nickel	15	0.77	0.39	mg/Kg dry	1		SW-846 6010D	10/11/21	10/13/21 13:38	QNW
Potassium	860	190	72	mg/Kg dry	1		SW-846 6010D	10/11/21	10/15/21 19:57	MJH
Selenium	ND	3.8	1.4	mg/Kg dry	1		SW-846 6010D	10/11/21	10/13/21 13:38	QNW
Silver	ND	0.38	0.18	mg/Kg dry	1		SW-846 6010D	10/11/21	10/13/21 13:38	QNW
Sodium	ND	190	75	mg/Kg dry	1		SW-846 6010D	10/11/21	10/13/21 13:38	QNW
Thallium	1.3	1.9	0.92	mg/Kg dry	1	J	SW-846 6010D	10/11/21	10/13/21 13:38	QNW
Vanadium	25	0.77	0.38	mg/Kg dry	1		SW-846 6010D	10/11/21	10/13/21 13:38	QNW
Zinc	44	0.77	0.49	mg/Kg dry	1		SW-846 6010D	10/11/21	10/13/21 13:38	QNW

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Project Location: 1400 N. Royal St, Alexandria, VA Sample Description: Work Order: 21J0524

Date Received: 10/9/2021

Field Sample #: HRP-SB201-24-26-211008 Sampled: 10/8/2021 11:05

Sample ID: 21J0524-12

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	85.9			% Wt	1		SM 2540G	10/12/21	10/14/21 15:46	BMB

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Sample Extraction Data

Prep Method: % Solids **Analytical Method: SM 2540G**

Lab Number [Field ID]	Batch	Date
21J0524-01 [HRP-SB221-0-1-211005]	B292290	10/12/21
21J0524-02 [HRP-SB221-4-5-211005]	B292290	10/12/21
21J0524-03 [HRP-SB226-0-1-211005]	B292290	10/12/21
21J0524-06 [HRP-SB202-0-1-211007]	B292290	10/12/21
21J0524-07 [HRP-SB202-25-30-211007]	B292290	10/12/21
21J0524-09 [HRP-SB201-0-1-211008]	B292290	10/12/21
21J0524-10 [HRP-DUP01-0-1-211008]	B292290	10/12/21
21J0524-11 [HRP-SB201-10-12-211008]	B292290	10/12/21
21J0524-12 [HRP-SB201-24-26-211008]	B292290	10/12/21

Prep Method: SW-846 3050B **Analytical Method: SW-846 6010D**

Lab Number [Field ID]	Batch	Initial [g]	Final [mL]	Date
21J0524-03 [HRP-SB226-0-1-211005]	B292205	1.53	50.0	10/11/21
21J0524-06 [HRP-SB202-0-1-211007]	B292205	1.56	50.0	10/11/21
21J0524-07 [HRP-SB202-25-30-211007]	B292205	1.50	50.0	10/11/21
21J0524-09 [HRP-SB201-0-1-211008]	B292205	1.55	50.0	10/11/21
21J0524-10 [HRP-DUP01-0-1-211008]	B292205	1.55	50.0	10/11/21
21J0524-11 [HRP-SB201-10-12-211008]	B292205	1.53	50.0	10/11/21
21J0524-12 [HRP-SB201-24-26-211008]	B292205	1.51	50.0	10/11/21

Prep Method: SW-846 3050B **Analytical Method: SW-846 6010D**

Lab Number [Field ID]	Batch	Initial [g]	Final [mL]	Date
21J0524-10 [HRP-DUP01-0-1-211008]	B292300	1.51	50.0	10/12/21

Prep Method: SW-846 3005A **Analytical Method: SW-846 6010D**

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
21J0524-08 [HRP-EB02-211007]	B292561	50.0	50.0	10/15/21

Prep Method: SW-846 3005A **Analytical Method: SW-846 6020B**

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
21J0524-08 [HRP-EB02-211007]	B292487	50.0	50.0	10/14/21

Prep Method: SW-846 7470A Prep **Analytical Method: SW-846 7470A**

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
21J0524-08 [HRP-EB02-211007]	B292509	10.0	10.0	10/15/21

Prep Method: SW-846 7471 **Analytical Method: SW-846 7471B**

Lab Number [Field ID]	Batch	Initial [g]	Final [mL]	Date
21J0524-03 [HRP-SB226-0-1-211005]	B292195	0.565	50.0	10/11/21
21J0524-06 [HRP-SB202-0-1-211007]	B292195	0.533	50.0	10/11/21
21J0524-07 [HRP-SB202-25-30-211007]	B292195	0.588	50.0	10/11/21

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Sample Extraction Data

Prep Method: SW-846 7471 **Analytical Method: SW-846 7471B**

Lab Number [Field ID]	Batch	Initial [g]	Final [mL]	Date
21J0524-09 [HRP-SB201-0-1-211008]	B292195	0.582	50.0	10/11/21
21J0524-10 [HRP-DUP01-0-1-211008]	B292195	0.557	50.0	10/11/21
21J0524-11 [HRP-SB201-10-12-211008]	B292195	0.600	50.0	10/11/21
21J0524-12 [HRP-SB201-24-26-211008]	B292195	0.552	50.0	10/11/21

Prep Method: SW-846 3546 **Analytical Method: SW-846 8082A**

Lab Number [Field ID]	Batch	Initial [g]	Final [mL]	Date
21J0524-01 [HRP-SB221-0-1-211005]	B292281	10.0	10.0	10/12/21
21J0524-02 [HRP-SB221-4-5-211005]	B292281	10.0	10.0	10/12/21
21J0524-03 [HRP-SB226-0-1-211005]	B292281	10.0	10.0	10/12/21

Prep Method: SW-846 3510C **Analytical Method: SW-846 8082A**

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
21J0524-05 [HRP-EB01-211007]	B292279	1020	10.0	10/12/21

Prep Method: SW-846 5035 **Analytical Method: SW-846 8260D**

Lab Number [Field ID]	Batch	Initial [g]	Final [mL]	Date
21J0524-07 [HRP-SB202-25-30-211007]	B292273	7.21	10.0	10/12/21
21J0524-11 [HRP-SB201-10-12-211008]	B292273	7.08	10.0	10/12/21
21J0524-12 [HRP-SB201-24-26-211008]	B292273	5.33	10.0	10/12/21

Prep Method: SW-846 3546 **Analytical Method: SW-846 8270E**

Lab Number [Field ID]	Batch	Initial [g]	Final [mL]	Date
21J0524-03 [HRP-SB226-0-1-211005]	B292394	30.0	1.00	10/13/21
21J0524-06 [HRP-SB202-0-1-211007]	B292394	30.0	1.00	10/13/21
21J0524-07 [HRP-SB202-25-30-211007]	B292394	30.0	1.00	10/13/21
21J0524-09 [HRP-SB201-0-1-211008]	B292394	30.0	1.00	10/13/21
21J0524-10 [HRP-DUP01-0-1-211008]	B292394	30.0	1.00	10/13/21
21J0524-11 [HRP-SB201-10-12-211008]	B292394	30.0	1.00	10/13/21
21J0524-12 [HRP-SB201-24-26-211008]	B292394	30.0	1.00	10/13/21

Prep Method: SW-846 3510C **Analytical Method: SW-846 8270E**

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
21J0524-08 [HRP-EB02-211007]	B292324	1000	1.00	10/13/21

Prep Method: SW-846 9010C **Analytical Method: SW-846 9014**

Lab Number [Field ID]	Batch	Initial [g]	Final [mL]	Date
21J0524-03 [HRP-SB226-0-1-211005]	B292228	1.01	50.0	10/12/21

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Sample Extraction Data

SW-846 9045C

Lab Number [Field ID]	Batch	Initial [g]	Date
21J0524-03 [HRP-SB226-0-1-211005]	B292214	20.0	10/11/21

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QUALITY CONTROL

Volatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B292273 - SW-846 5035										
Blank (B292273-BLK1)				Prepared & Analyzed: 10/12/21						
Acetone	ND	0.10	mg/Kg wet							
Acrylonitrile	ND	0.0060	mg/Kg wet							
tert-Amyl Methyl Ether (TAME)	ND	0.0010	mg/Kg wet							
Benzene	ND	0.0020	mg/Kg wet							
Bromobenzene	ND	0.0020	mg/Kg wet							
Bromochloromethane	ND	0.0020	mg/Kg wet							
Bromodichloromethane	ND	0.0020	mg/Kg wet							
Bromoform	ND	0.0020	mg/Kg wet							
Bromomethane	ND	0.010	mg/Kg wet							V-34
2-Butanone (MEK)	ND	0.040	mg/Kg wet							
tert-Butyl Alcohol (TBA)	ND	0.10	mg/Kg wet							V-05
n-Butylbenzene	ND	0.0020	mg/Kg wet							
sec-Butylbenzene	ND	0.0020	mg/Kg wet							
tert-Butylbenzene	ND	0.0020	mg/Kg wet							
tert-Butyl Ethyl Ether (TBEE)	ND	0.0010	mg/Kg wet							
Carbon Disulfide	ND	0.010	mg/Kg wet							
Carbon Tetrachloride	ND	0.0020	mg/Kg wet							
Chlorobenzene	ND	0.0020	mg/Kg wet							
Chlorodibromomethane	ND	0.0010	mg/Kg wet							
Chloroethane	ND	0.020	mg/Kg wet							
Chloroform	ND	0.0040	mg/Kg wet							
Chloromethane	ND	0.010	mg/Kg wet							
2-Chlorotoluene	ND	0.0020	mg/Kg wet							
4-Chlorotoluene	ND	0.0020	mg/Kg wet							
1,2-Dibromo-3-chloropropane (DBCP)	ND	0.0020	mg/Kg wet							
1,2-Dibromoethane (EDB)	ND	0.0010	mg/Kg wet							
Dibromomethane	ND	0.0020	mg/Kg wet							
1,2-Dichlorobenzene	ND	0.0020	mg/Kg wet							
1,3-Dichlorobenzene	ND	0.0020	mg/Kg wet							
1,4-Dichlorobenzene	ND	0.0020	mg/Kg wet							
trans-1,4-Dichloro-2-butene	ND	0.0040	mg/Kg wet							
Dichlorodifluoromethane (Freon 12)	ND	0.020	mg/Kg wet							V-05
1,1-Dichloroethane	ND	0.0020	mg/Kg wet							
1,2-Dichloroethane	ND	0.0020	mg/Kg wet							
1,1-Dichloroethylene	ND	0.0040	mg/Kg wet							
cis-1,2-Dichloroethylene	ND	0.0020	mg/Kg wet							
trans-1,2-Dichloroethylene	ND	0.0020	mg/Kg wet							
1,2-Dichloropropane	ND	0.0020	mg/Kg wet							
1,3-Dichloropropane	ND	0.0010	mg/Kg wet							
2,2-Dichloropropane	ND	0.0020	mg/Kg wet							
1,1-Dichloropropene	ND	0.0020	mg/Kg wet							
cis-1,3-Dichloropropene	ND	0.0010	mg/Kg wet							
trans-1,3-Dichloropropene	ND	0.0010	mg/Kg wet							
Diethyl Ether	ND	0.020	mg/Kg wet							
Diisopropyl Ether (DIPE)	ND	0.0010	mg/Kg wet							
1,4-Dioxane	ND	0.10	mg/Kg wet							
Ethylbenzene	ND	0.0020	mg/Kg wet							
Hexachlorobutadiene	ND	0.0020	mg/Kg wet							
2-Hexanone (MBK)	ND	0.020	mg/Kg wet							
Isopropylbenzene (Cumene)	ND	0.0020	mg/Kg wet							
p-Isopropyltoluene (p-Cymene)	ND	0.0020	mg/Kg wet							
Methyl Acetate	ND	0.0020	mg/Kg wet							

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QUALITY CONTROL

Volatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes	
Batch B292273 - SW-846 5035											
Blank (B292273-BLK1)				Prepared & Analyzed: 10/12/21							
Methyl tert-Butyl Ether (MTBE)	ND	0.0040	mg/Kg wet								
Methyl Cyclohexane	ND	0.0020	mg/Kg wet								
Methylene Chloride	ND	0.020	mg/Kg wet								
4-Methyl-2-pentanone (MIBK)	ND	0.020	mg/Kg wet								
Naphthalene	ND	0.0040	mg/Kg wet								
n-Propylbenzene	ND	0.0020	mg/Kg wet								
Styrene	ND	0.0020	mg/Kg wet								
1,1,1,2-Tetrachloroethane	ND	0.0020	mg/Kg wet								
1,1,2,2-Tetrachloroethane	ND	0.0010	mg/Kg wet								
Tetrachloroethylene	ND	0.0020	mg/Kg wet								
Tetrahydrofuran	ND	0.010	mg/Kg wet								
Toluene	ND	0.0020	mg/Kg wet								
1,2,3-Trichlorobenzene	ND	0.0020	mg/Kg wet								
1,2,4-Trichlorobenzene	ND	0.0020	mg/Kg wet								
1,3,5-Trichlorobenzene	ND	0.0020	mg/Kg wet								
1,1,1-Trichloroethane	ND	0.0020	mg/Kg wet								
1,1,2-Trichloroethane	ND	0.0020	mg/Kg wet								
Trichloroethylene	ND	0.0020	mg/Kg wet								
Trichlorofluoromethane (Freon 11)	ND	0.010	mg/Kg wet								
1,2,3-Trichloropropane	ND	0.0020	mg/Kg wet								
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	0.010	mg/Kg wet								
1,2,4-Trimethylbenzene	ND	0.0020	mg/Kg wet								
1,3,5-Trimethylbenzene	ND	0.0020	mg/Kg wet								
Vinyl Chloride	ND	0.010	mg/Kg wet								
m+p Xylene	ND	0.0040	mg/Kg wet								
o-Xylene	ND	0.0020	mg/Kg wet								
Surrogate: 1,2-Dichloroethane-d4	*0.0496*		mg/Kg wet	0.0500		99.1	70-130				
Surrogate: Toluene-d8	*0.0495*		mg/Kg wet	0.0500		99.0	70-130				
Surrogate: 4-Bromofluorobenzene	*0.0521*		mg/Kg wet	0.0500		104	70-130				
LCS (B292273-BS1)				Prepared & Analyzed: 10/12/21							
Acetone	0.173	0.10	mg/Kg wet	0.200		86.6	70-160			V-36	†
Acrylonitrile	0.0196	0.0060	mg/Kg wet	0.0200		98.2	70-130				
tert-Amyl Methyl Ether (TAME)	0.0168	0.0010	mg/Kg wet	0.0200		83.8	70-130				
Benzene	0.0191	0.0020	mg/Kg wet	0.0200		95.4	70-130				
Bromobenzene	0.0225	0.0020	mg/Kg wet	0.0200		113	70-130				
Bromochloromethane	0.0205	0.0020	mg/Kg wet	0.0200		102	70-130				
Bromodichloromethane	0.0202	0.0020	mg/Kg wet	0.0200		101	70-130				
Bromoform	0.0205	0.0020	mg/Kg wet	0.0200		102	70-130				
Bromomethane	0.0218	0.010	mg/Kg wet	0.0200		109	40-130			V-34	†
2-Butanone (MEK)	0.179	0.040	mg/Kg wet	0.200		89.5	70-160				†
tert-Butyl Alcohol (TBA)	0.148	0.10	mg/Kg wet	0.200		74.2	40-130			V-05	†
n-Butylbenzene	0.0198	0.0020	mg/Kg wet	0.0200		99.0	70-130				
sec-Butylbenzene	0.0193	0.0020	mg/Kg wet	0.0200		96.7	70-130				
tert-Butylbenzene	0.0187	0.0020	mg/Kg wet	0.0200		93.4	70-160				†
tert-Butyl Ethyl Ether (TBEE)	0.0167	0.0010	mg/Kg wet	0.0200		83.6	70-130				
Carbon Disulfide	0.185	0.010	mg/Kg wet	0.200		92.4	70-130				
Carbon Tetrachloride	0.0192	0.0020	mg/Kg wet	0.0200		96.2	70-130				
Chlorobenzene	0.0198	0.0020	mg/Kg wet	0.0200		98.8	70-130				
Chlorodibromomethane	0.0208	0.0010	mg/Kg wet	0.0200		104	70-130				
Chloroethane	0.0205	0.020	mg/Kg wet	0.0200		103	70-130				
Chloroform	0.0196	0.0040	mg/Kg wet	0.0200		97.8	70-130				

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QUALITY CONTROL

Volatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes	
Batch B292273 - SW-846 5035											
LCS (B292273-BS1)				Prepared & Analyzed: 10/12/21							
Chloromethane	0.0161	0.010	mg/Kg wet	0.0200		80.7	70-130				
2-Chlorotoluene	0.0209	0.0020	mg/Kg wet	0.0200		104	70-130				
4-Chlorotoluene	0.0219	0.0020	mg/Kg wet	0.0200		109	70-130				
1,2-Dibromo-3-chloropropane (DBCP)	0.0175	0.0020	mg/Kg wet	0.0200		87.7	70-130				
1,2-Dibromoethane (EDB)	0.0208	0.0010	mg/Kg wet	0.0200		104	70-130				
Dibromomethane	0.0207	0.0020	mg/Kg wet	0.0200		104	70-130				
1,2-Dichlorobenzene	0.0205	0.0020	mg/Kg wet	0.0200		103	70-130				
1,3-Dichlorobenzene	0.0195	0.0020	mg/Kg wet	0.0200		97.4	70-130				
1,4-Dichlorobenzene	0.0188	0.0020	mg/Kg wet	0.0200		94.2	70-130				
trans-1,4-Dichloro-2-butene	0.0198	0.0040	mg/Kg wet	0.0200		99.2	70-130				
Dichlorodifluoromethane (Freon 12)	0.0146	0.020	mg/Kg wet	0.0200		73.1	40-160			V-05, J	†
1,1-Dichloroethane	0.0193	0.0020	mg/Kg wet	0.0200		96.6	70-130				
1,2-Dichloroethane	0.0201	0.0020	mg/Kg wet	0.0200		100	70-130				
1,1-Dichloroethylene	0.0187	0.0040	mg/Kg wet	0.0200		93.6	70-130				
cis-1,2-Dichloroethylene	0.0199	0.0020	mg/Kg wet	0.0200		99.4	70-130				
trans-1,2-Dichloroethylene	0.0194	0.0020	mg/Kg wet	0.0200		97.1	70-130				
1,2-Dichloropropane	0.0195	0.0020	mg/Kg wet	0.0200		97.6	70-130				
1,3-Dichloropropane	0.0212	0.0010	mg/Kg wet	0.0200		106	70-130				
2,2-Dichloropropane	0.0184	0.0020	mg/Kg wet	0.0200		91.8	70-130				
1,1-Dichloropropene	0.0188	0.0020	mg/Kg wet	0.0200		94.0	70-130				
cis-1,3-Dichloropropene	0.0207	0.0010	mg/Kg wet	0.0200		104	70-130				
trans-1,3-Dichloropropene	0.0174	0.0010	mg/Kg wet	0.0200		86.9	70-130				
Diethyl Ether	0.0207	0.020	mg/Kg wet	0.0200		104	70-130				
Diisopropyl Ether (DIPE)	0.0198	0.0010	mg/Kg wet	0.0200		99.0	70-130				
1,4-Dioxane	0.154	0.10	mg/Kg wet	0.200		77.0	40-160				†
Ethylbenzene	0.0213	0.0020	mg/Kg wet	0.0200		106	70-130				
Hexachlorobutadiene	0.0190	0.0020	mg/Kg wet	0.0200		95.2	70-160				
2-Hexanone (MBK)	0.195	0.020	mg/Kg wet	0.200		97.3	70-160			V-36	†
Isopropylbenzene (Cumene)	0.0211	0.0020	mg/Kg wet	0.0200		105	70-130				
p-Isopropyltoluene (p-Cymene)	0.0202	0.0020	mg/Kg wet	0.0200		101	70-130				
Methyl Acetate	0.0173	0.0020	mg/Kg wet	0.0200		86.4	70-130				
Methyl tert-Butyl Ether (MTBE)	0.0194	0.0040	mg/Kg wet	0.0200		97.2	70-130				
Methyl Cyclohexane	0.0201	0.0020	mg/Kg wet	0.0200		101	70-130				
Methylene Chloride	0.0194	0.020	mg/Kg wet	0.0200		96.9	40-160			J	†
4-Methyl-2-pentanone (MIBK)	0.198	0.020	mg/Kg wet	0.200		99.1	70-160				†
Naphthalene	0.0187	0.0040	mg/Kg wet	0.0200		93.4	40-130				†
n-Propylbenzene	0.0222	0.0020	mg/Kg wet	0.0200		111	70-130				
Styrene	0.0229	0.0020	mg/Kg wet	0.0200		114	70-130				
1,1,1,2-Tetrachloroethane	0.0207	0.0020	mg/Kg wet	0.0200		103	70-130				
1,1,2,2-Tetrachloroethane	0.0204	0.0010	mg/Kg wet	0.0200		102	70-130				
Tetrachloroethylene	0.0194	0.0020	mg/Kg wet	0.0200		97.1	70-130				
Tetrahydrofuran	0.0174	0.010	mg/Kg wet	0.0200		86.8	70-130				
Toluene	0.0191	0.0020	mg/Kg wet	0.0200		95.4	70-130				
1,2,3-Trichlorobenzene	0.0205	0.0020	mg/Kg wet	0.0200		102	70-130				
1,2,4-Trichlorobenzene	0.0193	0.0020	mg/Kg wet	0.0200		96.7	70-130				
1,3,5-Trichlorobenzene	0.0188	0.0020	mg/Kg wet	0.0200		93.9	70-130				
1,1,1-Trichloroethane	0.0190	0.0020	mg/Kg wet	0.0200		95.2	70-130				
1,1,2-Trichloroethane	0.0206	0.0020	mg/Kg wet	0.0200		103	70-130				
Trichloroethylene	0.0193	0.0020	mg/Kg wet	0.0200		96.4	70-130				
Trichlorofluoromethane (Freon 11)	0.0202	0.010	mg/Kg wet	0.0200		101	70-130				
1,2,3-Trichloropropane	0.0172	0.0020	mg/Kg wet	0.0200		85.9	70-130				

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QUALITY CONTROL

Volatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes	
Batch B292273 - SW-846 5035											
LCS (B292273-BS1)				Prepared & Analyzed: 10/12/21							
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	0.0198	0.010	mg/Kg wet	0.0200		98.9	70-130				
1,2,4-Trimethylbenzene	0.0195	0.0020	mg/Kg wet	0.0200		97.3	70-130				
1,3,5-Trimethylbenzene	0.0221	0.0020	mg/Kg wet	0.0200		111	70-130				
Vinyl Chloride	0.0184	0.010	mg/Kg wet	0.0200		92.2	40-130				†
m+p Xylene	0.0442	0.0040	mg/Kg wet	0.0400		111	70-130				
o-Xylene	0.0223	0.0020	mg/Kg wet	0.0200		111	70-130				
Surrogate: 1,2-Dichloroethane-d4	*0.0481*		mg/Kg wet	0.0500		96.2	70-130				
Surrogate: Toluene-d8	*0.0492*		mg/Kg wet	0.0500		98.4	70-130				
Surrogate: 4-Bromofluorobenzene	*0.0527*		mg/Kg wet	0.0500		105	70-130				
LCS Dup (B292273-BSD1)				Prepared & Analyzed: 10/12/21							
Acetone	0.180	0.10	mg/Kg wet	0.200		90.2	70-160	4.04	25	V-36	†
Acrylonitrile	0.0209	0.0060	mg/Kg wet	0.0200		104	70-130	6.22	25		
tert-Amyl Methyl Ether (TAME)	0.0164	0.0010	mg/Kg wet	0.0200		82.2	70-130	1.93	25		
Benzene	0.0181	0.0020	mg/Kg wet	0.0200		90.6	70-130	5.16	25		
Bromobenzene	0.0217	0.0020	mg/Kg wet	0.0200		109	70-130	3.52	25		
Bromochloromethane	0.0191	0.0020	mg/Kg wet	0.0200		95.6	70-130	6.77	25		
Bromodichloromethane	0.0204	0.0020	mg/Kg wet	0.0200		102	70-130	1.28	25		
Bromoform	0.0208	0.0020	mg/Kg wet	0.0200		104	70-130	1.45	25		
Bromomethane	0.0198	0.010	mg/Kg wet	0.0200		98.9	40-130	9.81	25	V-34	†
2-Butanone (MEK)	0.190	0.040	mg/Kg wet	0.200		95.2	70-160	6.20	25		†
tert-Butyl Alcohol (TBA)	0.164	0.10	mg/Kg wet	0.200		81.8	40-130	9.71	25	V-05	†
n-Butylbenzene	0.0188	0.0020	mg/Kg wet	0.0200		93.9	70-130	5.29	25		
sec-Butylbenzene	0.0182	0.0020	mg/Kg wet	0.0200		91.1	70-130	5.96	25		
tert-Butylbenzene	0.0176	0.0020	mg/Kg wet	0.0200		88.0	70-160	5.95	25		†
tert-Butyl Ethyl Ether (TBEE)	0.0163	0.0010	mg/Kg wet	0.0200		81.7	70-130	2.30	25		
Carbon Disulfide	0.172	0.010	mg/Kg wet	0.200		86.2	70-130	7.05	25		
Carbon Tetrachloride	0.0181	0.0020	mg/Kg wet	0.0200		90.5	70-130	6.11	25		
Chlorobenzene	0.0192	0.0020	mg/Kg wet	0.0200		95.9	70-130	2.98	25		
Chlorodibromomethane	0.0215	0.0010	mg/Kg wet	0.0200		108	70-130	3.50	25		
Chloroethane	0.0185	0.020	mg/Kg wet	0.0200		92.7	70-130	10.2	25	J	
Chloroform	0.0185	0.0040	mg/Kg wet	0.0200		92.7	70-130	5.35	25		
Chloromethane	0.0152	0.010	mg/Kg wet	0.0200		76.2	70-130	5.74	25		
2-Chlorotoluene	0.0192	0.0020	mg/Kg wet	0.0200		96.2	70-130	8.08	25		
4-Chlorotoluene	0.0206	0.0020	mg/Kg wet	0.0200		103	70-130	6.22	25		
1,2-Dibromo-3-chloropropane (DBCP)	0.0182	0.0020	mg/Kg wet	0.0200		91.0	70-130	3.69	25		
1,2-Dibromoethane (EDB)	0.0213	0.0010	mg/Kg wet	0.0200		107	70-130	2.66	25		
Dibromomethane	0.0214	0.0020	mg/Kg wet	0.0200		107	70-130	3.14	25		
1,2-Dichlorobenzene	0.0195	0.0020	mg/Kg wet	0.0200		97.5	70-130	5.19	25		
1,3-Dichlorobenzene	0.0189	0.0020	mg/Kg wet	0.0200		94.4	70-130	3.13	25		
1,4-Dichlorobenzene	0.0182	0.0020	mg/Kg wet	0.0200		90.9	70-130	3.57	25		
trans-1,4-Dichloro-2-butene	0.0202	0.0040	mg/Kg wet	0.0200		101	70-130	1.90	25		
Dichlorodifluoromethane (Freon 12)	0.0136	0.020	mg/Kg wet	0.0200		67.8	40-160	7.52	25	V-05, J	†
1,1-Dichloroethane	0.0180	0.0020	mg/Kg wet	0.0200		90.0	70-130	7.07	25		
1,2-Dichloroethane	0.0203	0.0020	mg/Kg wet	0.0200		101	70-130	0.991	25		
1,1-Dichloroethylene	0.0173	0.0040	mg/Kg wet	0.0200		86.5	70-130	7.88	25		
cis-1,2-Dichloroethylene	0.0189	0.0020	mg/Kg wet	0.0200		94.3	70-130	5.27	25		
trans-1,2-Dichloroethylene	0.0183	0.0020	mg/Kg wet	0.0200		91.7	70-130	5.72	25		
1,2-Dichloropropane	0.0202	0.0020	mg/Kg wet	0.0200		101	70-130	3.52	25		
1,3-Dichloropropane	0.0219	0.0010	mg/Kg wet	0.0200		110	70-130	3.25	25		
2,2-Dichloropropane	0.0168	0.0020	mg/Kg wet	0.0200		83.8	70-130	9.11	25		
1,1-Dichloropropene	0.0179	0.0020	mg/Kg wet	0.0200		89.3	70-130	5.13	25		

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QUALITY CONTROL

Volatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes	
Batch B292273 - SW-846 5035											
LCS Dup (B292273-BSD1)				Prepared & Analyzed: 10/12/21							
cis-1,3-Dichloropropene	0.0209	0.0010	mg/Kg wet	0.0200		105	70-130	0.960	25		
trans-1,3-Dichloropropene	0.0177	0.0010	mg/Kg wet	0.0200		88.7	70-130	2.05	25		
Diethyl Ether	0.0201	0.020	mg/Kg wet	0.0200		101	70-130	3.03	25		
Diisopropyl Ether (DIPE)	0.0198	0.0010	mg/Kg wet	0.0200		98.8	70-130	0.202	25		
1,4-Dioxane	0.177	0.10	mg/Kg wet	0.200		88.5	40-160	13.9	50		† ‡
Ethylbenzene	0.0203	0.0020	mg/Kg wet	0.0200		101	70-130	4.81	25		
Hexachlorobutadiene	0.0181	0.0020	mg/Kg wet	0.0200		90.5	70-160	5.06	25		
2-Hexanone (MBK)	0.224	0.020	mg/Kg wet	0.200		112	70-160	13.8	25	V-36	†
Isopropylbenzene (Cumene)	0.0194	0.0020	mg/Kg wet	0.0200		97.0	70-130	8.30	25		
p-Isopropyltoluene (p-Cymene)	0.0192	0.0020	mg/Kg wet	0.0200		95.9	70-130	5.38	25		
Methyl Acetate	0.0179	0.0020	mg/Kg wet	0.0200		89.3	70-130	3.30	25		
Methyl tert-Butyl Ether (MTBE)	0.0192	0.0040	mg/Kg wet	0.0200		95.9	70-130	1.35	25		
Methyl Cyclohexane	0.0197	0.0020	mg/Kg wet	0.0200		98.3	70-130	2.31	25		
Methylene Chloride	0.0184	0.020	mg/Kg wet	0.0200		91.8	40-160	5.41	25	J	†
4-Methyl-2-pentanone (MIBK)	0.220	0.020	mg/Kg wet	0.200		110	70-160	10.5	25		†
Naphthalene	0.0190	0.0040	mg/Kg wet	0.0200		94.9	40-130	1.59	25		†
n-Propylbenzene	0.0206	0.0020	mg/Kg wet	0.0200		103	70-130	7.46	25		
Styrene	0.0215	0.0020	mg/Kg wet	0.0200		108	70-130	5.95	25		
1,1,1,2-Tetrachloroethane	0.0198	0.0020	mg/Kg wet	0.0200		99.0	70-130	4.35	25		
1,1,2,2-Tetrachloroethane	0.0210	0.0010	mg/Kg wet	0.0200		105	70-130	2.90	25		
Tetrachloroethylene	0.0193	0.0020	mg/Kg wet	0.0200		96.6	70-130	0.516	25		
Tetrahydrofuran	0.0181	0.010	mg/Kg wet	0.0200		90.7	70-130	4.39	25		
Toluene	0.0190	0.0020	mg/Kg wet	0.0200		95.0	70-130	0.420	25		
1,2,3-Trichlorobenzene	0.0200	0.0020	mg/Kg wet	0.0200		100	70-130	2.47	25		
1,2,4-Trichlorobenzene	0.0188	0.0020	mg/Kg wet	0.0200		94.0	70-130	2.83	25		
1,3,5-Trichlorobenzene	0.0180	0.0020	mg/Kg wet	0.0200		89.9	70-130	4.35	25		
1,1,1-Trichloroethane	0.0180	0.0020	mg/Kg wet	0.0200		90.1	70-130	5.50	25		
1,1,2-Trichloroethane	0.0211	0.0020	mg/Kg wet	0.0200		106	70-130	2.68	25		
Trichloroethylene	0.0196	0.0020	mg/Kg wet	0.0200		97.8	70-130	1.44	25		
Trichlorofluoromethane (Freon 11)	0.0186	0.010	mg/Kg wet	0.0200		92.9	70-130	8.26	25		
1,2,3-Trichloropropane	0.0178	0.0020	mg/Kg wet	0.0200		89.2	70-130	3.77	25		
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	0.0182	0.010	mg/Kg wet	0.0200		91.0	70-130	8.32	25		
1,2,4-Trimethylbenzene	0.0189	0.0020	mg/Kg wet	0.0200		94.3	70-130	3.13	25		
1,3,5-Trimethylbenzene	0.0209	0.0020	mg/Kg wet	0.0200		104	70-130	5.86	25		
Vinyl Chloride	0.0171	0.010	mg/Kg wet	0.0200		85.4	40-130	7.66	25		†
m+p Xylene	0.0415	0.0040	mg/Kg wet	0.0400		104	70-130	6.39	25		
o-Xylene	0.0209	0.0020	mg/Kg wet	0.0200		104	70-130	6.49	25		
Surrogate: 1,2-Dichloroethane-d4	*0.0471*		mg/Kg wet	0.0500		94.3	70-130				
Surrogate: Toluene-d8	*0.0497*		mg/Kg wet	0.0500		99.4	70-130				
Surrogate: 4-Bromofluorobenzene	*0.0515*		mg/Kg wet	0.0500		103	70-130				

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QUALITY CONTROL

Semivolatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B292324 - SW-846 3510C										
Blank (B292324-BLK1)				Prepared: 10/13/21 Analyzed: 10/14/21						
Acenaphthene	ND	5.0	µg/L							
Acenaphthylene	ND	5.0	µg/L							
Acetophenone	ND	10	µg/L							
Aniline	ND	5.0	µg/L							
Anthracene	ND	5.0	µg/L							
Benzidine	ND	20	µg/L							V-04, V-05
Benzo(a)anthracene	ND	5.0	µg/L							
Benzo(a)pyrene	ND	5.0	µg/L							
Benzo(b)fluoranthene	ND	5.0	µg/L							
Benzo(g,h,i)perylene	ND	5.0	µg/L							
Benzo(k)fluoranthene	ND	5.0	µg/L							
Benzoic Acid	ND	10	µg/L							
Bis(2-chloroethoxy)methane	ND	10	µg/L							
Bis(2-chloroethyl)ether	ND	10	µg/L							
Bis(2-chloroisopropyl)ether	ND	10	µg/L							V-05
Bis(2-Ethylhexyl)phthalate	ND	10	µg/L							
4-Bromophenylphenylether	ND	10	µg/L							
Butylbenzylphthalate	ND	10	µg/L							
Carbazole	ND	10	µg/L							
4-Chloroaniline	ND	10	µg/L							V-34
4-Chloro-3-methylphenol	ND	10	µg/L							
2-Chloronaphthalene	ND	10	µg/L							
2-Chlorophenol	ND	10	µg/L							
4-Chlorophenylphenylether	ND	10	µg/L							
Chrysene	ND	5.0	µg/L							
Dibenz(a,h)anthracene	ND	5.0	µg/L							
Dibenzofuran	ND	5.0	µg/L							
Di-n-butylphthalate	ND	10	µg/L							
1,2-Dichlorobenzene	ND	5.0	µg/L							
1,3-Dichlorobenzene	ND	5.0	µg/L							
1,4-Dichlorobenzene	ND	5.0	µg/L							
3,3-Dichlorobenzidine	ND	10	µg/L							
2,4-Dichlorophenol	ND	10	µg/L							
Diethylphthalate	ND	10	µg/L							
2,4-Dimethylphenol	ND	10	µg/L							
Dimethylphthalate	ND	10	µg/L							
4,6-Dinitro-2-methylphenol	ND	10	µg/L							
2,4-Dinitrophenol	ND	10	µg/L							
2,4-Dinitrotoluene	ND	10	µg/L							
2,6-Dinitrotoluene	ND	10	µg/L							
Di-n-octylphthalate	ND	10	µg/L							
1,2-Diphenylhydrazine/Azobenzene	ND	10	µg/L							
Fluoranthene	ND	5.0	µg/L							
Fluorene	ND	5.0	µg/L							
Hexachlorobenzene	ND	10	µg/L							
Hexachlorobutadiene	ND	10	µg/L							
Hexachlorocyclopentadiene	ND	10	µg/L							V-05
Hexachloroethane	ND	10	µg/L							
Indeno(1,2,3-cd)pyrene	ND	5.0	µg/L							
Isophorone	ND	10	µg/L							
1-Methylnaphthalene	ND	5.0	µg/L							
2-Methylnaphthalene	ND	5.0	µg/L							

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QUALITY CONTROL

Semivolatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B292324 - SW-846 3510C										
Blank (B292324-BLK1)				Prepared: 10/13/21 Analyzed: 10/14/21						
2-Methylphenol	ND	10	µg/L							
3/4-Methylphenol	ND	10	µg/L							
Naphthalene	ND	5.0	µg/L							
2-Nitroaniline	ND	10	µg/L							
3-Nitroaniline	ND	10	µg/L							
4-Nitroaniline	ND	10	µg/L							
Nitrobenzene	ND	10	µg/L							
2-Nitrophenol	ND	10	µg/L							
4-Nitrophenol	ND	10	µg/L							
N-Nitrosodimethylamine	ND	10	µg/L							L-04, V-05
N-Nitrosodiphenylamine/Diphenylamine	ND	10	µg/L							
N-Nitrosodi-n-propylamine	ND	10	µg/L							
Pentachloronitrobenzene	ND	10	µg/L							
Pentachlorophenol	ND	10	µg/L							
Phenanthrene	ND	5.0	µg/L							
Phenol	ND	10	µg/L							
Pyrene	ND	5.0	µg/L							
Pyridine	ND	5.0	µg/L							V-34
1,2,4,5-Tetrachlorobenzene	ND	10	µg/L							
1,2,4-Trichlorobenzene	ND	5.0	µg/L							
2,4,5-Trichlorophenol	ND	10	µg/L							
2,4,6-Trichlorophenol	ND	10	µg/L							
Surrogate: 2-Fluorophenol	*68.9*		µg/L	200		34.4	15-110			
Surrogate: Phenol-d6	*48.3*		µg/L	200		24.2	15-110			
Surrogate: Nitrobenzene-d5	*52.8*		µg/L	100		52.8	30-130			
Surrogate: 2-Fluorobiphenyl	*60.1*		µg/L	100		60.1	30-130			
Surrogate: 2,4,6-Tribromophenol	*156*		µg/L	200		78.0	15-110			
Surrogate: p-Terphenyl-d14	*84.7*		µg/L	100		84.7	30-130			
LCS (B292324-BS1)				Prepared: 10/13/21 Analyzed: 10/14/21						
Acenaphthene	30.6	5.0	µg/L	50.0		61.3	40-140			
Acenaphthylene	32.8	5.0	µg/L	50.0		65.7	40-140			
Acetophenone	31.5	10	µg/L	50.0		62.9	40-140			
Aniline	32.7	5.0	µg/L	50.0		65.5	40-140			
Anthracene	35.4	5.0	µg/L	50.0		70.7	40-140			
Benzidine	36.5	20	µg/L	50.0		72.9	40-140			V-04, V-05
Benzo(a)anthracene	33.9	5.0	µg/L	50.0		67.7	40-140			
Benzo(a)pyrene	38.2	5.0	µg/L	50.0		76.5	40-140			
Benzo(b)fluoranthene	36.2	5.0	µg/L	50.0		72.4	40-140			
Benzo(g,h,i)perylene	34.5	5.0	µg/L	50.0		68.9	40-140			
Benzo(k)fluoranthene	38.4	5.0	µg/L	50.0		76.9	40-140			
Benzoic Acid	7.89	10	µg/L	50.0		15.8	10-130			J †
Bis(2-chloroethoxy)methane	31.6	10	µg/L	50.0		63.2	40-140			
Bis(2-chloroethyl)ether	26.8	10	µg/L	50.0		53.6	40-140			
Bis(2-chloroisopropyl)ether	27.2	10	µg/L	50.0		54.5	40-140			V-05
Bis(2-Ethylhexyl)phthalate	35.9	10	µg/L	50.0		71.8	40-140			
4-Bromophenylphenylether	34.0	10	µg/L	50.0		68.0	40-140			
Butylbenzylphthalate	33.2	10	µg/L	50.0		66.3	40-140			
Carbazole	34.9	10	µg/L	50.0		69.7	40-140			
4-Chloroaniline	35.8	10	µg/L	50.0		71.7	40-140			V-34
4-Chloro-3-methylphenol	32.3	10	µg/L	50.0		64.6	30-130			
2-Chloronaphthalene	28.9	10	µg/L	50.0		57.8	40-140			

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QUALITY CONTROL

Semivolatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC		%REC Limits	RPD	RPD Limit	Notes	
Batch B292324 - SW-846 3510C												
LCS (B292324-BS1)				Prepared: 10/13/21 Analyzed: 10/14/21								
2-Chlorophenol	27.8	10	µg/L	50.0		55.7		30-130				
4-Chlorophenylphenylether	33.4	10	µg/L	50.0		66.7		40-140				
Chrysene	35.9	5.0	µg/L	50.0		71.7		40-140				
Dibenz(a,h)anthracene	36.6	5.0	µg/L	50.0		73.3		40-140				
Dibenzofuran	34.5	5.0	µg/L	50.0		69.1		40-140				
Di-n-butylphthalate	34.8	10	µg/L	50.0		69.6		40-140				
1,2-Dichlorobenzene	24.4	5.0	µg/L	50.0		48.9		40-140				
1,3-Dichlorobenzene	22.7	5.0	µg/L	50.0		45.4		40-140				
1,4-Dichlorobenzene	23.4	5.0	µg/L	50.0		46.7		40-140				
3,3-Dichlorobenzidine	33.5	10	µg/L	50.0		66.9		40-140				
2,4-Dichlorophenol	31.6	10	µg/L	50.0		63.2		30-130				
Diethylphthalate	33.1	10	µg/L	50.0		66.2		40-140				
2,4-Dimethylphenol	33.1	10	µg/L	50.0		66.3		30-130				
Dimethylphthalate	34.7	10	µg/L	50.0		69.4		40-140				
4,6-Dinitro-2-methylphenol	32.0	10	µg/L	50.0		64.0		30-130				
2,4-Dinitrophenol	28.5	10	µg/L	50.0		57.1		30-130				
2,4-Dinitrotoluene	34.7	10	µg/L	50.0		69.4		40-140				
2,6-Dinitrotoluene	36.4	10	µg/L	50.0		72.7		40-140				
Di-n-octylphthalate	34.2	10	µg/L	50.0		68.3		40-140				
1,2-Diphenylhydrazine/Azobenzene	33.8	10	µg/L	50.0		67.6		40-140				
Fluoranthene	35.8	5.0	µg/L	50.0		71.5		40-140				
Fluorene	34.2	5.0	µg/L	50.0		68.3		40-140				
Hexachlorobenzene	34.2	10	µg/L	50.0		68.4		40-140				
Hexachlorobutadiene	25.3	10	µg/L	50.0		50.6		40-140				
Hexachlorocyclopentadiene	16.2	10	µg/L	50.0		32.5		30-140			V-05	†
Hexachloroethane	22.6	10	µg/L	50.0		45.3		40-140				
Indeno(1,2,3-cd)pyrene	36.6	5.0	µg/L	50.0		73.1		40-140				
Isophorone	34.1	10	µg/L	50.0		68.2		40-140				
1-Methylnaphthalene	28.3	5.0	µg/L	50.0		56.6		40-140				
2-Methylnaphthalene	34.2	5.0	µg/L	50.0		68.4		40-140				
2-Methylphenol	25.7	10	µg/L	50.0		51.4		30-130				
3/4-Methylphenol	29.2	10	µg/L	50.0		58.3		30-130				
Naphthalene	28.9	5.0	µg/L	50.0		57.8		40-140				
2-Nitroaniline	32.6	10	µg/L	50.0		65.3		40-140				
3-Nitroaniline	35.2	10	µg/L	50.0		70.5		40-140				
4-Nitroaniline	34.6	10	µg/L	50.0		69.2		40-140				
Nitrobenzene	28.3	10	µg/L	50.0		56.7		40-140				
2-Nitrophenol	29.4	10	µg/L	50.0		58.9		30-130				
4-Nitrophenol	20.2	10	µg/L	50.0		40.3		10-130				†
N-Nitrosodimethylamine	17.2	10	µg/L	50.0		**34.5**	*	40-140			L-04, V-05	
N-Nitrosodiphenylamine/Diphenylamine	37.6	10	µg/L	50.0		75.2		40-140				
N-Nitrosodi-n-propylamine	32.0	10	µg/L	50.0		63.9		40-140				
Pentachloronitrobenzene	34.8	10	µg/L	50.0		69.6		40-140				
Pentachlorophenol	28.3	10	µg/L	50.0		56.6		30-130				
Phenanthrene	34.8	5.0	µg/L	50.0		69.7		40-140				
Phenol	15.0	10	µg/L	50.0		29.9		20-130				†
Pyrene	34.4	5.0	µg/L	50.0		68.8		40-140				
Pyridine	13.6	5.0	µg/L	50.0		27.2		10-140			V-34	†
1,2,4,5-Tetrachlorobenzene	30.4	10	µg/L	50.0		60.7		40-140				
1,2,4-Trichlorobenzene	26.9	5.0	µg/L	50.0		53.8		40-140				
2,4,5-Trichlorophenol	35.8	10	µg/L	50.0		71.5		30-130				
2,4,6-Trichlorophenol	33.9	10	µg/L	50.0		67.8		30-130				

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QUALITY CONTROL

Semivolatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes	
Batch B292324 - SW-846 3510C											
LCS (B292324-BS1)				Prepared: 10/13/21 Analyzed: 10/14/21							
Surrogate: 2-Fluorophenol	*87.9*		µg/L	200		44.0	15-110				
Surrogate: Phenol-d6	*64.6*		µg/L	200		32.3	15-110				
Surrogate: Nitrobenzene-d5	*63.2*		µg/L	100		63.2	30-130				
Surrogate: 2-Fluorobiphenyl	*72.0*		µg/L	100		72.0	30-130				
Surrogate: 2,4,6-Tribromophenol	*148*		µg/L	200		73.8	15-110				
Surrogate: p-Terphenyl-d14	*76.7*		µg/L	100		76.7	30-130				
LCS Dup (B292324-BSD1)				Prepared: 10/13/21 Analyzed: 10/14/21							
Acenaphthene	31.5	5.0	µg/L	50.0		62.9	40-140	2.71	20		
Acenaphthylene	33.9	5.0	µg/L	50.0		67.8	40-140	3.21	20		
Acetophenone	31.8	10	µg/L	50.0		63.6	40-140	1.14	20		
Aniline	29.9	5.0	µg/L	50.0		59.7	40-140	9.20	50		‡
Anthracene	34.9	5.0	µg/L	50.0		69.9	40-140	1.22	20		
Benzidine	44.0	20	µg/L	50.0		88.0	40-140	18.8	20	V-04, V-05	
Benzo(a)anthracene	34.8	5.0	µg/L	50.0		69.6	40-140	2.77	20		
Benzo(a)pyrene	38.4	5.0	µg/L	50.0		76.9	40-140	0.496	20		
Benzo(b)fluoranthene	36.3	5.0	µg/L	50.0		72.6	40-140	0.386	20		
Benzo(g,h,i)perylene	33.7	5.0	µg/L	50.0		67.4	40-140	2.20	20		
Benzo(k)fluoranthene	38.9	5.0	µg/L	50.0		77.8	40-140	1.22	20		
Benzoic Acid	9.82	10	µg/L	50.0		19.6	10-130	21.8	50	J	† ‡
Bis(2-chloroethoxy)methane	33.9	10	µg/L	50.0		67.8	40-140	7.05	20		
Bis(2-chloroethyl)ether	27.5	10	µg/L	50.0		55.0	40-140	2.69	20		
Bis(2-chloroisopropyl)ether	28.5	10	µg/L	50.0		57.0	40-140	4.49	20	V-05	
Bis(2-Ethylhexyl)phthalate	38.8	10	µg/L	50.0		77.6	40-140	7.71	20		
4-Bromophenylphenylether	33.2	10	µg/L	50.0		66.3	40-140	2.53	20		
Butylbenzylphthalate	35.0	10	µg/L	50.0		70.1	40-140	5.45	20		
Carbazole	35.2	10	µg/L	50.0		70.4	40-140	0.999	20		
4-Chloroaniline	35.3	10	µg/L	50.0		70.6	40-140	1.55	20	V-34	
4-Chloro-3-methylphenol	32.8	10	µg/L	50.0		65.6	30-130	1.66	20		
2-Chloronaphthalene	30.6	10	µg/L	50.0		61.1	40-140	5.48	20		
2-Chlorophenol	28.5	10	µg/L	50.0		57.0	30-130	2.31	20		
4-Chlorophenylphenylether	34.2	10	µg/L	50.0		68.4	40-140	2.55	20		
Chrysene	36.6	5.0	µg/L	50.0		73.1	40-140	1.91	20		
Dibenz(a,h)anthracene	36.2	5.0	µg/L	50.0		72.4	40-140	1.21	20		
Dibenzofuran	35.4	5.0	µg/L	50.0		70.9	40-140	2.63	20		
Di-n-butylphthalate	36.1	10	µg/L	50.0		72.3	40-140	3.75	20		
1,2-Dichlorobenzene	25.2	5.0	µg/L	50.0		50.4	40-140	3.02	20		
1,3-Dichlorobenzene	23.6	5.0	µg/L	50.0		47.1	40-140	3.59	20		
1,4-Dichlorobenzene	24.2	5.0	µg/L	50.0		48.3	40-140	3.37	20		
3,3-Dichlorobenzidine	33.8	10	µg/L	50.0		67.7	40-140	1.10	20		
2,4-Dichlorophenol	32.4	10	µg/L	50.0		64.8	30-130	2.50	20		
Diethylphthalate	34.7	10	µg/L	50.0		69.4	40-140	4.63	20		
2,4-Dimethylphenol	34.4	10	µg/L	50.0		68.8	30-130	3.70	20		
Dimethylphthalate	35.3	10	µg/L	50.0		70.6	40-140	1.77	50		‡
4,6-Dinitro-2-methylphenol	32.6	10	µg/L	50.0		65.2	30-130	1.92	50		‡
2,4-Dinitrophenol	30.0	10	µg/L	50.0		59.9	30-130	4.92	50		‡
2,4-Dinitrotoluene	36.6	10	µg/L	50.0		73.1	40-140	5.25	20		
2,6-Dinitrotoluene	36.9	10	µg/L	50.0		73.8	40-140	1.47	20		
Di-n-octylphthalate	36.6	10	µg/L	50.0		73.2	40-140	6.93	20		
1,2-Diphenylhydrazine/Azobenzene	34.2	10	µg/L	50.0		68.5	40-140	1.29	20		
Fluoranthene	36.2	5.0	µg/L	50.0		72.5	40-140	1.31	20		
Fluorene	35.1	5.0	µg/L	50.0		70.2	40-140	2.71	20		

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QUALITY CONTROL

Semivolatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC		%REC Limits	RPD	RPD Limit	Notes	
Batch B292324 - SW-846 3510C												
LCS Dup (B292324-BSD1)				Prepared: 10/13/21 Analyzed: 10/14/21								
Hexachlorobenzene	33.4	10	µg/L	50.0		66.9		40-140	2.19	20		
Hexachlorobutadiene	27.1	10	µg/L	50.0		54.1		40-140	6.64	20		
Hexachlorocyclopentadiene	17.8	10	µg/L	50.0		35.7		30-140	9.51	50	V-05	† ‡
Hexachloroethane	23.4	10	µg/L	50.0		46.8		40-140	3.26	50		‡
Indeno(1,2,3-cd)pyrene	36.3	5.0	µg/L	50.0		72.7		40-140	0.604	50		‡
Isophorone	35.6	10	µg/L	50.0		71.3		40-140	4.48	20		
1-Methylnaphthalene	29.4	5.0	µg/L	50.0		58.9		40-140	3.99	20		
2-Methylnaphthalene	35.8	5.0	µg/L	50.0		71.6		40-140	4.57	20		
2-Methylphenol	25.8	10	µg/L	50.0		51.6		30-130	0.272	20		
3/4-Methylphenol	29.1	10	µg/L	50.0		58.2		30-130	0.172	20		
Naphthalene	30.9	5.0	µg/L	50.0		61.8		40-140	6.75	20		
2-Nitroaniline	33.6	10	µg/L	50.0		67.2		40-140	2.99	20		
3-Nitroaniline	35.8	10	µg/L	50.0		71.6		40-140	1.60	20		
4-Nitroaniline	35.9	10	µg/L	50.0		71.8		40-140	3.63	20		
Nitrobenzene	30.5	10	µg/L	50.0		61.0		40-140	7.28	20		
2-Nitrophenol	31.7	10	µg/L	50.0		63.3		30-130	7.30	20		
4-Nitrophenol	20.3	10	µg/L	50.0		40.6		10-130	0.692	50		† ‡
N-Nitrosodimethylamine	16.4	10	µg/L	50.0		**32.7**	*	40-140	5.30	20	L-04, V-05	
N-Nitrosodiphenylamine/Diphenylamine	36.7	10	µg/L	50.0		73.4		40-140	2.42	20		
N-Nitrosodi-n-propylamine	32.8	10	µg/L	50.0		65.5		40-140	2.50	20		
Pentachloronitrobenzene	34.4	10	µg/L	50.0		68.8		40-140	1.16	20		
Pentachlorophenol	28.3	10	µg/L	50.0		56.6		30-130	0.106	50		‡
Phenanthrene	34.8	5.0	µg/L	50.0		69.6		40-140	0.172	20		
Phenol	15.0	10	µg/L	50.0		29.9		20-130	0.134	20		†
Pyrene	34.9	5.0	µg/L	50.0		69.7		40-140	1.27	20		
Pyridine	13.6	5.0	µg/L	50.0		27.2		10-140	0.221	50	V-34	† ‡
1,2,4,5-Tetrachlorobenzene	31.5	10	µg/L	50.0		62.9		40-140	3.56	20		
1,2,4-Trichlorobenzene	28.8	5.0	µg/L	50.0		57.5		40-140	6.72	20		
2,4,5-Trichlorophenol	35.0	10	µg/L	50.0		69.9		30-130	2.21	20		
2,4,6-Trichlorophenol	33.8	10	µg/L	50.0		67.7		30-130	0.118	50		‡
Surrogate: 2-Fluorophenol	*86.8*		µg/L	200		43.4		15-110				
Surrogate: Phenol-d6	*63.1*		µg/L	200		31.6		15-110				
Surrogate: Nitrobenzene-d5	*66.1*		µg/L	100		66.1		30-130				
Surrogate: 2-Fluorobiphenyl	*73.2*		µg/L	100		73.2		30-130				
Surrogate: 2,4,6-Tribromophenol	*149*		µg/L	200		74.7		15-110				
Surrogate: p-Terphenyl-d14	*77.9*		µg/L	100		77.9		30-130				
Batch B292394 - SW-846 3546												
Blank (B292394-BLK1)				Prepared: 10/13/21 Analyzed: 10/14/21								
Acenaphthene	ND	0.17	mg/Kg wet									
Acenaphthylene	ND	0.17	mg/Kg wet									
Acetophenone	ND	0.34	mg/Kg wet									
Aniline	ND	0.34	mg/Kg wet									
Anthracene	ND	0.17	mg/Kg wet									
Benzidine	ND	0.66	mg/Kg wet									
Benzo(a)anthracene	ND	0.17	mg/Kg wet									
Benzo(a)pyrene	ND	0.17	mg/Kg wet									
Benzo(b)fluoranthene	ND	0.17	mg/Kg wet									
Benzo(g,h,i)perylene	ND	0.17	mg/Kg wet									
Benzo(k)fluoranthene	ND	0.17	mg/Kg wet									
Benzoic Acid	ND	1.0	mg/Kg wet									
Bis(2-chloroethoxy)methane	ND	0.34	mg/Kg wet									

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QUALITY CONTROL

Semivolatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B292394 - SW-846 3546										
Blank (B292394-BLK1)				Prepared: 10/13/21 Analyzed: 10/14/21						
Bis(2-chloroethyl)ether	ND	0.34	mg/Kg wet							
Bis(2-chloroisopropyl)ether	ND	0.34	mg/Kg wet							
Bis(2-Ethylhexyl)phthalate	ND	0.34	mg/Kg wet							
4-Bromophenylphenylether	ND	0.34	mg/Kg wet							
Butylbenzylphthalate	ND	0.34	mg/Kg wet							
Carbazole	ND	0.17	mg/Kg wet							
4-Chloroaniline	ND	0.66	mg/Kg wet							V-34
4-Chloro-3-methylphenol	ND	0.66	mg/Kg wet							
2-Chloronaphthalene	ND	0.34	mg/Kg wet							
2-Chlorophenol	ND	0.34	mg/Kg wet							
4-Chlorophenylphenylether	ND	0.34	mg/Kg wet							
Chrysene	ND	0.17	mg/Kg wet							
Dibenz(a,h)anthracene	ND	0.17	mg/Kg wet							
Dibenzofuran	ND	0.34	mg/Kg wet							
Di-n-butylphthalate	ND	0.34	mg/Kg wet							
1,2-Dichlorobenzene	ND	0.34	mg/Kg wet							
1,3-Dichlorobenzene	ND	0.34	mg/Kg wet							
1,4-Dichlorobenzene	ND	0.34	mg/Kg wet							
3,3-Dichlorobenzidine	ND	0.17	mg/Kg wet							
2,4-Dichlorophenol	ND	0.34	mg/Kg wet							
Diethylphthalate	ND	0.34	mg/Kg wet							
2,4-Dimethylphenol	ND	0.34	mg/Kg wet							
Dimethylphthalate	ND	0.34	mg/Kg wet							
4,6-Dinitro-2-methylphenol	ND	0.34	mg/Kg wet							
2,4-Dinitrophenol	ND	0.66	mg/Kg wet							V-04, V-20
2,4-Dinitrotoluene	ND	0.34	mg/Kg wet							
2,6-Dinitrotoluene	ND	0.34	mg/Kg wet							
Di-n-octylphthalate	ND	0.34	mg/Kg wet							
1,2-Diphenylhydrazine/Azobenzene	ND	0.34	mg/Kg wet							
Fluoranthene	ND	0.17	mg/Kg wet							
Fluorene	ND	0.17	mg/Kg wet							
Hexachlorobenzene	ND	0.34	mg/Kg wet							
Hexachlorobutadiene	ND	0.34	mg/Kg wet							
Hexachlorocyclopentadiene	ND	0.34	mg/Kg wet							
Hexachloroethane	ND	0.34	mg/Kg wet							
Indeno(1,2,3-cd)pyrene	ND	0.17	mg/Kg wet							
Isophorone	ND	0.34	mg/Kg wet							
1-Methylnaphthalene	ND	0.17	mg/Kg wet							
2-Methylnaphthalene	ND	0.17	mg/Kg wet							
2-Methylphenol	ND	0.34	mg/Kg wet							
3/4-Methylphenol	ND	0.34	mg/Kg wet							
Naphthalene	ND	0.17	mg/Kg wet							
2-Nitroaniline	ND	0.34	mg/Kg wet							
3-Nitroaniline	ND	0.34	mg/Kg wet							
4-Nitroaniline	ND	0.34	mg/Kg wet							
Nitrobenzene	ND	0.34	mg/Kg wet							
2-Nitrophenol	ND	0.34	mg/Kg wet							
4-Nitrophenol	ND	0.66	mg/Kg wet							
N-Nitrosodimethylamine	ND	0.34	mg/Kg wet							
N-Nitrosodiphenylamine/Diphenylamine	ND	0.34	mg/Kg wet							
N-Nitrosodi-n-propylamine	ND	0.34	mg/Kg wet							
Pentachloronitrobenzene	ND	0.34	mg/Kg wet							

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QUALITY CONTROL

Semivolatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes	
Batch B292394 - SW-846 3546											
Blank (B292394-BLK1)				Prepared: 10/13/21 Analyzed: 10/14/21							
Pentachlorophenol	ND	0.34	mg/Kg wet								
Phenanthrene	ND	0.17	mg/Kg wet								
Phenol	ND	0.34	mg/Kg wet								
Pyrene	ND	0.17	mg/Kg wet								
Pyridine	ND	0.34	mg/Kg wet								
1,2,4,5-Tetrachlorobenzene	ND	0.34	mg/Kg wet								
1,2,4-Trichlorobenzene	ND	0.34	mg/Kg wet								
2,4,5-Trichlorophenol	ND	0.34	mg/Kg wet								
2,4,6-Trichlorophenol	ND	0.34	mg/Kg wet								
Surrogate: 2-Fluorophenol	*4.34*		mg/Kg wet	6.67		65.1	30-130				
Surrogate: Phenol-d6	*4.14*		mg/Kg wet	6.67		62.1	30-130				
Surrogate: Nitrobenzene-d5	*2.00*		mg/Kg wet	3.33		59.9	30-130				
Surrogate: 2-Fluorobiphenyl	*2.42*		mg/Kg wet	3.33		72.6	30-130				
Surrogate: 2,4,6-Tribromophenol	*5.77*		mg/Kg wet	6.67		86.5	30-130				
Surrogate: p-Terphenyl-d14	*2.81*		mg/Kg wet	3.33		84.2	30-130				
LCS (B292394-BS1)				Prepared: 10/13/21 Analyzed: 10/14/21							
Acenaphthene	1.18	0.17	mg/Kg wet	1.67		70.6	40-140				
Acenaphthylene	1.28	0.17	mg/Kg wet	1.67		77.0	40-140				
Acetophenone	0.979	0.34	mg/Kg wet	1.67		58.7	40-140				
Aniline	0.810	0.34	mg/Kg wet	1.67		48.6	10-140				†
Anthracene	1.26	0.17	mg/Kg wet	1.67		75.6	40-140				
Benzidine	1.24	0.66	mg/Kg wet	1.67		74.7	40-140				
Benzo(a)anthracene	1.25	0.17	mg/Kg wet	1.67		74.8	40-140				
Benzo(a)pyrene	1.37	0.17	mg/Kg wet	1.67		82.2	40-140				
Benzo(b)fluoranthene	1.28	0.17	mg/Kg wet	1.67		77.1	40-140				
Benzo(g,h,i)perylene	1.28	0.17	mg/Kg wet	1.67		76.5	40-140				
Benzo(k)fluoranthene	1.37	0.17	mg/Kg wet	1.67		82.4	40-140				
Benzoic Acid	0.934	1.0	mg/Kg wet	1.67		56.0	30-130			J	
Bis(2-chloroethoxy)methane	1.06	0.34	mg/Kg wet	1.67		63.3	40-140				
Bis(2-chloroethyl)ether	1.03	0.34	mg/Kg wet	1.67		62.0	40-140				
Bis(2-chloroisopropyl)ether	1.33	0.34	mg/Kg wet	1.67		79.5	40-140				
Bis(2-Ethylhexyl)phthalate	1.35	0.34	mg/Kg wet	1.67		81.1	40-140				
4-Bromophenylphenylether	1.32	0.34	mg/Kg wet	1.67		79.2	40-140				
Butylbenzylphthalate	1.26	0.34	mg/Kg wet	1.67		75.4	40-140				
Carbazole	1.23	0.17	mg/Kg wet	1.67		73.7	40-140				
4-Chloroaniline	0.775	0.66	mg/Kg wet	1.67		46.5	10-140			V-34	†
4-Chloro-3-methylphenol	1.14	0.66	mg/Kg wet	1.67		68.2	30-130				
2-Chloronaphthalene	1.16	0.34	mg/Kg wet	1.67		69.7	40-140				
2-Chlorophenol	1.10	0.34	mg/Kg wet	1.67		66.1	30-130				
4-Chlorophenylphenylether	1.20	0.34	mg/Kg wet	1.67		72.0	40-140				
Chrysene	1.29	0.17	mg/Kg wet	1.67		77.4	40-140				
Dibenz(a,h)anthracene	1.34	0.17	mg/Kg wet	1.67		80.2	40-140				
Dibenzofuran	1.27	0.34	mg/Kg wet	1.67		76.3	40-140				
Di-n-butylphthalate	1.22	0.34	mg/Kg wet	1.67		73.2	40-140				
1,2-Dichlorobenzene	1.00	0.34	mg/Kg wet	1.67		60.3	40-140				
1,3-Dichlorobenzene	0.976	0.34	mg/Kg wet	1.67		58.6	40-140				
1,4-Dichlorobenzene	0.991	0.34	mg/Kg wet	1.67		59.5	40-140				
3,3-Dichlorobenzidine	0.920	0.17	mg/Kg wet	1.67		55.2	20-140				†
2,4-Dichlorophenol	1.12	0.34	mg/Kg wet	1.67		67.1	30-130				
Diethylphthalate	1.22	0.34	mg/Kg wet	1.67		73.1	40-140				
2,4-Dimethylphenol	1.15	0.34	mg/Kg wet	1.67		68.7	30-130				

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QUALITY CONTROL

Semivolatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes	
Batch B292394 - SW-846 3546											
LCS (B292394-BS1)				Prepared: 10/13/21 Analyzed: 10/14/21							
Dimethylphthalate	1.23	0.34	mg/Kg wet	1.67		74.1	40-140				
4,6-Dinitro-2-methylphenol	1.26	0.34	mg/Kg wet	1.67		75.6	30-130				
2,4-Dinitrophenol	1.36	0.66	mg/Kg wet	1.67		81.4	30-130			V-04, V-06	
2,4-Dinitrotoluene	1.40	0.34	mg/Kg wet	1.67		83.7	40-140				
2,6-Dinitrotoluene	1.42	0.34	mg/Kg wet	1.67		85.2	40-140				
Di-n-octylphthalate	1.22	0.34	mg/Kg wet	1.67		72.9	40-140				
1,2-Diphenylhydrazine/Azobenzene	1.15	0.34	mg/Kg wet	1.67		68.9	40-140				
Fluoranthene	1.15	0.17	mg/Kg wet	1.67		68.9	40-140				
Fluorene	1.23	0.17	mg/Kg wet	1.67		73.7	40-140				
Hexachlorobenzene	1.40	0.34	mg/Kg wet	1.67		83.8	40-140				
Hexachlorobutadiene	0.978	0.34	mg/Kg wet	1.67		58.7	40-140				
Hexachlorocyclopentadiene	1.01	0.34	mg/Kg wet	1.67		60.7	40-140				
Hexachloroethane	0.906	0.34	mg/Kg wet	1.67		54.3	40-140				
Indeno(1,2,3-cd)pyrene	1.32	0.17	mg/Kg wet	1.67		79.5	40-140				
Isophorone	1.07	0.34	mg/Kg wet	1.67		64.3	40-140				
1-Methylnaphthalene	1.02	0.17	mg/Kg wet	1.67		61.0	40-140				
2-Methylnaphthalene	1.28	0.17	mg/Kg wet	1.67		76.7	40-140				
2-Methylphenol	1.10	0.34	mg/Kg wet	1.67		66.1	30-130				
3/4-Methylphenol	1.13	0.34	mg/Kg wet	1.67		67.6	30-130				
Naphthalene	1.10	0.17	mg/Kg wet	1.67		66.1	40-140				
2-Nitroaniline	1.25	0.34	mg/Kg wet	1.67		74.7	40-140				
3-Nitroaniline	1.27	0.34	mg/Kg wet	1.67		76.2	30-140				†
4-Nitroaniline	1.37	0.34	mg/Kg wet	1.67		82.1	40-140				
Nitrobenzene	0.964	0.34	mg/Kg wet	1.67		57.9	40-140				
2-Nitrophenol	1.23	0.34	mg/Kg wet	1.67		73.8	30-130				
4-Nitrophenol	1.03	0.66	mg/Kg wet	1.67		61.6	30-130				
N-Nitrosodimethylamine	0.988	0.34	mg/Kg wet	1.67		59.3	40-140				
N-Nitrosodiphenylamine/Diphenylamine	1.41	0.34	mg/Kg wet	1.67		84.7	40-140				
N-Nitrosodi-n-propylamine	0.988	0.34	mg/Kg wet	1.67		59.3	40-140				
Pentachloronitrobenzene	1.38	0.34	mg/Kg wet	1.67		82.7	40-140				
Pentachlorophenol	1.07	0.34	mg/Kg wet	1.67		64.5	30-130				
Phenanthrene	1.30	0.17	mg/Kg wet	1.67		77.7	40-140				
Phenol	1.04	0.34	mg/Kg wet	1.67		62.5	30-130				
Pyrene	1.26	0.17	mg/Kg wet	1.67		75.7	40-140				
Pyridine	0.539	0.34	mg/Kg wet	1.67		32.3	30-140				†
1,2,4,5-Tetrachlorobenzene	1.13	0.34	mg/Kg wet	1.67		67.9	40-140				
1,2,4-Trichlorobenzene	1.05	0.34	mg/Kg wet	1.67		62.8	40-140				
2,4,5-Trichlorophenol	1.34	0.34	mg/Kg wet	1.67		80.5	30-130				
2,4,6-Trichlorophenol	1.26	0.34	mg/Kg wet	1.67		75.4	30-130				
Surrogate: 2-Fluorophenol	*4.65*		mg/Kg wet	6.67		69.8	30-130				
Surrogate: Phenol-d6	*4.37*		mg/Kg wet	6.67		65.5	30-130				
Surrogate: Nitrobenzene-d5	*2.10*		mg/Kg wet	3.33		63.1	30-130				
Surrogate: 2-Fluorobiphenyl	*2.58*		mg/Kg wet	3.33		77.4	30-130				
Surrogate: 2,4,6-Tribromophenol	*6.36*		mg/Kg wet	6.67		95.3	30-130				
Surrogate: p-Terphenyl-d14	*2.84*		mg/Kg wet	3.33		85.3	30-130				

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QUALITY CONTROL

Semivolatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes	
Batch B292394 - SW-846 3546											
LCS Dup (B292394-BSD1)				Prepared: 10/13/21 Analyzed: 10/14/21							
Acenaphthene	1.15	0.17	mg/Kg wet	1.67		68.8	40-140	2.50	30		
Acenaphthylene	1.24	0.17	mg/Kg wet	1.67		74.6	40-140	3.06	30		
Acetophenone	0.922	0.34	mg/Kg wet	1.67		55.3	40-140	5.93	30		
Aniline	0.804	0.34	mg/Kg wet	1.67		48.3	10-140	0.702	50		† ‡
Anthracene	1.26	0.17	mg/Kg wet	1.67		75.4	40-140	0.371	30		
Benzidine	1.20	0.66	mg/Kg wet	1.67		72.1	40-140	3.49	30		
Benzo(a)anthracene	1.23	0.17	mg/Kg wet	1.67		73.8	40-140	1.29	30		
Benzo(a)pyrene	1.33	0.17	mg/Kg wet	1.67		79.8	40-140	2.94	30		
Benzo(b)fluoranthene	1.27	0.17	mg/Kg wet	1.67		76.4	40-140	0.964	30		
Benzo(g,h,i)perylene	1.28	0.17	mg/Kg wet	1.67		76.9	40-140	0.521	30		
Benzo(k)fluoranthene	1.36	0.17	mg/Kg wet	1.67		81.7	40-140	0.902	30		
Benzoic Acid	0.973	1.0	mg/Kg wet	1.67		58.4	30-130	4.16	50	J	‡
Bis(2-chloroethoxy)methane	1.03	0.34	mg/Kg wet	1.67		61.5	40-140	2.92	30		
Bis(2-chloroethyl)ether	0.960	0.34	mg/Kg wet	1.67		57.6	40-140	7.39	30		
Bis(2-chloroisopropyl)ether	1.21	0.34	mg/Kg wet	1.67		72.6	40-140	9.04	30		
Bis(2-Ethylhexyl)phthalate	1.34	0.34	mg/Kg wet	1.67		80.6	40-140	0.594	30		
4-Bromophenylphenylether	1.28	0.34	mg/Kg wet	1.67		76.6	40-140	3.36	30		
Butylbenzylphthalate	1.26	0.34	mg/Kg wet	1.67		75.5	40-140	0.186	30		
Carbazole	1.19	0.17	mg/Kg wet	1.67		71.3	40-140	3.31	30		
4-Chloroaniline	0.780	0.66	mg/Kg wet	1.67		46.8	10-140	0.643	30	V-34	†
4-Chloro-3-methylphenol	1.12	0.66	mg/Kg wet	1.67		67.2	30-130	1.42	30		
2-Chloronaphthalene	1.12	0.34	mg/Kg wet	1.67		67.3	40-140	3.59	30		
2-Chlorophenol	1.03	0.34	mg/Kg wet	1.67		61.9	30-130	6.59	30		
4-Chlorophenylphenylether	1.20	0.34	mg/Kg wet	1.67		71.7	40-140	0.390	30		
Chrysene	1.28	0.17	mg/Kg wet	1.67		77.1	40-140	0.363	30		
Dibenz(a,h)anthracene	1.30	0.17	mg/Kg wet	1.67		78.3	40-140	2.50	30		
Dibenzofuran	1.25	0.34	mg/Kg wet	1.67		75.1	40-140	1.64	30		
Di-n-butylphthalate	1.19	0.34	mg/Kg wet	1.67		71.1	40-140	2.83	30		
1,2-Dichlorobenzene	0.962	0.34	mg/Kg wet	1.67		57.7	40-140	4.30	30		
1,3-Dichlorobenzene	0.922	0.34	mg/Kg wet	1.67		55.3	40-140	5.69	30		
1,4-Dichlorobenzene	0.938	0.34	mg/Kg wet	1.67		56.3	40-140	5.50	30		
3,3-Dichlorobenzidine	0.946	0.17	mg/Kg wet	1.67		56.8	20-140	2.79	50		† ‡
2,4-Dichlorophenol	1.10	0.34	mg/Kg wet	1.67		66.2	30-130	1.32	30		
Diethylphthalate	1.19	0.34	mg/Kg wet	1.67		71.5	40-140	2.16	30		
2,4-Dimethylphenol	1.12	0.34	mg/Kg wet	1.67		67.0	30-130	2.59	30		
Dimethylphthalate	1.20	0.34	mg/Kg wet	1.67		72.2	40-140	2.60	30		
4,6-Dinitro-2-methylphenol	1.22	0.34	mg/Kg wet	1.67		73.4	30-130	3.01	30		
2,4-Dinitrophenol	1.26	0.66	mg/Kg wet	1.67		75.7	30-130	7.28	30	V-04, V-06	
2,4-Dinitrotoluene	1.38	0.34	mg/Kg wet	1.67		82.7	40-140	1.30	30		
2,6-Dinitrotoluene	1.38	0.34	mg/Kg wet	1.67		82.8	40-140	2.81	30		
Di-n-octylphthalate	1.19	0.34	mg/Kg wet	1.67		71.6	40-140	1.80	30		
1,2-Diphenylhydrazine/Azobenzene	1.12	0.34	mg/Kg wet	1.67		67.2	40-140	2.47	30		
Fluoranthene	1.14	0.17	mg/Kg wet	1.67		68.4	40-140	0.816	30		
Fluorene	1.22	0.17	mg/Kg wet	1.67		72.9	40-140	1.01	30		
Hexachlorobenzene	1.38	0.34	mg/Kg wet	1.67		83.0	40-140	0.912	30		
Hexachlorobutadiene	0.954	0.34	mg/Kg wet	1.67		57.2	40-140	2.55	30		
Hexachlorocyclopentadiene	0.919	0.34	mg/Kg wet	1.67		55.1	40-140	9.60	30		
Hexachloroethane	0.854	0.34	mg/Kg wet	1.67		51.2	40-140	5.91	30		
Indeno(1,2,3-cd)pyrene	1.31	0.17	mg/Kg wet	1.67		78.7	40-140	1.04	30		
Isophorone	1.06	0.34	mg/Kg wet	1.67		63.3	40-140	1.63	30		
1-Methylnaphthalene	1.01	0.17	mg/Kg wet	1.67		60.5	40-140	0.724	30		
2-Methylnaphthalene	1.24	0.17	mg/Kg wet	1.67		74.4	40-140	2.97	30		

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QUALITY CONTROL

Semivolatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B292394 - SW-846 3546										
LCS Dup (B292394-BSD1)				Prepared: 10/13/21 Analyzed: 10/14/21						
2-Methylphenol	1.06	0.34	mg/Kg wet	1.67		63.7	30-130	3.67	30	
3/4-Methylphenol	1.07	0.34	mg/Kg wet	1.67		64.2	30-130	5.16	30	
Naphthalene	1.08	0.17	mg/Kg wet	1.67		64.9	40-140	1.86	30	
2-Nitroaniline	1.21	0.34	mg/Kg wet	1.67		72.7	40-140	2.71	30	
3-Nitroaniline	1.24	0.34	mg/Kg wet	1.67		74.1	30-140	2.77	30	†
4-Nitroaniline	1.33	0.34	mg/Kg wet	1.67		80.0	40-140	2.59	30	
Nitrobenzene	0.953	0.34	mg/Kg wet	1.67		57.2	40-140	1.18	30	
2-Nitrophenol	1.19	0.34	mg/Kg wet	1.67		71.2	30-130	3.59	30	
4-Nitrophenol	0.986	0.66	mg/Kg wet	1.67		59.2	30-130	4.07	50	‡
N-Nitrosodimethylamine	0.942	0.34	mg/Kg wet	1.67		56.5	40-140	4.84	30	
N-Nitrosodiphenylamine/Diphenylamine	1.36	0.34	mg/Kg wet	1.67		81.5	40-140	3.83	30	
N-Nitrosodi-n-propylamine	0.936	0.34	mg/Kg wet	1.67		56.2	40-140	5.37	30	
Pentachloronitrobenzene	1.38	0.34	mg/Kg wet	1.67		83.0	40-140	0.290	30	
Pentachlorophenol	1.03	0.34	mg/Kg wet	1.67		61.9	30-130	4.15	30	
Phenanthrene	1.24	0.17	mg/Kg wet	1.67		74.5	40-140	4.15	30	
Phenol	0.974	0.34	mg/Kg wet	1.67		58.4	30-130	6.68	30	
Pyrene	1.24	0.17	mg/Kg wet	1.67		74.6	40-140	1.41	30	
Pyridine	0.533	0.34	mg/Kg wet	1.67		32.0	30-140	0.995	30	†
1,2,4,5-Tetrachlorobenzene	1.10	0.34	mg/Kg wet	1.67		65.7	40-140	3.23	30	
1,2,4-Trichlorobenzene	1.02	0.34	mg/Kg wet	1.67		61.0	40-140	3.01	30	
2,4,5-Trichlorophenol	1.28	0.34	mg/Kg wet	1.67		77.0	30-130	4.50	30	
2,4,6-Trichlorophenol	1.22	0.34	mg/Kg wet	1.67		73.4	30-130	2.71	30	
Surrogate: 2-Fluorophenol	*4.23*		mg/Kg wet	6.67		63.4	30-130			
Surrogate: Phenol-d6	*3.96*		mg/Kg wet	6.67		59.4	30-130			
Surrogate: Nitrobenzene-d5	*1.99*		mg/Kg wet	3.33		59.7	30-130			
Surrogate: 2-Fluorobiphenyl	*2.46*		mg/Kg wet	3.33		73.7	30-130			
Surrogate: 2,4,6-Tribromophenol	*6.02*		mg/Kg wet	6.67		90.3	30-130			
Surrogate: p-Terphenyl-d14	*2.79*		mg/Kg wet	3.33		83.6	30-130			

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QUALITY CONTROL

Polychlorinated Biphenyls By GC/ECD - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B292279 - SW-846 3510C										
Blank (B292279-BLK1)				Prepared: 10/12/21 Analyzed: 10/13/21						
Aroclor-1016	ND	0.20	µg/L							
Aroclor-1016 [2C]	ND	0.20	µg/L							
Aroclor-1221	ND	0.20	µg/L							
Aroclor-1221 [2C]	ND	0.20	µg/L							
Aroclor-1232	ND	0.20	µg/L							
Aroclor-1232 [2C]	ND	0.20	µg/L							
Aroclor-1242	ND	0.20	µg/L							
Aroclor-1242 [2C]	ND	0.20	µg/L							
Aroclor-1248	ND	0.20	µg/L							
Aroclor-1248 [2C]	ND	0.20	µg/L							
Aroclor-1254	ND	0.20	µg/L							
Aroclor-1254 [2C]	ND	0.20	µg/L							
Aroclor-1260	ND	0.20	µg/L							
Aroclor-1260 [2C]	ND	0.20	µg/L							
Aroclor-1262	ND	0.20	µg/L							
Aroclor-1262 [2C]	ND	0.20	µg/L							
Aroclor-1268	ND	0.20	µg/L							
Aroclor-1268 [2C]	ND	0.20	µg/L							
Surrogate: Decachlorobiphenyl	*1.55*		µg/L	2.00		77.4	30-150			
Surrogate: Decachlorobiphenyl [2C]	*1.58*		µg/L	2.00		79.1	30-150			
Surrogate: Tetrachloro-m-xylene	*1.39*		µg/L	2.00		69.5	30-150			
Surrogate: Tetrachloro-m-xylene [2C]	*1.42*		µg/L	2.00		71.0	30-150			
LCS (B292279-BS1)				Prepared: 10/12/21 Analyzed: 10/13/21						
Aroclor-1016	0.45	0.20	µg/L	0.500		90.1	40-140			
Aroclor-1016 [2C]	0.42	0.20	µg/L	0.500		84.0	40-140			
Aroclor-1260	0.40	0.20	µg/L	0.500		80.3	40-140			
Aroclor-1260 [2C]	0.41	0.20	µg/L	0.500		81.2	40-140			
Surrogate: Decachlorobiphenyl	*1.50*		µg/L	2.00		75.1	30-150			
Surrogate: Decachlorobiphenyl [2C]	*1.51*		µg/L	2.00		75.7	30-150			
Surrogate: Tetrachloro-m-xylene	*1.45*		µg/L	2.00		72.7	30-150			
Surrogate: Tetrachloro-m-xylene [2C]	*1.48*		µg/L	2.00		73.9	30-150			
LCS Dup (B292279-BSD1)				Prepared: 10/12/21 Analyzed: 10/13/21						
Aroclor-1016	0.41	0.20	µg/L	0.500		82.7	40-140	8.56	20	
Aroclor-1016 [2C]	0.38	0.20	µg/L	0.500		76.1	40-140	9.90	20	
Aroclor-1260	0.37	0.20	µg/L	0.500		73.3	40-140	9.19	20	
Aroclor-1260 [2C]	0.36	0.20	µg/L	0.500		73.0	40-140	10.7	20	
Surrogate: Decachlorobiphenyl	*1.30*		µg/L	2.00		65.1	30-150			
Surrogate: Decachlorobiphenyl [2C]	*1.30*		µg/L	2.00		65.1	30-150			
Surrogate: Tetrachloro-m-xylene	*1.37*		µg/L	2.00		68.3	30-150			
Surrogate: Tetrachloro-m-xylene [2C]	*1.36*		µg/L	2.00		68.1	30-150			

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QUALITY CONTROL

Polychlorinated Biphenyls By GC/ECD - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B292281 - SW-846 3546										
Blank (B292281-BLK1)				Prepared: 10/12/21 Analyzed: 10/13/21						
Aroclor-1016	ND	0.020	mg/Kg wet							
Aroclor-1016 [2C]	ND	0.020	mg/Kg wet							
Aroclor-1221	ND	0.020	mg/Kg wet							
Aroclor-1221 [2C]	ND	0.020	mg/Kg wet							
Aroclor-1232	ND	0.020	mg/Kg wet							
Aroclor-1232 [2C]	ND	0.020	mg/Kg wet							
Aroclor-1242	ND	0.020	mg/Kg wet							
Aroclor-1242 [2C]	ND	0.020	mg/Kg wet							
Aroclor-1248	ND	0.020	mg/Kg wet							
Aroclor-1248 [2C]	ND	0.020	mg/Kg wet							
Aroclor-1254	ND	0.020	mg/Kg wet							
Aroclor-1254 [2C]	ND	0.020	mg/Kg wet							
Aroclor-1260	ND	0.020	mg/Kg wet							
Aroclor-1260 [2C]	ND	0.020	mg/Kg wet							
Aroclor-1262	ND	0.020	mg/Kg wet							
Aroclor-1262 [2C]	ND	0.020	mg/Kg wet							
Aroclor-1268	ND	0.020	mg/Kg wet							
Aroclor-1268 [2C]	ND	0.020	mg/Kg wet							
Surrogate: Decachlorobiphenyl	*0.196*		mg/Kg wet	0.200		97.8	30-150			
Surrogate: Decachlorobiphenyl [2C]	*0.181*		mg/Kg wet	0.200		90.7	30-150			
Surrogate: Tetrachloro-m-xylene	*0.170*		mg/Kg wet	0.200		84.9	30-150			
Surrogate: Tetrachloro-m-xylene [2C]	*0.150*		mg/Kg wet	0.200		75.2	30-150			
LCS (B292281-BS1)				Prepared: 10/12/21 Analyzed: 10/13/21						
Aroclor-1016	0.16	0.020	mg/Kg wet	0.200		81.8	40-140			
Aroclor-1016 [2C]	0.16	0.020	mg/Kg wet	0.200		78.4	40-140			
Aroclor-1260	0.17	0.020	mg/Kg wet	0.200		84.5	40-140			
Aroclor-1260 [2C]	0.16	0.020	mg/Kg wet	0.200		79.7	40-140			
Surrogate: Decachlorobiphenyl	*0.193*		mg/Kg wet	0.200		96.6	30-150			
Surrogate: Decachlorobiphenyl [2C]	*0.181*		mg/Kg wet	0.200		90.4	30-150			
Surrogate: Tetrachloro-m-xylene	*0.168*		mg/Kg wet	0.200		83.9	30-150			
Surrogate: Tetrachloro-m-xylene [2C]	*0.150*		mg/Kg wet	0.200		74.9	30-150			
LCS Dup (B292281-BSD1)				Prepared: 10/12/21 Analyzed: 10/13/21						
Aroclor-1016	0.16	0.020	mg/Kg wet	0.200		80.2	40-140	1.99	30	
Aroclor-1016 [2C]	0.15	0.020	mg/Kg wet	0.200		76.2	40-140	2.76	30	
Aroclor-1260	0.16	0.020	mg/Kg wet	0.200		81.2	40-140	4.05	30	
Aroclor-1260 [2C]	0.15	0.020	mg/Kg wet	0.200		76.7	40-140	3.88	30	
Surrogate: Decachlorobiphenyl	*0.182*		mg/Kg wet	0.200		90.8	30-150			
Surrogate: Decachlorobiphenyl [2C]	*0.173*		mg/Kg wet	0.200		86.6	30-150			
Surrogate: Tetrachloro-m-xylene	*0.162*		mg/Kg wet	0.200		81.0	30-150			
Surrogate: Tetrachloro-m-xylene [2C]	*0.150*		mg/Kg wet	0.200		74.8	30-150			

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QUALITY CONTROL

Polychlorinated Biphenyls By GC/ECD - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B292281 - SW-846 3546										
Matrix Spike (B292281-MS1)		**Source: 21J0524-03**		Prepared: 10/12/21 Analyzed: 10/13/21						
Aroclor-1016	0.19	0.097	mg/Kg dry	0.242	ND	78.1	40-140			
Aroclor-1016 [2C]	0.18	0.097	mg/Kg dry	0.242	ND	76.4	40-140			
Aroclor-1260	0.18	0.097	mg/Kg dry	0.242	ND	75.3	40-140			
Aroclor-1260 [2C]	0.18	0.097	mg/Kg dry	0.242	ND	74.0	40-140			
Surrogate: Decachlorobiphenyl	*0.189*		mg/Kg dry	0.242		78.1	30-150			
Surrogate: Decachlorobiphenyl [2C]	*0.199*		mg/Kg dry	0.242		82.3	30-150			
Surrogate: Tetrachloro-m-xylene	*0.168*		mg/Kg dry	0.242		69.4	30-150			
Surrogate: Tetrachloro-m-xylene [2C]	*0.167*		mg/Kg dry	0.242		69.3	30-150			
Matrix Spike Dup (B292281-MSD1)		**Source: 21J0524-03**		Prepared: 10/12/21 Analyzed: 10/13/21						
Aroclor-1016	0.17	0.097	mg/Kg dry	0.242	ND	70.6	40-140	10.0	30	
Aroclor-1016 [2C]	0.17	0.097	mg/Kg dry	0.242	ND	69.3	40-140	9.76	30	
Aroclor-1260	0.17	0.097	mg/Kg dry	0.242	ND	68.4	40-140	9.59	30	
Aroclor-1260 [2C]	0.16	0.097	mg/Kg dry	0.242	ND	66.1	40-140	11.2	30	
Surrogate: Decachlorobiphenyl	*0.164*		mg/Kg dry	0.242		67.8	30-150			
Surrogate: Decachlorobiphenyl [2C]	*0.173*		mg/Kg dry	0.242		71.7	30-150			
Surrogate: Tetrachloro-m-xylene	*0.155*		mg/Kg dry	0.242		64.2	30-150			
Surrogate: Tetrachloro-m-xylene [2C]	*0.159*		mg/Kg dry	0.242		65.7	30-150			

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QUALITY CONTROL

Metals Analyses (Total) - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B292195 - SW-846 7471										
Blank (B292195-BLK1)				Prepared: 10/11/21 Analyzed: 10/12/21						
Mercury	ND	0.025	mg/Kg wet							
LCS (B292195-BS1)				Prepared: 10/11/21 Analyzed: 10/12/21						
Mercury	16.8	0.75	mg/Kg wet	15.6		108	59.3-140.4			
LCS Dup (B292195-BSD1)				Prepared: 10/11/21 Analyzed: 10/12/21						
Mercury	20.5	0.75	mg/Kg wet	15.6		131	59.3-140.4	19.6	20	
Duplicate (B292195-DUP1)		**Source: 21J0524-07**		Prepared: 10/11/21 Analyzed: 10/12/21						
Mercury	0.0330	0.034	mg/Kg dry		0.0306			7.50	20	J
Matrix Spike (B292195-MS1)		**Source: 21J0524-07**		Prepared: 10/11/21 Analyzed: 10/12/21						
Mercury	0.479	0.033	mg/Kg dry	0.434	0.0306	103	80-120			
Batch B292205 - SW-846 3050B										
Blank (B292205-BLK1)				Prepared: 10/11/21 Analyzed: 10/13/21						
Aluminum	ND	17	mg/Kg wet							
Antimony	ND	1.7	mg/Kg wet							
Arsenic	ND	3.3	mg/Kg wet							
Barium	ND	1.7	mg/Kg wet							
Beryllium	ND	0.17	mg/Kg wet							
Cadmium	ND	0.33	mg/Kg wet							
Calcium	ND	17	mg/Kg wet							
Chromium	ND	0.67	mg/Kg wet							
Cobalt	ND	1.7	mg/Kg wet							
Copper	ND	0.67	mg/Kg wet							
Iron	ND	17	mg/Kg wet							
Lead	ND	0.50	mg/Kg wet							
Magnesium	ND	17	mg/Kg wet							
Manganese	ND	0.33	mg/Kg wet							
Nickel	ND	0.67	mg/Kg wet							
Potassium	ND	170	mg/Kg wet							
Selenium	ND	3.3	mg/Kg wet							
Silver	ND	0.33	mg/Kg wet							
Sodium	ND	170	mg/Kg wet							
Thallium	ND	1.7	mg/Kg wet							
Vanadium	ND	0.67	mg/Kg wet							
Zinc	ND	0.67	mg/Kg wet							
LCS (B292205-BS1)				Prepared: 10/11/21 Analyzed: 10/13/21						
Aluminum	7010	47	mg/Kg wet	8110		86.4	48.1-151.7			
Antimony	115	4.7	mg/Kg wet	134		85.5	1.9-200.7			
Arsenic	161	9.5	mg/Kg wet	170		94.7	82.9-117.6			
Barium	181	4.7	mg/Kg wet	183		99.1	82.5-117.5			
Beryllium	113	0.47	mg/Kg wet	116		97.6	83.4-116.4			
Cadmium	90.5	0.95	mg/Kg wet	89.5		101	82.8-117.3			
Calcium	4560	47	mg/Kg wet	4810		94.8	81.7-118.1			
Chromium	99.8	1.9	mg/Kg wet	101		98.8	82.1-117.8			
Cobalt	86.8	4.7	mg/Kg wet	84.8		102	83.5-116.5			
Copper	154	1.9	mg/Kg wet	149		103	83.9-116.1			
Iron	13200	47	mg/Kg wet	14100		93.7	60-139.7			
Lead	137	1.4	mg/Kg wet	140		97.9	82.9-117.1			
Magnesium	2210	47	mg/Kg wet	2350		94.2	76.2-123.8			

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QUALITY CONTROL

Metals Analyses (Total) - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B292205 - SW-846 3050B										
LCS (B292205-BS1)				Prepared: 10/11/21 Analyzed: 10/13/21						
Manganese	631	0.95	mg/Kg wet	648		97.4	81.8-118.2			
Nickel	69.4	1.9	mg/Kg wet	68.3		102	82.1-117.7			
Potassium	1980	470	mg/Kg wet	2050		96.6	69.8-129.8			
Selenium	180	9.5	mg/Kg wet	182		98.9	79.7-120.3			
Silver	49.6	0.95	mg/Kg wet	50.1		99.0	80.2-120			
Sodium	117	470	mg/Kg wet	136		86.0	71.6-127.9			J
Thallium	90.0	4.7	mg/Kg wet	87.7		103	81.1-118.6			
Vanadium	154	1.9	mg/Kg wet	153		101	79.1-120.9			
Zinc	227	1.9	mg/Kg wet	228		99.5	80.7-118.9			
LCS Dup (B292205-BSD1)				Prepared: 10/11/21 Analyzed: 10/13/21						
Aluminum	7410	49	mg/Kg wet	8110		91.4	48.1-151.7	5.58	30	
Antimony	120	4.9	mg/Kg wet	134		89.8	1.9-200.7	4.91	30	
Arsenic	169	9.7	mg/Kg wet	170		99.1	82.9-117.6	4.63	30	
Barium	187	4.9	mg/Kg wet	183		102	82.5-117.5	3.34	20	
Beryllium	118	0.49	mg/Kg wet	116		102	83.4-116.4	4.21	30	
Cadmium	95.0	0.97	mg/Kg wet	89.5		106	82.8-117.3	4.80	20	
Calcium	4760	49	mg/Kg wet	4810		98.9	81.7-118.1	4.28	30	
Chromium	102	1.9	mg/Kg wet	101		101	82.1-117.8	2.62	30	
Cobalt	90.2	4.9	mg/Kg wet	84.8		106	83.5-116.5	3.81	20	
Copper	159	1.9	mg/Kg wet	149		107	83.9-116.1	3.29	30	
Iron	13300	49	mg/Kg wet	14100		94.2	60-139.7	0.489	30	
Lead	144	1.5	mg/Kg wet	140		103	82.9-117.1	4.85	30	
Magnesium	2310	49	mg/Kg wet	2350		98.1	76.2-123.8	4.06	30	
Manganese	663	0.97	mg/Kg wet	648		102	81.8-118.2	4.97	30	
Nickel	72.0	1.9	mg/Kg wet	68.3		105	82.1-117.7	3.61	30	
Potassium	2030	490	mg/Kg wet	2050		99.2	69.8-129.8	2.61	30	
Selenium	192	9.7	mg/Kg wet	182		105	79.7-120.3	6.22	30	
Silver	52.0	0.97	mg/Kg wet	50.1		104	80.2-120	4.76	30	
Sodium	121	490	mg/Kg wet	136		89.3	71.6-127.9	3.80	30	J
Thallium	92.7	4.9	mg/Kg wet	87.7		106	81.1-118.6	2.95	30	
Vanadium	158	1.9	mg/Kg wet	153		104	79.1-120.9	2.84	30	
Zinc	238	1.9	mg/Kg wet	228		104	80.7-118.9	4.61	30	
Reference (B292205-SRM1) MRL CHECK				Prepared: 10/11/21 Analyzed: 10/13/21						
Lead	0.512	0.49	mg/Kg wet	0.495		104	80-120			
Batch B292300 - SW-846 3050B										
Blank (B292300-BLK1)				Prepared: 10/12/21 Analyzed: 10/14/21						
Aluminum	ND	17	mg/Kg wet							

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QUALITY CONTROL

Metals Analyses (Total) - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B292300 - SW-846 3050B										
LCS (B292300-BS1)				Prepared: 10/12/21 Analyzed: 10/14/21						
Aluminum	7460	50	mg/Kg wet	8110		92.0	48.1-151.7			
LCS Dup (B292300-BSD1)				Prepared: 10/12/21 Analyzed: 10/14/21						
Aluminum	7390	50	mg/Kg wet	8110		91.1	48.1-151.7	1.03	30	
Batch B292487 - SW-846 3005A										
Blank (B292487-BLK1)				Prepared: 10/14/21 Analyzed: 10/18/21						
Antimony	ND	1.0	µg/L							
Arsenic	ND	0.80	µg/L							
Barium	ND	10	µg/L							
Beryllium	ND	0.40	µg/L							
Cadmium	ND	0.20	µg/L							
Chromium	ND	1.0	µg/L							
Cobalt	ND	1.0	µg/L							
Copper	ND	1.0	µg/L							
Lead	ND	0.50	µg/L							
Manganese	ND	1.0	µg/L							
Nickel	ND	5.0	µg/L							
Selenium	ND	5.0	µg/L							
Silver	ND	0.20	µg/L							
Thallium	ND	0.20	µg/L							
Vanadium	ND	5.0	µg/L							
Zinc	ND	10	µg/L							
LCS (B292487-BS1)				Prepared: 10/14/21 Analyzed: 10/18/21						
Antimony	537	10	µg/L	500		107	80-120			
Arsenic	494	8.0	µg/L	500		98.8	80-120			
Barium	508	100	µg/L	500		102	80-120			
Beryllium	483	4.0	µg/L	500		96.6	80-120			
Cadmium	505	2.0	µg/L	500		101	80-120			
Chromium	482	10	µg/L	500		96.3	80-120			
Cobalt	494	10	µg/L	500		98.8	80-120			
Copper	976	10	µg/L	1000		97.6	80-120			
Lead	490	5.0	µg/L	500		98.0	80-120			
Manganese	492	10	µg/L	500		98.4	80-120			
Nickel	517	50	µg/L	500		103	80-120			
Selenium	500	50	µg/L	500		100	80-120			
Silver	492	2.0	µg/L	500		98.4	80-120			
Thallium	488	2.0	µg/L	500		97.7	80-120			
Vanadium	483	50	µg/L	500		96.6	80-120			
Zinc	994	100	µg/L	1000		99.4	80-120			

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QUALITY CONTROL

Metals Analyses (Total) - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B292487 - SW-846 3005A										
LCS Dup (B292487-BSD1)				Prepared: 10/14/21 Analyzed: 10/18/21						
Antimony	538	10	µg/L	500		108	80-120	0.189	20	
Arsenic	493	8.0	µg/L	500		98.6	80-120	0.242	20	
Barium	498	100	µg/L	500		99.6	80-120	1.89	20	
Beryllium	478	4.0	µg/L	500		95.6	80-120	1.05	20	
Cadmium	497	2.0	µg/L	500		99.4	80-120	1.52	20	
Chromium	477	10	µg/L	500		95.3	80-120	1.03	20	
Cobalt	486	10	µg/L	500		97.1	80-120	1.73	20	
Copper	965	10	µg/L	1000		96.5	80-120	1.13	20	
Lead	491	5.0	µg/L	500		98.1	80-120	0.141	20	
Manganese	484	10	µg/L	500		96.8	80-120	1.64	20	
Nickel	512	50	µg/L	500		102	80-120	0.850	20	
Selenium	494	50	µg/L	500		98.8	80-120	1.22	20	
Silver	484	2.0	µg/L	500		96.8	80-120	1.66	20	
Thallium	487	2.0	µg/L	500		97.4	80-120	0.268	20	
Vanadium	477	50	µg/L	500		95.5	80-120	1.12	20	
Zinc	979	100	µg/L	1000		97.9	80-120	1.55	20	
Batch B292509 - SW-846 7470A Prep										
Blank (B292509-BLK1)				Prepared: 10/15/21 Analyzed: 10/18/21						
Mercury	ND	0.00010	mg/L							
LCS (B292509-BS1)				Prepared: 10/15/21 Analyzed: 10/18/21						
Mercury	0.00435	0.00010	mg/L	0.00402		108	80-120			
LCS Dup (B292509-BSD1)				Prepared: 10/15/21 Analyzed: 10/18/21						
Mercury	0.00438	0.00010	mg/L	0.00402		109	80-120	0.672	20	
Duplicate (B292509-DUP1)		**Source: 21J0524-08**		Prepared: 10/15/21 Analyzed: 10/18/21						
Mercury	ND	0.00010	mg/L		ND			NC	20	
Matrix Spike (B292509-MS1)		**Source: 21J0524-08**		Prepared: 10/15/21 Analyzed: 10/18/21						
Mercury	0.00439	0.00010	mg/L	0.00402	ND	109	75-125			
Batch B292561 - SW-846 3005A										
Blank (B292561-BLK1)				Prepared & Analyzed: 10/15/21						
Aluminum	ND	0.050	mg/L							
Calcium	ND	0.50	mg/L							
Iron	ND	0.050	mg/L							
Magnesium	ND	0.050	mg/L							
Potassium	ND	2.0	mg/L							
Sodium	ND	2.0	mg/L							

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QUALITY CONTROL

Metals Analyses (Total) - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B292561 - SW-846 3005A										
LCS (B292561-BS1)				Prepared & Analyzed: 10/15/21						
Aluminum	0.514	0.050	mg/L	0.500		103	80-120			
Calcium	4.08	0.50	mg/L	4.00		102	80-120			
Iron	3.99	0.050	mg/L	4.00		99.7	80-120			
Magnesium	4.10	0.050	mg/L	4.00		103	80-120			
Potassium	3.93	2.0	mg/L	4.00		98.2	80-120			
Sodium	4.03	2.0	mg/L	4.00		101	80-120			
LCS Dup (B292561-BSD1)				Prepared & Analyzed: 10/15/21						
Aluminum	0.507	0.050	mg/L	0.500		101	80-120	1.46	20	
Calcium	4.11	0.50	mg/L	4.00		103	80-120	0.790	20	
Iron	4.02	0.050	mg/L	4.00		101	80-120	0.834	20	
Magnesium	4.12	0.050	mg/L	4.00		103	80-120	0.510	20	
Potassium	3.95	2.0	mg/L	4.00		98.8	80-120	0.628	20	
Sodium	4.04	2.0	mg/L	4.00		101	80-120	0.124	20	

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QUALITY CONTROL

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total) - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B292214 - SW-846 9045C										
LCS (B292214-BS1)				Prepared & Analyzed: 10/11/21						
pH	5.99		pH Units	6.00		99.9	90-110			
Batch B292228 - SW-846 9010C										
Blank (B292228-BLK1)				Prepared & Analyzed: 10/12/21						
Cyanide	ND	0.47	mg/Kg wet							
LCS (B292228-BS1)				Prepared & Analyzed: 10/12/21						
Cyanide	78	2.5	mg/Kg wet	69.8		111	80-120			
LCS Dup (B292228-BSD1)				Prepared & Analyzed: 10/12/21						
Cyanide	80	2.5	mg/Kg wet	70.0		114	80-120	2.72	20	
Reference (B292228-SRM1)				Prepared & Analyzed: 10/12/21						
Cyanide	18.2	0.50	mg/Kg wet	18.6		97.9	0-200			

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IDENTIFICATION SUMMARY
FOR SINGLE COMPONENT ANALYTES

SW-846 8082A

LCS

Lab Sample ID: B292279-BS1

Date(s) Analyzed: 10/13/2021 10/13/2021

Instrument ID (1): ECD3

Instrument ID (2): ECD3

GC Column (1): ID: (mm)

GC Column (2): ID: (mm)

ANALYTE	COL	RT	RT WINDOW		CONCENTRATION	%RPD
			FROM	TO		
Aroclor-1016	1	0.000	0.000	0.000	0.45	
	2	0.000	0.000	0.000	0.42	6.9
Aroclor-1260	1	0.000	0.000	0.000	0.40	
	2	0.000	0.000	0.000	0.41	2.5

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IDENTIFICATION SUMMARY FOR SINGLE COMPONENT ANALYTES

SW-846 8082A

LCS Dup

Lab Sample ID: B292279-BSD1 Date(s) Analyzed: 10/13/2021 10/13/2021

Instrument ID (1): ECD3 Instrument ID (2): ECD3

GC Column (1): ID: (mm) GC Column (2): ID: (mm)

ANALYTE	COL	RT	RT WINDOW		CONCENTRATION	%RPD
			FROM	TO		
Aroclor-1016	1	0.000	0.000	0.000	0.41	
	2	0.000	0.000	0.000	0.38	7.6
Aroclor-1260	1	0.000	0.000	0.000	0.37	
	2	0.000	0.000	0.000	0.36	2.7

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IDENTIFICATION SUMMARY FOR SINGLE COMPONENT ANALYTES

SW-846 8082A

LCS

Lab Sample ID: B292281-BS1 Date(s) Analyzed: 10/13/2021 10/13/2021

Instrument ID (1): ECD1 Instrument ID (2): ECD1

GC Column (1): ID: (mm) GC Column (2): ID: (mm)

ANALYTE	COL	RT	RT WINDOW		CONCENTRATION	%RPD
			FROM	TO		
Aroclor-1016	1	0.000	0.000	0.000	0.16	
	2	0.000	0.000	0.000	0.16	0.0
Aroclor-1260	1	0.000	0.000	0.000	0.17	
	2	0.000	0.000	0.000	0.16	6.1

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IDENTIFICATION SUMMARY
FOR SINGLE COMPONENT ANALYTES

SW-846 8082A

LCS Dup

Lab Sample ID: B292281-BSD1 Date(s) Analyzed: 10/13/2021 10/13/2021

Instrument ID (1): ECD1 Instrument ID (2): ECD1

GC Column (1): ID: (mm) GC Column (2): ID: (mm)

ANALYTE	COL	RT	RT WINDOW		CONCENTRATION	%RPD
			FROM	TO		
Aroclor-1016	1	0.000	0.000	0.000	0.16	
	2	0.000	0.000	0.000	0.15	6.5
Aroclor-1260	1	0.000	0.000	0.000	0.16	
	2	0.000	0.000	0.000	0.15	6.5

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IDENTIFICATION SUMMARY
FOR SINGLE COMPONENT ANALYTES

SW-846 8082A

Matrix Spike

Lab Sample ID: B292281-MS1

Date(s) Analyzed: 10/13/2021 10/13/2021

Instrument ID (1): ECD1

Instrument ID (2): ECD1

GC Column (1): ID: (mm)

GC Column (2): ID: (mm)

ANALYTE	COL	RT	RT WINDOW		CONCENTRATION	%RPD
			FROM	TO		
Aroclor-1016	1	0.000	0.000	0.000	0.19	
	2	0.000	0.000	0.000	0.18	5.4
Aroclor-1260	1	0.000	0.000	0.000	0.18	
	2	0.000	0.000	0.000	0.18	0.0

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IDENTIFICATION SUMMARY FOR SINGLE COMPONENT ANALYTES

SW-846 8082A

Matrix Spike Dup

Lab Sample ID: B292281-MSD1 Date(s) Analyzed: 10/13/2021 10/13/2021

Instrument ID (1): ECD1 Instrument ID (2): ECD1

GC Column (1): ID: (mm) GC Column (2): ID: (mm)

ANALYTE	COL	RT	RT WINDOW		CONCENTRATION	%RPD
			FROM	TO		
Aroclor-1016	1	0.000	0.000	0.000	0.17	
	2	0.000	0.000	0.000	0.17	0.0
Aroclor-1260	1	0.000	0.000	0.000	0.17	
	2	0.000	0.000	0.000	0.16	6.1

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FLAG/QUALIFIER SUMMARY

*	QC result is outside of established limits.
†	Wide recovery limits established for difficult compound.
‡	Wide RPD limits established for difficult compound.
#	Data exceeded client recommended or regulatory level
ND	Not Detected
RL	Reporting Limit is at the level of quantitation (LOQ)
DL	Detection Limit is the lower limit of detection determined by the MDL study
MCL	Maximum Contaminant Level
	Percent recoveries and relative percent differences (RPDs) are determined by the software using values in the calculation which have not been rounded.
	No results have been blank subtracted unless specified in the case narrative section.
H-03	Sample received after recommended holding time was exceeded.
J	Detected but below the Reporting Limit (lowest calibration standard); therefore, result is an estimated concentration (CLP J-Flag).
L-04	Laboratory fortified blank/laboratory control sample recovery and duplicate recovery are outside of control limits. Reported value for this compound is likely to be biased on the low side.
V-04	Initial calibration did not meet method specifications. Compound was calibrated using a response factor where %RSD is outside of method specified criteria. Reported result is estimated.
V-05	Continuing calibration verification (CCV) did not meet method specifications and was biased on the low side for this compound.
V-06	Continuing calibration verification (CCV) did not meet method specifications and was biased on the high side for this compound.
V-20	Continuing calibration verification (CCV) did not meet method specifications and was biased on the high side. Data validation is not affected since sample result was "not detected" for this compound.
V-34	Initial calibration verification (ICV) did not meet method specifications and was biased on the low side for this compound. Reported result is estimated.
V-36	Initial calibration verification (ICV) did not meet method specifications and was biased on the high side. Data validation is not affected since sample result was "not detected" for this compound.

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CERTIFICATIONS

Certified Analyses included in this Report

Analyte	Certifications
SW-846 6010D in Soil	
Aluminum	CT,NH,NY,ME,VA,NC
Antimony	CT,NH,NY,ME,VA,NC
Arsenic	CT,NH,NY,ME,VA,NC
Barium	CT,NH,NY,ME,VA,NC
Beryllium	CT,NH,NY,ME,VA,NC
Cadmium	CT,NH,NY,ME,VA,NC
Calcium	CT,NH,NY,ME,VA,NC
Chromium	CT,NH,NY,ME,VA,NC
Cobalt	CT,NH,NY,ME,VA,NC
Copper	CT,NH,NY,ME,VA,NC
Iron	CT,NH,NY,ME,VA,NC
Lead	CT,NH,NY,AIHA,ME,VA,NC
Magnesium	CT,NH,NY,ME,VA,NC
Manganese	CT,NH,NY,ME,VA,NC
Nickel	CT,NH,NY,ME,VA,NC
Potassium	CT,NH,NY,ME,VA,NC
Selenium	CT,NH,NY,ME,VA,NC
Silver	CT,NH,NY,ME,VA,NC
Sodium	CT,NH,NY,ME,VA,NC
Thallium	CT,NH,NY,ME,VA,NC
Vanadium	CT,NH,NY,ME,VA,NC
Zinc	CT,NH,NY,ME,VA,NC
SW-846 6010D in Water	
Aluminum	CT,NH,NY,ME,VA,NC
Calcium	CT,NH,NY,ME,VA,NC
Iron	CT,NH,NY,ME,VA,NC
Magnesium	CT,NH,NY,ME,VA,NC
Potassium	CT,NH,NY,ME,VA,NC
Sodium	CT,NH,NY,ME,VA,NC
SW-846 6020B in Water	
Antimony	CT,NH,NY,ME,VA,NC
Arsenic	CT,NH,NY,ME,VA,NC
Barium	CT,NH,NY,ME,VA,NC
Beryllium	CT,NH,NY,ME,VA,NC
Cadmium	CT,NH,NY,RI,ME,VA,NC
Chromium	CT,NH,NY,ME,VA,NC
Cobalt	CT,NH,NY,ME,VA,NC
Copper	CT,NH,NY,ME,VA,NC
Lead	CT,NH,NY,ME,VA,NC
Manganese	CT,NH,NY,ME,VA,NC
Nickel	CT,NH,NY,ME,VA,NC
Selenium	CT,NH,NY,ME,VA,NC
Silver	CT,NH,NY,ME,VA,NC
Thallium	CT,NH,NY,ME,VA,NC
Vanadium	CT,NH,NY,ME,VA,NC
Zinc	CT,NH,NY,ME,VA,NC

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CERTIFICATIONS

Certified Analyses included in this Report

Analyte	Certifications
SW-846 7470A in Water	
Mercury	CT,NH,NY,NC,ME,VA
SW-846 7471B in Soil	
Mercury	CT,NH,NY,NC,ME,VA
SW-846 8082A in Soil	
Aroclor-1016	CT,NH,NY,NC,ME,VA,PA
Aroclor-1016 [2C]	CT,NH,NY,NC,ME,VA,PA
Aroclor-1221	CT,NH,NY,NC,ME,VA,PA
Aroclor-1221 [2C]	CT,NH,NY,NC,ME,VA,PA
Aroclor-1232	CT,NH,NY,NC,ME,VA,PA
Aroclor-1232 [2C]	CT,NH,NY,NC,ME,VA,PA
Aroclor-1242	CT,NH,NY,NC,ME,VA,PA
Aroclor-1242 [2C]	CT,NH,NY,NC,ME,VA,PA
Aroclor-1248	CT,NH,NY,NC,ME,VA,PA
Aroclor-1248 [2C]	CT,NH,NY,NC,ME,VA,PA
Aroclor-1254	CT,NH,NY,NC,ME,VA,PA
Aroclor-1254 [2C]	CT,NH,NY,NC,ME,VA,PA
Aroclor-1260	CT,NH,NY,NC,ME,VA,PA
Aroclor-1260 [2C]	CT,NH,NY,NC,ME,VA,PA
Aroclor-1262	NH,NY,NC,ME,VA,PA
Aroclor-1262 [2C]	NH,NY,NC,ME,VA,PA
Aroclor-1268	NH,NY,NC,ME,VA,PA
Aroclor-1268 [2C]	NH,NY,NC,ME,VA,PA
SW-846 8082A in Water	
Aroclor-1016	CT,NH,NY,NC,ME,VA,PA
Aroclor-1016 [2C]	CT,NH,NY,NC,ME,VA,PA
Aroclor-1221	CT,NH,NY,NC,ME,VA,PA
Aroclor-1221 [2C]	CT,NH,NY,NC,ME,VA,PA
Aroclor-1232	CT,NH,NY,NC,ME,VA,PA
Aroclor-1232 [2C]	CT,NH,NY,NC,ME,VA,PA
Aroclor-1242	CT,NH,NY,NC,ME,VA,PA
Aroclor-1242 [2C]	CT,NH,NY,NC,ME,VA,PA
Aroclor-1248	CT,NH,NY,NC,ME,VA,PA
Aroclor-1248 [2C]	CT,NH,NY,NC,ME,VA,PA
Aroclor-1254	CT,NH,NY,NC,ME,VA,PA
Aroclor-1254 [2C]	CT,NH,NY,NC,ME,VA,PA
Aroclor-1260	CT,NH,NY,NC,ME,VA,PA
Aroclor-1260 [2C]	CT,NH,NY,NC,ME,VA,PA
Aroclor-1262	NH,NY,NC,ME,VA,PA
Aroclor-1262 [2C]	NH,NY,NC,ME,VA,PA
Aroclor-1268	NH,NY,NC,ME,VA,PA
Aroclor-1268 [2C]	NH,NY,NC,ME,VA,PA
SW-846 8260D in Soil	
Acetone	CT,NH,NY,ME,VA
Acrylonitrile	CT,NH,NY,ME,VA
Benzene	CT,NH,NY,ME,VA

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CERTIFICATIONS

Certified Analyses included in this Report

Analyte	Certifications
SW-846 8260D in Soil	
Bromobenzene	NH,NY,ME,VA
Bromochloromethane	NH,NY,ME,VA
Bromodichloromethane	CT,NH,NY,ME,VA
Bromoform	CT,NH,NY,ME,VA
Bromomethane	CT,NH,NY,ME,VA
2-Butanone (MEK)	CT,NH,NY,ME,VA
tert-Butyl Alcohol (TBA)	NY,ME
n-Butylbenzene	CT,NH,NY,ME,VA
sec-Butylbenzene	CT,NH,NY,ME,VA
tert-Butylbenzene	CT,NH,NY,ME,VA
Carbon Disulfide	CT,NH,NY,ME,VA
Carbon Tetrachloride	CT,NH,NY,ME,VA
Chlorobenzene	CT,NH,NY,ME,VA
Chlorodibromomethane	CT,NH,NY,ME,VA
Chloroethane	CT,NH,NY,ME,VA
Chloroform	CT,NH,NY,ME,VA
Chloromethane	CT,NH,NY,ME,VA
2-Chlorotoluene	CT,NH,NY,ME,VA
4-Chlorotoluene	CT,NH,NY,ME,VA
1,2-Dibromo-3-chloropropane (DBCP)	NY,ME
1,2-Dibromoethane (EDB)	NH,NY
Dibromomethane	NH,NY,ME,VA
1,2-Dichlorobenzene	CT,NH,NY,ME,VA
1,3-Dichlorobenzene	CT,NH,NY,ME,VA
1,4-Dichlorobenzene	CT,NH,NY,ME,VA
trans-1,4-Dichloro-2-butene	NY,ME
Dichlorodifluoromethane (Freon 12)	NH,NY,ME,VA
1,1-Dichloroethane	CT,NH,NY,ME,VA
1,2-Dichloroethane	CT,NH,NY,ME,VA
1,1-Dichloroethylene	CT,NH,NY,ME,VA
cis-1,2-Dichloroethylene	CT,NH,NY,ME,VA
trans-1,2-Dichloroethylene	CT,NH,NY,ME,VA
1,2-Dichloropropane	CT,NH,NY,ME,VA
1,3-Dichloropropane	NH,NY,ME,VA
2,2-Dichloropropane	NH,NY,ME,VA
1,1-Dichloropropene	NH,NY,ME,VA
cis-1,3-Dichloropropene	CT,NH,NY,ME,VA
trans-1,3-Dichloropropene	CT,NH,NY,ME,VA
Diethyl Ether	ME
1,4-Dioxane	NY,ME
Ethylbenzene	CT,NH,NY,ME,VA
Hexachlorobutadiene	NH,NY,ME,VA
2-Hexanone (MBK)	CT,NH,NY,ME,VA
Isopropylbenzene (Cumene)	CT,NH,NY,ME,VA
p-Isopropyltoluene (p-Cymene)	NH,NY
Methyl Acetate	NY,ME
Methyl tert-Butyl Ether (MTBE)	NY,ME,VA

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CERTIFICATIONS

Certified Analyses included in this Report

Analyte	Certifications
SW-846 8260D in Soil	
Methyl Cyclohexane	NY
Methylene Chloride	CT,NH,NY,ME,VA
4-Methyl-2-pentanone (MIBK)	CT,NH,NY,ME,VA
Naphthalene	NH,NY,ME,VA
n-Propylbenzene	NH,NY,ME
Styrene	CT,NH,NY,ME,VA
1,1,1,2-Tetrachloroethane	CT,NH,NY,ME,VA
1,1,2,2-Tetrachloroethane	CT,NH,NY,ME,VA
Tetrachloroethylene	CT,NH,NY,ME,VA
Toluene	CT,NH,NY,ME,VA
1,2,3-Trichlorobenzene	NY,ME
1,2,4-Trichlorobenzene	NH,NY,ME,VA
1,3,5-Trichlorobenzene	ME
1,1,1-Trichloroethane	CT,NH,NY,ME,VA
1,1,2-Trichloroethane	CT,NH,NY,ME,VA
Trichloroethylene	CT,NH,NY,ME,VA
Trichlorofluoromethane (Freon 11)	CT,NH,NY,ME,VA
1,2,3-Trichloropropane	NH,NY,ME,VA
1,2,4-Trimethylbenzene	CT,NH,NY,ME,VA
1,3,5-Trimethylbenzene	CT,NH,NY,ME,VA
Vinyl Chloride	CT,NH,NY,ME,VA
m+p Xylene	CT,NH,NY,ME,VA
o-Xylene	CT,NH,NY,ME,VA
SW-846 8270E in Soil	
Acenaphthene	CT,NY,NH,ME,NC,VA
Acenaphthylene	CT,NY,NH,ME,NC,VA
Acetophenone	NY,NH,ME,NC,VA
Aniline	NY,NH,ME,NC,VA
Anthracene	CT,NY,NH,ME,NC,VA
Benzidine	CT,NY,NH,ME,NC,VA
Benzo(a)anthracene	CT,NY,NH,ME,NC,VA
Benzo(a)pyrene	CT,NY,NH,ME,NC,VA
Benzo(b)fluoranthene	CT,NY,NH,ME,NC,VA
Benzo(g,h,i)perylene	CT,NY,NH,ME,NC,VA
Benzo(k)fluoranthene	CT,NY,NH,ME,NC,VA
Benzoic Acid	NY,NH,ME,NC,VA
Bis(2-chloroethoxy)methane	CT,NY,NH,ME,NC,VA
Bis(2-chloroethyl)ether	CT,NY,NH,ME,NC,VA
Bis(2-chloroisopropyl)ether	CT,NY,NH,ME,NC,VA
Bis(2-Ethylhexyl)phthalate	CT,NY,NH,ME,NC,VA
4-Bromophenylphenylether	CT,NY,NH,ME,NC,VA
Butylbenzylphthalate	CT,NY,NH,ME,NC,VA
Carbazole	NC
4-Chloroaniline	CT,NY,NH,ME,NC,VA
4-Chloro-3-methylphenol	CT,NY,NH,ME,NC,VA
2-Chloronaphthalene	CT,NY,NH,NC,VA

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CERTIFICATIONS

Certified Analyses included in this Report

Analyte	Certifications
SW-846 8270E in Soil	
2-Chlorophenol	CT,NY,NH,ME,NC,VA
4-Chlorophenylphenylether	CT,NY,NH,ME,NC,VA
Chrysene	CT,NY,NH,ME,NC,VA
Dibenz(a,h)anthracene	CT,NY,NH,ME,NC,VA
Dibenzofuran	CT,NY,NH,ME,NC,VA
Di-n-butylphthalate	CT,NY,NH,ME,NC,VA
1,2-Dichlorobenzene	NY,NH,ME,NC,VA
1,3-Dichlorobenzene	NY,NH,ME,NC,VA
1,4-Dichlorobenzene	NY,NH,ME,NC,VA
3,3-Dichlorobenzidine	CT,NY,NH,ME,NC,VA
2,4-Dichlorophenol	CT,NY,NH,ME,NC,VA
Diethylphthalate	CT,NY,NH,ME,NC,VA
2,4-Dimethylphenol	CT,NY,NH,ME,NC,VA
Dimethylphthalate	CT,NY,NH,ME,NC,VA
4,6-Dinitro-2-methylphenol	CT,NY,NH,ME,NC,VA
2,4-Dinitrophenol	CT,NY,NH,ME,NC,VA
2,4-Dinitrotoluene	CT,NY,NH,ME,NC,VA
2,6-Dinitrotoluene	CT,NY,NH,ME,NC,VA
Di-n-octylphthalate	CT,NY,NH,ME,NC,VA
1,2-Diphenylhydrazine/Azobenzene	NY,NH,ME,NC,VA
Fluoranthene	CT,NY,NH,ME,NC,VA
Fluorene	NY,NH,ME,NC,VA
Hexachlorobenzene	CT,NY,NH,ME,NC,VA
Hexachlorobutadiene	CT,NY,NH,ME,NC,VA
Hexachlorocyclopentadiene	CT,NY,NH,ME,NC,VA
Hexachloroethane	CT,NY,NH,ME,NC,VA
Indeno(1,2,3-cd)pyrene	CT,NY,NH,ME,NC,VA
Isophorone	CT,NY,NH,ME,NC,VA
1-Methylnaphthalene	NC
2-Methylnaphthalene	CT,NY,NH,ME,NC,VA
2-Methylphenol	CT,NY,NH,ME,NC,VA
3/4-Methylphenol	CT,NY,NH,ME,NC,VA
Naphthalene	CT,NY,NH,ME,NC,VA
2-Nitroaniline	CT,NY,NH,ME,NC,VA
3-Nitroaniline	CT,NY,NH,ME,NC,VA
4-Nitroaniline	CT,NY,NH,ME,NC,VA
Nitrobenzene	CT,NY,NH,ME,NC,VA
2-Nitrophenol	CT,NY,NH,ME,NC,VA
4-Nitrophenol	CT,NY,NH,ME,NC,VA
N-Nitrosodimethylamine	CT,NY,NH,ME,NC,VA
N-Nitrosodi-n-propylamine	CT,NY,NH,ME,NC,VA
Pentachloronitrobenzene	NY,NC
Pentachlorophenol	CT,NY,NH,ME,NC,VA
Phenanthrene	CT,NY,NH,ME,NC,VA
Phenol	CT,NY,NH,ME,NC,VA
Pyrene	CT,NY,NH,ME,NC,VA
Pyridine	CT,NY,NH,ME,NC,VA

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CERTIFICATIONS

Certified Analyses included in this Report

Analyte	Certifications
SW-846 8270E in Soil	
1,2,4,5-Tetrachlorobenzene	NY,NC
1,2,4-Trichlorobenzene	CT,NY,NH,ME,NC,VA
2,4,5-Trichlorophenol	CT,NY,NH,ME,NC,VA
2,4,6-Trichlorophenol	CT,NY,NH,ME,NC,VA
2-Fluorophenol	NC
SW-846 8270E in Water	
Acenaphthene	CT,NY,NC,ME,NH,VA
Acenaphthylene	CT,NY,NC,ME,NH,VA
Acetophenone	NY,NC
Aniline	CT,NY,NC,ME,VA
Anthracene	CT,NY,NC,ME,NH,VA
Benzidine	CT,NY,NC,ME,NH,VA
Benzo(a)anthracene	CT,NY,NC,ME,NH,VA
Benzo(a)pyrene	CT,NY,NC,ME,NH,VA
Benzo(b)fluoranthene	CT,NY,NC,ME,NH,VA
Benzo(g,h,i)perylene	CT,NY,NC,ME,NH,VA
Benzo(k)fluoranthene	CT,NY,NC,ME,NH,VA
Benzoic Acid	NY,NC,ME,NH,VA
Bis(2-chloroethoxy)methane	CT,NY,NC,ME,NH,VA
Bis(2-chloroethyl)ether	CT,NY,NC,ME,NH,VA
Bis(2-chloroisopropyl)ether	CT,NY,NC,ME,NH,VA
Bis(2-Ethylhexyl)phthalate	CT,NY,NC,ME,NH,VA
4-Bromophenylphenylether	CT,NY,NC,ME,NH,VA
Butylbenzylphthalate	CT,NY,NC,ME,NH,VA
Carbazole	NC
4-Chloroaniline	CT,NY,NC,ME,NH,VA
4-Chloro-3-methylphenol	CT,NY,NC,ME,NH,VA
2-Chloronaphthalene	CT,NY,NC,ME,NH,VA
2-Chlorophenol	CT,NY,NC,ME,NH,VA
4-Chlorophenylphenylether	CT,NY,NC,ME,NH,VA
Chrysene	CT,NY,NC,ME,NH,VA
Dibenz(a,h)anthracene	CT,NY,NC,ME,NH,VA
Dibenzofuran	CT,NY,NC,ME,NH,VA
Di-n-butylphthalate	CT,NY,NC,ME,NH,VA
1,2-Dichlorobenzene	CT,NY,NC,ME,NH,VA
1,3-Dichlorobenzene	CT,NY,NC,ME,NH,VA
1,4-Dichlorobenzene	CT,NY,NC,ME,NH,VA
3,3-Dichlorobenzidine	CT,NY,NC,ME,NH,VA
2,4-Dichlorophenol	CT,NY,NC,ME,NH,VA
Diethylphthalate	CT,NY,NC,ME,NH,VA
2,4-Dimethylphenol	CT,NY,NC,ME,NH,VA
Dimethylphthalate	CT,NY,NC,ME,NH,VA
4,6-Dinitro-2-methylphenol	CT,NY,NC,ME,NH,VA
2,4-Dinitrophenol	CT,NY,NC,ME,NH,VA
2,4-Dinitrotoluene	CT,NY,NC,ME,NH,VA
2,6-Dinitrotoluene	CT,NY,NC,ME,NH,VA

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

CERTIFICATIONS

Certified Analyses included in this Report

Analyte	Certifications
SW-846 8270E in Water	
Di-n-octylphthalate	CT,NY,NC,ME,NH,VA
1,2-Diphenylhydrazine/Azobenzene	NY,NC
Fluoranthene	CT,NY,NC,ME,NH,VA
Fluorene	NY,NC,ME,NH,VA
Hexachlorobenzene	CT,NY,NC,ME,NH,VA
Hexachlorobutadiene	CT,NY,NC,ME,NH,VA
Hexachlorocyclopentadiene	CT,NY,NC,ME,NH,VA
Hexachloroethane	CT,NY,NC,ME,NH,VA
Indeno(1,2,3-cd)pyrene	CT,NY,NC,ME,NH,VA
Isophorone	CT,NY,NC,ME,NH,VA
1-Methylnaphthalene	NC
2-Methylnaphthalene	CT,NY,NC,ME,NH,VA
2-Methylphenol	CT,NY,NC,NH,VA
3/4-Methylphenol	CT,NY,NC,NH,VA
Naphthalene	CT,NY,NC,ME,NH,VA
2-Nitroaniline	CT,NY,NC,ME,NH,VA
3-Nitroaniline	CT,NY,NC,ME,NH,VA
4-Nitroaniline	CT,NY,NC,ME,NH,VA
Nitrobenzene	CT,NY,NC,ME,NH,VA
2-Nitrophenol	CT,NY,NC,ME,NH,VA
4-Nitrophenol	CT,NY,NC,ME,NH,VA
N-Nitrosodimethylamine	CT,NY,NC,ME,NH,VA
N-Nitrosodi-n-propylamine	CT,NY,NC,ME,NH,VA
Pentachloronitrobenzene	NC
Pentachlorophenol	CT,NY,NC,ME,NH,VA
Phenanthrene	CT,NY,NC,ME,NH,VA
Phenol	CT,NY,NC,ME,NH,VA
Pyrene	CT,NY,NC,ME,NH,VA
Pyridine	CT,NY,NC,ME,NH,VA
1,2,4,5-Tetrachlorobenzene	NY,NC
1,2,4-Trichlorobenzene	CT,NY,NC,ME,NH,VA
2,4,5-Trichlorophenol	CT,NY,NC,ME,NH,VA
2,4,6-Trichlorophenol	CT,NY,NC,ME,NH,VA
2-Fluorophenol	NC
SW-846 9014 in Soil	
Cyanide	NY,CT,NC,ME,NH,VA

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Con-Test, a Pace Environmental Laboratory, operates under the following certifications and accreditations:

Code	Description	Number	Expires
AIHA	AIHA-LAP, LLC - ISO17025:2017	100033	03/1/2022
MA	Massachusetts DEP	M-MA100	06/30/2022
CT	Connecticut Department of Publilc Health	PH-0165	12/31/2022
NY	New York State Department of Health	10899 NELAP	04/1/2022
NH-S	New Hampshire Environmental Lab	2516 NELAP	02/5/2022
RI	Rhode Island Department of Health	LAO00112	12/30/2021
NC	North Carolina Div. of Water Quality	652	12/31/2021
NJ	New Jersey DEP	MA007 NELAP	06/30/2022
FL	Florida Department of Health	E871027 NELAP	06/30/2022
VT	Vermont Department of Health Lead Laboratory	LL720741	07/30/2022
ME	State of Maine	MA00100	06/9/2023
VA	Commonwealth of Virginia	460217	12/14/2021
NH-P	New Hampshire Environmental Lab	2557 NELAP	09/6/2022
VT-DW	Vermont Department of Health Drinking Water	VT-255716	06/12/2022
NC-DW	North Carolina Department of Health	25703	07/31/2022
PA	Commonwealth of Pennsylvania DEP	68-05812	06/30/2022
MI	Dept. of Env, Great Lakes, and Energy	9100	09/6/2022

211024

Pace Analytical®

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Fax: 413-525-6405
Access COC's and Support Requests

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CHAIN OF CUSTODY RECORD

39 Spruce Street
East Longmeadow, MA 01028

Doc # 381 Rev 5_07/13/2021

Page 1 of 2

Company Name: Ramboll
Address: 4350 N Fairfax Drive, Ste 300, Arlington VA
Phone: 703 5162383
Project Name: HRP PRGS SCR
Project Location: 1400 N Royal St. Alexandria VA
Project Number:
Project Manager: Greg Grose
Pace Quote Name/Number:
Invoice Recipient: sostertag@ramboll.com
Sampled By: Sarah Osterlag

Requested Turnaround Time: 7-Day ☐ 10-Day ☒ (5 Day RT) PFAS 10-Day (std) ☐ Due Date:
Rush Approval Required: 1-Day ☐ 3-Day ☐ 2-Day ☐ 4-Day ☐
Data Delivery: Format: PDF ☒ EXCEL ☒ Other: Ramboll EDD CLP Like Data Pkg Required: ☐ Email To: sostertag@ramboll.com Fax To #:
Dissolved Metals Samples: ○ Field Filtered ○ Lab to Filter
Orthophosphate Samples: ○ Field Filtered ○ Lab to Filter
PCB ONLY
SOXHLET ☐
NON SOXHLET ☒

ANALYSIS REQUESTED

Pace Work Order#	Client Sample ID / Description	Beginning Date/Time	Ending Date/Time	COMP/GRAB	Matrix Code	Conc Code	VIALS	GLASS	PLASTIC	BACTERIA	ENCORE	PCBs	SVOCs	TAL Metals	pH	Cyanide	VOCs					
1	HRP-SB221-0-1-211005	10-5-21	1340	G	S	C		1				X										
2	HRP-SB221-4-5-211005	10-5-21	1427	G	S	L		1				X										
3	HRP-SB226-0-1-211005	10-5-21	@ 1540	G	S	C		2				X	X	X	X	X						
4	HRP-SB226-4-5-211005	10-5-21	@ 1548	G	S	C		2				X	X	X	X	X						
5	HRP-EB01-211007	10-7-21	@ 1115	G	W	C		2				X								HOLD		
6	HRP-SB202-0-1-211007	10.7.21	@ 1323	G	S	C		2					X	X						Equip Blank		
7	HRP-SB202-4-5-211007	10.7.21	@ 1502	G	S	L	3	2					X	X			X					
	HRP-SB202-[illegible]-211007	10-7-21																				
8	HRP-EB02-211007	10.7.21	@ 1340	G	W	C		2					X	X						Equip Blank		
9	HRP-SB201-0-1-211008	10-8-21	@ 0855	G	S	C		2					X	X								

[2] Preservation Code
Courier Use Only
Total Number Of:
VIALS
GLASS
PLASTIC
BACTERIA
ENCORE

Glassware in the fridge? Y / N
Glassware in freezer? Y / N
Prepackaged Cooler? Y / N
*Pace Analytical is not responsible for missing samples from prepacked coolers

[1] Matrix Codes:
GW = Ground Water
WW = Waste Water
DW = Drinking Water
A = Air
S = Soil
SL = Sludge
SOL = Solid
O = Other (please define)

[2] Preservation Codes:
I = Iced
H = HCL
M = Methanol
N = Nitric Acid
S = Sulfuric Acid
B = Sodium Bisulfate
X = Sodium Hydroxide
T = Sodium Thiosulfate
O = Other (please define)

Relinquished by: (signature)	Date/Time:
[signature]	10.8.21 @ 1235
Received by: (signature)	Date/Time:
[signature]	10-8-21 1235
Relinquished by: (signature)	Date/Time:
[signature]	10-8-21 1326
Received by: (signature)	Date/Time:
Rachel Burruss	10-8-21 1526
Relinquished by: (signature)	Date/Time:
Rachel Burruss	10-8-21 1700
Received by: (signature)	Date/Time:
4.5/50	
Relinquished by: (signature)	Date/Time:
Received by: (signature)	Date/Time:

Client Comments: HOLD: SB226-4-5

Note: Pace did not provide Trip Blank containers, no TB included in this shipment.

Detection Limit Requirements:
MA
CT
Other: Virginia DEQ

Special Requirements:
MA MCP Required ☐
MCP Certification Form Required
CT RCP Required ☐
RCP Certification Form Required
MA State DW Required ☐
PWSID #

Please use the following codes to indicate possible sample concentration within the Conc Code column above:
H - High; M - Medium; L - Low; C - Clean; U - Unknown

NELAC and AIHA-LAP, LLC Accredited

Project Entity
Government ☐ Municipality ☐ MWRA ☐ WRTA ☐
Federal ☐ 21 J ☐ School ☐
City ☐ Brownfield ☐ MBTA ☐

Other
☐ Chromatogram
☐ AIHA-LAP, LLC

Lab Comments:

Disclaimer: Pace Analytical is not responsible for any omitted information on the Chain of Custody. The Chain of Custody is a legal document that must be complete and accurate and is used to determine what analyses the laboratory will perform. Any missing information is not the laboratory's responsibility. Pace Analytical values your partnership on each project and will try to assist with missing information, but will not be held accountable.

21J0524

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CHAIN OF CUSTODY RECORD

39 Spruce Street
East Longmeadow, MA 01028

Doc # 381 Rev 5_07/13/2021

Page 2 of 2

Company Name: Ramboll
Address: 4350 N Fairfax Drive Ste 300, Arlington VA 22203
Phone:
Project Name: HRP PRGS SCR
Project Location: 1400 N. Royal St. Alexandria, VA
Project Number:
Project Manager: Greg Grove
Pace Quote Name/Number:
Invoice Recipient: Sostertag@ramboll.com
Sampled By: Sarah Osterstag

Requested Turnaround Time: 7-Day ☐ 10-Day ☒ (5 day pr PM) PFAS 10-Day (std) ☐ Due Date:
Rush Approval Required: 1-Day ☐ 3-Day ☐ 2-Day ☐ 4-Day ☐
Data Delivery: Format: PDF ☑ EXCEL ☒ Other: Ramboll EDD CLP Like Data Pkg Required: ☐ Email To: Sostertag@ramboll.com Fax To #:
Dissolved Metals Samples: ○ Field Filtered ○ Lab to Filter
Orthophosphate Samples: ○ Field Filtered ○ Lab to Filter
PCB ONLY: SOXHLET ☐ NON SOXHLET ☐

ANALYSIS REQUESTED

Pace Work Order#	Client Sample ID / Description	Beginning Date/Time	Ending Date/Time	COMP/GRAB	[1]Matrix Code	Conc Code	VIALS	GLASS	PLASTIC	BACTERIA	ENCORE	SVOCs	TAL Metals	VOCs	[2] Preservation Code
10	HRP-DUP01-0-1-211008	10.8.21 @ 0855		G	S	C		2				X	X		
11	HRP-SB201-10-12-211008	10.8.21 @ 1100		G	S	L	3	2				X	X	X	
12	HRP-SB201-24-26-211008	10.8.21 @ 1105		G	S	C	3	2				X	X	X	

Courier Use Only
Total Number Of:
VIALS
GLASS
PLASTIC
BACTERIA
ENCORE

Glassware in the fridge? Y / N
Glassware in freezer? Y / N
Prepackaged Cooler? Y / N
*Pace Analytical is not responsible for missing samples from prepacked coolers

[1] Matrix Codes:
GW = Ground Water
WW = Waste Water
DW = Drinking Water
A = Air
S = Soil
SL = Sludge
SOL = Solid
O = Other (please define)

[2] Preservation Codes:
I = Iced
H = HCL
M = Methanol
N = Nitric Acid
S = Sulfuric Acid
B = Sodium Bisulfate
X = Sodium Hydroxide
T = Sodium Thiosulfate
O = Other (please define)

Relinquished by: (signature)	Date/Time:
[signature]	10.8.21 @ 1235
Received by: (signature)	Date/Time:
[signature]	10-8-21 1235
Relinquished by: (signature)	Date/Time:
[signature]	10-8-21 1515
Received by: (signature)	Date/Time:
Rachel Burruss	10-8-21 1521
Relinquished by: (signature)	Date/Time:
Rachel Burruss	10-8-21 1700
Received by: (signature)	Date/Time:
[signature]	10.5.50
Relinquished by: (signature)	Date/Time:
Received by: (signature)	Date/Time:

Client Comments: Note: Pace did not provide Trip Blank containers, no TB included in this shipment.

Detection Limit Requirements: MA: GW:

Special Requirements:
MA MCP Required ☐
MCP Certification Form Required
CT RCP Required ☐
RCP Certification Form Required
MA State DW Required ☐

Please use the following codes to indicate possible sample concentration within the Conc Code column above:
H - High; M - Medium; L - Low; C - Clean; U - Unknown

Other: Virginia DEQ PWSID #

NELAC and AIHA-LAP, LLC Accredited

Project Entity
Government ☐ Municipality ☐ MWRA ☐ WRTA ☐
Federal ☐ 21 J ☐ School ☐
City ☐ Brownfield ☐ MBTA ☐

Other
Chromatogram ☐
AIHA-LAP,LLC ☐

Lab Comments:

Disclaimer: Pace Analytical is not responsible for any omitted information on the Chain of Custody. The Chain of Custody is a legal document that must be complete and accurate and is used to determine what analyses the laboratory will perform. Any missing information is not the laboratory's responsibility. Pace Analytical values your partnership on each project and will try to assist with missing information, but will not be held accountable.

FedEx

TRACK ANOTHER SHIPMENT

774925774754

ADD NICKNAME

Delivered
Saturday, October 9, 2021 at 9:58 am

THIS IS 1 OF 2 PIECES

DELIVERED

Signature release on file

GET STATUS UPDATES

OBTAIN PROOF OF DELIVERY

FROM	TO
Mechanicsville, VA US	EAST LONGMEADOW, MA US

2 Piece Shipment

TRACKING ID	STATUS	SHIP DATE	DELIVERY DATE	HANDLING PIECE UNITS	SHIPPER CITY, STATE	RECIPIENT CITY, STATE
774925774754 (master)	Delivered	10/8/21	10/9/21	0	Mechanicsville VA	EAST LONGMEADOW MA
774925775280	Delivered	10/8/21	10/9/21	0	Mechanicsville VA	EAST LONGMEADOW MA

Travel History

TIME ZONE
Local Scan Time

Saturday, October 9, 2021

9:58 AM	EAST LONGMEADOW, MA	Delivered Package delivered to recipient address - release authorized
8:55 AM	WINDSOR LOCKS, CT	On FedEx vehicle for delivery
8:10 AM	WINDSOR LOCKS, CT	At local FedEx facility

I Have Not Confirmed Sample Container Numbers With Lab Staff Before Relinquishing Over Samples_____

con-test® ANALYTICAL LABORATORY

Doc# 277 Rev 5 2017

Login Sample Receipt Checklist - (Rejection Criteria Listing - Using Acceptance Policy) Any False Statement will be brought to the attention of the Client - State True or False

Client Ranbill

Received By MP Date 10/9/21 Time 958

How were the samples received? In Cooler T No Cooler ____ On Ice T No Ice ____

Direct from Sampling ____ Ambient ____ Melted Ice ____

Were samples within Temperature? 2-6°C T By Gun # 5 Actual Temp - 4.5/5.1

By Blank # ____ Actual Temp - ____

Was Custody Seal Intact? ____ Were Samples Tampered with? ____

Was COC Relinquished ? T Does Chain Agree With Samples? T

Are there broken/leaking/loose caps on any samples? F

Is COC in ink/ Legible? T Were samples received within holding time? T

Did COC include all pertinent Information? Client T Analysis T Sampler Name T

Project T ID's T Collection Dates/Times T

Are Sample labels filled out and legible? T

Are there Lab to Filters? F Who was notified? ____

Are there Rushes? F Who was notified? ____

Are there Short Holds? F Who was notified? ____

Is there enough Volume? T

Is there Headspace where applicable? F MS/MSD? F

Proper Media/Containers Used? T Is splitting samples required? F

Were trip blanks received? F On COC? F

Do all samples have the proper pH? Acid pH<2 Base ____

Vials	#	Containers:	#		#		#
Unp-		1 Liter Amb.	4	1 Liter Plastic		16 oz Amb.	
HCL-		500 mL Amb.		500 mL Plastic		8oz Amb/Clear	18
Meoh-	3	250 mL Amb.		250 mL Plastic	1	4oz Amb/Clear	
Bisulfate-	6	Flashpoint		Col./Bacteria		2oz Amb/Clear	
DI-		Other Glass		Other Plastic		Encore	
Thiosulfate-		SOC Kit		Plastic Bag		Frozen:	
Sulfuric-		Perchlorate		Ziplock			

Unused Media

Vials	#	Containers:	#		#		#
Unp-		1 Liter Amb.		1 Liter Plastic		16 oz Amb.	
HCL-		500 mL Amb.		500 mL Plastic		8oz Amb/Clear	
Meoh-		250 mL Amb.		250 mL Plastic		4oz Amb/Clear	
Bisulfate-		Col./Bacteria		Flashpoint		2oz Amb/Clear	
DI-		Other Plastic		Other Glass		Encore	
Thiosulfate-		SOC Kit		Plastic Bag		Frozen:	
Sulfuric-		Perchlorate		Ziplock			

Comments:

con-test®
A Pace Analytical® Laboratory

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

October 27, 2021

Sarah Ostertag
Ramboll US Consulting, Inc. - Arlington, VA
4350 North Fairfax Drive
Arlington, VA 22203

Project Location: 1400 N. Royal St., Alexandria, VA
Client Job Number:
Project Number: [none]
Laboratory Work Order Number: 21J0887

Enclosed are results of analyses for samples as received by the laboratory on October 15, 2021. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Kaitlyn A. Feliciano
Project Manager

Table of Contents

Table of Contents (continued)

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Ramboll US Consulting, Inc. - Arlington, VA
4350 North Fairfax Drive
Arlington, VA 22203
ATTN: Sarah Ostertag

REPORT DATE: 10/27/2021

PURCHASE ORDER NUMBER:

PROJECT NUMBER: [none]

ANALYTICAL SUMMARY

WORK ORDER NUMBER: 21J0887

The results of analyses performed on the following samples submitted to CON-TEST, a Pace Analytical Laboratory, are found in this report.

PROJECT LOCATION: 1400 N. Royal St., Alexandria, VA

FIELD SAMPLE #	LAB ID:	MATRIX	SAMPLE DESCRIPTION	TEST	SUB LAB
HRP-TB01-211011	21J0887-01	Water		-	
				SW-846 8015C	
				SW-846 8260D	
HRP-SB205-0-1-211011	21J0887-02	Soil		SM 2540G	
				SW-846 6010D	
				SW-846 7471B	
				SW-846 8015C	
				SW-846 8270E	
				SW-846 9014	
				SW-846 9045C	
HRP-SB205-13-15-211011	21J0887-03	Soil		SM 2540G	
				SW-846 6010D	
				SW-846 7471B	
				SW-846 8015C	
				SW-846 8270E	
				SW-846 9014	
				SW-846 9045C	
HRP-DUP02-13-15-211011	21J0887-04	Soil		SM 2540G	
				SW-846 6010D	
				SW-846 7471B	
				SW-846 8015C	
				SW-846 8270E	
				SW-846 9014	
				SW-846 9045C	
HRP-SB203-0-1-211012	21J0887-05	Soil		SM 2540G	
				SW-846 6010D	
				SW-846 7471B	
				SW-846 8270E	
HRP-SB203-11-13-211012	21J0887-06	Soil		SM 2540G	
				SW-846 6010D	
				SW-846 7471B	
				SW-846 8270E	
HRP-SB206-0-1-211012	21J0887-07	Soil		SM 2540G	
				SW-846 6010D	
				SW-846 7471B	
				SW-846 9014	
				SW-846 9045C	

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Ramboll US Consulting, Inc. - Arlington, VA
4350 North Fairfax Drive
Arlington, VA 22203
ATTN: Sarah Ostertag

REPORT DATE: 10/27/2021

PURCHASE ORDER NUMBER:

PROJECT NUMBER: [none]

ANALYTICAL SUMMARY

WORK ORDER NUMBER: 21J0887

The results of analyses performed on the following samples submitted to CON-TEST, a Pace Analytical Laboratory, are found in this report.

PROJECT LOCATION: 1400 N. Royal St., Alexandria, VA

FIELD SAMPLE #	LAB ID:	MATRIX	SAMPLE DESCRIPTION	TEST	SUB LAB
HRP-SB206-5-7-211012	21J0887-08	Soil		SM 2540G	
				SW-846 6010D	
				SW-846 7471B	
				SW-846 8015C	
				SW-846 9014	
				SW-846 9045C	
HR-SB206-15-17-211012	21J0887-09	Soil		SM 2540G	
				SW-846 6010D	
				SW-846 7471B	
				SW-846 8015C	
				SW-846 9014	
				SW-846 9045C	
HRP-SB207-0-1-211013	21J0887-10	Soil		SM 2540G	
				SW-846 6010D	
				SW-846 7471B	
				SW-846 8015C	
				SW-846 8260D	
				SW-846 9014	
				SW-846 9045C	
HRP-SB207-6-8-211013	21J0887-11	Soil		SM 2540G	
				SW-846 6010D	
				SW-846 7471B	
				SW-846 8015C	
				SW-846 8260D	
				SW-846 9014	
				SW-846 9045C	
HRP-DUP03-6-8-211013	21J0887-12	Soil		SM 2540G	
				SW-846 6010D	
				SW-846 7471B	
				SW-846 8015C	
				SW-846 8260D	
				SW-846 9014	
				SW-846 9045C	
GRP-SB207-16-18-211013	21J0887-13	Soil		SM 2540G	
				SW-846 6010D	
				SW-846 7471B	
				SW-846 8015C	
				SW-846 8260D	
				SW-846 9014	
				SW-846 9045C	

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Ramboll US Consulting, Inc. - Arlington, VA
4350 North Fairfax Drive
Arlington, VA 22203
ATTN: Sarah Ostertag

REPORT DATE: 10/27/2021

PURCHASE ORDER NUMBER:

PROJECT NUMBER: [none]

ANALYTICAL SUMMARY

WORK ORDER NUMBER: 21J0887

The results of analyses performed on the following samples submitted to CON-TEST, a Pace Analytical Laboratory, are found in this report.

PROJECT LOCATION: 1400 N. Royal St., Alexandria, VA

FIELD SAMPLE #	LAB ID:	MATRIX	SAMPLE DESCRIPTION	TEST	SUB LAB
HRP-TB02-211013	21J0887-14	Water		SW-846 8015C SW-846 8260D	

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

CASE NARRATIVE SUMMARY

All reported results are within defined laboratory quality control objectives unless listed below or otherwise qualified in this report.

REVISED REPORT 10/27/21- Samples -10, -11 and- 14 IDs revised

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

SW-846 6010D

Qualifications:

MS-07

Matrix spike recovery is outside of control limits. Analysis is in control based on laboratory fortified blank recovery.Possibility of sample matrix effects that lead to low bias for reported result or non-homogeneous sample aliquot cannot be eliminated.

Analyte & Samples(s) Qualified:

Antimony
21J0887-02[HRP-SB205-0-1-211011], B292559-MS1

Selenium
21J0887-02[HRP-SB205-0-1-211011], B292559-MS1

MS-11

Matrix spike recovery outside of control limits. Possibility of sample matrix effects that lead to a high bias for reported result or non-homogeneous sample aliquots cannot be eliminated.

Analyte & Samples(s) Qualified:

Calcium
21J0887-02[HRP-SB205-0-1-211011], B292559-MS1

Manganese
21J0887-02[HRP-SB205-0-1-211011], B292559-MS1

MS-19

Sample to spike ratio is greater than or equal to 4:1. Spiked amount is not representative of the native amount in the sample. Appropriate or meaningful recoveries cannot be calculated.

Analyte & Samples(s) Qualified:

Aluminum
21J0887-02[HRP-SB205-0-1-211011], B292559-MS1

Iron
21J0887-02[HRP-SB205-0-1-211011], B292559-MS1

Magnesium
21J0887-02[HRP-SB205-0-1-211011], B292559-MS1

Potassium
21J0887-02[HRP-SB205-0-1-211011], B292559-MS1

SW-846 8260D

Qualifications:

L-04

Laboratory fortified blank/laboratory control sample recovery and duplicate recovery are outside of control limits. Reported value for this compound is likely to be biased on the low side.

Analyte & Samples(s) Qualified:

1,2,3-Trichlorobenzene
21J0887-14[HRP-TB02-211013], B293177-BLK1, B293177-BS1, B293177-BSD1

V-05

Continuing calibration verification (CCV) did not meet method specifications and was biased on the low side for this compound.

Analyte & Samples(s) Qualified:

1,1,2-Trichloro-1,2,2-trifluoroethan
21J0887-01[HRP-TB01-211011], B292647-BLK1, B292647-BS1, B292647-BSD1, S064398-CCV1

1,2,3-Trichlorobenzene
21J0887-01[HRP-TB01-211011], 21J0887-14[HRP-TB02-211013], B292647-BLK1, B292647-BS1, B292647-BSD1, B293177-BLK1, B293177-BS1, B293177-BSD1, S064398-CCV1, S064638-CCV1

1,2,4-Trichlorobenzene
21J0887-01[HRP-TB01-211011], 21J0887-14[HRP-TB02-211013], B292647-BLK1, B292647-BS1, B292647-BSD1, B293177-BLK1, B293177-BS1, B293177-BSD1, S064398-CCV1, S064638-CCV1

Acrylonitrile
21J0887-01[HRP-TB01-211011], B292647-BLK1, B292647-BS1, B292647-BSD1, S064398-CCV1

Dichlorodifluoromethane (Freon 12
21J0887-10[HRP-SB207-0-1-211013], 21J0887-11[HRP-SB207-6-8-211013], 21J0887-12[HRP-DUP03-6-8-211013], 21J0887-13[GRP-SB207-16-18-211013], B292672-BLK1, B292672-BS1, B292672-BSD1, S064373-CCV1

Naphthalene
21J0887-01[HRP-TB01-211011], 21J0887-14[HRP-TB02-211013], B292647-BLK1, B292647-BS1, B292647-BSD1, B293177-BLK1, B293177-BS1, B293177-BSD1, S064398-CCV1, S064638-CCV1

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V-20

Continuing calibration verification (CCV) did not meet method specifications and was biased on the high side. Data validation is not affected since sample result was "not detected" for this compound.

Analyte & Samples(s) Qualified:

Bromomethane

B292672-BS1, B292672-BSD1, S064373-CCV1

Chloromethane

B293177-BS1, B293177-BSD1, S064638-CCV1

V-34

Initial calibration verification (ICV) did not meet method specifications and was biased on the low side for this compound. Reported result is estimated.

Analyte & Samples(s) Qualified:

Bromomethane

21J0887-10[HRP-SB207-0-1-211013], 21J0887-11[HRP-SB207-6-8-211013], 21J0887-12[HRP-DUP03-6-8-211013], 21J0887-13[GRP-SB207-16-18-211013], B292672-BLK1, B292672-BS1, B292672-BSD1, S064373-CCV1

V-36

Initial calibration verification (ICV) did not meet method specifications and was biased on the high side. Data validation is not affected since sample result was "not detected" for this compound.

Analyte & Samples(s) Qualified:

2-Hexanone (MBK)

B292672-BS1, B292672-BSD1, S064373-CCV1

Acetone

B292672-BS1, B292672-BSD1, S064373-CCV1

SW-846 8270E

Qualifications:

R-05

Laboratory fortified blank duplicate RPD is outside of control limits. Reduced precision is anticipated for any reported value for this compound.

Analyte & Samples(s) Qualified:

N-Nitrosodimethylamine

21J0887-02[HRP-SB205-0-1-211011], 21J0887-03[HRP-SB205-13-15-211011], 21J0887-04[HRP-DUP02-13-15-211011], 21J0887-05[HRP-SB203-0-1-211012], 21J0887-06[HRP-SB203-11-13-211012], B292783-BLK1, B292783-BS1, B292783-BSD1

Pyridine

21J0887-02[HRP-SB205-0-1-211011], 21J0887-03[HRP-SB205-13-15-211011], 21J0887-04[HRP-DUP02-13-15-211011], 21J0887-05[HRP-SB203-0-1-211012], 21J0887-06[HRP-SB203-11-13-211012], B292783-BLK1, B292783-BS1, B292783-BSD1

V-04

Initial calibration did not meet method specifications. Compound was calibrated using a response factor where %RSD is outside of method specified criteria. Reported result is estimated.

Analyte & Samples(s) Qualified:

2,4-Dinitrophenol

21J0887-02[HRP-SB205-0-1-211011], 21J0887-03[HRP-SB205-13-15-211011], 21J0887-04[HRP-DUP02-13-15-211011], 21J0887-05[HRP-SB203-0-1-211012], 21J0887-06[HRP-SB203-11-13-211012], B292783-BLK1, B292783-BS1, B292783-BSD1, S064523-CCV1

Benzidine

21J0887-02[HRP-SB205-0-1-211011], 21J0887-03[HRP-SB205-13-15-211011], 21J0887-04[HRP-DUP02-13-15-211011], 21J0887-05[HRP-SB203-0-1-211012], 21J0887-06[HRP-SB203-11-13-211012], B292783-BLK1, B292783-BS1, B292783-BSD1, S064523-CCV1

V-05

Continuing calibration verification (CCV) did not meet method specifications and was biased on the low side for this compound.

Analyte & Samples(s) Qualified:

4,6-Dinitro-2-methylphenol

21J0887-02[HRP-SB205-0-1-211011], 21J0887-03[HRP-SB205-13-15-211011], 21J0887-04[HRP-DUP02-13-15-211011], 21J0887-05[HRP-SB203-0-1-211012], 21J0887-06[HRP-SB203-11-13-211012], B292783-BLK1, B292783-BS1, B292783-BSD1, S064523-CCV1

SW-846 9045C

Qualifications:

H-03

Sample received after recommended holding time was exceeded.

Analyte & Samples(s) Qualified:

pH

21J0887-02[HRP-SB205-0-1-211011], 21J0887-03[HRP-SB205-13-15-211011], 21J0887-04[HRP-DUP02-13-15-211011], 21J0887-07[HRP-SB206-0-1-211012], 21J0887-08[HRP-SB206-5-7-211012], 21J0887-09[HR-SB206-15-17-211012], 21J0887-10[HRP-SB207-0-1-211013], 21J0887-11[HRP-SB207-6-8-211013], 21J0887-12[HRP-DUP03-6-8-211013], 21J0887-13[GRP-SB207-16-18-211013]

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SW-846 8015C

Gasoline Range Organics (2-Methylpentane through 1,2,4-Trimethylbenzene) is quantitated against a calibration made with an unleaded gasoline composite standard.

Diesel Range Organics (C10-C28) is quantitated against a calibration made with a #2 fuel oil standard.

The results of analyses reported only relate to samples submitted to Con-Test, a Pace Analytical Laboratory, for testing.
I certify that the analyses listed above, unless specifically listed as subcontracted, if any, were performed under my direction according to the approved methodologies listed in this document, and that based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

Kaitlyn A. Feliciano
Project Manager

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Project Location: 1400 N. Royal St., Alexandria, VA Sample Description: Work Order: 21J0887

Date Received: 10/15/2021

Field Sample #: HRP-TB01-211011 Sampled: 10/11/2021 13:00

Sample ID: 21J0887-01

Sample Matrix: Water

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acetone	ND	50	2.4	µg/L	1		SW-846 8260D	10/18/21	10/18/21 13:22	MFF
Acrylonitrile	ND	5.0	0.69	µg/L	1	V-05	SW-846 8260D	10/18/21	10/18/21 13:22	MFF
tert-Amyl Methyl Ether (TAME)	ND	0.50	0.15	µg/L	1		SW-846 8260D	10/18/21	10/18/21 13:22	MFF
Benzene	ND	1.0	0.13	µg/L	1		SW-846 8260D	10/18/21	10/18/21 13:22	MFF
Bromobenzene	ND	1.0	0.13	µg/L	1		SW-846 8260D	10/18/21	10/18/21 13:22	MFF
Bromochloromethane	ND	1.0	0.36	µg/L	1		SW-846 8260D	10/18/21	10/18/21 13:22	MFF
Bromodichloromethane	ND	0.50	0.14	µg/L	1		SW-846 8260D	10/18/21	10/18/21 13:22	MFF
Bromoform	ND	1.0	0.29	µg/L	1		SW-846 8260D	10/18/21	10/18/21 13:22	MFF
Bromomethane	ND	2.0	1.1	µg/L	1		SW-846 8260D	10/18/21	10/18/21 13:22	MFF
2-Butanone (MEK)	ND	20	1.9	µg/L	1		SW-846 8260D	10/18/21	10/18/21 13:22	MFF
tert-Butyl Alcohol (TBA)	ND	20	5.3	µg/L	1		SW-846 8260D	10/18/21	10/18/21 13:22	MFF
n-Butylbenzene	ND	1.0	0.14	µg/L	1		SW-846 8260D	10/18/21	10/18/21 13:22	MFF
sec-Butylbenzene	ND	1.0	0.10	µg/L	1		SW-846 8260D	10/18/21	10/18/21 13:22	MFF
tert-Butylbenzene	ND	1.0	0.090	µg/L	1		SW-846 8260D	10/18/21	10/18/21 13:22	MFF
tert-Butyl Ethyl Ether (TBEE)	ND	0.50	0.11	µg/L	1		SW-846 8260D	10/18/21	10/18/21 13:22	MFF
Carbon Disulfide	ND	5.0	1.5	µg/L	1		SW-846 8260D	10/18/21	10/18/21 13:22	MFF
Carbon Tetrachloride	ND	5.0	0.17	µg/L	1		SW-846 8260D	10/18/21	10/18/21 13:22	MFF
Chlorobenzene	ND	1.0	0.080	µg/L	1		SW-846 8260D	10/18/21	10/18/21 13:22	MFF
Chlorodibromomethane	ND	0.50	0.16	µg/L	1		SW-846 8260D	10/18/21	10/18/21 13:22	MFF
Chloroethane	ND	2.0	0.37	µg/L	1		SW-846 8260D	10/18/21	10/18/21 13:22	MFF
Chloroform	ND	2.0	0.19	µg/L	1		SW-846 8260D	10/18/21	10/18/21 13:22	MFF
Chloromethane	ND	2.0	0.38	µg/L	1		SW-846 8260D	10/18/21	10/18/21 13:22	MFF
2-Chlorotoluene	ND	1.0	0.090	µg/L	1		SW-846 8260D	10/18/21	10/18/21 13:22	MFF
4-Chlorotoluene	ND	1.0	0.10	µg/L	1		SW-846 8260D	10/18/21	10/18/21 13:22	MFF
1,2-Dibromo-3-chloropropane (DBCP)	ND	5.0	0.72	µg/L	1		SW-846 8260D	10/18/21	10/18/21 13:22	MFF
1,2-Dibromoethane (EDB)	ND	0.50	0.15	µg/L	1		SW-846 8260D	10/18/21	10/18/21 13:22	MFF
Dibromomethane	ND	1.0	0.29	µg/L	1		SW-846 8260D	10/18/21	10/18/21 13:22	MFF
1,2-Dichlorobenzene	ND	1.0	0.10	µg/L	1		SW-846 8260D	10/18/21	10/18/21 13:22	MFF
1,3-Dichlorobenzene	ND	1.0	0.090	µg/L	1		SW-846 8260D	10/18/21	10/18/21 13:22	MFF
1,4-Dichlorobenzene	ND	1.0	0.11	µg/L	1		SW-846 8260D	10/18/21	10/18/21 13:22	MFF
trans-1,4-Dichloro-2-butene	ND	2.0	1.8	µg/L	1		SW-846 8260D	10/18/21	10/18/21 13:22	MFF
Dichlorodifluoromethane (Freon 12)	ND	2.0	0.20	µg/L	1		SW-846 8260D	10/18/21	10/18/21 13:22	MFF
1,1-Dichloroethane	ND	1.0	0.16	µg/L	1		SW-846 8260D	10/18/21	10/18/21 13:22	MFF
1,2-Dichloroethane	ND	1.0	0.32	µg/L	1		SW-846 8260D	10/18/21	10/18/21 13:22	MFF
1,1-Dichloroethylene	ND	1.0	0.16	µg/L	1		SW-846 8260D	10/18/21	10/18/21 13:22	MFF
cis-1,2-Dichloroethylene	ND	1.0	0.15	µg/L	1		SW-846 8260D	10/18/21	10/18/21 13:22	MFF
trans-1,2-Dichloroethylene	ND	1.0	0.17	µg/L	1		SW-846 8260D	10/18/21	10/18/21 13:22	MFF
1,2-Dichloropropane	ND	1.0	0.18	µg/L	1		SW-846 8260D	10/18/21	10/18/21 13:22	MFF
1,3-Dichloropropane	ND	0.50	0.12	µg/L	1		SW-846 8260D	10/18/21	10/18/21 13:22	MFF
2,2-Dichloropropane	ND	1.0	0.31	µg/L	1		SW-846 8260D	10/18/21	10/18/21 13:22	MFF
1,1-Dichloropropene	ND	2.0	0.26	µg/L	1		SW-846 8260D	10/18/21	10/18/21 13:22	MFF
cis-1,3-Dichloropropene	ND	0.50	0.12	µg/L	1		SW-846 8260D	10/18/21	10/18/21 13:22	MFF
trans-1,3-Dichloropropene	ND	0.50	0.15	µg/L	1		SW-846 8260D	10/18/21	10/18/21 13:22	MFF
Diethyl Ether	ND	2.0	0.22	µg/L	1		SW-846 8260D	10/18/21	10/18/21 13:22	MFF

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Project Location: 1400 N. Royal St., Alexandria, VA Sample Description: Work Order: 21J0887

Date Received: 10/15/2021

Field Sample #: HRP-TB01-211011 Sampled: 10/11/2021 13:00

Sample ID: 21J0887-01

Sample Matrix: Water

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Diisopropyl Ether (DIPE)	ND	0.50	0.15	µg/L	1		SW-846 8260D	10/18/21	10/18/21 13:22	MFF
1,4-Dioxane	ND	50	22	µg/L	1		SW-846 8260D	10/18/21	10/18/21 13:22	MFF
Ethylbenzene	ND	1.0	0.090	µg/L	1		SW-846 8260D	10/18/21	10/18/21 13:22	MFF
Hexachlorobutadiene	ND	0.60	0.41	µg/L	1		SW-846 8260D	10/18/21	10/18/21 13:22	MFF
2-Hexanone (MBK)	ND	10	1.4	µg/L	1		SW-846 8260D	10/18/21	10/18/21 13:22	MFF
Isopropylbenzene (Cumene)	ND	1.0	0.10	µg/L	1		SW-846 8260D	10/18/21	10/18/21 13:22	MFF
p-Isopropyltoluene (p-Cymene)	ND	1.0	0.090	µg/L	1		SW-846 8260D	10/18/21	10/18/21 13:22	MFF
Methyl Acetate	ND	1.0	0.39	µg/L	1		SW-846 8260D	10/18/21	10/18/21 13:22	MFF
Methyl tert-Butyl Ether (MTBE)	ND	1.0	0.17	µg/L	1		SW-846 8260D	10/18/21	10/18/21 13:22	MFF
Methyl Cyclohexane	ND	1.0	0.33	µg/L	1		SW-846 8260D	10/18/21	10/18/21 13:22	MFF
Methylene Chloride	ND	5.0	0.30	µg/L	1		SW-846 8260D	10/18/21	10/18/21 13:22	MFF
4-Methyl-2-pentanone (MIBK)	ND	10	1.6	µg/L	1		SW-846 8260D	10/18/21	10/18/21 13:22	MFF
Naphthalene	ND	2.0	0.15	µg/L	1	V-05	SW-846 8260D	10/18/21	10/18/21 13:22	MFF
n-Propylbenzene	ND	1.0	0.080	µg/L	1		SW-846 8260D	10/18/21	10/18/21 13:22	MFF
Styrene	ND	1.0	0.080	µg/L	1		SW-846 8260D	10/18/21	10/18/21 13:22	MFF
1,1,1,2-Tetrachloroethane	ND	1.0	0.14	µg/L	1		SW-846 8260D	10/18/21	10/18/21 13:22	MFF
1,1,2,2-Tetrachloroethane	ND	0.50	0.090	µg/L	1		SW-846 8260D	10/18/21	10/18/21 13:22	MFF
Tetrachloroethylene	ND	1.0	0.20	µg/L	1		SW-846 8260D	10/18/21	10/18/21 13:22	MFF
Tetrahydrofuran	ND	10	0.58	µg/L	1		SW-846 8260D	10/18/21	10/18/21 13:22	MFF
Toluene	ND	1.0	0.11	µg/L	1		SW-846 8260D	10/18/21	10/18/21 13:22	MFF
1,2,3-Trichlorobenzene	ND	5.0	0.14	µg/L	1	V-05	SW-846 8260D	10/18/21	10/18/21 13:22	MFF
1,2,4-Trichlorobenzene	ND	1.0	0.16	µg/L	1	V-05	SW-846 8260D	10/18/21	10/18/21 13:22	MFF
1,3,5-Trichlorobenzene	ND	1.0	0.18	µg/L	1		SW-846 8260D	10/18/21	10/18/21 13:22	MFF
1,1,1-Trichloroethane	ND	1.0	0.17	µg/L	1		SW-846 8260D	10/18/21	10/18/21 13:22	MFF
1,1,2-Trichloroethane	ND	1.0	0.15	µg/L	1		SW-846 8260D	10/18/21	10/18/21 13:22	MFF
Trichloroethylene	ND	1.0	0.18	µg/L	1		SW-846 8260D	10/18/21	10/18/21 13:22	MFF
Trichlorofluoromethane (Freon 11)	ND	2.0	0.19	µg/L	1		SW-846 8260D	10/18/21	10/18/21 13:22	MFF
1,2,3-Trichloropropane	ND	2.0	0.31	µg/L	1		SW-846 8260D	10/18/21	10/18/21 13:22	MFF
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	1.0	0.24	µg/L	1	V-05	SW-846 8260D	10/18/21	10/18/21 13:22	MFF
1,2,4-Trimethylbenzene	ND	1.0	0.10	µg/L	1		SW-846 8260D	10/18/21	10/18/21 13:22	MFF
1,3,5-Trimethylbenzene	ND	1.0	0.10	µg/L	1		SW-846 8260D	10/18/21	10/18/21 13:22	MFF
Vinyl Chloride	ND	2.0	0.20	µg/L	1		SW-846 8260D	10/18/21	10/18/21 13:22	MFF
m+p Xylene	ND	2.0	0.18	µg/L	1		SW-846 8260D	10/18/21	10/18/21 13:22	MFF
o-Xylene	ND	1.0	0.090	µg/L	1		SW-846 8260D	10/18/21	10/18/21 13:22	MFF

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
1,2-Dichloroethane-d4	111	70-130		10/18/21 13:22
Toluene-d8	103	70-130		10/18/21 13:22
4-Bromofluorobenzene	96.6	70-130		10/18/21 13:22

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Project Location: 1400 N. Royal St., Alexandria, VA Sample Description: Work Order: 21J0887

Date Received: 10/15/2021

Field Sample #: HRP-TB01-211011 Sampled: 10/11/2021 13:00

Sample ID: 21J0887-01

Sample Matrix: Water

Petroleum Hydrocarbons Analyses

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Gasoline Range Organics (GRO)	ND	0.010	0.0094	mg/L	1		SW-846 8015C	10/20/21	10/21/21 3:30	KMB

Surrogates	% Recovery	Recovery Limits	Flag/Qual		
1-Chloro-3-fluorobenzene	103	70-130		10/21/21 3:30	

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Project Location: 1400 N. Royal St., Alexandria, VA Sample Description: Work Order: 21J0887

Date Received: 10/15/2021

Field Sample #: HRP-SB205-0-1-211011 Sampled: 10/11/2021 11:43

Sample ID: 21J0887-02

Sample Matrix: Soil

Semivolatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acenaphthene	ND	0.20	0.064	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 17:29	IMR
Acenaphthylene	ND	0.20	0.062	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 17:29	IMR
Acetophenone	ND	0.41	0.055	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 17:29	IMR
Aniline	ND	0.41	0.084	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 17:29	IMR
Anthracene	ND	0.20	0.066	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 17:29	IMR
Benzidine	ND	0.79	0.19	mg/Kg dry	1	V-04	SW-846 8270E	10/19/21	10/21/21 17:29	IMR
Benzo(a)anthracene	ND	0.20	0.056	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 17:29	IMR
Benzo(a)pyrene	ND	0.20	0.062	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 17:29	IMR
Benzo(b)fluoranthene	ND	0.20	0.061	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 17:29	IMR
Benzo(g,h,i)perylene	ND	0.20	0.085	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 17:29	IMR
Benzo(k)fluoranthene	ND	0.20	0.055	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 17:29	IMR
Benzoic Acid	ND	1.2	0.48	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 17:29	IMR
Bis(2-chloroethoxy)methane	ND	0.41	0.053	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 17:29	IMR
Bis(2-chloroethyl)ether	ND	0.41	0.056	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 17:29	IMR
Bis(2-chloroisopropyl)ether	ND	0.41	0.092	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 17:29	IMR
Bis(2-Ethylhexyl)phthalate	ND	0.41	0.068	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 17:29	IMR
4-Bromophenylphenylether	ND	0.41	0.052	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 17:29	IMR
Butylbenzylphthalate	ND	0.41	0.065	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 17:29	IMR
Carbazole	ND	0.20	0.067	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 17:29	IMR
4-Chloroaniline	ND	0.79	0.054	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 17:29	IMR
4-Chloro-3-methylphenol	ND	0.79	0.067	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 17:29	IMR
2-Chloronaphthalene	ND	0.41	0.047	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 17:29	IMR
2-Chlorophenol	ND	0.41	0.056	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 17:29	IMR
4-Chlorophenylphenylether	ND	0.41	0.058	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 17:29	IMR
Chrysene	ND	0.20	0.059	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 17:29	IMR
Dibenz(a,h)anthracene	ND	0.20	0.082	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 17:29	IMR
Dibenzofuran	ND	0.41	0.060	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 17:29	IMR
Di-n-butylphthalate	ND	0.41	0.057	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 17:29	IMR
1,2-Dichlorobenzene	ND	0.41	0.046	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 17:29	IMR
1,3-Dichlorobenzene	ND	0.41	0.044	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 17:29	IMR
1,4-Dichlorobenzene	ND	0.41	0.042	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 17:29	IMR
3,3-Dichlorobenzidine	ND	0.20	0.059	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 17:29	IMR
2,4-Dichlorophenol	ND	0.41	0.060	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 17:29	IMR
Diethylphthalate	ND	0.41	0.062	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 17:29	IMR
2,4-Dimethylphenol	ND	0.41	0.11	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 17:29	IMR
Dimethylphthalate	ND	0.41	0.059	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 17:29	IMR
4,6-Dinitro-2-methylphenol	ND	0.41	0.27	mg/Kg dry	1	V-05	SW-846 8270E	10/19/21	10/21/21 17:29	IMR
2,4-Dinitrophenol	ND	0.79	0.35	mg/Kg dry	1	V-04	SW-846 8270E	10/19/21	10/21/21 17:29	IMR
2,4-Dinitrotoluene	ND	0.41	0.079	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 17:29	IMR
2,6-Dinitrotoluene	ND	0.41	0.067	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 17:29	IMR
Di-n-octylphthalate	ND	0.41	0.14	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 17:29	IMR
1,2-Diphenylhydrazine/Azobenzene	ND	0.41	0.058	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 17:29	IMR
Fluoranthene	ND	0.20	0.064	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 17:29	IMR
Fluorene	ND	0.20	0.068	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 17:29	IMR

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Project Location: 1400 N. Royal St., Alexandria, VA Sample Description: Work Order: 21J0887

Date Received: 10/15/2021

Field Sample #: HRP-SB205-0-1-211011 Sampled: 10/11/2021 11:43

Sample ID: 21J0887-02

Sample Matrix: Soil

Semivolatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Hexachlorobenzene	ND	0.41	0.055	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 17:29	IMR
Hexachlorobutadiene	ND	0.41	0.052	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 17:29	IMR
Hexachlorocyclopentadiene	ND	0.41	0.17	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 17:29	IMR
Hexachloroethane	ND	0.41	0.048	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 17:29	IMR
Indeno(1,2,3-cd)pyrene	ND	0.20	0.092	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 17:29	IMR
Isophorone	ND	0.41	0.068	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 17:29	IMR
1-Methylnaphthalene	ND	0.20	0.056	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 17:29	IMR
2-Methylnaphthalene	ND	0.20	0.064	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 17:29	IMR
2-Methylphenol	ND	0.41	0.075	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 17:29	IMR
3/4-Methylphenol	ND	0.41	0.065	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 17:29	IMR
Naphthalene	ND	0.20	0.055	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 17:29	IMR
2-Nitroaniline	ND	0.41	0.086	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 17:29	IMR
3-Nitroaniline	ND	0.41	0.069	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 17:29	IMR
4-Nitroaniline	ND	0.41	0.087	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 17:29	IMR
Nitrobenzene	ND	0.41	0.059	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 17:29	IMR
2-Nitrophenol	ND	0.41	0.063	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 17:29	IMR
4-Nitrophenol	ND	0.79	0.16	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 17:29	IMR
N-Nitrosodimethylamine	ND	0.41	0.061	mg/Kg dry	1	R-05	SW-846 8270E	10/19/21	10/21/21 17:29	IMR
N-Nitrosodiphenylamine/Diphenylamine	ND	0.41	0.061	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 17:29	IMR
N-Nitrosodi-n-propylamine	ND	0.41	0.056	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 17:29	IMR
Pentachloronitrobenzene	ND	0.41	0.068	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 17:29	IMR
Pentachlorophenol	ND	0.41	0.18	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 17:29	IMR
Phenanthrene	ND	0.20	0.064	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 17:29	IMR
Phenol	ND	0.41	0.058	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 17:29	IMR
Pyrene	ND	0.20	0.064	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 17:29	IMR
Pyridine	ND	0.41	0.041	mg/Kg dry	1	R-05	SW-846 8270E	10/19/21	10/21/21 17:29	IMR
1,2,4,5-Tetrachlorobenzene	ND	0.41	0.053	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 17:29	IMR
1,2,4-Trichlorobenzene	ND	0.41	0.051	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 17:29	IMR
2,4,5-Trichlorophenol	ND	0.41	0.063	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 17:29	IMR
2,4,6-Trichlorophenol	ND	0.41	0.063	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 17:29	IMR

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
2-Fluorophenol	73.4	30-130		10/21/21 17:29
Phenol-d6	76.1	30-130		10/21/21 17:29
Nitrobenzene-d5	69.8	30-130		10/21/21 17:29
2-Fluorobiphenyl	75.5	30-130		10/21/21 17:29
2,4,6-Tribromophenol	75.5	30-130		10/21/21 17:29
p-Terphenyl-d14	79.8	30-130		10/21/21 17:29

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Project Location: 1400 N. Royal St., Alexandria, VA Sample Description: Work Order: 21J0887

Date Received: 10/15/2021

Field Sample #: HRP-SB205-0-1-211011 Sampled: 10/11/2021 11:43

Sample ID: 21J0887-02

Sample Matrix: Soil

Petroleum Hydrocarbons Analyses

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Gasoline Range Organics (GRO)	ND	3.0	3.0	mg/Kg dry	1		SW-846 8015C	10/15/21	10/16/21 4:39	KMB
Diesel Range Organics	6.2	9.9	4.6	mg/Kg dry	1	J	SW-846 8015C	10/18/21	10/20/21 14:33	SFM

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
1-Chloro-3-fluorobenzene	87.8	70-130		10/16/21 4:39
2-Fluorobiphenyl	69.9	40-140		10/20/21 14:33

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Project Location: 1400 N. Royal St., Alexandria, VA Sample Description: Work Order: 21J0887

Date Received: 10/15/2021

Field Sample #: HRP-SB205-0-1-211011 Sampled: 10/11/2021 11:43

Sample ID: 21J0887-02

Sample Matrix: Soil

Metals Analyses (Total)

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Aluminum	9400	19	7.1	mg/Kg dry	1	MS-19	SW-846 6010D	10/15/21	10/17/21 23:20	MJH
Antimony	ND	1.9	0.78	mg/Kg dry	1	MS-07	SW-846 6010D	10/15/21	10/20/21 14:10	QNW
Arsenic	7.6	3.9	1.4	mg/Kg dry	1		SW-846 6010D	10/15/21	10/17/21 23:20	MJH
Barium	58	1.9	0.74	mg/Kg dry	1		SW-846 6010D	10/15/21	10/17/21 23:20	MJH
Beryllium	0.56	0.19	0.073	mg/Kg dry	1		SW-846 6010D	10/15/21	10/17/21 23:20	MJH
Cadmium	ND	0.39	0.20	mg/Kg dry	1		SW-846 6010D	10/15/21	10/17/21 23:20	MJH
Calcium	470	19	7.5	mg/Kg dry	1	MS-11	SW-846 6010D	10/15/21	10/19/21 13:36	QNW
Chromium	15	0.77	0.44	mg/Kg dry	1		SW-846 6010D	10/15/21	10/17/21 23:20	MJH
Cobalt	5.2	1.9	0.71	mg/Kg dry	1		SW-846 6010D	10/15/21	10/17/21 23:20	MJH
Copper	19	0.77	0.37	mg/Kg dry	1		SW-846 6010D	10/15/21	10/17/21 23:20	MJH
Iron	23000	97	39	mg/Kg dry	5	MS-19	SW-846 6010D	10/15/21	10/19/21 14:53	QNW
Lead	11	0.58	0.28	mg/Kg dry	1		SW-846 6010D	10/15/21	10/17/21 23:20	MJH
Magnesium	950	19	6.8	mg/Kg dry	1	MS-19	SW-846 6010D	10/15/21	10/19/21 13:36	QNW
Manganese	82	0.39	0.15	mg/Kg dry	1	MS-11	SW-846 6010D	10/15/21	10/17/21 23:20	MJH
Mercury	0.073	0.031	0.010	mg/Kg dry	1		SW-846 7471B	10/15/21	10/21/21 10:55	MJH
Nickel	12	0.77	0.39	mg/Kg dry	1		SW-846 6010D	10/15/21	10/17/21 23:20	MJH
Potassium	670	190	73	mg/Kg dry	1	MS-19	SW-846 6010D	10/15/21	10/17/21 23:20	MJH
Selenium	ND	3.9	1.4	mg/Kg dry	1	MS-07	SW-846 6010D	10/15/21	10/19/21 13:36	QNW
Silver	ND	0.39	0.18	mg/Kg dry	1		SW-846 6010D	10/15/21	10/17/21 23:20	MJH
Sodium	ND	190	75	mg/Kg dry	1		SW-846 6010D	10/15/21	10/17/21 23:20	MJH
Thallium	ND	1.9	0.93	mg/Kg dry	1		SW-846 6010D	10/15/21	10/17/21 23:20	MJH
Vanadium	25	0.77	0.39	mg/Kg dry	1		SW-846 6010D	10/15/21	10/17/21 23:20	MJH
Zinc	33	0.77	0.49	mg/Kg dry	1		SW-846 6010D	10/15/21	10/17/21 23:20	MJH

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Project Location: 1400 N. Royal St., Alexandria, VA Sample Description: Work Order: 21J0887

Date Received: 10/15/2021

Field Sample #: HRP-SB205-0-1-211011 Sampled: 10/11/2021 11:43

Sample ID: 21J0887-02

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	83.9			% Wt	1		SM 2540G	10/19/21	10/20/21 13:28	AL
Cyanide	1.4	0.58	0.41	mg/Kg dry	1		SW-846 9014	10/18/21	10/19/21 21:15	DJM
pH @19.1°C	4.1			pH Units	1	H-03	SW-846 9045C	10/15/21	10/15/21 21:40	DJM

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Project Location: 1400 N. Royal St., Alexandria, VA Sample Description: Work Order: 21J0887

Date Received: 10/15/2021

Field Sample #: HRP-SB205-13-15-211011 Sampled: 10/11/2021 12:30

Sample ID: 21J0887-03

Sample Matrix: Soil

Semivolatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acenaphthene	ND	0.19	0.058	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 17:56	IMR
Acenaphthylene	ND	0.19	0.057	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 17:56	IMR
Acetophenone	ND	0.37	0.051	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 17:56	IMR
Aniline	ND	0.37	0.077	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 17:56	IMR
Anthracene	ND	0.19	0.061	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 17:56	IMR
Benzidine	ND	0.72	0.17	mg/Kg dry	1	V-04	SW-846 8270E	10/19/21	10/21/21 17:56	IMR
Benzo(a)anthracene	ND	0.19	0.052	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 17:56	IMR
Benzo(a)pyrene	ND	0.19	0.057	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 17:56	IMR
Benzo(b)fluoranthene	ND	0.19	0.056	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 17:56	IMR
Benzo(g,h,i)perylene	ND	0.19	0.078	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 17:56	IMR
Benzo(k)fluoranthene	ND	0.19	0.050	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 17:56	IMR
Benzoic Acid	ND	1.1	0.44	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 17:56	IMR
Bis(2-chloroethoxy)methane	ND	0.37	0.048	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 17:56	IMR
Bis(2-chloroethyl)ether	ND	0.37	0.051	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 17:56	IMR
Bis(2-chloroisopropyl)ether	ND	0.37	0.085	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 17:56	IMR
Bis(2-Ethylhexyl)phthalate	ND	0.37	0.063	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 17:56	IMR
4-Bromophenylphenylether	ND	0.37	0.047	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 17:56	IMR
Butylbenzylphthalate	ND	0.37	0.059	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 17:56	IMR
Carbazole	ND	0.19	0.061	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 17:56	IMR
4-Chloroaniline	ND	0.72	0.049	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 17:56	IMR
4-Chloro-3-methylphenol	ND	0.72	0.062	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 17:56	IMR
2-Chloronaphthalene	ND	0.37	0.043	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 17:56	IMR
2-Chlorophenol	ND	0.37	0.051	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 17:56	IMR
4-Chlorophenylphenylether	ND	0.37	0.053	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 17:56	IMR
Chrysene	ND	0.19	0.054	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 17:56	IMR
Dibenz(a,h)anthracene	ND	0.19	0.075	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 17:56	IMR
Dibenzofuran	ND	0.37	0.055	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 17:56	IMR
Di-n-butylphthalate	ND	0.37	0.052	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 17:56	IMR
1,2-Dichlorobenzene	ND	0.37	0.042	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 17:56	IMR
1,3-Dichlorobenzene	ND	0.37	0.041	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 17:56	IMR
1,4-Dichlorobenzene	ND	0.37	0.039	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 17:56	IMR
3,3-Dichlorobenzidine	ND	0.19	0.054	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 17:56	IMR
2,4-Dichlorophenol	ND	0.37	0.055	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 17:56	IMR
Diethylphthalate	ND	0.37	0.057	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 17:56	IMR
2,4-Dimethylphenol	ND	0.37	0.10	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 17:56	IMR
Dimethylphthalate	ND	0.37	0.054	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 17:56	IMR
4,6-Dinitro-2-methylphenol	ND	0.37	0.25	mg/Kg dry	1	V-05	SW-846 8270E	10/19/21	10/21/21 17:56	IMR
2,4-Dinitrophenol	ND	0.72	0.32	mg/Kg dry	1	V-04	SW-846 8270E	10/19/21	10/21/21 17:56	IMR
2,4-Dinitrotoluene	ND	0.37	0.073	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 17:56	IMR
2,6-Dinitrotoluene	ND	0.37	0.062	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 17:56	IMR
Di-n-octylphthalate	ND	0.37	0.13	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 17:56	IMR
1,2-Diphenylhydrazine/Azobenzene	ND	0.37	0.053	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 17:56	IMR
Fluoranthene	ND	0.19	0.059	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 17:56	IMR
Fluorene	ND	0.19	0.063	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 17:56	IMR

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: 1400 N. Royal St., Alexandria, VA Sample Description: Work Order: 21J0887

Date Received: 10/15/2021

Field Sample #: HRP-SB205-13-15-211011 Sampled: 10/11/2021 12:30

Sample ID: 21J0887-03

Sample Matrix: Soil

Semivolatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Hexachlorobenzene	ND	0.37	0.050	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 17:56	IMR
Hexachlorobutadiene	ND	0.37	0.047	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 17:56	IMR
Hexachlorocyclopentadiene	ND	0.37	0.16	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 17:56	IMR
Hexachloroethane	ND	0.37	0.044	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 17:56	IMR
Indeno(1,2,3-cd)pyrene	ND	0.19	0.084	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 17:56	IMR
Isophorone	ND	0.37	0.062	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 17:56	IMR
1-Methylnaphthalene	ND	0.19	0.051	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 17:56	IMR
2-Methylnaphthalene	ND	0.19	0.059	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 17:56	IMR
2-Methylphenol	ND	0.37	0.069	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 17:56	IMR
3/4-Methylphenol	ND	0.37	0.060	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 17:56	IMR
Naphthalene	ND	0.19	0.051	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 17:56	IMR
2-Nitroaniline	ND	0.37	0.079	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 17:56	IMR
3-Nitroaniline	ND	0.37	0.063	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 17:56	IMR
4-Nitroaniline	ND	0.37	0.080	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 17:56	IMR
Nitrobenzene	ND	0.37	0.054	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 17:56	IMR
2-Nitrophenol	ND	0.37	0.058	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 17:56	IMR
4-Nitrophenol	ND	0.72	0.15	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 17:56	IMR
N-Nitrosodimethylamine	ND	0.37	0.056	mg/Kg dry	1	R-05	SW-846 8270E	10/19/21	10/21/21 17:56	IMR
N-Nitrosodiphenylamine/Diphenylamine	ND	0.37	0.056	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 17:56	IMR
N-Nitrosodi-n-propylamine	ND	0.37	0.051	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 17:56	IMR
Pentachloronitrobenzene	ND	0.37	0.063	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 17:56	IMR
Pentachlorophenol	ND	0.37	0.16	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 17:56	IMR
Phenanthrene	ND	0.19	0.059	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 17:56	IMR
Phenol	ND	0.37	0.053	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 17:56	IMR
Pyrene	ND	0.19	0.059	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 17:56	IMR
Pyridine	ND	0.37	0.038	mg/Kg dry	1	R-05	SW-846 8270E	10/19/21	10/21/21 17:56	IMR
1,2,4,5-Tetrachlorobenzene	ND	0.37	0.048	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 17:56	IMR
1,2,4-Trichlorobenzene	ND	0.37	0.047	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 17:56	IMR
2,4,5-Trichlorophenol	ND	0.37	0.058	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 17:56	IMR
2,4,6-Trichlorophenol	ND	0.37	0.057	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 17:56	IMR

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
2-Fluorophenol	53.9	30-130		10/21/21 17:56
Phenol-d6	55.9	30-130		10/21/21 17:56
Nitrobenzene-d5	50.4	30-130		10/21/21 17:56
2-Fluorobiphenyl	56.4	30-130		10/21/21 17:56
2,4,6-Tribromophenol	57.6	30-130		10/21/21 17:56
p-Terphenyl-d14	64.1	30-130		10/21/21 17:56

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Project Location: 1400 N. Royal St., Alexandria, VA Sample Description: Work Order: 21J0887

Date Received: 10/15/2021

Field Sample #: HRP-SB205-13-15-211011 Sampled: 10/11/2021 12:30

Sample ID: 21J0887-03

Sample Matrix: Soil

Petroleum Hydrocarbons Analyses

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Gasoline Range Organics (GRO)	ND	3.0	3.0	mg/Kg dry	1		SW-846 8015C	10/15/21	10/16/21 5:18	KMB
Diesel Range Organics	ND	9.1	4.2	mg/Kg dry	1		SW-846 8015C	10/18/21	10/20/21 12:52	SFM

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
1-Chloro-3-fluorobenzene	94.4	70-130		10/16/21 5:18
2-Fluorobiphenyl	66.2	40-140		10/20/21 12:52

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Project Location: 1400 N. Royal St., Alexandria, VA Sample Description: Work Order: 21J0887

Date Received: 10/15/2021

Field Sample #: HRP-SB205-13-15-211011 Sampled: 10/11/2021 12:30

Sample ID: 21J0887-03

Sample Matrix: Soil

Metals Analyses (Total)

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Aluminum	6900	18	6.5	mg/Kg dry	1		SW-846 6010D	10/15/21	10/17/21 23:49	MJH
Antimony	ND	1.8	0.72	mg/Kg dry	1		SW-846 6010D	10/15/21	10/17/21 23:49	MJH
Arsenic	3.1	3.6	1.3	mg/Kg dry	1	J	SW-846 6010D	10/15/21	10/17/21 23:49	MJH
Barium	44	1.8	0.68	mg/Kg dry	1		SW-846 6010D	10/15/21	10/17/21 23:49	MJH
Beryllium	0.52	0.18	0.067	mg/Kg dry	1		SW-846 6010D	10/15/21	10/17/21 23:49	MJH
Cadmium	ND	0.36	0.18	mg/Kg dry	1		SW-846 6010D	10/15/21	10/17/21 23:49	MJH
Calcium	650	18	6.9	mg/Kg dry	1		SW-846 6010D	10/15/21	10/17/21 23:49	MJH
Chromium	21	0.71	0.40	mg/Kg dry	1		SW-846 6010D	10/15/21	10/17/21 23:49	MJH
Cobalt	6.0	1.8	0.65	mg/Kg dry	1		SW-846 6010D	10/15/21	10/17/21 23:49	MJH
Copper	8.9	0.71	0.34	mg/Kg dry	1		SW-846 6010D	10/15/21	10/17/21 23:49	MJH
Iron	14000	18	7.2	mg/Kg dry	1		SW-846 6010D	10/15/21	10/17/21 23:49	MJH
Lead	6.3	0.53	0.26	mg/Kg dry	1		SW-846 6010D	10/15/21	10/17/21 23:49	MJH
Magnesium	950	18	6.2	mg/Kg dry	1		SW-846 6010D	10/15/21	10/19/21 14:17	QNW
Manganese	68	0.36	0.14	mg/Kg dry	1		SW-846 6010D	10/15/21	10/17/21 23:49	MJH
Mercury	ND	0.028	0.0097	mg/Kg dry	1		SW-846 7471B	10/15/21	10/21/21 10:57	MJH
Nickel	12	0.71	0.36	mg/Kg dry	1		SW-846 6010D	10/15/21	10/17/21 23:49	MJH
Potassium	550	180	67	mg/Kg dry	1		SW-846 6010D	10/15/21	10/17/21 23:49	MJH
Selenium	ND	3.6	1.3	mg/Kg dry	1		SW-846 6010D	10/15/21	10/19/21 14:17	MJH
Silver	ND	0.36	0.16	mg/Kg dry	1		SW-846 6010D	10/15/21	10/17/21 23:49	MJH
Sodium	ND	180	69	mg/Kg dry	1		SW-846 6010D	10/15/21	10/17/21 23:49	MJH
Thallium	ND	1.8	0.85	mg/Kg dry	1		SW-846 6010D	10/15/21	10/17/21 23:49	MJH
Vanadium	18	0.71	0.35	mg/Kg dry	1		SW-846 6010D	10/15/21	10/17/21 23:49	MJH
Zinc	27	0.71	0.45	mg/Kg dry	1		SW-846 6010D	10/15/21	10/17/21 23:49	MJH

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Project Location: 1400 N. Royal St., Alexandria, VA Sample Description: Work Order: 21J0887

Date Received: 10/15/2021

Field Sample #: HRP-SB205-13-15-211011 Sampled: 10/11/2021 12:30

Sample ID: 21J0887-03

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	91.4			% Wt	1		SM 2540G	10/19/21	10/20/21 13:28	AL
Cyanide	ND	0.54	0.38	mg/Kg dry	1		SW-846 9014	10/18/21	10/19/21 21:15	DJM
pH @19.6°C	7.1			pH Units	1	H-03	SW-846 9045C	10/15/21	10/15/21 21:40	DJM

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Project Location: 1400 N. Royal St., Alexandria, VA Sample Description: Work Order: 21J0887

Date Received: 10/15/2021

Field Sample #: HRP-DUP02-13-15-211011 Sampled: 10/11/2021 12:30

Sample ID: 21J0887-04

Sample Matrix: Soil

Semivolatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acenaphthene	ND	0.19	0.059	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 18:23	IMR
Acenaphthylene	ND	0.19	0.058	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 18:23	IMR
Acetophenone	ND	0.38	0.052	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 18:23	IMR
Aniline	ND	0.38	0.079	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 18:23	IMR
Anthracene	ND	0.19	0.062	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 18:23	IMR
Benzidine	ND	0.74	0.17	mg/Kg dry	1	V-04	SW-846 8270E	10/19/21	10/21/21 18:23	IMR
Benzo(a)anthracene	ND	0.19	0.053	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 18:23	IMR
Benzo(a)pyrene	ND	0.19	0.058	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 18:23	IMR
Benzo(b)fluoranthene	ND	0.19	0.057	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 18:23	IMR
Benzo(g,h,i)perylene	ND	0.19	0.079	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 18:23	IMR
Benzo(k)fluoranthene	ND	0.19	0.051	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 18:23	IMR
Benzoic Acid	ND	1.1	0.45	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 18:23	IMR
Bis(2-chloroethoxy)methane	ND	0.38	0.049	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 18:23	IMR
Bis(2-chloroethyl)ether	ND	0.38	0.052	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 18:23	IMR
Bis(2-chloroisopropyl)ether	ND	0.38	0.086	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 18:23	IMR
Bis(2-Ethylhexyl)phthalate	ND	0.38	0.064	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 18:23	IMR
4-Bromophenylphenylether	ND	0.38	0.048	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 18:23	IMR
Butylbenzylphthalate	ND	0.38	0.060	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 18:23	IMR
Carbazole	ND	0.19	0.062	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 18:23	IMR
4-Chloroaniline	ND	0.74	0.050	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 18:23	IMR
4-Chloro-3-methylphenol	ND	0.74	0.063	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 18:23	IMR
2-Chloronaphthalene	ND	0.38	0.044	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 18:23	IMR
2-Chlorophenol	ND	0.38	0.052	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 18:23	IMR
4-Chlorophenylphenylether	ND	0.38	0.054	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 18:23	IMR
Chrysene	ND	0.19	0.055	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 18:23	IMR
Dibenz(a,h)anthracene	ND	0.19	0.077	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 18:23	IMR
Dibenzofuran	ND	0.38	0.056	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 18:23	IMR
Di-n-butylphthalate	ND	0.38	0.053	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 18:23	IMR
1,2-Dichlorobenzene	ND	0.38	0.043	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 18:23	IMR
1,3-Dichlorobenzene	ND	0.38	0.042	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 18:23	IMR
1,4-Dichlorobenzene	ND	0.38	0.040	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 18:23	IMR
3,3-Dichlorobenzidine	ND	0.19	0.055	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 18:23	IMR
2,4-Dichlorophenol	ND	0.38	0.056	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 18:23	IMR
Diethylphthalate	ND	0.38	0.058	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 18:23	IMR
2,4-Dimethylphenol	ND	0.38	0.10	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 18:23	IMR
Dimethylphthalate	ND	0.38	0.055	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 18:23	IMR
4,6-Dinitro-2-methylphenol	ND	0.38	0.25	mg/Kg dry	1	V-05	SW-846 8270E	10/19/21	10/21/21 18:23	IMR
2,4-Dinitrophenol	ND	0.74	0.33	mg/Kg dry	1	V-04	SW-846 8270E	10/19/21	10/21/21 18:23	IMR
2,4-Dinitrotoluene	ND	0.38	0.074	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 18:23	IMR
2,6-Dinitrotoluene	ND	0.38	0.063	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 18:23	IMR
Di-n-octylphthalate	ND	0.38	0.13	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 18:23	IMR
1,2-Diphenylhydrazine/Azobenzene	ND	0.38	0.054	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 18:23	IMR
Fluoranthene	ND	0.19	0.060	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 18:23	IMR
Fluorene	ND	0.19	0.064	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 18:23	IMR

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Project Location: 1400 N. Royal St., Alexandria, VA Sample Description: Work Order: 21J0887

Date Received: 10/15/2021

Field Sample #: HRP-DUP02-13-15-211011 Sampled: 10/11/2021 12:30

Sample ID: 21J0887-04

Sample Matrix: Soil

Semivolatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Hexachlorobenzene	ND	0.38	0.051	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 18:23	IMR
Hexachlorobutadiene	ND	0.38	0.048	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 18:23	IMR
Hexachlorocyclopentadiene	ND	0.38	0.16	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 18:23	IMR
Hexachloroethane	ND	0.38	0.045	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 18:23	IMR
Indeno(1,2,3-cd)pyrene	ND	0.19	0.086	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 18:23	IMR
Isophorone	ND	0.38	0.063	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 18:23	IMR
1-Methylnaphthalene	ND	0.19	0.052	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 18:23	IMR
2-Methylnaphthalene	ND	0.19	0.060	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 18:23	IMR
2-Methylphenol	ND	0.38	0.070	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 18:23	IMR
3/4-Methylphenol	ND	0.38	0.061	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 18:23	IMR
Naphthalene	ND	0.19	0.052	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 18:23	IMR
2-Nitroaniline	ND	0.38	0.081	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 18:23	IMR
3-Nitroaniline	ND	0.38	0.064	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 18:23	IMR
4-Nitroaniline	ND	0.38	0.081	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 18:23	IMR
Nitrobenzene	ND	0.38	0.055	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 18:23	IMR
2-Nitrophenol	ND	0.38	0.059	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 18:23	IMR
4-Nitrophenol	ND	0.74	0.15	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 18:23	IMR
N-Nitrosodimethylamine	ND	0.38	0.057	mg/Kg dry	1	R-05	SW-846 8270E	10/19/21	10/21/21 18:23	IMR
N-Nitrosodiphenylamine/Diphenylamine	ND	0.38	0.057	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 18:23	IMR
N-Nitrosodi-n-propylamine	ND	0.38	0.052	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 18:23	IMR
Pentachloronitrobenzene	ND	0.38	0.064	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 18:23	IMR
Pentachlorophenol	ND	0.38	0.17	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 18:23	IMR
Phenanthrene	ND	0.19	0.060	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 18:23	IMR
Phenol	ND	0.38	0.054	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 18:23	IMR
Pyrene	ND	0.19	0.060	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 18:23	IMR
Pyridine	ND	0.38	0.039	mg/Kg dry	1	R-05	SW-846 8270E	10/19/21	10/21/21 18:23	IMR
1,2,4,5-Tetrachlorobenzene	ND	0.38	0.049	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 18:23	IMR
1,2,4-Trichlorobenzene	ND	0.38	0.048	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 18:23	IMR
2,4,5-Trichlorophenol	ND	0.38	0.059	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 18:23	IMR
2,4,6-Trichlorophenol	ND	0.38	0.058	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 18:23	IMR

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
2-Fluorophenol	59.4	30-130		10/21/21 18:23
Phenol-d6	62.6	30-130		10/21/21 18:23
Nitrobenzene-d5	57.2	30-130		10/21/21 18:23
2-Fluorobiphenyl	61.1	30-130		10/21/21 18:23
2,4,6-Tribromophenol	52.6	30-130		10/21/21 18:23
p-Terphenyl-d14	65.4	30-130		10/21/21 18:23

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Project Location: 1400 N. Royal St., Alexandria, VA Sample Description: Work Order: 21J0887

Date Received: 10/15/2021

Field Sample #: HRP-DUP02-13-15-211011 Sampled: 10/11/2021 12:30

Sample ID: 21J0887-04

Sample Matrix: Soil

Petroleum Hydrocarbons Analyses

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Gasoline Range Organics (GRO)	ND	3.4	3.4	mg/Kg dry	1		SW-846 8015C	10/15/21	10/16/21 5:57	KMB
Diesel Range Organics	ND	9.3	4.3	mg/Kg dry	1		SW-846 8015C	10/18/21	10/20/21 13:12	SFM

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
1-Chloro-3-fluorobenzene	97.6	70-130		10/16/21 5:57
2-Fluorobiphenyl	76.8	40-140		10/20/21 13:12

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Project Location: 1400 N. Royal St., Alexandria, VA Sample Description: Work Order: 21J0887

Date Received: 10/15/2021

Field Sample #: HRP-DUP02-13-15-211011 Sampled: 10/11/2021 12:30

Sample ID: 21J0887-04

Sample Matrix: Soil

Metals Analyses (Total)

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Aluminum	6300	18	6.7	mg/Kg dry	1		SW-846 6010D	10/15/21	10/17/21 23:56	MJH
Antimony	ND	1.8	0.74	mg/Kg dry	1		SW-846 6010D	10/15/21	10/17/21 23:56	MJH
Arsenic	3.8	3.7	1.3	mg/Kg dry	1		SW-846 6010D	10/15/21	10/17/21 23:56	MJH
Barium	39	1.8	0.70	mg/Kg dry	1		SW-846 6010D	10/15/21	10/17/21 23:56	MJH
Beryllium	0.50	0.18	0.069	mg/Kg dry	1		SW-846 6010D	10/15/21	10/17/21 23:56	MJH
Cadmium	ND	0.37	0.19	mg/Kg dry	1		SW-846 6010D	10/15/21	10/17/21 23:56	MJH
Calcium	640	18	7.1	mg/Kg dry	1		SW-846 6010D	10/15/21	10/17/21 23:56	MJH
Chromium	10	0.73	0.42	mg/Kg dry	1		SW-846 6010D	10/15/21	10/17/21 23:56	MJH
Cobalt	4.8	1.8	0.67	mg/Kg dry	1		SW-846 6010D	10/15/21	10/17/21 23:56	MJH
Copper	8.2	0.73	0.35	mg/Kg dry	1		SW-846 6010D	10/15/21	10/17/21 23:56	MJH
Iron	14000	18	7.4	mg/Kg dry	1		SW-846 6010D	10/15/21	10/17/21 23:56	MJH
Lead	5.7	0.55	0.27	mg/Kg dry	1		SW-846 6010D	10/15/21	10/17/21 23:56	MJH
Magnesium	900	18	6.4	mg/Kg dry	1		SW-846 6010D	10/15/21	10/19/21 14:24	QNW
Manganese	62	0.37	0.14	mg/Kg dry	1		SW-846 6010D	10/15/21	10/17/21 23:56	MJH
Mercury	ND	0.029	0.0098	mg/Kg dry	1		SW-846 7471B	10/15/21	10/21/21 10:58	MJH
Nickel	9.3	0.73	0.37	mg/Kg dry	1		SW-846 6010D	10/15/21	10/17/21 23:56	MJH
Potassium	510	180	69	mg/Kg dry	1		SW-846 6010D	10/15/21	10/17/21 23:56	MJH
Selenium	ND	3.7	1.3	mg/Kg dry	1		SW-846 6010D	10/15/21	10/19/21 14:24	MJH
Silver	ND	0.37	0.17	mg/Kg dry	1		SW-846 6010D	10/15/21	10/17/21 23:56	MJH
Sodium	ND	180	71	mg/Kg dry	1		SW-846 6010D	10/15/21	10/17/21 23:56	MJH
Thallium	ND	1.8	0.88	mg/Kg dry	1		SW-846 6010D	10/15/21	10/17/21 23:56	MJH
Vanadium	17	0.73	0.36	mg/Kg dry	1		SW-846 6010D	10/15/21	10/17/21 23:56	MJH
Zinc	25	0.73	0.47	mg/Kg dry	1		SW-846 6010D	10/15/21	10/17/21 23:56	MJH

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Project Location: 1400 N. Royal St., Alexandria, VA Sample Description: Work Order: 21J0887

Date Received: 10/15/2021

Field Sample #: HRP-DUP02-13-15-211011 Sampled: 10/11/2021 12:30

Sample ID: 21J0887-04

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	89.8			% Wt	1		SM 2540G	10/19/21	10/20/21 13:28	AL
Cyanide	0.41	0.55	0.39	mg/Kg dry	1	J	SW-846 9014	10/18/21	10/19/21 21:15	DJM
pH @19.4°C	7.5			pH Units	1	H-03	SW-846 9045C	10/15/21	10/15/21 21:40	DJM

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Project Location: 1400 N. Royal St., Alexandria, VA Sample Description: Work Order: 21J0887

Date Received: 10/15/2021

Field Sample #: HRP-SB203-0-1-211012 Sampled: 10/12/2021 07:40

Sample ID: 21J0887-05

Sample Matrix: Soil

Semivolatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acenaphthene	ND	0.20	0.062	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 18:50	IMR
Acenaphthylene	ND	0.20	0.060	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 18:50	IMR
Acetophenone	ND	0.40	0.054	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 18:50	IMR
Aniline	ND	0.40	0.082	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 18:50	IMR
Anthracene	ND	0.20	0.065	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 18:50	IMR
Benzidine	ND	0.77	0.18	mg/Kg dry	1	V-04	SW-846 8270E	10/19/21	10/21/21 18:50	IMR
Benzo(a)anthracene	ND	0.20	0.055	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 18:50	IMR
Benzo(a)pyrene	ND	0.20	0.061	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 18:50	IMR
Benzo(b)fluoranthene	ND	0.20	0.060	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 18:50	IMR
Benzo(g,h,i)perylene	ND	0.20	0.083	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 18:50	IMR
Benzo(k)fluoranthene	ND	0.20	0.053	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 18:50	IMR
Benzoic Acid	ND	1.2	0.47	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 18:50	IMR
Bis(2-chloroethoxy)methane	ND	0.40	0.051	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 18:50	IMR
Bis(2-chloroethyl)ether	ND	0.40	0.054	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 18:50	IMR
Bis(2-chloroisopropyl)ether	ND	0.40	0.090	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 18:50	IMR
Bis(2-Ethylhexyl)phthalate	ND	0.40	0.066	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 18:50	IMR
4-Bromophenylphenylether	ND	0.40	0.050	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 18:50	IMR
Butylbenzylphthalate	ND	0.40	0.063	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 18:50	IMR
Carbazole	ND	0.20	0.065	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 18:50	IMR
4-Chloroaniline	ND	0.77	0.052	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 18:50	IMR
4-Chloro-3-methylphenol	ND	0.77	0.066	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 18:50	IMR
2-Chloronaphthalene	ND	0.40	0.046	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 18:50	IMR
2-Chlorophenol	ND	0.40	0.055	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 18:50	IMR
4-Chlorophenylphenylether	ND	0.40	0.056	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 18:50	IMR
Chrysene	ND	0.20	0.057	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 18:50	IMR
Dibenz(a,h)anthracene	ND	0.20	0.080	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 18:50	IMR
Dibenzofuran	ND	0.40	0.058	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 18:50	IMR
Di-n-butylphthalate	ND	0.40	0.056	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 18:50	IMR
1,2-Dichlorobenzene	ND	0.40	0.045	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 18:50	IMR
1,3-Dichlorobenzene	ND	0.40	0.043	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 18:50	IMR
1,4-Dichlorobenzene	ND	0.40	0.041	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 18:50	IMR
3,3-Dichlorobenzidine	ND	0.20	0.058	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 18:50	IMR
2,4-Dichlorophenol	ND	0.40	0.059	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 18:50	IMR
Diethylphthalate	ND	0.40	0.060	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 18:50	IMR
2,4-Dimethylphenol	ND	0.40	0.11	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 18:50	IMR
Dimethylphthalate	ND	0.40	0.057	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 18:50	IMR
4,6-Dinitro-2-methylphenol	ND	0.40	0.27	mg/Kg dry	1	V-05	SW-846 8270E	10/19/21	10/21/21 18:50	IMR
2,4-Dinitrophenol	ND	0.77	0.34	mg/Kg dry	1	V-04	SW-846 8270E	10/19/21	10/21/21 18:50	IMR
2,4-Dinitrotoluene	ND	0.40	0.077	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 18:50	IMR
2,6-Dinitrotoluene	ND	0.40	0.066	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 18:50	IMR
Di-n-octylphthalate	ND	0.40	0.14	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 18:50	IMR
1,2-Diphenylhydrazine/Azobenzene	ND	0.40	0.057	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 18:50	IMR
Fluoranthene	ND	0.20	0.063	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 18:50	IMR
Fluorene	ND	0.20	0.066	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 18:50	IMR

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Project Location: 1400 N. Royal St., Alexandria, VA Sample Description: Work Order: 21J0887

Date Received: 10/15/2021

Field Sample #: HRP-SB203-0-1-211012 Sampled: 10/12/2021 07:40

Sample ID: 21J0887-05

Sample Matrix: Soil

Semivolatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Hexachlorobenzene	ND	0.40	0.054	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 18:50	IMR
Hexachlorobutadiene	ND	0.40	0.050	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 18:50	IMR
Hexachlorocyclopentadiene	ND	0.40	0.16	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 18:50	IMR
Hexachloroethane	ND	0.40	0.047	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 18:50	IMR
Indeno(1,2,3-cd)pyrene	ND	0.20	0.089	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 18:50	IMR
Isophorone	ND	0.40	0.066	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 18:50	IMR
1-Methylnaphthalene	0.068	0.20	0.055	mg/Kg dry	1	J	SW-846 8270E	10/19/21	10/21/21 18:50	IMR
2-Methylnaphthalene	0.098	0.20	0.062	mg/Kg dry	1	J	SW-846 8270E	10/19/21	10/21/21 18:50	IMR
2-Methylphenol	ND	0.40	0.073	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 18:50	IMR
3/4-Methylphenol	ND	0.40	0.064	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 18:50	IMR
Naphthalene	0.076	0.20	0.054	mg/Kg dry	1	J	SW-846 8270E	10/19/21	10/21/21 18:50	IMR
2-Nitroaniline	ND	0.40	0.084	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 18:50	IMR
3-Nitroaniline	ND	0.40	0.067	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 18:50	IMR
4-Nitroaniline	ND	0.40	0.085	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 18:50	IMR
Nitrobenzene	ND	0.40	0.057	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 18:50	IMR
2-Nitrophenol	ND	0.40	0.062	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 18:50	IMR
4-Nitrophenol	ND	0.77	0.16	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 18:50	IMR
N-Nitrosodimethylamine	ND	0.40	0.059	mg/Kg dry	1	R-05	SW-846 8270E	10/19/21	10/21/21 18:50	IMR
N-Nitrosodiphenylamine/Diphenylamine	ND	0.40	0.059	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 18:50	IMR
N-Nitrosodi-n-propylamine	ND	0.40	0.054	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 18:50	IMR
Pentachloronitrobenzene	ND	0.40	0.066	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 18:50	IMR
Pentachlorophenol	ND	0.40	0.17	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 18:50	IMR
Phenanthrene	0.094	0.20	0.062	mg/Kg dry	1	J	SW-846 8270E	10/19/21	10/21/21 18:50	IMR
Phenol	ND	0.40	0.056	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 18:50	IMR
Pyrene	ND	0.20	0.063	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 18:50	IMR
Pyridine	ND	0.40	0.040	mg/Kg dry	1	R-05	SW-846 8270E	10/19/21	10/21/21 18:50	IMR
1,2,4,5-Tetrachlorobenzene	ND	0.40	0.051	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 18:50	IMR
1,2,4-Trichlorobenzene	ND	0.40	0.050	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 18:50	IMR
2,4,5-Trichlorophenol	ND	0.40	0.061	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 18:50	IMR
2,4,6-Trichlorophenol	ND	0.40	0.061	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 18:50	IMR

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
2-Fluorophenol	55.2	30-130		10/21/21 18:50
Phenol-d6	61.7	30-130		10/21/21 18:50
Nitrobenzene-d5	53.8	30-130		10/21/21 18:50
2-Fluorobiphenyl	61.0	30-130		10/21/21 18:50
2,4,6-Tribromophenol	62.2	30-130		10/21/21 18:50
p-Terphenyl-d14	65.6	30-130		10/21/21 18:50

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Project Location: 1400 N. Royal St., Alexandria, VA Sample Description: Work Order: 21J0887

Date Received: 10/15/2021

Field Sample #: HRP-SB203-0-1-211012 Sampled: 10/12/2021 07:40

Sample ID: 21J0887-05

Sample Matrix: Soil

Metals Analyses (Total)

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Aluminum	5100	19	7.0	mg/Kg dry	1		SW-846 6010D	10/15/21	10/18/21 0:03	MJH
Antimony	ND	1.9	0.78	mg/Kg dry	1		SW-846 6010D	10/15/21	10/18/21 0:03	MJH
Arsenic	15	3.8	1.4	mg/Kg dry	1		SW-846 6010D	10/15/21	10/18/21 0:03	MJH
Barium	62	1.9	0.73	mg/Kg dry	1		SW-846 6010D	10/15/21	10/18/21 0:03	MJH
Beryllium	0.58	0.19	0.073	mg/Kg dry	1		SW-846 6010D	10/15/21	10/18/21 0:03	MJH
Cadmium	0.52	0.38	0.20	mg/Kg dry	1		SW-846 6010D	10/15/21	10/18/21 0:03	MJH
Calcium	4600	19	7.5	mg/Kg dry	1		SW-846 6010D	10/15/21	10/18/21 0:03	MJH
Chromium	23	0.77	0.44	mg/Kg dry	1		SW-846 6010D	10/15/21	10/18/21 0:03	MJH
Cobalt	5.3	1.9	0.71	mg/Kg dry	1		SW-846 6010D	10/15/21	10/18/21 0:03	MJH
Copper	51	0.77	0.37	mg/Kg dry	1		SW-846 6010D	10/15/21	10/18/21 0:03	MJH
Iron	13000	19	7.8	mg/Kg dry	1		SW-846 6010D	10/15/21	10/18/21 0:03	MJH
Lead	16	0.58	0.28	mg/Kg dry	1		SW-846 6010D	10/15/21	10/18/21 0:03	MJH
Magnesium	2200	19	6.7	mg/Kg dry	1		SW-846 6010D	10/15/21	10/19/21 14:31	QNW
Manganese	100	0.38	0.15	mg/Kg dry	1		SW-846 6010D	10/15/21	10/18/21 0:03	MJH
Mercury	0.049	0.031	0.011	mg/Kg dry	1		SW-846 7471B	10/15/21	10/21/21 11:00	MJH
Nickel	25	0.77	0.39	mg/Kg dry	1		SW-846 6010D	10/15/21	10/18/21 0:03	MJH
Potassium	550	190	72	mg/Kg dry	1		SW-846 6010D	10/15/21	10/18/21 0:03	MJH
Selenium	ND	3.8	1.4	mg/Kg dry	1		SW-846 6010D	10/15/21	10/19/21 14:31	MJH
Silver	ND	0.38	0.18	mg/Kg dry	1		SW-846 6010D	10/15/21	10/18/21 0:03	MJH
Sodium	140	190	75	mg/Kg dry	1	J	SW-846 6010D	10/15/21	10/18/21 0:03	MJH
Thallium	ND	1.9	0.92	mg/Kg dry	1		SW-846 6010D	10/15/21	10/18/21 0:03	MJH
Vanadium	19	0.77	0.38	mg/Kg dry	1		SW-846 6010D	10/15/21	10/18/21 0:03	MJH
Zinc	120	0.77	0.49	mg/Kg dry	1		SW-846 6010D	10/15/21	10/18/21 0:03	MJH

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Project Location: 1400 N. Royal St., Alexandria, VA Sample Description: Work Order: 21J0887

Date Received: 10/15/2021

Field Sample #: HRP-SB203-0-1-211012 Sampled: 10/12/2021 07:40

Sample ID: 21J0887-05

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	86.1			% Wt	1		SM 2540G	10/19/21	10/20/21 13:28	AL

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Project Location: 1400 N. Royal St., Alexandria, VA Sample Description: Work Order: 21J0887

Date Received: 10/15/2021

Field Sample #: HRP-SB203-11-13-211012 Sampled: 10/12/2021 07:57

Sample ID: 21J0887-06

Sample Matrix: Soil

Semivolatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acenaphthene	ND	0.20	0.063	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 19:18	IMR
Acenaphthylene	ND	0.20	0.061	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 19:18	IMR
Acetophenone	ND	0.40	0.055	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 19:18	IMR
Aniline	ND	0.40	0.083	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 19:18	IMR
Anthracene	ND	0.20	0.065	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 19:18	IMR
Benzidine	ND	0.78	0.18	mg/Kg dry	1	V-04	SW-846 8270E	10/19/21	10/21/21 19:18	IMR
Benzo(a)anthracene	ND	0.20	0.056	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 19:18	IMR
Benzo(a)pyrene	ND	0.20	0.062	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 19:18	IMR
Benzo(b)fluoranthene	ND	0.20	0.061	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 19:18	IMR
Benzo(g,h,i)perylene	ND	0.20	0.084	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 19:18	IMR
Benzo(k)fluoranthene	ND	0.20	0.054	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 19:18	IMR
Benzoic Acid	ND	1.2	0.48	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 19:18	IMR
Bis(2-chloroethoxy)methane	ND	0.40	0.052	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 19:18	IMR
Bis(2-chloroethyl)ether	ND	0.40	0.055	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 19:18	IMR
Bis(2-chloroisopropyl)ether	ND	0.40	0.091	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 19:18	IMR
Bis(2-Ethylhexyl)phthalate	ND	0.40	0.067	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 19:18	IMR
4-Bromophenylphenylether	ND	0.40	0.051	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 19:18	IMR
Butylbenzylphthalate	ND	0.40	0.064	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 19:18	IMR
Carbazole	ND	0.20	0.066	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 19:18	IMR
4-Chloroaniline	ND	0.78	0.053	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 19:18	IMR
4-Chloro-3-methylphenol	ND	0.78	0.067	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 19:18	IMR
2-Chloronaphthalene	ND	0.40	0.047	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 19:18	IMR
2-Chlorophenol	ND	0.40	0.056	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 19:18	IMR
4-Chlorophenylphenylether	ND	0.40	0.057	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 19:18	IMR
Chrysene	ND	0.20	0.058	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 19:18	IMR
Dibenz(a,h)anthracene	ND	0.20	0.081	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 19:18	IMR
Dibenzofuran	ND	0.40	0.059	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 19:18	IMR
Di-n-butylphthalate	ND	0.40	0.057	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 19:18	IMR
1,2-Dichlorobenzene	ND	0.40	0.046	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 19:18	IMR
1,3-Dichlorobenzene	ND	0.40	0.044	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 19:18	IMR
1,4-Dichlorobenzene	ND	0.40	0.042	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 19:18	IMR
3,3-Dichlorobenzidine	ND	0.20	0.059	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 19:18	IMR
2,4-Dichlorophenol	ND	0.40	0.059	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 19:18	IMR
Diethylphthalate	ND	0.40	0.061	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 19:18	IMR
2,4-Dimethylphenol	ND	0.40	0.11	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 19:18	IMR
Dimethylphthalate	ND	0.40	0.058	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 19:18	IMR
4,6-Dinitro-2-methylphenol	ND	0.40	0.27	mg/Kg dry	1	V-05	SW-846 8270E	10/19/21	10/21/21 19:18	IMR
2,4-Dinitrophenol	ND	0.78	0.35	mg/Kg dry	1	V-04	SW-846 8270E	10/19/21	10/21/21 19:18	IMR
2,4-Dinitrotoluene	ND	0.40	0.078	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 19:18	IMR
2,6-Dinitrotoluene	ND	0.40	0.067	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 19:18	IMR
Di-n-octylphthalate	ND	0.40	0.14	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 19:18	IMR
1,2-Diphenylhydrazine/Azobenzene	ND	0.40	0.058	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 19:18	IMR
Fluoranthene	ND	0.20	0.064	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 19:18	IMR
Fluorene	ND	0.20	0.067	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 19:18	IMR

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Project Location: 1400 N. Royal St., Alexandria, VA Sample Description: Work Order: 21J0887

Date Received: 10/15/2021

Field Sample #: HRP-SB203-11-13-211012 Sampled: 10/12/2021 07:57

Sample ID: 21J0887-06

Sample Matrix: Soil

Semivolatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Hexachlorobenzene	ND	0.40	0.054	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 19:18	IMR
Hexachlorobutadiene	ND	0.40	0.051	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 19:18	IMR
Hexachlorocyclopentadiene	ND	0.40	0.17	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 19:18	IMR
Hexachloroethane	ND	0.40	0.048	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 19:18	IMR
Indeno(1,2,3-cd)pyrene	ND	0.20	0.091	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 19:18	IMR
Isophorone	ND	0.40	0.067	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 19:18	IMR
1-Methylnaphthalene	ND	0.20	0.055	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 19:18	IMR
2-Methylnaphthalene	ND	0.20	0.063	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 19:18	IMR
2-Methylphenol	ND	0.40	0.074	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 19:18	IMR
3/4-Methylphenol	ND	0.40	0.065	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 19:18	IMR
Naphthalene	ND	0.20	0.055	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 19:18	IMR
2-Nitroaniline	ND	0.40	0.085	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 19:18	IMR
3-Nitroaniline	ND	0.40	0.068	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 19:18	IMR
4-Nitroaniline	ND	0.40	0.086	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 19:18	IMR
Nitrobenzene	ND	0.40	0.058	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 19:18	IMR
2-Nitrophenol	ND	0.40	0.063	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 19:18	IMR
4-Nitrophenol	ND	0.78	0.16	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 19:18	IMR
N-Nitrosodimethylamine	ND	0.40	0.060	mg/Kg dry	1	R-05	SW-846 8270E	10/19/21	10/21/21 19:18	IMR
N-Nitrosodiphenylamine/Diphenylamine	ND	0.40	0.060	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 19:18	IMR
N-Nitrosodi-n-propylamine	ND	0.40	0.055	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 19:18	IMR
Pentachloronitrobenzene	ND	0.40	0.067	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 19:18	IMR
Pentachlorophenol	ND	0.40	0.18	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 19:18	IMR
Phenanthrene	ND	0.20	0.063	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 19:18	IMR
Phenol	ND	0.40	0.057	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 19:18	IMR
Pyrene	ND	0.20	0.064	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 19:18	IMR
Pyridine	ND	0.40	0.041	mg/Kg dry	1	R-05	SW-846 8270E	10/19/21	10/21/21 19:18	IMR
1,2,4,5-Tetrachlorobenzene	ND	0.40	0.052	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 19:18	IMR
1,2,4-Trichlorobenzene	ND	0.40	0.050	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 19:18	IMR
2,4,5-Trichlorophenol	ND	0.40	0.062	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 19:18	IMR
2,4,6-Trichlorophenol	ND	0.40	0.062	mg/Kg dry	1		SW-846 8270E	10/19/21	10/21/21 19:18	IMR

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
2-Fluorophenol	70.3	30-130		10/21/21 19:18
Phenol-d6	73.9	30-130		10/21/21 19:18
Nitrobenzene-d5	68.0	30-130		10/21/21 19:18
2-Fluorobiphenyl	72.6	30-130		10/21/21 19:18
2,4,6-Tribromophenol	75.3	30-130		10/21/21 19:18
p-Terphenyl-d14	79.4	30-130		10/21/21 19:18

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Project Location: 1400 N. Royal St., Alexandria, VA Sample Description: Work Order: 21J0887

Date Received: 10/15/2021

Field Sample #: HRP-SB203-11-13-211012 Sampled: 10/12/2021 07:57

Sample ID: 21J0887-06

Sample Matrix: Soil

Metals Analyses (Total)

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Aluminum	13000	20	7.1	mg/Kg dry	1		SW-846 6010D	10/15/21	10/18/21 0:21	MJH
Antimony	ND	2.0	0.79	mg/Kg dry	1		SW-846 6010D	10/15/21	10/18/21 0:21	MJH
Arsenic	6.5	3.9	1.4	mg/Kg dry	1		SW-846 6010D	10/15/21	10/18/21 0:21	MJH
Barium	66	2.0	0.75	mg/Kg dry	1		SW-846 6010D	10/15/21	10/18/21 0:21	MJH
Beryllium	0.87	0.20	0.074	mg/Kg dry	1		SW-846 6010D	10/15/21	10/18/21 0:21	MJH
Cadmium	ND	0.39	0.20	mg/Kg dry	1		SW-846 6010D	10/15/21	10/18/21 0:21	MJH
Calcium	630	20	7.6	mg/Kg dry	1		SW-846 6010D	10/15/21	10/18/21 0:21	MJH
Chromium	19	0.78	0.45	mg/Kg dry	1		SW-846 6010D	10/15/21	10/18/21 0:21	MJH
Cobalt	7.6	2.0	0.72	mg/Kg dry	1		SW-846 6010D	10/15/21	10/18/21 0:21	MJH
Copper	18	0.78	0.38	mg/Kg dry	1		SW-846 6010D	10/15/21	10/18/21 0:21	MJH
Iron	64000	98	39	mg/Kg dry	5		SW-846 6010D	10/15/21	10/19/21 15:31	QNW
Lead	13	0.59	0.29	mg/Kg dry	1		SW-846 6010D	10/15/21	10/18/21 0:21	MJH
Magnesium	3100	98	34	mg/Kg dry	5		SW-846 6010D	10/15/21	10/19/21 15:31	QNW
Manganese	140	0.39	0.15	mg/Kg dry	1		SW-846 6010D	10/15/21	10/18/21 0:21	MJH
Mercury	ND	0.031	0.010	mg/Kg dry	1		SW-846 7471B	10/15/21	10/21/21 11:02	MJH
Nickel	16	0.78	0.40	mg/Kg dry	1		SW-846 6010D	10/15/21	10/18/21 0:21	MJH
Potassium	810	200	74	mg/Kg dry	1		SW-846 6010D	10/15/21	10/18/21 0:21	MJH
Selenium	ND	3.9	1.4	mg/Kg dry	1		SW-846 6010D	10/15/21	10/18/21 0:21	MJH
Silver	ND	0.39	0.18	mg/Kg dry	1		SW-846 6010D	10/15/21	10/18/21 0:21	MJH
Sodium	100	200	76	mg/Kg dry	1	J	SW-846 6010D	10/15/21	10/18/21 0:21	MJH
Thallium	ND	2.0	0.94	mg/Kg dry	1		SW-846 6010D	10/15/21	10/18/21 0:21	MJH
Vanadium	30	0.78	0.39	mg/Kg dry	1		SW-846 6010D	10/15/21	10/18/21 0:21	MJH
Zinc	49	0.78	0.50	mg/Kg dry	1		SW-846 6010D	10/15/21	10/18/21 0:21	MJH

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Project Location: 1400 N. Royal St., Alexandria, VA Sample Description: Work Order: 21J0887

Date Received: 10/15/2021

Field Sample #: HRP-SB203-11-13-211012 Sampled: 10/12/2021 07:57

Sample ID: 21J0887-06

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	84.8			% Wt	1		SM 2540G	10/19/21	10/20/21 13:29	AL

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Project Location: 1400 N. Royal St., Alexandria, VA Sample Description: Work Order: 21J0887

Date Received: 10/15/2021

Field Sample #: HRP-SB206-0-1-211012 Sampled: 10/12/2021 12:43

Sample ID: 21J0887-07

Sample Matrix: Soil

Metals Analyses (Total)

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Aluminum	8500	19	7.0	mg/Kg dry	1		SW-846 6010D	10/15/21	10/18/21 0:28	MJH
Antimony	ND	1.9	0.78	mg/Kg dry	1		SW-846 6010D	10/15/21	10/18/21 0:28	MJH
Arsenic	5.6	3.8	1.4	mg/Kg dry	1		SW-846 6010D	10/15/21	10/18/21 0:28	MJH
Barium	64	1.9	0.73	mg/Kg dry	1		SW-846 6010D	10/15/21	10/18/21 0:28	MJH
Beryllium	0.78	0.19	0.073	mg/Kg dry	1		SW-846 6010D	10/15/21	10/18/21 0:28	MJH
Cadmium	ND	0.38	0.20	mg/Kg dry	1		SW-846 6010D	10/15/21	10/18/21 0:28	MJH
Calcium	630	19	7.5	mg/Kg dry	1		SW-846 6010D	10/15/21	10/18/21 0:28	MJH
Chromium	19	0.77	0.44	mg/Kg dry	1		SW-846 6010D	10/15/21	10/18/21 0:28	MJH
Cobalt	13	1.9	0.71	mg/Kg dry	1		SW-846 6010D	10/15/21	10/18/21 0:28	MJH
Copper	20	0.77	0.37	mg/Kg dry	1		SW-846 6010D	10/15/21	10/18/21 0:28	MJH
Iron	21000	96	39	mg/Kg dry	5		SW-846 6010D	10/15/21	10/19/21 15:37	QNW
Lead	16	0.58	0.28	mg/Kg dry	1		SW-846 6010D	10/15/21	10/18/21 0:28	MJH
Magnesium	1000	96	34	mg/Kg dry	5		SW-846 6010D	10/15/21	10/19/21 15:37	QNW
Manganese	180	0.38	0.15	mg/Kg dry	1		SW-846 6010D	10/15/21	10/18/21 0:28	MJH
Mercury	0.041	0.031	0.011	mg/Kg dry	1		SW-846 7471B	10/15/21	10/21/21 11:04	MJH
Nickel	15	0.77	0.39	mg/Kg dry	1		SW-846 6010D	10/15/21	10/18/21 0:28	MJH
Potassium	720	190	72	mg/Kg dry	1		SW-846 6010D	10/15/21	10/18/21 0:28	MJH
Selenium	ND	3.8	1.4	mg/Kg dry	1		SW-846 6010D	10/15/21	10/18/21 0:28	MJH
Silver	ND	0.38	0.18	mg/Kg dry	1		SW-846 6010D	10/15/21	10/18/21 0:28	MJH
Sodium	280	190	75	mg/Kg dry	1		SW-846 6010D	10/15/21	10/18/21 0:28	MJH
Thallium	ND	1.9	0.92	mg/Kg dry	1		SW-846 6010D	10/15/21	10/18/21 0:28	MJH
Vanadium	25	0.77	0.38	mg/Kg dry	1		SW-846 6010D	10/15/21	10/18/21 0:28	MJH
Zinc	50	0.77	0.49	mg/Kg dry	1		SW-846 6010D	10/15/21	10/18/21 0:28	MJH

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39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: 1400 N. Royal St., Alexandria, VA Sample Description: Work Order: 21J0887

Date Received: 10/15/2021

Field Sample #: HRP-SB206-0-1-211012 Sampled: 10/12/2021 12:43

Sample ID: 21J0887-07

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	86.8			% Wt	1		SM 2540G	10/19/21	10/20/21 13:29	AL
Cyanide	ND	0.55	0.39	mg/Kg dry	1		SW-846 9014	10/19/21	10/20/21 17:15	DJM
pH @19.6°C	5.9			pH Units	1	H-03	SW-846 9045C	10/15/21	10/15/21 21:40	DJM

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Project Location: 1400 N. Royal St., Alexandria, VA Sample Description: Work Order: 21J0887

Date Received: 10/15/2021

Field Sample #: HRP-SB206-5-7-211012 Sampled: 10/12/2021 12:58

Sample ID: 21J0887-08

Sample Matrix: Soil

Petroleum Hydrocarbons Analyses

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Gasoline Range Organics (GRO)	ND	1.1	1.1	mg/Kg dry	1		SW-846 8015C	10/18/21	10/19/21 23:56	KMB
Diesel Range Organics	27	9.8	4.5	mg/Kg dry	1		SW-846 8015C	10/18/21	10/20/21 17:24	SFM

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
1-Chloro-3-fluorobenzene	95.4	70-130		10/19/21 23:56
2-Fluorobiphenyl	69.8	40-140		10/20/21 17:24

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Project Location: 1400 N. Royal St., Alexandria, VA Sample Description: Work Order: 21J0887

Date Received: 10/15/2021

Field Sample #: HRP-SB206-5-7-211012 Sampled: 10/12/2021 12:58

Sample ID: 21J0887-08

Sample Matrix: Soil

Metals Analyses (Total)

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Aluminum	9400	19	7.1	mg/Kg dry	1		SW-846 6010D	10/15/21	10/18/21 0:34	MJH
Antimony	ND	1.9	0.79	mg/Kg dry	1		SW-846 6010D	10/15/21	10/18/21 0:34	MJH
Arsenic	5.2	3.9	1.4	mg/Kg dry	1		SW-846 6010D	10/15/21	10/18/21 0:34	MJH
Barium	74	1.9	0.74	mg/Kg dry	1		SW-846 6010D	10/15/21	10/18/21 0:34	MJH
Beryllium	0.72	0.19	0.074	mg/Kg dry	1		SW-846 6010D	10/15/21	10/18/21 0:34	MJH
Cadmium	ND	0.39	0.20	mg/Kg dry	1		SW-846 6010D	10/15/21	10/18/21 0:34	MJH
Calcium	820	19	7.6	mg/Kg dry	1		SW-846 6010D	10/15/21	10/18/21 0:34	MJH
Chromium	14	0.78	0.44	mg/Kg dry	1		SW-846 6010D	10/15/21	10/18/21 0:34	MJH
Cobalt	14	1.9	0.72	mg/Kg dry	1		SW-846 6010D	10/15/21	10/18/21 0:34	MJH
Copper	16	0.78	0.37	mg/Kg dry	1		SW-846 6010D	10/15/21	10/18/21 0:34	MJH
Iron	18000	19	7.9	mg/Kg dry	1		SW-846 6010D	10/15/21	10/18/21 0:34	MJH
Lead	20	0.58	0.28	mg/Kg dry	1		SW-846 6010D	10/15/21	10/18/21 0:34	MJH
Magnesium	1200	97	34	mg/Kg dry	5		SW-846 6010D	10/15/21	10/19/21 15:42	QNW
Manganese	120	0.39	0.15	mg/Kg dry	1		SW-846 6010D	10/15/21	10/18/21 0:34	MJH
Mercury	0.049	0.030	0.010	mg/Kg dry	1		SW-846 7471B	10/15/21	10/21/21 11:05	MJH
Nickel	15	0.78	0.40	mg/Kg dry	1		SW-846 6010D	10/15/21	10/18/21 0:34	MJH
Potassium	800	190	73	mg/Kg dry	1		SW-846 6010D	10/15/21	10/18/21 0:34	MJH
Selenium	ND	3.9	1.4	mg/Kg dry	1		SW-846 6010D	10/15/21	10/18/21 0:34	MJH
Silver	ND	0.39	0.18	mg/Kg dry	1		SW-846 6010D	10/15/21	10/18/21 0:34	MJH
Sodium	720	190	76	mg/Kg dry	1		SW-846 6010D	10/15/21	10/18/21 0:34	MJH
Thallium	ND	1.9	0.94	mg/Kg dry	1		SW-846 6010D	10/15/21	10/18/21 0:34	MJH
Vanadium	24	0.78	0.39	mg/Kg dry	1		SW-846 6010D	10/15/21	10/18/21 0:34	MJH
Zinc	44	0.78	0.50	mg/Kg dry	1		SW-846 6010D	10/15/21	10/18/21 0:34	MJH

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Project Location: 1400 N. Royal St., Alexandria, VA Sample Description: Work Order: 21J0887

Date Received: 10/15/2021

Field Sample #: HRP-SB206-5-7-211012 Sampled: 10/12/2021 12:58

Sample ID: 21J0887-08

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	85.3			% Wt	1		SM 2540G	10/19/21	10/20/21 13:29	AL
Cyanide	ND	0.57	0.40	mg/Kg dry	1		SW-846 9014	10/18/21	10/19/21 21:15	DJM
pH @19.1°C	6.1			pH Units	1	H-03	SW-846 9045C	10/15/21	10/15/21 21:40	DJM

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Project Location: 1400 N. Royal St., Alexandria, VA Sample Description: Work Order: 21J0887

Date Received: 10/15/2021

Field Sample #: HR-SB206-15-17-211012 Sampled: 10/12/2021 13:45

Sample ID: 21J0887-09

Sample Matrix: Soil

Petroleum Hydrocarbons Analyses

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Gasoline Range Organics (GRO)	ND	3.5	3.4	mg/Kg dry	1		SW-846 8015C	10/18/21	10/19/21 20:44	KMB
Diesel Range Organics	39	11	5.1	mg/Kg dry	1		SW-846 8015C	10/18/21	10/20/21 18:25	SFM

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
1-Chloro-3-fluorobenzene	87.3	70-130		10/19/21 20:44
2-Fluorobiphenyl	66.9	40-140		10/20/21 18:25

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Project Location: 1400 N. Royal St., Alexandria, VA Sample Description: Work Order: 21J0887

Date Received: 10/15/2021

Field Sample #: HR-SB206-15-17-211012 Sampled: 10/12/2021 13:45

Sample ID: 21J0887-09

Sample Matrix: Soil

Metals Analyses (Total)

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Aluminum	7600	21	7.6	mg/Kg dry	1		SW-846 6010D	10/15/21	10/18/21 0:41	MJH
Antimony	ND	2.1	0.84	mg/Kg dry	1		SW-846 6010D	10/15/21	10/18/21 0:41	MJH
Arsenic	6.3	4.2	1.5	mg/Kg dry	1		SW-846 6010D	10/15/21	10/18/21 0:41	MJH
Barium	46	2.1	0.79	mg/Kg dry	1		SW-846 6010D	10/15/21	10/18/21 0:41	MJH
Beryllium	0.76	0.21	0.079	mg/Kg dry	1		SW-846 6010D	10/15/21	10/18/21 0:41	MJH
Cadmium	ND	0.42	0.21	mg/Kg dry	1		SW-846 6010D	10/15/21	10/18/21 0:41	MJH
Calcium	640	21	8.1	mg/Kg dry	1		SW-846 6010D	10/15/21	10/18/21 0:41	MJH
Chromium	18	0.83	0.47	mg/Kg dry	1		SW-846 6010D	10/15/21	10/18/21 0:41	MJH
Cobalt	7.5	2.1	0.77	mg/Kg dry	1		SW-846 6010D	10/15/21	10/18/21 0:41	MJH
Copper	12	0.83	0.40	mg/Kg dry	1		SW-846 6010D	10/15/21	10/18/21 0:41	MJH
Iron	20000	21	8.4	mg/Kg dry	1		SW-846 6010D	10/15/21	10/18/21 0:41	MJH
Lead	12	0.62	0.30	mg/Kg dry	1		SW-846 6010D	10/15/21	10/18/21 0:41	MJH
Magnesium	930	100	36	mg/Kg dry	5		SW-846 6010D	10/15/21	10/19/21 15:47	QNW
Manganese	120	0.42	0.16	mg/Kg dry	1		SW-846 6010D	10/15/21	10/18/21 0:41	MJH
Mercury	0.042	0.033	0.011	mg/Kg dry	1		SW-846 7471B	10/15/21	10/21/21 11:07	MJH
Nickel	12	0.83	0.42	mg/Kg dry	1		SW-846 6010D	10/15/21	10/18/21 0:41	MJH
Potassium	650	210	78	mg/Kg dry	1		SW-846 6010D	10/15/21	10/18/21 0:41	MJH
Selenium	ND	4.2	1.5	mg/Kg dry	1		SW-846 6010D	10/15/21	10/18/21 0:41	MJH
Silver	ND	0.42	0.19	mg/Kg dry	1		SW-846 6010D	10/15/21	10/18/21 0:41	MJH
Sodium	670	210	81	mg/Kg dry	1		SW-846 6010D	10/15/21	10/18/21 0:41	MJH
Thallium	ND	2.1	1.0	mg/Kg dry	1		SW-846 6010D	10/15/21	10/18/21 0:41	MJH
Vanadium	23	0.83	0.41	mg/Kg dry	1		SW-846 6010D	10/15/21	10/18/21 0:41	MJH
Zinc	35	0.83	0.53	mg/Kg dry	1		SW-846 6010D	10/15/21	10/18/21 0:41	MJH

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Project Location: 1400 N. Royal St., Alexandria, VA Sample Description: Work Order: 21J0887

Date Received: 10/15/2021

Field Sample #: HR-SB206-15-17-211012 Sampled: 10/12/2021 13:45

Sample ID: 21J0887-09

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	75.4			% Wt	1		SM 2540G	10/19/21	10/20/21 13:29	AL
Cyanide	ND	0.66	0.47	mg/Kg dry	1		SW-846 9014	10/18/21	10/19/21 21:15	DJM
pH @18.9°C	7.2			pH Units	1	H-03	SW-846 9045C	10/15/21	10/15/21 21:40	DJM

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Project Location: 1400 N. Royal St., Alexandria, VA Sample Description: Work Order: 21J0887

Date Received: 10/15/2021

Field Sample #: HRP-SB207-0-1-211013 Sampled: 10/13/2021 08:37

Sample ID: 21J0887-10

Sample Matrix: Soil

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acetone	ND	0.098	0.032	mg/Kg dry	1		SW-846 8260D	10/18/21	10/18/21 7:59	MFF
Acrylonitrile	ND	0.0059	0.00096	mg/Kg dry	1		SW-846 8260D	10/18/21	10/18/21 7:59	MFF
tert-Amyl Methyl Ether (TAME)	ND	0.00098	0.00044	mg/Kg dry	1		SW-846 8260D	10/18/21	10/18/21 7:59	MFF
Benzene	ND	0.0020	0.00046	mg/Kg dry	1		SW-846 8260D	10/18/21	10/18/21 7:59	MFF
Bromobenzene	ND	0.0020	0.00033	mg/Kg dry	1		SW-846 8260D	10/18/21	10/18/21 7:59	MFF
Bromochloromethane	ND	0.0020	0.00093	mg/Kg dry	1		SW-846 8260D	10/18/21	10/18/21 7:59	MFF
Bromodichloromethane	ND	0.0020	0.00047	mg/Kg dry	1		SW-846 8260D	10/18/21	10/18/21 7:59	MFF
Bromoform	ND	0.0020	0.00059	mg/Kg dry	1		SW-846 8260D	10/18/21	10/18/21 7:59	MFF
Bromomethane	ND	0.0098	0.0036	mg/Kg dry	1	V-34	SW-846 8260D	10/18/21	10/18/21 7:59	MFF
2-Butanone (MEK)	ND	0.039	0.012	mg/Kg dry	1		SW-846 8260D	10/18/21	10/18/21 7:59	MFF
tert-Butyl Alcohol (TBA)	ND	0.098	0.047	mg/Kg dry	1		SW-846 8260D	10/18/21	10/18/21 7:59	MFF
n-Butylbenzene	ND	0.0020	0.00050	mg/Kg dry	1		SW-846 8260D	10/18/21	10/18/21 7:59	MFF
sec-Butylbenzene	ND	0.0020	0.00095	mg/Kg dry	1		SW-846 8260D	10/18/21	10/18/21 7:59	MFF
tert-Butylbenzene	ND	0.0039	0.00083	mg/Kg dry	1		SW-846 8260D	10/18/21	10/18/21 7:59	MFF
tert-Butyl Ethyl Ether (TBEE)	ND	0.00098	0.00051	mg/Kg dry	1		SW-846 8260D	10/18/21	10/18/21 7:59	MFF
Carbon Disulfide	ND	0.0098	0.0070	mg/Kg dry	1		SW-846 8260D	10/18/21	10/18/21 7:59	MFF
Carbon Tetrachloride	ND	0.0020	0.00076	mg/Kg dry	1		SW-846 8260D	10/18/21	10/18/21 7:59	MFF
Chlorobenzene	ND	0.0020	0.00052	mg/Kg dry	1		SW-846 8260D	10/18/21	10/18/21 7:59	MFF
Chlorodibromomethane	ND	0.00098	0.00050	mg/Kg dry	1		SW-846 8260D	10/18/21	10/18/21 7:59	MFF
Chloroethane	ND	0.020	0.0034	mg/Kg dry	1		SW-846 8260D	10/18/21	10/18/21 7:59	MFF
Chloroform	ND	0.0039	0.00098	mg/Kg dry	1		SW-846 8260D	10/18/21	10/18/21 7:59	MFF
Chloromethane	ND	0.0098	0.0032	mg/Kg dry	1		SW-846 8260D	10/18/21	10/18/21 7:59	MFF
2-Chlorotoluene	ND	0.0020	0.00045	mg/Kg dry	1		SW-846 8260D	10/18/21	10/18/21 7:59	MFF
4-Chlorotoluene	ND	0.0020	0.00034	mg/Kg dry	1		SW-846 8260D	10/18/21	10/18/21 7:59	MFF
1,2-Dibromo-3-chloropropane (DBCP)	ND	0.0020	0.00066	mg/Kg dry	1		SW-846 8260D	10/18/21	10/18/21 7:59	MFF
1,2-Dibromoethane (EDB)	ND	0.00098	0.00061	mg/Kg dry	1		SW-846 8260D	10/18/21	10/18/21 7:59	MFF
Dibromomethane	ND	0.0020	0.00072	mg/Kg dry	1		SW-846 8260D	10/18/21	10/18/21 7:59	MFF
1,2-Dichlorobenzene	ND	0.0020	0.00039	mg/Kg dry	1		SW-846 8260D	10/18/21	10/18/21 7:59	MFF
1,3-Dichlorobenzene	ND	0.0020	0.00042	mg/Kg dry	1		SW-846 8260D	10/18/21	10/18/21 7:59	MFF
1,4-Dichlorobenzene	ND	0.0020	0.00050	mg/Kg dry	1		SW-846 8260D	10/18/21	10/18/21 7:59	MFF
trans-1,4-Dichloro-2-butene	ND	0.0039	0.00056	mg/Kg dry	1		SW-846 8260D	10/18/21	10/18/21 7:59	MFF
Dichlorodifluoromethane (Freon 12)	ND	0.020	0.0011	mg/Kg dry	1	V-05	SW-846 8260D	10/18/21	10/18/21 7:59	MFF
1,1-Dichloroethane	ND	0.0020	0.00049	mg/Kg dry	1		SW-846 8260D	10/18/21	10/18/21 7:59	MFF
1,2-Dichloroethane	ND	0.0020	0.00060	mg/Kg dry	1		SW-846 8260D	10/18/21	10/18/21 7:59	MFF
1,1-Dichloroethylene	ND	0.0039	0.0012	mg/Kg dry	1		SW-846 8260D	10/18/21	10/18/21 7:59	MFF
cis-1,2-Dichloroethylene	ND	0.0020	0.00052	mg/Kg dry	1		SW-846 8260D	10/18/21	10/18/21 7:59	MFF
trans-1,2-Dichloroethylene	ND	0.0020	0.00055	mg/Kg dry	1		SW-846 8260D	10/18/21	10/18/21 7:59	MFF
1,2-Dichloropropane	ND	0.0020	0.00046	mg/Kg dry	1		SW-846 8260D	10/18/21	10/18/21 7:59	MFF
1,3-Dichloropropane	ND	0.00098	0.00047	mg/Kg dry	1		SW-846 8260D	10/18/21	10/18/21 7:59	MFF
2,2-Dichloropropane	ND	0.0020	0.00075	mg/Kg dry	1		SW-846 8260D	10/18/21	10/18/21 7:59	MFF
1,1-Dichloropropene	ND	0.0020	0.00077	mg/Kg dry	1		SW-846 8260D	10/18/21	10/18/21 7:59	MFF
cis-1,3-Dichloropropene	ND	0.00098	0.00038	mg/Kg dry	1		SW-846 8260D	10/18/21	10/18/21 7:59	MFF
trans-1,3-Dichloropropene	ND	0.00098	0.00048	mg/Kg dry	1		SW-846 8260D	10/18/21	10/18/21 7:59	MFF
Diethyl Ether	ND	0.020	0.0022	mg/Kg dry	1		SW-846 8260D	10/18/21	10/18/21 7:59	MFF

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Project Location: 1400 N. Royal St., Alexandria, VA Sample Description: Work Order: 21J0887

Date Received: 10/15/2021

Field Sample #: HRP-SB207-0-1-211013 Sampled: 10/13/2021 08:37

Sample ID: 21J0887-10

Sample Matrix: Soil

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Diisopropyl Ether (DIPE)	ND	0.00098	0.00053	mg/Kg dry	1		SW-846 8260D	10/18/21	10/18/21 7:59	MFF
1,4-Dioxane	ND	0.098	0.022	mg/Kg dry	1		SW-846 8260D	10/18/21	10/18/21 7:59	MFF
Ethylbenzene	ND	0.0020	0.00044	mg/Kg dry	1		SW-846 8260D	10/18/21	10/18/21 7:59	MFF
Hexachlorobutadiene	ND	0.0020	0.00070	mg/Kg dry	1		SW-846 8260D	10/18/21	10/18/21 7:59	MFF
2-Hexanone (MBK)	ND	0.020	0.0057	mg/Kg dry	1		SW-846 8260D	10/18/21	10/18/21 7:59	MFF
Isopropylbenzene (Cumene)	ND	0.0020	0.00070	mg/Kg dry	1		SW-846 8260D	10/18/21	10/18/21 7:59	MFF
p-Isopropyltoluene (p-Cymene)	ND	0.0020	0.00045	mg/Kg dry	1		SW-846 8260D	10/18/21	10/18/21 7:59	MFF
Methyl Acetate	ND	0.0020	0.0013	mg/Kg dry	1		SW-846 8260D	10/18/21	10/18/21 7:59	MFF
Methyl tert-Butyl Ether (MTBE)	ND	0.0039	0.00037	mg/Kg dry	1		SW-846 8260D	10/18/21	10/18/21 7:59	MFF
Methyl Cyclohexane	ND	0.0020	0.00071	mg/Kg dry	1		SW-846 8260D	10/18/21	10/18/21 7:59	MFF
Methylene Chloride	ND	0.020	0.00055	mg/Kg dry	1		SW-846 8260D	10/18/21	10/18/21 7:59	MFF
4-Methyl-2-pentanone (MIBK)	ND	0.020	0.0043	mg/Kg dry	1		SW-846 8260D	10/18/21	10/18/21 7:59	MFF
Naphthalene	ND	0.0039	0.00051	mg/Kg dry	1		SW-846 8260D	10/18/21	10/18/21 7:59	MFF
n-Propylbenzene	ND	0.0020	0.00038	mg/Kg dry	1		SW-846 8260D	10/18/21	10/18/21 7:59	MFF
Styrene	ND	0.0020	0.00042	mg/Kg dry	1		SW-846 8260D	10/18/21	10/18/21 7:59	MFF
1,1,1,2-Tetrachloroethane	ND	0.0020	0.00054	mg/Kg dry	1		SW-846 8260D	10/18/21	10/18/21 7:59	MFF
1,1,2,2-Tetrachloroethane	ND	0.00098	0.00054	mg/Kg dry	1		SW-846 8260D	10/18/21	10/18/21 7:59	MFF
Tetrachloroethylene	ND	0.0020	0.00054	mg/Kg dry	1		SW-846 8260D	10/18/21	10/18/21 7:59	MFF
Tetrahydrofuran	ND	0.0098	0.0025	mg/Kg dry	1		SW-846 8260D	10/18/21	10/18/21 7:59	MFF
Toluene	ND	0.0020	0.00055	mg/Kg dry	1		SW-846 8260D	10/18/21	10/18/21 7:59	MFF
1,2,3-Trichlorobenzene	ND	0.0020	0.00054	mg/Kg dry	1		SW-846 8260D	10/18/21	10/18/21 7:59	MFF
1,2,4-Trichlorobenzene	ND	0.0020	0.00047	mg/Kg dry	1		SW-846 8260D	10/18/21	10/18/21 7:59	MFF
1,3,5-Trichlorobenzene	ND	0.0020	0.00048	mg/Kg dry	1		SW-846 8260D	10/18/21	10/18/21 7:59	MFF
1,1,1-Trichloroethane	ND	0.0020	0.00067	mg/Kg dry	1		SW-846 8260D	10/18/21	10/18/21 7:59	MFF
1,1,2-Trichloroethane	ND	0.0020	0.00046	mg/Kg dry	1		SW-846 8260D	10/18/21	10/18/21 7:59	MFF
Trichloroethylene	ND	0.0020	0.00048	mg/Kg dry	1		SW-846 8260D	10/18/21	10/18/21 7:59	MFF
Trichlorofluoromethane (Freon 11)	ND	0.0098	0.0035	mg/Kg dry	1		SW-846 8260D	10/18/21	10/18/21 7:59	MFF
1,2,3-Trichloropropane	ND	0.0020	0.00094	mg/Kg dry	1		SW-846 8260D	10/18/21	10/18/21 7:59	MFF
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	0.0098	0.0026	mg/Kg dry	1		SW-846 8260D	10/18/21	10/18/21 7:59	MFF
1,2,4-Trimethylbenzene	ND	0.0020	0.00063	mg/Kg dry	1		SW-846 8260D	10/18/21	10/18/21 7:59	MFF
1,3,5-Trimethylbenzene	ND	0.0020	0.00043	mg/Kg dry	1		SW-846 8260D	10/18/21	10/18/21 7:59	MFF
Vinyl Chloride	ND	0.0098	0.0030	mg/Kg dry	1		SW-846 8260D	10/18/21	10/18/21 7:59	MFF
m+p Xylene	ND	0.0039	0.00074	mg/Kg dry	1		SW-846 8260D	10/18/21	10/18/21 7:59	MFF
o-Xylene	ND	0.0020	0.00040	mg/Kg dry	1		SW-846 8260D	10/18/21	10/18/21 7:59	MFF

Surrogates	% Recovery	Recovery Limits	Flag/Qual		
1,2-Dichloroethane-d4	108	70-130		10/18/21 7:59	
Toluene-d8	100	70-130		10/18/21 7:59	
4-Bromofluorobenzene	99.6	70-130		10/18/21 7:59	

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Project Location: 1400 N. Royal St., Alexandria, VA Sample Description: Work Order: 21J0887

Date Received: 10/15/2021

Field Sample #: HRP-SB207-0-1-211013 Sampled: 10/13/2021 08:37

Sample ID: 21J0887-10

Sample Matrix: Soil

Petroleum Hydrocarbons Analyses

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Gasoline Range Organics (GRO)	ND	2.8	2.8	mg/Kg dry	1		SW-846 8015C	10/18/21	10/19/21 21:22	KMB
Diesel Range Organics	64	10	4.8	mg/Kg dry	1		SW-846 8015C	10/18/21	10/20/21 18:56	SFM

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
1-Chloro-3-fluorobenzene	89.2	70-130		10/19/21 21:22
2-Fluorobiphenyl	73.4	40-140		10/20/21 18:56

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Project Location: 1400 N. Royal St., Alexandria, VA Sample Description: Work Order: 21J0887

Date Received: 10/15/2021

Field Sample #: HRP-SB207-0-1-211013 Sampled: 10/13/2021 08:37

Sample ID: 21J0887-10

Sample Matrix: Soil

Metals Analyses (Total)

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Aluminum	11000	20	7.3	mg/Kg dry	1		SW-846 6010D	10/15/21	10/18/21 0:48	MJH
Antimony	ND	2.0	0.80	mg/Kg dry	1		SW-846 6010D	10/15/21	10/18/21 0:48	MJH
Arsenic	5.0	4.0	1.5	mg/Kg dry	1		SW-846 6010D	10/15/21	10/18/21 0:48	MJH
Barium	79	2.0	0.76	mg/Kg dry	1		SW-846 6010D	10/15/21	10/18/21 0:48	MJH
Beryllium	0.85	0.20	0.076	mg/Kg dry	1		SW-846 6010D	10/15/21	10/18/21 0:48	MJH
Cadmium	ND	0.40	0.20	mg/Kg dry	1		SW-846 6010D	10/15/21	10/18/21 0:48	MJH
Calcium	1800	20	7.8	mg/Kg dry	1		SW-846 6010D	10/15/21	10/18/21 0:48	MJH
Chromium	19	0.80	0.45	mg/Kg dry	1		SW-846 6010D	10/15/21	10/18/21 0:48	MJH
Cobalt	14	2.0	0.73	mg/Kg dry	1		SW-846 6010D	10/15/21	10/18/21 0:48	MJH
Copper	20	0.80	0.38	mg/Kg dry	1		SW-846 6010D	10/15/21	10/18/21 0:48	MJH
Iron	21000	100	40	mg/Kg dry	5		SW-846 6010D	10/15/21	10/19/21 15:52	QNW
Lead	23	0.60	0.29	mg/Kg dry	1		SW-846 6010D	10/15/21	10/18/21 0:48	MJH
Magnesium	1700	100	35	mg/Kg dry	5		SW-846 6010D	10/15/21	10/19/21 15:52	QNW
Manganese	370	0.40	0.16	mg/Kg dry	1		SW-846 6010D	10/15/21	10/18/21 0:48	MJH
Mercury	0.053	0.032	0.011	mg/Kg dry	1		SW-846 7471B	10/15/21	10/21/21 11:13	DRL
Nickel	16	0.80	0.41	mg/Kg dry	1		SW-846 6010D	10/15/21	10/18/21 0:48	MJH
Potassium	940	200	75	mg/Kg dry	1		SW-846 6010D	10/15/21	10/18/21 0:48	MJH
Selenium	ND	4.0	1.4	mg/Kg dry	1		SW-846 6010D	10/15/21	10/18/21 0:48	MJH
Silver	ND	0.40	0.18	mg/Kg dry	1		SW-846 6010D	10/15/21	10/18/21 0:48	MJH
Sodium	410	200	78	mg/Kg dry	1		SW-846 6010D	10/15/21	10/18/21 0:48	MJH
Thallium	ND	2.0	0.96	mg/Kg dry	1		SW-846 6010D	10/15/21	10/18/21 0:48	MJH
Vanadium	30	0.80	0.40	mg/Kg dry	1		SW-846 6010D	10/15/21	10/18/21 0:48	MJH
Zinc	54	0.80	0.51	mg/Kg dry	1		SW-846 6010D	10/15/21	10/18/21 0:48	MJH

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Project Location: 1400 N. Royal St., Alexandria, VA Sample Description: Work Order: 21J0887

Date Received: 10/15/2021

Field Sample #: HRP-SB207-0-1-211013 Sampled: 10/13/2021 08:37

Sample ID: 21J0887-10

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	80.5			% Wt	1		SM 2540G	10/19/21	10/20/21 13:29	AL
Cyanide	ND	0.60	0.42	mg/Kg dry	1		SW-846 9014	10/18/21	10/19/21 21:15	DJM
pH @19.9°C	5.6			pH Units	1	H-03	SW-846 9045C	10/15/21	10/15/21 21:40	DJM

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Project Location: 1400 N. Royal St., Alexandria, VA Sample Description: Work Order: 21J0887

Date Received: 10/15/2021

Field Sample #: HRP-SB207-6-8-211013 Sampled: 10/13/2021 09:15

Sample ID: 21J0887-11

Sample Matrix: Soil

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acetone	ND	0.087	0.028	mg/Kg dry	1		SW-846 8260D	10/18/21	10/18/21 8:24	MFF
Acrylonitrile	ND	0.0052	0.00085	mg/Kg dry	1		SW-846 8260D	10/18/21	10/18/21 8:24	MFF
tert-Amyl Methyl Ether (TAME)	ND	0.00087	0.00039	mg/Kg dry	1		SW-846 8260D	10/18/21	10/18/21 8:24	MFF
Benzene	ND	0.0017	0.00041	mg/Kg dry	1		SW-846 8260D	10/18/21	10/18/21 8:24	MFF
Bromobenzene	ND	0.0017	0.00029	mg/Kg dry	1		SW-846 8260D	10/18/21	10/18/21 8:24	MFF
Bromochloromethane	ND	0.0017	0.00083	mg/Kg dry	1		SW-846 8260D	10/18/21	10/18/21 8:24	MFF
Bromodichloromethane	ND	0.0017	0.00041	mg/Kg dry	1		SW-846 8260D	10/18/21	10/18/21 8:24	MFF
Bromoform	ND	0.0017	0.00053	mg/Kg dry	1		SW-846 8260D	10/18/21	10/18/21 8:24	MFF
Bromomethane	ND	0.0087	0.0032	mg/Kg dry	1	V-34	SW-846 8260D	10/18/21	10/18/21 8:24	MFF
2-Butanone (MEK)	ND	0.035	0.011	mg/Kg dry	1		SW-846 8260D	10/18/21	10/18/21 8:24	MFF
tert-Butyl Alcohol (TBA)	ND	0.087	0.042	mg/Kg dry	1		SW-846 8260D	10/18/21	10/18/21 8:24	MFF
n-Butylbenzene	ND	0.0017	0.00045	mg/Kg dry	1		SW-846 8260D	10/18/21	10/18/21 8:24	MFF
sec-Butylbenzene	ND	0.0017	0.00084	mg/Kg dry	1		SW-846 8260D	10/18/21	10/18/21 8:24	MFF
tert-Butylbenzene	ND	0.0035	0.00074	mg/Kg dry	1		SW-846 8260D	10/18/21	10/18/21 8:24	MFF
tert-Butyl Ethyl Ether (TBEE)	ND	0.00087	0.00045	mg/Kg dry	1		SW-846 8260D	10/18/21	10/18/21 8:24	MFF
Carbon Disulfide	ND	0.0087	0.0062	mg/Kg dry	1		SW-846 8260D	10/18/21	10/18/21 8:24	MFF
Carbon Tetrachloride	ND	0.0017	0.00067	mg/Kg dry	1		SW-846 8260D	10/18/21	10/18/21 8:24	MFF
Chlorobenzene	ND	0.0017	0.00046	mg/Kg dry	1		SW-846 8260D	10/18/21	10/18/21 8:24	MFF
Chlorodibromomethane	ND	0.00087	0.00045	mg/Kg dry	1		SW-846 8260D	10/18/21	10/18/21 8:24	MFF
Chloroethane	ND	0.017	0.0031	mg/Kg dry	1		SW-846 8260D	10/18/21	10/18/21 8:24	MFF
Chloroform	ND	0.0035	0.00086	mg/Kg dry	1		SW-846 8260D	10/18/21	10/18/21 8:24	MFF
Chloromethane	ND	0.0087	0.0028	mg/Kg dry	1		SW-846 8260D	10/18/21	10/18/21 8:24	MFF
2-Chlorotoluene	ND	0.0017	0.00040	mg/Kg dry	1		SW-846 8260D	10/18/21	10/18/21 8:24	MFF
4-Chlorotoluene	ND	0.0017	0.00030	mg/Kg dry	1		SW-846 8260D	10/18/21	10/18/21 8:24	MFF
1,2-Dibromo-3-chloropropane (DBCP)	ND	0.0017	0.00058	mg/Kg dry	1		SW-846 8260D	10/18/21	10/18/21 8:24	MFF
1,2-Dibromoethane (EDB)	ND	0.00087	0.00054	mg/Kg dry	1		SW-846 8260D	10/18/21	10/18/21 8:24	MFF
Dibromomethane	ND	0.0017	0.00063	mg/Kg dry	1		SW-846 8260D	10/18/21	10/18/21 8:24	MFF
1,2-Dichlorobenzene	ND	0.0017	0.00035	mg/Kg dry	1		SW-846 8260D	10/18/21	10/18/21 8:24	MFF
1,3-Dichlorobenzene	ND	0.0017	0.00037	mg/Kg dry	1		SW-846 8260D	10/18/21	10/18/21 8:24	MFF
1,4-Dichlorobenzene	ND	0.0017	0.00045	mg/Kg dry	1		SW-846 8260D	10/18/21	10/18/21 8:24	MFF
trans-1,4-Dichloro-2-butene	ND	0.0035	0.00049	mg/Kg dry	1		SW-846 8260D	10/18/21	10/18/21 8:24	MFF
Dichlorodifluoromethane (Freon 12)	ND	0.017	0.0010	mg/Kg dry	1	V-05	SW-846 8260D	10/18/21	10/18/21 8:24	MFF
1,1-Dichloroethane	ND	0.0017	0.00044	mg/Kg dry	1		SW-846 8260D	10/18/21	10/18/21 8:24	MFF
1,2-Dichloroethane	ND	0.0017	0.00053	mg/Kg dry	1		SW-846 8260D	10/18/21	10/18/21 8:24	MFF
1,1-Dichloroethylene	ND	0.0035	0.0011	mg/Kg dry	1		SW-846 8260D	10/18/21	10/18/21 8:24	MFF
cis-1,2-Dichloroethylene	ND	0.0017	0.00046	mg/Kg dry	1		SW-846 8260D	10/18/21	10/18/21 8:24	MFF
trans-1,2-Dichloroethylene	ND	0.0017	0.00049	mg/Kg dry	1		SW-846 8260D	10/18/21	10/18/21 8:24	MFF
1,2-Dichloropropane	ND	0.0017	0.00041	mg/Kg dry	1		SW-846 8260D	10/18/21	10/18/21 8:24	MFF
1,3-Dichloropropane	ND	0.00087	0.00042	mg/Kg dry	1		SW-846 8260D	10/18/21	10/18/21 8:24	MFF
2,2-Dichloropropane	ND	0.0017	0.00067	mg/Kg dry	1		SW-846 8260D	10/18/21	10/18/21 8:24	MFF
1,1-Dichloropropene	ND	0.0017	0.00068	mg/Kg dry	1		SW-846 8260D	10/18/21	10/18/21 8:24	MFF
cis-1,3-Dichloropropene	ND	0.00087	0.00034	mg/Kg dry	1		SW-846 8260D	10/18/21	10/18/21 8:24	MFF
trans-1,3-Dichloropropene	ND	0.00087	0.00042	mg/Kg dry	1		SW-846 8260D	10/18/21	10/18/21 8:24	MFF
Diethyl Ether	ND	0.017	0.0019	mg/Kg dry	1		SW-846 8260D	10/18/21	10/18/21 8:24	MFF

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Project Location: 1400 N. Royal St., Alexandria, VA Sample Description: Work Order: 21J0887

Date Received: 10/15/2021

Field Sample #: HRP-SB207-6-8-211013 Sampled: 10/13/2021 09:15

Sample ID: 21J0887-11

Sample Matrix: Soil

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Diisopropyl Ether (DIPE)	ND	0.00087	0.00047	mg/Kg dry	1		SW-846 8260D	10/18/21	10/18/21 8:24	MFF
1,4-Dioxane	ND	0.087	0.019	mg/Kg dry	1		SW-846 8260D	10/18/21	10/18/21 8:24	MFF
Ethylbenzene	ND	0.0017	0.00039	mg/Kg dry	1		SW-846 8260D	10/18/21	10/18/21 8:24	MFF
Hexachlorobutadiene	ND	0.0017	0.00062	mg/Kg dry	1		SW-846 8260D	10/18/21	10/18/21 8:24	MFF
2-Hexanone (MBK)	ND	0.017	0.0050	mg/Kg dry	1		SW-846 8260D	10/18/21	10/18/21 8:24	MFF
Isopropylbenzene (Cumene)	ND	0.0017	0.00062	mg/Kg dry	1		SW-846 8260D	10/18/21	10/18/21 8:24	MFF
p-Isopropyltoluene (p-Cymene)	ND	0.0017	0.00040	mg/Kg dry	1		SW-846 8260D	10/18/21	10/18/21 8:24	MFF
Methyl Acetate	ND	0.0017	0.0012	mg/Kg dry	1		SW-846 8260D	10/18/21	10/18/21 8:24	MFF
Methyl tert-Butyl Ether (MTBE)	ND	0.0035	0.00033	mg/Kg dry	1		SW-846 8260D	10/18/21	10/18/21 8:24	MFF
Methyl Cyclohexane	ND	0.0017	0.00063	mg/Kg dry	1		SW-846 8260D	10/18/21	10/18/21 8:24	MFF
Methylene Chloride	ND	0.017	0.00049	mg/Kg dry	1		SW-846 8260D	10/18/21	10/18/21 8:24	MFF
4-Methyl-2-pentanone (MIBK)	ND	0.017	0.0038	mg/Kg dry	1		SW-846 8260D	10/18/21	10/18/21 8:24	MFF
Naphthalene	ND	0.0035	0.00045	mg/Kg dry	1		SW-846 8260D	10/18/21	10/18/21 8:24	MFF
n-Propylbenzene	ND	0.0017	0.00034	mg/Kg dry	1		SW-846 8260D	10/18/21	10/18/21 8:24	MFF
Styrene	ND	0.0017	0.00037	mg/Kg dry	1		SW-846 8260D	10/18/21	10/18/21 8:24	MFF
1,1,1,2-Tetrachloroethane	ND	0.0017	0.00048	mg/Kg dry	1		SW-846 8260D	10/18/21	10/18/21 8:24	MFF
1,1,2,2-Tetrachloroethane	ND	0.00087	0.00048	mg/Kg dry	1		SW-846 8260D	10/18/21	10/18/21 8:24	MFF
Tetrachloroethylene	ND	0.0017	0.00047	mg/Kg dry	1		SW-846 8260D	10/18/21	10/18/21 8:24	MFF
Tetrahydrofuran	ND	0.0087	0.0022	mg/Kg dry	1		SW-846 8260D	10/18/21	10/18/21 8:24	MFF
Toluene	ND	0.0017	0.00049	mg/Kg dry	1		SW-846 8260D	10/18/21	10/18/21 8:24	MFF
1,2,3-Trichlorobenzene	ND	0.0017	0.00047	mg/Kg dry	1		SW-846 8260D	10/18/21	10/18/21 8:24	MFF
1,2,4-Trichlorobenzene	ND	0.0017	0.00042	mg/Kg dry	1		SW-846 8260D	10/18/21	10/18/21 8:24	MFF
1,3,5-Trichlorobenzene	ND	0.0017	0.00042	mg/Kg dry	1		SW-846 8260D	10/18/21	10/18/21 8:24	MFF
1,1,1-Trichloroethane	ND	0.0017	0.00059	mg/Kg dry	1		SW-846 8260D	10/18/21	10/18/21 8:24	MFF
1,1,2-Trichloroethane	ND	0.0017	0.00040	mg/Kg dry	1		SW-846 8260D	10/18/21	10/18/21 8:24	MFF
Trichloroethylene	ND	0.0017	0.00043	mg/Kg dry	1		SW-846 8260D	10/18/21	10/18/21 8:24	MFF
Trichlorofluoromethane (Freon 11)	ND	0.0087	0.0031	mg/Kg dry	1		SW-846 8260D	10/18/21	10/18/21 8:24	MFF
1,2,3-Trichloropropane	ND	0.0017	0.00083	mg/Kg dry	1		SW-846 8260D	10/18/21	10/18/21 8:24	MFF
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	0.0087	0.0023	mg/Kg dry	1		SW-846 8260D	10/18/21	10/18/21 8:24	MFF
1,2,4-Trimethylbenzene	ND	0.0017	0.00056	mg/Kg dry	1		SW-846 8260D	10/18/21	10/18/21 8:24	MFF
1,3,5-Trimethylbenzene	ND	0.0017	0.00038	mg/Kg dry	1		SW-846 8260D	10/18/21	10/18/21 8:24	MFF
Vinyl Chloride	ND	0.0087	0.0026	mg/Kg dry	1		SW-846 8260D	10/18/21	10/18/21 8:24	MFF
m+p Xylene	ND	0.0035	0.00066	mg/Kg dry	1		SW-846 8260D	10/18/21	10/18/21 8:24	MFF
o-Xylene	ND	0.0017	0.00036	mg/Kg dry	1		SW-846 8260D	10/18/21	10/18/21 8:24	MFF

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
1,2-Dichloroethane-d4	103	70-130		10/18/21 8:24
Toluene-d8	95.3	70-130		10/18/21 8:24
4-Bromofluorobenzene	103	70-130		10/18/21 8:24

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Project Location: 1400 N. Royal St., Alexandria, VA Sample Description: Work Order: 21J0887

Date Received: 10/15/2021

Field Sample #: HRP-SB207-6-8-211013 Sampled: 10/13/2021 09:15

Sample ID: 21J0887-11

Sample Matrix: Soil

Petroleum Hydrocarbons Analyses

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Gasoline Range Organics (GRO)	ND	2.7	2.7	mg/Kg dry	1		SW-846 8015C	10/18/21	10/19/21 22:01	KMB
Diesel Range Organics	ND	9.6	4.5	mg/Kg dry	1		SW-846 8015C	10/18/21	10/20/21 13:33	SFM

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
1-Chloro-3-fluorobenzene	92.3	70-130		10/19/21 22:01
2-Fluorobiphenyl	78.3	40-140		10/20/21 13:33

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Project Location: 1400 N. Royal St., Alexandria, VA Sample Description: Work Order: 21J0887

Date Received: 10/15/2021

Field Sample #: HRP-SB207-6-8-211013 Sampled: 10/13/2021 09:15

Sample ID: 21J0887-11

Sample Matrix: Soil

Metals Analyses (Total)

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Aluminum	9800	19	6.9	mg/Kg dry	1		SW-846 6010D	10/15/21	10/18/21 0:54	MJH
Antimony	ND	1.9	0.76	mg/Kg dry	1		SW-846 6010D	10/15/21	10/18/21 0:54	MJH
Arsenic	9.4	3.8	1.4	mg/Kg dry	1		SW-846 6010D	10/15/21	10/18/21 0:54	MJH
Barium	59	1.9	0.72	mg/Kg dry	1		SW-846 6010D	10/15/21	10/18/21 0:54	MJH
Beryllium	0.90	0.19	0.071	mg/Kg dry	1		SW-846 6010D	10/15/21	10/18/21 0:54	MJH
Cadmium	ND	0.38	0.19	mg/Kg dry	1		SW-846 6010D	10/15/21	10/18/21 0:54	MJH
Calcium	250	19	7.3	mg/Kg dry	1		SW-846 6010D	10/15/21	10/18/21 0:54	MJH
Chromium	14	0.75	0.43	mg/Kg dry	1		SW-846 6010D	10/15/21	10/18/21 0:54	MJH
Cobalt	25	1.9	0.69	mg/Kg dry	1		SW-846 6010D	10/15/21	10/18/21 0:54	MJH
Copper	18	0.75	0.36	mg/Kg dry	1		SW-846 6010D	10/15/21	10/18/21 0:54	MJH
Iron	18000	19	7.6	mg/Kg dry	1		SW-846 6010D	10/15/21	10/18/21 0:54	MJH
Lead	13	0.56	0.27	mg/Kg dry	1		SW-846 6010D	10/15/21	10/18/21 0:54	MJH
Magnesium	1400	94	33	mg/Kg dry	5		SW-846 6010D	10/15/21	10/19/21 15:57	QNW
Manganese	84	0.38	0.15	mg/Kg dry	1		SW-846 6010D	10/15/21	10/18/21 0:54	MJH
Mercury	0.019	0.031	0.011	mg/Kg dry	1	J	SW-846 7471B	10/15/21	10/21/21 11:15	DRL
Nickel	18	0.75	0.38	mg/Kg dry	1		SW-846 6010D	10/15/21	10/18/21 0:54	MJH
Potassium	690	190	71	mg/Kg dry	1		SW-846 6010D	10/15/21	10/18/21 0:54	MJH
Selenium	ND	3.8	1.3	mg/Kg dry	1		SW-846 6010D	10/15/21	10/18/21 0:54	MJH
Silver	ND	0.38	0.17	mg/Kg dry	1		SW-846 6010D	10/15/21	10/18/21 0:54	MJH
Sodium	2700	190	73	mg/Kg dry	1		SW-846 6010D	10/15/21	10/18/21 0:54	MJH
Thallium	ND	1.9	0.90	mg/Kg dry	1		SW-846 6010D	10/15/21	10/18/21 0:54	MJH
Vanadium	36	0.75	0.37	mg/Kg dry	1		SW-846 6010D	10/15/21	10/18/21 0:54	MJH
Zinc	41	0.75	0.48	mg/Kg dry	1		SW-846 6010D	10/15/21	10/18/21 0:54	MJH

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Project Location: 1400 N. Royal St., Alexandria, VA Sample Description: Work Order: 21J0887

Date Received: 10/15/2021

Field Sample #: HRP-SB207-6-8-211013 Sampled: 10/13/2021 09:15

Sample ID: 21J0887-11

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	86.3			% Wt	1		SM 2540G	10/19/21	10/20/21 13:29	AL
Cyanide	ND	0.56	0.40	mg/Kg dry	1		SW-846 9014	10/18/21	10/19/21 21:15	DJM
pH @18°C	9.7			pH Units	1	H-03	SW-846 9045C	10/15/21	10/15/21 21:40	DJM

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Project Location: 1400 N. Royal St., Alexandria, VA Sample Description: Work Order: 21J0887

Date Received: 10/15/2021

Field Sample #: HRP-DUP03-6-8-211013 Sampled: 10/13/2021 09:25

Sample ID: 21J0887-12

Sample Matrix: Soil

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acetone	ND	0.11	0.034	mg/Kg dry	1		SW-846 8260D	10/18/21	10/18/21 8:49	MFF
Acrylonitrile	ND	0.0063	0.0010	mg/Kg dry	1		SW-846 8260D	10/18/21	10/18/21 8:49	MFF
tert-Amyl Methyl Ether (TAME)	ND	0.0011	0.00048	mg/Kg dry	1		SW-846 8260D	10/18/21	10/18/21 8:49	MFF
Benzene	ND	0.0021	0.00050	mg/Kg dry	1		SW-846 8260D	10/18/21	10/18/21 8:49	MFF
Bromobenzene	ND	0.0021	0.00035	mg/Kg dry	1		SW-846 8260D	10/18/21	10/18/21 8:49	MFF
Bromochloromethane	ND	0.0021	0.0010	mg/Kg dry	1		SW-846 8260D	10/18/21	10/18/21 8:49	MFF
Bromodichloromethane	ND	0.0021	0.00050	mg/Kg dry	1		SW-846 8260D	10/18/21	10/18/21 8:49	MFF
Bromoform	ND	0.0021	0.00064	mg/Kg dry	1		SW-846 8260D	10/18/21	10/18/21 8:49	MFF
Bromomethane	ND	0.011	0.0039	mg/Kg dry	1	V-34	SW-846 8260D	10/18/21	10/18/21 8:49	MFF
2-Butanone (MEK)	ND	0.042	0.013	mg/Kg dry	1		SW-846 8260D	10/18/21	10/18/21 8:49	MFF
tert-Butyl Alcohol (TBA)	ND	0.11	0.051	mg/Kg dry	1		SW-846 8260D	10/18/21	10/18/21 8:49	MFF
n-Butylbenzene	ND	0.0021	0.00054	mg/Kg dry	1		SW-846 8260D	10/18/21	10/18/21 8:49	MFF
sec-Butylbenzene	ND	0.0021	0.0010	mg/Kg dry	1		SW-846 8260D	10/18/21	10/18/21 8:49	MFF
tert-Butylbenzene	ND	0.0042	0.00090	mg/Kg dry	1		SW-846 8260D	10/18/21	10/18/21 8:49	MFF
tert-Butyl Ethyl Ether (TBEE)	ND	0.0011	0.00054	mg/Kg dry	1		SW-846 8260D	10/18/21	10/18/21 8:49	MFF
Carbon Disulfide	ND	0.011	0.0075	mg/Kg dry	1		SW-846 8260D	10/18/21	10/18/21 8:49	MFF
Carbon Tetrachloride	ND	0.0021	0.00082	mg/Kg dry	1		SW-846 8260D	10/18/21	10/18/21 8:49	MFF
Chlorobenzene	ND	0.0021	0.00057	mg/Kg dry	1		SW-846 8260D	10/18/21	10/18/21 8:49	MFF
Chlorodibromomethane	ND	0.0011	0.00054	mg/Kg dry	1		SW-846 8260D	10/18/21	10/18/21 8:49	MFF
Chloroethane	ND	0.021	0.0037	mg/Kg dry	1		SW-846 8260D	10/18/21	10/18/21 8:49	MFF
Chloroform	ND	0.0042	0.0011	mg/Kg dry	1		SW-846 8260D	10/18/21	10/18/21 8:49	MFF
Chloromethane	ND	0.011	0.0034	mg/Kg dry	1		SW-846 8260D	10/18/21	10/18/21 8:49	MFF
2-Chlorotoluene	ND	0.0021	0.00048	mg/Kg dry	1		SW-846 8260D	10/18/21	10/18/21 8:49	MFF
4-Chlorotoluene	ND	0.0021	0.00037	mg/Kg dry	1		SW-846 8260D	10/18/21	10/18/21 8:49	MFF
1,2-Dibromo-3-chloropropane (DBCP)	ND	0.0021	0.00071	mg/Kg dry	1		SW-846 8260D	10/18/21	10/18/21 8:49	MFF
1,2-Dibromoethane (EDB)	ND	0.0011	0.00066	mg/Kg dry	1		SW-846 8260D	10/18/21	10/18/21 8:49	MFF
Dibromomethane	ND	0.0021	0.00077	mg/Kg dry	1		SW-846 8260D	10/18/21	10/18/21 8:49	MFF
1,2-Dichlorobenzene	ND	0.0021	0.00042	mg/Kg dry	1		SW-846 8260D	10/18/21	10/18/21 8:49	MFF
1,3-Dichlorobenzene	ND	0.0021	0.00045	mg/Kg dry	1		SW-846 8260D	10/18/21	10/18/21 8:49	MFF
1,4-Dichlorobenzene	ND	0.0021	0.00054	mg/Kg dry	1		SW-846 8260D	10/18/21	10/18/21 8:49	MFF
trans-1,4-Dichloro-2-butene	ND	0.0042	0.00060	mg/Kg dry	1		SW-846 8260D	10/18/21	10/18/21 8:49	MFF
Dichlorodifluoromethane (Freon 12)	ND	0.021	0.0012	mg/Kg dry	1	V-05	SW-846 8260D	10/18/21	10/18/21 8:49	MFF
1,1-Dichloroethane	ND	0.0021	0.00053	mg/Kg dry	1		SW-846 8260D	10/18/21	10/18/21 8:49	MFF
1,2-Dichloroethane	ND	0.0021	0.00065	mg/Kg dry	1		SW-846 8260D	10/18/21	10/18/21 8:49	MFF
1,1-Dichloroethylene	ND	0.0042	0.0013	mg/Kg dry	1		SW-846 8260D	10/18/21	10/18/21 8:49	MFF
cis-1,2-Dichloroethylene	ND	0.0021	0.00056	mg/Kg dry	1		SW-846 8260D	10/18/21	10/18/21 8:49	MFF
trans-1,2-Dichloroethylene	ND	0.0021	0.00059	mg/Kg dry	1		SW-846 8260D	10/18/21	10/18/21 8:49	MFF
1,2-Dichloropropane	ND	0.0021	0.00050	mg/Kg dry	1		SW-846 8260D	10/18/21	10/18/21 8:49	MFF
1,3-Dichloropropane	ND	0.0011	0.00051	mg/Kg dry	1		SW-846 8260D	10/18/21	10/18/21 8:49	MFF
2,2-Dichloropropane	ND	0.0021	0.00081	mg/Kg dry	1		SW-846 8260D	10/18/21	10/18/21 8:49	MFF
1,1-Dichloropropene	ND	0.0021	0.00083	mg/Kg dry	1		SW-846 8260D	10/18/21	10/18/21 8:49	MFF
cis-1,3-Dichloropropene	ND	0.0011	0.00041	mg/Kg dry	1		SW-846 8260D	10/18/21	10/18/21 8:49	MFF
trans-1,3-Dichloropropene	ND	0.0011	0.00052	mg/Kg dry	1		SW-846 8260D	10/18/21	10/18/21 8:49	MFF
Diethyl Ether	ND	0.021	0.0023	mg/Kg dry	1		SW-846 8260D	10/18/21	10/18/21 8:49	MFF

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Project Location: 1400 N. Royal St., Alexandria, VA Sample Description: Work Order: 21J0887

Date Received: 10/15/2021

Field Sample #: HRP-DUP03-6-8-211013 Sampled: 10/13/2021 09:25

Sample ID: 21J0887-12

Sample Matrix: Soil

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Diisopropyl Ether (DIPE)	ND	0.0011	0.00057	mg/Kg dry	1		SW-846 8260D	10/18/21	10/18/21 8:49	MFF
1,4-Dioxane	ND	0.11	0.023	mg/Kg dry	1		SW-846 8260D	10/18/21	10/18/21 8:49	MFF
Ethylbenzene	ND	0.0021	0.00047	mg/Kg dry	1		SW-846 8260D	10/18/21	10/18/21 8:49	MFF
Hexachlorobutadiene	ND	0.0021	0.00076	mg/Kg dry	1		SW-846 8260D	10/18/21	10/18/21 8:49	MFF
2-Hexanone (MBK)	ND	0.021	0.0061	mg/Kg dry	1		SW-846 8260D	10/18/21	10/18/21 8:49	MFF
Isopropylbenzene (Cumene)	ND	0.0021	0.00076	mg/Kg dry	1		SW-846 8260D	10/18/21	10/18/21 8:49	MFF
p-Isopropyltoluene (p-Cymene)	ND	0.0021	0.00049	mg/Kg dry	1		SW-846 8260D	10/18/21	10/18/21 8:49	MFF
Methyl Acetate	ND	0.0021	0.0014	mg/Kg dry	1		SW-846 8260D	10/18/21	10/18/21 8:49	MFF
Methyl tert-Butyl Ether (MTBE)	ND	0.0042	0.00040	mg/Kg dry	1		SW-846 8260D	10/18/21	10/18/21 8:49	MFF
Methyl Cyclohexane	ND	0.0021	0.00077	mg/Kg dry	1		SW-846 8260D	10/18/21	10/18/21 8:49	MFF
Methylene Chloride	ND	0.021	0.00059	mg/Kg dry	1		SW-846 8260D	10/18/21	10/18/21 8:49	MFF
4-Methyl-2-pentanone (MIBK)	ND	0.021	0.0047	mg/Kg dry	1		SW-846 8260D	10/18/21	10/18/21 8:49	MFF
Naphthalene	ND	0.0042	0.00055	mg/Kg dry	1		SW-846 8260D	10/18/21	10/18/21 8:49	MFF
n-Propylbenzene	ND	0.0021	0.00041	mg/Kg dry	1		SW-846 8260D	10/18/21	10/18/21 8:49	MFF
Styrene	ND	0.0021	0.00045	mg/Kg dry	1		SW-846 8260D	10/18/21	10/18/21 8:49	MFF
1,1,1,2-Tetrachloroethane	ND	0.0021	0.00058	mg/Kg dry	1		SW-846 8260D	10/18/21	10/18/21 8:49	MFF
1,1,2,2-Tetrachloroethane	ND	0.0011	0.00058	mg/Kg dry	1		SW-846 8260D	10/18/21	10/18/21 8:49	MFF
Tetrachloroethylene	ND	0.0021	0.00058	mg/Kg dry	1		SW-846 8260D	10/18/21	10/18/21 8:49	MFF
Tetrahydrofuran	ND	0.011	0.0027	mg/Kg dry	1		SW-846 8260D	10/18/21	10/18/21 8:49	MFF
Toluene	ND	0.0021	0.00059	mg/Kg dry	1		SW-846 8260D	10/18/21	10/18/21 8:49	MFF
1,2,3-Trichlorobenzene	ND	0.0021	0.00058	mg/Kg dry	1		SW-846 8260D	10/18/21	10/18/21 8:49	MFF
1,2,4-Trichlorobenzene	ND	0.0021	0.00051	mg/Kg dry	1		SW-846 8260D	10/18/21	10/18/21 8:49	MFF
1,3,5-Trichlorobenzene	ND	0.0021	0.00052	mg/Kg dry	1		SW-846 8260D	10/18/21	10/18/21 8:49	MFF
1,1,1-Trichloroethane	ND	0.0021	0.00072	mg/Kg dry	1		SW-846 8260D	10/18/21	10/18/21 8:49	MFF
1,1,2-Trichloroethane	ND	0.0021	0.00049	mg/Kg dry	1		SW-846 8260D	10/18/21	10/18/21 8:49	MFF
Trichloroethylene	ND	0.0021	0.00052	mg/Kg dry	1		SW-846 8260D	10/18/21	10/18/21 8:49	MFF
Trichlorofluoromethane (Freon 11)	ND	0.011	0.0038	mg/Kg dry	1		SW-846 8260D	10/18/21	10/18/21 8:49	MFF
1,2,3-Trichloropropane	ND	0.0021	0.0010	mg/Kg dry	1		SW-846 8260D	10/18/21	10/18/21 8:49	MFF
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	0.011	0.0028	mg/Kg dry	1		SW-846 8260D	10/18/21	10/18/21 8:49	MFF
1,2,4-Trimethylbenzene	ND	0.0021	0.00068	mg/Kg dry	1		SW-846 8260D	10/18/21	10/18/21 8:49	MFF
1,3,5-Trimethylbenzene	ND	0.0021	0.00046	mg/Kg dry	1		SW-846 8260D	10/18/21	10/18/21 8:49	MFF
Vinyl Chloride	ND	0.011	0.0032	mg/Kg dry	1		SW-846 8260D	10/18/21	10/18/21 8:49	MFF
m+p Xylene	ND	0.0042	0.00080	mg/Kg dry	1		SW-846 8260D	10/18/21	10/18/21 8:49	MFF
o-Xylene	ND	0.0021	0.00043	mg/Kg dry	1		SW-846 8260D	10/18/21	10/18/21 8:49	MFF

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
1,2-Dichloroethane-d4	107	70-130		10/18/21 8:49
Toluene-d8	98.8	70-130		10/18/21 8:49
4-Bromofluorobenzene	105	70-130		10/18/21 8:49

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Project Location: 1400 N. Royal St., Alexandria, VA Sample Description: Work Order: 21J0887

Date Received: 10/15/2021

Field Sample #: HRP-DUP03-6-8-211013 Sampled: 10/13/2021 09:25

Sample ID: 21J0887-12

Sample Matrix: Soil

Petroleum Hydrocarbons Analyses

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Gasoline Range Organics (GRO)	ND	3.1	3.1	mg/Kg dry	1		SW-846 8015C	10/18/21	10/19/21 22:40	KMB
Diesel Range Organics	ND	10	4.7	mg/Kg dry	1		SW-846 8015C	10/18/21	10/20/21 13:53	SFM

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
1-Chloro-3-fluorobenzene	90.3	70-130		10/19/21 22:40
2-Fluorobiphenyl	75.5	40-140		10/20/21 13:53

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Project Location: 1400 N. Royal St., Alexandria, VA Sample Description: Work Order: 21J0887

Date Received: 10/15/2021

Field Sample #: HRP-DUP03-6-8-211013 Sampled: 10/13/2021 09:25

Sample ID: 21J0887-12

Sample Matrix: Soil

Metals Analyses (Total)

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Aluminum	7300	19	7.0	mg/Kg dry	1		SW-846 6010D	10/15/21	10/18/21 1:01	MJH
Antimony	ND	1.9	0.78	mg/Kg dry	1		SW-846 6010D	10/15/21	10/18/21 1:01	MJH
Arsenic	7.3	3.8	1.4	mg/Kg dry	1		SW-846 6010D	10/15/21	10/18/21 1:01	MJH
Barium	52	1.9	0.73	mg/Kg dry	1		SW-846 6010D	10/15/21	10/18/21 1:01	MJH
Beryllium	0.97	0.19	0.073	mg/Kg dry	1		SW-846 6010D	10/15/21	10/18/21 1:01	MJH
Cadmium	0.34	0.38	0.20	mg/Kg dry	1	J	SW-846 6010D	10/15/21	10/18/21 1:01	MJH
Calcium	190	19	7.5	mg/Kg dry	1		SW-846 6010D	10/15/21	10/18/21 1:01	MJH
Chromium	12	0.77	0.44	mg/Kg dry	1		SW-846 6010D	10/15/21	10/18/21 1:01	MJH
Cobalt	13	1.9	0.71	mg/Kg dry	1		SW-846 6010D	10/15/21	10/18/21 1:01	MJH
Copper	14	0.77	0.37	mg/Kg dry	1		SW-846 6010D	10/15/21	10/18/21 1:01	MJH
Iron	20000	96	39	mg/Kg dry	5		SW-846 6010D	10/15/21	10/19/21 16:09	QNW
Lead	6.8	0.58	0.28	mg/Kg dry	1		SW-846 6010D	10/15/21	10/18/21 1:01	MJH
Magnesium	1000	96	34	mg/Kg dry	5		SW-846 6010D	10/15/21	10/19/21 16:09	QNW
Manganese	110	0.38	0.15	mg/Kg dry	1		SW-846 6010D	10/15/21	10/18/21 1:01	MJH
Mercury	ND	0.035	0.012	mg/Kg dry	1		SW-846 7471B	10/15/21	10/21/21 11:17	DRL
Nickel	20	0.77	0.39	mg/Kg dry	1		SW-846 6010D	10/15/21	10/18/21 1:01	MJH
Potassium	560	190	72	mg/Kg dry	1		SW-846 6010D	10/15/21	10/18/21 1:01	MJH
Selenium	ND	3.8	1.4	mg/Kg dry	1		SW-846 6010D	10/15/21	10/18/21 1:01	MJH
Silver	ND	0.38	0.18	mg/Kg dry	1		SW-846 6010D	10/15/21	10/18/21 1:01	MJH
Sodium	1600	190	75	mg/Kg dry	1		SW-846 6010D	10/15/21	10/18/21 1:01	MJH
Thallium	ND	1.9	0.92	mg/Kg dry	1		SW-846 6010D	10/15/21	10/18/21 1:01	MJH
Vanadium	29	0.77	0.38	mg/Kg dry	1		SW-846 6010D	10/15/21	10/18/21 1:01	MJH
Zinc	53	0.77	0.49	mg/Kg dry	1		SW-846 6010D	10/15/21	10/18/21 1:01	MJH

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Project Location: 1400 N. Royal St., Alexandria, VA Sample Description: Work Order: 21J0887

Date Received: 10/15/2021

Field Sample #: HRP-DUP03-6-8-211013 Sampled: 10/13/2021 09:25

Sample ID: 21J0887-12

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	81.4			% Wt	1		SM 2540G	10/19/21	10/20/21 13:30	AL
Cyanide	2.2	0.60	0.42	mg/Kg dry	1		SW-846 9014	10/18/21	10/19/21 21:15	DJM
pH @19.3°C	9.6			pH Units	1	H-03	SW-846 9045C	10/15/21	10/15/21 21:40	DJM

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Project Location: 1400 N. Royal St., Alexandria, VA Sample Description: Work Order: 21J0887

Date Received: 10/15/2021

Field Sample #: GRP-SB207-16-18-211013 Sampled: 10/13/2021 09:32

Sample ID: 21J0887-13

Sample Matrix: Soil

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acetone	ND	0.078	0.025	mg/Kg dry	1		SW-846 8260D	10/18/21	10/18/21 9:14	MFF
Acrylonitrile	ND	0.0047	0.00076	mg/Kg dry	1		SW-846 8260D	10/18/21	10/18/21 9:14	MFF
tert-Amyl Methyl Ether (TAME)	ND	0.00078	0.00035	mg/Kg dry	1		SW-846 8260D	10/18/21	10/18/21 9:14	MFF
Benzene	ND	0.0016	0.00036	mg/Kg dry	1		SW-846 8260D	10/18/21	10/18/21 9:14	MFF
Bromobenzene	ND	0.0016	0.00026	mg/Kg dry	1		SW-846 8260D	10/18/21	10/18/21 9:14	MFF
Bromochloromethane	ND	0.0016	0.00074	mg/Kg dry	1		SW-846 8260D	10/18/21	10/18/21 9:14	MFF
Bromodichloromethane	ND	0.0016	0.00037	mg/Kg dry	1		SW-846 8260D	10/18/21	10/18/21 9:14	MFF
Bromoform	ND	0.0016	0.00047	mg/Kg dry	1		SW-846 8260D	10/18/21	10/18/21 9:14	MFF
Bromomethane	ND	0.0078	0.0029	mg/Kg dry	1	V-34	SW-846 8260D	10/18/21	10/18/21 9:14	MFF
2-Butanone (MEK)	ND	0.031	0.0094	mg/Kg dry	1		SW-846 8260D	10/18/21	10/18/21 9:14	MFF
tert-Butyl Alcohol (TBA)	ND	0.078	0.038	mg/Kg dry	1		SW-846 8260D	10/18/21	10/18/21 9:14	MFF
n-Butylbenzene	ND	0.0016	0.00040	mg/Kg dry	1		SW-846 8260D	10/18/21	10/18/21 9:14	MFF
sec-Butylbenzene	ND	0.0016	0.00075	mg/Kg dry	1		SW-846 8260D	10/18/21	10/18/21 9:14	MFF
tert-Butylbenzene	ND	0.0031	0.00066	mg/Kg dry	1		SW-846 8260D	10/18/21	10/18/21 9:14	MFF
tert-Butyl Ethyl Ether (TBEE)	ND	0.00078	0.00040	mg/Kg dry	1		SW-846 8260D	10/18/21	10/18/21 9:14	MFF
Carbon Disulfide	ND	0.0078	0.0055	mg/Kg dry	1		SW-846 8260D	10/18/21	10/18/21 9:14	MFF
Carbon Tetrachloride	ND	0.0016	0.00060	mg/Kg dry	1		SW-846 8260D	10/18/21	10/18/21 9:14	MFF
Chlorobenzene	ND	0.0016	0.00041	mg/Kg dry	1		SW-846 8260D	10/18/21	10/18/21 9:14	MFF
Chlorodibromomethane	ND	0.00078	0.00040	mg/Kg dry	1		SW-846 8260D	10/18/21	10/18/21 9:14	MFF
Chloroethane	ND	0.016	0.0027	mg/Kg dry	1		SW-846 8260D	10/18/21	10/18/21 9:14	MFF
Chloroform	ND	0.0031	0.00077	mg/Kg dry	1		SW-846 8260D	10/18/21	10/18/21 9:14	MFF
Chloromethane	ND	0.0078	0.0025	mg/Kg dry	1		SW-846 8260D	10/18/21	10/18/21 9:14	MFF
2-Chlorotoluene	ND	0.0016	0.00035	mg/Kg dry	1		SW-846 8260D	10/18/21	10/18/21 9:14	MFF
4-Chlorotoluene	ND	0.0016	0.00027	mg/Kg dry	1		SW-846 8260D	10/18/21	10/18/21 9:14	MFF
1,2-Dibromo-3-chloropropane (DBCP)	ND	0.0016	0.00052	mg/Kg dry	1		SW-846 8260D	10/18/21	10/18/21 9:14	MFF
1,2-Dibromoethane (EDB)	ND	0.00078	0.00048	mg/Kg dry	1		SW-846 8260D	10/18/21	10/18/21 9:14	MFF
Dibromomethane	ND	0.0016	0.00057	mg/Kg dry	1		SW-846 8260D	10/18/21	10/18/21 9:14	MFF
1,2-Dichlorobenzene	ND	0.0016	0.00031	mg/Kg dry	1		SW-846 8260D	10/18/21	10/18/21 9:14	MFF
1,3-Dichlorobenzene	ND	0.0016	0.00033	mg/Kg dry	1		SW-846 8260D	10/18/21	10/18/21 9:14	MFF
1,4-Dichlorobenzene	ND	0.0016	0.00040	mg/Kg dry	1		SW-846 8260D	10/18/21	10/18/21 9:14	MFF
trans-1,4-Dichloro-2-butene	ND	0.0031	0.00044	mg/Kg dry	1		SW-846 8260D	10/18/21	10/18/21 9:14	MFF
Dichlorodifluoromethane (Freon 12)	ND	0.016	0.00090	mg/Kg dry	1	V-05	SW-846 8260D	10/18/21	10/18/21 9:14	MFF
1,1-Dichloroethane	ND	0.0016	0.00039	mg/Kg dry	1		SW-846 8260D	10/18/21	10/18/21 9:14	MFF
1,2-Dichloroethane	ND	0.0016	0.00048	mg/Kg dry	1		SW-846 8260D	10/18/21	10/18/21 9:14	MFF
1,1-Dichloroethylene	ND	0.0031	0.00097	mg/Kg dry	1		SW-846 8260D	10/18/21	10/18/21 9:14	MFF
cis-1,2-Dichloroethylene	ND	0.0016	0.00041	mg/Kg dry	1		SW-846 8260D	10/18/21	10/18/21 9:14	MFF
trans-1,2-Dichloroethylene	ND	0.0016	0.00043	mg/Kg dry	1		SW-846 8260D	10/18/21	10/18/21 9:14	MFF
1,2-Dichloropropane	ND	0.0016	0.00037	mg/Kg dry	1		SW-846 8260D	10/18/21	10/18/21 9:14	MFF
1,3-Dichloropropane	ND	0.00078	0.00037	mg/Kg dry	1		SW-846 8260D	10/18/21	10/18/21 9:14	MFF
2,2-Dichloropropane	ND	0.0016	0.00060	mg/Kg dry	1		SW-846 8260D	10/18/21	10/18/21 9:14	MFF
1,1-Dichloropropene	ND	0.0016	0.00061	mg/Kg dry	1		SW-846 8260D	10/18/21	10/18/21 9:14	MFF
cis-1,3-Dichloropropene	ND	0.00078	0.00030	mg/Kg dry	1		SW-846 8260D	10/18/21	10/18/21 9:14	MFF
trans-1,3-Dichloropropene	ND	0.00078	0.00038	mg/Kg dry	1		SW-846 8260D	10/18/21	10/18/21 9:14	MFF
Diethyl Ether	ND	0.016	0.0017	mg/Kg dry	1		SW-846 8260D	10/18/21	10/18/21 9:14	MFF

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Project Location: 1400 N. Royal St., Alexandria, VA Sample Description: Work Order: 21J0887

Date Received: 10/15/2021

Field Sample #: GRP-SB207-16-18-211013 Sampled: 10/13/2021 09:32

Sample ID: 21J0887-13

Sample Matrix: Soil

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Diisopropyl Ether (DIPE)	ND	0.00078	0.00042	mg/Kg dry	1		SW-846 8260D	10/18/21	10/18/21 9:14	MFF
1,4-Dioxane	ND	0.078	0.017	mg/Kg dry	1		SW-846 8260D	10/18/21	10/18/21 9:14	MFF
Ethylbenzene	ND	0.0016	0.00035	mg/Kg dry	1		SW-846 8260D	10/18/21	10/18/21 9:14	MFF
Hexachlorobutadiene	ND	0.0016	0.00055	mg/Kg dry	1		SW-846 8260D	10/18/21	10/18/21 9:14	MFF
2-Hexanone (MBK)	ND	0.016	0.0045	mg/Kg dry	1		SW-846 8260D	10/18/21	10/18/21 9:14	MFF
Isopropylbenzene (Cumene)	ND	0.0016	0.00056	mg/Kg dry	1		SW-846 8260D	10/18/21	10/18/21 9:14	MFF
p-Isopropyltoluene (p-Cymene)	ND	0.0016	0.00036	mg/Kg dry	1		SW-846 8260D	10/18/21	10/18/21 9:14	MFF
Methyl Acetate	ND	0.0016	0.0011	mg/Kg dry	1		SW-846 8260D	10/18/21	10/18/21 9:14	MFF
Methyl tert-Butyl Ether (MTBE)	ND	0.0031	0.00029	mg/Kg dry	1		SW-846 8260D	10/18/21	10/18/21 9:14	MFF
Methyl Cyclohexane	ND	0.0016	0.00056	mg/Kg dry	1		SW-846 8260D	10/18/21	10/18/21 9:14	MFF
Methylene Chloride	ND	0.016	0.00043	mg/Kg dry	1		SW-846 8260D	10/18/21	10/18/21 9:14	MFF
4-Methyl-2-pentanone (MIBK)	ND	0.016	0.0034	mg/Kg dry	1		SW-846 8260D	10/18/21	10/18/21 9:14	MFF
Naphthalene	ND	0.0031	0.00040	mg/Kg dry	1		SW-846 8260D	10/18/21	10/18/21 9:14	MFF
n-Propylbenzene	ND	0.0016	0.00030	mg/Kg dry	1		SW-846 8260D	10/18/21	10/18/21 9:14	MFF
Styrene	ND	0.0016	0.00033	mg/Kg dry	1		SW-846 8260D	10/18/21	10/18/21 9:14	MFF
1,1,1,2-Tetrachloroethane	ND	0.0016	0.00043	mg/Kg dry	1		SW-846 8260D	10/18/21	10/18/21 9:14	MFF
1,1,2,2-Tetrachloroethane	ND	0.00078	0.00042	mg/Kg dry	1		SW-846 8260D	10/18/21	10/18/21 9:14	MFF
Tetrachloroethylene	ND	0.0016	0.00042	mg/Kg dry	1		SW-846 8260D	10/18/21	10/18/21 9:14	MFF
Tetrahydrofuran	ND	0.0078	0.0020	mg/Kg dry	1		SW-846 8260D	10/18/21	10/18/21 9:14	MFF
Toluene	ND	0.0016	0.00043	mg/Kg dry	1		SW-846 8260D	10/18/21	10/18/21 9:14	MFF
1,2,3-Trichlorobenzene	ND	0.0016	0.00042	mg/Kg dry	1		SW-846 8260D	10/18/21	10/18/21 9:14	MFF
1,2,4-Trichlorobenzene	ND	0.0016	0.00038	mg/Kg dry	1		SW-846 8260D	10/18/21	10/18/21 9:14	MFF
1,3,5-Trichlorobenzene	ND	0.0016	0.00038	mg/Kg dry	1		SW-846 8260D	10/18/21	10/18/21 9:14	MFF
1,1,1-Trichloroethane	ND	0.0016	0.00053	mg/Kg dry	1		SW-846 8260D	10/18/21	10/18/21 9:14	MFF
1,1,2-Trichloroethane	ND	0.0016	0.00036	mg/Kg dry	1		SW-846 8260D	10/18/21	10/18/21 9:14	MFF
Trichloroethylene	ND	0.0016	0.00038	mg/Kg dry	1		SW-846 8260D	10/18/21	10/18/21 9:14	MFF
Trichlorofluoromethane (Freon 11)	ND	0.0078	0.0028	mg/Kg dry	1		SW-846 8260D	10/18/21	10/18/21 9:14	MFF
1,2,3-Trichloropropane	ND	0.0016	0.00074	mg/Kg dry	1		SW-846 8260D	10/18/21	10/18/21 9:14	MFF
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	0.0078	0.0021	mg/Kg dry	1		SW-846 8260D	10/18/21	10/18/21 9:14	MFF
1,2,4-Trimethylbenzene	ND	0.0016	0.00050	mg/Kg dry	1		SW-846 8260D	10/18/21	10/18/21 9:14	MFF
1,3,5-Trimethylbenzene	ND	0.0016	0.00034	mg/Kg dry	1		SW-846 8260D	10/18/21	10/18/21 9:14	MFF
Vinyl Chloride	ND	0.0078	0.0023	mg/Kg dry	1		SW-846 8260D	10/18/21	10/18/21 9:14	MFF
m+p Xylene	ND	0.0031	0.00059	mg/Kg dry	1		SW-846 8260D	10/18/21	10/18/21 9:14	MFF
o-Xylene	ND	0.0016	0.00032	mg/Kg dry	1		SW-846 8260D	10/18/21	10/18/21 9:14	MFF

Surrogates	% Recovery	Recovery Limits	Flag/Qual		
1,2-Dichloroethane-d4	106	70-130		10/18/21	9:14
Toluene-d8	99.3	70-130		10/18/21	9:14
4-Bromofluorobenzene	104	70-130		10/18/21	9:14

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Project Location: 1400 N. Royal St., Alexandria, VA Sample Description: Work Order: 21J0887

Date Received: 10/15/2021

Field Sample #: GRP-SB207-16-18-211013 Sampled: 10/13/2021 09:32

Sample ID: 21J0887-13

Sample Matrix: Soil

Petroleum Hydrocarbons Analyses

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Gasoline Range Organics (GRO)	ND	2.8	2.8	mg/Kg dry	1		SW-846 8015C	10/18/21	10/19/21 23:19	KMB
Diesel Range Organics	ND	9.1	4.2	mg/Kg dry	1		SW-846 8015C	10/18/21	10/20/21 14:13	SFM

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
1-Chloro-3-fluorobenzene	86.4	70-130		10/19/21 23:19
2-Fluorobiphenyl	79.6	40-140		10/20/21 14:13

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Project Location: 1400 N. Royal St., Alexandria, VA Sample Description: Work Order: 21J0887

Date Received: 10/15/2021

Field Sample #: GRP-SB207-16-18-211013 Sampled: 10/13/2021 09:32

Sample ID: 21J0887-13

Sample Matrix: Soil

Metals Analyses (Total)

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Aluminum	4400	17	6.3	mg/Kg dry	1		SW-846 6010D	10/15/21	10/18/21 1:08	MJH
Antimony	ND	1.7	0.70	mg/Kg dry	1		SW-846 6010D	10/15/21	10/18/21 1:08	MJH
Arsenic	3.5	3.4	1.3	mg/Kg dry	1		SW-846 6010D	10/15/21	10/18/21 1:08	MJH
Barium	36	1.7	0.66	mg/Kg dry	1		SW-846 6010D	10/15/21	10/18/21 1:08	MJH
Beryllium	0.48	0.17	0.065	mg/Kg dry	1		SW-846 6010D	10/15/21	10/18/21 1:08	MJH
Cadmium	ND	0.34	0.18	mg/Kg dry	1		SW-846 6010D	10/15/21	10/18/21 1:08	MJH
Calcium	290	17	6.7	mg/Kg dry	1		SW-846 6010D	10/15/21	10/18/21 1:08	MJH
Chromium	16	0.69	0.39	mg/Kg dry	1		SW-846 6010D	10/15/21	10/18/21 1:08	MJH
Cobalt	7.3	1.7	0.63	mg/Kg dry	1		SW-846 6010D	10/15/21	10/18/21 1:08	MJH
Copper	10	0.69	0.33	mg/Kg dry	1		SW-846 6010D	10/15/21	10/18/21 1:08	MJH
Iron	18000	86	35	mg/Kg dry	5		SW-846 6010D	10/15/21	10/19/21 16:14	QNW
Lead	4.5	0.52	0.25	mg/Kg dry	1		SW-846 6010D	10/15/21	10/18/21 1:08	MJH
Magnesium	940	86	30	mg/Kg dry	5		SW-846 6010D	10/15/21	10/19/21 16:14	QNW
Manganese	67	0.34	0.13	mg/Kg dry	1		SW-846 6010D	10/15/21	10/18/21 1:08	MJH
Mercury	ND	0.030	0.010	mg/Kg dry	1		SW-846 7471B	10/15/21	10/21/21 11:19	DRL
Nickel	12	0.69	0.35	mg/Kg dry	1		SW-846 6010D	10/15/21	10/18/21 1:08	MJH
Potassium	350	170	65	mg/Kg dry	1		SW-846 6010D	10/15/21	10/18/21 1:08	MJH
Selenium	ND	3.4	1.2	mg/Kg dry	1		SW-846 6010D	10/15/21	10/18/21 1:08	MJH
Silver	ND	0.34	0.16	mg/Kg dry	1		SW-846 6010D	10/15/21	10/18/21 1:08	MJH
Sodium	950	170	67	mg/Kg dry	1		SW-846 6010D	10/15/21	10/18/21 1:08	MJH
Thallium	ND	1.7	0.83	mg/Kg dry	1		SW-846 6010D	10/15/21	10/18/21 1:08	MJH
Vanadium	24	0.69	0.34	mg/Kg dry	1		SW-846 6010D	10/15/21	10/18/21 1:08	MJH
Zinc	22	0.69	0.44	mg/Kg dry	1		SW-846 6010D	10/15/21	10/18/21 1:08	MJH

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Project Location: 1400 N. Royal St., Alexandria, VA Sample Description: Work Order: 21J0887

Date Received: 10/15/2021

Field Sample #: GRP-SB207-16-18-211013 Sampled: 10/13/2021 09:32

Sample ID: 21J0887-13

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	91.6			% Wt	1		SM 2540G	10/19/21	10/20/21 13:30	AL
Cyanide	ND	0.50	0.35	mg/Kg dry	1		SW-846 9014	10/19/21	10/20/21 17:15	DJM
pH @19.2°C	9.4			pH Units	1	H-03	SW-846 9045C	10/15/21	10/15/21 21:40	DJM

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Project Location: 1400 N. Royal St., Alexandria, VA Sample Description: Work Order: 21J0887

Date Received: 10/15/2021

Field Sample #: HRP-TB02-211013 Sampled: 10/13/2021 12:35

Sample ID: 21J0887-14

Sample Matrix: Water

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acetone	ND	50	2.4	µg/L	1		SW-846 8260D	10/25/21	10/25/21 14:07	MFF
Acrylonitrile	ND	5.0	0.69	µg/L	1		SW-846 8260D	10/25/21	10/25/21 14:07	MFF
tert-Amyl Methyl Ether (TAME)	ND	0.50	0.15	µg/L	1		SW-846 8260D	10/25/21	10/25/21 14:07	MFF
Benzene	ND	1.0	0.13	µg/L	1		SW-846 8260D	10/25/21	10/25/21 14:07	MFF
Bromobenzene	ND	1.0	0.13	µg/L	1		SW-846 8260D	10/25/21	10/25/21 14:07	MFF
Bromochloromethane	ND	1.0	0.36	µg/L	1		SW-846 8260D	10/25/21	10/25/21 14:07	MFF
Bromodichloromethane	ND	0.50	0.14	µg/L	1		SW-846 8260D	10/25/21	10/25/21 14:07	MFF
Bromoform	ND	1.0	0.29	µg/L	1		SW-846 8260D	10/25/21	10/25/21 14:07	MFF
Bromomethane	ND	2.0	1.1	µg/L	1		SW-846 8260D	10/25/21	10/25/21 14:07	MFF
2-Butanone (MEK)	ND	20	1.9	µg/L	1		SW-846 8260D	10/25/21	10/25/21 14:07	MFF
tert-Butyl Alcohol (TBA)	ND	20	5.3	µg/L	1		SW-846 8260D	10/25/21	10/25/21 14:07	MFF
n-Butylbenzene	ND	1.0	0.14	µg/L	1		SW-846 8260D	10/25/21	10/25/21 14:07	MFF
sec-Butylbenzene	ND	1.0	0.10	µg/L	1		SW-846 8260D	10/25/21	10/25/21 14:07	MFF
tert-Butylbenzene	ND	1.0	0.090	µg/L	1		SW-846 8260D	10/25/21	10/25/21 14:07	MFF
tert-Butyl Ethyl Ether (TBEE)	ND	0.50	0.11	µg/L	1		SW-846 8260D	10/25/21	10/25/21 14:07	MFF
Carbon Disulfide	ND	5.0	1.5	µg/L	1		SW-846 8260D	10/25/21	10/25/21 14:07	MFF
Carbon Tetrachloride	ND	5.0	0.17	µg/L	1		SW-846 8260D	10/25/21	10/25/21 14:07	MFF
Chlorobenzene	ND	1.0	0.080	µg/L	1		SW-846 8260D	10/25/21	10/25/21 14:07	MFF
Chlorodibromomethane	ND	0.50	0.16	µg/L	1		SW-846 8260D	10/25/21	10/25/21 14:07	MFF
Chloroethane	ND	2.0	0.37	µg/L	1		SW-846 8260D	10/25/21	10/25/21 14:07	MFF
Chloroform	ND	2.0	0.19	µg/L	1		SW-846 8260D	10/25/21	10/25/21 14:07	MFF
Chloromethane	ND	2.0	0.38	µg/L	1		SW-846 8260D	10/25/21	10/25/21 14:07	MFF
2-Chlorotoluene	ND	1.0	0.090	µg/L	1		SW-846 8260D	10/25/21	10/25/21 14:07	MFF
4-Chlorotoluene	ND	1.0	0.10	µg/L	1		SW-846 8260D	10/25/21	10/25/21 14:07	MFF
1,2-Dibromo-3-chloropropane (DBCP)	ND	5.0	0.72	µg/L	1		SW-846 8260D	10/25/21	10/25/21 14:07	MFF
1,2-Dibromoethane (EDB)	ND	0.50	0.15	µg/L	1		SW-846 8260D	10/25/21	10/25/21 14:07	MFF
Dibromomethane	ND	1.0	0.29	µg/L	1		SW-846 8260D	10/25/21	10/25/21 14:07	MFF
1,2-Dichlorobenzene	ND	1.0	0.10	µg/L	1		SW-846 8260D	10/25/21	10/25/21 14:07	MFF
1,3-Dichlorobenzene	ND	1.0	0.090	µg/L	1		SW-846 8260D	10/25/21	10/25/21 14:07	MFF
1,4-Dichlorobenzene	ND	1.0	0.11	µg/L	1		SW-846 8260D	10/25/21	10/25/21 14:07	MFF
trans-1,4-Dichloro-2-butene	ND	2.0	1.8	µg/L	1		SW-846 8260D	10/25/21	10/25/21 14:07	MFF
Dichlorodifluoromethane (Freon 12)	ND	2.0	0.20	µg/L	1		SW-846 8260D	10/25/21	10/25/21 14:07	MFF
1,1-Dichloroethane	ND	1.0	0.16	µg/L	1		SW-846 8260D	10/25/21	10/25/21 14:07	MFF
1,2-Dichloroethane	ND	1.0	0.32	µg/L	1		SW-846 8260D	10/25/21	10/25/21 14:07	MFF
1,1-Dichloroethylene	ND	1.0	0.16	µg/L	1		SW-846 8260D	10/25/21	10/25/21 14:07	MFF
cis-1,2-Dichloroethylene	ND	1.0	0.15	µg/L	1		SW-846 8260D	10/25/21	10/25/21 14:07	MFF
trans-1,2-Dichloroethylene	ND	1.0	0.17	µg/L	1		SW-846 8260D	10/25/21	10/25/21 14:07	MFF
1,2-Dichloropropane	ND	1.0	0.18	µg/L	1		SW-846 8260D	10/25/21	10/25/21 14:07	MFF
1,3-Dichloropropane	ND	0.50	0.12	µg/L	1		SW-846 8260D	10/25/21	10/25/21 14:07	MFF
2,2-Dichloropropane	ND	1.0	0.31	µg/L	1		SW-846 8260D	10/25/21	10/25/21 14:07	MFF
1,1-Dichloropropene	ND	2.0	0.26	µg/L	1		SW-846 8260D	10/25/21	10/25/21 14:07	MFF
cis-1,3-Dichloropropene	ND	0.50	0.12	µg/L	1		SW-846 8260D	10/25/21	10/25/21 14:07	MFF
trans-1,3-Dichloropropene	ND	0.50	0.15	µg/L	1		SW-846 8260D	10/25/21	10/25/21 14:07	MFF
Diethyl Ether	ND	2.0	0.22	µg/L	1		SW-846 8260D	10/25/21	10/25/21 14:07	MFF

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Project Location: 1400 N. Royal St., Alexandria, VA Sample Description: Work Order: 21J0887

Date Received: 10/15/2021

Field Sample #: HRP-TB02-211013 Sampled: 10/13/2021 12:35

Sample ID: 21J0887-14

Sample Matrix: Water

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Diisopropyl Ether (DIPE)	ND	0.50	0.15	µg/L	1		SW-846 8260D	10/25/21	10/25/21 14:07	MFF
1,4-Dioxane	ND	50	22	µg/L	1		SW-846 8260D	10/25/21	10/25/21 14:07	MFF
Ethylbenzene	ND	1.0	0.090	µg/L	1		SW-846 8260D	10/25/21	10/25/21 14:07	MFF
Hexachlorobutadiene	ND	0.60	0.41	µg/L	1		SW-846 8260D	10/25/21	10/25/21 14:07	MFF
2-Hexanone (MBK)	ND	10	1.4	µg/L	1		SW-846 8260D	10/25/21	10/25/21 14:07	MFF
Isopropylbenzene (Cumene)	ND	1.0	0.10	µg/L	1		SW-846 8260D	10/25/21	10/25/21 14:07	MFF
p-Isopropyltoluene (p-Cymene)	ND	1.0	0.090	µg/L	1		SW-846 8260D	10/25/21	10/25/21 14:07	MFF
Methyl Acetate	ND	1.0	0.39	µg/L	1		SW-846 8260D	10/25/21	10/25/21 14:07	MFF
Methyl tert-Butyl Ether (MTBE)	ND	1.0	0.17	µg/L	1		SW-846 8260D	10/25/21	10/25/21 14:07	MFF
Methyl Cyclohexane	ND	1.0	0.33	µg/L	1		SW-846 8260D	10/25/21	10/25/21 14:07	MFF
Methylene Chloride	ND	5.0	0.30	µg/L	1		SW-846 8260D	10/25/21	10/25/21 14:07	MFF
4-Methyl-2-pentanone (MIBK)	ND	10	1.6	µg/L	1		SW-846 8260D	10/25/21	10/25/21 14:07	MFF
Naphthalene	ND	2.0	0.15	µg/L	1	V-05	SW-846 8260D	10/25/21	10/25/21 14:07	MFF
n-Propylbenzene	ND	1.0	0.080	µg/L	1		SW-846 8260D	10/25/21	10/25/21 14:07	MFF
Styrene	ND	1.0	0.080	µg/L	1		SW-846 8260D	10/25/21	10/25/21 14:07	MFF
1,1,1,2-Tetrachloroethane	ND	1.0	0.14	µg/L	1		SW-846 8260D	10/25/21	10/25/21 14:07	MFF
1,1,2,2-Tetrachloroethane	ND	0.50	0.090	µg/L	1		SW-846 8260D	10/25/21	10/25/21 14:07	MFF
Tetrachloroethylene	ND	1.0	0.20	µg/L	1		SW-846 8260D	10/25/21	10/25/21 14:07	MFF
Tetrahydrofuran	ND	10	0.58	µg/L	1		SW-846 8260D	10/25/21	10/25/21 14:07	MFF
Toluene	ND	1.0	0.11	µg/L	1		SW-846 8260D	10/25/21	10/25/21 14:07	MFF
1,2,3-Trichlorobenzene	ND	5.0	0.14	µg/L	1	L-04, V-05	SW-846 8260D	10/25/21	10/25/21 14:07	MFF
1,2,4-Trichlorobenzene	ND	1.0	0.16	µg/L	1	V-05	SW-846 8260D	10/25/21	10/25/21 14:07	MFF
1,3,5-Trichlorobenzene	ND	1.0	0.18	µg/L	1		SW-846 8260D	10/25/21	10/25/21 14:07	MFF
1,1,1-Trichloroethane	ND	1.0	0.17	µg/L	1		SW-846 8260D	10/25/21	10/25/21 14:07	MFF
1,1,2-Trichloroethane	ND	1.0	0.15	µg/L	1		SW-846 8260D	10/25/21	10/25/21 14:07	MFF
Trichloroethylene	ND	1.0	0.18	µg/L	1		SW-846 8260D	10/25/21	10/25/21 14:07	MFF
Trichlorofluoromethane (Freon 11)	ND	2.0	0.19	µg/L	1		SW-846 8260D	10/25/21	10/25/21 14:07	MFF
1,2,3-Trichloropropane	ND	2.0	0.31	µg/L	1		SW-846 8260D	10/25/21	10/25/21 14:07	MFF
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	1.0	0.24	µg/L	1		SW-846 8260D	10/25/21	10/25/21 14:07	MFF
1,2,4-Trimethylbenzene	ND	1.0	0.10	µg/L	1		SW-846 8260D	10/25/21	10/25/21 14:07	MFF
1,3,5-Trimethylbenzene	ND	1.0	0.10	µg/L	1		SW-846 8260D	10/25/21	10/25/21 14:07	MFF
Vinyl Chloride	ND	2.0	0.20	µg/L	1		SW-846 8260D	10/25/21	10/25/21 14:07	MFF
m+p Xylene	ND	2.0	0.18	µg/L	1		SW-846 8260D	10/25/21	10/25/21 14:07	MFF
o-Xylene	ND	1.0	0.090	µg/L	1		SW-846 8260D	10/25/21	10/25/21 14:07	MFF

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
1,2-Dichloroethane-d4	112	70-130		10/25/21 14:07
Toluene-d8	109	70-130		10/25/21 14:07
4-Bromofluorobenzene	104	70-130		10/25/21 14:07

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Project Location: 1400 N. Royal St., Alexandria, VA Sample Description: Work Order: 21J0887

Date Received: 10/15/2021

Field Sample #: HRP-TB02-211013 Sampled: 10/13/2021 12:35

Sample ID: 21J0887-14

Sample Matrix: Water

Petroleum Hydrocarbons Analyses

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Gasoline Range Organics (GRO)	ND	0.010	0.0094	mg/L	1		SW-846 8015C	10/25/21	10/25/21 14:11	KMB

Surrogates	% Recovery	Recovery Limits	Flag/Qual		
1-Chloro-3-fluorobenzene	99.6	70-130		10/25/21 14:11	

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Sample Extraction Data

Prep Method: % Solids **Analytical Method: SM 2540G**

Lab Number [Field ID]	Batch	Date
21J0887-02 [HRP-SB205-0-1-211011]	B292726	10/19/21
21J0887-03 [HRP-SB205-13-15-211011]	B292726	10/19/21
21J0887-04 [HRP-DUP02-13-15-211011]	B292726	10/19/21
21J0887-05 [HRP-SB203-0-1-211012]	B292726	10/19/21
21J0887-06 [HRP-SB203-11-13-211012]	B292726	10/19/21
21J0887-07 [HRP-SB206-0-1-211012]	B292726	10/19/21
21J0887-08 [HRP-SB206-5-7-211012]	B292726	10/19/21
21J0887-09 [HR-SB206-15-17-211012]	B292726	10/19/21
21J0887-10 [HRP-SB207-0-1-211013]	B292726	10/19/21
21J0887-11 [HRP-SB207-6-8-211013]	B292726	10/19/21
21J0887-12 [HRP-DUP03-6-8-211013]	B292726	10/19/21
21J0887-13 [GRP-SB207-16-18-211013]	B292726	10/19/21

Prep Method: SW-846 3050B **Analytical Method: SW-846 6010D**

Lab Number [Field ID]	Batch	Initial [g]	Final [mL]	Date
21J0887-02 [HRP-SB205-0-1-211011]	B292559	1.54	50.0	10/15/21
21J0887-03 [HRP-SB205-13-15-211011]	B292559	1.54	50.0	10/15/21
21J0887-04 [HRP-DUP02-13-15-211011]	B292559	1.53	50.0	10/15/21
21J0887-05 [HRP-SB203-0-1-211012]	B292559	1.51	50.0	10/15/21
21J0887-06 [HRP-SB203-11-13-211012]	B292559	1.51	50.0	10/15/21
21J0887-07 [HRP-SB206-0-1-211012]	B292559	1.50	50.0	10/15/21
21J0887-08 [HRP-SB206-5-7-211012]	B292559	1.50	50.0	10/15/21
21J0887-09 [HR-SB206-15-17-211012]	B292559	1.59	50.0	10/15/21
21J0887-10 [HRP-SB207-0-1-211013]	B292559	1.56	50.0	10/15/21
21J0887-11 [HRP-SB207-6-8-211013]	B292559	1.54	50.0	10/15/21
21J0887-12 [HRP-DUP03-6-8-211013]	B292559	1.60	50.0	10/15/21
21J0887-13 [GRP-SB207-16-18-211013]	B292559	1.59	50.0	10/15/21

Prep Method: SW-846 7471 **Analytical Method: SW-846 7471B**

Lab Number [Field ID]	Batch	Initial [g]	Final [mL]	Date
21J0887-02 [HRP-SB205-0-1-211011]	B292571	0.580	50.0	10/15/21
21J0887-03 [HRP-SB205-13-15-211011]	B292571	0.576	50.0	10/15/21
21J0887-04 [HRP-DUP02-13-15-211011]	B292571	0.579	50.0	10/15/21
21J0887-05 [HRP-SB203-0-1-211012]	B292571	0.559	50.0	10/15/21
21J0887-06 [HRP-SB203-11-13-211012]	B292571	0.580	50.0	10/15/21
21J0887-07 [HRP-SB206-0-1-211012]	B292571	0.558	50.0	10/15/21
21J0887-08 [HRP-SB206-5-7-211012]	B292571	0.587	50.0	10/15/21
21J0887-09 [HR-SB206-15-17-211012]	B292571	0.600	50.0	10/15/21
21J0887-10 [HRP-SB207-0-1-211013]	B292571	0.585	50.0	10/15/21
21J0887-11 [HRP-SB207-6-8-211013]	B292571	0.557	50.0	10/15/21
21J0887-12 [HRP-DUP03-6-8-211013]	B292571	0.530	50.0	10/15/21
21J0887-13 [GRP-SB207-16-18-211013]	B292571	0.550	50.0	10/15/21

Prep Method: SW-846 5030B **Analytical Method: SW-846 8015C**

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
21J0887-02 [HRP-SB205-0-1-211011]	B292550	6.41	16.0	10/15/21
21J0887-03 [HRP-SB205-13-15-211011]	B292550	5.68	15.5	10/15/21
21J0887-04 [HRP-DUP02-13-15-211011]	B292550	5.06	15.5	10/15/21

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Sample Extraction Data

Prep Method: SW-846 5030B **Analytical Method: SW-846 8015C**

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
21J0887-08 [HRP-SB206-5-7-211012]	B292666	6.52	5.96	10/18/21
21J0887-09 [HR-SB206-15-17-211012]	B292666	6.33	16.6	10/18/21
21J0887-10 [HRP-SB207-0-1-211013]	B292666	7.27	16.4	10/18/21
21J0887-11 [HRP-SB207-6-8-211013]	B292666	6.80	15.9	10/18/21
21J0887-12 [HRP-DUP03-6-8-211013]	B292666	6.41	16.2	10/18/21
21J0887-13 [GRP-SB207-16-18-211013]	B292666	5.97	15.5	10/18/21

Prep Method: SW-846 3546 **Analytical Method: SW-846 8015C**

Lab Number [Field ID]	Batch	Initial [g]	Final [mL]	Date
21J0887-02 [HRP-SB205-0-1-211011]	B292690	30.0	1.00	10/18/21
21J0887-03 [HRP-SB205-13-15-211011]	B292690	30.0	1.00	10/18/21
21J0887-04 [HRP-DUP02-13-15-211011]	B292690	30.0	1.00	10/18/21
21J0887-08 [HRP-SB206-5-7-211012]	B292690	30.0	1.00	10/18/21
21J0887-09 [HR-SB206-15-17-211012]	B292690	30.0	1.00	10/18/21
21J0887-10 [HRP-SB207-0-1-211013]	B292690	30.0	1.00	10/18/21
21J0887-11 [HRP-SB207-6-8-211013]	B292690	30.0	1.00	10/18/21
21J0887-12 [HRP-DUP03-6-8-211013]	B292690	30.0	1.00	10/18/21
21J0887-13 [GRP-SB207-16-18-211013]	B292690	30.0	1.00	10/18/21

Prep Method: SW-846 5030B **Analytical Method: SW-846 8015C**

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
21J0887-01 [HRP-TB01-211011]	B292856	5	5.00	10/20/21

Prep Method: SW-846 5030B **Analytical Method: SW-846 8015C**

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
21J0887-14 [HRP-TB02-211013]	B293162	5	5.00	10/25/21

Prep Method: SW-846 5035 **Analytical Method: SW-846 8260D**

Lab Number [Field ID]	Batch	Initial [g]	Final [mL]	Date
21J0887-10 [HRP-SB207-0-1-211013]	B292672	6.33	10.0	10/18/21
21J0887-11 [HRP-SB207-6-8-211013]	B292672	6.67	10.0	10/18/21
21J0887-12 [HRP-DUP03-6-8-211013]	B292672	5.81	10.0	10/18/21
21J0887-13 [GRP-SB207-16-18-211013]	B292672	7.04	10.0	10/18/21

Prep Method: SW-846 5030B **Analytical Method: SW-846 8260D**

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
21J0887-01 [HRP-TB01-211011]	B292647	5	5.00	10/18/21

Prep Method: SW-846 5030B **Analytical Method: SW-846 8260D**

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date

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Sample Extraction Data

Prep Method: SW-846 5030B **Analytical Method: SW-846 8260D**

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
21J0887-14 [HRP-TB02-211013]	B293177	5	5.00	10/25/21

Prep Method: SW-846 3546 **Analytical Method: SW-846 8270E**

Lab Number [Field ID]	Batch	Initial [g]	Final [mL]	Date
21J0887-02 [HRP-SB205-0-1-211011]	B292783	30.0	1.00	10/19/21
21J0887-03 [HRP-SB205-13-15-211011]	B292783	30.0	1.00	10/19/21
21J0887-04 [HRP-DUP02-13-15-211011]	B292783	30.0	1.00	10/19/21
21J0887-05 [HRP-SB203-0-1-211012]	B292783	30.0	1.00	10/19/21
21J0887-06 [HRP-SB203-11-13-211012]	B292783	30.0	1.00	10/19/21

Prep Method: SW-846 9010C **Analytical Method: SW-846 9014**

Lab Number [Field ID]	Batch	Initial [g]	Final [mL]	Date
21J0887-02 [HRP-SB205-0-1-211011]	B292627	1.03	50.0	10/18/21
21J0887-03 [HRP-SB205-13-15-211011]	B292627	1.01	50.0	10/18/21
21J0887-04 [HRP-DUP02-13-15-211011]	B292627	1.01	50.0	10/18/21
21J0887-08 [HRP-SB206-5-7-211012]	B292627	1.03	50.0	10/18/21
21J0887-09 [HR-SB206-15-17-211012]	B292627	1.00	50.0	10/18/21
21J0887-10 [HRP-SB207-0-1-211013]	B292627	1.04	50.0	10/18/21
21J0887-11 [HRP-SB207-6-8-211013]	B292627	1.03	50.0	10/18/21
21J0887-12 [HRP-DUP03-6-8-211013]	B292627	1.03	50.0	10/18/21

Prep Method: SW-846 9010C **Analytical Method: SW-846 9014**

Lab Number [Field ID]	Batch	Initial [g]	Final [mL]	Date
21J0887-07 [HRP-SB206-0-1-211012]	B292770	1.05	50.0	10/19/21
21J0887-13 [GRP-SB207-16-18-211013]	B292770	1.10	50.0	10/19/21

SW-846 9045C

Lab Number [Field ID]	Batch	Initial [g]	Date
21J0887-02 [HRP-SB205-0-1-211011]	B292587	20.0	10/15/21
21J0887-03 [HRP-SB205-13-15-211011]	B292587	20.0	10/15/21
21J0887-04 [HRP-DUP02-13-15-211011]	B292587	20.0	10/15/21
21J0887-07 [HRP-SB206-0-1-211012]	B292587	20.0	10/15/21
21J0887-08 [HRP-SB206-5-7-211012]	B292587	20.0	10/15/21
21J0887-09 [HR-SB206-15-17-211012]	B292587	20.0	10/15/21
21J0887-10 [HRP-SB207-0-1-211013]	B292587	20.0	10/15/21
21J0887-11 [HRP-SB207-6-8-211013]	B292587	20.0	10/15/21
21J0887-12 [HRP-DUP03-6-8-211013]	B292587	20.0	10/15/21
21J0887-13 [GRP-SB207-16-18-211013]	B292587	20.0	10/15/21

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QUALITY CONTROL

Volatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B292647 - SW-846 5030B										
Blank (B292647-BLK1)				Prepared & Analyzed: 10/18/21						
Acetone	ND	50	µg/L							
Acrylonitrile	ND	5.0	µg/L							V-05
tert-Amyl Methyl Ether (TAME)	ND	0.50	µg/L							
Benzene	ND	1.0	µg/L							
Bromobenzene	ND	1.0	µg/L							
Bromochloromethane	ND	1.0	µg/L							
Bromodichloromethane	ND	0.50	µg/L							
Bromoform	ND	1.0	µg/L							
Bromomethane	ND	2.0	µg/L							
2-Butanone (MEK)	ND	20	µg/L							
tert-Butyl Alcohol (TBA)	ND	20	µg/L							
n-Butylbenzene	ND	1.0	µg/L							
sec-Butylbenzene	ND	1.0	µg/L							
tert-Butylbenzene	ND	1.0	µg/L							
tert-Butyl Ethyl Ether (TBEE)	ND	0.50	µg/L							
Carbon Disulfide	ND	5.0	µg/L							
Carbon Tetrachloride	ND	5.0	µg/L							
Chlorobenzene	ND	1.0	µg/L							
Chlorodibromomethane	ND	0.50	µg/L							
Chloroethane	ND	2.0	µg/L							
Chloroform	ND	2.0	µg/L							
Chloromethane	ND	2.0	µg/L							
2-Chlorotoluene	ND	1.0	µg/L							
4-Chlorotoluene	ND	1.0	µg/L							
1,2-Dibromo-3-chloropropane (DBCP)	ND	5.0	µg/L							
1,2-Dibromoethane (EDB)	ND	0.50	µg/L							
Dibromomethane	ND	1.0	µg/L							
1,2-Dichlorobenzene	ND	1.0	µg/L							
1,3-Dichlorobenzene	ND	1.0	µg/L							
1,4-Dichlorobenzene	ND	1.0	µg/L							
trans-1,4-Dichloro-2-butene	ND	2.0	µg/L							
Dichlorodifluoromethane (Freon 12)	ND	2.0	µg/L							
1,1-Dichloroethane	ND	1.0	µg/L							
1,2-Dichloroethane	ND	1.0	µg/L							
1,1-Dichloroethylene	ND	1.0	µg/L							
cis-1,2-Dichloroethylene	ND	1.0	µg/L							
trans-1,2-Dichloroethylene	ND	1.0	µg/L							
1,2-Dichloropropane	ND	1.0	µg/L							
1,3-Dichloropropane	ND	0.50	µg/L							
2,2-Dichloropropane	ND	1.0	µg/L							
1,1-Dichloropropene	ND	2.0	µg/L							
cis-1,3-Dichloropropene	ND	0.50	µg/L							
trans-1,3-Dichloropropene	ND	0.50	µg/L							
Diethyl Ether	ND	2.0	µg/L							
Diisopropyl Ether (DIPE)	ND	0.50	µg/L							
1,4-Dioxane	ND	50	µg/L							
Ethylbenzene	ND	1.0	µg/L							
Hexachlorobutadiene	ND	0.60	µg/L							
2-Hexanone (MBK)	ND	10	µg/L							
Isopropylbenzene (Cumene)	ND	1.0	µg/L							
p-Isopropyltoluene (p-Cymene)	ND	1.0	µg/L							
Methyl Acetate	ND	1.0	µg/L							

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QUALITY CONTROL

Volatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes	
Batch B292647 - SW-846 5030B											
Blank (B292647-BLK1)				Prepared & Analyzed: 10/18/21							
Methyl tert-Butyl Ether (MTBE)	ND	1.0	µg/L								
Methyl Cyclohexane	ND	1.0	µg/L								
Methylene Chloride	ND	5.0	µg/L								
4-Methyl-2-pentanone (MIBK)	ND	10	µg/L								
Naphthalene	ND	2.0	µg/L							V-05	
n-Propylbenzene	ND	1.0	µg/L								
Styrene	ND	1.0	µg/L								
1,1,1,2-Tetrachloroethane	ND	1.0	µg/L								
1,1,2,2-Tetrachloroethane	ND	0.50	µg/L								
Tetrachloroethylene	ND	1.0	µg/L								
Tetrahydrofuran	ND	10	µg/L								
Toluene	ND	1.0	µg/L								
1,2,3-Trichlorobenzene	ND	5.0	µg/L							V-05	
1,2,4-Trichlorobenzene	ND	1.0	µg/L							V-05	
1,3,5-Trichlorobenzene	ND	1.0	µg/L								
1,1,1-Trichloroethane	ND	1.0	µg/L								
1,1,2-Trichloroethane	ND	1.0	µg/L								
Trichloroethylene	ND	1.0	µg/L								
Trichlorofluoromethane (Freon 11)	ND	2.0	µg/L								
1,2,3-Trichloropropane	ND	2.0	µg/L								
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	1.0	µg/L							V-05	
1,2,4-Trimethylbenzene	ND	1.0	µg/L								
1,3,5-Trimethylbenzene	ND	1.0	µg/L								
Vinyl Chloride	ND	2.0	µg/L								
m+p Xylene	ND	2.0	µg/L								
o-Xylene	ND	1.0	µg/L								
Surrogate: 1,2-Dichloroethane-d4	*27.9*		µg/L	25.0		112	70-130				
Surrogate: Toluene-d8	*25.7*		µg/L	25.0		103	70-130				
Surrogate: 4-Bromofluorobenzene	*25.1*		µg/L	25.0		100	70-130				
LCS (B292647-BS1)				Prepared & Analyzed: 10/18/21							
Acetone	84.3	50	µg/L	100		84.3	70-160				†
Acrylonitrile	7.77	5.0	µg/L	10.0		77.7	70-130			V-05	
tert-Amyl Methyl Ether (TAME)	10.9	0.50	µg/L	10.0		109	70-130				
Benzene	10.9	1.0	µg/L	10.0		109	70-130				
Bromobenzene	10.0	1.0	µg/L	10.0		100	70-130				
Bromochloromethane	11.6	1.0	µg/L	10.0		116	70-130				
Bromodichloromethane	11.3	0.50	µg/L	10.0		113	70-130				
Bromoform	10.2	1.0	µg/L	10.0		102	70-130				
Bromomethane	8.97	2.0	µg/L	10.0		89.7	40-160				†
2-Butanone (MEK)	102	20	µg/L	100		102	40-160				†
tert-Butyl Alcohol (TBA)	80.8	20	µg/L	100		80.8	40-160				†
n-Butylbenzene	9.48	1.0	µg/L	10.0		94.8	70-130				
sec-Butylbenzene	10.0	1.0	µg/L	10.0		100	70-130				
tert-Butylbenzene	10.5	1.0	µg/L	10.0		105	70-130				
tert-Butyl Ethyl Ether (TBEE)	11.0	0.50	µg/L	10.0		110	70-130				
Carbon Disulfide	92.3	5.0	µg/L	100		92.3	70-130				
Carbon Tetrachloride	11.6	5.0	µg/L	10.0		116	70-130				
Chlorobenzene	10.4	1.0	µg/L	10.0		104	70-130				
Chlorodibromomethane	11.2	0.50	µg/L	10.0		112	70-130				
Chloroethane	8.93	2.0	µg/L	10.0		89.3	70-130				
Chloroform	11.2	2.0	µg/L	10.0		112	70-130				

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QUALITY CONTROL

Volatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes	
Batch B292647 - SW-846 5030B											
LCS (B292647-BS1)				Prepared & Analyzed: 10/18/21							
Chloromethane	12.0	2.0	µg/L	10.0		120	40-160				†
2-Chlorotoluene	9.93	1.0	µg/L	10.0		99.3	70-130				
4-Chlorotoluene	9.99	1.0	µg/L	10.0		99.9	70-130				
1,2-Dibromo-3-chloropropane (DBCP)	9.77	5.0	µg/L	10.0		97.7	70-130				
1,2-Dibromoethane (EDB)	10.7	0.50	µg/L	10.0		107	70-130				
Dibromomethane	10.9	1.0	µg/L	10.0		109	70-130				
1,2-Dichlorobenzene	10.6	1.0	µg/L	10.0		106	70-130				
1,3-Dichlorobenzene	10.6	1.0	µg/L	10.0		106	70-130				
1,4-Dichlorobenzene	10.3	1.0	µg/L	10.0		103	70-130				
trans-1,4-Dichloro-2-butene	9.80	2.0	µg/L	10.0		98.0	70-130				
Dichlorodifluoromethane (Freon 12)	12.5	2.0	µg/L	10.0		125	40-160				†
1,1-Dichloroethane	11.4	1.0	µg/L	10.0		114	70-130				
1,2-Dichloroethane	11.6	1.0	µg/L	10.0		116	70-130				
1,1-Dichloroethylene	9.31	1.0	µg/L	10.0		93.1	70-130				
cis-1,2-Dichloroethylene	11.2	1.0	µg/L	10.0		112	70-130				
trans-1,2-Dichloroethylene	9.77	1.0	µg/L	10.0		97.7	70-130				
1,2-Dichloropropane	11.0	1.0	µg/L	10.0		110	70-130				
1,3-Dichloropropane	10.8	0.50	µg/L	10.0		108	70-130				
2,2-Dichloropropane	11.6	1.0	µg/L	10.0		116	40-130				†
1,1-Dichloropropene	11.2	2.0	µg/L	10.0		112	70-130				
cis-1,3-Dichloropropene	11.7	0.50	µg/L	10.0		117	70-130				
trans-1,3-Dichloropropene	11.0	0.50	µg/L	10.0		110	70-130				
Diethyl Ether	8.45	2.0	µg/L	10.0		84.5	70-130				
Diisopropyl Ether (DIPE)	11.2	0.50	µg/L	10.0		112	70-130				
1,4-Dioxane	86.1	50	µg/L	100		86.1	40-130				†
Ethylbenzene	10.2	1.0	µg/L	10.0		102	70-130				
Hexachlorobutadiene	10.6	0.60	µg/L	10.0		106	70-130				
2-Hexanone (MBK)	96.9	10	µg/L	100		96.9	70-160				†
Isopropylbenzene (Cumene)	10.1	1.0	µg/L	10.0		101	70-130				
p-Isopropyltoluene (p-Cymene)	10.1	1.0	µg/L	10.0		101	70-130				
Methyl Acetate	9.73	1.0	µg/L	10.0		97.3	70-130				
Methyl tert-Butyl Ether (MTBE)	9.45	1.0	µg/L	10.0		94.5	70-130				
Methyl Cyclohexane	9.99	1.0	µg/L	10.0		99.9	70-130				
Methylene Chloride	8.85	5.0	µg/L	10.0		88.5	70-130				
4-Methyl-2-pentanone (MIBK)	104	10	µg/L	100		104	70-160				†
Naphthalene	5.78	2.0	µg/L	10.0		57.8	40-130			V-05	†
n-Propylbenzene	9.75	1.0	µg/L	10.0		97.5	70-130				
Styrene	10.6	1.0	µg/L	10.0		106	70-130				
1,1,1,2-Tetrachloroethane	11.4	1.0	µg/L	10.0		114	70-130				
1,1,2,2-Tetrachloroethane	10.6	0.50	µg/L	10.0		106	70-130				
Tetrachloroethylene	11.2	1.0	µg/L	10.0		112	70-130				
Tetrahydrofuran	10.3	10	µg/L	10.0		103	70-130				
Toluene	10.8	1.0	µg/L	10.0		108	70-130				
1,2,3-Trichlorobenzene	7.12	5.0	µg/L	10.0		71.2	70-130			V-05	
1,2,4-Trichlorobenzene	7.92	1.0	µg/L	10.0		79.2	70-130			V-05	
1,3,5-Trichlorobenzene	9.37	1.0	µg/L	10.0		93.7	70-130				
1,1,1-Trichloroethane	11.1	1.0	µg/L	10.0		111	70-130				
1,1,2-Trichloroethane	11.0	1.0	µg/L	10.0		110	70-130				
Trichloroethylene	11.6	1.0	µg/L	10.0		116	70-130				
Trichlorofluoromethane (Freon 11)	8.70	2.0	µg/L	10.0		87.0	70-130				
1,2,3-Trichloropropane	9.59	2.0	µg/L	10.0		95.9	70-130				

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QUALITY CONTROL

Volatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes	
Batch B292647 - SW-846 5030B											
LCS (B292647-BS1)				Prepared & Analyzed: 10/18/21							
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	8.99	1.0	µg/L	10.0		89.9	70-130			V-05	
1,2,4-Trimethylbenzene	10.5	1.0	µg/L	10.0		105	70-130				
1,3,5-Trimethylbenzene	10.1	1.0	µg/L	10.0		101	70-130				
Vinyl Chloride	12.4	2.0	µg/L	10.0		124	40-160				†
m+p Xylene	20.5	2.0	µg/L	20.0		102	70-130				
o-Xylene	10.6	1.0	µg/L	10.0		106	70-130				
Surrogate: 1,2-Dichloroethane-d4	*28.0*		µg/L	25.0		112	70-130				
Surrogate: Toluene-d8	*26.4*		µg/L	25.0		106	70-130				
Surrogate: 4-Bromofluorobenzene	*25.1*		µg/L	25.0		100	70-130				
LCS Dup (B292647-BSD1)				Prepared & Analyzed: 10/18/21							
Acetone	85.7	50	µg/L	100		85.7	70-160	1.64	25		†
Acrylonitrile	8.17	5.0	µg/L	10.0		81.7	70-130	5.02	25	V-05	
tert-Amyl Methyl Ether (TAME)	10.2	0.50	µg/L	10.0		102	70-130	6.81	25		
Benzene	10.2	1.0	µg/L	10.0		102	70-130	7.30	25		
Bromobenzene	9.89	1.0	µg/L	10.0		98.9	70-130	1.51	25		
Bromochloromethane	10.9	1.0	µg/L	10.0		109	70-130	5.52	25		
Bromodichloromethane	11.7	0.50	µg/L	10.0		117	70-130	2.96	25		
Bromoform	10.2	1.0	µg/L	10.0		102	70-130	0.391	25		
Bromomethane	8.52	2.0	µg/L	10.0		85.2	40-160	5.15	25		†
2-Butanone (MEK)	105	20	µg/L	100		105	40-160	2.90	25		†
tert-Butyl Alcohol (TBA)	86.4	20	µg/L	100		86.4	40-160	6.69	25		†
n-Butylbenzene	8.73	1.0	µg/L	10.0		87.3	70-130	8.24	25		
sec-Butylbenzene	9.42	1.0	µg/L	10.0		94.2	70-130	6.17	25		
tert-Butylbenzene	9.73	1.0	µg/L	10.0		97.3	70-130	7.99	25		
tert-Butyl Ethyl Ether (TBEE)	10.7	0.50	µg/L	10.0		107	70-130	3.13	25		
Carbon Disulfide	82.7	5.0	µg/L	100		82.7	70-130	11.0	25		
Carbon Tetrachloride	10.8	5.0	µg/L	10.0		108	70-130	7.30	25		
Chlorobenzene	10.2	1.0	µg/L	10.0		102	70-130	2.43	25		
Chlorodibromomethane	11.5	0.50	µg/L	10.0		115	70-130	2.73	25		
Chloroethane	8.60	2.0	µg/L	10.0		86.0	70-130	3.76	25		
Chloroform	10.7	2.0	µg/L	10.0		107	70-130	5.21	25		
Chloromethane	11.4	2.0	µg/L	10.0		114	40-160	5.05	25		†
2-Chlorotoluene	9.75	1.0	µg/L	10.0		97.5	70-130	1.83	25		
4-Chlorotoluene	9.49	1.0	µg/L	10.0		94.9	70-130	5.13	25		
1,2-Dibromo-3-chloropropane (DBCP)	9.75	5.0	µg/L	10.0		97.5	70-130	0.205	25		
1,2-Dibromoethane (EDB)	11.4	0.50	µg/L	10.0		114	70-130	5.70	25		
Dibromomethane	10.8	1.0	µg/L	10.0		108	70-130	1.01	25		
1,2-Dichlorobenzene	10.2	1.0	µg/L	10.0		102	70-130	3.64	25		
1,3-Dichlorobenzene	9.97	1.0	µg/L	10.0		99.7	70-130	6.22	25		
1,4-Dichlorobenzene	9.95	1.0	µg/L	10.0		99.5	70-130	3.36	25		
trans-1,4-Dichloro-2-butene	10.2	2.0	µg/L	10.0		102	70-130	4.20	25		
Dichlorodifluoromethane (Freon 12)	11.2	2.0	µg/L	10.0		112	40-160	10.9	25		†
1,1-Dichloroethane	10.7	1.0	µg/L	10.0		107	70-130	5.80	25		
1,2-Dichloroethane	11.4	1.0	µg/L	10.0		114	70-130	1.56	25		
1,1-Dichloroethylene	8.34	1.0	µg/L	10.0		83.4	70-130	11.0	25		
cis-1,2-Dichloroethylene	10.8	1.0	µg/L	10.0		108	70-130	4.28	25		
trans-1,2-Dichloroethylene	9.25	1.0	µg/L	10.0		92.5	70-130	5.47	25		
1,2-Dichloropropane	11.0	1.0	µg/L	10.0		110	70-130	0.456	25		
1,3-Dichloropropane	11.0	0.50	µg/L	10.0		110	70-130	1.47	25		
2,2-Dichloropropane	10.8	1.0	µg/L	10.0		108	40-130	6.53	25		†
1,1-Dichloropropene	10.3	2.0	µg/L	10.0		103	70-130	7.81	25		

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QUALITY CONTROL

Volatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes	
Batch B292647 - SW-846 5030B											
LCS Dup (B292647-BSD1)				Prepared & Analyzed: 10/18/21							
cis-1,3-Dichloropropene	11.7	0.50	µg/L	10.0		117	70-130	0.00	25		
trans-1,3-Dichloropropene	11.2	0.50	µg/L	10.0		112	70-130	1.63	25		
Diethyl Ether	8.13	2.0	µg/L	10.0		81.3	70-130	3.86	25		
Diisopropyl Ether (DIPE)	10.7	0.50	µg/L	10.0		107	70-130	4.40	25		
1,4-Dioxane	101	50	µg/L	100		101	40-130	15.6	50		† ‡
Ethylbenzene	9.78	1.0	µg/L	10.0		97.8	70-130	4.50	25		
Hexachlorobutadiene	9.10	0.60	µg/L	10.0		91.0	70-130	15.6	25		
2-Hexanone (MBK)	103	10	µg/L	100		103	70-160	6.44	25		†
Isopropylbenzene (Cumene)	9.71	1.0	µg/L	10.0		97.1	70-130	4.23	25		
p-Isopropyltoluene (p-Cymene)	9.22	1.0	µg/L	10.0		92.2	70-130	9.50	25		
Methyl Acetate	9.38	1.0	µg/L	10.0		93.8	70-130	3.66	25		
Methyl tert-Butyl Ether (MTBE)	9.72	1.0	µg/L	10.0		97.2	70-130	2.82	25		
Methyl Cyclohexane	9.62	1.0	µg/L	10.0		96.2	70-130	3.77	25		
Methylene Chloride	8.38	5.0	µg/L	10.0		83.8	70-130	5.46	25		
4-Methyl-2-pentanone (MIBK)	109	10	µg/L	100		109	70-160	5.30	25		†
Naphthalene	5.93	2.0	µg/L	10.0		59.3	40-130	2.56	25	V-05	†
n-Propylbenzene	9.39	1.0	µg/L	10.0		93.9	70-130	3.76	25		
Styrene	10.5	1.0	µg/L	10.0		105	70-130	1.61	25		
1,1,1,2-Tetrachloroethane	11.1	1.0	µg/L	10.0		111	70-130	1.96	25		
1,1,2,2-Tetrachloroethane	10.8	0.50	µg/L	10.0		108	70-130	1.78	25		
Tetrachloroethylene	10.8	1.0	µg/L	10.0		108	70-130	3.56	25		
Tetrahydrofuran	10.6	10	µg/L	10.0		106	70-130	2.29	25		
Toluene	10.5	1.0	µg/L	10.0		105	70-130	3.19	25		
1,2,3-Trichlorobenzene	7.12	5.0	µg/L	10.0		71.2	70-130	0.00	25	V-05	
1,2,4-Trichlorobenzene	7.41	1.0	µg/L	10.0		74.1	70-130	6.65	25	V-05	
1,3,5-Trichlorobenzene	9.03	1.0	µg/L	10.0		90.3	70-130	3.70	25		
1,1,1-Trichloroethane	10.7	1.0	µg/L	10.0		107	70-130	3.49	25		
1,1,2-Trichloroethane	10.9	1.0	µg/L	10.0		109	70-130	1.00	25		
Trichloroethylene	11.4	1.0	µg/L	10.0		114	70-130	1.65	25		
Trichlorofluoromethane (Freon 11)	8.16	2.0	µg/L	10.0		81.6	70-130	6.41	25		
1,2,3-Trichloropropane	10.6	2.0	µg/L	10.0		106	70-130	9.91	25		
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	7.51	1.0	µg/L	10.0		75.1	70-130	17.9	25	V-05	
1,2,4-Trimethylbenzene	9.94	1.0	µg/L	10.0		99.4	70-130	5.19	25		
1,3,5-Trimethylbenzene	9.66	1.0	µg/L	10.0		96.6	70-130	4.65	25		
Vinyl Chloride	11.3	2.0	µg/L	10.0		113	40-160	9.72	25		†
m+p Xylene	19.6	2.0	µg/L	20.0		98.2	70-130	4.09	25		
o-Xylene	10.1	1.0	µg/L	10.0		101	70-130	4.92	25		
Surrogate: 1,2-Dichloroethane-d4	*27.8*		µg/L	25.0		111	70-130				
Surrogate: Toluene-d8	*26.7*		µg/L	25.0		107	70-130				
Surrogate: 4-Bromofluorobenzene	*25.3*		µg/L	25.0		101	70-130				
Batch B292672 - SW-846 5035											
Blank (B292672-BLK1)				Prepared & Analyzed: 10/18/21							
Acetone	ND	0.10	mg/Kg wet								
Acrylonitrile	ND	0.0060	mg/Kg wet								
tert-Amyl Methyl Ether (TAME)	ND	0.0010	mg/Kg wet								
Benzene	ND	0.0020	mg/Kg wet								
Bromobenzene	ND	0.0020	mg/Kg wet								
Bromochloromethane	ND	0.0020	mg/Kg wet								
Bromodichloromethane	ND	0.0020	mg/Kg wet								
Bromoform	ND	0.0020	mg/Kg wet								

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QUALITY CONTROL

Volatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B292672 - SW-846 5035										
Blank (B292672-BLK1)				Prepared & Analyzed: 10/18/21						
Bromomethane	ND	0.010	mg/Kg wet							V-34
2-Butanone (MEK)	ND	0.040	mg/Kg wet							
tert-Butyl Alcohol (TBA)	ND	0.10	mg/Kg wet							
n-Butylbenzene	ND	0.0020	mg/Kg wet							
sec-Butylbenzene	ND	0.0020	mg/Kg wet							
tert-Butylbenzene	ND	0.0020	mg/Kg wet							
tert-Butyl Ethyl Ether (TBEE)	ND	0.0010	mg/Kg wet							
Carbon Disulfide	ND	0.010	mg/Kg wet							
Carbon Tetrachloride	ND	0.0020	mg/Kg wet							
Chlorobenzene	ND	0.0020	mg/Kg wet							
Chlorodibromomethane	ND	0.0010	mg/Kg wet							
Chloroethane	ND	0.020	mg/Kg wet							
Chloroform	ND	0.0040	mg/Kg wet							
Chloromethane	ND	0.010	mg/Kg wet							
2-Chlorotoluene	ND	0.0020	mg/Kg wet							
4-Chlorotoluene	ND	0.0020	mg/Kg wet							
1,2-Dibromo-3-chloropropane (DBCP)	ND	0.0020	mg/Kg wet							
1,2-Dibromoethane (EDB)	ND	0.0010	mg/Kg wet							
Dibromomethane	ND	0.0020	mg/Kg wet							
1,2-Dichlorobenzene	ND	0.0020	mg/Kg wet							
1,3-Dichlorobenzene	ND	0.0020	mg/Kg wet							
1,4-Dichlorobenzene	ND	0.0020	mg/Kg wet							
trans-1,4-Dichloro-2-butene	ND	0.0040	mg/Kg wet							
Dichlorodifluoromethane (Freon 12)	ND	0.020	mg/Kg wet							V-05
1,1-Dichloroethane	ND	0.0020	mg/Kg wet							
1,2-Dichloroethane	ND	0.0020	mg/Kg wet							
1,1-Dichloroethylene	ND	0.0040	mg/Kg wet							
cis-1,2-Dichloroethylene	ND	0.0020	mg/Kg wet							
trans-1,2-Dichloroethylene	ND	0.0020	mg/Kg wet							
1,2-Dichloropropane	ND	0.0020	mg/Kg wet							
1,3-Dichloropropane	ND	0.0010	mg/Kg wet							
2,2-Dichloropropane	ND	0.0020	mg/Kg wet							
1,1-Dichloropropene	ND	0.0020	mg/Kg wet							
cis-1,3-Dichloropropene	ND	0.0010	mg/Kg wet							
trans-1,3-Dichloropropene	ND	0.0010	mg/Kg wet							
Diethyl Ether	ND	0.020	mg/Kg wet							
Diisopropyl Ether (DIPE)	ND	0.0010	mg/Kg wet							
1,4-Dioxane	ND	0.10	mg/Kg wet							
Ethylbenzene	ND	0.0020	mg/Kg wet							
Hexachlorobutadiene	ND	0.0020	mg/Kg wet							
2-Hexanone (MBK)	ND	0.020	mg/Kg wet							
Isopropylbenzene (Cumene)	ND	0.0020	mg/Kg wet							
p-Isopropyltoluene (p-Cymene)	ND	0.0020	mg/Kg wet							
Methyl Acetate	ND	0.0020	mg/Kg wet							
Methyl tert-Butyl Ether (MTBE)	ND	0.0040	mg/Kg wet							
Methyl Cyclohexane	ND	0.0020	mg/Kg wet							
Methylene Chloride	ND	0.020	mg/Kg wet							
4-Methyl-2-pentanone (MIBK)	ND	0.020	mg/Kg wet							
Naphthalene	ND	0.0040	mg/Kg wet							
n-Propylbenzene	ND	0.0020	mg/Kg wet							
Styrene	ND	0.0020	mg/Kg wet							
1,1,1,2-Tetrachloroethane	ND	0.0020	mg/Kg wet							

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QUALITY CONTROL

Volatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes	
Batch B292672 - SW-846 5035											
Blank (B292672-BLK1)				Prepared & Analyzed: 10/18/21							
1,1,2,2-Tetrachloroethane	ND	0.0010	mg/Kg wet								
Tetrachloroethylene	ND	0.0020	mg/Kg wet								
Tetrahydrofuran	ND	0.010	mg/Kg wet								
Toluene	ND	0.0020	mg/Kg wet								
1,2,3-Trichlorobenzene	ND	0.0020	mg/Kg wet								
1,2,4-Trichlorobenzene	ND	0.0020	mg/Kg wet								
1,3,5-Trichlorobenzene	ND	0.0020	mg/Kg wet								
1,1,1-Trichloroethane	ND	0.0020	mg/Kg wet								
1,1,2-Trichloroethane	ND	0.0020	mg/Kg wet								
Trichloroethylene	ND	0.0020	mg/Kg wet								
Trichlorofluoromethane (Freon 11)	ND	0.010	mg/Kg wet								
1,2,3-Trichloropropane	ND	0.0020	mg/Kg wet								
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	0.010	mg/Kg wet								
1,2,4-Trimethylbenzene	ND	0.0020	mg/Kg wet								
1,3,5-Trimethylbenzene	ND	0.0020	mg/Kg wet								
Vinyl Chloride	ND	0.010	mg/Kg wet								
m+p Xylene	ND	0.0040	mg/Kg wet								
o-Xylene	ND	0.0020	mg/Kg wet								
Surrogate: 1,2-Dichloroethane-d4	*0.0511*		mg/Kg wet	0.0500		102	70-130				
Surrogate: Toluene-d8	*0.0526*		mg/Kg wet	0.0500		105	70-130				
Surrogate: 4-Bromofluorobenzene	*0.0496*		mg/Kg wet	0.0500		99.2	70-130				
LCS (B292672-BS1)				Prepared & Analyzed: 10/18/21							
Acetone	0.183	0.10	mg/Kg wet	0.200		91.7	70-160			V-36	†
Acrylonitrile	0.0210	0.0060	mg/Kg wet	0.0200		105	70-130				
tert-Amyl Methyl Ether (TAME)	0.0185	0.0010	mg/Kg wet	0.0200		92.7	70-130				
Benzene	0.0201	0.0020	mg/Kg wet	0.0200		100	70-130				
Bromobenzene	0.0194	0.0020	mg/Kg wet	0.0200		96.9	70-130				
Bromochloromethane	0.0210	0.0020	mg/Kg wet	0.0200		105	70-130				
Bromodichloromethane	0.0214	0.0020	mg/Kg wet	0.0200		107	70-130				
Bromoform	0.0212	0.0020	mg/Kg wet	0.0200		106	70-130				
Bromomethane	0.0237	0.010	mg/Kg wet	0.0200		119	40-130			V-20, V-34	†
2-Butanone (MEK)	0.196	0.040	mg/Kg wet	0.200		97.9	70-160				†
tert-Butyl Alcohol (TBA)	0.171	0.10	mg/Kg wet	0.200		85.7	40-130				†
n-Butylbenzene	0.0206	0.0020	mg/Kg wet	0.0200		103	70-130				
sec-Butylbenzene	0.0199	0.0020	mg/Kg wet	0.0200		99.6	70-130				
tert-Butylbenzene	0.0194	0.0020	mg/Kg wet	0.0200		97.1	70-160				†
tert-Butyl Ethyl Ether (TBEE)	0.0182	0.0010	mg/Kg wet	0.0200		91.0	70-130				
Carbon Disulfide	0.194	0.010	mg/Kg wet	0.200		96.9	70-130				
Carbon Tetrachloride	0.0204	0.0020	mg/Kg wet	0.0200		102	70-130				
Chlorobenzene	0.0205	0.0020	mg/Kg wet	0.0200		103	70-130				
Chlorodibromomethane	0.0221	0.0010	mg/Kg wet	0.0200		111	70-130				
Chloroethane	0.0220	0.020	mg/Kg wet	0.0200		110	70-130				
Chloroform	0.0208	0.0040	mg/Kg wet	0.0200		104	70-130				
Chloromethane	0.0167	0.010	mg/Kg wet	0.0200		83.3	70-130				
2-Chlorotoluene	0.0212	0.0020	mg/Kg wet	0.0200		106	70-130				
4-Chlorotoluene	0.0225	0.0020	mg/Kg wet	0.0200		113	70-130				
1,2-Dibromo-3-chloropropane (DBCP)	0.0185	0.0020	mg/Kg wet	0.0200		92.5	70-130				
1,2-Dibromoethane (EDB)	0.0222	0.0010	mg/Kg wet	0.0200		111	70-130				
Dibromomethane	0.0219	0.0020	mg/Kg wet	0.0200		109	70-130				
1,2-Dichlorobenzene	0.0214	0.0020	mg/Kg wet	0.0200		107	70-130				
1,3-Dichlorobenzene	0.0205	0.0020	mg/Kg wet	0.0200		102	70-130				

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QUALITY CONTROL

Volatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes	
Batch B292672 - SW-846 5035											
LCS (B292672-BS1)				Prepared & Analyzed: 10/18/21							
1,4-Dichlorobenzene	0.0199	0.0020	mg/Kg wet	0.0200		99.5	70-130				
trans-1,4-Dichloro-2-butene	0.0208	0.0040	mg/Kg wet	0.0200		104	70-130				
Dichlorodifluoromethane (Freon 12)	0.0146	0.020	mg/Kg wet	0.0200		72.9	40-160			V-05, J	†
1,1-Dichloroethane	0.0203	0.0020	mg/Kg wet	0.0200		102	70-130				
1,2-Dichloroethane	0.0210	0.0020	mg/Kg wet	0.0200		105	70-130				
1,1-Dichloroethylene	0.0197	0.0040	mg/Kg wet	0.0200		98.3	70-130				
cis-1,2-Dichloroethylene	0.0214	0.0020	mg/Kg wet	0.0200		107	70-130				
trans-1,2-Dichloroethylene	0.0204	0.0020	mg/Kg wet	0.0200		102	70-130				
1,2-Dichloropropane	0.0210	0.0020	mg/Kg wet	0.0200		105	70-130				
1,3-Dichloropropane	0.0225	0.0010	mg/Kg wet	0.0200		113	70-130				
2,2-Dichloropropane	0.0202	0.0020	mg/Kg wet	0.0200		101	70-130				
1,1-Dichloropropene	0.0201	0.0020	mg/Kg wet	0.0200		100	70-130				
cis-1,3-Dichloropropene	0.0221	0.0010	mg/Kg wet	0.0200		110	70-130				
trans-1,3-Dichloropropene	0.0187	0.0010	mg/Kg wet	0.0200		93.3	70-130				
Diethyl Ether	0.0217	0.020	mg/Kg wet	0.0200		108	70-130				
Diisopropyl Ether (DIPE)	0.0219	0.0010	mg/Kg wet	0.0200		110	70-130				
1,4-Dioxane	0.173	0.10	mg/Kg wet	0.200		86.6	40-160				†
Ethylbenzene	0.0218	0.0020	mg/Kg wet	0.0200		109	70-130				
Hexachlorobutadiene	0.0202	0.0020	mg/Kg wet	0.0200		101	70-160				
2-Hexanone (MBK)	0.215	0.020	mg/Kg wet	0.200		108	70-160			V-36	†
Isopropylbenzene (Cumene)	0.0213	0.0020	mg/Kg wet	0.0200		106	70-130				
p-Isopropyltoluene (p-Cymene)	0.0211	0.0020	mg/Kg wet	0.0200		106	70-130				
Methyl Acetate	0.0187	0.0020	mg/Kg wet	0.0200		93.5	70-130				
Methyl tert-Butyl Ether (MTBE)	0.0216	0.0040	mg/Kg wet	0.0200		108	70-130				
Methyl Cyclohexane	0.0214	0.0020	mg/Kg wet	0.0200		107	70-130				
Methylene Chloride	0.0201	0.020	mg/Kg wet	0.0200		100	40-160				†
4-Methyl-2-pentanone (MIBK)	0.219	0.020	mg/Kg wet	0.200		110	70-160				†
Naphthalene	0.0199	0.0040	mg/Kg wet	0.0200		99.5	40-130				†
n-Propylbenzene	0.0226	0.0020	mg/Kg wet	0.0200		113	70-130				
Styrene	0.0231	0.0020	mg/Kg wet	0.0200		116	70-130				
1,1,1,2-Tetrachloroethane	0.0217	0.0020	mg/Kg wet	0.0200		108	70-130				
1,1,2,2-Tetrachloroethane	0.0219	0.0010	mg/Kg wet	0.0200		110	70-130				
Tetrachloroethylene	0.0209	0.0020	mg/Kg wet	0.0200		105	70-130				
Tetrahydrofuran	0.0183	0.010	mg/Kg wet	0.0200		91.6	70-130				
Toluene	0.0196	0.0020	mg/Kg wet	0.0200		98.0	70-130				
1,2,3-Trichlorobenzene	0.0213	0.0020	mg/Kg wet	0.0200		107	70-130				
1,2,4-Trichlorobenzene	0.0204	0.0020	mg/Kg wet	0.0200		102	70-130				
1,3,5-Trichlorobenzene	0.0197	0.0020	mg/Kg wet	0.0200		98.5	70-130				
1,1,1-Trichloroethane	0.0203	0.0020	mg/Kg wet	0.0200		102	70-130				
1,1,2-Trichloroethane	0.0218	0.0020	mg/Kg wet	0.0200		109	70-130				
Trichloroethylene	0.0204	0.0020	mg/Kg wet	0.0200		102	70-130				
Trichlorofluoromethane (Freon 11)	0.0213	0.010	mg/Kg wet	0.0200		107	70-130				
1,2,3-Trichloropropane	0.0187	0.0020	mg/Kg wet	0.0200		93.5	70-130				
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	0.0202	0.010	mg/Kg wet	0.0200		101	70-130				
1,2,4-Trimethylbenzene	0.0202	0.0020	mg/Kg wet	0.0200		101	70-130				
1,3,5-Trimethylbenzene	0.0226	0.0020	mg/Kg wet	0.0200		113	70-130				
Vinyl Chloride	0.0196	0.010	mg/Kg wet	0.0200		98.0	40-130				†
m+p Xylene	0.0452	0.0040	mg/Kg wet	0.0400		113	70-130				
o-Xylene	0.0226	0.0020	mg/Kg wet	0.0200		113	70-130				
Surrogate: 1,2-Dichloroethane-d4	*0.0502*		mg/Kg wet	0.0500		100	70-130				
Surrogate: Toluene-d8	*0.0506*		mg/Kg wet	0.0500		101	70-130				

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QUALITY CONTROL

Volatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes	
Batch B292672 - SW-846 5035											
LCS (B292672-BS1)				Prepared & Analyzed: 10/18/21							
Surrogate: 4-Bromofluorobenzene	*0.0511*		mg/Kg wet	0.0500		102	70-130				
LCS Dup (B292672-BSD1)				Prepared & Analyzed: 10/18/21							
Acetone	0.183	0.10	mg/Kg wet	0.200		91.6	70-160	0.0655	25	V-36	†
Acrylonitrile	0.0221	0.0060	mg/Kg wet	0.0200		110	70-130	4.92	25		
tert-Amyl Methyl Ether (TAME)	0.0183	0.0010	mg/Kg wet	0.0200		91.4	70-130	1.41	25		
Benzene	0.0207	0.0020	mg/Kg wet	0.0200		104	70-130	3.04	25		
Bromobenzene	0.0234	0.0020	mg/Kg wet	0.0200		117	70-130	19.0	25		
Bromochloromethane	0.0221	0.0020	mg/Kg wet	0.0200		111	70-130	5.00	25		
Bromodichloromethane	0.0218	0.0020	mg/Kg wet	0.0200		109	70-130	1.67	25		
Bromoform	0.0211	0.0020	mg/Kg wet	0.0200		105	70-130	0.473	25		
Bromomethane	0.0242	0.010	mg/Kg wet	0.0200		121	40-130	1.75	25	V-20, V-34	†
2-Butanone (MEK)	0.190	0.040	mg/Kg wet	0.200		95.0	70-160	3.03	25		†
tert-Butyl Alcohol (TBA)	0.165	0.10	mg/Kg wet	0.200		82.6	40-130	3.62	25		†
n-Butylbenzene	0.0204	0.0020	mg/Kg wet	0.0200		102	70-130	1.17	25		
sec-Butylbenzene	0.0199	0.0020	mg/Kg wet	0.0200		99.5	70-130	0.100	25		
tert-Butylbenzene	0.0194	0.0020	mg/Kg wet	0.0200		96.9	70-160	0.206	25		†
tert-Butyl Ethyl Ether (TBEE)	0.0181	0.0010	mg/Kg wet	0.0200		90.7	70-130	0.330	25		
Carbon Disulfide	0.198	0.010	mg/Kg wet	0.200		99.1	70-130	2.22	25		
Carbon Tetrachloride	0.0210	0.0020	mg/Kg wet	0.0200		105	70-130	2.90	25		
Chlorobenzene	0.0205	0.0020	mg/Kg wet	0.0200		102	70-130	0.293	25		
Chlorodibromomethane	0.0221	0.0010	mg/Kg wet	0.0200		111	70-130	0.0904	25		
Chloroethane	0.0232	0.020	mg/Kg wet	0.0200		116	70-130	5.48	25		
Chloroform	0.0216	0.0040	mg/Kg wet	0.0200		108	70-130	3.67	25		
Chloromethane	0.0173	0.010	mg/Kg wet	0.0200		86.6	70-130	3.88	25		
2-Chlorotoluene	0.0220	0.0020	mg/Kg wet	0.0200		110	70-130	3.89	25		
4-Chlorotoluene	0.0231	0.0020	mg/Kg wet	0.0200		115	70-130	2.46	25		
1,2-Dibromo-3-chloropropane (DBCP)	0.0183	0.0020	mg/Kg wet	0.0200		91.5	70-130	1.09	25		
1,2-Dibromoethane (EDB)	0.0219	0.0010	mg/Kg wet	0.0200		109	70-130	1.63	25		
Dibromomethane	0.0225	0.0020	mg/Kg wet	0.0200		112	70-130	2.62	25		
1,2-Dichlorobenzene	0.0213	0.0020	mg/Kg wet	0.0200		106	70-130	0.656	25		
1,3-Dichlorobenzene	0.0205	0.0020	mg/Kg wet	0.0200		102	70-130	0.195	25		
1,4-Dichlorobenzene	0.0196	0.0020	mg/Kg wet	0.0200		98.2	70-130	1.32	25		
trans-1,4-Dichloro-2-butene	0.0199	0.0040	mg/Kg wet	0.0200		99.5	70-130	4.61	25		
Dichlorodifluoromethane (Freon 12)	0.0149	0.020	mg/Kg wet	0.0200		74.4	40-160	2.04	25	V-05, J	†
1,1-Dichloroethane	0.0210	0.0020	mg/Kg wet	0.0200		105	70-130	3.19	25		
1,2-Dichloroethane	0.0213	0.0020	mg/Kg wet	0.0200		106	70-130	1.23	25		
1,1-Dichloroethylene	0.0201	0.0040	mg/Kg wet	0.0200		101	70-130	2.41	25		
cis-1,2-Dichloroethylene	0.0218	0.0020	mg/Kg wet	0.0200		109	70-130	1.85	25		
trans-1,2-Dichloroethylene	0.0210	0.0020	mg/Kg wet	0.0200		105	70-130	2.99	25		
1,2-Dichloropropane	0.0211	0.0020	mg/Kg wet	0.0200		106	70-130	0.569	25		
1,3-Dichloropropane	0.0229	0.0010	mg/Kg wet	0.0200		114	70-130	1.50	25		
2,2-Dichloropropane	0.0207	0.0020	mg/Kg wet	0.0200		103	70-130	2.15	25		
1,1-Dichloropropene	0.0202	0.0020	mg/Kg wet	0.0200		101	70-130	0.497	25		
cis-1,3-Dichloropropene	0.0221	0.0010	mg/Kg wet	0.0200		111	70-130	0.271	25		
trans-1,3-Dichloropropene	0.0188	0.0010	mg/Kg wet	0.0200		94.0	70-130	0.747	25		
Diethyl Ether	0.0223	0.020	mg/Kg wet	0.0200		112	70-130	3.09	25		
Diisopropyl Ether (DIPE)	0.0220	0.0010	mg/Kg wet	0.0200		110	70-130	0.455	25		
1,4-Dioxane	0.161	0.10	mg/Kg wet	0.200		80.7	40-160	7.12	50		† ‡
Ethylbenzene	0.0221	0.0020	mg/Kg wet	0.0200		110	70-130	1.18	25		
Hexachlorobutadiene	0.0199	0.0020	mg/Kg wet	0.0200		99.5	70-160	1.50	25		
2-Hexanone (MBK)	0.204	0.020	mg/Kg wet	0.200		102	70-160	5.49	25	V-36	†

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QUALITY CONTROL

Volatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B292672 - SW-846 5035										
LCS Dup (B292672-BSD1)				Prepared & Analyzed: 10/18/21						
Isopropylbenzene (Cumene)	0.0222	0.0020	mg/Kg wet	0.0200		111	70-130	4.23	25	
p-Isopropyltoluene (p-Cymene)	0.0209	0.0020	mg/Kg wet	0.0200		104	70-130	1.14	25	
Methyl Acetate	0.0198	0.0020	mg/Kg wet	0.0200		99.1	70-130	5.82	25	
Methyl tert-Butyl Ether (MTBE)	0.0218	0.0040	mg/Kg wet	0.0200		109	70-130	0.738	25	
Methyl Cyclohexane	0.0204	0.0020	mg/Kg wet	0.0200		102	70-130	4.78	25	
Methylene Chloride	0.0210	0.020	mg/Kg wet	0.0200		105	40-160	4.19	25	†
4-Methyl-2-pentanone (MIBK)	0.204	0.020	mg/Kg wet	0.200		102	70-160	7.18	25	†
Naphthalene	0.0195	0.0040	mg/Kg wet	0.0200		97.5	40-130	2.03	25	†
n-Propylbenzene	0.0233	0.0020	mg/Kg wet	0.0200		116	70-130	3.23	25	
Styrene	0.0240	0.0020	mg/Kg wet	0.0200		120	70-130	3.82	25	
1,1,1,2-Tetrachloroethane	0.0213	0.0020	mg/Kg wet	0.0200		106	70-130	1.86	25	
1,1,2,2-Tetrachloroethane	0.0207	0.0010	mg/Kg wet	0.0200		104	70-130	5.54	25	
Tetrachloroethylene	0.0204	0.0020	mg/Kg wet	0.0200		102	70-130	2.52	25	
Tetrahydrofuran	0.0185	0.010	mg/Kg wet	0.0200		92.4	70-130	0.870	25	
Toluene	0.0198	0.0020	mg/Kg wet	0.0200		98.8	70-130	0.813	25	
1,2,3-Trichlorobenzene	0.0213	0.0020	mg/Kg wet	0.0200		106	70-130	0.0939	25	
1,2,4-Trichlorobenzene	0.0202	0.0020	mg/Kg wet	0.0200		101	70-130	1.28	25	
1,3,5-Trichlorobenzene	0.0194	0.0020	mg/Kg wet	0.0200		96.9	70-130	1.64	25	
1,1,1-Trichloroethane	0.0208	0.0020	mg/Kg wet	0.0200		104	70-130	2.34	25	
1,1,2-Trichloroethane	0.0219	0.0020	mg/Kg wet	0.0200		109	70-130	0.550	25	
Trichloroethylene	0.0207	0.0020	mg/Kg wet	0.0200		104	70-130	1.46	25	
Trichlorofluoromethane (Freon 11)	0.0217	0.010	mg/Kg wet	0.0200		109	70-130	1.86	25	
1,2,3-Trichloropropane	0.0176	0.0020	mg/Kg wet	0.0200		87.8	70-130	6.29	25	
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	0.0211	0.010	mg/Kg wet	0.0200		106	70-130	4.55	25	
1,2,4-Trimethylbenzene	0.0198	0.0020	mg/Kg wet	0.0200		99.0	70-130	2.20	25	
1,3,5-Trimethylbenzene	0.0232	0.0020	mg/Kg wet	0.0200		116	70-130	2.80	25	
Vinyl Chloride	0.0200	0.010	mg/Kg wet	0.0200		100	40-130	2.02	25	†
m+p Xylene	0.0461	0.0040	mg/Kg wet	0.0400		115	70-130	2.02	25	
o-Xylene	0.0235	0.0020	mg/Kg wet	0.0200		117	70-130	3.91	25	
Surrogate: 1,2-Dichloroethane-d4	*0.0515*		mg/Kg wet	0.0500		103	70-130			
Surrogate: Toluene-d8	*0.0516*		mg/Kg wet	0.0500		103	70-130			
Surrogate: 4-Bromofluorobenzene	*0.0525*		mg/Kg wet	0.0500		105	70-130			
Batch B293177 - SW-846 5030B										
Blank (B293177-BLK1)				Prepared & Analyzed: 10/25/21						
Acetone	ND	50	µg/L							
Acrylonitrile	ND	5.0	µg/L							
tert-Amyl Methyl Ether (TAME)	ND	0.50	µg/L							
Benzene	ND	1.0	µg/L							
Bromobenzene	ND	1.0	µg/L							
Bromochloromethane	ND	1.0	µg/L							
Bromodichloromethane	ND	0.50	µg/L							
Bromoform	ND	1.0	µg/L							
Bromomethane	ND	2.0	µg/L							
2-Butanone (MEK)	ND	20	µg/L							
tert-Butyl Alcohol (TBA)	ND	20	µg/L							
n-Butylbenzene	ND	1.0	µg/L							
sec-Butylbenzene	ND	1.0	µg/L							
tert-Butylbenzene	ND	1.0	µg/L							
tert-Butyl Ethyl Ether (TBEE)	ND	0.50	µg/L							
Carbon Disulfide	ND	5.0	µg/L							

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QUALITY CONTROL

Volatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B293177 - SW-846 5030B										
Blank (B293177-BLK1)				Prepared & Analyzed: 10/25/21						
Carbon Tetrachloride	ND	5.0	µg/L							
Chlorobenzene	ND	1.0	µg/L							
Chlorodibromomethane	ND	0.50	µg/L							
Chloroethane	ND	2.0	µg/L							
Chloroform	ND	2.0	µg/L							
Chloromethane	ND	2.0	µg/L							
2-Chlorotoluene	ND	1.0	µg/L							
4-Chlorotoluene	ND	1.0	µg/L							
1,2-Dibromo-3-chloropropane (DBCP)	ND	5.0	µg/L							
1,2-Dibromoethane (EDB)	ND	0.50	µg/L							
Dibromomethane	ND	1.0	µg/L							
1,2-Dichlorobenzene	ND	1.0	µg/L							
1,3-Dichlorobenzene	ND	1.0	µg/L							
1,4-Dichlorobenzene	ND	1.0	µg/L							
trans-1,4-Dichloro-2-butene	ND	2.0	µg/L							
Dichlorodifluoromethane (Freon 12)	ND	2.0	µg/L							
1,1-Dichloroethane	ND	1.0	µg/L							
1,2-Dichloroethane	ND	1.0	µg/L							
1,1-Dichloroethylene	ND	1.0	µg/L							
cis-1,2-Dichloroethylene	ND	1.0	µg/L							
trans-1,2-Dichloroethylene	ND	1.0	µg/L							
1,2-Dichloropropane	ND	1.0	µg/L							
1,3-Dichloropropane	ND	0.50	µg/L							
2,2-Dichloropropane	ND	1.0	µg/L							
1,1-Dichloropropene	ND	2.0	µg/L							
cis-1,3-Dichloropropene	ND	0.50	µg/L							
trans-1,3-Dichloropropene	ND	0.50	µg/L							
Diethyl Ether	ND	2.0	µg/L							
Diisopropyl Ether (DIPE)	ND	0.50	µg/L							
1,4-Dioxane	ND	50	µg/L							
Ethylbenzene	ND	1.0	µg/L							
Hexachlorobutadiene	ND	0.60	µg/L							
2-Hexanone (MBK)	ND	10	µg/L							
Isopropylbenzene (Cumene)	ND	1.0	µg/L							
p-Isopropyltoluene (p-Cymene)	ND	1.0	µg/L							
Methyl Acetate	ND	1.0	µg/L							
Methyl tert-Butyl Ether (MTBE)	ND	1.0	µg/L							
Methyl Cyclohexane	ND	1.0	µg/L							
Methylene Chloride	ND	5.0	µg/L							
4-Methyl-2-pentanone (MIBK)	ND	10	µg/L							
Naphthalene	ND	2.0	µg/L							V-05
n-Propylbenzene	ND	1.0	µg/L							
Styrene	ND	1.0	µg/L							
1,1,1,2-Tetrachloroethane	ND	1.0	µg/L							
1,1,2,2-Tetrachloroethane	ND	0.50	µg/L							
Tetrachloroethylene	ND	1.0	µg/L							
Tetrahydrofuran	ND	10	µg/L							
Toluene	ND	1.0	µg/L							
1,2,3-Trichlorobenzene	ND	5.0	µg/L							V-05, L-04
1,2,4-Trichlorobenzene	ND	1.0	µg/L							V-05
1,3,5-Trichlorobenzene	ND	1.0	µg/L							
1,1,1-Trichloroethane	ND	1.0	µg/L							

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QUALITY CONTROL

Volatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes	
Batch B293177 - SW-846 5030B											
Blank (B293177-BLK1)				Prepared & Analyzed: 10/25/21							
1,1,2-Trichloroethane	ND	1.0	µg/L								
Trichloroethylene	ND	1.0	µg/L								
Trichlorofluoromethane (Freon 11)	ND	2.0	µg/L								
1,2,3-Trichloropropane	ND	2.0	µg/L								
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	1.0	µg/L								
1,2,4-Trimethylbenzene	ND	1.0	µg/L								
1,3,5-Trimethylbenzene	ND	1.0	µg/L								
Vinyl Chloride	ND	2.0	µg/L								
m+p Xylene	ND	2.0	µg/L								
o-Xylene	ND	1.0	µg/L								
Surrogate: 1,2-Dichloroethane-d4	*28.3*		µg/L	25.0		113	70-130				
Surrogate: Toluene-d8	*27.7*		µg/L	25.0		111	70-130				
Surrogate: 4-Bromofluorobenzene	*25.9*		µg/L	25.0		104	70-130				
LCS (B293177-BS1)				Prepared & Analyzed: 10/25/21							
Acetone	89.6	50	µg/L	100		89.6	70-160				†
Acrylonitrile	8.11	5.0	µg/L	10.0		81.1	70-130				
tert-Amyl Methyl Ether (TAME)	9.88	0.50	µg/L	10.0		98.8	70-130				
Benzene	10.2	1.0	µg/L	10.0		102	70-130				
Bromobenzene	9.72	1.0	µg/L	10.0		97.2	70-130				
Bromochloromethane	10.8	1.0	µg/L	10.0		108	70-130				
Bromodichloromethane	10.4	0.50	µg/L	10.0		104	70-130				
Bromoform	9.19	1.0	µg/L	10.0		91.9	70-130				
Bromomethane	11.3	2.0	µg/L	10.0		113	40-160				†
2-Butanone (MEK)	87.2	20	µg/L	100		87.2	40-160				†
tert-Butyl Alcohol (TBA)	78.2	20	µg/L	100		78.2	40-160				†
n-Butylbenzene	8.46	1.0	µg/L	10.0		84.6	70-130				
sec-Butylbenzene	9.26	1.0	µg/L	10.0		92.6	70-130				
tert-Butylbenzene	9.74	1.0	µg/L	10.0		97.4	70-130				
tert-Butyl Ethyl Ether (TBEE)	10.0	0.50	µg/L	10.0		100	70-130				
Carbon Disulfide	102	5.0	µg/L	100		102	70-130				
Carbon Tetrachloride	9.83	5.0	µg/L	10.0		98.3	70-130				
Chlorobenzene	10.1	1.0	µg/L	10.0		101	70-130				
Chlorodibromomethane	10.6	0.50	µg/L	10.0		106	70-130				
Chloroethane	11.8	2.0	µg/L	10.0		118	70-130				
Chloroform	10.2	2.0	µg/L	10.0		102	70-130				
Chloromethane	13.3	2.0	µg/L	10.0		133	40-160			V-20	†
2-Chlorotoluene	9.53	1.0	µg/L	10.0		95.3	70-130				
4-Chlorotoluene	9.55	1.0	µg/L	10.0		95.5	70-130				
1,2-Dibromo-3-chloropropane (DBCP)	7.97	5.0	µg/L	10.0		79.7	70-130				
1,2-Dibromoethane (EDB)	9.98	0.50	µg/L	10.0		99.8	70-130				
Dibromomethane	10.4	1.0	µg/L	10.0		104	70-130				
1,2-Dichlorobenzene	10.0	1.0	µg/L	10.0		100	70-130				
1,3-Dichlorobenzene	10.0	1.0	µg/L	10.0		100	70-130				
1,4-Dichlorobenzene	9.63	1.0	µg/L	10.0		96.3	70-130				
trans-1,4-Dichloro-2-butene	8.79	2.0	µg/L	10.0		87.9	70-130				
Dichlorodifluoromethane (Freon 12)	10.2	2.0	µg/L	10.0		102	40-160				†
1,1-Dichloroethane	10.3	1.0	µg/L	10.0		103	70-130				
1,2-Dichloroethane	9.81	1.0	µg/L	10.0		98.1	70-130				
1,1-Dichloroethylene	10.2	1.0	µg/L	10.0		102	70-130				
cis-1,2-Dichloroethylene	10.2	1.0	µg/L	10.0		102	70-130				
trans-1,2-Dichloroethylene	9.79	1.0	µg/L	10.0		97.9	70-130				

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QUALITY CONTROL

Volatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC		%REC Limits	RPD	RPD Limit	Notes	
Batch B293177 - SW-846 5030B												
LCS (B293177-BS1)				Prepared & Analyzed: 10/25/21								
1,2-Dichloropropane	10.3	1.0	µg/L	10.0		103		70-130				
1,3-Dichloropropane	10.0	0.50	µg/L	10.0		100		70-130				
2,2-Dichloropropane	9.82	1.0	µg/L	10.0		98.2		40-130				†
1,1-Dichloropropene	9.57	2.0	µg/L	10.0		95.7		70-130				
cis-1,3-Dichloropropene	10.7	0.50	µg/L	10.0		107		70-130				
trans-1,3-Dichloropropene	9.73	0.50	µg/L	10.0		97.3		70-130				
Diethyl Ether	9.71	2.0	µg/L	10.0		97.1		70-130				
Diisopropyl Ether (DIPE)	9.99	0.50	µg/L	10.0		99.9		70-130				
1,4-Dioxane	78.0	50	µg/L	100		78.0		40-130				†
Ethylbenzene	9.62	1.0	µg/L	10.0		96.2		70-130				
Hexachlorobutadiene	9.04	0.60	µg/L	10.0		90.4		70-130				
2-Hexanone (MBK)	84.8	10	µg/L	100		84.8		70-160				†
Isopropylbenzene (Cumene)	9.62	1.0	µg/L	10.0		96.2		70-130				
p-Isopropyltoluene (p-Cymene)	9.13	1.0	µg/L	10.0		91.3		70-130				
Methyl Acetate	10.1	1.0	µg/L	10.0		101		70-130				
Methyl tert-Butyl Ether (MTBE)	9.28	1.0	µg/L	10.0		92.8		70-130				
Methyl Cyclohexane	8.50	1.0	µg/L	10.0		85.0		70-130				
Methylene Chloride	10.8	5.0	µg/L	10.0		108		70-130				
4-Methyl-2-pentanone (MIBK)	91.8	10	µg/L	100		91.8		70-160				†
Naphthalene	4.91	2.0	µg/L	10.0		49.1		40-130			V-05	†
n-Propylbenzene	9.38	1.0	µg/L	10.0		93.8		70-130				
Styrene	10.1	1.0	µg/L	10.0		101		70-130				
1,1,1,2-Tetrachloroethane	10.2	1.0	µg/L	10.0		102		70-130				
1,1,2,2-Tetrachloroethane	9.61	0.50	µg/L	10.0		96.1		70-130				
Tetrachloroethylene	10.5	1.0	µg/L	10.0		105		70-130				
Tetrahydrofuran	8.76	10	µg/L	10.0		87.6		70-130			J	
Toluene	10.2	1.0	µg/L	10.0		102		70-130				
1,2,3-Trichlorobenzene	6.39	5.0	µg/L	10.0		**63.9**	*	70-130			L-04, V-05	
1,2,4-Trichlorobenzene	7.02	1.0	µg/L	10.0		70.2		70-130			V-05	
1,3,5-Trichlorobenzene	8.40	1.0	µg/L	10.0		84.0		70-130				
1,1,1-Trichloroethane	9.63	1.0	µg/L	10.0		96.3		70-130				
1,1,2-Trichloroethane	10.4	1.0	µg/L	10.0		104		70-130				
Trichloroethylene	10.1	1.0	µg/L	10.0		101		70-130				
Trichlorofluoromethane (Freon 11)	9.68	2.0	µg/L	10.0		96.8		70-130				
1,2,3-Trichloropropane	8.79	2.0	µg/L	10.0		87.9		70-130				
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	8.84	1.0	µg/L	10.0		88.4		70-130				
1,2,4-Trimethylbenzene	9.66	1.0	µg/L	10.0		96.6		70-130				
1,3,5-Trimethylbenzene	9.45	1.0	µg/L	10.0		94.5		70-130				
Vinyl Chloride	11.4	2.0	µg/L	10.0		114		40-160				†
m+p Xylene	19.2	2.0	µg/L	20.0		95.9		70-130				
o-Xylene	10.2	1.0	µg/L	10.0		102		70-130				
Surrogate: 1,2-Dichloroethane-d4	*27.6*		µg/L	25.0		110		70-130				
Surrogate: Toluene-d8	*28.2*		µg/L	25.0		113		70-130				
Surrogate: 4-Bromofluorobenzene	*27.2*		µg/L	25.0		109		70-130				

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QUALITY CONTROL

Volatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes	
Batch B293177 - SW-846 5030B											
LCS Dup (B293177-BSD1)				Prepared & Analyzed: 10/25/21							
Acetone	95.3	50	µg/L	100		95.3	70-160	6.17	25		†
Acrylonitrile	8.42	5.0	µg/L	10.0		84.2	70-130	3.75	25		
tert-Amyl Methyl Ether (TAME)	10.5	0.50	µg/L	10.0		105	70-130	5.80	25		
Benzene	11.0	1.0	µg/L	10.0		110	70-130	8.22	25		
Bromobenzene	9.90	1.0	µg/L	10.0		99.0	70-130	1.83	25		
Bromochloromethane	11.5	1.0	µg/L	10.0		115	70-130	5.65	25		
Bromodichloromethane	10.9	0.50	µg/L	10.0		109	70-130	4.22	25		
Bromoform	9.86	1.0	µg/L	10.0		98.6	70-130	7.03	25		
Bromomethane	12.2	2.0	µg/L	10.0		122	40-160	7.34	25		†
2-Butanone (MEK)	96.2	20	µg/L	100		96.2	40-160	9.82	25		†
tert-Butyl Alcohol (TBA)	90.1	20	µg/L	100		90.1	40-160	14.1	25		†
n-Butylbenzene	9.31	1.0	µg/L	10.0		93.1	70-130	9.57	25		
sec-Butylbenzene	10.2	1.0	µg/L	10.0		102	70-130	10.1	25		
tert-Butylbenzene	10.4	1.0	µg/L	10.0		104	70-130	6.55	25		
tert-Butyl Ethyl Ether (TBEE)	10.6	0.50	µg/L	10.0		106	70-130	5.64	25		
Carbon Disulfide	113	5.0	µg/L	100		113	70-130	9.83	25		
Carbon Tetrachloride	10.7	5.0	µg/L	10.0		107	70-130	8.66	25		
Chlorobenzene	10.7	1.0	µg/L	10.0		107	70-130	6.16	25		
Chlorodibromomethane	10.8	0.50	µg/L	10.0		108	70-130	2.43	25		
Chloroethane	13.0	2.0	µg/L	10.0		130	70-130	8.96	25		
Chloroform	10.9	2.0	µg/L	10.0		109	70-130	6.42	25		
Chloromethane	13.4	2.0	µg/L	10.0		134	40-160	0.896	25	V-20	†
2-Chlorotoluene	10.2	1.0	µg/L	10.0		102	70-130	6.50	25		
4-Chlorotoluene	9.98	1.0	µg/L	10.0		99.8	70-130	4.40	25		
1,2-Dibromo-3-chloropropane (DBCP)	8.75	5.0	µg/L	10.0		87.5	70-130	9.33	25		
1,2-Dibromoethane (EDB)	10.8	0.50	µg/L	10.0		108	70-130	7.43	25		
Dibromomethane	10.9	1.0	µg/L	10.0		109	70-130	4.77	25		
1,2-Dichlorobenzene	10.5	1.0	µg/L	10.0		105	70-130	4.38	25		
1,3-Dichlorobenzene	10.6	1.0	µg/L	10.0		106	70-130	6.20	25		
1,4-Dichlorobenzene	10.0	1.0	µg/L	10.0		100	70-130	3.77	25		
trans-1,4-Dichloro-2-butene	9.06	2.0	µg/L	10.0		90.6	70-130	3.03	25		
Dichlorodifluoromethane (Freon 12)	11.4	2.0	µg/L	10.0		114	40-160	10.9	25		†
1,1-Dichloroethane	10.8	1.0	µg/L	10.0		108	70-130	4.63	25		
1,2-Dichloroethane	10.3	1.0	µg/L	10.0		103	70-130	4.87	25		
1,1-Dichloroethylene	11.3	1.0	µg/L	10.0		113	70-130	10.2	25		
cis-1,2-Dichloroethylene	11.0	1.0	µg/L	10.0		110	70-130	7.64	25		
trans-1,2-Dichloroethylene	10.8	1.0	µg/L	10.0		108	70-130	9.35	25		
1,2-Dichloropropane	11.0	1.0	µg/L	10.0		110	70-130	6.65	25		
1,3-Dichloropropane	10.5	0.50	µg/L	10.0		105	70-130	4.96	25		
2,2-Dichloropropane	10.4	1.0	µg/L	10.0		104	40-130	5.45	25		†
1,1-Dichloropropene	10.4	2.0	µg/L	10.0		104	70-130	8.22	25		
cis-1,3-Dichloropropene	10.8	0.50	µg/L	10.0		108	70-130	0.836	25		
trans-1,3-Dichloropropene	10.4	0.50	µg/L	10.0		104	70-130	6.46	25		
Diethyl Ether	10.4	2.0	µg/L	10.0		104	70-130	6.86	25		
Diisopropyl Ether (DIPE)	10.4	0.50	µg/L	10.0		104	70-130	4.31	25		
1,4-Dioxane	84.6	50	µg/L	100		84.6	40-130	8.22	50		† ‡
Ethylbenzene	10.1	1.0	µg/L	10.0		101	70-130	4.57	25		
Hexachlorobutadiene	9.95	0.60	µg/L	10.0		99.5	70-130	9.58	25		
2-Hexanone (MBK)	96.1	10	µg/L	100		96.1	70-160	12.5	25		†
Isopropylbenzene (Cumene)	10.5	1.0	µg/L	10.0		105	70-130	8.37	25		
p-Isopropyltoluene (p-Cymene)	9.85	1.0	µg/L	10.0		98.5	70-130	7.59	25		
Methyl Acetate	10.5	1.0	µg/L	10.0		105	70-130	3.98	25		

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QUALITY CONTROL

Volatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC		%REC Limits	RPD	RPD Limit	Notes	
Batch B293177 - SW-846 5030B												
LCS Dup (B293177-BSD1)				Prepared & Analyzed: 10/25/21								
Methyl tert-Butyl Ether (MTBE)	9.84	1.0	µg/L	10.0		98.4		70-130	5.86	25		
Methyl Cyclohexane	9.58	1.0	µg/L	10.0		95.8		70-130	11.9	25		
Methylene Chloride	11.0	5.0	µg/L	10.0		110		70-130	2.66	25		
4-Methyl-2-pentanone (MIBK)	101	10	µg/L	100		101		70-160	9.68	25		†
Naphthalene	5.79	2.0	µg/L	10.0		57.9		40-130	16.4	25	V-05	†
n-Propylbenzene	10.0	1.0	µg/L	10.0		100		70-130	6.90	25		
Styrene	10.8	1.0	µg/L	10.0		108		70-130	6.40	25		
1,1,1,2-Tetrachloroethane	10.7	1.0	µg/L	10.0		107		70-130	4.77	25		
1,1,2,2-Tetrachloroethane	10.3	0.50	µg/L	10.0		103		70-130	7.22	25		
Tetrachloroethylene	11.5	1.0	µg/L	10.0		115		70-130	8.81	25		
Tetrahydrofuran	9.55	10	µg/L	10.0		95.5		70-130	8.63	25	J	
Toluene	10.9	1.0	µg/L	10.0		109		70-130	6.54	25		
1,2,3-Trichlorobenzene	6.92	5.0	µg/L	10.0		**69.2**	*	70-130	7.96	25	L-04, V-05	
1,2,4-Trichlorobenzene	7.79	1.0	µg/L	10.0		77.9		70-130	10.4	25	V-05	
1,3,5-Trichlorobenzene	9.18	1.0	µg/L	10.0		91.8		70-130	8.87	25		
1,1,1-Trichloroethane	10.8	1.0	µg/L	10.0		108		70-130	11.8	25		
1,1,2-Trichloroethane	10.9	1.0	µg/L	10.0		109		70-130	4.50	25		
Trichloroethylene	10.9	1.0	µg/L	10.0		109		70-130	7.54	25		
Trichlorofluoromethane (Freon 11)	10.7	2.0	µg/L	10.0		107		70-130	9.73	25		
1,2,3-Trichloropropane	9.20	2.0	µg/L	10.0		92.0		70-130	4.56	25		
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	9.82	1.0	µg/L	10.0		98.2		70-130	10.5	25		
1,2,4-Trimethylbenzene	10.2	1.0	µg/L	10.0		102		70-130	5.54	25		
1,3,5-Trimethylbenzene	9.99	1.0	µg/L	10.0		99.9		70-130	5.56	25		
Vinyl Chloride	12.7	2.0	µg/L	10.0		127		40-160	10.9	25		†
m+p Xylene	20.6	2.0	µg/L	20.0		103		70-130	7.19	25		
o-Xylene	10.6	1.0	µg/L	10.0		106		70-130	4.62	25		
Surrogate: 1,2-Dichloroethane-d4	*27.6*		µg/L	25.0		110		70-130				
Surrogate: Toluene-d8	*28.3*		µg/L	25.0		113		70-130				
Surrogate: 4-Bromofluorobenzene	*27.0*		µg/L	25.0		108		70-130				

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QUALITY CONTROL

Semivolatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B292783 - SW-846 3546										
Blank (B292783-BLK1)				Prepared: 10/19/21 Analyzed: 10/21/21						
Acenaphthene	ND	0.17	mg/Kg wet							
Acenaphthylene	ND	0.17	mg/Kg wet							
Acetophenone	ND	0.34	mg/Kg wet							
Aniline	ND	0.34	mg/Kg wet							
Anthracene	ND	0.17	mg/Kg wet							
Benzidine	ND	0.66	mg/Kg wet							V-04
Benzo(a)anthracene	ND	0.17	mg/Kg wet							
Benzo(a)pyrene	ND	0.17	mg/Kg wet							
Benzo(b)fluoranthene	ND	0.17	mg/Kg wet							
Benzo(g,h,i)perylene	ND	0.17	mg/Kg wet							
Benzo(k)fluoranthene	ND	0.17	mg/Kg wet							
Benzoic Acid	ND	1.0	mg/Kg wet							
Bis(2-chloroethoxy)methane	ND	0.34	mg/Kg wet							
Bis(2-chloroethyl)ether	ND	0.34	mg/Kg wet							
Bis(2-chloroisopropyl)ether	ND	0.34	mg/Kg wet							
Bis(2-Ethylhexyl)phthalate	ND	0.34	mg/Kg wet							
4-Bromophenylphenylether	ND	0.34	mg/Kg wet							
Butylbenzylphthalate	ND	0.34	mg/Kg wet							
Carbazole	ND	0.17	mg/Kg wet							
4-Chloroaniline	ND	0.66	mg/Kg wet							
4-Chloro-3-methylphenol	ND	0.66	mg/Kg wet							
2-Chloronaphthalene	ND	0.34	mg/Kg wet							
2-Chlorophenol	ND	0.34	mg/Kg wet							
4-Chlorophenylphenylether	ND	0.34	mg/Kg wet							
Chrysene	ND	0.17	mg/Kg wet							
Dibenz(a,h)anthracene	ND	0.17	mg/Kg wet							
Dibenzofuran	ND	0.34	mg/Kg wet							
Di-n-butylphthalate	ND	0.34	mg/Kg wet							
1,2-Dichlorobenzene	ND	0.34	mg/Kg wet							
1,3-Dichlorobenzene	ND	0.34	mg/Kg wet							
1,4-Dichlorobenzene	ND	0.34	mg/Kg wet							
3,3-Dichlorobenzidine	ND	0.17	mg/Kg wet							
2,4-Dichlorophenol	ND	0.34	mg/Kg wet							
Diethylphthalate	ND	0.34	mg/Kg wet							
2,4-Dimethylphenol	ND	0.34	mg/Kg wet							
Dimethylphthalate	ND	0.34	mg/Kg wet							
4,6-Dinitro-2-methylphenol	ND	0.34	mg/Kg wet							V-05
2,4-Dinitrophenol	ND	0.66	mg/Kg wet							V-04
2,4-Dinitrotoluene	ND	0.34	mg/Kg wet							
2,6-Dinitrotoluene	ND	0.34	mg/Kg wet							
Di-n-octylphthalate	ND	0.34	mg/Kg wet							
1,2-Diphenylhydrazine/Azobenzene	ND	0.34	mg/Kg wet							
Fluoranthene	ND	0.17	mg/Kg wet							
Fluorene	ND	0.17	mg/Kg wet							
Hexachlorobenzene	ND	0.34	mg/Kg wet							
Hexachlorobutadiene	ND	0.34	mg/Kg wet							
Hexachlorocyclopentadiene	ND	0.34	mg/Kg wet							
Hexachloroethane	ND	0.34	mg/Kg wet							
Indeno(1,2,3-cd)pyrene	ND	0.17	mg/Kg wet							
Isophorone	ND	0.34	mg/Kg wet							
1-Methylnaphthalene	ND	0.17	mg/Kg wet							
2-Methylnaphthalene	ND	0.17	mg/Kg wet							

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QUALITY CONTROL

Semivolatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B292783 - SW-846 3546										
Blank (B292783-BLK1)				Prepared: 10/19/21 Analyzed: 10/21/21						
2-Methylphenol	ND	0.34	mg/Kg wet							
3/4-Methylphenol	ND	0.34	mg/Kg wet							
Naphthalene	ND	0.17	mg/Kg wet							
2-Nitroaniline	ND	0.34	mg/Kg wet							
3-Nitroaniline	ND	0.34	mg/Kg wet							
4-Nitroaniline	ND	0.34	mg/Kg wet							
Nitrobenzene	ND	0.34	mg/Kg wet							
2-Nitrophenol	ND	0.34	mg/Kg wet							
4-Nitrophenol	ND	0.66	mg/Kg wet							
N-Nitrosodimethylamine	ND	0.34	mg/Kg wet							R-05
N-Nitrosodiphenylamine/Diphenylamine	ND	0.34	mg/Kg wet							
N-Nitrosodi-n-propylamine	ND	0.34	mg/Kg wet							
Pentachloronitrobenzene	ND	0.34	mg/Kg wet							
Pentachlorophenol	ND	0.34	mg/Kg wet							
Phenanthrene	ND	0.17	mg/Kg wet							
Phenol	ND	0.34	mg/Kg wet							
Pyrene	ND	0.17	mg/Kg wet							
Pyridine	ND	0.34	mg/Kg wet							R-05
1,2,4,5-Tetrachlorobenzene	ND	0.34	mg/Kg wet							
1,2,4-Trichlorobenzene	ND	0.34	mg/Kg wet							
2,4,5-Trichlorophenol	ND	0.34	mg/Kg wet							
2,4,6-Trichlorophenol	ND	0.34	mg/Kg wet							
Surrogate: 2-Fluorophenol	*4.66*		mg/Kg wet	6.67		69.9	30-130			
Surrogate: Phenol-d6	*4.87*		mg/Kg wet	6.67		73.1	30-130			
Surrogate: Nitrobenzene-d5	*2.20*		mg/Kg wet	3.33		66.1	30-130			
Surrogate: 2-Fluorobiphenyl	*2.39*		mg/Kg wet	3.33		71.6	30-130			
Surrogate: 2,4,6-Tribromophenol	*4.76*		mg/Kg wet	6.67		71.4	30-130			
Surrogate: p-Terphenyl-d14	*2.75*		mg/Kg wet	3.33		82.6	30-130			
LCS (B292783-BS1)				Prepared: 10/19/21 Analyzed: 10/21/21						
Acenaphthene	1.17	0.17	mg/Kg wet	1.67		70.1	40-140			
Acenaphthylene	1.23	0.17	mg/Kg wet	1.67		73.8	40-140			
Acetophenone	1.03	0.34	mg/Kg wet	1.67		62.0	40-140			
Aniline	1.04	0.34	mg/Kg wet	1.67		62.2	10-140			†
Anthracene	1.27	0.17	mg/Kg wet	1.67		76.3	40-140			
Benzidine	0.897	0.66	mg/Kg wet	1.67		53.8	40-140			V-04
Benzo(a)anthracene	1.19	0.17	mg/Kg wet	1.67		71.4	40-140			
Benzo(a)pyrene	1.35	0.17	mg/Kg wet	1.67		80.8	40-140			
Benzo(b)fluoranthene	1.26	0.17	mg/Kg wet	1.67		75.8	40-140			
Benzo(g,h,i)perylene	1.32	0.17	mg/Kg wet	1.67		79.0	40-140			
Benzo(k)fluoranthene	1.36	0.17	mg/Kg wet	1.67		81.6	40-140			
Benzoic Acid	1.28	1.0	mg/Kg wet	1.67		77.0	30-130			
Bis(2-chloroethoxy)methane	1.11	0.34	mg/Kg wet	1.67		66.6	40-140			
Bis(2-chloroethyl)ether	0.974	0.34	mg/Kg wet	1.67		58.4	40-140			
Bis(2-chloroisopropyl)ether	1.12	0.34	mg/Kg wet	1.67		67.3	40-140			
Bis(2-Ethylhexyl)phthalate	1.36	0.34	mg/Kg wet	1.67		81.6	40-140			
4-Bromophenylphenylether	1.21	0.34	mg/Kg wet	1.67		72.5	40-140			
Butylbenzylphthalate	1.32	0.34	mg/Kg wet	1.67		79.3	40-140			
Carbazole	1.28	0.17	mg/Kg wet	1.67		77.0	40-140			
4-Chloroaniline	0.907	0.66	mg/Kg wet	1.67		54.4	10-140			†
4-Chloro-3-methylphenol	1.22	0.66	mg/Kg wet	1.67		73.3	30-130			
2-Chloronaphthalene	0.983	0.34	mg/Kg wet	1.67		59.0	40-140			

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QUALITY CONTROL

Semivolatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes	
Batch B292783 - SW-846 3546											
LCS (B292783-BS1)				Prepared: 10/19/21 Analyzed: 10/21/21							
2-Chlorophenol	0.993	0.34	mg/Kg wet	1.67		59.6	30-130				
4-Chlorophenylphenylether	1.16	0.34	mg/Kg wet	1.67		69.7	40-140				
Chrysene	1.24	0.17	mg/Kg wet	1.67		74.3	40-140				
Dibenz(a,h)anthracene	1.30	0.17	mg/Kg wet	1.67		77.8	40-140				
Dibenzofuran	1.25	0.34	mg/Kg wet	1.67		74.8	40-140				
Di-n-butylphthalate	1.30	0.34	mg/Kg wet	1.67		77.8	40-140				
1,2-Dichlorobenzene	0.842	0.34	mg/Kg wet	1.67		50.5	40-140				
1,3-Dichlorobenzene	0.782	0.34	mg/Kg wet	1.67		46.9	40-140				
1,4-Dichlorobenzene	0.800	0.34	mg/Kg wet	1.67		48.0	40-140				
3,3-Dichlorobenzidine	1.02	0.17	mg/Kg wet	1.67		61.0	20-140				†
2,4-Dichlorophenol	1.13	0.34	mg/Kg wet	1.67		67.7	30-130				
Diethylphthalate	1.25	0.34	mg/Kg wet	1.67		75.0	40-140				
2,4-Dimethylphenol	1.09	0.34	mg/Kg wet	1.67		65.1	30-130				
Dimethylphthalate	1.22	0.34	mg/Kg wet	1.67		73.5	40-140				
4,6-Dinitro-2-methylphenol	1.11	0.34	mg/Kg wet	1.67		66.4	30-130			V-05	
2,4-Dinitrophenol	1.19	0.66	mg/Kg wet	1.67		71.4	30-130			V-04	
2,4-Dinitrotoluene	1.44	0.34	mg/Kg wet	1.67		86.5	40-140				
2,6-Dinitrotoluene	1.44	0.34	mg/Kg wet	1.67		86.2	40-140				
Di-n-octylphthalate	1.30	0.34	mg/Kg wet	1.67		78.0	40-140				
1,2-Diphenylhydrazine/Azobenzene	1.28	0.34	mg/Kg wet	1.67		76.9	40-140				
Fluoranthene	1.26	0.17	mg/Kg wet	1.67		75.6	40-140				
Fluorene	1.26	0.17	mg/Kg wet	1.67		75.6	40-140				
Hexachlorobenzene	1.26	0.34	mg/Kg wet	1.67		75.4	40-140				
Hexachlorobutadiene	0.851	0.34	mg/Kg wet	1.67		51.0	40-140				
Hexachlorocyclopentadiene	1.01	0.34	mg/Kg wet	1.67		60.7	40-140				
Hexachloroethane	0.824	0.34	mg/Kg wet	1.67		49.4	40-140				
Indeno(1,2,3-cd)pyrene	1.30	0.17	mg/Kg wet	1.67		78.1	40-140				
Isophorone	1.17	0.34	mg/Kg wet	1.67		70.0	40-140				
1-Methylnaphthalene	1.01	0.17	mg/Kg wet	1.67		60.6	40-140				
2-Methylnaphthalene	1.20	0.17	mg/Kg wet	1.67		72.3	40-140				
2-Methylphenol	1.16	0.34	mg/Kg wet	1.67		69.6	30-130				
3/4-Methylphenol	1.22	0.34	mg/Kg wet	1.67		73.0	30-130				
Naphthalene	1.07	0.17	mg/Kg wet	1.67		64.0	40-140				
2-Nitroaniline	1.56	0.34	mg/Kg wet	1.67		93.3	40-140				
3-Nitroaniline	1.22	0.34	mg/Kg wet	1.67		73.2	30-140				†
4-Nitroaniline	1.42	0.34	mg/Kg wet	1.67		85.3	40-140				
Nitrobenzene	1.02	0.34	mg/Kg wet	1.67		61.0	40-140				
2-Nitrophenol	1.03	0.34	mg/Kg wet	1.67		61.9	30-130				
4-Nitrophenol	1.28	0.66	mg/Kg wet	1.67		77.0	30-130				
N-Nitrosodimethylamine	0.800	0.34	mg/Kg wet	1.67		48.0	40-140			R-05	
N-Nitrosodiphenylamine/Diphenylamine	1.32	0.34	mg/Kg wet	1.67		79.1	40-140				
N-Nitrosodi-n-propylamine	1.09	0.34	mg/Kg wet	1.67		65.5	40-140				
Pentachloronitrobenzene	1.25	0.34	mg/Kg wet	1.67		75.0	40-140				
Pentachlorophenol	1.22	0.34	mg/Kg wet	1.67		72.9	30-130				
Phenanthrene	1.27	0.17	mg/Kg wet	1.67		76.0	40-140				
Phenol	1.08	0.34	mg/Kg wet	1.67		64.6	30-130				
Pyrene	1.28	0.17	mg/Kg wet	1.67		76.6	40-140				
Pyridine	0.518	0.34	mg/Kg wet	1.67		31.1	30-140			R-05	†
1,2,4,5-Tetrachlorobenzene	1.02	0.34	mg/Kg wet	1.67		61.4	40-140				
1,2,4-Trichlorobenzene	0.920	0.34	mg/Kg wet	1.67		55.2	40-140				
2,4,5-Trichlorophenol	1.23	0.34	mg/Kg wet	1.67		73.9	30-130				
2,4,6-Trichlorophenol	1.18	0.34	mg/Kg wet	1.67		71.0	30-130				

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QUALITY CONTROL

Semivolatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes	
Batch B292783 - SW-846 3546											
LCS (B292783-BS1)				Prepared: 10/19/21 Analyzed: 10/21/21							
Surrogate: 2-Fluorophenol	*4.11*		mg/Kg wet	6.67		61.6	30-130				
Surrogate: Phenol-d6	*4.51*		mg/Kg wet	6.67		67.7	30-130				
Surrogate: Nitrobenzene-d5	*2.08*		mg/Kg wet	3.33		62.5	30-130				
Surrogate: 2-Fluorobiphenyl	*2.40*		mg/Kg wet	3.33		72.1	30-130				
Surrogate: 2,4,6-Tribromophenol	*5.44*		mg/Kg wet	6.67		81.6	30-130				
Surrogate: p-Terphenyl-d14	*2.75*		mg/Kg wet	3.33		82.5	30-130				
LCS Dup (B292783-BSD1)				Prepared: 10/19/21 Analyzed: 10/21/21							
Acenaphthene	1.20	0.17	mg/Kg wet	1.67		72.3	40-140	3.06	30		
Acenaphthylene	1.24	0.17	mg/Kg wet	1.67		74.4	40-140	0.891	30		
Acetophenone	1.24	0.34	mg/Kg wet	1.67		74.5	40-140	18.3	30		
Aniline	1.11	0.34	mg/Kg wet	1.67		66.3	10-140	6.38	50		† ‡
Anthracene	1.26	0.17	mg/Kg wet	1.67		75.4	40-140	1.24	30		
Benzidine	0.817	0.66	mg/Kg wet	1.67		49.0	40-140	9.33	30	V-04	
Benzo(a)anthracene	1.16	0.17	mg/Kg wet	1.67		69.5	40-140	2.72	30		
Benzo(a)pyrene	1.30	0.17	mg/Kg wet	1.67		77.8	40-140	3.83	30		
Benzo(b)fluoranthene	1.20	0.17	mg/Kg wet	1.67		72.1	40-140	4.97	30		
Benzo(g,h,i)perylene	1.23	0.17	mg/Kg wet	1.67		73.8	40-140	6.80	30		
Benzo(k)fluoranthene	1.33	0.17	mg/Kg wet	1.67		79.5	40-140	2.51	30		
Benzoic Acid	1.35	1.0	mg/Kg wet	1.67		81.2	30-130	5.26	50		‡
Bis(2-chloroethoxy)methane	1.26	0.34	mg/Kg wet	1.67		75.5	40-140	12.5	30		
Bis(2-chloroethyl)ether	1.20	0.34	mg/Kg wet	1.67		72.1	40-140	20.9	30		
Bis(2-chloroisopropyl)ether	1.39	0.34	mg/Kg wet	1.67		83.1	40-140	21.1	30		
Bis(2-Ethylhexyl)phthalate	1.33	0.34	mg/Kg wet	1.67		79.7	40-140	2.33	30		
4-Bromophenylphenylether	1.13	0.34	mg/Kg wet	1.67		67.8	40-140	6.64	30		
Butylbenzylphthalate	1.30	0.34	mg/Kg wet	1.67		77.7	40-140	1.99	30		
Carbazole	1.23	0.17	mg/Kg wet	1.67		73.6	40-140	4.54	30		
4-Chloroaniline	0.791	0.66	mg/Kg wet	1.67		47.5	10-140	13.6	30		†
4-Chloro-3-methylphenol	1.22	0.66	mg/Kg wet	1.67		73.1	30-130	0.328	30		
2-Chloronaphthalene	1.02	0.34	mg/Kg wet	1.67		61.0	40-140	3.33	30		
2-Chlorophenol	1.20	0.34	mg/Kg wet	1.67		72.0	30-130	18.8	30		
4-Chlorophenylphenylether	1.15	0.34	mg/Kg wet	1.67		69.1	40-140	0.922	30		
Chrysene	1.21	0.17	mg/Kg wet	1.67		72.7	40-140	2.20	30		
Dibenz(a,h)anthracene	1.22	0.17	mg/Kg wet	1.67		73.1	40-140	6.28	30		
Dibenzofuran	1.23	0.34	mg/Kg wet	1.67		73.8	40-140	1.35	30		
Di-n-butylphthalate	1.24	0.34	mg/Kg wet	1.67		74.3	40-140	4.58	30		
1,2-Dichlorobenzene	1.10	0.34	mg/Kg wet	1.67		65.8	40-140	26.2	30		
1,3-Dichlorobenzene	1.05	0.34	mg/Kg wet	1.67		62.9	40-140	29.0	30		
1,4-Dichlorobenzene	1.06	0.34	mg/Kg wet	1.67		63.8	40-140	28.3	30		
3,3-Dichlorobenzidine	0.954	0.17	mg/Kg wet	1.67		57.2	20-140	6.29	50		† ‡
2,4-Dichlorophenol	1.20	0.34	mg/Kg wet	1.67		72.1	30-130	6.38	30		
Diethylphthalate	1.22	0.34	mg/Kg wet	1.67		73.3	40-140	2.21	30		
2,4-Dimethylphenol	1.19	0.34	mg/Kg wet	1.67		71.2	30-130	8.89	30		
Dimethylphthalate	1.20	0.34	mg/Kg wet	1.67		72.0	40-140	1.98	30		
4,6-Dinitro-2-methylphenol	1.10	0.34	mg/Kg wet	1.67		65.7	30-130	0.969	30	V-05	
2,4-Dinitrophenol	1.24	0.66	mg/Kg wet	1.67		74.2	30-130	3.93	30	V-04	
2,4-Dinitrotoluene	1.34	0.34	mg/Kg wet	1.67		80.7	40-140	6.96	30		
2,6-Dinitrotoluene	1.39	0.34	mg/Kg wet	1.67		83.5	40-140	3.23	30		
Di-n-octylphthalate	1.28	0.34	mg/Kg wet	1.67		76.7	40-140	1.63	30		
1,2-Diphenylhydrazine/Azobenzene	1.26	0.34	mg/Kg wet	1.67		75.9	40-140	1.28	30		
Fluoranthene	1.19	0.17	mg/Kg wet	1.67		71.3	40-140	5.88	30		
Fluorene	1.26	0.17	mg/Kg wet	1.67		75.6	40-140	0.00	30		

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QUALITY CONTROL

Semivolatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD		RPD Limit	Notes	
Batch B292783 - SW-846 3546												
LCS Dup (B292783-BSD1)				Prepared: 10/19/21 Analyzed: 10/21/21								
Hexachlorobenzene	1.19	0.34	mg/Kg wet	1.67		71.3	40-140	5.59		30		
Hexachlorobutadiene	1.10	0.34	mg/Kg wet	1.67		66.3	40-140	26.0		30		
Hexachlorocyclopentadiene	1.20	0.34	mg/Kg wet	1.67		71.9	40-140	16.8		30		
Hexachloroethane	1.11	0.34	mg/Kg wet	1.67		66.7	40-140	29.8		30		
Indeno(1,2,3-cd)pyrene	1.27	0.17	mg/Kg wet	1.67		76.5	40-140	2.15		30		
Isophorone	1.30	0.34	mg/Kg wet	1.67		77.9	40-140	10.7		30		
1-Methylnaphthalene	1.11	0.17	mg/Kg wet	1.67		66.6	40-140	9.46		30		
2-Methylnaphthalene	1.32	0.17	mg/Kg wet	1.67		79.5	40-140	9.52		30		
2-Methylphenol	1.28	0.34	mg/Kg wet	1.67		77.1	30-130	10.2		30		
3/4-Methylphenol	1.30	0.34	mg/Kg wet	1.67		77.9	30-130	6.44		30		
Naphthalene	1.22	0.17	mg/Kg wet	1.67		72.9	40-140	13.1		30		
2-Nitroaniline	1.57	0.34	mg/Kg wet	1.67		94.2	40-140	0.917		30		
3-Nitroaniline	1.13	0.34	mg/Kg wet	1.67		67.8	30-140	7.66		30		†
4-Nitroaniline	1.33	0.34	mg/Kg wet	1.67		79.9	40-140	6.56		30		
Nitrobenzene	1.19	0.34	mg/Kg wet	1.67		71.3	40-140	15.5		30		
2-Nitrophenol	1.22	0.34	mg/Kg wet	1.67		73.0	30-130	16.4		30		
4-Nitrophenol	1.25	0.66	mg/Kg wet	1.67		75.3	30-130	2.28		50		‡
N-Nitrosodimethylamine	1.15	0.34	mg/Kg wet	1.67		69.2	40-140	**36.2**	*	30	R-05	
N-Nitrosodiphenylamine/Diphenylamine	1.26	0.34	mg/Kg wet	1.67		75.5	40-140	4.68		30		
N-Nitrosodi-n-propylamine	1.28	0.34	mg/Kg wet	1.67		76.7	40-140	15.7		30		
Pentachloronitrobenzene	1.18	0.34	mg/Kg wet	1.67		70.8	40-140	5.81		30		
Pentachlorophenol	1.14	0.34	mg/Kg wet	1.67		68.3	30-130	6.60		30		
Phenanthrene	1.23	0.17	mg/Kg wet	1.67		73.6	40-140	3.24		30		
Phenol	1.18	0.34	mg/Kg wet	1.67		71.1	30-130	9.58		30		
Pyrene	1.25	0.17	mg/Kg wet	1.67		74.8	40-140	2.40		30		
Pyridine	0.715	0.34	mg/Kg wet	1.67		42.9	30-140	**31.9**	*	30	R-05	†
1,2,4,5-Tetrachlorobenzene	1.16	0.34	mg/Kg wet	1.67		69.4	40-140	12.3		30		
1,2,4-Trichlorobenzene	1.14	0.34	mg/Kg wet	1.67		68.3	40-140	21.2		30		
2,4,5-Trichlorophenol	1.27	0.34	mg/Kg wet	1.67		76.0	30-130	2.78		30		
2,4,6-Trichlorophenol	1.22	0.34	mg/Kg wet	1.67		73.4	30-130	3.27		30		
Surrogate: 2-Fluorophenol	*4.95*		mg/Kg wet	6.67		74.2	30-130					
Surrogate: Phenol-d6	*4.92*		mg/Kg wet	6.67		73.9	30-130					
Surrogate: Nitrobenzene-d5	*2.44*		mg/Kg wet	3.33		73.1	30-130					
Surrogate: 2-Fluorobiphenyl	*2.52*		mg/Kg wet	3.33		75.7	30-130					
Surrogate: 2,4,6-Tribromophenol	*5.18*		mg/Kg wet	6.67		77.7	30-130					
Surrogate: p-Terphenyl-d14	*2.66*		mg/Kg wet	3.33		79.8	30-130					

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QUALITY CONTROL

Petroleum Hydrocarbons Analyses - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B292550 - SW-846 5030B										
Blank (B292550-BLK1)				Prepared: 10/15/21 Analyzed: 10/16/21						
Gasoline Range Organics (GRO)	ND	1.0	mg/Kg wet							
Surrogate: 1-Chloro-3-fluorobenzene	*16.8*		µg/L	15.0		112	70-130			
LCS (B292550-BS1)				Prepared & Analyzed: 10/15/21						
Gasoline Range Organics (GRO)	24.5	1.0	mg/Kg wet	25.0		98.0	80-120			
Surrogate: 1-Chloro-3-fluorobenzene	*16.8*		µg/L	15.0		112	70-130			
LCS Dup (B292550-BSD1)				Prepared & Analyzed: 10/15/21						
Gasoline Range Organics (GRO)	25.1	1.0	mg/Kg wet	25.0		101	80-120	2.57	30	
Surrogate: 1-Chloro-3-fluorobenzene	*15.7*		µg/L	15.0		104	70-130			
Batch B292666 - SW-846 5030B										
Blank (B292666-BLK1)				Prepared: 10/18/21 Analyzed: 10/19/21						
Gasoline Range Organics (GRO)	ND	1.0	mg/Kg wet							
Surrogate: 1-Chloro-3-fluorobenzene	*15.9*		µg/L	15.0		106	70-130			
LCS (B292666-BS1)				Prepared: 10/18/21 Analyzed: 10/19/21						
Gasoline Range Organics (GRO)	24.3	1.0	mg/Kg wet	25.0		97.3	80-120			
Surrogate: 1-Chloro-3-fluorobenzene	*15.6*		µg/L	15.0		104	70-130			
LCS Dup (B292666-BSD1)				Prepared: 10/18/21 Analyzed: 10/19/21						
Gasoline Range Organics (GRO)	24.5	1.0	mg/Kg wet	25.0		97.8	80-120	0.490	30	
Surrogate: 1-Chloro-3-fluorobenzene	*15.5*		µg/L	15.0		103	70-130			
Batch B292690 - SW-846 3546										
Blank (B292690-BLK1)				Prepared: 10/18/21 Analyzed: 10/20/21						
Diesel Range Organics	ND	8.3	mg/Kg wet							
Surrogate: 2-Fluorobiphenyl	*2.26*		mg/Kg wet	3.33		67.7	40-140			
LCS (B292690-BS1)				Prepared: 10/18/21 Analyzed: 10/20/21						
Diesel Range Organics	23.9	8.3	mg/Kg wet	33.3		71.6	40-140			
Surrogate: 2-Fluorobiphenyl	*2.49*		mg/Kg wet	3.33		74.6	40-140			
LCS Dup (B292690-BSD1)				Prepared: 10/18/21 Analyzed: 10/20/21						
Diesel Range Organics	24.6	8.3	mg/Kg wet	33.3		73.9	40-140	3.24	30	
Surrogate: 2-Fluorobiphenyl	*2.44*		mg/Kg wet	3.33		73.3	40-140			
Batch B292856 - SW-846 5030B										
Blank (B292856-BLK1)				Prepared: 10/20/21 Analyzed: 10/21/21						
Gasoline Range Organics (GRO)	ND	0.010	mg/L							
Surrogate: 1-Chloro-3-fluorobenzene	*16.9*		µg/L	15.0		113	70-130			

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QUALITY CONTROL

Petroleum Hydrocarbons Analyses - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B292856 - SW-846 5030B										
LCS (B292856-BS1)				Prepared: 10/20/21 Analyzed: 10/21/21						
Gasoline Range Organics (GRO)	0.242	0.010	mg/L	0.250		96.7	80-120			
Surrogate: 1-Chloro-3-fluorobenzene	*16.1*		µg/L	15.0		107	70-130			
LCS Dup (B292856-BSD1)				Prepared: 10/20/21 Analyzed: 10/21/21						
Gasoline Range Organics (GRO)	0.245	0.010	mg/L	0.250		98.1	80-120	1.52	30	
Surrogate: 1-Chloro-3-fluorobenzene	*16.4*		µg/L	15.0		110	70-130			
Batch B293162 - SW-846 5030B										
Blank (B293162-BLK1)				Prepared & Analyzed: 10/25/21						
Gasoline Range Organics (GRO)	ND	0.010	mg/L							
Surrogate: 1-Chloro-3-fluorobenzene	*14.7*		µg/L	15.0		97.8	70-130			
LCS (B293162-BS1)				Prepared & Analyzed: 10/25/21						
Gasoline Range Organics (GRO)	0.244	0.010	mg/L	0.250		97.7	80-120			
Surrogate: 1-Chloro-3-fluorobenzene	*15.3*		µg/L	15.0		102	70-130			
LCS Dup (B293162-BSD1)				Prepared & Analyzed: 10/25/21						
Gasoline Range Organics (GRO)	0.241	0.010	mg/L	0.250		96.5	80-120	1.23	30	
Surrogate: 1-Chloro-3-fluorobenzene	*14.4*		µg/L	15.0		95.7	70-130			

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QUALITY CONTROL

Metals Analyses (Total) - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B292559 - SW-846 3050B										
Blank (B292559-BLK1)				Prepared: 10/15/21 Analyzed: 10/17/21						
Aluminum	ND	17	mg/Kg wet							
Antimony	ND	1.7	mg/Kg wet							
Arsenic	ND	3.3	mg/Kg wet							
Barium	ND	1.7	mg/Kg wet							
Beryllium	ND	0.17	mg/Kg wet							
Cadmium	ND	0.33	mg/Kg wet							
Calcium	ND	17	mg/Kg wet							
Chromium	ND	0.66	mg/Kg wet							
Cobalt	ND	1.7	mg/Kg wet							
Copper	ND	0.66	mg/Kg wet							
Iron	ND	17	mg/Kg wet							
Lead	ND	0.50	mg/Kg wet							
Magnesium	ND	17	mg/Kg wet							
Manganese	ND	0.33	mg/Kg wet							
Nickel	ND	0.66	mg/Kg wet							
Potassium	ND	170	mg/Kg wet							
Selenium	ND	3.3	mg/Kg wet							
Silver	ND	0.33	mg/Kg wet							
Sodium	ND	170	mg/Kg wet							
Thallium	ND	1.7	mg/Kg wet							
Vanadium	ND	0.66	mg/Kg wet							
Zinc	ND	0.66	mg/Kg wet							
LCS (B292559-BS1)				Prepared: 10/15/21 Analyzed: 10/17/21						
Aluminum	7330	50	mg/Kg wet	8110		90.4	48.1-151.7			
Antimony	114	5.0	mg/Kg wet	134		85.1	1.9-200.7			
Arsenic	157	10	mg/Kg wet	170		92.3	82.9-117.6			
Barium	184	5.0	mg/Kg wet	183		101	82.5-117.5			
Beryllium	117	0.50	mg/Kg wet	116		101	83.4-116.4			
Cadmium	89.9	1.0	mg/Kg wet	89.5		100	82.8-117.3			
Calcium	4590	50	mg/Kg wet	4810		95.3	81.7-118.1			
Chromium	99.4	2.0	mg/Kg wet	101		98.4	82.1-117.8			
Cobalt	85.9	5.0	mg/Kg wet	84.8		101	83.5-116.5			
Copper	152	2.0	mg/Kg wet	149		102	83.9-116.1			
Iron	11900	50	mg/Kg wet	14100		84.2	60-139.7			
Lead	135	1.5	mg/Kg wet	140		96.2	82.9-117.1			
Magnesium	2290	50	mg/Kg wet	2350		97.3	76.2-123.8			
Manganese	653	1.0	mg/Kg wet	648		101	81.8-118.2			
Nickel	69.1	2.0	mg/Kg wet	68.3		101	82.1-117.7			
Potassium	1960	500	mg/Kg wet	2050		95.5	69.8-129.8			
Selenium	162	10	mg/Kg wet	182		89.0	79.7-120.3			
Silver	49.0	1.0	mg/Kg wet	50.1		97.7	80.2-120			
Sodium	121	500	mg/Kg wet	136		89.3	71.6-127.9			J
Thallium	94.9	5.0	mg/Kg wet	87.7		108	81.1-118.6			
Vanadium	152	2.0	mg/Kg wet	153		99.6	79.1-120.9			
Zinc	218	2.0	mg/Kg wet	228		95.8	80.7-118.9			

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QUALITY CONTROL

Metals Analyses (Total) - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B292559 - SW-846 3050B										
LCS Dup (B292559-BSD1)				Prepared: 10/15/21 Analyzed: 10/17/21						
Aluminum	7590	50	mg/Kg wet	8110		93.6	48.1-151.7	3.40	30	
Antimony	118	5.0	mg/Kg wet	134		88.2	1.9-200.7	3.49	30	
Arsenic	160	10	mg/Kg wet	170		94.3	82.9-117.6	2.16	30	
Barium	182	5.0	mg/Kg wet	183		99.2	82.5-117.5	1.56	20	
Beryllium	119	0.50	mg/Kg wet	116		103	83.4-116.4	1.69	30	
Cadmium	91.6	1.0	mg/Kg wet	89.5		102	82.8-117.3	1.77	20	
Calcium	4760	50	mg/Kg wet	4810		98.9	81.7-118.1	3.69	30	
Chromium	103	2.0	mg/Kg wet	101		102	82.1-117.8	3.39	30	
Cobalt	87.7	5.0	mg/Kg wet	84.8		103	83.5-116.5	2.07	20	
Copper	155	2.0	mg/Kg wet	149		104	83.9-116.1	2.06	30	
Iron	12400	50	mg/Kg wet	14100		87.8	60-139.7	4.10	30	
Lead	154	1.5	mg/Kg wet	140		110	82.9-117.1	13.7	30	
Magnesium	2370	50	mg/Kg wet	2350		101	76.2-123.8	3.40	30	
Manganese	646	1.0	mg/Kg wet	648		99.6	81.8-118.2	1.11	30	
Nickel	71.2	2.0	mg/Kg wet	68.3		104	82.1-117.7	3.03	30	
Potassium	2010	500	mg/Kg wet	2050		98.0	69.8-129.8	2.61	30	
Selenium	172	10	mg/Kg wet	182		94.3	79.7-120.3	5.78	30	
Silver	49.6	1.0	mg/Kg wet	50.1		99.0	80.2-120	1.27	30	
Sodium	129	500	mg/Kg wet	136		94.5	71.6-127.9	5.64	30	J
Thallium	97.2	5.0	mg/Kg wet	87.7		111	81.1-118.6	2.43	30	
Vanadium	157	2.0	mg/Kg wet	153		102	79.1-120.9	2.90	30	
Zinc	223	2.0	mg/Kg wet	228		97.7	80.7-118.9	2.01	30	
Duplicate (B292559-DUP1)	**Source: 21J0887-02**			Prepared: 10/15/21 Analyzed: 10/17/21						
Aluminum	9660	20	mg/Kg dry		9440			2.34	35	
Antimony	ND	2.0	mg/Kg dry		ND			NC	35	
Arsenic	6.67	3.9	mg/Kg dry		7.57			12.7	35	
Barium	65.2	2.0	mg/Kg dry		58.4			11.0	35	
Beryllium	0.580	0.20	mg/Kg dry		0.558			3.72	35	
Cadmium	ND	0.39	mg/Kg dry		ND			NC	35	
Calcium	483	20	mg/Kg dry		473			2.19	35	
Chromium	14.9	0.78	mg/Kg dry		14.8			1.07	35	
Cobalt	5.43	2.0	mg/Kg dry		5.23			3.68	35	
Copper	18.9	0.78	mg/Kg dry		19.0			0.636	35	
Iron	22100	98	mg/Kg dry		23100			4.13	35	
Lead	10.9	0.59	mg/Kg dry		10.8			0.556	35	
Magnesium	992	20	mg/Kg dry		952			4.09	35	
Manganese	96.4	0.39	mg/Kg dry		81.7			16.5	35	
Nickel	12.2	0.78	mg/Kg dry		11.7			4.13	35	
Potassium	752	200	mg/Kg dry		668			11.8	35	
Selenium	ND	3.9	mg/Kg dry		ND			NC	35	
Silver	ND	0.39	mg/Kg dry		ND			NC	35	
Sodium	ND	200	mg/Kg dry		ND			NC	35	
Thallium	ND	2.0	mg/Kg dry		ND			NC	35	
Vanadium	25.0	0.78	mg/Kg dry		24.8			0.887	35	
Zinc	34.1	0.78	mg/Kg dry		33.5			1.74	35	

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QUALITY CONTROL

Metals Analyses (Total) - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC		%REC Limits	RPD	RPD Limit	Notes
Batch B292559 - SW-846 3050B											
Matrix Spike (B292559-MS1)	**Source: 21J0887-02**			Prepared: 10/15/21 Analyzed: 10/17/21							
Aluminum	10600	20	mg/Kg dry	19.8	9440	**6110**	*	75-125			MS-19
Antimony	6.87	2.0	mg/Kg dry	19.8	ND	**34.7**	*	75-125			MS-07
Arsenic	23.4	4.0	mg/Kg dry	19.8	7.57	79.7		75-125			
Barium	81.8	2.0	mg/Kg dry	19.8	58.4	118		75-125			
Beryllium	20.3	0.20	mg/Kg dry	19.8	0.558	99.7		75-125			
Cadmium	18.8	0.40	mg/Kg dry	19.8	ND	95.1		75-125			
Calcium	756	20	mg/Kg dry	159	473	**179**	*	75-125			MS-11
Chromium	33.5	0.79	mg/Kg dry	19.8	14.8	94.5		75-125			
Cobalt	23.9	2.0	mg/Kg dry	19.8	5.23	94.0		75-125			
Copper	58.8	0.79	mg/Kg dry	39.6	19.0	101		75-125			
Iron	21000	99	mg/Kg dry	159	23100	**-1270**	*	75-125			MS-19
Lead	29.2	0.59	mg/Kg dry	19.8	10.8	92.6		75-125			
Magnesium	1180	20	mg/Kg dry	159	952	**144**	*	75-125			MS-19
Manganese	109	0.40	mg/Kg dry	19.8	81.7	**138**	*	75-125			MS-11
Nickel	31.1	0.79	mg/Kg dry	19.8	11.7	97.9		75-125			
Potassium	783	200	mg/Kg dry	159	668	**72.8**	*	75-125			MS-19
Selenium	14.3	4.0	mg/Kg dry	19.8	ND	**72.0**	*	75-125			MS-07
Silver	17.8	0.40	mg/Kg dry	19.8	ND	90.0		75-125			
Sodium	197	200	mg/Kg dry	159	ND	124		75-125			J
Thallium	21.0	2.0	mg/Kg dry	19.8	ND	106		75-125			
Vanadium	44.1	0.79	mg/Kg dry	19.8	24.8	97.2		75-125			
Zinc	71.0	0.79	mg/Kg dry	39.6	33.5	94.7		75-125			
Reference (B292559-SRM1) MRL CHECK				Prepared: 10/15/21 Analyzed: 10/17/21							
Lead	0.462	0.50	mg/Kg wet	0.498		92.9		80-120			J
Batch B292571 - SW-846 7471											
Blank (B292571-BLK1)				Prepared: 10/15/21 Analyzed: 10/21/21							
Mercury	ND	0.025	mg/Kg wet								
LCS (B292571-BS1)				Prepared: 10/15/21 Analyzed: 10/21/21							
Mercury	20.2	0.75	mg/Kg wet	15.6		129		59.3-140.4			
LCS Dup (B292571-BSD1)				Prepared: 10/15/21 Analyzed: 10/21/21							
Mercury	19.8	0.75	mg/Kg wet	15.6		127		59.3-140.4	1.66	20	

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QUALITY CONTROL

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total) - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B292587 - SW-846 9045C										
LCS (B292587-BS1)				Prepared & Analyzed: 10/15/21						
pH	6.01		pH Units	6.00		100	90-110			
LCS (B292587-BS2)				Prepared & Analyzed: 10/15/21						
pH	5.99		pH Units	6.00		99.8	90-110			
Duplicate (B292587-DUP1)	**Source: 21J0887-10**			Prepared & Analyzed: 10/15/21						
pH	5.9		pH Units		5.6			4.50	10	
Batch B292627 - SW-846 9010C										
Blank (B292627-BLK1)				Prepared: 10/18/21 Analyzed: 10/19/21						
Cyanide	ND	0.50	mg/Kg wet							
LCS (B292627-BS1)				Prepared: 10/18/21 Analyzed: 10/19/21						
Cyanide	79	2.5	mg/Kg wet	70.0		113	80-120			
LCS Dup (B292627-BSD1)				Prepared: 10/18/21 Analyzed: 10/19/21						
Cyanide	78	2.5	mg/Kg wet	69.8		112	80-120	0.667	20	
Matrix Spike (B292627-MS2)	**Source: 21J0887-10**			Prepared: 10/18/21 Analyzed: 10/19/21						
Cyanide	21	0.61	mg/Kg dry	22.9	ND	91.9	75-125			
Matrix Spike Dup (B292627-MSD2)	**Source: 21J0887-10**			Prepared: 10/18/21 Analyzed: 10/19/21						
Cyanide	21	0.61	mg/Kg dry	22.8	ND	94.0	75-125	1.69	35	
Batch B292770 - SW-846 9010C										
Blank (B292770-BLK1)				Prepared: 10/19/21 Analyzed: 10/20/21						
Cyanide	ND	0.43	mg/Kg wet							
LCS (B292770-BS1)				Prepared: 10/19/21 Analyzed: 10/20/21						
Cyanide	74	2.4	mg/Kg wet	68.5		108	80-120			
LCS Dup (B292770-BSD1)				Prepared: 10/19/21 Analyzed: 10/20/21						
Cyanide	72	2.4	mg/Kg wet	68.1		105	80-120	2.77	20	

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FLAG/QUALIFIER SUMMARY

*	QC result is outside of established limits.
†	Wide recovery limits established for difficult compound.
‡	Wide RPD limits established for difficult compound.
#	Data exceeded client recommended or regulatory level
ND	Not Detected
RL	Reporting Limit is at the level of quantitation (LOQ)
DL	Detection Limit is the lower limit of detection determined by the MDL study
MCL	Maximum Contaminant Level
	Percent recoveries and relative percent differences (RPDs) are determined by the software using values in the calculation which have not been rounded.
	No results have been blank subtracted unless specified in the case narrative section.
H-03	Sample received after recommended holding time was exceeded.
J	Detected but below the Reporting Limit (lowest calibration standard); therefore, result is an estimated concentration (CLP J-Flag).
L-04	Laboratory fortified blank/laboratory control sample recovery and duplicate recovery are outside of control limits. Reported value for this compound is likely to be biased on the low side.
MS-07	Matrix spike recovery is outside of control limits. Analysis is in control based on laboratory fortified blank recovery.Possibility of sample matrix effects that lead to low bias for reported result or non-homogeneous sample aliquot cannot be eliminated.
MS-11	Matrix spike recovery outside of control limits. Possibility of sample matrix effects that lead to a high bias for reported result or non-homogeneous sample aliquots cannot be eliminated.
MS-19	Sample to spike ratio is greater than or equal to 4:1. Spiked amount is not representative of the native amount in the sample. Appropriate or meaningful recoveries cannot be calculated.
R-05	Laboratory fortified blank duplicate RPD is outside of control limits. Reduced precision is anticipated for any reported value for this compound.
V-04	Initial calibration did not meet method specifications. Compound was calibrated using a response factor where %RSD is outside of method specified criteria. Reported result is estimated.
V-05	Continuing calibration verification (CCV) did not meet method specifications and was biased on the low side for this compound.
V-20	Continuing calibration verification (CCV) did not meet method specifications and was biased on the high side. Data validation is not affected since sample result was "not detected" for this compound.
V-34	Initial calibration verification (ICV) did not meet method specifications and was biased on the low side for this compound. Reported result is estimated.
V-36	Initial calibration verification (ICV) did not meet method specifications and was biased on the high side. Data validation is not affected since sample result was "not detected" for this compound.

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CERTIFICATIONS

Certified Analyses included in this Report

Analyte	Certifications
SW-846 6010D in Soil	
Aluminum	CT,NH,NY,ME,VA,NC
Antimony	CT,NH,NY,ME,VA,NC
Arsenic	CT,NH,NY,ME,VA,NC
Barium	CT,NH,NY,ME,VA,NC
Beryllium	CT,NH,NY,ME,VA,NC
Cadmium	CT,NH,NY,ME,VA,NC
Calcium	CT,NH,NY,ME,VA,NC
Chromium	CT,NH,NY,ME,VA,NC
Cobalt	CT,NH,NY,ME,VA,NC
Copper	CT,NH,NY,ME,VA,NC
Iron	CT,NH,NY,ME,VA,NC
Lead	CT,NH,NY,AIHA,ME,VA,NC
Magnesium	CT,NH,NY,ME,VA,NC
Manganese	CT,NH,NY,ME,VA,NC
Nickel	CT,NH,NY,ME,VA,NC
Potassium	CT,NH,NY,ME,VA,NC
Selenium	CT,NH,NY,ME,VA,NC
Silver	CT,NH,NY,ME,VA,NC
Sodium	CT,NH,NY,ME,VA,NC
Thallium	CT,NH,NY,ME,VA,NC
Vanadium	CT,NH,NY,ME,VA,NC
Zinc	CT,NH,NY,ME,VA,NC
SW-846 7471B in Soil	
Mercury	CT,NH,NY,NC,ME,VA
SW-846 8015C in Soil	
Gasoline Range Organics (GRO)	NY,VA,NH,NC
Diesel Range Organics	NY,VA,NH,NC
SW-846 8015C in Water	
Gasoline Range Organics (GRO)	NY,VA,NH,NC
Diesel Range Organics	NY,VA,NH,NC
SW-846 8260D in Soil	
Acetone	CT,NH,NY,ME,VA
Acrylonitrile	CT,NH,NY,ME,VA
Benzene	CT,NH,NY,ME,VA
Bromobenzene	NH,NY,ME,VA
Bromochloromethane	NH,NY,ME,VA
Bromodichloromethane	CT,NH,NY,ME,VA
Bromoform	CT,NH,NY,ME,VA
Bromomethane	CT,NH,NY,ME,VA
2-Butanone (MEK)	CT,NH,NY,ME,VA
tert-Butyl Alcohol (TBA)	NY,ME
n-Butylbenzene	CT,NH,NY,ME,VA
sec-Butylbenzene	CT,NH,NY,ME,VA
tert-Butylbenzene	CT,NH,NY,ME,VA
Carbon Disulfide	CT,NH,NY,ME,VA

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CERTIFICATIONS

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Analyte	Certifications
SW-846 8260D in Soil	
Carbon Tetrachloride	CT,NH,NY,ME,VA
Chlorobenzene	CT,NH,NY,ME,VA
Chlorodibromomethane	CT,NH,NY,ME,VA
Chloroethane	CT,NH,NY,ME,VA
Chloroform	CT,NH,NY,ME,VA
Chloromethane	CT,NH,NY,ME,VA
2-Chlorotoluene	CT,NH,NY,ME,VA
4-Chlorotoluene	CT,NH,NY,ME,VA
1,2-Dibromo-3-chloropropane (DBCP)	NY,ME
1,2-Dibromoethane (EDB)	NH,NY
Dibromomethane	NH,NY,ME,VA
1,2-Dichlorobenzene	CT,NH,NY,ME,VA
1,3-Dichlorobenzene	CT,NH,NY,ME,VA
1,4-Dichlorobenzene	CT,NH,NY,ME,VA
trans-1,4-Dichloro-2-butene	NY,ME
Dichlorodifluoromethane (Freon 12)	NH,NY,ME,VA
1,1-Dichloroethane	CT,NH,NY,ME,VA
1,2-Dichloroethane	CT,NH,NY,ME,VA
1,1-Dichloroethylene	CT,NH,NY,ME,VA
cis-1,2-Dichloroethylene	CT,NH,NY,ME,VA
trans-1,2-Dichloroethylene	CT,NH,NY,ME,VA
1,2-Dichloropropane	CT,NH,NY,ME,VA
1,3-Dichloropropane	NH,NY,ME,VA
2,2-Dichloropropane	NH,NY,ME,VA
1,1-Dichloropropene	NH,NY,ME,VA
cis-1,3-Dichloropropene	CT,NH,NY,ME,VA
trans-1,3-Dichloropropene	CT,NH,NY,ME,VA
Diethyl Ether	ME
1,4-Dioxane	NY,ME
Ethylbenzene	CT,NH,NY,ME,VA
Hexachlorobutadiene	NH,NY,ME,VA
2-Hexanone (MBK)	CT,NH,NY,ME,VA
Isopropylbenzene (Cumene)	CT,NH,NY,ME,VA
p-Isopropyltoluene (p-Cymene)	NH,NY
Methyl Acetate	NY,ME
Methyl tert-Butyl Ether (MTBE)	NY,ME,VA
Methyl Cyclohexane	NY
Methylene Chloride	CT,NH,NY,ME,VA
4-Methyl-2-pentanone (MIBK)	CT,NH,NY,ME,VA
Naphthalene	NH,NY,ME,VA
n-Propylbenzene	NH,NY,ME
Styrene	CT,NH,NY,ME,VA
1,1,1,2-Tetrachloroethane	CT,NH,NY,ME,VA
1,1,2,2-Tetrachloroethane	CT,NH,NY,ME,VA
Tetrachloroethylene	CT,NH,NY,ME,VA
Toluene	CT,NH,NY,ME,VA
1,2,3-Trichlorobenzene	NY,ME

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CERTIFICATIONS

Certified Analyses included in this Report

Analyte	Certifications
SW-846 8260D in Soil	
1,2,4-Trichlorobenzene	NH,NY,ME,VA
1,3,5-Trichlorobenzene	ME
1,1,1-Trichloroethane	CT,NH,NY,ME,VA
1,1,2-Trichloroethane	CT,NH,NY,ME,VA
Trichloroethylene	CT,NH,NY,ME,VA
Trichlorofluoromethane (Freon 11)	CT,NH,NY,ME,VA
1,2,3-Trichloropropane	NH,NY,ME,VA
1,2,4-Trimethylbenzene	CT,NH,NY,ME,VA
1,3,5-Trimethylbenzene	CT,NH,NY,ME,VA
Vinyl Chloride	CT,NH,NY,ME,VA
m+p Xylene	CT,NH,NY,ME,VA
o-Xylene	CT,NH,NY,ME,VA
SW-846 8260D in Water	
Acetone	CT,ME,NH,VA,NY
Acrylonitrile	CT,ME,NH,VA,NY
tert-Amyl Methyl Ether (TAME)	ME,NH,VA,NY
Benzene	CT,ME,NH,VA,NY
Bromobenzene	ME,NY
Bromochloromethane	ME,NH,VA,NY
Bromodichloromethane	CT,ME,NH,VA,NY
Bromoform	CT,ME,NH,VA,NY
Bromomethane	CT,ME,NH,VA,NY
2-Butanone (MEK)	CT,ME,NH,VA,NY
tert-Butyl Alcohol (TBA)	ME,NH,VA,NY
n-Butylbenzene	ME,VA,NY
sec-Butylbenzene	ME,VA,NY
tert-Butylbenzene	ME,VA,NY
tert-Butyl Ethyl Ether (TBEE)	ME,NH,VA,NY
Carbon Disulfide	CT,ME,NH,VA,NY
Carbon Tetrachloride	CT,ME,NH,VA,NY
Chlorobenzene	CT,ME,NH,VA,NY
Chlorodibromomethane	CT,ME,NH,VA,NY
Chloroethane	CT,ME,NH,VA,NY
Chloroform	CT,ME,NH,VA,NY
Chloromethane	CT,ME,NH,VA,NY
2-Chlorotoluene	ME,NH,VA,NY
4-Chlorotoluene	ME,NH,VA,NY
1,2-Dibromo-3-chloropropane (DBCP)	ME,NY
1,2-Dibromoethane (EDB)	ME,NY
Dibromomethane	ME,NH,VA,NY
1,2-Dichlorobenzene	CT,ME,NH,VA,NY
1,3-Dichlorobenzene	CT,ME,NH,VA,NY
1,4-Dichlorobenzene	CT,ME,NH,VA,NY
trans-1,4-Dichloro-2-butene	ME,NH,VA,NY
Dichlorodifluoromethane (Freon 12)	ME,NH,VA,NY
1,1-Dichloroethane	CT,ME,NH,VA,NY

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CERTIFICATIONS

Certified Analyses included in this Report

Analyte	Certifications
SW-846 8260D in Water	
1,2-Dichloroethane	CT,ME,NH,VA,NY
1,1-Dichloroethylene	CT,ME,NH,VA,NY
cis-1,2-Dichloroethylene	ME,NY
trans-1,2-Dichloroethylene	CT,ME,NH,VA,NY
1,2-Dichloropropane	CT,ME,NH,VA,NY
1,3-Dichloropropane	ME,VA,NY
2,2-Dichloropropane	ME,NH,VA,NY
1,1-Dichloropropene	ME,NH,VA,NY
cis-1,3-Dichloropropene	CT,ME,NH,VA,NY
trans-1,3-Dichloropropene	CT,ME,NH,VA,NY
Diethyl Ether	ME,NY
Diisopropyl Ether (DIPE)	ME,NH,VA,NY
1,4-Dioxane	ME,NY
Ethylbenzene	CT,ME,NH,VA,NY
Hexachlorobutadiene	CT,ME,NH,VA,NY
2-Hexanone (MBK)	CT,ME,NH,VA,NY
Isopropylbenzene (Cumene)	ME,VA,NY
p-Isopropyltoluene (p-Cymene)	CT,ME,NH,VA,NY
Methyl Acetate	ME,NY
Methyl tert-Butyl Ether (MTBE)	CT,ME,NH,VA,NY
Methyl Cyclohexane	NY
Methylene Chloride	CT,ME,NH,VA,NY
4-Methyl-2-pentanone (MIBK)	CT,ME,NH,VA,NY
Naphthalene	ME,NH,VA,NY
n-Propylbenzene	CT,ME,NH,VA,NY
Styrene	CT,ME,NH,VA,NY
1,1,1,2-Tetrachloroethane	CT,ME,NH,VA,NY
1,1,2,2-Tetrachloroethane	CT,ME,NH,VA,NY
Tetrachloroethylene	CT,ME,NH,VA,NY
Toluene	CT,ME,NH,VA,NY
1,2,3-Trichlorobenzene	ME,NH,VA,NY
1,2,4-Trichlorobenzene	CT,ME,NH,VA,NY
1,3,5-Trichlorobenzene	ME
1,1,1-Trichloroethane	CT,ME,NH,VA,NY
1,1,2-Trichloroethane	CT,ME,NH,VA,NY
Trichloroethylene	CT,ME,NH,VA,NY
Trichlorofluoromethane (Freon 11)	CT,ME,NH,VA,NY
1,2,3-Trichloropropane	ME,NH,VA,NY
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	VA,NY
1,2,4-Trimethylbenzene	ME,VA,NY
1,3,5-Trimethylbenzene	ME,VA,NY
Vinyl Chloride	CT,ME,NH,VA,NY
m+p Xylene	CT,ME,NH,VA,NY
o-Xylene	CT,ME,NH,VA,NY
SW-846 8270E in Soil	
Acenaphthene	CT,NY,NH,ME,NC,VA

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CERTIFICATIONS

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Analyte	Certifications
SW-846 8270E in Soil	
Acenaphthylene	CT,NY,NH,ME,NC,VA
Acetophenone	NY,NH,ME,NC,VA
Aniline	NY,NH,ME,NC,VA
Anthracene	CT,NY,NH,ME,NC,VA
Benzidine	CT,NY,NH,ME,NC,VA
Benzo(a)anthracene	CT,NY,NH,ME,NC,VA
Benzo(a)pyrene	CT,NY,NH,ME,NC,VA
Benzo(b)fluoranthene	CT,NY,NH,ME,NC,VA
Benzo(g,h,i)perylene	CT,NY,NH,ME,NC,VA
Benzo(k)fluoranthene	CT,NY,NH,ME,NC,VA
Benzoic Acid	NY,NH,ME,NC,VA
Bis(2-chloroethoxy)methane	CT,NY,NH,ME,NC,VA
Bis(2-chloroethyl)ether	CT,NY,NH,ME,NC,VA
Bis(2-chloroisopropyl)ether	CT,NY,NH,ME,NC,VA
Bis(2-Ethylhexyl)phthalate	CT,NY,NH,ME,NC,VA
4-Bromophenylphenylether	CT,NY,NH,ME,NC,VA
Butylbenzylphthalate	CT,NY,NH,ME,NC,VA
Carbazole	NC
4-Chloroaniline	CT,NY,NH,ME,NC,VA
4-Chloro-3-methylphenol	CT,NY,NH,ME,NC,VA
2-Chloronaphthalene	CT,NY,NH,NC,VA
2-Chlorophenol	CT,NY,NH,ME,NC,VA
4-Chlorophenylphenylether	CT,NY,NH,ME,NC,VA
Chrysene	CT,NY,NH,ME,NC,VA
Dibenz(a,h)anthracene	CT,NY,NH,ME,NC,VA
Dibenzofuran	CT,NY,NH,ME,NC,VA
Di-n-butylphthalate	CT,NY,NH,ME,NC,VA
1,2-Dichlorobenzene	NY,NH,ME,NC,VA
1,3-Dichlorobenzene	NY,NH,ME,NC,VA
1,4-Dichlorobenzene	NY,NH,ME,NC,VA
3,3-Dichlorobenzidine	CT,NY,NH,ME,NC,VA
2,4-Dichlorophenol	CT,NY,NH,ME,NC,VA
Diethylphthalate	CT,NY,NH,ME,NC,VA
2,4-Dimethylphenol	CT,NY,NH,ME,NC,VA
Dimethylphthalate	CT,NY,NH,ME,NC,VA
4,6-Dinitro-2-methylphenol	CT,NY,NH,ME,NC,VA
2,4-Dinitrophenol	CT,NY,NH,ME,NC,VA
2,4-Dinitrotoluene	CT,NY,NH,ME,NC,VA
2,6-Dinitrotoluene	CT,NY,NH,ME,NC,VA
Di-n-octylphthalate	CT,NY,NH,ME,NC,VA
1,2-Diphenylhydrazine/Azobenzene	NY,NH,ME,NC,VA
Fluoranthene	CT,NY,NH,ME,NC,VA
Fluorene	NY,NH,ME,NC,VA
Hexachlorobenzene	CT,NY,NH,ME,NC,VA
Hexachlorobutadiene	CT,NY,NH,ME,NC,VA
Hexachlorocyclopentadiene	CT,NY,NH,ME,NC,VA
Hexachloroethane	CT,NY,NH,ME,NC,VA

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

CERTIFICATIONS

Certified Analyses included in this Report

Analyte	Certifications
SW-846 8270E in Soil	
Indeno(1,2,3-cd)pyrene	CT,NY,NH,ME,NC,VA
Isophorone	CT,NY,NH,ME,NC,VA
1-Methylnaphthalene	NC
2-Methylnaphthalene	CT,NY,NH,ME,NC,VA
2-Methylphenol	CT,NY,NH,ME,NC,VA
3/4-Methylphenol	CT,NY,NH,ME,NC,VA
Naphthalene	CT,NY,NH,ME,NC,VA
2-Nitroaniline	CT,NY,NH,ME,NC,VA
3-Nitroaniline	CT,NY,NH,ME,NC,VA
4-Nitroaniline	CT,NY,NH,ME,NC,VA
Nitrobenzene	CT,NY,NH,ME,NC,VA
2-Nitrophenol	CT,NY,NH,ME,NC,VA
4-Nitrophenol	CT,NY,NH,ME,NC,VA
N-Nitrosodimethylamine	CT,NY,NH,ME,NC,VA
N-Nitrosodi-n-propylamine	CT,NY,NH,ME,NC,VA
Pentachloronitrobenzene	NY,NC
Pentachlorophenol	CT,NY,NH,ME,NC,VA
Phenanthrene	CT,NY,NH,ME,NC,VA
Phenol	CT,NY,NH,ME,NC,VA
Pyrene	CT,NY,NH,ME,NC,VA
Pyridine	CT,NY,NH,ME,NC,VA
1,2,4,5-Tetrachlorobenzene	NY,NC
1,2,4-Trichlorobenzene	CT,NY,NH,ME,NC,VA
2,4,5-Trichlorophenol	CT,NY,NH,ME,NC,VA
2,4,6-Trichlorophenol	CT,NY,NH,ME,NC,VA
2-Fluorophenol	NC
SW-846 8270E in Water	
Acenaphthene	CT,NY,NC,ME,NH,VA
Acenaphthylene	CT,NY,NC,ME,NH,VA
Acetophenone	NY,NC
Aniline	CT,NY,NC,ME,VA
Anthracene	CT,NY,NC,ME,NH,VA
Benzidine	CT,NY,NC,ME,NH,VA
Benzo(a)anthracene	CT,NY,NC,ME,NH,VA
Benzo(a)pyrene	CT,NY,NC,ME,NH,VA
Benzo(b)fluoranthene	CT,NY,NC,ME,NH,VA
Benzo(g,h,i)perylene	CT,NY,NC,ME,NH,VA
Benzo(k)fluoranthene	CT,NY,NC,ME,NH,VA
Benzoic Acid	NY,NC,ME,NH,VA
Bis(2-chloroethoxy)methane	CT,NY,NC,ME,NH,VA
Bis(2-chloroethyl)ether	CT,NY,NC,ME,NH,VA
Bis(2-chloroisopropyl)ether	CT,NY,NC,ME,NH,VA
Bis(2-Ethylhexyl)phthalate	CT,NY,NC,ME,NH,VA
4-Bromophenylphenylether	CT,NY,NC,ME,NH,VA
Butylbenzylphthalate	CT,NY,NC,ME,NH,VA
Carbazole	NC

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CERTIFICATIONS

Certified Analyses included in this Report

Analyte	Certifications
SW-846 8270E in Water	
4-Chloroaniline	CT,NY,NC,ME,NH,VA
4-Chloro-3-methylphenol	CT,NY,NC,ME,NH,VA
2-Chloronaphthalene	CT,NY,NC,ME,NH,VA
2-Chlorophenol	CT,NY,NC,ME,NH,VA
4-Chlorophenylphenylether	CT,NY,NC,ME,NH,VA
Chrysene	CT,NY,NC,ME,NH,VA
Dibenz(a,h)anthracene	CT,NY,NC,ME,NH,VA
Dibenzofuran	CT,NY,NC,ME,NH,VA
Di-n-butylphthalate	CT,NY,NC,ME,NH,VA
1,2-Dichlorobenzene	CT,NY,NC,ME,NH,VA
1,3-Dichlorobenzene	CT,NY,NC,ME,NH,VA
1,4-Dichlorobenzene	CT,NY,NC,ME,NH,VA
3,3-Dichlorobenzidine	CT,NY,NC,ME,NH,VA
2,4-Dichlorophenol	CT,NY,NC,ME,NH,VA
Diethylphthalate	CT,NY,NC,ME,NH,VA
2,4-Dimethylphenol	CT,NY,NC,ME,NH,VA
Dimethylphthalate	CT,NY,NC,ME,NH,VA
4,6-Dinitro-2-methylphenol	CT,NY,NC,ME,NH,VA
2,4-Dinitrophenol	CT,NY,NC,ME,NH,VA
2,4-Dinitrotoluene	CT,NY,NC,ME,NH,VA
2,6-Dinitrotoluene	CT,NY,NC,ME,NH,VA
Di-n-octylphthalate	CT,NY,NC,ME,NH,VA
1,2-Diphenylhydrazine/Azobenzene	NY,NC
Fluoranthene	CT,NY,NC,ME,NH,VA
Fluorene	NY,NC,ME,NH,VA
Hexachlorobenzene	CT,NY,NC,ME,NH,VA
Hexachlorobutadiene	CT,NY,NC,ME,NH,VA
Hexachlorocyclopentadiene	CT,NY,NC,ME,NH,VA
Hexachloroethane	CT,NY,NC,ME,NH,VA
Indeno(1,2,3-cd)pyrene	CT,NY,NC,ME,NH,VA
Isophorone	CT,NY,NC,ME,NH,VA
1-Methylnaphthalene	NC
2-Methylnaphthalene	CT,NY,NC,ME,NH,VA
2-Methylphenol	CT,NY,NC,NH,VA
3/4-Methylphenol	CT,NY,NC,NH,VA
Naphthalene	CT,NY,NC,ME,NH,VA
2-Nitroaniline	CT,NY,NC,ME,NH,VA
3-Nitroaniline	CT,NY,NC,ME,NH,VA
4-Nitroaniline	CT,NY,NC,ME,NH,VA
Nitrobenzene	CT,NY,NC,ME,NH,VA
2-Nitrophenol	CT,NY,NC,ME,NH,VA
4-Nitrophenol	CT,NY,NC,ME,NH,VA
N-Nitrosodimethylamine	CT,NY,NC,ME,NH,VA
N-Nitrosodi-n-propylamine	CT,NY,NC,ME,NH,VA
Pentachloronitrobenzene	NC
Pentachlorophenol	CT,NY,NC,ME,NH,VA
Phenanthrene	CT,NY,NC,ME,NH,VA

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

CERTIFICATIONS

Certified Analyses included in this Report

Analyte	Certifications
SW-846 8270E in Water	
Phenol	CT,NY,NC,ME,NH,VA
Pyrene	CT,NY,NC,ME,NH,VA
Pyridine	CT,NY,NC,ME,NH,VA
1,2,4,5-Tetrachlorobenzene	NY,NC
1,2,4-Trichlorobenzene	CT,NY,NC,ME,NH,VA
2,4,5-Trichlorophenol	CT,NY,NC,ME,NH,VA
2,4,6-Trichlorophenol	CT,NY,NC,ME,NH,VA
2-Fluorophenol	NC
SW-846 9014 in Soil	
Cyanide	NY,CT,NC,ME,NH,VA
SW-846 9014 in Water	
Cyanide	NY,CT,NH,NC,ME,VA

Con-Test, a Pace Environmental Laboratory, operates under the following certifications and accreditations:

Code	Description	Number	Expires
AIHA	AIHA-LAP, LLC - ISO17025:2017	100033	03/1/2022
MA	Massachusetts DEP	M-MA100	06/30/2022
CT	Connecticut Department of Publilc Health	PH-0165	12/31/2022
NY	New York State Department of Health	10899 NELAP	04/1/2022
NH-S	New Hampshire Environmental Lab	2516 NELAP	02/5/2022
RI	Rhode Island Department of Health	LAO00112	12/30/2021
NC	North Carolina Div. of Water Quality	652	12/31/2021
NJ	New Jersey DEP	MA007 NELAP	06/30/2022
FL	Florida Department of Health	E871027 NELAP	06/30/2022
VT	Vermont Department of Health Lead Laboratory	LL720741	07/30/2022
ME	State of Maine	MA00100	06/9/2023
VA	Commonwealth of Virginia	460217	12/14/2021
NH-P	New Hampshire Environmental Lab	2557 NELAP	09/6/2022
VT-DW	Vermont Department of Health Drinking Water	VT-255716	06/12/2022
NC-DW	North Carolina Department of Health	25703	07/31/2022
PA	Commonwealth of Pennsylvania DEP	68-05812	06/30/2022
MI	Dept. of Env, Great Lakes, and Energy	9100	09/6/2022

210887

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CHAIN OF CUSTODY RECORD

39 Spruce Street
East Longmeadow, MA 01028

Doc # 381 Rev 5_07/13/2021

Page 1 of 2

Company Name: Ramboll
Address: 4350 N Fairfax Dr. Ste 300
Phone:
Project Name: HRP PRGS SCP
Project Location: 1400 N. Royal St. Alexandria, VA
Project Number:
Project Manager: Greg Grose
Pace Quote Name/Number:
Invoice Recipient: Sostertag@ramboll.com
Sampled By: Sarah Osterteg

Requested Turnaround Time
7-Day ☐ 10-Day ☑ 5-day standard
PFAS 10-Day (std) ☐ Due Date:

Rush-Approval Required
1-Day ☐ 3-Day ☐
2-Day ☐ 4-Day ☐

Data Delivery
Format: PDF ☒ EXCEL ☒
Other: Ramboll EDD
CLP Like Data Pkg Required: ☐
Email To: Sostertag@ramboll.com
Fax To #:

Dissolved Metals Samples
○ Field Filtered
○ Lab to Filter

Orthophosphate Samples
○ Field Filtered
○ Lab to Filter

PCB ONLY
SOXHLET ☐
NON SOXHLET ☒

ANALYSIS REQUESTED

Pace Work Order#	Client Sample ID / Description	Beginning Date/Time	Ending Date/Time	COMP/GRAB	[1] Matrix Code	Conc Code	VIALS	GLASS	PLASTIC	BACTERIA	ENCORE	M TPH-GRO	I TPH-DRO	I TPH-ORO	MBT VOCs	I SVOCs	I TAL Metals	I Cyanide	I pH
01	~~FB 01~~ HRP-TB01-211011	10.11.21	1300	[TB]	O. Trip Blank	C	2					X			X				
02	HRP-SB205-0-1-211011	10.11.21	1143	G	S	C	1	2				X	X	X		X	X	X	X
03	HRP-SB205-13-15-211011	10.11.21	1230	G	S	C	1	2				X	X	X		X	X	X	X
04	HRP-DUP02-13-15-211011	10.11.21	1230	G	S	C	1	2				X	X	X		X	X	X	X
05	HRP-SB203-0-1-211012	10.12.21	0740	G	S	C		1								X	X		
06	HRP-SB203-11-13-211012	10.12.21	0757	G	S	C		2								X	X		
07	HRP-SB206-0-1-211012	10.12.21	1243	G	S	L		2									X	X	X
08	HRP-SB206-5-7-211012	10.12.21	1258	G	S	L	4	3				X	X	X	X		X	X	X
09	HRP-SB206-15-17-211012	10.12.21	1345	G	S	L	4	1.5	[low recovery]			X	X	X	X		X	X	X

Relinquished by: (signature) — Date/Time: 10.13.21 / 1240
Received by: (signature) DCHILL-LECS — Date/Time: 10/13/21 1242 PM
Relinquished by: (signature) DCD-765 (10-13-21) — Date/Time: 10/13/21 3 PM
Received by: (signature) Rachel Burruss — Date/Time: 10-13-21 1500
Relinquished by: (signature) Rachel Burruss — Date/Time: 10-13-21 1700
Received by: (signature) — Date/Time: 10/15 1012
Relinquished by: (signature) — Date/Time:
Received by: (signature) — Date/Time:

Client Comments: TB01 = Trip Blank

Detection Limit Requirements:
MA
CT

Special Requirements
☐ MA MCP Required
MCP Certification Form Required
☐ CT RCP Required
RCP Certification Form Required
☐ MA State DW Required
PWSID #

Other: Virginia DEQ

Project Entity
Government ☐ Municipality ☐ MWRA ☐ WRTA ☐
Federal ☐ 21 J ☐ School ☐
City ☐ Brownfield ☐ MBTA ☐

Please use the following codes to indicate possible sample concentration within the Conc Code column above:
H - High; M - Medium; L - Low; C - Clean; U - Unknown

NELAC and AIHA-LAP, LLC Accredited

Other
☐ Chromatogram
☐ AIHA-LAP,LLC

Lab Comments:

Disclaimer: Pace Analytical is not responsible for any omitted information on the Chain of Custody. The Chain of Custody is a legal document that must be complete and accurate and is used to determine what analyses the laboratory will perform. Any missing information is not the laboratory's responsibility. Pace Analytical values your partnership on each project and will try to assist with missing information, but will not be held accountable.

[2] Preservation Code

Courier Use Only
Total Number Of:
VIALS
GLASS
PLASTIC
BACTERIA
ENCORE

Glassware in the fridge? Y / N
Glassware in freezer? Y / N
Prepackaged Cooler? Y / N
*Pace Analytical is not responsible for missing samples from prepacked coolers

[1] Matrix Codes:
GW = Ground Water
WW = Waste Water
DW = Drinking Water
A = Air
S = Soil
SL = Sludge
SOL = Solid
O = Other (please define)

[2] Preservation Codes:
I = Iced
H = HCL
M = Methanol
N = Nitric Acid
S = Sulfuric Acid
B = Sodium Bisulfate
X = Sodium Hydroxide
T = Sodium Thiosulfate
O = Other (please define)

2110887

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Fax: 413-525-6405
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http://www.pacelabs.com

CHAIN OF CUSTODY RECORD

39 Spruce Street
East Longmeadow, MA 01028

Doc # 381 Rev 5_07/13/2021

Company Name: Ramboll
Address: 4350 N. Fairfax Drive
Phone: 7035162383
Project Name: HRP RR65 SCR
Project Location: 1400 N. Royal St, Alexandria VA
Project Number:
Project Manager: G. Grose
Pace Quote Name/Number:
Invoice Recipient: sostertag@ramboll.com
Sampled By: Anne Kelley

Requested Turnaround Time
7-Day ☐ 10-Day X
PFAS 10-Day (std) ☐ Due Date: 15 day ?? 00

Rush-Approval Required
1-Day ☐ 3-Day ☐
2-Day ☐ 4-Day ☐

Data Delivery
Format: PDF X EXCEL X
Other: Ramboll EDD
CLP Like Data Pkg Required: ☐
Email To: Sostertag@ramboll.com
Fax To #:

Dissolved Metals Samples
○ Field Filtered
○ Lab to Filter

Orthophosphate Samples
○ Field Filtered
○ Lab to Filter

PCB ONLY
SOXHLET ☐
NON SOXHLET ☐

ANALYSIS REQUESTED

Pace Work Order#	Client Sample ID / Description	Beginning Date/Time	Ending Date/Time	COMP/GRAB	¹Matrix Code	Conc Code	VIALS	GLASS	PLASTIC	BACTERIA	ENCORE	VOCs	TAL Metals	TPH GRO	TPH ORO	TPH DRO	Cyanide	pH
											² Preservation Code	M/I	I	M/I	I	I	I	I
10	HRP-MW207-0-1-211013	10/13/21 0837	—	Grab	S	L	4	3				X	X	X	X	X	X	X
11	HRP-MW207-6-8-211013	10/13/21 0915	—	Grab	S	L	4	3				X	X	X	X	X	X	X
12	HRP-DVP03-6-8-211013	10/13/21 0925	—	Grab	S	L	4	3				X	X	X	X	X	X	X
13	HRP-MW207-16-18-211013	10/13/21 0932	—	Grab	S	L	4	3				X	X	X	X	X	X	X
14	HRP-TB02-211013	10-13-21	@1235	[TB]	Trip Blank/2													

Relinquished by: (signature)	Date/Time:
Relinquished by: [signature]	10-13-21 / 1240
Received by: [signature] DC Spill - KECS	10/13/21 1240
Relinquished by: DCP - KECS 10-13-21	10-13-21 3:00P
Received by: Rachel Burruss	10-13-21 1500
Relinquished by: Rachel Burruss	10-14-21 1700
Received by: [signature] 4.3	10/15 1020
Relinquished by: (signature)	Date/Time:
Received by: (signature)	Date/Time:

Client Comments:

Detection Limit Requirements
MA
CT
Other: VA DEQ

Special Requirements
☐ MA MCP Required
MCP Certification Form Required
☐ CT RCP Required
RCP Certification Form Required
☐ MA State DW Required
PWSID #

Please use the following codes to indicate possible sample concentration within the Conc Code column above:
H - High; M - Medium; L - Low; C - Clean; U - Unknown

NELAC and AIHA-LAP, LLC Accredited

Project Entity
Government ☐ Municipality ☐ MWRA ☐ WRTA ☐
Federal ☐ 21 J ☐ School ☐
City ☐ Brownfield ☐ MBTA ☐

Other
☐ Chromatogram
☐ AIHA-LAP,LLC

Courier Use Only
Total Number Of:
VIALS____
GLASS____
PLASTIC____
BACTERIA____
ENCORE____

Glassware in the fridge? Y / N
Glassware in freezer? Y / N
Prepackaged Cooler? Y / N

*Pace Analytical is not responsible for missing samples from prepacked coolers

¹ Matrix Codes:
GW = Ground Water
WW = Waste Water
DW = Drinking Water
A = Air
S = Soil
SL = Sludge
SOL = Solid
O = Other (please define)

² Preservation Codes:
I = Iced
H = HCL
M = Methanol
N = Nitric Acid
S = Sulfuric Acid
B = Sodium Bisulfate
X = Sodium Hydroxide
T = Sodium Thiosulfate
O = Other (please define)

Lab Comments:

FedEx

TRACK ANOTHER SHIPMENT

284893953793

ADD NICKNAME

Delivered
Friday, October 15, 2021 at 10:22 am

DELIVERED

Signed for by: R.PIETRIAS

GET STATUS UPDATES

OBTAIN PROOF OF DELIVERY

FROM	TO
Mechanicsville, VA US	EAST LONGMEADOW, MA US

Travel History

TIME ZONE
Local Scan Time

Friday, October 15, 2021

10:22 AM	EAST LONGMEADOW, MA	Delivered
8:44 AM	WINDSOR LOCKS, CT	On FedEx vehicle for delivery
8:35 AM	WINDSOR LOCKS, CT	At local FedEx facility
7:33 AM	EAST GRANBY, CT	At destination sort facility
4:30 AM	MEMPHIS, TN	Departed FedEx hub

Thursday, October 14, 2021

10:21 PM	MEMPHIS, TN	Arrived at FedEx hub
8:01 PM	MECHANICSVILLE, VA	Left FedEx origin facility
4:24 PM	MECHANICSVILLE, VA	Picked up
11:49 AM		Shipment information sent to FedEx

Shipment Facts

I Have Not Confirmed Sample Container Numbers With Lab Staff Before Relinquishing Over Samples_____

con-test® ANALYTICAL LABORATORY

Doc# 277 Rev 5 2017

Login Sample Receipt Checklist - (Rejection Criteria Listing - Using Acceptance Policy) Any False Statement will be brought to the attention of the Client - State True or False

Client Ramboll

Received By RLF Date 10/15/21 Time 1022

How were the samples received? In Cooler T No Cooler _____ On Ice T No Ice _____

Direct from Sampling _____ Ambient _____ Melted Ice _____

Were samples within Temperature? 2-6°C T By Gun # 3 Actual Temp - 4.3°C

By Blank # _____ Actual Temp - _____

Was Custody Seal Intact? NA Were Samples Tampered with? NA

Was COC Relinquished ? T Does Chain Agree With Samples? T

Are there broken/leaking/loose caps on any samples? F

Is COC in ink/ Legible? T Were samples received within holding time? F pH acid hold

Did COC include all pertinent Information? Client T Analysis T Sampler Name T

Project T ID's T Collection Dates/Times T

Are Sample labels filled out and legible? T

Are there Lab to Filters? F Who was notified? _____

Are there Rushes? F Who was notified? _____

Are there Short Holds? T Who was notified? Lucy

Is there enough Volume? T

Is there Headspace where applicable? ~~NA~~ F MS/MSD? F

Proper Media/Containers Used? T Is splitting samples required? F

Were trip blanks received? T On COC? T

Do all samples have the proper pH? Acid NA Base NA

Vials	#	Containers:	#		#		#
Unp-		1 Liter Amb.		1 Liter Plastic		16 oz Amb.	
HCL-	4	500 mL Amb.		500 mL Plastic		8oz Amb/Clear	13
Meoh-	15	250 mL Amb.		250 mL Plastic		4oz Amb/Clear	5
Bisulfate-	12	Flashpoint		Col./Bacteria		2oz Amb/Clear	
DI-		Other Glass		Other Plastic		Encore	
Thiosulfate-		SOC Kit		Plastic Bag		Frozen:	
Sulfuric-		Perchlorate		Ziplock			

Unused Media

Vials	#	Containers:	#		#		#
Unp-		1 Liter Amb.		1 Liter Plastic		16 oz Amb.	
HCL-		500 mL Amb.		500 mL Plastic		8oz Amb/Clear	
Meoh-		250 mL Amb.		250 mL Plastic		4oz Amb/Clear	
Bisulfate-		Col./Bacteria		Flashpoint		2oz Amb/Clear	
DI-		Other Plastic		Other Glass		Encore	
Thiosulfate-		SOC Kit		Plastic Bag		Frozen:	
Sulfuric-		Perchlorate		Ziplock			

Comments:

con-test®
A Pace Analytical® Laboratory

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

November 12, 2021

Sarah Ostertag
Ramboll US Consulting, Inc. - Arlington, VA
4350 North Fairfax Drive
Arlington, VA 22203

Project Location: 1400 N. Royal St, Alexandria, VA
Client Job Number:
Project Number: [none]
Laboratory Work Order Number: 21J1856

Enclosed are results of analyses for samples as received by the laboratory on October 29, 2021. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Kaitlyn A. Feliciano
Project Manager

Table of Contents

Table of Contents (continued)

con-test® A Pace Analytical® Laboratory

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Ramboll US Consulting, Inc. - Arlington, VA
4350 North Fairfax Drive
Arlington, VA 22203
ATTN: Sarah Ostertag

REPORT DATE: 11/12/2021

PURCHASE ORDER NUMBER:

PROJECT NUMBER: [none]

ANALYTICAL SUMMARY

WORK ORDER NUMBER: 21J1856

The results of analyses performed on the following samples submitted to CON-TEST, a Pace Analytical Laboratory, are found in this report.

PROJECT LOCATION: 1400 N. Royal St, Alexandria, VA

FIELD SAMPLE #	LAB ID:	MATRIX	SAMPLE DESCRIPTION	TEST	SUB LAB
HRP-MW214-211026	21J1856-01	Ground Water		ASTM D516-16	
				SW-846 6010D	
				SW-846 6020B	
				SW-846 7470A	
				SW-846 8015C	
				SW-846 8260D	
				SW-846 8270E	
HRP-MW208-211026	21J1856-02	Ground Water		ASTM D516-16	
				SW-846 6010D	
				SW-846 6020B	
				SW-846 7470A	
				SW-846 8015C	
				SW-846 8260D	
				SW-846 8270E	
HRP-MW207-211026	21J1856-03	Ground Water		ASTM D516-16	
				SW-846 6010D	
				SW-846 6020B	
				SW-846 7470A	
				SW-846 8015C	
				SW-846 8260D	
				SW-846 8270E	
HRP-TB11-211026	21J1856-04	Ground Water		SW-846 8260D	
HRP-MW221-211027	21J1856-05	Ground Water		SW-846 8082A	
				SW-846 8260D	
				SW-846 8270E	
HRP-MW201-211025	21J1856-06	Ground Water		ASTM D516-16	
				EPA 350.1	
				SW-846 6010D	
				SW-846 6020B	
				SW-846 7470A	
				SW-846 8015C	
				SW-846 8260D	
				SW-846 8270E	
HRP-MW202-211026	21J1856-07	Ground Water		ASTM D516-16	
				EPA 350.1	
				SW-846 6010D	
				SW-846 6020B	
				SW-846 7470A	
				SW-846 8015C	
				SW-846 8260D	
				SW-846 8270E	

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Ramboll US Consulting, Inc. - Arlington, VA
4350 North Fairfax Drive
Arlington, VA 22203
ATTN: Sarah Ostertag

REPORT DATE: 11/12/2021

PURCHASE ORDER NUMBER:

PROJECT NUMBER: [none]

ANALYTICAL SUMMARY

WORK ORDER NUMBER: 21J1856

The results of analyses performed on the following samples submitted to CON-TEST, a Pace Analytical Laboratory, are found in this report.

PROJECT LOCATION: 1400 N. Royal St, Alexandria, VA

FIELD SAMPLE #	LAB ID:	MATRIX	SAMPLE DESCRIPTION	TEST	SUB LAB
HRP-DUP05-211026	21J1856-08	Ground Water		ASTM D516-16	
				EPA 350.1	
				SW-846 6010D	
				SW-846 6020B	
				SW-846 7470A	
				SW-846 8015C	
				SW-846 8260D	
				SW-846 8270E	
HRP-MW205-211026	21J1856-09	Ground Water		ASTM D516-16	
				EPA 350.1	
				SW-846 6010D	
				SW-846 6020B	
				SW-846 7470A	
				SW-846 8015C	
				SW-846 8260D	
				SW-846 8270E	
HRP-MW206-211026	21J1856-10	Ground Water		ASTM D516-16	
				SW-846 6010D	
				SW-846 6020B	
				SW-846 7470A	
				SW-846 8015C	
				SW-846 8260D	
				SW-846 8270E	
HRP-TB07-211025	21J1856-11	Ground Water		SW-846 8260D	
HRP-MW102-211027	21J1856-12	Ground Water		ASTM D516-16	
				EPA 350.1	
				SW-846 6010D	
				SW-846 6020B	
				SW-846 7470A	
				SW-846 8015C	
				SW-846 8260D	
				SW-846 8270E	
HRP-TB09-211025	21J1856-13	Ground Water		SW-846 8260D	
Trip Blank	21J1856-14	Ground Water		SW-846 8015C	
				SW-846 8260D	

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CASE NARRATIVE SUMMARY

All reported results are within defined laboratory quality control objectives unless listed below or otherwise qualified in this report.

REVISED REPORT 11/10/21- Sample -09 ammonia added per coc

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EPA 350.1

Qualifications:

L-07A

Either laboratory fortified blank/laboratory control sample or duplicate recovery is outside of control limits, but the other is within limits. RPD outside of control limits. Reduced precision anticipated for any reported result for this compound.

Analyte & Samples(s) Qualified:

Ammonia as N

B293898-BS1, B293898-BSD1

V-05

Continuing calibration verification (CCV) did not meet method specifications and was biased on the low side for this compound.

Analyte & Samples(s) Qualified:

Ammonia as N

21J1856-09[HRP-MW205-211026]

SW-846 6020B

Qualifications:

MS-19

Sample to spike ratio is greater than or equal to 4:1. Spiked amount is not representative of the native amount in the sample. Appropriate or meaningful recoveries cannot be calculated.

Analyte & Samples(s) Qualified:

Manganese

21J1856-01[HRP-MW214-211026], B293655-MS1

SW-846 7470A

Qualifications:

DL-03

Elevated reporting limit due to matrix interference.

Analyte & Samples(s) Qualified:

Mercury

21J1856-01[HRP-MW214-211026], B293727-DUP1

SW-846 8260D

Qualifications:

L-07

Either laboratory fortified blank/laboratory control sample or duplicate recovery is outside of control limits, but the other is within limits. RPD between the two LFB/LCS results is within method specified criteria.

Analyte & Samples(s) Qualified:

1,2,3-Trichlorobenzene

B293683-BS1

V-05

Continuing calibration verification (CCV) did not meet method specifications and was biased on the low side for this compound.

Analyte & Samples(s) Qualified:

1,2,3-Trichlorobenzene

21J1856-01[HRP-MW214-211026], 21J1856-02[HRP-MW208-211026], 21J1856-03[HRP-MW207-211026], 21J1856-04[HRP-TB11-211026], 21J1856-05[HRP-MW221-211027], 21J1856-06[HRP-MW201-211025], 21J1856-07[HRP-MW202-211026], 21J1856-08[HRP-DUP05-211026], 21J1856-09[HRP-MW205-211026], 21J1856-10[HRP-MW206-211026], 21J1856-11[HRP-TB07-211025], 21J1856-12[HRP-MW102-211027], 21J1856-13[HRP-TB09-211025], 21J1856-14[Trip Blank], B293683-BLK1, B293683-BS1, B293683-BSD1, B293865-BLK1, B293865-BS1, B293865-BSD1

1,2,4-Trichlorobenzene

21J1856-01[HRP-MW214-211026], 21J1856-02[HRP-MW208-211026], 21J1856-03[HRP-MW207-211026], 21J1856-04[HRP-TB11-211026], 21J1856-05[HRP-MW221-211027], 21J1856-06[HRP-MW201-211025], 21J1856-07[HRP-MW202-211026], 21J1856-08[HRP-DUP05-211026], 21J1856-09[HRP-MW205-211026], 21J1856-10[HRP-MW206-211026], 21J1856-11[HRP-TB07-211025], 21J1856-12[HRP-MW102-211027], 21J1856-13[HRP-TB09-211025], 21J1856-14[Trip Blank], B293683-BLK1, B293683-BS1, B293683-BSD1, B293865-BLK1, B293865-BS1, B293865-BSD1

Naphthalene

21J1856-01[HRP-MW214-211026], 21J1856-02[HRP-MW208-211026], 21J1856-03[HRP-MW207-211026], 21J1856-04[HRP-TB11-211026], 21J1856-05[HRP-MW221-211027], 21J1856-06[HRP-MW201-211025], 21J1856-07[HRP-MW202-211026], 21J1856-08[HRP-DUP05-211026], 21J1856-09[HRP-MW205-211026], 21J1856-10[HRP-MW206-211026], 21J1856-11[HRP-TB07-211025], 21J1856-12[HRP-MW102-211027], 21J1856-13[HRP-TB09-211025], 21J1856-14[Trip Blank], B293683-BLK1, B293683-BS1, B293683-BSD1, B293865-BLK1, B293865-BS1, B293865-BSD1

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V-20

Continuing calibration verification (CCV) did not meet method specifications and was biased on the high side. Data validation is not affected since sample result was "not detected" for this compound.

Analyte & Samples(s) Qualified:

Bromomethane
B293865-BS1, B293865-BSD1

Chloroethane
B293865-BS1, B293865-BSD1

SW-846 8270E

Qualifications:

B-05

Data is not affected by elevated level in laboratory blank since sample(s) result is "Not Detected".

Analyte & Samples(s) Qualified:

Phenanthrene
B293858-BLK1

H-10

Analysis was requested after the recommended holding time had passed.

Analyte & Samples(s) Qualified:

21J1856-06[HRP-MW201-211025]

L-07

Either laboratory fortified blank/laboratory control sample or duplicate recovery is outside of control limits, but the other is within limits. RPD between the two LFB/LCS results is within method specified criteria.

Analyte & Samples(s) Qualified:

N-Nitrosodimethylamine
B293858-BSD1

V-04

Initial calibration did not meet method specifications. Compound was calibrated using a response factor where %RSD is outside of method specified criteria. Reported result is estimated.

Analyte & Samples(s) Qualified:

2,4-Dinitrophenol
21J1856-01[HRP-MW214-211026], 21J1856-02[HRP-MW208-211026], 21J1856-03[HRP-MW207-211026], 21J1856-05[HRP-MW221-211027], 21J1856-06[HRP-MW201-211025], 21J1856-07[HRP-MW202-211026], 21J1856-08[HRP-DUP05-211026], 21J1856-09[HRP-MW205-211026], 21J1856-10[HRP-MW206-211026], 21J1856-12[HRP-MW102-211027], B293672-BLK1, B293672-BS1, B293672-BSD1, B293790-BLK1, B293790-BS1, B293790-BSD1, B293858-BLK1, B293858-BS1, B293858-BSD1

Benzidine
21J1856-01[HRP-MW214-211026], 21J1856-02[HRP-MW208-211026], 21J1856-03[HRP-MW207-211026], 21J1856-05[HRP-MW221-211027], 21J1856-06[HRP-MW201-211025], 21J1856-07[HRP-MW202-211026], 21J1856-08[HRP-DUP05-211026], 21J1856-09[HRP-MW205-211026], 21J1856-10[HRP-MW206-211026], 21J1856-12[HRP-MW102-211027], B293672-BLK1, B293672-BS1, B293672-BSD1, B293790-BLK1, B293790-BS1, B293790-BSD1

V-05

Continuing calibration verification (CCV) did not meet method specifications and was biased on the low side for this compound.

Analyte & Samples(s) Qualified:

Benzidine
B293858-BLK1, B293858-BS1, B293858-BSD1

Hexachlorocyclopentadiene
B293858-BLK1, B293858-BS1, B293858-BSD1

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V-06

Continuing calibration verification (CCV) did not meet method specifications and was biased on the high side for this compound.

Analyte & Samples(s) Qualified:

2,4-Dinitrophenol
B293672-BS1, B293672-BSD1, B293790-BS1, B293790-BSD1, B293858-BS1, B293858-BSD1

2,4-Dinitrotoluene
B293672-BS1, B293672-BSD1, B293790-BS1, B293790-BSD1

3-Nitroaniline
B293672-BS1, B293672-BSD1

4-Nitroaniline
B293672-BS1, B293672-BSD1, B293790-BS1, B293790-BSD1

Benzidine
B293672-BS1, B293672-BSD1

V-20

Continuing calibration verification (CCV) did not meet method specifications and was biased on the high side. Data validation is not affected since sample result was "not detected" for this compound.

Analyte & Samples(s) Qualified:

2,4-Dinitrophenol
21J1856-01[HRP-MW214-211026], 21J1856-02[HRP-MW208-211026], 21J1856-03[HRP-MW207-211026], 21J1856-05[HRP-MW221-211027], 21J1856-06[HRP-MW201-211025], 21J1856-07[HRP-MW202-211026], 21J1856-08[HRP-DUP05-211026], 21J1856-09[HRP-MW205-211026], 21J1856-10[HRP-MW206-211026], 21J1856-12[HRP-MW102-211027], B293672-BLK1, B293790-BLK1, B293858-BLK1

2,4-Dinitrotoluene
21J1856-01[HRP-MW214-211026], 21J1856-02[HRP-MW208-211026], 21J1856-03[HRP-MW207-211026], 21J1856-08[HRP-DUP05-211026], B293790-BLK1

2-Nitroaniline
21J1856-05[HRP-MW221-211027], 21J1856-07[HRP-MW202-211026], 21J1856-09[HRP-MW205-211026], 21J1856-10[HRP-MW206-211026], 21J1856-12[HRP-MW102-211027]

3-Nitroaniline
B293672-BLK1

4-Nitroaniline
21J1856-01[HRP-MW214-211026], 21J1856-02[HRP-MW208-211026], 21J1856-03[HRP-MW207-211026], 21J1856-05[HRP-MW221-211027], 21J1856-07[HRP-MW202-211026], 21J1856-08[HRP-DUP05-211026], 21J1856-09[HRP-MW205-211026], 21J1856-10[HRP-MW206-211026], 21J1856-12[HRP-MW102-211027], B293672-BLK1, B293790-BLK1

Aniline
21J1856-05[HRP-MW221-211027], 21J1856-07[HRP-MW202-211026], 21J1856-09[HRP-MW205-211026], 21J1856-10[HRP-MW206-211026], 21J1856-12[HRP-MW102-211027]

Benzidine
21J1856-05[HRP-MW221-211027], 21J1856-07[HRP-MW202-211026], 21J1856-09[HRP-MW205-211026], 21J1856-10[HRP-MW206-211026], 21J1856-12[HRP-MW102-211027], B293672-BLK1

V-34

Initial calibration verification (ICV) did not meet method specifications and was biased on the low side for this compound. Reported result is estimated.

Analyte & Samples(s) Qualified:

4-Chloroaniline
B293858-BLK1, B293858-BS1, B293858-BSD1

SW-846 8015C

Gasoline Range Organics (2-Methylpentane through 1,2,4-Trimethylbenzene) is quantitated against a calibration made with an unleaded gasoline composite standard.

Diesel Range Organics (C10-C28) is quantitated against a calibration made with a #2 fuel oil standard.

The results of analyses reported only relate to samples submitted to Con-Test, a Pace Analytical Laboratory, for testing.
I certify that the analyses listed above, unless specifically listed as subcontracted, if any, were performed under my direction according to the approved methodologies listed in this document, and that based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

Tod E. Kopyscinski
Laboratory Director

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Project Location: 1400 N. Royal St, Alexandria, VA Sample Description: Work Order: 21J1856

Date Received: 10/29/2021

Field Sample #: HRP-MW214-211026 Sampled: 10/26/2021 10:10

Sample ID: 21J1856-01

Sample Matrix: Ground Water

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acetone	3.4	50	2.4	µg/L	1	J	SW-846 8260D	11/1/21	11/1/21 14:19	MFF
Acrylonitrile	ND	5.0	0.69	µg/L	1		SW-846 8260D	11/1/21	11/1/21 14:19	MFF
tert-Amyl Methyl Ether (TAME)	ND	0.50	0.15	µg/L	1		SW-846 8260D	11/1/21	11/1/21 14:19	MFF
Benzene	ND	1.0	0.13	µg/L	1		SW-846 8260D	11/1/21	11/1/21 14:19	MFF
Bromobenzene	ND	1.0	0.13	µg/L	1		SW-846 8260D	11/1/21	11/1/21 14:19	MFF
Bromochloromethane	ND	1.0	0.36	µg/L	1		SW-846 8260D	11/1/21	11/1/21 14:19	MFF
Bromodichloromethane	ND	0.50	0.14	µg/L	1		SW-846 8260D	11/1/21	11/1/21 14:19	MFF
Bromoform	ND	1.0	0.29	µg/L	1		SW-846 8260D	11/1/21	11/1/21 14:19	MFF
Bromomethane	ND	2.0	1.1	µg/L	1		SW-846 8260D	11/1/21	11/1/21 14:19	MFF
2-Butanone (MEK)	ND	20	1.9	µg/L	1		SW-846 8260D	11/1/21	11/1/21 14:19	MFF
tert-Butyl Alcohol (TBA)	ND	20	5.3	µg/L	1		SW-846 8260D	11/1/21	11/1/21 14:19	MFF
n-Butylbenzene	ND	1.0	0.14	µg/L	1		SW-846 8260D	11/1/21	11/1/21 14:19	MFF
sec-Butylbenzene	ND	1.0	0.10	µg/L	1		SW-846 8260D	11/1/21	11/1/21 14:19	MFF
tert-Butylbenzene	ND	1.0	0.090	µg/L	1		SW-846 8260D	11/1/21	11/1/21 14:19	MFF
tert-Butyl Ethyl Ether (TBEE)	ND	0.50	0.11	µg/L	1		SW-846 8260D	11/1/21	11/1/21 14:19	MFF
Carbon Disulfide	ND	5.0	1.5	µg/L	1		SW-846 8260D	11/1/21	11/1/21 14:19	MFF
Carbon Tetrachloride	ND	5.0	0.17	µg/L	1		SW-846 8260D	11/1/21	11/1/21 14:19	MFF
Chlorobenzene	ND	1.0	0.080	µg/L	1		SW-846 8260D	11/1/21	11/1/21 14:19	MFF
Chlorodibromomethane	ND	0.50	0.16	µg/L	1		SW-846 8260D	11/1/21	11/1/21 14:19	MFF
Chloroethane	ND	2.0	0.37	µg/L	1		SW-846 8260D	11/1/21	11/1/21 14:19	MFF
Chloroform	ND	2.0	0.19	µg/L	1		SW-846 8260D	11/1/21	11/1/21 14:19	MFF
Chloromethane	ND	2.0	0.38	µg/L	1		SW-846 8260D	11/1/21	11/1/21 14:19	MFF
2-Chlorotoluene	ND	1.0	0.090	µg/L	1		SW-846 8260D	11/1/21	11/1/21 14:19	MFF
4-Chlorotoluene	ND	1.0	0.10	µg/L	1		SW-846 8260D	11/1/21	11/1/21 14:19	MFF
1,2-Dibromo-3-chloropropane (DBCP)	ND	5.0	0.72	µg/L	1		SW-846 8260D	11/1/21	11/1/21 14:19	MFF
1,2-Dibromoethane (EDB)	ND	0.50	0.15	µg/L	1		SW-846 8260D	11/1/21	11/1/21 14:19	MFF
Dibromomethane	ND	1.0	0.29	µg/L	1		SW-846 8260D	11/1/21	11/1/21 14:19	MFF
1,2-Dichlorobenzene	ND	1.0	0.10	µg/L	1		SW-846 8260D	11/1/21	11/1/21 14:19	MFF
1,3-Dichlorobenzene	ND	1.0	0.090	µg/L	1		SW-846 8260D	11/1/21	11/1/21 14:19	MFF
1,4-Dichlorobenzene	ND	1.0	0.11	µg/L	1		SW-846 8260D	11/1/21	11/1/21 14:19	MFF
trans-1,4-Dichloro-2-butene	ND	2.0	1.8	µg/L	1		SW-846 8260D	11/1/21	11/1/21 14:19	MFF
Dichlorodifluoromethane (Freon 12)	ND	2.0	0.20	µg/L	1		SW-846 8260D	11/1/21	11/1/21 14:19	MFF
1,1-Dichloroethane	ND	1.0	0.16	µg/L	1		SW-846 8260D	11/1/21	11/1/21 14:19	MFF
1,2-Dichloroethane	ND	1.0	0.32	µg/L	1		SW-846 8260D	11/1/21	11/1/21 14:19	MFF
1,1-Dichloroethylene	ND	1.0	0.16	µg/L	1		SW-846 8260D	11/1/21	11/1/21 14:19	MFF
cis-1,2-Dichloroethylene	ND	1.0	0.15	µg/L	1		SW-846 8260D	11/1/21	11/1/21 14:19	MFF
trans-1,2-Dichloroethylene	ND	1.0	0.17	µg/L	1		SW-846 8260D	11/1/21	11/1/21 14:19	MFF
1,2-Dichloropropane	ND	1.0	0.18	µg/L	1		SW-846 8260D	11/1/21	11/1/21 14:19	MFF
1,3-Dichloropropane	ND	0.50	0.12	µg/L	1		SW-846 8260D	11/1/21	11/1/21 14:19	MFF
2,2-Dichloropropane	ND	1.0	0.31	µg/L	1		SW-846 8260D	11/1/21	11/1/21 14:19	MFF
1,1-Dichloropropene	ND	2.0	0.26	µg/L	1		SW-846 8260D	11/1/21	11/1/21 14:19	MFF
cis-1,3-Dichloropropene	ND	0.50	0.12	µg/L	1		SW-846 8260D	11/1/21	11/1/21 14:19	MFF
trans-1,3-Dichloropropene	ND	0.50	0.15	µg/L	1		SW-846 8260D	11/1/21	11/1/21 14:19	MFF
Diethyl Ether	ND	2.0	0.22	µg/L	1		SW-846 8260D	11/1/21	11/1/21 14:19	MFF

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Project Location: 1400 N. Royal St, Alexandria, VA Sample Description: Work Order: 21J1856

Date Received: 10/29/2021

Field Sample #: HRP-MW214-211026 Sampled: 10/26/2021 10:10

Sample ID: 21J1856-01

Sample Matrix: Ground Water

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Diisopropyl Ether (DIPE)	ND	0.50	0.15	µg/L	1		SW-846 8260D	11/1/21	11/1/21 14:19	MFF
1,4-Dioxane	ND	50	22	µg/L	1		SW-846 8260D	11/1/21	11/1/21 14:19	MFF
Ethylbenzene	ND	1.0	0.090	µg/L	1		SW-846 8260D	11/1/21	11/1/21 14:19	MFF
Hexachlorobutadiene	ND	0.60	0.41	µg/L	1		SW-846 8260D	11/1/21	11/1/21 14:19	MFF
2-Hexanone (MBK)	ND	10	1.4	µg/L	1		SW-846 8260D	11/1/21	11/1/21 14:19	MFF
Isopropylbenzene (Cumene)	ND	1.0	0.10	µg/L	1		SW-846 8260D	11/1/21	11/1/21 14:19	MFF
p-Isopropyltoluene (p-Cymene)	ND	1.0	0.090	µg/L	1		SW-846 8260D	11/1/21	11/1/21 14:19	MFF
Methyl Acetate	ND	1.0	0.39	µg/L	1		SW-846 8260D	11/1/21	11/1/21 14:19	MFF
Methyl tert-Butyl Ether (MTBE)	ND	1.0	0.17	µg/L	1		SW-846 8260D	11/1/21	11/1/21 14:19	MFF
Methyl Cyclohexane	ND	1.0	0.33	µg/L	1		SW-846 8260D	11/1/21	11/1/21 14:19	MFF
Methylene Chloride	ND	5.0	0.30	µg/L	1		SW-846 8260D	11/1/21	11/1/21 14:19	MFF
4-Methyl-2-pentanone (MIBK)	ND	10	1.6	µg/L	1		SW-846 8260D	11/1/21	11/1/21 14:19	MFF
Naphthalene	ND	2.0	0.15	µg/L	1	V-05	SW-846 8260D	11/1/21	11/1/21 14:19	MFF
n-Propylbenzene	ND	1.0	0.080	µg/L	1		SW-846 8260D	11/1/21	11/1/21 14:19	MFF
Styrene	ND	1.0	0.080	µg/L	1		SW-846 8260D	11/1/21	11/1/21 14:19	MFF
1,1,1,2-Tetrachloroethane	ND	1.0	0.14	µg/L	1		SW-846 8260D	11/1/21	11/1/21 14:19	MFF
1,1,2,2-Tetrachloroethane	ND	0.50	0.090	µg/L	1		SW-846 8260D	11/1/21	11/1/21 14:19	MFF
Tetrachloroethylene	ND	1.0	0.20	µg/L	1		SW-846 8260D	11/1/21	11/1/21 14:19	MFF
Tetrahydrofuran	ND	10	0.58	µg/L	1		SW-846 8260D	11/1/21	11/1/21 14:19	MFF
Toluene	ND	1.0	0.11	µg/L	1		SW-846 8260D	11/1/21	11/1/21 14:19	MFF
1,2,3-Trichlorobenzene	ND	5.0	0.14	µg/L	1	V-05	SW-846 8260D	11/1/21	11/1/21 14:19	MFF
1,2,4-Trichlorobenzene	ND	1.0	0.16	µg/L	1	V-05	SW-846 8260D	11/1/21	11/1/21 14:19	MFF
1,3,5-Trichlorobenzene	ND	1.0	0.18	µg/L	1		SW-846 8260D	11/1/21	11/1/21 14:19	MFF
1,1,1-Trichloroethane	ND	1.0	0.17	µg/L	1		SW-846 8260D	11/1/21	11/1/21 14:19	MFF
1,1,2-Trichloroethane	ND	1.0	0.15	µg/L	1		SW-846 8260D	11/1/21	11/1/21 14:19	MFF
Trichloroethylene	ND	1.0	0.18	µg/L	1		SW-846 8260D	11/1/21	11/1/21 14:19	MFF
Trichlorofluoromethane (Freon 11)	ND	2.0	0.19	µg/L	1		SW-846 8260D	11/1/21	11/1/21 14:19	MFF
1,2,3-Trichloropropane	ND	2.0	0.31	µg/L	1		SW-846 8260D	11/1/21	11/1/21 14:19	MFF
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	1.0	0.24	µg/L	1		SW-846 8260D	11/1/21	11/1/21 14:19	MFF
1,2,4-Trimethylbenzene	ND	1.0	0.10	µg/L	1		SW-846 8260D	11/1/21	11/1/21 14:19	MFF
1,3,5-Trimethylbenzene	ND	1.0	0.10	µg/L	1		SW-846 8260D	11/1/21	11/1/21 14:19	MFF
Vinyl Chloride	ND	2.0	0.20	µg/L	1		SW-846 8260D	11/1/21	11/1/21 14:19	MFF
m+p Xylene	ND	2.0	0.18	µg/L	1		SW-846 8260D	11/1/21	11/1/21 14:19	MFF
o-Xylene	ND	1.0	0.090	µg/L	1		SW-846 8260D	11/1/21	11/1/21 14:19	MFF

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
1,2-Dichloroethane-d4	106	70-130		11/1/21 14:19
Toluene-d8	104	70-130		11/1/21 14:19
4-Bromofluorobenzene	102	70-130		11/1/21 14:19

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39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: 1400 N. Royal St, Alexandria, VA Sample Description: Work Order: 21J1856

Date Received: 10/29/2021

Field Sample #: HRP-MW214-211026 Sampled: 10/26/2021 10:10

Sample ID: 21J1856-01

Sample Matrix: Ground Water

Semivolatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acenaphthene	ND	4.8	0.32	µg/L	1		SW-846 8270E	11/1/21	11/3/21 17:31	BGL
Acenaphthylene	ND	4.8	0.31	µg/L	1		SW-846 8270E	11/1/21	11/3/21 17:31	BGL
Acetophenone	ND	9.6	0.43	µg/L	1		SW-846 8270E	11/1/21	11/3/21 17:31	BGL
Aniline	ND	4.8	0.79	µg/L	1		SW-846 8270E	11/1/21	11/3/21 17:31	BGL
Anthracene	ND	4.8	0.38	µg/L	1		SW-846 8270E	11/1/21	11/3/21 17:31	BGL
Benzidine	ND	19	9.6	µg/L	1	V-04	SW-846 8270E	11/1/21	11/3/21 17:31	BGL
Benzo(a)anthracene	ND	4.8	0.36	µg/L	1		SW-846 8270E	11/1/21	11/3/21 17:31	BGL
Benzo(a)pyrene	ND	4.8	0.46	µg/L	1		SW-846 8270E	11/1/21	11/3/21 17:31	BGL
Benzo(b)fluoranthene	ND	4.8	0.40	µg/L	1		SW-846 8270E	11/1/21	11/3/21 17:31	BGL
Benzo(g,h,i)perylene	ND	4.8	0.62	µg/L	1		SW-846 8270E	11/1/21	11/3/21 17:31	BGL
Benzo(k)fluoranthene	ND	4.8	0.35	µg/L	1		SW-846 8270E	11/1/21	11/3/21 17:31	BGL
Benzoic Acid	ND	9.6	8.9	µg/L	1		SW-846 8270E	11/1/21	11/3/21 17:31	BGL
Bis(2-chloroethoxy)methane	ND	9.6	0.42	µg/L	1		SW-846 8270E	11/1/21	11/3/21 17:31	BGL
Bis(2-chloroethyl)ether	ND	9.6	0.50	µg/L	1		SW-846 8270E	11/1/21	11/3/21 17:31	BGL
Bis(2-chloroisopropyl)ether	ND	9.6	0.57	µg/L	1		SW-846 8270E	11/1/21	11/3/21 17:31	BGL
Bis(2-Ethylhexyl)phthalate	ND	9.6	0.89	µg/L	1		SW-846 8270E	11/1/21	11/3/21 17:31	BGL
4-Bromophenylphenylether	ND	9.6	0.37	µg/L	1		SW-846 8270E	11/1/21	11/3/21 17:31	BGL
Butylbenzylphthalate	ND	9.6	0.67	µg/L	1		SW-846 8270E	11/1/21	11/3/21 17:31	BGL
Carbazole	ND	9.6	0.40	µg/L	1		SW-846 8270E	11/1/21	11/3/21 17:31	BGL
4-Chloroaniline	ND	9.6	0.42	µg/L	1		SW-846 8270E	11/1/21	11/3/21 17:31	BGL
4-Chloro-3-methylphenol	ND	9.6	0.52	µg/L	1		SW-846 8270E	11/1/21	11/3/21 17:31	BGL
2-Chloronaphthalene	ND	9.6	0.25	µg/L	1		SW-846 8270E	11/1/21	11/3/21 17:31	BGL
2-Chlorophenol	ND	9.6	0.36	µg/L	1		SW-846 8270E	11/1/21	11/3/21 17:31	BGL
4-Chlorophenylphenylether	ND	9.6	0.32	µg/L	1		SW-846 8270E	11/1/21	11/3/21 17:31	BGL
Chrysene	ND	4.8	0.36	µg/L	1		SW-846 8270E	11/1/21	11/3/21 17:31	BGL
Dibenz(a,h)anthracene	ND	4.8	0.68	µg/L	1		SW-846 8270E	11/1/21	11/3/21 17:31	BGL
Dibenzofuran	ND	4.8	0.33	µg/L	1		SW-846 8270E	11/1/21	11/3/21 17:31	BGL
Di-n-butylphthalate	ND	9.6	0.48	µg/L	1		SW-846 8270E	11/1/21	11/3/21 17:31	BGL
1,2-Dichlorobenzene	ND	4.8	0.22	µg/L	1		SW-846 8270E	11/1/21	11/3/21 17:31	BGL
1,3-Dichlorobenzene	ND	4.8	0.23	µg/L	1		SW-846 8270E	11/1/21	11/3/21 17:31	BGL
1,4-Dichlorobenzene	ND	4.8	0.25	µg/L	1		SW-846 8270E	11/1/21	11/3/21 17:31	BGL
3,3-Dichlorobenzidine	ND	9.6	0.60	µg/L	1		SW-846 8270E	11/1/21	11/3/21 17:31	BGL
2,4-Dichlorophenol	ND	9.6	0.35	µg/L	1		SW-846 8270E	11/1/21	11/3/21 17:31	BGL
Diethylphthalate	ND	9.6	0.46	µg/L	1		SW-846 8270E	11/1/21	11/3/21 17:31	BGL
2,4-Dimethylphenol	ND	9.6	0.93	µg/L	1		SW-846 8270E	11/1/21	11/3/21 17:31	BGL
Dimethylphthalate	ND	9.6	0.39	µg/L	1		SW-846 8270E	11/1/21	11/3/21 17:31	BGL
4,6-Dinitro-2-methylphenol	ND	9.6	6.3	µg/L	1		SW-846 8270E	11/1/21	11/3/21 17:31	BGL
2,4-Dinitrophenol	ND	9.6	7.7	µg/L	1	V-04, V-20	SW-846 8270E	11/1/21	11/3/21 17:31	BGL
2,4-Dinitrotoluene	ND	9.6	0.59	µg/L	1	V-20	SW-846 8270E	11/1/21	11/3/21 17:31	BGL
2,6-Dinitrotoluene	ND	9.6	0.48	µg/L	1		SW-846 8270E	11/1/21	11/3/21 17:31	BGL
Di-n-octylphthalate	ND	9.6	5.4	µg/L	1		SW-846 8270E	11/1/21	11/3/21 17:31	BGL
1,2-Diphenylhydrazine/Azobenzene	ND	9.6	0.51	µg/L	1		SW-846 8270E	11/1/21	11/3/21 17:31	BGL
Fluoranthene	ND	4.8	0.36	µg/L	1		SW-846 8270E	11/1/21	11/3/21 17:31	BGL
Fluorene	ND	4.8	0.40	µg/L	1		SW-846 8270E	11/1/21	11/3/21 17:31	BGL

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39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: 1400 N. Royal St, Alexandria, VA Sample Description: Work Order: 21J1856

Date Received: 10/29/2021

Field Sample #: HRP-MW214-211026 Sampled: 10/26/2021 10:10

Sample ID: 21J1856-01

Sample Matrix: Ground Water

Semivolatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Hexachlorobenzene	ND	9.6	0.35	µg/L	1		SW-846 8270E	11/1/21	11/3/21 17:31	BGL
Hexachlorobutadiene	ND	9.6	0.26	µg/L	1		SW-846 8270E	11/1/21	11/3/21 17:31	BGL
Hexachlorocyclopentadiene	ND	9.6	4.1	µg/L	1		SW-846 8270E	11/1/21	11/3/21 17:31	BGL
Hexachloroethane	ND	9.6	0.30	µg/L	1		SW-846 8270E	11/1/21	11/3/21 17:31	BGL
Indeno(1,2,3-cd)pyrene	ND	4.8	0.76	µg/L	1		SW-846 8270E	11/1/21	11/3/21 17:31	BGL
Isophorone	ND	9.6	0.47	µg/L	1		SW-846 8270E	11/1/21	11/3/21 17:31	BGL
1-Methylnaphthalene	ND	4.8	0.28	µg/L	1		SW-846 8270E	11/1/21	11/3/21 17:31	BGL
2-Methylnaphthalene	ND	4.8	0.32	µg/L	1		SW-846 8270E	11/1/21	11/3/21 17:31	BGL
2-Methylphenol	ND	9.6	0.35	µg/L	1		SW-846 8270E	11/1/21	11/3/21 17:31	BGL
3/4-Methylphenol	ND	9.6	0.37	µg/L	1		SW-846 8270E	11/1/21	11/3/21 17:31	BGL
Naphthalene	ND	4.8	0.28	µg/L	1		SW-846 8270E	11/1/21	11/3/21 17:31	BGL
2-Nitroaniline	ND	9.6	0.72	µg/L	1		SW-846 8270E	11/1/21	11/3/21 17:31	BGL
3-Nitroaniline	ND	9.6	0.49	µg/L	1		SW-846 8270E	11/1/21	11/3/21 17:31	BGL
4-Nitroaniline	ND	9.6	0.47	µg/L	1	V-20	SW-846 8270E	11/1/21	11/3/21 17:31	BGL
Nitrobenzene	ND	9.6	0.51	µg/L	1		SW-846 8270E	11/1/21	11/3/21 17:31	BGL
2-Nitrophenol	ND	9.6	0.45	µg/L	1		SW-846 8270E	11/1/21	11/3/21 17:31	BGL
4-Nitrophenol	ND	9.6	2.0	µg/L	1		SW-846 8270E	11/1/21	11/3/21 17:31	BGL
N-Nitrosodimethylamine	ND	9.6	0.79	µg/L	1		SW-846 8270E	11/1/21	11/3/21 17:31	BGL
N-Nitrosodiphenylamine/Diphenylamine	ND	9.6	0.38	µg/L	1		SW-846 8270E	11/1/21	11/3/21 17:31	BGL
N-Nitrosodi-n-propylamine	ND	9.6	0.51	µg/L	1		SW-846 8270E	11/1/21	11/3/21 17:31	BGL
Pentachloronitrobenzene	ND	9.6	0.61	µg/L	1		SW-846 8270E	11/1/21	11/3/21 17:31	BGL
Pentachlorophenol	ND	9.6	3.6	µg/L	1		SW-846 8270E	11/1/21	11/3/21 17:31	BGL
Phenanthrene	ND	4.8	0.38	µg/L	1		SW-846 8270E	11/1/21	11/3/21 17:31	BGL
Phenol	ND	9.6	0.24	µg/L	1		SW-846 8270E	11/1/21	11/3/21 17:31	BGL
Pyrene	ND	4.8	0.45	µg/L	1		SW-846 8270E	11/1/21	11/3/21 17:31	BGL
Pyridine	ND	4.8	2.5	µg/L	1		SW-846 8270E	11/1/21	11/3/21 17:31	BGL
1,2,4,5-Tetrachlorobenzene	ND	9.6	0.26	µg/L	1		SW-846 8270E	11/1/21	11/3/21 17:31	BGL
1,2,4-Trichlorobenzene	ND	4.8	0.24	µg/L	1		SW-846 8270E	11/1/21	11/3/21 17:31	BGL
2,4,5-Trichlorophenol	ND	9.6	0.45	µg/L	1		SW-846 8270E	11/1/21	11/3/21 17:31	BGL
2,4,6-Trichlorophenol	ND	9.6	0.39	µg/L	1		SW-846 8270E	11/1/21	11/3/21 17:31	BGL

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
2-Fluorophenol	45.4	15-110		11/3/21 17:31
Phenol-d6	33.8	15-110		11/3/21 17:31
Nitrobenzene-d5	56.2	30-130		11/3/21 17:31
2-Fluorobiphenyl	58.7	30-130		11/3/21 17:31
2,4,6-Tribromophenol	77.0	15-110		11/3/21 17:31
p-Terphenyl-d14	93.2	30-130		11/3/21 17:31

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Project Location: 1400 N. Royal St, Alexandria, VA Sample Description: Work Order: 21J1856

Date Received: 10/29/2021

Field Sample #: HRP-MW214-211026 Sampled: 10/26/2021 10:10

Sample ID: 21J1856-01

Sample Matrix: Ground Water

Petroleum Hydrocarbons Analyses

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Gasoline Range Organics (GRO)	ND	0.010	0.0094	mg/L	1		SW-846 8015C	11/2/21	11/3/21 2:10	KMB
Diesel Range Organics	0.37	0.19	0.081	mg/L	1		SW-846 8015C	11/2/21	11/3/21 13:38	SFM

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
1-Chloro-3-fluorobenzene	106	70-130		11/3/21 2:10
2-Fluorobiphenyl	73.1	40-140		11/3/21 13:38

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Project Location: 1400 N. Royal St, Alexandria, VA Sample Description: Work Order: 21J1856

Date Received: 10/29/2021

Field Sample #: HRP-MW214-211026 Sampled: 10/26/2021 10:10

Sample ID: 21J1856-01

Sample Matrix: Ground Water

Metals Analyses (Total)

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Aluminum	2.2	0.050	0.049	mg/L	1		SW-846 6010D	10/31/21	10/31/21 22:27	QNW
Antimony	ND	1.0	0.20	µg/L	1		SW-846 6020B	10/31/21	10/31/21 20:15	QNW
Arsenic	5.1	0.80	0.46	µg/L	1		SW-846 6020B	10/31/21	10/31/21 20:15	QNW
Barium	42	10	1.2	µg/L	1		SW-846 6020B	10/31/21	10/31/21 20:15	QNW
Beryllium	1.6	0.40	0.066	µg/L	1		SW-846 6020B	10/31/21	11/1/21 11:40	QNW
Cadmium	7.2	0.20	0.027	µg/L	1		SW-846 6020B	10/31/21	10/31/21 20:15	QNW
Calcium	52	0.50	0.11	mg/L	1		SW-846 6010D	10/31/21	10/31/21 22:27	QNW
Chromium	1.4	1.0	0.92	µg/L	1		SW-846 6020B	10/31/21	11/1/21 11:40	QNW
Cobalt	780	10	1.4	µg/L	10		SW-846 6020B	10/31/21	11/1/21 13:09	QNW
Copper	12	1.0	0.27	µg/L	1		SW-846 6020B	10/31/21	10/31/21 20:15	QNW
Iron	0.73	0.050	0.032	mg/L	1		SW-846 6010D	10/31/21	10/31/21 22:27	QNW
Lead	1.7	0.50	0.14	µg/L	1		SW-846 6020B	10/31/21	10/31/21 20:15	QNW
Magnesium	31	0.050	0.023	mg/L	1		SW-846 6010D	10/31/21	10/31/21 22:27	QNW
Manganese	26000	100	24	µg/L	100		SW-846 6020B	10/31/21	11/1/21 13:13	QNW
Mercury	0.00033	0.00020	0.00010	mg/L	2		SW-846 7470A	11/1/21	11/2/21 10:27	DRL
Nickel	190	5.0	0.52	µg/L	1		SW-846 6020B	10/31/21	10/31/21 20:15	QNW
Potassium	9.9	2.0	0.40	mg/L	1		SW-846 6010D	10/31/21	10/31/21 22:27	QNW
Selenium	18	5.0	0.78	µg/L	1		SW-846 6020B	10/31/21	10/31/21 20:15	QNW
Silver	0.043	0.20	0.026	µg/L	1	J	SW-846 6020B	10/31/21	10/31/21 20:15	QNW
Sodium	27	2.0	0.56	mg/L	1		SW-846 6010D	10/31/21	10/31/21 22:27	QNW
Thallium	0.097	0.20	0.067	µg/L	1	J	SW-846 6020B	10/31/21	10/31/21 20:15	QNW
Vanadium	ND	5.0	3.5	µg/L	1		SW-846 6020B	10/31/21	10/31/21 20:15	QNW
Zinc	380	10	3.4	µg/L	1		SW-846 6020B	10/31/21	10/31/21 20:15	QNW

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Project Location: 1400 N. Royal St, Alexandria, VA Sample Description: Work Order: 21J1856

Date Received: 10/29/2021

Field Sample #: HRP-MW214-211026 Sampled: 10/26/2021 10:10

Sample ID: 21J1856-01

Sample Matrix: Ground Water

Metals Analyses (Dissolved)

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Aluminum	2.0	0.050	0.049	mg/L	1		SW-846 6010D	10/31/21	10/31/21 20:15	QNW
Antimony	ND	1.0	0.20	µg/L	1		SW-846 6020B	10/31/21	11/1/21 11:40	QNW
Arsenic	5.4	0.80	0.46	µg/L	1		SW-846 6020B	10/31/21	11/1/21 12:34	QNW
Barium	40	10	1.2	µg/L	1		SW-846 6020B	10/31/21	11/1/21 11:40	QNW
Beryllium	1.7	0.40	0.066	µg/L	1		SW-846 6020B	10/31/21	11/1/21 12:34	QNW
Cadmium	7.7	0.20	0.027	µg/L	1		SW-846 6020B	10/31/21	11/1/21 11:40	QNW
Calcium	52	0.50	0.11	mg/L	1		SW-846 6010D	10/31/21	10/31/21 20:15	QNW
Chromium	ND	1.0	0.92	µg/L	1		SW-846 6020B	10/31/21	11/1/21 11:40	QNW
Cobalt	830	100	14	µg/L	100		SW-846 6020B	10/31/21	11/1/21 13:48	QNW
Copper	16	1.0	0.27	µg/L	1		SW-846 6020B	10/31/21	11/1/21 12:34	QNW
Iron	0.31	0.050	0.032	mg/L	1		SW-846 6010D	10/31/21	10/31/21 20:15	QNW
Lead	1.5	0.50	0.14	µg/L	1		SW-846 6020B	10/31/21	11/1/21 11:40	QNW
Magnesium	32	0.050	0.023	mg/L	1		SW-846 6010D	10/31/21	10/31/21 20:15	QNW
Manganese	26000	100	24	µg/L	100	MS-19	SW-846 6020B	10/31/21	11/1/21 13:48	QNW
Mercury	0.00011	0.00020	0.00010	mg/L	2	DL-03, J	SW-846 7470A	11/1/21	11/2/21 10:01	DRL
Nickel	190	5.0	0.52	µg/L	1		SW-846 6020B	10/31/21	11/1/21 11:40	QNW
Potassium	10	2.0	0.40	mg/L	1		SW-846 6010D	10/31/21	10/31/21 20:15	QNW
Selenium	18	5.0	0.78	µg/L	1		SW-846 6020B	10/31/21	11/1/21 12:34	QNW
Silver	ND	0.20	0.026	µg/L	1		SW-846 6020B	10/31/21	11/1/21 11:40	QNW
Sodium	27	2.0	0.56	mg/L	1		SW-846 6010D	10/31/21	10/31/21 20:15	QNW
Thallium	0.088	0.20	0.067	µg/L	1	J	SW-846 6020B	10/31/21	11/1/21 12:34	QNW
Vanadium	ND	5.0	3.5	µg/L	1		SW-846 6020B	10/31/21	11/1/21 11:40	QNW
Zinc	350	10	3.4	µg/L	1		SW-846 6020B	10/31/21	11/1/21 11:40	QNW

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: 1400 N. Royal St, Alexandria, VA Sample Description: Work Order: 21J1856

Date Received: 10/29/2021

Field Sample #: HRP-MW214-211026 Sampled: 10/26/2021 10:10

Sample ID: 21J1856-01

Sample Matrix: Ground Water

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Sulfate	320	25	15	mg/L	25		ASTM D516-16	11/2/21	11/2/21 10:59	MMH

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Project Location: 1400 N. Royal St, Alexandria, VA Sample Description: Work Order: 21J1856

Date Received: 10/29/2021

Field Sample #: HRP-MW208-211026 Sampled: 10/26/2021 13:10

Sample ID: 21J1856-02

Sample Matrix: Ground Water

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acetone	ND	50	2.4	µg/L	1		SW-846 8260D	11/1/21	11/1/21 14:43	MFF
Acrylonitrile	ND	5.0	0.69	µg/L	1		SW-846 8260D	11/1/21	11/1/21 14:43	MFF
tert-Amyl Methyl Ether (TAME)	ND	0.50	0.15	µg/L	1		SW-846 8260D	11/1/21	11/1/21 14:43	MFF
Benzene	ND	1.0	0.13	µg/L	1		SW-846 8260D	11/1/21	11/1/21 14:43	MFF
Bromobenzene	ND	1.0	0.13	µg/L	1		SW-846 8260D	11/1/21	11/1/21 14:43	MFF
Bromochloromethane	ND	1.0	0.36	µg/L	1		SW-846 8260D	11/1/21	11/1/21 14:43	MFF
Bromodichloromethane	ND	0.50	0.14	µg/L	1		SW-846 8260D	11/1/21	11/1/21 14:43	MFF
Bromoform	ND	1.0	0.29	µg/L	1		SW-846 8260D	11/1/21	11/1/21 14:43	MFF
Bromomethane	ND	2.0	1.1	µg/L	1		SW-846 8260D	11/1/21	11/1/21 14:43	MFF
2-Butanone (MEK)	ND	20	1.9	µg/L	1		SW-846 8260D	11/1/21	11/1/21 14:43	MFF
tert-Butyl Alcohol (TBA)	ND	20	5.3	µg/L	1		SW-846 8260D	11/1/21	11/1/21 14:43	MFF
n-Butylbenzene	ND	1.0	0.14	µg/L	1		SW-846 8260D	11/1/21	11/1/21 14:43	MFF
sec-Butylbenzene	ND	1.0	0.10	µg/L	1		SW-846 8260D	11/1/21	11/1/21 14:43	MFF
tert-Butylbenzene	ND	1.0	0.090	µg/L	1		SW-846 8260D	11/1/21	11/1/21 14:43	MFF
tert-Butyl Ethyl Ether (TBEE)	ND	0.50	0.11	µg/L	1		SW-846 8260D	11/1/21	11/1/21 14:43	MFF
Carbon Disulfide	ND	5.0	1.5	µg/L	1		SW-846 8260D	11/1/21	11/1/21 14:43	MFF
Carbon Tetrachloride	ND	5.0	0.17	µg/L	1		SW-846 8260D	11/1/21	11/1/21 14:43	MFF
Chlorobenzene	ND	1.0	0.080	µg/L	1		SW-846 8260D	11/1/21	11/1/21 14:43	MFF
Chlorodibromomethane	ND	0.50	0.16	µg/L	1		SW-846 8260D	11/1/21	11/1/21 14:43	MFF
Chloroethane	ND	2.0	0.37	µg/L	1		SW-846 8260D	11/1/21	11/1/21 14:43	MFF
Chloroform	ND	2.0	0.19	µg/L	1		SW-846 8260D	11/1/21	11/1/21 14:43	MFF
Chloromethane	ND	2.0	0.38	µg/L	1		SW-846 8260D	11/1/21	11/1/21 14:43	MFF
2-Chlorotoluene	ND	1.0	0.090	µg/L	1		SW-846 8260D	11/1/21	11/1/21 14:43	MFF
4-Chlorotoluene	ND	1.0	0.10	µg/L	1		SW-846 8260D	11/1/21	11/1/21 14:43	MFF
1,2-Dibromo-3-chloropropane (DBCP)	ND	5.0	0.72	µg/L	1		SW-846 8260D	11/1/21	11/1/21 14:43	MFF
1,2-Dibromoethane (EDB)	ND	0.50	0.15	µg/L	1		SW-846 8260D	11/1/21	11/1/21 14:43	MFF
Dibromomethane	ND	1.0	0.29	µg/L	1		SW-846 8260D	11/1/21	11/1/21 14:43	MFF
1,2-Dichlorobenzene	ND	1.0	0.10	µg/L	1		SW-846 8260D	11/1/21	11/1/21 14:43	MFF
1,3-Dichlorobenzene	ND	1.0	0.090	µg/L	1		SW-846 8260D	11/1/21	11/1/21 14:43	MFF
1,4-Dichlorobenzene	ND	1.0	0.11	µg/L	1		SW-846 8260D	11/1/21	11/1/21 14:43	MFF
trans-1,4-Dichloro-2-butene	ND	2.0	1.8	µg/L	1		SW-846 8260D	11/1/21	11/1/21 14:43	MFF
Dichlorodifluoromethane (Freon 12)	ND	2.0	0.20	µg/L	1		SW-846 8260D	11/1/21	11/1/21 14:43	MFF
1,1-Dichloroethane	ND	1.0	0.16	µg/L	1		SW-846 8260D	11/1/21	11/1/21 14:43	MFF
1,2-Dichloroethane	ND	1.0	0.32	µg/L	1		SW-846 8260D	11/1/21	11/1/21 14:43	MFF
1,1-Dichloroethylene	ND	1.0	0.16	µg/L	1		SW-846 8260D	11/1/21	11/1/21 14:43	MFF
cis-1,2-Dichloroethylene	ND	1.0	0.15	µg/L	1		SW-846 8260D	11/1/21	11/1/21 14:43	MFF
trans-1,2-Dichloroethylene	ND	1.0	0.17	µg/L	1		SW-846 8260D	11/1/21	11/1/21 14:43	MFF
1,2-Dichloropropane	ND	1.0	0.18	µg/L	1		SW-846 8260D	11/1/21	11/1/21 14:43	MFF
1,3-Dichloropropane	ND	0.50	0.12	µg/L	1		SW-846 8260D	11/1/21	11/1/21 14:43	MFF
2,2-Dichloropropane	ND	1.0	0.31	µg/L	1		SW-846 8260D	11/1/21	11/1/21 14:43	MFF
1,1-Dichloropropene	ND	2.0	0.26	µg/L	1		SW-846 8260D	11/1/21	11/1/21 14:43	MFF
cis-1,3-Dichloropropene	ND	0.50	0.12	µg/L	1		SW-846 8260D	11/1/21	11/1/21 14:43	MFF
trans-1,3-Dichloropropene	ND	0.50	0.15	µg/L	1		SW-846 8260D	11/1/21	11/1/21 14:43	MFF
Diethyl Ether	ND	2.0	0.22	µg/L	1		SW-846 8260D	11/1/21	11/1/21 14:43	MFF

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Project Location: 1400 N. Royal St, Alexandria, VA Sample Description: Work Order: 21J1856

Date Received: 10/29/2021

Field Sample #: HRP-MW208-211026 Sampled: 10/26/2021 13:10

Sample ID: 21J1856-02

Sample Matrix: Ground Water

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Diisopropyl Ether (DIPE)	0.46	0.50	0.15	µg/L	1	J	SW-846 8260D	11/1/21	11/1/21 14:43	MFF
1,4-Dioxane	ND	50	22	µg/L	1		SW-846 8260D	11/1/21	11/1/21 14:43	MFF
Ethylbenzene	ND	1.0	0.090	µg/L	1		SW-846 8260D	11/1/21	11/1/21 14:43	MFF
Hexachlorobutadiene	ND	0.60	0.41	µg/L	1		SW-846 8260D	11/1/21	11/1/21 14:43	MFF
2-Hexanone (MBK)	ND	10	1.4	µg/L	1		SW-846 8260D	11/1/21	11/1/21 14:43	MFF
Isopropylbenzene (Cumene)	ND	1.0	0.10	µg/L	1		SW-846 8260D	11/1/21	11/1/21 14:43	MFF
p-Isopropyltoluene (p-Cymene)	ND	1.0	0.090	µg/L	1		SW-846 8260D	11/1/21	11/1/21 14:43	MFF
Methyl Acetate	ND	1.0	0.39	µg/L	1		SW-846 8260D	11/1/21	11/1/21 14:43	MFF
Methyl tert-Butyl Ether (MTBE)	ND	1.0	0.17	µg/L	1		SW-846 8260D	11/1/21	11/1/21 14:43	MFF
Methyl Cyclohexane	ND	1.0	0.33	µg/L	1		SW-846 8260D	11/1/21	11/1/21 14:43	MFF
Methylene Chloride	ND	5.0	0.30	µg/L	1		SW-846 8260D	11/1/21	11/1/21 14:43	MFF
4-Methyl-2-pentanone (MIBK)	ND	10	1.6	µg/L	1		SW-846 8260D	11/1/21	11/1/21 14:43	MFF
Naphthalene	ND	2.0	0.15	µg/L	1	V-05	SW-846 8260D	11/1/21	11/1/21 14:43	MFF
n-Propylbenzene	ND	1.0	0.080	µg/L	1		SW-846 8260D	11/1/21	11/1/21 14:43	MFF
Styrene	ND	1.0	0.080	µg/L	1		SW-846 8260D	11/1/21	11/1/21 14:43	MFF
1,1,1,2-Tetrachloroethane	ND	1.0	0.14	µg/L	1		SW-846 8260D	11/1/21	11/1/21 14:43	MFF
1,1,2,2-Tetrachloroethane	ND	0.50	0.090	µg/L	1		SW-846 8260D	11/1/21	11/1/21 14:43	MFF
Tetrachloroethylene	ND	1.0	0.20	µg/L	1		SW-846 8260D	11/1/21	11/1/21 14:43	MFF
Tetrahydrofuran	ND	10	0.58	µg/L	1		SW-846 8260D	11/1/21	11/1/21 14:43	MFF
Toluene	ND	1.0	0.11	µg/L	1		SW-846 8260D	11/1/21	11/1/21 14:43	MFF
1,2,3-Trichlorobenzene	ND	5.0	0.14	µg/L	1	V-05	SW-846 8260D	11/1/21	11/1/21 14:43	MFF
1,2,4-Trichlorobenzene	ND	1.0	0.16	µg/L	1	V-05	SW-846 8260D	11/1/21	11/1/21 14:43	MFF
1,3,5-Trichlorobenzene	ND	1.0	0.18	µg/L	1		SW-846 8260D	11/1/21	11/1/21 14:43	MFF
1,1,1-Trichloroethane	ND	1.0	0.17	µg/L	1		SW-846 8260D	11/1/21	11/1/21 14:43	MFF
1,1,2-Trichloroethane	ND	1.0	0.15	µg/L	1		SW-846 8260D	11/1/21	11/1/21 14:43	MFF
Trichloroethylene	ND	1.0	0.18	µg/L	1		SW-846 8260D	11/1/21	11/1/21 14:43	MFF
Trichlorofluoromethane (Freon 11)	ND	2.0	0.19	µg/L	1		SW-846 8260D	11/1/21	11/1/21 14:43	MFF
1,2,3-Trichloropropane	ND	2.0	0.31	µg/L	1		SW-846 8260D	11/1/21	11/1/21 14:43	MFF
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	1.0	0.24	µg/L	1		SW-846 8260D	11/1/21	11/1/21 14:43	MFF
1,2,4-Trimethylbenzene	ND	1.0	0.10	µg/L	1		SW-846 8260D	11/1/21	11/1/21 14:43	MFF
1,3,5-Trimethylbenzene	ND	1.0	0.10	µg/L	1		SW-846 8260D	11/1/21	11/1/21 14:43	MFF
Vinyl Chloride	ND	2.0	0.20	µg/L	1		SW-846 8260D	11/1/21	11/1/21 14:43	MFF
m+p Xylene	ND	2.0	0.18	µg/L	1		SW-846 8260D	11/1/21	11/1/21 14:43	MFF
o-Xylene	ND	1.0	0.090	µg/L	1		SW-846 8260D	11/1/21	11/1/21 14:43	MFF

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
1,2-Dichloroethane-d4	106	70-130		11/1/21 14:43
Toluene-d8	106	70-130		11/1/21 14:43
4-Bromofluorobenzene	102	70-130		11/1/21 14:43

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Project Location: 1400 N. Royal St, Alexandria, VA Sample Description: Work Order: 21J1856

Date Received: 10/29/2021

Field Sample #: HRP-MW208-211026 Sampled: 10/26/2021 13:10

Sample ID: 21J1856-02

Sample Matrix: Ground Water

Semivolatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acenaphthene	ND	4.8	0.32	µg/L	1		SW-846 8270E	11/2/21	11/3/21 13:19	BGL
Acenaphthylene	ND	4.8	0.31	µg/L	1		SW-846 8270E	11/2/21	11/3/21 13:19	BGL
Acetophenone	ND	9.7	0.43	µg/L	1		SW-846 8270E	11/2/21	11/3/21 13:19	BGL
Aniline	ND	4.8	0.79	µg/L	1		SW-846 8270E	11/2/21	11/3/21 13:19	BGL
Anthracene	ND	4.8	0.38	µg/L	1		SW-846 8270E	11/2/21	11/3/21 13:19	BGL
Benzidine	ND	19	9.6	µg/L	1	V-04	SW-846 8270E	11/2/21	11/3/21 13:19	BGL
Benzo(a)anthracene	ND	4.8	0.37	µg/L	1		SW-846 8270E	11/2/21	11/3/21 13:19	BGL
Benzo(a)pyrene	ND	4.8	0.46	µg/L	1		SW-846 8270E	11/2/21	11/3/21 13:19	BGL
Benzo(b)fluoranthene	ND	4.8	0.40	µg/L	1		SW-846 8270E	11/2/21	11/3/21 13:19	BGL
Benzo(g,h,i)perylene	ND	4.8	0.62	µg/L	1		SW-846 8270E	11/2/21	11/3/21 13:19	BGL
Benzo(k)fluoranthene	ND	4.8	0.36	µg/L	1		SW-846 8270E	11/2/21	11/3/21 13:19	BGL
Benzoic Acid	ND	9.7	8.9	µg/L	1		SW-846 8270E	11/2/21	11/3/21 13:19	BGL
Bis(2-chloroethoxy)methane	ND	9.7	0.42	µg/L	1		SW-846 8270E	11/2/21	11/3/21 13:19	BGL
Bis(2-chloroethyl)ether	ND	9.7	0.50	µg/L	1		SW-846 8270E	11/2/21	11/3/21 13:19	BGL
Bis(2-chloroisopropyl)ether	ND	9.7	0.58	µg/L	1		SW-846 8270E	11/2/21	11/3/21 13:19	BGL
Bis(2-Ethylhexyl)phthalate	ND	9.7	0.89	µg/L	1		SW-846 8270E	11/2/21	11/3/21 13:19	BGL
4-Bromophenylphenylether	ND	9.7	0.37	µg/L	1		SW-846 8270E	11/2/21	11/3/21 13:19	BGL
Butylbenzylphthalate	ND	9.7	0.67	µg/L	1		SW-846 8270E	11/2/21	11/3/21 13:19	BGL
Carbazole	ND	9.7	0.40	µg/L	1		SW-846 8270E	11/2/21	11/3/21 13:19	BGL
4-Chloroaniline	ND	9.7	0.42	µg/L	1		SW-846 8270E	11/2/21	11/3/21 13:19	BGL
4-Chloro-3-methylphenol	ND	9.7	0.52	µg/L	1		SW-846 8270E	11/2/21	11/3/21 13:19	BGL
2-Chloronaphthalene	ND	9.7	0.26	µg/L	1		SW-846 8270E	11/2/21	11/3/21 13:19	BGL
2-Chlorophenol	ND	9.7	0.36	µg/L	1		SW-846 8270E	11/2/21	11/3/21 13:19	BGL
4-Chlorophenylphenylether	ND	9.7	0.32	µg/L	1		SW-846 8270E	11/2/21	11/3/21 13:19	BGL
Chrysene	ND	4.8	0.36	µg/L	1		SW-846 8270E	11/2/21	11/3/21 13:19	BGL
Dibenz(a,h)anthracene	ND	4.8	0.69	µg/L	1		SW-846 8270E	11/2/21	11/3/21 13:19	BGL
Dibenzofuran	ND	4.8	0.33	µg/L	1		SW-846 8270E	11/2/21	11/3/21 13:19	BGL
Di-n-butylphthalate	ND	9.7	0.48	µg/L	1		SW-846 8270E	11/2/21	11/3/21 13:19	BGL
1,2-Dichlorobenzene	ND	4.8	0.23	µg/L	1		SW-846 8270E	11/2/21	11/3/21 13:19	BGL
1,3-Dichlorobenzene	ND	4.8	0.23	µg/L	1		SW-846 8270E	11/2/21	11/3/21 13:19	BGL
1,4-Dichlorobenzene	ND	4.8	0.26	µg/L	1		SW-846 8270E	11/2/21	11/3/21 13:19	BGL
3,3-Dichlorobenzidine	ND	9.7	0.60	µg/L	1		SW-846 8270E	11/2/21	11/3/21 13:19	BGL
2,4-Dichlorophenol	ND	9.7	0.35	µg/L	1		SW-846 8270E	11/2/21	11/3/21 13:19	BGL
Diethylphthalate	ND	9.7	0.46	µg/L	1		SW-846 8270E	11/2/21	11/3/21 13:19	BGL
2,4-Dimethylphenol	ND	9.7	0.93	µg/L	1		SW-846 8270E	11/2/21	11/3/21 13:19	BGL
Dimethylphthalate	ND	9.7	0.39	µg/L	1		SW-846 8270E	11/2/21	11/3/21 13:19	BGL
4,6-Dinitro-2-methylphenol	ND	9.7	6.3	µg/L	1		SW-846 8270E	11/2/21	11/3/21 13:19	BGL
2,4-Dinitrophenol	ND	9.7	7.7	µg/L	1	V-04, V-20	SW-846 8270E	11/2/21	11/3/21 13:19	BGL
2,4-Dinitrotoluene	ND	9.7	0.59	µg/L	1	V-20	SW-846 8270E	11/2/21	11/3/21 13:19	BGL
2,6-Dinitrotoluene	ND	9.7	0.48	µg/L	1		SW-846 8270E	11/2/21	11/3/21 13:19	BGL
Di-n-octylphthalate	ND	9.7	5.4	µg/L	1		SW-846 8270E	11/2/21	11/3/21 13:19	BGL
1,2-Diphenylhydrazine/Azobenzene	ND	9.7	0.51	µg/L	1		SW-846 8270E	11/2/21	11/3/21 13:19	BGL
Fluoranthene	ND	4.8	0.36	µg/L	1		SW-846 8270E	11/2/21	11/3/21 13:19	BGL
Fluorene	ND	4.8	0.40	µg/L	1		SW-846 8270E	11/2/21	11/3/21 13:19	BGL

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Project Location: 1400 N. Royal St, Alexandria, VA Sample Description: Work Order: 21J1856

Date Received: 10/29/2021

Field Sample #: HRP-MW208-211026 Sampled: 10/26/2021 13:10

Sample ID: 21J1856-02

Sample Matrix: Ground Water

Semivolatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Hexachlorobenzene	ND	9.7	0.35	µg/L	1		SW-846 8270E	11/2/21	11/3/21 13:19	BGL
Hexachlorobutadiene	ND	9.7	0.26	µg/L	1		SW-846 8270E	11/2/21	11/3/21 13:19	BGL
Hexachlorocyclopentadiene	ND	9.7	4.1	µg/L	1		SW-846 8270E	11/2/21	11/3/21 13:19	BGL
Hexachloroethane	ND	9.7	0.30	µg/L	1		SW-846 8270E	11/2/21	11/3/21 13:19	BGL
Indeno(1,2,3-cd)pyrene	ND	4.8	0.76	µg/L	1		SW-846 8270E	11/2/21	11/3/21 13:19	BGL
Isophorone	ND	9.7	0.47	µg/L	1		SW-846 8270E	11/2/21	11/3/21 13:19	BGL
1-Methylnaphthalene	ND	4.8	0.28	µg/L	1		SW-846 8270E	11/2/21	11/3/21 13:19	BGL
2-Methylnaphthalene	ND	4.8	0.32	µg/L	1		SW-846 8270E	11/2/21	11/3/21 13:19	BGL
2-Methylphenol	ND	9.7	0.35	µg/L	1		SW-846 8270E	11/2/21	11/3/21 13:19	BGL
3/4-Methylphenol	ND	9.7	0.37	µg/L	1		SW-846 8270E	11/2/21	11/3/21 13:19	BGL
Naphthalene	ND	4.8	0.29	µg/L	1		SW-846 8270E	11/2/21	11/3/21 13:19	BGL
2-Nitroaniline	ND	9.7	0.73	µg/L	1		SW-846 8270E	11/2/21	11/3/21 13:19	BGL
3-Nitroaniline	ND	9.7	0.49	µg/L	1		SW-846 8270E	11/2/21	11/3/21 13:19	BGL
4-Nitroaniline	ND	9.7	0.47	µg/L	1	V-20	SW-846 8270E	11/2/21	11/3/21 13:19	BGL
Nitrobenzene	ND	9.7	0.51	µg/L	1		SW-846 8270E	11/2/21	11/3/21 13:19	BGL
2-Nitrophenol	ND	9.7	0.46	µg/L	1		SW-846 8270E	11/2/21	11/3/21 13:19	BGL
4-Nitrophenol	ND	9.7	2.0	µg/L	1		SW-846 8270E	11/2/21	11/3/21 13:19	BGL
N-Nitrosodimethylamine	ND	9.7	0.79	µg/L	1		SW-846 8270E	11/2/21	11/3/21 13:19	BGL
N-Nitrosodiphenylamine/Diphenylamine	ND	9.7	0.38	µg/L	1		SW-846 8270E	11/2/21	11/3/21 13:19	BGL
N-Nitrosodi-n-propylamine	ND	9.7	0.51	µg/L	1		SW-846 8270E	11/2/21	11/3/21 13:19	BGL
Pentachloronitrobenzene	ND	9.7	0.62	µg/L	1		SW-846 8270E	11/2/21	11/3/21 13:19	BGL
Pentachlorophenol	ND	9.7	3.6	µg/L	1		SW-846 8270E	11/2/21	11/3/21 13:19	BGL
Phenanthrene	ND	4.8	0.38	µg/L	1		SW-846 8270E	11/2/21	11/3/21 13:19	BGL
Phenol	ND	9.7	0.24	µg/L	1		SW-846 8270E	11/2/21	11/3/21 13:19	BGL
Pyrene	ND	4.8	0.46	µg/L	1		SW-846 8270E	11/2/21	11/3/21 13:19	BGL
Pyridine	ND	4.8	2.5	µg/L	1		SW-846 8270E	11/2/21	11/3/21 13:19	BGL
1,2,4,5-Tetrachlorobenzene	ND	9.7	0.26	µg/L	1		SW-846 8270E	11/2/21	11/3/21 13:19	BGL
1,2,4-Trichlorobenzene	ND	4.8	0.24	µg/L	1		SW-846 8270E	11/2/21	11/3/21 13:19	BGL
2,4,5-Trichlorophenol	ND	9.7	0.45	µg/L	1		SW-846 8270E	11/2/21	11/3/21 13:19	BGL
2,4,6-Trichlorophenol	ND	9.7	0.39	µg/L	1		SW-846 8270E	11/2/21	11/3/21 13:19	BGL

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
2-Fluorophenol	62.4	15-110		11/3/21 13:19
Phenol-d6	44.0	15-110		11/3/21 13:19
Nitrobenzene-d5	76.3	30-130		11/3/21 13:19
2-Fluorobiphenyl	75.8	30-130		11/3/21 13:19
2,4,6-Tribromophenol	90.9	15-110		11/3/21 13:19
p-Terphenyl-d14	110	30-130		11/3/21 13:19

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Project Location: 1400 N. Royal St, Alexandria, VA Sample Description: Work Order: 21J1856

Date Received: 10/29/2021

Field Sample #: HRP-MW208-211026 Sampled: 10/26/2021 13:10

Sample ID: 21J1856-02

Sample Matrix: Ground Water

Petroleum Hydrocarbons Analyses

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Gasoline Range Organics (GRO)	ND	0.010	0.0094	mg/L	1		SW-846 8015C	11/2/21	11/3/21 3:48	KMB
Diesel Range Organics	0.17	0.19	0.081	mg/L	1	J	SW-846 8015C	11/2/21	11/3/21 13:58	SFM

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
1-Chloro-3-fluorobenzene	105	70-130		11/3/21 3:48
2-Fluorobiphenyl	82.1	40-140		11/3/21 13:58

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Project Location: 1400 N. Royal St, Alexandria, VA Sample Description: Work Order: 21J1856

Date Received: 10/29/2021

Field Sample #: HRP-MW208-211026 Sampled: 10/26/2021 13:10

Sample ID: 21J1856-02

Sample Matrix: Ground Water

Metals Analyses (Total)

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Aluminum	0.085	0.050	0.049	mg/L	1		SW-846 6010D	10/31/21	10/31/21 22:35	QNW
Antimony	ND	1.0	0.20	µg/L	1		SW-846 6020B	10/31/21	10/31/21 20:18	QNW
Arsenic	4.9	0.80	0.46	µg/L	1		SW-846 6020B	10/31/21	10/31/21 20:18	QNW
Barium	27	10	1.2	µg/L	1		SW-846 6020B	10/31/21	10/31/21 20:18	QNW
Beryllium	ND	0.40	0.066	µg/L	1		SW-846 6020B	10/31/21	11/1/21 11:41	QNW
Cadmium	1.6	0.20	0.027	µg/L	1		SW-846 6020B	10/31/21	10/31/21 20:18	QNW
Calcium	100	0.50	0.11	mg/L	1		SW-846 6010D	10/31/21	10/31/21 22:35	QNW
Chromium	0.96	1.0	0.92	µg/L	1	J	SW-846 6020B	10/31/21	11/1/21 11:41	QNW
Cobalt	210	1.0	0.14	µg/L	1		SW-846 6020B	10/31/21	10/31/21 20:18	QNW
Copper	6.7	1.0	0.27	µg/L	1		SW-846 6020B	10/31/21	10/31/21 20:18	QNW
Iron	51	0.050	0.032	mg/L	1		SW-846 6010D	10/31/21	10/31/21 22:35	QNW
Lead	ND	0.50	0.14	µg/L	1		SW-846 6020B	10/31/21	10/31/21 20:18	QNW
Magnesium	69	0.050	0.023	mg/L	1		SW-846 6010D	10/31/21	10/31/21 22:35	QNW
Manganese	16000	100	24	µg/L	100		SW-846 6020B	10/31/21	11/1/21 13:16	QNW
Mercury	ND	0.00010	0.000050	mg/L	1		SW-846 7470A	11/1/21	11/2/21 9:16	DRL
Nickel	110	5.0	0.52	µg/L	1		SW-846 6020B	10/31/21	10/31/21 20:18	QNW
Potassium	4.4	2.0	0.40	mg/L	1		SW-846 6010D	10/31/21	10/31/21 22:35	QNW
Selenium	5.0	5.0	0.78	µg/L	1		SW-846 6020B	10/31/21	10/31/21 20:18	QNW
Silver	0.027	0.20	0.026	µg/L	1	J	SW-846 6020B	10/31/21	10/31/21 20:18	QNW
Sodium	320	2.0	0.56	mg/L	1		SW-846 6010D	10/31/21	10/31/21 22:35	QNW
Thallium	ND	0.20	0.067	µg/L	1		SW-846 6020B	10/31/21	10/31/21 20:18	QNW
Vanadium	ND	5.0	3.5	µg/L	1		SW-846 6020B	10/31/21	10/31/21 20:18	QNW
Zinc	41	10	3.4	µg/L	1		SW-846 6020B	10/31/21	10/31/21 20:18	QNW

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Project Location: 1400 N. Royal St, Alexandria, VA Sample Description: Work Order: 21J1856

Date Received: 10/29/2021

Field Sample #: HRP-MW208-211026 Sampled: 10/26/2021 13:10

Sample ID: 21J1856-02

Sample Matrix: Ground Water

Metals Analyses (Dissolved)

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Aluminum	ND	0.050	0.049	mg/L	1		SW-846 6010D	10/31/21	10/31/21 20:22	QNW
Antimony	ND	1.0	0.20	µg/L	1		SW-846 6020B	10/31/21	11/1/21 11:42	QNW
Arsenic	3.6	0.80	0.46	µg/L	1		SW-846 6020B	10/31/21	11/1/21 11:42	QNW
Barium	23	10	1.2	µg/L	1		SW-846 6020B	10/31/21	11/1/21 11:42	QNW
Beryllium	0.067	0.40	0.066	µg/L	1	J	SW-846 6020B	10/31/21	11/1/21 12:37	QNW
Cadmium	1.6	0.20	0.027	µg/L	1		SW-846 6020B	10/31/21	11/1/21 11:42	QNW
Calcium	97	0.50	0.11	mg/L	1		SW-846 6010D	10/31/21	10/31/21 20:22	QNW
Chromium	ND	1.0	0.92	µg/L	1		SW-846 6020B	10/31/21	11/1/21 11:42	QNW
Cobalt	200	1.0	0.14	µg/L	1		SW-846 6020B	10/31/21	11/1/21 11:42	QNW
Copper	8.0	1.0	0.27	µg/L	1		SW-846 6020B	10/31/21	11/1/21 12:37	QNW
Iron	49	0.050	0.032	mg/L	1		SW-846 6010D	10/31/21	10/31/21 20:22	QNW
Lead	ND	0.50	0.14	µg/L	1		SW-846 6020B	10/31/21	11/1/21 11:42	QNW
Magnesium	69	0.050	0.023	mg/L	1		SW-846 6010D	10/31/21	10/31/21 20:22	QNW
Manganese	16000	100	24	µg/L	100		SW-846 6020B	10/31/21	11/1/21 14:08	QNW
Mercury	ND	0.00010	0.000050	mg/L	1		SW-846 7470A	11/1/21	11/2/21 8:42	DRL
Nickel	100	5.0	0.52	µg/L	1		SW-846 6020B	10/31/21	11/1/21 11:42	QNW
Potassium	4.4	2.0	0.40	mg/L	1		SW-846 6010D	10/31/21	10/31/21 20:22	QNW
Selenium	6.0	5.0	0.78	µg/L	1		SW-846 6020B	10/31/21	11/1/21 12:37	QNW
Silver	ND	0.20	0.026	µg/L	1		SW-846 6020B	10/31/21	11/1/21 11:42	QNW
Sodium	320	2.0	0.56	mg/L	1		SW-846 6010D	10/31/21	10/31/21 20:22	QNW
Thallium	ND	0.20	0.067	µg/L	1		SW-846 6020B	10/31/21	11/1/21 11:42	QNW
Vanadium	ND	5.0	3.5	µg/L	1		SW-846 6020B	10/31/21	11/1/21 11:42	QNW
Zinc	37	10	3.4	µg/L	1		SW-846 6020B	10/31/21	11/1/21 11:42	QNW

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Project Location: 1400 N. Royal St, Alexandria, VA Sample Description: Work Order: 21J1856

Date Received: 10/29/2021

Field Sample #: HRP-MW208-211026 Sampled: 10/26/2021 13:10

Sample ID: 21J1856-02

Sample Matrix: Ground Water

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Sulfate	1200	100	60	mg/L	100		ASTM D516-16	11/2/21	11/2/21 11:52	MMH

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Project Location: 1400 N. Royal St, Alexandria, VA Sample Description: Work Order: 21J1856

Date Received: 10/29/2021

Field Sample #: HRP-MW207-211026 Sampled: 10/26/2021 16:55

Sample ID: 21J1856-03

Sample Matrix: Ground Water

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acetone	ND	50	2.4	µg/L	1		SW-846 8260D	11/1/21	11/1/21 15:07	MFF
Acrylonitrile	ND	5.0	0.69	µg/L	1		SW-846 8260D	11/1/21	11/1/21 15:07	MFF
tert-Amyl Methyl Ether (TAME)	ND	0.50	0.15	µg/L	1		SW-846 8260D	11/1/21	11/1/21 15:07	MFF
Benzene	ND	1.0	0.13	µg/L	1		SW-846 8260D	11/1/21	11/1/21 15:07	MFF
Bromobenzene	ND	1.0	0.13	µg/L	1		SW-846 8260D	11/1/21	11/1/21 15:07	MFF
Bromochloromethane	ND	1.0	0.36	µg/L	1		SW-846 8260D	11/1/21	11/1/21 15:07	MFF
Bromodichloromethane	ND	0.50	0.14	µg/L	1		SW-846 8260D	11/1/21	11/1/21 15:07	MFF
Bromoform	ND	1.0	0.29	µg/L	1		SW-846 8260D	11/1/21	11/1/21 15:07	MFF
Bromomethane	ND	2.0	1.1	µg/L	1		SW-846 8260D	11/1/21	11/1/21 15:07	MFF
2-Butanone (MEK)	ND	20	1.9	µg/L	1		SW-846 8260D	11/1/21	11/1/21 15:07	MFF
tert-Butyl Alcohol (TBA)	ND	20	5.3	µg/L	1		SW-846 8260D	11/1/21	11/1/21 15:07	MFF
n-Butylbenzene	ND	1.0	0.14	µg/L	1		SW-846 8260D	11/1/21	11/1/21 15:07	MFF
sec-Butylbenzene	ND	1.0	0.10	µg/L	1		SW-846 8260D	11/1/21	11/1/21 15:07	MFF
tert-Butylbenzene	ND	1.0	0.090	µg/L	1		SW-846 8260D	11/1/21	11/1/21 15:07	MFF
tert-Butyl Ethyl Ether (TBEE)	ND	0.50	0.11	µg/L	1		SW-846 8260D	11/1/21	11/1/21 15:07	MFF
Carbon Disulfide	ND	5.0	1.5	µg/L	1		SW-846 8260D	11/1/21	11/1/21 15:07	MFF
Carbon Tetrachloride	ND	5.0	0.17	µg/L	1		SW-846 8260D	11/1/21	11/1/21 15:07	MFF
Chlorobenzene	ND	1.0	0.080	µg/L	1		SW-846 8260D	11/1/21	11/1/21 15:07	MFF
Chlorodibromomethane	ND	0.50	0.16	µg/L	1		SW-846 8260D	11/1/21	11/1/21 15:07	MFF
Chloroethane	ND	2.0	0.37	µg/L	1		SW-846 8260D	11/1/21	11/1/21 15:07	MFF
Chloroform	ND	2.0	0.19	µg/L	1		SW-846 8260D	11/1/21	11/1/21 15:07	MFF
Chloromethane	ND	2.0	0.38	µg/L	1		SW-846 8260D	11/1/21	11/1/21 15:07	MFF
2-Chlorotoluene	ND	1.0	0.090	µg/L	1		SW-846 8260D	11/1/21	11/1/21 15:07	MFF
4-Chlorotoluene	ND	1.0	0.10	µg/L	1		SW-846 8260D	11/1/21	11/1/21 15:07	MFF
1,2-Dibromo-3-chloropropane (DBCP)	ND	5.0	0.72	µg/L	1		SW-846 8260D	11/1/21	11/1/21 15:07	MFF
1,2-Dibromoethane (EDB)	ND	0.50	0.15	µg/L	1		SW-846 8260D	11/1/21	11/1/21 15:07	MFF
Dibromomethane	ND	1.0	0.29	µg/L	1		SW-846 8260D	11/1/21	11/1/21 15:07	MFF
1,2-Dichlorobenzene	ND	1.0	0.10	µg/L	1		SW-846 8260D	11/1/21	11/1/21 15:07	MFF
1,3-Dichlorobenzene	ND	1.0	0.090	µg/L	1		SW-846 8260D	11/1/21	11/1/21 15:07	MFF
1,4-Dichlorobenzene	ND	1.0	0.11	µg/L	1		SW-846 8260D	11/1/21	11/1/21 15:07	MFF
trans-1,4-Dichloro-2-butene	ND	2.0	1.8	µg/L	1		SW-846 8260D	11/1/21	11/1/21 15:07	MFF
Dichlorodifluoromethane (Freon 12)	ND	2.0	0.20	µg/L	1		SW-846 8260D	11/1/21	11/1/21 15:07	MFF
1,1-Dichloroethane	ND	1.0	0.16	µg/L	1		SW-846 8260D	11/1/21	11/1/21 15:07	MFF
1,2-Dichloroethane	ND	1.0	0.32	µg/L	1		SW-846 8260D	11/1/21	11/1/21 15:07	MFF
1,1-Dichloroethylene	ND	1.0	0.16	µg/L	1		SW-846 8260D	11/1/21	11/1/21 15:07	MFF
cis-1,2-Dichloroethylene	ND	1.0	0.15	µg/L	1		SW-846 8260D	11/1/21	11/1/21 15:07	MFF
trans-1,2-Dichloroethylene	ND	1.0	0.17	µg/L	1		SW-846 8260D	11/1/21	11/1/21 15:07	MFF
1,2-Dichloropropane	ND	1.0	0.18	µg/L	1		SW-846 8260D	11/1/21	11/1/21 15:07	MFF
1,3-Dichloropropane	ND	0.50	0.12	µg/L	1		SW-846 8260D	11/1/21	11/1/21 15:07	MFF
2,2-Dichloropropane	ND	1.0	0.31	µg/L	1		SW-846 8260D	11/1/21	11/1/21 15:07	MFF
1,1-Dichloropropene	ND	2.0	0.26	µg/L	1		SW-846 8260D	11/1/21	11/1/21 15:07	MFF
cis-1,3-Dichloropropene	ND	0.50	0.12	µg/L	1		SW-846 8260D	11/1/21	11/1/21 15:07	MFF
trans-1,3-Dichloropropene	ND	0.50	0.15	µg/L	1		SW-846 8260D	11/1/21	11/1/21 15:07	MFF
Diethyl Ether	ND	2.0	0.22	µg/L	1		SW-846 8260D	11/1/21	11/1/21 15:07	MFF

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Project Location: 1400 N. Royal St, Alexandria, VA Sample Description: Work Order: 21J1856

Date Received: 10/29/2021

Field Sample #: HRP-MW207-211026 Sampled: 10/26/2021 16:55

Sample ID: 21J1856-03

Sample Matrix: Ground Water

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Diisopropyl Ether (DIPE)	ND	0.50	0.15	µg/L	1		SW-846 8260D	11/1/21	11/1/21 15:07	MFF
1,4-Dioxane	ND	50	22	µg/L	1		SW-846 8260D	11/1/21	11/1/21 15:07	MFF
Ethylbenzene	ND	1.0	0.090	µg/L	1		SW-846 8260D	11/1/21	11/1/21 15:07	MFF
Hexachlorobutadiene	ND	0.60	0.41	µg/L	1		SW-846 8260D	11/1/21	11/1/21 15:07	MFF
2-Hexanone (MBK)	ND	10	1.4	µg/L	1		SW-846 8260D	11/1/21	11/1/21 15:07	MFF
Isopropylbenzene (Cumene)	ND	1.0	0.10	µg/L	1		SW-846 8260D	11/1/21	11/1/21 15:07	MFF
p-Isopropyltoluene (p-Cymene)	ND	1.0	0.090	µg/L	1		SW-846 8260D	11/1/21	11/1/21 15:07	MFF
Methyl Acetate	ND	1.0	0.39	µg/L	1		SW-846 8260D	11/1/21	11/1/21 15:07	MFF
Methyl tert-Butyl Ether (MTBE)	ND	1.0	0.17	µg/L	1		SW-846 8260D	11/1/21	11/1/21 15:07	MFF
Methyl Cyclohexane	ND	1.0	0.33	µg/L	1		SW-846 8260D	11/1/21	11/1/21 15:07	MFF
Methylene Chloride	ND	5.0	0.30	µg/L	1		SW-846 8260D	11/1/21	11/1/21 15:07	MFF
4-Methyl-2-pentanone (MIBK)	ND	10	1.6	µg/L	1		SW-846 8260D	11/1/21	11/1/21 15:07	MFF
Naphthalene	ND	2.0	0.15	µg/L	1	V-05	SW-846 8260D	11/1/21	11/1/21 15:07	MFF
n-Propylbenzene	ND	1.0	0.080	µg/L	1		SW-846 8260D	11/1/21	11/1/21 15:07	MFF
Styrene	ND	1.0	0.080	µg/L	1		SW-846 8260D	11/1/21	11/1/21 15:07	MFF
1,1,1,2-Tetrachloroethane	ND	1.0	0.14	µg/L	1		SW-846 8260D	11/1/21	11/1/21 15:07	MFF
1,1,2,2-Tetrachloroethane	ND	0.50	0.090	µg/L	1		SW-846 8260D	11/1/21	11/1/21 15:07	MFF
Tetrachloroethylene	0.25	1.0	0.20	µg/L	1	J	SW-846 8260D	11/1/21	11/1/21 15:07	MFF
Tetrahydrofuran	ND	10	0.58	µg/L	1		SW-846 8260D	11/1/21	11/1/21 15:07	MFF
Toluene	ND	1.0	0.11	µg/L	1		SW-846 8260D	11/1/21	11/1/21 15:07	MFF
1,2,3-Trichlorobenzene	ND	5.0	0.14	µg/L	1	V-05	SW-846 8260D	11/1/21	11/1/21 15:07	MFF
1,2,4-Trichlorobenzene	ND	1.0	0.16	µg/L	1	V-05	SW-846 8260D	11/1/21	11/1/21 15:07	MFF
1,3,5-Trichlorobenzene	ND	1.0	0.18	µg/L	1		SW-846 8260D	11/1/21	11/1/21 15:07	MFF
1,1,1-Trichloroethane	ND	1.0	0.17	µg/L	1		SW-846 8260D	11/1/21	11/1/21 15:07	MFF
1,1,2-Trichloroethane	ND	1.0	0.15	µg/L	1		SW-846 8260D	11/1/21	11/1/21 15:07	MFF
Trichloroethylene	ND	1.0	0.18	µg/L	1		SW-846 8260D	11/1/21	11/1/21 15:07	MFF
Trichlorofluoromethane (Freon 11)	ND	2.0	0.19	µg/L	1		SW-846 8260D	11/1/21	11/1/21 15:07	MFF
1,2,3-Trichloropropane	ND	2.0	0.31	µg/L	1		SW-846 8260D	11/1/21	11/1/21 15:07	MFF
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	1.0	0.24	µg/L	1		SW-846 8260D	11/1/21	11/1/21 15:07	MFF
1,2,4-Trimethylbenzene	ND	1.0	0.10	µg/L	1		SW-846 8260D	11/1/21	11/1/21 15:07	MFF
1,3,5-Trimethylbenzene	ND	1.0	0.10	µg/L	1		SW-846 8260D	11/1/21	11/1/21 15:07	MFF
Vinyl Chloride	ND	2.0	0.20	µg/L	1		SW-846 8260D	11/1/21	11/1/21 15:07	MFF
m+p Xylene	ND	2.0	0.18	µg/L	1		SW-846 8260D	11/1/21	11/1/21 15:07	MFF
o-Xylene	ND	1.0	0.090	µg/L	1		SW-846 8260D	11/1/21	11/1/21 15:07	MFF

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
1,2-Dichloroethane-d4	107	70-130		11/1/21 15:07
Toluene-d8	105	70-130		11/1/21 15:07
4-Bromofluorobenzene	104	70-130		11/1/21 15:07

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39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: 1400 N. Royal St, Alexandria, VA Sample Description: Work Order: 21J1856

Date Received: 10/29/2021

Field Sample #: HRP-MW207-211026 Sampled: 10/26/2021 16:55

Sample ID: 21J1856-03

Sample Matrix: Ground Water

Semivolatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acenaphthene	ND	4.8	0.32	µg/L	1		SW-846 8270E	11/1/21	11/3/21 17:59	BGL
Acenaphthylene	ND	4.8	0.31	µg/L	1		SW-846 8270E	11/1/21	11/3/21 17:59	BGL
Acetophenone	ND	9.6	0.43	µg/L	1		SW-846 8270E	11/1/21	11/3/21 17:59	BGL
Aniline	ND	4.8	0.79	µg/L	1		SW-846 8270E	11/1/21	11/3/21 17:59	BGL
Anthracene	ND	4.8	0.38	µg/L	1		SW-846 8270E	11/1/21	11/3/21 17:59	BGL
Benzidine	ND	19	9.6	µg/L	1	V-04	SW-846 8270E	11/1/21	11/3/21 17:59	BGL
Benzo(a)anthracene	ND	4.8	0.36	µg/L	1		SW-846 8270E	11/1/21	11/3/21 17:59	BGL
Benzo(a)pyrene	ND	4.8	0.46	µg/L	1		SW-846 8270E	11/1/21	11/3/21 17:59	BGL
Benzo(b)fluoranthene	ND	4.8	0.40	µg/L	1		SW-846 8270E	11/1/21	11/3/21 17:59	BGL
Benzo(g,h,i)perylene	ND	4.8	0.62	µg/L	1		SW-846 8270E	11/1/21	11/3/21 17:59	BGL
Benzo(k)fluoranthene	ND	4.8	0.35	µg/L	1		SW-846 8270E	11/1/21	11/3/21 17:59	BGL
Benzoic Acid	ND	9.6	8.9	µg/L	1		SW-846 8270E	11/1/21	11/3/21 17:59	BGL
Bis(2-chloroethoxy)methane	ND	9.6	0.42	µg/L	1		SW-846 8270E	11/1/21	11/3/21 17:59	BGL
Bis(2-chloroethyl)ether	ND	9.6	0.50	µg/L	1		SW-846 8270E	11/1/21	11/3/21 17:59	BGL
Bis(2-chloroisopropyl)ether	ND	9.6	0.57	µg/L	1		SW-846 8270E	11/1/21	11/3/21 17:59	BGL
Bis(2-Ethylhexyl)phthalate	ND	9.6	0.89	µg/L	1		SW-846 8270E	11/1/21	11/3/21 17:59	BGL
4-Bromophenylphenylether	ND	9.6	0.37	µg/L	1		SW-846 8270E	11/1/21	11/3/21 17:59	BGL
Butylbenzylphthalate	ND	9.6	0.67	µg/L	1		SW-846 8270E	11/1/21	11/3/21 17:59	BGL
Carbazole	ND	9.6	0.40	µg/L	1		SW-846 8270E	11/1/21	11/3/21 17:59	BGL
4-Chloroaniline	ND	9.6	0.42	µg/L	1		SW-846 8270E	11/1/21	11/3/21 17:59	BGL
4-Chloro-3-methylphenol	ND	9.6	0.52	µg/L	1		SW-846 8270E	11/1/21	11/3/21 17:59	BGL
2-Chloronaphthalene	ND	9.6	0.25	µg/L	1		SW-846 8270E	11/1/21	11/3/21 17:59	BGL
2-Chlorophenol	ND	9.6	0.36	µg/L	1		SW-846 8270E	11/1/21	11/3/21 17:59	BGL
4-Chlorophenylphenylether	ND	9.6	0.32	µg/L	1		SW-846 8270E	11/1/21	11/3/21 17:59	BGL
Chrysene	ND	4.8	0.36	µg/L	1		SW-846 8270E	11/1/21	11/3/21 17:59	BGL
Dibenz(a,h)anthracene	ND	4.8	0.68	µg/L	1		SW-846 8270E	11/1/21	11/3/21 17:59	BGL
Dibenzofuran	ND	4.8	0.33	µg/L	1		SW-846 8270E	11/1/21	11/3/21 17:59	BGL
Di-n-butylphthalate	ND	9.6	0.48	µg/L	1		SW-846 8270E	11/1/21	11/3/21 17:59	BGL
1,2-Dichlorobenzene	ND	4.8	0.22	µg/L	1		SW-846 8270E	11/1/21	11/3/21 17:59	BGL
1,3-Dichlorobenzene	ND	4.8	0.23	µg/L	1		SW-846 8270E	11/1/21	11/3/21 17:59	BGL
1,4-Dichlorobenzene	ND	4.8	0.25	µg/L	1		SW-846 8270E	11/1/21	11/3/21 17:59	BGL
3,3-Dichlorobenzidine	ND	9.6	0.60	µg/L	1		SW-846 8270E	11/1/21	11/3/21 17:59	BGL
2,4-Dichlorophenol	ND	9.6	0.35	µg/L	1		SW-846 8270E	11/1/21	11/3/21 17:59	BGL
Diethylphthalate	ND	9.6	0.46	µg/L	1		SW-846 8270E	11/1/21	11/3/21 17:59	BGL
2,4-Dimethylphenol	ND	9.6	0.93	µg/L	1		SW-846 8270E	11/1/21	11/3/21 17:59	BGL
Dimethylphthalate	ND	9.6	0.39	µg/L	1		SW-846 8270E	11/1/21	11/3/21 17:59	BGL
4,6-Dinitro-2-methylphenol	ND	9.6	6.3	µg/L	1		SW-846 8270E	11/1/21	11/3/21 17:59	BGL
2,4-Dinitrophenol	ND	9.6	7.7	µg/L	1	V-04, V-20	SW-846 8270E	11/1/21	11/3/21 17:59	BGL
2,4-Dinitrotoluene	ND	9.6	0.59	µg/L	1	V-20	SW-846 8270E	11/1/21	11/3/21 17:59	BGL
2,6-Dinitrotoluene	ND	9.6	0.48	µg/L	1		SW-846 8270E	11/1/21	11/3/21 17:59	BGL
Di-n-octylphthalate	ND	9.6	5.4	µg/L	1		SW-846 8270E	11/1/21	11/3/21 17:59	BGL
1,2-Diphenylhydrazine/Azobenzene	ND	9.6	0.51	µg/L	1		SW-846 8270E	11/1/21	11/3/21 17:59	BGL
Fluoranthene	ND	4.8	0.36	µg/L	1		SW-846 8270E	11/1/21	11/3/21 17:59	BGL
Fluorene	ND	4.8	0.40	µg/L	1		SW-846 8270E	11/1/21	11/3/21 17:59	BGL

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Project Location: 1400 N. Royal St, Alexandria, VA Sample Description: Work Order: 21J1856

Date Received: 10/29/2021

Field Sample #: HRP-MW207-211026 Sampled: 10/26/2021 16:55

Sample ID: 21J1856-03

Sample Matrix: Ground Water

Semivolatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Hexachlorobenzene	ND	9.6	0.35	µg/L	1		SW-846 8270E	11/1/21	11/3/21 17:59	BGL
Hexachlorobutadiene	ND	9.6	0.26	µg/L	1		SW-846 8270E	11/1/21	11/3/21 17:59	BGL
Hexachlorocyclopentadiene	ND	9.6	4.1	µg/L	1		SW-846 8270E	11/1/21	11/3/21 17:59	BGL
Hexachloroethane	ND	9.6	0.30	µg/L	1		SW-846 8270E	11/1/21	11/3/21 17:59	BGL
Indeno(1,2,3-cd)pyrene	ND	4.8	0.76	µg/L	1		SW-846 8270E	11/1/21	11/3/21 17:59	BGL
Isophorone	ND	9.6	0.47	µg/L	1		SW-846 8270E	11/1/21	11/3/21 17:59	BGL
1-Methylnaphthalene	ND	4.8	0.28	µg/L	1		SW-846 8270E	11/1/21	11/3/21 17:59	BGL
2-Methylnaphthalene	ND	4.8	0.32	µg/L	1		SW-846 8270E	11/1/21	11/3/21 17:59	BGL
2-Methylphenol	ND	9.6	0.35	µg/L	1		SW-846 8270E	11/1/21	11/3/21 17:59	BGL
3/4-Methylphenol	ND	9.6	0.37	µg/L	1		SW-846 8270E	11/1/21	11/3/21 17:59	BGL
Naphthalene	ND	4.8	0.28	µg/L	1		SW-846 8270E	11/1/21	11/3/21 17:59	BGL
2-Nitroaniline	ND	9.6	0.72	µg/L	1		SW-846 8270E	11/1/21	11/3/21 17:59	BGL
3-Nitroaniline	ND	9.6	0.49	µg/L	1		SW-846 8270E	11/1/21	11/3/21 17:59	BGL
4-Nitroaniline	ND	9.6	0.47	µg/L	1	V-20	SW-846 8270E	11/1/21	11/3/21 17:59	BGL
Nitrobenzene	ND	9.6	0.51	µg/L	1		SW-846 8270E	11/1/21	11/3/21 17:59	BGL
2-Nitrophenol	ND	9.6	0.45	µg/L	1		SW-846 8270E	11/1/21	11/3/21 17:59	BGL
4-Nitrophenol	ND	9.6	2.0	µg/L	1		SW-846 8270E	11/1/21	11/3/21 17:59	BGL
N-Nitrosodimethylamine	ND	9.6	0.79	µg/L	1		SW-846 8270E	11/1/21	11/3/21 17:59	BGL
N-Nitrosodiphenylamine/Diphenylamine	ND	9.6	0.38	µg/L	1		SW-846 8270E	11/1/21	11/3/21 17:59	BGL
N-Nitrosodi-n-propylamine	ND	9.6	0.51	µg/L	1		SW-846 8270E	11/1/21	11/3/21 17:59	BGL
Pentachloronitrobenzene	ND	9.6	0.61	µg/L	1		SW-846 8270E	11/1/21	11/3/21 17:59	BGL
Pentachlorophenol	ND	9.6	3.6	µg/L	1		SW-846 8270E	11/1/21	11/3/21 17:59	BGL
Phenanthrene	ND	4.8	0.38	µg/L	1		SW-846 8270E	11/1/21	11/3/21 17:59	BGL
Phenol	ND	9.6	0.24	µg/L	1		SW-846 8270E	11/1/21	11/3/21 17:59	BGL
Pyrene	ND	4.8	0.45	µg/L	1		SW-846 8270E	11/1/21	11/3/21 17:59	BGL
Pyridine	ND	4.8	2.5	µg/L	1		SW-846 8270E	11/1/21	11/3/21 17:59	BGL
1,2,4,5-Tetrachlorobenzene	ND	9.6	0.26	µg/L	1		SW-846 8270E	11/1/21	11/3/21 17:59	BGL
1,2,4-Trichlorobenzene	ND	4.8	0.24	µg/L	1		SW-846 8270E	11/1/21	11/3/21 17:59	BGL
2,4,5-Trichlorophenol	ND	9.6	0.45	µg/L	1		SW-846 8270E	11/1/21	11/3/21 17:59	BGL
2,4,6-Trichlorophenol	ND	9.6	0.39	µg/L	1		SW-846 8270E	11/1/21	11/3/21 17:59	BGL

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
2-Fluorophenol	44.3	15-110		11/3/21 17:59
Phenol-d6	33.3	15-110		11/3/21 17:59
Nitrobenzene-d5	57.8	30-130		11/3/21 17:59
2-Fluorobiphenyl	58.0	30-130		11/3/21 17:59
2,4,6-Tribromophenol	77.2	15-110		11/3/21 17:59
p-Terphenyl-d14	89.5	30-130		11/3/21 17:59

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Project Location: 1400 N. Royal St, Alexandria, VA Sample Description: Work Order: 21J1856

Date Received: 10/29/2021

Field Sample #: HRP-MW207-211026 Sampled: 10/26/2021 16:55

Sample ID: 21J1856-03

Sample Matrix: Ground Water

Petroleum Hydrocarbons Analyses

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Gasoline Range Organics (GRO)	ND	0.010	0.0094	mg/L	1		SW-846 8015C	11/2/21	11/3/21 4:25	KMB
Diesel Range Organics	0.11	0.20	0.082	mg/L	1	J	SW-846 8015C	11/2/21	11/4/21 8:30	SFM

Surrogates	% Recovery	Recovery Limits	Flag/Qual		
1-Chloro-3-fluorobenzene	106	70-130		11/3/21 4:25	
2-Fluorobiphenyl	92.3	40-140		11/4/21 8:30	

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Project Location: 1400 N. Royal St, Alexandria, VA Sample Description: Work Order: 21J1856

Date Received: 10/29/2021

Field Sample #: HRP-MW207-211026 Sampled: 10/26/2021 16:55

Sample ID: 21J1856-03

Sample Matrix: Ground Water

Metals Analyses (Total)

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Aluminum	0.48	0.050	0.049	mg/L	1		SW-846 6010D	10/31/21	10/31/21 22:42	QNW
Antimony	ND	1.0	0.20	µg/L	1		SW-846 6020B	10/31/21	10/31/21 20:21	QNW
Arsenic	8.0	0.80	0.46	µg/L	1		SW-846 6020B	10/31/21	10/31/21 20:21	QNW
Barium	28	10	1.2	µg/L	1		SW-846 6020B	10/31/21	10/31/21 20:21	QNW
Beryllium	ND	0.40	0.066	µg/L	1		SW-846 6020B	10/31/21	11/1/21 11:43	QNW
Cadmium	0.44	0.20	0.027	µg/L	1		SW-846 6020B	10/31/21	10/31/21 20:21	QNW
Calcium	120	0.50	0.11	mg/L	1		SW-846 6010D	10/31/21	10/31/21 22:42	QNW
Chromium	2.1	1.0	0.92	µg/L	1		SW-846 6020B	10/31/21	11/1/21 11:43	QNW
Cobalt	25	1.0	0.14	µg/L	1		SW-846 6020B	10/31/21	10/31/21 20:21	QNW
Copper	31	1.0	0.27	µg/L	1		SW-846 6020B	10/31/21	10/31/21 20:21	QNW
Iron	1.7	0.050	0.032	mg/L	1		SW-846 6010D	10/31/21	10/31/21 22:42	QNW
Lead	0.35	0.50	0.14	µg/L	1	J	SW-846 6020B	10/31/21	10/31/21 20:21	QNW
Magnesium	84	0.050	0.023	mg/L	1		SW-846 6010D	10/31/21	10/31/21 22:42	QNW
Manganese	16000	100	24	µg/L	100		SW-846 6020B	10/31/21	11/1/21 13:19	QNW
Mercury	ND	0.00010	0.000050	mg/L	1		SW-846 7470A	11/1/21	11/2/21 9:18	DRL
Nickel	62	5.0	0.52	µg/L	1		SW-846 6020B	10/31/21	10/31/21 20:21	QNW
Potassium	10	2.0	0.40	mg/L	1		SW-846 6010D	10/31/21	10/31/21 22:42	QNW
Selenium	10	5.0	0.78	µg/L	1		SW-846 6020B	10/31/21	10/31/21 20:21	QNW
Silver	0.033	0.20	0.026	µg/L	1	J	SW-846 6020B	10/31/21	10/31/21 20:21	QNW
Sodium	1600	20	5.6	mg/L	10		SW-846 6010D	10/31/21	11/1/21 13:56	QNW
Thallium	ND	0.20	0.067	µg/L	1		SW-846 6020B	10/31/21	10/31/21 20:21	QNW
Vanadium	ND	5.0	3.5	µg/L	1		SW-846 6020B	10/31/21	10/31/21 20:21	QNW
Zinc	13	10	3.4	µg/L	1		SW-846 6020B	10/31/21	10/31/21 20:21	QNW

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Project Location: 1400 N. Royal St, Alexandria, VA Sample Description: Work Order: 21J1856

Date Received: 10/29/2021

Field Sample #: HRP-MW207-211026 Sampled: 10/26/2021 16:55

Sample ID: 21J1856-03

Sample Matrix: Ground Water

Metals Analyses (Dissolved)

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Aluminum	ND	0.050	0.049	mg/L	1		SW-846 6010D	10/31/21	10/31/21 20:30	QNW
Antimony	ND	1.0	0.20	µg/L	1		SW-846 6020B	10/31/21	11/1/21 11:45	QNW
Arsenic	5.2	0.80	0.46	µg/L	1		SW-846 6020B	10/31/21	11/1/21 11:45	QNW
Barium	23	10	1.2	µg/L	1		SW-846 6020B	10/31/21	11/1/21 11:45	QNW
Beryllium	ND	0.40	0.066	µg/L	1		SW-846 6020B	10/31/21	11/1/21 12:40	QNW
Cadmium	0.56	0.20	0.027	µg/L	1		SW-846 6020B	10/31/21	11/1/21 11:45	QNW
Calcium	120	0.50	0.11	mg/L	1		SW-846 6010D	10/31/21	10/31/21 20:30	QNW
Chromium	ND	1.0	0.92	µg/L	1		SW-846 6020B	10/31/21	11/1/21 11:45	QNW
Cobalt	23	1.0	0.14	µg/L	1		SW-846 6020B	10/31/21	11/1/21 11:45	QNW
Copper	39	1.0	0.27	µg/L	1		SW-846 6020B	10/31/21	11/1/21 12:40	QNW
Iron	1.1	0.050	0.032	mg/L	1		SW-846 6010D	10/31/21	10/31/21 20:30	QNW
Lead	ND	0.50	0.14	µg/L	1		SW-846 6020B	10/31/21	11/1/21 11:45	QNW
Magnesium	85	0.050	0.023	mg/L	1		SW-846 6010D	10/31/21	10/31/21 20:30	QNW
Manganese	16000	100	24	µg/L	100		SW-846 6020B	10/31/21	11/1/21 13:53	QNW
Mercury	ND	0.00010	0.000050	mg/L	1		SW-846 7470A	11/1/21	11/2/21 8:44	DRL
Nickel	54	5.0	0.52	µg/L	1		SW-846 6020B	10/31/21	11/1/21 11:45	QNW
Potassium	10	2.0	0.40	mg/L	1		SW-846 6010D	10/31/21	10/31/21 20:30	QNW
Selenium	9.7	5.0	0.78	µg/L	1		SW-846 6020B	10/31/21	11/1/21 12:40	QNW
Silver	ND	0.20	0.026	µg/L	1		SW-846 6020B	10/31/21	11/1/21 11:45	QNW
Sodium	1600	20	5.6	mg/L	10		SW-846 6010D	10/31/21	11/1/21 13:44	QNW
Thallium	ND	0.20	0.067	µg/L	1		SW-846 6020B	10/31/21	11/1/21 11:45	QNW
Vanadium	ND	5.0	3.5	µg/L	1		SW-846 6020B	10/31/21	11/1/21 11:45	QNW
Zinc	11	10	3.4	µg/L	1		SW-846 6020B	10/31/21	11/1/21 11:45	QNW

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: 1400 N. Royal St, Alexandria, VA Sample Description: Work Order: 21J1856

Date Received: 10/29/2021

Field Sample #: HRP-MW207-211026 Sampled: 10/26/2021 16:55

Sample ID: 21J1856-03

Sample Matrix: Ground Water

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Sulfate	2500	500	300	mg/L	500		ASTM D516-16	11/2/21	11/2/21 11:58	MMH

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39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: 1400 N. Royal St, Alexandria, VA Sample Description: Work Order: 21J1856

Date Received: 10/29/2021

Field Sample #: HRP-TB11-211026 Sampled: 10/26/2021 16:55

Sample ID: 21J1856-04

Sample Matrix: Ground Water

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acetone	ND	50	2.4	µg/L	1		SW-846 8260D	11/1/21	11/1/21 12:19	MFF
Acrylonitrile	ND	5.0	0.69	µg/L	1		SW-846 8260D	11/1/21	11/1/21 12:19	MFF
tert-Amyl Methyl Ether (TAME)	ND	0.50	0.15	µg/L	1		SW-846 8260D	11/1/21	11/1/21 12:19	MFF
Benzene	ND	1.0	0.13	µg/L	1		SW-846 8260D	11/1/21	11/1/21 12:19	MFF
Bromobenzene	ND	1.0	0.13	µg/L	1		SW-846 8260D	11/1/21	11/1/21 12:19	MFF
Bromochloromethane	ND	1.0	0.36	µg/L	1		SW-846 8260D	11/1/21	11/1/21 12:19	MFF
Bromodichloromethane	ND	0.50	0.14	µg/L	1		SW-846 8260D	11/1/21	11/1/21 12:19	MFF
Bromoform	ND	1.0	0.29	µg/L	1		SW-846 8260D	11/1/21	11/1/21 12:19	MFF
Bromomethane	ND	2.0	1.1	µg/L	1		SW-846 8260D	11/1/21	11/1/21 12:19	MFF
2-Butanone (MEK)	ND	20	1.9	µg/L	1		SW-846 8260D	11/1/21	11/1/21 12:19	MFF
tert-Butyl Alcohol (TBA)	ND	20	5.3	µg/L	1		SW-846 8260D	11/1/21	11/1/21 12:19	MFF
n-Butylbenzene	ND	1.0	0.14	µg/L	1		SW-846 8260D	11/1/21	11/1/21 12:19	MFF
sec-Butylbenzene	ND	1.0	0.10	µg/L	1		SW-846 8260D	11/1/21	11/1/21 12:19	MFF
tert-Butylbenzene	ND	1.0	0.090	µg/L	1		SW-846 8260D	11/1/21	11/1/21 12:19	MFF
tert-Butyl Ethyl Ether (TBEE)	ND	0.50	0.11	µg/L	1		SW-846 8260D	11/1/21	11/1/21 12:19	MFF
Carbon Disulfide	ND	5.0	1.5	µg/L	1		SW-846 8260D	11/1/21	11/1/21 12:19	MFF
Carbon Tetrachloride	ND	5.0	0.17	µg/L	1		SW-846 8260D	11/1/21	11/1/21 12:19	MFF
Chlorobenzene	ND	1.0	0.080	µg/L	1		SW-846 8260D	11/1/21	11/1/21 12:19	MFF
Chlorodibromomethane	ND	0.50	0.16	µg/L	1		SW-846 8260D	11/1/21	11/1/21 12:19	MFF
Chloroethane	ND	2.0	0.37	µg/L	1		SW-846 8260D	11/1/21	11/1/21 12:19	MFF
Chloroform	ND	2.0	0.19	µg/L	1		SW-846 8260D	11/1/21	11/1/21 12:19	MFF
Chloromethane	ND	2.0	0.38	µg/L	1		SW-846 8260D	11/1/21	11/1/21 12:19	MFF
2-Chlorotoluene	ND	1.0	0.090	µg/L	1		SW-846 8260D	11/1/21	11/1/21 12:19	MFF
4-Chlorotoluene	ND	1.0	0.10	µg/L	1		SW-846 8260D	11/1/21	11/1/21 12:19	MFF
1,2-Dibromo-3-chloropropane (DBCP)	ND	5.0	0.72	µg/L	1		SW-846 8260D	11/1/21	11/1/21 12:19	MFF
1,2-Dibromoethane (EDB)	ND	0.50	0.15	µg/L	1		SW-846 8260D	11/1/21	11/1/21 12:19	MFF
Dibromomethane	ND	1.0	0.29	µg/L	1		SW-846 8260D	11/1/21	11/1/21 12:19	MFF
1,2-Dichlorobenzene	ND	1.0	0.10	µg/L	1		SW-846 8260D	11/1/21	11/1/21 12:19	MFF
1,3-Dichlorobenzene	ND	1.0	0.090	µg/L	1		SW-846 8260D	11/1/21	11/1/21 12:19	MFF
1,4-Dichlorobenzene	ND	1.0	0.11	µg/L	1		SW-846 8260D	11/1/21	11/1/21 12:19	MFF
trans-1,4-Dichloro-2-butene	ND	2.0	1.8	µg/L	1		SW-846 8260D	11/1/21	11/1/21 12:19	MFF
Dichlorodifluoromethane (Freon 12)	ND	2.0	0.20	µg/L	1		SW-846 8260D	11/1/21	11/1/21 12:19	MFF
1,1-Dichloroethane	ND	1.0	0.16	µg/L	1		SW-846 8260D	11/1/21	11/1/21 12:19	MFF
1,2-Dichloroethane	ND	1.0	0.32	µg/L	1		SW-846 8260D	11/1/21	11/1/21 12:19	MFF
1,1-Dichloroethylene	ND	1.0	0.16	µg/L	1		SW-846 8260D	11/1/21	11/1/21 12:19	MFF
cis-1,2-Dichloroethylene	ND	1.0	0.15	µg/L	1		SW-846 8260D	11/1/21	11/1/21 12:19	MFF
trans-1,2-Dichloroethylene	ND	1.0	0.17	µg/L	1		SW-846 8260D	11/1/21	11/1/21 12:19	MFF
1,2-Dichloropropane	ND	1.0	0.18	µg/L	1		SW-846 8260D	11/1/21	11/1/21 12:19	MFF
1,3-Dichloropropane	ND	0.50	0.12	µg/L	1		SW-846 8260D	11/1/21	11/1/21 12:19	MFF
2,2-Dichloropropane	ND	1.0	0.31	µg/L	1		SW-846 8260D	11/1/21	11/1/21 12:19	MFF
1,1-Dichloropropene	ND	2.0	0.26	µg/L	1		SW-846 8260D	11/1/21	11/1/21 12:19	MFF
cis-1,3-Dichloropropene	ND	0.50	0.12	µg/L	1		SW-846 8260D	11/1/21	11/1/21 12:19	MFF
trans-1,3-Dichloropropene	ND	0.50	0.15	µg/L	1		SW-846 8260D	11/1/21	11/1/21 12:19	MFF
Diethyl Ether	ND	2.0	0.22	µg/L	1		SW-846 8260D	11/1/21	11/1/21 12:19	MFF

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39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: 1400 N. Royal St, Alexandria, VA Sample Description: Work Order: 21J1856

Date Received: 10/29/2021

Field Sample #: HRP-TB11-211026 Sampled: 10/26/2021 16:55

Sample ID: 21J1856-04

Sample Matrix: Ground Water

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Diisopropyl Ether (DIPE)	ND	0.50	0.15	µg/L	1		SW-846 8260D	11/1/21	11/1/21 12:19	MFF
1,4-Dioxane	ND	50	22	µg/L	1		SW-846 8260D	11/1/21	11/1/21 12:19	MFF
Ethylbenzene	ND	1.0	0.090	µg/L	1		SW-846 8260D	11/1/21	11/1/21 12:19	MFF
Hexachlorobutadiene	ND	0.60	0.41	µg/L	1		SW-846 8260D	11/1/21	11/1/21 12:19	MFF
2-Hexanone (MBK)	ND	10	1.4	µg/L	1		SW-846 8260D	11/1/21	11/1/21 12:19	MFF
Isopropylbenzene (Cumene)	ND	1.0	0.10	µg/L	1		SW-846 8260D	11/1/21	11/1/21 12:19	MFF
p-Isopropyltoluene (p-Cymene)	ND	1.0	0.090	µg/L	1		SW-846 8260D	11/1/21	11/1/21 12:19	MFF
Methyl Acetate	ND	1.0	0.39	µg/L	1		SW-846 8260D	11/1/21	11/1/21 12:19	MFF
Methyl tert-Butyl Ether (MTBE)	ND	1.0	0.17	µg/L	1		SW-846 8260D	11/1/21	11/1/21 12:19	MFF
Methyl Cyclohexane	ND	1.0	0.33	µg/L	1		SW-846 8260D	11/1/21	11/1/21 12:19	MFF
Methylene Chloride	ND	5.0	0.30	µg/L	1		SW-846 8260D	11/1/21	11/1/21 12:19	MFF
4-Methyl-2-pentanone (MIBK)	ND	10	1.6	µg/L	1		SW-846 8260D	11/1/21	11/1/21 12:19	MFF
Naphthalene	ND	2.0	0.15	µg/L	1	V-05	SW-846 8260D	11/1/21	11/1/21 12:19	MFF
n-Propylbenzene	ND	1.0	0.080	µg/L	1		SW-846 8260D	11/1/21	11/1/21 12:19	MFF
Styrene	ND	1.0	0.080	µg/L	1		SW-846 8260D	11/1/21	11/1/21 12:19	MFF
1,1,1,2-Tetrachloroethane	ND	1.0	0.14	µg/L	1		SW-846 8260D	11/1/21	11/1/21 12:19	MFF
1,1,2,2-Tetrachloroethane	ND	0.50	0.090	µg/L	1		SW-846 8260D	11/1/21	11/1/21 12:19	MFF
Tetrachloroethylene	ND	1.0	0.20	µg/L	1		SW-846 8260D	11/1/21	11/1/21 12:19	MFF
Tetrahydrofuran	ND	10	0.58	µg/L	1		SW-846 8260D	11/1/21	11/1/21 12:19	MFF
Toluene	ND	1.0	0.11	µg/L	1		SW-846 8260D	11/1/21	11/1/21 12:19	MFF
1,2,3-Trichlorobenzene	ND	5.0	0.14	µg/L	1	V-05	SW-846 8260D	11/1/21	11/1/21 12:19	MFF
1,2,4-Trichlorobenzene	ND	1.0	0.16	µg/L	1	V-05	SW-846 8260D	11/1/21	11/1/21 12:19	MFF
1,3,5-Trichlorobenzene	ND	1.0	0.18	µg/L	1		SW-846 8260D	11/1/21	11/1/21 12:19	MFF
1,1,1-Trichloroethane	ND	1.0	0.17	µg/L	1		SW-846 8260D	11/1/21	11/1/21 12:19	MFF
1,1,2-Trichloroethane	ND	1.0	0.15	µg/L	1		SW-846 8260D	11/1/21	11/1/21 12:19	MFF
Trichloroethylene	ND	1.0	0.18	µg/L	1		SW-846 8260D	11/1/21	11/1/21 12:19	MFF
Trichlorofluoromethane (Freon 11)	ND	2.0	0.19	µg/L	1		SW-846 8260D	11/1/21	11/1/21 12:19	MFF
1,2,3-Trichloropropane	ND	2.0	0.31	µg/L	1		SW-846 8260D	11/1/21	11/1/21 12:19	MFF
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	1.0	0.24	µg/L	1		SW-846 8260D	11/1/21	11/1/21 12:19	MFF
1,2,4-Trimethylbenzene	ND	1.0	0.10	µg/L	1		SW-846 8260D	11/1/21	11/1/21 12:19	MFF
1,3,5-Trimethylbenzene	ND	1.0	0.10	µg/L	1		SW-846 8260D	11/1/21	11/1/21 12:19	MFF
Vinyl Chloride	ND	2.0	0.20	µg/L	1		SW-846 8260D	11/1/21	11/1/21 12:19	MFF
m+p Xylene	ND	2.0	0.18	µg/L	1		SW-846 8260D	11/1/21	11/1/21 12:19	MFF
o-Xylene	ND	1.0	0.090	µg/L	1		SW-846 8260D	11/1/21	11/1/21 12:19	MFF

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
1,2-Dichloroethane-d4	103	70-130		11/1/21 12:19
Toluene-d8	105	70-130		11/1/21 12:19
4-Bromofluorobenzene	104	70-130		11/1/21 12:19

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39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: 1400 N. Royal St, Alexandria, VA Sample Description: Work Order: 21J1856

Date Received: 10/29/2021

Field Sample #: HRP-MW221-211027 Sampled: 10/27/2021 10:10

Sample ID: 21J1856-05

Sample Matrix: Ground Water

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acetone	ND	50	2.4	µg/L	1		SW-846 8260D	11/1/21	11/1/21 15:31	MFF
Acrylonitrile	ND	5.0	0.69	µg/L	1		SW-846 8260D	11/1/21	11/1/21 15:31	MFF
tert-Amyl Methyl Ether (TAME)	ND	0.50	0.15	µg/L	1		SW-846 8260D	11/1/21	11/1/21 15:31	MFF
Benzene	ND	1.0	0.13	µg/L	1		SW-846 8260D	11/1/21	11/1/21 15:31	MFF
Bromobenzene	ND	1.0	0.13	µg/L	1		SW-846 8260D	11/1/21	11/1/21 15:31	MFF
Bromochloromethane	ND	1.0	0.36	µg/L	1		SW-846 8260D	11/1/21	11/1/21 15:31	MFF
Bromodichloromethane	ND	0.50	0.14	µg/L	1		SW-846 8260D	11/1/21	11/1/21 15:31	MFF
Bromoform	ND	1.0	0.29	µg/L	1		SW-846 8260D	11/1/21	11/1/21 15:31	MFF
Bromomethane	ND	2.0	1.1	µg/L	1		SW-846 8260D	11/1/21	11/1/21 15:31	MFF
2-Butanone (MEK)	ND	20	1.9	µg/L	1		SW-846 8260D	11/1/21	11/1/21 15:31	MFF
tert-Butyl Alcohol (TBA)	ND	20	5.3	µg/L	1		SW-846 8260D	11/1/21	11/1/21 15:31	MFF
n-Butylbenzene	ND	1.0	0.14	µg/L	1		SW-846 8260D	11/1/21	11/1/21 15:31	MFF
sec-Butylbenzene	ND	1.0	0.10	µg/L	1		SW-846 8260D	11/1/21	11/1/21 15:31	MFF
tert-Butylbenzene	ND	1.0	0.090	µg/L	1		SW-846 8260D	11/1/21	11/1/21 15:31	MFF
tert-Butyl Ethyl Ether (TBEE)	ND	0.50	0.11	µg/L	1		SW-846 8260D	11/1/21	11/1/21 15:31	MFF
Carbon Disulfide	ND	5.0	1.5	µg/L	1		SW-846 8260D	11/1/21	11/1/21 15:31	MFF
Carbon Tetrachloride	ND	5.0	0.17	µg/L	1		SW-846 8260D	11/1/21	11/1/21 15:31	MFF
Chlorobenzene	ND	1.0	0.080	µg/L	1		SW-846 8260D	11/1/21	11/1/21 15:31	MFF
Chlorodibromomethane	ND	0.50	0.16	µg/L	1		SW-846 8260D	11/1/21	11/1/21 15:31	MFF
Chloroethane	ND	2.0	0.37	µg/L	1		SW-846 8260D	11/1/21	11/1/21 15:31	MFF
Chloroform	ND	2.0	0.19	µg/L	1		SW-846 8260D	11/1/21	11/1/21 15:31	MFF
Chloromethane	ND	2.0	0.38	µg/L	1		SW-846 8260D	11/1/21	11/1/21 15:31	MFF
2-Chlorotoluene	ND	1.0	0.090	µg/L	1		SW-846 8260D	11/1/21	11/1/21 15:31	MFF
4-Chlorotoluene	ND	1.0	0.10	µg/L	1		SW-846 8260D	11/1/21	11/1/21 15:31	MFF
1,2-Dibromo-3-chloropropane (DBCP)	ND	5.0	0.72	µg/L	1		SW-846 8260D	11/1/21	11/1/21 15:31	MFF
1,2-Dibromoethane (EDB)	ND	0.50	0.15	µg/L	1		SW-846 8260D	11/1/21	11/1/21 15:31	MFF
Dibromomethane	ND	1.0	0.29	µg/L	1		SW-846 8260D	11/1/21	11/1/21 15:31	MFF
1,2-Dichlorobenzene	ND	1.0	0.10	µg/L	1		SW-846 8260D	11/1/21	11/1/21 15:31	MFF
1,3-Dichlorobenzene	ND	1.0	0.090	µg/L	1		SW-846 8260D	11/1/21	11/1/21 15:31	MFF
1,4-Dichlorobenzene	ND	1.0	0.11	µg/L	1		SW-846 8260D	11/1/21	11/1/21 15:31	MFF
trans-1,4-Dichloro-2-butene	ND	2.0	1.8	µg/L	1		SW-846 8260D	11/1/21	11/1/21 15:31	MFF
Dichlorodifluoromethane (Freon 12)	ND	2.0	0.20	µg/L	1		SW-846 8260D	11/1/21	11/1/21 15:31	MFF
1,1-Dichloroethane	ND	1.0	0.16	µg/L	1		SW-846 8260D	11/1/21	11/1/21 15:31	MFF
1,2-Dichloroethane	ND	1.0	0.32	µg/L	1		SW-846 8260D	11/1/21	11/1/21 15:31	MFF
1,1-Dichloroethylene	0.37	1.0	0.16	µg/L	1	J	SW-846 8260D	11/1/21	11/1/21 15:31	MFF
cis-1,2-Dichloroethylene	ND	1.0	0.15	µg/L	1		SW-846 8260D	11/1/21	11/1/21 15:31	MFF
trans-1,2-Dichloroethylene	ND	1.0	0.17	µg/L	1		SW-846 8260D	11/1/21	11/1/21 15:31	MFF
1,2-Dichloropropane	ND	1.0	0.18	µg/L	1		SW-846 8260D	11/1/21	11/1/21 15:31	MFF
1,3-Dichloropropane	ND	0.50	0.12	µg/L	1		SW-846 8260D	11/1/21	11/1/21 15:31	MFF
2,2-Dichloropropane	ND	1.0	0.31	µg/L	1		SW-846 8260D	11/1/21	11/1/21 15:31	MFF
1,1-Dichloropropene	ND	2.0	0.26	µg/L	1		SW-846 8260D	11/1/21	11/1/21 15:31	MFF
cis-1,3-Dichloropropene	ND	0.50	0.12	µg/L	1		SW-846 8260D	11/1/21	11/1/21 15:31	MFF
trans-1,3-Dichloropropene	ND	0.50	0.15	µg/L	1		SW-846 8260D	11/1/21	11/1/21 15:31	MFF
Diethyl Ether	ND	2.0	0.22	µg/L	1		SW-846 8260D	11/1/21	11/1/21 15:31	MFF

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39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: 1400 N. Royal St, Alexandria, VA Sample Description: Work Order: 21J1856

Date Received: 10/29/2021

Field Sample #: HRP-MW221-211027 Sampled: 10/27/2021 10:10

Sample ID: 21J1856-05

Sample Matrix: Ground Water

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Diisopropyl Ether (DIPE)	ND	0.50	0.15	µg/L	1		SW-846 8260D	11/1/21	11/1/21 15:31	MFF
1,4-Dioxane	ND	50	22	µg/L	1		SW-846 8260D	11/1/21	11/1/21 15:31	MFF
Ethylbenzene	ND	1.0	0.090	µg/L	1		SW-846 8260D	11/1/21	11/1/21 15:31	MFF
Hexachlorobutadiene	ND	0.60	0.41	µg/L	1		SW-846 8260D	11/1/21	11/1/21 15:31	MFF
2-Hexanone (MBK)	ND	10	1.4	µg/L	1		SW-846 8260D	11/1/21	11/1/21 15:31	MFF
Isopropylbenzene (Cumene)	ND	1.0	0.10	µg/L	1		SW-846 8260D	11/1/21	11/1/21 15:31	MFF
p-Isopropyltoluene (p-Cymene)	2.2	1.0	0.090	µg/L	1		SW-846 8260D	11/1/21	11/1/21 15:31	MFF
Methyl Acetate	ND	1.0	0.39	µg/L	1		SW-846 8260D	11/1/21	11/1/21 15:31	MFF
Methyl tert-Butyl Ether (MTBE)	ND	1.0	0.17	µg/L	1		SW-846 8260D	11/1/21	11/1/21 15:31	MFF
Methyl Cyclohexane	ND	1.0	0.33	µg/L	1		SW-846 8260D	11/1/21	11/1/21 15:31	MFF
Methylene Chloride	ND	5.0	0.30	µg/L	1		SW-846 8260D	11/1/21	11/1/21 15:31	MFF
4-Methyl-2-pentanone (MIBK)	ND	10	1.6	µg/L	1		SW-846 8260D	11/1/21	11/1/21 15:31	MFF
Naphthalene	ND	2.0	0.15	µg/L	1	V-05	SW-846 8260D	11/1/21	11/1/21 15:31	MFF
n-Propylbenzene	ND	1.0	0.080	µg/L	1		SW-846 8260D	11/1/21	11/1/21 15:31	MFF
Styrene	ND	1.0	0.080	µg/L	1		SW-846 8260D	11/1/21	11/1/21 15:31	MFF
1,1,1,2-Tetrachloroethane	ND	1.0	0.14	µg/L	1		SW-846 8260D	11/1/21	11/1/21 15:31	MFF
1,1,2,2-Tetrachloroethane	ND	0.50	0.090	µg/L	1		SW-846 8260D	11/1/21	11/1/21 15:31	MFF
Tetrachloroethylene	ND	1.0	0.20	µg/L	1		SW-846 8260D	11/1/21	11/1/21 15:31	MFF
Tetrahydrofuran	ND	10	0.58	µg/L	1		SW-846 8260D	11/1/21	11/1/21 15:31	MFF
Toluene	ND	1.0	0.11	µg/L	1		SW-846 8260D	11/1/21	11/1/21 15:31	MFF
1,2,3-Trichlorobenzene	ND	5.0	0.14	µg/L	1	V-05	SW-846 8260D	11/1/21	11/1/21 15:31	MFF
1,2,4-Trichlorobenzene	ND	1.0	0.16	µg/L	1	V-05	SW-846 8260D	11/1/21	11/1/21 15:31	MFF
1,3,5-Trichlorobenzene	ND	1.0	0.18	µg/L	1		SW-846 8260D	11/1/21	11/1/21 15:31	MFF
1,1,1-Trichloroethane	ND	1.0	0.17	µg/L	1		SW-846 8260D	11/1/21	11/1/21 15:31	MFF
1,1,2-Trichloroethane	ND	1.0	0.15	µg/L	1		SW-846 8260D	11/1/21	11/1/21 15:31	MFF
Trichloroethylene	ND	1.0	0.18	µg/L	1		SW-846 8260D	11/1/21	11/1/21 15:31	MFF
Trichlorofluoromethane (Freon 11)	ND	2.0	0.19	µg/L	1		SW-846 8260D	11/1/21	11/1/21 15:31	MFF
1,2,3-Trichloropropane	ND	2.0	0.31	µg/L	1		SW-846 8260D	11/1/21	11/1/21 15:31	MFF
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	1.0	0.24	µg/L	1		SW-846 8260D	11/1/21	11/1/21 15:31	MFF
1,2,4-Trimethylbenzene	ND	1.0	0.10	µg/L	1		SW-846 8260D	11/1/21	11/1/21 15:31	MFF
1,3,5-Trimethylbenzene	ND	1.0	0.10	µg/L	1		SW-846 8260D	11/1/21	11/1/21 15:31	MFF
Vinyl Chloride	ND	2.0	0.20	µg/L	1		SW-846 8260D	11/1/21	11/1/21 15:31	MFF
m+p Xylene	ND	2.0	0.18	µg/L	1		SW-846 8260D	11/1/21	11/1/21 15:31	MFF
o-Xylene	ND	1.0	0.090	µg/L	1		SW-846 8260D	11/1/21	11/1/21 15:31	MFF

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
1,2-Dichloroethane-d4	108	70-130		11/1/21 15:31
Toluene-d8	107	70-130		11/1/21 15:31
4-Bromofluorobenzene	104	70-130		11/1/21 15:31

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39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: 1400 N. Royal St, Alexandria, VA Sample Description: Work Order: 21J1856

Date Received: 10/29/2021

Field Sample #: HRP-MW221-211027 Sampled: 10/27/2021 10:10

Sample ID: 21J1856-05

Sample Matrix: Ground Water

Semivolatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acenaphthene	0.78	5.3	0.35	µg/L	1	J	SW-846 8270E	11/1/21	11/4/21 12:27	IMR
Acenaphthylene	ND	5.3	0.34	µg/L	1		SW-846 8270E	11/1/21	11/4/21 12:27	IMR
Acetophenone	ND	11	0.48	µg/L	1		SW-846 8270E	11/1/21	11/4/21 12:27	IMR
Aniline	ND	5.3	0.87	µg/L	1	V-20	SW-846 8270E	11/1/21	11/4/21 12:27	IMR
Anthracene	ND	5.3	0.42	µg/L	1		SW-846 8270E	11/1/21	11/4/21 12:27	IMR
Benzidine	ND	21	11	µg/L	1	V-04, V-20	SW-846 8270E	11/1/21	11/4/21 12:27	IMR
Benzo(a)anthracene	ND	5.3	0.40	µg/L	1		SW-846 8270E	11/1/21	11/4/21 12:27	IMR
Benzo(a)pyrene	ND	5.3	0.51	µg/L	1		SW-846 8270E	11/1/21	11/4/21 12:27	IMR
Benzo(b)fluoranthene	ND	5.3	0.44	µg/L	1		SW-846 8270E	11/1/21	11/4/21 12:27	IMR
Benzo(g,h,i)perylene	ND	5.3	0.68	µg/L	1		SW-846 8270E	11/1/21	11/4/21 12:27	IMR
Benzo(k)fluoranthene	ND	5.3	0.39	µg/L	1		SW-846 8270E	11/1/21	11/4/21 12:27	IMR
Benzoic Acid	ND	11	9.8	µg/L	1		SW-846 8270E	11/1/21	11/4/21 12:27	IMR
Bis(2-chloroethoxy)methane	ND	11	0.46	µg/L	1		SW-846 8270E	11/1/21	11/4/21 12:27	IMR
Bis(2-chloroethyl)ether	ND	11	0.55	µg/L	1		SW-846 8270E	11/1/21	11/4/21 12:27	IMR
Bis(2-chloroisopropyl)ether	ND	11	0.63	µg/L	1		SW-846 8270E	11/1/21	11/4/21 12:27	IMR
Bis(2-Ethylhexyl)phthalate	ND	11	0.98	µg/L	1		SW-846 8270E	11/1/21	11/4/21 12:27	IMR
4-Bromophenylphenylether	ND	11	0.41	µg/L	1		SW-846 8270E	11/1/21	11/4/21 12:27	IMR
Butylbenzylphthalate	ND	11	0.74	µg/L	1		SW-846 8270E	11/1/21	11/4/21 12:27	IMR
Carbazole	ND	11	0.43	µg/L	1		SW-846 8270E	11/1/21	11/4/21 12:27	IMR
4-Chloroaniline	ND	11	0.46	µg/L	1		SW-846 8270E	11/1/21	11/4/21 12:27	IMR
4-Chloro-3-methylphenol	ND	11	0.57	µg/L	1		SW-846 8270E	11/1/21	11/4/21 12:27	IMR
2-Chloronaphthalene	ND	11	0.28	µg/L	1		SW-846 8270E	11/1/21	11/4/21 12:27	IMR
2-Chlorophenol	ND	11	0.40	µg/L	1		SW-846 8270E	11/1/21	11/4/21 12:27	IMR
4-Chlorophenylphenylether	ND	11	0.35	µg/L	1		SW-846 8270E	11/1/21	11/4/21 12:27	IMR
Chrysene	ND	5.3	0.40	µg/L	1		SW-846 8270E	11/1/21	11/4/21 12:27	IMR
Dibenz(a,h)anthracene	ND	5.3	0.75	µg/L	1		SW-846 8270E	11/1/21	11/4/21 12:27	IMR
Dibenzofuran	ND	5.3	0.36	µg/L	1		SW-846 8270E	11/1/21	11/4/21 12:27	IMR
Di-n-butylphthalate	ND	11	0.53	µg/L	1		SW-846 8270E	11/1/21	11/4/21 12:27	IMR
1,2-Dichlorobenzene	ND	5.3	0.25	µg/L	1		SW-846 8270E	11/1/21	11/4/21 12:27	IMR
1,3-Dichlorobenzene	ND	5.3	0.25	µg/L	1		SW-846 8270E	11/1/21	11/4/21 12:27	IMR
1,4-Dichlorobenzene	ND	5.3	0.28	µg/L	1		SW-846 8270E	11/1/21	11/4/21 12:27	IMR
3,3-Dichlorobenzidine	ND	11	0.66	µg/L	1		SW-846 8270E	11/1/21	11/4/21 12:27	IMR
2,4-Dichlorophenol	ND	11	0.39	µg/L	1		SW-846 8270E	11/1/21	11/4/21 12:27	IMR
Diethylphthalate	ND	11	0.51	µg/L	1		SW-846 8270E	11/1/21	11/4/21 12:27	IMR
2,4-Dimethylphenol	ND	11	1.0	µg/L	1		SW-846 8270E	11/1/21	11/4/21 12:27	IMR
Dimethylphthalate	ND	11	0.43	µg/L	1		SW-846 8270E	11/1/21	11/4/21 12:27	IMR
4,6-Dinitro-2-methylphenol	ND	11	7.0	µg/L	1		SW-846 8270E	11/1/21	11/4/21 12:27	IMR
2,4-Dinitrophenol	ND	11	8.5	µg/L	1	V-04, V-20	SW-846 8270E	11/1/21	11/4/21 12:27	IMR
2,4-Dinitrotoluene	ND	11	0.64	µg/L	1		SW-846 8270E	11/1/21	11/4/21 12:27	IMR
2,6-Dinitrotoluene	ND	11	0.53	µg/L	1		SW-846 8270E	11/1/21	11/4/21 12:27	IMR
Di-n-octylphthalate	ND	11	5.9	µg/L	1		SW-846 8270E	11/1/21	11/4/21 12:27	IMR
1,2-Diphenylhydrazine/Azobenzene	ND	11	0.56	µg/L	1		SW-846 8270E	11/1/21	11/4/21 12:27	IMR
Fluoranthene	ND	5.3	0.39	µg/L	1		SW-846 8270E	11/1/21	11/4/21 12:27	IMR
Fluorene	ND	5.3	0.44	µg/L	1		SW-846 8270E	11/1/21	11/4/21 12:27	IMR

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39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: 1400 N. Royal St, Alexandria, VA Sample Description: Work Order: 21J1856

Date Received: 10/29/2021

Field Sample #: HRP-MW221-211027 Sampled: 10/27/2021 10:10

Sample ID: 21J1856-05

Sample Matrix: Ground Water

Semivolatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Hexachlorobenzene	ND	11	0.39	µg/L	1		SW-846 8270E	11/1/21	11/4/21 12:27	IMR
Hexachlorobutadiene	ND	11	0.29	µg/L	1		SW-846 8270E	11/1/21	11/4/21 12:27	IMR
Hexachlorocyclopentadiene	ND	11	4.5	µg/L	1		SW-846 8270E	11/1/21	11/4/21 12:27	IMR
Hexachloroethane	ND	11	0.33	µg/L	1		SW-846 8270E	11/1/21	11/4/21 12:27	IMR
Indeno(1,2,3-cd)pyrene	ND	5.3	0.83	µg/L	1		SW-846 8270E	11/1/21	11/4/21 12:27	IMR
Isophorone	ND	11	0.52	µg/L	1		SW-846 8270E	11/1/21	11/4/21 12:27	IMR
1-Methylnaphthalene	ND	5.3	0.31	µg/L	1		SW-846 8270E	11/1/21	11/4/21 12:27	IMR
2-Methylnaphthalene	ND	5.3	0.35	µg/L	1		SW-846 8270E	11/1/21	11/4/21 12:27	IMR
2-Methylphenol	ND	11	0.39	µg/L	1		SW-846 8270E	11/1/21	11/4/21 12:27	IMR
3/4-Methylphenol	ND	11	0.40	µg/L	1		SW-846 8270E	11/1/21	11/4/21 12:27	IMR
Naphthalene	ND	5.3	0.31	µg/L	1		SW-846 8270E	11/1/21	11/4/21 12:27	IMR
2-Nitroaniline	ND	11	0.80	µg/L	1	V-20	SW-846 8270E	11/1/21	11/4/21 12:27	IMR
3-Nitroaniline	ND	11	0.54	µg/L	1		SW-846 8270E	11/1/21	11/4/21 12:27	IMR
4-Nitroaniline	ND	11	0.52	µg/L	1	V-20	SW-846 8270E	11/1/21	11/4/21 12:27	IMR
Nitrobenzene	ND	11	0.56	µg/L	1		SW-846 8270E	11/1/21	11/4/21 12:27	IMR
2-Nitrophenol	ND	11	0.50	µg/L	1		SW-846 8270E	11/1/21	11/4/21 12:27	IMR
4-Nitrophenol	ND	11	2.2	µg/L	1		SW-846 8270E	11/1/21	11/4/21 12:27	IMR
N-Nitrosodimethylamine	ND	11	0.87	µg/L	1		SW-846 8270E	11/1/21	11/4/21 12:27	IMR
N-Nitrosodiphenylamine/Diphenylamine	ND	11	0.42	µg/L	1		SW-846 8270E	11/1/21	11/4/21 12:27	IMR
N-Nitrosodi-n-propylamine	ND	11	0.56	µg/L	1		SW-846 8270E	11/1/21	11/4/21 12:27	IMR
Pentachloronitrobenzene	ND	11	0.67	µg/L	1		SW-846 8270E	11/1/21	11/4/21 12:27	IMR
Pentachlorophenol	ND	11	4.0	µg/L	1		SW-846 8270E	11/1/21	11/4/21 12:27	IMR
Phenanthrene	ND	5.3	0.42	µg/L	1		SW-846 8270E	11/1/21	11/4/21 12:27	IMR
Phenol	ND	11	0.26	µg/L	1		SW-846 8270E	11/1/21	11/4/21 12:27	IMR
Pyrene	ND	5.3	0.50	µg/L	1		SW-846 8270E	11/1/21	11/4/21 12:27	IMR
Pyridine	ND	5.3	2.7	µg/L	1		SW-846 8270E	11/1/21	11/4/21 12:27	IMR
1,2,4,5-Tetrachlorobenzene	ND	11	0.29	µg/L	1		SW-846 8270E	11/1/21	11/4/21 12:27	IMR
1,2,4-Trichlorobenzene	ND	5.3	0.26	µg/L	1		SW-846 8270E	11/1/21	11/4/21 12:27	IMR
2,4,5-Trichlorophenol	ND	11	0.49	µg/L	1		SW-846 8270E	11/1/21	11/4/21 12:27	IMR
2,4,6-Trichlorophenol	ND	11	0.43	µg/L	1		SW-846 8270E	11/1/21	11/4/21 12:27	IMR

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
2-Fluorophenol	52.4	15-110		11/4/21 12:27
Phenol-d6	38.5	15-110		11/4/21 12:27
Nitrobenzene-d5	70.7	30-130		11/4/21 12:27
2-Fluorobiphenyl	68.0	30-130		11/4/21 12:27
2,4,6-Tribromophenol	84.0	15-110		11/4/21 12:27
p-Terphenyl-d14	89.0	30-130		11/4/21 12:27

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39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: 1400 N. Royal St, Alexandria, VA Sample Description: Work Order: 21J1856

Date Received: 10/29/2021

Field Sample #: HRP-MW221-211027 Sampled: 10/27/2021 10:10

Sample ID: 21J1856-05

Sample Matrix: Ground Water

Polychlorinated Biphenyls By GC/ECD

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Aroclor-1016 [1]	ND	0.23	0.20	µg/L	1		SW-846 8082A	10/31/21	11/2/21 12:03	TG
Aroclor-1221 [1]	ND	0.23	0.19	µg/L	1		SW-846 8082A	10/31/21	11/2/21 12:03	TG
Aroclor-1232 [1]	ND	0.23	0.19	µg/L	1		SW-846 8082A	10/31/21	11/2/21 12:03	TG
Aroclor-1242 [1]	ND	0.23	0.20	µg/L	1		SW-846 8082A	10/31/21	11/2/21 12:03	TG
Aroclor-1248 [1]	ND	0.23	0.19	µg/L	1		SW-846 8082A	10/31/21	11/2/21 12:03	TG
Aroclor-1254 [1]	ND	0.23	0.21	µg/L	1		SW-846 8082A	10/31/21	11/2/21 12:03	TG
Aroclor-1260 [1]	ND	0.23	0.19	µg/L	1		SW-846 8082A	10/31/21	11/2/21 12:03	TG
Aroclor-1262 [1]	ND	0.23	0.20	µg/L	1		SW-846 8082A	10/31/21	11/2/21 12:03	TG
Aroclor-1268 [1]	ND	0.23	0.21	µg/L	1		SW-846 8082A	10/31/21	11/2/21 12:03	TG

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
Decachlorobiphenyl [1]	104	30-150		11/2/21 12:03
Decachlorobiphenyl [2]	111	30-150		11/2/21 12:03
Tetrachloro-m-xylene [1]	85.6	30-150		11/2/21 12:03
Tetrachloro-m-xylene [2]	81.7	30-150		11/2/21 12:03

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39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: 1400 N. Royal St, Alexandria, VA Sample Description: Work Order: 21J1856

Date Received: 10/29/2021

Field Sample #: HRP-MW201-211025 Sampled: 10/25/2021 15:45

Sample ID: 21J1856-06

Sample Matrix: Ground Water

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acetone	ND	50	2.4	µg/L	1		SW-846 8260D	11/1/21	11/1/21 15:56	MFF
Acrylonitrile	ND	5.0	0.69	µg/L	1		SW-846 8260D	11/1/21	11/1/21 15:56	MFF
tert-Amyl Methyl Ether (TAME)	ND	0.50	0.15	µg/L	1		SW-846 8260D	11/1/21	11/1/21 15:56	MFF
Benzene	ND	1.0	0.13	µg/L	1		SW-846 8260D	11/1/21	11/1/21 15:56	MFF
Bromobenzene	ND	1.0	0.13	µg/L	1		SW-846 8260D	11/1/21	11/1/21 15:56	MFF
Bromochloromethane	ND	1.0	0.36	µg/L	1		SW-846 8260D	11/1/21	11/1/21 15:56	MFF
Bromodichloromethane	ND	0.50	0.14	µg/L	1		SW-846 8260D	11/1/21	11/1/21 15:56	MFF
Bromoform	ND	1.0	0.29	µg/L	1		SW-846 8260D	11/1/21	11/1/21 15:56	MFF
Bromomethane	ND	2.0	1.1	µg/L	1		SW-846 8260D	11/1/21	11/1/21 15:56	MFF
2-Butanone (MEK)	ND	20	1.9	µg/L	1		SW-846 8260D	11/1/21	11/1/21 15:56	MFF
tert-Butyl Alcohol (TBA)	ND	20	5.3	µg/L	1		SW-846 8260D	11/1/21	11/1/21 15:56	MFF
n-Butylbenzene	ND	1.0	0.14	µg/L	1		SW-846 8260D	11/1/21	11/1/21 15:56	MFF
sec-Butylbenzene	ND	1.0	0.10	µg/L	1		SW-846 8260D	11/1/21	11/1/21 15:56	MFF
tert-Butylbenzene	ND	1.0	0.090	µg/L	1		SW-846 8260D	11/1/21	11/1/21 15:56	MFF
tert-Butyl Ethyl Ether (TBEE)	ND	0.50	0.11	µg/L	1		SW-846 8260D	11/1/21	11/1/21 15:56	MFF
Carbon Disulfide	ND	5.0	1.5	µg/L	1		SW-846 8260D	11/1/21	11/1/21 15:56	MFF
Carbon Tetrachloride	ND	5.0	0.17	µg/L	1		SW-846 8260D	11/1/21	11/1/21 15:56	MFF
Chlorobenzene	ND	1.0	0.080	µg/L	1		SW-846 8260D	11/1/21	11/1/21 15:56	MFF
Chlorodibromomethane	ND	0.50	0.16	µg/L	1		SW-846 8260D	11/1/21	11/1/21 15:56	MFF
Chloroethane	ND	2.0	0.37	µg/L	1		SW-846 8260D	11/1/21	11/1/21 15:56	MFF
Chloroform	ND	2.0	0.19	µg/L	1		SW-846 8260D	11/1/21	11/1/21 15:56	MFF
Chloromethane	ND	2.0	0.38	µg/L	1		SW-846 8260D	11/1/21	11/1/21 15:56	MFF
2-Chlorotoluene	ND	1.0	0.090	µg/L	1		SW-846 8260D	11/1/21	11/1/21 15:56	MFF
4-Chlorotoluene	ND	1.0	0.10	µg/L	1		SW-846 8260D	11/1/21	11/1/21 15:56	MFF
1,2-Dibromo-3-chloropropane (DBCP)	ND	5.0	0.72	µg/L	1		SW-846 8260D	11/1/21	11/1/21 15:56	MFF
1,2-Dibromoethane (EDB)	ND	0.50	0.15	µg/L	1		SW-846 8260D	11/1/21	11/1/21 15:56	MFF
Dibromomethane	ND	1.0	0.29	µg/L	1		SW-846 8260D	11/1/21	11/1/21 15:56	MFF
1,2-Dichlorobenzene	ND	1.0	0.10	µg/L	1		SW-846 8260D	11/1/21	11/1/21 15:56	MFF
1,3-Dichlorobenzene	ND	1.0	0.090	µg/L	1		SW-846 8260D	11/1/21	11/1/21 15:56	MFF
1,4-Dichlorobenzene	ND	1.0	0.11	µg/L	1		SW-846 8260D	11/1/21	11/1/21 15:56	MFF
trans-1,4-Dichloro-2-butene	ND	2.0	1.8	µg/L	1		SW-846 8260D	11/1/21	11/1/21 15:56	MFF
Dichlorodifluoromethane (Freon 12)	ND	2.0	0.20	µg/L	1		SW-846 8260D	11/1/21	11/1/21 15:56	MFF
1,1-Dichloroethane	ND	1.0	0.16	µg/L	1		SW-846 8260D	11/1/21	11/1/21 15:56	MFF
1,2-Dichloroethane	ND	1.0	0.32	µg/L	1		SW-846 8260D	11/1/21	11/1/21 15:56	MFF
1,1-Dichloroethylene	ND	1.0	0.16	µg/L	1		SW-846 8260D	11/1/21	11/1/21 15:56	MFF
cis-1,2-Dichloroethylene	ND	1.0	0.15	µg/L	1		SW-846 8260D	11/1/21	11/1/21 15:56	MFF
trans-1,2-Dichloroethylene	ND	1.0	0.17	µg/L	1		SW-846 8260D	11/1/21	11/1/21 15:56	MFF
1,2-Dichloropropane	ND	1.0	0.18	µg/L	1		SW-846 8260D	11/1/21	11/1/21 15:56	MFF
1,3-Dichloropropane	ND	0.50	0.12	µg/L	1		SW-846 8260D	11/1/21	11/1/21 15:56	MFF
2,2-Dichloropropane	ND	1.0	0.31	µg/L	1		SW-846 8260D	11/1/21	11/1/21 15:56	MFF
1,1-Dichloropropene	ND	2.0	0.26	µg/L	1		SW-846 8260D	11/1/21	11/1/21 15:56	MFF
cis-1,3-Dichloropropene	ND	0.50	0.12	µg/L	1		SW-846 8260D	11/1/21	11/1/21 15:56	MFF
trans-1,3-Dichloropropene	ND	0.50	0.15	µg/L	1		SW-846 8260D	11/1/21	11/1/21 15:56	MFF
Diethyl Ether	ND	2.0	0.22	µg/L	1		SW-846 8260D	11/1/21	11/1/21 15:56	MFF

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39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: 1400 N. Royal St, Alexandria, VA Sample Description: Work Order: 21J1856

Date Received: 10/29/2021

Field Sample #: HRP-MW201-211025 Sampled: 10/25/2021 15:45

Sample ID: 21J1856-06

Sample Matrix: Ground Water

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Diisopropyl Ether (DIPE)	ND	0.50	0.15	µg/L	1		SW-846 8260D	11/1/21	11/1/21 15:56	MFF
1,4-Dioxane	ND	50	22	µg/L	1		SW-846 8260D	11/1/21	11/1/21 15:56	MFF
Ethylbenzene	ND	1.0	0.090	µg/L	1		SW-846 8260D	11/1/21	11/1/21 15:56	MFF
Hexachlorobutadiene	ND	0.60	0.41	µg/L	1		SW-846 8260D	11/1/21	11/1/21 15:56	MFF
2-Hexanone (MBK)	ND	10	1.4	µg/L	1		SW-846 8260D	11/1/21	11/1/21 15:56	MFF
Isopropylbenzene (Cumene)	ND	1.0	0.10	µg/L	1		SW-846 8260D	11/1/21	11/1/21 15:56	MFF
p-Isopropyltoluene (p-Cymene)	ND	1.0	0.090	µg/L	1		SW-846 8260D	11/1/21	11/1/21 15:56	MFF
Methyl Acetate	ND	1.0	0.39	µg/L	1		SW-846 8260D	11/1/21	11/1/21 15:56	MFF
Methyl tert-Butyl Ether (MTBE)	ND	1.0	0.17	µg/L	1		SW-846 8260D	11/1/21	11/1/21 15:56	MFF
Methyl Cyclohexane	ND	1.0	0.33	µg/L	1		SW-846 8260D	11/1/21	11/1/21 15:56	MFF
Methylene Chloride	ND	5.0	0.30	µg/L	1		SW-846 8260D	11/1/21	11/1/21 15:56	MFF
4-Methyl-2-pentanone (MIBK)	ND	10	1.6	µg/L	1		SW-846 8260D	11/1/21	11/1/21 15:56	MFF
Naphthalene	ND	2.0	0.15	µg/L	1	V-05	SW-846 8260D	11/1/21	11/1/21 15:56	MFF
n-Propylbenzene	ND	1.0	0.080	µg/L	1		SW-846 8260D	11/1/21	11/1/21 15:56	MFF
Styrene	ND	1.0	0.080	µg/L	1		SW-846 8260D	11/1/21	11/1/21 15:56	MFF
1,1,1,2-Tetrachloroethane	ND	1.0	0.14	µg/L	1		SW-846 8260D	11/1/21	11/1/21 15:56	MFF
1,1,2,2-Tetrachloroethane	ND	0.50	0.090	µg/L	1		SW-846 8260D	11/1/21	11/1/21 15:56	MFF
Tetrachloroethylene	0.88	1.0	0.20	µg/L	1	J	SW-846 8260D	11/1/21	11/1/21 15:56	MFF
Tetrahydrofuran	ND	10	0.58	µg/L	1		SW-846 8260D	11/1/21	11/1/21 15:56	MFF
Toluene	0.85	1.0	0.11	µg/L	1	J	SW-846 8260D	11/1/21	11/1/21 15:56	MFF
1,2,3-Trichlorobenzene	ND	5.0	0.14	µg/L	1	V-05	SW-846 8260D	11/1/21	11/1/21 15:56	MFF
1,2,4-Trichlorobenzene	ND	1.0	0.16	µg/L	1	V-05	SW-846 8260D	11/1/21	11/1/21 15:56	MFF
1,3,5-Trichlorobenzene	ND	1.0	0.18	µg/L	1		SW-846 8260D	11/1/21	11/1/21 15:56	MFF
1,1,1-Trichloroethane	ND	1.0	0.17	µg/L	1		SW-846 8260D	11/1/21	11/1/21 15:56	MFF
1,1,2-Trichloroethane	ND	1.0	0.15	µg/L	1		SW-846 8260D	11/1/21	11/1/21 15:56	MFF
Trichloroethylene	ND	1.0	0.18	µg/L	1		SW-846 8260D	11/1/21	11/1/21 15:56	MFF
Trichlorofluoromethane (Freon 11)	ND	2.0	0.19	µg/L	1		SW-846 8260D	11/1/21	11/1/21 15:56	MFF
1,2,3-Trichloropropane	ND	2.0	0.31	µg/L	1		SW-846 8260D	11/1/21	11/1/21 15:56	MFF
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	1.0	0.24	µg/L	1		SW-846 8260D	11/1/21	11/1/21 15:56	MFF
1,2,4-Trimethylbenzene	ND	1.0	0.10	µg/L	1		SW-846 8260D	11/1/21	11/1/21 15:56	MFF
1,3,5-Trimethylbenzene	ND	1.0	0.10	µg/L	1		SW-846 8260D	11/1/21	11/1/21 15:56	MFF
Vinyl Chloride	ND	2.0	0.20	µg/L	1		SW-846 8260D	11/1/21	11/1/21 15:56	MFF
m+p Xylene	ND	2.0	0.18	µg/L	1		SW-846 8260D	11/1/21	11/1/21 15:56	MFF
o-Xylene	ND	1.0	0.090	µg/L	1		SW-846 8260D	11/1/21	11/1/21 15:56	MFF

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
1,2-Dichloroethane-d4	108	70-130		11/1/21 15:56
Toluene-d8	107	70-130		11/1/21 15:56
4-Bromofluorobenzene	102	70-130		11/1/21 15:56

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39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: 1400 N. Royal St, Alexandria, VA Sample Description: Work Order: 21J1856

Date Received: 10/29/2021

Field Sample #: HRP-MW201-211025 Sampled: 10/25/2021 15:45

Sample ID: 21J1856-06

Sample Matrix: Ground Water

Sample Flags: H-10

Semivolatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acenaphthene	ND	5.1	0.34	µg/L	1		SW-846 8270E	11/3/21	11/5/21 9:16	IMR
Acenaphthylene	ND	5.1	0.33	µg/L	1		SW-846 8270E	11/3/21	11/5/21 9:16	IMR
Acetophenone	ND	10	0.46	µg/L	1		SW-846 8270E	11/3/21	11/5/21 9:16	IMR
Aniline	ND	5.1	0.84	µg/L	1		SW-846 8270E	11/3/21	11/5/21 9:16	IMR
Anthracene	ND	5.1	0.41	µg/L	1		SW-846 8270E	11/3/21	11/5/21 9:16	IMR
Benzidine	ND	21	10	µg/L	1	V-04	SW-846 8270E	11/3/21	11/5/21 9:16	IMR
Benzo(a)anthracene	ND	5.1	0.39	µg/L	1		SW-846 8270E	11/3/21	11/5/21 9:16	IMR
Benzo(a)pyrene	ND	5.1	0.49	µg/L	1		SW-846 8270E	11/3/21	11/5/21 9:16	IMR
Benzo(b)fluoranthene	ND	5.1	0.43	µg/L	1		SW-846 8270E	11/3/21	11/5/21 9:16	IMR
Benzo(g,h,i)perylene	ND	5.1	0.66	µg/L	1		SW-846 8270E	11/3/21	11/5/21 9:16	IMR
Benzo(k)fluoranthene	ND	5.1	0.38	µg/L	1		SW-846 8270E	11/3/21	11/5/21 9:16	IMR
Benzoic Acid	ND	10	9.5	µg/L	1		SW-846 8270E	11/3/21	11/5/21 9:16	IMR
Bis(2-chloroethoxy)methane	ND	10	0.44	µg/L	1		SW-846 8270E	11/3/21	11/5/21 9:16	IMR
Bis(2-chloroethyl)ether	ND	10	0.53	µg/L	1		SW-846 8270E	11/3/21	11/5/21 9:16	IMR
Bis(2-chloroisopropyl)ether	ND	10	0.61	µg/L	1		SW-846 8270E	11/3/21	11/5/21 9:16	IMR
Bis(2-Ethylhexyl)phthalate	ND	10	0.95	µg/L	1		SW-846 8270E	11/3/21	11/5/21 9:16	IMR
4-Bromophenylphenylether	ND	10	0.39	µg/L	1		SW-846 8270E	11/3/21	11/5/21 9:16	IMR
Butylbenzylphthalate	ND	10	0.71	µg/L	1		SW-846 8270E	11/3/21	11/5/21 9:16	IMR
Carbazole	ND	10	0.42	µg/L	1		SW-846 8270E	11/3/21	11/5/21 9:16	IMR
4-Chloroaniline	ND	10	0.45	µg/L	1		SW-846 8270E	11/3/21	11/5/21 9:16	IMR
4-Chloro-3-methylphenol	ND	10	0.55	µg/L	1		SW-846 8270E	11/3/21	11/5/21 9:16	IMR
2-Chloronaphthalene	ND	10	0.27	µg/L	1		SW-846 8270E	11/3/21	11/5/21 9:16	IMR
2-Chlorophenol	ND	10	0.38	µg/L	1		SW-846 8270E	11/3/21	11/5/21 9:16	IMR
4-Chlorophenylphenylether	ND	10	0.34	µg/L	1		SW-846 8270E	11/3/21	11/5/21 9:16	IMR
Chrysene	ND	5.1	0.38	µg/L	1		SW-846 8270E	11/3/21	11/5/21 9:16	IMR
Dibenz(a,h)anthracene	ND	5.1	0.73	µg/L	1		SW-846 8270E	11/3/21	11/5/21 9:16	IMR
Dibenzofuran	ND	5.1	0.35	µg/L	1		SW-846 8270E	11/3/21	11/5/21 9:16	IMR
Di-n-butylphthalate	ND	10	0.51	µg/L	1		SW-846 8270E	11/3/21	11/5/21 9:16	IMR
1,2-Dichlorobenzene	ND	5.1	0.24	µg/L	1		SW-846 8270E	11/3/21	11/5/21 9:16	IMR
1,3-Dichlorobenzene	ND	5.1	0.25	µg/L	1		SW-846 8270E	11/3/21	11/5/21 9:16	IMR
1,4-Dichlorobenzene	ND	5.1	0.27	µg/L	1		SW-846 8270E	11/3/21	11/5/21 9:16	IMR
3,3-Dichlorobenzidine	ND	10	0.64	µg/L	1		SW-846 8270E	11/3/21	11/5/21 9:16	IMR
2,4-Dichlorophenol	ND	10	0.37	µg/L	1		SW-846 8270E	11/3/21	11/5/21 9:16	IMR
Diethylphthalate	ND	10	0.49	µg/L	1		SW-846 8270E	11/3/21	11/5/21 9:16	IMR
2,4-Dimethylphenol	ND	10	0.99	µg/L	1		SW-846 8270E	11/3/21	11/5/21 9:16	IMR
Dimethylphthalate	ND	10	0.41	µg/L	1		SW-846 8270E	11/3/21	11/5/21 9:16	IMR
4,6-Dinitro-2-methylphenol	ND	10	6.7	µg/L	1		SW-846 8270E	11/3/21	11/5/21 9:16	IMR
2,4-Dinitrophenol	ND	10	8.2	µg/L	1	V-04, V-20	SW-846 8270E	11/3/21	11/5/21 9:16	IMR
2,4-Dinitrotoluene	ND	10	0.62	µg/L	1		SW-846 8270E	11/3/21	11/5/21 9:16	IMR
2,6-Dinitrotoluene	ND	10	0.51	µg/L	1		SW-846 8270E	11/3/21	11/5/21 9:16	IMR
Di-n-octylphthalate	ND	10	5.7	µg/L	1		SW-846 8270E	11/3/21	11/5/21 9:16	IMR
1,2-Diphenylhydrazine/Azobenzene	ND	10	0.54	µg/L	1		SW-846 8270E	11/3/21	11/5/21 9:16	IMR
Fluoranthene	ND	5.1	0.38	µg/L	1		SW-846 8270E	11/3/21	11/5/21 9:16	IMR
Fluorene	ND	5.1	0.43	µg/L	1		SW-846 8270E	11/3/21	11/5/21 9:16	IMR

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39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: 1400 N. Royal St, Alexandria, VA Sample Description: Work Order: 21J1856

Date Received: 10/29/2021

Field Sample #: HRP-MW201-211025 Sampled: 10/25/2021 15:45

Sample ID: 21J1856-06

Sample Matrix: Ground Water

Sample Flags: H-10

Semivolatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Hexachlorobenzene	ND	10	0.37	µg/L	1		SW-846 8270E	11/3/21	11/5/21 9:16	IMR
Hexachlorobutadiene	ND	10	0.28	µg/L	1		SW-846 8270E	11/3/21	11/5/21 9:16	IMR
Hexachlorocyclopentadiene	ND	10	4.3	µg/L	1		SW-846 8270E	11/3/21	11/5/21 9:16	IMR
Hexachloroethane	ND	10	0.32	µg/L	1		SW-846 8270E	11/3/21	11/5/21 9:16	IMR
Indeno(1,2,3-cd)pyrene	ND	5.1	0.81	µg/L	1		SW-846 8270E	11/3/21	11/5/21 9:16	IMR
Isophorone	ND	10	0.50	µg/L	1		SW-846 8270E	11/3/21	11/5/21 9:16	IMR
1-Methylnaphthalene	ND	5.1	0.30	µg/L	1		SW-846 8270E	11/3/21	11/5/21 9:16	IMR
2-Methylnaphthalene	ND	5.1	0.34	µg/L	1		SW-846 8270E	11/3/21	11/5/21 9:16	IMR
2-Methylphenol	ND	10	0.37	µg/L	1		SW-846 8270E	11/3/21	11/5/21 9:16	IMR
3/4-Methylphenol	ND	10	0.39	µg/L	1		SW-846 8270E	11/3/21	11/5/21 9:16	IMR
Naphthalene	ND	5.1	0.30	µg/L	1		SW-846 8270E	11/3/21	11/5/21 9:16	IMR
2-Nitroaniline	ND	10	0.77	µg/L	1		SW-846 8270E	11/3/21	11/5/21 9:16	IMR
3-Nitroaniline	ND	10	0.52	µg/L	1		SW-846 8270E	11/3/21	11/5/21 9:16	IMR
4-Nitroaniline	ND	10	0.50	µg/L	1		SW-846 8270E	11/3/21	11/5/21 9:16	IMR
Nitrobenzene	ND	10	0.54	µg/L	1		SW-846 8270E	11/3/21	11/5/21 9:16	IMR
2-Nitrophenol	ND	10	0.49	µg/L	1		SW-846 8270E	11/3/21	11/5/21 9:16	IMR
4-Nitrophenol	ND	10	2.1	µg/L	1		SW-846 8270E	11/3/21	11/5/21 9:16	IMR
N-Nitrosodimethylamine	ND	10	0.84	µg/L	1		SW-846 8270E	11/3/21	11/5/21 9:16	IMR
N-Nitrosodiphenylamine/Diphenylamine	ND	10	0.41	µg/L	1		SW-846 8270E	11/3/21	11/5/21 9:16	IMR
N-Nitrosodi-n-propylamine	ND	10	0.54	µg/L	1		SW-846 8270E	11/3/21	11/5/21 9:16	IMR
Pentachloronitrobenzene	ND	10	0.65	µg/L	1		SW-846 8270E	11/3/21	11/5/21 9:16	IMR
Pentachlorophenol	ND	10	3.8	µg/L	1		SW-846 8270E	11/3/21	11/5/21 9:16	IMR
Phenanthrene	ND	5.1	0.41	µg/L	1		SW-846 8270E	11/3/21	11/5/21 9:16	IMR
Phenol	ND	10	0.25	µg/L	1		SW-846 8270E	11/3/21	11/5/21 9:16	IMR
Pyrene	ND	5.1	0.49	µg/L	1		SW-846 8270E	11/3/21	11/5/21 9:16	IMR
Pyridine	ND	5.1	2.7	µg/L	1		SW-846 8270E	11/3/21	11/5/21 9:16	IMR
1,2,4,5-Tetrachlorobenzene	ND	10	0.28	µg/L	1		SW-846 8270E	11/3/21	11/5/21 9:16	IMR
1,2,4-Trichlorobenzene	ND	5.1	0.25	µg/L	1		SW-846 8270E	11/3/21	11/5/21 9:16	IMR
2,4,5-Trichlorophenol	ND	10	0.48	µg/L	1		SW-846 8270E	11/3/21	11/5/21 9:16	IMR
2,4,6-Trichlorophenol	ND	10	0.42	µg/L	1		SW-846 8270E	11/3/21	11/5/21 9:16	IMR

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
2-Fluorophenol	37.0	15-110		11/5/21 9:16
Phenol-d6	25.9	15-110		11/5/21 9:16
Nitrobenzene-d5	62.5	30-130		11/5/21 9:16
2-Fluorobiphenyl	67.2	30-130		11/5/21 9:16
2,4,6-Tribromophenol	83.1	15-110		11/5/21 9:16
p-Terphenyl-d14	97.8	30-130		11/5/21 9:16

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Project Location: 1400 N. Royal St, Alexandria, VA Sample Description: Work Order: 21J1856

Date Received: 10/29/2021

Field Sample #: HRP-MW201-211025 Sampled: 10/25/2021 15:45

Sample ID: 21J1856-06

Sample Matrix: Ground Water

Semivolatile Organic Compounds by GC

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Methanol	ND	10	2.3	mg/L	1		SW-846 8015C	10/29/21	10/30/21 4:41	SFM
Isopropanol	ND	10	1.8	mg/L	1		SW-846 8015C	10/29/21	10/30/21 4:41	SFM
Ethanol	ND	10	2.5	mg/L	1		SW-846 8015C	10/29/21	10/30/21 4:41	SFM
Propylene glycol	ND	10	2.9	mg/L	1		SW-846 8015C	10/29/21	10/30/21 4:41	SFM
Ethylene glycol	ND	10	4.0	mg/L	1		SW-846 8015C	10/29/21	10/30/21 4:41	SFM

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39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: 1400 N. Royal St, Alexandria, VA Sample Description: Work Order: 21J1856

Date Received: 10/29/2021

Field Sample #: HRP-MW201-211025 Sampled: 10/25/2021 15:45

Sample ID: 21J1856-06

Sample Matrix: Ground Water

Metals Analyses (Total)

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Aluminum	0.24	0.050	0.049	mg/L	1		SW-846 6010D	10/31/21	10/31/21 22:48	QNW
Antimony	ND	1.0	0.20	µg/L	1		SW-846 6020B	10/31/21	10/31/21 20:31	QNW
Arsenic	0.65	0.80	0.46	µg/L	1	J	SW-846 6020B	10/31/21	10/31/21 20:31	QNW
Barium	25	10	1.2	µg/L	1		SW-846 6020B	10/31/21	10/31/21 20:31	QNW
Beryllium	0.091	0.40	0.066	µg/L	1	J	SW-846 6020B	10/31/21	11/1/21 11:44	QNW
Cadmium	0.20	0.20	0.027	µg/L	1		SW-846 6020B	10/31/21	10/31/21 20:31	QNW
Calcium	46	0.50	0.11	mg/L	1		SW-846 6010D	10/31/21	10/31/21 22:48	QNW
Chromium	ND	1.0	0.92	µg/L	1		SW-846 6020B	10/31/21	11/1/21 11:44	QNW
Cobalt	7.7	1.0	0.14	µg/L	1		SW-846 6020B	10/31/21	10/31/21 20:31	QNW
Copper	1.2	1.0	0.27	µg/L	1		SW-846 6020B	10/31/21	10/31/21 20:31	QNW
Iron	0.16	0.050	0.032	mg/L	1		SW-846 6010D	10/31/21	10/31/21 22:48	QNW
Lead	0.16	0.50	0.14	µg/L	1	J	SW-846 6020B	10/31/21	10/31/21 20:31	QNW
Magnesium	15	0.050	0.023	mg/L	1		SW-846 6010D	10/31/21	10/31/21 22:48	QNW
Manganese	330	1.0	0.24	µg/L	1		SW-846 6020B	10/31/21	10/31/21 20:31	QNW
Mercury	ND	0.00010	0.000050	mg/L	1		SW-846 7470A	11/1/21	11/2/21 9:20	DRL
Nickel	6.2	5.0	0.52	µg/L	1		SW-846 6020B	10/31/21	10/31/21 20:31	QNW
Potassium	5.5	2.0	0.40	mg/L	1		SW-846 6010D	10/31/21	10/31/21 22:48	QNW
Selenium	5.7	5.0	0.78	µg/L	1		SW-846 6020B	10/31/21	10/31/21 20:31	QNW
Silver	ND	0.20	0.026	µg/L	1		SW-846 6020B	10/31/21	10/31/21 20:31	QNW
Sodium	15	2.0	0.56	mg/L	1		SW-846 6010D	10/31/21	10/31/21 22:48	QNW
Thallium	ND	0.20	0.067	µg/L	1		SW-846 6020B	10/31/21	10/31/21 20:31	QNW
Vanadium	ND	5.0	3.5	µg/L	1		SW-846 6020B	10/31/21	10/31/21 20:31	QNW
Zinc	8.6	10	3.4	µg/L	1	J	SW-846 6020B	10/31/21	10/31/21 20:31	QNW

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Project Location: 1400 N. Royal St, Alexandria, VA Sample Description: Work Order: 21J1856

Date Received: 10/29/2021

Field Sample #: HRP-MW201-211025 Sampled: 10/25/2021 15:45

Sample ID: 21J1856-06

Sample Matrix: Ground Water

Metals Analyses (Dissolved)

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Aluminum	0.11	0.050	0.049	mg/L	1		SW-846 6010D	10/31/21	10/31/21 20:49	QNW
Antimony	ND	1.0	0.20	µg/L	1		SW-846 6020B	10/31/21	11/1/21 11:48	QNW
Arsenic	0.77	0.80	0.46	µg/L	1	J	SW-846 6020B	10/31/21	11/1/21 11:48	QNW
Barium	23	10	1.2	µg/L	1		SW-846 6020B	10/31/21	11/1/21 11:48	QNW
Beryllium	0.11	0.40	0.066	µg/L	1	J	SW-846 6020B	10/31/21	11/1/21 12:44	QNW
Cadmium	0.22	0.20	0.027	µg/L	1		SW-846 6020B	10/31/21	11/1/21 11:48	QNW
Calcium	41	0.50	0.11	mg/L	1		SW-846 6010D	10/31/21	10/31/21 20:49	QNW
Chromium	ND	1.0	0.92	µg/L	1		SW-846 6020B	10/31/21	11/1/21 11:48	QNW
Cobalt	7.2	1.0	0.14	µg/L	1		SW-846 6020B	10/31/21	11/1/21 11:48	QNW
Copper	1.7	1.0	0.27	µg/L	1		SW-846 6020B	10/31/21	11/1/21 12:44	QNW
Iron	ND	0.050	0.032	mg/L	1		SW-846 6010D	10/31/21	10/31/21 20:49	QNW
Lead	ND	0.50	0.14	µg/L	1		SW-846 6020B	10/31/21	11/1/21 11:48	QNW
Magnesium	13	0.050	0.023	mg/L	1		SW-846 6010D	10/31/21	10/31/21 20:49	QNW
Manganese	340	1.0	0.24	µg/L	1		SW-846 6020B	10/31/21	11/1/21 11:48	QNW
Mercury	ND	0.00010	0.000050	mg/L	1		SW-846 7470A	11/1/21	11/2/21 8:50	DRL
Nickel	5.5	5.0	0.52	µg/L	1		SW-846 6020B	10/31/21	11/1/21 11:48	QNW
Potassium	4.9	2.0	0.40	mg/L	1		SW-846 6010D	10/31/21	10/31/21 20:49	QNW
Selenium	6.1	5.0	0.78	µg/L	1		SW-846 6020B	10/31/21	11/1/21 12:44	QNW
Silver	ND	0.20	0.026	µg/L	1		SW-846 6020B	10/31/21	11/1/21 11:48	QNW
Sodium	14	2.0	0.56	mg/L	1		SW-846 6010D	10/31/21	10/31/21 20:49	QNW
Thallium	ND	0.20	0.067	µg/L	1		SW-846 6020B	10/31/21	11/1/21 11:48	QNW
Vanadium	ND	5.0	3.5	µg/L	1		SW-846 6020B	10/31/21	11/1/21 11:48	QNW
Zinc	7.9	10	3.4	µg/L	1	J	SW-846 6020B	10/31/21	11/1/21 11:48	QNW

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Project Location: 1400 N. Royal St, Alexandria, VA Sample Description: Work Order: 21J1856

Date Received: 10/29/2021

Field Sample #: HRP-MW201-211025 Sampled: 10/25/2021 15:45

Sample ID: 21J1856-06

Sample Matrix: Ground Water

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Ammonia as N	0.36	0.10	0.056	mg/L	1		EPA 350.1	11/3/21	11/4/21 14:36	MMH
Sulfate	150	10	6.0	mg/L	10		ASTM D516-16	11/5/21	11/5/21 9:59	MMH

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Project Location: 1400 N. Royal St, Alexandria, VA Sample Description: Work Order: 21J1856

Date Received: 10/29/2021

Field Sample #: HRP-MW202-211026 Sampled: 10/26/2021 09:50

Sample ID: 21J1856-07

Sample Matrix: Ground Water

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acetone	ND	50	2.4	µg/L	1		SW-846 8260D	11/1/21	11/1/21 16:20	MFF
Acrylonitrile	ND	5.0	0.69	µg/L	1		SW-846 8260D	11/1/21	11/1/21 16:20	MFF
tert-Amyl Methyl Ether (TAME)	ND	0.50	0.15	µg/L	1		SW-846 8260D	11/1/21	11/1/21 16:20	MFF
Benzene	ND	1.0	0.13	µg/L	1		SW-846 8260D	11/1/21	11/1/21 16:20	MFF
Bromobenzene	ND	1.0	0.13	µg/L	1		SW-846 8260D	11/1/21	11/1/21 16:20	MFF
Bromochloromethane	ND	1.0	0.36	µg/L	1		SW-846 8260D	11/1/21	11/1/21 16:20	MFF
Bromodichloromethane	ND	0.50	0.14	µg/L	1		SW-846 8260D	11/1/21	11/1/21 16:20	MFF
Bromoform	ND	1.0	0.29	µg/L	1		SW-846 8260D	11/1/21	11/1/21 16:20	MFF
Bromomethane	ND	2.0	1.1	µg/L	1		SW-846 8260D	11/1/21	11/1/21 16:20	MFF
2-Butanone (MEK)	ND	20	1.9	µg/L	1		SW-846 8260D	11/1/21	11/1/21 16:20	MFF
tert-Butyl Alcohol (TBA)	ND	20	5.3	µg/L	1		SW-846 8260D	11/1/21	11/1/21 16:20	MFF
n-Butylbenzene	ND	1.0	0.14	µg/L	1		SW-846 8260D	11/1/21	11/1/21 16:20	MFF
sec-Butylbenzene	ND	1.0	0.10	µg/L	1		SW-846 8260D	11/1/21	11/1/21 16:20	MFF
tert-Butylbenzene	ND	1.0	0.090	µg/L	1		SW-846 8260D	11/1/21	11/1/21 16:20	MFF
tert-Butyl Ethyl Ether (TBEE)	ND	0.50	0.11	µg/L	1		SW-846 8260D	11/1/21	11/1/21 16:20	MFF
Carbon Disulfide	ND	5.0	1.5	µg/L	1		SW-846 8260D	11/1/21	11/1/21 16:20	MFF
Carbon Tetrachloride	ND	5.0	0.17	µg/L	1		SW-846 8260D	11/1/21	11/1/21 16:20	MFF
Chlorobenzene	ND	1.0	0.080	µg/L	1		SW-846 8260D	11/1/21	11/1/21 16:20	MFF
Chlorodibromomethane	ND	0.50	0.16	µg/L	1		SW-846 8260D	11/1/21	11/1/21 16:20	MFF
Chloroethane	ND	2.0	0.37	µg/L	1		SW-846 8260D	11/1/21	11/1/21 16:20	MFF
Chloroform	ND	2.0	0.19	µg/L	1		SW-846 8260D	11/1/21	11/1/21 16:20	MFF
Chloromethane	ND	2.0	0.38	µg/L	1		SW-846 8260D	11/1/21	11/1/21 16:20	MFF
2-Chlorotoluene	ND	1.0	0.090	µg/L	1		SW-846 8260D	11/1/21	11/1/21 16:20	MFF
4-Chlorotoluene	ND	1.0	0.10	µg/L	1		SW-846 8260D	11/1/21	11/1/21 16:20	MFF
1,2-Dibromo-3-chloropropane (DBCP)	ND	5.0	0.72	µg/L	1		SW-846 8260D	11/1/21	11/1/21 16:20	MFF
1,2-Dibromoethane (EDB)	ND	0.50	0.15	µg/L	1		SW-846 8260D	11/1/21	11/1/21 16:20	MFF
Dibromomethane	ND	1.0	0.29	µg/L	1		SW-846 8260D	11/1/21	11/1/21 16:20	MFF
1,2-Dichlorobenzene	ND	1.0	0.10	µg/L	1		SW-846 8260D	11/1/21	11/1/21 16:20	MFF
1,3-Dichlorobenzene	ND	1.0	0.090	µg/L	1		SW-846 8260D	11/1/21	11/1/21 16:20	MFF
1,4-Dichlorobenzene	ND	1.0	0.11	µg/L	1		SW-846 8260D	11/1/21	11/1/21 16:20	MFF
trans-1,4-Dichloro-2-butene	ND	2.0	1.8	µg/L	1		SW-846 8260D	11/1/21	11/1/21 16:20	MFF
Dichlorodifluoromethane (Freon 12)	ND	2.0	0.20	µg/L	1		SW-846 8260D	11/1/21	11/1/21 16:20	MFF
1,1-Dichloroethane	ND	1.0	0.16	µg/L	1		SW-846 8260D	11/1/21	11/1/21 16:20	MFF
1,2-Dichloroethane	ND	1.0	0.32	µg/L	1		SW-846 8260D	11/1/21	11/1/21 16:20	MFF
1,1-Dichloroethylene	ND	1.0	0.16	µg/L	1		SW-846 8260D	11/1/21	11/1/21 16:20	MFF
cis-1,2-Dichloroethylene	ND	1.0	0.15	µg/L	1		SW-846 8260D	11/1/21	11/1/21 16:20	MFF
trans-1,2-Dichloroethylene	ND	1.0	0.17	µg/L	1		SW-846 8260D	11/1/21	11/1/21 16:20	MFF
1,2-Dichloropropane	ND	1.0	0.18	µg/L	1		SW-846 8260D	11/1/21	11/1/21 16:20	MFF
1,3-Dichloropropane	ND	0.50	0.12	µg/L	1		SW-846 8260D	11/1/21	11/1/21 16:20	MFF
2,2-Dichloropropane	ND	1.0	0.31	µg/L	1		SW-846 8260D	11/1/21	11/1/21 16:20	MFF
1,1-Dichloropropene	ND	2.0	0.26	µg/L	1		SW-846 8260D	11/1/21	11/1/21 16:20	MFF
cis-1,3-Dichloropropene	ND	0.50	0.12	µg/L	1		SW-846 8260D	11/1/21	11/1/21 16:20	MFF
trans-1,3-Dichloropropene	ND	0.50	0.15	µg/L	1		SW-846 8260D	11/1/21	11/1/21 16:20	MFF
Diethyl Ether	ND	2.0	0.22	µg/L	1		SW-846 8260D	11/1/21	11/1/21 16:20	MFF

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Project Location: 1400 N. Royal St, Alexandria, VA Sample Description: Work Order: 21J1856

Date Received: 10/29/2021

Field Sample #: HRP-MW202-211026 Sampled: 10/26/2021 09:50

Sample ID: 21J1856-07

Sample Matrix: Ground Water

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Diisopropyl Ether (DIPE)	ND	0.50	0.15	µg/L	1		SW-846 8260D	11/1/21	11/1/21 16:20	MFF
1,4-Dioxane	ND	50	22	µg/L	1		SW-846 8260D	11/1/21	11/1/21 16:20	MFF
Ethylbenzene	ND	1.0	0.090	µg/L	1		SW-846 8260D	11/1/21	11/1/21 16:20	MFF
Hexachlorobutadiene	ND	0.60	0.41	µg/L	1		SW-846 8260D	11/1/21	11/1/21 16:20	MFF
2-Hexanone (MBK)	ND	10	1.4	µg/L	1		SW-846 8260D	11/1/21	11/1/21 16:20	MFF
Isopropylbenzene (Cumene)	ND	1.0	0.10	µg/L	1		SW-846 8260D	11/1/21	11/1/21 16:20	MFF
p-Isopropyltoluene (p-Cymene)	5.1	1.0	0.090	µg/L	1		SW-846 8260D	11/1/21	11/1/21 16:20	MFF
Methyl Acetate	ND	1.0	0.39	µg/L	1		SW-846 8260D	11/1/21	11/1/21 16:20	MFF
Methyl tert-Butyl Ether (MTBE)	ND	1.0	0.17	µg/L	1		SW-846 8260D	11/1/21	11/1/21 16:20	MFF
Methyl Cyclohexane	ND	1.0	0.33	µg/L	1		SW-846 8260D	11/1/21	11/1/21 16:20	MFF
Methylene Chloride	ND	5.0	0.30	µg/L	1		SW-846 8260D	11/1/21	11/1/21 16:20	MFF
4-Methyl-2-pentanone (MIBK)	ND	10	1.6	µg/L	1		SW-846 8260D	11/1/21	11/1/21 16:20	MFF
Naphthalene	ND	2.0	0.15	µg/L	1	V-05	SW-846 8260D	11/1/21	11/1/21 16:20	MFF
n-Propylbenzene	ND	1.0	0.080	µg/L	1		SW-846 8260D	11/1/21	11/1/21 16:20	MFF
Styrene	ND	1.0	0.080	µg/L	1		SW-846 8260D	11/1/21	11/1/21 16:20	MFF
1,1,1,2-Tetrachloroethane	ND	1.0	0.14	µg/L	1		SW-846 8260D	11/1/21	11/1/21 16:20	MFF
1,1,2,2-Tetrachloroethane	ND	0.50	0.090	µg/L	1		SW-846 8260D	11/1/21	11/1/21 16:20	MFF
Tetrachloroethylene	ND	1.0	0.20	µg/L	1		SW-846 8260D	11/1/21	11/1/21 16:20	MFF
Tetrahydrofuran	ND	10	0.58	µg/L	1		SW-846 8260D	11/1/21	11/1/21 16:20	MFF
Toluene	ND	1.0	0.11	µg/L	1		SW-846 8260D	11/1/21	11/1/21 16:20	MFF
1,2,3-Trichlorobenzene	ND	5.0	0.14	µg/L	1	V-05	SW-846 8260D	11/1/21	11/1/21 16:20	MFF
1,2,4-Trichlorobenzene	ND	1.0	0.16	µg/L	1	V-05	SW-846 8260D	11/1/21	11/1/21 16:20	MFF
1,3,5-Trichlorobenzene	ND	1.0	0.18	µg/L	1		SW-846 8260D	11/1/21	11/1/21 16:20	MFF
1,1,1-Trichloroethane	ND	1.0	0.17	µg/L	1		SW-846 8260D	11/1/21	11/1/21 16:20	MFF
1,1,2-Trichloroethane	ND	1.0	0.15	µg/L	1		SW-846 8260D	11/1/21	11/1/21 16:20	MFF
Trichloroethylene	ND	1.0	0.18	µg/L	1		SW-846 8260D	11/1/21	11/1/21 16:20	MFF
Trichlorofluoromethane (Freon 11)	ND	2.0	0.19	µg/L	1		SW-846 8260D	11/1/21	11/1/21 16:20	MFF
1,2,3-Trichloropropane	ND	2.0	0.31	µg/L	1		SW-846 8260D	11/1/21	11/1/21 16:20	MFF
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	1.0	0.24	µg/L	1		SW-846 8260D	11/1/21	11/1/21 16:20	MFF
1,2,4-Trimethylbenzene	ND	1.0	0.10	µg/L	1		SW-846 8260D	11/1/21	11/1/21 16:20	MFF
1,3,5-Trimethylbenzene	ND	1.0	0.10	µg/L	1		SW-846 8260D	11/1/21	11/1/21 16:20	MFF
Vinyl Chloride	ND	2.0	0.20	µg/L	1		SW-846 8260D	11/1/21	11/1/21 16:20	MFF
m+p Xylene	ND	2.0	0.18	µg/L	1		SW-846 8260D	11/1/21	11/1/21 16:20	MFF
o-Xylene	ND	1.0	0.090	µg/L	1		SW-846 8260D	11/1/21	11/1/21 16:20	MFF

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
1,2-Dichloroethane-d4	108	70-130		11/1/21 16:20
Toluene-d8	106	70-130		11/1/21 16:20
4-Bromofluorobenzene	103	70-130		11/1/21 16:20

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Project Location: 1400 N. Royal St, Alexandria, VA Sample Description: Work Order: 21J1856

Date Received: 10/29/2021

Field Sample #: HRP-MW202-211026 Sampled: 10/26/2021 09:50

Sample ID: 21J1856-07

Sample Matrix: Ground Water

Semivolatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acenaphthene	ND	5.3	0.36	µg/L	1		SW-846 8270E	11/1/21	11/4/21 12:55	IMR
Acenaphthylene	ND	5.3	0.34	µg/L	1		SW-846 8270E	11/1/21	11/4/21 12:55	IMR
Acetophenone	ND	11	0.48	µg/L	1		SW-846 8270E	11/1/21	11/4/21 12:55	IMR
Aniline	ND	5.3	0.88	µg/L	1	V-20	SW-846 8270E	11/1/21	11/4/21 12:55	IMR
Anthracene	ND	5.3	0.42	µg/L	1		SW-846 8270E	11/1/21	11/4/21 12:55	IMR
Benzidine	ND	21	11	µg/L	1	V-04, V-20	SW-846 8270E	11/1/21	11/4/21 12:55	IMR
Benzo(a)anthracene	ND	5.3	0.41	µg/L	1		SW-846 8270E	11/1/21	11/4/21 12:55	IMR
Benzo(a)pyrene	ND	5.3	0.51	µg/L	1		SW-846 8270E	11/1/21	11/4/21 12:55	IMR
Benzo(b)fluoranthene	ND	5.3	0.45	µg/L	1		SW-846 8270E	11/1/21	11/4/21 12:55	IMR
Benzo(g,h,i)perylene	ND	5.3	0.68	µg/L	1		SW-846 8270E	11/1/21	11/4/21 12:55	IMR
Benzo(k)fluoranthene	ND	5.3	0.39	µg/L	1		SW-846 8270E	11/1/21	11/4/21 12:55	IMR
Benzoic Acid	ND	11	9.9	µg/L	1		SW-846 8270E	11/1/21	11/4/21 12:55	IMR
Bis(2-chloroethoxy)methane	ND	11	0.46	µg/L	1		SW-846 8270E	11/1/21	11/4/21 12:55	IMR
Bis(2-chloroethyl)ether	ND	11	0.56	µg/L	1		SW-846 8270E	11/1/21	11/4/21 12:55	IMR
Bis(2-chloroisopropyl)ether	ND	11	0.64	µg/L	1		SW-846 8270E	11/1/21	11/4/21 12:55	IMR
Bis(2-Ethylhexyl)phthalate	ND	11	0.99	µg/L	1		SW-846 8270E	11/1/21	11/4/21 12:55	IMR
4-Bromophenylphenylether	ND	11	0.41	µg/L	1		SW-846 8270E	11/1/21	11/4/21 12:55	IMR
Butylbenzylphthalate	ND	11	0.74	µg/L	1		SW-846 8270E	11/1/21	11/4/21 12:55	IMR
Carbazole	ND	11	0.44	µg/L	1		SW-846 8270E	11/1/21	11/4/21 12:55	IMR
4-Chloroaniline	ND	11	0.47	µg/L	1		SW-846 8270E	11/1/21	11/4/21 12:55	IMR
4-Chloro-3-methylphenol	ND	11	0.58	µg/L	1		SW-846 8270E	11/1/21	11/4/21 12:55	IMR
2-Chloronaphthalene	ND	11	0.28	µg/L	1		SW-846 8270E	11/1/21	11/4/21 12:55	IMR
2-Chlorophenol	ND	11	0.40	µg/L	1		SW-846 8270E	11/1/21	11/4/21 12:55	IMR
4-Chlorophenylphenylether	ND	11	0.36	µg/L	1		SW-846 8270E	11/1/21	11/4/21 12:55	IMR
Chrysene	ND	5.3	0.40	µg/L	1		SW-846 8270E	11/1/21	11/4/21 12:55	IMR
Dibenz(a,h)anthracene	ND	5.3	0.76	µg/L	1		SW-846 8270E	11/1/21	11/4/21 12:55	IMR
Dibenzofuran	ND	5.3	0.36	µg/L	1		SW-846 8270E	11/1/21	11/4/21 12:55	IMR
Di-n-butylphthalate	ND	11	0.53	µg/L	1		SW-846 8270E	11/1/21	11/4/21 12:55	IMR
1,2-Dichlorobenzene	ND	5.3	0.25	µg/L	1		SW-846 8270E	11/1/21	11/4/21 12:55	IMR
1,3-Dichlorobenzene	ND	5.3	0.26	µg/L	1		SW-846 8270E	11/1/21	11/4/21 12:55	IMR
1,4-Dichlorobenzene	ND	5.3	0.28	µg/L	1		SW-846 8270E	11/1/21	11/4/21 12:55	IMR
3,3-Dichlorobenzidine	ND	11	0.67	µg/L	1		SW-846 8270E	11/1/21	11/4/21 12:55	IMR
2,4-Dichlorophenol	ND	11	0.39	µg/L	1		SW-846 8270E	11/1/21	11/4/21 12:55	IMR
Diethylphthalate	ND	11	0.51	µg/L	1		SW-846 8270E	11/1/21	11/4/21 12:55	IMR
2,4-Dimethylphenol	ND	11	1.0	µg/L	1		SW-846 8270E	11/1/21	11/4/21 12:55	IMR
Dimethylphthalate	ND	11	0.43	µg/L	1		SW-846 8270E	11/1/21	11/4/21 12:55	IMR
4,6-Dinitro-2-methylphenol	ND	11	7.0	µg/L	1		SW-846 8270E	11/1/21	11/4/21 12:55	IMR
2,4-Dinitrophenol	ND	11	8.6	µg/L	1	V-04, V-20	SW-846 8270E	11/1/21	11/4/21 12:55	IMR
2,4-Dinitrotoluene	ND	11	0.65	µg/L	1		SW-846 8270E	11/1/21	11/4/21 12:55	IMR
2,6-Dinitrotoluene	ND	11	0.53	µg/L	1		SW-846 8270E	11/1/21	11/4/21 12:55	IMR
Di-n-octylphthalate	ND	11	6.0	µg/L	1		SW-846 8270E	11/1/21	11/4/21 12:55	IMR
1,2-Diphenylhydrazine/Azobenzene	ND	11	0.56	µg/L	1		SW-846 8270E	11/1/21	11/4/21 12:55	IMR
Fluoranthene	ND	5.3	0.40	µg/L	1		SW-846 8270E	11/1/21	11/4/21 12:55	IMR
Fluorene	ND	5.3	0.45	µg/L	1		SW-846 8270E	11/1/21	11/4/21 12:55	IMR

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Project Location: 1400 N. Royal St, Alexandria, VA Sample Description: Work Order: 21J1856

Date Received: 10/29/2021

Field Sample #: HRP-MW202-211026 Sampled: 10/26/2021 09:50

Sample ID: 21J1856-07

Sample Matrix: Ground Water

Semivolatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Hexachlorobenzene	ND	11	0.39	µg/L	1		SW-846 8270E	11/1/21	11/4/21 12:55	IMR
Hexachlorobutadiene	ND	11	0.29	µg/L	1		SW-846 8270E	11/1/21	11/4/21 12:55	IMR
Hexachlorocyclopentadiene	ND	11	4.5	µg/L	1		SW-846 8270E	11/1/21	11/4/21 12:55	IMR
Hexachloroethane	ND	11	0.33	µg/L	1		SW-846 8270E	11/1/21	11/4/21 12:55	IMR
Indeno(1,2,3-cd)pyrene	ND	5.3	0.84	µg/L	1		SW-846 8270E	11/1/21	11/4/21 12:55	IMR
Isophorone	ND	11	0.52	µg/L	1		SW-846 8270E	11/1/21	11/4/21 12:55	IMR
1-Methylnaphthalene	ND	5.3	0.31	µg/L	1		SW-846 8270E	11/1/21	11/4/21 12:55	IMR
2-Methylnaphthalene	ND	5.3	0.36	µg/L	1		SW-846 8270E	11/1/21	11/4/21 12:55	IMR
2-Methylphenol	ND	11	0.39	µg/L	1		SW-846 8270E	11/1/21	11/4/21 12:55	IMR
3/4-Methylphenol	0.80	11	0.41	µg/L	1	J	SW-846 8270E	11/1/21	11/4/21 12:55	IMR
Naphthalene	ND	5.3	0.32	µg/L	1		SW-846 8270E	11/1/21	11/4/21 12:55	IMR
2-Nitroaniline	ND	11	0.81	µg/L	1	V-20	SW-846 8270E	11/1/21	11/4/21 12:55	IMR
3-Nitroaniline	ND	11	0.54	µg/L	1		SW-846 8270E	11/1/21	11/4/21 12:55	IMR
4-Nitroaniline	ND	11	0.52	µg/L	1	V-20	SW-846 8270E	11/1/21	11/4/21 12:55	IMR
Nitrobenzene	ND	11	0.57	µg/L	1		SW-846 8270E	11/1/21	11/4/21 12:55	IMR
2-Nitrophenol	ND	11	0.51	µg/L	1		SW-846 8270E	11/1/21	11/4/21 12:55	IMR
4-Nitrophenol	ND	11	2.2	µg/L	1		SW-846 8270E	11/1/21	11/4/21 12:55	IMR
N-Nitrosodimethylamine	ND	11	0.88	µg/L	1		SW-846 8270E	11/1/21	11/4/21 12:55	IMR
N-Nitrosodiphenylamine/Diphenylamine	ND	11	0.43	µg/L	1		SW-846 8270E	11/1/21	11/4/21 12:55	IMR
N-Nitrosodi-n-propylamine	ND	11	0.57	µg/L	1		SW-846 8270E	11/1/21	11/4/21 12:55	IMR
Pentachloronitrobenzene	ND	11	0.68	µg/L	1		SW-846 8270E	11/1/21	11/4/21 12:55	IMR
Pentachlorophenol	ND	11	4.0	µg/L	1		SW-846 8270E	11/1/21	11/4/21 12:55	IMR
Phenanthrene	ND	5.3	0.42	µg/L	1		SW-846 8270E	11/1/21	11/4/21 12:55	IMR
Phenol	ND	11	0.26	µg/L	1		SW-846 8270E	11/1/21	11/4/21 12:55	IMR
Pyrene	ND	5.3	0.51	µg/L	1		SW-846 8270E	11/1/21	11/4/21 12:55	IMR
Pyridine	ND	5.3	2.8	µg/L	1		SW-846 8270E	11/1/21	11/4/21 12:55	IMR
1,2,4,5-Tetrachlorobenzene	ND	11	0.29	µg/L	1		SW-846 8270E	11/1/21	11/4/21 12:55	IMR
1,2,4-Trichlorobenzene	ND	5.3	0.26	µg/L	1		SW-846 8270E	11/1/21	11/4/21 12:55	IMR
2,4,5-Trichlorophenol	ND	11	0.50	µg/L	1		SW-846 8270E	11/1/21	11/4/21 12:55	IMR
2,4,6-Trichlorophenol	ND	11	0.44	µg/L	1		SW-846 8270E	11/1/21	11/4/21 12:55	IMR

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
2-Fluorophenol	53.9	15-110		11/4/21 12:55
Phenol-d6	40.6	15-110		11/4/21 12:55
Nitrobenzene-d5	65.2	30-130		11/4/21 12:55
2-Fluorobiphenyl	69.9	30-130		11/4/21 12:55
2,4,6-Tribromophenol	85.9	15-110		11/4/21 12:55
p-Terphenyl-d14	97.8	30-130		11/4/21 12:55

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Project Location: 1400 N. Royal St, Alexandria, VA Sample Description: Work Order: 21J1856

Date Received: 10/29/2021

Field Sample #: HRP-MW202-211026 Sampled: 10/26/2021 09:50

Sample ID: 21J1856-07

Sample Matrix: Ground Water

Semivolatile Organic Compounds by GC

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Methanol	ND	10	2.3	mg/L	1		SW-846 8015C	10/29/21	10/30/21 5:04	SFM
Isopropanol	ND	10	1.8	mg/L	1		SW-846 8015C	10/29/21	10/30/21 5:04	SFM
Ethanol	ND	10	2.5	mg/L	1		SW-846 8015C	10/29/21	10/30/21 5:04	SFM
Propylene glycol	ND	10	2.9	mg/L	1		SW-846 8015C	10/29/21	10/30/21 5:04	SFM
Ethylene glycol	ND	10	4.0	mg/L	1		SW-846 8015C	10/29/21	10/30/21 5:04	SFM

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Project Location: 1400 N. Royal St, Alexandria, VA Sample Description: Work Order: 21J1856

Date Received: 10/29/2021

Field Sample #: HRP-MW202-211026 Sampled: 10/26/2021 09:50

Sample ID: 21J1856-07

Sample Matrix: Ground Water

Metals Analyses (Total)

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Aluminum	0.46	0.050	0.049	mg/L	1		SW-846 6010D	10/31/21	10/31/21 22:54	QNW
Antimony	ND	1.0	0.20	µg/L	1		SW-846 6020B	10/31/21	10/31/21 20:34	QNW
Arsenic	4.5	0.80	0.46	µg/L	1		SW-846 6020B	10/31/21	10/31/21 20:34	QNW
Barium	22	10	1.2	µg/L	1		SW-846 6020B	10/31/21	10/31/21 20:34	QNW
Beryllium	1.3	0.40	0.066	µg/L	1		SW-846 6020B	10/31/21	11/1/21 11:49	QNW
Cadmium	0.11	0.20	0.027	µg/L	1	J	SW-846 6020B	10/31/21	10/31/21 20:34	QNW
Calcium	160	0.50	0.11	mg/L	1		SW-846 6010D	10/31/21	10/31/21 22:54	QNW
Chromium	0.99	1.0	0.92	µg/L	1	J	SW-846 6020B	10/31/21	11/1/21 11:49	QNW
Cobalt	40	1.0	0.14	µg/L	1		SW-846 6020B	10/31/21	10/31/21 20:34	QNW
Copper	1.3	1.0	0.27	µg/L	1		SW-846 6020B	10/31/21	10/31/21 20:34	QNW
Iron	60	0.050	0.032	mg/L	1		SW-846 6010D	10/31/21	10/31/21 22:54	QNW
Lead	0.46	0.50	0.14	µg/L	1	J	SW-846 6020B	10/31/21	10/31/21 20:34	QNW
Magnesium	26	0.050	0.023	mg/L	1		SW-846 6010D	10/31/21	10/31/21 22:54	QNW
Manganese	5500	20	4.7	µg/L	20		SW-846 6020B	10/31/21	11/1/21 13:39	QNW
Mercury	ND	0.00010	0.000050	mg/L	1		SW-846 7470A	11/1/21	11/2/21 9:22	DRL
Nickel	35	5.0	0.52	µg/L	1		SW-846 6020B	10/31/21	10/31/21 20:34	QNW
Potassium	3.3	2.0	0.40	mg/L	1		SW-846 6010D	10/31/21	10/31/21 22:54	QNW
Selenium	1.7	5.0	0.78	µg/L	1	J	SW-846 6020B	10/31/21	10/31/21 20:34	QNW
Silver	0.030	0.20	0.026	µg/L	1	J	SW-846 6020B	10/31/21	10/31/21 20:34	QNW
Sodium	45	2.0	0.56	mg/L	1		SW-846 6010D	10/31/21	10/31/21 22:54	QNW
Thallium	ND	0.20	0.067	µg/L	1		SW-846 6020B	10/31/21	10/31/21 20:34	QNW
Vanadium	ND	5.0	3.5	µg/L	1		SW-846 6020B	10/31/21	10/31/21 20:34	QNW
Zinc	28	10	3.4	µg/L	1		SW-846 6020B	10/31/21	10/31/21 20:34	QNW

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Project Location: 1400 N. Royal St, Alexandria, VA Sample Description: Work Order: 21J1856

Date Received: 10/29/2021

Field Sample #: HRP-MW202-211026 Sampled: 10/26/2021 09:50

Sample ID: 21J1856-07

Sample Matrix: Ground Water

Metals Analyses (Dissolved)

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Aluminum	0.28	0.050	0.049	mg/L	1		SW-846 6010D	10/31/21	10/31/21 20:55	QNW
Antimony	ND	1.0	0.20	µg/L	1		SW-846 6020B	10/31/21	11/1/21 11:51	QNW
Arsenic	4.1	0.80	0.46	µg/L	1		SW-846 6020B	10/31/21	11/1/21 11:51	QNW
Barium	22	10	1.2	µg/L	1		SW-846 6020B	10/31/21	11/1/21 11:51	QNW
Beryllium	1.3	0.40	0.066	µg/L	1		SW-846 6020B	10/31/21	11/1/21 12:47	QNW
Cadmium	0.29	0.20	0.027	µg/L	1		SW-846 6020B	10/31/21	11/1/21 11:51	QNW
Calcium	150	0.50	0.11	mg/L	1		SW-846 6010D	10/31/21	10/31/21 20:55	QNW
Chromium	ND	1.0	0.92	µg/L	1		SW-846 6020B	10/31/21	11/1/21 11:51	QNW
Cobalt	37	1.0	0.14	µg/L	1		SW-846 6020B	10/31/21	11/1/21 11:51	QNW
Copper	1.5	1.0	0.27	µg/L	1		SW-846 6020B	10/31/21	11/1/21 12:47	QNW
Iron	63	0.050	0.032	mg/L	1		SW-846 6010D	10/31/21	10/31/21 20:55	QNW
Lead	0.16	0.50	0.14	µg/L	1	J	SW-846 6020B	10/31/21	11/1/21 11:51	QNW
Magnesium	28	0.050	0.023	mg/L	1		SW-846 6010D	10/31/21	10/31/21 20:55	QNW
Manganese	5700	20	4.7	µg/L	20		SW-846 6020B	10/31/21	11/1/21 13:58	QNW
Mercury	ND	0.00010	0.000050	mg/L	1		SW-846 7470A	11/1/21	11/2/21 8:52	DRL
Nickel	25	5.0	0.52	µg/L	1		SW-846 6020B	10/31/21	11/1/21 11:51	QNW
Potassium	3.3	2.0	0.40	mg/L	1		SW-846 6010D	10/31/21	10/31/21 20:55	QNW
Selenium	2.2	5.0	0.78	µg/L	1	J	SW-846 6020B	10/31/21	11/1/21 12:47	QNW
Silver	ND	0.20	0.026	µg/L	1		SW-846 6020B	10/31/21	11/1/21 11:51	QNW
Sodium	47	2.0	0.56	mg/L	1		SW-846 6010D	10/31/21	10/31/21 20:55	QNW
Thallium	ND	0.20	0.067	µg/L	1		SW-846 6020B	10/31/21	11/1/21 11:51	QNW
Vanadium	ND	5.0	3.5	µg/L	1		SW-846 6020B	10/31/21	11/1/21 11:51	QNW
Zinc	23	10	3.4	µg/L	1		SW-846 6020B	10/31/21	11/1/21 11:51	QNW

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Project Location: 1400 N. Royal St, Alexandria, VA Sample Description: Work Order: 21J1856

Date Received: 10/29/2021

Field Sample #: HRP-MW202-211026 Sampled: 10/26/2021 09:50

Sample ID: 21J1856-07

Sample Matrix: Ground Water

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Ammonia as N	1.0	0.10	0.056	mg/L	1		EPA 350.1	11/3/21	11/4/21 14:36	MMH
Sulfate	590	50	30	mg/L	50		ASTM D516-16	11/2/21	11/2/21 11:52	MMH

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Project Location: 1400 N. Royal St, Alexandria, VA Sample Description: Work Order: 21J1856

Date Received: 10/29/2021

Field Sample #: HRP-DUP05-211026 Sampled: 10/26/2021 10:00

Sample ID: 21J1856-08

Sample Matrix: Ground Water

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acetone	ND	50	2.4	µg/L	1		SW-846 8260D	11/1/21	11/1/21 16:44	MFF
Acrylonitrile	ND	5.0	0.69	µg/L	1		SW-846 8260D	11/1/21	11/1/21 16:44	MFF
tert-Amyl Methyl Ether (TAME)	ND	0.50	0.15	µg/L	1		SW-846 8260D	11/1/21	11/1/21 16:44	MFF
Benzene	ND	1.0	0.13	µg/L	1		SW-846 8260D	11/1/21	11/1/21 16:44	MFF
Bromobenzene	ND	1.0	0.13	µg/L	1		SW-846 8260D	11/1/21	11/1/21 16:44	MFF
Bromochloromethane	ND	1.0	0.36	µg/L	1		SW-846 8260D	11/1/21	11/1/21 16:44	MFF
Bromodichloromethane	ND	0.50	0.14	µg/L	1		SW-846 8260D	11/1/21	11/1/21 16:44	MFF
Bromoform	ND	1.0	0.29	µg/L	1		SW-846 8260D	11/1/21	11/1/21 16:44	MFF
Bromomethane	ND	2.0	1.1	µg/L	1		SW-846 8260D	11/1/21	11/1/21 16:44	MFF
2-Butanone (MEK)	ND	20	1.9	µg/L	1		SW-846 8260D	11/1/21	11/1/21 16:44	MFF
tert-Butyl Alcohol (TBA)	ND	20	5.3	µg/L	1		SW-846 8260D	11/1/21	11/1/21 16:44	MFF
n-Butylbenzene	ND	1.0	0.14	µg/L	1		SW-846 8260D	11/1/21	11/1/21 16:44	MFF
sec-Butylbenzene	ND	1.0	0.10	µg/L	1		SW-846 8260D	11/1/21	11/1/21 16:44	MFF
tert-Butylbenzene	ND	1.0	0.090	µg/L	1		SW-846 8260D	11/1/21	11/1/21 16:44	MFF
tert-Butyl Ethyl Ether (TBEE)	ND	0.50	0.11	µg/L	1		SW-846 8260D	11/1/21	11/1/21 16:44	MFF
Carbon Disulfide	ND	5.0	1.5	µg/L	1		SW-846 8260D	11/1/21	11/1/21 16:44	MFF
Carbon Tetrachloride	ND	5.0	0.17	µg/L	1		SW-846 8260D	11/1/21	11/1/21 16:44	MFF
Chlorobenzene	ND	1.0	0.080	µg/L	1		SW-846 8260D	11/1/21	11/1/21 16:44	MFF
Chlorodibromomethane	ND	0.50	0.16	µg/L	1		SW-846 8260D	11/1/21	11/1/21 16:44	MFF
Chloroethane	ND	2.0	0.37	µg/L	1		SW-846 8260D	11/1/21	11/1/21 16:44	MFF
Chloroform	ND	2.0	0.19	µg/L	1		SW-846 8260D	11/1/21	11/1/21 16:44	MFF
Chloromethane	ND	2.0	0.38	µg/L	1		SW-846 8260D	11/1/21	11/1/21 16:44	MFF
2-Chlorotoluene	ND	1.0	0.090	µg/L	1		SW-846 8260D	11/1/21	11/1/21 16:44	MFF
4-Chlorotoluene	ND	1.0	0.10	µg/L	1		SW-846 8260D	11/1/21	11/1/21 16:44	MFF
1,2-Dibromo-3-chloropropane (DBCP)	ND	5.0	0.72	µg/L	1		SW-846 8260D	11/1/21	11/1/21 16:44	MFF
1,2-Dibromoethane (EDB)	ND	0.50	0.15	µg/L	1		SW-846 8260D	11/1/21	11/1/21 16:44	MFF
Dibromomethane	ND	1.0	0.29	µg/L	1		SW-846 8260D	11/1/21	11/1/21 16:44	MFF
1,2-Dichlorobenzene	ND	1.0	0.10	µg/L	1		SW-846 8260D	11/1/21	11/1/21 16:44	MFF
1,3-Dichlorobenzene	ND	1.0	0.090	µg/L	1		SW-846 8260D	11/1/21	11/1/21 16:44	MFF
1,4-Dichlorobenzene	ND	1.0	0.11	µg/L	1		SW-846 8260D	11/1/21	11/1/21 16:44	MFF
trans-1,4-Dichloro-2-butene	ND	2.0	1.8	µg/L	1		SW-846 8260D	11/1/21	11/1/21 16:44	MFF
Dichlorodifluoromethane (Freon 12)	ND	2.0	0.20	µg/L	1		SW-846 8260D	11/1/21	11/1/21 16:44	MFF
1,1-Dichloroethane	ND	1.0	0.16	µg/L	1		SW-846 8260D	11/1/21	11/1/21 16:44	MFF
1,2-Dichloroethane	ND	1.0	0.32	µg/L	1		SW-846 8260D	11/1/21	11/1/21 16:44	MFF
1,1-Dichloroethylene	ND	1.0	0.16	µg/L	1		SW-846 8260D	11/1/21	11/1/21 16:44	MFF
cis-1,2-Dichloroethylene	ND	1.0	0.15	µg/L	1		SW-846 8260D	11/1/21	11/1/21 16:44	MFF
trans-1,2-Dichloroethylene	ND	1.0	0.17	µg/L	1		SW-846 8260D	11/1/21	11/1/21 16:44	MFF
1,2-Dichloropropane	ND	1.0	0.18	µg/L	1		SW-846 8260D	11/1/21	11/1/21 16:44	MFF
1,3-Dichloropropane	ND	0.50	0.12	µg/L	1		SW-846 8260D	11/1/21	11/1/21 16:44	MFF
2,2-Dichloropropane	ND	1.0	0.31	µg/L	1		SW-846 8260D	11/1/21	11/1/21 16:44	MFF
1,1-Dichloropropene	ND	2.0	0.26	µg/L	1		SW-846 8260D	11/1/21	11/1/21 16:44	MFF
cis-1,3-Dichloropropene	ND	0.50	0.12	µg/L	1		SW-846 8260D	11/1/21	11/1/21 16:44	MFF
trans-1,3-Dichloropropene	ND	0.50	0.15	µg/L	1		SW-846 8260D	11/1/21	11/1/21 16:44	MFF
Diethyl Ether	ND	2.0	0.22	µg/L	1		SW-846 8260D	11/1/21	11/1/21 16:44	MFF

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39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: 1400 N. Royal St, Alexandria, VA Sample Description: Work Order: 21J1856

Date Received: 10/29/2021

Field Sample #: HRP-DUP05-211026 Sampled: 10/26/2021 10:00

Sample ID: 21J1856-08

Sample Matrix: Ground Water

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Diisopropyl Ether (DIPE)	ND	0.50	0.15	µg/L	1		SW-846 8260D	11/1/21	11/1/21 16:44	MFF
1,4-Dioxane	ND	50	22	µg/L	1		SW-846 8260D	11/1/21	11/1/21 16:44	MFF
Ethylbenzene	ND	1.0	0.090	µg/L	1		SW-846 8260D	11/1/21	11/1/21 16:44	MFF
Hexachlorobutadiene	ND	0.60	0.41	µg/L	1		SW-846 8260D	11/1/21	11/1/21 16:44	MFF
2-Hexanone (MBK)	ND	10	1.4	µg/L	1		SW-846 8260D	11/1/21	11/1/21 16:44	MFF
Isopropylbenzene (Cumene)	ND	1.0	0.10	µg/L	1		SW-846 8260D	11/1/21	11/1/21 16:44	MFF
p-Isopropyltoluene (p-Cymene)	5.4	1.0	0.090	µg/L	1		SW-846 8260D	11/1/21	11/1/21 16:44	MFF
Methyl Acetate	ND	1.0	0.39	µg/L	1		SW-846 8260D	11/1/21	11/1/21 16:44	MFF
Methyl tert-Butyl Ether (MTBE)	ND	1.0	0.17	µg/L	1		SW-846 8260D	11/1/21	11/1/21 16:44	MFF
Methyl Cyclohexane	ND	1.0	0.33	µg/L	1		SW-846 8260D	11/1/21	11/1/21 16:44	MFF
Methylene Chloride	ND	5.0	0.30	µg/L	1		SW-846 8260D	11/1/21	11/1/21 16:44	MFF
4-Methyl-2-pentanone (MIBK)	ND	10	1.6	µg/L	1		SW-846 8260D	11/1/21	11/1/21 16:44	MFF
Naphthalene	ND	2.0	0.15	µg/L	1	V-05	SW-846 8260D	11/1/21	11/1/21 16:44	MFF
n-Propylbenzene	ND	1.0	0.080	µg/L	1		SW-846 8260D	11/1/21	11/1/21 16:44	MFF
Styrene	ND	1.0	0.080	µg/L	1		SW-846 8260D	11/1/21	11/1/21 16:44	MFF
1,1,1,2-Tetrachloroethane	ND	1.0	0.14	µg/L	1		SW-846 8260D	11/1/21	11/1/21 16:44	MFF
1,1,2,2-Tetrachloroethane	ND	0.50	0.090	µg/L	1		SW-846 8260D	11/1/21	11/1/21 16:44	MFF
Tetrachloroethylene	ND	1.0	0.20	µg/L	1		SW-846 8260D	11/1/21	11/1/21 16:44	MFF
Tetrahydrofuran	ND	10	0.58	µg/L	1		SW-846 8260D	11/1/21	11/1/21 16:44	MFF
Toluene	ND	1.0	0.11	µg/L	1		SW-846 8260D	11/1/21	11/1/21 16:44	MFF
1,2,3-Trichlorobenzene	ND	5.0	0.14	µg/L	1	V-05	SW-846 8260D	11/1/21	11/1/21 16:44	MFF
1,2,4-Trichlorobenzene	ND	1.0	0.16	µg/L	1	V-05	SW-846 8260D	11/1/21	11/1/21 16:44	MFF
1,3,5-Trichlorobenzene	ND	1.0	0.18	µg/L	1		SW-846 8260D	11/1/21	11/1/21 16:44	MFF
1,1,1-Trichloroethane	ND	1.0	0.17	µg/L	1		SW-846 8260D	11/1/21	11/1/21 16:44	MFF
1,1,2-Trichloroethane	ND	1.0	0.15	µg/L	1		SW-846 8260D	11/1/21	11/1/21 16:44	MFF
Trichloroethylene	ND	1.0	0.18	µg/L	1		SW-846 8260D	11/1/21	11/1/21 16:44	MFF
Trichlorofluoromethane (Freon 11)	ND	2.0	0.19	µg/L	1		SW-846 8260D	11/1/21	11/1/21 16:44	MFF
1,2,3-Trichloropropane	ND	2.0	0.31	µg/L	1		SW-846 8260D	11/1/21	11/1/21 16:44	MFF
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	1.0	0.24	µg/L	1		SW-846 8260D	11/1/21	11/1/21 16:44	MFF
1,2,4-Trimethylbenzene	ND	1.0	0.10	µg/L	1		SW-846 8260D	11/1/21	11/1/21 16:44	MFF
1,3,5-Trimethylbenzene	ND	1.0	0.10	µg/L	1		SW-846 8260D	11/1/21	11/1/21 16:44	MFF
Vinyl Chloride	ND	2.0	0.20	µg/L	1		SW-846 8260D	11/1/21	11/1/21 16:44	MFF
m+p Xylene	ND	2.0	0.18	µg/L	1		SW-846 8260D	11/1/21	11/1/21 16:44	MFF
o-Xylene	ND	1.0	0.090	µg/L	1		SW-846 8260D	11/1/21	11/1/21 16:44	MFF

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
1,2-Dichloroethane-d4	109	70-130		11/1/21 16:44
Toluene-d8	105	70-130		11/1/21 16:44
4-Bromofluorobenzene	103	70-130		11/1/21 16:44

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Project Location: 1400 N. Royal St, Alexandria, VA Sample Description: Work Order: 21J1856

Date Received: 10/29/2021

Field Sample #: HRP-DUP05-211026 Sampled: 10/26/2021 10:00

Sample ID: 21J1856-08

Sample Matrix: Ground Water

Semivolatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acenaphthene	ND	4.8	0.32	µg/L	1		SW-846 8270E	11/2/21	11/3/21 13:47	BGL
Acenaphthylene	ND	4.8	0.31	µg/L	1		SW-846 8270E	11/2/21	11/3/21 13:47	BGL
Acetophenone	ND	9.6	0.43	µg/L	1		SW-846 8270E	11/2/21	11/3/21 13:47	BGL
Aniline	ND	4.8	0.79	µg/L	1		SW-846 8270E	11/2/21	11/3/21 13:47	BGL
Anthracene	ND	4.8	0.38	µg/L	1		SW-846 8270E	11/2/21	11/3/21 13:47	BGL
Benzidine	ND	19	9.6	µg/L	1	V-04	SW-846 8270E	11/2/21	11/3/21 13:47	BGL
Benzo(a)anthracene	ND	4.8	0.36	µg/L	1		SW-846 8270E	11/2/21	11/3/21 13:47	BGL
Benzo(a)pyrene	ND	4.8	0.46	µg/L	1		SW-846 8270E	11/2/21	11/3/21 13:47	BGL
Benzo(b)fluoranthene	ND	4.8	0.40	µg/L	1		SW-846 8270E	11/2/21	11/3/21 13:47	BGL
Benzo(g,h,i)perylene	ND	4.8	0.62	µg/L	1		SW-846 8270E	11/2/21	11/3/21 13:47	BGL
Benzo(k)fluoranthene	ND	4.8	0.35	µg/L	1		SW-846 8270E	11/2/21	11/3/21 13:47	BGL
Benzoic Acid	ND	9.6	8.9	µg/L	1		SW-846 8270E	11/2/21	11/3/21 13:47	BGL
Bis(2-chloroethoxy)methane	ND	9.6	0.42	µg/L	1		SW-846 8270E	11/2/21	11/3/21 13:47	BGL
Bis(2-chloroethyl)ether	ND	9.6	0.50	µg/L	1		SW-846 8270E	11/2/21	11/3/21 13:47	BGL
Bis(2-chloroisopropyl)ether	ND	9.6	0.57	µg/L	1		SW-846 8270E	11/2/21	11/3/21 13:47	BGL
Bis(2-Ethylhexyl)phthalate	ND	9.6	0.89	µg/L	1		SW-846 8270E	11/2/21	11/3/21 13:47	BGL
4-Bromophenylphenylether	ND	9.6	0.37	µg/L	1		SW-846 8270E	11/2/21	11/3/21 13:47	BGL
Butylbenzylphthalate	ND	9.6	0.67	µg/L	1		SW-846 8270E	11/2/21	11/3/21 13:47	BGL
Carbazole	ND	9.6	0.40	µg/L	1		SW-846 8270E	11/2/21	11/3/21 13:47	BGL
4-Chloroaniline	ND	9.6	0.42	µg/L	1		SW-846 8270E	11/2/21	11/3/21 13:47	BGL
4-Chloro-3-methylphenol	ND	9.6	0.52	µg/L	1		SW-846 8270E	11/2/21	11/3/21 13:47	BGL
2-Chloronaphthalene	ND	9.6	0.25	µg/L	1		SW-846 8270E	11/2/21	11/3/21 13:47	BGL
2-Chlorophenol	ND	9.6	0.36	µg/L	1		SW-846 8270E	11/2/21	11/3/21 13:47	BGL
4-Chlorophenylphenylether	ND	9.6	0.32	µg/L	1		SW-846 8270E	11/2/21	11/3/21 13:47	BGL
Chrysene	ND	4.8	0.36	µg/L	1		SW-846 8270E	11/2/21	11/3/21 13:47	BGL
Dibenz(a,h)anthracene	ND	4.8	0.68	µg/L	1		SW-846 8270E	11/2/21	11/3/21 13:47	BGL
Dibenzofuran	ND	4.8	0.33	µg/L	1		SW-846 8270E	11/2/21	11/3/21 13:47	BGL
Di-n-butylphthalate	ND	9.6	0.48	µg/L	1		SW-846 8270E	11/2/21	11/3/21 13:47	BGL
1,2-Dichlorobenzene	ND	4.8	0.22	µg/L	1		SW-846 8270E	11/2/21	11/3/21 13:47	BGL
1,3-Dichlorobenzene	ND	4.8	0.23	µg/L	1		SW-846 8270E	11/2/21	11/3/21 13:47	BGL
1,4-Dichlorobenzene	ND	4.8	0.25	µg/L	1		SW-846 8270E	11/2/21	11/3/21 13:47	BGL
3,3-Dichlorobenzidine	ND	9.6	0.60	µg/L	1		SW-846 8270E	11/2/21	11/3/21 13:47	BGL
2,4-Dichlorophenol	ND	9.6	0.35	µg/L	1		SW-846 8270E	11/2/21	11/3/21 13:47	BGL
Diethylphthalate	ND	9.6	0.46	µg/L	1		SW-846 8270E	11/2/21	11/3/21 13:47	BGL
2,4-Dimethylphenol	ND	9.6	0.93	µg/L	1		SW-846 8270E	11/2/21	11/3/21 13:47	BGL
Dimethylphthalate	ND	9.6	0.39	µg/L	1		SW-846 8270E	11/2/21	11/3/21 13:47	BGL
4,6-Dinitro-2-methylphenol	ND	9.6	6.3	µg/L	1		SW-846 8270E	11/2/21	11/3/21 13:47	BGL
2,4-Dinitrophenol	ND	9.6	7.7	µg/L	1	V-04, V-20	SW-846 8270E	11/2/21	11/3/21 13:47	BGL
2,4-Dinitrotoluene	ND	9.6	0.59	µg/L	1	V-20	SW-846 8270E	11/2/21	11/3/21 13:47	BGL
2,6-Dinitrotoluene	ND	9.6	0.48	µg/L	1		SW-846 8270E	11/2/21	11/3/21 13:47	BGL
Di-n-octylphthalate	ND	9.6	5.4	µg/L	1		SW-846 8270E	11/2/21	11/3/21 13:47	BGL
1,2-Diphenylhydrazine/Azobenzene	ND	9.6	0.51	µg/L	1		SW-846 8270E	11/2/21	11/3/21 13:47	BGL
Fluoranthene	ND	4.8	0.36	µg/L	1		SW-846 8270E	11/2/21	11/3/21 13:47	BGL
Fluorene	ND	4.8	0.40	µg/L	1		SW-846 8270E	11/2/21	11/3/21 13:47	BGL

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Project Location: 1400 N. Royal St, Alexandria, VA Sample Description: Work Order: 21J1856

Date Received: 10/29/2021

Field Sample #: HRP-DUP05-211026 Sampled: 10/26/2021 10:00

Sample ID: 21J1856-08

Sample Matrix: Ground Water

Semivolatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Hexachlorobenzene	ND	9.6	0.35	µg/L	1		SW-846 8270E	11/2/21	11/3/21 13:47	BGL
Hexachlorobutadiene	ND	9.6	0.26	µg/L	1		SW-846 8270E	11/2/21	11/3/21 13:47	BGL
Hexachlorocyclopentadiene	ND	9.6	4.1	µg/L	1		SW-846 8270E	11/2/21	11/3/21 13:47	BGL
Hexachloroethane	ND	9.6	0.30	µg/L	1		SW-846 8270E	11/2/21	11/3/21 13:47	BGL
Indeno(1,2,3-cd)pyrene	ND	4.8	0.76	µg/L	1		SW-846 8270E	11/2/21	11/3/21 13:47	BGL
Isophorone	ND	9.6	0.47	µg/L	1		SW-846 8270E	11/2/21	11/3/21 13:47	BGL
1-Methylnaphthalene	ND	4.8	0.28	µg/L	1		SW-846 8270E	11/2/21	11/3/21 13:47	BGL
2-Methylnaphthalene	ND	4.8	0.32	µg/L	1		SW-846 8270E	11/2/21	11/3/21 13:47	BGL
2-Methylphenol	ND	9.6	0.35	µg/L	1		SW-846 8270E	11/2/21	11/3/21 13:47	BGL
3/4-Methylphenol	0.49	9.6	0.37	µg/L	1	J	SW-846 8270E	11/2/21	11/3/21 13:47	BGL
Naphthalene	ND	4.8	0.28	µg/L	1		SW-846 8270E	11/2/21	11/3/21 13:47	BGL
2-Nitroaniline	ND	9.6	0.72	µg/L	1		SW-846 8270E	11/2/21	11/3/21 13:47	BGL
3-Nitroaniline	ND	9.6	0.49	µg/L	1		SW-846 8270E	11/2/21	11/3/21 13:47	BGL
4-Nitroaniline	ND	9.6	0.47	µg/L	1	V-20	SW-846 8270E	11/2/21	11/3/21 13:47	BGL
Nitrobenzene	ND	9.6	0.51	µg/L	1		SW-846 8270E	11/2/21	11/3/21 13:47	BGL
2-Nitrophenol	ND	9.6	0.45	µg/L	1		SW-846 8270E	11/2/21	11/3/21 13:47	BGL
4-Nitrophenol	ND	9.6	2.0	µg/L	1		SW-846 8270E	11/2/21	11/3/21 13:47	BGL
N-Nitrosodimethylamine	ND	9.6	0.79	µg/L	1		SW-846 8270E	11/2/21	11/3/21 13:47	BGL
N-Nitrosodiphenylamine/Diphenylamine	ND	9.6	0.38	µg/L	1		SW-846 8270E	11/2/21	11/3/21 13:47	BGL
N-Nitrosodi-n-propylamine	ND	9.6	0.51	µg/L	1		SW-846 8270E	11/2/21	11/3/21 13:47	BGL
Pentachloronitrobenzene	ND	9.6	0.61	µg/L	1		SW-846 8270E	11/2/21	11/3/21 13:47	BGL
Pentachlorophenol	ND	9.6	3.6	µg/L	1		SW-846 8270E	11/2/21	11/3/21 13:47	BGL
Phenanthrene	ND	4.8	0.38	µg/L	1		SW-846 8270E	11/2/21	11/3/21 13:47	BGL
Phenol	ND	9.6	0.24	µg/L	1		SW-846 8270E	11/2/21	11/3/21 13:47	BGL
Pyrene	ND	4.8	0.45	µg/L	1		SW-846 8270E	11/2/21	11/3/21 13:47	BGL
Pyridine	ND	4.8	2.5	µg/L	1		SW-846 8270E	11/2/21	11/3/21 13:47	BGL
1,2,4,5-Tetrachlorobenzene	ND	9.6	0.26	µg/L	1		SW-846 8270E	11/2/21	11/3/21 13:47	BGL
1,2,4-Trichlorobenzene	ND	4.8	0.24	µg/L	1		SW-846 8270E	11/2/21	11/3/21 13:47	BGL
2,4,5-Trichlorophenol	ND	9.6	0.45	µg/L	1		SW-846 8270E	11/2/21	11/3/21 13:47	BGL
2,4,6-Trichlorophenol	ND	9.6	0.39	µg/L	1		SW-846 8270E	11/2/21	11/3/21 13:47	BGL

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
2-Fluorophenol	44.9	15-110		11/3/21 13:47
Phenol-d6	31.4	15-110		11/3/21 13:47
Nitrobenzene-d5	53.2	30-130		11/3/21 13:47
2-Fluorobiphenyl	57.0	30-130		11/3/21 13:47
2,4,6-Tribromophenol	68.8	15-110		11/3/21 13:47
p-Terphenyl-d14	86.3	30-130		11/3/21 13:47

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Project Location: 1400 N. Royal St, Alexandria, VA Sample Description: Work Order: 21J1856

Date Received: 10/29/2021

Field Sample #: HRP-DUP05-211026 Sampled: 10/26/2021 10:00

Sample ID: 21J1856-08

Sample Matrix: Ground Water

Semivolatile Organic Compounds by GC

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Methanol	ND	10	2.3	mg/L	1		SW-846 8015C	10/29/21	10/30/21 5:28	SFM
Isopropanol	ND	10	1.8	mg/L	1		SW-846 8015C	10/29/21	10/30/21 5:28	SFM
Ethanol	ND	10	2.5	mg/L	1		SW-846 8015C	10/29/21	10/30/21 5:28	SFM
Propylene glycol	ND	10	2.9	mg/L	1		SW-846 8015C	10/29/21	10/30/21 5:28	SFM
Ethylene glycol	ND	10	4.0	mg/L	1		SW-846 8015C	10/29/21	10/30/21 5:28	SFM

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Project Location: 1400 N. Royal St, Alexandria, VA Sample Description: Work Order: 21J1856

Date Received: 10/29/2021

Field Sample #: HRP-DUP05-211026 Sampled: 10/26/2021 10:00

Sample ID: 21J1856-08

Sample Matrix: Ground Water

Metals Analyses (Total)

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Aluminum	0.30	0.050	0.049	mg/L	1		SW-846 6010D	10/31/21	10/31/21 23:02	QNW
Antimony	ND	1.0	0.20	µg/L	1		SW-846 6020B	10/31/21	10/31/21 20:37	QNW
Arsenic	4.7	0.80	0.46	µg/L	1		SW-846 6020B	10/31/21	10/31/21 20:37	QNW
Barium	24	10	1.2	µg/L	1		SW-846 6020B	10/31/21	10/31/21 20:37	QNW
Beryllium	1.1	0.40	0.066	µg/L	1		SW-846 6020B	10/31/21	11/1/21 11:51	QNW
Cadmium	0.097	0.20	0.027	µg/L	1	J	SW-846 6020B	10/31/21	10/31/21 20:37	QNW
Calcium	150	0.50	0.11	mg/L	1		SW-846 6010D	10/31/21	10/31/21 23:02	QNW
Chromium	ND	1.0	0.92	µg/L	1		SW-846 6020B	10/31/21	11/1/21 11:51	QNW
Cobalt	40	1.0	0.14	µg/L	1		SW-846 6020B	10/31/21	10/31/21 20:37	QNW
Copper	1.2	1.0	0.27	µg/L	1		SW-846 6020B	10/31/21	10/31/21 20:37	QNW
Iron	64	0.050	0.032	mg/L	1		SW-846 6010D	10/31/21	10/31/21 23:02	QNW
Lead	0.27	0.50	0.14	µg/L	1	J	SW-846 6020B	10/31/21	10/31/21 20:37	QNW
Magnesium	28	0.050	0.023	mg/L	1		SW-846 6010D	10/31/21	10/31/21 23:02	QNW
Manganese	5700	20	4.7	µg/L	20		SW-846 6020B	10/31/21	11/1/21 13:41	QNW
Mercury	ND	0.00010	0.000050	mg/L	1		SW-846 7470A	11/1/21	11/2/21 9:23	DRL
Nickel	32	5.0	0.52	µg/L	1		SW-846 6020B	10/31/21	10/31/21 20:37	QNW
Potassium	3.3	2.0	0.40	mg/L	1		SW-846 6010D	10/31/21	10/31/21 23:02	QNW
Selenium	1.6	5.0	0.78	µg/L	1	J	SW-846 6020B	10/31/21	10/31/21 20:37	QNW
Silver	0.030	0.20	0.026	µg/L	1	J	SW-846 6020B	10/31/21	10/31/21 20:37	QNW
Sodium	47	2.0	0.56	mg/L	1		SW-846 6010D	10/31/21	10/31/21 23:02	QNW
Thallium	ND	0.20	0.067	µg/L	1		SW-846 6020B	10/31/21	10/31/21 20:37	QNW
Vanadium	ND	5.0	3.5	µg/L	1		SW-846 6020B	10/31/21	10/31/21 20:37	QNW
Zinc	24	10	3.4	µg/L	1		SW-846 6020B	10/31/21	10/31/21 20:37	QNW

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39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: 1400 N. Royal St, Alexandria, VA Sample Description: Work Order: 21J1856

Date Received: 10/29/2021

Field Sample #: HRP-DUP05-211026 Sampled: 10/26/2021 10:00

Sample ID: 21J1856-08

Sample Matrix: Ground Water

Metals Analyses (Dissolved)

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Aluminum	0.27	0.050	0.049	mg/L	1		SW-846 6010D	10/31/21	10/31/21 21:03	QNW
Antimony	ND	1.0	0.20	µg/L	1		SW-846 6020B	10/31/21	11/1/21 12:00	QNW
Arsenic	4.0	0.80	0.46	µg/L	1		SW-846 6020B	10/31/21	11/1/21 12:00	QNW
Barium	22	10	1.2	µg/L	1		SW-846 6020B	10/31/21	11/1/21 12:00	QNW
Beryllium	1.2	0.40	0.066	µg/L	1		SW-846 6020B	10/31/21	11/1/21 12:57	QNW
Cadmium	0.25	0.20	0.027	µg/L	1		SW-846 6020B	10/31/21	11/1/21 12:00	QNW
Calcium	150	0.50	0.11	mg/L	1		SW-846 6010D	10/31/21	10/31/21 21:03	QNW
Chromium	ND	1.0	0.92	µg/L	1		SW-846 6020B	10/31/21	11/1/21 12:00	QNW
Cobalt	37	1.0	0.14	µg/L	1		SW-846 6020B	10/31/21	11/1/21 12:00	QNW
Copper	1.3	1.0	0.27	µg/L	1		SW-846 6020B	10/31/21	11/1/21 12:57	QNW
Iron	63	0.050	0.032	mg/L	1		SW-846 6010D	10/31/21	10/31/21 21:03	QNW
Lead	0.15	0.50	0.14	µg/L	1	J	SW-846 6020B	10/31/21	11/1/21 12:00	QNW
Magnesium	28	0.050	0.023	mg/L	1		SW-846 6010D	10/31/21	10/31/21 21:03	QNW
Manganese	5800	20	4.7	µg/L	20		SW-846 6020B	10/31/21	11/1/21 13:59	QNW
Mercury	ND	0.00010	0.000050	mg/L	1		SW-846 7470A	11/1/21	11/2/21 8:54	DRL
Nickel	24	5.0	0.52	µg/L	1		SW-846 6020B	10/31/21	11/1/21 12:00	QNW
Potassium	3.3	2.0	0.40	mg/L	1		SW-846 6010D	10/31/21	10/31/21 21:03	QNW
Selenium	2.1	5.0	0.78	µg/L	1	J	SW-846 6020B	10/31/21	11/1/21 12:57	QNW
Silver	ND	0.20	0.026	µg/L	1		SW-846 6020B	10/31/21	11/1/21 12:00	QNW
Sodium	46	2.0	0.56	mg/L	1		SW-846 6010D	10/31/21	10/31/21 21:03	QNW
Thallium	ND	0.20	0.067	µg/L	1		SW-846 6020B	10/31/21	11/1/21 12:00	QNW
Vanadium	ND	5.0	3.5	µg/L	1		SW-846 6020B	10/31/21	11/1/21 12:00	QNW
Zinc	22	10	3.4	µg/L	1		SW-846 6020B	10/31/21	11/1/21 12:00	QNW

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Project Location: 1400 N. Royal St, Alexandria, VA Sample Description: Work Order: 21J1856

Date Received: 10/29/2021

Field Sample #: HRP-DUP05-211026 Sampled: 10/26/2021 10:00

Sample ID: 21J1856-08

Sample Matrix: Ground Water

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Ammonia as N	0.78	0.10	0.056	mg/L	1		EPA 350.1	11/3/21	11/4/21 14:37	MMH
Sulfate	580	50	30	mg/L	50		ASTM D516-16	11/2/21	11/2/21 11:52	MMH

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Project Location: 1400 N. Royal St, Alexandria, VA Sample Description: Work Order: 21J1856

Date Received: 10/29/2021

Field Sample #: HRP-MW205-211026 Sampled: 10/26/2021 12:30

Sample ID: 21J1856-09

Sample Matrix: Ground Water

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acetone	ND	50	2.4	µg/L	1		SW-846 8260D	11/1/21	11/1/21 17:08	MFF
Acrylonitrile	ND	5.0	0.69	µg/L	1		SW-846 8260D	11/1/21	11/1/21 17:08	MFF
tert-Amyl Methyl Ether (TAME)	ND	0.50	0.15	µg/L	1		SW-846 8260D	11/1/21	11/1/21 17:08	MFF
Benzene	ND	1.0	0.13	µg/L	1		SW-846 8260D	11/1/21	11/1/21 17:08	MFF
Bromobenzene	ND	1.0	0.13	µg/L	1		SW-846 8260D	11/1/21	11/1/21 17:08	MFF
Bromochloromethane	ND	1.0	0.36	µg/L	1		SW-846 8260D	11/1/21	11/1/21 17:08	MFF
Bromodichloromethane	ND	0.50	0.14	µg/L	1		SW-846 8260D	11/1/21	11/1/21 17:08	MFF
Bromoform	ND	1.0	0.29	µg/L	1		SW-846 8260D	11/1/21	11/1/21 17:08	MFF
Bromomethane	ND	2.0	1.1	µg/L	1		SW-846 8260D	11/1/21	11/1/21 17:08	MFF
2-Butanone (MEK)	ND	20	1.9	µg/L	1		SW-846 8260D	11/1/21	11/1/21 17:08	MFF
tert-Butyl Alcohol (TBA)	ND	20	5.3	µg/L	1		SW-846 8260D	11/1/21	11/1/21 17:08	MFF
n-Butylbenzene	ND	1.0	0.14	µg/L	1		SW-846 8260D	11/1/21	11/1/21 17:08	MFF
sec-Butylbenzene	ND	1.0	0.10	µg/L	1		SW-846 8260D	11/1/21	11/1/21 17:08	MFF
tert-Butylbenzene	ND	1.0	0.090	µg/L	1		SW-846 8260D	11/1/21	11/1/21 17:08	MFF
tert-Butyl Ethyl Ether (TBEE)	ND	0.50	0.11	µg/L	1		SW-846 8260D	11/1/21	11/1/21 17:08	MFF
Carbon Disulfide	ND	5.0	1.5	µg/L	1		SW-846 8260D	11/1/21	11/1/21 17:08	MFF
Carbon Tetrachloride	ND	5.0	0.17	µg/L	1		SW-846 8260D	11/1/21	11/1/21 17:08	MFF
Chlorobenzene	ND	1.0	0.080	µg/L	1		SW-846 8260D	11/1/21	11/1/21 17:08	MFF
Chlorodibromomethane	ND	0.50	0.16	µg/L	1		SW-846 8260D	11/1/21	11/1/21 17:08	MFF
Chloroethane	ND	2.0	0.37	µg/L	1		SW-846 8260D	11/1/21	11/1/21 17:08	MFF
Chloroform	ND	2.0	0.19	µg/L	1		SW-846 8260D	11/1/21	11/1/21 17:08	MFF
Chloromethane	ND	2.0	0.38	µg/L	1		SW-846 8260D	11/1/21	11/1/21 17:08	MFF
2-Chlorotoluene	ND	1.0	0.090	µg/L	1		SW-846 8260D	11/1/21	11/1/21 17:08	MFF
4-Chlorotoluene	ND	1.0	0.10	µg/L	1		SW-846 8260D	11/1/21	11/1/21 17:08	MFF
1,2-Dibromo-3-chloropropane (DBCP)	ND	5.0	0.72	µg/L	1		SW-846 8260D	11/1/21	11/1/21 17:08	MFF
1,2-Dibromoethane (EDB)	ND	0.50	0.15	µg/L	1		SW-846 8260D	11/1/21	11/1/21 17:08	MFF
Dibromomethane	ND	1.0	0.29	µg/L	1		SW-846 8260D	11/1/21	11/1/21 17:08	MFF
1,2-Dichlorobenzene	ND	1.0	0.10	µg/L	1		SW-846 8260D	11/1/21	11/1/21 17:08	MFF
1,3-Dichlorobenzene	ND	1.0	0.090	µg/L	1		SW-846 8260D	11/1/21	11/1/21 17:08	MFF
1,4-Dichlorobenzene	ND	1.0	0.11	µg/L	1		SW-846 8260D	11/1/21	11/1/21 17:08	MFF
trans-1,4-Dichloro-2-butene	ND	2.0	1.8	µg/L	1		SW-846 8260D	11/1/21	11/1/21 17:08	MFF
Dichlorodifluoromethane (Freon 12)	ND	2.0	0.20	µg/L	1		SW-846 8260D	11/1/21	11/1/21 17:08	MFF
1,1-Dichloroethane	ND	1.0	0.16	µg/L	1		SW-846 8260D	11/1/21	11/1/21 17:08	MFF
1,2-Dichloroethane	ND	1.0	0.32	µg/L	1		SW-846 8260D	11/1/21	11/1/21 17:08	MFF
1,1-Dichloroethylene	ND	1.0	0.16	µg/L	1		SW-846 8260D	11/1/21	11/1/21 17:08	MFF
cis-1,2-Dichloroethylene	ND	1.0	0.15	µg/L	1		SW-846 8260D	11/1/21	11/1/21 17:08	MFF
trans-1,2-Dichloroethylene	ND	1.0	0.17	µg/L	1		SW-846 8260D	11/1/21	11/1/21 17:08	MFF
1,2-Dichloropropane	ND	1.0	0.18	µg/L	1		SW-846 8260D	11/1/21	11/1/21 17:08	MFF
1,3-Dichloropropane	ND	0.50	0.12	µg/L	1		SW-846 8260D	11/1/21	11/1/21 17:08	MFF
2,2-Dichloropropane	ND	1.0	0.31	µg/L	1		SW-846 8260D	11/1/21	11/1/21 17:08	MFF
1,1-Dichloropropene	ND	2.0	0.26	µg/L	1		SW-846 8260D	11/1/21	11/1/21 17:08	MFF
cis-1,3-Dichloropropene	ND	0.50	0.12	µg/L	1		SW-846 8260D	11/1/21	11/1/21 17:08	MFF
trans-1,3-Dichloropropene	ND	0.50	0.15	µg/L	1		SW-846 8260D	11/1/21	11/1/21 17:08	MFF
Diethyl Ether	ND	2.0	0.22	µg/L	1		SW-846 8260D	11/1/21	11/1/21 17:08	MFF

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Project Location: 1400 N. Royal St, Alexandria, VA Sample Description: Work Order: 21J1856

Date Received: 10/29/2021

Field Sample #: HRP-MW205-211026 Sampled: 10/26/2021 12:30

Sample ID: 21J1856-09

Sample Matrix: Ground Water

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Diisopropyl Ether (DIPE)	ND	0.50	0.15	µg/L	1		SW-846 8260D	11/1/21	11/1/21 17:08	MFF
1,4-Dioxane	ND	50	22	µg/L	1		SW-846 8260D	11/1/21	11/1/21 17:08	MFF
Ethylbenzene	ND	1.0	0.090	µg/L	1		SW-846 8260D	11/1/21	11/1/21 17:08	MFF
Hexachlorobutadiene	ND	0.60	0.41	µg/L	1		SW-846 8260D	11/1/21	11/1/21 17:08	MFF
2-Hexanone (MBK)	ND	10	1.4	µg/L	1		SW-846 8260D	11/1/21	11/1/21 17:08	MFF
Isopropylbenzene (Cumene)	ND	1.0	0.10	µg/L	1		SW-846 8260D	11/1/21	11/1/21 17:08	MFF
p-Isopropyltoluene (p-Cymene)	ND	1.0	0.090	µg/L	1		SW-846 8260D	11/1/21	11/1/21 17:08	MFF
Methyl Acetate	ND	1.0	0.39	µg/L	1		SW-846 8260D	11/1/21	11/1/21 17:08	MFF
Methyl tert-Butyl Ether (MTBE)	ND	1.0	0.17	µg/L	1		SW-846 8260D	11/1/21	11/1/21 17:08	MFF
Methyl Cyclohexane	ND	1.0	0.33	µg/L	1		SW-846 8260D	11/1/21	11/1/21 17:08	MFF
Methylene Chloride	ND	5.0	0.30	µg/L	1		SW-846 8260D	11/1/21	11/1/21 17:08	MFF
4-Methyl-2-pentanone (MIBK)	ND	10	1.6	µg/L	1		SW-846 8260D	11/1/21	11/1/21 17:08	MFF
Naphthalene	ND	2.0	0.15	µg/L	1	V-05	SW-846 8260D	11/1/21	11/1/21 17:08	MFF
n-Propylbenzene	ND	1.0	0.080	µg/L	1		SW-846 8260D	11/1/21	11/1/21 17:08	MFF
Styrene	ND	1.0	0.080	µg/L	1		SW-846 8260D	11/1/21	11/1/21 17:08	MFF
1,1,1,2-Tetrachloroethane	ND	1.0	0.14	µg/L	1		SW-846 8260D	11/1/21	11/1/21 17:08	MFF
1,1,2,2-Tetrachloroethane	ND	0.50	0.090	µg/L	1		SW-846 8260D	11/1/21	11/1/21 17:08	MFF
Tetrachloroethylene	0.68	1.0	0.20	µg/L	1	J	SW-846 8260D	11/1/21	11/1/21 17:08	MFF
Tetrahydrofuran	ND	10	0.58	µg/L	1		SW-846 8260D	11/1/21	11/1/21 17:08	MFF
Toluene	ND	1.0	0.11	µg/L	1		SW-846 8260D	11/1/21	11/1/21 17:08	MFF
1,2,3-Trichlorobenzene	ND	5.0	0.14	µg/L	1	V-05	SW-846 8260D	11/1/21	11/1/21 17:08	MFF
1,2,4-Trichlorobenzene	ND	1.0	0.16	µg/L	1	V-05	SW-846 8260D	11/1/21	11/1/21 17:08	MFF
1,3,5-Trichlorobenzene	ND	1.0	0.18	µg/L	1		SW-846 8260D	11/1/21	11/1/21 17:08	MFF
1,1,1-Trichloroethane	ND	1.0	0.17	µg/L	1		SW-846 8260D	11/1/21	11/1/21 17:08	MFF
1,1,2-Trichloroethane	ND	1.0	0.15	µg/L	1		SW-846 8260D	11/1/21	11/1/21 17:08	MFF
Trichloroethylene	ND	1.0	0.18	µg/L	1		SW-846 8260D	11/1/21	11/1/21 17:08	MFF
Trichlorofluoromethane (Freon 11)	ND	2.0	0.19	µg/L	1		SW-846 8260D	11/1/21	11/1/21 17:08	MFF
1,2,3-Trichloropropane	ND	2.0	0.31	µg/L	1		SW-846 8260D	11/1/21	11/1/21 17:08	MFF
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	1.0	0.24	µg/L	1		SW-846 8260D	11/1/21	11/1/21 17:08	MFF
1,2,4-Trimethylbenzene	ND	1.0	0.10	µg/L	1		SW-846 8260D	11/1/21	11/1/21 17:08	MFF
1,3,5-Trimethylbenzene	ND	1.0	0.10	µg/L	1		SW-846 8260D	11/1/21	11/1/21 17:08	MFF
Vinyl Chloride	ND	2.0	0.20	µg/L	1		SW-846 8260D	11/1/21	11/1/21 17:08	MFF
m+p Xylene	ND	2.0	0.18	µg/L	1		SW-846 8260D	11/1/21	11/1/21 17:08	MFF
o-Xylene	ND	1.0	0.090	µg/L	1		SW-846 8260D	11/1/21	11/1/21 17:08	MFF

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
1,2-Dichloroethane-d4	109	70-130		11/1/21 17:08
Toluene-d8	108	70-130		11/1/21 17:08
4-Bromofluorobenzene	105	70-130		11/1/21 17:08

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Date Received: 10/29/2021

Field Sample #: HRP-MW205-211026 Sampled: 10/26/2021 12:30

Sample ID: 21J1856-09

Sample Matrix: Ground Water

Semivolatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acenaphthene	ND	5.2	0.35	µg/L	1		SW-846 8270E	11/1/21	11/4/21 13:23	IMR
Acenaphthylene	ND	5.2	0.33	µg/L	1		SW-846 8270E	11/1/21	11/4/21 13:23	IMR
Acetophenone	ND	10	0.47	µg/L	1		SW-846 8270E	11/1/21	11/4/21 13:23	IMR
Aniline	ND	5.2	0.85	µg/L	1	V-20	SW-846 8270E	11/1/21	11/4/21 13:23	IMR
Anthracene	ND	5.2	0.41	µg/L	1		SW-846 8270E	11/1/21	11/4/21 13:23	IMR
Benzidine	ND	21	10	µg/L	1	V-04, V-20	SW-846 8270E	11/1/21	11/4/21 13:23	IMR
Benzo(a)anthracene	ND	5.2	0.39	µg/L	1		SW-846 8270E	11/1/21	11/4/21 13:23	IMR
Benzo(a)pyrene	ND	5.2	0.50	µg/L	1		SW-846 8270E	11/1/21	11/4/21 13:23	IMR
Benzo(b)fluoranthene	ND	5.2	0.43	µg/L	1		SW-846 8270E	11/1/21	11/4/21 13:23	IMR
Benzo(g,h,i)perylene	ND	5.2	0.66	µg/L	1		SW-846 8270E	11/1/21	11/4/21 13:23	IMR
Benzo(k)fluoranthene	ND	5.2	0.38	µg/L	1		SW-846 8270E	11/1/21	11/4/21 13:23	IMR
Benzoic Acid	ND	10	9.6	µg/L	1		SW-846 8270E	11/1/21	11/4/21 13:23	IMR
Bis(2-chloroethoxy)methane	ND	10	0.45	µg/L	1		SW-846 8270E	11/1/21	11/4/21 13:23	IMR
Bis(2-chloroethyl)ether	ND	10	0.54	µg/L	1		SW-846 8270E	11/1/21	11/4/21 13:23	IMR
Bis(2-chloroisopropyl)ether	ND	10	0.62	µg/L	1		SW-846 8270E	11/1/21	11/4/21 13:23	IMR
Bis(2-Ethylhexyl)phthalate	ND	10	0.96	µg/L	1		SW-846 8270E	11/1/21	11/4/21 13:23	IMR
4-Bromophenylphenylether	ND	10	0.40	µg/L	1		SW-846 8270E	11/1/21	11/4/21 13:23	IMR
Butylbenzylphthalate	ND	10	0.72	µg/L	1		SW-846 8270E	11/1/21	11/4/21 13:23	IMR
Carbazole	ND	10	0.43	µg/L	1		SW-846 8270E	11/1/21	11/4/21 13:23	IMR
4-Chloroaniline	ND	10	0.45	µg/L	1		SW-846 8270E	11/1/21	11/4/21 13:23	IMR
4-Chloro-3-methylphenol	ND	10	0.56	µg/L	1		SW-846 8270E	11/1/21	11/4/21 13:23	IMR
2-Chloronaphthalene	ND	10	0.27	µg/L	1		SW-846 8270E	11/1/21	11/4/21 13:23	IMR
2-Chlorophenol	ND	10	0.39	µg/L	1		SW-846 8270E	11/1/21	11/4/21 13:23	IMR
4-Chlorophenylphenylether	ND	10	0.34	µg/L	1		SW-846 8270E	11/1/21	11/4/21 13:23	IMR
Chrysene	ND	5.2	0.39	µg/L	1		SW-846 8270E	11/1/21	11/4/21 13:23	IMR
Dibenz(a,h)anthracene	ND	5.2	0.74	µg/L	1		SW-846 8270E	11/1/21	11/4/21 13:23	IMR
Dibenzofuran	ND	5.2	0.35	µg/L	1		SW-846 8270E	11/1/21	11/4/21 13:23	IMR
Di-n-butylphthalate	ND	10	0.52	µg/L	1		SW-846 8270E	11/1/21	11/4/21 13:23	IMR
1,2-Dichlorobenzene	ND	5.2	0.24	µg/L	1		SW-846 8270E	11/1/21	11/4/21 13:23	IMR
1,3-Dichlorobenzene	ND	5.2	0.25	µg/L	1		SW-846 8270E	11/1/21	11/4/21 13:23	IMR
1,4-Dichlorobenzene	ND	5.2	0.27	µg/L	1		SW-846 8270E	11/1/21	11/4/21 13:23	IMR
3,3-Dichlorobenzidine	ND	10	0.65	µg/L	1		SW-846 8270E	11/1/21	11/4/21 13:23	IMR
2,4-Dichlorophenol	ND	10	0.38	µg/L	1		SW-846 8270E	11/1/21	11/4/21 13:23	IMR
Diethylphthalate	ND	10	0.50	µg/L	1		SW-846 8270E	11/1/21	11/4/21 13:23	IMR
2,4-Dimethylphenol	ND	10	1.0	µg/L	1		SW-846 8270E	11/1/21	11/4/21 13:23	IMR
Dimethylphthalate	ND	10	0.42	µg/L	1		SW-846 8270E	11/1/21	11/4/21 13:23	IMR
4,6-Dinitro-2-methylphenol	ND	10	6.8	µg/L	1		SW-846 8270E	11/1/21	11/4/21 13:23	IMR
2,4-Dinitrophenol	ND	10	8.3	µg/L	1	V-04, V-20	SW-846 8270E	11/1/21	11/4/21 13:23	IMR
2,4-Dinitrotoluene	ND	10	0.63	µg/L	1		SW-846 8270E	11/1/21	11/4/21 13:23	IMR
2,6-Dinitrotoluene	ND	10	0.52	µg/L	1		SW-846 8270E	11/1/21	11/4/21 13:23	IMR
Di-n-octylphthalate	ND	10	5.8	µg/L	1		SW-846 8270E	11/1/21	11/4/21 13:23	IMR
1,2-Diphenylhydrazine/Azobenzene	ND	10	0.55	µg/L	1		SW-846 8270E	11/1/21	11/4/21 13:23	IMR
Fluoranthene	ND	5.2	0.38	µg/L	1		SW-846 8270E	11/1/21	11/4/21 13:23	IMR
Fluorene	ND	5.2	0.43	µg/L	1		SW-846 8270E	11/1/21	11/4/21 13:23	IMR

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Project Location: 1400 N. Royal St, Alexandria, VA Sample Description: Work Order: 21J1856

Date Received: 10/29/2021

Field Sample #: HRP-MW205-211026 Sampled: 10/26/2021 12:30

Sample ID: 21J1856-09

Sample Matrix: Ground Water

Semivolatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Hexachlorobenzene	ND	10	0.38	µg/L	1		SW-846 8270E	11/1/21	11/4/21 13:23	IMR
Hexachlorobutadiene	ND	10	0.28	µg/L	1		SW-846 8270E	11/1/21	11/4/21 13:23	IMR
Hexachlorocyclopentadiene	ND	10	4.4	µg/L	1		SW-846 8270E	11/1/21	11/4/21 13:23	IMR
Hexachloroethane	ND	10	0.32	µg/L	1		SW-846 8270E	11/1/21	11/4/21 13:23	IMR
Indeno(1,2,3-cd)pyrene	ND	5.2	0.82	µg/L	1		SW-846 8270E	11/1/21	11/4/21 13:23	IMR
Isophorone	ND	10	0.50	µg/L	1		SW-846 8270E	11/1/21	11/4/21 13:23	IMR
1-Methylnaphthalene	ND	5.2	0.30	µg/L	1		SW-846 8270E	11/1/21	11/4/21 13:23	IMR
2-Methylnaphthalene	ND	5.2	0.34	µg/L	1		SW-846 8270E	11/1/21	11/4/21 13:23	IMR
2-Methylphenol	ND	10	0.38	µg/L	1		SW-846 8270E	11/1/21	11/4/21 13:23	IMR
3/4-Methylphenol	ND	10	0.39	µg/L	1		SW-846 8270E	11/1/21	11/4/21 13:23	IMR
Naphthalene	ND	5.2	0.31	µg/L	1		SW-846 8270E	11/1/21	11/4/21 13:23	IMR
2-Nitroaniline	ND	10	0.78	µg/L	1	V-20	SW-846 8270E	11/1/21	11/4/21 13:23	IMR
3-Nitroaniline	ND	10	0.53	µg/L	1		SW-846 8270E	11/1/21	11/4/21 13:23	IMR
4-Nitroaniline	ND	10	0.51	µg/L	1	V-20	SW-846 8270E	11/1/21	11/4/21 13:23	IMR
Nitrobenzene	ND	10	0.55	µg/L	1		SW-846 8270E	11/1/21	11/4/21 13:23	IMR
2-Nitrophenol	ND	10	0.49	µg/L	1		SW-846 8270E	11/1/21	11/4/21 13:23	IMR
4-Nitrophenol	ND	10	2.1	µg/L	1		SW-846 8270E	11/1/21	11/4/21 13:23	IMR
N-Nitrosodimethylamine	ND	10	0.85	µg/L	1		SW-846 8270E	11/1/21	11/4/21 13:23	IMR
N-Nitrosodiphenylamine/Diphenylamine	ND	10	0.41	µg/L	1		SW-846 8270E	11/1/21	11/4/21 13:23	IMR
N-Nitrosodi-n-propylamine	ND	10	0.55	µg/L	1		SW-846 8270E	11/1/21	11/4/21 13:23	IMR
Pentachloronitrobenzene	ND	10	0.66	µg/L	1		SW-846 8270E	11/1/21	11/4/21 13:23	IMR
Pentachlorophenol	ND	10	3.9	µg/L	1		SW-846 8270E	11/1/21	11/4/21 13:23	IMR
Phenanthrene	ND	5.2	0.41	µg/L	1		SW-846 8270E	11/1/21	11/4/21 13:23	IMR
Phenol	ND	10	0.26	µg/L	1		SW-846 8270E	11/1/21	11/4/21 13:23	IMR
Pyrene	ND	5.2	0.49	µg/L	1		SW-846 8270E	11/1/21	11/4/21 13:23	IMR
Pyridine	ND	5.2	2.7	µg/L	1		SW-846 8270E	11/1/21	11/4/21 13:23	IMR
1,2,4,5-Tetrachlorobenzene	ND	10	0.28	µg/L	1		SW-846 8270E	11/1/21	11/4/21 13:23	IMR
1,2,4-Trichlorobenzene	ND	5.2	0.25	µg/L	1		SW-846 8270E	11/1/21	11/4/21 13:23	IMR
2,4,5-Trichlorophenol	ND	10	0.48	µg/L	1		SW-846 8270E	11/1/21	11/4/21 13:23	IMR
2,4,6-Trichlorophenol	ND	10	0.42	µg/L	1		SW-846 8270E	11/1/21	11/4/21 13:23	IMR

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
2-Fluorophenol	46.9	15-110		11/4/21 13:23
Phenol-d6	33.4	15-110		11/4/21 13:23
Nitrobenzene-d5	61.7	30-130		11/4/21 13:23
2-Fluorobiphenyl	61.3	30-130		11/4/21 13:23
2,4,6-Tribromophenol	74.5	15-110		11/4/21 13:23
p-Terphenyl-d14	84.8	30-130		11/4/21 13:23

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Project Location: 1400 N. Royal St, Alexandria, VA Sample Description: Work Order: 21J1856

Date Received: 10/29/2021

Field Sample #: HRP-MW205-211026 Sampled: 10/26/2021 12:30

Sample ID: 21J1856-09

Sample Matrix: Ground Water

Petroleum Hydrocarbons Analyses

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Gasoline Range Organics (GRO)	ND	0.010	0.0094	mg/L	1		SW-846 8015C	11/2/21	11/3/21 5:02	KMB
Diesel Range Organics	0.21	0.20	0.082	mg/L	1		SW-846 8015C	11/2/21	11/4/21 8:50	SFM

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
1-Chloro-3-fluorobenzene	107	70-130		11/3/21 5:02
2-Fluorobiphenyl	99.8	40-140		11/4/21 8:50

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Project Location: 1400 N. Royal St, Alexandria, VA Sample Description: Work Order: 21J1856

Date Received: 10/29/2021

Field Sample #: HRP-MW205-211026 Sampled: 10/26/2021 12:30

Sample ID: 21J1856-09

Sample Matrix: Ground Water

Metals Analyses (Total)

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Aluminum	0.10	0.050	0.049	mg/L	1		SW-846 6010D	10/31/21	10/31/21 23:10	QNW
Antimony	ND	1.0	0.20	µg/L	1		SW-846 6020B	10/31/21	10/31/21 20:41	QNW
Arsenic	ND	0.80	0.46	µg/L	1		SW-846 6020B	10/31/21	10/31/21 20:41	QNW
Barium	68	10	1.2	µg/L	1		SW-846 6020B	10/31/21	10/31/21 20:41	QNW
Beryllium	ND	0.40	0.066	µg/L	1		SW-846 6020B	10/31/21	11/1/21 11:52	QNW
Cadmium	0.043	0.20	0.027	µg/L	1	J	SW-846 6020B	10/31/21	10/31/21 20:41	QNW
Calcium	31	0.50	0.11	mg/L	1		SW-846 6010D	10/31/21	10/31/21 23:10	QNW
Chromium	ND	1.0	0.92	µg/L	1		SW-846 6020B	10/31/21	11/1/21 11:52	QNW
Cobalt	2.6	1.0	0.14	µg/L	1		SW-846 6020B	10/31/21	10/31/21 20:41	QNW
Copper	0.43	1.0	0.27	µg/L	1	J	SW-846 6020B	10/31/21	10/31/21 20:41	QNW
Iron	0.16	0.050	0.032	mg/L	1		SW-846 6010D	10/31/21	10/31/21 23:10	QNW
Lead	ND	0.50	0.14	µg/L	1		SW-846 6020B	10/31/21	10/31/21 20:41	QNW
Magnesium	5.6	0.050	0.023	mg/L	1		SW-846 6010D	10/31/21	10/31/21 23:10	QNW
Manganese	33	1.0	0.24	µg/L	1		SW-846 6020B	10/31/21	10/31/21 20:41	QNW
Mercury	ND	0.00010	0.000050	mg/L	1		SW-846 7470A	11/1/21	11/2/21 9:25	DRL
Nickel	3.2	5.0	0.52	µg/L	1	J	SW-846 6020B	10/31/21	10/31/21 20:41	QNW
Potassium	3.3	2.0	0.40	mg/L	1		SW-846 6010D	10/31/21	10/31/21 23:10	QNW
Selenium	1.5	5.0	0.78	µg/L	1	J	SW-846 6020B	10/31/21	10/31/21 20:41	QNW
Silver	ND	0.20	0.026	µg/L	1		SW-846 6020B	10/31/21	10/31/21 20:41	QNW
Sodium	4.1	2.0	0.56	mg/L	1		SW-846 6010D	10/31/21	10/31/21 23:10	QNW
Thallium	ND	0.20	0.067	µg/L	1		SW-846 6020B	10/31/21	10/31/21 20:41	QNW
Vanadium	ND	5.0	3.5	µg/L	1		SW-846 6020B	10/31/21	10/31/21 20:41	QNW
Zinc	ND	10	3.4	µg/L	1		SW-846 6020B	10/31/21	10/31/21 20:41	QNW

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Project Location: 1400 N. Royal St, Alexandria, VA Sample Description: Work Order: 21J1856

Date Received: 10/29/2021

Field Sample #: HRP-MW205-211026 Sampled: 10/26/2021 12:30

Sample ID: 21J1856-09

Sample Matrix: Ground Water

Metals Analyses (Dissolved)

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Aluminum	ND	0.050	0.049	mg/L	1		SW-846 6010D	10/31/21	10/31/21 21:10	QNW
Antimony	ND	1.0	0.20	µg/L	1		SW-846 6020B	10/31/21	11/1/21 12:03	QNW
Arsenic	ND	0.80	0.46	µg/L	1		SW-846 6020B	10/31/21	11/1/21 12:03	QNW
Barium	63	10	1.2	µg/L	1		SW-846 6020B	10/31/21	11/1/21 12:03	QNW
Beryllium	ND	0.40	0.066	µg/L	1		SW-846 6020B	10/31/21	11/1/21 13:00	QNW
Cadmium	0.042	0.20	0.027	µg/L	1	J	SW-846 6020B	10/31/21	11/1/21 12:03	QNW
Calcium	30	0.50	0.11	mg/L	1		SW-846 6010D	10/31/21	10/31/21 21:10	QNW
Chromium	ND	1.0	0.92	µg/L	1		SW-846 6020B	10/31/21	11/1/21 12:03	QNW
Cobalt	2.2	1.0	0.14	µg/L	1		SW-846 6020B	10/31/21	11/1/21 12:03	QNW
Copper	0.90	1.0	0.27	µg/L	1	J	SW-846 6020B	10/31/21	11/1/21 13:00	QNW
Iron	ND	0.050	0.032	mg/L	1		SW-846 6010D	10/31/21	10/31/21 21:10	QNW
Lead	ND	0.50	0.14	µg/L	1		SW-846 6020B	10/31/21	11/1/21 12:03	QNW
Magnesium	5.4	0.050	0.023	mg/L	1		SW-846 6010D	10/31/21	10/31/21 21:10	QNW
Manganese	31	1.0	0.24	µg/L	1		SW-846 6020B	10/31/21	11/1/21 12:03	QNW
Mercury	ND	0.00010	0.000050	mg/L	1		SW-846 7470A	11/1/21	11/2/21 8:56	DRL
Nickel	1.6	5.0	0.52	µg/L	1	J	SW-846 6020B	10/31/21	11/1/21 12:03	QNW
Potassium	3.2	2.0	0.40	mg/L	1		SW-846 6010D	10/31/21	10/31/21 21:10	QNW
Selenium	1.6	5.0	0.78	µg/L	1	J	SW-846 6020B	10/31/21	11/1/21 13:00	QNW
Silver	ND	0.20	0.026	µg/L	1		SW-846 6020B	10/31/21	11/1/21 12:03	QNW
Sodium	4.0	2.0	0.56	mg/L	1		SW-846 6010D	10/31/21	10/31/21 21:10	QNW
Thallium	ND	0.20	0.067	µg/L	1		SW-846 6020B	10/31/21	11/1/21 12:03	QNW
Vanadium	ND	5.0	3.5	µg/L	1		SW-846 6020B	10/31/21	11/1/21 12:03	QNW
Zinc	ND	10	3.4	µg/L	1		SW-846 6020B	10/31/21	11/1/21 12:03	QNW

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Project Location: 1400 N. Royal St, Alexandria, VA Sample Description: Work Order: 21J1856

Date Received: 10/29/2021

Field Sample #: HRP-MW205-211026 Sampled: 10/26/2021 12:30

Sample ID: 21J1856-09

Sample Matrix: Ground Water

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Ammonia as N	ND	0.10	0.056	mg/L	1	V-05	EPA 350.1	11/12/21	11/12/21 13:21	EC
Sulfate	66	5.0	3.0	mg/L	5		ASTM D516-16	11/2/21	11/2/21 10:49	MMH

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Project Location: 1400 N. Royal St, Alexandria, VA Sample Description: Work Order: 21J1856

Date Received: 10/29/2021

Field Sample #: HRP-MW206-211026 Sampled: 10/26/2021 16:55

Sample ID: 21J1856-10

Sample Matrix: Ground Water

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acetone	2.8	50	2.4	µg/L	1	J	SW-846 8260D	11/1/21	11/1/21 17:32	MFF
Acrylonitrile	ND	5.0	0.69	µg/L	1		SW-846 8260D	11/1/21	11/1/21 17:32	MFF
tert-Amyl Methyl Ether (TAME)	ND	0.50	0.15	µg/L	1		SW-846 8260D	11/1/21	11/1/21 17:32	MFF
Benzene	ND	1.0	0.13	µg/L	1		SW-846 8260D	11/1/21	11/1/21 17:32	MFF
Bromobenzene	ND	1.0	0.13	µg/L	1		SW-846 8260D	11/1/21	11/1/21 17:32	MFF
Bromochloromethane	ND	1.0	0.36	µg/L	1		SW-846 8260D	11/1/21	11/1/21 17:32	MFF
Bromodichloromethane	ND	0.50	0.14	µg/L	1		SW-846 8260D	11/1/21	11/1/21 17:32	MFF
Bromoform	ND	1.0	0.29	µg/L	1		SW-846 8260D	11/1/21	11/1/21 17:32	MFF
Bromomethane	ND	2.0	1.1	µg/L	1		SW-846 8260D	11/1/21	11/1/21 17:32	MFF
2-Butanone (MEK)	ND	20	1.9	µg/L	1		SW-846 8260D	11/1/21	11/1/21 17:32	MFF
tert-Butyl Alcohol (TBA)	ND	20	5.3	µg/L	1		SW-846 8260D	11/1/21	11/1/21 17:32	MFF
n-Butylbenzene	ND	1.0	0.14	µg/L	1		SW-846 8260D	11/1/21	11/1/21 17:32	MFF
sec-Butylbenzene	ND	1.0	0.10	µg/L	1		SW-846 8260D	11/1/21	11/1/21 17:32	MFF
tert-Butylbenzene	ND	1.0	0.090	µg/L	1		SW-846 8260D	11/1/21	11/1/21 17:32	MFF
tert-Butyl Ethyl Ether (TBEE)	ND	0.50	0.11	µg/L	1		SW-846 8260D	11/1/21	11/1/21 17:32	MFF
Carbon Disulfide	ND	5.0	1.5	µg/L	1		SW-846 8260D	11/1/21	11/1/21 17:32	MFF
Carbon Tetrachloride	ND	5.0	0.17	µg/L	1		SW-846 8260D	11/1/21	11/1/21 17:32	MFF
Chlorobenzene	ND	1.0	0.080	µg/L	1		SW-846 8260D	11/1/21	11/1/21 17:32	MFF
Chlorodibromomethane	ND	0.50	0.16	µg/L	1		SW-846 8260D	11/1/21	11/1/21 17:32	MFF
Chloroethane	ND	2.0	0.37	µg/L	1		SW-846 8260D	11/1/21	11/1/21 17:32	MFF
Chloroform	ND	2.0	0.19	µg/L	1		SW-846 8260D	11/1/21	11/1/21 17:32	MFF
Chloromethane	ND	2.0	0.38	µg/L	1		SW-846 8260D	11/1/21	11/1/21 17:32	MFF
2-Chlorotoluene	ND	1.0	0.090	µg/L	1		SW-846 8260D	11/1/21	11/1/21 17:32	MFF
4-Chlorotoluene	ND	1.0	0.10	µg/L	1		SW-846 8260D	11/1/21	11/1/21 17:32	MFF
1,2-Dibromo-3-chloropropane (DBCP)	ND	5.0	0.72	µg/L	1		SW-846 8260D	11/1/21	11/1/21 17:32	MFF
1,2-Dibromoethane (EDB)	ND	0.50	0.15	µg/L	1		SW-846 8260D	11/1/21	11/1/21 17:32	MFF
Dibromomethane	ND	1.0	0.29	µg/L	1		SW-846 8260D	11/1/21	11/1/21 17:32	MFF
1,2-Dichlorobenzene	ND	1.0	0.10	µg/L	1		SW-846 8260D	11/1/21	11/1/21 17:32	MFF
1,3-Dichlorobenzene	ND	1.0	0.090	µg/L	1		SW-846 8260D	11/1/21	11/1/21 17:32	MFF
1,4-Dichlorobenzene	ND	1.0	0.11	µg/L	1		SW-846 8260D	11/1/21	11/1/21 17:32	MFF
trans-1,4-Dichloro-2-butene	ND	2.0	1.8	µg/L	1		SW-846 8260D	11/1/21	11/1/21 17:32	MFF
Dichlorodifluoromethane (Freon 12)	ND	2.0	0.20	µg/L	1		SW-846 8260D	11/1/21	11/1/21 17:32	MFF
1,1-Dichloroethane	ND	1.0	0.16	µg/L	1		SW-846 8260D	11/1/21	11/1/21 17:32	MFF
1,2-Dichloroethane	ND	1.0	0.32	µg/L	1		SW-846 8260D	11/1/21	11/1/21 17:32	MFF
1,1-Dichloroethylene	ND	1.0	0.16	µg/L	1		SW-846 8260D	11/1/21	11/1/21 17:32	MFF
cis-1,2-Dichloroethylene	ND	1.0	0.15	µg/L	1		SW-846 8260D	11/1/21	11/1/21 17:32	MFF
trans-1,2-Dichloroethylene	ND	1.0	0.17	µg/L	1		SW-846 8260D	11/1/21	11/1/21 17:32	MFF
1,2-Dichloropropane	ND	1.0	0.18	µg/L	1		SW-846 8260D	11/1/21	11/1/21 17:32	MFF
1,3-Dichloropropane	ND	0.50	0.12	µg/L	1		SW-846 8260D	11/1/21	11/1/21 17:32	MFF
2,2-Dichloropropane	ND	1.0	0.31	µg/L	1		SW-846 8260D	11/1/21	11/1/21 17:32	MFF
1,1-Dichloropropene	ND	2.0	0.26	µg/L	1		SW-846 8260D	11/1/21	11/1/21 17:32	MFF
cis-1,3-Dichloropropene	ND	0.50	0.12	µg/L	1		SW-846 8260D	11/1/21	11/1/21 17:32	MFF
trans-1,3-Dichloropropene	ND	0.50	0.15	µg/L	1		SW-846 8260D	11/1/21	11/1/21 17:32	MFF
Diethyl Ether	ND	2.0	0.22	µg/L	1		SW-846 8260D	11/1/21	11/1/21 17:32	MFF

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Project Location: 1400 N. Royal St, Alexandria, VA Sample Description: Work Order: 21J1856

Date Received: 10/29/2021

Field Sample #: HRP-MW206-211026 Sampled: 10/26/2021 16:55

Sample ID: 21J1856-10

Sample Matrix: Ground Water

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Diisopropyl Ether (DIPE)	ND	0.50	0.15	µg/L	1		SW-846 8260D	11/1/21	11/1/21 17:32	MFF
1,4-Dioxane	ND	50	22	µg/L	1		SW-846 8260D	11/1/21	11/1/21 17:32	MFF
Ethylbenzene	ND	1.0	0.090	µg/L	1		SW-846 8260D	11/1/21	11/1/21 17:32	MFF
Hexachlorobutadiene	ND	0.60	0.41	µg/L	1		SW-846 8260D	11/1/21	11/1/21 17:32	MFF
2-Hexanone (MBK)	ND	10	1.4	µg/L	1		SW-846 8260D	11/1/21	11/1/21 17:32	MFF
Isopropylbenzene (Cumene)	ND	1.0	0.10	µg/L	1		SW-846 8260D	11/1/21	11/1/21 17:32	MFF
p-Isopropyltoluene (p-Cymene)	ND	1.0	0.090	µg/L	1		SW-846 8260D	11/1/21	11/1/21 17:32	MFF
Methyl Acetate	ND	1.0	0.39	µg/L	1		SW-846 8260D	11/1/21	11/1/21 17:32	MFF
Methyl tert-Butyl Ether (MTBE)	ND	1.0	0.17	µg/L	1		SW-846 8260D	11/1/21	11/1/21 17:32	MFF
Methyl Cyclohexane	ND	1.0	0.33	µg/L	1		SW-846 8260D	11/1/21	11/1/21 17:32	MFF
Methylene Chloride	ND	5.0	0.30	µg/L	1		SW-846 8260D	11/1/21	11/1/21 17:32	MFF
4-Methyl-2-pentanone (MIBK)	ND	10	1.6	µg/L	1		SW-846 8260D	11/1/21	11/1/21 17:32	MFF
Naphthalene	ND	2.0	0.15	µg/L	1	V-05	SW-846 8260D	11/1/21	11/1/21 17:32	MFF
n-Propylbenzene	ND	1.0	0.080	µg/L	1		SW-846 8260D	11/1/21	11/1/21 17:32	MFF
Styrene	ND	1.0	0.080	µg/L	1		SW-846 8260D	11/1/21	11/1/21 17:32	MFF
1,1,1,2-Tetrachloroethane	ND	1.0	0.14	µg/L	1		SW-846 8260D	11/1/21	11/1/21 17:32	MFF
1,1,2,2-Tetrachloroethane	ND	0.50	0.090	µg/L	1		SW-846 8260D	11/1/21	11/1/21 17:32	MFF
Tetrachloroethylene	ND	1.0	0.20	µg/L	1		SW-846 8260D	11/1/21	11/1/21 17:32	MFF
Tetrahydrofuran	ND	10	0.58	µg/L	1		SW-846 8260D	11/1/21	11/1/21 17:32	MFF
Toluene	ND	1.0	0.11	µg/L	1		SW-846 8260D	11/1/21	11/1/21 17:32	MFF
1,2,3-Trichlorobenzene	ND	5.0	0.14	µg/L	1	V-05	SW-846 8260D	11/1/21	11/1/21 17:32	MFF
1,2,4-Trichlorobenzene	ND	1.0	0.16	µg/L	1	V-05	SW-846 8260D	11/1/21	11/1/21 17:32	MFF
1,3,5-Trichlorobenzene	ND	1.0	0.18	µg/L	1		SW-846 8260D	11/1/21	11/1/21 17:32	MFF
1,1,1-Trichloroethane	ND	1.0	0.17	µg/L	1		SW-846 8260D	11/1/21	11/1/21 17:32	MFF
1,1,2-Trichloroethane	ND	1.0	0.15	µg/L	1		SW-846 8260D	11/1/21	11/1/21 17:32	MFF
Trichloroethylene	ND	1.0	0.18	µg/L	1		SW-846 8260D	11/1/21	11/1/21 17:32	MFF
Trichlorofluoromethane (Freon 11)	ND	2.0	0.19	µg/L	1		SW-846 8260D	11/1/21	11/1/21 17:32	MFF
1,2,3-Trichloropropane	ND	2.0	0.31	µg/L	1		SW-846 8260D	11/1/21	11/1/21 17:32	MFF
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	1.0	0.24	µg/L	1		SW-846 8260D	11/1/21	11/1/21 17:32	MFF
1,2,4-Trimethylbenzene	ND	1.0	0.10	µg/L	1		SW-846 8260D	11/1/21	11/1/21 17:32	MFF
1,3,5-Trimethylbenzene	ND	1.0	0.10	µg/L	1		SW-846 8260D	11/1/21	11/1/21 17:32	MFF
Vinyl Chloride	ND	2.0	0.20	µg/L	1		SW-846 8260D	11/1/21	11/1/21 17:32	MFF
m+p Xylene	ND	2.0	0.18	µg/L	1		SW-846 8260D	11/1/21	11/1/21 17:32	MFF
o-Xylene	ND	1.0	0.090	µg/L	1		SW-846 8260D	11/1/21	11/1/21 17:32	MFF

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
1,2-Dichloroethane-d4	108	70-130		11/1/21 17:32
Toluene-d8	105	70-130		11/1/21 17:32
4-Bromofluorobenzene	103	70-130		11/1/21 17:32

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39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: 1400 N. Royal St, Alexandria, VA Sample Description: Work Order: 21J1856

Date Received: 10/29/2021

Field Sample #: HRP-MW206-211026 Sampled: 10/26/2021 16:55

Sample ID: 21J1856-10

Sample Matrix: Ground Water

Semivolatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acenaphthene	ND	5.6	0.37	µg/L	1		SW-846 8270E	11/1/21	11/4/21 15:43	IMR
Acenaphthylene	ND	5.6	0.36	µg/L	1		SW-846 8270E	11/1/21	11/4/21 15:43	IMR
Acetophenone	ND	11	0.50	µg/L	1		SW-846 8270E	11/1/21	11/4/21 15:43	IMR
Aniline	ND	5.6	0.92	µg/L	1	V-20	SW-846 8270E	11/1/21	11/4/21 15:43	IMR
Anthracene	ND	5.6	0.44	µg/L	1		SW-846 8270E	11/1/21	11/4/21 15:43	IMR
Benzidine	ND	22	11	µg/L	1	V-04, V-20	SW-846 8270E	11/1/21	11/4/21 15:43	IMR
Benzo(a)anthracene	ND	5.6	0.42	µg/L	1		SW-846 8270E	11/1/21	11/4/21 15:43	IMR
Benzo(a)pyrene	ND	5.6	0.54	µg/L	1		SW-846 8270E	11/1/21	11/4/21 15:43	IMR
Benzo(b)fluoranthene	ND	5.6	0.47	µg/L	1		SW-846 8270E	11/1/21	11/4/21 15:43	IMR
Benzo(g,h,i)perylene	ND	5.6	0.72	µg/L	1		SW-846 8270E	11/1/21	11/4/21 15:43	IMR
Benzo(k)fluoranthene	ND	5.6	0.41	µg/L	1		SW-846 8270E	11/1/21	11/4/21 15:43	IMR
Benzoic Acid	ND	11	10	µg/L	1		SW-846 8270E	11/1/21	11/4/21 15:43	IMR
Bis(2-chloroethoxy)methane	ND	11	0.48	µg/L	1		SW-846 8270E	11/1/21	11/4/21 15:43	IMR
Bis(2-chloroethyl)ether	ND	11	0.58	µg/L	1		SW-846 8270E	11/1/21	11/4/21 15:43	IMR
Bis(2-chloroisopropyl)ether	ND	11	0.67	µg/L	1		SW-846 8270E	11/1/21	11/4/21 15:43	IMR
Bis(2-Ethylhexyl)phthalate	ND	11	1.0	µg/L	1		SW-846 8270E	11/1/21	11/4/21 15:43	IMR
4-Bromophenylphenylether	ND	11	0.43	µg/L	1		SW-846 8270E	11/1/21	11/4/21 15:43	IMR
Butylbenzylphthalate	ND	11	0.78	µg/L	1		SW-846 8270E	11/1/21	11/4/21 15:43	IMR
Carbazole	ND	11	0.46	µg/L	1		SW-846 8270E	11/1/21	11/4/21 15:43	IMR
4-Chloroaniline	ND	11	0.49	µg/L	1		SW-846 8270E	11/1/21	11/4/21 15:43	IMR
4-Chloro-3-methylphenol	ND	11	0.60	µg/L	1		SW-846 8270E	11/1/21	11/4/21 15:43	IMR
2-Chloronaphthalene	ND	11	0.30	µg/L	1		SW-846 8270E	11/1/21	11/4/21 15:43	IMR
2-Chlorophenol	ND	11	0.42	µg/L	1		SW-846 8270E	11/1/21	11/4/21 15:43	IMR
4-Chlorophenylphenylether	ND	11	0.37	µg/L	1		SW-846 8270E	11/1/21	11/4/21 15:43	IMR
Chrysene	ND	5.6	0.42	µg/L	1		SW-846 8270E	11/1/21	11/4/21 15:43	IMR
Dibenz(a,h)anthracene	ND	5.6	0.79	µg/L	1		SW-846 8270E	11/1/21	11/4/21 15:43	IMR
Dibenzofuran	ND	5.6	0.38	µg/L	1		SW-846 8270E	11/1/21	11/4/21 15:43	IMR
Di-n-butylphthalate	ND	11	0.56	µg/L	1		SW-846 8270E	11/1/21	11/4/21 15:43	IMR
1,2-Dichlorobenzene	ND	5.6	0.26	µg/L	1		SW-846 8270E	11/1/21	11/4/21 15:43	IMR
1,3-Dichlorobenzene	ND	5.6	0.27	µg/L	1		SW-846 8270E	11/1/21	11/4/21 15:43	IMR
1,4-Dichlorobenzene	ND	5.6	0.30	µg/L	1		SW-846 8270E	11/1/21	11/4/21 15:43	IMR
3,3-Dichlorobenzidine	ND	11	0.70	µg/L	1		SW-846 8270E	11/1/21	11/4/21 15:43	IMR
2,4-Dichlorophenol	ND	11	0.41	µg/L	1		SW-846 8270E	11/1/21	11/4/21 15:43	IMR
Diethylphthalate	ND	11	0.54	µg/L	1		SW-846 8270E	11/1/21	11/4/21 15:43	IMR
2,4-Dimethylphenol	ND	11	1.1	µg/L	1		SW-846 8270E	11/1/21	11/4/21 15:43	IMR
Dimethylphthalate	ND	11	0.45	µg/L	1		SW-846 8270E	11/1/21	11/4/21 15:43	IMR
4,6-Dinitro-2-methylphenol	ND	11	7.3	µg/L	1		SW-846 8270E	11/1/21	11/4/21 15:43	IMR
2,4-Dinitrophenol	ND	11	9.0	µg/L	1	V-04, V-20	SW-846 8270E	11/1/21	11/4/21 15:43	IMR
2,4-Dinitrotoluene	ND	11	0.68	µg/L	1		SW-846 8270E	11/1/21	11/4/21 15:43	IMR
2,6-Dinitrotoluene	ND	11	0.56	µg/L	1		SW-846 8270E	11/1/21	11/4/21 15:43	IMR
Di-n-octylphthalate	ND	11	6.3	µg/L	1		SW-846 8270E	11/1/21	11/4/21 15:43	IMR
1,2-Diphenylhydrazine/Azobenzene	ND	11	0.59	µg/L	1		SW-846 8270E	11/1/21	11/4/21 15:43	IMR
Fluoranthene	ND	5.6	0.41	µg/L	1		SW-846 8270E	11/1/21	11/4/21 15:43	IMR
Fluorene	ND	5.6	0.47	µg/L	1		SW-846 8270E	11/1/21	11/4/21 15:43	IMR

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39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: 1400 N. Royal St, Alexandria, VA Sample Description: Work Order: 21J1856

Date Received: 10/29/2021

Field Sample #: HRP-MW206-211026 Sampled: 10/26/2021 16:55

Sample ID: 21J1856-10

Sample Matrix: Ground Water

Semivolatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Hexachlorobenzene	ND	11	0.41	µg/L	1		SW-846 8270E	11/1/21	11/4/21 15:43	IMR
Hexachlorobutadiene	ND	11	0.30	µg/L	1		SW-846 8270E	11/1/21	11/4/21 15:43	IMR
Hexachlorocyclopentadiene	ND	11	4.7	µg/L	1		SW-846 8270E	11/1/21	11/4/21 15:43	IMR
Hexachloroethane	ND	11	0.35	µg/L	1		SW-846 8270E	11/1/21	11/4/21 15:43	IMR
Indeno(1,2,3-cd)pyrene	ND	5.6	0.88	µg/L	1		SW-846 8270E	11/1/21	11/4/21 15:43	IMR
Isophorone	ND	11	0.54	µg/L	1		SW-846 8270E	11/1/21	11/4/21 15:43	IMR
1-Methylnaphthalene	ND	5.6	0.33	µg/L	1		SW-846 8270E	11/1/21	11/4/21 15:43	IMR
2-Methylnaphthalene	ND	5.6	0.37	µg/L	1		SW-846 8270E	11/1/21	11/4/21 15:43	IMR
2-Methylphenol	ND	11	0.41	µg/L	1		SW-846 8270E	11/1/21	11/4/21 15:43	IMR
3/4-Methylphenol	ND	11	0.43	µg/L	1		SW-846 8270E	11/1/21	11/4/21 15:43	IMR
Naphthalene	ND	5.6	0.33	µg/L	1		SW-846 8270E	11/1/21	11/4/21 15:43	IMR
2-Nitroaniline	ND	11	0.84	µg/L	1	V-20	SW-846 8270E	11/1/21	11/4/21 15:43	IMR
3-Nitroaniline	ND	11	0.57	µg/L	1		SW-846 8270E	11/1/21	11/4/21 15:43	IMR
4-Nitroaniline	ND	11	0.55	µg/L	1	V-20	SW-846 8270E	11/1/21	11/4/21 15:43	IMR
Nitrobenzene	ND	11	0.59	µg/L	1		SW-846 8270E	11/1/21	11/4/21 15:43	IMR
2-Nitrophenol	ND	11	0.53	µg/L	1		SW-846 8270E	11/1/21	11/4/21 15:43	IMR
4-Nitrophenol	ND	11	2.3	µg/L	1		SW-846 8270E	11/1/21	11/4/21 15:43	IMR
N-Nitrosodimethylamine	ND	11	0.92	µg/L	1		SW-846 8270E	11/1/21	11/4/21 15:43	IMR
N-Nitrosodiphenylamine/Diphenylamine	ND	11	0.44	µg/L	1		SW-846 8270E	11/1/21	11/4/21 15:43	IMR
N-Nitrosodi-n-propylamine	ND	11	0.59	µg/L	1		SW-846 8270E	11/1/21	11/4/21 15:43	IMR
Pentachloronitrobenzene	ND	11	0.71	µg/L	1		SW-846 8270E	11/1/21	11/4/21 15:43	IMR
Pentachlorophenol	ND	11	4.2	µg/L	1		SW-846 8270E	11/1/21	11/4/21 15:43	IMR
Phenanthrene	ND	5.6	0.44	µg/L	1		SW-846 8270E	11/1/21	11/4/21 15:43	IMR
Phenol	ND	11	0.28	µg/L	1		SW-846 8270E	11/1/21	11/4/21 15:43	IMR
Pyrene	ND	5.6	0.53	µg/L	1		SW-846 8270E	11/1/21	11/4/21 15:43	IMR
Pyridine	ND	5.6	2.9	µg/L	1		SW-846 8270E	11/1/21	11/4/21 15:43	IMR
1,2,4,5-Tetrachlorobenzene	ND	11	0.30	µg/L	1		SW-846 8270E	11/1/21	11/4/21 15:43	IMR
1,2,4-Trichlorobenzene	ND	5.6	0.27	µg/L	1		SW-846 8270E	11/1/21	11/4/21 15:43	IMR
2,4,5-Trichlorophenol	ND	11	0.52	µg/L	1		SW-846 8270E	11/1/21	11/4/21 15:43	IMR
2,4,6-Trichlorophenol	ND	11	0.46	µg/L	1		SW-846 8270E	11/1/21	11/4/21 15:43	IMR

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
2-Fluorophenol	53.6	15-110		11/4/21 15:43
Phenol-d6	52.4	15-110		11/4/21 15:43
Nitrobenzene-d5	64.3	30-130		11/4/21 15:43
2-Fluorobiphenyl	65.6	30-130		11/4/21 15:43
2,4,6-Tribromophenol	87.8	15-110		11/4/21 15:43
p-Terphenyl-d14	87.8	30-130		11/4/21 15:43

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Project Location: 1400 N. Royal St, Alexandria, VA Sample Description: Work Order: 21J1856

Date Received: 10/29/2021

Field Sample #: HRP-MW206-211026 Sampled: 10/26/2021 16:55

Sample ID: 21J1856-10

Sample Matrix: Ground Water

Petroleum Hydrocarbons Analyses

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Gasoline Range Organics (GRO)	ND	0.010	0.0094	mg/L	1		SW-846 8015C	11/2/21	11/3/21 5:39	KMB
Diesel Range Organics	0.56	0.22	0.091	mg/L	1		SW-846 8015C	11/2/21	11/4/21 9:10	SFM

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
1-Chloro-3-fluorobenzene	105	70-130		11/3/21 5:39
2-Fluorobiphenyl	98.7	40-140		11/4/21 9:10

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39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: 1400 N. Royal St, Alexandria, VA Sample Description: Work Order: 21J1856

Date Received: 10/29/2021

Field Sample #: HRP-MW206-211026 Sampled: 10/26/2021 16:55

Sample ID: 21J1856-10

Sample Matrix: Ground Water

Metals Analyses (Total)

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Aluminum	19	0.050	0.049	mg/L	1		SW-846 6010D	10/31/21	10/31/21 23:16	QNW
Antimony	0.41	1.0	0.20	µg/L	1	J	SW-846 6020B	10/31/21	10/31/21 20:44	QNW
Arsenic	18	0.80	0.46	µg/L	1		SW-846 6020B	10/31/21	10/31/21 20:44	QNW
Barium	220	10	1.2	µg/L	1		SW-846 6020B	10/31/21	10/31/21 20:44	QNW
Beryllium	1.4	0.40	0.066	µg/L	1		SW-846 6020B	10/31/21	11/1/21 11:54	QNW
Cadmium	0.053	0.20	0.027	µg/L	1	J	SW-846 6020B	10/31/21	10/31/21 20:44	QNW
Calcium	200	0.50	0.11	mg/L	1		SW-846 6010D	10/31/21	10/31/21 23:16	QNW
Chromium	36	1.0	0.92	µg/L	1		SW-846 6020B	10/31/21	11/1/21 11:54	QNW
Cobalt	100	1.0	0.14	µg/L	1		SW-846 6020B	10/31/21	10/31/21 20:44	QNW
Copper	52	1.0	0.27	µg/L	1		SW-846 6020B	10/31/21	10/31/21 20:44	QNW
Iron	150	0.50	0.32	mg/L	10		SW-846 6010D	10/31/21	11/1/21 14:02	QNW
Lead	25	0.50	0.14	µg/L	1		SW-846 6020B	10/31/21	10/31/21 20:44	QNW
Magnesium	130	0.050	0.023	mg/L	1		SW-846 6010D	10/31/21	10/31/21 23:16	QNW
Manganese	15000	100	24	µg/L	100		SW-846 6020B	10/31/21	11/1/21 14:04	QNW
Mercury	0.000053	0.00010	0.000050	mg/L	1	J	SW-846 7470A	11/1/21	11/2/21 9:27	DRL
Nickel	89	5.0	0.52	µg/L	1		SW-846 6020B	10/31/21	10/31/21 20:44	QNW
Potassium	26	2.0	0.40	mg/L	1		SW-846 6010D	10/31/21	10/31/21 23:16	QNW
Selenium	14	5.0	0.78	µg/L	1		SW-846 6020B	10/31/21	10/31/21 20:44	QNW
Silver	0.37	0.20	0.026	µg/L	1		SW-846 6020B	10/31/21	10/31/21 20:44	QNW
Sodium	1100	20	5.6	mg/L	10		SW-846 6010D	10/31/21	11/1/21 14:02	QNW
Thallium	0.27	0.20	0.067	µg/L	1		SW-846 6020B	10/31/21	10/31/21 20:44	QNW
Vanadium	64	5.0	3.5	µg/L	1		SW-846 6020B	10/31/21	10/31/21 20:44	QNW
Zinc	110	10	3.4	µg/L	1		SW-846 6020B	10/31/21	10/31/21 20:44	QNW

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Project Location: 1400 N. Royal St, Alexandria, VA Sample Description: Work Order: 21J1856

Date Received: 10/29/2021

Field Sample #: HRP-MW206-211026 Sampled: 10/26/2021 16:55

Sample ID: 21J1856-10

Sample Matrix: Ground Water

Metals Analyses (Dissolved)

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Aluminum	0.067	0.050	0.049	mg/L	1		SW-846 6010D	10/31/21	10/31/21 21:16	QNW
Antimony	ND	1.0	0.20	µg/L	1		SW-846 6020B	10/31/21	11/1/21 12:06	QNW
Arsenic	5.0	0.80	0.46	µg/L	1		SW-846 6020B	10/31/21	11/1/21 12:06	QNW
Barium	28	10	1.2	µg/L	1		SW-846 6020B	10/31/21	11/1/21 12:06	QNW
Beryllium	ND	0.40	0.066	µg/L	1		SW-846 6020B	10/31/21	11/1/21 13:03	QNW
Cadmium	ND	0.20	0.027	µg/L	1		SW-846 6020B	10/31/21	11/1/21 12:06	QNW
Calcium	200	0.50	0.11	mg/L	1		SW-846 6010D	10/31/21	10/31/21 21:16	QNW
Chromium	ND	1.0	0.92	µg/L	1		SW-846 6020B	10/31/21	11/1/21 12:06	QNW
Cobalt	72	1.0	0.14	µg/L	1		SW-846 6020B	10/31/21	11/1/21 12:06	QNW
Copper	25	1.0	0.27	µg/L	1		SW-846 6020B	10/31/21	11/1/21 13:03	QNW
Iron	100	0.050	0.032	mg/L	1		SW-846 6010D	10/31/21	10/31/21 21:16	QNW
Lead	ND	0.50	0.14	µg/L	1		SW-846 6020B	10/31/21	11/1/21 12:06	QNW
Magnesium	130	0.050	0.023	mg/L	1		SW-846 6010D	10/31/21	10/31/21 21:16	QNW
Manganese	14000	100	24	µg/L	100		SW-846 6020B	10/31/21	11/1/21 14:01	QNW
Mercury	ND	0.00010	0.000050	mg/L	1		SW-846 7470A	11/1/21	11/2/21 8:58	DRL
Nickel	41	5.0	0.52	µg/L	1		SW-846 6020B	10/31/21	11/1/21 12:06	QNW
Potassium	26	2.0	0.40	mg/L	1		SW-846 6010D	10/31/21	10/31/21 21:16	QNW
Selenium	15	5.0	0.78	µg/L	1		SW-846 6020B	10/31/21	11/1/21 13:03	QNW
Silver	ND	0.20	0.026	µg/L	1		SW-846 6020B	10/31/21	11/1/21 12:06	QNW
Sodium	1100	20	5.6	mg/L	10		SW-846 6010D	10/31/21	11/1/21 13:50	QNW
Thallium	ND	0.20	0.067	µg/L	1		SW-846 6020B	10/31/21	11/1/21 12:06	QNW
Vanadium	ND	5.0	3.5	µg/L	1		SW-846 6020B	10/31/21	11/1/21 12:06	QNW
Zinc	16	10	3.4	µg/L	1		SW-846 6020B	10/31/21	11/1/21 12:06	QNW

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: 1400 N. Royal St, Alexandria, VA Sample Description: Work Order: 21J1856

Date Received: 10/29/2021

Field Sample #: HRP-MW206-211026 Sampled: 10/26/2021 16:55

Sample ID: 21J1856-10

Sample Matrix: Ground Water

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Sulfate	2600	500	300	mg/L	500		ASTM D516-16	11/2/21	11/2/21 11:59	MMH

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Project Location: 1400 N. Royal St, Alexandria, VA Sample Description: Work Order: 21J1856

Date Received: 10/29/2021

Field Sample #: HRP-TB07-211025 Sampled: 10/25/2021 13:45

Sample ID: 21J1856-11

Sample Matrix: Ground Water

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acetone	ND	50	2.4	µg/L	1		SW-846 8260D	11/1/21	11/1/21 17:56	MFF
Acrylonitrile	ND	5.0	0.69	µg/L	1		SW-846 8260D	11/1/21	11/1/21 17:56	MFF
tert-Amyl Methyl Ether (TAME)	ND	0.50	0.15	µg/L	1		SW-846 8260D	11/1/21	11/1/21 17:56	MFF
Benzene	ND	1.0	0.13	µg/L	1		SW-846 8260D	11/1/21	11/1/21 17:56	MFF
Bromobenzene	ND	1.0	0.13	µg/L	1		SW-846 8260D	11/1/21	11/1/21 17:56	MFF
Bromochloromethane	ND	1.0	0.36	µg/L	1		SW-846 8260D	11/1/21	11/1/21 17:56	MFF
Bromodichloromethane	ND	0.50	0.14	µg/L	1		SW-846 8260D	11/1/21	11/1/21 17:56	MFF
Bromoform	ND	1.0	0.29	µg/L	1		SW-846 8260D	11/1/21	11/1/21 17:56	MFF
Bromomethane	ND	2.0	1.1	µg/L	1		SW-846 8260D	11/1/21	11/1/21 17:56	MFF
2-Butanone (MEK)	ND	20	1.9	µg/L	1		SW-846 8260D	11/1/21	11/1/21 17:56	MFF
tert-Butyl Alcohol (TBA)	ND	20	5.3	µg/L	1		SW-846 8260D	11/1/21	11/1/21 17:56	MFF
n-Butylbenzene	ND	1.0	0.14	µg/L	1		SW-846 8260D	11/1/21	11/1/21 17:56	MFF
sec-Butylbenzene	ND	1.0	0.10	µg/L	1		SW-846 8260D	11/1/21	11/1/21 17:56	MFF
tert-Butylbenzene	ND	1.0	0.090	µg/L	1		SW-846 8260D	11/1/21	11/1/21 17:56	MFF
tert-Butyl Ethyl Ether (TBEE)	ND	0.50	0.11	µg/L	1		SW-846 8260D	11/1/21	11/1/21 17:56	MFF
Carbon Disulfide	ND	5.0	1.5	µg/L	1		SW-846 8260D	11/1/21	11/1/21 17:56	MFF
Carbon Tetrachloride	ND	5.0	0.17	µg/L	1		SW-846 8260D	11/1/21	11/1/21 17:56	MFF
Chlorobenzene	ND	1.0	0.080	µg/L	1		SW-846 8260D	11/1/21	11/1/21 17:56	MFF
Chlorodibromomethane	ND	0.50	0.16	µg/L	1		SW-846 8260D	11/1/21	11/1/21 17:56	MFF
Chloroethane	ND	2.0	0.37	µg/L	1		SW-846 8260D	11/1/21	11/1/21 17:56	MFF
Chloroform	ND	2.0	0.19	µg/L	1		SW-846 8260D	11/1/21	11/1/21 17:56	MFF
Chloromethane	ND	2.0	0.38	µg/L	1		SW-846 8260D	11/1/21	11/1/21 17:56	MFF
2-Chlorotoluene	ND	1.0	0.090	µg/L	1		SW-846 8260D	11/1/21	11/1/21 17:56	MFF
4-Chlorotoluene	ND	1.0	0.10	µg/L	1		SW-846 8260D	11/1/21	11/1/21 17:56	MFF
1,2-Dibromo-3-chloropropane (DBCP)	ND	5.0	0.72	µg/L	1		SW-846 8260D	11/1/21	11/1/21 17:56	MFF
1,2-Dibromoethane (EDB)	ND	0.50	0.15	µg/L	1		SW-846 8260D	11/1/21	11/1/21 17:56	MFF
Dibromomethane	ND	1.0	0.29	µg/L	1		SW-846 8260D	11/1/21	11/1/21 17:56	MFF
1,2-Dichlorobenzene	ND	1.0	0.10	µg/L	1		SW-846 8260D	11/1/21	11/1/21 17:56	MFF
1,3-Dichlorobenzene	ND	1.0	0.090	µg/L	1		SW-846 8260D	11/1/21	11/1/21 17:56	MFF
1,4-Dichlorobenzene	ND	1.0	0.11	µg/L	1		SW-846 8260D	11/1/21	11/1/21 17:56	MFF
trans-1,4-Dichloro-2-butene	ND	2.0	1.8	µg/L	1		SW-846 8260D	11/1/21	11/1/21 17:56	MFF
Dichlorodifluoromethane (Freon 12)	ND	2.0	0.20	µg/L	1		SW-846 8260D	11/1/21	11/1/21 17:56	MFF
1,1-Dichloroethane	ND	1.0	0.16	µg/L	1		SW-846 8260D	11/1/21	11/1/21 17:56	MFF
1,2-Dichloroethane	ND	1.0	0.32	µg/L	1		SW-846 8260D	11/1/21	11/1/21 17:56	MFF
1,1-Dichloroethylene	ND	1.0	0.16	µg/L	1		SW-846 8260D	11/1/21	11/1/21 17:56	MFF
cis-1,2-Dichloroethylene	ND	1.0	0.15	µg/L	1		SW-846 8260D	11/1/21	11/1/21 17:56	MFF
trans-1,2-Dichloroethylene	ND	1.0	0.17	µg/L	1		SW-846 8260D	11/1/21	11/1/21 17:56	MFF
1,2-Dichloropropane	ND	1.0	0.18	µg/L	1		SW-846 8260D	11/1/21	11/1/21 17:56	MFF
1,3-Dichloropropane	ND	0.50	0.12	µg/L	1		SW-846 8260D	11/1/21	11/1/21 17:56	MFF
2,2-Dichloropropane	ND	1.0	0.31	µg/L	1		SW-846 8260D	11/1/21	11/1/21 17:56	MFF
1,1-Dichloropropene	ND	2.0	0.26	µg/L	1		SW-846 8260D	11/1/21	11/1/21 17:56	MFF
cis-1,3-Dichloropropene	ND	0.50	0.12	µg/L	1		SW-846 8260D	11/1/21	11/1/21 17:56	MFF
trans-1,3-Dichloropropene	ND	0.50	0.15	µg/L	1		SW-846 8260D	11/1/21	11/1/21 17:56	MFF
Diethyl Ether	ND	2.0	0.22	µg/L	1		SW-846 8260D	11/1/21	11/1/21 17:56	MFF

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Project Location: 1400 N. Royal St, Alexandria, VA Sample Description: Work Order: 21J1856

Date Received: 10/29/2021

Field Sample #: HRP-TB07-211025 Sampled: 10/25/2021 13:45

Sample ID: 21J1856-11

Sample Matrix: Ground Water

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Diisopropyl Ether (DIPE)	ND	0.50	0.15	µg/L	1		SW-846 8260D	11/1/21	11/1/21 17:56	MFF
1,4-Dioxane	ND	50	22	µg/L	1		SW-846 8260D	11/1/21	11/1/21 17:56	MFF
Ethylbenzene	ND	1.0	0.090	µg/L	1		SW-846 8260D	11/1/21	11/1/21 17:56	MFF
Hexachlorobutadiene	ND	0.60	0.41	µg/L	1		SW-846 8260D	11/1/21	11/1/21 17:56	MFF
2-Hexanone (MBK)	ND	10	1.4	µg/L	1		SW-846 8260D	11/1/21	11/1/21 17:56	MFF
Isopropylbenzene (Cumene)	ND	1.0	0.10	µg/L	1		SW-846 8260D	11/1/21	11/1/21 17:56	MFF
p-Isopropyltoluene (p-Cymene)	ND	1.0	0.090	µg/L	1		SW-846 8260D	11/1/21	11/1/21 17:56	MFF
Methyl Acetate	ND	1.0	0.39	µg/L	1		SW-846 8260D	11/1/21	11/1/21 17:56	MFF
Methyl tert-Butyl Ether (MTBE)	ND	1.0	0.17	µg/L	1		SW-846 8260D	11/1/21	11/1/21 17:56	MFF
Methyl Cyclohexane	ND	1.0	0.33	µg/L	1		SW-846 8260D	11/1/21	11/1/21 17:56	MFF
Methylene Chloride	ND	5.0	0.30	µg/L	1		SW-846 8260D	11/1/21	11/1/21 17:56	MFF
4-Methyl-2-pentanone (MIBK)	ND	10	1.6	µg/L	1		SW-846 8260D	11/1/21	11/1/21 17:56	MFF
Naphthalene	ND	2.0	0.15	µg/L	1	V-05	SW-846 8260D	11/1/21	11/1/21 17:56	MFF
n-Propylbenzene	ND	1.0	0.080	µg/L	1		SW-846 8260D	11/1/21	11/1/21 17:56	MFF
Styrene	ND	1.0	0.080	µg/L	1		SW-846 8260D	11/1/21	11/1/21 17:56	MFF
1,1,1,2-Tetrachloroethane	ND	1.0	0.14	µg/L	1		SW-846 8260D	11/1/21	11/1/21 17:56	MFF
1,1,2,2-Tetrachloroethane	ND	0.50	0.090	µg/L	1		SW-846 8260D	11/1/21	11/1/21 17:56	MFF
Tetrachloroethylene	ND	1.0	0.20	µg/L	1		SW-846 8260D	11/1/21	11/1/21 17:56	MFF
Tetrahydrofuran	ND	10	0.58	µg/L	1		SW-846 8260D	11/1/21	11/1/21 17:56	MFF
Toluene	ND	1.0	0.11	µg/L	1		SW-846 8260D	11/1/21	11/1/21 17:56	MFF
1,2,3-Trichlorobenzene	ND	5.0	0.14	µg/L	1	V-05	SW-846 8260D	11/1/21	11/1/21 17:56	MFF
1,2,4-Trichlorobenzene	ND	1.0	0.16	µg/L	1	V-05	SW-846 8260D	11/1/21	11/1/21 17:56	MFF
1,3,5-Trichlorobenzene	ND	1.0	0.18	µg/L	1		SW-846 8260D	11/1/21	11/1/21 17:56	MFF
1,1,1-Trichloroethane	ND	1.0	0.17	µg/L	1		SW-846 8260D	11/1/21	11/1/21 17:56	MFF
1,1,2-Trichloroethane	ND	1.0	0.15	µg/L	1		SW-846 8260D	11/1/21	11/1/21 17:56	MFF
Trichloroethylene	ND	1.0	0.18	µg/L	1		SW-846 8260D	11/1/21	11/1/21 17:56	MFF
Trichlorofluoromethane (Freon 11)	ND	2.0	0.19	µg/L	1		SW-846 8260D	11/1/21	11/1/21 17:56	MFF
1,2,3-Trichloropropane	ND	2.0	0.31	µg/L	1		SW-846 8260D	11/1/21	11/1/21 17:56	MFF
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	1.0	0.24	µg/L	1		SW-846 8260D	11/1/21	11/1/21 17:56	MFF
1,2,4-Trimethylbenzene	ND	1.0	0.10	µg/L	1		SW-846 8260D	11/1/21	11/1/21 17:56	MFF
1,3,5-Trimethylbenzene	ND	1.0	0.10	µg/L	1		SW-846 8260D	11/1/21	11/1/21 17:56	MFF
Vinyl Chloride	ND	2.0	0.20	µg/L	1		SW-846 8260D	11/1/21	11/1/21 17:56	MFF
m+p Xylene	ND	2.0	0.18	µg/L	1		SW-846 8260D	11/1/21	11/1/21 17:56	MFF
o-Xylene	ND	1.0	0.090	µg/L	1		SW-846 8260D	11/1/21	11/1/21 17:56	MFF

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
1,2-Dichloroethane-d4	107	70-130		11/1/21 17:56
Toluene-d8	105	70-130		11/1/21 17:56
4-Bromofluorobenzene	104	70-130		11/1/21 17:56

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Project Location: 1400 N. Royal St, Alexandria, VA Sample Description: Work Order: 21J1856

Date Received: 10/29/2021

Field Sample #: HRP-MW102-211027 Sampled: 10/27/2021 10:45

Sample ID: 21J1856-12

Sample Matrix: Ground Water

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acetone	ND	50	2.4	µg/L	1		SW-846 8260D	11/1/21	11/1/21 18:20	MFF
Acrylonitrile	ND	5.0	0.69	µg/L	1		SW-846 8260D	11/1/21	11/1/21 18:20	MFF
tert-Amyl Methyl Ether (TAME)	ND	0.50	0.15	µg/L	1		SW-846 8260D	11/1/21	11/1/21 18:20	MFF
Benzene	ND	1.0	0.13	µg/L	1		SW-846 8260D	11/1/21	11/1/21 18:20	MFF
Bromobenzene	ND	1.0	0.13	µg/L	1		SW-846 8260D	11/1/21	11/1/21 18:20	MFF
Bromochloromethane	ND	1.0	0.36	µg/L	1		SW-846 8260D	11/1/21	11/1/21 18:20	MFF
Bromodichloromethane	ND	0.50	0.14	µg/L	1		SW-846 8260D	11/1/21	11/1/21 18:20	MFF
Bromoform	ND	1.0	0.29	µg/L	1		SW-846 8260D	11/1/21	11/1/21 18:20	MFF
Bromomethane	ND	2.0	1.1	µg/L	1		SW-846 8260D	11/1/21	11/1/21 18:20	MFF
2-Butanone (MEK)	ND	20	1.9	µg/L	1		SW-846 8260D	11/1/21	11/1/21 18:20	MFF
tert-Butyl Alcohol (TBA)	ND	20	5.3	µg/L	1		SW-846 8260D	11/1/21	11/1/21 18:20	MFF
n-Butylbenzene	ND	1.0	0.14	µg/L	1		SW-846 8260D	11/1/21	11/1/21 18:20	MFF
sec-Butylbenzene	ND	1.0	0.10	µg/L	1		SW-846 8260D	11/1/21	11/1/21 18:20	MFF
tert-Butylbenzene	ND	1.0	0.090	µg/L	1		SW-846 8260D	11/1/21	11/1/21 18:20	MFF
tert-Butyl Ethyl Ether (TBEE)	ND	0.50	0.11	µg/L	1		SW-846 8260D	11/1/21	11/1/21 18:20	MFF
Carbon Disulfide	ND	5.0	1.5	µg/L	1		SW-846 8260D	11/1/21	11/1/21 18:20	MFF
Carbon Tetrachloride	ND	5.0	0.17	µg/L	1		SW-846 8260D	11/1/21	11/1/21 18:20	MFF
Chlorobenzene	ND	1.0	0.080	µg/L	1		SW-846 8260D	11/1/21	11/1/21 18:20	MFF
Chlorodibromomethane	ND	0.50	0.16	µg/L	1		SW-846 8260D	11/1/21	11/1/21 18:20	MFF
Chloroethane	ND	2.0	0.37	µg/L	1		SW-846 8260D	11/1/21	11/1/21 18:20	MFF
Chloroform	ND	2.0	0.19	µg/L	1		SW-846 8260D	11/1/21	11/1/21 18:20	MFF
Chloromethane	ND	2.0	0.38	µg/L	1		SW-846 8260D	11/1/21	11/1/21 18:20	MFF
2-Chlorotoluene	ND	1.0	0.090	µg/L	1		SW-846 8260D	11/1/21	11/1/21 18:20	MFF
4-Chlorotoluene	ND	1.0	0.10	µg/L	1		SW-846 8260D	11/1/21	11/1/21 18:20	MFF
1,2-Dibromo-3-chloropropane (DBCP)	ND	5.0	0.72	µg/L	1		SW-846 8260D	11/1/21	11/1/21 18:20	MFF
1,2-Dibromoethane (EDB)	ND	0.50	0.15	µg/L	1		SW-846 8260D	11/1/21	11/1/21 18:20	MFF
Dibromomethane	ND	1.0	0.29	µg/L	1		SW-846 8260D	11/1/21	11/1/21 18:20	MFF
1,2-Dichlorobenzene	ND	1.0	0.10	µg/L	1		SW-846 8260D	11/1/21	11/1/21 18:20	MFF
1,3-Dichlorobenzene	ND	1.0	0.090	µg/L	1		SW-846 8260D	11/1/21	11/1/21 18:20	MFF
1,4-Dichlorobenzene	ND	1.0	0.11	µg/L	1		SW-846 8260D	11/1/21	11/1/21 18:20	MFF
trans-1,4-Dichloro-2-butene	ND	2.0	1.8	µg/L	1		SW-846 8260D	11/1/21	11/1/21 18:20	MFF
Dichlorodifluoromethane (Freon 12)	ND	2.0	0.20	µg/L	1		SW-846 8260D	11/1/21	11/1/21 18:20	MFF
1,1-Dichloroethane	ND	1.0	0.16	µg/L	1		SW-846 8260D	11/1/21	11/1/21 18:20	MFF
1,2-Dichloroethane	ND	1.0	0.32	µg/L	1		SW-846 8260D	11/1/21	11/1/21 18:20	MFF
1,1-Dichloroethylene	ND	1.0	0.16	µg/L	1		SW-846 8260D	11/1/21	11/1/21 18:20	MFF
cis-1,2-Dichloroethylene	ND	1.0	0.15	µg/L	1		SW-846 8260D	11/1/21	11/1/21 18:20	MFF
trans-1,2-Dichloroethylene	ND	1.0	0.17	µg/L	1		SW-846 8260D	11/1/21	11/1/21 18:20	MFF
1,2-Dichloropropane	ND	1.0	0.18	µg/L	1		SW-846 8260D	11/1/21	11/1/21 18:20	MFF
1,3-Dichloropropane	ND	0.50	0.12	µg/L	1		SW-846 8260D	11/1/21	11/1/21 18:20	MFF
2,2-Dichloropropane	ND	1.0	0.31	µg/L	1		SW-846 8260D	11/1/21	11/1/21 18:20	MFF
1,1-Dichloropropene	ND	2.0	0.26	µg/L	1		SW-846 8260D	11/1/21	11/1/21 18:20	MFF
cis-1,3-Dichloropropene	ND	0.50	0.12	µg/L	1		SW-846 8260D	11/1/21	11/1/21 18:20	MFF
trans-1,3-Dichloropropene	ND	0.50	0.15	µg/L	1		SW-846 8260D	11/1/21	11/1/21 18:20	MFF
Diethyl Ether	ND	2.0	0.22	µg/L	1		SW-846 8260D	11/1/21	11/1/21 18:20	MFF

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Project Location: 1400 N. Royal St, Alexandria, VA Sample Description: Work Order: 21J1856

Date Received: 10/29/2021

Field Sample #: HRP-MW102-211027 Sampled: 10/27/2021 10:45

Sample ID: 21J1856-12

Sample Matrix: Ground Water

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Diisopropyl Ether (DIPE)	ND	0.50	0.15	µg/L	1		SW-846 8260D	11/1/21	11/1/21 18:20	MFF
1,4-Dioxane	ND	50	22	µg/L	1		SW-846 8260D	11/1/21	11/1/21 18:20	MFF
Ethylbenzene	ND	1.0	0.090	µg/L	1		SW-846 8260D	11/1/21	11/1/21 18:20	MFF
Hexachlorobutadiene	ND	0.60	0.41	µg/L	1		SW-846 8260D	11/1/21	11/1/21 18:20	MFF
2-Hexanone (MBK)	ND	10	1.4	µg/L	1		SW-846 8260D	11/1/21	11/1/21 18:20	MFF
Isopropylbenzene (Cumene)	ND	1.0	0.10	µg/L	1		SW-846 8260D	11/1/21	11/1/21 18:20	MFF
p-Isopropyltoluene (p-Cymene)	ND	1.0	0.090	µg/L	1		SW-846 8260D	11/1/21	11/1/21 18:20	MFF
Methyl Acetate	ND	1.0	0.39	µg/L	1		SW-846 8260D	11/1/21	11/1/21 18:20	MFF
Methyl tert-Butyl Ether (MTBE)	ND	1.0	0.17	µg/L	1		SW-846 8260D	11/1/21	11/1/21 18:20	MFF
Methyl Cyclohexane	ND	1.0	0.33	µg/L	1		SW-846 8260D	11/1/21	11/1/21 18:20	MFF
Methylene Chloride	ND	5.0	0.30	µg/L	1		SW-846 8260D	11/1/21	11/1/21 18:20	MFF
4-Methyl-2-pentanone (MIBK)	ND	10	1.6	µg/L	1		SW-846 8260D	11/1/21	11/1/21 18:20	MFF
Naphthalene	ND	2.0	0.15	µg/L	1	V-05	SW-846 8260D	11/1/21	11/1/21 18:20	MFF
n-Propylbenzene	ND	1.0	0.080	µg/L	1		SW-846 8260D	11/1/21	11/1/21 18:20	MFF
Styrene	ND	1.0	0.080	µg/L	1		SW-846 8260D	11/1/21	11/1/21 18:20	MFF
1,1,1,2-Tetrachloroethane	ND	1.0	0.14	µg/L	1		SW-846 8260D	11/1/21	11/1/21 18:20	MFF
1,1,2,2-Tetrachloroethane	ND	0.50	0.090	µg/L	1		SW-846 8260D	11/1/21	11/1/21 18:20	MFF
Tetrachloroethylene	ND	1.0	0.20	µg/L	1		SW-846 8260D	11/1/21	11/1/21 18:20	MFF
Tetrahydrofuran	ND	10	0.58	µg/L	1		SW-846 8260D	11/1/21	11/1/21 18:20	MFF
Toluene	ND	1.0	0.11	µg/L	1		SW-846 8260D	11/1/21	11/1/21 18:20	MFF
1,2,3-Trichlorobenzene	ND	5.0	0.14	µg/L	1	V-05	SW-846 8260D	11/1/21	11/1/21 18:20	MFF
1,2,4-Trichlorobenzene	ND	1.0	0.16	µg/L	1	V-05	SW-846 8260D	11/1/21	11/1/21 18:20	MFF
1,3,5-Trichlorobenzene	ND	1.0	0.18	µg/L	1		SW-846 8260D	11/1/21	11/1/21 18:20	MFF
1,1,1-Trichloroethane	ND	1.0	0.17	µg/L	1		SW-846 8260D	11/1/21	11/1/21 18:20	MFF
1,1,2-Trichloroethane	ND	1.0	0.15	µg/L	1		SW-846 8260D	11/1/21	11/1/21 18:20	MFF
Trichloroethylene	ND	1.0	0.18	µg/L	1		SW-846 8260D	11/1/21	11/1/21 18:20	MFF
Trichlorofluoromethane (Freon 11)	ND	2.0	0.19	µg/L	1		SW-846 8260D	11/1/21	11/1/21 18:20	MFF
1,2,3-Trichloropropane	ND	2.0	0.31	µg/L	1		SW-846 8260D	11/1/21	11/1/21 18:20	MFF
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	1.0	0.24	µg/L	1		SW-846 8260D	11/1/21	11/1/21 18:20	MFF
1,2,4-Trimethylbenzene	ND	1.0	0.10	µg/L	1		SW-846 8260D	11/1/21	11/1/21 18:20	MFF
1,3,5-Trimethylbenzene	ND	1.0	0.10	µg/L	1		SW-846 8260D	11/1/21	11/1/21 18:20	MFF
Vinyl Chloride	ND	2.0	0.20	µg/L	1		SW-846 8260D	11/1/21	11/1/21 18:20	MFF
m+p Xylene	ND	2.0	0.18	µg/L	1		SW-846 8260D	11/1/21	11/1/21 18:20	MFF
o-Xylene	ND	1.0	0.090	µg/L	1		SW-846 8260D	11/1/21	11/1/21 18:20	MFF

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
1,2-Dichloroethane-d4	110	70-130		11/1/21 18:20
Toluene-d8	106	70-130		11/1/21 18:20
4-Bromofluorobenzene	101	70-130		11/1/21 18:20

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39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: 1400 N. Royal St, Alexandria, VA Sample Description: Work Order: 21J1856

Date Received: 10/29/2021

Field Sample #: HRP-MW102-211027 Sampled: 10/27/2021 10:45

Sample ID: 21J1856-12

Sample Matrix: Ground Water

Semivolatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acenaphthene	ND	5.4	0.36	µg/L	1		SW-846 8270E	11/1/21	11/4/21 16:11	IMR
Acenaphthylene	ND	5.4	0.35	µg/L	1		SW-846 8270E	11/1/21	11/4/21 16:11	IMR
Acetophenone	ND	11	0.49	µg/L	1		SW-846 8270E	11/1/21	11/4/21 16:11	IMR
Aniline	ND	5.4	0.89	µg/L	1	V-20	SW-846 8270E	11/1/21	11/4/21 16:11	IMR
Anthracene	ND	5.4	0.43	µg/L	1		SW-846 8270E	11/1/21	11/4/21 16:11	IMR
Benzidine	ND	22	11	µg/L	1	V-04, V-20	SW-846 8270E	11/1/21	11/4/21 16:11	IMR
Benzo(a)anthracene	ND	5.4	0.41	µg/L	1		SW-846 8270E	11/1/21	11/4/21 16:11	IMR
Benzo(a)pyrene	ND	5.4	0.52	µg/L	1		SW-846 8270E	11/1/21	11/4/21 16:11	IMR
Benzo(b)fluoranthene	ND	5.4	0.45	µg/L	1		SW-846 8270E	11/1/21	11/4/21 16:11	IMR
Benzo(g,h,i)perylene	ND	5.4	0.70	µg/L	1		SW-846 8270E	11/1/21	11/4/21 16:11	IMR
Benzo(k)fluoranthene	ND	5.4	0.40	µg/L	1		SW-846 8270E	11/1/21	11/4/21 16:11	IMR
Benzoic Acid	ND	11	10	µg/L	1		SW-846 8270E	11/1/21	11/4/21 16:11	IMR
Bis(2-chloroethoxy)methane	ND	11	0.47	µg/L	1		SW-846 8270E	11/1/21	11/4/21 16:11	IMR
Bis(2-chloroethyl)ether	ND	11	0.56	µg/L	1		SW-846 8270E	11/1/21	11/4/21 16:11	IMR
Bis(2-chloroisopropyl)ether	ND	11	0.65	µg/L	1		SW-846 8270E	11/1/21	11/4/21 16:11	IMR
Bis(2-Ethylhexyl)phthalate	ND	11	1.0	µg/L	1		SW-846 8270E	11/1/21	11/4/21 16:11	IMR
4-Bromophenylphenylether	ND	11	0.42	µg/L	1		SW-846 8270E	11/1/21	11/4/21 16:11	IMR
Butylbenzylphthalate	ND	11	0.76	µg/L	1		SW-846 8270E	11/1/21	11/4/21 16:11	IMR
Carbazole	ND	11	0.45	µg/L	1		SW-846 8270E	11/1/21	11/4/21 16:11	IMR
4-Chloroaniline	ND	11	0.48	µg/L	1		SW-846 8270E	11/1/21	11/4/21 16:11	IMR
4-Chloro-3-methylphenol	ND	11	0.59	µg/L	1		SW-846 8270E	11/1/21	11/4/21 16:11	IMR
2-Chloronaphthalene	ND	11	0.29	µg/L	1		SW-846 8270E	11/1/21	11/4/21 16:11	IMR
2-Chlorophenol	ND	11	0.41	µg/L	1		SW-846 8270E	11/1/21	11/4/21 16:11	IMR
4-Chlorophenylphenylether	ND	11	0.36	µg/L	1		SW-846 8270E	11/1/21	11/4/21 16:11	IMR
Chrysene	ND	5.4	0.41	µg/L	1		SW-846 8270E	11/1/21	11/4/21 16:11	IMR
Dibenz(a,h)anthracene	ND	5.4	0.77	µg/L	1		SW-846 8270E	11/1/21	11/4/21 16:11	IMR
Dibenzofuran	ND	5.4	0.37	µg/L	1		SW-846 8270E	11/1/21	11/4/21 16:11	IMR
Di-n-butylphthalate	ND	11	0.54	µg/L	1		SW-846 8270E	11/1/21	11/4/21 16:11	IMR
1,2-Dichlorobenzene	ND	5.4	0.25	µg/L	1		SW-846 8270E	11/1/21	11/4/21 16:11	IMR
1,3-Dichlorobenzene	ND	5.4	0.26	µg/L	1		SW-846 8270E	11/1/21	11/4/21 16:11	IMR
1,4-Dichlorobenzene	ND	5.4	0.29	µg/L	1		SW-846 8270E	11/1/21	11/4/21 16:11	IMR
3,3-Dichlorobenzidine	ND	11	0.68	µg/L	1		SW-846 8270E	11/1/21	11/4/21 16:11	IMR
2,4-Dichlorophenol	ND	11	0.40	µg/L	1		SW-846 8270E	11/1/21	11/4/21 16:11	IMR
Diethylphthalate	ND	11	0.52	µg/L	1		SW-846 8270E	11/1/21	11/4/21 16:11	IMR
2,4-Dimethylphenol	ND	11	1.0	µg/L	1		SW-846 8270E	11/1/21	11/4/21 16:11	IMR
Dimethylphthalate	ND	11	0.44	µg/L	1		SW-846 8270E	11/1/21	11/4/21 16:11	IMR
4,6-Dinitro-2-methylphenol	ND	11	7.1	µg/L	1		SW-846 8270E	11/1/21	11/4/21 16:11	IMR
2,4-Dinitrophenol	ND	11	8.7	µg/L	1	V-04, V-20	SW-846 8270E	11/1/21	11/4/21 16:11	IMR
2,4-Dinitrotoluene	ND	11	0.66	µg/L	1		SW-846 8270E	11/1/21	11/4/21 16:11	IMR
2,6-Dinitrotoluene	ND	11	0.54	µg/L	1		SW-846 8270E	11/1/21	11/4/21 16:11	IMR
Di-n-octylphthalate	ND	11	6.1	µg/L	1		SW-846 8270E	11/1/21	11/4/21 16:11	IMR
1,2-Diphenylhydrazine/Azobenzene	ND	11	0.57	µg/L	1		SW-846 8270E	11/1/21	11/4/21 16:11	IMR
Fluoranthene	ND	5.4	0.40	µg/L	1		SW-846 8270E	11/1/21	11/4/21 16:11	IMR
Fluorene	ND	5.4	0.45	µg/L	1		SW-846 8270E	11/1/21	11/4/21 16:11	IMR

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39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: 1400 N. Royal St, Alexandria, VA Sample Description: Work Order: 21J1856

Date Received: 10/29/2021

Field Sample #: HRP-MW102-211027 Sampled: 10/27/2021 10:45

Sample ID: 21J1856-12

Sample Matrix: Ground Water

Semivolatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Hexachlorobenzene	ND	11	0.40	µg/L	1		SW-846 8270E	11/1/21	11/4/21 16:11	IMR
Hexachlorobutadiene	ND	11	0.29	µg/L	1		SW-846 8270E	11/1/21	11/4/21 16:11	IMR
Hexachlorocyclopentadiene	ND	11	4.6	µg/L	1		SW-846 8270E	11/1/21	11/4/21 16:11	IMR
Hexachloroethane	ND	11	0.34	µg/L	1		SW-846 8270E	11/1/21	11/4/21 16:11	IMR
Indeno(1,2,3-cd)pyrene	ND	5.4	0.86	µg/L	1		SW-846 8270E	11/1/21	11/4/21 16:11	IMR
Isophorone	ND	11	0.53	µg/L	1		SW-846 8270E	11/1/21	11/4/21 16:11	IMR
1-Methylnaphthalene	ND	5.4	0.32	µg/L	1		SW-846 8270E	11/1/21	11/4/21 16:11	IMR
2-Methylnaphthalene	ND	5.4	0.36	µg/L	1		SW-846 8270E	11/1/21	11/4/21 16:11	IMR
2-Methylphenol	ND	11	0.40	µg/L	1		SW-846 8270E	11/1/21	11/4/21 16:11	IMR
3/4-Methylphenol	ND	11	0.41	µg/L	1		SW-846 8270E	11/1/21	11/4/21 16:11	IMR
Naphthalene	ND	5.4	0.32	µg/L	1		SW-846 8270E	11/1/21	11/4/21 16:11	IMR
2-Nitroaniline	ND	11	0.82	µg/L	1	V-20	SW-846 8270E	11/1/21	11/4/21 16:11	IMR
3-Nitroaniline	ND	11	0.55	µg/L	1		SW-846 8270E	11/1/21	11/4/21 16:11	IMR
4-Nitroaniline	ND	11	0.53	µg/L	1	V-20	SW-846 8270E	11/1/21	11/4/21 16:11	IMR
Nitrobenzene	ND	11	0.58	µg/L	1		SW-846 8270E	11/1/21	11/4/21 16:11	IMR
2-Nitrophenol	ND	11	0.51	µg/L	1		SW-846 8270E	11/1/21	11/4/21 16:11	IMR
4-Nitrophenol	ND	11	2.2	µg/L	1		SW-846 8270E	11/1/21	11/4/21 16:11	IMR
N-Nitrosodimethylamine	ND	11	0.89	µg/L	1		SW-846 8270E	11/1/21	11/4/21 16:11	IMR
N-Nitrosodiphenylamine/Diphenylamine	ND	11	0.43	µg/L	1		SW-846 8270E	11/1/21	11/4/21 16:11	IMR
N-Nitrosodi-n-propylamine	ND	11	0.58	µg/L	1		SW-846 8270E	11/1/21	11/4/21 16:11	IMR
Pentachloronitrobenzene	ND	11	0.69	µg/L	1		SW-846 8270E	11/1/21	11/4/21 16:11	IMR
Pentachlorophenol	ND	11	4.1	µg/L	1		SW-846 8270E	11/1/21	11/4/21 16:11	IMR
Phenanthrene	ND	5.4	0.43	µg/L	1		SW-846 8270E	11/1/21	11/4/21 16:11	IMR
Phenol	ND	11	0.27	µg/L	1		SW-846 8270E	11/1/21	11/4/21 16:11	IMR
Pyrene	ND	5.4	0.51	µg/L	1		SW-846 8270E	11/1/21	11/4/21 16:11	IMR
Pyridine	ND	5.4	2.8	µg/L	1		SW-846 8270E	11/1/21	11/4/21 16:11	IMR
1,2,4,5-Tetrachlorobenzene	ND	11	0.29	µg/L	1		SW-846 8270E	11/1/21	11/4/21 16:11	IMR
1,2,4-Trichlorobenzene	ND	5.4	0.27	µg/L	1		SW-846 8270E	11/1/21	11/4/21 16:11	IMR
2,4,5-Trichlorophenol	ND	11	0.51	µg/L	1		SW-846 8270E	11/1/21	11/4/21 16:11	IMR
2,4,6-Trichlorophenol	ND	11	0.44	µg/L	1		SW-846 8270E	11/1/21	11/4/21 16:11	IMR

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
2-Fluorophenol	48.0	15-110		11/4/21 16:11
Phenol-d6	35.7	15-110		11/4/21 16:11
Nitrobenzene-d5	64.0	30-130		11/4/21 16:11
2-Fluorobiphenyl	65.2	30-130		11/4/21 16:11
2,4,6-Tribromophenol	85.5	15-110		11/4/21 16:11
p-Terphenyl-d14	93.2	30-130		11/4/21 16:11

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Project Location: 1400 N. Royal St, Alexandria, VA Sample Description: Work Order: 21J1856

Date Received: 10/29/2021

Field Sample #: HRP-MW102-211027 Sampled: 10/27/2021 10:45

Sample ID: 21J1856-12

Sample Matrix: Ground Water

Semivolatile Organic Compounds by GC

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Methanol	ND	10	2.3	mg/L	1		SW-846 8015C	10/29/21	10/30/21 5:51	SFM
Isopropanol	ND	10	1.8	mg/L	1		SW-846 8015C	10/29/21	10/30/21 5:51	SFM
Ethanol	ND	10	2.5	mg/L	1		SW-846 8015C	10/29/21	10/30/21 5:51	SFM
Propylene glycol	ND	10	2.9	mg/L	1		SW-846 8015C	10/29/21	10/30/21 5:51	SFM
Ethylene glycol	ND	10	4.0	mg/L	1		SW-846 8015C	10/29/21	10/30/21 5:51	SFM

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Project Location: 1400 N. Royal St, Alexandria, VA Sample Description: Work Order: 21J1856

Date Received: 10/29/2021

Field Sample #: HRP-MW102-211027 Sampled: 10/27/2021 10:45

Sample ID: 21J1856-12

Sample Matrix: Ground Water

Metals Analyses (Total)

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Aluminum	0.13	0.050	0.049	mg/L	1		SW-846 6010D	10/31/21	10/31/21 23:36	QNW
Antimony	0.61	1.0	0.20	µg/L	1	J	SW-846 6020B	10/31/21	10/31/21 20:47	QNW
Arsenic	3.1	0.80	0.46	µg/L	1		SW-846 6020B	10/31/21	10/31/21 20:47	QNW
Barium	68	10	1.2	µg/L	1		SW-846 6020B	10/31/21	10/31/21 20:47	QNW
Beryllium	ND	0.40	0.066	µg/L	1		SW-846 6020B	10/31/21	11/1/21 11:56	QNW
Cadmium	0.20	0.20	0.027	µg/L	1		SW-846 6020B	10/31/21	10/31/21 20:47	QNW
Calcium	16	0.50	0.11	mg/L	1		SW-846 6010D	10/31/21	10/31/21 23:36	QNW
Chromium	1.1	1.0	0.92	µg/L	1		SW-846 6020B	10/31/21	11/1/21 11:56	QNW
Cobalt	6.9	1.0	0.14	µg/L	1		SW-846 6020B	10/31/21	10/31/21 20:47	QNW
Copper	3.1	1.0	0.27	µg/L	1		SW-846 6020B	10/31/21	10/31/21 20:47	QNW
Iron	2.1	0.050	0.032	mg/L	1		SW-846 6010D	10/31/21	10/31/21 23:36	QNW
Lead	0.43	0.50	0.14	µg/L	1	J	SW-846 6020B	10/31/21	10/31/21 20:47	QNW
Magnesium	8.0	0.050	0.023	mg/L	1		SW-846 6010D	10/31/21	10/31/21 23:36	QNW
Manganese	1500	10	2.4	µg/L	10		SW-846 6020B	10/31/21	11/1/21 13:44	QNW
Mercury	ND	0.00010	0.000050	mg/L	1		SW-846 7470A	11/1/21	11/2/21 9:29	DRL
Nickel	14	5.0	0.52	µg/L	1		SW-846 6020B	10/31/21	10/31/21 20:47	QNW
Potassium	5.8	2.0	0.40	mg/L	1		SW-846 6010D	10/31/21	10/31/21 23:36	QNW
Selenium	1.6	5.0	0.78	µg/L	1	J	SW-846 6020B	10/31/21	10/31/21 20:47	QNW
Silver	ND	0.20	0.026	µg/L	1		SW-846 6020B	10/31/21	10/31/21 20:47	QNW
Sodium	33	2.0	0.56	mg/L	1		SW-846 6010D	10/31/21	10/31/21 23:36	QNW
Thallium	ND	0.20	0.067	µg/L	1		SW-846 6020B	10/31/21	10/31/21 20:47	QNW
Vanadium	ND	5.0	3.5	µg/L	1		SW-846 6020B	10/31/21	10/31/21 20:47	QNW
Zinc	18	10	3.4	µg/L	1		SW-846 6020B	10/31/21	10/31/21 20:47	QNW

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Project Location: 1400 N. Royal St, Alexandria, VA Sample Description: Work Order: 21J1856

Date Received: 10/29/2021

Field Sample #: HRP-MW102-211027 Sampled: 10/27/2021 10:45

Sample ID: 21J1856-12

Sample Matrix: Ground Water

Metals Analyses (Dissolved)

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Aluminum	ND	0.050	0.049	mg/L	1		SW-846 6010D	10/31/21	10/31/21 21:24	QNW
Antimony	0.49	1.0	0.20	µg/L	1	J	SW-846 6020B	10/31/21	11/1/21 12:08	QNW
Arsenic	2.5	0.80	0.46	µg/L	1		SW-846 6020B	10/31/21	11/1/21 12:08	QNW
Barium	56	10	1.2	µg/L	1		SW-846 6020B	10/31/21	11/1/21 12:08	QNW
Beryllium	ND	0.40	0.066	µg/L	1		SW-846 6020B	10/31/21	11/1/21 13:06	QNW
Cadmium	0.12	0.20	0.027	µg/L	1	J	SW-846 6020B	10/31/21	11/1/21 12:08	QNW
Calcium	17	0.50	0.11	mg/L	1		SW-846 6010D	10/31/21	10/31/21 21:24	QNW
Chromium	ND	1.0	0.92	µg/L	1		SW-846 6020B	10/31/21	11/1/21 12:08	QNW
Cobalt	6.6	1.0	0.14	µg/L	1		SW-846 6020B	10/31/21	11/1/21 12:08	QNW
Copper	2.2	1.0	0.27	µg/L	1		SW-846 6020B	10/31/21	11/1/21 13:06	QNW
Iron	3.1	0.050	0.032	mg/L	1		SW-846 6010D	10/31/21	10/31/21 21:24	QNW
Lead	ND	0.50	0.14	µg/L	1		SW-846 6020B	10/31/21	11/1/21 12:08	QNW
Magnesium	7.9	0.050	0.023	mg/L	1		SW-846 6010D	10/31/21	10/31/21 21:24	QNW
Manganese	1800	10	2.4	µg/L	10		SW-846 6020B	10/31/21	11/1/21 14:02	QNW
Mercury	ND	0.00010	0.000050	mg/L	1		SW-846 7470A	11/1/21	11/2/21 8:59	DRL
Nickel	12	5.0	0.52	µg/L	1		SW-846 6020B	10/31/21	11/1/21 12:08	QNW
Potassium	6.2	2.0	0.40	mg/L	1		SW-846 6010D	10/31/21	10/31/21 21:24	QNW
Selenium	1.9	5.0	0.78	µg/L	1	J	SW-846 6020B	10/31/21	11/1/21 13:06	QNW
Silver	ND	0.20	0.026	µg/L	1		SW-846 6020B	10/31/21	11/1/21 12:08	QNW
Sodium	29	2.0	0.56	mg/L	1		SW-846 6010D	10/31/21	10/31/21 21:24	QNW
Thallium	ND	0.20	0.067	µg/L	1		SW-846 6020B	10/31/21	11/1/21 12:08	QNW
Vanadium	ND	5.0	3.5	µg/L	1		SW-846 6020B	10/31/21	11/1/21 12:08	QNW
Zinc	17	10	3.4	µg/L	1		SW-846 6020B	10/31/21	11/1/21 12:08	QNW

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39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: 1400 N. Royal St, Alexandria, VA Sample Description: Work Order: 21J1856

Date Received: 10/29/2021

Field Sample #: HRP-MW102-211027 Sampled: 10/27/2021 10:45

Sample ID: 21J1856-12

Sample Matrix: Ground Water

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Ammonia as N	0.12	0.10	0.056	mg/L	1		EPA 350.1	11/3/21	11/4/21 14:37	MMH
Sulfate	110	10	6.0	mg/L	10		ASTM D516-16	11/2/21	11/2/21 10:56	MMH

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39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: 1400 N. Royal St, Alexandria, VA Sample Description: Work Order: 21J1856

Date Received: 10/29/2021

Field Sample #: HRP-TB09-211025 Sampled: 10/25/2021 12:30

Sample ID: 21J1856-13

Sample Matrix: Ground Water

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acetone	ND	50	2.4	µg/L	1		SW-846 8260D	11/1/21	11/1/21 12:43	MFF
Acrylonitrile	ND	5.0	0.69	µg/L	1		SW-846 8260D	11/1/21	11/1/21 12:43	MFF
tert-Amyl Methyl Ether (TAME)	ND	0.50	0.15	µg/L	1		SW-846 8260D	11/1/21	11/1/21 12:43	MFF
Benzene	ND	1.0	0.13	µg/L	1		SW-846 8260D	11/1/21	11/1/21 12:43	MFF
Bromobenzene	ND	1.0	0.13	µg/L	1		SW-846 8260D	11/1/21	11/1/21 12:43	MFF
Bromochloromethane	ND	1.0	0.36	µg/L	1		SW-846 8260D	11/1/21	11/1/21 12:43	MFF
Bromodichloromethane	ND	0.50	0.14	µg/L	1		SW-846 8260D	11/1/21	11/1/21 12:43	MFF
Bromoform	ND	1.0	0.29	µg/L	1		SW-846 8260D	11/1/21	11/1/21 12:43	MFF
Bromomethane	ND	2.0	1.1	µg/L	1		SW-846 8260D	11/1/21	11/1/21 12:43	MFF
2-Butanone (MEK)	ND	20	1.9	µg/L	1		SW-846 8260D	11/1/21	11/1/21 12:43	MFF
tert-Butyl Alcohol (TBA)	ND	20	5.3	µg/L	1		SW-846 8260D	11/1/21	11/1/21 12:43	MFF
n-Butylbenzene	ND	1.0	0.14	µg/L	1		SW-846 8260D	11/1/21	11/1/21 12:43	MFF
sec-Butylbenzene	ND	1.0	0.10	µg/L	1		SW-846 8260D	11/1/21	11/1/21 12:43	MFF
tert-Butylbenzene	ND	1.0	0.090	µg/L	1		SW-846 8260D	11/1/21	11/1/21 12:43	MFF
tert-Butyl Ethyl Ether (TBEE)	ND	0.50	0.11	µg/L	1		SW-846 8260D	11/1/21	11/1/21 12:43	MFF
Carbon Disulfide	ND	5.0	1.5	µg/L	1		SW-846 8260D	11/1/21	11/1/21 12:43	MFF
Carbon Tetrachloride	ND	5.0	0.17	µg/L	1		SW-846 8260D	11/1/21	11/1/21 12:43	MFF
Chlorobenzene	ND	1.0	0.080	µg/L	1		SW-846 8260D	11/1/21	11/1/21 12:43	MFF
Chlorodibromomethane	ND	0.50	0.16	µg/L	1		SW-846 8260D	11/1/21	11/1/21 12:43	MFF
Chloroethane	ND	2.0	0.37	µg/L	1		SW-846 8260D	11/1/21	11/1/21 12:43	MFF
Chloroform	ND	2.0	0.19	µg/L	1		SW-846 8260D	11/1/21	11/1/21 12:43	MFF
Chloromethane	ND	2.0	0.38	µg/L	1		SW-846 8260D	11/1/21	11/1/21 12:43	MFF
2-Chlorotoluene	ND	1.0	0.090	µg/L	1		SW-846 8260D	11/1/21	11/1/21 12:43	MFF
4-Chlorotoluene	ND	1.0	0.10	µg/L	1		SW-846 8260D	11/1/21	11/1/21 12:43	MFF
1,2-Dibromo-3-chloropropane (DBCP)	ND	5.0	0.72	µg/L	1		SW-846 8260D	11/1/21	11/1/21 12:43	MFF
1,2-Dibromoethane (EDB)	ND	0.50	0.15	µg/L	1		SW-846 8260D	11/1/21	11/1/21 12:43	MFF
Dibromomethane	ND	1.0	0.29	µg/L	1		SW-846 8260D	11/1/21	11/1/21 12:43	MFF
1,2-Dichlorobenzene	ND	1.0	0.10	µg/L	1		SW-846 8260D	11/1/21	11/1/21 12:43	MFF
1,3-Dichlorobenzene	ND	1.0	0.090	µg/L	1		SW-846 8260D	11/1/21	11/1/21 12:43	MFF
1,4-Dichlorobenzene	ND	1.0	0.11	µg/L	1		SW-846 8260D	11/1/21	11/1/21 12:43	MFF
trans-1,4-Dichloro-2-butene	ND	2.0	1.8	µg/L	1		SW-846 8260D	11/1/21	11/1/21 12:43	MFF
Dichlorodifluoromethane (Freon 12)	ND	2.0	0.20	µg/L	1		SW-846 8260D	11/1/21	11/1/21 12:43	MFF
1,1-Dichloroethane	ND	1.0	0.16	µg/L	1		SW-846 8260D	11/1/21	11/1/21 12:43	MFF
1,2-Dichloroethane	ND	1.0	0.32	µg/L	1		SW-846 8260D	11/1/21	11/1/21 12:43	MFF
1,1-Dichloroethylene	ND	1.0	0.16	µg/L	1		SW-846 8260D	11/1/21	11/1/21 12:43	MFF
cis-1,2-Dichloroethylene	ND	1.0	0.15	µg/L	1		SW-846 8260D	11/1/21	11/1/21 12:43	MFF
trans-1,2-Dichloroethylene	ND	1.0	0.17	µg/L	1		SW-846 8260D	11/1/21	11/1/21 12:43	MFF
1,2-Dichloropropane	ND	1.0	0.18	µg/L	1		SW-846 8260D	11/1/21	11/1/21 12:43	MFF
1,3-Dichloropropane	ND	0.50	0.12	µg/L	1		SW-846 8260D	11/1/21	11/1/21 12:43	MFF
2,2-Dichloropropane	ND	1.0	0.31	µg/L	1		SW-846 8260D	11/1/21	11/1/21 12:43	MFF
1,1-Dichloropropene	ND	2.0	0.26	µg/L	1		SW-846 8260D	11/1/21	11/1/21 12:43	MFF
cis-1,3-Dichloropropene	ND	0.50	0.12	µg/L	1		SW-846 8260D	11/1/21	11/1/21 12:43	MFF
trans-1,3-Dichloropropene	ND	0.50	0.15	µg/L	1		SW-846 8260D	11/1/21	11/1/21 12:43	MFF
Diethyl Ether	ND	2.0	0.22	µg/L	1		SW-846 8260D	11/1/21	11/1/21 12:43	MFF

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39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: 1400 N. Royal St, Alexandria, VA Sample Description: Work Order: 21J1856

Date Received: 10/29/2021

Field Sample #: HRP-TB09-211025 Sampled: 10/25/2021 12:30

Sample ID: 21J1856-13

Sample Matrix: Ground Water

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Diisopropyl Ether (DIPE)	ND	0.50	0.15	µg/L	1		SW-846 8260D	11/1/21	11/1/21 12:43	MFF
1,4-Dioxane	ND	50	22	µg/L	1		SW-846 8260D	11/1/21	11/1/21 12:43	MFF
Ethylbenzene	ND	1.0	0.090	µg/L	1		SW-846 8260D	11/1/21	11/1/21 12:43	MFF
Hexachlorobutadiene	ND	0.60	0.41	µg/L	1		SW-846 8260D	11/1/21	11/1/21 12:43	MFF
2-Hexanone (MBK)	ND	10	1.4	µg/L	1		SW-846 8260D	11/1/21	11/1/21 12:43	MFF
Isopropylbenzene (Cumene)	ND	1.0	0.10	µg/L	1		SW-846 8260D	11/1/21	11/1/21 12:43	MFF
p-Isopropyltoluene (p-Cymene)	ND	1.0	0.090	µg/L	1		SW-846 8260D	11/1/21	11/1/21 12:43	MFF
Methyl Acetate	ND	1.0	0.39	µg/L	1		SW-846 8260D	11/1/21	11/1/21 12:43	MFF
Methyl tert-Butyl Ether (MTBE)	ND	1.0	0.17	µg/L	1		SW-846 8260D	11/1/21	11/1/21 12:43	MFF
Methyl Cyclohexane	ND	1.0	0.33	µg/L	1		SW-846 8260D	11/1/21	11/1/21 12:43	MFF
Methylene Chloride	ND	5.0	0.30	µg/L	1		SW-846 8260D	11/1/21	11/1/21 12:43	MFF
4-Methyl-2-pentanone (MIBK)	ND	10	1.6	µg/L	1		SW-846 8260D	11/1/21	11/1/21 12:43	MFF
Naphthalene	ND	2.0	0.15	µg/L	1	V-05	SW-846 8260D	11/1/21	11/1/21 12:43	MFF
n-Propylbenzene	ND	1.0	0.080	µg/L	1		SW-846 8260D	11/1/21	11/1/21 12:43	MFF
Styrene	ND	1.0	0.080	µg/L	1		SW-846 8260D	11/1/21	11/1/21 12:43	MFF
1,1,1,2-Tetrachloroethane	ND	1.0	0.14	µg/L	1		SW-846 8260D	11/1/21	11/1/21 12:43	MFF
1,1,2,2-Tetrachloroethane	ND	0.50	0.090	µg/L	1		SW-846 8260D	11/1/21	11/1/21 12:43	MFF
Tetrachloroethylene	ND	1.0	0.20	µg/L	1		SW-846 8260D	11/1/21	11/1/21 12:43	MFF
Tetrahydrofuran	ND	10	0.58	µg/L	1		SW-846 8260D	11/1/21	11/1/21 12:43	MFF
Toluene	ND	1.0	0.11	µg/L	1		SW-846 8260D	11/1/21	11/1/21 12:43	MFF
1,2,3-Trichlorobenzene	ND	5.0	0.14	µg/L	1	V-05	SW-846 8260D	11/1/21	11/1/21 12:43	MFF
1,2,4-Trichlorobenzene	ND	1.0	0.16	µg/L	1	V-05	SW-846 8260D	11/1/21	11/1/21 12:43	MFF
1,3,5-Trichlorobenzene	ND	1.0	0.18	µg/L	1		SW-846 8260D	11/1/21	11/1/21 12:43	MFF
1,1,1-Trichloroethane	ND	1.0	0.17	µg/L	1		SW-846 8260D	11/1/21	11/1/21 12:43	MFF
1,1,2-Trichloroethane	ND	1.0	0.15	µg/L	1		SW-846 8260D	11/1/21	11/1/21 12:43	MFF
Trichloroethylene	ND	1.0	0.18	µg/L	1		SW-846 8260D	11/1/21	11/1/21 12:43	MFF
Trichlorofluoromethane (Freon 11)	ND	2.0	0.19	µg/L	1		SW-846 8260D	11/1/21	11/1/21 12:43	MFF
1,2,3-Trichloropropane	ND	2.0	0.31	µg/L	1		SW-846 8260D	11/1/21	11/1/21 12:43	MFF
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	1.0	0.24	µg/L	1		SW-846 8260D	11/1/21	11/1/21 12:43	MFF
1,2,4-Trimethylbenzene	ND	1.0	0.10	µg/L	1		SW-846 8260D	11/1/21	11/1/21 12:43	MFF
1,3,5-Trimethylbenzene	ND	1.0	0.10	µg/L	1		SW-846 8260D	11/1/21	11/1/21 12:43	MFF
Vinyl Chloride	ND	2.0	0.20	µg/L	1		SW-846 8260D	11/1/21	11/1/21 12:43	MFF
m+p Xylene	ND	2.0	0.18	µg/L	1		SW-846 8260D	11/1/21	11/1/21 12:43	MFF
o-Xylene	ND	1.0	0.090	µg/L	1		SW-846 8260D	11/1/21	11/1/21 12:43	MFF

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
1,2-Dichloroethane-d4	105	70-130		11/1/21 12:43
Toluene-d8	105	70-130		11/1/21 12:43
4-Bromofluorobenzene	104	70-130		11/1/21 12:43

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39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: 1400 N. Royal St, Alexandria, VA Sample Description: Work Order: 21J1856

Date Received: 10/29/2021

Field Sample #: Trip Blank Sampled: 10/25/2021 00:00

Sample ID: 21J1856-14

Sample Matrix: Ground Water

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acetone	ND	50	2.4	µg/L	1		SW-846 8260D	11/3/21	11/3/21 12:05	MFF
Acrylonitrile	ND	5.0	0.69	µg/L	1		SW-846 8260D	11/3/21	11/3/21 12:05	MFF
tert-Amyl Methyl Ether (TAME)	ND	0.50	0.15	µg/L	1		SW-846 8260D	11/3/21	11/3/21 12:05	MFF
Benzene	ND	1.0	0.13	µg/L	1		SW-846 8260D	11/3/21	11/3/21 12:05	MFF
Bromobenzene	ND	1.0	0.13	µg/L	1		SW-846 8260D	11/3/21	11/3/21 12:05	MFF
Bromochloromethane	ND	1.0	0.36	µg/L	1		SW-846 8260D	11/3/21	11/3/21 12:05	MFF
Bromodichloromethane	ND	0.50	0.14	µg/L	1		SW-846 8260D	11/3/21	11/3/21 12:05	MFF
Bromoform	ND	1.0	0.29	µg/L	1		SW-846 8260D	11/3/21	11/3/21 12:05	MFF
Bromomethane	ND	2.0	1.1	µg/L	1		SW-846 8260D	11/3/21	11/3/21 12:05	MFF
2-Butanone (MEK)	ND	20	1.9	µg/L	1		SW-846 8260D	11/3/21	11/3/21 12:05	MFF
tert-Butyl Alcohol (TBA)	ND	20	5.3	µg/L	1		SW-846 8260D	11/3/21	11/3/21 12:05	MFF
n-Butylbenzene	ND	1.0	0.14	µg/L	1		SW-846 8260D	11/3/21	11/3/21 12:05	MFF
sec-Butylbenzene	ND	1.0	0.10	µg/L	1		SW-846 8260D	11/3/21	11/3/21 12:05	MFF
tert-Butylbenzene	ND	1.0	0.090	µg/L	1		SW-846 8260D	11/3/21	11/3/21 12:05	MFF
tert-Butyl Ethyl Ether (TBEE)	ND	0.50	0.11	µg/L	1		SW-846 8260D	11/3/21	11/3/21 12:05	MFF
Carbon Disulfide	ND	5.0	1.5	µg/L	1		SW-846 8260D	11/3/21	11/3/21 12:05	MFF
Carbon Tetrachloride	ND	5.0	0.17	µg/L	1		SW-846 8260D	11/3/21	11/3/21 12:05	MFF
Chlorobenzene	ND	1.0	0.080	µg/L	1		SW-846 8260D	11/3/21	11/3/21 12:05	MFF
Chlorodibromomethane	ND	0.50	0.16	µg/L	1		SW-846 8260D	11/3/21	11/3/21 12:05	MFF
Chloroethane	ND	2.0	0.37	µg/L	1		SW-846 8260D	11/3/21	11/3/21 12:05	MFF
Chloroform	ND	2.0	0.19	µg/L	1		SW-846 8260D	11/3/21	11/3/21 12:05	MFF
Chloromethane	ND	2.0	0.38	µg/L	1		SW-846 8260D	11/3/21	11/3/21 12:05	MFF
2-Chlorotoluene	ND	1.0	0.090	µg/L	1		SW-846 8260D	11/3/21	11/3/21 12:05	MFF
4-Chlorotoluene	ND	1.0	0.10	µg/L	1		SW-846 8260D	11/3/21	11/3/21 12:05	MFF
1,2-Dibromo-3-chloropropane (DBCP)	ND	5.0	0.72	µg/L	1		SW-846 8260D	11/3/21	11/3/21 12:05	MFF
1,2-Dibromoethane (EDB)	ND	0.50	0.15	µg/L	1		SW-846 8260D	11/3/21	11/3/21 12:05	MFF
Dibromomethane	ND	1.0	0.29	µg/L	1		SW-846 8260D	11/3/21	11/3/21 12:05	MFF
1,2-Dichlorobenzene	ND	1.0	0.10	µg/L	1		SW-846 8260D	11/3/21	11/3/21 12:05	MFF
1,3-Dichlorobenzene	ND	1.0	0.090	µg/L	1		SW-846 8260D	11/3/21	11/3/21 12:05	MFF
1,4-Dichlorobenzene	ND	1.0	0.11	µg/L	1		SW-846 8260D	11/3/21	11/3/21 12:05	MFF
trans-1,4-Dichloro-2-butene	ND	2.0	1.8	µg/L	1		SW-846 8260D	11/3/21	11/3/21 12:05	MFF
Dichlorodifluoromethane (Freon 12)	ND	2.0	0.20	µg/L	1		SW-846 8260D	11/3/21	11/3/21 12:05	MFF
1,1-Dichloroethane	ND	1.0	0.16	µg/L	1		SW-846 8260D	11/3/21	11/3/21 12:05	MFF
1,2-Dichloroethane	ND	1.0	0.32	µg/L	1		SW-846 8260D	11/3/21	11/3/21 12:05	MFF
1,1-Dichloroethylene	ND	1.0	0.16	µg/L	1		SW-846 8260D	11/3/21	11/3/21 12:05	MFF
cis-1,2-Dichloroethylene	ND	1.0	0.15	µg/L	1		SW-846 8260D	11/3/21	11/3/21 12:05	MFF
trans-1,2-Dichloroethylene	ND	1.0	0.17	µg/L	1		SW-846 8260D	11/3/21	11/3/21 12:05	MFF
1,2-Dichloropropane	ND	1.0	0.18	µg/L	1		SW-846 8260D	11/3/21	11/3/21 12:05	MFF
1,3-Dichloropropane	ND	0.50	0.12	µg/L	1		SW-846 8260D	11/3/21	11/3/21 12:05	MFF
2,2-Dichloropropane	ND	1.0	0.31	µg/L	1		SW-846 8260D	11/3/21	11/3/21 12:05	MFF
1,1-Dichloropropene	ND	2.0	0.26	µg/L	1		SW-846 8260D	11/3/21	11/3/21 12:05	MFF
cis-1,3-Dichloropropene	ND	0.50	0.12	µg/L	1		SW-846 8260D	11/3/21	11/3/21 12:05	MFF
trans-1,3-Dichloropropene	ND	0.50	0.15	µg/L	1		SW-846 8260D	11/3/21	11/3/21 12:05	MFF
Diethyl Ether	ND	2.0	0.22	µg/L	1		SW-846 8260D	11/3/21	11/3/21 12:05	MFF

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Project Location: 1400 N. Royal St, Alexandria, VA Sample Description: Work Order: 21J1856

Date Received: 10/29/2021

Field Sample #: Trip Blank Sampled: 10/25/2021 00:00

Sample ID: 21J1856-14

Sample Matrix: Ground Water

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Diisopropyl Ether (DIPE)	ND	0.50	0.15	µg/L	1		SW-846 8260D	11/3/21	11/3/21 12:05	MFF
1,4-Dioxane	ND	50	22	µg/L	1		SW-846 8260D	11/3/21	11/3/21 12:05	MFF
Ethylbenzene	ND	1.0	0.090	µg/L	1		SW-846 8260D	11/3/21	11/3/21 12:05	MFF
Hexachlorobutadiene	ND	0.60	0.41	µg/L	1		SW-846 8260D	11/3/21	11/3/21 12:05	MFF
2-Hexanone (MBK)	ND	10	1.4	µg/L	1		SW-846 8260D	11/3/21	11/3/21 12:05	MFF
Isopropylbenzene (Cumene)	ND	1.0	0.10	µg/L	1		SW-846 8260D	11/3/21	11/3/21 12:05	MFF
p-Isopropyltoluene (p-Cymene)	ND	1.0	0.090	µg/L	1		SW-846 8260D	11/3/21	11/3/21 12:05	MFF
Methyl Acetate	ND	1.0	0.39	µg/L	1		SW-846 8260D	11/3/21	11/3/21 12:05	MFF
Methyl tert-Butyl Ether (MTBE)	ND	1.0	0.17	µg/L	1		SW-846 8260D	11/3/21	11/3/21 12:05	MFF
Methyl Cyclohexane	ND	1.0	0.33	µg/L	1		SW-846 8260D	11/3/21	11/3/21 12:05	MFF
Methylene Chloride	ND	5.0	0.30	µg/L	1		SW-846 8260D	11/3/21	11/3/21 12:05	MFF
4-Methyl-2-pentanone (MIBK)	ND	10	1.6	µg/L	1		SW-846 8260D	11/3/21	11/3/21 12:05	MFF
Naphthalene	ND	2.0	0.15	µg/L	1	V-05	SW-846 8260D	11/3/21	11/3/21 12:05	MFF
n-Propylbenzene	ND	1.0	0.080	µg/L	1		SW-846 8260D	11/3/21	11/3/21 12:05	MFF
Styrene	ND	1.0	0.080	µg/L	1		SW-846 8260D	11/3/21	11/3/21 12:05	MFF
1,1,1,2-Tetrachloroethane	ND	1.0	0.14	µg/L	1		SW-846 8260D	11/3/21	11/3/21 12:05	MFF
1,1,2,2-Tetrachloroethane	ND	0.50	0.090	µg/L	1		SW-846 8260D	11/3/21	11/3/21 12:05	MFF
Tetrachloroethylene	ND	1.0	0.20	µg/L	1		SW-846 8260D	11/3/21	11/3/21 12:05	MFF
Tetrahydrofuran	ND	10	0.58	µg/L	1		SW-846 8260D	11/3/21	11/3/21 12:05	MFF
Toluene	ND	1.0	0.11	µg/L	1		SW-846 8260D	11/3/21	11/3/21 12:05	MFF
1,2,3-Trichlorobenzene	ND	5.0	0.14	µg/L	1	V-05	SW-846 8260D	11/3/21	11/3/21 12:05	MFF
1,2,4-Trichlorobenzene	ND	1.0	0.16	µg/L	1	V-05	SW-846 8260D	11/3/21	11/3/21 12:05	MFF
1,3,5-Trichlorobenzene	ND	1.0	0.18	µg/L	1		SW-846 8260D	11/3/21	11/3/21 12:05	MFF
1,1,1-Trichloroethane	ND	1.0	0.17	µg/L	1		SW-846 8260D	11/3/21	11/3/21 12:05	MFF
1,1,2-Trichloroethane	ND	1.0	0.15	µg/L	1		SW-846 8260D	11/3/21	11/3/21 12:05	MFF
Trichloroethylene	ND	1.0	0.18	µg/L	1		SW-846 8260D	11/3/21	11/3/21 12:05	MFF
Trichlorofluoromethane (Freon 11)	ND	2.0	0.19	µg/L	1		SW-846 8260D	11/3/21	11/3/21 12:05	MFF
1,2,3-Trichloropropane	ND	2.0	0.31	µg/L	1		SW-846 8260D	11/3/21	11/3/21 12:05	MFF
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	1.0	0.24	µg/L	1		SW-846 8260D	11/3/21	11/3/21 12:05	MFF
1,2,4-Trimethylbenzene	ND	1.0	0.10	µg/L	1		SW-846 8260D	11/3/21	11/3/21 12:05	MFF
1,3,5-Trimethylbenzene	ND	1.0	0.10	µg/L	1		SW-846 8260D	11/3/21	11/3/21 12:05	MFF
Vinyl Chloride	ND	2.0	0.20	µg/L	1		SW-846 8260D	11/3/21	11/3/21 12:05	MFF
m+p Xylene	ND	2.0	0.18	µg/L	1		SW-846 8260D	11/3/21	11/3/21 12:05	MFF
o-Xylene	ND	1.0	0.090	µg/L	1		SW-846 8260D	11/3/21	11/3/21 12:05	MFF

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
1,2-Dichloroethane-d4	105	70-130		11/3/21 12:05
Toluene-d8	104	70-130		11/3/21 12:05
4-Bromofluorobenzene	101	70-130		11/3/21 12:05

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Project Location: 1400 N. Royal St, Alexandria, VA Sample Description: Work Order: 21J1856

Date Received: 10/29/2021

Field Sample #: Trip Blank Sampled: 10/25/2021 00:00

Sample ID: 21J1856-14

Sample Matrix: Ground Water

Petroleum Hydrocarbons Analyses

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Gasoline Range Organics (GRO)	ND	0.010	0.0094	mg/L	1		SW-846 8015C	11/2/21	11/3/21 9:22	KMB

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
1-Chloro-3-fluorobenzene	106	70-130		11/3/21 9:22

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Sample Extraction Data

ASTM D516-16

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
21J1856-01 [HRP-MW214-211026]	B293753	10.0	10.0	11/02/21
21J1856-02 [HRP-MW208-211026]	B293753	10.0	10.0	11/02/21
21J1856-03 [HRP-MW207-211026]	B293753	10.0	10.0	11/02/21
21J1856-07 [HRP-MW202-211026]	B293753	10.0	10.0	11/02/21
21J1856-08 [HRP-DUP05-211026]	B293753	10.0	10.0	11/02/21
21J1856-09 [HRP-MW205-211026]	B293753	10.0	10.0	11/02/21
21J1856-10 [HRP-MW206-211026]	B293753	10.0	10.0	11/02/21
21J1856-12 [HRP-MW102-211027]	B293753	10.0	10.0	11/02/21

ASTM D516-16

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
21J1856-06 [HRP-MW201-211025]	B294057	10.0	10.0	11/05/21

EPA 350.1

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
21J1856-06 [HRP-MW201-211025]	B293898	50.0	50.0	11/03/21
21J1856-07 [HRP-MW202-211026]	B293898	50.0	50.0	11/03/21
21J1856-08 [HRP-DUP05-211026]	B293898	50.0	50.0	11/03/21
21J1856-12 [HRP-MW102-211027]	B293898	50.0	50.0	11/03/21

EPA 350.1

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
21J1856-09 [HRP-MW205-211026]	B294542	100	100	11/12/21

Prep Method: SW-846 3005A Dissolved **Analytical Method: SW-846 6010D**

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
21J1856-01 [HRP-MW214-211026]	B293656	50.0	50.0	10/31/21
21J1856-02 [HRP-MW208-211026]	B293656	50.0	50.0	10/31/21
21J1856-03 [HRP-MW207-211026]	B293656	50.0	50.0	10/31/21
21J1856-06 [HRP-MW201-211025]	B293656	50.0	50.0	10/31/21
21J1856-07 [HRP-MW202-211026]	B293656	50.0	50.0	10/31/21
21J1856-08 [HRP-DUP05-211026]	B293656	50.0	50.0	10/31/21
21J1856-09 [HRP-MW205-211026]	B293656	50.0	50.0	10/31/21
21J1856-10 [HRP-MW206-211026]	B293656	50.0	50.0	10/31/21
21J1856-12 [HRP-MW102-211027]	B293656	50.0	50.0	10/31/21

Prep Method: SW-846 3005A **Analytical Method: SW-846 6010D**

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
21J1856-01 [HRP-MW214-211026]	B293658	50.0	50.0	10/31/21
21J1856-02 [HRP-MW208-211026]	B293658	50.0	50.0	10/31/21
21J1856-03 [HRP-MW207-211026]	B293658	50.0	50.0	10/31/21
21J1856-06 [HRP-MW201-211025]	B293658	50.0	50.0	10/31/21
21J1856-07 [HRP-MW202-211026]	B293658	50.0	50.0	10/31/21
21J1856-08 [HRP-DUP05-211026]	B293658	50.0	50.0	10/31/21

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Sample Extraction Data

Prep Method: SW-846 3005A **Analytical Method: SW-846 6010D**

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
21J1856-09 [HRP-MW205-211026]	B293658	50.0	50.0	10/31/21
21J1856-10 [HRP-MW206-211026]	B293658	50.0	50.0	10/31/21
21J1856-12 [HRP-MW102-211027]	B293658	50.0	50.0	10/31/21

Prep Method: SW-846 3005A Dissolved **Analytical Method: SW-846 6020B**

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
21J1856-01 [HRP-MW214-211026]	B293655	50.0	50.0	10/31/21
21J1856-02 [HRP-MW208-211026]	B293655	50.0	50.0	10/31/21
21J1856-03 [HRP-MW207-211026]	B293655	50.0	50.0	10/31/21
21J1856-06 [HRP-MW201-211025]	B293655	50.0	50.0	10/31/21
21J1856-07 [HRP-MW202-211026]	B293655	50.0	50.0	10/31/21
21J1856-08 [HRP-DUP05-211026]	B293655	50.0	50.0	10/31/21
21J1856-09 [HRP-MW205-211026]	B293655	50.0	50.0	10/31/21
21J1856-10 [HRP-MW206-211026]	B293655	50.0	50.0	10/31/21
21J1856-12 [HRP-MW102-211027]	B293655	50.0	50.0	10/31/21

Prep Method: SW-846 3005A **Analytical Method: SW-846 6020B**

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
21J1856-01 [HRP-MW214-211026]	B293657	50.0	50.0	10/31/21
21J1856-02 [HRP-MW208-211026]	B293657	50.0	50.0	10/31/21
21J1856-03 [HRP-MW207-211026]	B293657	50.0	50.0	10/31/21
21J1856-06 [HRP-MW201-211025]	B293657	50.0	50.0	10/31/21
21J1856-07 [HRP-MW202-211026]	B293657	50.0	50.0	10/31/21
21J1856-08 [HRP-DUP05-211026]	B293657	50.0	50.0	10/31/21
21J1856-09 [HRP-MW205-211026]	B293657	50.0	50.0	10/31/21
21J1856-10 [HRP-MW206-211026]	B293657	50.0	50.0	10/31/21
21J1856-12 [HRP-MW102-211027]	B293657	50.0	50.0	10/31/21

Prep Method: SW-846 7470A Dissolved **Analytical Method: SW-846 7470A**

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
21J1856-01 [HRP-MW214-211026]	B293727	10.0	10.0	11/01/21
21J1856-02 [HRP-MW208-211026]	B293727	10.0	10.0	11/01/21
21J1856-03 [HRP-MW207-211026]	B293727	10.0	10.0	11/01/21
21J1856-06 [HRP-MW201-211025]	B293727	10.0	10.0	11/01/21
21J1856-07 [HRP-MW202-211026]	B293727	10.0	10.0	11/01/21
21J1856-08 [HRP-DUP05-211026]	B293727	10.0	10.0	11/01/21
21J1856-09 [HRP-MW205-211026]	B293727	10.0	10.0	11/01/21
21J1856-10 [HRP-MW206-211026]	B293727	10.0	10.0	11/01/21
21J1856-12 [HRP-MW102-211027]	B293727	10.0	10.0	11/01/21

Prep Method: SW-846 7470A Prep **Analytical Method: SW-846 7470A**

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
21J1856-01 [HRP-MW214-211026]	B293728	10.0	10.0	11/01/21
21J1856-02 [HRP-MW208-211026]	B293728	10.0	10.0	11/01/21
21J1856-03 [HRP-MW207-211026]	B293728	10.0	10.0	11/01/21
21J1856-06 [HRP-MW201-211025]	B293728	10.0	10.0	11/01/21

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Sample Extraction Data

Prep Method: SW-846 7470A Prep **Analytical Method: SW-846 7470A**

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
21J1856-07 [HRP-MW202-211026]	B293728	10.0	10.0	11/01/21
21J1856-08 [HRP-DUP05-211026]	B293728	10.0	10.0	11/01/21
21J1856-09 [HRP-MW205-211026]	B293728	10.0	10.0	11/01/21
21J1856-10 [HRP-MW206-211026]	B293728	10.0	10.0	11/01/21
21J1856-12 [HRP-MW102-211027]	B293728	10.0	10.0	11/01/21

Prep Method: Alcohol Prep **Analytical Method: SW-846 8015C**

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
21J1856-06 [HRP-MW201-211025]	B293612	1.00	1.00	10/29/21
21J1856-07 [HRP-MW202-211026]	B293612	1.00	1.00	10/29/21
21J1856-08 [HRP-DUP05-211026]	B293612	1.00	1.00	10/29/21
21J1856-12 [HRP-MW102-211027]	B293612	1.00	1.00	10/29/21

Prep Method: SW-846 3510C **Analytical Method: SW-846 8015C**

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
21J1856-01 [HRP-MW214-211026]	B293763	1040	1.00	11/02/21
21J1856-02 [HRP-MW208-211026]	B293763	1040	1.00	11/02/21
21J1856-03 [HRP-MW207-211026]	B293763	1020	1.00	11/02/21
21J1856-09 [HRP-MW205-211026]	B293763	1020	1.00	11/02/21
21J1856-10 [HRP-MW206-211026]	B293763	920	1.00	11/02/21

Prep Method: SW-846 5030B **Analytical Method: SW-846 8015C**

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
21J1856-01 [HRP-MW214-211026]	B293804	5	5.00	11/02/21
21J1856-02 [HRP-MW208-211026]	B293804	5	5.00	11/02/21
21J1856-03 [HRP-MW207-211026]	B293804	5	5.00	11/02/21
21J1856-09 [HRP-MW205-211026]	B293804	5	5.00	11/02/21
21J1856-10 [HRP-MW206-211026]	B293804	5	5.00	11/02/21
21J1856-14 [Trip Blank]	B293804	5	5.00	11/02/21

Prep Method: SW-846 3510C **Analytical Method: SW-846 8082A**

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
21J1856-05 [HRP-MW221-211027]	B293652	880	10.0	10/31/21

Prep Method: SW-846 5030B **Analytical Method: SW-846 8260D**

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
21J1856-01 [HRP-MW214-211026]	B293683	5	5.00	11/01/21
21J1856-02 [HRP-MW208-211026]	B293683	5	5.00	11/01/21
21J1856-03 [HRP-MW207-211026]	B293683	5	5.00	11/01/21
21J1856-04 [HRP-TB11-211026]	B293683	5	5.00	11/01/21
21J1856-05 [HRP-MW221-211027]	B293683	5	5.00	11/01/21
21J1856-06 [HRP-MW201-211025]	B293683	5	5.00	11/01/21
21J1856-07 [HRP-MW202-211026]	B293683	5	5.00	11/01/21
21J1856-08 [HRP-DUP05-211026]	B293683	5	5.00	11/01/21

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Sample Extraction Data

Prep Method: SW-846 5030B **Analytical Method: SW-846 8260D**

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
21J1856-09 [HRP-MW205-211026]	B293683	5	5.00	11/01/21
21J1856-10 [HRP-MW206-211026]	B293683	5	5.00	11/01/21
21J1856-11 [HRP-TB07-211025]	B293683	5	5.00	11/01/21
21J1856-12 [HRP-MW102-211027]	B293683	5	5.00	11/01/21
21J1856-13 [HRP-TB09-211025]	B293683	5	5.00	11/01/21

Prep Method: SW-846 5030B **Analytical Method: SW-846 8260D**

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
21J1856-14 [Trip Blank]	B293865	5	5.00	11/03/21

Prep Method: SW-846 3510C **Analytical Method: SW-846 8270E**

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
21J1856-01 [HRP-MW214-211026]	B293672	1040	1.00	11/01/21
21J1856-03 [HRP-MW207-211026]	B293672	1040	1.00	11/01/21
21J1856-05 [HRP-MW221-211027]	B293672	945	1.00	11/01/21
21J1856-07 [HRP-MW202-211026]	B293672	935	1.00	11/01/21
21J1856-09 [HRP-MW205-211026]	B293672	965	1.00	11/01/21
21J1856-10 [HRP-MW206-211026]	B293672	895	1.00	11/01/21
21J1856-12 [HRP-MW102-211027]	B293672	920	1.00	11/01/21

Prep Method: SW-846 3510C **Analytical Method: SW-846 8270E**

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
21J1856-02 [HRP-MW208-211026]	B293790	1040	1.00	11/02/21
21J1856-08 [HRP-DUP05-211026]	B293790	1040	1.00	11/02/21

Prep Method: SW-846 3510C **Analytical Method: SW-846 8270E**

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
21J1856-06 [HRP-MW201-211025]	B293858	975	1.00	11/03/21

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QUALITY CONTROL

Volatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B293683 - SW-846 5030B										
Blank (B293683-BLK1)				Prepared & Analyzed: 11/01/21						
Acetone	ND	50	µg/L							
Acrylonitrile	ND	5.0	µg/L							
tert-Amyl Methyl Ether (TAME)	ND	0.50	µg/L							
Benzene	ND	1.0	µg/L							
Bromobenzene	ND	1.0	µg/L							
Bromochloromethane	ND	1.0	µg/L							
Bromodichloromethane	ND	0.50	µg/L							
Bromoform	ND	1.0	µg/L							
Bromomethane	ND	2.0	µg/L							
2-Butanone (MEK)	ND	20	µg/L							
tert-Butyl Alcohol (TBA)	ND	20	µg/L							
n-Butylbenzene	ND	1.0	µg/L							
sec-Butylbenzene	ND	1.0	µg/L							
tert-Butylbenzene	ND	1.0	µg/L							
tert-Butyl Ethyl Ether (TBEE)	ND	0.50	µg/L							
Carbon Disulfide	ND	5.0	µg/L							
Carbon Tetrachloride	ND	5.0	µg/L							
Chlorobenzene	ND	1.0	µg/L							
Chlorodibromomethane	ND	0.50	µg/L							
Chloroethane	ND	2.0	µg/L							
Chloroform	ND	2.0	µg/L							
Chloromethane	ND	2.0	µg/L							
2-Chlorotoluene	ND	1.0	µg/L							
4-Chlorotoluene	ND	1.0	µg/L							
1,2-Dibromo-3-chloropropane (DBCP)	ND	5.0	µg/L							
1,2-Dibromoethane (EDB)	ND	0.50	µg/L							
Dibromomethane	ND	1.0	µg/L							
1,2-Dichlorobenzene	ND	1.0	µg/L							
1,3-Dichlorobenzene	ND	1.0	µg/L							
1,4-Dichlorobenzene	ND	1.0	µg/L							
trans-1,4-Dichloro-2-butene	ND	2.0	µg/L							
Dichlorodifluoromethane (Freon 12)	ND	2.0	µg/L							
1,1-Dichloroethane	ND	1.0	µg/L							
1,2-Dichloroethane	ND	1.0	µg/L							
1,1-Dichloroethylene	ND	1.0	µg/L							
cis-1,2-Dichloroethylene	ND	1.0	µg/L							
trans-1,2-Dichloroethylene	ND	1.0	µg/L							
1,2-Dichloropropane	ND	1.0	µg/L							
1,3-Dichloropropane	ND	0.50	µg/L							
2,2-Dichloropropane	ND	1.0	µg/L							
1,1-Dichloropropene	ND	2.0	µg/L							
cis-1,3-Dichloropropene	ND	0.50	µg/L							
trans-1,3-Dichloropropene	ND	0.50	µg/L							
Diethyl Ether	ND	2.0	µg/L							
Diisopropyl Ether (DIPE)	ND	0.50	µg/L							
1,4-Dioxane	ND	50	µg/L							
Ethylbenzene	ND	1.0	µg/L							
Hexachlorobutadiene	ND	0.60	µg/L							
2-Hexanone (MBK)	ND	10	µg/L							
Isopropylbenzene (Cumene)	ND	1.0	µg/L							
p-Isopropyltoluene (p-Cymene)	ND	1.0	µg/L							
Methyl Acetate	ND	1.0	µg/L							

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QUALITY CONTROL

Volatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes	
Batch B293683 - SW-846 5030B											
Blank (B293683-BLK1)				Prepared & Analyzed: 11/01/21							
Methyl tert-Butyl Ether (MTBE)	ND	1.0	µg/L								
Methyl Cyclohexane	ND	1.0	µg/L								
Methylene Chloride	ND	5.0	µg/L								
4-Methyl-2-pentanone (MIBK)	ND	10	µg/L								
Naphthalene	ND	2.0	µg/L							V-05	
n-Propylbenzene	ND	1.0	µg/L								
Styrene	ND	1.0	µg/L								
1,1,1,2-Tetrachloroethane	ND	1.0	µg/L								
1,1,2,2-Tetrachloroethane	ND	0.50	µg/L								
Tetrachloroethylene	ND	1.0	µg/L								
Tetrahydrofuran	ND	10	µg/L								
Toluene	ND	1.0	µg/L								
1,2,3-Trichlorobenzene	ND	5.0	µg/L							V-05	
1,2,4-Trichlorobenzene	ND	1.0	µg/L							V-05	
1,3,5-Trichlorobenzene	ND	1.0	µg/L								
1,1,1-Trichloroethane	ND	1.0	µg/L								
1,1,2-Trichloroethane	ND	1.0	µg/L								
Trichloroethylene	ND	1.0	µg/L								
Trichlorofluoromethane (Freon 11)	ND	2.0	µg/L								
1,2,3-Trichloropropane	ND	2.0	µg/L								
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	1.0	µg/L								
1,2,4-Trimethylbenzene	ND	1.0	µg/L								
1,3,5-Trimethylbenzene	ND	1.0	µg/L								
Vinyl Chloride	ND	2.0	µg/L								
m+p Xylene	ND	2.0	µg/L								
o-Xylene	ND	1.0	µg/L								
Surrogate: 1,2-Dichloroethane-d4	*25.5*		µg/L	25.0		102	70-130				
Surrogate: Toluene-d8	*26.8*		µg/L	25.0		107	70-130				
Surrogate: 4-Bromofluorobenzene	*25.5*		µg/L	25.0		102	70-130				
LCS (B293683-BS1)				Prepared & Analyzed: 11/01/21							
Acetone	95.6	50	µg/L	100		95.6	70-160				†
Acrylonitrile	8.61	5.0	µg/L	10.0		86.1	70-130				
tert-Amyl Methyl Ether (TAME)	9.88	0.50	µg/L	10.0		98.8	70-130				
Benzene	10.6	1.0	µg/L	10.0		106	70-130				
Bromobenzene	9.80	1.0	µg/L	10.0		98.0	70-130				
Bromochloromethane	10.3	1.0	µg/L	10.0		103	70-130				
Bromodichloromethane	10.1	0.50	µg/L	10.0		101	70-130				
Bromoform	9.83	1.0	µg/L	10.0		98.3	70-130				
Bromomethane	10.7	2.0	µg/L	10.0		107	40-160				†
2-Butanone (MEK)	91.3	20	µg/L	100		91.3	40-160				†
tert-Butyl Alcohol (TBA)	84.9	20	µg/L	100		84.9	40-160				†
n-Butylbenzene	8.93	1.0	µg/L	10.0		89.3	70-130				
sec-Butylbenzene	9.68	1.0	µg/L	10.0		96.8	70-130				
tert-Butylbenzene	10.1	1.0	µg/L	10.0		101	70-130				
tert-Butyl Ethyl Ether (TBEE)	9.80	0.50	µg/L	10.0		98.0	70-130				
Carbon Disulfide	93.9	5.0	µg/L	100		93.9	70-130				
Carbon Tetrachloride	9.72	5.0	µg/L	10.0		97.2	70-130				
Chlorobenzene	10.6	1.0	µg/L	10.0		106	70-130				
Chlorodibromomethane	10.5	0.50	µg/L	10.0		105	70-130				
Chloroethane	11.3	2.0	µg/L	10.0		113	70-130				
Chloroform	10.1	2.0	µg/L	10.0		101	70-130				

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QUALITY CONTROL

Volatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC		%REC Limits	RPD	RPD Limit	Notes	
Batch B293683 - SW-846 5030B												
LCS (B293683-BS1)				Prepared & Analyzed: 11/01/21								
Chloromethane	10.6	2.0	µg/L	10.0		106		40-160				†
2-Chlorotoluene	9.90	1.0	µg/L	10.0		99.0		70-130				
4-Chlorotoluene	9.87	1.0	µg/L	10.0		98.7		70-130				
1,2-Dibromo-3-chloropropane (DBCP)	8.35	5.0	µg/L	10.0		83.5		70-130				
1,2-Dibromoethane (EDB)	10.1	0.50	µg/L	10.0		101		70-130				
Dibromomethane	10.3	1.0	µg/L	10.0		103		70-130				
1,2-Dichlorobenzene	10.3	1.0	µg/L	10.0		103		70-130				
1,3-Dichlorobenzene	10.2	1.0	µg/L	10.0		102		70-130				
1,4-Dichlorobenzene	9.98	1.0	µg/L	10.0		99.8		70-130				
trans-1,4-Dichloro-2-butene	9.83	2.0	µg/L	10.0		98.3		70-130				
Dichlorodifluoromethane (Freon 12)	10.1	2.0	µg/L	10.0		101		40-160				†
1,1-Dichloroethane	10.1	1.0	µg/L	10.0		101		70-130				
1,2-Dichloroethane	9.83	1.0	µg/L	10.0		98.3		70-130				
1,1-Dichloroethylene	10.2	1.0	µg/L	10.0		102		70-130				
cis-1,2-Dichloroethylene	10.2	1.0	µg/L	10.0		102		70-130				
trans-1,2-Dichloroethylene	9.67	1.0	µg/L	10.0		96.7		70-130				
1,2-Dichloropropane	10.3	1.0	µg/L	10.0		103		70-130				
1,3-Dichloropropane	9.77	0.50	µg/L	10.0		97.7		70-130				
2,2-Dichloropropane	9.78	1.0	µg/L	10.0		97.8		40-130				†
1,1-Dichloropropene	9.51	2.0	µg/L	10.0		95.1		70-130				
cis-1,3-Dichloropropene	10.3	0.50	µg/L	10.0		103		70-130				
trans-1,3-Dichloropropene	9.63	0.50	µg/L	10.0		96.3		70-130				
Diethyl Ether	9.62	2.0	µg/L	10.0		96.2		70-130				
Diisopropyl Ether (DIPE)	9.73	0.50	µg/L	10.0		97.3		70-130				
1,4-Dioxane	82.6	50	µg/L	100		82.6		40-130				†
Ethylbenzene	10.3	1.0	µg/L	10.0		103		70-130				
Hexachlorobutadiene	9.53	0.60	µg/L	10.0		95.3		70-130				
2-Hexanone (MBK)	90.2	10	µg/L	100		90.2		70-160				†
Isopropylbenzene (Cumene)	10.2	1.0	µg/L	10.0		102		70-130				
p-Isopropyltoluene (p-Cymene)	9.44	1.0	µg/L	10.0		94.4		70-130				
Methyl Acetate	9.98	1.0	µg/L	10.0		99.8		70-130				
Methyl tert-Butyl Ether (MTBE)	9.58	1.0	µg/L	10.0		95.8		70-130				
Methyl Cyclohexane	8.85	1.0	µg/L	10.0		88.5		70-130				
Methylene Chloride	10.1	5.0	µg/L	10.0		101		70-130				
4-Methyl-2-pentanone (MIBK)	95.9	10	µg/L	100		95.9		70-160				†
Naphthalene	5.73	2.0	µg/L	10.0		57.3		40-130			V-05	†
n-Propylbenzene	9.72	1.0	µg/L	10.0		97.2		70-130				
Styrene	10.2	1.0	µg/L	10.0		102		70-130				
1,1,1,2-Tetrachloroethane	10.5	1.0	µg/L	10.0		105		70-130				
1,1,2,2-Tetrachloroethane	10.4	0.50	µg/L	10.0		104		70-130				
Tetrachloroethylene	10.4	1.0	µg/L	10.0		104		70-130				
Tetrahydrofuran	9.03	10	µg/L	10.0		90.3		70-130			J	
Toluene	10.7	1.0	µg/L	10.0		107		70-130				
1,2,3-Trichlorobenzene	6.82	5.0	µg/L	10.0		**68.2**	*	70-130			L-07, V-05	
1,2,4-Trichlorobenzene	7.63	1.0	µg/L	10.0		76.3		70-130			V-05	
1,3,5-Trichlorobenzene	8.64	1.0	µg/L	10.0		86.4		70-130				
1,1,1-Trichloroethane	10.1	1.0	µg/L	10.0		101		70-130				
1,1,2-Trichloroethane	10.5	1.0	µg/L	10.0		105		70-130				
Trichloroethylene	10.2	1.0	µg/L	10.0		102		70-130				
Trichlorofluoromethane (Freon 11)	10.1	2.0	µg/L	10.0		101		70-130				
1,2,3-Trichloropropane	8.89	2.0	µg/L	10.0		88.9		70-130				

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QUALITY CONTROL

Volatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B293683 - SW-846 5030B										
LCS (B293683-BS1)				Prepared & Analyzed: 11/01/21						
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	9.54	1.0	µg/L	10.0		95.4	70-130			
1,2,4-Trimethylbenzene	10.2	1.0	µg/L	10.0		102	70-130			
1,3,5-Trimethylbenzene	9.74	1.0	µg/L	10.0		97.4	70-130			
Vinyl Chloride	10.9	2.0	µg/L	10.0		109	40-160			†
m+p Xylene	21.1	2.0	µg/L	20.0		105	70-130			
o-Xylene	10.8	1.0	µg/L	10.0		108	70-130			
Surrogate: 1,2-Dichloroethane-d4	*25.9*		µg/L	25.0		104	70-130			
Surrogate: Toluene-d8	*26.7*		µg/L	25.0		107	70-130			
Surrogate: 4-Bromofluorobenzene	*26.4*		µg/L	25.0		105	70-130			
LCS Dup (B293683-BSD1)				Prepared & Analyzed: 11/01/21						
Acetone	104	50	µg/L	100		104	70-160	8.23	25	†
Acrylonitrile	9.02	5.0	µg/L	10.0		90.2	70-130	4.65	25	
tert-Amyl Methyl Ether (TAME)	10.6	0.50	µg/L	10.0		106	70-130	6.94	25	
Benzene	11.0	1.0	µg/L	10.0		110	70-130	3.15	25	
Bromobenzene	10.5	1.0	µg/L	10.0		105	70-130	6.71	25	
Bromochloromethane	11.2	1.0	µg/L	10.0		112	70-130	8.07	25	
Bromodichloromethane	11.4	0.50	µg/L	10.0		114	70-130	11.6	25	
Bromoform	10.4	1.0	µg/L	10.0		104	70-130	5.15	25	
Bromomethane	11.5	2.0	µg/L	10.0		115	40-160	7.23	25	†
2-Butanone (MEK)	100	20	µg/L	100		100	40-160	9.04	25	†
tert-Butyl Alcohol (TBA)	93.4	20	µg/L	100		93.4	40-160	9.60	25	†
n-Butylbenzene	9.47	1.0	µg/L	10.0		94.7	70-130	5.87	25	
sec-Butylbenzene	10.2	1.0	µg/L	10.0		102	70-130	5.33	25	
tert-Butylbenzene	10.7	1.0	µg/L	10.0		107	70-130	5.49	25	
tert-Butyl Ethyl Ether (TBEE)	10.4	0.50	µg/L	10.0		104	70-130	6.13	25	
Carbon Disulfide	101	5.0	µg/L	100		101	70-130	7.67	25	
Carbon Tetrachloride	10.8	5.0	µg/L	10.0		108	70-130	10.9	25	
Chlorobenzene	11.0	1.0	µg/L	10.0		110	70-130	4.26	25	
Chlorodibromomethane	11.5	0.50	µg/L	10.0		115	70-130	8.84	25	
Chloroethane	12.1	2.0	µg/L	10.0		121	70-130	7.52	25	
Chloroform	11.2	2.0	µg/L	10.0		112	70-130	9.93	25	
Chloromethane	11.3	2.0	µg/L	10.0		113	40-160	6.32	25	†
2-Chlorotoluene	10.6	1.0	µg/L	10.0		106	70-130	7.11	25	
4-Chlorotoluene	10.4	1.0	µg/L	10.0		104	70-130	4.75	25	
1,2-Dibromo-3-chloropropane (DBCP)	9.47	5.0	µg/L	10.0		94.7	70-130	12.6	25	
1,2-Dibromoethane (EDB)	10.9	0.50	µg/L	10.0		109	70-130	7.91	25	
Dibromomethane	11.1	1.0	µg/L	10.0		111	70-130	7.38	25	
1,2-Dichlorobenzene	10.8	1.0	µg/L	10.0		108	70-130	5.50	25	
1,3-Dichlorobenzene	10.8	1.0	µg/L	10.0		108	70-130	5.24	25	
1,4-Dichlorobenzene	10.5	1.0	µg/L	10.0		105	70-130	4.89	25	
trans-1,4-Dichloro-2-butene	9.32	2.0	µg/L	10.0		93.2	70-130	5.33	25	
Dichlorodifluoromethane (Freon 12)	10.6	2.0	µg/L	10.0		106	40-160	4.73	25	†
1,1-Dichloroethane	10.9	1.0	µg/L	10.0		109	70-130	6.96	25	
1,2-Dichloroethane	10.3	1.0	µg/L	10.0		103	70-130	4.77	25	
1,1-Dichloroethylene	11.0	1.0	µg/L	10.0		110	70-130	7.71	25	
cis-1,2-Dichloroethylene	11.0	1.0	µg/L	10.0		110	70-130	8.04	25	
trans-1,2-Dichloroethylene	10.3	1.0	µg/L	10.0		103	70-130	6.70	25	
1,2-Dichloropropane	11.1	1.0	µg/L	10.0		111	70-130	7.94	25	
1,3-Dichloropropane	10.8	0.50	µg/L	10.0		108	70-130	10.3	25	
2,2-Dichloropropane	10.5	1.0	µg/L	10.0		105	40-130	7.29	25	†
1,1-Dichloropropene	10.2	2.0	µg/L	10.0		102	70-130	7.39	25	

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QUALITY CONTROL

Volatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes	
Batch B293683 - SW-846 5030B											
LCS Dup (B293683-BSD1)				Prepared & Analyzed: 11/01/21							
cis-1,3-Dichloropropene	11.2	0.50	µg/L	10.0		112	70-130	8.73	25		
trans-1,3-Dichloropropene	10.6	0.50	µg/L	10.0		106	70-130	9.21	25		
Diethyl Ether	10.5	2.0	µg/L	10.0		105	70-130	8.37	25		
Diisopropyl Ether (DIPE)	10.4	0.50	µg/L	10.0		104	70-130	7.14	25		
1,4-Dioxane	85.4	50	µg/L	100		85.4	40-130	3.37	50		† ‡
Ethylbenzene	10.5	1.0	µg/L	10.0		105	70-130	2.50	25		
Hexachlorobutadiene	10.4	0.60	µg/L	10.0		104	70-130	8.83	25		
2-Hexanone (MBK)	97.8	10	µg/L	100		97.8	70-160	8.07	25		†
Isopropylbenzene (Cumene)	10.6	1.0	µg/L	10.0		106	70-130	3.95	25		
p-Isopropyltoluene (p-Cymene)	9.96	1.0	µg/L	10.0		99.6	70-130	5.36	25		
Methyl Acetate	10.8	1.0	µg/L	10.0		108	70-130	8.35	25		
Methyl tert-Butyl Ether (MTBE)	10.1	1.0	µg/L	10.0		101	70-130	5.38	25		
Methyl Cyclohexane	9.61	1.0	µg/L	10.0		96.1	70-130	8.23	25		
Methylene Chloride	11.0	5.0	µg/L	10.0		110	70-130	8.73	25		
4-Methyl-2-pentanone (MIBK)	104	10	µg/L	100		104	70-160	7.80	25		†
Naphthalene	6.30	2.0	µg/L	10.0		63.0	40-130	9.48	25	V-05	†
n-Propylbenzene	10.2	1.0	µg/L	10.0		102	70-130	5.11	25		
Styrene	10.7	1.0	µg/L	10.0		107	70-130	4.48	25		
1,1,1,2-Tetrachloroethane	11.1	1.0	µg/L	10.0		111	70-130	5.18	25		
1,1,2,2-Tetrachloroethane	10.8	0.50	µg/L	10.0		108	70-130	3.86	25		
Tetrachloroethylene	11.2	1.0	µg/L	10.0		112	70-130	7.80	25		
Tetrahydrofuran	9.60	10	µg/L	10.0		96.0	70-130	6.12	25	J	
Toluene	10.9	1.0	µg/L	10.0		109	70-130	1.11	25		
1,2,3-Trichlorobenzene	7.63	5.0	µg/L	10.0		76.3	70-130	11.2	25	V-05	
1,2,4-Trichlorobenzene	8.12	1.0	µg/L	10.0		81.2	70-130	6.22	25	V-05	
1,3,5-Trichlorobenzene	9.37	1.0	µg/L	10.0		93.7	70-130	8.11	25		
1,1,1-Trichloroethane	10.9	1.0	µg/L	10.0		109	70-130	7.61	25		
1,1,2-Trichloroethane	11.3	1.0	µg/L	10.0		113	70-130	6.88	25		
Trichloroethylene	11.0	1.0	µg/L	10.0		110	70-130	7.51	25		
Trichlorofluoromethane (Freon 11)	10.7	2.0	µg/L	10.0		107	70-130	6.54	25		
1,2,3-Trichloropropane	9.79	2.0	µg/L	10.0		97.9	70-130	9.64	25		
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	9.83	1.0	µg/L	10.0		98.3	70-130	2.99	25		
1,2,4-Trimethylbenzene	10.2	1.0	µg/L	10.0		102	70-130	0.0979	25		
1,3,5-Trimethylbenzene	10.2	1.0	µg/L	10.0		102	70-130	5.10	25		
Vinyl Chloride	11.6	2.0	µg/L	10.0		116	40-160	6.39	25		†
m+p Xylene	21.4	2.0	µg/L	20.0		107	70-130	1.37	25		
o-Xylene	10.9	1.0	µg/L	10.0		109	70-130	1.02	25		
Surrogate: 1,2-Dichloroethane-d4	*25.9*		µg/L	25.0		103	70-130				
Surrogate: Toluene-d8	*27.1*		µg/L	25.0		108	70-130				
Surrogate: 4-Bromofluorobenzene	*26.4*		µg/L	25.0		106	70-130				
Batch B293865 - SW-846 5030B											
Blank (B293865-BLK1)				Prepared & Analyzed: 11/03/21							
Acetone	ND	50	µg/L								
Acrylonitrile	ND	5.0	µg/L								
tert-Amyl Methyl Ether (TAME)	ND	0.50	µg/L								
Benzene	ND	1.0	µg/L								
Bromobenzene	ND	1.0	µg/L								
Bromochloromethane	ND	1.0	µg/L								
Bromodichloromethane	ND	0.50	µg/L								
Bromoform	ND	1.0	µg/L								

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QUALITY CONTROL

Volatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B293865 - SW-846 5030B										
Blank (B293865-BLK1)				Prepared & Analyzed: 11/03/21						
Bromomethane	ND	2.0	µg/L							
2-Butanone (MEK)	ND	20	µg/L							
tert-Butyl Alcohol (TBA)	ND	20	µg/L							
n-Butylbenzene	ND	1.0	µg/L							
sec-Butylbenzene	ND	1.0	µg/L							
tert-Butylbenzene	ND	1.0	µg/L							
tert-Butyl Ethyl Ether (TBEE)	ND	0.50	µg/L							
Carbon Disulfide	ND	5.0	µg/L							
Carbon Tetrachloride	ND	5.0	µg/L							
Chlorobenzene	ND	1.0	µg/L							
Chlorodibromomethane	ND	0.50	µg/L							
Chloroethane	ND	2.0	µg/L							
Chloroform	ND	2.0	µg/L							
Chloromethane	ND	2.0	µg/L							
2-Chlorotoluene	ND	1.0	µg/L							
4-Chlorotoluene	ND	1.0	µg/L							
1,2-Dibromo-3-chloropropane (DBCP)	ND	5.0	µg/L							
1,2-Dibromoethane (EDB)	ND	0.50	µg/L							
Dibromomethane	ND	1.0	µg/L							
1,2-Dichlorobenzene	ND	1.0	µg/L							
1,3-Dichlorobenzene	ND	1.0	µg/L							
1,4-Dichlorobenzene	ND	1.0	µg/L							
trans-1,4-Dichloro-2-butene	ND	2.0	µg/L							
Dichlorodifluoromethane (Freon 12)	ND	2.0	µg/L							
1,1-Dichloroethane	ND	1.0	µg/L							
1,2-Dichloroethane	ND	1.0	µg/L							
1,1-Dichloroethylene	ND	1.0	µg/L							
cis-1,2-Dichloroethylene	ND	1.0	µg/L							
trans-1,2-Dichloroethylene	ND	1.0	µg/L							
1,2-Dichloropropane	ND	1.0	µg/L							
1,3-Dichloropropane	ND	0.50	µg/L							
2,2-Dichloropropane	ND	1.0	µg/L							
1,1-Dichloropropene	ND	2.0	µg/L							
cis-1,3-Dichloropropene	ND	0.50	µg/L							
trans-1,3-Dichloropropene	ND	0.50	µg/L							
Diethyl Ether	ND	2.0	µg/L							
Diisopropyl Ether (DIPE)	ND	0.50	µg/L							
1,4-Dioxane	ND	50	µg/L							
Ethylbenzene	ND	1.0	µg/L							
Hexachlorobutadiene	ND	0.60	µg/L							
2-Hexanone (MBK)	ND	10	µg/L							
Isopropylbenzene (Cumene)	ND	1.0	µg/L							
p-Isopropyltoluene (p-Cymene)	ND	1.0	µg/L							
Methyl Acetate	ND	1.0	µg/L							
Methyl tert-Butyl Ether (MTBE)	ND	1.0	µg/L							
Methyl Cyclohexane	ND	1.0	µg/L							
Methylene Chloride	ND	5.0	µg/L							
4-Methyl-2-pentanone (MIBK)	ND	10	µg/L							
Naphthalene	ND	2.0	µg/L							V-05
n-Propylbenzene	ND	1.0	µg/L							
Styrene	ND	1.0	µg/L							
1,1,1,2-Tetrachloroethane	ND	1.0	µg/L							

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QUALITY CONTROL

Volatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes	
Batch B293865 - SW-846 5030B											
Blank (B293865-BLK1)				Prepared & Analyzed: 11/03/21							
1,1,2,2-Tetrachloroethane	ND	0.50	µg/L								
Tetrachloroethylene	ND	1.0	µg/L								
Tetrahydrofuran	ND	10	µg/L								
Toluene	ND	1.0	µg/L								
1,2,3-Trichlorobenzene	ND	5.0	µg/L							V-05	
1,2,4-Trichlorobenzene	ND	1.0	µg/L							V-05	
1,3,5-Trichlorobenzene	ND	1.0	µg/L								
1,1,1-Trichloroethane	ND	1.0	µg/L								
1,1,2-Trichloroethane	ND	1.0	µg/L								
Trichloroethylene	ND	1.0	µg/L								
Trichlorofluoromethane (Freon 11)	ND	2.0	µg/L								
1,2,3-Trichloropropane	ND	2.0	µg/L								
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	1.0	µg/L								
1,2,4-Trimethylbenzene	ND	1.0	µg/L								
1,3,5-Trimethylbenzene	ND	1.0	µg/L								
Vinyl Chloride	ND	2.0	µg/L								
m+p Xylene	ND	2.0	µg/L								
o-Xylene	ND	1.0	µg/L								
Surrogate: 1,2-Dichloroethane-d4	*25.7*		µg/L	25.0		103	70-130				
Surrogate: Toluene-d8	*25.8*		µg/L	25.0		103	70-130				
Surrogate: 4-Bromofluorobenzene	*25.1*		µg/L	25.0		100	70-130				
LCS (B293865-BS1)				Prepared & Analyzed: 11/03/21							
Acetone	97.2	50	µg/L	100		97.2	70-160				†
Acrylonitrile	8.37	5.0	µg/L	10.0		83.7	70-130				
tert-Amyl Methyl Ether (TAME)	10.0	0.50	µg/L	10.0		100	70-130				
Benzene	10.9	1.0	µg/L	10.0		109	70-130				
Bromobenzene	10.1	1.0	µg/L	10.0		101	70-130				
Bromochloromethane	11.2	1.0	µg/L	10.0		112	70-130				
Bromodichloromethane	10.9	0.50	µg/L	10.0		109	70-130				
Bromoform	10.0	1.0	µg/L	10.0		100	70-130				
Bromomethane	12.0	2.0	µg/L	10.0		120	40-160			V-20	†
2-Butanone (MEK)	92.3	20	µg/L	100		92.3	40-160				†
tert-Butyl Alcohol (TBA)	87.1	20	µg/L	100		87.1	40-160				†
n-Butylbenzene	9.20	1.0	µg/L	10.0		92.0	70-130				
sec-Butylbenzene	10.1	1.0	µg/L	10.0		101	70-130				
tert-Butylbenzene	10.2	1.0	µg/L	10.0		102	70-130				
tert-Butyl Ethyl Ether (TBEE)	10.3	0.50	µg/L	10.0		103	70-130				
Carbon Disulfide	107	5.0	µg/L	100		107	70-130				
Carbon Tetrachloride	10.8	5.0	µg/L	10.0		108	70-130				
Chlorobenzene	10.9	1.0	µg/L	10.0		109	70-130				
Chlorodibromomethane	10.8	0.50	µg/L	10.0		108	70-130				
Chloroethane	12.7	2.0	µg/L	10.0		127	70-130			V-20	
Chloroform	10.7	2.0	µg/L	10.0		107	70-130				
Chloromethane	11.6	2.0	µg/L	10.0		116	40-160				†
2-Chlorotoluene	10.5	1.0	µg/L	10.0		105	70-130				
4-Chlorotoluene	10.2	1.0	µg/L	10.0		102	70-130				
1,2-Dibromo-3-chloropropane (DBCP)	8.34	5.0	µg/L	10.0		83.4	70-130				
1,2-Dibromoethane (EDB)	10.6	0.50	µg/L	10.0		106	70-130				
Dibromomethane	10.6	1.0	µg/L	10.0		106	70-130				
1,2-Dichlorobenzene	10.7	1.0	µg/L	10.0		107	70-130				
1,3-Dichlorobenzene	10.8	1.0	µg/L	10.0		108	70-130				

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QUALITY CONTROL

Volatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes	
Batch B293865 - SW-846 5030B											
LCS (B293865-BS1)				Prepared & Analyzed: 11/03/21							
1,4-Dichlorobenzene	10.5	1.0	µg/L	10.0		105	70-130				
trans-1,4-Dichloro-2-butene	9.30	2.0	µg/L	10.0		93.0	70-130				
Dichlorodifluoromethane (Freon 12)	10.5	2.0	µg/L	10.0		105	40-160				†
1,1-Dichloroethane	10.7	1.0	µg/L	10.0		107	70-130				
1,2-Dichloroethane	10.4	1.0	µg/L	10.0		104	70-130				
1,1-Dichloroethylene	10.9	1.0	µg/L	10.0		109	70-130				
cis-1,2-Dichloroethylene	11.0	1.0	µg/L	10.0		110	70-130				
trans-1,2-Dichloroethylene	10.1	1.0	µg/L	10.0		101	70-130				
1,2-Dichloropropane	10.5	1.0	µg/L	10.0		105	70-130				
1,3-Dichloropropane	10.4	0.50	µg/L	10.0		104	70-130				
2,2-Dichloropropane	10.6	1.0	µg/L	10.0		106	40-130				†
1,1-Dichloropropene	10.3	2.0	µg/L	10.0		103	70-130				
cis-1,3-Dichloropropene	11.2	0.50	µg/L	10.0		112	70-130				
trans-1,3-Dichloropropene	10.1	0.50	µg/L	10.0		101	70-130				
Diethyl Ether	10.0	2.0	µg/L	10.0		100	70-130				
Diisopropyl Ether (DIPE)	10.1	0.50	µg/L	10.0		101	70-130				
1,4-Dioxane	84.8	50	µg/L	100		84.8	40-130				†
Ethylbenzene	10.3	1.0	µg/L	10.0		103	70-130				
Hexachlorobutadiene	10.7	0.60	µg/L	10.0		107	70-130				
2-Hexanone (MBK)	89.0	10	µg/L	100		89.0	70-160				†
Isopropylbenzene (Cumene)	10.4	1.0	µg/L	10.0		104	70-130				
p-Isopropyltoluene (p-Cymene)	9.93	1.0	µg/L	10.0		99.3	70-130				
Methyl Acetate	10.5	1.0	µg/L	10.0		105	70-130				
Methyl tert-Butyl Ether (MTBE)	9.77	1.0	µg/L	10.0		97.7	70-130				
Methyl Cyclohexane	9.30	1.0	µg/L	10.0		93.0	70-130				
Methylene Chloride	11.2	5.0	µg/L	10.0		112	70-130				
4-Methyl-2-pentanone (MIBK)	96.6	10	µg/L	100		96.6	70-160				†
Naphthalene	5.37	2.0	µg/L	10.0		53.7	40-130			V-05	†
n-Propylbenzene	10.1	1.0	µg/L	10.0		101	70-130				
Styrene	10.8	1.0	µg/L	10.0		108	70-130				
1,1,1,2-Tetrachloroethane	10.8	1.0	µg/L	10.0		108	70-130				
1,1,2,2-Tetrachloroethane	10.5	0.50	µg/L	10.0		105	70-130				
Tetrachloroethylene	10.9	1.0	µg/L	10.0		109	70-130				
Tetrahydrofuran	9.05	10	µg/L	10.0		90.5	70-130			J	
Toluene	10.8	1.0	µg/L	10.0		108	70-130				
1,2,3-Trichlorobenzene	7.14	5.0	µg/L	10.0		71.4	70-130			V-05	
1,2,4-Trichlorobenzene	7.52	1.0	µg/L	10.0		75.2	70-130			V-05	
1,3,5-Trichlorobenzene	9.44	1.0	µg/L	10.0		94.4	70-130				
1,1,1-Trichloroethane	10.7	1.0	µg/L	10.0		107	70-130				
1,1,2-Trichloroethane	11.2	1.0	µg/L	10.0		112	70-130				
Trichloroethylene	11.0	1.0	µg/L	10.0		110	70-130				
Trichlorofluoromethane (Freon 11)	10.6	2.0	µg/L	10.0		106	70-130				
1,2,3-Trichloropropane	9.39	2.0	µg/L	10.0		93.9	70-130				
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	10.1	1.0	µg/L	10.0		101	70-130				
1,2,4-Trimethylbenzene	10.1	1.0	µg/L	10.0		101	70-130				
1,3,5-Trimethylbenzene	10.0	1.0	µg/L	10.0		100	70-130				
Vinyl Chloride	11.9	2.0	µg/L	10.0		119	40-160				†
m+p Xylene	20.9	2.0	µg/L	20.0		104	70-130				
o-Xylene	10.7	1.0	µg/L	10.0		107	70-130				
Surrogate: 1,2-Dichloroethane-d4	*26.1*		µg/L	25.0		104	70-130				
Surrogate: Toluene-d8	*26.3*		µg/L	25.0		105	70-130				

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QUALITY CONTROL

Volatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes	
Batch B293865 - SW-846 5030B											
LCS (B293865-BS1)				Prepared & Analyzed: 11/03/21							
Surrogate: 4-Bromofluorobenzene	*26.3*		µg/L	25.0		105	70-130				
LCS Dup (B293865-BSD1)				Prepared & Analyzed: 11/03/21							
Acetone	106	50	µg/L	100		106	70-160	8.95	25		†
Acrylonitrile	9.41	5.0	µg/L	10.0		94.1	70-130	11.7	25		
tert-Amyl Methyl Ether (TAME)	10.5	0.50	µg/L	10.0		105	70-130	4.97	25		
Benzene	11.0	1.0	µg/L	10.0		110	70-130	0.456	25		
Bromobenzene	9.87	1.0	µg/L	10.0		98.7	70-130	2.60	25		
Bromochloromethane	11.2	1.0	µg/L	10.0		112	70-130	0.358	25		
Bromodichloromethane	10.9	0.50	µg/L	10.0		109	70-130	0.276	25		
Bromoform	10.2	1.0	µg/L	10.0		102	70-130	1.38	25		
Bromomethane	12.0	2.0	µg/L	10.0		120	40-160	0.334	25	V-20	†
2-Butanone (MEK)	103	20	µg/L	100		103	40-160	11.2	25		†
tert-Butyl Alcohol (TBA)	103	20	µg/L	100		103	40-160	16.4	25		†
n-Butylbenzene	9.04	1.0	µg/L	10.0		90.4	70-130	1.75	25		
sec-Butylbenzene	9.48	1.0	µg/L	10.0		94.8	70-130	6.04	25		
tert-Butylbenzene	9.84	1.0	µg/L	10.0		98.4	70-130	3.49	25		
tert-Butyl Ethyl Ether (TBEE)	10.2	0.50	µg/L	10.0		102	70-130	1.17	25		
Carbon Disulfide	104	5.0	µg/L	100		104	70-130	2.30	25		
Carbon Tetrachloride	10.2	5.0	µg/L	10.0		102	70-130	5.14	25		
Chlorobenzene	10.6	1.0	µg/L	10.0		106	70-130	2.23	25		
Chlorodibromomethane	10.8	0.50	µg/L	10.0		108	70-130	0.464	25		
Chloroethane	12.3	2.0	µg/L	10.0		123	70-130	2.88	25	V-20	
Chloroform	10.9	2.0	µg/L	10.0		109	70-130	1.85	25		
Chloromethane	11.8	2.0	µg/L	10.0		118	40-160	1.70	25		†
2-Chlorotoluene	10.1	1.0	µg/L	10.0		101	70-130	4.28	25		
4-Chlorotoluene	10.1	1.0	µg/L	10.0		101	70-130	0.886	25		
1,2-Dibromo-3-chloropropane (DBCP)	9.27	5.0	µg/L	10.0		92.7	70-130	10.6	25		
1,2-Dibromoethane (EDB)	10.7	0.50	µg/L	10.0		107	70-130	1.60	25		
Dibromomethane	10.8	1.0	µg/L	10.0		108	70-130	1.22	25		
1,2-Dichlorobenzene	10.4	1.0	µg/L	10.0		104	70-130	3.03	25		
1,3-Dichlorobenzene	10.4	1.0	µg/L	10.0		104	70-130	4.52	25		
1,4-Dichlorobenzene	10.1	1.0	µg/L	10.0		101	70-130	3.68	25		
trans-1,4-Dichloro-2-butene	9.88	2.0	µg/L	10.0		98.8	70-130	6.05	25		
Dichlorodifluoromethane (Freon 12)	10.1	2.0	µg/L	10.0		101	40-160	4.66	25		†
1,1-Dichloroethane	10.8	1.0	µg/L	10.0		108	70-130	0.653	25		
1,2-Dichloroethane	10.2	1.0	µg/L	10.0		102	70-130	2.03	25		
1,1-Dichloroethylene	10.9	1.0	µg/L	10.0		109	70-130	0.0914	25		
cis-1,2-Dichloroethylene	10.8	1.0	µg/L	10.0		108	70-130	1.74	25		
trans-1,2-Dichloroethylene	10.4	1.0	µg/L	10.0		104	70-130	2.44	25		
1,2-Dichloropropane	10.6	1.0	µg/L	10.0		106	70-130	0.190	25		
1,3-Dichloropropane	10.6	0.50	µg/L	10.0		106	70-130	1.62	25		
2,2-Dichloropropane	10.3	1.0	µg/L	10.0		103	40-130	2.01	25		†
1,1-Dichloropropene	10.1	2.0	µg/L	10.0		101	70-130	2.05	25		
cis-1,3-Dichloropropene	11.0	0.50	µg/L	10.0		110	70-130	2.26	25		
trans-1,3-Dichloropropene	10.1	0.50	µg/L	10.0		101	70-130	0.0991	25		
Diethyl Ether	10.1	2.0	µg/L	10.0		101	70-130	0.496	25		
Diisopropyl Ether (DIPE)	10.3	0.50	µg/L	10.0		103	70-130	2.15	25		
1,4-Dioxane	95.9	50	µg/L	100		95.9	40-130	12.2	50		† ‡
Ethylbenzene	10.1	1.0	µg/L	10.0		101	70-130	2.15	25		
Hexachlorobutadiene	9.65	0.60	µg/L	10.0		96.5	70-130	10.3	25		
2-Hexanone (MBK)	102	10	µg/L	100		102	70-160	13.6	25		†

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QUALITY CONTROL

Volatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes	
Batch B293865 - SW-846 5030B											
LCS Dup (B293865-BSD1)				Prepared & Analyzed: 11/03/21							
Isopropylbenzene (Cumene)	10.3	1.0	µg/L	10.0		103	70-130	1.74	25		
p-Isopropyltoluene (p-Cymene)	9.56	1.0	µg/L	10.0		95.6	70-130	3.80	25		
Methyl Acetate	11.3	1.0	µg/L	10.0		113	70-130	6.88	25		
Methyl tert-Butyl Ether (MTBE)	10.0	1.0	µg/L	10.0		100	70-130	2.43	25		
Methyl Cyclohexane	9.18	1.0	µg/L	10.0		91.8	70-130	1.30	25		
Methylene Chloride	11.1	5.0	µg/L	10.0		111	70-130	1.17	25		
4-Methyl-2-pentanone (MIBK)	105	10	µg/L	100		105	70-160	8.09	25		†
Naphthalene	6.16	2.0	µg/L	10.0		61.6	40-130	13.7	25	V-05	†
n-Propylbenzene	9.98	1.0	µg/L	10.0		99.8	70-130	0.898	25		
Styrene	10.5	1.0	µg/L	10.0		105	70-130	2.35	25		
1,1,1,2-Tetrachloroethane	10.7	1.0	µg/L	10.0		107	70-130	1.02	25		
1,1,2,2-Tetrachloroethane	10.9	0.50	µg/L	10.0		109	70-130	3.75	25		
Tetrachloroethylene	10.3	1.0	µg/L	10.0		103	70-130	5.37	25		
Tetrahydrofuran	10.3	10	µg/L	10.0		103	70-130	12.5	25		
Toluene	10.6	1.0	µg/L	10.0		106	70-130	1.97	25		
1,2,3-Trichlorobenzene	7.65	5.0	µg/L	10.0		76.5	70-130	6.90	25	V-05	
1,2,4-Trichlorobenzene	7.98	1.0	µg/L	10.0		79.8	70-130	5.94	25	V-05	
1,3,5-Trichlorobenzene	8.92	1.0	µg/L	10.0		89.2	70-130	5.66	25		
1,1,1-Trichloroethane	10.6	1.0	µg/L	10.0		106	70-130	0.282	25		
1,1,2-Trichloroethane	11.1	1.0	µg/L	10.0		111	70-130	1.61	25		
Trichloroethylene	10.7	1.0	µg/L	10.0		107	70-130	2.86	25		
Trichlorofluoromethane (Freon 11)	10.4	2.0	µg/L	10.0		104	70-130	2.28	25		
1,2,3-Trichloropropane	9.98	2.0	µg/L	10.0		99.8	70-130	6.09	25		
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	9.70	1.0	µg/L	10.0		97.0	70-130	3.64	25		
1,2,4-Trimethylbenzene	9.66	1.0	µg/L	10.0		96.6	70-130	4.35	25		
1,3,5-Trimethylbenzene	9.98	1.0	µg/L	10.0		99.8	70-130	0.699	25		
Vinyl Chloride	11.4	2.0	µg/L	10.0		114	40-160	4.72	25		†
m+p Xylene	20.2	2.0	µg/L	20.0		101	70-130	3.51	25		
o-Xylene	10.5	1.0	µg/L	10.0		105	70-130	2.64	25		
Surrogate: 1,2-Dichloroethane-d4	*26.2*		µg/L	25.0		105	70-130				
Surrogate: Toluene-d8	*26.4*		µg/L	25.0		106	70-130				
Surrogate: 4-Bromofluorobenzene	*26.0*		µg/L	25.0		104	70-130				

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QUALITY CONTROL

Semivolatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B293672 - SW-846 3510C										
Blank (B293672-BLK1)				Prepared: 11/01/21 Analyzed: 11/02/21						
Acenaphthene	ND	5.0	µg/L							
Acenaphthylene	ND	5.0	µg/L							
Acetophenone	ND	10	µg/L							
Aniline	ND	5.0	µg/L							
Anthracene	ND	5.0	µg/L							
Benzidine	ND	20	µg/L							V-04, V-20
Benzo(a)anthracene	ND	5.0	µg/L							
Benzo(a)pyrene	ND	5.0	µg/L							
Benzo(b)fluoranthene	ND	5.0	µg/L							
Benzo(g,h,i)perylene	ND	5.0	µg/L							
Benzo(k)fluoranthene	ND	5.0	µg/L							
Benzoic Acid	ND	10	µg/L							
Bis(2-chloroethoxy)methane	ND	10	µg/L							
Bis(2-chloroethyl)ether	ND	10	µg/L							
Bis(2-chloroisopropyl)ether	ND	10	µg/L							
Bis(2-Ethylhexyl)phthalate	ND	10	µg/L							
4-Bromophenylphenylether	ND	10	µg/L							
Butylbenzylphthalate	ND	10	µg/L							
Carbazole	ND	10	µg/L							
4-Chloroaniline	ND	10	µg/L							
4-Chloro-3-methylphenol	ND	10	µg/L							
2-Chloronaphthalene	ND	10	µg/L							
2-Chlorophenol	ND	10	µg/L							
4-Chlorophenylphenylether	ND	10	µg/L							
Chrysene	ND	5.0	µg/L							
Dibenz(a,h)anthracene	ND	5.0	µg/L							
Dibenzofuran	ND	5.0	µg/L							
Di-n-butylphthalate	ND	10	µg/L							
1,2-Dichlorobenzene	ND	5.0	µg/L							
1,3-Dichlorobenzene	ND	5.0	µg/L							
1,4-Dichlorobenzene	ND	5.0	µg/L							
3,3-Dichlorobenzidine	ND	10	µg/L							
2,4-Dichlorophenol	ND	10	µg/L							
Diethylphthalate	ND	10	µg/L							
2,4-Dimethylphenol	ND	10	µg/L							
Dimethylphthalate	ND	10	µg/L							
4,6-Dinitro-2-methylphenol	ND	10	µg/L							
2,4-Dinitrophenol	ND	10	µg/L							V-04, V-20
2,4-Dinitrotoluene	ND	10	µg/L							
2,6-Dinitrotoluene	ND	10	µg/L							
Di-n-octylphthalate	ND	10	µg/L							
1,2-Diphenylhydrazine/Azobenzene	ND	10	µg/L							
Fluoranthene	ND	5.0	µg/L							
Fluorene	ND	5.0	µg/L							
Hexachlorobenzene	ND	10	µg/L							
Hexachlorobutadiene	ND	10	µg/L							
Hexachlorocyclopentadiene	ND	10	µg/L							
Hexachloroethane	ND	10	µg/L							
Indeno(1,2,3-cd)pyrene	ND	5.0	µg/L							
Isophorone	ND	10	µg/L							
1-Methylnaphthalene	ND	5.0	µg/L							
2-Methylnaphthalene	ND	5.0	µg/L							

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QUALITY CONTROL

Semivolatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B293672 - SW-846 3510C										
Blank (B293672-BLK1)				Prepared: 11/01/21 Analyzed: 11/02/21						
2-Methylphenol	ND	10	µg/L							
3/4-Methylphenol	ND	10	µg/L							
Naphthalene	ND	5.0	µg/L							
2-Nitroaniline	ND	10	µg/L							
3-Nitroaniline	ND	10	µg/L							V-20
4-Nitroaniline	ND	10	µg/L							V-20
Nitrobenzene	ND	10	µg/L							
2-Nitrophenol	ND	10	µg/L							
4-Nitrophenol	ND	10	µg/L							
N-Nitrosodimethylamine	ND	10	µg/L							
N-Nitrosodiphenylamine/Diphenylamine	ND	10	µg/L							
N-Nitrosodi-n-propylamine	ND	10	µg/L							
Pentachloronitrobenzene	ND	10	µg/L							
Pentachlorophenol	ND	10	µg/L							
Phenanthrene	ND	5.0	µg/L							
Phenol	ND	10	µg/L							
Pyrene	ND	5.0	µg/L							
Pyridine	ND	5.0	µg/L							
1,2,4,5-Tetrachlorobenzene	ND	10	µg/L							
1,2,4-Trichlorobenzene	ND	5.0	µg/L							
2,4,5-Trichlorophenol	ND	10	µg/L							
2,4,6-Trichlorophenol	ND	10	µg/L							
Surrogate: 2-Fluorophenol	*117*		µg/L	200		58.4	15-110			
Surrogate: Phenol-d6	*83.3*		µg/L	200		41.6	15-110			
Surrogate: Nitrobenzene-d5	*69.6*		µg/L	100		69.6	30-130			
Surrogate: 2-Fluorobiphenyl	*71.9*		µg/L	100		71.9	30-130			
Surrogate: 2,4,6-Tribromophenol	*182*		µg/L	200		91.1	15-110			
Surrogate: p-Terphenyl-d14	*116*		µg/L	100		116	30-130			
LCS (B293672-BS1)				Prepared: 11/01/21 Analyzed: 11/02/21						
Acenaphthene	39.4	5.0	µg/L	50.0		78.8	40-140			
Acenaphthylene	39.6	5.0	µg/L	50.0		79.1	40-140			
Acetophenone	41.5	10	µg/L	50.0		82.9	40-140			
Aniline	42.1	5.0	µg/L	50.0		84.2	40-140			
Anthracene	41.3	5.0	µg/L	50.0		82.6	40-140			
Benzidine	44.8	20	µg/L	50.0		89.7	40-140			V-04, V-06
Benzo(a)anthracene	40.2	5.0	µg/L	50.0		80.4	40-140			
Benzo(a)pyrene	45.8	5.0	µg/L	50.0		91.7	40-140			
Benzo(b)fluoranthene	41.9	5.0	µg/L	50.0		83.7	40-140			
Benzo(g,h,i)perylene	46.0	5.0	µg/L	50.0		92.0	40-140			
Benzo(k)fluoranthene	44.2	5.0	µg/L	50.0		88.4	40-140			
Benzoic Acid	27.0	10	µg/L	50.0		53.9	10-130			†
Bis(2-chloroethoxy)methane	43.4	10	µg/L	50.0		86.8	40-140			
Bis(2-chloroethyl)ether	42.1	10	µg/L	50.0		84.2	40-140			
Bis(2-chloroisopropyl)ether	48.9	10	µg/L	50.0		97.7	40-140			
Bis(2-Ethylhexyl)phthalate	46.1	10	µg/L	50.0		92.3	40-140			
4-Bromophenylphenylether	39.4	10	µg/L	50.0		78.7	40-140			
Butylbenzylphthalate	43.9	10	µg/L	50.0		87.8	40-140			
Carbazole	41.2	10	µg/L	50.0		82.3	40-140			
4-Chloroaniline	36.8	10	µg/L	50.0		73.5	40-140			
4-Chloro-3-methylphenol	43.5	10	µg/L	50.0		86.9	30-130			
2-Chloronaphthalene	31.8	10	µg/L	50.0		63.6	40-140			

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QUALITY CONTROL

Semivolatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes	
Batch B293672 - SW-846 3510C											
LCS (B293672-BS1)				Prepared: 11/01/21 Analyzed: 11/02/21							
2-Chlorophenol	36.8	10	µg/L	50.0		73.7	30-130				
4-Chlorophenylphenylether	38.1	10	µg/L	50.0		76.2	40-140				
Chrysene	40.8	5.0	µg/L	50.0		81.6	40-140				
Dibenz(a,h)anthracene	48.5	5.0	µg/L	50.0		97.1	40-140				
Dibenzofuran	41.1	5.0	µg/L	50.0		82.2	40-140				
Di-n-butylphthalate	41.2	10	µg/L	50.0		82.3	40-140				
1,2-Dichlorobenzene	31.2	5.0	µg/L	50.0		62.4	40-140				
1,3-Dichlorobenzene	30.0	5.0	µg/L	50.0		59.9	40-140				
1,4-Dichlorobenzene	30.3	5.0	µg/L	50.0		60.6	40-140				
3,3-Dichlorobenzidine	41.3	10	µg/L	50.0		82.6	40-140				
2,4-Dichlorophenol	40.3	10	µg/L	50.0		80.6	30-130				
Diethylphthalate	40.6	10	µg/L	50.0		81.3	40-140				
2,4-Dimethylphenol	39.8	10	µg/L	50.0		79.6	30-130				
Dimethylphthalate	40.8	10	µg/L	50.0		81.7	40-140				
4,6-Dinitro-2-methylphenol	43.6	10	µg/L	50.0		87.1	30-130				
2,4-Dinitrophenol	57.2	10	µg/L	50.0		114	30-130			V-04, V-06	
2,4-Dinitrotoluene	48.7	10	µg/L	50.0		97.4	40-140			V-06	
2,6-Dinitrotoluene	46.6	10	µg/L	50.0		93.1	40-140				
Di-n-octylphthalate	45.6	10	µg/L	50.0		91.1	40-140				
1,2-Diphenylhydrazine/Azobenzene	43.2	10	µg/L	50.0		86.4	40-140				
Fluoranthene	40.4	5.0	µg/L	50.0		80.8	40-140				
Fluorene	40.8	5.0	µg/L	50.0		81.6	40-140				
Hexachlorobenzene	41.9	10	µg/L	50.0		83.9	40-140				
Hexachlorobutadiene	33.4	10	µg/L	50.0		66.8	40-140				
Hexachlorocyclopentadiene	31.5	10	µg/L	50.0		63.0	30-140				†
Hexachloroethane	30.7	10	µg/L	50.0		61.3	40-140				
Indeno(1,2,3-cd)pyrene	50.0	5.0	µg/L	50.0		100	40-140				
Isophorone	47.6	10	µg/L	50.0		95.3	40-140				
1-Methylnaphthalene	36.9	5.0	µg/L	50.0		73.7	40-140				
2-Methylnaphthalene	43.7	5.0	µg/L	50.0		87.4	40-140				
2-Methylphenol	37.3	10	µg/L	50.0		74.6	30-130				
3/4-Methylphenol	36.5	10	µg/L	50.0		73.0	30-130				
Naphthalene	40.3	5.0	µg/L	50.0		80.6	40-140				
2-Nitroaniline	57.5	10	µg/L	50.0		115	40-140				
3-Nitroaniline	44.4	10	µg/L	50.0		88.8	40-140			V-06	
4-Nitroaniline	47.5	10	µg/L	50.0		95.0	40-140			V-06	
Nitrobenzene	41.8	10	µg/L	50.0		83.6	40-140				
2-Nitrophenol	45.3	10	µg/L	50.0		90.6	30-130				
4-Nitrophenol	25.2	10	µg/L	50.0		50.5	10-130				†
N-Nitrosodimethylamine	28.4	10	µg/L	50.0		56.8	40-140				
N-Nitrosodiphenylamine/Diphenylamine	42.4	10	µg/L	50.0		84.7	40-140				
N-Nitrosodi-n-propylamine	43.9	10	µg/L	50.0		87.7	40-140				
Pentachloronitrobenzene	42.2	10	µg/L	50.0		84.5	40-140				
Pentachlorophenol	40.2	10	µg/L	50.0		80.4	30-130				
Phenanthrene	41.0	5.0	µg/L	50.0		82.1	40-140				
Phenol	20.1	10	µg/L	50.0		40.1	20-130				†
Pyrene	42.2	5.0	µg/L	50.0		84.4	40-140				
Pyridine	18.6	5.0	µg/L	50.0		37.2	10-140				†
1,2,4,5-Tetrachlorobenzene	35.8	10	µg/L	50.0		71.5	40-140				
1,2,4-Trichlorobenzene	34.3	5.0	µg/L	50.0		68.5	40-140				
2,4,5-Trichlorophenol	41.6	10	µg/L	50.0		83.2	30-130				
2,4,6-Trichlorophenol	40.6	10	µg/L	50.0		81.1	30-130				

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QUALITY CONTROL

Semivolatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes	
Batch B293672 - SW-846 3510C											
LCS (B293672-BS1)				Prepared: 11/01/21 Analyzed: 11/02/21							
Surrogate: 2-Fluorophenol	*114*		µg/L	200		57.1	15-110				
Surrogate: Phenol-d6	*84.8*		µg/L	200		42.4	15-110				
Surrogate: Nitrobenzene-d5	*76.8*		µg/L	100		76.8	30-130				
Surrogate: 2-Fluorobiphenyl	*70.0*		µg/L	100		70.0	30-130				
Surrogate: 2,4,6-Tribromophenol	*188*		µg/L	200		94.2	15-110				
Surrogate: p-Terphenyl-d14	*105*		µg/L	100		105	30-130				
LCS Dup (B293672-BSD1)				Prepared: 11/01/21 Analyzed: 11/02/21							
Acenaphthene	37.7	5.0	µg/L	50.0		75.4	40-140	4.41	20		
Acenaphthylene	38.9	5.0	µg/L	50.0		77.9	40-140	1.61	20		
Acetophenone	39.1	10	µg/L	50.0		78.1	40-140	5.99	20		
Aniline	37.0	5.0	µg/L	50.0		74.1	40-140	12.8	50		‡
Anthracene	40.6	5.0	µg/L	50.0		81.2	40-140	1.78	20		
Benzidine	41.7	20	µg/L	50.0		83.3	40-140	7.33	20	V-04, V-06	
Benzo(a)anthracene	39.7	5.0	µg/L	50.0		79.5	40-140	1.18	20		
Benzo(a)pyrene	45.3	5.0	µg/L	50.0		90.6	40-140	1.16	20		
Benzo(b)fluoranthene	42.3	5.0	µg/L	50.0		84.6	40-140	1.07	20		
Benzo(g,h,i)perylene	45.7	5.0	µg/L	50.0		91.4	40-140	0.698	20		
Benzo(k)fluoranthene	44.4	5.0	µg/L	50.0		88.9	40-140	0.542	20		
Benzoic Acid	26.4	10	µg/L	50.0		52.7	10-130	2.18	50		† ‡
Bis(2-chloroethoxy)methane	41.1	10	µg/L	50.0		82.2	40-140	5.44	20		
Bis(2-chloroethyl)ether	39.8	10	µg/L	50.0		79.7	40-140	5.54	20		
Bis(2-chloroisopropyl)ether	46.4	10	µg/L	50.0		92.9	40-140	5.12	20		
Bis(2-Ethylhexyl)phthalate	46.4	10	µg/L	50.0		92.8	40-140	0.562	20		
4-Bromophenylphenylether	38.5	10	µg/L	50.0		76.9	40-140	2.34	20		
Butylbenzylphthalate	43.4	10	µg/L	50.0		86.7	40-140	1.17	20		
Carbazole	41.3	10	µg/L	50.0		82.6	40-140	0.267	20		
4-Chloroaniline	31.3	10	µg/L	50.0		62.6	40-140	16.1	20		
4-Chloro-3-methylphenol	40.6	10	µg/L	50.0		81.2	30-130	6.80	20		
2-Chloronaphthalene	31.1	10	µg/L	50.0		62.1	40-140	2.29	20		
2-Chlorophenol	35.0	10	µg/L	50.0		70.0	30-130	5.15	20		
4-Chlorophenylphenylether	37.5	10	µg/L	50.0		75.1	40-140	1.45	20		
Chrysene	40.7	5.0	µg/L	50.0		81.5	40-140	0.0981	20		
Dibenz(a,h)anthracene	47.1	5.0	µg/L	50.0		94.1	40-140	3.10	20		
Dibenzofuran	39.8	5.0	µg/L	50.0		79.6	40-140	3.19	20		
Di-n-butylphthalate	41.5	10	µg/L	50.0		83.0	40-140	0.871	20		
1,2-Dichlorobenzene	29.2	5.0	µg/L	50.0		58.3	40-140	6.76	20		
1,3-Dichlorobenzene	27.4	5.0	µg/L	50.0		54.9	40-140	8.74	20		
1,4-Dichlorobenzene	28.0	5.0	µg/L	50.0		55.9	40-140	8.07	20		
3,3-Dichlorobenzidine	39.7	10	µg/L	50.0		79.5	40-140	3.83	20		
2,4-Dichlorophenol	37.5	10	µg/L	50.0		74.9	30-130	7.33	20		
Diethylphthalate	41.0	10	µg/L	50.0		81.9	40-140	0.833	20		
2,4-Dimethylphenol	37.3	10	µg/L	50.0		74.6	30-130	6.46	20		
Dimethylphthalate	40.8	10	µg/L	50.0		81.6	40-140	0.0980	50		‡
4,6-Dinitro-2-methylphenol	42.3	10	µg/L	50.0		84.5	30-130	3.01	50		‡
2,4-Dinitrophenol	57.1	10	µg/L	50.0		114	30-130	0.0875	50	V-04, V-06	‡
2,4-Dinitrotoluene	48.6	10	µg/L	50.0		97.2	40-140	0.247	20	V-06	
2,6-Dinitrotoluene	45.8	10	µg/L	50.0		91.6	40-140	1.60	20		
Di-n-octylphthalate	45.8	10	µg/L	50.0		91.6	40-140	0.504	20		
1,2-Diphenylhydrazine/Azobenzene	42.4	10	µg/L	50.0		84.9	40-140	1.77	20		
Fluoranthene	41.1	5.0	µg/L	50.0		82.2	40-140	1.79	20		
Fluorene	40.4	5.0	µg/L	50.0		80.7	40-140	1.08	20		

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QUALITY CONTROL

Semivolatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes	
Batch B293672 - SW-846 3510C											
LCS Dup (B293672-BSD1)				Prepared: 11/01/21 Analyzed: 11/02/21							
Hexachlorobenzene	40.4	10	µg/L	50.0		80.8	40-140	3.69	20		
Hexachlorobutadiene	30.0	10	µg/L	50.0		60.0	40-140	10.8	20		
Hexachlorocyclopentadiene	31.0	10	µg/L	50.0		62.0	30-140	1.57	50		† ‡
Hexachloroethane	28.3	10	µg/L	50.0		56.7	40-140	7.90	50		‡
Indeno(1,2,3-cd)pyrene	50.6	5.0	µg/L	50.0		101	40-140	1.11	50		‡
Isophorone	44.7	10	µg/L	50.0		89.5	40-140	6.30	20		
1-Methylnaphthalene	33.8	5.0	µg/L	50.0		67.6	40-140	8.75	20		
2-Methylnaphthalene	39.7	5.0	µg/L	50.0		79.5	40-140	9.47	20		
2-Methylphenol	37.3	10	µg/L	50.0		74.6	30-130	0.107	20		
3/4-Methylphenol	35.9	10	µg/L	50.0		71.8	30-130	1.60	20		
Naphthalene	36.6	5.0	µg/L	50.0		73.2	40-140	9.57	20		
2-Nitroaniline	57.2	10	µg/L	50.0		114	40-140	0.488	20		
3-Nitroaniline	42.5	10	µg/L	50.0		85.0	40-140	4.33	20	V-06	
4-Nitroaniline	47.1	10	µg/L	50.0		94.3	40-140	0.761	20	V-06	
Nitrobenzene	38.6	10	µg/L	50.0		77.2	40-140	7.99	20		
2-Nitrophenol	41.6	10	µg/L	50.0		83.2	30-130	8.54	20		
4-Nitrophenol	25.6	10	µg/L	50.0		51.2	10-130	1.45	50		† ‡
N-Nitrosodimethylamine	25.7	10	µg/L	50.0		51.4	40-140	10.0	20		
N-Nitrosodiphenylamine/Diphenylamine	41.6	10	µg/L	50.0		83.2	40-140	1.81	20		
N-Nitrosodi-n-propylamine	42.9	10	µg/L	50.0		85.8	40-140	2.24	20		
Pentachloronitrobenzene	43.0	10	µg/L	50.0		85.9	40-140	1.69	20		
Pentachlorophenol	39.1	10	µg/L	50.0		78.1	30-130	2.90	50		‡
Phenanthrene	40.2	5.0	µg/L	50.0		80.3	40-140	2.22	20		
Phenol	18.9	10	µg/L	50.0		37.8	20-130	6.06	20		†
Pyrene	40.7	5.0	µg/L	50.0		81.4	40-140	3.62	20		
Pyridine	16.7	5.0	µg/L	50.0		33.5	10-140	10.6	50		† ‡
1,2,4,5-Tetrachlorobenzene	34.5	10	µg/L	50.0		68.9	40-140	3.67	20		
1,2,4-Trichlorobenzene	31.4	5.0	µg/L	50.0		62.8	40-140	8.74	20		
2,4,5-Trichlorophenol	41.0	10	µg/L	50.0		81.9	30-130	1.57	20		
2,4,6-Trichlorophenol	40.6	10	µg/L	50.0		81.3	30-130	0.172	50		‡
Surrogate: 2-Fluorophenol	*106*		µg/L	200		53.2	15-110				
Surrogate: Phenol-d6	*80.6*		µg/L	200		40.3	15-110				
Surrogate: Nitrobenzene-d5	*68.6*		µg/L	100		68.6	30-130				
Surrogate: 2-Fluorobiphenyl	*68.4*		µg/L	100		68.4	30-130				
Surrogate: 2,4,6-Tribromophenol	*185*		µg/L	200		92.4	15-110				
Surrogate: p-Terphenyl-d14	*103*		µg/L	100		103	30-130				
Batch B293790 - SW-846 3510C											
Blank (B293790-BLK1)				Prepared: 11/02/21 Analyzed: 11/03/21							
Acenaphthene	ND	5.0	µg/L								
Acenaphthylene	ND	5.0	µg/L								
Acetophenone	ND	10	µg/L								
Aniline	ND	5.0	µg/L								
Anthracene	ND	5.0	µg/L								
Benzidine	ND	20	µg/L							V-04	
Benzo(a)anthracene	ND	5.0	µg/L								
Benzo(a)pyrene	ND	5.0	µg/L								
Benzo(b)fluoranthene	ND	5.0	µg/L								
Benzo(g,h,i)perylene	ND	5.0	µg/L								
Benzo(k)fluoranthene	ND	5.0	µg/L								
Benzoic Acid	ND	10	µg/L								
Bis(2-chloroethoxy)methane	ND	10	µg/L								

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QUALITY CONTROL

Semivolatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B293790 - SW-846 3510C										
Blank (B293790-BLK1)				Prepared: 11/02/21 Analyzed: 11/03/21						
Bis(2-chloroethyl)ether	ND	10	µg/L							
Bis(2-chloroisopropyl)ether	ND	10	µg/L							
Bis(2-Ethylhexyl)phthalate	ND	10	µg/L							
4-Bromophenylphenylether	ND	10	µg/L							
Butylbenzylphthalate	ND	10	µg/L							
Carbazole	ND	10	µg/L							
4-Chloroaniline	ND	10	µg/L							
4-Chloro-3-methylphenol	ND	10	µg/L							
2-Chloronaphthalene	ND	10	µg/L							
2-Chlorophenol	ND	10	µg/L							
4-Chlorophenylphenylether	ND	10	µg/L							
Chrysene	ND	5.0	µg/L							
Dibenz(a,h)anthracene	ND	5.0	µg/L							
Dibenzofuran	ND	5.0	µg/L							
Di-n-butylphthalate	ND	10	µg/L							
1,2-Dichlorobenzene	ND	5.0	µg/L							
1,3-Dichlorobenzene	ND	5.0	µg/L							
1,4-Dichlorobenzene	ND	5.0	µg/L							
3,3-Dichlorobenzidine	ND	10	µg/L							
2,4-Dichlorophenol	ND	10	µg/L							
Diethylphthalate	ND	10	µg/L							
2,4-Dimethylphenol	ND	10	µg/L							
Dimethylphthalate	ND	10	µg/L							
4,6-Dinitro-2-methylphenol	ND	10	µg/L							
2,4-Dinitrophenol	ND	10	µg/L							V-04, V-20
2,4-Dinitrotoluene	ND	10	µg/L							V-20
2,6-Dinitrotoluene	ND	10	µg/L							
Di-n-octylphthalate	ND	10	µg/L							
1,2-Diphenylhydrazine/Azobenzene	ND	10	µg/L							
Fluoranthene	ND	5.0	µg/L							
Fluorene	ND	5.0	µg/L							
Hexachlorobenzene	ND	10	µg/L							
Hexachlorobutadiene	ND	10	µg/L							
Hexachlorocyclopentadiene	ND	10	µg/L							
Hexachloroethane	ND	10	µg/L							
Indeno(1,2,3-cd)pyrene	ND	5.0	µg/L							
Isophorone	ND	10	µg/L							
1-Methylnaphthalene	ND	5.0	µg/L							
2-Methylnaphthalene	ND	5.0	µg/L							
2-Methylphenol	ND	10	µg/L							
3/4-Methylphenol	ND	10	µg/L							
Naphthalene	ND	5.0	µg/L							
2-Nitroaniline	ND	10	µg/L							
3-Nitroaniline	ND	10	µg/L							
4-Nitroaniline	ND	10	µg/L							V-20
Nitrobenzene	ND	10	µg/L							
2-Nitrophenol	ND	10	µg/L							
4-Nitrophenol	ND	10	µg/L							
N-Nitrosodimethylamine	ND	10	µg/L							
N-Nitrosodiphenylamine/Diphenylamine	ND	10	µg/L							
N-Nitrosodi-n-propylamine	ND	10	µg/L							
Pentachloronitrobenzene	ND	10	µg/L							

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QUALITY CONTROL

Semivolatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B293790 - SW-846 3510C										
Blank (B293790-BLK1)				Prepared: 11/02/21 Analyzed: 11/03/21						
Pentachlorophenol	ND	10	µg/L							
Phenanthrene	ND	5.0	µg/L							
Phenol	ND	10	µg/L							
Pyrene	ND	5.0	µg/L							
Pyridine	ND	5.0	µg/L							
1,2,4,5-Tetrachlorobenzene	ND	10	µg/L							
1,2,4-Trichlorobenzene	ND	5.0	µg/L							
2,4,5-Trichlorophenol	ND	10	µg/L							
2,4,6-Trichlorophenol	ND	10	µg/L							
Surrogate: 2-Fluorophenol	*99.8*		µg/L	200		49.9	15-110			
Surrogate: Phenol-d6	*73.7*		µg/L	200		36.9	15-110			
Surrogate: Nitrobenzene-d5	*65.3*		µg/L	100		65.3	30-130			
Surrogate: 2-Fluorobiphenyl	*62.6*		µg/L	100		62.6	30-130			
Surrogate: 2,4,6-Tribromophenol	*149*		µg/L	200		74.4	15-110			
Surrogate: p-Terphenyl-d14	*96.6*		µg/L	100		96.6	30-130			
LCS (B293790-BS1)				Prepared: 11/02/21 Analyzed: 11/03/21						
Acenaphthene	36.8	5.0	µg/L	50.0		73.7	40-140			
Acenaphthylene	38.4	5.0	µg/L	50.0		76.7	40-140			
Acetophenone	37.5	10	µg/L	50.0		75.1	40-140			
Aniline	36.4	5.0	µg/L	50.0		72.8	40-140			
Anthracene	38.1	5.0	µg/L	50.0		76.2	40-140			
Benzidine	41.9	20	µg/L	50.0		83.8	40-140			V-04
Benzo(a)anthracene	36.7	5.0	µg/L	50.0		73.4	40-140			
Benzo(a)pyrene	41.3	5.0	µg/L	50.0		82.6	40-140			
Benzo(b)fluoranthene	38.0	5.0	µg/L	50.0		76.0	40-140			
Benzo(g,h,i)perylene	42.8	5.0	µg/L	50.0		85.6	40-140			
Benzo(k)fluoranthene	40.7	5.0	µg/L	50.0		81.4	40-140			
Benzoic Acid	20.1	10	µg/L	50.0		40.3	10-130			†
Bis(2-chloroethoxy)methane	38.1	10	µg/L	50.0		76.2	40-140			
Bis(2-chloroethyl)ether	36.7	10	µg/L	50.0		73.3	40-140			
Bis(2-chloroisopropyl)ether	45.0	10	µg/L	50.0		90.0	40-140			
Bis(2-Ethylhexyl)phthalate	42.4	10	µg/L	50.0		84.9	40-140			
4-Bromophenylphenylether	35.2	10	µg/L	50.0		70.4	40-140			
Butylbenzylphthalate	40.2	10	µg/L	50.0		80.4	40-140			
Carbazole	38.1	10	µg/L	50.0		76.2	40-140			
4-Chloroaniline	35.9	10	µg/L	50.0		71.8	40-140			
4-Chloro-3-methylphenol	38.1	10	µg/L	50.0		76.2	30-130			
2-Chloronaphthalene	30.4	10	µg/L	50.0		60.8	40-140			
2-Chlorophenol	32.0	10	µg/L	50.0		63.9	30-130			
4-Chlorophenylphenylether	35.4	10	µg/L	50.0		70.7	40-140			
Chrysene	37.8	5.0	µg/L	50.0		75.6	40-140			
Dibenz(a,h)anthracene	43.1	5.0	µg/L	50.0		86.2	40-140			
Dibenzofuran	37.8	5.0	µg/L	50.0		75.7	40-140			
Di-n-butylphthalate	36.7	10	µg/L	50.0		73.4	40-140			
1,2-Dichlorobenzene	29.6	5.0	µg/L	50.0		59.1	40-140			
1,3-Dichlorobenzene	28.4	5.0	µg/L	50.0		56.7	40-140			
1,4-Dichlorobenzene	28.8	5.0	µg/L	50.0		57.7	40-140			
3,3-Dichlorobenzidine	40.3	10	µg/L	50.0		80.6	40-140			
2,4-Dichlorophenol	34.5	10	µg/L	50.0		69.0	30-130			
Diethylphthalate	37.2	10	µg/L	50.0		74.5	40-140			
2,4-Dimethylphenol	33.9	10	µg/L	50.0		67.8	30-130			

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QUALITY CONTROL

Semivolatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes	
Batch B293790 - SW-846 3510C											
LCS (B293790-BS1)				Prepared: 11/02/21 Analyzed: 11/03/21							
Dimethylphthalate	37.0	10	µg/L	50.0		74.0	40-140				
4,6-Dinitro-2-methylphenol	39.2	10	µg/L	50.0		78.3	30-130				
2,4-Dinitrophenol	51.8	10	µg/L	50.0		104	30-130			V-04, V-06	
2,4-Dinitrotoluene	44.5	10	µg/L	50.0		89.1	40-140			V-06	
2,6-Dinitrotoluene	44.3	10	µg/L	50.0		88.6	40-140				
Di-n-octylphthalate	40.3	10	µg/L	50.0		80.7	40-140				
1,2-Diphenylhydrazine/Azobenzene	41.4	10	µg/L	50.0		82.7	40-140				
Fluoranthene	36.5	5.0	µg/L	50.0		73.1	40-140				
Fluorene	38.4	5.0	µg/L	50.0		76.9	40-140				
Hexachlorobenzene	37.1	10	µg/L	50.0		74.1	40-140				
Hexachlorobutadiene	28.0	10	µg/L	50.0		56.0	40-140				
Hexachlorocyclopentadiene	28.6	10	µg/L	50.0		57.3	30-140				†
Hexachloroethane	29.4	10	µg/L	50.0		58.8	40-140				
Indeno(1,2,3-cd)pyrene	46.3	5.0	µg/L	50.0		92.6	40-140				
Isophorone	42.4	10	µg/L	50.0		84.9	40-140				
1-Methylnaphthalene	32.3	5.0	µg/L	50.0		64.6	40-140				
2-Methylnaphthalene	39.4	5.0	µg/L	50.0		78.7	40-140				
2-Methylphenol	33.6	10	µg/L	50.0		67.3	30-130				
3/4-Methylphenol	32.6	10	µg/L	50.0		65.2	30-130				
Naphthalene	35.6	5.0	µg/L	50.0		71.1	40-140				
2-Nitroaniline	55.1	10	µg/L	50.0		110	40-140				
3-Nitroaniline	41.2	10	µg/L	50.0		82.5	40-140				
4-Nitroaniline	44.0	10	µg/L	50.0		87.9	40-140			V-06	
Nitrobenzene	35.7	10	µg/L	50.0		71.5	40-140				
2-Nitrophenol	38.3	10	µg/L	50.0		76.6	30-130				
4-Nitrophenol	22.2	10	µg/L	50.0		44.4	10-130				†
N-Nitrosodimethylamine	23.8	10	µg/L	50.0		47.7	40-140				
N-Nitrosodiphenylamine/Diphenylamine	39.1	10	µg/L	50.0		78.2	40-140				
N-Nitrosodi-n-propylamine	41.9	10	µg/L	50.0		83.8	40-140				
Pentachloronitrobenzene	37.9	10	µg/L	50.0		75.8	40-140				
Pentachlorophenol	34.9	10	µg/L	50.0		69.9	30-130				
Phenanthrene	37.5	5.0	µg/L	50.0		75.0	40-140				
Phenol	17.5	10	µg/L	50.0		34.9	20-130				†
Pyrene	37.8	5.0	µg/L	50.0		75.7	40-140				
Pyridine	16.3	5.0	µg/L	50.0		32.5	10-140				†
1,2,4,5-Tetrachlorobenzene	33.2	10	µg/L	50.0		66.4	40-140				
1,2,4-Trichlorobenzene	29.8	5.0	µg/L	50.0		59.6	40-140				
2,4,5-Trichlorophenol	38.0	10	µg/L	50.0		75.9	30-130				
2,4,6-Trichlorophenol	37.0	10	µg/L	50.0		74.1	30-130				
Surrogate: 2-Fluorophenol	*98.3*		µg/L	200		49.1	15-110				
Surrogate: Phenol-d6	*72.2*		µg/L	200		36.1	15-110				
Surrogate: Nitrobenzene-d5	*62.7*		µg/L	100		62.7	30-130				
Surrogate: 2-Fluorobiphenyl	*65.5*		µg/L	100		65.5	30-130				
Surrogate: 2,4,6-Tribromophenol	*172*		µg/L	200		85.9	15-110				
Surrogate: p-Terphenyl-d14	*92.3*		µg/L	100		92.3	30-130				

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QUALITY CONTROL

Semivolatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes	
Batch B293790 - SW-846 3510C											
LCS Dup (B293790-BSD1)				Prepared: 11/02/21 Analyzed: 11/03/21							
Acenaphthene	38.5	5.0	µg/L	50.0		76.9	40-140	4.30	20		
Acenaphthylene	39.2	5.0	µg/L	50.0		78.4	40-140	2.24	20		
Acetophenone	38.4	10	µg/L	50.0		76.8	40-140	2.24	20		
Aniline	38.7	5.0	µg/L	50.0		77.4	40-140	6.20	50		‡
Anthracene	41.1	5.0	µg/L	50.0		82.2	40-140	7.60	20		
Benzidine	37.6	20	µg/L	50.0		75.1	40-140	11.0	20	V-04	
Benzo(a)anthracene	39.4	5.0	µg/L	50.0		78.7	40-140	6.99	20		
Benzo(a)pyrene	45.1	5.0	µg/L	50.0		90.2	40-140	8.79	20		
Benzo(b)fluoranthene	40.8	5.0	µg/L	50.0		81.7	40-140	7.21	20		
Benzo(g,h,i)perylene	44.6	5.0	µg/L	50.0		89.2	40-140	4.17	20		
Benzo(k)fluoranthene	43.9	5.0	µg/L	50.0		87.8	40-140	7.56	20		
Benzoic Acid	22.9	10	µg/L	50.0		45.8	10-130	12.9	50		† ‡
Bis(2-chloroethoxy)methane	39.1	10	µg/L	50.0		78.3	40-140	2.67	20		
Bis(2-chloroethyl)ether	37.7	10	µg/L	50.0		75.4	40-140	2.80	20		
Bis(2-chloroisopropyl)ether	44.2	10	µg/L	50.0		88.4	40-140	1.75	20		
Bis(2-Ethylhexyl)phthalate	43.2	10	µg/L	50.0		86.3	40-140	1.71	20		
4-Bromophenylphenylether	37.7	10	µg/L	50.0		75.3	40-140	6.81	20		
Butylbenzylphthalate	42.0	10	µg/L	50.0		84.0	40-140	4.33	20		
Carbazole	41.4	10	µg/L	50.0		82.8	40-140	8.35	20		
4-Chloroaniline	37.8	10	µg/L	50.0		75.6	40-140	5.21	20		
4-Chloro-3-methylphenol	39.7	10	µg/L	50.0		79.4	30-130	4.11	20		
2-Chloronaphthalene	30.3	10	µg/L	50.0		60.6	40-140	0.363	20		
2-Chlorophenol	33.1	10	µg/L	50.0		66.2	30-130	3.50	20		
4-Chlorophenylphenylether	36.8	10	µg/L	50.0		73.7	40-140	4.13	20		
Chrysene	40.8	5.0	µg/L	50.0		81.5	40-140	7.61	20		
Dibenz(a,h)anthracene	47.2	5.0	µg/L	50.0		94.4	40-140	9.06	20		
Dibenzofuran	39.6	5.0	µg/L	50.0		79.1	40-140	4.44	20		
Di-n-butylphthalate	40.0	10	µg/L	50.0		80.1	40-140	8.73	20		
1,2-Dichlorobenzene	30.2	5.0	µg/L	50.0		60.4	40-140	2.14	20		
1,3-Dichlorobenzene	28.7	5.0	µg/L	50.0		57.4	40-140	1.19	20		
1,4-Dichlorobenzene	29.4	5.0	µg/L	50.0		58.8	40-140	1.86	20		
3,3-Dichlorobenzidine	42.7	10	µg/L	50.0		85.4	40-140	5.76	20		
2,4-Dichlorophenol	36.2	10	µg/L	50.0		72.4	30-130	4.78	20		
Diethylphthalate	39.1	10	µg/L	50.0		78.3	40-140	4.92	20		
2,4-Dimethylphenol	35.4	10	µg/L	50.0		70.9	30-130	4.50	20		
Dimethylphthalate	40.4	10	µg/L	50.0		80.7	40-140	8.63	50		‡
4,6-Dinitro-2-methylphenol	43.3	10	µg/L	50.0		86.5	30-130	9.97	50		‡
2,4-Dinitrophenol	60.3	10	µg/L	50.0		121	30-130	15.1	50	V-04, V-06	‡
2,4-Dinitrotoluene	50.2	10	µg/L	50.0		100	40-140	11.8	20	V-06	
2,6-Dinitrotoluene	47.4	10	µg/L	50.0		94.8	40-140	6.81	20		
Di-n-octylphthalate	41.8	10	µg/L	50.0		83.5	40-140	3.46	20		
1,2-Diphenylhydrazine/Azobenzene	41.8	10	µg/L	50.0		83.7	40-140	1.15	20		
Fluoranthene	41.5	5.0	µg/L	50.0		82.9	40-140	12.6	20		
Fluorene	40.9	5.0	µg/L	50.0		81.7	40-140	6.08	20		
Hexachlorobenzene	39.0	10	µg/L	50.0		78.0	40-140	5.02	20		
Hexachlorobutadiene	28.7	10	µg/L	50.0		57.4	40-140	2.50	20		
Hexachlorocyclopentadiene	29.8	10	µg/L	50.0		59.6	30-140	4.07	50		† ‡
Hexachloroethane	29.5	10	µg/L	50.0		59.1	40-140	0.407	50		‡
Indeno(1,2,3-cd)pyrene	49.2	5.0	µg/L	50.0		98.3	40-140	6.01	50		‡
Isophorone	42.9	10	µg/L	50.0		85.9	40-140	1.15	20		
1-Methylnaphthalene	34.1	5.0	µg/L	50.0		68.2	40-140	5.42	20		
2-Methylnaphthalene	39.6	5.0	µg/L	50.0		79.3	40-140	0.709	20		

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QUALITY CONTROL

Semivolatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes	
Batch B293790 - SW-846 3510C											
LCS Dup (B293790-BSD1)				Prepared: 11/02/21 Analyzed: 11/03/21							
2-Methylphenol	34.8	10	µg/L	50.0		69.7	30-130	3.56	20		
3/4-Methylphenol	34.1	10	µg/L	50.0		68.2	30-130	4.53	20		
Naphthalene	34.9	5.0	µg/L	50.0		69.8	40-140	1.82	20		
2-Nitroaniline	59.3	10	µg/L	50.0		119	40-140	7.26	20		
3-Nitroaniline	45.2	10	µg/L	50.0		90.3	40-140	9.05	20		
4-Nitroaniline	49.7	10	µg/L	50.0		99.3	40-140	12.2	20	V-06	
Nitrobenzene	37.0	10	µg/L	50.0		73.9	40-140	3.36	20		
2-Nitrophenol	40.2	10	µg/L	50.0		80.5	30-130	4.94	20		
4-Nitrophenol	25.4	10	µg/L	50.0		50.8	10-130	13.5	50		† ‡
N-Nitrosodimethylamine	24.6	10	µg/L	50.0		49.1	40-140	2.89	20		
N-Nitrosodiphenylamine/Diphenylamine	41.8	10	µg/L	50.0		83.7	40-140	6.72	20		
N-Nitrosodi-n-propylamine	41.8	10	µg/L	50.0		83.6	40-140	0.287	20		
Pentachloronitrobenzene	42.5	10	µg/L	50.0		85.1	40-140	11.6	20		
Pentachlorophenol	38.4	10	µg/L	50.0		76.9	30-130	9.54	50		‡
Phenanthrene	40.6	5.0	µg/L	50.0		81.2	40-140	7.86	20		
Phenol	18.4	10	µg/L	50.0		36.8	20-130	5.13	20		†
Pyrene	40.6	5.0	µg/L	50.0		81.2	40-140	7.01	20		
Pyridine	15.4	5.0	µg/L	50.0		30.9	10-140	5.23	50		† ‡
1,2,4,5-Tetrachlorobenzene	33.1	10	µg/L	50.0		66.1	40-140	0.453	20		
1,2,4-Trichlorobenzene	31.4	5.0	µg/L	50.0		62.7	40-140	5.04	20		
2,4,5-Trichlorophenol	40.4	10	µg/L	50.0		80.7	30-130	6.10	20		
2,4,6-Trichlorophenol	39.5	10	µg/L	50.0		79.0	30-130	6.51	50		‡
Surrogate: 2-Fluorophenol	*101*		µg/L	200		50.5	15-110				
Surrogate: Phenol-d6	*76.2*		µg/L	200		38.1	15-110				
Surrogate: Nitrobenzene-d5	*66.7*		µg/L	100		66.7	30-130				
Surrogate: 2-Fluorobiphenyl	*66.0*		µg/L	100		66.0	30-130				
Surrogate: 2,4,6-Tribromophenol	*190*		µg/L	200		94.8	15-110				
Surrogate: p-Terphenyl-d14	*98.2*		µg/L	100		98.2	30-130				
Batch B293858 - SW-846 3510C											
Blank (B293858-BLK1)				Prepared: 11/03/21 Analyzed: 11/04/21							
Acenaphthene	ND	5.0	µg/L								
Acenaphthylene	ND	5.0	µg/L								
Acetophenone	ND	10	µg/L								
Aniline	ND	5.0	µg/L								
Anthracene	ND	5.0	µg/L								
Benzidine	ND	20	µg/L							V-05	
Benzo(a)anthracene	ND	5.0	µg/L								
Benzo(a)pyrene	ND	5.0	µg/L								
Benzo(b)fluoranthene	ND	5.0	µg/L								
Benzo(g,h,i)perylene	ND	5.0	µg/L								
Benzo(k)fluoranthene	ND	5.0	µg/L								
Benzoic Acid	ND	10	µg/L								
Bis(2-chloroethoxy)methane	ND	10	µg/L								
Bis(2-chloroethyl)ether	ND	10	µg/L								
Bis(2-chloroisopropyl)ether	ND	10	µg/L								
Bis(2-Ethylhexyl)phthalate	ND	10	µg/L								
4-Bromophenylphenylether	ND	10	µg/L								
Butylbenzylphthalate	ND	10	µg/L								
Carbazole	ND	10	µg/L								
4-Chloroaniline	ND	10	µg/L							V-34	
4-Chloro-3-methylphenol	ND	10	µg/L								

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QUALITY CONTROL

Semivolatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B293858 - SW-846 3510C										
Blank (B293858-BLK1)				Prepared: 11/03/21 Analyzed: 11/04/21						
2-Chloronaphthalene	ND	10	µg/L							
2-Chlorophenol	ND	10	µg/L							
4-Chlorophenylphenylether	ND	10	µg/L							
Chrysene	ND	5.0	µg/L							
Dibenz(a,h)anthracene	ND	5.0	µg/L							
Dibenzofuran	ND	5.0	µg/L							
Di-n-butylphthalate	ND	10	µg/L							
1,2-Dichlorobenzene	ND	5.0	µg/L							
1,3-Dichlorobenzene	ND	5.0	µg/L							
1,4-Dichlorobenzene	ND	5.0	µg/L							
3,3-Dichlorobenzidine	ND	10	µg/L							
2,4-Dichlorophenol	ND	10	µg/L							
Diethylphthalate	ND	10	µg/L							
2,4-Dimethylphenol	ND	10	µg/L							
Dimethylphthalate	ND	10	µg/L							
4,6-Dinitro-2-methylphenol	ND	10	µg/L							
2,4-Dinitrophenol	ND	10	µg/L							V-04, V-20
2,4-Dinitrotoluene	ND	10	µg/L							
2,6-Dinitrotoluene	ND	10	µg/L							
Di-n-octylphthalate	ND	10	µg/L							
1,2-Diphenylhydrazine/Azobenzene	ND	10	µg/L							
Fluoranthene	ND	5.0	µg/L							
Fluorene	ND	5.0	µg/L							
Hexachlorobenzene	ND	10	µg/L							
Hexachlorobutadiene	ND	10	µg/L							
Hexachlorocyclopentadiene	ND	10	µg/L							V-05
Hexachloroethane	ND	10	µg/L							
Indeno(1,2,3-cd)pyrene	ND	5.0	µg/L							
Isophorone	ND	10	µg/L							
1-Methylnaphthalene	ND	5.0	µg/L							
2-Methylnaphthalene	ND	5.0	µg/L							
2-Methylphenol	ND	10	µg/L							
3/4-Methylphenol	ND	10	µg/L							
Naphthalene	ND	5.0	µg/L							
2-Nitroaniline	ND	10	µg/L							
3-Nitroaniline	ND	10	µg/L							
4-Nitroaniline	ND	10	µg/L							
Nitrobenzene	ND	10	µg/L							
2-Nitrophenol	ND	10	µg/L							
4-Nitrophenol	ND	10	µg/L							
N-Nitrosodimethylamine	ND	10	µg/L							
N-Nitrosodiphenylamine/Diphenylamine	ND	10	µg/L							
N-Nitrosodi-n-propylamine	ND	10	µg/L							
Pentachloronitrobenzene	ND	10	µg/L							
Pentachlorophenol	ND	10	µg/L							
Phenanthrene	0.43	5.0	µg/L							B-05, J
Phenol	ND	10	µg/L							
Pyrene	ND	5.0	µg/L							
Pyridine	ND	5.0	µg/L							
1,2,4,5-Tetrachlorobenzene	ND	10	µg/L							
1,2,4-Trichlorobenzene	ND	5.0	µg/L							
2,4,5-Trichlorophenol	ND	10	µg/L							

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QUALITY CONTROL

Semivolatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes	
Batch B293858 - SW-846 3510C											
Blank (B293858-BLK1)				Prepared: 11/03/21 Analyzed: 11/04/21							
2,4,6-Trichlorophenol	ND	10	µg/L								
Surrogate: 2-Fluorophenol	*83.8*		µg/L	200		41.9	15-110				
Surrogate: Phenol-d6	*52.7*		µg/L	200		26.4	15-110				
Surrogate: Nitrobenzene-d5	*65.9*		µg/L	100		65.9	30-130				
Surrogate: 2-Fluorobiphenyl	*74.3*		µg/L	100		74.3	30-130				
Surrogate: 2,4,6-Tribromophenol	*203*		µg/L	200		102	15-110				
Surrogate: p-Terphenyl-d14	*112*		µg/L	100		112	30-130				
LCS (B293858-BS1)				Prepared: 11/03/21 Analyzed: 11/04/21							
Acenaphthene	34.4	5.0	µg/L	50.0		68.8	40-140				
Acenaphthylene	39.3	5.0	µg/L	50.0		78.6	40-140				
Acetophenone	32.0	10	µg/L	50.0		64.1	40-140				
Aniline	31.0	5.0	µg/L	50.0		62.0	40-140				
Anthracene	37.6	5.0	µg/L	50.0		75.2	40-140				
Benzidine	49.4	20	µg/L	50.0		98.9	40-140			V-05	
Benzo(a)anthracene	36.1	5.0	µg/L	50.0		72.3	40-140				
Benzo(a)pyrene	40.6	5.0	µg/L	50.0		81.3	40-140				
Benzo(b)fluoranthene	38.9	5.0	µg/L	50.0		77.8	40-140				
Benzo(g,h,i)perylene	43.1	5.0	µg/L	50.0		86.1	40-140				
Benzo(k)fluoranthene	41.5	5.0	µg/L	50.0		83.0	40-140				
Benzoic Acid	12.7	10	µg/L	50.0		25.4	10-130				†
Bis(2-chloroethoxy)methane	33.1	10	µg/L	50.0		66.2	40-140				
Bis(2-chloroethyl)ether	31.9	10	µg/L	50.0		63.9	40-140				
Bis(2-chloroisopropyl)ether	40.6	10	µg/L	50.0		81.1	40-140				
Bis(2-Ethylhexyl)phthalate	38.5	10	µg/L	50.0		77.0	40-140				
4-Bromophenylphenylether	36.8	10	µg/L	50.0		73.6	40-140				
Butylbenzylphthalate	37.0	10	µg/L	50.0		74.0	40-140				
Carbazole	36.8	10	µg/L	50.0		73.6	40-140				
4-Chloroaniline	31.4	10	µg/L	50.0		62.9	40-140			V-34	
4-Chloro-3-methylphenol	33.3	10	µg/L	50.0		66.5	30-130				
2-Chloronaphthalene	32.2	10	µg/L	50.0		64.5	40-140				
2-Chlorophenol	30.8	10	µg/L	50.0		61.6	30-130				
4-Chlorophenylphenylether	35.9	10	µg/L	50.0		71.7	40-140				
Chrysene	37.5	5.0	µg/L	50.0		74.9	40-140				
Dibenz(a,h)anthracene	43.1	5.0	µg/L	50.0		86.2	40-140				
Dibenzofuran	39.0	5.0	µg/L	50.0		78.1	40-140				
Di-n-butylphthalate	37.4	10	µg/L	50.0		74.8	40-140				
1,2-Dichlorobenzene	29.8	5.0	µg/L	50.0		59.6	40-140				
1,3-Dichlorobenzene	29.8	5.0	µg/L	50.0		59.6	40-140				
1,4-Dichlorobenzene	29.5	5.0	µg/L	50.0		59.1	40-140				
3,3-Dichlorobenzidine	42.2	10	µg/L	50.0		84.5	40-140				
2,4-Dichlorophenol	33.2	10	µg/L	50.0		66.5	30-130				
Diethylphthalate	36.4	10	µg/L	50.0		72.7	40-140				
2,4-Dimethylphenol	33.4	10	µg/L	50.0		66.7	30-130				
Dimethylphthalate	37.4	10	µg/L	50.0		74.7	40-140				
4,6-Dinitro-2-methylphenol	37.6	10	µg/L	50.0		75.2	30-130				
2,4-Dinitrophenol	43.3	10	µg/L	50.0		86.5	30-130			V-04, V-06	
2,4-Dinitrotoluene	42.7	10	µg/L	50.0		85.4	40-140				
2,6-Dinitrotoluene	44.1	10	µg/L	50.0		88.2	40-140				
Di-n-octylphthalate	35.4	10	µg/L	50.0		70.8	40-140				
1,2-Diphenylhydrazine/Azobenzene	31.6	10	µg/L	50.0		63.3	40-140				
Fluoranthene	36.4	5.0	µg/L	50.0		72.7	40-140				

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QUALITY CONTROL

Semivolatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes	
Batch B293858 - SW-846 3510C											
LCS (B293858-BS1)				Prepared: 11/03/21 Analyzed: 11/04/21							
Fluorene	37.2	5.0	µg/L	50.0		74.4	40-140				
Hexachlorobenzene	40.4	10	µg/L	50.0		80.7	40-140				
Hexachlorobutadiene	27.7	10	µg/L	50.0		55.3	40-140				
Hexachlorocyclopentadiene	19.3	10	µg/L	50.0		38.5	30-140			V-05	†
Hexachloroethane	26.6	10	µg/L	50.0		53.3	40-140				
Indeno(1,2,3-cd)pyrene	42.5	5.0	µg/L	50.0		85.1	40-140				
Isophorone	34.3	10	µg/L	50.0		68.6	40-140				
1-Methylnaphthalene	31.5	5.0	µg/L	50.0		63.0	40-140				
2-Methylnaphthalene	39.4	5.0	µg/L	50.0		78.8	40-140				
2-Methylphenol	27.9	10	µg/L	50.0		55.9	30-130				
3/4-Methylphenol	25.3	10	µg/L	50.0		50.6	30-130				
Naphthalene	33.3	5.0	µg/L	50.0		66.6	40-140				
2-Nitroaniline	39.0	10	µg/L	50.0		78.1	40-140				
3-Nitroaniline	40.7	10	µg/L	50.0		81.5	40-140				
4-Nitroaniline	42.2	10	µg/L	50.0		84.3	40-140				
Nitrobenzene	30.4	10	µg/L	50.0		60.9	40-140				
2-Nitrophenol	37.3	10	µg/L	50.0		74.5	30-130				
4-Nitrophenol	16.8	10	µg/L	50.0		33.5	10-130				†
N-Nitrosodimethylamine	21.0	10	µg/L	50.0		42.1	40-140				
N-Nitrosodiphenylamine/Diphenylamine	39.5	10	µg/L	50.0		79.0	40-140				
N-Nitrosodi-n-propylamine	32.3	10	µg/L	50.0		64.6	40-140				
Pentachloronitrobenzene	40.2	10	µg/L	50.0		80.5	40-140				
Pentachlorophenol	29.2	10	µg/L	50.0		58.4	30-130				
Phenanthrene	37.7	5.0	µg/L	50.0		75.3	40-140				
Phenol	12.0	10	µg/L	50.0		24.0	20-130				†
Pyrene	37.5	5.0	µg/L	50.0		75.0	40-140				
Pyridine	15.5	5.0	µg/L	50.0		31.1	10-140				†
1,2,4,5-Tetrachlorobenzene	33.4	10	µg/L	50.0		66.7	40-140				
1,2,4-Trichlorobenzene	30.4	5.0	µg/L	50.0		60.9	40-140				
2,4,5-Trichlorophenol	39.2	10	µg/L	50.0		78.4	30-130				
2,4,6-Trichlorophenol	37.2	10	µg/L	50.0		74.4	30-130				
Surrogate: 2-Fluorophenol	*78.2*		µg/L	200		39.1	15-110				
Surrogate: Phenol-d6	*49.0*		µg/L	200		24.5	15-110				
Surrogate: Nitrobenzene-d5	*57.0*		µg/L	100		57.0	30-130				
Surrogate: 2-Fluorobiphenyl	*67.0*		µg/L	100		67.0	30-130				
Surrogate: 2,4,6-Tribromophenol	*188*		µg/L	200		93.8	15-110				
Surrogate: p-Terphenyl-d14	*95.9*		µg/L	100		95.9	30-130				
LCS Dup (B293858-BSD1)				Prepared: 11/03/21 Analyzed: 11/04/21							
Acenaphthene	33.9	5.0	µg/L	50.0		67.9	40-140	1.32	20		
Acenaphthylene	39.4	5.0	µg/L	50.0		78.8	40-140	0.178	20		
Acetophenone	30.6	10	µg/L	50.0		61.3	40-140	4.50	20		
Aniline	29.0	5.0	µg/L	50.0		58.1	40-140	6.53	50		‡
Anthracene	38.0	5.0	µg/L	50.0		76.0	40-140	1.09	20		
Benzidine	53.2	20	µg/L	50.0		106	40-140	7.36	20	V-05	
Benzo(a)anthracene	36.7	5.0	µg/L	50.0		73.4	40-140	1.48	20		
Benzo(a)pyrene	40.7	5.0	µg/L	50.0		81.4	40-140	0.148	20		
Benzo(b)fluoranthene	38.9	5.0	µg/L	50.0		77.9	40-140	0.154	20		
Benzo(g,h,i)perylene	43.1	5.0	µg/L	50.0		86.2	40-140	0.0464	20		
Benzo(k)fluoranthene	41.9	5.0	µg/L	50.0		83.7	40-140	0.888	20		
Benzoic Acid	11.2	10	µg/L	50.0		22.3	10-130	12.8	50		† ‡
Bis(2-chloroethoxy)methane	32.6	10	µg/L	50.0		65.1	40-140	1.55	20		

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QUALITY CONTROL

Semivolatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC		%REC Limits	RPD	RPD Limit	Notes	
Batch B293858 - SW-846 3510C												
LCS Dup (B293858-BSD1)				Prepared: 11/03/21 Analyzed: 11/04/21								
Bis(2-chloroethyl)ether	31.0	10	µg/L	50.0		61.9		40-140	3.15	20		
Bis(2-chloroisopropyl)ether	39.3	10	µg/L	50.0		78.6		40-140	3.18	20		
Bis(2-Ethylhexyl)phthalate	40.2	10	µg/L	50.0		80.5		40-140	4.37	20		
4-Bromophenylphenylether	37.9	10	µg/L	50.0		75.7		40-140	2.84	20		
Butylbenzylphthalate	37.5	10	µg/L	50.0		74.9		40-140	1.32	20		
Carbazole	37.5	10	µg/L	50.0		74.9		40-140	1.80	20		
4-Chloroaniline	31.1	10	µg/L	50.0		62.3		40-140	0.991	20	V-34	
4-Chloro-3-methylphenol	33.1	10	µg/L	50.0		66.2		30-130	0.573	20		
2-Chloronaphthalene	32.2	10	µg/L	50.0		64.4		40-140	0.186	20		
2-Chlorophenol	29.2	10	µg/L	50.0		58.4		30-130	5.27	20		
4-Chlorophenylphenylether	35.6	10	µg/L	50.0		71.3		40-140	0.643	20		
Chrysene	38.0	5.0	µg/L	50.0		76.1		40-140	1.56	20		
Dibenz(a,h)anthracene	44.4	5.0	µg/L	50.0		88.8		40-140	2.99	20		
Dibenzofuran	38.9	5.0	µg/L	50.0		77.8		40-140	0.359	20		
Di-n-butylphthalate	38.5	10	µg/L	50.0		77.1		40-140	2.98	20		
1,2-Dichlorobenzene	29.3	5.0	µg/L	50.0		58.6		40-140	1.62	20		
1,3-Dichlorobenzene	28.6	5.0	µg/L	50.0		57.1		40-140	4.15	20		
1,4-Dichlorobenzene	29.1	5.0	µg/L	50.0		58.3		40-140	1.36	20		
3,3-Dichlorobenzidine	43.4	10	µg/L	50.0		86.9		40-140	2.82	20		
2,4-Dichlorophenol	32.0	10	µg/L	50.0		64.0		30-130	3.77	20		
Diethylphthalate	36.5	10	µg/L	50.0		72.9		40-140	0.247	20		
2,4-Dimethylphenol	32.3	10	µg/L	50.0		64.7		30-130	3.11	20		
Dimethylphthalate	36.1	10	µg/L	50.0		72.2		40-140	3.38	50		‡
4,6-Dinitro-2-methylphenol	39.0	10	µg/L	50.0		77.9		30-130	3.47	50		‡
2,4-Dinitrophenol	43.9	10	µg/L	50.0		87.8		30-130	1.40	50	V-04, V-06	‡
2,4-Dinitrotoluene	41.5	10	µg/L	50.0		83.1		40-140	2.80	20		
2,6-Dinitrotoluene	43.4	10	µg/L	50.0		86.8		40-140	1.55	20		
Di-n-octylphthalate	36.6	10	µg/L	50.0		73.3		40-140	3.47	20		
1,2-Diphenylhydrazine/Azobenzene	32.6	10	µg/L	50.0		65.2		40-140	2.99	20		
Fluoranthene	36.9	5.0	µg/L	50.0		73.8		40-140	1.56	20		
Fluorene	37.3	5.0	µg/L	50.0		74.5		40-140	0.134	20		
Hexachlorobenzene	40.8	10	µg/L	50.0		81.5		40-140	0.986	20		
Hexachlorobutadiene	27.1	10	µg/L	50.0		54.3		40-140	1.93	20		
Hexachlorocyclopentadiene	20.0	10	µg/L	50.0		40.0		30-140	3.62	50	V-05	† ‡
Hexachloroethane	26.2	10	µg/L	50.0		52.5		40-140	1.44	50		‡
Indeno(1,2,3-cd)pyrene	43.8	5.0	µg/L	50.0		87.7		40-140	2.99	50		‡
Isophorone	34.0	10	µg/L	50.0		67.9		40-140	0.996	20		
1-Methylnaphthalene	31.2	5.0	µg/L	50.0		62.4		40-140	0.893	20		
2-Methylnaphthalene	38.4	5.0	µg/L	50.0		76.8		40-140	2.65	20		
2-Methylphenol	26.5	10	µg/L	50.0		53.0		30-130	5.25	20		
3/4-Methylphenol	24.9	10	µg/L	50.0		49.8		30-130	1.55	20		
Naphthalene	32.2	5.0	µg/L	50.0		64.3		40-140	3.51	20		
2-Nitroaniline	37.8	10	µg/L	50.0		75.6		40-140	3.23	20		
3-Nitroaniline	39.5	10	µg/L	50.0		79.0		40-140	3.12	20		
4-Nitroaniline	41.4	10	µg/L	50.0		82.8		40-140	1.79	20		
Nitrobenzene	29.0	10	µg/L	50.0		58.0		40-140	4.85	20		
2-Nitrophenol	36.5	10	µg/L	50.0		73.0		30-130	2.11	20		
4-Nitrophenol	16.4	10	µg/L	50.0		32.9		10-130	2.05	50		† ‡
N-Nitrosodimethylamine	19.1	10	µg/L	50.0		**38.3**	*	40-140	9.50	20	L-07	
N-Nitrosodiphenylamine/Diphenylamine	40.6	10	µg/L	50.0		81.2		40-140	2.77	20		
N-Nitrosodi-n-propylamine	31.6	10	µg/L	50.0		63.1		40-140	2.25	20		
Pentachloronitrobenzene	41.2	10	µg/L	50.0		82.5		40-140	2.45	20		

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QUALITY CONTROL

Semivolatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B293858 - SW-846 3510C										
LCS Dup (B293858-BSD1)				Prepared: 11/03/21 Analyzed: 11/04/21						
Pentachlorophenol	29.6	10	µg/L	50.0		59.3	30-130	1.39	50	‡
Phenanthrene	38.4	5.0	µg/L	50.0		76.8	40-140	1.89	20	
Phenol	11.4	10	µg/L	50.0		22.7	20-130	5.56	20	†
Pyrene	38.0	5.0	µg/L	50.0		75.9	40-140	1.19	20	
Pyridine	13.8	5.0	µg/L	50.0		27.5	10-140	12.2	50	† ‡
1,2,4,5-Tetrachlorobenzene	33.3	10	µg/L	50.0		66.6	40-140	0.150	20	
1,2,4-Trichlorobenzene	29.2	5.0	µg/L	50.0		58.5	40-140	4.02	20	
2,4,5-Trichlorophenol	39.4	10	µg/L	50.0		78.8	30-130	0.483	20	
2,4,6-Trichlorophenol	37.1	10	µg/L	50.0		74.2	30-130	0.188	50	‡
Surrogate: 2-Fluorophenol	*69.1*		µg/L	200		34.6	15-110			
Surrogate: Phenol-d6	*46.2*		µg/L	200		23.1	15-110			
Surrogate: Nitrobenzene-d5	*54.0*		µg/L	100		54.0	30-130			
Surrogate: 2-Fluorobiphenyl	*66.8*		µg/L	100		66.8	30-130			
Surrogate: 2,4,6-Tribromophenol	*185*		µg/L	200		92.4	15-110			
Surrogate: p-Terphenyl-d14	*97.2*		µg/L	100		97.2	30-130			

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QUALITY CONTROL

Polychlorinated Biphenyls By GC/ECD - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B293652 - SW-846 3510C										
Blank (B293652-BLK1)				Prepared: 10/31/21 Analyzed: 11/02/21						
Aroclor-1016	ND	0.20	µg/L							
Aroclor-1016 [2C]	ND	0.20	µg/L							
Aroclor-1221	ND	0.20	µg/L							
Aroclor-1221 [2C]	ND	0.20	µg/L							
Aroclor-1232	ND	0.20	µg/L							
Aroclor-1232 [2C]	ND	0.20	µg/L							
Aroclor-1242	ND	0.20	µg/L							
Aroclor-1242 [2C]	ND	0.20	µg/L							
Aroclor-1248	ND	0.20	µg/L							
Aroclor-1248 [2C]	ND	0.20	µg/L							
Aroclor-1254	ND	0.20	µg/L							
Aroclor-1254 [2C]	ND	0.20	µg/L							
Aroclor-1260	ND	0.20	µg/L							
Aroclor-1260 [2C]	ND	0.20	µg/L							
Aroclor-1262	ND	0.20	µg/L							
Aroclor-1262 [2C]	ND	0.20	µg/L							
Aroclor-1268	ND	0.20	µg/L							
Aroclor-1268 [2C]	ND	0.20	µg/L							
Surrogate: Decachlorobiphenyl	*1.93*		µg/L	2.00		96.3	30-150			
Surrogate: Decachlorobiphenyl [2C]	*2.17*		µg/L	2.00		108	30-150			
Surrogate: Tetrachloro-m-xylene	*1.56*		µg/L	2.00		77.9	30-150			
Surrogate: Tetrachloro-m-xylene [2C]	*1.42*		µg/L	2.00		71.1	30-150			
LCS (B293652-BS1)				Prepared: 10/31/21 Analyzed: 11/02/21						
Aroclor-1016	0.46	0.20	µg/L	0.500		91.6	40-140			
Aroclor-1016 [2C]	0.45	0.20	µg/L	0.500		90.3	40-140			
Aroclor-1260	0.47	0.20	µg/L	0.500		93.6	40-140			
Aroclor-1260 [2C]	0.49	0.20	µg/L	0.500		98.0	40-140			
Surrogate: Decachlorobiphenyl	*1.86*		µg/L	2.00		93.0	30-150			
Surrogate: Decachlorobiphenyl [2C]	*2.11*		µg/L	2.00		105	30-150			
Surrogate: Tetrachloro-m-xylene	*1.66*		µg/L	2.00		83.0	30-150			
Surrogate: Tetrachloro-m-xylene [2C]	*1.46*		µg/L	2.00		73.2	30-150			
LCS Dup (B293652-BSD1)				Prepared: 10/31/21 Analyzed: 11/02/21						
Aroclor-1016	0.44	0.20	µg/L	0.500		88.4	40-140	3.56	20	
Aroclor-1016 [2C]	0.43	0.20	µg/L	0.500		85.5	40-140	5.37	20	
Aroclor-1260	0.45	0.20	µg/L	0.500		89.9	40-140	3.96	20	
Aroclor-1260 [2C]	0.47	0.20	µg/L	0.500		94.4	40-140	3.83	20	
Surrogate: Decachlorobiphenyl	*1.95*		µg/L	2.00		97.5	30-150			
Surrogate: Decachlorobiphenyl [2C]	*2.16*		µg/L	2.00		108	30-150			
Surrogate: Tetrachloro-m-xylene	*1.58*		µg/L	2.00		78.9	30-150			
Surrogate: Tetrachloro-m-xylene [2C]	*1.40*		µg/L	2.00		70.1	30-150			

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QUALITY CONTROL

Semivolatile Organic Compounds by GC - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B293612 - Alcohol Prep										
Blank (B293612-BLK1)				Prepared & Analyzed: 10/29/21						
Methanol	ND	10	mg/L							
Isopropanol	ND	10	mg/L							
Ethanol	ND	10	mg/L							
Propylene glycol	ND	10	mg/L							
Ethylene glycol	ND	10	mg/L							
LCS (B293612-BS1)				Prepared & Analyzed: 10/29/21						
Methanol	106	10	mg/L	100		106	40-140			
Isopropanol	107	10	mg/L	100		107	40-140			
Ethanol	111	10	mg/L	100		111	40-140			
Propylene glycol	114	10	mg/L	100		114	40-140			
Ethylene glycol	101	10	mg/L	100		101	40-140			
LCS Dup (B293612-BSD1)				Prepared & Analyzed: 10/29/21						
Methanol	111	10	mg/L	100		111	40-140	5.20	50	
Isopropanol	108	10	mg/L	100		108	40-140	1.60	50	
Ethanol	113	10	mg/L	100		113	40-140	1.38	50	
Propylene glycol	117	10	mg/L	100		117	40-140	2.43	50	
Ethylene glycol	103	10	mg/L	100		103	40-140	2.12	50	
Duplicate (B293612-DUP1)	**Source: 21J1856-06**			Prepared: 10/29/21 Analyzed: 10/30/21						
Methanol	ND	10	mg/L		ND			NC	50	
Isopropanol	ND	10	mg/L		ND			NC	50	
Ethanol	ND	10	mg/L		ND			NC	50	
Propylene glycol	ND	10	mg/L		ND			NC	50	
Ethylene glycol	ND	10	mg/L		ND			NC	50	
Matrix Spike (B293612-MS1)	**Source: 21J1856-06**			Prepared: 10/29/21 Analyzed: 10/30/21						
Methanol	102	10	mg/L	100	ND	102	40-140			
Isopropanol	95.7	10	mg/L	100	ND	95.7	40-140			
Ethanol	108	10	mg/L	100	ND	108	40-140			
Propylene glycol	101	10	mg/L	100	ND	101	40-140			
Ethylene glycol	76.3	10	mg/L	100	ND	76.3	40-140			

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QUALITY CONTROL

Petroleum Hydrocarbons Analyses - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B293763 - SW-846 3510C										
Blank (B293763-BLK1)				Prepared: 11/02/21 Analyzed: 11/03/21						
Diesel Range Organics	ND	0.20	mg/L							
Surrogate: 2-Fluorobiphenyl	*0.0777*		mg/L	0.100		77.7	40-140			
LCS (B293763-BS1)				Prepared: 11/02/21 Analyzed: 11/04/21						
Diesel Range Organics	0.752	0.20	mg/L	1.00		75.2	40-140			
Surrogate: 2-Fluorobiphenyl	*0.0772*		mg/L	0.100		77.2	40-140			
LCS Dup (B293763-BSD1)				Prepared: 11/02/21 Analyzed: 11/04/21						
Diesel Range Organics	0.719	0.20	mg/L	1.00		71.9	40-140	4.51	30	
Surrogate: 2-Fluorobiphenyl	*0.0714*		mg/L	0.100		71.4	40-140			
Batch B293804 - SW-846 5030B										
Blank (B293804-BLK1)				Prepared: 11/02/21 Analyzed: 11/03/21						
Gasoline Range Organics (GRO)	ND	0.010	mg/L							
Surrogate: 1-Chloro-3-fluorobenzene	*16.2*		µg/L	15.0		108	70-130			
LCS (B293804-BS1)				Prepared & Analyzed: 11/02/21						
Gasoline Range Organics (GRO)	0.223	0.010	mg/L	0.250		89.2	80-120			
Surrogate: 1-Chloro-3-fluorobenzene	*15.9*		µg/L	15.0		106	70-130			
LCS Dup (B293804-BSD1)				Prepared: 11/02/21 Analyzed: 11/03/21						
Gasoline Range Organics (GRO)	0.225	0.010	mg/L	0.250		90.0	80-120	0.878	30	
Surrogate: 1-Chloro-3-fluorobenzene	*15.2*		µg/L	15.0		101	70-130			

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QUALITY CONTROL

Metals Analyses (Total) - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B293657 - SW-846 3005A										
Blank (B293657-BLK1)				Prepared & Analyzed: 10/31/21						
Antimony	ND	1.0	µg/L							
Arsenic	ND	0.80	µg/L							
Barium	ND	10	µg/L							
Beryllium	ND	0.40	µg/L							
Cadmium	ND	0.20	µg/L							
Chromium	ND	1.0	µg/L							
Cobalt	ND	1.0	µg/L							
Copper	ND	1.0	µg/L							
Lead	ND	0.50	µg/L							
Manganese	ND	1.0	µg/L							
Nickel	ND	5.0	µg/L							
Selenium	ND	5.0	µg/L							
Silver	ND	0.20	µg/L							
Thallium	ND	0.20	µg/L							
Vanadium	ND	5.0	µg/L							
Zinc	ND	10	µg/L							
Blank (B293657-BLK2)				Prepared: 10/31/21 Analyzed: 11/01/21						
Chromium	ND	1.0	µg/L							
LCS (B293657-BS1)				Prepared & Analyzed: 10/31/21						
Antimony	549	10	µg/L	500		110	80-120			
Arsenic	536	8.0	µg/L	500		107	80-120			
Barium	523	100	µg/L	500		105	80-120			
Beryllium	532	4.0	µg/L	500		106	80-120			
Cadmium	532	2.0	µg/L	500		106	80-120			
Chromium	521	10	µg/L	500		104	80-120			
Cobalt	509	10	µg/L	500		102	80-120			
Copper	1010	10	µg/L	1000		101	80-120			
Lead	523	5.0	µg/L	500		105	80-120			
Manganese	504	10	µg/L	500		101	80-120			
Nickel	528	50	µg/L	500		106	80-120			
Selenium	530	50	µg/L	500		106	80-120			
Silver	509	2.0	µg/L	500		102	80-120			
Thallium	536	2.0	µg/L	500		107	80-120			
Vanadium	498	50	µg/L	500		99.7	80-120			
Zinc	1120	100	µg/L	1000		112	80-120			
LCS (B293657-BS2)				Prepared: 10/31/21 Analyzed: 11/01/21						
Chromium	521	10	µg/L	500		104	80-120			
LCS Dup (B293657-BSD1)				Prepared & Analyzed: 10/31/21						
Antimony	548	10	µg/L	500		110	80-120	0.341	20	
Arsenic	536	8.0	µg/L	500		107	80-120	0.122	20	
Barium	529	100	µg/L	500		106	80-120	1.09	20	
Beryllium	536	4.0	µg/L	500		107	80-120	0.624	20	
Cadmium	528	2.0	µg/L	500		106	80-120	0.638	20	
Chromium	523	10	µg/L	500		105	80-120	0.323	20	
Cobalt	507	10	µg/L	500		101	80-120	0.340	20	
Copper	1020	10	µg/L	1000		102	80-120	0.169	20	
Lead	530	5.0	µg/L	500		106	80-120	1.39	20	
Manganese	509	10	µg/L	500		102	80-120	1.17	20	
Nickel	530	50	µg/L	500		106	80-120	0.331	20	

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QUALITY CONTROL

Metals Analyses (Total) - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B293657 - SW-846 3005A										
LCS Dup (B293657-BSD1)				Prepared & Analyzed: 10/31/21						
Selenium	539	50	µg/L	500		108	80-120	1.75	20	
Silver	515	2.0	µg/L	500		103	80-120	1.13	20	
Thallium	547	2.0	µg/L	500		109	80-120	2.01	20	
Vanadium	499	50	µg/L	500		99.8	80-120	0.146	20	
Zinc	1130	100	µg/L	1000		113	80-120	0.826	20	
LCS Dup (B293657-BSD2)				Prepared: 10/31/21 Analyzed: 11/01/21						
Chromium	523	10	µg/L	500		105	80-120	0.323	20	
Batch B293658 - SW-846 3005A										
Blank (B293658-BLK1)				Prepared & Analyzed: 10/31/21						
Aluminum	ND	0.050	mg/L							
Calcium	ND	0.50	mg/L							
Iron	ND	0.050	mg/L							
Magnesium	ND	0.050	mg/L							
Potassium	ND	2.0	mg/L							
Sodium	ND	2.0	mg/L							
LCS (B293658-BS1)				Prepared & Analyzed: 10/31/21						
Aluminum	0.494	0.050	mg/L	0.500		98.8	80-120			
Calcium	3.96	0.50	mg/L	4.00		98.9	80-120			
Iron	4.03	0.050	mg/L	4.00		101	80-120			
Magnesium	3.88	0.050	mg/L	4.00		97.1	80-120			
Potassium	3.85	2.0	mg/L	4.00		96.4	80-120			
Sodium	3.96	2.0	mg/L	4.00		99.1	80-120			
LCS Dup (B293658-BSD1)				Prepared & Analyzed: 10/31/21						
Aluminum	0.488	0.050	mg/L	0.500		97.5	80-120	1.28	20	
Calcium	3.91	0.50	mg/L	4.00		97.8	80-120	1.18	20	
Iron	3.95	0.050	mg/L	4.00		98.9	80-120	1.88	20	
Magnesium	3.84	0.050	mg/L	4.00		95.9	80-120	1.26	20	
Potassium	3.77	2.0	mg/L	4.00		94.4	80-120	2.10	20	
Sodium	3.92	2.0	mg/L	4.00		98.1	80-120	0.952	20	
Batch B293728 - SW-846 7470A Prep										
Blank (B293728-BLK1)				Prepared: 11/01/21 Analyzed: 11/02/21						
Mercury	ND	0.00010	mg/L							
LCS (B293728-BS1)				Prepared: 11/01/21 Analyzed: 11/02/21						
Mercury	0.00436	0.00010	mg/L	0.00402		108	80-120			

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QUALITY CONTROL

Metals Analyses (Total) - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B293728 - SW-846 7470A Prep										
LCS Dup (B293728-BSD1)				Prepared: 11/01/21 Analyzed: 11/02/21						
Mercury	0.00437	0.00010	mg/L	0.00402		109	80-120	0.200	20	
Duplicate (B293728-DUP1)		**Source: 21J1856-01**		Prepared: 11/01/21 Analyzed: 11/02/21						
Mercury	0.000330	0.00020	mg/L		0.000326			1.29	20	
Matrix Spike (B293728-MS1)		**Source: 21J1856-01**		Prepared: 11/01/21 Analyzed: 11/02/21						
Mercury	0.00408	0.00020	mg/L	0.00402	0.000326	93.5	75-125			

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QUALITY CONTROL

Metals Analyses (Dissolved) - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B293655 - SW-846 3005A Dissolved										
Blank (B293655-BLK1)				Prepared: 10/31/21 Analyzed: 11/01/21						
Antimony	ND	1.0	µg/L							
Arsenic	ND	0.80	µg/L							
Barium	ND	10	µg/L							
Beryllium	ND	0.40	µg/L							
Cadmium	ND	0.20	µg/L							
Chromium	ND	1.0	µg/L							
Cobalt	ND	1.0	µg/L							
Copper	ND	1.0	µg/L							
Lead	ND	0.50	µg/L							
Manganese	ND	1.0	µg/L							
Nickel	1.3	5.0	µg/L							J
Selenium	ND	5.0	µg/L							
Silver	ND	0.20	µg/L							
Thallium	ND	0.20	µg/L							
Vanadium	ND	5.0	µg/L							
Zinc	ND	10	µg/L							
LCS (B293655-BS1)				Prepared: 10/31/21 Analyzed: 11/01/21						
Antimony	552	10	µg/L	500		110	80-120			
Arsenic	506	8.0	µg/L	500		101	80-120			
Barium	504	100	µg/L	500		101	80-120			
Beryllium	507	4.0	µg/L	500		101	80-120			
Cadmium	505	2.0	µg/L	500		101	80-120			
Chromium	505	10	µg/L	500		101	80-120			
Cobalt	508	10	µg/L	500		102	80-120			
Copper	1030	10	µg/L	1000		103	80-120			
Lead	497	5.0	µg/L	500		99.3	80-120			
Manganese	524	10	µg/L	500		105	80-120			
Nickel	505	50	µg/L	500		101	80-120			
Selenium	510	50	µg/L	500		102	80-120			
Silver	491	2.0	µg/L	500		98.3	80-120			
Thallium	505	2.0	µg/L	500		101	80-120			
Vanadium	518	50	µg/L	500		104	80-120			
Zinc	965	100	µg/L	1000		96.5	80-120			
LCS Dup (B293655-BSD1)				Prepared: 10/31/21 Analyzed: 11/01/21						
Antimony	550	10	µg/L	500		110	80-120	0.340	20	
Arsenic	504	8.0	µg/L	500		101	80-120	0.477	20	
Barium	500	100	µg/L	500		100	80-120	0.801	20	
Beryllium	508	4.0	µg/L	500		102	80-120	0.139	20	
Cadmium	509	2.0	µg/L	500		102	80-120	0.760	20	
Chromium	485	10	µg/L	500		96.9	80-120	4.11	20	
Cobalt	492	10	µg/L	500		98.4	80-120	3.20	20	
Copper	1040	10	µg/L	1000		104	80-120	0.835	20	
Lead	495	5.0	µg/L	500		99.0	80-120	0.388	20	
Manganese	503	10	µg/L	500		101	80-120	3.93	20	
Nickel	491	50	µg/L	500		98.3	80-120	2.80	20	
Selenium	515	50	µg/L	500		103	80-120	0.934	20	
Silver	496	2.0	µg/L	500		99.3	80-120	1.03	20	
Thallium	499	2.0	µg/L	500		99.7	80-120	1.37	20	
Vanadium	511	50	µg/L	500		102	80-120	1.30	20	
Zinc	957	100	µg/L	1000		95.7	80-120	0.902	20	

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QUALITY CONTROL

Metals Analyses (Dissolved) - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC		%REC Limits	RPD	RPD Limit	Notes
Batch B293655 - SW-846 3005A Dissolved											
Duplicate (B293655-DUP1)		**Source: 21J1856-01**		Prepared: 10/31/21 Analyzed: 11/01/21							
Antimony	ND	1.0	µg/L		ND				NC	20	
Arsenic	5.47	0.80	µg/L		5.43				0.729	20	
Barium	38.8	10	µg/L		39.6				1.86	20	
Beryllium	1.70	0.40	µg/L		1.70				0.00112	20	
Cadmium	7.62	0.20	µg/L		7.71				1.13	20	
Chromium	ND	1.0	µg/L		ND				NC	20	
Cobalt	818	100	µg/L		832				1.66	20	
Copper	15.5	1.0	µg/L		15.7				1.53	20	
Lead	1.50	0.50	µg/L		1.54				2.69	20	
Manganese	26000	100	µg/L		26500				1.56	20	
Nickel	190	5.0	µg/L		189				0.0679	20	
Selenium	18.5	5.0	µg/L		18.3				1.26	20	
Silver	ND	0.20	µg/L		ND				NC	20	
Thallium	0.106	0.20	µg/L		0.0884				18.3	20	J
Vanadium	ND	5.0	µg/L		ND				NC	20	
Zinc	350	10	µg/L		351				0.393	20	
Matrix Spike (B293655-MS1)		**Source: 21J1856-01**		Prepared: 10/31/21 Analyzed: 11/01/21							
Antimony	553	10	µg/L	500	ND	111		75-125			
Arsenic	510	8.0	µg/L	500	5.43	101		75-125			
Barium	536	100	µg/L	500	39.6	99.3		75-125			
Beryllium	515	4.0	µg/L	500	1.70	103		75-125			
Cadmium	511	2.0	µg/L	500	7.71	101		75-125			
Chromium	492	10	µg/L	500	ND	98.3		75-125			
Cobalt	1260	10	µg/L	500	832	84.8		75-125			
Copper	1070	10	µg/L	1000	15.7	105		75-125			
Lead	494	5.0	µg/L	500	1.54	98.5		75-125			
Manganese	27300	100	µg/L	500	26500	**174**	*	75-125			MS-19
Nickel	685	50	µg/L	500	189	99.1		75-125			
Selenium	546	50	µg/L	500	18.3	106		75-125			
Silver	403	2.0	µg/L	500	ND	80.7		75-125			
Thallium	499	2.0	µg/L	500	ND	99.7		75-125			
Vanadium	512	50	µg/L	500	ND	102		75-125			
Zinc	1310	100	µg/L	1000	351	96.0		75-125			
Batch B293656 - SW-846 3005A Dissolved											
Blank (B293656-BLK1)				Prepared & Analyzed: 10/31/21							
Aluminum	ND	0.050	mg/L								
Calcium	ND	0.50	mg/L								
Iron	ND	0.050	mg/L								
Magnesium	ND	0.050	mg/L								
Potassium	ND	2.0	mg/L								
Sodium	ND	2.0	mg/L								

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QUALITY CONTROL

Metals Analyses (Dissolved) - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B293656 - SW-846 3005A Dissolved										
LCS (B293656-BS1)				Prepared & Analyzed: 10/31/21						
Aluminum	0.489	0.050	mg/L	0.500		97.8	80-120			
Calcium	3.81	0.50	mg/L	4.00		95.4	80-120			
Iron	3.87	0.050	mg/L	4.00		96.9	80-120			
Magnesium	3.82	0.050	mg/L	4.00		95.5	80-120			
Potassium	3.79	2.0	mg/L	4.00		94.9	80-120			
Sodium	3.97	2.0	mg/L	4.00		99.3	80-120			
LCS Dup (B293656-BSD1)				Prepared & Analyzed: 10/31/21						
Aluminum	0.485	0.050	mg/L	0.500		97.0	80-120	0.748	20	
Calcium	3.79	0.50	mg/L	4.00		94.8	80-120	0.580	20	
Iron	3.87	0.050	mg/L	4.00		96.6	80-120	0.230	20	
Magnesium	3.79	0.050	mg/L	4.00		94.8	80-120	0.650	20	
Potassium	3.78	2.0	mg/L	4.00		94.5	80-120	0.349	20	
Sodium	3.91	2.0	mg/L	4.00		97.8	80-120	1.53	20	
Duplicate (B293656-DUP1)	**Source: 21J1856-01**			Prepared & Analyzed: 10/31/21						
Aluminum	2.03	0.050	mg/L		2.04			0.816	20	
Calcium	52.0	0.50	mg/L		52.4			0.852	20	
Iron	0.310	0.050	mg/L		0.311			0.214	20	
Magnesium	31.5	0.050	mg/L		31.8			0.682	20	
Potassium	10.0	2.0	mg/L		10.1			1.22	20	
Sodium	27.1	2.0	mg/L		27.3			0.563	20	
Matrix Spike (B293656-MS1)	**Source: 21J1856-01**			Prepared & Analyzed: 10/31/21						
Aluminum	2.53	0.050	mg/L	0.500	2.04	97.5	75-125			
Calcium	56.0	0.50	mg/L	4.00	52.4	90.9	75-125			
Iron	4.11	0.050	mg/L	4.00	0.311	95.1	75-125			
Magnesium	35.3	0.050	mg/L	4.00	31.8	88.7	75-125			
Potassium	13.9	2.0	mg/L	4.00	10.1	93.0	75-125			
Sodium	30.9	2.0	mg/L	4.00	27.3	90.1	75-125			
Batch B293727 - SW-846 7470A Dissolved										
Blank (B293727-BLK1)				Prepared: 11/01/21 Analyzed: 11/02/21						
Mercury	ND	0.00010	mg/L							
LCS (B293727-BS1)				Prepared: 11/01/21 Analyzed: 11/02/21						
Mercury	0.00431	0.00010	mg/L	0.00402		107	80-120			
LCS Dup (B293727-BSD1)				Prepared: 11/01/21 Analyzed: 11/02/21						
Mercury	0.00398	0.00010	mg/L	0.00402		99.0	80-120	7.97	20	

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QUALITY CONTROL

Metals Analyses (Dissolved) - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B293727 - SW-846 7470A Dissolved										
Duplicate (B293727-DUP1)		**Source: 21J1856-01**		Prepared: 11/01/21 Analyzed: 11/02/21						
Mercury	0.000103	0.00020	mg/L		0.000105			1.66	20	DL-03, J
Matrix Spike (B293727-MS1)		**Source: 21J1856-01**		Prepared: 11/01/21 Analyzed: 11/02/21						
Mercury	0.00379	0.00020	mg/L	0.00402	0.000105	91.8	75-125			

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QUALITY CONTROL

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total) - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B293753 - ASTM D516-16										
Blank (B293753-BLK1)				Prepared & Analyzed: 11/02/21						
Sulfate	ND	1.0	mg/L							
LCS (B293753-BS1)				Prepared & Analyzed: 11/02/21						
Sulfate	12	1.0	mg/L	12.5		98.1	90-110			
LCS Dup (B293753-BSD1)				Prepared & Analyzed: 11/02/21						
Sulfate	13	1.0	mg/L	12.5		102	90-110	3.42	20	
Duplicate (B293753-DUP1)	**Source: 21J1856-01**			Prepared & Analyzed: 11/02/21						
Sulfate	320	25	mg/L		320			0.0987	20	
Matrix Spike (B293753-MS1)	**Source: 21J1856-01**			Prepared & Analyzed: 11/02/21						
Sulfate	910	50	mg/L	625	320	95.1	90-110			
Batch B293898 - EPA 350.1										
Blank (B293898-BLK1)				Prepared: 11/03/21 Analyzed: 11/04/21						
Ammonia as N	ND	0.10	mg/L							
LCS (B293898-BS1)				Prepared: 11/03/21 Analyzed: 11/04/21						
Ammonia as N	1.7	0.10	mg/L	2.00		**86.1** *	90-110			L-07A
LCS Dup (B293898-BSD1)				Prepared: 11/03/21 Analyzed: 11/04/21						
Ammonia as N	2.1	0.10	mg/L	2.00		106	90-110	**20.5** *	20	L-07A
Batch B294057 - ASTM D516-16										
Blank (B294057-BLK1)				Prepared & Analyzed: 11/05/21						
Sulfate	ND	1.0	mg/L							
LCS (B294057-BS1)				Prepared & Analyzed: 11/05/21						
Sulfate	13	1.0	mg/L	12.5		101	90-110			
LCS Dup (B294057-BSD1)				Prepared & Analyzed: 11/05/21						
Sulfate	13	1.0	mg/L	12.5		102	90-110	1.18	20	
Duplicate (B294057-DUP1)	**Source: 21J1856-06**			Prepared & Analyzed: 11/05/21						
Sulfate	150	10	mg/L		150			0.0325	20	
Matrix Spike (B294057-MS1)	**Source: 21J1856-06**			Prepared & Analyzed: 11/05/21						
Sulfate	450	25	mg/L	312	150	95.4	90-110			

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QUALITY CONTROL

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total) - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B294542 - EPA 350.1										
Blank (B294542-BLK1)				Prepared & Analyzed: 11/12/21						
Ammonia as N	ND	0.10	mg/L							
LCS (B294542-BS1)				Prepared & Analyzed: 11/12/21						
Ammonia as N	1.9	0.10	mg/L	2.00		96.8	90-110			
LCS Dup (B294542-BSD1)				Prepared & Analyzed: 11/12/21						
Ammonia as N	2.2	0.10	mg/L	2.00		109	90-110	12.0	20	

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FLAG/QUALIFIER SUMMARY

*	QC result is outside of established limits.
†	Wide recovery limits established for difficult compound.
‡	Wide RPD limits established for difficult compound.
#	Data exceeded client recommended or regulatory level
ND	Not Detected
RL	Reporting Limit is at the level of quantitation (LOQ)
DL	Detection Limit is the lower limit of detection determined by the MDL study
MCL	Maximum Contaminant Level
	Percent recoveries and relative percent differences (RPDs) are determined by the software using values in the calculation which have not been rounded.
	No results have been blank subtracted unless specified in the case narrative section.
B-05	Data is not affected by elevated level in laboratory blank since sample(s) result is "Not Detected".
DL-03	Elevated reporting limit due to matrix interference.
H-10	Analysis was requested after the recommended holding time had passed.
J	Detected but below the Reporting Limit (lowest calibration standard); therefore, result is an estimated concentration (CLP J-Flag).
L-07	Either laboratory fortified blank/laboratory control sample or duplicate recovery is outside of control limits, but the other is within limits. RPD between the two LFB/LCS results is within method specified criteria.
L-07A	Either laboratory fortified blank/laboratory control sample or duplicate recovery is outside of control limits, but the other is within limits. RPD outside of control limits. Reduced precision anticipated for any reported result for this compound.
MS-19	Sample to spike ratio is greater than or equal to 4:1. Spiked amount is not representative of the native amount in the sample. Appropriate or meaningful recoveries cannot be calculated.
V-04	Initial calibration did not meet method specifications. Compound was calibrated using a response factor where %RSD is outside of method specified criteria. Reported result is estimated.
V-05	Continuing calibration verification (CCV) did not meet method specifications and was biased on the low side for this compound.
V-06	Continuing calibration verification (CCV) did not meet method specifications and was biased on the high side for this compound.
V-20	Continuing calibration verification (CCV) did not meet method specifications and was biased on the high side. Data validation is not affected since sample result was "not detected" for this compound.
V-34	Initial calibration verification (ICV) did not meet method specifications and was biased on the low side for this compound. Reported result is estimated.

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CERTIFICATIONS

Certified Analyses included in this Report

Analyte	Certifications
ASTM D516-16 in Water	
Sulfate	NC,NY,MA,VA,ME,NH,CT,RI
EPA 350.1 in Water	
Ammonia as N	NC,NY,MA,NH,RI,ME,VA
SW-846 6010D in Water	
Aluminum	CT,NY,NH,ME,VA,NC
Aluminum	CT,NH,NY,ME,VA,NC
Calcium	CT,NH,NY,ME,VA,NC
Calcium	CT,NH,NY,NC,ME,VA
Iron	CT,NH,NY,ME,VA,NC
Iron	CT,NH,NY,ME,NC,VA
Magnesium	CT,NH,NY,NC,ME,VA
Magnesium	CT,NH,NY,ME,VA,NC
Potassium	CT,NH,NY,ME,VA,NC
Potassium	CT,NH,NY,ME,NC,VA
Sodium	CT,NH,NY,NC,ME,VA
Sodium	CT,NH,NY,ME,VA,NC
SW-846 6020B in Water	
Antimony	CT,NH,NY,ME,VA,NC
Antimony	CT,NH,NY,ME,VA,NC
Arsenic	CT,NH,NY,ME,VA,NC
Arsenic	CT,NH,NY,NC,ME,VA
Barium	CT,NH,NY,ME,VA,NC
Barium	MA,NY,CT,NC,NH,ME,VA
Beryllium	CT,NH,NY,ME,VA,NC
Beryllium	CT,NH,NY,NC,ME,VA
Cadmium	CT,NH,NY,NC,ME,VA
Cadmium	CT,NH,NY,RI,ME,VA,NC
Chromium	CT,NH,NY,NC,ME,VA
Chromium	CT,NH,NY,ME,VA,NC
Cobalt	CT,NH,NY,ME,VA,NC
Cobalt	CT,NH,NY,NC,ME,VA
Copper	CT,NH,NY,ME,VA,NC
Copper	CT,NH,NY,NC,ME,VA
Lead	CT,NH,NY,NC,ME,VA
Lead	CT,NH,NY,ME,VA,NC
Manganese	CT,NH,NY,NC,ME,VA
Manganese	CT,NH,NY,ME,VA,NC
Nickel	CT,NH,NY,NC,ME,VA
Nickel	CT,NH,NY,ME,VA,NC
Selenium	CT,NH,NY,ME,VA,NC
Selenium	CT,NH,NY,NC,ME,VA
Silver	CT,NC,NH,NY,ME,VA
Silver	CT,NH,NY,ME,VA,NC
Thallium	CT,NH,NY,NC,ME,VA
Thallium	CT,NH,NY,ME,VA,NC
Vanadium	CT,NH,NY,ME,VA,NC

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CERTIFICATIONS

Certified Analyses included in this Report

Analyte	Certifications
SW-846 6020B in Water	
Vanadium	CT,NH,NY,NC,ME,VA
Zinc	CT,NH,NY,ME,VA,NC
Zinc	CT,NH,NY,NC,ME,VA
SW-846 7470A in Water	
Mercury	CT,NH,NY,NC,ME,VA
Mercury	CT,NH,NY,NC,ME,VA
SW-846 8015C in Water	
Gasoline Range Organics (GRO)	NY,VA,NH,NC
Diesel Range Organics	NY,VA,NH,NC
Ethanol	NY
Ethylene glycol	NY
SW-846 8082A in Water	
Aroclor-1016	CT,NH,NY,NC,ME,VA,PA
Aroclor-1016 [2C]	CT,NH,NY,NC,ME,VA,PA
Aroclor-1221	CT,NH,NY,NC,ME,VA,PA
Aroclor-1221 [2C]	CT,NH,NY,NC,ME,VA,PA
Aroclor-1232	CT,NH,NY,NC,ME,VA,PA
Aroclor-1232 [2C]	CT,NH,NY,NC,ME,VA,PA
Aroclor-1242	CT,NH,NY,NC,ME,VA,PA
Aroclor-1242 [2C]	CT,NH,NY,NC,ME,VA,PA
Aroclor-1248	CT,NH,NY,NC,ME,VA,PA
Aroclor-1248 [2C]	CT,NH,NY,NC,ME,VA,PA
Aroclor-1254	CT,NH,NY,NC,ME,VA,PA
Aroclor-1254 [2C]	CT,NH,NY,NC,ME,VA,PA
Aroclor-1260	CT,NH,NY,NC,ME,VA,PA
Aroclor-1260 [2C]	CT,NH,NY,NC,ME,VA,PA
Aroclor-1262	NH,NY,NC,ME,VA,PA
Aroclor-1262 [2C]	NH,NY,NC,ME,VA,PA
Aroclor-1268	NH,NY,NC,ME,VA,PA
Aroclor-1268 [2C]	NH,NY,NC,ME,VA,PA
SW-846 8260D in Water	
Acetone	CT,ME,NH,VA,NY
Acrylonitrile	CT,ME,NH,VA,NY
tert-Amyl Methyl Ether (TAME)	ME,NH,VA,NY
Benzene	CT,ME,NH,VA,NY
Bromobenzene	ME,NY
Bromochloromethane	ME,NH,VA,NY
Bromodichloromethane	CT,ME,NH,VA,NY
Bromoform	CT,ME,NH,VA,NY
Bromomethane	CT,ME,NH,VA,NY
2-Butanone (MEK)	CT,ME,NH,VA,NY
tert-Butyl Alcohol (TBA)	ME,NH,VA,NY
n-Butylbenzene	ME,VA,NY
sec-Butylbenzene	ME,VA,NY
tert-Butylbenzene	ME,VA,NY

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CERTIFICATIONS

Certified Analyses included in this Report

Analyte	Certifications
SW-846 8260D in Water	
tert-Butyl Ethyl Ether (TBEE)	ME,NH,VA,NY
Carbon Disulfide	CT,ME,NH,VA,NY
Carbon Tetrachloride	CT,ME,NH,VA,NY
Chlorobenzene	CT,ME,NH,VA,NY
Chlorodibromomethane	CT,ME,NH,VA,NY
Chloroethane	CT,ME,NH,VA,NY
Chloroform	CT,ME,NH,VA,NY
Chloromethane	CT,ME,NH,VA,NY
2-Chlorotoluene	ME,NH,VA,NY
4-Chlorotoluene	ME,NH,VA,NY
1,2-Dibromo-3-chloropropane (DBCP)	ME,NY
1,2-Dibromoethane (EDB)	ME,NY
Dibromomethane	ME,NH,VA,NY
1,2-Dichlorobenzene	CT,ME,NH,VA,NY
1,3-Dichlorobenzene	CT,ME,NH,VA,NY
1,4-Dichlorobenzene	CT,ME,NH,VA,NY
trans-1,4-Dichloro-2-butene	ME,NH,VA,NY
Dichlorodifluoromethane (Freon 12)	ME,NH,VA,NY
1,1-Dichloroethane	CT,ME,NH,VA,NY
1,2-Dichloroethane	CT,ME,NH,VA,NY
1,1-Dichloroethylene	CT,ME,NH,VA,NY
cis-1,2-Dichloroethylene	ME,NY
trans-1,2-Dichloroethylene	CT,ME,NH,VA,NY
1,2-Dichloropropane	CT,ME,NH,VA,NY
1,3-Dichloropropane	ME,VA,NY
2,2-Dichloropropane	ME,NH,VA,NY
1,1-Dichloropropene	ME,NH,VA,NY
cis-1,3-Dichloropropene	CT,ME,NH,VA,NY
trans-1,3-Dichloropropene	CT,ME,NH,VA,NY
Diethyl Ether	ME,NY
Diisopropyl Ether (DIPE)	ME,NH,VA,NY
1,4-Dioxane	ME,NY
Ethylbenzene	CT,ME,NH,VA,NY
Hexachlorobutadiene	CT,ME,NH,VA,NY
2-Hexanone (MBK)	CT,ME,NH,VA,NY
Isopropylbenzene (Cumene)	ME,VA,NY
p-Isopropyltoluene (p-Cymene)	CT,ME,NH,VA,NY
Methyl Acetate	ME,NY
Methyl tert-Butyl Ether (MTBE)	CT,ME,NH,VA,NY
Methyl Cyclohexane	NY
Methylene Chloride	CT,ME,NH,VA,NY
4-Methyl-2-pentanone (MIBK)	CT,ME,NH,VA,NY
Naphthalene	ME,NH,VA,NY
n-Propylbenzene	CT,ME,NH,VA,NY
Styrene	CT,ME,NH,VA,NY
1,1,1,2-Tetrachloroethane	CT,ME,NH,VA,NY
1,1,2,2-Tetrachloroethane	CT,ME,NH,VA,NY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

CERTIFICATIONS

Certified Analyses included in this Report

Analyte	Certifications
SW-846 8260D in Water	
Tetrachloroethylene	CT,ME,NH,VA,NY
Toluene	CT,ME,NH,VA,NY
1,2,3-Trichlorobenzene	ME,NH,VA,NY
1,2,4-Trichlorobenzene	CT,ME,NH,VA,NY
1,3,5-Trichlorobenzene	ME
1,1,1-Trichloroethane	CT,ME,NH,VA,NY
1,1,2-Trichloroethane	CT,ME,NH,VA,NY
Trichloroethylene	CT,ME,NH,VA,NY
Trichlorofluoromethane (Freon 11)	CT,ME,NH,VA,NY
1,2,3-Trichloropropane	ME,NH,VA,NY
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	VA,NY
1,2,4-Trimethylbenzene	ME,VA,NY
1,3,5-Trimethylbenzene	ME,VA,NY
Vinyl Chloride	CT,ME,NH,VA,NY
m+p Xylene	CT,ME,NH,VA,NY
o-Xylene	CT,ME,NH,VA,NY
SW-846 8270E in Water	
Acenaphthene	CT,NY,NC,ME,NH,VA
Acenaphthylene	CT,NY,NC,ME,NH,VA
Acetophenone	NY,NC
Aniline	CT,NY,NC,ME,VA
Anthracene	CT,NY,NC,ME,NH,VA
Benzidine	CT,NY,NC,ME,NH,VA
Benzo(a)anthracene	CT,NY,NC,ME,NH,VA
Benzo(a)pyrene	CT,NY,NC,ME,NH,VA
Benzo(b)fluoranthene	CT,NY,NC,ME,NH,VA
Benzo(g,h,i)perylene	CT,NY,NC,ME,NH,VA
Benzo(k)fluoranthene	CT,NY,NC,ME,NH,VA
Benzoic Acid	NY,NC,ME,NH,VA
Bis(2-chloroethoxy)methane	CT,NY,NC,ME,NH,VA
Bis(2-chloroethyl)ether	CT,NY,NC,ME,NH,VA
Bis(2-chloroisopropyl)ether	CT,NY,NC,ME,NH,VA
Bis(2-Ethylhexyl)phthalate	CT,NY,NC,ME,NH,VA
4-Bromophenylphenylether	CT,NY,NC,ME,NH,VA
Butylbenzylphthalate	CT,NY,NC,ME,NH,VA
Carbazole	NC
4-Chloroaniline	CT,NY,NC,ME,NH,VA
4-Chloro-3-methylphenol	CT,NY,NC,ME,NH,VA
2-Chloronaphthalene	CT,NY,NC,ME,NH,VA
2-Chlorophenol	CT,NY,NC,ME,NH,VA
4-Chlorophenylphenylether	CT,NY,NC,ME,NH,VA
Chrysene	CT,NY,NC,ME,NH,VA
Dibenz(a,h)anthracene	CT,NY,NC,ME,NH,VA
Dibenzofuran	CT,NY,NC,ME,NH,VA
Di-n-butylphthalate	CT,NY,NC,ME,NH,VA
1,2-Dichlorobenzene	CT,NY,NC,ME,NH,VA

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

CERTIFICATIONS

Certified Analyses included in this Report

Analyte	Certifications
SW-846 8270E in Water	
1,3-Dichlorobenzene	CT,NY,NC,ME,NH,VA
1,4-Dichlorobenzene	CT,NY,NC,ME,NH,VA
3,3-Dichlorobenzidine	CT,NY,NC,ME,NH,VA
2,4-Dichlorophenol	CT,NY,NC,ME,NH,VA
Diethylphthalate	CT,NY,NC,ME,NH,VA
2,4-Dimethylphenol	CT,NY,NC,ME,NH,VA
Dimethylphthalate	CT,NY,NC,ME,NH,VA
4,6-Dinitro-2-methylphenol	CT,NY,NC,ME,NH,VA
2,4-Dinitrophenol	CT,NY,NC,ME,NH,VA
2,4-Dinitrotoluene	CT,NY,NC,ME,NH,VA
2,6-Dinitrotoluene	CT,NY,NC,ME,NH,VA
Di-n-octylphthalate	CT,NY,NC,ME,NH,VA
1,2-Diphenylhydrazine/Azobenzene	NY,NC
Fluoranthene	CT,NY,NC,ME,NH,VA
Fluorene	NY,NC,ME,NH,VA
Hexachlorobenzene	CT,NY,NC,ME,NH,VA
Hexachlorobutadiene	CT,NY,NC,ME,NH,VA
Hexachlorocyclopentadiene	CT,NY,NC,ME,NH,VA
Hexachloroethane	CT,NY,NC,ME,NH,VA
Indeno(1,2,3-cd)pyrene	CT,NY,NC,ME,NH,VA
Isophorone	CT,NY,NC,ME,NH,VA
1-Methylnaphthalene	NC
2-Methylnaphthalene	CT,NY,NC,ME,NH,VA
2-Methylphenol	CT,NY,NC,NH,VA
3/4-Methylphenol	CT,NY,NC,NH,VA
Naphthalene	CT,NY,NC,ME,NH,VA
2-Nitroaniline	CT,NY,NC,ME,NH,VA
3-Nitroaniline	CT,NY,NC,ME,NH,VA
4-Nitroaniline	CT,NY,NC,ME,NH,VA
Nitrobenzene	CT,NY,NC,ME,NH,VA
2-Nitrophenol	CT,NY,NC,ME,NH,VA
4-Nitrophenol	CT,NY,NC,ME,NH,VA
N-Nitrosodimethylamine	CT,NY,NC,ME,NH,VA
N-Nitrosodi-n-propylamine	CT,NY,NC,ME,NH,VA
Pentachloronitrobenzene	NC
Pentachlorophenol	CT,NY,NC,ME,NH,VA
Phenanthrene	CT,NY,NC,ME,NH,VA
Phenol	CT,NY,NC,ME,NH,VA
Pyrene	CT,NY,NC,ME,NH,VA
Pyridine	CT,NY,NC,ME,NH,VA
1,2,4,5-Tetrachlorobenzene	NY,NC
1,2,4-Trichlorobenzene	CT,NY,NC,ME,NH,VA
2,4,5-Trichlorophenol	CT,NY,NC,ME,NH,VA
2,4,6-Trichlorophenol	CT,NY,NC,ME,NH,VA
2-Fluorophenol	NC

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Con-Test, a Pace Environmental Laboratory, operates under the following certifications and accreditations:

Code	Description	Number	Expires
AIHA	AIHA-LAP, LLC - ISO17025:2017	100033	03/1/2022
MA	Massachusetts DEP	M-MA100	06/30/2022
CT	Connecticut Department of Publilc Health	PH-0165	12/31/2022
NY	New York State Department of Health	10899 NELAP	04/1/2022
NH-S	New Hampshire Environmental Lab	2516 NELAP	02/5/2022
RI	Rhode Island Department of Health	LAO00112	12/30/2021
NC	North Carolina Div. of Water Quality	652	12/31/2021
NJ	New Jersey DEP	MA007 NELAP	06/30/2022
FL	Florida Department of Health	E871027 NELAP	06/30/2022
VT	Vermont Department of Health Lead Laboratory	LL720741	07/30/2022
ME	State of Maine	MA00100	06/9/2023
VA	Commonwealth of Virginia	460217	12/14/2021
NH-P	New Hampshire Environmental Lab	2557 NELAP	09/6/2022
VT-DW	Vermont Department of Health Drinking Water	VT-255716	06/12/2022
NC-DW	North Carolina Department of Health	25703	07/31/2022
PA	Commonwealth of Pennsylvania DEP	68-05812	06/30/2022
MI	Dept. of Env, Great Lakes, and Energy	9100	09/6/2022

2151856

Pace Analytical®

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Fax: 413-525-6405
Access COC's and Support Requests

http://www.pacelabs.com

CHAIN OF CUSTODY RECORD

39 Spruce Street
East Longmeadow, MA 01028

Doc # 381 Rev 5_07/13/2021

Page 1 of 2

Company Name:	Ramboll
Address:	4350 N. Fairfax Dr. Ste 300
Phone:	7035162383
Project Name:	HRP PRGS SCR
Project Location:	1400 N. Royal St., Alexandria VA
Project Number:	
Project Manager:	Greg Grose
Pace Quote Name/Number:	
Invoice Recipient:	Sostertag@ramboll.com
Sampled By:	Sarah Osterfag

Requested Turnaround Time
7-Day ☐ 10-Day ☒ 5 day PO
PFAS 10-Day (std) ☐ Due Date:

Rush-Approval Required
1-Day ☐ 3-Day ☐
2-Day ☐ 4-Day ☐

Data Delivery
Format: PDF ☒ EXCEL ☒
Other: Ramboll EDD
CLP Like Data Pkg Required: ☐
Email To: Sostertag@ramboll.com
Fax To #:

Dissolved Metals Samples?
☒ Field Filtered
○ Lab to Filter

Orthophosphate Samples?
○ Field Filtered
○ Lab to Filter

PCB ONLY
SOXHLET ☐
NON SOXHLET ☐

ANALYSIS REQUESTED

Pace Work Order#	Client Sample ID / Description	Beginning Date/Time	Ending Date/Time	COMP/GRAB	Matrix Code	Conc Code	VIALS	GLASS	PLASTIC	BACTERIA	ENCORE	VOCs	SVOCs	Dissolved TAL Metals	Total TAL Metals	TPH - GRO	TPH - DRO	TPH - ORO	Sulfate	PCBs
1	HRP-MW214-211026	10.26.21	1010	G	GW	L	6	4	3			X	X	X	X	X	X	X	X	
	~~HRP-TB12-211026~~	10.26.21	1010	G	O-TB	C	2					X								
2	HRP-MW208-211026	10.26.21	1310	G	GW	L	6	4	3			X	X	X	X	X	X	X	X	
	~~HRP-TB13-211026~~	10.26.21	1310	G	O-TB	C	2					X								
3	HRP-MW207-211026	10.26.21	1655	G	GW	L	6	4	3			X	X	X	X	X	X	X	X	
4	HRP-TB11-211026	10.26.21	1655	G	O-TB	C	2					X								
	~~HRP-TB14-211027~~	10.27.21	1045	G	O-TB	C	2					X								
5	HRP-MW221-211027	10.27.21	1010	G	GW	L	2	4				X	X							X

Relinquished by: (signature) — Date/Time: 10/27, 1330
Received by: (signature) — Date/Time: 10/27 1330
Relinquished by: (signature) — Date/Time: 10.27.21
Received by: (signature) — Date/Time: 10/27/21 1521
Relinquished by: (signature) — Date/Time: 10/28/21 1630
Received by: (signature) — Date/Time: 10 33 10-29-21
Relinquished by: (signature) — Date/Time:
Received by: (signature) — Date/Time:

Client Comments: TB: Trip Blank

Detection Limit Requirements
MA
Other: VA DEQ

Special Requirements
☐ MA MCP Required
MCP Certification Form Required
☐ CT RCP Required
RCP Certification Form Required
☐ MA State DW Required
PWSID #

Please use the following codes to indicate possible sample concentration within the Conc Code column above:
H - High; M - Medium; L - Low; C - Clean; U - Unknown

NELAC and AIHA-LAP, LLC Accredited

Project Entity
Government ☐ Municipality ☐ MWRA ☐ WRTA ☐
Federal ☐ 21 J ☐ School ☐
City ☐ Brownfield ☐ MBTA ☐

Other
☐ Chromatogram
☐ AIHA-LAP,LLC

Lab Comments:

Disclaimer: Pace Analytical is not responsible for any omitted information on the Chain of Custody. The Chain of Custody is a legal document that must be complete and accurate and is used to determine wha analyses the laboratory will perform. Any missing information is not the laboratory's responsibility. Pac Analytical values your partnership on each project and will try to assist with missing information, but wil not be held accountable.

Courier Use Only
Total Number Of:
VIALS
GLASS
PLASTIC
BACTERIA
ENCORE

Glassware in the fridge? Y / N
Glassware in freezer? Y / N
Prepackaged Cooler? Y / N
*Pace Analytical is not responsible for missing samples from prepacked coolers

[1] Matrix Codes:
GW = Ground Water
WW = Waste Water
DW = Drinking Water
A = Air
S = Soil
SL = Sludge
SOL = Solid
O = Other (please define)

[2] Preservation Codes:
I = Iced
H = HCL
M = Methanol
N = Nitric Acid
S = Sulfuric Acid
B = Sodium Bisulfate
X = Sodium Hydroxide
T = Sodium Thiosulfate
O = Other (please define)

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21J1856

Pace Analytical®

Phone: 413-525-2332
Fax: 413-525-6405
Access COC's and Support Requests

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CHAIN OF CUSTODY RECORD

39 Spruce Street
East Longmeadow, MA 01028

Doc # 381 Rev 5_07/13/2021

Company Name: Ramboll
Address: 4350 N. Fairfax Dr Ste 300
Phone: 703-516-2383
Project Name: HRP- PRGS- SCR
Project Location: 1400 N. Royal St. Alexandria VA
Project Number:
Project Manager: Greg Grose
Pace Quote Name/Number:
Invoice Recipient: SOstertag@Ramboll.com
Sampled By: Anne Kelly

Requested Turnaround Time
7-Day ☐ 10-Day ☒ 5 day
PFAS 10-Day (std) ☐ Due Date: 10

Rush Approval Required
1-Day ☐ 3-Day ☐
2-Day ☐ 4-Day ☐

Data Delivery
Format: PDF ☐ EXCEL ☐
Other: Ramboll EDD
CLP Like Data Pkg Required: ☐
Email To: sostertag@Ramboll.com
Fax To #:

Dissolved Metals Samples
☒ Field Filtered
○ Lab to Filter

Orthophosphate Samples
○ Field Filtered
○ Lab to Filter

PCB ONLY
SOXHLET ☐
NON SOXHLET ☐

ANALYSIS REQUESTED

Pace Work Order#	Client Sample ID / Description	Beginning Date/Time	Ending Date/Time	COMP/GRAB	[1]Matrix Code	Conc Code	VIALS	GLASS	PLASTIC	BACTERIA	ENCORE	VOC HI	SVOC I	Total Metals NI	Dissolved Metals WI	Ammonia S	Sulfate I	Glycol I	Hydrazine HI	TPH DRO I	TPH DRO HI	TPH GRO HI
6	HRP-MW201-211025	10/25 1545	—	Grab	GW	L	4	2	5			X	X	X	X	X	X	X	X			
7	HRP-MW202-211026	10/26 0950	—	Grab	GW	L	5	2	5			X	X	X	X	X	X	X	X			
8	HRP-DUP05-211026	10/26 1000	—	Grab	GW	L	5	2	5			X	X	X	X	X	X	X	X			
9	HRP-MW205-211026	10/26 1230	—	Grab	GW	L	9	4	5			X	X	X	X	X	X	X	X	X	X	V
13	~~HRP-TB09-211026~~	~~10/26 1230~~		~~Grab~~	~~W~~	~~C~~	~~2~~					~~X~~		~~HK~~								
	~~HRP-TB10-211026~~	~~10/26 1635~~	—	~~Grab~~	~~GW~~	~~C~~	~~2~~					~~X~~		~~HK~~								
10	HRP-MW206-211026	10/26 1655	—	Grab	GW	L	6	4	3			X	X	X	X		X			X	X	X
11	HRP-TB07-211025	10/25 1345	—	Grab	W	C	2					X										
	~~HRP-TB08-211026~~	~~10/26 1230~~	—	~~Grab~~	~~W~~	~~C~~	~~2~~					~~X~~									~~HK~~	
12	HRP-MW102-211027	10/27 1095	—	Grab	GW	L	5	2	5			X	X	X	X	X	X	X	X			

[2] Preservation Code
Courier Use Only
Total Number Of:
VIALS
GLASS
PLASTIC
BACTERIA
ENCORE

Glassware in the fridge? Y / N
Glassware in freezer? Y / N
Prepackaged Cooler? Y / N
*Pace Analytical is not responsible for missing samples from prepacked coolers

[1] Matrix Codes:
GW = Ground Water
WW = Waste Water
DW = Drinking Water
A = Air
S = Soil
SL = Sludge
SOL = Solid
O = Other (please define)

[2] Preservation Codes:
I = Iced
H = HCL
M = Methanol
N = Nitric Acid
S = Sulfuric Acid
B = Sodium Bisulfate
X = Sodium Hydroxide
T = Sodium Thiosulfate
O = Other (please define)

Relinquished by: (signature)	Date/Time:
Anne P Kelly	10/27 1330
Received by: (signature)	Date/Time:
Youssef Awadalla	10/27 1338
Relinquished by: (signature)	Date/Time:
Youssef Awadalla	10_27_21 1521
Received by: (signature)	Date/Time:
[illegible] ARCE	10/27/21 1521
Relinquished by: (signature)	Date/Time:
[illegible] ARCE	10/28/21 1630
Received by: (signature) 2.0 2.1 4.3 2.8	Date/Time: 1037 10-29-21
Relinquished by: (signature)	Date/Time:
Received by: (signature)	Date/Time:

Client Comments:
- For HRP-MW201-211025, please try and run total metals from the dissolved metals sample if possible ← if there is enough volume
- For HRP-MW201-211025, one VOC vial broke, please try and run VOCs w/ the remaining cracked vial

Detection Limit Requirements
MA
CT
Other: VA DEQ

Special Requirements
☐ MA MCP Required
☐ MCP Certification Form Required
☐ CT RCP Required
☐ RCP Certification Form Required
☐ MA State DW Required
PWSID #

Please use the following codes to indicate possible sample concentration within the Conc Code column above:
H - High; M - Medium; L - Low; C - Clean; U - Unknown

NELAC and AIHA-LAP, LLC Accredited

Project Entity
Government ☐ Municipality ☐ MWRA ☐ WRTA ☐
Federal ☐ 21 J ☐ School ☐
City ☐ Brownfield ☐ MBTA ☐

Other
☐ Chromatogram
☐ AIHA-LAP,LLC

Comments:

Disclaimer: Pace Analytical is not responsible for any omitted information on the Chain of Custody. The Chain of Custody is a legal document that must be complete and accurate and is used to determine what analyses the laboratory will perform. Any missing information is not the laboratory's responsibility. Pace Analytical values your partnership on each project and will try to assist with missing information, but will not be held accountable.

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FedEx

TRACK ANOTHER SHIPMENT

775056226495

ADD NICKNAME

Delivered

THIS IS 1 OF 5 PIECES

DELIVERED

Signed for by: R.PIETRIS

GET STATUS UPDATES

OBTAIN PROOF OF DELIVERY

FROM	TO
Mechanicsville, VA US	EAST LONGMEADOW, MA US

MANAGE DELIVERY

5 Piece Shipment

TRACKING ID	STATUS	SHIP DATE	DELIVERY DATE	HANDLING PIECE UNITS	SHIPPER CITY, STATE	RECIPIENT CITY, STATE
775056226006 (master)	Delivered	10/28/21	10/29/21	0	Mechanicsville VA	EAST LONGMEADOW MA
775056226495	Delivered	10/28/21	10/29/21	0	Mechanicsville VA	EAST LONGMEADOW MA
775056226750	Delivered	10/28/21	10/29/21	0	Mechanicsville VA	EAST LONGMEADOW MA
775056227285	In transit	10/28/21	10/29/21	0	Mechanicsville VA	EAST LONGMEADOW MA
775056227540	Delivered	10/28/21	10/29/21	0	Mechanicsville VA	EAST LONGMEADOW MA

Travel History

FedEx

TRACK ANOTHER SHIPMENT

775056227285

ADD NICKNAME

Delivered

THIS IS 1 OF 5 PIECES

DELIVERED

Signed for by: R.PIETRIAS

GET STATUS UPDATES

OBTAIN PROOF OF DELIVERY

FROM	TO
Mechanicsville, VA US	EAST LONGMEADOW, MA US

MANAGE DELIVERY

5 Piece Shipment

TRACKING ID	STATUS	SHIP DATE	DELIVERY DATE	HANDLING PIECE UNITS	SHIPPER CITY, STATE	RECIPIENT CITY, STATE
775056226006 (master)	Delivered	10/28/21	10/29/21	0	Mechanicsville VA	EAST LONGMEADOW MA
775056226495	Delivered	10/28/21	10/29/21	0	Mechanicsville VA	EAST LONGMEADOW MA
775056226750	Delivered	10/28/21	10/29/21	0	Mechanicsville VA	EAST LONGMEADOW MA
775056227285	Delivered	10/28/21	11/1/21	0	Mechanicsville VA	EAST LONGMEADOW MA
775056227540	Delivered	10/28/21	10/29/21	0	Mechanicsville VA	EAST LONGMEADOW MA

Travel History

I Have Not Confirmed Sample Container Numbers With Lab Staff Before Relinquishing Over Samples_____

con-test® ANALYTICAL LABORATORY

Doc# 277 Rev 5 2017

Login Sample Receipt Checklist - (Rejection Criteria Listing - Using Acceptance Policy) Any False Statement will be brought to the attention of the Client - State True or False

Client Kimball

Received By LR Date 10-29-21 Time 1033

How were the samples received? In Cooler T No Cooler _____ On Ice T No Ice _____
Direct from Sampling _____ Ambient _____ Melted Ice _____

Were samples within Temperature? 2-6°C T By Gun # 3 Actual Temp - _____
By Blank # _____ Actual Temp - 2.0, 2.1, 2.8, 4.3

Was Custody Seal Intact? NA Were Samples Tampered with? NA
Was COC Relinquished ? T Does Chain Agree With Samples? T
Are there broken/leaking/loose caps on any samples? F
Is COC in ink/ Legible? T Were samples received within holding time? T
Did COC include all pertinent Information? Client T Analysis T Sampler Name T
Project T ID's T Collection Dates/Times T
Are Sample labels filled out and legible? T
Are there Lab to Filters? F Who was notified? _____
Are there Rushes? F Who was notified? _____
Are there Short Holds? F Who was notified? _____
Is there enough Volume? *
Is there Headspace where applicable? F MS/MSD? F
Proper Media/Containers Used? T Is splitting samples required? F
Were trip blanks received? T On COC? T
Do all samples have the proper pH? Acid T Base _____

Vials	#	Containers:	#		#		#
Unp-	15	1 Liter Amb.	24	1 Liter Plastic		16 oz Amb.	
HCL-	38	500 mL Amb.		500 mL Plastic		8oz Amb/Clear	
Meoh-		250 mL Amb.		250 mL Plastic	31	4oz Amb/Clear	
Bisulfate-		Flashpoint		Col./Bacteria		2oz Amb/Clear	
DI-		Other Glass		Other Plastic		Encore	
Thiosulfate-		SOC Kit		Plastic Bag		Frozen:	
Sulfuric-		Perchlorate		Ziplock			

Unused Media

Vials	#	Containers:	#		#		#
Unp-		1 Liter Amb.		1 Liter Plastic		16 oz Amb.	
HCL-		500 mL Amb.		500 mL Plastic		8oz Amb/Clear	
Meoh-		250 mL Amb.		250 mL Plastic		4oz Amb/Clear	
Bisulfate-		Col./Bacteria		Flashpoint		2oz Amb/Clear	
DI-		Other Plastic		Other Glass		Encore	
Thiosulfate-		SOC Kit		Plastic Bag		Frozen:	
Sulfuric-		Perchlorate		Ziplock			

Comments:

* Cooler lost in transit - see email

Missing cooler received 11-1-21 9:22

con-test®
A Pace Analytical® Laboratory

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

November 9, 2021

Sarah Ostertag
Ramboll US Consulting, Inc. - Arlington, VA
4350 North Fairfax Drive
Arlington, VA 22203

Project Location: 1400 N. Royal St., Alexandria, VA
Client Job Number:
Project Number: [none]
Laboratory Work Order Number: 21K0043

Enclosed are results of analyses for samples as received by the laboratory on November 1, 2021. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Kaitlyn A. Feliciano
Project Manager

Table of Contents

Table of Contents (continued)

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Ramboll US Consulting, Inc. - Arlington, VA
4350 North Fairfax Drive
Arlington, VA 22203
ATTN: Sarah Ostertag

REPORT DATE: 11/9/2021

PURCHASE ORDER NUMBER:

PROJECT NUMBER: [none]

ANALYTICAL SUMMARY

WORK ORDER NUMBER: 21K0043

The results of analyses performed on the following samples submitted to CON-TEST, a Pace Analytical Laboratory, are found in this report.

PROJECT LOCATION: 1400 N. Royal St., Alexandria, VA

FIELD SAMPLE #	LAB ID:	MATRIX	SAMPLE DESCRIPTION	TEST	SUB LAB
HRP-MW72S-211027	21K0043-01	Ground Water		ASTM D516-16	
				EPA 350.1	
				SW-846 6010D	
				SW-846 6020B	
				SW-846 7470A	
				SW-846 8015C	
				SW-846 8260D	
				SW-846 8270E	
HRP-MW30S-211027	21K0043-02	Ground Water		ASTM D516-16	
				EPA 350.1	
				SW-846 6010D	
				SW-846 6020B	
				SW-846 7470A	
				SW-846 8015C	
				SW-846 8260D	
				SW-846 8270E	
HRP-SB210-0-1-211028	21K0043-03	Soil		SM 2540G	
				SW-846 6010D	
				SW-846 7471B	
				SW-846 9014	
				SW-846 9045C	
HRP-MW209-211028	21K0043-04	Ground Water		ASTM D516-16	
				SW-846 6010D	
				SW-846 6020B	
				SW-846 7470A	
				SW-846 8015C	
				SW-846 8260D	
				SW-846 8270E	
HRP-MW100S-211028	21K0043-05	Ground Water		ASTM D516-16	
				EPA 350.1	
				SW-846 6010D	
				SW-846 6020B	
				SW-846 7470A	
				SW-846 8015C	
				SW-846 8260D	
				SW-846 8270E	
HRP-TB08-211028	21K0043-06	Ground Water		SW-846 8260D	

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Ramboll US Consulting, Inc. - Arlington, VA
4350 North Fairfax Drive
Arlington, VA 22203
ATTN: Sarah Ostertag

REPORT DATE: 11/9/2021

PURCHASE ORDER NUMBER:

PROJECT NUMBER: [none]

ANALYTICAL SUMMARY

WORK ORDER NUMBER: 21K0043

The results of analyses performed on the following samples submitted to CON-TEST, a Pace Analytical Laboratory, are found in this report.

PROJECT LOCATION: 1400 N. Royal St., Alexandria, VA

FIELD SAMPLE #	LAB ID:	MATRIX	SAMPLE DESCRIPTION	TEST	SUB LAB
HRP-EB08-211028	21K0043-07	Ground Water		ASTM D516-16	
				SW-846 6010D	
				SW-846 6020B	
				SW-846 7470A	
				SW-846 8015C	
				SW-846 8270E	

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CASE NARRATIVE SUMMARY

All reported results are within defined laboratory quality control objectives unless listed below or otherwise qualified in this report.

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EPA 350.1

Qualifications:

L-07A

Either laboratory fortified blank/laboratory control sample or duplicate recovery is outside of control limits, but the other is within limits. RPD outside of control limits. Reduced precision anticipated for any reported result for this compound.

Analyte & Samples(s) Qualified:

Ammonia as N

B293898-BS1, B293898-BSD1

SW-846 6010D

Qualifications:

MS-19

Sample to spike ratio is greater than or equal to 4:1. Spiked amount is not representative of the native amount in the sample. Appropriate or meaningful recoveries cannot be calculated.

Analyte & Samples(s) Qualified:

21K0043-01[HRP-MW72S-211027], B293930-MS1

Calcium

21K0043-01[HRP-MW72S-211027], B293930-MS1

Iron

21K0043-01[HRP-MW72S-211027], B293930-MS1

Magnesium

21K0043-01[HRP-MW72S-211027], B293930-MS1

SW-846 7470A

Qualifications:

R-04

Duplicate relative percent difference (RPD) is a less useful indicator of sample precision for sample results that are <5 times the reporting limit (RL).

Analyte & Samples(s) Qualified:

Mercury

21K0043-01[HRP-MW72S-211027], B293822-DUP1

SW-846 8015C

Qualifications:

DL-01

Elevated reporting limits for all volatile compounds due to foaming sample matrix.

Analyte & Samples(s) Qualified:

21K0043-01[HRP-MW72S-211027]

SW-846 8260D

Qualifications:

DL-01

Elevated reporting limits for all volatile compounds due to foaming sample matrix.

Analyte & Samples(s) Qualified:

21K0043-01[HRP-MW72S-211027]

L-02

Laboratory fortified blank/laboratory control sample recovery and duplicate recoveries outside of control limits. Data validation is not affected since all results are "not detected" for associated samples in this batch and bias is on the high side.

Analyte & Samples(s) Qualified:

Bromomethane

B293778-BS1, B293778-BSD1

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L-04

Laboratory fortified blank/laboratory control sample recovery and duplicate recovery are outside of control limits. Reported value for this compound is likely to be biased on the low side.

Analyte & Samples(s) Qualified:

Chloromethane

21K0043-01[HRP-MW72S-211027], 21K0043-02[HRP-MW30S-211027], 21K0043-04[HRP-MW209-211028], 21K0043-05[HRP-MW100S-211028], 21K0043-06[HRP-TB08-211028], B293778-BLK1, B293778-BS1, B293778-BSD1

V-05

Continuing calibration verification (CCV) did not meet method specifications and was biased on the low side for this compound.

Analyte & Samples(s) Qualified:

2-Butanone (MEK)

21K0043-01[HRP-MW72S-211027], 21K0043-02[HRP-MW30S-211027], 21K0043-04[HRP-MW209-211028], 21K0043-05[HRP-MW100S-211028], 21K0043-06[HRP-TB08-211028], B293778-BLK1, B293778-BS1, B293778-BSD1, S064938-CCV1

Chloromethane

21K0043-01[HRP-MW72S-211027], 21K0043-02[HRP-MW30S-211027], 21K0043-04[HRP-MW209-211028], 21K0043-05[HRP-MW100S-211028], 21K0043-06[HRP-TB08-211028], B293778-BLK1, B293778-BS1, B293778-BSD1, S064938-CCV1

Methyl Acetate

21K0043-01[HRP-MW72S-211027], 21K0043-02[HRP-MW30S-211027], 21K0043-04[HRP-MW209-211028], 21K0043-05[HRP-MW100S-211028], 21K0043-06[HRP-TB08-211028], B293778-BLK1, B293778-BS1, B293778-BSD1, S064938-CCV1

tert-Butyl Alcohol (TBA)

21K0043-01[HRP-MW72S-211027], 21K0043-02[HRP-MW30S-211027], 21K0043-04[HRP-MW209-211028], 21K0043-05[HRP-MW100S-211028], 21K0043-06[HRP-TB08-211028], B293778-BLK1, B293778-BS1, B293778-BSD1, S064938-CCV1

Tetrahydrofuran

21K0043-01[HRP-MW72S-211027], 21K0043-02[HRP-MW30S-211027], 21K0043-04[HRP-MW209-211028], 21K0043-05[HRP-MW100S-211028], 21K0043-06[HRP-TB08-211028], B293778-BLK1, B293778-BS1, B293778-BSD1, S064938-CCV1

V-20

Continuing calibration verification (CCV) did not meet method specifications and was biased on the high side. Data validation is not affected since sample result was "not detected" for this compound.

Analyte & Samples(s) Qualified:

Bromomethane

B293778-BS1, B293778-BSD1, S064938-CCV1

V-34

Initial calibration verification (ICV) did not meet method specifications and was biased on the low side for this compound. Reported result is estimated.

Analyte & Samples(s) Qualified:

Bromomethane

21K0043-01[HRP-MW72S-211027], 21K0043-02[HRP-MW30S-211027], 21K0043-04[HRP-MW209-211028], 21K0043-05[HRP-MW100S-211028], 21K0043-06[HRP-TB08-211028], B293778-BLK1, B293778-BS1, B293778-BSD1, S064938-CCV1

Chloromethane

21K0043-01[HRP-MW72S-211027], 21K0043-02[HRP-MW30S-211027], 21K0043-04[HRP-MW209-211028], 21K0043-05[HRP-MW100S-211028], 21K0043-06[HRP-TB08-211028], B293778-BLK1, B293778-BS1, B293778-BSD1, S064938-CCV1

SW-846 8270E

Qualifications:

V-04

Initial calibration did not meet method specifications. Compound was calibrated using a response factor where %RSD is outside of method specified criteria. Reported result is estimated.

Analyte & Samples(s) Qualified:

2,4-Dinitrophenol

21K0043-01[HRP-MW72S-211027], 21K0043-02[HRP-MW30S-211027], 21K0043-04[HRP-MW209-211028], 21K0043-05[HRP-MW100S-211028], 21K0043-07[HRP-EB08-211028], B293790-BLK1, B293790-BS1, B293790-BSD1, S064958-CCV1, S065007-CCV1, S065107-CCV1

Benzidine

21K0043-01[HRP-MW72S-211027], 21K0043-02[HRP-MW30S-211027], 21K0043-04[HRP-MW209-211028], 21K0043-05[HRP-MW100S-211028], 21K0043-07[HRP-EB08-211028], B293790-BLK1, B293790-BS1, B293790-BSD1, S064958-CCV1, S065107-CCV1

V-05

Continuing calibration verification (CCV) did not meet method specifications and was biased on the low side for this compound.

Analyte & Samples(s) Qualified:

Benzidine

S065007-CCV1

Hexachlorocyclopentadiene

S065007-CCV1

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V-06

Continuing calibration verification (CCV) did not meet method specifications and was biased on the high side for this compound.

Analyte & Samples(s) Qualified:

2,4-Dinitrophenol
B293790-BS1, B293790-BSD1, S064958-CCV1, S065007-CCV1

2,4-Dinitrotoluene
B293790-BS1, B293790-BSD1, S064958-CCV1

4-Nitroaniline
B293790-BS1, B293790-BSD1, S064958-CCV1

V-20

Continuing calibration verification (CCV) did not meet method specifications and was biased on the high side. Data validation is not affected since sample result was "not detected" for this compound.

Analyte & Samples(s) Qualified:

2,4-Dinitrophenol
B293790-BLK1

2,4-Dinitrotoluene
B293790-BLK1

4-Nitroaniline
B293790-BLK1

V-34

Initial calibration verification (ICV) did not meet method specifications and was biased on the low side for this compound. Reported result is estimated.

Analyte & Samples(s) Qualified:

3,3-Dichlorobenzidine
21K0043-01[HRP-MW72S-211027], 21K0043-02[HRP-MW30S-211027], 21K0043-04[HRP-MW209-211028], 21K0043-05[HRP-MW100S-211028], 21K0043-07[HRP-EB08-211028], S065107-CCV1

4-Chloroaniline
21K0043-01[HRP-MW72S-211027], 21K0043-02[HRP-MW30S-211027], 21K0043-04[HRP-MW209-211028], 21K0043-05[HRP-MW100S-211028], 21K0043-07[HRP-EB08-211028], S065007-CCV1, S065107-CCV1

SW-846 9045C

Qualifications:

H-03

Sample received after recommended holding time was exceeded.

Analyte & Samples(s) Qualified:

pH
21K0043-03[HRP-SB210-0-1-211028]

SW-846 8015C

Gasoline Range Organics (2-Methylpentane through 1,2,4-Trimethylbenzene) is quantitated against a calibration made with an unleaded gasoline composite standard.
Diesel Range Organics (C10-C28) is quantitated against a calibration made with a #2 fuel oil standard.

The results of analyses reported only relate to samples submitted to Con-Test, a Pace Analytical Laboratory, for testing.
I certify that the analyses listed above, unless specifically listed as subcontracted, if any, were performed under my direction according to the approved methodologies listed in this document, and that based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

Tod E. Kopyscinski
Laboratory Director

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Project Location: 1400 N. Royal St., Alexandria, VA Sample Description: Work Order: 21K0043

Date Received: 11/1/2021

Field Sample #: HRP-MW72S-211027 Sampled: 10/27/2021 14:40

Sample ID: 21K0043-01

Sample Matrix: Ground Water

Sample Flags: DL-01

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acetone	ND	100	4.7	µg/L	2		SW-846 8260D	11/2/21	11/2/21 19:22	LBD
Acrylonitrile	ND	10	1.4	µg/L	2		SW-846 8260D	11/2/21	11/2/21 19:22	LBD
tert-Amyl Methyl Ether (TAME)	ND	1.0	0.30	µg/L	2		SW-846 8260D	11/2/21	11/2/21 19:22	LBD
Benzene	ND	2.0	0.26	µg/L	2		SW-846 8260D	11/2/21	11/2/21 19:22	LBD
Bromobenzene	ND	2.0	0.26	µg/L	2		SW-846 8260D	11/2/21	11/2/21 19:22	LBD
Bromochloromethane	ND	2.0	0.72	µg/L	2		SW-846 8260D	11/2/21	11/2/21 19:22	LBD
Bromodichloromethane	ND	1.0	0.28	µg/L	2		SW-846 8260D	11/2/21	11/2/21 19:22	LBD
Bromoform	ND	2.0	0.58	µg/L	2		SW-846 8260D	11/2/21	11/2/21 19:22	LBD
Bromomethane	ND	10	2.1	µg/L	2	V-34	SW-846 8260D	11/2/21	11/2/21 19:22	LBD
2-Butanone (MEK)	ND	40	3.8	µg/L	2	V-05	SW-846 8260D	11/2/21	11/2/21 19:22	LBD
tert-Butyl Alcohol (TBA)	ND	40	11	µg/L	2	V-05	SW-846 8260D	11/2/21	11/2/21 19:22	LBD
n-Butylbenzene	ND	2.0	0.28	µg/L	2		SW-846 8260D	11/2/21	11/2/21 19:22	LBD
sec-Butylbenzene	ND	2.0	0.20	µg/L	2		SW-846 8260D	11/2/21	11/2/21 19:22	LBD
tert-Butylbenzene	ND	2.0	0.18	µg/L	2		SW-846 8260D	11/2/21	11/2/21 19:22	LBD
tert-Butyl Ethyl Ether (TBEE)	ND	1.0	0.22	µg/L	2		SW-846 8260D	11/2/21	11/2/21 19:22	LBD
Carbon Disulfide	ND	10	3.0	µg/L	2		SW-846 8260D	11/2/21	11/2/21 19:22	LBD
Carbon Tetrachloride	ND	10	0.34	µg/L	2		SW-846 8260D	11/2/21	11/2/21 19:22	LBD
Chlorobenzene	ND	2.0	0.16	µg/L	2		SW-846 8260D	11/2/21	11/2/21 19:22	LBD
Chlorodibromomethane	ND	1.0	0.32	µg/L	2		SW-846 8260D	11/2/21	11/2/21 19:22	LBD
Chloroethane	ND	4.0	0.74	µg/L	2		SW-846 8260D	11/2/21	11/2/21 19:22	LBD
Chloroform	ND	4.0	0.38	µg/L	2		SW-846 8260D	11/2/21	11/2/21 19:22	LBD
Chloromethane	ND	4.0	0.76	µg/L	2	L-04, V-05, V-34	SW-846 8260D	11/2/21	11/2/21 19:22	LBD
2-Chlorotoluene	ND	2.0	0.18	µg/L	2		SW-846 8260D	11/2/21	11/2/21 19:22	LBD
4-Chlorotoluene	ND	2.0	0.20	µg/L	2		SW-846 8260D	11/2/21	11/2/21 19:22	LBD
1,2-Dibromo-3-chloropropane (DBCP)	ND	10	1.4	µg/L	2		SW-846 8260D	11/2/21	11/2/21 19:22	LBD
1,2-Dibromoethane (EDB)	ND	1.0	0.30	µg/L	2		SW-846 8260D	11/2/21	11/2/21 19:22	LBD
Dibromomethane	ND	2.0	0.58	µg/L	2		SW-846 8260D	11/2/21	11/2/21 19:22	LBD
1,2-Dichlorobenzene	ND	2.0	0.20	µg/L	2		SW-846 8260D	11/2/21	11/2/21 19:22	LBD
1,3-Dichlorobenzene	ND	2.0	0.18	µg/L	2		SW-846 8260D	11/2/21	11/2/21 19:22	LBD
1,4-Dichlorobenzene	ND	2.0	0.22	µg/L	2		SW-846 8260D	11/2/21	11/2/21 19:22	LBD
trans-1,4-Dichloro-2-butene	ND	4.0	3.6	µg/L	2		SW-846 8260D	11/2/21	11/2/21 19:22	LBD
Dichlorodifluoromethane (Freon 12)	ND	4.0	0.40	µg/L	2		SW-846 8260D	11/2/21	11/2/21 19:22	LBD
1,1-Dichloroethane	ND	2.0	0.32	µg/L	2		SW-846 8260D	11/2/21	11/2/21 19:22	LBD
1,2-Dichloroethane	ND	2.0	0.64	µg/L	2		SW-846 8260D	11/2/21	11/2/21 19:22	LBD
1,1-Dichloroethylene	ND	2.0	0.32	µg/L	2		SW-846 8260D	11/2/21	11/2/21 19:22	LBD
cis-1,2-Dichloroethylene	ND	2.0	0.30	µg/L	2		SW-846 8260D	11/2/21	11/2/21 19:22	LBD
trans-1,2-Dichloroethylene	ND	2.0	0.34	µg/L	2		SW-846 8260D	11/2/21	11/2/21 19:22	LBD
1,2-Dichloropropane	ND	2.0	0.36	µg/L	2		SW-846 8260D	11/2/21	11/2/21 19:22	LBD
1,3-Dichloropropane	ND	1.0	0.24	µg/L	2		SW-846 8260D	11/2/21	11/2/21 19:22	LBD
2,2-Dichloropropane	ND	2.0	0.62	µg/L	2		SW-846 8260D	11/2/21	11/2/21 19:22	LBD
1,1-Dichloropropene	ND	4.0	0.52	µg/L	2		SW-846 8260D	11/2/21	11/2/21 19:22	LBD
cis-1,3-Dichloropropene	ND	1.0	0.24	µg/L	2		SW-846 8260D	11/2/21	11/2/21 19:22	LBD
trans-1,3-Dichloropropene	ND	1.0	0.30	µg/L	2		SW-846 8260D	11/2/21	11/2/21 19:22	LBD
Diethyl Ether	ND	4.0	0.44	µg/L	2		SW-846 8260D	11/2/21	11/2/21 19:22	LBD

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Project Location: 1400 N. Royal St., Alexandria, VA Sample Description: Work Order: 21K0043

Date Received: 11/1/2021

Field Sample #: HRP-MW72S-211027 Sampled: 10/27/2021 14:40

Sample ID: 21K0043-01

Sample Matrix: Ground Water

Sample Flags: DL-01

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Diisopropyl Ether (DIPE)	ND	1.0	0.30	µg/L	2		SW-846 8260D	11/2/21	11/2/21 19:22	LBD
1,4-Dioxane	ND	100	43	µg/L	2		SW-846 8260D	11/2/21	11/2/21 19:22	LBD
Ethylbenzene	ND	2.0	0.18	µg/L	2		SW-846 8260D	11/2/21	11/2/21 19:22	LBD
Hexachlorobutadiene	ND	1.2	0.82	µg/L	2		SW-846 8260D	11/2/21	11/2/21 19:22	LBD
2-Hexanone (MBK)	ND	20	2.8	µg/L	2		SW-846 8260D	11/2/21	11/2/21 19:22	LBD
Isopropylbenzene (Cumene)	ND	2.0	0.20	µg/L	2		SW-846 8260D	11/2/21	11/2/21 19:22	LBD
p-Isopropyltoluene (p-Cymene)	ND	2.0	0.18	µg/L	2		SW-846 8260D	11/2/21	11/2/21 19:22	LBD
Methyl Acetate	ND	2.0	0.78	µg/L	2	V-05	SW-846 8260D	11/2/21	11/2/21 19:22	LBD
Methyl tert-Butyl Ether (MTBE)	ND	2.0	0.34	µg/L	2		SW-846 8260D	11/2/21	11/2/21 19:22	LBD
Methyl Cyclohexane	ND	2.0	0.66	µg/L	2		SW-846 8260D	11/2/21	11/2/21 19:22	LBD
Methylene Chloride	ND	10	0.60	µg/L	2		SW-846 8260D	11/2/21	11/2/21 19:22	LBD
4-Methyl-2-pentanone (MIBK)	ND	20	3.2	µg/L	2		SW-846 8260D	11/2/21	11/2/21 19:22	LBD
Naphthalene	ND	4.0	0.30	µg/L	2		SW-846 8260D	11/2/21	11/2/21 19:22	LBD
n-Propylbenzene	ND	2.0	0.16	µg/L	2		SW-846 8260D	11/2/21	11/2/21 19:22	LBD
Styrene	ND	2.0	0.16	µg/L	2		SW-846 8260D	11/2/21	11/2/21 19:22	LBD
1,1,1,2-Tetrachloroethane	ND	2.0	0.28	µg/L	2		SW-846 8260D	11/2/21	11/2/21 19:22	LBD
1,1,2,2-Tetrachloroethane	ND	1.0	0.18	µg/L	2		SW-846 8260D	11/2/21	11/2/21 19:22	LBD
Tetrachloroethylene	ND	2.0	0.40	µg/L	2		SW-846 8260D	11/2/21	11/2/21 19:22	LBD
Tetrahydrofuran	ND	20	1.2	µg/L	2	V-05	SW-846 8260D	11/2/21	11/2/21 19:22	LBD
Toluene	ND	2.0	0.22	µg/L	2		SW-846 8260D	11/2/21	11/2/21 19:22	LBD
1,2,3-Trichlorobenzene	ND	10	0.28	µg/L	2		SW-846 8260D	11/2/21	11/2/21 19:22	LBD
1,2,4-Trichlorobenzene	ND	2.0	0.32	µg/L	2		SW-846 8260D	11/2/21	11/2/21 19:22	LBD
1,3,5-Trichlorobenzene	ND	2.0	0.36	µg/L	2		SW-846 8260D	11/2/21	11/2/21 19:22	LBD
1,1,1-Trichloroethane	ND	2.0	0.34	µg/L	2		SW-846 8260D	11/2/21	11/2/21 19:22	LBD
1,1,2-Trichloroethane	ND	2.0	0.30	µg/L	2		SW-846 8260D	11/2/21	11/2/21 19:22	LBD
Trichloroethylene	ND	2.0	0.36	µg/L	2		SW-846 8260D	11/2/21	11/2/21 19:22	LBD
Trichlorofluoromethane (Freon 11)	ND	4.0	0.38	µg/L	2		SW-846 8260D	11/2/21	11/2/21 19:22	LBD
1,2,3-Trichloropropane	ND	4.0	0.62	µg/L	2		SW-846 8260D	11/2/21	11/2/21 19:22	LBD
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	2.0	0.48	µg/L	2		SW-846 8260D	11/2/21	11/2/21 19:22	LBD
1,2,4-Trimethylbenzene	ND	2.0	0.20	µg/L	2		SW-846 8260D	11/2/21	11/2/21 19:22	LBD
1,3,5-Trimethylbenzene	ND	2.0	0.20	µg/L	2		SW-846 8260D	11/2/21	11/2/21 19:22	LBD
Vinyl Chloride	ND	4.0	0.40	µg/L	2		SW-846 8260D	11/2/21	11/2/21 19:22	LBD
m+p Xylene	ND	4.0	0.36	µg/L	2		SW-846 8260D	11/2/21	11/2/21 19:22	LBD
o-Xylene	ND	2.0	0.18	µg/L	2		SW-846 8260D	11/2/21	11/2/21 19:22	LBD

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
1,2-Dichloroethane-d4	87.2	70-130		11/2/21 19:22
Toluene-d8	93.8	70-130		11/2/21 19:22
4-Bromofluorobenzene	98.6	70-130		11/2/21 19:22

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Project Location: 1400 N. Royal St., Alexandria, VA Sample Description: Work Order: 21K0043

Date Received: 11/1/2021

Field Sample #: HRP-MW72S-211027 Sampled: 10/27/2021 14:40

Sample ID: 21K0043-01

Sample Matrix: Ground Water

Semivolatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acenaphthene	ND	5.2	0.35	µg/L	1		SW-846 8270E	11/2/21	11/8/21 8:43	BGL
Acenaphthylene	ND	5.2	0.33	µg/L	1		SW-846 8270E	11/2/21	11/8/21 8:43	BGL
Acetophenone	ND	10	0.46	µg/L	1		SW-846 8270E	11/2/21	11/8/21 8:43	BGL
Aniline	ND	5.2	0.85	µg/L	1		SW-846 8270E	11/2/21	11/8/21 8:43	BGL
Anthracene	ND	5.2	0.41	µg/L	1		SW-846 8270E	11/2/21	11/8/21 8:43	BGL
Benzidine	ND	21	10	µg/L	1	V-04	SW-846 8270E	11/2/21	11/8/21 8:43	BGL
Benzo(a)anthracene	ND	5.2	0.39	µg/L	1		SW-846 8270E	11/2/21	11/8/21 8:43	BGL
Benzo(a)pyrene	ND	5.2	0.49	µg/L	1		SW-846 8270E	11/2/21	11/8/21 8:43	BGL
Benzo(b)fluoranthene	ND	5.2	0.43	µg/L	1		SW-846 8270E	11/2/21	11/8/21 8:43	BGL
Benzo(g,h,i)perylene	ND	5.2	0.66	µg/L	1		SW-846 8270E	11/2/21	11/8/21 8:43	BGL
Benzo(k)fluoranthene	ND	5.2	0.38	µg/L	1		SW-846 8270E	11/2/21	11/8/21 8:43	BGL
Benzoic Acid	ND	10	9.5	µg/L	1		SW-846 8270E	11/2/21	11/8/21 8:43	BGL
Bis(2-chloroethoxy)methane	ND	10	0.45	µg/L	1		SW-846 8270E	11/2/21	11/8/21 8:43	BGL
Bis(2-chloroethyl)ether	ND	10	0.54	µg/L	1		SW-846 8270E	11/2/21	11/8/21 8:43	BGL
Bis(2-chloroisopropyl)ether	ND	10	0.62	µg/L	1		SW-846 8270E	11/2/21	11/8/21 8:43	BGL
Bis(2-Ethylhexyl)phthalate	ND	10	0.95	µg/L	1		SW-846 8270E	11/2/21	11/8/21 8:43	BGL
4-Bromophenylphenylether	ND	10	0.39	µg/L	1		SW-846 8270E	11/2/21	11/8/21 8:43	BGL
Butylbenzylphthalate	ND	10	0.72	µg/L	1		SW-846 8270E	11/2/21	11/8/21 8:43	BGL
Carbazole	ND	10	0.42	µg/L	1		SW-846 8270E	11/2/21	11/8/21 8:43	BGL
4-Chloroaniline	ND	10	0.45	µg/L	1	V-34	SW-846 8270E	11/2/21	11/8/21 8:43	BGL
4-Chloro-3-methylphenol	ND	10	0.56	µg/L	1		SW-846 8270E	11/2/21	11/8/21 8:43	BGL
2-Chloronaphthalene	ND	10	0.27	µg/L	1		SW-846 8270E	11/2/21	11/8/21 8:43	BGL
2-Chlorophenol	ND	10	0.39	µg/L	1		SW-846 8270E	11/2/21	11/8/21 8:43	BGL
4-Chlorophenylphenylether	ND	10	0.34	µg/L	1		SW-846 8270E	11/2/21	11/8/21 8:43	BGL
Chrysene	ND	5.2	0.39	µg/L	1		SW-846 8270E	11/2/21	11/8/21 8:43	BGL
Dibenz(a,h)anthracene	ND	5.2	0.73	µg/L	1		SW-846 8270E	11/2/21	11/8/21 8:43	BGL
Dibenzofuran	ND	5.2	0.35	µg/L	1		SW-846 8270E	11/2/21	11/8/21 8:43	BGL
Di-n-butylphthalate	ND	10	0.51	µg/L	1		SW-846 8270E	11/2/21	11/8/21 8:43	BGL
1,2-Dichlorobenzene	ND	5.2	0.24	µg/L	1		SW-846 8270E	11/2/21	11/8/21 8:43	BGL
1,3-Dichlorobenzene	ND	5.2	0.25	µg/L	1		SW-846 8270E	11/2/21	11/8/21 8:43	BGL
1,4-Dichlorobenzene	ND	5.2	0.27	µg/L	1		SW-846 8270E	11/2/21	11/8/21 8:43	BGL
3,3-Dichlorobenzidine	ND	10	0.64	µg/L	1	V-34	SW-846 8270E	11/2/21	11/8/21 8:43	BGL
2,4-Dichlorophenol	ND	10	0.38	µg/L	1		SW-846 8270E	11/2/21	11/8/21 8:43	BGL
Diethylphthalate	ND	10	0.50	µg/L	1		SW-846 8270E	11/2/21	11/8/21 8:43	BGL
2,4-Dimethylphenol	ND	10	1.0	µg/L	1		SW-846 8270E	11/2/21	11/8/21 8:43	BGL
Dimethylphthalate	ND	10	0.41	µg/L	1		SW-846 8270E	11/2/21	11/8/21 8:43	BGL
4,6-Dinitro-2-methylphenol	ND	10	6.8	µg/L	1		SW-846 8270E	11/2/21	11/8/21 8:43	BGL
2,4-Dinitrophenol	ND	10	8.3	µg/L	1	V-04	SW-846 8270E	11/2/21	11/8/21 8:43	BGL
2,4-Dinitrotoluene	ND	10	0.63	µg/L	1		SW-846 8270E	11/2/21	11/8/21 8:43	BGL
2,6-Dinitrotoluene	ND	10	0.52	µg/L	1		SW-846 8270E	11/2/21	11/8/21 8:43	BGL
Di-n-octylphthalate	ND	10	5.8	µg/L	1		SW-846 8270E	11/2/21	11/8/21 8:43	BGL
1,2-Diphenylhydrazine/Azobenzene	ND	10	0.54	µg/L	1		SW-846 8270E	11/2/21	11/8/21 8:43	BGL
Fluoranthene	ND	5.2	0.38	µg/L	1		SW-846 8270E	11/2/21	11/8/21 8:43	BGL
Fluorene	ND	5.2	0.43	µg/L	1		SW-846 8270E	11/2/21	11/8/21 8:43	BGL

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Project Location: 1400 N. Royal St., Alexandria, VA Sample Description: Work Order: 21K0043

Date Received: 11/1/2021

Field Sample #: HRP-MW72S-211027 Sampled: 10/27/2021 14:40

Sample ID: 21K0043-01

Sample Matrix: Ground Water

Semivolatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Hexachlorobenzene	ND	10	0.38	µg/L	1		SW-846 8270E	11/2/21	11/8/21 8:43	BGL
Hexachlorobutadiene	ND	10	0.28	µg/L	1		SW-846 8270E	11/2/21	11/8/21 8:43	BGL
Hexachlorocyclopentadiene	ND	10	4.4	µg/L	1		SW-846 8270E	11/2/21	11/8/21 8:43	BGL
Hexachloroethane	ND	10	0.32	µg/L	1		SW-846 8270E	11/2/21	11/8/21 8:43	BGL
Indeno(1,2,3-cd)pyrene	ND	5.2	0.81	µg/L	1		SW-846 8270E	11/2/21	11/8/21 8:43	BGL
Isophorone	ND	10	0.50	µg/L	1		SW-846 8270E	11/2/21	11/8/21 8:43	BGL
1-Methylnaphthalene	ND	5.2	0.30	µg/L	1		SW-846 8270E	11/2/21	11/8/21 8:43	BGL
2-Methylnaphthalene	ND	5.2	0.34	µg/L	1		SW-846 8270E	11/2/21	11/8/21 8:43	BGL
2-Methylphenol	ND	10	0.38	µg/L	1		SW-846 8270E	11/2/21	11/8/21 8:43	BGL
3/4-Methylphenol	ND	10	0.39	µg/L	1		SW-846 8270E	11/2/21	11/8/21 8:43	BGL
Naphthalene	ND	5.2	0.31	µg/L	1		SW-846 8270E	11/2/21	11/8/21 8:43	BGL
2-Nitroaniline	ND	10	0.78	µg/L	1		SW-846 8270E	11/2/21	11/8/21 8:43	BGL
3-Nitroaniline	ND	10	0.52	µg/L	1		SW-846 8270E	11/2/21	11/8/21 8:43	BGL
4-Nitroaniline	ND	10	0.51	µg/L	1		SW-846 8270E	11/2/21	11/8/21 8:43	BGL
Nitrobenzene	ND	10	0.55	µg/L	1		SW-846 8270E	11/2/21	11/8/21 8:43	BGL
2-Nitrophenol	ND	10	0.49	µg/L	1		SW-846 8270E	11/2/21	11/8/21 8:43	BGL
4-Nitrophenol	ND	10	2.1	µg/L	1		SW-846 8270E	11/2/21	11/8/21 8:43	BGL
N-Nitrosodimethylamine	ND	10	0.85	µg/L	1		SW-846 8270E	11/2/21	11/8/21 8:43	BGL
N-Nitrosodiphenylamine/Diphenylamine	ND	10	0.41	µg/L	1		SW-846 8270E	11/2/21	11/8/21 8:43	BGL
N-Nitrosodi-n-propylamine	ND	10	0.55	µg/L	1		SW-846 8270E	11/2/21	11/8/21 8:43	BGL
Pentachloronitrobenzene	ND	10	0.66	µg/L	1		SW-846 8270E	11/2/21	11/8/21 8:43	BGL
Pentachlorophenol	ND	10	3.9	µg/L	1		SW-846 8270E	11/2/21	11/8/21 8:43	BGL
Phenanthrene	ND	5.2	0.41	µg/L	1		SW-846 8270E	11/2/21	11/8/21 8:43	BGL
Phenol	ND	10	0.25	µg/L	1		SW-846 8270E	11/2/21	11/8/21 8:43	BGL
Pyrene	ND	5.2	0.49	µg/L	1		SW-846 8270E	11/2/21	11/8/21 8:43	BGL
Pyridine	ND	5.2	2.7	µg/L	1		SW-846 8270E	11/2/21	11/8/21 8:43	BGL
1,2,4,5-Tetrachlorobenzene	ND	10	0.28	µg/L	1		SW-846 8270E	11/2/21	11/8/21 8:43	BGL
1,2,4-Trichlorobenzene	ND	5.2	0.25	µg/L	1		SW-846 8270E	11/2/21	11/8/21 8:43	BGL
2,4,5-Trichlorophenol	ND	10	0.48	µg/L	1		SW-846 8270E	11/2/21	11/8/21 8:43	BGL
2,4,6-Trichlorophenol	ND	10	0.42	µg/L	1		SW-846 8270E	11/2/21	11/8/21 8:43	BGL

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
2-Fluorophenol	37.4	15-110		11/8/21 8:43
Phenol-d6	27.0	15-110		11/8/21 8:43
Nitrobenzene-d5	45.2	30-130		11/8/21 8:43
2-Fluorobiphenyl	49.1	30-130		11/8/21 8:43
2,4,6-Tribromophenol	64.9	15-110		11/8/21 8:43
p-Terphenyl-d14	68.4	30-130		11/8/21 8:43

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Project Location: 1400 N. Royal St., Alexandria, VA Sample Description: Work Order: 21K0043

Date Received: 11/1/2021

Field Sample #: HRP-MW72S-211027 Sampled: 10/27/2021 14:40

Sample ID: 21K0043-01

Sample Matrix: Ground Water

Semivolatile Organic Compounds by GC

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Methanol	ND	10	2.3	mg/L	1		SW-846 8015C	11/5/21	11/5/21 16:39	SFM
Isopropanol	ND	10	1.8	mg/L	1		SW-846 8015C	11/5/21	11/5/21 16:39	SFM
Ethanol	ND	10	2.5	mg/L	1		SW-846 8015C	11/5/21	11/5/21 16:39	SFM
Propylene glycol	ND	10	2.9	mg/L	1		SW-846 8015C	11/5/21	11/5/21 16:39	SFM
Ethylene glycol	ND	10	4.0	mg/L	1		SW-846 8015C	11/5/21	11/5/21 16:39	SFM

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Project Location: 1400 N. Royal St., Alexandria, VA Sample Description: Work Order: 21K0043

Date Received: 11/1/2021

Field Sample #: HRP-MW72S-211027 Sampled: 10/27/2021 14:40

Sample ID: 21K0043-01

Sample Matrix: Ground Water

Sample Flags: DL-01

Petroleum Hydrocarbons Analyses

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Gasoline Range Organics (GRO)	ND	0.020	0.019	mg/L	2		SW-846 8015C	11/5/21	11/6/21 8:55	KMB
Diesel Range Organics	4.9	0.22	0.091	mg/L	1		SW-846 8015C	11/2/21	11/5/21 23:41	SFM

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
1-Chloro-3-fluorobenzene	103	70-130		11/6/21 8:55
2-Fluorobiphenyl	87.5	40-140		11/5/21 23:41

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Project Location: 1400 N. Royal St., Alexandria, VA Sample Description: Work Order: 21K0043

Date Received: 11/1/2021

Field Sample #: HRP-MW72S-211027 Sampled: 10/27/2021 14:40

Sample ID: 21K0043-01

Sample Matrix: Ground Water

Metals Analyses (Total)

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Aluminum	0.086	0.050	0.049	mg/L	1		SW-846 6010D	11/3/21	11/4/21 15:14	MJH
Antimony	ND	1.0	0.20	µg/L	1		SW-846 6020B	11/3/21	11/4/21 13:45	QNW
Arsenic	1.7	0.80	0.46	µg/L	1		SW-846 6020B	11/3/21	11/4/21 13:45	QNW
Barium	13	10	1.2	µg/L	1		SW-846 6020B	11/3/21	11/4/21 13:45	QNW
Beryllium	0.099	0.40	0.066	µg/L	1	J	SW-846 6020B	11/3/21	11/4/21 15:16	QNW
Cadmium	0.079	0.20	0.027	µg/L	1	J	SW-846 6020B	11/3/21	11/4/21 13:45	QNW
Calcium	180	0.50	0.11	mg/L	1		SW-846 6010D	11/3/21	11/4/21 15:14	MJH
Chromium	ND	1.0	0.92	µg/L	1		SW-846 6020B	11/3/21	11/4/21 13:45	QNW
Cobalt	95	1.0	0.14	µg/L	1		SW-846 6020B	11/3/21	11/4/21 13:45	QNW
Copper	13	1.0	0.27	µg/L	1		SW-846 6020B	11/3/21	11/4/21 13:45	QNW
Iron	180	0.050	0.032	mg/L	1		SW-846 6010D	11/3/21	11/4/21 15:14	MJH
Lead	1.2	0.50	0.14	µg/L	1		SW-846 6020B	11/3/21	11/4/21 13:45	QNW
Magnesium	53	0.050	0.023	mg/L	1		SW-846 6010D	11/3/21	11/4/21 15:14	MJH
Manganese	4700	1.0	0.24	µg/L	1		SW-846 6020B	11/3/21	11/4/21 13:45	QNW
Mercury	0.000060	0.00010	0.000050	mg/L	1	R-04, J	SW-846 7470A	11/2/21	11/3/21 9:12	DRL
Nickel	17	5.0	0.52	µg/L	1		SW-846 6020B	11/3/21	11/4/21 13:45	QNW
Potassium	7.6	2.0	0.40	mg/L	1		SW-846 6010D	11/3/21	11/4/21 15:14	MJH
Selenium	ND	5.0	0.78	µg/L	1		SW-846 6020B	11/3/21	11/4/21 13:45	QNW
Silver	ND	0.20	0.026	µg/L	1		SW-846 6020B	11/3/21	11/4/21 13:45	QNW
Sodium	54	2.0	0.56	mg/L	1		SW-846 6010D	11/3/21	11/4/21 15:14	MJH
Thallium	ND	0.20	0.067	µg/L	1		SW-846 6020B	11/3/21	11/4/21 13:45	QNW
Vanadium	ND	5.0	3.5	µg/L	1		SW-846 6020B	11/3/21	11/4/21 13:45	QNW
Zinc	26	10	3.4	µg/L	1		SW-846 6020B	11/3/21	11/4/21 13:45	QNW

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Project Location: 1400 N. Royal St., Alexandria, VA Sample Description: Work Order: 21K0043

Date Received: 11/1/2021

Field Sample #: HRP-MW72S-211027 Sampled: 10/27/2021 14:40

Sample ID: 21K0043-01

Sample Matrix: Ground Water

Metals Analyses (Dissolved)

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Aluminum	0.058	0.050	0.049	mg/L	1		SW-846 6010D	11/3/21	11/4/21 17:36	QNW
Antimony	ND	1.0	0.20	µg/L	1		SW-846 6020B	11/3/21	11/5/21 12:36	QNW
Arsenic	1.4	0.80	0.46	µg/L	1		SW-846 6020B	11/3/21	11/4/21 15:44	QNW
Barium	13	10	1.2	µg/L	1		SW-846 6020B	11/3/21	11/4/21 15:44	QNW
Beryllium	0.083	0.40	0.066	µg/L	1	J	SW-846 6020B	11/3/21	11/4/21 15:44	QNW
Cadmium	0.050	0.20	0.027	µg/L	1	J	SW-846 6020B	11/3/21	11/5/21 12:36	QNW
Calcium	180	0.50	0.11	mg/L	1	MS-19	SW-846 6010D	11/3/21	11/4/21 17:36	QNW
Chromium	ND	1.0	0.92	µg/L	1		SW-846 6020B	11/3/21	11/5/21 12:36	QNW
Cobalt	94	1.0	0.14	µg/L	1		SW-846 6020B	11/3/21	11/5/21 12:36	QNW
Copper	3.3	1.0	0.27	µg/L	1		SW-846 6020B	11/3/21	11/5/21 12:36	QNW
Iron	190	0.050	0.032	mg/L	1	MS-19	SW-846 6010D	11/3/21	11/4/21 17:36	QNW
Lead	0.40	0.50	0.14	µg/L	1	J	SW-846 6020B	11/3/21	11/4/21 15:44	QNW
Magnesium	58	0.050	0.023	mg/L	1	MS-19	SW-846 6010D	11/3/21	11/4/21 17:36	QNW
Manganese	4800	1.0	0.24	µg/L	1		SW-846 6020B	11/3/21	11/5/21 12:36	QNW
Mercury	ND	0.00010	0.000050	mg/L	1		SW-846 7470A	11/2/21	11/3/21 8:51	DRL
Nickel	17	5.0	0.52	µg/L	1		SW-846 6020B	11/3/21	11/5/21 12:36	QNW
Potassium	8.0	2.0	0.40	mg/L	1		SW-846 6010D	11/3/21	11/4/21 17:36	QNW
Selenium	ND	5.0	0.78	µg/L	1		SW-846 6020B	11/3/21	11/5/21 12:36	QNW
Silver	ND	0.20	0.026	µg/L	1		SW-846 6020B	11/3/21	11/5/21 12:36	QNW
Sodium	58	2.0	0.56	mg/L	1		SW-846 6010D	11/3/21	11/4/21 17:36	QNW
Thallium	ND	0.20	0.067	µg/L	1		SW-846 6020B	11/3/21	11/5/21 12:36	QNW
Vanadium	ND	5.0	3.5	µg/L	1		SW-846 6020B	11/3/21	11/5/21 12:36	QNW
Zinc	27	10	3.4	µg/L	1		SW-846 6020B	11/3/21	11/4/21 15:44	QNW

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Project Location: 1400 N. Royal St., Alexandria, VA Sample Description: Work Order: 21K0043

Date Received: 11/1/2021

Field Sample #: HRP-MW72S-211027 Sampled: 10/27/2021 14:40

Sample ID: 21K0043-01

Sample Matrix: Ground Water

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Ammonia as N	0.86	0.10	0.056	mg/L	1		EPA 350.1	11/3/21	11/4/21 15:14	MMH
Sulfate	1000	100	60	mg/L	100		ASTM D516-16	11/2/21	11/2/21 11:53	MMH

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39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: 1400 N. Royal St., Alexandria, VA Sample Description: Work Order: 21K0043

Date Received: 11/1/2021

Field Sample #: HRP-MW30S-211027 Sampled: 10/27/2021 14:58

Sample ID: 21K0043-02

Sample Matrix: Ground Water

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acetone	ND	50	2.4	µg/L	1		SW-846 8260D	11/2/21	11/2/21 18:04	LBD
Acrylonitrile	ND	5.0	0.69	µg/L	1		SW-846 8260D	11/2/21	11/2/21 18:04	LBD
tert-Amyl Methyl Ether (TAME)	ND	0.50	0.15	µg/L	1		SW-846 8260D	11/2/21	11/2/21 18:04	LBD
Benzene	ND	1.0	0.13	µg/L	1		SW-846 8260D	11/2/21	11/2/21 18:04	LBD
Bromobenzene	ND	1.0	0.13	µg/L	1		SW-846 8260D	11/2/21	11/2/21 18:04	LBD
Bromochloromethane	ND	1.0	0.36	µg/L	1		SW-846 8260D	11/2/21	11/2/21 18:04	LBD
Bromodichloromethane	ND	0.50	0.14	µg/L	1		SW-846 8260D	11/2/21	11/2/21 18:04	LBD
Bromoform	ND	1.0	0.29	µg/L	1		SW-846 8260D	11/2/21	11/2/21 18:04	LBD
Bromomethane	ND	5.0	1.1	µg/L	1	V-34	SW-846 8260D	11/2/21	11/2/21 18:04	LBD
2-Butanone (MEK)	ND	20	1.9	µg/L	1	V-05	SW-846 8260D	11/2/21	11/2/21 18:04	LBD
tert-Butyl Alcohol (TBA)	ND	20	5.3	µg/L	1	V-05	SW-846 8260D	11/2/21	11/2/21 18:04	LBD
n-Butylbenzene	ND	1.0	0.14	µg/L	1		SW-846 8260D	11/2/21	11/2/21 18:04	LBD
sec-Butylbenzene	ND	1.0	0.10	µg/L	1		SW-846 8260D	11/2/21	11/2/21 18:04	LBD
tert-Butylbenzene	ND	1.0	0.090	µg/L	1		SW-846 8260D	11/2/21	11/2/21 18:04	LBD
tert-Butyl Ethyl Ether (TBEE)	ND	0.50	0.11	µg/L	1		SW-846 8260D	11/2/21	11/2/21 18:04	LBD
Carbon Disulfide	ND	5.0	1.5	µg/L	1		SW-846 8260D	11/2/21	11/2/21 18:04	LBD
Carbon Tetrachloride	ND	5.0	0.17	µg/L	1		SW-846 8260D	11/2/21	11/2/21 18:04	LBD
Chlorobenzene	ND	1.0	0.080	µg/L	1		SW-846 8260D	11/2/21	11/2/21 18:04	LBD
Chlorodibromomethane	ND	0.50	0.16	µg/L	1		SW-846 8260D	11/2/21	11/2/21 18:04	LBD
Chloroethane	ND	2.0	0.37	µg/L	1		SW-846 8260D	11/2/21	11/2/21 18:04	LBD
Chloroform	ND	2.0	0.19	µg/L	1		SW-846 8260D	11/2/21	11/2/21 18:04	LBD
Chloromethane	ND	2.0	0.38	µg/L	1	L-04, V-05, V-34	SW-846 8260D	11/2/21	11/2/21 18:04	LBD
2-Chlorotoluene	ND	1.0	0.090	µg/L	1		SW-846 8260D	11/2/21	11/2/21 18:04	LBD
4-Chlorotoluene	ND	1.0	0.10	µg/L	1		SW-846 8260D	11/2/21	11/2/21 18:04	LBD
1,2-Dibromo-3-chloropropane (DBCP)	ND	5.0	0.72	µg/L	1		SW-846 8260D	11/2/21	11/2/21 18:04	LBD
1,2-Dibromoethane (EDB)	ND	0.50	0.15	µg/L	1		SW-846 8260D	11/2/21	11/2/21 18:04	LBD
Dibromomethane	ND	1.0	0.29	µg/L	1		SW-846 8260D	11/2/21	11/2/21 18:04	LBD
1,2-Dichlorobenzene	ND	1.0	0.10	µg/L	1		SW-846 8260D	11/2/21	11/2/21 18:04	LBD
1,3-Dichlorobenzene	ND	1.0	0.090	µg/L	1		SW-846 8260D	11/2/21	11/2/21 18:04	LBD
1,4-Dichlorobenzene	ND	1.0	0.11	µg/L	1		SW-846 8260D	11/2/21	11/2/21 18:04	LBD
trans-1,4-Dichloro-2-butene	ND	2.0	1.8	µg/L	1		SW-846 8260D	11/2/21	11/2/21 18:04	LBD
Dichlorodifluoromethane (Freon 12)	ND	2.0	0.20	µg/L	1		SW-846 8260D	11/2/21	11/2/21 18:04	LBD
1,1-Dichloroethane	ND	1.0	0.16	µg/L	1		SW-846 8260D	11/2/21	11/2/21 18:04	LBD
1,2-Dichloroethane	ND	1.0	0.32	µg/L	1		SW-846 8260D	11/2/21	11/2/21 18:04	LBD
1,1-Dichloroethylene	ND	1.0	0.16	µg/L	1		SW-846 8260D	11/2/21	11/2/21 18:04	LBD
cis-1,2-Dichloroethylene	ND	1.0	0.15	µg/L	1		SW-846 8260D	11/2/21	11/2/21 18:04	LBD
trans-1,2-Dichloroethylene	ND	1.0	0.17	µg/L	1		SW-846 8260D	11/2/21	11/2/21 18:04	LBD
1,2-Dichloropropane	ND	1.0	0.18	µg/L	1		SW-846 8260D	11/2/21	11/2/21 18:04	LBD
1,3-Dichloropropane	ND	0.50	0.12	µg/L	1		SW-846 8260D	11/2/21	11/2/21 18:04	LBD
2,2-Dichloropropane	ND	1.0	0.31	µg/L	1		SW-846 8260D	11/2/21	11/2/21 18:04	LBD
1,1-Dichloropropene	ND	2.0	0.26	µg/L	1		SW-846 8260D	11/2/21	11/2/21 18:04	LBD
cis-1,3-Dichloropropene	ND	0.50	0.12	µg/L	1		SW-846 8260D	11/2/21	11/2/21 18:04	LBD
trans-1,3-Dichloropropene	ND	0.50	0.15	µg/L	1		SW-846 8260D	11/2/21	11/2/21 18:04	LBD
Diethyl Ether	ND	2.0	0.22	µg/L	1		SW-846 8260D	11/2/21	11/2/21 18:04	LBD

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Project Location: 1400 N. Royal St., Alexandria, VA Sample Description: Work Order: 21K0043

Date Received: 11/1/2021

Field Sample #: HRP-MW30S-211027 Sampled: 10/27/2021 14:58

Sample ID: 21K0043-02

Sample Matrix: Ground Water

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Diisopropyl Ether (DIPE)	ND	0.50	0.15	µg/L	1		SW-846 8260D	11/2/21	11/2/21 18:04	LBD
1,4-Dioxane	ND	50	22	µg/L	1		SW-846 8260D	11/2/21	11/2/21 18:04	LBD
Ethylbenzene	ND	1.0	0.090	µg/L	1		SW-846 8260D	11/2/21	11/2/21 18:04	LBD
Hexachlorobutadiene	ND	0.60	0.41	µg/L	1		SW-846 8260D	11/2/21	11/2/21 18:04	LBD
2-Hexanone (MBK)	ND	10	1.4	µg/L	1		SW-846 8260D	11/2/21	11/2/21 18:04	LBD
Isopropylbenzene (Cumene)	ND	1.0	0.10	µg/L	1		SW-846 8260D	11/2/21	11/2/21 18:04	LBD
p-Isopropyltoluene (p-Cymene)	ND	1.0	0.090	µg/L	1		SW-846 8260D	11/2/21	11/2/21 18:04	LBD
Methyl Acetate	ND	1.0	0.39	µg/L	1	V-05	SW-846 8260D	11/2/21	11/2/21 18:04	LBD
Methyl tert-Butyl Ether (MTBE)	ND	1.0	0.17	µg/L	1		SW-846 8260D	11/2/21	11/2/21 18:04	LBD
Methyl Cyclohexane	ND	1.0	0.33	µg/L	1		SW-846 8260D	11/2/21	11/2/21 18:04	LBD
Methylene Chloride	ND	5.0	0.30	µg/L	1		SW-846 8260D	11/2/21	11/2/21 18:04	LBD
4-Methyl-2-pentanone (MIBK)	ND	10	1.6	µg/L	1		SW-846 8260D	11/2/21	11/2/21 18:04	LBD
Naphthalene	ND	2.0	0.15	µg/L	1		SW-846 8260D	11/2/21	11/2/21 18:04	LBD
n-Propylbenzene	ND	1.0	0.080	µg/L	1		SW-846 8260D	11/2/21	11/2/21 18:04	LBD
Styrene	ND	1.0	0.080	µg/L	1		SW-846 8260D	11/2/21	11/2/21 18:04	LBD
1,1,1,2-Tetrachloroethane	ND	1.0	0.14	µg/L	1		SW-846 8260D	11/2/21	11/2/21 18:04	LBD
1,1,2,2-Tetrachloroethane	ND	0.50	0.090	µg/L	1		SW-846 8260D	11/2/21	11/2/21 18:04	LBD
Tetrachloroethylene	ND	1.0	0.20	µg/L	1		SW-846 8260D	11/2/21	11/2/21 18:04	LBD
Tetrahydrofuran	ND	10	0.58	µg/L	1	V-05	SW-846 8260D	11/2/21	11/2/21 18:04	LBD
Toluene	ND	1.0	0.11	µg/L	1		SW-846 8260D	11/2/21	11/2/21 18:04	LBD
1,2,3-Trichlorobenzene	ND	5.0	0.14	µg/L	1		SW-846 8260D	11/2/21	11/2/21 18:04	LBD
1,2,4-Trichlorobenzene	ND	1.0	0.16	µg/L	1		SW-846 8260D	11/2/21	11/2/21 18:04	LBD
1,3,5-Trichlorobenzene	ND	1.0	0.18	µg/L	1		SW-846 8260D	11/2/21	11/2/21 18:04	LBD
1,1,1-Trichloroethane	ND	1.0	0.17	µg/L	1		SW-846 8260D	11/2/21	11/2/21 18:04	LBD
1,1,2-Trichloroethane	ND	1.0	0.15	µg/L	1		SW-846 8260D	11/2/21	11/2/21 18:04	LBD
Trichloroethylene	ND	1.0	0.18	µg/L	1		SW-846 8260D	11/2/21	11/2/21 18:04	LBD
Trichlorofluoromethane (Freon 11)	ND	2.0	0.19	µg/L	1		SW-846 8260D	11/2/21	11/2/21 18:04	LBD
1,2,3-Trichloropropane	ND	2.0	0.31	µg/L	1		SW-846 8260D	11/2/21	11/2/21 18:04	LBD
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	1.0	0.24	µg/L	1		SW-846 8260D	11/2/21	11/2/21 18:04	LBD
1,2,4-Trimethylbenzene	ND	1.0	0.10	µg/L	1		SW-846 8260D	11/2/21	11/2/21 18:04	LBD
1,3,5-Trimethylbenzene	ND	1.0	0.10	µg/L	1		SW-846 8260D	11/2/21	11/2/21 18:04	LBD
Vinyl Chloride	ND	2.0	0.20	µg/L	1		SW-846 8260D	11/2/21	11/2/21 18:04	LBD
m+p Xylene	ND	2.0	0.18	µg/L	1		SW-846 8260D	11/2/21	11/2/21 18:04	LBD
o-Xylene	ND	1.0	0.090	µg/L	1		SW-846 8260D	11/2/21	11/2/21 18:04	LBD

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
1,2-Dichloroethane-d4	86.6	70-130		11/2/21 18:04
Toluene-d8	92.7	70-130		11/2/21 18:04
4-Bromofluorobenzene	100	70-130		11/2/21 18:04

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Date Received: 11/1/2021

Field Sample #: HRP-MW30S-211027 Sampled: 10/27/2021 14:58

Sample ID: 21K0043-02

Sample Matrix: Ground Water

Semivolatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acenaphthene	ND	5.2	0.35	µg/L	1		SW-846 8270E	11/2/21	11/8/21 9:09	BGL
Acenaphthylene	ND	5.2	0.33	µg/L	1		SW-846 8270E	11/2/21	11/8/21 9:09	BGL
Acetophenone	ND	10	0.46	µg/L	1		SW-846 8270E	11/2/21	11/8/21 9:09	BGL
Aniline	ND	5.2	0.85	µg/L	1		SW-846 8270E	11/2/21	11/8/21 9:09	BGL
Anthracene	ND	5.2	0.41	µg/L	1		SW-846 8270E	11/2/21	11/8/21 9:09	BGL
Benzidine	ND	21	10	µg/L	1	V-04	SW-846 8270E	11/2/21	11/8/21 9:09	BGL
Benzo(a)anthracene	ND	5.2	0.39	µg/L	1		SW-846 8270E	11/2/21	11/8/21 9:09	BGL
Benzo(a)pyrene	ND	5.2	0.49	µg/L	1		SW-846 8270E	11/2/21	11/8/21 9:09	BGL
Benzo(b)fluoranthene	ND	5.2	0.43	µg/L	1		SW-846 8270E	11/2/21	11/8/21 9:09	BGL
Benzo(g,h,i)perylene	ND	5.2	0.66	µg/L	1		SW-846 8270E	11/2/21	11/8/21 9:09	BGL
Benzo(k)fluoranthene	ND	5.2	0.38	µg/L	1		SW-846 8270E	11/2/21	11/8/21 9:09	BGL
Benzoic Acid	ND	10	9.5	µg/L	1		SW-846 8270E	11/2/21	11/8/21 9:09	BGL
Bis(2-chloroethoxy)methane	ND	10	0.45	µg/L	1		SW-846 8270E	11/2/21	11/8/21 9:09	BGL
Bis(2-chloroethyl)ether	ND	10	0.54	µg/L	1		SW-846 8270E	11/2/21	11/8/21 9:09	BGL
Bis(2-chloroisopropyl)ether	ND	10	0.62	µg/L	1		SW-846 8270E	11/2/21	11/8/21 9:09	BGL
Bis(2-Ethylhexyl)phthalate	ND	10	0.95	µg/L	1		SW-846 8270E	11/2/21	11/8/21 9:09	BGL
4-Bromophenylphenylether	ND	10	0.39	µg/L	1		SW-846 8270E	11/2/21	11/8/21 9:09	BGL
Butylbenzylphthalate	ND	10	0.72	µg/L	1		SW-846 8270E	11/2/21	11/8/21 9:09	BGL
Carbazole	ND	10	0.42	µg/L	1		SW-846 8270E	11/2/21	11/8/21 9:09	BGL
4-Chloroaniline	ND	10	0.45	µg/L	1	V-34	SW-846 8270E	11/2/21	11/8/21 9:09	BGL
4-Chloro-3-methylphenol	ND	10	0.56	µg/L	1		SW-846 8270E	11/2/21	11/8/21 9:09	BGL
2-Chloronaphthalene	ND	10	0.27	µg/L	1		SW-846 8270E	11/2/21	11/8/21 9:09	BGL
2-Chlorophenol	ND	10	0.39	µg/L	1		SW-846 8270E	11/2/21	11/8/21 9:09	BGL
4-Chlorophenylphenylether	ND	10	0.34	µg/L	1		SW-846 8270E	11/2/21	11/8/21 9:09	BGL
Chrysene	ND	5.2	0.39	µg/L	1		SW-846 8270E	11/2/21	11/8/21 9:09	BGL
Dibenz(a,h)anthracene	ND	5.2	0.73	µg/L	1		SW-846 8270E	11/2/21	11/8/21 9:09	BGL
Dibenzofuran	ND	5.2	0.35	µg/L	1		SW-846 8270E	11/2/21	11/8/21 9:09	BGL
Di-n-butylphthalate	ND	10	0.51	µg/L	1		SW-846 8270E	11/2/21	11/8/21 9:09	BGL
1,2-Dichlorobenzene	ND	5.2	0.24	µg/L	1		SW-846 8270E	11/2/21	11/8/21 9:09	BGL
1,3-Dichlorobenzene	ND	5.2	0.25	µg/L	1		SW-846 8270E	11/2/21	11/8/21 9:09	BGL
1,4-Dichlorobenzene	ND	5.2	0.27	µg/L	1		SW-846 8270E	11/2/21	11/8/21 9:09	BGL
3,3-Dichlorobenzidine	ND	10	0.64	µg/L	1	V-34	SW-846 8270E	11/2/21	11/8/21 9:09	BGL
2,4-Dichlorophenol	ND	10	0.38	µg/L	1		SW-846 8270E	11/2/21	11/8/21 9:09	BGL
Diethylphthalate	ND	10	0.50	µg/L	1		SW-846 8270E	11/2/21	11/8/21 9:09	BGL
2,4-Dimethylphenol	ND	10	1.0	µg/L	1		SW-846 8270E	11/2/21	11/8/21 9:09	BGL
Dimethylphthalate	ND	10	0.41	µg/L	1		SW-846 8270E	11/2/21	11/8/21 9:09	BGL
4,6-Dinitro-2-methylphenol	ND	10	6.8	µg/L	1		SW-846 8270E	11/2/21	11/8/21 9:09	BGL
2,4-Dinitrophenol	ND	10	8.3	µg/L	1	V-04	SW-846 8270E	11/2/21	11/8/21 9:09	BGL
2,4-Dinitrotoluene	ND	10	0.63	µg/L	1		SW-846 8270E	11/2/21	11/8/21 9:09	BGL
2,6-Dinitrotoluene	ND	10	0.52	µg/L	1		SW-846 8270E	11/2/21	11/8/21 9:09	BGL
Di-n-octylphthalate	ND	10	5.8	µg/L	1		SW-846 8270E	11/2/21	11/8/21 9:09	BGL
1,2-Diphenylhydrazine/Azobenzene	ND	10	0.54	µg/L	1		SW-846 8270E	11/2/21	11/8/21 9:09	BGL
Fluoranthene	ND	5.2	0.38	µg/L	1		SW-846 8270E	11/2/21	11/8/21 9:09	BGL
Fluorene	ND	5.2	0.43	µg/L	1		SW-846 8270E	11/2/21	11/8/21 9:09	BGL

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Project Location: 1400 N. Royal St., Alexandria, VA Sample Description: Work Order: 21K0043

Date Received: 11/1/2021

Field Sample #: HRP-MW30S-211027 Sampled: 10/27/2021 14:58

Sample ID: 21K0043-02

Sample Matrix: Ground Water

Semivolatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Hexachlorobenzene	ND	10	0.38	µg/L	1		SW-846 8270E	11/2/21	11/8/21 9:09	BGL
Hexachlorobutadiene	ND	10	0.28	µg/L	1		SW-846 8270E	11/2/21	11/8/21 9:09	BGL
Hexachlorocyclopentadiene	ND	10	4.4	µg/L	1		SW-846 8270E	11/2/21	11/8/21 9:09	BGL
Hexachloroethane	ND	10	0.32	µg/L	1		SW-846 8270E	11/2/21	11/8/21 9:09	BGL
Indeno(1,2,3-cd)pyrene	ND	5.2	0.81	µg/L	1		SW-846 8270E	11/2/21	11/8/21 9:09	BGL
Isophorone	ND	10	0.50	µg/L	1		SW-846 8270E	11/2/21	11/8/21 9:09	BGL
1-Methylnaphthalene	ND	5.2	0.30	µg/L	1		SW-846 8270E	11/2/21	11/8/21 9:09	BGL
2-Methylnaphthalene	ND	5.2	0.34	µg/L	1		SW-846 8270E	11/2/21	11/8/21 9:09	BGL
2-Methylphenol	ND	10	0.38	µg/L	1		SW-846 8270E	11/2/21	11/8/21 9:09	BGL
3/4-Methylphenol	ND	10	0.39	µg/L	1		SW-846 8270E	11/2/21	11/8/21 9:09	BGL
Naphthalene	ND	5.2	0.31	µg/L	1		SW-846 8270E	11/2/21	11/8/21 9:09	BGL
2-Nitroaniline	ND	10	0.78	µg/L	1		SW-846 8270E	11/2/21	11/8/21 9:09	BGL
3-Nitroaniline	ND	10	0.52	µg/L	1		SW-846 8270E	11/2/21	11/8/21 9:09	BGL
4-Nitroaniline	ND	10	0.51	µg/L	1		SW-846 8270E	11/2/21	11/8/21 9:09	BGL
Nitrobenzene	ND	10	0.55	µg/L	1		SW-846 8270E	11/2/21	11/8/21 9:09	BGL
2-Nitrophenol	ND	10	0.49	µg/L	1		SW-846 8270E	11/2/21	11/8/21 9:09	BGL
4-Nitrophenol	ND	10	2.1	µg/L	1		SW-846 8270E	11/2/21	11/8/21 9:09	BGL
N-Nitrosodimethylamine	ND	10	0.85	µg/L	1		SW-846 8270E	11/2/21	11/8/21 9:09	BGL
N-Nitrosodiphenylamine/Diphenylamine	ND	10	0.41	µg/L	1		SW-846 8270E	11/2/21	11/8/21 9:09	BGL
N-Nitrosodi-n-propylamine	ND	10	0.55	µg/L	1		SW-846 8270E	11/2/21	11/8/21 9:09	BGL
Pentachloronitrobenzene	ND	10	0.66	µg/L	1		SW-846 8270E	11/2/21	11/8/21 9:09	BGL
Pentachlorophenol	ND	10	3.9	µg/L	1		SW-846 8270E	11/2/21	11/8/21 9:09	BGL
Phenanthrene	ND	5.2	0.41	µg/L	1		SW-846 8270E	11/2/21	11/8/21 9:09	BGL
Phenol	ND	10	0.25	µg/L	1		SW-846 8270E	11/2/21	11/8/21 9:09	BGL
Pyrene	ND	5.2	0.49	µg/L	1		SW-846 8270E	11/2/21	11/8/21 9:09	BGL
Pyridine	ND	5.2	2.7	µg/L	1		SW-846 8270E	11/2/21	11/8/21 9:09	BGL
1,2,4,5-Tetrachlorobenzene	ND	10	0.28	µg/L	1		SW-846 8270E	11/2/21	11/8/21 9:09	BGL
1,2,4-Trichlorobenzene	ND	5.2	0.25	µg/L	1		SW-846 8270E	11/2/21	11/8/21 9:09	BGL
2,4,5-Trichlorophenol	ND	10	0.48	µg/L	1		SW-846 8270E	11/2/21	11/8/21 9:09	BGL
2,4,6-Trichlorophenol	ND	10	0.42	µg/L	1		SW-846 8270E	11/2/21	11/8/21 9:09	BGL

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
2-Fluorophenol	36.7	15-110		11/8/21 9:09
Phenol-d6	26.2	15-110		11/8/21 9:09
Nitrobenzene-d5	45.1	30-130		11/8/21 9:09
2-Fluorobiphenyl	48.1	30-130		11/8/21 9:09
2,4,6-Tribromophenol	68.1	15-110		11/8/21 9:09
p-Terphenyl-d14	76.4	30-130		11/8/21 9:09

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Project Location: 1400 N. Royal St., Alexandria, VA Sample Description: Work Order: 21K0043

Date Received: 11/1/2021

Field Sample #: HRP-MW30S-211027 Sampled: 10/27/2021 14:58

Sample ID: 21K0043-02

Sample Matrix: Ground Water

Semivolatile Organic Compounds by GC

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Methanol	ND	10	2.3	mg/L	1		SW-846 8015C	11/5/21	11/5/21 17:03	SFM
Isopropanol	ND	10	1.8	mg/L	1		SW-846 8015C	11/5/21	11/5/21 17:03	SFM
Ethanol	ND	10	2.5	mg/L	1		SW-846 8015C	11/5/21	11/5/21 17:03	SFM
Propylene glycol	ND	10	2.9	mg/L	1		SW-846 8015C	11/5/21	11/5/21 17:03	SFM
Ethylene glycol	ND	10	4.0	mg/L	1		SW-846 8015C	11/5/21	11/5/21 17:03	SFM

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Project Location: 1400 N. Royal St., Alexandria, VA Sample Description: Work Order: 21K0043

Date Received: 11/1/2021

Field Sample #: HRP-MW30S-211027 Sampled: 10/27/2021 14:58

Sample ID: 21K0043-02

Sample Matrix: Ground Water

Petroleum Hydrocarbons Analyses

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Gasoline Range Organics (GRO)	ND	0.010	0.0094	mg/L	1		SW-846 8015C	11/5/21	11/6/21 7:00	KMB
Diesel Range Organics	0.44	0.22	0.090	mg/L	1		SW-846 8015C	11/2/21	11/5/21 23:01	SFM

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
1-Chloro-3-fluorobenzene	100	70-130		11/6/21 7:00
2-Fluorobiphenyl	75.2	40-140		11/5/21 23:01

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Project Location: 1400 N. Royal St., Alexandria, VA Sample Description: Work Order: 21K0043

Date Received: 11/1/2021

Field Sample #: HRP-MW30S-211027 Sampled: 10/27/2021 14:58

Sample ID: 21K0043-02

Sample Matrix: Ground Water

Metals Analyses (Total)

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Aluminum	ND	0.050	0.049	mg/L	1		SW-846 6010D	11/3/21	11/4/21 15:20	MJH
Antimony	ND	1.0	0.20	µg/L	1		SW-846 6020B	11/3/21	11/4/21 13:47	QNW
Arsenic	1.2	0.80	0.46	µg/L	1		SW-846 6020B	11/3/21	11/4/21 13:47	QNW
Barium	38	10	1.2	µg/L	1		SW-846 6020B	11/3/21	11/4/21 13:47	QNW
Beryllium	ND	0.40	0.066	µg/L	1		SW-846 6020B	11/3/21	11/4/21 15:19	QNW
Cadmium	0.082	0.20	0.027	µg/L	1	J	SW-846 6020B	11/3/21	11/4/21 13:47	QNW
Calcium	120	0.50	0.11	mg/L	1		SW-846 6010D	11/3/21	11/4/21 15:20	MJH
Chromium	ND	1.0	0.92	µg/L	1		SW-846 6020B	11/3/21	11/4/21 13:47	QNW
Cobalt	17	1.0	0.14	µg/L	1		SW-846 6020B	11/3/21	11/4/21 13:47	QNW
Copper	2.0	1.0	0.27	µg/L	1		SW-846 6020B	11/3/21	11/4/21 13:47	QNW
Iron	1.5	0.050	0.032	mg/L	1		SW-846 6010D	11/3/21	11/4/21 15:20	MJH
Lead	0.48	0.50	0.14	µg/L	1	J	SW-846 6020B	11/3/21	11/4/21 13:47	QNW
Magnesium	23	0.050	0.023	mg/L	1		SW-846 6010D	11/3/21	11/4/21 15:20	MJH
Manganese	1700	1.0	0.24	µg/L	1		SW-846 6020B	11/3/21	11/4/21 13:47	QNW
Mercury	ND	0.00010	0.000050	mg/L	1		SW-846 7470A	11/2/21	11/3/21 9:14	DRL
Nickel	43	5.0	0.52	µg/L	1		SW-846 6020B	11/3/21	11/4/21 13:47	QNW
Potassium	4.3	2.0	0.40	mg/L	1		SW-846 6010D	11/3/21	11/4/21 15:20	MJH
Selenium	ND	5.0	0.78	µg/L	1		SW-846 6020B	11/3/21	11/4/21 13:47	QNW
Silver	ND	0.20	0.026	µg/L	1		SW-846 6020B	11/3/21	11/4/21 13:47	QNW
Sodium	22	2.0	0.56	mg/L	1		SW-846 6010D	11/3/21	11/4/21 15:20	MJH
Thallium	ND	0.20	0.067	µg/L	1		SW-846 6020B	11/3/21	11/4/21 13:47	QNW
Vanadium	ND	5.0	3.5	µg/L	1		SW-846 6020B	11/3/21	11/4/21 13:47	QNW
Zinc	9.8	10	3.4	µg/L	1	J	SW-846 6020B	11/3/21	11/4/21 13:47	QNW

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Project Location: 1400 N. Royal St., Alexandria, VA Sample Description: Work Order: 21K0043

Date Received: 11/1/2021

Field Sample #: HRP-MW30S-211027 Sampled: 10/27/2021 14:58

Sample ID: 21K0043-02

Sample Matrix: Ground Water

Metals Analyses (Dissolved)

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Aluminum	ND	0.050	0.049	mg/L	1		SW-846 6010D	11/3/21	11/4/21 17:43	QNW
Antimony	ND	1.0	0.20	µg/L	1		SW-846 6020B	11/3/21	11/5/21 12:39	QNW
Arsenic	0.71	0.80	0.46	µg/L	1	J	SW-846 6020B	11/3/21	11/4/21 15:46	QNW
Barium	41	10	1.2	µg/L	1		SW-846 6020B	11/3/21	11/4/21 15:46	QNW
Beryllium	ND	0.40	0.066	µg/L	1		SW-846 6020B	11/3/21	11/4/21 15:46	QNW
Cadmium	0.070	0.20	0.027	µg/L	1	J	SW-846 6020B	11/3/21	11/5/21 12:39	QNW
Calcium	130	0.50	0.11	mg/L	1		SW-846 6010D	11/3/21	11/4/21 17:43	QNW
Chromium	ND	1.0	0.92	µg/L	1		SW-846 6020B	11/3/21	11/5/21 12:39	QNW
Cobalt	16	1.0	0.14	µg/L	1		SW-846 6020B	11/3/21	11/5/21 12:39	QNW
Copper	2.1	1.0	0.27	µg/L	1		SW-846 6020B	11/3/21	11/5/21 12:39	QNW
Iron	1.6	0.050	0.032	mg/L	1		SW-846 6010D	11/3/21	11/4/21 17:43	QNW
Lead	0.52	0.50	0.14	µg/L	1		SW-846 6020B	11/3/21	11/4/21 15:46	QNW
Magnesium	24	0.050	0.023	mg/L	1		SW-846 6010D	11/3/21	11/4/21 17:43	QNW
Manganese	1800	1.0	0.24	µg/L	1		SW-846 6020B	11/3/21	11/5/21 12:39	QNW
Mercury	ND	0.00010	0.000050	mg/L	1		SW-846 7470A	11/2/21	11/3/21 8:53	DRL
Nickel	42	5.0	0.52	µg/L	1		SW-846 6020B	11/3/21	11/5/21 12:39	QNW
Potassium	4.4	2.0	0.40	mg/L	1		SW-846 6010D	11/3/21	11/4/21 17:43	QNW
Selenium	ND	5.0	0.78	µg/L	1		SW-846 6020B	11/3/21	11/5/21 12:39	QNW
Silver	ND	0.20	0.026	µg/L	1		SW-846 6020B	11/3/21	11/5/21 12:39	QNW
Sodium	23	2.0	0.56	mg/L	1		SW-846 6010D	11/3/21	11/4/21 17:43	QNW
Thallium	ND	0.20	0.067	µg/L	1		SW-846 6020B	11/3/21	11/5/21 12:39	QNW
Vanadium	ND	5.0	3.5	µg/L	1		SW-846 6020B	11/3/21	11/5/21 12:39	QNW
Zinc	13	10	3.4	µg/L	1		SW-846 6020B	11/3/21	11/4/21 15:46	QNW

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Project Location: 1400 N. Royal St., Alexandria, VA Sample Description: Work Order: 21K0043

Date Received: 11/1/2021

Field Sample #: HRP-MW30S-211027 Sampled: 10/27/2021 14:58

Sample ID: 21K0043-02

Sample Matrix: Ground Water

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Ammonia as N	0.15	0.10	0.056	mg/L	1		EPA 350.1	11/3/21	11/4/21 15:14	MMH
Sulfate	190	10	6.0	mg/L	10		ASTM D516-16	11/2/21	11/2/21 10:57	MMH

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Project Location: 1400 N. Royal St., Alexandria, VA Sample Description: Work Order: 21K0043

Date Received: 11/1/2021

Field Sample #: HRP-SB210-0-1-211028 Sampled: 10/28/2021 07:30

Sample ID: 21K0043-03

Sample Matrix: Soil

Metals Analyses (Total)

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Aluminum	13000	19	7.0	mg/Kg dry	1		SW-846 6010D	11/4/21	11/5/21 18:53	MJH
Antimony	ND	1.9	0.78	mg/Kg dry	1		SW-846 6010D	11/4/21	11/5/21 18:53	MJH
Arsenic	3.0	3.9	1.4	mg/Kg dry	1	J	SW-846 6010D	11/4/21	11/5/21 18:53	MJH
Barium	78	1.9	0.73	mg/Kg dry	1		SW-846 6010D	11/4/21	11/5/21 18:53	MJH
Beryllium	0.88	0.19	0.073	mg/Kg dry	1		SW-846 6010D	11/4/21	11/5/21 18:53	MJH
Cadmium	ND	0.39	0.20	mg/Kg dry	1		SW-846 6010D	11/4/21	11/5/21 18:53	MJH
Calcium	1700	19	7.5	mg/Kg dry	1		SW-846 6010D	11/4/21	11/5/21 18:53	MJH
Chromium	26	0.77	0.44	mg/Kg dry	1		SW-846 6010D	11/4/21	11/5/21 18:53	MJH
Cobalt	13	1.9	0.71	mg/Kg dry	1		SW-846 6010D	11/4/21	11/5/21 18:53	MJH
Copper	25	0.77	0.37	mg/Kg dry	1		SW-846 6010D	11/4/21	11/5/21 18:53	MJH
Iron	28000	190	78	mg/Kg dry	10		SW-846 6010D	11/4/21	11/6/21 16:20	MJH
Lead	16	0.58	0.28	mg/Kg dry	1		SW-846 6010D	11/4/21	11/5/21 18:53	MJH
Magnesium	2900	190	67	mg/Kg dry	10		SW-846 6010D	11/4/21	11/6/21 16:20	MJH
Manganese	630	0.39	0.15	mg/Kg dry	1		SW-846 6010D	11/4/21	11/5/21 18:53	MJH
Mercury	0.015	0.031	0.011	mg/Kg dry	1	J	SW-846 7471B	11/4/21	11/5/21 8:45	DRL
Nickel	11	0.77	0.39	mg/Kg dry	1		SW-846 6010D	11/4/21	11/5/21 18:53	MJH
Potassium	1400	1900	730	mg/Kg dry	10	J	SW-846 6010D	11/4/21	11/6/21 16:20	MJH
Selenium	ND	3.9	1.4	mg/Kg dry	1		SW-846 6010D	11/4/21	11/5/21 18:53	MJH
Silver	ND	0.39	0.18	mg/Kg dry	1		SW-846 6010D	11/4/21	11/5/21 18:53	MJH
Sodium	2500	190	75	mg/Kg dry	1		SW-846 6010D	11/4/21	11/5/21 18:53	MJH
Thallium	ND	1.9	0.92	mg/Kg dry	1		SW-846 6010D	11/4/21	11/5/21 18:53	MJH
Vanadium	54	0.77	0.38	mg/Kg dry	1		SW-846 6010D	11/4/21	11/5/21 18:53	MJH
Zinc	37	0.77	0.49	mg/Kg dry	1		SW-846 6010D	11/4/21	11/5/21 18:53	MJH

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Project Location: 1400 N. Royal St., Alexandria, VA Sample Description: Work Order: 21K0043

Date Received: 11/1/2021

Field Sample #: HRP-SB210-0-1-211028 Sampled: 10/28/2021 07:30

Sample ID: 21K0043-03

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	85.7			% Wt	1		SM 2540G	11/4/21	11/5/21 15:09	MJH
Cyanide	ND	0.58	0.41	mg/Kg dry	1		SW-846 9014	11/2/21	11/2/21 17:00	DJM
pH @21.6°C	8.9			pH Units	1	H-03	SW-846 9045C	11/1/21	11/1/21 21:40	DJM

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Project Location: 1400 N. Royal St., Alexandria, VA Sample Description: Work Order: 21K0043

Date Received: 11/1/2021

Field Sample #: HRP-MW209-211028 Sampled: 10/28/2021 09:55

Sample ID: 21K0043-04

Sample Matrix: Ground Water

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acetone	ND	50	2.4	µg/L	1		SW-846 8260D	11/2/21	11/2/21 18:30	LBD
Acrylonitrile	ND	5.0	0.69	µg/L	1		SW-846 8260D	11/2/21	11/2/21 18:30	LBD
tert-Amyl Methyl Ether (TAME)	ND	0.50	0.15	µg/L	1		SW-846 8260D	11/2/21	11/2/21 18:30	LBD
Benzene	ND	1.0	0.13	µg/L	1		SW-846 8260D	11/2/21	11/2/21 18:30	LBD
Bromobenzene	ND	1.0	0.13	µg/L	1		SW-846 8260D	11/2/21	11/2/21 18:30	LBD
Bromochloromethane	ND	1.0	0.36	µg/L	1		SW-846 8260D	11/2/21	11/2/21 18:30	LBD
Bromodichloromethane	ND	0.50	0.14	µg/L	1		SW-846 8260D	11/2/21	11/2/21 18:30	LBD
Bromoform	ND	1.0	0.29	µg/L	1		SW-846 8260D	11/2/21	11/2/21 18:30	LBD
Bromomethane	ND	5.0	1.1	µg/L	1	V-34	SW-846 8260D	11/2/21	11/2/21 18:30	LBD
2-Butanone (MEK)	ND	20	1.9	µg/L	1	V-05	SW-846 8260D	11/2/21	11/2/21 18:30	LBD
tert-Butyl Alcohol (TBA)	ND	20	5.3	µg/L	1	V-05	SW-846 8260D	11/2/21	11/2/21 18:30	LBD
n-Butylbenzene	ND	1.0	0.14	µg/L	1		SW-846 8260D	11/2/21	11/2/21 18:30	LBD
sec-Butylbenzene	ND	1.0	0.10	µg/L	1		SW-846 8260D	11/2/21	11/2/21 18:30	LBD
tert-Butylbenzene	ND	1.0	0.090	µg/L	1		SW-846 8260D	11/2/21	11/2/21 18:30	LBD
tert-Butyl Ethyl Ether (TBEE)	ND	0.50	0.11	µg/L	1		SW-846 8260D	11/2/21	11/2/21 18:30	LBD
Carbon Disulfide	ND	5.0	1.5	µg/L	1		SW-846 8260D	11/2/21	11/2/21 18:30	LBD
Carbon Tetrachloride	ND	5.0	0.17	µg/L	1		SW-846 8260D	11/2/21	11/2/21 18:30	LBD
Chlorobenzene	1.0	1.0	0.080	µg/L	1		SW-846 8260D	11/2/21	11/2/21 18:30	LBD
Chlorodibromomethane	ND	0.50	0.16	µg/L	1		SW-846 8260D	11/2/21	11/2/21 18:30	LBD
Chloroethane	ND	2.0	0.37	µg/L	1		SW-846 8260D	11/2/21	11/2/21 18:30	LBD
Chloroform	ND	2.0	0.19	µg/L	1		SW-846 8260D	11/2/21	11/2/21 18:30	LBD
Chloromethane	ND	2.0	0.38	µg/L	1	L-04, V-05, V-34	SW-846 8260D	11/2/21	11/2/21 18:30	LBD
2-Chlorotoluene	ND	1.0	0.090	µg/L	1		SW-846 8260D	11/2/21	11/2/21 18:30	LBD
4-Chlorotoluene	ND	1.0	0.10	µg/L	1		SW-846 8260D	11/2/21	11/2/21 18:30	LBD
1,2-Dibromo-3-chloropropane (DBCP)	ND	5.0	0.72	µg/L	1		SW-846 8260D	11/2/21	11/2/21 18:30	LBD
1,2-Dibromoethane (EDB)	ND	0.50	0.15	µg/L	1		SW-846 8260D	11/2/21	11/2/21 18:30	LBD
Dibromomethane	ND	1.0	0.29	µg/L	1		SW-846 8260D	11/2/21	11/2/21 18:30	LBD
1,2-Dichlorobenzene	ND	1.0	0.10	µg/L	1		SW-846 8260D	11/2/21	11/2/21 18:30	LBD
1,3-Dichlorobenzene	ND	1.0	0.090	µg/L	1		SW-846 8260D	11/2/21	11/2/21 18:30	LBD
1,4-Dichlorobenzene	ND	1.0	0.11	µg/L	1		SW-846 8260D	11/2/21	11/2/21 18:30	LBD
trans-1,4-Dichloro-2-butene	ND	2.0	1.8	µg/L	1		SW-846 8260D	11/2/21	11/2/21 18:30	LBD
Dichlorodifluoromethane (Freon 12)	ND	2.0	0.20	µg/L	1		SW-846 8260D	11/2/21	11/2/21 18:30	LBD
1,1-Dichloroethane	ND	1.0	0.16	µg/L	1		SW-846 8260D	11/2/21	11/2/21 18:30	LBD
1,2-Dichloroethane	ND	1.0	0.32	µg/L	1		SW-846 8260D	11/2/21	11/2/21 18:30	LBD
1,1-Dichloroethylene	ND	1.0	0.16	µg/L	1		SW-846 8260D	11/2/21	11/2/21 18:30	LBD
cis-1,2-Dichloroethylene	ND	1.0	0.15	µg/L	1		SW-846 8260D	11/2/21	11/2/21 18:30	LBD
trans-1,2-Dichloroethylene	ND	1.0	0.17	µg/L	1		SW-846 8260D	11/2/21	11/2/21 18:30	LBD
1,2-Dichloropropane	ND	1.0	0.18	µg/L	1		SW-846 8260D	11/2/21	11/2/21 18:30	LBD
1,3-Dichloropropane	ND	0.50	0.12	µg/L	1		SW-846 8260D	11/2/21	11/2/21 18:30	LBD
2,2-Dichloropropane	ND	1.0	0.31	µg/L	1		SW-846 8260D	11/2/21	11/2/21 18:30	LBD
1,1-Dichloropropene	ND	2.0	0.26	µg/L	1		SW-846 8260D	11/2/21	11/2/21 18:30	LBD
cis-1,3-Dichloropropene	ND	0.50	0.12	µg/L	1		SW-846 8260D	11/2/21	11/2/21 18:30	LBD
trans-1,3-Dichloropropene	ND	0.50	0.15	µg/L	1		SW-846 8260D	11/2/21	11/2/21 18:30	LBD
Diethyl Ether	ND	2.0	0.22	µg/L	1		SW-846 8260D	11/2/21	11/2/21 18:30	LBD

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Project Location: 1400 N. Royal St., Alexandria, VA Sample Description: Work Order: 21K0043

Date Received: 11/1/2021

Field Sample #: HRP-MW209-211028 Sampled: 10/28/2021 09:55

Sample ID: 21K0043-04

Sample Matrix: Ground Water

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Diisopropyl Ether (DIPE)	2.8	0.50	0.15	µg/L	1		SW-846 8260D	11/2/21	11/2/21 18:30	LBD
1,4-Dioxane	ND	50	22	µg/L	1		SW-846 8260D	11/2/21	11/2/21 18:30	LBD
Ethylbenzene	ND	1.0	0.090	µg/L	1		SW-846 8260D	11/2/21	11/2/21 18:30	LBD
Hexachlorobutadiene	ND	0.60	0.41	µg/L	1		SW-846 8260D	11/2/21	11/2/21 18:30	LBD
2-Hexanone (MBK)	ND	10	1.4	µg/L	1		SW-846 8260D	11/2/21	11/2/21 18:30	LBD
Isopropylbenzene (Cumene)	ND	1.0	0.10	µg/L	1		SW-846 8260D	11/2/21	11/2/21 18:30	LBD
p-Isopropyltoluene (p-Cymene)	ND	1.0	0.090	µg/L	1		SW-846 8260D	11/2/21	11/2/21 18:30	LBD
Methyl Acetate	ND	1.0	0.39	µg/L	1	V-05	SW-846 8260D	11/2/21	11/2/21 18:30	LBD
Methyl tert-Butyl Ether (MTBE)	ND	1.0	0.17	µg/L	1		SW-846 8260D	11/2/21	11/2/21 18:30	LBD
Methyl Cyclohexane	ND	1.0	0.33	µg/L	1		SW-846 8260D	11/2/21	11/2/21 18:30	LBD
Methylene Chloride	ND	5.0	0.30	µg/L	1		SW-846 8260D	11/2/21	11/2/21 18:30	LBD
4-Methyl-2-pentanone (MIBK)	ND	10	1.6	µg/L	1		SW-846 8260D	11/2/21	11/2/21 18:30	LBD
Naphthalene	ND	2.0	0.15	µg/L	1		SW-846 8260D	11/2/21	11/2/21 18:30	LBD
n-Propylbenzene	ND	1.0	0.080	µg/L	1		SW-846 8260D	11/2/21	11/2/21 18:30	LBD
Styrene	ND	1.0	0.080	µg/L	1		SW-846 8260D	11/2/21	11/2/21 18:30	LBD
1,1,1,2-Tetrachloroethane	ND	1.0	0.14	µg/L	1		SW-846 8260D	11/2/21	11/2/21 18:30	LBD
1,1,2,2-Tetrachloroethane	ND	0.50	0.090	µg/L	1		SW-846 8260D	11/2/21	11/2/21 18:30	LBD
Tetrachloroethylene	ND	1.0	0.20	µg/L	1		SW-846 8260D	11/2/21	11/2/21 18:30	LBD
Tetrahydrofuran	ND	10	0.58	µg/L	1	V-05	SW-846 8260D	11/2/21	11/2/21 18:30	LBD
Toluene	ND	1.0	0.11	µg/L	1		SW-846 8260D	11/2/21	11/2/21 18:30	LBD
1,2,3-Trichlorobenzene	ND	5.0	0.14	µg/L	1		SW-846 8260D	11/2/21	11/2/21 18:30	LBD
1,2,4-Trichlorobenzene	ND	1.0	0.16	µg/L	1		SW-846 8260D	11/2/21	11/2/21 18:30	LBD
1,3,5-Trichlorobenzene	ND	1.0	0.18	µg/L	1		SW-846 8260D	11/2/21	11/2/21 18:30	LBD
1,1,1-Trichloroethane	ND	1.0	0.17	µg/L	1		SW-846 8260D	11/2/21	11/2/21 18:30	LBD
1,1,2-Trichloroethane	ND	1.0	0.15	µg/L	1		SW-846 8260D	11/2/21	11/2/21 18:30	LBD
Trichloroethylene	ND	1.0	0.18	µg/L	1		SW-846 8260D	11/2/21	11/2/21 18:30	LBD
Trichlorofluoromethane (Freon 11)	ND	2.0	0.19	µg/L	1		SW-846 8260D	11/2/21	11/2/21 18:30	LBD
1,2,3-Trichloropropane	ND	2.0	0.31	µg/L	1		SW-846 8260D	11/2/21	11/2/21 18:30	LBD
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	1.0	0.24	µg/L	1		SW-846 8260D	11/2/21	11/2/21 18:30	LBD
1,2,4-Trimethylbenzene	ND	1.0	0.10	µg/L	1		SW-846 8260D	11/2/21	11/2/21 18:30	LBD
1,3,5-Trimethylbenzene	ND	1.0	0.10	µg/L	1		SW-846 8260D	11/2/21	11/2/21 18:30	LBD
Vinyl Chloride	ND	2.0	0.20	µg/L	1		SW-846 8260D	11/2/21	11/2/21 18:30	LBD
m+p Xylene	ND	2.0	0.18	µg/L	1		SW-846 8260D	11/2/21	11/2/21 18:30	LBD
o-Xylene	ND	1.0	0.090	µg/L	1		SW-846 8260D	11/2/21	11/2/21 18:30	LBD

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
1,2-Dichloroethane-d4	85.6	70-130		11/2/21 18:30
Toluene-d8	92.8	70-130		11/2/21 18:30
4-Bromofluorobenzene	98.9	70-130		11/2/21 18:30

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Project Location: 1400 N. Royal St., Alexandria, VA Sample Description: Work Order: 21K0043

Date Received: 11/1/2021

Field Sample #: HRP-MW209-211028 Sampled: 10/28/2021 09:55

Sample ID: 21K0043-04

Sample Matrix: Ground Water

Semivolatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acenaphthene	ND	4.8	0.32	µg/L	1		SW-846 8270E	11/2/21	11/8/21 9:36	BGL
Acenaphthylene	ND	4.8	0.31	µg/L	1		SW-846 8270E	11/2/21	11/8/21 9:36	BGL
Acetophenone	ND	9.5	0.43	µg/L	1		SW-846 8270E	11/2/21	11/8/21 9:36	BGL
Aniline	ND	4.8	0.78	µg/L	1		SW-846 8270E	11/2/21	11/8/21 9:36	BGL
Anthracene	ND	4.8	0.38	µg/L	1		SW-846 8270E	11/2/21	11/8/21 9:36	BGL
Benzidine	ND	19	9.5	µg/L	1	V-04	SW-846 8270E	11/2/21	11/8/21 9:36	BGL
Benzo(a)anthracene	ND	4.8	0.36	µg/L	1		SW-846 8270E	11/2/21	11/8/21 9:36	BGL
Benzo(a)pyrene	ND	4.8	0.46	µg/L	1		SW-846 8270E	11/2/21	11/8/21 9:36	BGL
Benzo(b)fluoranthene	ND	4.8	0.40	µg/L	1		SW-846 8270E	11/2/21	11/8/21 9:36	BGL
Benzo(g,h,i)perylene	ND	4.8	0.61	µg/L	1		SW-846 8270E	11/2/21	11/8/21 9:36	BGL
Benzo(k)fluoranthene	ND	4.8	0.35	µg/L	1		SW-846 8270E	11/2/21	11/8/21 9:36	BGL
Benzoic Acid	ND	9.5	8.8	µg/L	1		SW-846 8270E	11/2/21	11/8/21 9:36	BGL
Bis(2-chloroethoxy)methane	ND	9.5	0.41	µg/L	1		SW-846 8270E	11/2/21	11/8/21 9:36	BGL
Bis(2-chloroethyl)ether	ND	9.5	0.49	µg/L	1		SW-846 8270E	11/2/21	11/8/21 9:36	BGL
Bis(2-chloroisopropyl)ether	ND	9.5	0.57	µg/L	1		SW-846 8270E	11/2/21	11/8/21 9:36	BGL
Bis(2-Ethylhexyl)phthalate	ND	9.5	0.88	µg/L	1		SW-846 8270E	11/2/21	11/8/21 9:36	BGL
4-Bromophenylphenylether	ND	9.5	0.36	µg/L	1		SW-846 8270E	11/2/21	11/8/21 9:36	BGL
Butylbenzylphthalate	ND	9.5	0.66	µg/L	1		SW-846 8270E	11/2/21	11/8/21 9:36	BGL
Carbazole	ND	9.5	0.39	µg/L	1		SW-846 8270E	11/2/21	11/8/21 9:36	BGL
4-Chloroaniline	ND	9.5	0.42	µg/L	1	V-34	SW-846 8270E	11/2/21	11/8/21 9:36	BGL
4-Chloro-3-methylphenol	ND	9.5	0.52	µg/L	1		SW-846 8270E	11/2/21	11/8/21 9:36	BGL
2-Chloronaphthalene	ND	9.5	0.25	µg/L	1		SW-846 8270E	11/2/21	11/8/21 9:36	BGL
2-Chlorophenol	ND	9.5	0.36	µg/L	1		SW-846 8270E	11/2/21	11/8/21 9:36	BGL
4-Chlorophenylphenylether	ND	9.5	0.32	µg/L	1		SW-846 8270E	11/2/21	11/8/21 9:36	BGL
Chrysene	ND	4.8	0.36	µg/L	1		SW-846 8270E	11/2/21	11/8/21 9:36	BGL
Dibenz(a,h)anthracene	ND	4.8	0.68	µg/L	1		SW-846 8270E	11/2/21	11/8/21 9:36	BGL
Dibenzofuran	ND	4.8	0.32	µg/L	1		SW-846 8270E	11/2/21	11/8/21 9:36	BGL
Di-n-butylphthalate	ND	9.5	0.47	µg/L	1		SW-846 8270E	11/2/21	11/8/21 9:36	BGL
1,2-Dichlorobenzene	ND	4.8	0.22	µg/L	1		SW-846 8270E	11/2/21	11/8/21 9:36	BGL
1,3-Dichlorobenzene	ND	4.8	0.23	µg/L	1		SW-846 8270E	11/2/21	11/8/21 9:36	BGL
1,4-Dichlorobenzene	ND	4.8	0.25	µg/L	1		SW-846 8270E	11/2/21	11/8/21 9:36	BGL
3,3-Dichlorobenzidine	ND	9.5	0.60	µg/L	1	V-34	SW-846 8270E	11/2/21	11/8/21 9:36	BGL
2,4-Dichlorophenol	ND	9.5	0.35	µg/L	1		SW-846 8270E	11/2/21	11/8/21 9:36	BGL
Diethylphthalate	ND	9.5	0.46	µg/L	1		SW-846 8270E	11/2/21	11/8/21 9:36	BGL
2,4-Dimethylphenol	ND	9.5	0.92	µg/L	1		SW-846 8270E	11/2/21	11/8/21 9:36	BGL
Dimethylphthalate	ND	9.5	0.38	µg/L	1		SW-846 8270E	11/2/21	11/8/21 9:36	BGL
4,6-Dinitro-2-methylphenol	ND	9.5	6.3	µg/L	1		SW-846 8270E	11/2/21	11/8/21 9:36	BGL
2,4-Dinitrophenol	ND	9.5	7.6	µg/L	1	V-04	SW-846 8270E	11/2/21	11/8/21 9:36	BGL
2,4-Dinitrotoluene	ND	9.5	0.58	µg/L	1		SW-846 8270E	11/2/21	11/8/21 9:36	BGL
2,6-Dinitrotoluene	ND	9.5	0.48	µg/L	1		SW-846 8270E	11/2/21	11/8/21 9:36	BGL
Di-n-octylphthalate	ND	9.5	5.3	µg/L	1		SW-846 8270E	11/2/21	11/8/21 9:36	BGL
1,2-Diphenylhydrazine/Azobenzene	ND	9.5	0.50	µg/L	1		SW-846 8270E	11/2/21	11/8/21 9:36	BGL
Fluoranthene	ND	4.8	0.35	µg/L	1		SW-846 8270E	11/2/21	11/8/21 9:36	BGL
Fluorene	ND	4.8	0.40	µg/L	1		SW-846 8270E	11/2/21	11/8/21 9:36	BGL

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Project Location: 1400 N. Royal St., Alexandria, VA Sample Description: Work Order: 21K0043

Date Received: 11/1/2021

Field Sample #: HRP-MW209-211028 Sampled: 10/28/2021 09:55

Sample ID: 21K0043-04

Sample Matrix: Ground Water

Semivolatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Hexachlorobenzene	ND	9.5	0.35	µg/L	1		SW-846 8270E	11/2/21	11/8/21 9:36	BGL
Hexachlorobutadiene	ND	9.5	0.26	µg/L	1		SW-846 8270E	11/2/21	11/8/21 9:36	BGL
Hexachlorocyclopentadiene	ND	9.5	4.0	µg/L	1		SW-846 8270E	11/2/21	11/8/21 9:36	BGL
Hexachloroethane	ND	9.5	0.29	µg/L	1		SW-846 8270E	11/2/21	11/8/21 9:36	BGL
Indeno(1,2,3-cd)pyrene	ND	4.8	0.75	µg/L	1		SW-846 8270E	11/2/21	11/8/21 9:36	BGL
Isophorone	ND	9.5	0.46	µg/L	1		SW-846 8270E	11/2/21	11/8/21 9:36	BGL
1-Methylnaphthalene	ND	4.8	0.28	µg/L	1		SW-846 8270E	11/2/21	11/8/21 9:36	BGL
2-Methylnaphthalene	ND	4.8	0.32	µg/L	1		SW-846 8270E	11/2/21	11/8/21 9:36	BGL
2-Methylphenol	ND	9.5	0.35	µg/L	1		SW-846 8270E	11/2/21	11/8/21 9:36	BGL
3/4-Methylphenol	ND	9.5	0.36	µg/L	1		SW-846 8270E	11/2/21	11/8/21 9:36	BGL
Naphthalene	ND	4.8	0.28	µg/L	1		SW-846 8270E	11/2/21	11/8/21 9:36	BGL
2-Nitroaniline	ND	9.5	0.72	µg/L	1		SW-846 8270E	11/2/21	11/8/21 9:36	BGL
3-Nitroaniline	ND	9.5	0.48	µg/L	1		SW-846 8270E	11/2/21	11/8/21 9:36	BGL
4-Nitroaniline	ND	9.5	0.47	µg/L	1		SW-846 8270E	11/2/21	11/8/21 9:36	BGL
Nitrobenzene	ND	9.5	0.50	µg/L	1		SW-846 8270E	11/2/21	11/8/21 9:36	BGL
2-Nitrophenol	ND	9.5	0.45	µg/L	1		SW-846 8270E	11/2/21	11/8/21 9:36	BGL
4-Nitrophenol	ND	9.5	2.0	µg/L	1		SW-846 8270E	11/2/21	11/8/21 9:36	BGL
N-Nitrosodimethylamine	ND	9.5	0.78	µg/L	1		SW-846 8270E	11/2/21	11/8/21 9:36	BGL
N-Nitrosodiphenylamine/Diphenylamine	ND	9.5	0.38	µg/L	1		SW-846 8270E	11/2/21	11/8/21 9:36	BGL
N-Nitrosodi-n-propylamine	ND	9.5	0.50	µg/L	1		SW-846 8270E	11/2/21	11/8/21 9:36	BGL
Pentachloronitrobenzene	ND	9.5	0.61	µg/L	1		SW-846 8270E	11/2/21	11/8/21 9:36	BGL
Pentachlorophenol	ND	9.5	3.6	µg/L	1		SW-846 8270E	11/2/21	11/8/21 9:36	BGL
Phenanthrene	ND	4.8	0.38	µg/L	1		SW-846 8270E	11/2/21	11/8/21 9:36	BGL
Phenol	ND	9.5	0.24	µg/L	1		SW-846 8270E	11/2/21	11/8/21 9:36	BGL
Pyrene	ND	4.8	0.45	µg/L	1		SW-846 8270E	11/2/21	11/8/21 9:36	BGL
Pyridine	ND	4.8	2.5	µg/L	1		SW-846 8270E	11/2/21	11/8/21 9:36	BGL
1,2,4,5-Tetrachlorobenzene	ND	9.5	0.26	µg/L	1		SW-846 8270E	11/2/21	11/8/21 9:36	BGL
1,2,4-Trichlorobenzene	ND	4.8	0.23	µg/L	1		SW-846 8270E	11/2/21	11/8/21 9:36	BGL
2,4,5-Trichlorophenol	ND	9.5	0.44	µg/L	1		SW-846 8270E	11/2/21	11/8/21 9:36	BGL
2,4,6-Trichlorophenol	ND	9.5	0.39	µg/L	1		SW-846 8270E	11/2/21	11/8/21 9:36	BGL

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
2-Fluorophenol	41.4	15-110		11/8/21 9:36
Phenol-d6	28.8	15-110		11/8/21 9:36
Nitrobenzene-d5	51.3	30-130		11/8/21 9:36
2-Fluorobiphenyl	51.0	30-130		11/8/21 9:36
2,4,6-Tribromophenol	71.5	15-110		11/8/21 9:36
p-Terphenyl-d14	81.5	30-130		11/8/21 9:36

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Project Location: 1400 N. Royal St., Alexandria, VA Sample Description: Work Order: 21K0043

Date Received: 11/1/2021

Field Sample #: HRP-MW209-211028 Sampled: 10/28/2021 09:55

Sample ID: 21K0043-04

Sample Matrix: Ground Water

Petroleum Hydrocarbons Analyses

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Gasoline Range Organics (GRO)	ND	0.010	0.0094	mg/L	1		SW-846 8015C	11/5/21	11/6/21 8:16	KMB
Diesel Range Organics	0.21	0.19	0.081	mg/L	1		SW-846 8015C	11/4/21	11/5/21 23:21	SFM

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
1-Chloro-3-fluorobenzene	103	70-130		11/6/21 8:16
2-Fluorobiphenyl	77.1	40-140		11/5/21 23:21

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Project Location: 1400 N. Royal St., Alexandria, VA Sample Description: Work Order: 21K0043

Date Received: 11/1/2021

Field Sample #: HRP-MW209-211028 Sampled: 10/28/2021 09:55

Sample ID: 21K0043-04

Sample Matrix: Ground Water

Metals Analyses (Total)

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Aluminum	0.25	0.050	0.049	mg/L	1		SW-846 6010D	11/3/21	11/4/21 15:26	MJH
Antimony	ND	1.0	0.20	µg/L	1		SW-846 6020B	11/3/21	11/4/21 13:50	QNW
Arsenic	6.9	0.80	0.46	µg/L	1		SW-846 6020B	11/3/21	11/4/21 13:50	QNW
Barium	19	10	1.2	µg/L	1		SW-846 6020B	11/3/21	11/4/21 13:50	QNW
Beryllium	ND	0.40	0.066	µg/L	1		SW-846 6020B	11/3/21	11/4/21 15:21	QNW
Cadmium	0.78	0.20	0.027	µg/L	1		SW-846 6020B	11/3/21	11/4/21 13:50	QNW
Calcium	71	0.50	0.11	mg/L	1		SW-846 6010D	11/3/21	11/4/21 15:26	MJH
Chromium	ND	1.0	0.92	µg/L	1		SW-846 6020B	11/3/21	11/4/21 13:50	QNW
Cobalt	110	1.0	0.14	µg/L	1		SW-846 6020B	11/3/21	11/4/21 13:50	QNW
Copper	6.0	1.0	0.27	µg/L	1		SW-846 6020B	11/3/21	11/4/21 13:50	QNW
Iron	55	0.050	0.032	mg/L	1		SW-846 6010D	11/3/21	11/4/21 15:26	MJH
Lead	0.20	0.50	0.14	µg/L	1	J	SW-846 6020B	11/3/21	11/4/21 13:50	QNW
Magnesium	35	0.050	0.023	mg/L	1		SW-846 6010D	11/3/21	11/4/21 15:26	MJH
Manganese	9500	1.0	0.24	µg/L	1		SW-846 6020B	11/3/21	11/4/21 13:50	QNW
Mercury	ND	0.00010	0.000050	mg/L	1		SW-846 7470A	11/2/21	11/3/21 9:15	DRL
Nickel	37	5.0	0.52	µg/L	1		SW-846 6020B	11/3/21	11/4/21 13:50	QNW
Potassium	8.3	2.0	0.40	mg/L	1		SW-846 6010D	11/3/21	11/4/21 15:26	MJH
Selenium	0.94	5.0	0.78	µg/L	1	J	SW-846 6020B	11/3/21	11/4/21 13:50	QNW
Silver	ND	0.20	0.026	µg/L	1		SW-846 6020B	11/3/21	11/4/21 13:50	QNW
Sodium	450	2.0	0.56	mg/L	1		SW-846 6010D	11/3/21	11/4/21 15:26	MJH
Thallium	ND	0.20	0.067	µg/L	1		SW-846 6020B	11/3/21	11/4/21 13:50	QNW
Vanadium	ND	5.0	3.5	µg/L	1		SW-846 6020B	11/3/21	11/4/21 13:50	QNW
Zinc	29	10	3.4	µg/L	1		SW-846 6020B	11/3/21	11/4/21 13:50	QNW

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Project Location: 1400 N. Royal St., Alexandria, VA Sample Description: Work Order: 21K0043

Date Received: 11/1/2021

Field Sample #: HRP-MW209-211028 Sampled: 10/28/2021 09:55

Sample ID: 21K0043-04

Sample Matrix: Ground Water

Metals Analyses (Dissolved)

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Aluminum	ND	0.050	0.049	mg/L	1		SW-846 6010D	11/3/21	11/4/21 17:49	QNW
Antimony	ND	1.0	0.20	µg/L	1		SW-846 6020B	11/3/21	11/5/21 12:41	QNW
Arsenic	7.1	0.80	0.46	µg/L	1		SW-846 6020B	11/3/21	11/4/21 15:48	QNW
Barium	18	10	1.2	µg/L	1		SW-846 6020B	11/3/21	11/4/21 15:48	QNW
Beryllium	ND	0.40	0.066	µg/L	1		SW-846 6020B	11/3/21	11/4/21 15:48	QNW
Cadmium	0.52	0.20	0.027	µg/L	1		SW-846 6020B	11/3/21	11/5/21 12:41	QNW
Calcium	73	0.50	0.11	mg/L	1		SW-846 6010D	11/3/21	11/4/21 17:49	QNW
Chromium	ND	1.0	0.92	µg/L	1		SW-846 6020B	11/3/21	11/5/21 12:41	QNW
Cobalt	97	1.0	0.14	µg/L	1		SW-846 6020B	11/3/21	11/5/21 12:41	QNW
Copper	3.6	1.0	0.27	µg/L	1		SW-846 6020B	11/3/21	11/5/21 12:41	QNW
Iron	55	0.050	0.032	mg/L	1		SW-846 6010D	11/3/21	11/4/21 17:49	QNW
Lead	ND	0.50	0.14	µg/L	1		SW-846 6020B	11/3/21	11/4/21 15:48	QNW
Magnesium	37	0.050	0.023	mg/L	1		SW-846 6010D	11/3/21	11/4/21 17:49	QNW
Manganese	9200	1.0	0.24	µg/L	1		SW-846 6020B	11/3/21	11/5/21 12:41	QNW
Mercury	ND	0.00010	0.000050	mg/L	1		SW-846 7470A	11/2/21	11/3/21 8:55	DRL
Nickel	35	5.0	0.52	µg/L	1		SW-846 6020B	11/3/21	11/5/21 12:41	QNW
Potassium	8.5	2.0	0.40	mg/L	1		SW-846 6010D	11/3/21	11/4/21 17:49	QNW
Selenium	ND	5.0	0.78	µg/L	1		SW-846 6020B	11/3/21	11/5/21 12:41	QNW
Silver	ND	0.20	0.026	µg/L	1		SW-846 6020B	11/3/21	11/5/21 12:41	QNW
Sodium	470	2.0	0.56	mg/L	1		SW-846 6010D	11/3/21	11/4/21 17:49	QNW
Thallium	ND	0.20	0.067	µg/L	1		SW-846 6020B	11/3/21	11/5/21 12:41	QNW
Vanadium	ND	5.0	3.5	µg/L	1		SW-846 6020B	11/3/21	11/5/21 12:41	QNW
Zinc	30	10	3.4	µg/L	1		SW-846 6020B	11/3/21	11/4/21 15:48	QNW

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Project Location: 1400 N. Royal St., Alexandria, VA Sample Description: Work Order: 21K0043

Date Received: 11/1/2021

Field Sample #: HRP-MW209-211028 Sampled: 10/28/2021 09:55

Sample ID: 21K0043-04

Sample Matrix: Ground Water

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Sulfate	1200	100	60	mg/L	100		ASTM D516-16	11/2/21	11/2/21 11:53	MMH

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Project Location: 1400 N. Royal St., Alexandria, VA Sample Description: Work Order: 21K0043

Date Received: 11/1/2021

Field Sample #: HRP-MW100S-211028 Sampled: 10/28/2021 09:50

Sample ID: 21K0043-05

Sample Matrix: Ground Water

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acetone	ND	50	2.4	µg/L	1		SW-846 8260D	11/2/21	11/2/21 18:56	LBD
Acrylonitrile	ND	5.0	0.69	µg/L	1		SW-846 8260D	11/2/21	11/2/21 18:56	LBD
tert-Amyl Methyl Ether (TAME)	ND	0.50	0.15	µg/L	1		SW-846 8260D	11/2/21	11/2/21 18:56	LBD
Benzene	ND	1.0	0.13	µg/L	1		SW-846 8260D	11/2/21	11/2/21 18:56	LBD
Bromobenzene	ND	1.0	0.13	µg/L	1		SW-846 8260D	11/2/21	11/2/21 18:56	LBD
Bromochloromethane	ND	1.0	0.36	µg/L	1		SW-846 8260D	11/2/21	11/2/21 18:56	LBD
Bromodichloromethane	ND	0.50	0.14	µg/L	1		SW-846 8260D	11/2/21	11/2/21 18:56	LBD
Bromoform	ND	1.0	0.29	µg/L	1		SW-846 8260D	11/2/21	11/2/21 18:56	LBD
Bromomethane	ND	5.0	1.1	µg/L	1	V-34	SW-846 8260D	11/2/21	11/2/21 18:56	LBD
2-Butanone (MEK)	ND	20	1.9	µg/L	1	V-05	SW-846 8260D	11/2/21	11/2/21 18:56	LBD
tert-Butyl Alcohol (TBA)	ND	20	5.3	µg/L	1	V-05	SW-846 8260D	11/2/21	11/2/21 18:56	LBD
n-Butylbenzene	ND	1.0	0.14	µg/L	1		SW-846 8260D	11/2/21	11/2/21 18:56	LBD
sec-Butylbenzene	ND	1.0	0.10	µg/L	1		SW-846 8260D	11/2/21	11/2/21 18:56	LBD
tert-Butylbenzene	ND	1.0	0.090	µg/L	1		SW-846 8260D	11/2/21	11/2/21 18:56	LBD
tert-Butyl Ethyl Ether (TBEE)	ND	0.50	0.11	µg/L	1		SW-846 8260D	11/2/21	11/2/21 18:56	LBD
Carbon Disulfide	ND	5.0	1.5	µg/L	1		SW-846 8260D	11/2/21	11/2/21 18:56	LBD
Carbon Tetrachloride	ND	5.0	0.17	µg/L	1		SW-846 8260D	11/2/21	11/2/21 18:56	LBD
Chlorobenzene	ND	1.0	0.080	µg/L	1		SW-846 8260D	11/2/21	11/2/21 18:56	LBD
Chlorodibromomethane	ND	0.50	0.16	µg/L	1		SW-846 8260D	11/2/21	11/2/21 18:56	LBD
Chloroethane	ND	2.0	0.37	µg/L	1		SW-846 8260D	11/2/21	11/2/21 18:56	LBD
Chloroform	ND	2.0	0.19	µg/L	1		SW-846 8260D	11/2/21	11/2/21 18:56	LBD
Chloromethane	ND	2.0	0.38	µg/L	1	L-04, V-05, V-34	SW-846 8260D	11/2/21	11/2/21 18:56	LBD
2-Chlorotoluene	ND	1.0	0.090	µg/L	1		SW-846 8260D	11/2/21	11/2/21 18:56	LBD
4-Chlorotoluene	ND	1.0	0.10	µg/L	1		SW-846 8260D	11/2/21	11/2/21 18:56	LBD
1,2-Dibromo-3-chloropropane (DBCP)	ND	5.0	0.72	µg/L	1		SW-846 8260D	11/2/21	11/2/21 18:56	LBD
1,2-Dibromoethane (EDB)	ND	0.50	0.15	µg/L	1		SW-846 8260D	11/2/21	11/2/21 18:56	LBD
Dibromomethane	ND	1.0	0.29	µg/L	1		SW-846 8260D	11/2/21	11/2/21 18:56	LBD
1,2-Dichlorobenzene	ND	1.0	0.10	µg/L	1		SW-846 8260D	11/2/21	11/2/21 18:56	LBD
1,3-Dichlorobenzene	ND	1.0	0.090	µg/L	1		SW-846 8260D	11/2/21	11/2/21 18:56	LBD
1,4-Dichlorobenzene	ND	1.0	0.11	µg/L	1		SW-846 8260D	11/2/21	11/2/21 18:56	LBD
trans-1,4-Dichloro-2-butene	ND	2.0	1.8	µg/L	1		SW-846 8260D	11/2/21	11/2/21 18:56	LBD
Dichlorodifluoromethane (Freon 12)	ND	2.0	0.20	µg/L	1		SW-846 8260D	11/2/21	11/2/21 18:56	LBD
1,1-Dichloroethane	ND	1.0	0.16	µg/L	1		SW-846 8260D	11/2/21	11/2/21 18:56	LBD
1,2-Dichloroethane	ND	1.0	0.32	µg/L	1		SW-846 8260D	11/2/21	11/2/21 18:56	LBD
1,1-Dichloroethylene	ND	1.0	0.16	µg/L	1		SW-846 8260D	11/2/21	11/2/21 18:56	LBD
cis-1,2-Dichloroethylene	ND	1.0	0.15	µg/L	1		SW-846 8260D	11/2/21	11/2/21 18:56	LBD
trans-1,2-Dichloroethylene	ND	1.0	0.17	µg/L	1		SW-846 8260D	11/2/21	11/2/21 18:56	LBD
1,2-Dichloropropane	ND	1.0	0.18	µg/L	1		SW-846 8260D	11/2/21	11/2/21 18:56	LBD
1,3-Dichloropropane	ND	0.50	0.12	µg/L	1		SW-846 8260D	11/2/21	11/2/21 18:56	LBD
2,2-Dichloropropane	ND	1.0	0.31	µg/L	1		SW-846 8260D	11/2/21	11/2/21 18:56	LBD
1,1-Dichloropropene	ND	2.0	0.26	µg/L	1		SW-846 8260D	11/2/21	11/2/21 18:56	LBD
cis-1,3-Dichloropropene	ND	0.50	0.12	µg/L	1		SW-846 8260D	11/2/21	11/2/21 18:56	LBD
trans-1,3-Dichloropropene	ND	0.50	0.15	µg/L	1		SW-846 8260D	11/2/21	11/2/21 18:56	LBD
Diethyl Ether	ND	2.0	0.22	µg/L	1		SW-846 8260D	11/2/21	11/2/21 18:56	LBD

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Project Location: 1400 N. Royal St., Alexandria, VA Sample Description: Work Order: 21K0043

Date Received: 11/1/2021

Field Sample #: HRP-MW100S-211028 Sampled: 10/28/2021 09:50

Sample ID: 21K0043-05

Sample Matrix: Ground Water

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Diisopropyl Ether (DIPE)	ND	0.50	0.15	µg/L	1		SW-846 8260D	11/2/21	11/2/21 18:56	LBD
1,4-Dioxane	ND	50	22	µg/L	1		SW-846 8260D	11/2/21	11/2/21 18:56	LBD
Ethylbenzene	ND	1.0	0.090	µg/L	1		SW-846 8260D	11/2/21	11/2/21 18:56	LBD
Hexachlorobutadiene	ND	0.60	0.41	µg/L	1		SW-846 8260D	11/2/21	11/2/21 18:56	LBD
2-Hexanone (MBK)	ND	10	1.4	µg/L	1		SW-846 8260D	11/2/21	11/2/21 18:56	LBD
Isopropylbenzene (Cumene)	ND	1.0	0.10	µg/L	1		SW-846 8260D	11/2/21	11/2/21 18:56	LBD
p-Isopropyltoluene (p-Cymene)	ND	1.0	0.090	µg/L	1		SW-846 8260D	11/2/21	11/2/21 18:56	LBD
Methyl Acetate	ND	1.0	0.39	µg/L	1	V-05	SW-846 8260D	11/2/21	11/2/21 18:56	LBD
Methyl tert-Butyl Ether (MTBE)	ND	1.0	0.17	µg/L	1		SW-846 8260D	11/2/21	11/2/21 18:56	LBD
Methyl Cyclohexane	ND	1.0	0.33	µg/L	1		SW-846 8260D	11/2/21	11/2/21 18:56	LBD
Methylene Chloride	ND	5.0	0.30	µg/L	1		SW-846 8260D	11/2/21	11/2/21 18:56	LBD
4-Methyl-2-pentanone (MIBK)	ND	10	1.6	µg/L	1		SW-846 8260D	11/2/21	11/2/21 18:56	LBD
Naphthalene	ND	2.0	0.15	µg/L	1		SW-846 8260D	11/2/21	11/2/21 18:56	LBD
n-Propylbenzene	ND	1.0	0.080	µg/L	1		SW-846 8260D	11/2/21	11/2/21 18:56	LBD
Styrene	ND	1.0	0.080	µg/L	1		SW-846 8260D	11/2/21	11/2/21 18:56	LBD
1,1,1,2-Tetrachloroethane	ND	1.0	0.14	µg/L	1		SW-846 8260D	11/2/21	11/2/21 18:56	LBD
1,1,2,2-Tetrachloroethane	ND	0.50	0.090	µg/L	1		SW-846 8260D	11/2/21	11/2/21 18:56	LBD
Tetrachloroethylene	ND	1.0	0.20	µg/L	1		SW-846 8260D	11/2/21	11/2/21 18:56	LBD
Tetrahydrofuran	ND	10	0.58	µg/L	1	V-05	SW-846 8260D	11/2/21	11/2/21 18:56	LBD
Toluene	ND	1.0	0.11	µg/L	1		SW-846 8260D	11/2/21	11/2/21 18:56	LBD
1,2,3-Trichlorobenzene	ND	5.0	0.14	µg/L	1		SW-846 8260D	11/2/21	11/2/21 18:56	LBD
1,2,4-Trichlorobenzene	ND	1.0	0.16	µg/L	1		SW-846 8260D	11/2/21	11/2/21 18:56	LBD
1,3,5-Trichlorobenzene	ND	1.0	0.18	µg/L	1		SW-846 8260D	11/2/21	11/2/21 18:56	LBD
1,1,1-Trichloroethane	ND	1.0	0.17	µg/L	1		SW-846 8260D	11/2/21	11/2/21 18:56	LBD
1,1,2-Trichloroethane	ND	1.0	0.15	µg/L	1		SW-846 8260D	11/2/21	11/2/21 18:56	LBD
Trichloroethylene	ND	1.0	0.18	µg/L	1		SW-846 8260D	11/2/21	11/2/21 18:56	LBD
Trichlorofluoromethane (Freon 11)	ND	2.0	0.19	µg/L	1		SW-846 8260D	11/2/21	11/2/21 18:56	LBD
1,2,3-Trichloropropane	ND	2.0	0.31	µg/L	1		SW-846 8260D	11/2/21	11/2/21 18:56	LBD
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	1.0	0.24	µg/L	1		SW-846 8260D	11/2/21	11/2/21 18:56	LBD
1,2,4-Trimethylbenzene	ND	1.0	0.10	µg/L	1		SW-846 8260D	11/2/21	11/2/21 18:56	LBD
1,3,5-Trimethylbenzene	ND	1.0	0.10	µg/L	1		SW-846 8260D	11/2/21	11/2/21 18:56	LBD
Vinyl Chloride	ND	2.0	0.20	µg/L	1		SW-846 8260D	11/2/21	11/2/21 18:56	LBD
m+p Xylene	ND	2.0	0.18	µg/L	1		SW-846 8260D	11/2/21	11/2/21 18:56	LBD
o-Xylene	ND	1.0	0.090	µg/L	1		SW-846 8260D	11/2/21	11/2/21 18:56	LBD

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
1,2-Dichloroethane-d4	86.5	70-130		11/2/21 18:56
Toluene-d8	92.9	70-130		11/2/21 18:56
4-Bromofluorobenzene	101	70-130		11/2/21 18:56

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Project Location: 1400 N. Royal St., Alexandria, VA Sample Description: Work Order: 21K0043

Date Received: 11/1/2021

Field Sample #: HRP-MW100S-211028 Sampled: 10/28/2021 09:50

Sample ID: 21K0043-05

Sample Matrix: Ground Water

Semivolatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acenaphthene	ND	5.1	0.34	µg/L	1		SW-846 8270E	11/2/21	11/8/21 10:03	BGL
Acenaphthylene	ND	5.1	0.33	µg/L	1		SW-846 8270E	11/2/21	11/8/21 10:03	BGL
Acetophenone	ND	10	0.46	µg/L	1		SW-846 8270E	11/2/21	11/8/21 10:03	BGL
Aniline	ND	5.1	0.84	µg/L	1		SW-846 8270E	11/2/21	11/8/21 10:03	BGL
Anthracene	ND	5.1	0.40	µg/L	1		SW-846 8270E	11/2/21	11/8/21 10:03	BGL
Benzidine	ND	20	10	µg/L	1	V-04	SW-846 8270E	11/2/21	11/8/21 10:03	BGL
Benzo(a)anthracene	ND	5.1	0.39	µg/L	1		SW-846 8270E	11/2/21	11/8/21 10:03	BGL
Benzo(a)pyrene	ND	5.1	0.49	µg/L	1		SW-846 8270E	11/2/21	11/8/21 10:03	BGL
Benzo(b)fluoranthene	ND	5.1	0.43	µg/L	1		SW-846 8270E	11/2/21	11/8/21 10:03	BGL
Benzo(g,h,i)perylene	ND	5.1	0.65	µg/L	1		SW-846 8270E	11/2/21	11/8/21 10:03	BGL
Benzo(k)fluoranthene	ND	5.1	0.38	µg/L	1		SW-846 8270E	11/2/21	11/8/21 10:03	BGL
Benzoic Acid	ND	10	9.4	µg/L	1		SW-846 8270E	11/2/21	11/8/21 10:03	BGL
Bis(2-chloroethoxy)methane	ND	10	0.44	µg/L	1		SW-846 8270E	11/2/21	11/8/21 10:03	BGL
Bis(2-chloroethyl)ether	ND	10	0.53	µg/L	1		SW-846 8270E	11/2/21	11/8/21 10:03	BGL
Bis(2-chloroisopropyl)ether	ND	10	0.61	µg/L	1		SW-846 8270E	11/2/21	11/8/21 10:03	BGL
Bis(2-Ethylhexyl)phthalate	ND	10	0.94	µg/L	1		SW-846 8270E	11/2/21	11/8/21 10:03	BGL
4-Bromophenylphenylether	ND	10	0.39	µg/L	1		SW-846 8270E	11/2/21	11/8/21 10:03	BGL
Butylbenzylphthalate	ND	10	0.71	µg/L	1		SW-846 8270E	11/2/21	11/8/21 10:03	BGL
Carbazole	ND	10	0.42	µg/L	1		SW-846 8270E	11/2/21	11/8/21 10:03	BGL
4-Chloroaniline	ND	10	0.45	µg/L	1	V-34	SW-846 8270E	11/2/21	11/8/21 10:03	BGL
4-Chloro-3-methylphenol	ND	10	0.55	µg/L	1		SW-846 8270E	11/2/21	11/8/21 10:03	BGL
2-Chloronaphthalene	ND	10	0.27	µg/L	1		SW-846 8270E	11/2/21	11/8/21 10:03	BGL
2-Chlorophenol	ND	10	0.38	µg/L	1		SW-846 8270E	11/2/21	11/8/21 10:03	BGL
4-Chlorophenylphenylether	ND	10	0.34	µg/L	1		SW-846 8270E	11/2/21	11/8/21 10:03	BGL
Chrysene	ND	5.1	0.38	µg/L	1		SW-846 8270E	11/2/21	11/8/21 10:03	BGL
Dibenz(a,h)anthracene	ND	5.1	0.72	µg/L	1		SW-846 8270E	11/2/21	11/8/21 10:03	BGL
Dibenzofuran	ND	5.1	0.35	µg/L	1		SW-846 8270E	11/2/21	11/8/21 10:03	BGL
Di-n-butylphthalate	ND	10	0.51	µg/L	1		SW-846 8270E	11/2/21	11/8/21 10:03	BGL
1,2-Dichlorobenzene	ND	5.1	0.24	µg/L	1		SW-846 8270E	11/2/21	11/8/21 10:03	BGL
1,3-Dichlorobenzene	ND	5.1	0.24	µg/L	1		SW-846 8270E	11/2/21	11/8/21 10:03	BGL
1,4-Dichlorobenzene	ND	5.1	0.27	µg/L	1		SW-846 8270E	11/2/21	11/8/21 10:03	BGL
3,3-Dichlorobenzidine	ND	10	0.64	µg/L	1	V-34	SW-846 8270E	11/2/21	11/8/21 10:03	BGL
2,4-Dichlorophenol	ND	10	0.37	µg/L	1		SW-846 8270E	11/2/21	11/8/21 10:03	BGL
Diethylphthalate	ND	10	0.49	µg/L	1		SW-846 8270E	11/2/21	11/8/21 10:03	BGL
2,4-Dimethylphenol	ND	10	0.99	µg/L	1		SW-846 8270E	11/2/21	11/8/21 10:03	BGL
Dimethylphthalate	ND	10	0.41	µg/L	1		SW-846 8270E	11/2/21	11/8/21 10:03	BGL
4,6-Dinitro-2-methylphenol	ND	10	6.7	µg/L	1		SW-846 8270E	11/2/21	11/8/21 10:03	BGL
2,4-Dinitrophenol	ND	10	8.2	µg/L	1	V-04	SW-846 8270E	11/2/21	11/8/21 10:03	BGL
2,4-Dinitrotoluene	ND	10	0.62	µg/L	1		SW-846 8270E	11/2/21	11/8/21 10:03	BGL
2,6-Dinitrotoluene	ND	10	0.51	µg/L	1		SW-846 8270E	11/2/21	11/8/21 10:03	BGL
Di-n-octylphthalate	ND	10	5.7	µg/L	1		SW-846 8270E	11/2/21	11/8/21 10:03	BGL
1,2-Diphenylhydrazine/Azobenzene	ND	10	0.54	µg/L	1		SW-846 8270E	11/2/21	11/8/21 10:03	BGL
Fluoranthene	ND	5.1	0.38	µg/L	1		SW-846 8270E	11/2/21	11/8/21 10:03	BGL
Fluorene	ND	5.1	0.43	µg/L	1		SW-846 8270E	11/2/21	11/8/21 10:03	BGL

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Project Location: 1400 N. Royal St., Alexandria, VA Sample Description: Work Order: 21K0043

Date Received: 11/1/2021

Field Sample #: HRP-MW100S-211028 Sampled: 10/28/2021 09:50

Sample ID: 21K0043-05

Sample Matrix: Ground Water

Semivolatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Hexachlorobenzene	ND	10	0.37	µg/L	1		SW-846 8270E	11/2/21	11/8/21 10:03	BGL
Hexachlorobutadiene	ND	10	0.28	µg/L	1		SW-846 8270E	11/2/21	11/8/21 10:03	BGL
Hexachlorocyclopentadiene	ND	10	4.3	µg/L	1		SW-846 8270E	11/2/21	11/8/21 10:03	BGL
Hexachloroethane	ND	10	0.32	µg/L	1		SW-846 8270E	11/2/21	11/8/21 10:03	BGL
Indeno(1,2,3-cd)pyrene	ND	5.1	0.81	µg/L	1		SW-846 8270E	11/2/21	11/8/21 10:03	BGL
Isophorone	ND	10	0.50	µg/L	1		SW-846 8270E	11/2/21	11/8/21 10:03	BGL
1-Methylnaphthalene	ND	5.1	0.30	µg/L	1		SW-846 8270E	11/2/21	11/8/21 10:03	BGL
2-Methylnaphthalene	ND	5.1	0.34	µg/L	1		SW-846 8270E	11/2/21	11/8/21 10:03	BGL
2-Methylphenol	ND	10	0.37	µg/L	1		SW-846 8270E	11/2/21	11/8/21 10:03	BGL
3/4-Methylphenol	ND	10	0.39	µg/L	1		SW-846 8270E	11/2/21	11/8/21 10:03	BGL
Naphthalene	ND	5.1	0.30	µg/L	1		SW-846 8270E	11/2/21	11/8/21 10:03	BGL
2-Nitroaniline	ND	10	0.77	µg/L	1		SW-846 8270E	11/2/21	11/8/21 10:03	BGL
3-Nitroaniline	ND	10	0.52	µg/L	1		SW-846 8270E	11/2/21	11/8/21 10:03	BGL
4-Nitroaniline	ND	10	0.50	µg/L	1		SW-846 8270E	11/2/21	11/8/21 10:03	BGL
Nitrobenzene	ND	10	0.54	µg/L	1		SW-846 8270E	11/2/21	11/8/21 10:03	BGL
2-Nitrophenol	ND	10	0.48	µg/L	1		SW-846 8270E	11/2/21	11/8/21 10:03	BGL
4-Nitrophenol	ND	10	2.1	µg/L	1		SW-846 8270E	11/2/21	11/8/21 10:03	BGL
N-Nitrosodimethylamine	ND	10	0.84	µg/L	1		SW-846 8270E	11/2/21	11/8/21 10:03	BGL
N-Nitrosodiphenylamine/Diphenylamine	ND	10	0.41	µg/L	1		SW-846 8270E	11/2/21	11/8/21 10:03	BGL
N-Nitrosodi-n-propylamine	ND	10	0.54	µg/L	1		SW-846 8270E	11/2/21	11/8/21 10:03	BGL
Pentachloronitrobenzene	ND	10	0.65	µg/L	1		SW-846 8270E	11/2/21	11/8/21 10:03	BGL
Pentachlorophenol	ND	10	3.8	µg/L	1		SW-846 8270E	11/2/21	11/8/21 10:03	BGL
Phenanthrene	ND	5.1	0.41	µg/L	1		SW-846 8270E	11/2/21	11/8/21 10:03	BGL
Phenol	ND	10	0.25	µg/L	1		SW-846 8270E	11/2/21	11/8/21 10:03	BGL
Pyrene	ND	5.1	0.48	µg/L	1		SW-846 8270E	11/2/21	11/8/21 10:03	BGL
Pyridine	ND	5.1	2.6	µg/L	1		SW-846 8270E	11/2/21	11/8/21 10:03	BGL
1,2,4,5-Tetrachlorobenzene	ND	10	0.28	µg/L	1		SW-846 8270E	11/2/21	11/8/21 10:03	BGL
1,2,4-Trichlorobenzene	ND	5.1	0.25	µg/L	1		SW-846 8270E	11/2/21	11/8/21 10:03	BGL
2,4,5-Trichlorophenol	ND	10	0.47	µg/L	1		SW-846 8270E	11/2/21	11/8/21 10:03	BGL
2,4,6-Trichlorophenol	ND	10	0.42	µg/L	1		SW-846 8270E	11/2/21	11/8/21 10:03	BGL

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
2-Fluorophenol	46.3	15-110		11/8/21 10:03
Phenol-d6	33.6	15-110		11/8/21 10:03
Nitrobenzene-d5	54.1	30-130		11/8/21 10:03
2-Fluorobiphenyl	55.0	30-130		11/8/21 10:03
2,4,6-Tribromophenol	76.9	15-110		11/8/21 10:03
p-Terphenyl-d14	90.1	30-130		11/8/21 10:03

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Project Location: 1400 N. Royal St., Alexandria, VA Sample Description: Work Order: 21K0043

Date Received: 11/1/2021

Field Sample #: HRP-MW100S-211028 Sampled: 10/28/2021 09:50

Sample ID: 21K0043-05

Sample Matrix: Ground Water

Semivolatile Organic Compounds by GC

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Methanol	ND	10	2.3	mg/L	1		SW-846 8015C	11/5/21	11/5/21 17:27	SFM
Isopropanol	ND	10	1.8	mg/L	1		SW-846 8015C	11/5/21	11/5/21 17:27	SFM
Ethanol	ND	10	2.5	mg/L	1		SW-846 8015C	11/5/21	11/5/21 17:27	SFM
Propylene glycol	ND	10	2.9	mg/L	1		SW-846 8015C	11/5/21	11/5/21 17:27	SFM
Ethylene glycol	ND	10	4.0	mg/L	1		SW-846 8015C	11/5/21	11/5/21 17:27	SFM

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Project Location: 1400 N. Royal St., Alexandria, VA Sample Description: Work Order: 21K0043

Date Received: 11/1/2021

Field Sample #: HRP-MW100S-211028 Sampled: 10/28/2021 09:50

Sample ID: 21K0043-05

Sample Matrix: Ground Water

Petroleum Hydrocarbons Analyses

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Gasoline Range Organics (GRO)	ND	0.010	0.0094	mg/L	1		SW-846 8015C	11/5/21	11/6/21 7:38	KMB
Diesel Range Organics	0.13	0.21	0.087	mg/L	1	J	SW-846 8015C	11/4/21	11/5/21 22:21	SFM

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
1-Chloro-3-fluorobenzene	105	70-130		11/6/21 7:38
2-Fluorobiphenyl	83.6	40-140		11/5/21 22:21

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Project Location: 1400 N. Royal St., Alexandria, VA Sample Description: Work Order: 21K0043

Date Received: 11/1/2021

Field Sample #: HRP-MW100S-211028 Sampled: 10/28/2021 09:50

Sample ID: 21K0043-05

Sample Matrix: Ground Water

Metals Analyses (Total)

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Aluminum	ND	0.050	0.049	mg/L	1		SW-846 6010D	11/3/21	11/4/21 15:33	MJH
Antimony	ND	1.0	0.20	µg/L	1		SW-846 6020B	11/3/21	11/4/21 13:53	QNW
Arsenic	ND	0.80	0.46	µg/L	1		SW-846 6020B	11/3/21	11/4/21 13:53	QNW
Barium	49	10	1.2	µg/L	1		SW-846 6020B	11/3/21	11/4/21 13:53	QNW
Beryllium	0.71	0.40	0.066	µg/L	1		SW-846 6020B	11/3/21	11/4/21 15:23	QNW
Cadmium	12	0.20	0.027	µg/L	1		SW-846 6020B	11/3/21	11/4/21 13:53	QNW
Calcium	61	0.50	0.11	mg/L	1		SW-846 6010D	11/3/21	11/4/21 15:33	MJH
Chromium	ND	1.0	0.92	µg/L	1		SW-846 6020B	11/3/21	11/4/21 13:53	QNW
Cobalt	360	1.0	0.14	µg/L	1		SW-846 6020B	11/3/21	11/4/21 13:53	QNW
Copper	2.0	1.0	0.27	µg/L	1		SW-846 6020B	11/3/21	11/4/21 13:53	QNW
Iron	15	0.050	0.032	mg/L	1		SW-846 6010D	11/3/21	11/4/21 15:33	MJH
Lead	0.16	0.50	0.14	µg/L	1	J	SW-846 6020B	11/3/21	11/4/21 13:53	QNW
Magnesium	43	0.050	0.023	mg/L	1		SW-846 6010D	11/3/21	11/4/21 15:33	MJH
Manganese	9900	1.0	0.24	µg/L	1		SW-846 6020B	11/3/21	11/4/21 13:53	QNW
Mercury	ND	0.00010	0.000050	mg/L	1		SW-846 7470A	11/2/21	11/3/21 9:17	DRL
Nickel	220	5.0	0.52	µg/L	1		SW-846 6020B	11/3/21	11/4/21 13:53	QNW
Potassium	4.4	2.0	0.40	mg/L	1		SW-846 6010D	11/3/21	11/4/21 15:33	MJH
Selenium	1.6	5.0	0.78	µg/L	1	J	SW-846 6020B	11/3/21	11/4/21 13:53	QNW
Silver	ND	0.20	0.026	µg/L	1		SW-846 6020B	11/3/21	11/4/21 13:53	QNW
Sodium	66	2.0	0.56	mg/L	1		SW-846 6010D	11/3/21	11/4/21 15:33	MJH
Thallium	ND	0.20	0.067	µg/L	1		SW-846 6020B	11/3/21	11/4/21 13:53	QNW
Vanadium	ND	5.0	3.5	µg/L	1		SW-846 6020B	11/3/21	11/4/21 13:53	QNW
Zinc	440	10	3.4	µg/L	1		SW-846 6020B	11/3/21	11/4/21 13:53	QNW

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Project Location: 1400 N. Royal St., Alexandria, VA Sample Description: Work Order: 21K0043

Date Received: 11/1/2021

Field Sample #: HRP-MW100S-211028 Sampled: 10/28/2021 09:50

Sample ID: 21K0043-05

Sample Matrix: Ground Water

Metals Analyses (Dissolved)

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Aluminum	ND	0.050	0.049	mg/L	1		SW-846 6010D	11/3/21	11/4/21 17:57	QNW
Antimony	ND	1.0	0.20	µg/L	1		SW-846 6020B	11/3/21	11/5/21 12:44	QNW
Arsenic	0.91	0.80	0.46	µg/L	1		SW-846 6020B	11/3/21	11/4/21 15:50	QNW
Barium	50	10	1.2	µg/L	1		SW-846 6020B	11/3/21	11/4/21 15:50	QNW
Beryllium	0.94	0.40	0.066	µg/L	1		SW-846 6020B	11/3/21	11/4/21 15:50	QNW
Cadmium	11	0.20	0.027	µg/L	1		SW-846 6020B	11/3/21	11/5/21 12:44	QNW
Calcium	60	0.50	0.11	mg/L	1		SW-846 6010D	11/3/21	11/4/21 17:57	QNW
Chromium	ND	1.0	0.92	µg/L	1		SW-846 6020B	11/3/21	11/5/21 12:44	QNW
Cobalt	410	1.0	0.14	µg/L	1		SW-846 6020B	11/3/21	11/5/21 12:44	QNW
Copper	3.0	1.0	0.27	µg/L	1		SW-846 6020B	11/3/21	11/5/21 12:44	QNW
Iron	31	0.050	0.032	mg/L	1		SW-846 6010D	11/3/21	11/4/21 17:57	QNW
Lead	0.17	0.50	0.14	µg/L	1	J	SW-846 6020B	11/3/21	11/4/21 15:50	QNW
Magnesium	46	0.050	0.023	mg/L	1		SW-846 6010D	11/3/21	11/4/21 17:57	QNW
Manganese	13000	10	2.4	µg/L	10		SW-846 6020B	11/3/21	11/5/21 14:14	QNW
Mercury	ND	0.00010	0.000050	mg/L	1		SW-846 7470A	11/2/21	11/3/21 8:57	DRL
Nickel	210	5.0	0.52	µg/L	1		SW-846 6020B	11/3/21	11/5/21 12:44	QNW
Potassium	4.3	2.0	0.40	mg/L	1		SW-846 6010D	11/3/21	11/4/21 17:57	QNW
Selenium	1.2	5.0	0.78	µg/L	1	J	SW-846 6020B	11/3/21	11/5/21 12:44	QNW
Silver	ND	0.20	0.026	µg/L	1		SW-846 6020B	11/3/21	11/5/21 12:44	QNW
Sodium	67	2.0	0.56	mg/L	1		SW-846 6010D	11/3/21	11/4/21 17:57	QNW
Thallium	ND	0.20	0.067	µg/L	1		SW-846 6020B	11/3/21	11/5/21 12:44	QNW
Vanadium	ND	5.0	3.5	µg/L	1		SW-846 6020B	11/3/21	11/5/21 12:44	QNW
Zinc	400	10	3.4	µg/L	1		SW-846 6020B	11/3/21	11/4/21 15:50	QNW

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Project Location: 1400 N. Royal St., Alexandria, VA Sample Description: Work Order: 21K0043

Date Received: 11/1/2021

Field Sample #: HRP-MW100S-211028 Sampled: 10/28/2021 09:50

Sample ID: 21K0043-05

Sample Matrix: Ground Water

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Ammonia as N	ND	0.10	0.056	mg/L	1		EPA 350.1	11/3/21	11/4/21 15:15	MMH
Sulfate	380	25	15	mg/L	25		ASTM D516-16	11/2/21	11/2/21 11:04	MMH

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Project Location: 1400 N. Royal St., Alexandria, VA Sample Description: Work Order: 21K0043

Date Received: 11/1/2021

Field Sample #: HRP-TB08-211028 Sampled: 10/28/2021 09:50

Sample ID: 21K0043-06

Sample Matrix: Ground Water

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acetone	ND	50	2.4	µg/L	1		SW-846 8260D	11/2/21	11/2/21 17:38	LBD
Acrylonitrile	ND	5.0	0.69	µg/L	1		SW-846 8260D	11/2/21	11/2/21 17:38	LBD
tert-Amyl Methyl Ether (TAME)	ND	0.50	0.15	µg/L	1		SW-846 8260D	11/2/21	11/2/21 17:38	LBD
Benzene	ND	1.0	0.13	µg/L	1		SW-846 8260D	11/2/21	11/2/21 17:38	LBD
Bromobenzene	ND	1.0	0.13	µg/L	1		SW-846 8260D	11/2/21	11/2/21 17:38	LBD
Bromochloromethane	ND	1.0	0.36	µg/L	1		SW-846 8260D	11/2/21	11/2/21 17:38	LBD
Bromodichloromethane	ND	0.50	0.14	µg/L	1		SW-846 8260D	11/2/21	11/2/21 17:38	LBD
Bromoform	ND	1.0	0.29	µg/L	1		SW-846 8260D	11/2/21	11/2/21 17:38	LBD
Bromomethane	ND	5.0	1.1	µg/L	1	V-34	SW-846 8260D	11/2/21	11/2/21 17:38	LBD
2-Butanone (MEK)	ND	20	1.9	µg/L	1	V-05	SW-846 8260D	11/2/21	11/2/21 17:38	LBD
tert-Butyl Alcohol (TBA)	ND	20	5.3	µg/L	1	V-05	SW-846 8260D	11/2/21	11/2/21 17:38	LBD
n-Butylbenzene	ND	1.0	0.14	µg/L	1		SW-846 8260D	11/2/21	11/2/21 17:38	LBD
sec-Butylbenzene	ND	1.0	0.10	µg/L	1		SW-846 8260D	11/2/21	11/2/21 17:38	LBD
tert-Butylbenzene	ND	1.0	0.090	µg/L	1		SW-846 8260D	11/2/21	11/2/21 17:38	LBD
tert-Butyl Ethyl Ether (TBEE)	ND	0.50	0.11	µg/L	1		SW-846 8260D	11/2/21	11/2/21 17:38	LBD
Carbon Disulfide	ND	5.0	1.5	µg/L	1		SW-846 8260D	11/2/21	11/2/21 17:38	LBD
Carbon Tetrachloride	ND	5.0	0.17	µg/L	1		SW-846 8260D	11/2/21	11/2/21 17:38	LBD
Chlorobenzene	ND	1.0	0.080	µg/L	1		SW-846 8260D	11/2/21	11/2/21 17:38	LBD
Chlorodibromomethane	ND	0.50	0.16	µg/L	1		SW-846 8260D	11/2/21	11/2/21 17:38	LBD
Chloroethane	ND	2.0	0.37	µg/L	1		SW-846 8260D	11/2/21	11/2/21 17:38	LBD
Chloroform	ND	2.0	0.19	µg/L	1		SW-846 8260D	11/2/21	11/2/21 17:38	LBD
Chloromethane	ND	2.0	0.38	µg/L	1	L-04, V-05, V-34	SW-846 8260D	11/2/21	11/2/21 17:38	LBD
2-Chlorotoluene	ND	1.0	0.090	µg/L	1		SW-846 8260D	11/2/21	11/2/21 17:38	LBD
4-Chlorotoluene	ND	1.0	0.10	µg/L	1		SW-846 8260D	11/2/21	11/2/21 17:38	LBD
1,2-Dibromo-3-chloropropane (DBCP)	ND	5.0	0.72	µg/L	1		SW-846 8260D	11/2/21	11/2/21 17:38	LBD
1,2-Dibromoethane (EDB)	ND	0.50	0.15	µg/L	1		SW-846 8260D	11/2/21	11/2/21 17:38	LBD
Dibromomethane	ND	1.0	0.29	µg/L	1		SW-846 8260D	11/2/21	11/2/21 17:38	LBD
1,2-Dichlorobenzene	ND	1.0	0.10	µg/L	1		SW-846 8260D	11/2/21	11/2/21 17:38	LBD
1,3-Dichlorobenzene	ND	1.0	0.090	µg/L	1		SW-846 8260D	11/2/21	11/2/21 17:38	LBD
1,4-Dichlorobenzene	ND	1.0	0.11	µg/L	1		SW-846 8260D	11/2/21	11/2/21 17:38	LBD
trans-1,4-Dichloro-2-butene	ND	2.0	1.8	µg/L	1		SW-846 8260D	11/2/21	11/2/21 17:38	LBD
Dichlorodifluoromethane (Freon 12)	ND	2.0	0.20	µg/L	1		SW-846 8260D	11/2/21	11/2/21 17:38	LBD
1,1-Dichloroethane	ND	1.0	0.16	µg/L	1		SW-846 8260D	11/2/21	11/2/21 17:38	LBD
1,2-Dichloroethane	ND	1.0	0.32	µg/L	1		SW-846 8260D	11/2/21	11/2/21 17:38	LBD
1,1-Dichloroethylene	ND	1.0	0.16	µg/L	1		SW-846 8260D	11/2/21	11/2/21 17:38	LBD
cis-1,2-Dichloroethylene	ND	1.0	0.15	µg/L	1		SW-846 8260D	11/2/21	11/2/21 17:38	LBD
trans-1,2-Dichloroethylene	ND	1.0	0.17	µg/L	1		SW-846 8260D	11/2/21	11/2/21 17:38	LBD
1,2-Dichloropropane	ND	1.0	0.18	µg/L	1		SW-846 8260D	11/2/21	11/2/21 17:38	LBD
1,3-Dichloropropane	ND	0.50	0.12	µg/L	1		SW-846 8260D	11/2/21	11/2/21 17:38	LBD
2,2-Dichloropropane	ND	1.0	0.31	µg/L	1		SW-846 8260D	11/2/21	11/2/21 17:38	LBD
1,1-Dichloropropene	ND	2.0	0.26	µg/L	1		SW-846 8260D	11/2/21	11/2/21 17:38	LBD
cis-1,3-Dichloropropene	ND	0.50	0.12	µg/L	1		SW-846 8260D	11/2/21	11/2/21 17:38	LBD
trans-1,3-Dichloropropene	ND	0.50	0.15	µg/L	1		SW-846 8260D	11/2/21	11/2/21 17:38	LBD
Diethyl Ether	ND	2.0	0.22	µg/L	1		SW-846 8260D	11/2/21	11/2/21 17:38	LBD

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Project Location: 1400 N. Royal St., Alexandria, VA Sample Description: Work Order: 21K0043

Date Received: 11/1/2021

Field Sample #: HRP-TB08-211028 Sampled: 10/28/2021 09:50

Sample ID: 21K0043-06

Sample Matrix: Ground Water

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Diisopropyl Ether (DIPE)	ND	0.50	0.15	µg/L	1		SW-846 8260D	11/2/21	11/2/21 17:38	LBD
1,4-Dioxane	ND	50	22	µg/L	1		SW-846 8260D	11/2/21	11/2/21 17:38	LBD
Ethylbenzene	ND	1.0	0.090	µg/L	1		SW-846 8260D	11/2/21	11/2/21 17:38	LBD
Hexachlorobutadiene	ND	0.60	0.41	µg/L	1		SW-846 8260D	11/2/21	11/2/21 17:38	LBD
2-Hexanone (MBK)	ND	10	1.4	µg/L	1		SW-846 8260D	11/2/21	11/2/21 17:38	LBD
Isopropylbenzene (Cumene)	ND	1.0	0.10	µg/L	1		SW-846 8260D	11/2/21	11/2/21 17:38	LBD
p-Isopropyltoluene (p-Cymene)	ND	1.0	0.090	µg/L	1		SW-846 8260D	11/2/21	11/2/21 17:38	LBD
Methyl Acetate	ND	1.0	0.39	µg/L	1	V-05	SW-846 8260D	11/2/21	11/2/21 17:38	LBD
Methyl tert-Butyl Ether (MTBE)	ND	1.0	0.17	µg/L	1		SW-846 8260D	11/2/21	11/2/21 17:38	LBD
Methyl Cyclohexane	ND	1.0	0.33	µg/L	1		SW-846 8260D	11/2/21	11/2/21 17:38	LBD
Methylene Chloride	ND	5.0	0.30	µg/L	1		SW-846 8260D	11/2/21	11/2/21 17:38	LBD
4-Methyl-2-pentanone (MIBK)	ND	10	1.6	µg/L	1		SW-846 8260D	11/2/21	11/2/21 17:38	LBD
Naphthalene	ND	2.0	0.15	µg/L	1		SW-846 8260D	11/2/21	11/2/21 17:38	LBD
n-Propylbenzene	ND	1.0	0.080	µg/L	1		SW-846 8260D	11/2/21	11/2/21 17:38	LBD
Styrene	ND	1.0	0.080	µg/L	1		SW-846 8260D	11/2/21	11/2/21 17:38	LBD
1,1,1,2-Tetrachloroethane	ND	1.0	0.14	µg/L	1		SW-846 8260D	11/2/21	11/2/21 17:38	LBD
1,1,2,2-Tetrachloroethane	ND	0.50	0.090	µg/L	1		SW-846 8260D	11/2/21	11/2/21 17:38	LBD
Tetrachloroethylene	ND	1.0	0.20	µg/L	1		SW-846 8260D	11/2/21	11/2/21 17:38	LBD
Tetrahydrofuran	ND	10	0.58	µg/L	1	V-05	SW-846 8260D	11/2/21	11/2/21 17:38	LBD
Toluene	ND	1.0	0.11	µg/L	1		SW-846 8260D	11/2/21	11/2/21 17:38	LBD
1,2,3-Trichlorobenzene	ND	5.0	0.14	µg/L	1		SW-846 8260D	11/2/21	11/2/21 17:38	LBD
1,2,4-Trichlorobenzene	ND	1.0	0.16	µg/L	1		SW-846 8260D	11/2/21	11/2/21 17:38	LBD
1,3,5-Trichlorobenzene	ND	1.0	0.18	µg/L	1		SW-846 8260D	11/2/21	11/2/21 17:38	LBD
1,1,1-Trichloroethane	ND	1.0	0.17	µg/L	1		SW-846 8260D	11/2/21	11/2/21 17:38	LBD
1,1,2-Trichloroethane	ND	1.0	0.15	µg/L	1		SW-846 8260D	11/2/21	11/2/21 17:38	LBD
Trichloroethylene	ND	1.0	0.18	µg/L	1		SW-846 8260D	11/2/21	11/2/21 17:38	LBD
Trichlorofluoromethane (Freon 11)	ND	2.0	0.19	µg/L	1		SW-846 8260D	11/2/21	11/2/21 17:38	LBD
1,2,3-Trichloropropane	ND	2.0	0.31	µg/L	1		SW-846 8260D	11/2/21	11/2/21 17:38	LBD
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	1.0	0.24	µg/L	1		SW-846 8260D	11/2/21	11/2/21 17:38	LBD
1,2,4-Trimethylbenzene	ND	1.0	0.10	µg/L	1		SW-846 8260D	11/2/21	11/2/21 17:38	LBD
1,3,5-Trimethylbenzene	ND	1.0	0.10	µg/L	1		SW-846 8260D	11/2/21	11/2/21 17:38	LBD
Vinyl Chloride	ND	2.0	0.20	µg/L	1		SW-846 8260D	11/2/21	11/2/21 17:38	LBD
m+p Xylene	ND	2.0	0.18	µg/L	1		SW-846 8260D	11/2/21	11/2/21 17:38	LBD
o-Xylene	ND	1.0	0.090	µg/L	1		SW-846 8260D	11/2/21	11/2/21 17:38	LBD

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
1,2-Dichloroethane-d4	88.1	70-130		11/2/21 17:38
Toluene-d8	93.1	70-130		11/2/21 17:38
4-Bromofluorobenzene	99.6	70-130		11/2/21 17:38

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Project Location: 1400 N. Royal St., Alexandria, VA Sample Description: Work Order: 21K0043

Date Received: 11/1/2021

Field Sample #: HRP-EB08-211028 Sampled: 10/28/2021 11:40

Sample ID: 21K0043-07

Sample Matrix: Ground Water

Semivolatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acenaphthene	ND	4.8	0.32	µg/L	1		SW-846 8270E	11/2/21	11/8/21 10:30	BGL
Acenaphthylene	ND	4.8	0.31	µg/L	1		SW-846 8270E	11/2/21	11/8/21 10:30	BGL
Acetophenone	ND	9.5	0.43	µg/L	1		SW-846 8270E	11/2/21	11/8/21 10:30	BGL
Aniline	ND	4.8	0.78	µg/L	1		SW-846 8270E	11/2/21	11/8/21 10:30	BGL
Anthracene	ND	4.8	0.38	µg/L	1		SW-846 8270E	11/2/21	11/8/21 10:30	BGL
Benzidine	ND	19	9.5	µg/L	1	V-04	SW-846 8270E	11/2/21	11/8/21 10:30	BGL
Benzo(a)anthracene	ND	4.8	0.36	µg/L	1		SW-846 8270E	11/2/21	11/8/21 10:30	BGL
Benzo(a)pyrene	ND	4.8	0.46	µg/L	1		SW-846 8270E	11/2/21	11/8/21 10:30	BGL
Benzo(b)fluoranthene	ND	4.8	0.40	µg/L	1		SW-846 8270E	11/2/21	11/8/21 10:30	BGL
Benzo(g,h,i)perylene	ND	4.8	0.61	µg/L	1		SW-846 8270E	11/2/21	11/8/21 10:30	BGL
Benzo(k)fluoranthene	ND	4.8	0.35	µg/L	1		SW-846 8270E	11/2/21	11/8/21 10:30	BGL
Benzoic Acid	ND	9.5	8.8	µg/L	1		SW-846 8270E	11/2/21	11/8/21 10:30	BGL
Bis(2-chloroethoxy)methane	ND	9.5	0.41	µg/L	1		SW-846 8270E	11/2/21	11/8/21 10:30	BGL
Bis(2-chloroethyl)ether	ND	9.5	0.49	µg/L	1		SW-846 8270E	11/2/21	11/8/21 10:30	BGL
Bis(2-chloroisopropyl)ether	ND	9.5	0.57	µg/L	1		SW-846 8270E	11/2/21	11/8/21 10:30	BGL
Bis(2-Ethylhexyl)phthalate	ND	9.5	0.88	µg/L	1		SW-846 8270E	11/2/21	11/8/21 10:30	BGL
4-Bromophenylphenylether	ND	9.5	0.36	µg/L	1		SW-846 8270E	11/2/21	11/8/21 10:30	BGL
Butylbenzylphthalate	ND	9.5	0.66	µg/L	1		SW-846 8270E	11/2/21	11/8/21 10:30	BGL
Carbazole	ND	9.5	0.39	µg/L	1		SW-846 8270E	11/2/21	11/8/21 10:30	BGL
4-Chloroaniline	ND	9.5	0.42	µg/L	1	V-34	SW-846 8270E	11/2/21	11/8/21 10:30	BGL
4-Chloro-3-methylphenol	ND	9.5	0.52	µg/L	1		SW-846 8270E	11/2/21	11/8/21 10:30	BGL
2-Chloronaphthalene	ND	9.5	0.25	µg/L	1		SW-846 8270E	11/2/21	11/8/21 10:30	BGL
2-Chlorophenol	ND	9.5	0.36	µg/L	1		SW-846 8270E	11/2/21	11/8/21 10:30	BGL
4-Chlorophenylphenylether	ND	9.5	0.32	µg/L	1		SW-846 8270E	11/2/21	11/8/21 10:30	BGL
Chrysene	ND	4.8	0.36	µg/L	1		SW-846 8270E	11/2/21	11/8/21 10:30	BGL
Dibenz(a,h)anthracene	ND	4.8	0.68	µg/L	1		SW-846 8270E	11/2/21	11/8/21 10:30	BGL
Dibenzofuran	ND	4.8	0.32	µg/L	1		SW-846 8270E	11/2/21	11/8/21 10:30	BGL
Di-n-butylphthalate	ND	9.5	0.47	µg/L	1		SW-846 8270E	11/2/21	11/8/21 10:30	BGL
1,2-Dichlorobenzene	ND	4.8	0.22	µg/L	1		SW-846 8270E	11/2/21	11/8/21 10:30	BGL
1,3-Dichlorobenzene	ND	4.8	0.23	µg/L	1		SW-846 8270E	11/2/21	11/8/21 10:30	BGL
1,4-Dichlorobenzene	ND	4.8	0.25	µg/L	1		SW-846 8270E	11/2/21	11/8/21 10:30	BGL
3,3-Dichlorobenzidine	ND	9.5	0.60	µg/L	1	V-34	SW-846 8270E	11/2/21	11/8/21 10:30	BGL
2,4-Dichlorophenol	ND	9.5	0.35	µg/L	1		SW-846 8270E	11/2/21	11/8/21 10:30	BGL
Diethylphthalate	ND	9.5	0.46	µg/L	1		SW-846 8270E	11/2/21	11/8/21 10:30	BGL
2,4-Dimethylphenol	ND	9.5	0.92	µg/L	1		SW-846 8270E	11/2/21	11/8/21 10:30	BGL
Dimethylphthalate	ND	9.5	0.38	µg/L	1		SW-846 8270E	11/2/21	11/8/21 10:30	BGL
4,6-Dinitro-2-methylphenol	ND	9.5	6.3	µg/L	1		SW-846 8270E	11/2/21	11/8/21 10:30	BGL
2,4-Dinitrophenol	ND	9.5	7.6	µg/L	1	V-04	SW-846 8270E	11/2/21	11/8/21 10:30	BGL
2,4-Dinitrotoluene	ND	9.5	0.58	µg/L	1		SW-846 8270E	11/2/21	11/8/21 10:30	BGL
2,6-Dinitrotoluene	ND	9.5	0.48	µg/L	1		SW-846 8270E	11/2/21	11/8/21 10:30	BGL
Di-n-octylphthalate	ND	9.5	5.3	µg/L	1		SW-846 8270E	11/2/21	11/8/21 10:30	BGL
1,2-Diphenylhydrazine/Azobenzene	ND	9.5	0.50	µg/L	1		SW-846 8270E	11/2/21	11/8/21 10:30	BGL
Fluoranthene	ND	4.8	0.35	µg/L	1		SW-846 8270E	11/2/21	11/8/21 10:30	BGL
Fluorene	ND	4.8	0.40	µg/L	1		SW-846 8270E	11/2/21	11/8/21 10:30	BGL

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Project Location: 1400 N. Royal St., Alexandria, VA Sample Description: Work Order: 21K0043

Date Received: 11/1/2021

Field Sample #: HRP-EB08-211028 Sampled: 10/28/2021 11:40

Sample ID: 21K0043-07

Sample Matrix: Ground Water

Semivolatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Hexachlorobenzene	ND	9.5	0.35	µg/L	1		SW-846 8270E	11/2/21	11/8/21 10:30	BGL
Hexachlorobutadiene	ND	9.5	0.26	µg/L	1		SW-846 8270E	11/2/21	11/8/21 10:30	BGL
Hexachlorocyclopentadiene	ND	9.5	4.0	µg/L	1		SW-846 8270E	11/2/21	11/8/21 10:30	BGL
Hexachloroethane	ND	9.5	0.29	µg/L	1		SW-846 8270E	11/2/21	11/8/21 10:30	BGL
Indeno(1,2,3-cd)pyrene	ND	4.8	0.75	µg/L	1		SW-846 8270E	11/2/21	11/8/21 10:30	BGL
Isophorone	ND	9.5	0.46	µg/L	1		SW-846 8270E	11/2/21	11/8/21 10:30	BGL
1-Methylnaphthalene	ND	4.8	0.28	µg/L	1		SW-846 8270E	11/2/21	11/8/21 10:30	BGL
2-Methylnaphthalene	ND	4.8	0.32	µg/L	1		SW-846 8270E	11/2/21	11/8/21 10:30	BGL
2-Methylphenol	ND	9.5	0.35	µg/L	1		SW-846 8270E	11/2/21	11/8/21 10:30	BGL
3/4-Methylphenol	ND	9.5	0.36	µg/L	1		SW-846 8270E	11/2/21	11/8/21 10:30	BGL
Naphthalene	ND	4.8	0.28	µg/L	1		SW-846 8270E	11/2/21	11/8/21 10:30	BGL
2-Nitroaniline	ND	9.5	0.72	µg/L	1		SW-846 8270E	11/2/21	11/8/21 10:30	BGL
3-Nitroaniline	ND	9.5	0.48	µg/L	1		SW-846 8270E	11/2/21	11/8/21 10:30	BGL
4-Nitroaniline	ND	9.5	0.47	µg/L	1		SW-846 8270E	11/2/21	11/8/21 10:30	BGL
Nitrobenzene	ND	9.5	0.50	µg/L	1		SW-846 8270E	11/2/21	11/8/21 10:30	BGL
2-Nitrophenol	ND	9.5	0.45	µg/L	1		SW-846 8270E	11/2/21	11/8/21 10:30	BGL
4-Nitrophenol	ND	9.5	2.0	µg/L	1		SW-846 8270E	11/2/21	11/8/21 10:30	BGL
N-Nitrosodimethylamine	ND	9.5	0.78	µg/L	1		SW-846 8270E	11/2/21	11/8/21 10:30	BGL
N-Nitrosodiphenylamine/Diphenylamine	ND	9.5	0.38	µg/L	1		SW-846 8270E	11/2/21	11/8/21 10:30	BGL
N-Nitrosodi-n-propylamine	ND	9.5	0.50	µg/L	1		SW-846 8270E	11/2/21	11/8/21 10:30	BGL
Pentachloronitrobenzene	ND	9.5	0.61	µg/L	1		SW-846 8270E	11/2/21	11/8/21 10:30	BGL
Pentachlorophenol	ND	9.5	3.6	µg/L	1		SW-846 8270E	11/2/21	11/8/21 10:30	BGL
Phenanthrene	ND	4.8	0.38	µg/L	1		SW-846 8270E	11/2/21	11/8/21 10:30	BGL
Phenol	ND	9.5	0.24	µg/L	1		SW-846 8270E	11/2/21	11/8/21 10:30	BGL
Pyrene	ND	4.8	0.45	µg/L	1		SW-846 8270E	11/2/21	11/8/21 10:30	BGL
Pyridine	ND	4.8	2.5	µg/L	1		SW-846 8270E	11/2/21	11/8/21 10:30	BGL
1,2,4,5-Tetrachlorobenzene	ND	9.5	0.26	µg/L	1		SW-846 8270E	11/2/21	11/8/21 10:30	BGL
1,2,4-Trichlorobenzene	ND	4.8	0.23	µg/L	1		SW-846 8270E	11/2/21	11/8/21 10:30	BGL
2,4,5-Trichlorophenol	ND	9.5	0.44	µg/L	1		SW-846 8270E	11/2/21	11/8/21 10:30	BGL
2,4,6-Trichlorophenol	ND	9.5	0.39	µg/L	1		SW-846 8270E	11/2/21	11/8/21 10:30	BGL

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
2-Fluorophenol	42.4	15-110		11/8/21 10:30
Phenol-d6	30.0	15-110		11/8/21 10:30
Nitrobenzene-d5	52.1	30-130		11/8/21 10:30
2-Fluorobiphenyl	52.4	30-130		11/8/21 10:30
2,4,6-Tribromophenol	76.5	15-110		11/8/21 10:30
p-Terphenyl-d14	89.4	30-130		11/8/21 10:30

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Project Location: 1400 N. Royal St., Alexandria, VA Sample Description: Work Order: 21K0043

Date Received: 11/1/2021

Field Sample #: HRP-EB08-211028 Sampled: 10/28/2021 11:40

Sample ID: 21K0043-07

Sample Matrix: Ground Water

Petroleum Hydrocarbons Analyses

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Diesel Range Organics	ND	0.19	0.082	mg/L	1		SW-846 8015C	11/4/21	11/5/21 22:41	SFM

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
2-Fluorobiphenyl	80.1	40-140		11/5/21 22:41

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Project Location: 1400 N. Royal St., Alexandria, VA Sample Description: Work Order: 21K0043

Date Received: 11/1/2021

Field Sample #: HRP-EB08-211028 Sampled: 10/28/2021 11:40

Sample ID: 21K0043-07

Sample Matrix: Ground Water

Metals Analyses (Total)

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Aluminum	ND	0.050	0.049	mg/L	1		SW-846 6010D	11/3/21	11/4/21 15:51	MJH
Antimony	ND	1.0	0.20	µg/L	1		SW-846 6020B	11/3/21	11/4/21 14:02	QNW
Arsenic	ND	0.80	0.46	µg/L	1		SW-846 6020B	11/3/21	11/4/21 14:02	QNW
Barium	ND	10	1.2	µg/L	1		SW-846 6020B	11/3/21	11/4/21 14:02	QNW
Beryllium	ND	0.40	0.066	µg/L	1		SW-846 6020B	11/3/21	11/4/21 15:25	QNW
Cadmium	ND	0.20	0.027	µg/L	1		SW-846 6020B	11/3/21	11/4/21 14:02	QNW
Calcium	ND	0.50	0.11	mg/L	1		SW-846 6010D	11/3/21	11/4/21 15:51	MJH
Chromium	ND	1.0	0.92	µg/L	1		SW-846 6020B	11/3/21	11/4/21 14:02	QNW
Cobalt	ND	1.0	0.14	µg/L	1		SW-846 6020B	11/3/21	11/4/21 14:02	QNW
Copper	ND	1.0	0.27	µg/L	1		SW-846 6020B	11/3/21	11/4/21 14:02	QNW
Iron	ND	0.050	0.032	mg/L	1		SW-846 6010D	11/3/21	11/4/21 15:51	MJH
Lead	ND	0.50	0.14	µg/L	1		SW-846 6020B	11/3/21	11/4/21 14:02	QNW
Magnesium	ND	0.050	0.023	mg/L	1		SW-846 6010D	11/3/21	11/4/21 15:51	MJH
Manganese	0.32	1.0	0.24	µg/L	1	J	SW-846 6020B	11/3/21	11/4/21 14:02	QNW
Mercury	ND	0.00010	0.000050	mg/L	1		SW-846 7470A	11/2/21	11/3/21 9:19	DRL
Nickel	ND	5.0	0.52	µg/L	1		SW-846 6020B	11/3/21	11/4/21 14:02	QNW
Potassium	ND	2.0	0.40	mg/L	1		SW-846 6010D	11/3/21	11/4/21 15:51	MJH
Selenium	ND	5.0	0.78	µg/L	1		SW-846 6020B	11/3/21	11/4/21 14:02	QNW
Silver	ND	0.20	0.026	µg/L	1		SW-846 6020B	11/3/21	11/4/21 14:02	QNW
Sodium	ND	2.0	0.56	mg/L	1		SW-846 6010D	11/3/21	11/4/21 15:51	MJH
Thallium	ND	0.20	0.067	µg/L	1		SW-846 6020B	11/3/21	11/4/21 14:02	QNW
Vanadium	ND	5.0	3.5	µg/L	1		SW-846 6020B	11/3/21	11/4/21 14:02	QNW
Zinc	ND	10	3.4	µg/L	1		SW-846 6020B	11/3/21	11/4/21 14:02	QNW

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Project Location: 1400 N. Royal St., Alexandria, VA Sample Description: Work Order: 21K0043

Date Received: 11/1/2021

Field Sample #: HRP-EB08-211028 Sampled: 10/28/2021 11:40

Sample ID: 21K0043-07

Sample Matrix: Ground Water

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Sulfate	ND	1.0	0.60	mg/L	1		ASTM D516-16	11/2/21	11/2/21 10:45	MMH

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Sample Extraction Data

ASTM D516-16

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
21K0043-01 [HRP-MW72S-211027]	B293753	10.0	10.0	11/02/21
21K0043-02 [HRP-MW30S-211027]	B293753	10.0	10.0	11/02/21
21K0043-04 [HRP-MW209-211028]	B293753	10.0	10.0	11/02/21
21K0043-05 [HRP-MW100S-211028]	B293753	10.0	10.0	11/02/21
21K0043-07 [HRP-EB08-211028]	B293753	10.0	10.0	11/02/21

EPA 350.1

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
21K0043-01 [HRP-MW72S-211027]	B293898	50.0	50.0	11/03/21
21K0043-02 [HRP-MW30S-211027]	B293898	50.0	50.0	11/03/21
21K0043-05 [HRP-MW100S-211028]	B293898	50.0	50.0	11/03/21

Prep Method: % Solids **Analytical Method: SM 2540G**

Lab Number [Field ID]	Batch	Date
21K0043-03 [HRP-SB210-0-1-211028]	B294016	11/04/21

Prep Method: SW-846 3050B **Analytical Method: SW-846 6010D**

Lab Number [Field ID]	Batch	Initial [g]	Final [mL]	Date
21K0043-03 [HRP-SB210-0-1-211028]	B293980	1.51	50.0	11/04/21

Prep Method: SW-846 3005A **Analytical Method: SW-846 6010D**

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
21K0043-01 [HRP-MW72S-211027]	B293917	50.0	50.0	11/03/21
21K0043-02 [HRP-MW30S-211027]	B293917	50.0	50.0	11/03/21
21K0043-04 [HRP-MW209-211028]	B293917	50.0	50.0	11/03/21
21K0043-05 [HRP-MW100S-211028]	B293917	50.0	50.0	11/03/21
21K0043-07 [HRP-EB08-211028]	B293917	50.0	50.0	11/03/21

Prep Method: SW-846 3005A Dissolved **Analytical Method: SW-846 6010D**

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
21K0043-01 [HRP-MW72S-211027]	B293930	50.0	50.0	11/03/21
21K0043-02 [HRP-MW30S-211027]	B293930	50.0	50.0	11/03/21
21K0043-04 [HRP-MW209-211028]	B293930	50.0	50.0	11/03/21
21K0043-05 [HRP-MW100S-211028]	B293930	50.0	50.0	11/03/21

Prep Method: SW-846 3005A **Analytical Method: SW-846 6020B**

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
21K0043-01 [HRP-MW72S-211027]	B293919	50.0	50.0	11/03/21
21K0043-02 [HRP-MW30S-211027]	B293919	50.0	50.0	11/03/21
21K0043-04 [HRP-MW209-211028]	B293919	50.0	50.0	11/03/21
21K0043-05 [HRP-MW100S-211028]	B293919	50.0	50.0	11/03/21

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Sample Extraction Data

Prep Method: SW-846 3005A **Analytical Method: SW-846 6020B**

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
21K0043-07 [HRP-EB08-211028]	B293919	50.0	50.0	11/03/21

Prep Method: SW-846 3005A Dissolved **Analytical Method: SW-846 6020B**

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
21K0043-01 [HRP-MW72S-211027]	B293931	50.0	50.0	11/03/21
21K0043-02 [HRP-MW30S-211027]	B293931	50.0	50.0	11/03/21
21K0043-04 [HRP-MW209-211028]	B293931	50.0	50.0	11/03/21
21K0043-05 [HRP-MW100S-211028]	B293931	50.0	50.0	11/03/21

Prep Method: SW-846 7470A Dissolved **Analytical Method: SW-846 7470A**

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
21K0043-01 [HRP-MW72S-211027]	B293821	10.0	10.0	11/02/21
21K0043-02 [HRP-MW30S-211027]	B293821	10.0	10.0	11/02/21
21K0043-04 [HRP-MW209-211028]	B293821	10.0	10.0	11/02/21
21K0043-05 [HRP-MW100S-211028]	B293821	10.0	10.0	11/02/21

Prep Method: SW-846 7470A Prep **Analytical Method: SW-846 7470A**

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
21K0043-01 [HRP-MW72S-211027]	B293822	10.0	10.0	11/02/21
21K0043-02 [HRP-MW30S-211027]	B293822	10.0	10.0	11/02/21
21K0043-04 [HRP-MW209-211028]	B293822	10.0	10.0	11/02/21
21K0043-05 [HRP-MW100S-211028]	B293822	10.0	10.0	11/02/21
21K0043-07 [HRP-EB08-211028]	B293822	10.0	10.0	11/02/21

Prep Method: SW-846 7471 **Analytical Method: SW-846 7471B**

Lab Number [Field ID]	Batch	Initial [g]	Final [mL]	Date
21K0043-03 [HRP-SB210-0-1-211028]	B294008	0.562	50.0	11/04/21

Prep Method: SW-846 3510C **Analytical Method: SW-846 8015C**

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
21K0043-01 [HRP-MW72S-211027]	B293763	920	1.00	11/02/21
21K0043-02 [HRP-MW30S-211027]	B293763	930	1.00	11/02/21

Prep Method: SW-846 3510C **Analytical Method: SW-846 8015C**

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
21K0043-04 [HRP-MW209-211028]	B293957	1040	1.00	11/04/21
21K0043-05 [HRP-MW100S-211028]	B293957	970	1.00	11/04/21
21K0043-07 [HRP-EB08-211028]	B293957	1030	1.00	11/04/21

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Sample Extraction Data

Prep Method: SW-846 5030B **Analytical Method: SW-846 8015C**

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
21K0043-01 [HRP-MW72S-211027]	B294072	2.5	5.00	11/05/21
21K0043-02 [HRP-MW30S-211027]	B294072	5	5.00	11/05/21
21K0043-04 [HRP-MW209-211028]	B294072	5	5.00	11/05/21
21K0043-05 [HRP-MW100S-211028]	B294072	5	5.00	11/05/21

Prep Method: Alcohol Prep **Analytical Method: SW-846 8015C**

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
21K0043-01 [HRP-MW72S-211027]	B294074	1.00	1.00	11/05/21
21K0043-02 [HRP-MW30S-211027]	B294074	1.00	1.00	11/05/21
21K0043-05 [HRP-MW100S-211028]	B294074	1.00	1.00	11/05/21

Prep Method: SW-846 5030B **Analytical Method: SW-846 8260D**

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
21K0043-01 [HRP-MW72S-211027]	B293778	2.5	5.00	11/02/21
21K0043-02 [HRP-MW30S-211027]	B293778	5	5.00	11/02/21
21K0043-04 [HRP-MW209-211028]	B293778	5	5.00	11/02/21
21K0043-05 [HRP-MW100S-211028]	B293778	5	5.00	11/02/21
21K0043-06 [HRP-TB08-211028]	B293778	5	5.00	11/02/21

Prep Method: SW-846 3510C **Analytical Method: SW-846 8270E**

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
21K0043-01 [HRP-MW72S-211027]	B293790	970	1.00	11/02/21
21K0043-02 [HRP-MW30S-211027]	B293790	970	1.00	11/02/21
21K0043-04 [HRP-MW209-211028]	B293790	1050	1.00	11/02/21
21K0043-05 [HRP-MW100S-211028]	B293790	980	1.00	11/02/21
21K0043-07 [HRP-EB08-211028]	B293790	1050	1.00	11/02/21

Prep Method: SW-846 9010C **Analytical Method: SW-846 9014**

Lab Number [Field ID]	Batch	Initial [g]	Final [mL]	Date
21K0043-03 [HRP-SB210-0-1-211028]	B293766	1.01	50.0	11/02/21

SW-846 9045C

Lab Number [Field ID]	Batch	Initial [g]	Date
21K0043-03 [HRP-SB210-0-1-211028]	B293749	20.0	11/01/21

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QUALITY CONTROL

Volatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B293778 - SW-846 5030B										
Blank (B293778-BLK1)				Prepared & Analyzed: 11/02/21						
Acetone	ND	50	µg/L							
Acrylonitrile	ND	5.0	µg/L							
tert-Amyl Methyl Ether (TAME)	ND	0.50	µg/L							
Benzene	ND	1.0	µg/L							
Bromobenzene	ND	1.0	µg/L							
Bromochloromethane	ND	1.0	µg/L							
Bromodichloromethane	ND	0.50	µg/L							
Bromoform	ND	1.0	µg/L							
Bromomethane	ND	2.0	µg/L							V-34
2-Butanone (MEK)	ND	20	µg/L							V-05
tert-Butyl Alcohol (TBA)	ND	20	µg/L							V-05
n-Butylbenzene	ND	1.0	µg/L							
sec-Butylbenzene	ND	1.0	µg/L							
tert-Butylbenzene	ND	1.0	µg/L							
tert-Butyl Ethyl Ether (TBEE)	ND	0.50	µg/L							
Carbon Disulfide	ND	5.0	µg/L							
Carbon Tetrachloride	ND	5.0	µg/L							
Chlorobenzene	ND	1.0	µg/L							
Chlorodibromomethane	ND	0.50	µg/L							
Chloroethane	ND	2.0	µg/L							
Chloroform	ND	2.0	µg/L							
Chloromethane	ND	2.0	µg/L							L-04, V-05, V-34
2-Chlorotoluene	ND	1.0	µg/L							
4-Chlorotoluene	ND	1.0	µg/L							
1,2-Dibromo-3-chloropropane (DBCP)	ND	5.0	µg/L							
1,2-Dibromoethane (EDB)	ND	0.50	µg/L							
Dibromomethane	ND	1.0	µg/L							
1,2-Dichlorobenzene	ND	1.0	µg/L							
1,3-Dichlorobenzene	ND	1.0	µg/L							
1,4-Dichlorobenzene	ND	1.0	µg/L							
trans-1,4-Dichloro-2-butene	ND	2.0	µg/L							
Dichlorodifluoromethane (Freon 12)	ND	2.0	µg/L							
1,1-Dichloroethane	ND	1.0	µg/L							
1,2-Dichloroethane	ND	1.0	µg/L							
1,1-Dichloroethylene	ND	1.0	µg/L							
cis-1,2-Dichloroethylene	ND	1.0	µg/L							
trans-1,2-Dichloroethylene	ND	1.0	µg/L							
1,2-Dichloropropane	ND	1.0	µg/L							
1,3-Dichloropropane	ND	0.50	µg/L							
2,2-Dichloropropane	ND	1.0	µg/L							
1,1-Dichloropropene	ND	2.0	µg/L							
cis-1,3-Dichloropropene	ND	0.50	µg/L							
trans-1,3-Dichloropropene	ND	0.50	µg/L							
Diethyl Ether	ND	2.0	µg/L							
Diisopropyl Ether (DIPE)	ND	0.50	µg/L							
1,4-Dioxane	ND	50	µg/L							
Ethylbenzene	ND	1.0	µg/L							
Hexachlorobutadiene	ND	0.60	µg/L							
2-Hexanone (MBK)	ND	10	µg/L							
Isopropylbenzene (Cumene)	ND	1.0	µg/L							
p-Isopropyltoluene (p-Cymene)	ND	1.0	µg/L							
Methyl Acetate	ND	1.0	µg/L							V-05

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QUALITY CONTROL

Volatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC		%REC Limits	RPD	RPD Limit	Notes	
Batch B293778 - SW-846 5030B												
Blank (B293778-BLK1)				Prepared & Analyzed: 11/02/21								
Methyl tert-Butyl Ether (MTBE)	ND	1.0	µg/L									
Methyl Cyclohexane	ND	1.0	µg/L									
Methylene Chloride	ND	5.0	µg/L									
4-Methyl-2-pentanone (MIBK)	ND	10	µg/L									
Naphthalene	ND	2.0	µg/L									
n-Propylbenzene	ND	1.0	µg/L									
Styrene	ND	1.0	µg/L									
1,1,1,2-Tetrachloroethane	ND	1.0	µg/L									
1,1,2,2-Tetrachloroethane	ND	0.50	µg/L									
Tetrachloroethylene	ND	1.0	µg/L									
Tetrahydrofuran	ND	10	µg/L								V-05	
Toluene	ND	1.0	µg/L									
1,2,3-Trichlorobenzene	ND	5.0	µg/L									
1,2,4-Trichlorobenzene	ND	1.0	µg/L									
1,3,5-Trichlorobenzene	ND	1.0	µg/L									
1,1,1-Trichloroethane	ND	1.0	µg/L									
1,1,2-Trichloroethane	ND	1.0	µg/L									
Trichloroethylene	ND	1.0	µg/L									
Trichlorofluoromethane (Freon 11)	ND	2.0	µg/L									
1,2,3-Trichloropropane	ND	2.0	µg/L									
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	1.0	µg/L									
1,2,4-Trimethylbenzene	ND	1.0	µg/L									
1,3,5-Trimethylbenzene	ND	1.0	µg/L									
Vinyl Chloride	ND	2.0	µg/L									
m+p Xylene	ND	2.0	µg/L									
o-Xylene	ND	1.0	µg/L									
Surrogate: 1,2-Dichloroethane-d4	*21.7*		µg/L	25.0		86.9		70-130				
Surrogate: Toluene-d8	*23.2*		µg/L	25.0		93.0		70-130				
Surrogate: 4-Bromofluorobenzene	*24.9*		µg/L	25.0		99.7		70-130				
LCS (B293778-BS1)				Prepared & Analyzed: 11/02/21								
Acetone	78.6	50	µg/L	100		78.6		70-160				†
Acrylonitrile	8.36	5.0	µg/L	10.0		83.6		70-130				
tert-Amyl Methyl Ether (TAME)	8.56	0.50	µg/L	10.0		85.6		70-130				
Benzene	9.09	1.0	µg/L	10.0		90.9		70-130				
Bromobenzene	10.8	1.0	µg/L	10.0		108		70-130				
Bromochloromethane	11.1	1.0	µg/L	10.0		111		70-130				
Bromodichloromethane	10.3	0.50	µg/L	10.0		103		70-130				
Bromoform	10.6	1.0	µg/L	10.0		106		70-130				
Bromomethane	17.9	2.0	µg/L	10.0		**179**	*	40-160			L-02, V-20, V-34	†
2-Butanone (MEK)	79.8	20	µg/L	100		79.8		40-160			V-05	†
tert-Butyl Alcohol (TBA)	80.6	20	µg/L	100		80.6		40-160			V-05	†
n-Butylbenzene	9.66	1.0	µg/L	10.0		96.6		70-130				
sec-Butylbenzene	9.61	1.0	µg/L	10.0		96.1		70-130				
tert-Butylbenzene	10.3	1.0	µg/L	10.0		103		70-130				
tert-Butyl Ethyl Ether (TBEE)	8.70	0.50	µg/L	10.0		87.0		70-130				
Carbon Disulfide	85.8	5.0	µg/L	100		85.8		70-130				
Carbon Tetrachloride	10.0	5.0	µg/L	10.0		100		70-130				
Chlorobenzene	11.0	1.0	µg/L	10.0		110		70-130				
Chlorodibromomethane	10.6	0.50	µg/L	10.0		106		70-130				
Chloroethane	9.25	2.0	µg/L	10.0		92.5		70-130				
Chloroform	9.44	2.0	µg/L	10.0		94.4		70-130				

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QUALITY CONTROL

Volatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC		%REC Limits	RPD	RPD Limit	Notes	
Batch B293778 - SW-846 5030B												
LCS (B293778-BS1)				Prepared & Analyzed: 11/02/21								
Chloromethane	3.64	2.0	µg/L	10.0		**36.4**	*	40-160			L-04, V-05, V-34	†
2-Chlorotoluene	10.6	1.0	µg/L	10.0		106		70-130				
4-Chlorotoluene	11.2	1.0	µg/L	10.0		112		70-130				
1,2-Dibromo-3-chloropropane (DBCP)	9.13	5.0	µg/L	10.0		91.3		70-130				
1,2-Dibromoethane (EDB)	10.2	0.50	µg/L	10.0		102		70-130				
Dibromomethane	10.7	1.0	µg/L	10.0		107		70-130				
1,2-Dichlorobenzene	9.81	1.0	µg/L	10.0		98.1		70-130				
1,3-Dichlorobenzene	10.0	1.0	µg/L	10.0		100		70-130				
1,4-Dichlorobenzene	9.97	1.0	µg/L	10.0		99.7		70-130				
trans-1,4-Dichloro-2-butene	9.39	2.0	µg/L	10.0		93.9		70-130				
Dichlorodifluoromethane (Freon 12)	8.96	2.0	µg/L	10.0		89.6		40-160				†
1,1-Dichloroethane	9.00	1.0	µg/L	10.0		90.0		70-130				
1,2-Dichloroethane	10.6	1.0	µg/L	10.0		106		70-130				
1,1-Dichloroethylene	9.47	1.0	µg/L	10.0		94.7		70-130				
cis-1,2-Dichloroethylene	9.69	1.0	µg/L	10.0		96.9		70-130				
trans-1,2-Dichloroethylene	9.94	1.0	µg/L	10.0		99.4		70-130				
1,2-Dichloropropane	9.96	1.0	µg/L	10.0		99.6		70-130				
1,3-Dichloropropane	9.86	0.50	µg/L	10.0		98.6		70-130				
2,2-Dichloropropane	9.47	1.0	µg/L	10.0		94.7		40-130				†
1,1-Dichloropropene	9.26	2.0	µg/L	10.0		92.6		70-130				
cis-1,3-Dichloropropene	10.0	0.50	µg/L	10.0		100		70-130				
trans-1,3-Dichloropropene	9.83	0.50	µg/L	10.0		98.3		70-130				
Diethyl Ether	8.18	2.0	µg/L	10.0		81.8		70-130				
Diisopropyl Ether (DIPE)	8.33	0.50	µg/L	10.0		83.3		70-130				
1,4-Dioxane	93.5	50	µg/L	100		93.5		40-130				†
Ethylbenzene	10.6	1.0	µg/L	10.0		106		70-130				
Hexachlorobutadiene	10.1	0.60	µg/L	10.0		101		70-130				
2-Hexanone (MBK)	90.4	10	µg/L	100		90.4		70-160				†
Isopropylbenzene (Cumene)	10.8	1.0	µg/L	10.0		108		70-130				
p-Isopropyltoluene (p-Cymene)	10.1	1.0	µg/L	10.0		101		70-130				
Methyl Acetate	8.17	1.0	µg/L	10.0		81.7		70-130			V-05	
Methyl tert-Butyl Ether (MTBE)	8.60	1.0	µg/L	10.0		86.0		70-130				
Methyl Cyclohexane	9.38	1.0	µg/L	10.0		93.8		70-130				
Methylene Chloride	8.64	5.0	µg/L	10.0		86.4		70-130				
4-Methyl-2-pentanone (MIBK)	95.0	10	µg/L	100		95.0		70-160				†
Naphthalene	9.01	2.0	µg/L	10.0		90.1		40-130				†
n-Propylbenzene	10.6	1.0	µg/L	10.0		106		70-130				
Styrene	11.0	1.0	µg/L	10.0		110		70-130				
1,1,1,2-Tetrachloroethane	11.8	1.0	µg/L	10.0		118		70-130				
1,1,2,2-Tetrachloroethane	10.0	0.50	µg/L	10.0		100		70-130				
Tetrachloroethylene	11.1	1.0	µg/L	10.0		111		70-130				
Tetrahydrofuran	8.10	10	µg/L	10.0		81.0		70-130			V-05, J	
Toluene	10.2	1.0	µg/L	10.0		102		70-130				
1,2,3-Trichlorobenzene	9.29	5.0	µg/L	10.0		92.9		70-130				
1,2,4-Trichlorobenzene	10.1	1.0	µg/L	10.0		101		70-130				
1,3,5-Trichlorobenzene	9.88	1.0	µg/L	10.0		98.8		70-130				
1,1,1-Trichloroethane	9.69	1.0	µg/L	10.0		96.9		70-130				
1,1,2-Trichloroethane	10.1	1.0	µg/L	10.0		101		70-130				
Trichloroethylene	10.9	1.0	µg/L	10.0		109		70-130				
Trichlorofluoromethane (Freon 11)	9.28	2.0	µg/L	10.0		92.8		70-130				
1,2,3-Trichloropropane	10.9	2.0	µg/L	10.0		109		70-130				

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QUALITY CONTROL

Volatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC		%REC Limits	RPD	RPD Limit	Notes	
Batch B293778 - SW-846 5030B												
LCS (B293778-BS1)				Prepared & Analyzed: 11/02/21								
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	8.61	1.0	µg/L	10.0		86.1		70-130				
1,2,4-Trimethylbenzene	9.98	1.0	µg/L	10.0		99.8		70-130				
1,3,5-Trimethylbenzene	11.0	1.0	µg/L	10.0		110		70-130				
Vinyl Chloride	8.59	2.0	µg/L	10.0		85.9		40-160				†
m+p Xylene	21.9	2.0	µg/L	20.0		110		70-130				
o-Xylene	10.9	1.0	µg/L	10.0		109		70-130				
Surrogate: 1,2-Dichloroethane-d4	*21.5*		µg/L	25.0		86.0		70-130				
Surrogate: Toluene-d8	*23.6*		µg/L	25.0		94.6		70-130				
Surrogate: 4-Bromofluorobenzene	*25.1*		µg/L	25.0		100		70-130				
LCS Dup (B293778-BSD1)				Prepared & Analyzed: 11/02/21								
Acetone	79.2	50	µg/L	100		79.2		70-160	0.748	25		†
Acrylonitrile	8.00	5.0	µg/L	10.0		80.0		70-130	4.40	25		
tert-Amyl Methyl Ether (TAME)	8.38	0.50	µg/L	10.0		83.8		70-130	2.13	25		
Benzene	8.98	1.0	µg/L	10.0		89.8		70-130	1.22	25		
Bromobenzene	10.6	1.0	µg/L	10.0		106		70-130	1.87	25		
Bromochloromethane	10.7	1.0	µg/L	10.0		107		70-130	3.30	25		
Bromodichloromethane	10.3	0.50	µg/L	10.0		103		70-130	0.00	25		
Bromoform	10.5	1.0	µg/L	10.0		105		70-130	0.474	25		
Bromomethane	17.3	2.0	µg/L	10.0		**173**	*	40-160	3.47	25	L-02, V-20, V-34	†
2-Butanone (MEK)	79.6	20	µg/L	100		79.6		40-160	0.326	25	V-05	†
tert-Butyl Alcohol (TBA)	81.2	20	µg/L	100		81.2		40-160	0.742	25	V-05	†
n-Butylbenzene	9.23	1.0	µg/L	10.0		92.3		70-130	4.55	25		
sec-Butylbenzene	9.36	1.0	µg/L	10.0		93.6		70-130	2.64	25		
tert-Butylbenzene	10.1	1.0	µg/L	10.0		101		70-130	2.45	25		
tert-Butyl Ethyl Ether (TBEE)	8.33	0.50	µg/L	10.0		83.3		70-130	4.35	25		
Carbon Disulfide	87.4	5.0	µg/L	100		87.4		70-130	1.80	25		
Carbon Tetrachloride	9.92	5.0	µg/L	10.0		99.2		70-130	1.10	25		
Chlorobenzene	10.8	1.0	µg/L	10.0		108		70-130	2.20	25		
Chlorodibromomethane	10.7	0.50	µg/L	10.0		107		70-130	0.375	25		
Chloroethane	9.01	2.0	µg/L	10.0		90.1		70-130	2.63	25		
Chloroform	9.35	2.0	µg/L	10.0		93.5		70-130	0.958	25		
Chloromethane	3.70	2.0	µg/L	10.0		**37.0**	*	40-160	1.63	25	L-04, V-05, V-34	†
2-Chlorotoluene	10.6	1.0	µg/L	10.0		106		70-130	0.471	25		
4-Chlorotoluene	10.8	1.0	µg/L	10.0		108		70-130	3.92	25		
1,2-Dibromo-3-chloropropane (DBCP)	8.93	5.0	µg/L	10.0		89.3		70-130	2.21	25		
1,2-Dibromoethane (EDB)	10.3	0.50	µg/L	10.0		103		70-130	0.978	25		
Dibromomethane	10.8	1.0	µg/L	10.0		108		70-130	1.49	25		
1,2-Dichlorobenzene	9.77	1.0	µg/L	10.0		97.7		70-130	0.409	25		
1,3-Dichlorobenzene	9.87	1.0	µg/L	10.0		98.7		70-130	1.51	25		
1,4-Dichlorobenzene	9.71	1.0	µg/L	10.0		97.1		70-130	2.64	25		
trans-1,4-Dichloro-2-butene	9.75	2.0	µg/L	10.0		97.5		70-130	3.76	25		
Dichlorodifluoromethane (Freon 12)	9.05	2.0	µg/L	10.0		90.5		40-160	0.999	25		†
1,1-Dichloroethane	9.01	1.0	µg/L	10.0		90.1		70-130	0.111	25		
1,2-Dichloroethane	10.4	1.0	µg/L	10.0		104		70-130	2.09	25		
1,1-Dichloroethylene	9.23	1.0	µg/L	10.0		92.3		70-130	2.57	25		
cis-1,2-Dichloroethylene	9.41	1.0	µg/L	10.0		94.1		70-130	2.93	25		
trans-1,2-Dichloroethylene	9.71	1.0	µg/L	10.0		97.1		70-130	2.34	25		
1,2-Dichloropropane	9.55	1.0	µg/L	10.0		95.5		70-130	4.20	25		
1,3-Dichloropropane	9.83	0.50	µg/L	10.0		98.3		70-130	0.305	25		
2,2-Dichloropropane	9.95	1.0	µg/L	10.0		99.5		40-130	4.94	25		†
1,1-Dichloropropene	9.18	2.0	µg/L	10.0		91.8		70-130	0.868	25		

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QUALITY CONTROL

Volatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes	
Batch B293778 - SW-846 5030B											
LCS Dup (B293778-BSD1)				Prepared & Analyzed: 11/02/21							
cis-1,3-Dichloropropene	9.96	0.50	µg/L	10.0		99.6	70-130	0.700	25		
trans-1,3-Dichloropropene	9.90	0.50	µg/L	10.0		99.0	70-130	0.710	25		
Diethyl Ether	8.09	2.0	µg/L	10.0		80.9	70-130	1.11	25		
Diisopropyl Ether (DIPE)	8.15	0.50	µg/L	10.0		81.5	70-130	2.18	25		
1,4-Dioxane	88.3	50	µg/L	100		88.3	40-130	5.70	50		† ‡
Ethylbenzene	10.7	1.0	µg/L	10.0		107	70-130	1.12	25		
Hexachlorobutadiene	9.86	0.60	µg/L	10.0		98.6	70-130	2.50	25		
2-Hexanone (MBK)	90.2	10	µg/L	100		90.2	70-160	0.233	25		†
Isopropylbenzene (Cumene)	10.7	1.0	µg/L	10.0		107	70-130	1.11	25		
p-Isopropyltoluene (p-Cymene)	9.82	1.0	µg/L	10.0		98.2	70-130	2.51	25		
Methyl Acetate	7.79	1.0	µg/L	10.0		77.9	70-130	4.76	25	V-05	
Methyl tert-Butyl Ether (MTBE)	8.54	1.0	µg/L	10.0		85.4	70-130	0.700	25		
Methyl Cyclohexane	9.81	1.0	µg/L	10.0		98.1	70-130	4.48	25		
Methylene Chloride	8.41	5.0	µg/L	10.0		84.1	70-130	2.70	25		
4-Methyl-2-pentanone (MIBK)	94.4	10	µg/L	100		94.4	70-160	0.623	25		†
Naphthalene	8.94	2.0	µg/L	10.0		89.4	40-130	0.780	25		†
n-Propylbenzene	10.4	1.0	µg/L	10.0		104	70-130	1.33	25		
Styrene	10.7	1.0	µg/L	10.0		107	70-130	2.68	25		
1,1,1,2-Tetrachloroethane	11.6	1.0	µg/L	10.0		116	70-130	1.80	25		
1,1,2,2-Tetrachloroethane	9.88	0.50	µg/L	10.0		98.8	70-130	1.61	25		
Tetrachloroethylene	11.2	1.0	µg/L	10.0		112	70-130	0.988	25		
Tetrahydrofuran	7.82	10	µg/L	10.0		78.2	70-130	3.52	25	V-05, J	
Toluene	10.0	1.0	µg/L	10.0		100	70-130	1.68	25		
1,2,3-Trichlorobenzene	9.10	5.0	µg/L	10.0		91.0	70-130	2.07	25		
1,2,4-Trichlorobenzene	9.57	1.0	µg/L	10.0		95.7	70-130	5.19	25		
1,3,5-Trichlorobenzene	9.17	1.0	µg/L	10.0		91.7	70-130	7.45	25		
1,1,1-Trichloroethane	9.57	1.0	µg/L	10.0		95.7	70-130	1.25	25		
1,1,2-Trichloroethane	9.97	1.0	µg/L	10.0		99.7	70-130	1.39	25		
Trichloroethylene	10.8	1.0	µg/L	10.0		108	70-130	1.29	25		
Trichlorofluoromethane (Freon 11)	8.92	2.0	µg/L	10.0		89.2	70-130	3.96	25		
1,2,3-Trichloropropane	11.0	2.0	µg/L	10.0		110	70-130	0.366	25		
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	9.00	1.0	µg/L	10.0		90.0	70-130	4.43	25		
1,2,4-Trimethylbenzene	9.85	1.0	µg/L	10.0		98.5	70-130	1.31	25		
1,3,5-Trimethylbenzene	10.6	1.0	µg/L	10.0		106	70-130	3.43	25		
Vinyl Chloride	8.41	2.0	µg/L	10.0		84.1	40-160	2.12	25		†
m+p Xylene	22.0	2.0	µg/L	20.0		110	70-130	0.410	25		
o-Xylene	10.8	1.0	µg/L	10.0		108	70-130	1.39	25		
Surrogate: 1,2-Dichloroethane-d4	*21.6*		µg/L	25.0		86.6	70-130				
Surrogate: Toluene-d8	*23.3*		µg/L	25.0		93.2	70-130				
Surrogate: 4-Bromofluorobenzene	*25.1*		µg/L	25.0		100	70-130				

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QUALITY CONTROL

Semivolatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B293790 - SW-846 3510C										
Blank (B293790-BLK1)				Prepared: 11/02/21 Analyzed: 11/03/21						
Acenaphthene	ND	5.0	µg/L							
Acenaphthylene	ND	5.0	µg/L							
Acetophenone	ND	10	µg/L							
Aniline	ND	5.0	µg/L							
Anthracene	ND	5.0	µg/L							
Benzidine	ND	20	µg/L							V-04
Benzo(a)anthracene	ND	5.0	µg/L							
Benzo(a)pyrene	ND	5.0	µg/L							
Benzo(b)fluoranthene	ND	5.0	µg/L							
Benzo(g,h,i)perylene	ND	5.0	µg/L							
Benzo(k)fluoranthene	ND	5.0	µg/L							
Benzoic Acid	ND	10	µg/L							
Bis(2-chloroethoxy)methane	ND	10	µg/L							
Bis(2-chloroethyl)ether	ND	10	µg/L							
Bis(2-chloroisopropyl)ether	ND	10	µg/L							
Bis(2-Ethylhexyl)phthalate	ND	10	µg/L							
4-Bromophenylphenylether	ND	10	µg/L							
Butylbenzylphthalate	ND	10	µg/L							
Carbazole	ND	10	µg/L							
4-Chloroaniline	ND	10	µg/L							
4-Chloro-3-methylphenol	ND	10	µg/L							
2-Chloronaphthalene	ND	10	µg/L							
2-Chlorophenol	ND	10	µg/L							
4-Chlorophenylphenylether	ND	10	µg/L							
Chrysene	ND	5.0	µg/L							
Dibenz(a,h)anthracene	ND	5.0	µg/L							
Dibenzofuran	ND	5.0	µg/L							
Di-n-butylphthalate	ND	10	µg/L							
1,2-Dichlorobenzene	ND	5.0	µg/L							
1,3-Dichlorobenzene	ND	5.0	µg/L							
1,4-Dichlorobenzene	ND	5.0	µg/L							
3,3-Dichlorobenzidine	ND	10	µg/L							
2,4-Dichlorophenol	ND	10	µg/L							
Diethylphthalate	ND	10	µg/L							
2,4-Dimethylphenol	ND	10	µg/L							
Dimethylphthalate	ND	10	µg/L							
4,6-Dinitro-2-methylphenol	ND	10	µg/L							
2,4-Dinitrophenol	ND	10	µg/L							V-04, V-20
2,4-Dinitrotoluene	ND	10	µg/L							V-20
2,6-Dinitrotoluene	ND	10	µg/L							
Di-n-octylphthalate	ND	10	µg/L							
1,2-Diphenylhydrazine/Azobenzene	ND	10	µg/L							
Fluoranthene	ND	5.0	µg/L							
Fluorene	ND	5.0	µg/L							
Hexachlorobenzene	ND	10	µg/L							
Hexachlorobutadiene	ND	10	µg/L							
Hexachlorocyclopentadiene	ND	10	µg/L							
Hexachloroethane	ND	10	µg/L							
Indeno(1,2,3-cd)pyrene	ND	5.0	µg/L							
Isophorone	ND	10	µg/L							
1-Methylnaphthalene	ND	5.0	µg/L							
2-Methylnaphthalene	ND	5.0	µg/L							

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QUALITY CONTROL

Semivolatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B293790 - SW-846 3510C										
Blank (B293790-BLK1)				Prepared: 11/02/21 Analyzed: 11/03/21						
2-Methylphenol	ND	10	µg/L							
3/4-Methylphenol	ND	10	µg/L							
Naphthalene	ND	5.0	µg/L							
2-Nitroaniline	ND	10	µg/L							
3-Nitroaniline	ND	10	µg/L							
4-Nitroaniline	ND	10	µg/L							V-20
Nitrobenzene	ND	10	µg/L							
2-Nitrophenol	ND	10	µg/L							
4-Nitrophenol	ND	10	µg/L							
N-Nitrosodimethylamine	ND	10	µg/L							
N-Nitrosodiphenylamine/Diphenylamine	ND	10	µg/L							
N-Nitrosodi-n-propylamine	ND	10	µg/L							
Pentachloronitrobenzene	ND	10	µg/L							
Pentachlorophenol	ND	10	µg/L							
Phenanthrene	ND	5.0	µg/L							
Phenol	ND	10	µg/L							
Pyrene	ND	5.0	µg/L							
Pyridine	ND	5.0	µg/L							
1,2,4,5-Tetrachlorobenzene	ND	10	µg/L							
1,2,4-Trichlorobenzene	ND	5.0	µg/L							
2,4,5-Trichlorophenol	ND	10	µg/L							
2,4,6-Trichlorophenol	ND	10	µg/L							
Surrogate: 2-Fluorophenol	*99.8*		µg/L	200		49.9	15-110			
Surrogate: Phenol-d6	*73.7*		µg/L	200		36.9	15-110			
Surrogate: Nitrobenzene-d5	*65.3*		µg/L	100		65.3	30-130			
Surrogate: 2-Fluorobiphenyl	*62.6*		µg/L	100		62.6	30-130			
Surrogate: 2,4,6-Tribromophenol	*149*		µg/L	200		74.4	15-110			
Surrogate: p-Terphenyl-d14	*96.6*		µg/L	100		96.6	30-130			
LCS (B293790-BS1)				Prepared: 11/02/21 Analyzed: 11/03/21						
Acenaphthene	36.8	5.0	µg/L	50.0		73.7	40-140			
Acenaphthylene	38.4	5.0	µg/L	50.0		76.7	40-140			
Acetophenone	37.5	10	µg/L	50.0		75.1	40-140			
Aniline	36.4	5.0	µg/L	50.0		72.8	40-140			
Anthracene	38.1	5.0	µg/L	50.0		76.2	40-140			
Benzidine	41.9	20	µg/L	50.0		83.8	40-140			V-04
Benzo(a)anthracene	36.7	5.0	µg/L	50.0		73.4	40-140			
Benzo(a)pyrene	41.3	5.0	µg/L	50.0		82.6	40-140			
Benzo(b)fluoranthene	38.0	5.0	µg/L	50.0		76.0	40-140			
Benzo(g,h,i)perylene	42.8	5.0	µg/L	50.0		85.6	40-140			
Benzo(k)fluoranthene	40.7	5.0	µg/L	50.0		81.4	40-140			
Benzoic Acid	20.1	10	µg/L	50.0		40.3	10-130			†
Bis(2-chloroethoxy)methane	38.1	10	µg/L	50.0		76.2	40-140			
Bis(2-chloroethyl)ether	36.7	10	µg/L	50.0		73.3	40-140			
Bis(2-chloroisopropyl)ether	45.0	10	µg/L	50.0		90.0	40-140			
Bis(2-Ethylhexyl)phthalate	42.4	10	µg/L	50.0		84.9	40-140			
4-Bromophenylphenylether	35.2	10	µg/L	50.0		70.4	40-140			
Butylbenzylphthalate	40.2	10	µg/L	50.0		80.4	40-140			
Carbazole	38.1	10	µg/L	50.0		76.2	40-140			
4-Chloroaniline	35.9	10	µg/L	50.0		71.8	40-140			
4-Chloro-3-methylphenol	38.1	10	µg/L	50.0		76.2	30-130			
2-Chloronaphthalene	30.4	10	µg/L	50.0		60.8	40-140			

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QUALITY CONTROL

Semivolatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes	
Batch B293790 - SW-846 3510C											
LCS (B293790-BS1)				Prepared: 11/02/21 Analyzed: 11/03/21							
2-Chlorophenol	32.0	10	µg/L	50.0		63.9	30-130				
4-Chlorophenylphenylether	35.4	10	µg/L	50.0		70.7	40-140				
Chrysene	37.8	5.0	µg/L	50.0		75.6	40-140				
Dibenz(a,h)anthracene	43.1	5.0	µg/L	50.0		86.2	40-140				
Dibenzofuran	37.8	5.0	µg/L	50.0		75.7	40-140				
Di-n-butylphthalate	36.7	10	µg/L	50.0		73.4	40-140				
1,2-Dichlorobenzene	29.6	5.0	µg/L	50.0		59.1	40-140				
1,3-Dichlorobenzene	28.4	5.0	µg/L	50.0		56.7	40-140				
1,4-Dichlorobenzene	28.8	5.0	µg/L	50.0		57.7	40-140				
3,3-Dichlorobenzidine	40.3	10	µg/L	50.0		80.6	40-140				
2,4-Dichlorophenol	34.5	10	µg/L	50.0		69.0	30-130				
Diethylphthalate	37.2	10	µg/L	50.0		74.5	40-140				
2,4-Dimethylphenol	33.9	10	µg/L	50.0		67.8	30-130				
Dimethylphthalate	37.0	10	µg/L	50.0		74.0	40-140				
4,6-Dinitro-2-methylphenol	39.2	10	µg/L	50.0		78.3	30-130				
2,4-Dinitrophenol	51.8	10	µg/L	50.0		104	30-130			V-04, V-06	
2,4-Dinitrotoluene	44.5	10	µg/L	50.0		89.1	40-140			V-06	
2,6-Dinitrotoluene	44.3	10	µg/L	50.0		88.6	40-140				
Di-n-octylphthalate	40.3	10	µg/L	50.0		80.7	40-140				
1,2-Diphenylhydrazine/Azobenzene	41.4	10	µg/L	50.0		82.7	40-140				
Fluoranthene	36.5	5.0	µg/L	50.0		73.1	40-140				
Fluorene	38.4	5.0	µg/L	50.0		76.9	40-140				
Hexachlorobenzene	37.1	10	µg/L	50.0		74.1	40-140				
Hexachlorobutadiene	28.0	10	µg/L	50.0		56.0	40-140				
Hexachlorocyclopentadiene	28.6	10	µg/L	50.0		57.3	30-140				†
Hexachloroethane	29.4	10	µg/L	50.0		58.8	40-140				
Indeno(1,2,3-cd)pyrene	46.3	5.0	µg/L	50.0		92.6	40-140				
Isophorone	42.4	10	µg/L	50.0		84.9	40-140				
1-Methylnaphthalene	32.3	5.0	µg/L	50.0		64.6	40-140				
2-Methylnaphthalene	39.4	5.0	µg/L	50.0		78.7	40-140				
2-Methylphenol	33.6	10	µg/L	50.0		67.3	30-130				
3/4-Methylphenol	32.6	10	µg/L	50.0		65.2	30-130				
Naphthalene	35.6	5.0	µg/L	50.0		71.1	40-140				
2-Nitroaniline	55.1	10	µg/L	50.0		110	40-140				
3-Nitroaniline	41.2	10	µg/L	50.0		82.5	40-140				
4-Nitroaniline	44.0	10	µg/L	50.0		87.9	40-140			V-06	
Nitrobenzene	35.7	10	µg/L	50.0		71.5	40-140				
2-Nitrophenol	38.3	10	µg/L	50.0		76.6	30-130				
4-Nitrophenol	22.2	10	µg/L	50.0		44.4	10-130				†
N-Nitrosodimethylamine	23.8	10	µg/L	50.0		47.7	40-140				
N-Nitrosodiphenylamine/Diphenylamine	39.1	10	µg/L	50.0		78.2	40-140				
N-Nitrosodi-n-propylamine	41.9	10	µg/L	50.0		83.8	40-140				
Pentachloronitrobenzene	37.9	10	µg/L	50.0		75.8	40-140				
Pentachlorophenol	34.9	10	µg/L	50.0		69.9	30-130				
Phenanthrene	37.5	5.0	µg/L	50.0		75.0	40-140				
Phenol	17.5	10	µg/L	50.0		34.9	20-130				†
Pyrene	37.8	5.0	µg/L	50.0		75.7	40-140				
Pyridine	16.3	5.0	µg/L	50.0		32.5	10-140				†
1,2,4,5-Tetrachlorobenzene	33.2	10	µg/L	50.0		66.4	40-140				
1,2,4-Trichlorobenzene	29.8	5.0	µg/L	50.0		59.6	40-140				
2,4,5-Trichlorophenol	38.0	10	µg/L	50.0		75.9	30-130				
2,4,6-Trichlorophenol	37.0	10	µg/L	50.0		74.1	30-130				

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QUALITY CONTROL

Semivolatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes	
Batch B293790 - SW-846 3510C											
LCS (B293790-BS1)				Prepared: 11/02/21 Analyzed: 11/03/21							
Surrogate: 2-Fluorophenol	*98.3*		µg/L	200		49.1	15-110				
Surrogate: Phenol-d6	*72.2*		µg/L	200		36.1	15-110				
Surrogate: Nitrobenzene-d5	*62.7*		µg/L	100		62.7	30-130				
Surrogate: 2-Fluorobiphenyl	*65.5*		µg/L	100		65.5	30-130				
Surrogate: 2,4,6-Tribromophenol	*172*		µg/L	200		85.9	15-110				
Surrogate: p-Terphenyl-d14	*92.3*		µg/L	100		92.3	30-130				
LCS Dup (B293790-BSD1)				Prepared: 11/02/21 Analyzed: 11/03/21							
Acenaphthene	38.5	5.0	µg/L	50.0		76.9	40-140	4.30	20		
Acenaphthylene	39.2	5.0	µg/L	50.0		78.4	40-140	2.24	20		
Acetophenone	38.4	10	µg/L	50.0		76.8	40-140	2.24	20		
Aniline	38.7	5.0	µg/L	50.0		77.4	40-140	6.20	50		‡
Anthracene	41.1	5.0	µg/L	50.0		82.2	40-140	7.60	20		
Benzidine	37.6	20	µg/L	50.0		75.1	40-140	11.0	20	V-04	
Benzo(a)anthracene	39.4	5.0	µg/L	50.0		78.7	40-140	6.99	20		
Benzo(a)pyrene	45.1	5.0	µg/L	50.0		90.2	40-140	8.79	20		
Benzo(b)fluoranthene	40.8	5.0	µg/L	50.0		81.7	40-140	7.21	20		
Benzo(g,h,i)perylene	44.6	5.0	µg/L	50.0		89.2	40-140	4.17	20		
Benzo(k)fluoranthene	43.9	5.0	µg/L	50.0		87.8	40-140	7.56	20		
Benzoic Acid	22.9	10	µg/L	50.0		45.8	10-130	12.9	50		† ‡
Bis(2-chloroethoxy)methane	39.1	10	µg/L	50.0		78.3	40-140	2.67	20		
Bis(2-chloroethyl)ether	37.7	10	µg/L	50.0		75.4	40-140	2.80	20		
Bis(2-chloroisopropyl)ether	44.2	10	µg/L	50.0		88.4	40-140	1.75	20		
Bis(2-Ethylhexyl)phthalate	43.2	10	µg/L	50.0		86.3	40-140	1.71	20		
4-Bromophenylphenylether	37.7	10	µg/L	50.0		75.3	40-140	6.81	20		
Butylbenzylphthalate	42.0	10	µg/L	50.0		84.0	40-140	4.33	20		
Carbazole	41.4	10	µg/L	50.0		82.8	40-140	8.35	20		
4-Chloroaniline	37.8	10	µg/L	50.0		75.6	40-140	5.21	20		
4-Chloro-3-methylphenol	39.7	10	µg/L	50.0		79.4	30-130	4.11	20		
2-Chloronaphthalene	30.3	10	µg/L	50.0		60.6	40-140	0.363	20		
2-Chlorophenol	33.1	10	µg/L	50.0		66.2	30-130	3.50	20		
4-Chlorophenylphenylether	36.8	10	µg/L	50.0		73.7	40-140	4.13	20		
Chrysene	40.8	5.0	µg/L	50.0		81.5	40-140	7.61	20		
Dibenz(a,h)anthracene	47.2	5.0	µg/L	50.0		94.4	40-140	9.06	20		
Dibenzofuran	39.6	5.0	µg/L	50.0		79.1	40-140	4.44	20		
Di-n-butylphthalate	40.0	10	µg/L	50.0		80.1	40-140	8.73	20		
1,2-Dichlorobenzene	30.2	5.0	µg/L	50.0		60.4	40-140	2.14	20		
1,3-Dichlorobenzene	28.7	5.0	µg/L	50.0		57.4	40-140	1.19	20		
1,4-Dichlorobenzene	29.4	5.0	µg/L	50.0		58.8	40-140	1.86	20		
3,3-Dichlorobenzidine	42.7	10	µg/L	50.0		85.4	40-140	5.76	20		
2,4-Dichlorophenol	36.2	10	µg/L	50.0		72.4	30-130	4.78	20		
Diethylphthalate	39.1	10	µg/L	50.0		78.3	40-140	4.92	20		
2,4-Dimethylphenol	35.4	10	µg/L	50.0		70.9	30-130	4.50	20		
Dimethylphthalate	40.4	10	µg/L	50.0		80.7	40-140	8.63	50		‡
4,6-Dinitro-2-methylphenol	43.3	10	µg/L	50.0		86.5	30-130	9.97	50		‡
2,4-Dinitrophenol	60.3	10	µg/L	50.0		121	30-130	15.1	50	V-04, V-06	‡
2,4-Dinitrotoluene	50.2	10	µg/L	50.0		100	40-140	11.8	20	V-06	
2,6-Dinitrotoluene	47.4	10	µg/L	50.0		94.8	40-140	6.81	20		
Di-n-octylphthalate	41.8	10	µg/L	50.0		83.5	40-140	3.46	20		
1,2-Diphenylhydrazine/Azobenzene	41.8	10	µg/L	50.0		83.7	40-140	1.15	20		
Fluoranthene	41.5	5.0	µg/L	50.0		82.9	40-140	12.6	20		
Fluorene	40.9	5.0	µg/L	50.0		81.7	40-140	6.08	20		

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QUALITY CONTROL

Semivolatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes	
Batch B293790 - SW-846 3510C											
LCS Dup (B293790-BSD1)				Prepared: 11/02/21 Analyzed: 11/03/21							
Hexachlorobenzene	39.0	10	µg/L	50.0		78.0	40-140	5.02	20		
Hexachlorobutadiene	28.7	10	µg/L	50.0		57.4	40-140	2.50	20		
Hexachlorocyclopentadiene	29.8	10	µg/L	50.0		59.6	30-140	4.07	50		† ‡
Hexachloroethane	29.5	10	µg/L	50.0		59.1	40-140	0.407	50		‡
Indeno(1,2,3-cd)pyrene	49.2	5.0	µg/L	50.0		98.3	40-140	6.01	50		‡
Isophorone	42.9	10	µg/L	50.0		85.9	40-140	1.15	20		
1-Methylnaphthalene	34.1	5.0	µg/L	50.0		68.2	40-140	5.42	20		
2-Methylnaphthalene	39.6	5.0	µg/L	50.0		79.3	40-140	0.709	20		
2-Methylphenol	34.8	10	µg/L	50.0		69.7	30-130	3.56	20		
3/4-Methylphenol	34.1	10	µg/L	50.0		68.2	30-130	4.53	20		
Naphthalene	34.9	5.0	µg/L	50.0		69.8	40-140	1.82	20		
2-Nitroaniline	59.3	10	µg/L	50.0		119	40-140	7.26	20		
3-Nitroaniline	45.2	10	µg/L	50.0		90.3	40-140	9.05	20		
4-Nitroaniline	49.7	10	µg/L	50.0		99.3	40-140	12.2	20	V-06	
Nitrobenzene	37.0	10	µg/L	50.0		73.9	40-140	3.36	20		
2-Nitrophenol	40.2	10	µg/L	50.0		80.5	30-130	4.94	20		
4-Nitrophenol	25.4	10	µg/L	50.0		50.8	10-130	13.5	50		† ‡
N-Nitrosodimethylamine	24.6	10	µg/L	50.0		49.1	40-140	2.89	20		
N-Nitrosodiphenylamine/Diphenylamine	41.8	10	µg/L	50.0		83.7	40-140	6.72	20		
N-Nitrosodi-n-propylamine	41.8	10	µg/L	50.0		83.6	40-140	0.287	20		
Pentachloronitrobenzene	42.5	10	µg/L	50.0		85.1	40-140	11.6	20		
Pentachlorophenol	38.4	10	µg/L	50.0		76.9	30-130	9.54	50		‡
Phenanthrene	40.6	5.0	µg/L	50.0		81.2	40-140	7.86	20		
Phenol	18.4	10	µg/L	50.0		36.8	20-130	5.13	20		†
Pyrene	40.6	5.0	µg/L	50.0		81.2	40-140	7.01	20		
Pyridine	15.4	5.0	µg/L	50.0		30.9	10-140	5.23	50		† ‡
1,2,4,5-Tetrachlorobenzene	33.1	10	µg/L	50.0		66.1	40-140	0.453	20		
1,2,4-Trichlorobenzene	31.4	5.0	µg/L	50.0		62.7	40-140	5.04	20		
2,4,5-Trichlorophenol	40.4	10	µg/L	50.0		80.7	30-130	6.10	20		
2,4,6-Trichlorophenol	39.5	10	µg/L	50.0		79.0	30-130	6.51	50		‡
Surrogate: 2-Fluorophenol	*101*		µg/L	200		50.5	15-110				
Surrogate: Phenol-d6	*76.2*		µg/L	200		38.1	15-110				
Surrogate: Nitrobenzene-d5	*66.7*		µg/L	100		66.7	30-130				
Surrogate: 2-Fluorobiphenyl	*66.0*		µg/L	100		66.0	30-130				
Surrogate: 2,4,6-Tribromophenol	*190*		µg/L	200		94.8	15-110				
Surrogate: p-Terphenyl-d14	*98.2*		µg/L	100		98.2	30-130				

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QUALITY CONTROL

Semivolatile Organic Compounds by GC - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B294074 - Alcohol Prep										
Blank (B294074-BLK1)				Prepared & Analyzed: 11/05/21						
Methanol	ND	10	mg/L							
Isopropanol	ND	10	mg/L							
Ethanol	ND	10	mg/L							
Propylene glycol	ND	10	mg/L							
Ethylene glycol	ND	10	mg/L							
LCS (B294074-BS1)				Prepared & Analyzed: 11/05/21						
Methanol	115	10	mg/L	100		115	40-140			
Isopropanol	106	10	mg/L	100		106	40-140			
Ethanol	123	10	mg/L	100		123	40-140			
Propylene glycol	122	10	mg/L	100		122	40-140			
Ethylene glycol	106	10	mg/L	100		106	40-140			
LCS Dup (B294074-BSD1)				Prepared & Analyzed: 11/05/21						
Methanol	110	10	mg/L	100		110	40-140	3.61	50	
Isopropanol	95.8	10	mg/L	100		95.8	40-140	9.76	50	
Ethanol	124	10	mg/L	100		124	40-140	0.716	50	
Propylene glycol	119	10	mg/L	100		119	40-140	2.06	50	
Ethylene glycol	106	10	mg/L	100		106	40-140	0.0634	50	
Duplicate (B294074-DUP1)	**Source: 21K0043-02**			Prepared & Analyzed: 11/05/21						
Methanol	ND	10	mg/L		ND			NC	50	
Isopropanol	ND	10	mg/L		ND			NC	50	
Ethanol	ND	10	mg/L		ND			NC	50	
Propylene glycol	ND	10	mg/L		ND			NC	50	
Ethylene glycol	ND	10	mg/L		ND			NC	50	
Matrix Spike (B294074-MS1)	**Source: 21K0043-02**			Prepared & Analyzed: 11/05/21						
Methanol	107	10	mg/L	100	ND	107	40-140			
Isopropanol	92.9	10	mg/L	100	ND	92.9	40-140			
Ethanol	113	10	mg/L	100	ND	113	40-140			
Propylene glycol	88.1	10	mg/L	100	ND	88.1	40-140			
Ethylene glycol	68.0	10	mg/L	100	ND	68.0	40-140			

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QUALITY CONTROL

Petroleum Hydrocarbons Analyses - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B293763 - SW-846 3510C										
Blank (B293763-BLK1)				Prepared: 11/02/21 Analyzed: 11/03/21						
Diesel Range Organics	ND	0.20	mg/L							
Surrogate: 2-Fluorobiphenyl	*0.0777*		mg/L	0.100		77.7	40-140			
LCS (B293763-BS1)				Prepared: 11/02/21 Analyzed: 11/04/21						
Diesel Range Organics	0.752	0.20	mg/L	1.00		75.2	40-140			
Surrogate: 2-Fluorobiphenyl	*0.0772*		mg/L	0.100		77.2	40-140			
LCS Dup (B293763-BSD1)				Prepared: 11/02/21 Analyzed: 11/04/21						
Diesel Range Organics	0.719	0.20	mg/L	1.00		71.9	40-140	4.51	30	
Surrogate: 2-Fluorobiphenyl	*0.0714*		mg/L	0.100		71.4	40-140			
Batch B293957 - SW-846 3510C										
Blank (B293957-BLK1)				Prepared: 11/04/21 Analyzed: 11/05/21						
Diesel Range Organics	ND	0.20	mg/L							
Surrogate: 2-Fluorobiphenyl	*0.0742*		mg/L	0.100		74.2	40-140			
LCS (B293957-BS1)				Prepared: 11/04/21 Analyzed: 11/05/21						
Diesel Range Organics	0.876	0.20	mg/L	1.00		87.6	40-140			
Surrogate: 2-Fluorobiphenyl	*0.0938*		mg/L	0.100		93.8	40-140			
LCS Dup (B293957-BSD1)				Prepared: 11/04/21 Analyzed: 11/05/21						
Diesel Range Organics	0.801	0.20	mg/L	1.00		80.1	40-140	8.94	30	
Surrogate: 2-Fluorobiphenyl	*0.0799*		mg/L	0.100		79.9	40-140			
Batch B294072 - SW-846 5030B										
Blank (B294072-BLK1)				Prepared: 11/05/21 Analyzed: 11/06/21						
Gasoline Range Organics (GRO)	ND	0.010	mg/L							
Surrogate: 1-Chloro-3-fluorobenzene	*16.0*		µg/L	15.0		107	70-130			
LCS (B294072-BS1)				Prepared: 11/05/21 Analyzed: 11/06/21						
Gasoline Range Organics (GRO)	0.239	0.010	mg/L	0.250		95.7	80-120			
Surrogate: 1-Chloro-3-fluorobenzene	*14.7*		µg/L	15.0		98.2	70-130			
LCS Dup (B294072-BSD1)				Prepared: 11/05/21 Analyzed: 11/06/21						
Gasoline Range Organics (GRO)	0.231	0.010	mg/L	0.250		92.2	80-120	3.66	30	
Surrogate: 1-Chloro-3-fluorobenzene	*14.9*		µg/L	15.0		99.1	70-130			

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QUALITY CONTROL

Metals Analyses (Total) - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD		RPD Limit	Notes
Batch B293822 - SW-846 7470A Prep											
Blank (B293822-BLK1)				Prepared: 11/02/21 Analyzed: 11/03/21							
Mercury	ND	0.00010	mg/L								
LCS (B293822-BS1)				Prepared: 11/02/21 Analyzed: 11/03/21							
Mercury	0.00450	0.00010	mg/L	0.00402		112	80-120				
LCS Dup (B293822-BSD1)				Prepared: 11/02/21 Analyzed: 11/03/21							
Mercury	0.00452	0.00010	mg/L	0.00402		112	80-120	0.412		20	
Duplicate (B293822-DUP1)	**Source: 21K0043-01**			Prepared: 11/02/21 Analyzed: 11/03/21							
Mercury	0.0000762	0.00010	mg/L		0.0000603			**23.3**	*	20	R-04, J
Matrix Spike (B293822-MS1)	**Source: 21K0043-01**			Prepared: 11/02/21 Analyzed: 11/03/21							
Mercury	0.00445	0.00010	mg/L	0.00402	0.0000603	109	75-125				
Batch B293917 - SW-846 3005A											
Blank (B293917-BLK1)				Prepared: 11/03/21 Analyzed: 11/04/21							
Aluminum	ND	0.050	mg/L								
Calcium	ND	0.50	mg/L								
Iron	ND	0.050	mg/L								
Magnesium	ND	0.050	mg/L								
Potassium	ND	2.0	mg/L								
Sodium	ND	2.0	mg/L								
LCS (B293917-BS1)				Prepared: 11/03/21 Analyzed: 11/04/21							
Aluminum	0.512	0.050	mg/L	0.500		102	80-120				
Calcium	4.01	0.50	mg/L	4.00		100	80-120				
Iron	3.92	0.050	mg/L	4.00		98.1	80-120				
Magnesium	3.84	0.050	mg/L	4.00		95.9	80-120				
Potassium	3.84	2.0	mg/L	4.00		96.0	80-120				
Sodium	4.06	2.0	mg/L	4.00		101	80-120				
LCS Dup (B293917-BSD1)				Prepared: 11/03/21 Analyzed: 11/04/21							
Aluminum	0.503	0.050	mg/L	0.500		101	80-120	1.72		20	
Calcium	3.98	0.50	mg/L	4.00		99.6	80-120	0.530		20	
Iron	3.92	0.050	mg/L	4.00		97.9	80-120	0.139		20	
Magnesium	3.83	0.050	mg/L	4.00		95.7	80-120	0.275		20	
Potassium	3.85	2.0	mg/L	4.00		96.2	80-120	0.162		20	
Sodium	3.97	2.0	mg/L	4.00		99.2	80-120	2.18		20	
Batch B293919 - SW-846 3005A											
Blank (B293919-BLK1)				Prepared: 11/03/21 Analyzed: 11/04/21							
Antimony	ND	1.0	µg/L								
Arsenic	ND	0.80	µg/L								
Barium	ND	10	µg/L								
Beryllium	ND	0.40	µg/L								
Cadmium	ND	0.20	µg/L								
Chromium	ND	1.0	µg/L								
Cobalt	ND	1.0	µg/L								
Copper	ND	1.0	µg/L								
Lead	ND	0.50	µg/L								
Manganese	ND	1.0	µg/L								
Nickel	ND	5.0	µg/L								
Selenium	ND	5.0	µg/L								

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QUALITY CONTROL

Metals Analyses (Total) - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B293919 - SW-846 3005A										
Blank (B293919-BLK1)				Prepared: 11/03/21 Analyzed: 11/04/21						
Silver	ND	0.20	µg/L							
Thallium	ND	0.20	µg/L							
Vanadium	ND	5.0	µg/L							
Zinc	ND	10	µg/L							
LCS (B293919-BS1)				Prepared: 11/03/21 Analyzed: 11/04/21						
Antimony	527	10	µg/L	500		105	80-120			
Arsenic	502	8.0	µg/L	500		100	80-120			
Barium	489	100	µg/L	500		97.7	80-120			
Beryllium	487	4.0	µg/L	500		97.4	80-120			
Cadmium	490	2.0	µg/L	500		98.0	80-120			
Chromium	495	10	µg/L	500		99.0	80-120			
Cobalt	505	10	µg/L	500		101	80-120			
Copper	971	10	µg/L	1000		97.1	80-120			
Lead	472	5.0	µg/L	500		94.5	80-120			
Manganese	502	10	µg/L	500		100	80-120			
Nickel	489	50	µg/L	500		97.8	80-120			
Selenium	503	50	µg/L	500		101	80-120			
Silver	489	2.0	µg/L	500		97.7	80-120			
Thallium	489	2.0	µg/L	500		97.8	80-120			
Vanadium	531	50	µg/L	500		106	80-120			
Zinc	978	100	µg/L	1000		97.8	80-120			
LCS Dup (B293919-BSD1)				Prepared: 11/03/21 Analyzed: 11/04/21						
Antimony	520	10	µg/L	500		104	80-120	1.29	20	
Arsenic	486	8.0	µg/L	500		97.2	80-120	3.17	20	
Barium	485	100	µg/L	500		96.9	80-120	0.829	20	
Beryllium	475	4.0	µg/L	500		95.1	80-120	2.41	20	
Cadmium	481	2.0	µg/L	500		96.1	80-120	1.95	20	
Chromium	489	10	µg/L	500		97.9	80-120	1.12	20	
Cobalt	494	10	µg/L	500		98.8	80-120	2.15	20	
Copper	954	10	µg/L	1000		95.4	80-120	1.80	20	
Lead	470	5.0	µg/L	500		94.1	80-120	0.421	20	
Manganese	500	10	µg/L	500		100	80-120	0.439	20	
Nickel	477	50	µg/L	500		95.5	80-120	2.41	20	
Selenium	489	50	µg/L	500		97.8	80-120	2.79	20	
Silver	476	2.0	µg/L	500		95.3	80-120	2.55	20	
Thallium	482	2.0	µg/L	500		96.4	80-120	1.51	20	
Vanadium	523	50	µg/L	500		105	80-120	1.48	20	
Zinc	957	100	µg/L	1000		95.7	80-120	2.10	20	
Batch B293980 - SW-846 3050B										
Blank (B293980-BLK1)				Prepared: 11/04/21 Analyzed: 11/05/21						
Aluminum	ND	17	mg/Kg wet							
Antimony	ND	1.7	mg/Kg wet							
Arsenic	ND	3.3	mg/Kg wet							
Barium	ND	1.7	mg/Kg wet							
Beryllium	ND	0.17	mg/Kg wet							
Cadmium	ND	0.33	mg/Kg wet							
Calcium	ND	17	mg/Kg wet							
Chromium	ND	0.67	mg/Kg wet							
Cobalt	ND	1.7	mg/Kg wet							

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QUALITY CONTROL

Metals Analyses (Total) - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B293980 - SW-846 3050B										
Blank (B293980-BLK1)				Prepared: 11/04/21 Analyzed: 11/05/21						
Copper	ND	0.67	mg/Kg wet							
Iron	ND	17	mg/Kg wet							
Lead	ND	0.50	mg/Kg wet							
Magnesium	ND	17	mg/Kg wet							
Manganese	ND	0.33	mg/Kg wet							
Nickel	ND	0.67	mg/Kg wet							
Potassium	ND	170	mg/Kg wet							
Selenium	ND	3.3	mg/Kg wet							
Silver	ND	0.33	mg/Kg wet							
Sodium	ND	170	mg/Kg wet							
Thallium	ND	1.7	mg/Kg wet							
Vanadium	ND	0.67	mg/Kg wet							
Zinc	ND	0.67	mg/Kg wet							
LCS (B293980-BS1)				Prepared: 11/04/21 Analyzed: 11/05/21						
Aluminum	8210	48	mg/Kg wet	8110		101	48.1-151.7			
Antimony	31.2	4.8	mg/Kg wet	134		23.3	1.9-200.7			
Arsenic	165	9.6	mg/Kg wet	170		97.3	82.9-117.6			
Barium	195	4.8	mg/Kg wet	183		106	82.5-117.5			
Beryllium	123	0.48	mg/Kg wet	116		106	83.4-116.4			
Cadmium	96.6	0.96	mg/Kg wet	89.5		108	82.8-117.3			
Calcium	5020	48	mg/Kg wet	4810		104	81.7-118.1			
Chromium	103	1.9	mg/Kg wet	101		102	82.1-117.8			
Cobalt	91.2	4.8	mg/Kg wet	84.8		108	83.5-116.5			
Copper	157	1.9	mg/Kg wet	149		105	83.9-116.1			
Iron	11500	48	mg/Kg wet	14100		81.3	60-139.7			
Lead	140	1.4	mg/Kg wet	140		100	82.9-117.1			
Magnesium	2380	48	mg/Kg wet	2350		101	76.2-123.8			
Manganese	653	0.96	mg/Kg wet	648		101	81.8-118.2			
Nickel	72.5	1.9	mg/Kg wet	68.3		106	82.1-117.7			
Potassium	2190	480	mg/Kg wet	2050		107	69.8-129.8			
Selenium	186	9.6	mg/Kg wet	182		102	79.7-120.3			
Silver	44.3	0.96	mg/Kg wet	50.1		88.4	80.2-120			
Sodium	135	480	mg/Kg wet	136		99.0	71.6-127.9			J
Thallium	97.4	4.8	mg/Kg wet	87.7		111	81.1-118.6			
Vanadium	155	1.9	mg/Kg wet	153		101	79.1-120.9			
Zinc	238	1.9	mg/Kg wet	228		104	80.7-118.9			
LCS Dup (B293980-BSD1)				Prepared: 11/04/21 Analyzed: 11/05/21						
Aluminum	7510	48	mg/Kg wet	8110		92.6	48.1-151.7	8.86	30	
Antimony	30.0	4.8	mg/Kg wet	134		22.4	1.9-200.7	3.82	30	
Arsenic	158	9.6	mg/Kg wet	170		92.8	82.9-117.6	4.71	30	
Barium	192	4.8	mg/Kg wet	183		105	82.5-117.5	1.19	20	
Beryllium	120	0.48	mg/Kg wet	116		104	83.4-116.4	2.40	30	
Cadmium	98.2	0.96	mg/Kg wet	89.5		110	82.8-117.3	1.64	20	
Calcium	4830	48	mg/Kg wet	4810		101	81.7-118.1	3.68	30	
Chromium	103	1.9	mg/Kg wet	101		102	82.1-117.8	0.0385	30	
Cobalt	90.2	4.8	mg/Kg wet	84.8		106	83.5-116.5	1.09	20	
Copper	152	1.9	mg/Kg wet	149		102	83.9-116.1	3.58	30	
Iron	11200	48	mg/Kg wet	14100		79.8	60-139.7	1.96	30	
Lead	133	1.4	mg/Kg wet	140		95.1	82.9-117.1	5.14	30	
Magnesium	2210	48	mg/Kg wet	2350		94.0	76.2-123.8	7.39	30	
Manganese	628	0.96	mg/Kg wet	648		96.9	81.8-118.2	3.90	30	

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QUALITY CONTROL

Metals Analyses (Total) - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B293980 - SW-846 3050B										
LCS Dup (B293980-BSD1)				Prepared: 11/04/21 Analyzed: 11/05/21						
Nickel	71.4	1.9	mg/Kg wet	68.3		105	82.1-117.7	1.43	30	
Potassium	2030	480	mg/Kg wet	2050		98.8	69.8-129.8	7.89	30	
Selenium	183	9.6	mg/Kg wet	182		101	79.7-120.3	1.44	30	
Silver	43.1	0.96	mg/Kg wet	50.1		86.0	80.2-120	2.76	30	
Sodium	129	480	mg/Kg wet	136		95.0	71.6-127.9	4.03	30	J
Thallium	94.5	4.8	mg/Kg wet	87.7		108	81.1-118.6	3.05	30	
Vanadium	152	1.9	mg/Kg wet	153		99.1	79.1-120.9	2.13	30	
Zinc	229	1.9	mg/Kg wet	228		100	80.7-118.9	3.91	30	
Reference (B293980-SRM1) MRL CHECK				Prepared: 11/04/21 Analyzed: 11/05/21						
Lead	0.544	0.50	mg/Kg wet	0.500		109	80-120			
Batch B294008 - SW-846 7471										
Blank (B294008-BLK1)				Prepared: 11/04/21 Analyzed: 11/05/21						
Mercury	ND	0.025	mg/Kg wet							
LCS (B294008-BS1)				Prepared: 11/04/21 Analyzed: 11/05/21						
Mercury	16.5	0.75	mg/Kg wet	15.6		106	59.3-140.4			
LCS Dup (B294008-BSD1)				Prepared: 11/04/21 Analyzed: 11/05/21						
Mercury	17.3	0.75	mg/Kg wet	15.6		111	59.3-140.4	4.75	20	
Batch B294113 - SW-846 3050B										
Blank (B294113-BLK1)				Prepared: 11/05/21 Analyzed: 11/06/21						
Silver	ND	0.33	mg/Kg wet							
LCS (B294113-BS1)				Prepared: 11/05/21 Analyzed: 11/06/21						
Silver	49.2	1.0	mg/Kg wet	50.1		98.2	80.2-120			
LCS Dup (B294113-BSD1)				Prepared: 11/05/21 Analyzed: 11/06/21						
Silver	47.8	0.98	mg/Kg wet	50.1		95.3	80.2-120	3.00	30	

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QUALITY CONTROL

Metals Analyses (Dissolved) - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B293821 - SW-846 7470A Dissolved										
Blank (B293821-BLK1)				Prepared: 11/02/21 Analyzed: 11/03/21						
Mercury	ND	0.00010	mg/L							
LCS (B293821-BS1)				Prepared: 11/02/21 Analyzed: 11/03/21						
Mercury	0.00446	0.00010	mg/L	0.00402		111	80-120			
LCS Dup (B293821-BSD1)				Prepared: 11/02/21 Analyzed: 11/03/21						
Mercury	0.00453	0.00010	mg/L	0.00402		113	80-120	1.64	20	
Duplicate (B293821-DUP1)		**Source: 21K0043-01**		Prepared: 11/02/21 Analyzed: 11/03/21						
Mercury	ND	0.00010	mg/L		ND			NC	20	
Matrix Spike (B293821-MS1)		**Source: 21K0043-01**		Prepared: 11/02/21 Analyzed: 11/03/21						
Mercury	0.00447	0.00010	mg/L	0.00402	ND	111	75-125			
Batch B293930 - SW-846 3005A Dissolved										
Blank (B293930-BLK1)				Prepared: 11/03/21 Analyzed: 11/04/21						
Aluminum	ND	0.050	mg/L							
Calcium	ND	0.50	mg/L							
Iron	ND	0.050	mg/L							
Magnesium	ND	0.050	mg/L							
Potassium	ND	2.0	mg/L							
Sodium	ND	2.0	mg/L							
LCS (B293930-BS1)				Prepared: 11/03/21 Analyzed: 11/04/21						
Aluminum	0.536	0.050	mg/L	0.500		107	80-120			
Calcium	4.08	0.50	mg/L	4.00		102	80-120			
Iron	4.01	0.050	mg/L	4.00		100	80-120			
Magnesium	3.92	0.050	mg/L	4.00		98.0	80-120			
Potassium	3.89	2.0	mg/L	4.00		97.3	80-120			
Sodium	4.04	2.0	mg/L	4.00		101	80-120			
LCS Dup (B293930-BSD1)				Prepared: 11/03/21 Analyzed: 11/04/21						
Aluminum	0.527	0.050	mg/L	0.500		105	80-120	1.73	20	
Calcium	4.11	0.50	mg/L	4.00		103	80-120	0.752	20	
Iron	4.04	0.050	mg/L	4.00		101	80-120	0.814	20	
Magnesium	3.94	0.050	mg/L	4.00		98.5	80-120	0.520	20	
Potassium	3.94	2.0	mg/L	4.00		98.5	80-120	1.25	20	
Sodium	4.01	2.0	mg/L	4.00		100	80-120	0.754	20	
Duplicate (B293930-DUP1)		**Source: 21K0043-01**		Prepared: 11/03/21 Analyzed: 11/04/21						
Aluminum	0.0528	0.050	mg/L		0.0578			9.01	20	
Calcium	180	0.50	mg/L		185			2.85	20	
Iron	182	0.050	mg/L		188			3.44	20	
Magnesium	54.9	0.050	mg/L		57.5			4.73	20	
Potassium	7.89	2.0	mg/L		8.04			1.86	20	
Sodium	55.1	2.0	mg/L		57.7			4.70	20	

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QUALITY CONTROL

Metals Analyses (Dissolved) - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC		%REC Limits	RPD	RPD Limit	Notes
Batch B293930 - SW-846 3005A Dissolved											
Matrix Spike (B293930-MS1)	**Source: 21K0043-01**			Prepared: 11/03/21 Analyzed: 11/04/21							
Aluminum	0.563	0.050	mg/L	0.500	0.0578	101		75-125			
Calcium	185	0.50	mg/L	4.00	185	**-0.863**	*	75-125			MS-19
Iron	187	0.050	mg/L	4.00	188	**-35.3**	*	75-125			MS-19
Magnesium	58.7	0.050	mg/L	4.00	57.5	**30.1**	*	75-125			MS-19
Potassium	11.8	2.0	mg/L	4.00	8.04	93.7		75-125			
Sodium	59.2	2.0	mg/L	4.00	57.7	**37.4**	*	75-125			
Batch B293931 - SW-846 3005A Dissolved											
Blank (B293931-BLK1)				Prepared: 11/03/21 Analyzed: 11/05/21							
Antimony	ND	1.0	µg/L								
Arsenic	ND	0.80	µg/L								
Barium	ND	10	µg/L								
Beryllium	ND	0.40	µg/L								
Cadmium	ND	0.20	µg/L								
Chromium	ND	1.0	µg/L								
Cobalt	ND	1.0	µg/L								
Copper	ND	1.0	µg/L								
Lead	ND	0.50	µg/L								
Manganese	ND	1.0	µg/L								
Nickel	ND	5.0	µg/L								
Selenium	ND	5.0	µg/L								
Silver	ND	0.20	µg/L								
Thallium	ND	0.20	µg/L								
Vanadium	ND	5.0	µg/L								
Zinc	ND	10	µg/L								
LCS (B293931-BS1)				Prepared: 11/03/21 Analyzed: 11/05/21							
Antimony	537	10	µg/L	500		107		80-120			
Arsenic	534	8.0	µg/L	500		107		80-120			
Barium	530	100	µg/L	500		106		80-120			
Beryllium	506	4.0	µg/L	500		101		80-120			
Cadmium	505	2.0	µg/L	500		101		80-120			
Chromium	525	10	µg/L	500		105		80-120			
Cobalt	521	10	µg/L	500		104		80-120			
Copper	1020	10	µg/L	1000		102		80-120			
Lead	543	5.0	µg/L	500		109		80-120			
Manganese	540	10	µg/L	500		108		80-120			
Nickel	503	50	µg/L	500		101		80-120			
Selenium	498	50	µg/L	500		99.5		80-120			
Silver	503	2.0	µg/L	500		101		80-120			
Thallium	491	2.0	µg/L	500		98.3		80-120			
Vanadium	528	50	µg/L	500		106		80-120			
Zinc	1090	100	µg/L	1000		109		80-120			

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QUALITY CONTROL

Metals Analyses (Dissolved) - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B293931 - SW-846 3005A Dissolved										
LCS Dup (B293931-BSD1)				Prepared: 11/03/21 Analyzed: 11/05/21						
Antimony	544	10	µg/L	500		109	80-120	1.17	20	
Arsenic	527	8.0	µg/L	500		105	80-120	1.41	20	
Barium	521	100	µg/L	500		104	80-120	1.81	20	
Beryllium	506	4.0	µg/L	500		101	80-120	0.104	20	
Cadmium	505	2.0	µg/L	500		101	80-120	0.00465	20	
Chromium	508	10	µg/L	500		102	80-120	3.17	20	
Cobalt	508	10	µg/L	500		102	80-120	2.60	20	
Copper	996	10	µg/L	1000		99.6	80-120	2.45	20	
Lead	543	5.0	µg/L	500		109	80-120	0.0229	20	
Manganese	520	10	µg/L	500		104	80-120	3.77	20	
Nickel	490	50	µg/L	500		97.9	80-120	2.63	20	
Selenium	502	50	µg/L	500		100	80-120	0.893	20	
Silver	507	2.0	µg/L	500		101	80-120	0.748	20	
Thallium	508	2.0	µg/L	500		102	80-120	3.27	20	
Vanadium	511	50	µg/L	500		102	80-120	3.37	20	
Zinc	1080	100	µg/L	1000		108	80-120	1.20	20	
Duplicate (B293931-DUP1)	**Source: 21K0043-01**			Prepared: 11/03/21 Analyzed: 11/05/21						
Antimony	ND	1.0	µg/L		ND			NC	20	
Arsenic	1.46	0.80	µg/L		1.40			4.36	20	
Barium	12.6	10	µg/L		13.0			3.31	20	
Beryllium	0.0797	0.40	µg/L		0.0833			4.37	20	J
Cadmium	0.0546	0.20	µg/L		0.0503			8.32	20	J
Chromium	ND	1.0	µg/L		ND			NC	20	
Cobalt	94.1	1.0	µg/L		93.8			0.256	20	
Copper	3.23	1.0	µg/L		3.26			0.775	20	
Lead	0.393	0.50	µg/L		0.397			1.02	20	J
Manganese	4740	1.0	µg/L		4790			1.07	20	
Nickel	17.3	5.0	µg/L		17.2			0.172	20	
Selenium	0.825	5.0	µg/L		ND			NC	20	J
Silver	ND	0.20	µg/L		ND			NC	20	
Thallium	0.125	0.20	µg/L		ND			NC	20	J
Vanadium	ND	5.0	µg/L		ND			NC	20	
Zinc	26.0	10	µg/L		27.1			4.14	20	
Matrix Spike (B293931-MS1)	**Source: 21K0043-01**			Prepared: 11/03/21 Analyzed: 11/05/21						
Antimony	528	10	µg/L	500	ND	106	75-125			
Arsenic	529	8.0	µg/L	500	ND	106	75-125			
Barium	530	100	µg/L	500	13.0	103	75-125			
Beryllium	495	4.0	µg/L	500	ND	98.9	75-125			
Cadmium	505	2.0	µg/L	500	ND	101	75-125			
Chromium	497	10	µg/L	500	ND	99.4	75-125			
Cobalt	592	10	µg/L	500	93.8	99.6	75-125			
Copper	992	10	µg/L	1000	3.26	98.9	75-125			
Lead	533	5.0	µg/L	500	ND	107	75-125			
Manganese	5420	10	µg/L	500	4790	125	75-125			
Nickel	496	50	µg/L	500	17.2	95.8	75-125			
Selenium	500	50	µg/L	500	ND	99.9	75-125			
Silver	458	2.0	µg/L	500	ND	91.7	75-125			
Thallium	489	2.0	µg/L	500	ND	97.7	75-125			
Vanadium	511	50	µg/L	500	ND	102	75-125			
Zinc	1080	100	µg/L	1000	ND	108	75-125			

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

QUALITY CONTROL

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total) - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B293749 - SW-846 9045C										
LCS (B293749-BS1)				Prepared & Analyzed: 11/01/21						
pH	6.03		pH Units	6.00		101	90-110			
Duplicate (B293749-DUP1)	**Source: 21K0043-03**			Prepared & Analyzed: 11/01/21						
pH	8.8		pH Units		8.9			0.587	10	
Batch B293753 - ASTM D516-16										
Blank (B293753-BLK1)				Prepared & Analyzed: 11/02/21						
Sulfate	ND	1.0	mg/L							
LCS (B293753-BS1)				Prepared & Analyzed: 11/02/21						
Sulfate	12	1.0	mg/L	12.5		98.1	90-110			
LCS Dup (B293753-BSD1)				Prepared & Analyzed: 11/02/21						
Sulfate	13	1.0	mg/L	12.5		102	90-110	3.42	20	
Duplicate (B293753-DUP2)	**Source: 21K0043-07**			Prepared & Analyzed: 11/02/21						
Sulfate	ND	1.0	mg/L		ND			NC	20	
Matrix Spike (B293753-MS2)	**Source: 21K0043-07**			Prepared & Analyzed: 11/02/21						
Sulfate	13	1.0	mg/L	12.5	ND	103	90-110			
Batch B293766 - SW-846 9010C										
Blank (B293766-BLK1)				Prepared & Analyzed: 11/02/21						
Cyanide	ND	0.46	mg/Kg wet							
LCS (B293766-BS1)				Prepared & Analyzed: 11/02/21						
Cyanide	81	2.5	mg/Kg wet	69.8		116	80-120			
LCS Dup (B293766-BSD1)				Prepared & Analyzed: 11/02/21						
Cyanide	83	2.5	mg/Kg wet	69.8		119	80-120	2.54	20	
Matrix Spike (B293766-MS1)	**Source: 21K0043-03**			Prepared & Analyzed: 11/02/21						
Cyanide	21	0.55	mg/Kg dry	20.7	ND	102	75-125			
Matrix Spike Dup (B293766-MSD1)	**Source: 21K0043-03**			Prepared & Analyzed: 11/02/21						
Cyanide	21	0.55	mg/Kg dry	20.7	ND	104	75-125	2.23	35	
Batch B293898 - EPA 350.1										
Blank (B293898-BLK1)				Prepared: 11/03/21 Analyzed: 11/04/21						
Ammonia as N	ND	0.10	mg/L							

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

QUALITY CONTROL

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total) - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC		%REC Limits	RPD		RPD Limit	Notes
Batch B293898 - EPA 350.1												
LCS (B293898-BS1)				Prepared: 11/03/21 Analyzed: 11/04/21								
Ammonia as N	1.7	0.10	mg/L	2.00		**86.1**	*	90-110				L-07A
LCS Dup (B293898-BSD1)				Prepared: 11/03/21 Analyzed: 11/04/21								
Ammonia as N	2.1	0.10	mg/L	2.00		106		90-110	**20.5**	*	20	L-07A

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FLAG/QUALIFIER SUMMARY

*	QC result is outside of established limits.
†	Wide recovery limits established for difficult compound.
‡	Wide RPD limits established for difficult compound.
#	Data exceeded client recommended or regulatory level
ND	Not Detected
RL	Reporting Limit is at the level of quantitation (LOQ)
DL	Detection Limit is the lower limit of detection determined by the MDL study
MCL	Maximum Contaminant Level
	Percent recoveries and relative percent differences (RPDs) are determined by the software using values in the calculation which have not been rounded.
	No results have been blank subtracted unless specified in the case narrative section.
DL-01	Elevated reporting limits for all volatile compounds due to foaming sample matrix.
H-03	Sample received after recommended holding time was exceeded.
J	Detected but below the Reporting Limit (lowest calibration standard); therefore, result is an estimated concentration (CLP J-Flag).
L-02	Laboratory fortified blank/laboratory control sample recovery and duplicate recoveries outside of control limits. Data validation is not affected since all results are "not detected" for associated samples in this batch and bias is on the high side.
L-04	Laboratory fortified blank/laboratory control sample recovery and duplicate recovery are outside of control limits. Reported value for this compound is likely to be biased on the low side.
L-07A	Either laboratory fortified blank/laboratory control sample or duplicate recovery is outside of control limits, but the other is within limits. RPD outside of control limits. Reduced precision anticipated for any reported result for this compound.
MS-19	Sample to spike ratio is greater than or equal to 4:1. Spiked amount is not representative of the native amount in the sample. Appropriate or meaningful recoveries cannot be calculated.
R-04	Duplicate relative percent difference (RPD) is a less useful indicator of sample precision for sample results that are <5 times the reporting limit (RL).
V-04	Initial calibration did not meet method specifications. Compound was calibrated using a response factor where %RSD is outside of method specified criteria. Reported result is estimated.
V-05	Continuing calibration verification (CCV) did not meet method specifications and was biased on the low side for this compound.
V-06	Continuing calibration verification (CCV) did not meet method specifications and was biased on the high side for this compound.
V-20	Continuing calibration verification (CCV) did not meet method specifications and was biased on the high side. Data validation is not affected since sample result was "not detected" for this compound.
V-34	Initial calibration verification (ICV) did not meet method specifications and was biased on the low side for this compound. Reported result is estimated.

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CERTIFICATIONS

Certified Analyses included in this Report

Analyte	Certifications
ASTM D516-16 in Water	
Sulfate	NC,NY,MA,VA,ME,NH,CT,RI
EPA 350.1 in Water	
Ammonia as N	NC,NY,MA,NH,RI,ME,VA
SW-846 6010D in Soil	
Aluminum	CT,NH,NY,ME,VA,NC
Antimony	CT,NH,NY,ME,VA,NC
Arsenic	CT,NH,NY,ME,VA,NC
Barium	CT,NH,NY,ME,VA,NC
Beryllium	CT,NH,NY,ME,VA,NC
Cadmium	CT,NH,NY,ME,VA,NC
Calcium	CT,NH,NY,ME,VA,NC
Chromium	CT,NH,NY,ME,VA,NC
Cobalt	CT,NH,NY,ME,VA,NC
Copper	CT,NH,NY,ME,VA,NC
Iron	CT,NH,NY,ME,VA,NC
Lead	CT,NH,NY,AIHA,ME,VA,NC
Magnesium	CT,NH,NY,ME,VA,NC
Manganese	CT,NH,NY,ME,VA,NC
Nickel	CT,NH,NY,ME,VA,NC
Potassium	CT,NH,NY,ME,VA,NC
Selenium	CT,NH,NY,ME,VA,NC
Silver	CT,NH,NY,ME,VA,NC
Sodium	CT,NH,NY,ME,VA,NC
Thallium	CT,NH,NY,ME,VA,NC
Vanadium	CT,NH,NY,ME,VA,NC
Zinc	CT,NH,NY,ME,VA,NC
SW-846 6010D in Water	
Aluminum	CT,NY,NH,ME,VA,NC
Aluminum	CT,NH,NY,ME,VA,NC
Calcium	CT,NH,NY,ME,VA,NC
Calcium	CT,NH,NY,NC,ME,VA
Iron	CT,NH,NY,ME,VA,NC
Iron	CT,NH,NY,ME,NC,VA
Magnesium	CT,NH,NY,ME,VA,NC
Magnesium	CT,NH,NY,NC,ME,VA
Potassium	CT,NH,NY,ME,VA,NC
Potassium	CT,NH,NY,ME,NC,VA
Sodium	CT,NH,NY,NC,ME,VA
Sodium	CT,NH,NY,ME,VA,NC
SW-846 6020B in Water	
Antimony	CT,NH,NY,ME,VA,NC
Antimony	CT,NH,NY,ME,VA,NC
Arsenic	CT,NH,NY,ME,VA,NC
Arsenic	CT,NH,NY,NC,ME,VA
Barium	CT,NH,NY,ME,VA,NC

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

CERTIFICATIONS

Certified Analyses included in this Report

Analyte	Certifications
SW-846 6020B in Water	
Barium	MA,NY,CT,NC,NH,ME,VA
Beryllium	CT,NH,NY,ME,VA,NC
Beryllium	CT,NH,NY,NC,ME,VA
Cadmium	CT,NH,NY,NC,ME,VA
Cadmium	CT,NH,NY,RI,ME,VA,NC
Chromium	CT,NH,NY,NC,ME,VA
Chromium	CT,NH,NY,ME,VA,NC
Cobalt	CT,NH,NY,ME,VA,NC
Cobalt	CT,NH,NY,NC,ME,VA
Copper	CT,NH,NY,ME,VA,NC
Copper	CT,NH,NY,NC,ME,VA
Lead	CT,NH,NY,ME,VA,NC
Lead	CT,NH,NY,NC,ME,VA
Manganese	CT,NH,NY,NC,ME,VA
Manganese	CT,NH,NY,ME,VA,NC
Nickel	CT,NH,NY,NC,ME,VA
Nickel	CT,NH,NY,ME,VA,NC
Selenium	CT,NH,NY,ME,VA,NC
Selenium	CT,NH,NY,NC,ME,VA
Silver	CT,NH,NY,ME,VA,NC
Silver	CT,NC,NH,NY,ME,VA
Thallium	CT,NH,NY,ME,VA,NC
Thallium	CT,NH,NY,NC,ME,VA
Vanadium	CT,NH,NY,NC,ME,VA
Vanadium	CT,NH,NY,ME,VA,NC
Zinc	CT,NH,NY,NC,ME,VA
Zinc	CT,NH,NY,ME,VA,NC
SW-846 7470A in Water	
Mercury	CT,NH,NY,NC,ME,VA
Mercury	CT,NH,NY,NC,ME,VA
SW-846 7471B in Soil	
Mercury	CT,NH,NY,NC,ME,VA
SW-846 8015C in Soil	
Diesel Range Organics	NY,VA,NH,NC
SW-846 8015C in Water	
Gasoline Range Organics (GRO)	NY,VA,NH,NC
Diesel Range Organics	NY,VA,NH,NC
Ethanol	NY
Ethylene glycol	NY
SW-846 8260D in Water	
Acetone	CT,ME,NH,VA,NY
Acrylonitrile	CT,ME,NH,VA,NY
tert-Amyl Methyl Ether (TAME)	ME,NH,VA,NY
Benzene	CT,ME,NH,VA,NY
Bromobenzene	ME,NY

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Analyte	Certifications
SW-846 8260D in Water	
Bromochloromethane	ME,NH,VA,NY
Bromodichloromethane	CT,ME,NH,VA,NY
Bromoform	CT,ME,NH,VA,NY
Bromomethane	CT,ME,NH,VA,NY
2-Butanone (MEK)	CT,ME,NH,VA,NY
tert-Butyl Alcohol (TBA)	ME,NH,VA,NY
n-Butylbenzene	ME,VA,NY
sec-Butylbenzene	ME,VA,NY
tert-Butylbenzene	ME,VA,NY
tert-Butyl Ethyl Ether (TBEE)	ME,NH,VA,NY
Carbon Disulfide	CT,ME,NH,VA,NY
Carbon Tetrachloride	CT,ME,NH,VA,NY
Chlorobenzene	CT,ME,NH,VA,NY
Chlorodibromomethane	CT,ME,NH,VA,NY
Chloroethane	CT,ME,NH,VA,NY
Chloroform	CT,ME,NH,VA,NY
Chloromethane	CT,ME,NH,VA,NY
2-Chlorotoluene	ME,NH,VA,NY
4-Chlorotoluene	ME,NH,VA,NY
1,2-Dibromo-3-chloropropane (DBCP)	ME,NY
1,2-Dibromoethane (EDB)	ME,NY
Dibromomethane	ME,NH,VA,NY
1,2-Dichlorobenzene	CT,ME,NH,VA,NY
1,3-Dichlorobenzene	CT,ME,NH,VA,NY
1,4-Dichlorobenzene	CT,ME,NH,VA,NY
trans-1,4-Dichloro-2-butene	ME,NH,VA,NY
Dichlorodifluoromethane (Freon 12)	ME,NH,VA,NY
1,1-Dichloroethane	CT,ME,NH,VA,NY
1,2-Dichloroethane	CT,ME,NH,VA,NY
1,1-Dichloroethylene	CT,ME,NH,VA,NY
cis-1,2-Dichloroethylene	ME,NY
trans-1,2-Dichloroethylene	CT,ME,NH,VA,NY
1,2-Dichloropropane	CT,ME,NH,VA,NY
1,3-Dichloropropane	ME,VA,NY
2,2-Dichloropropane	ME,NH,VA,NY
1,1-Dichloropropene	ME,NH,VA,NY
cis-1,3-Dichloropropene	CT,ME,NH,VA,NY
trans-1,3-Dichloropropene	CT,ME,NH,VA,NY
Diethyl Ether	ME,NY
Diisopropyl Ether (DIPE)	ME,NH,VA,NY
1,4-Dioxane	ME,NY
Ethylbenzene	CT,ME,NH,VA,NY
Hexachlorobutadiene	CT,ME,NH,VA,NY
2-Hexanone (MBK)	CT,ME,NH,VA,NY
Isopropylbenzene (Cumene)	ME,VA,NY
p-Isopropyltoluene (p-Cymene)	CT,ME,NH,VA,NY
Methyl Acetate	ME,NY

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CERTIFICATIONS

Certified Analyses included in this Report

Analyte	Certifications
SW-846 8260D in Water	
Methyl tert-Butyl Ether (MTBE)	CT,ME,NH,VA,NY
Methyl Cyclohexane	NY
Methylene Chloride	CT,ME,NH,VA,NY
4-Methyl-2-pentanone (MIBK)	CT,ME,NH,VA,NY
Naphthalene	ME,NH,VA,NY
n-Propylbenzene	CT,ME,NH,VA,NY
Styrene	CT,ME,NH,VA,NY
1,1,1,2-Tetrachloroethane	CT,ME,NH,VA,NY
1,1,2,2-Tetrachloroethane	CT,ME,NH,VA,NY
Tetrachloroethylene	CT,ME,NH,VA,NY
Toluene	CT,ME,NH,VA,NY
1,2,3-Trichlorobenzene	ME,NH,VA,NY
1,2,4-Trichlorobenzene	CT,ME,NH,VA,NY
1,3,5-Trichlorobenzene	ME
1,1,1-Trichloroethane	CT,ME,NH,VA,NY
1,1,2-Trichloroethane	CT,ME,NH,VA,NY
Trichloroethylene	CT,ME,NH,VA,NY
Trichlorofluoromethane (Freon 11)	CT,ME,NH,VA,NY
1,2,3-Trichloropropane	ME,NH,VA,NY
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	VA,NY
1,2,4-Trimethylbenzene	ME,VA,NY
1,3,5-Trimethylbenzene	ME,VA,NY
Vinyl Chloride	CT,ME,NH,VA,NY
m+p Xylene	CT,ME,NH,VA,NY
o-Xylene	CT,ME,NH,VA,NY
SW-846 8270E in Water	
Acenaphthene	CT,NY,NC,ME,NH,VA
Acenaphthylene	CT,NY,NC,ME,NH,VA
Acetophenone	NY,NC
Aniline	CT,NY,NC,ME,VA
Anthracene	CT,NY,NC,ME,NH,VA
Benzidine	CT,NY,NC,ME,NH,VA
Benzo(a)anthracene	CT,NY,NC,ME,NH,VA
Benzo(a)pyrene	CT,NY,NC,ME,NH,VA
Benzo(b)fluoranthene	CT,NY,NC,ME,NH,VA
Benzo(g,h,i)perylene	CT,NY,NC,ME,NH,VA
Benzo(k)fluoranthene	CT,NY,NC,ME,NH,VA
Benzoic Acid	NY,NC,ME,NH,VA
Bis(2-chloroethoxy)methane	CT,NY,NC,ME,NH,VA
Bis(2-chloroethyl)ether	CT,NY,NC,ME,NH,VA
Bis(2-chloroisopropyl)ether	CT,NY,NC,ME,NH,VA
Bis(2-Ethylhexyl)phthalate	CT,NY,NC,ME,NH,VA
4-Bromophenylphenylether	CT,NY,NC,ME,NH,VA
Butylbenzylphthalate	CT,NY,NC,ME,NH,VA
Carbazole	NC
4-Chloroaniline	CT,NY,NC,ME,NH,VA

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CERTIFICATIONS

Certified Analyses included in this Report

Analyte	Certifications
SW-846 8270E in Water	
4-Chloro-3-methylphenol	CT,NY,NC,ME,NH,VA
2-Chloronaphthalene	CT,NY,NC,ME,NH,VA
2-Chlorophenol	CT,NY,NC,ME,NH,VA
4-Chlorophenylphenylether	CT,NY,NC,ME,NH,VA
Chrysene	CT,NY,NC,ME,NH,VA
Dibenz(a,h)anthracene	CT,NY,NC,ME,NH,VA
Dibenzofuran	CT,NY,NC,ME,NH,VA
Di-n-butylphthalate	CT,NY,NC,ME,NH,VA
1,2-Dichlorobenzene	CT,NY,NC,ME,NH,VA
1,3-Dichlorobenzene	CT,NY,NC,ME,NH,VA
1,4-Dichlorobenzene	CT,NY,NC,ME,NH,VA
3,3-Dichlorobenzidine	CT,NY,NC,ME,NH,VA
2,4-Dichlorophenol	CT,NY,NC,ME,NH,VA
Diethylphthalate	CT,NY,NC,ME,NH,VA
2,4-Dimethylphenol	CT,NY,NC,ME,NH,VA
Dimethylphthalate	CT,NY,NC,ME,NH,VA
4,6-Dinitro-2-methylphenol	CT,NY,NC,ME,NH,VA
2,4-Dinitrophenol	CT,NY,NC,ME,NH,VA
2,4-Dinitrotoluene	CT,NY,NC,ME,NH,VA
2,6-Dinitrotoluene	CT,NY,NC,ME,NH,VA
Di-n-octylphthalate	CT,NY,NC,ME,NH,VA
1,2-Diphenylhydrazine/Azobenzene	NY,NC
Fluoranthene	CT,NY,NC,ME,NH,VA
Fluorene	NY,NC,ME,NH,VA
Hexachlorobenzene	CT,NY,NC,ME,NH,VA
Hexachlorobutadiene	CT,NY,NC,ME,NH,VA
Hexachlorocyclopentadiene	CT,NY,NC,ME,NH,VA
Hexachloroethane	CT,NY,NC,ME,NH,VA
Indeno(1,2,3-cd)pyrene	CT,NY,NC,ME,NH,VA
Isophorone	CT,NY,NC,ME,NH,VA
1-Methylnaphthalene	NC
2-Methylnaphthalene	CT,NY,NC,ME,NH,VA
2-Methylphenol	CT,NY,NC,NH,VA
3/4-Methylphenol	CT,NY,NC,NH,VA
Naphthalene	CT,NY,NC,ME,NH,VA
2-Nitroaniline	CT,NY,NC,ME,NH,VA
3-Nitroaniline	CT,NY,NC,ME,NH,VA
4-Nitroaniline	CT,NY,NC,ME,NH,VA
Nitrobenzene	CT,NY,NC,ME,NH,VA
2-Nitrophenol	CT,NY,NC,ME,NH,VA
4-Nitrophenol	CT,NY,NC,ME,NH,VA
N-Nitrosodimethylamine	CT,NY,NC,ME,NH,VA
N-Nitrosodi-n-propylamine	CT,NY,NC,ME,NH,VA
Pentachloronitrobenzene	NC
Pentachlorophenol	CT,NY,NC,ME,NH,VA
Phenanthrene	CT,NY,NC,ME,NH,VA
Phenol	CT,NY,NC,ME,NH,VA

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CERTIFICATIONS

Certified Analyses included in this Report

Analyte	Certifications
SW-846 8270E in Water	
Pyrene	CT,NY,NC,ME,NH,VA
Pyridine	CT,NY,NC,ME,NH,VA
1,2,4,5-Tetrachlorobenzene	NY,NC
1,2,4-Trichlorobenzene	CT,NY,NC,ME,NH,VA
2,4,5-Trichlorophenol	CT,NY,NC,ME,NH,VA
2,4,6-Trichlorophenol	CT,NY,NC,ME,NH,VA
2-Fluorophenol	NC
SW-846 9014 in Soil	
Cyanide	NY,CT,NC,ME,NH,VA

Con-Test, a Pace Environmental Laboratory, operates under the following certifications and accreditations:

Code	Description	Number	Expires
AIHA	AIHA-LAP, LLC - ISO17025:2017	100033	03/1/2022
MA	Massachusetts DEP	M-MA100	06/30/2022
CT	Connecticut Department of Publilc Health	PH-0165	12/31/2022
NY	New York State Department of Health	10899 NELAP	04/1/2022
NH-S	New Hampshire Environmental Lab	2516 NELAP	02/5/2022
RI	Rhode Island Department of Health	LAO00112	12/30/2021
NC	North Carolina Div. of Water Quality	652	12/31/2021
NJ	New Jersey DEP	MA007 NELAP	06/30/2022
FL	Florida Department of Health	E871027 NELAP	06/30/2022
VT	Vermont Department of Health Lead Laboratory	LL720741	07/30/2022
ME	State of Maine	MA00100	06/9/2023
VA	Commonwealth of Virginia	460217	12/14/2021
NH-P	New Hampshire Environmental Lab	2557 NELAP	09/6/2022
VT-DW	Vermont Department of Health Drinking Water	VT-255716	06/12/2022
NC-DW	North Carolina Department of Health	25703	07/31/2022
PA	Commonwealth of Pennsylvania DEP	68-05812	06/30/2022
MI	Dept. of Env, Great Lakes, and Energy	9100	09/6/2022

21K0043

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CHAIN OF CUSTODY RECORD

39 Spruce Street
East Longmeadow, MA 01028

Doc # 381 Rev 5_07/13/2021

Page 1 of 1

Company Name: Ramboll
Address: 4350 N. Fairfax Dr., Arlington VA
Phone: 703-516-2323
Project Name: HRP-PRGS-SCR
Project Location: 1400 N. Royal St., Alexandria VA
Project Number:
Project Manager: Greg Grose
Pace Quote Name/Number:
Invoice Recipient: SOstertag@Ramboll.com
Sampled By: Anne Kelly/Taylor Carroll/SarahOstertag

Requested Turnaround Time: 7-Day ☐ 10-Day ☐ 5 day PO Due Date: PFAS 10-Day (std) ☐
Rush-Approval Required: 1-Day ☐ 3-Day ☐ 2-Day ☐ 4-Day ☐
Data Delivery: Format: PDF ☒ EXCEL ☒ Other: Ramboll EDD
CLP Like Data Pkg Required: ☐
Email To: SOstertag@Ramboll.com
Fax To #:
Dissolved Metals Samples: ● Field Filtered ○ Lab to Filter
Orthophosphate Samples: ○ Field Filtered ○ Lab to Filter
PCB ONLY: SOXHLET ☐ NON SOXHLET ☐

ANALYSIS REQUESTED

Pace Work Order#	Client Sample ID / Description	Beginning Date/Time	Ending Date/Time	COMP/GRAB	Matrix Code	Conc Code	VIALS	GLASS	PLASTIC	BACTERIA	ENCORE	VOCs HI	SVOCs I	Total Metals NI	Dissolved Metals NI	TPH GRO HI	TPH DRO I	TPH ORO HI	Ammonia SI	Sulfate I	Glycols I	pH + Cyanide I
1	HRP-MW723-211027	10/27	1440	Grab	GW	L	9	4	5			X	X	X	X	X	X	X	X	X	X	
2	HRP-MW303-211027	10/27	1458	Grab	GW	L	9	4	5			X	X	X	X	X	X	X	X	X	X	
3	HRP-SB210-0-1-211028	10/28	0730	Grab	S	C		1						X								X
4	HRP-MW209-211028	10.28.21	0955	G	GW	L	6	4	3			X	X	X	X	X	X	X		X		
5	HRP-MW105-211028	10/28	0950	G	GW	L	9	4	4			X	X	X	X	X	X	X	X	X	X	
6	HRP-TB08-211028	10/28	0950	G	~~GW~~ TB	C	2					X										
7	HRP-EB08-211028	10.28.21	1140	G	O-EB	C		4	2				X	X			X			X		X

Relinquished by: (signature) — Date/Time: 10.28.21 1256
Received by: (signature) — Date/Time: 10/28/21 1256
Relinquished by: (signature) X — Date/Time:
Received by: (signature) — Date/Time: 10/28/21 15:45
Relinquished by: (signature) — Date/Time:
Received by: (signature) — Date/Time: 10/28/21 1545
Relinquished by: (signature) — Date/Time: 10/29/21 1630
Received by: (signature) X — Date/Time: 11/1/21 0932
Lab Comments: 13.4, H2O, 1145

Client Comments: HRP-SB210-0-1-211028: Soil sample collected into 1L amber jar since we had no soil jars left. Run for ~~Total Metals~~ TAL Metals, pH, and cyanide.
TB: Trip Blank
EB: Equipment Blank

Detection Limit Requirements: MA ____ CT ____ Other: VA DEQ
Special Requirements: ☐ MA MCP Required; MCP Certification Form Required; ☐ CT RCP Required; RCP Certification Form Required; ☐ MA State DW Required; PWSID #
Project Entity: Government ☐ Federal ☐ City ☐ Municipality ☐ 21 J ☐ Brownfield ☐ MWRA ☐ School ☐ MBTA ☐ WRTA ☐

Please use the following codes to indicate possible sample concentration within the Conc Code column above:
H - High; M - Medium; L - Low; C - Clean; U - Unknown

NELAC and AIHA-LAP, LLC Accredited
Other: ☐ Chromatogram ☐ AIHA-LAP,LLC

[2] Preservation Code
Courier Use Only
Total Number Of:
VIALS
GLASS
PLASTIC
BACTERIA
ENCORE

Glassware in the fridge? Y / N
Glassware in freezer? Y / N
Prepackaged Cooler? Y / N
*Pace Analytical is not responsible for missing samples from prepacked coolers

[1] Matrix Codes:
GW = Ground Water
WW = Waste Water
DW = Drinking Water
A = Air
S = Soil
SL = Sludge
SOL = Solid
O = Other (please define)

[2] Preservation Codes:
I = Iced
H = HCL
M = Methanol
N = Nitric Acid
S = Sulfuric Acid
B = Sodium Bisulfate
X = Sodium Hydroxide
T = Sodium Thiosulfate
O = Other (please define)

Per client only run 1 TB for 8260 do not run TBs for samples -08 through -12 11/8/21

Disclaimer: Pace Analytical is not responsible for any omitted information on the Chain of Custody. The Chain of Custody is a legal document that must be complete and accurate and is used to determine what analyses the laboratory will perform. Any missing information is not the laboratory's responsibility. Pace Analytical values your partnership on each project and will try to assist with missing information, but will not be held accountable.

FedEx

TRACK ANOTHER SHIPMENT

775065519588

ADD NICKNAME

Delivered

THIS IS 1 OF 4 PIECES

DELIVERED

Signed for by: R.PIETRIAS

GET STATUS UPDATES

OBTAIN PROOF OF DELIVERY

FROM	TO
Mechanicsville, VA US	EAST LONGMEADOW, MA US

MANAGE DELIVERY

4 Piece Shipment

TRACKING ID	STATUS	SHIP DATE	DELIVERY DATE	HANDLING PIECE UNITS	SHIPPER CITY, STATE	RECIPIENT CITY, STATE
775065519588 (master)	Delivered	10/29/21	11/1/21	0	Mechanicsville VA	EAST LONGMEADOW MA
775065517725	Delivered	10/29/21	10/30/21	0	Mechanicsville VA	EAST LONGMEADOW MA
775065519658	Delivered	10/29/21	11/1/21	0	Mechanicsville VA	EAST LONGMEADOW MA
775065519989	Delivered	10/29/21	11/1/21	0	Mechanicsville VA	EAST LONGMEADOW MA

Travel History

TIME ZONE
Local Scan Time

I Have Not Confirmed Sample Container Numbers With Lab Staff Before Relinquishing Over Samples_____

con-test® ANALYTICAL LABORATORY

Doc# 277 Rev 5 2017

Login Sample Receipt Checklist - (Rejection Criteria Listing - Using Acceptance Policy) Any False Statement will be brought to the attention of the Client - State True or False

Client Ramboll

Received By _____ Date 11/1/21 Time 0922

How were the samples received? In Cooler T No Cooler _____ On Ice _____ No Ice _____ Direct from Sampling _____ Ambient _____ Melted Ice T

Were samples within Temperature? 2-6°C F By Gun # 3 Actual Temp - 13.4, 14.0, 14.5 By Blank # _____ Actual Temp - _____

Was Custody Seal Intact? n/a Were Samples Tampered with? n/a

Was COC Relinquished ? T Does Chain Agree With Samples? T

Are there broken/leaking/loose caps on any samples? F

Is COC in ink/ Legible? T Were samples received within holding time? F

Did COC include all pertinent Information? Client T Analysis T Sampler Name T Project T ID's T Collection Dates/Times T

Are Sample labels filled out and legible? T

Are there Lab to Filters? F Who was notified? _____

Are there Rushes? F Who was notified? _____

Are there Short Holds? T Who was notified? _____

Is there enough Volume? T

Is there Headspace where applicable? F MS/MSD? F

Proper Media/Containers Used? T Is splitting samples required? F

Were trip blanks received? T On COC? T

Do all samples have the proper pH? Acid T Base n/a

Vials	#	Containers:	#		#		#
Unp-	9	1 Liter Amb.	21	1 Liter Plastic		16 oz Amb.	
HCL-	28	500 mL Amb.		500 mL Plastic		8oz Amb/Clear	
Meoh-		250 mL Amb.		250 mL Plastic	17	4oz Amb/Clear	
Bisulfate-		Flashpoint		Col./Bacteria		2oz Amb/Clear	
DI-		Other Glass		Other Plastic		Encore	
Thiosulfate-		SOC Kit		Plastic Bag		Frozen:	
Sulfuric-		Perchlorate		Ziplock			

Unused Media

Vials	#	Containers:	#		#		#
Unp-		1 Liter Amb.		1 Liter Plastic		16 oz Amb.	
HCL-		500 mL Amb.		500 mL Plastic		8oz Amb/Clear	
Meoh-		250 mL Amb.		250 mL Plastic		4oz Amb/Clear	
Bisulfate-		Col./Bacteria		Flashpoint		2oz Amb/Clear	
DI-		Other Plastic		Other Glass		Encore	
Thiosulfate-		SOC Kit		Plastic Bag		Frozen:	
Sulfuric-		Perchlorate		Ziplock			

Comments:

pH post hold. Received 5 extra sets of trip blanks not listed on COC.

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December 8, 2021

Sarah Ostertag
Ramboll US Consulting, Inc. - Arlington, VA
4350 North Fairfax Drive
Arlington, VA 22203

Project Location: 1400 N. Royal St., Alexandria, VA
Client Job Number:
Project Number: [none]
Laboratory Work Order Number: 21L0083

Enclosed are results of analyses for samples as received by the laboratory on December 1, 2021. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Kaitlyn A. Feliciano
Project Manager

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Ramboll US Consulting, Inc. - Arlington, VA
4350 North Fairfax Drive
Arlington, VA 22203
ATTN: Sarah Ostertag

REPORT DATE: 12/8/2021

PURCHASE ORDER NUMBER:

PROJECT NUMBER: [none]

ANALYTICAL SUMMARY

WORK ORDER NUMBER: 21L0083

The results of analyses performed on the following samples submitted to CON-TEST, a Pace Analytical Laboratory, are found in this report.

PROJECT LOCATION: 1400 N. Royal St., Alexandria, VA

FIELD SAMPLE #	LAB ID:	MATRIX	SAMPLE DESCRIPTION	TEST	SUB LAB
HRP-SB206-0-1-211012	21L0083-01	Soil		SM 2540G	
				SW-846 8270E	
HRP-SB206-5-7-211012	21L0083-02	Soil		SM 2540G	
				SW-846 8270E	
HRP-SB206-15-17-211012	21L0083-03	Soil		SM 2540G	
				SW-846 8270E	
HRP-SB207-0-1-211013	21L0083-04	Soil		SM 2540G	
				SW-846 8270E	
HRP-SB207-6-8-211013	21L0083-05	Soil		SM 2540G	
				SW-846 8270E	
HRP-DUP03-6-8-211013	21L0083-06	Soil		SM 2540G	
				SW-846 8270E	
HRP-SB207-16-18-211013	21L0083-07	Soil		SM 2540G	
				SW-846 8270E	

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CASE NARRATIVE SUMMARY

All reported results are within defined laboratory quality control objectives unless listed below or otherwise qualified in this report.

SW-846 8270E

Qualifications:

H-10

Analysis was requested after the recommended holding time had passed.

Analyte & Samples(s) Qualified:

21L0083-01[HRP-SB206-0-1-211012], 21L0083-02[HRP-SB206-5-7-211012], 21L0083-03[HRP-SB206-15-17-211012], 21L0083-04[HRP-SB207-0-1-211013], 21L0083-05[HRP-SB207-6-8-211013], 21L0083-06[HRP-DUP03-6-8-211013], 21L0083-07[HRP-SB207-16-18-211013]

V-06

Continuing calibration verification (CCV) did not meet method specifications and was biased on the high side for this compound.

Analyte & Samples(s) Qualified:

3-Nitroaniline
B296234-BS1, B296234-BSD1

4-Chloroaniline
B296234-BS1, B296234-BSD1

V-20

Continuing calibration verification (CCV) did not meet method specifications and was biased on the high side. Data validation is not affected since sample result was "not detected" for this compound.

Analyte & Samples(s) Qualified:

3-Nitroaniline
21L0083-01[HRP-SB206-0-1-211012], 21L0083-02[HRP-SB206-5-7-211012], 21L0083-03[HRP-SB206-15-17-211012], 21L0083-04[HRP-SB207-0-1-211013], 21L0083-05[HRP-SB207-6-8-211013], 21L0083-06[HRP-DUP03-6-8-211013], 21L0083-07[HRP-SB207-16-18-211013], B296234-BLK1

4-Chloroaniline
21L0083-01[HRP-SB206-0-1-211012], 21L0083-02[HRP-SB206-5-7-211012], 21L0083-03[HRP-SB206-15-17-211012], 21L0083-04[HRP-SB207-0-1-211013], 21L0083-05[HRP-SB207-6-8-211013], 21L0083-06[HRP-DUP03-6-8-211013], 21L0083-07[HRP-SB207-16-18-211013], B296234-BLK1

V-34

Initial calibration verification (ICV) did not meet method specifications and was biased on the low side for this compound. Reported result is estimated.

Analyte & Samples(s) Qualified:

4-Chloroaniline
21L0083-01[HRP-SB206-0-1-211012], 21L0083-02[HRP-SB206-5-7-211012], 21L0083-03[HRP-SB206-15-17-211012], 21L0083-04[HRP-SB207-0-1-211013], 21L0083-05[HRP-SB207-6-8-211013], 21L0083-06[HRP-DUP03-6-8-211013], 21L0083-07[HRP-SB207-16-18-211013], B296234-BLK1, B296234-BS1, B296234-BSD1

V-35

Initial calibration verification (ICV) did not meet method specifications and was biased on the high side for this compound. Reported result is estimated.

Analyte & Samples(s) Qualified:

Benzidine
21L0083-01[HRP-SB206-0-1-211012], 21L0083-02[HRP-SB206-5-7-211012], 21L0083-03[HRP-SB206-15-17-211012], 21L0083-04[HRP-SB207-0-1-211013], 21L0083-05[HRP-SB207-6-8-211013], 21L0083-06[HRP-DUP03-6-8-211013], 21L0083-07[HRP-SB207-16-18-211013], B296234-BLK1, B296234-BS1, B296234-BSD1

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The results of analyses reported only relate to samples submitted to Con-Test, a Pace Analytical Laboratory, for testing.
I certify that the analyses listed above, unless specifically listed as subcontracted, if any, were performed under my direction according to the approved methodologies listed in this document, and that based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

Lisa A. Worthington
Technical Representative

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Project Location: 1400 N. Royal St., Alexandria, VA Sample Description: Work Order: 21L0083

Date Received: 12/1/2021

Field Sample #: HRP-SB206-0-1-211012 Sampled: 10/12/2021 12:43

Sample ID: 21L0083-01

Sample Matrix: Soil

Sample Flags: H-10

Semivolatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acenaphthene	ND	0.19	0.060	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 10:25	BGL
Acenaphthylene	ND	0.19	0.059	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 10:25	BGL
Acetophenone	ND	0.38	0.052	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 10:25	BGL
Aniline	ND	0.38	0.080	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 10:25	BGL
Anthracene	ND	0.19	0.063	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 10:25	BGL
Benzidine	ND	0.75	0.18	mg/Kg dry	1	V-35	SW-846 8270E	12/7/21	12/8/21 10:25	BGL
Benzo(a)anthracene	ND	0.19	0.053	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 10:25	BGL
Benzo(a)pyrene	ND	0.19	0.059	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 10:25	BGL
Benzo(b)fluoranthene	ND	0.19	0.058	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 10:25	BGL
Benzo(g,h,i)perylene	ND	0.19	0.081	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 10:25	BGL
Benzo(k)fluoranthene	ND	0.19	0.052	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 10:25	BGL
Benzoic Acid	ND	1.1	0.46	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 10:25	BGL
Bis(2-chloroethoxy)methane	ND	0.38	0.050	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 10:25	BGL
Bis(2-chloroethyl)ether	ND	0.38	0.053	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 10:25	BGL
Bis(2-chloroisopropyl)ether	ND	0.38	0.087	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 10:25	BGL
Bis(2-Ethylhexyl)phthalate	ND	0.38	0.065	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 10:25	BGL
4-Bromophenylphenylether	ND	0.38	0.049	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 10:25	BGL
Butylbenzylphthalate	ND	0.38	0.061	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 10:25	BGL
Carbazole	ND	0.19	0.063	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 10:25	BGL
4-Chloroaniline	ND	0.75	0.051	mg/Kg dry	1	V-20, V-34	SW-846 8270E	12/7/21	12/8/21 10:25	BGL
4-Chloro-3-methylphenol	ND	0.75	0.064	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 10:25	BGL
2-Chloronaphthalene	ND	0.38	0.045	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 10:25	BGL
2-Chlorophenol	ND	0.38	0.053	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 10:25	BGL
4-Chlorophenylphenylether	ND	0.38	0.055	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 10:25	BGL
Chrysene	ND	0.19	0.055	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 10:25	BGL
Dibenz(a,h)anthracene	ND	0.19	0.078	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 10:25	BGL
Dibenzofuran	ND	0.38	0.057	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 10:25	BGL
Di-n-butylphthalate	ND	0.38	0.054	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 10:25	BGL
1,2-Dichlorobenzene	ND	0.38	0.044	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 10:25	BGL
1,3-Dichlorobenzene	ND	0.38	0.042	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 10:25	BGL
1,4-Dichlorobenzene	ND	0.38	0.040	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 10:25	BGL
3,3-Dichlorobenzidine	ND	0.19	0.056	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 10:25	BGL
2,4-Dichlorophenol	ND	0.38	0.057	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 10:25	BGL
Diethylphthalate	ND	0.38	0.059	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 10:25	BGL
2,4-Dimethylphenol	ND	0.38	0.10	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 10:25	BGL
Dimethylphthalate	ND	0.38	0.056	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 10:25	BGL
4,6-Dinitro-2-methylphenol	ND	0.38	0.26	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 10:25	BGL
2,4-Dinitrophenol	ND	0.75	0.33	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 10:25	BGL
2,4-Dinitrotoluene	ND	0.38	0.075	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 10:25	BGL
2,6-Dinitrotoluene	ND	0.38	0.064	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 10:25	BGL
Di-n-octylphthalate	ND	0.38	0.14	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 10:25	BGL
1,2-Diphenylhydrazine/Azobenzene	ND	0.38	0.055	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 10:25	BGL
Fluoranthene	ND	0.19	0.061	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 10:25	BGL
Fluorene	ND	0.19	0.065	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 10:25	BGL

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Project Location: 1400 N. Royal St., Alexandria, VA Sample Description: Work Order: 21L0083

Date Received: 12/1/2021

Field Sample #: HRP-SB206-0-1-211012 Sampled: 10/12/2021 12:43

Sample ID: 21L0083-01

Sample Matrix: Soil

Sample Flags: H-10

Semivolatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Hexachlorobenzene	ND	0.38	0.052	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 10:25	BGL
Hexachlorobutadiene	ND	0.38	0.049	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 10:25	BGL
Hexachlorocyclopentadiene	ND	0.38	0.16	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 10:25	BGL
Hexachloroethane	ND	0.38	0.046	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 10:25	BGL
Indeno(1,2,3-cd)pyrene	ND	0.19	0.087	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 10:25	BGL
Isophorone	ND	0.38	0.064	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 10:25	BGL
1-Methylnaphthalene	0.10	0.19	0.053	mg/Kg dry	1	J	SW-846 8270E	12/7/21	12/8/21 10:25	BGL
2-Methylnaphthalene	0.17	0.19	0.061	mg/Kg dry	1	J	SW-846 8270E	12/7/21	12/8/21 10:25	BGL
2-Methylphenol	ND	0.38	0.071	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 10:25	BGL
3/4-Methylphenol	ND	0.38	0.062	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 10:25	BGL
Naphthalene	0.11	0.19	0.052	mg/Kg dry	1	J	SW-846 8270E	12/7/21	12/8/21 10:25	BGL
2-Nitroaniline	ND	0.38	0.082	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 10:25	BGL
3-Nitroaniline	ND	0.38	0.065	mg/Kg dry	1	V-20	SW-846 8270E	12/7/21	12/8/21 10:25	BGL
4-Nitroaniline	ND	0.38	0.082	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 10:25	BGL
Nitrobenzene	ND	0.38	0.056	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 10:25	BGL
2-Nitrophenol	ND	0.38	0.060	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 10:25	BGL
4-Nitrophenol	ND	0.75	0.16	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 10:25	BGL
N-Nitrosodimethylamine	ND	0.38	0.057	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 10:25	BGL
N-Nitrosodiphenylamine/Diphenylamine	ND	0.38	0.058	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 10:25	BGL
N-Nitrosodi-n-propylamine	ND	0.38	0.053	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 10:25	BGL
Pentachloronitrobenzene	ND	0.38	0.065	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 10:25	BGL
Pentachlorophenol	ND	0.38	0.17	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 10:25	BGL
Phenanthrene	0.088	0.19	0.061	mg/Kg dry	1	J	SW-846 8270E	12/7/21	12/8/21 10:25	BGL
Phenol	ND	0.38	0.055	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 10:25	BGL
Pyrene	ND	0.19	0.061	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 10:25	BGL
Pyridine	ND	0.38	0.039	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 10:25	BGL
1,2,4,5-Tetrachlorobenzene	ND	0.38	0.050	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 10:25	BGL
1,2,4-Trichlorobenzene	ND	0.38	0.048	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 10:25	BGL
2,4,5-Trichlorophenol	ND	0.38	0.060	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 10:25	BGL
2,4,6-Trichlorophenol	ND	0.38	0.059	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 10:25	BGL

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
2-Fluorophenol	65.0	30-130		12/8/21 10:25
Phenol-d6	69.6	30-130		12/8/21 10:25
Nitrobenzene-d5	68.5	30-130		12/8/21 10:25
2-Fluorobiphenyl	72.0	30-130		12/8/21 10:25
2,4,6-Tribromophenol	62.1	30-130		12/8/21 10:25
p-Terphenyl-d14	78.9	30-130		12/8/21 10:25

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Project Location: 1400 N. Royal St., Alexandria, VA Sample Description: Work Order: 21L0083

Date Received: 12/1/2021

Field Sample #: HRP-SB206-0-1-211012 Sampled: 10/12/2021 12:43

Sample ID: 21L0083-01

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	86.8		% Wt	1		SM 2540G	10/19/21	10/20/21 13:31	MJH

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Project Location: 1400 N. Royal St., Alexandria, VA Sample Description: Work Order: 21L0083

Date Received: 12/1/2021

Field Sample #: HRP-SB206-5-7-211012 Sampled: 10/12/2021 12:58

Sample ID: 21L0083-02

Sample Matrix: Soil

Sample Flags: H-10

Semivolatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acenaphthene	ND	0.20	0.062	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 10:52	BGL
Acenaphthylene	ND	0.20	0.061	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 10:52	BGL
Acetophenone	ND	0.40	0.054	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 10:52	BGL
Aniline	ND	0.40	0.083	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 10:52	BGL
Anthracene	ND	0.20	0.065	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 10:52	BGL
Benzidine	ND	0.77	0.18	mg/Kg dry	1	V-35	SW-846 8270E	12/7/21	12/8/21 10:52	BGL
Benzo(a)anthracene	ND	0.20	0.055	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 10:52	BGL
Benzo(a)pyrene	ND	0.20	0.061	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 10:52	BGL
Benzo(b)fluoranthene	ND	0.20	0.060	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 10:52	BGL
Benzo(g,h,i)perylene	ND	0.20	0.083	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 10:52	BGL
Benzo(k)fluoranthene	ND	0.20	0.054	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 10:52	BGL
Benzoic Acid	ND	1.2	0.47	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 10:52	BGL
Bis(2-chloroethoxy)methane	ND	0.40	0.052	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 10:52	BGL
Bis(2-chloroethyl)ether	ND	0.40	0.054	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 10:52	BGL
Bis(2-chloroisopropyl)ether	ND	0.40	0.090	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 10:52	BGL
Bis(2-Ethylhexyl)phthalate	ND	0.40	0.067	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 10:52	BGL
4-Bromophenylphenylether	ND	0.40	0.051	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 10:52	BGL
Butylbenzylphthalate	ND	0.40	0.063	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 10:52	BGL
Carbazole	ND	0.20	0.065	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 10:52	BGL
4-Chloroaniline	ND	0.77	0.053	mg/Kg dry	1	V-20, V-34	SW-846 8270E	12/7/21	12/8/21 10:52	BGL
4-Chloro-3-methylphenol	ND	0.77	0.066	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 10:52	BGL
2-Chloronaphthalene	ND	0.40	0.046	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 10:52	BGL
2-Chlorophenol	ND	0.40	0.055	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 10:52	BGL
4-Chlorophenylphenylether	ND	0.40	0.057	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 10:52	BGL
Chrysene	ND	0.20	0.057	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 10:52	BGL
Dibenz(a,h)anthracene	ND	0.20	0.081	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 10:52	BGL
Dibenzofuran	ND	0.40	0.059	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 10:52	BGL
Di-n-butylphthalate	ND	0.40	0.056	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 10:52	BGL
1,2-Dichlorobenzene	ND	0.40	0.045	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 10:52	BGL
1,3-Dichlorobenzene	ND	0.40	0.044	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 10:52	BGL
1,4-Dichlorobenzene	ND	0.40	0.042	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 10:52	BGL
3,3-Dichlorobenzidine	ND	0.20	0.058	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 10:52	BGL
2,4-Dichlorophenol	ND	0.40	0.059	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 10:52	BGL
Diethylphthalate	ND	0.40	0.061	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 10:52	BGL
2,4-Dimethylphenol	ND	0.40	0.11	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 10:52	BGL
Dimethylphthalate	ND	0.40	0.058	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 10:52	BGL
4,6-Dinitro-2-methylphenol	ND	0.40	0.27	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 10:52	BGL
2,4-Dinitrophenol	ND	0.77	0.34	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 10:52	BGL
2,4-Dinitrotoluene	ND	0.40	0.078	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 10:52	BGL
2,6-Dinitrotoluene	ND	0.40	0.066	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 10:52	BGL
Di-n-octylphthalate	ND	0.40	0.14	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 10:52	BGL
1,2-Diphenylhydrazine/Azobenzene	ND	0.40	0.057	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 10:52	BGL
Fluoranthene	ND	0.20	0.063	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 10:52	BGL
Fluorene	ND	0.20	0.067	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 10:52	BGL

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Project Location: 1400 N. Royal St., Alexandria, VA Sample Description: Work Order: 21L0083

Date Received: 12/1/2021

Field Sample #: HRP-SB206-5-7-211012 Sampled: 10/12/2021 12:58

Sample ID: 21L0083-02

Sample Matrix: Soil

Sample Flags: H-10

Semivolatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Hexachlorobenzene	ND	0.40	0.054	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 10:52	BGL
Hexachlorobutadiene	ND	0.40	0.051	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 10:52	BGL
Hexachlorocyclopentadiene	ND	0.40	0.17	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 10:52	BGL
Hexachloroethane	ND	0.40	0.047	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 10:52	BGL
Indeno(1,2,3-cd)pyrene	ND	0.20	0.090	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 10:52	BGL
Isophorone	ND	0.40	0.066	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 10:52	BGL
1-Methylnaphthalene	ND	0.20	0.055	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 10:52	BGL
2-Methylnaphthalene	ND	0.20	0.063	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 10:52	BGL
2-Methylphenol	ND	0.40	0.074	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 10:52	BGL
3/4-Methylphenol	ND	0.40	0.064	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 10:52	BGL
Naphthalene	ND	0.20	0.054	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 10:52	BGL
2-Nitroaniline	ND	0.40	0.085	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 10:52	BGL
3-Nitroaniline	ND	0.40	0.068	mg/Kg dry	1	V-20	SW-846 8270E	12/7/21	12/8/21 10:52	BGL
4-Nitroaniline	ND	0.40	0.085	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 10:52	BGL
Nitrobenzene	ND	0.40	0.058	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 10:52	BGL
2-Nitrophenol	ND	0.40	0.062	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 10:52	BGL
4-Nitrophenol	ND	0.77	0.16	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 10:52	BGL
N-Nitrosodimethylamine	ND	0.40	0.059	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 10:52	BGL
N-Nitrosodiphenylamine/Diphenylamine	ND	0.40	0.060	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 10:52	BGL
N-Nitrosodi-n-propylamine	ND	0.40	0.055	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 10:52	BGL
Pentachloronitrobenzene	ND	0.40	0.067	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 10:52	BGL
Pentachlorophenol	ND	0.40	0.17	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 10:52	BGL
Phenanthrene	ND	0.20	0.063	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 10:52	BGL
Phenol	ND	0.40	0.056	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 10:52	BGL
Pyrene	ND	0.20	0.063	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 10:52	BGL
Pyridine	ND	0.40	0.041	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 10:52	BGL
1,2,4,5-Tetrachlorobenzene	ND	0.40	0.052	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 10:52	BGL
1,2,4-Trichlorobenzene	ND	0.40	0.050	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 10:52	BGL
2,4,5-Trichlorophenol	ND	0.40	0.062	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 10:52	BGL
2,4,6-Trichlorophenol	ND	0.40	0.061	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 10:52	BGL

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
2-Fluorophenol	52.1	30-130		12/8/21 10:52
Phenol-d6	54.6	30-130		12/8/21 10:52
Nitrobenzene-d5	50.6	30-130		12/8/21 10:52
2-Fluorobiphenyl	54.0	30-130		12/8/21 10:52
2,4,6-Tribromophenol	57.6	30-130		12/8/21 10:52
p-Terphenyl-d14	61.4	30-130		12/8/21 10:52

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Project Location: 1400 N. Royal St., Alexandria, VA Sample Description: Work Order: 21L0083

Date Received: 12/1/2021

Field Sample #: HRP-SB206-5-7-211012 Sampled: 10/12/2021 12:58

Sample ID: 21L0083-02

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	85.3		% Wt	1		SM 2540G	10/19/21	10/20/21 13:31	MJH

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Project Location: 1400 N. Royal St., Alexandria, VA Sample Description: Work Order: 21L0083

Date Received: 12/1/2021

Field Sample #: HRP-SB206-15-17-211012 Sampled: 10/12/2021 13:45

Sample ID: 21L0083-03

Sample Matrix: Soil

Sample Flags: H-10

Semivolatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acenaphthene	ND	0.22	0.069	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 11:18	BGL
Acenaphthylene	ND	0.22	0.068	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 11:18	BGL
Acetophenone	ND	0.44	0.060	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 11:18	BGL
Aniline	ND	0.44	0.092	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 11:18	BGL
Anthracene	ND	0.22	0.072	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 11:18	BGL
Benzidine	ND	0.86	0.20	mg/Kg dry	1	V-35	SW-846 8270E	12/7/21	12/8/21 11:18	BGL
Benzo(a)anthracene	ND	0.22	0.061	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 11:18	BGL
Benzo(a)pyrene	ND	0.22	0.068	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 11:18	BGL
Benzo(b)fluoranthene	ND	0.22	0.067	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 11:18	BGL
Benzo(g,h,i)perylene	ND	0.22	0.093	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 11:18	BGL
Benzo(k)fluoranthene	ND	0.22	0.060	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 11:18	BGL
Benzoic Acid	ND	1.3	0.53	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 11:18	BGL
Bis(2-chloroethoxy)methane	ND	0.44	0.058	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 11:18	BGL
Bis(2-chloroethyl)ether	ND	0.44	0.061	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 11:18	BGL
Bis(2-chloroisopropyl)ether	ND	0.44	0.10	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 11:18	BGL
Bis(2-Ethylhexyl)phthalate	ND	0.44	0.074	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 11:18	BGL
4-Bromophenylphenylether	ND	0.44	0.056	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 11:18	BGL
Butylbenzylphthalate	ND	0.44	0.070	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 11:18	BGL
Carbazole	ND	0.22	0.073	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 11:18	BGL
4-Chloroaniline	ND	0.86	0.059	mg/Kg dry	1	V-20, V-34	SW-846 8270E	12/7/21	12/8/21 11:18	BGL
4-Chloro-3-methylphenol	ND	0.86	0.073	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 11:18	BGL
2-Chloronaphthalene	ND	0.44	0.051	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 11:18	BGL
2-Chlorophenol	ND	0.44	0.061	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 11:18	BGL
4-Chlorophenylphenylether	ND	0.44	0.063	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 11:18	BGL
Chrysene	ND	0.22	0.064	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 11:18	BGL
Dibenz(a,h)anthracene	ND	0.22	0.090	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 11:18	BGL
Dibenzofuran	ND	0.44	0.065	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 11:18	BGL
Di-n-butylphthalate	ND	0.44	0.062	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 11:18	BGL
1,2-Dichlorobenzene	ND	0.44	0.050	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 11:18	BGL
1,3-Dichlorobenzene	ND	0.44	0.048	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 11:18	BGL
1,4-Dichlorobenzene	ND	0.44	0.046	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 11:18	BGL
3,3-Dichlorobenzidine	ND	0.22	0.065	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 11:18	BGL
2,4-Dichlorophenol	ND	0.44	0.066	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 11:18	BGL
Diethylphthalate	ND	0.44	0.067	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 11:18	BGL
2,4-Dimethylphenol	ND	0.44	0.12	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 11:18	BGL
Dimethylphthalate	ND	0.44	0.064	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 11:18	BGL
4,6-Dinitro-2-methylphenol	ND	0.44	0.30	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 11:18	BGL
2,4-Dinitrophenol	ND	0.86	0.38	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 11:18	BGL
2,4-Dinitrotoluene	ND	0.44	0.086	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 11:18	BGL
2,6-Dinitrotoluene	ND	0.44	0.073	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 11:18	BGL
Di-n-octylphthalate	ND	0.44	0.16	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 11:18	BGL
1,2-Diphenylhydrazine/Azobenzene	ND	0.44	0.063	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 11:18	BGL
Fluoranthene	ND	0.22	0.070	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 11:18	BGL
Fluorene	ND	0.22	0.074	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 11:18	BGL

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Project Location: 1400 N. Royal St., Alexandria, VA Sample Description: Work Order: 21L0083

Date Received: 12/1/2021

Field Sample #: HRP-SB206-15-17-211012 Sampled: 10/12/2021 13:45

Sample ID: 21L0083-03

Sample Matrix: Soil

Sample Flags: H-10

Semivolatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Hexachlorobenzene	ND	0.44	0.060	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 11:18	BGL
Hexachlorobutadiene	ND	0.44	0.056	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 11:18	BGL
Hexachlorocyclopentadiene	ND	0.44	0.18	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 11:18	BGL
Hexachloroethane	ND	0.44	0.053	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 11:18	BGL
Indeno(1,2,3-cd)pyrene	ND	0.22	0.10	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 11:18	BGL
Isophorone	ND	0.44	0.074	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 11:18	BGL
1-Methylnaphthalene	ND	0.22	0.061	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 11:18	BGL
2-Methylnaphthalene	0.071	0.22	0.070	mg/Kg dry	1	J	SW-846 8270E	12/7/21	12/8/21 11:18	BGL
2-Methylphenol	ND	0.44	0.082	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 11:18	BGL
3/4-Methylphenol	ND	0.44	0.071	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 11:18	BGL
Naphthalene	ND	0.22	0.060	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 11:18	BGL
2-Nitroaniline	ND	0.44	0.094	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 11:18	BGL
3-Nitroaniline	ND	0.44	0.075	mg/Kg dry	1	V-20	SW-846 8270E	12/7/21	12/8/21 11:18	BGL
4-Nitroaniline	ND	0.44	0.095	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 11:18	BGL
Nitrobenzene	ND	0.44	0.064	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 11:18	BGL
2-Nitrophenol	ND	0.44	0.069	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 11:18	BGL
4-Nitrophenol	ND	0.86	0.18	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 11:18	BGL
N-Nitrosodimethylamine	ND	0.44	0.066	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 11:18	BGL
N-Nitrosodiphenylamine/Diphenylamine	ND	0.44	0.066	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 11:18	BGL
N-Nitrosodi-n-propylamine	ND	0.44	0.061	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 11:18	BGL
Pentachloronitrobenzene	ND	0.44	0.074	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 11:18	BGL
Pentachlorophenol	ND	0.44	0.19	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 11:18	BGL
Phenanthrene	ND	0.22	0.070	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 11:18	BGL
Phenol	ND	0.44	0.063	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 11:18	BGL
Pyrene	ND	0.22	0.070	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 11:18	BGL
Pyridine	ND	0.44	0.045	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 11:18	BGL
1,2,4,5-Tetrachlorobenzene	ND	0.44	0.058	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 11:18	BGL
1,2,4-Trichlorobenzene	ND	0.44	0.055	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 11:18	BGL
2,4,5-Trichlorophenol	ND	0.44	0.069	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 11:18	BGL
2,4,6-Trichlorophenol	ND	0.44	0.068	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 11:18	BGL

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
2-Fluorophenol	65.9	30-130		12/8/21 11:18
Phenol-d6	68.5	30-130		12/8/21 11:18
Nitrobenzene-d5	64.6	30-130		12/8/21 11:18
2-Fluorobiphenyl	68.4	30-130		12/8/21 11:18
2,4,6-Tribromophenol	69.4	30-130		12/8/21 11:18
p-Terphenyl-d14	75.0	30-130		12/8/21 11:18

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Project Location: 1400 N. Royal St., Alexandria, VA Sample Description: Work Order: 21L0083

Date Received: 12/1/2021

Field Sample #: HRP-SB206-15-17-211012 Sampled: 10/12/2021 13:45

Sample ID: 21L0083-03

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	75.4		% Wt	1		SM 2540G	10/19/21	10/20/21 13:31	MJH

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Project Location: 1400 N. Royal St., Alexandria, VA Sample Description: Work Order: 21L0083

Date Received: 12/1/2021

Field Sample #: HRP-SB207-0-1-211013 Sampled: 10/13/2021 08:37

Sample ID: 21L0083-04

Sample Matrix: Soil

Sample Flags: H-10

Semivolatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acenaphthene	ND	0.21	0.066	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 11:44	BGL
Acenaphthylene	ND	0.21	0.064	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 11:44	BGL
Acetophenone	ND	0.42	0.057	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 11:44	BGL
Aniline	ND	0.42	0.088	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 11:44	BGL
Anthracene	ND	0.21	0.069	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 11:44	BGL
Benzidine	ND	0.82	0.19	mg/Kg dry	1	V-35	SW-846 8270E	12/7/21	12/8/21 11:44	BGL
Benzo(a)anthracene	0.11	0.21	0.058	mg/Kg dry	1	J	SW-846 8270E	12/7/21	12/8/21 11:44	BGL
Benzo(a)pyrene	0.083	0.21	0.065	mg/Kg dry	1	J	SW-846 8270E	12/7/21	12/8/21 11:44	BGL
Benzo(b)fluoranthene	0.11	0.21	0.064	mg/Kg dry	1	J	SW-846 8270E	12/7/21	12/8/21 11:44	BGL
Benzo(g,h,i)perylene	ND	0.21	0.088	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 11:44	BGL
Benzo(k)fluoranthene	ND	0.21	0.057	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 11:44	BGL
Benzoic Acid	ND	1.2	0.50	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 11:44	BGL
Bis(2-chloroethoxy)methane	ND	0.42	0.055	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 11:44	BGL
Bis(2-chloroethyl)ether	ND	0.42	0.058	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 11:44	BGL
Bis(2-chloroisopropyl)ether	ND	0.42	0.096	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 11:44	BGL
Bis(2-Ethylhexyl)phthalate	ND	0.42	0.071	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 11:44	BGL
4-Bromophenylphenylether	ND	0.42	0.054	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 11:44	BGL
Butylbenzylphthalate	ND	0.42	0.067	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 11:44	BGL
Carbazole	ND	0.21	0.069	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 11:44	BGL
4-Chloroaniline	ND	0.82	0.056	mg/Kg dry	1	V-20, V-34	SW-846 8270E	12/7/21	12/8/21 11:44	BGL
4-Chloro-3-methylphenol	ND	0.82	0.070	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 11:44	BGL
2-Chloronaphthalene	ND	0.42	0.049	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 11:44	BGL
2-Chlorophenol	ND	0.42	0.058	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 11:44	BGL
4-Chlorophenylphenylether	ND	0.42	0.060	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 11:44	BGL
Chrysene	0.12	0.21	0.061	mg/Kg dry	1	J	SW-846 8270E	12/7/21	12/8/21 11:44	BGL
Dibenz(a,h)anthracene	ND	0.21	0.085	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 11:44	BGL
Dibenzofuran	ND	0.42	0.062	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 11:44	BGL
Di-n-butylphthalate	ND	0.42	0.059	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 11:44	BGL
1,2-Dichlorobenzene	ND	0.42	0.048	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 11:44	BGL
1,3-Dichlorobenzene	ND	0.42	0.046	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 11:44	BGL
1,4-Dichlorobenzene	ND	0.42	0.044	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 11:44	BGL
3,3-Dichlorobenzidine	ND	0.21	0.061	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 11:44	BGL
2,4-Dichlorophenol	ND	0.42	0.062	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 11:44	BGL
Diethylphthalate	ND	0.42	0.064	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 11:44	BGL
2,4-Dimethylphenol	ND	0.42	0.11	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 11:44	BGL
Dimethylphthalate	ND	0.42	0.061	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 11:44	BGL
4,6-Dinitro-2-methylphenol	ND	0.42	0.28	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 11:44	BGL
2,4-Dinitrophenol	ND	0.82	0.36	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 11:44	BGL
2,4-Dinitrotoluene	ND	0.42	0.082	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 11:44	BGL
2,6-Dinitrotoluene	ND	0.42	0.070	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 11:44	BGL
Di-n-octylphthalate	ND	0.42	0.15	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 11:44	BGL
1,2-Diphenylhydrazine/Azobenzene	ND	0.42	0.060	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 11:44	BGL
Fluoranthene	0.22	0.21	0.067	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 11:44	BGL
Fluorene	ND	0.21	0.071	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 11:44	BGL

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Project Location: 1400 N. Royal St., Alexandria, VA Sample Description: Work Order: 21L0083

Date Received: 12/1/2021

Field Sample #: HRP-SB207-0-1-211013 Sampled: 10/13/2021 08:37

Sample ID: 21L0083-04

Sample Matrix: Soil

Sample Flags: H-10

Semivolatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Hexachlorobenzene	ND	0.42	0.057	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 11:44	BGL
Hexachlorobutadiene	ND	0.42	0.054	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 11:44	BGL
Hexachlorocyclopentadiene	ND	0.42	0.18	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 11:44	BGL
Hexachloroethane	ND	0.42	0.050	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 11:44	BGL
Indeno(1,2,3-cd)pyrene	ND	0.21	0.095	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 11:44	BGL
Isophorone	ND	0.42	0.070	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 11:44	BGL
1-Methylnaphthalene	0.080	0.21	0.058	mg/Kg dry	1	J	SW-846 8270E	12/7/21	12/8/21 11:44	BGL
2-Methylnaphthalene	0.13	0.21	0.067	mg/Kg dry	1	J	SW-846 8270E	12/7/21	12/8/21 11:44	BGL
2-Methylphenol	ND	0.42	0.078	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 11:44	BGL
3/4-Methylphenol	ND	0.42	0.068	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 11:44	BGL
Naphthalene	0.077	0.21	0.057	mg/Kg dry	1	J	SW-846 8270E	12/7/21	12/8/21 11:44	BGL
2-Nitroaniline	ND	0.42	0.090	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 11:44	BGL
3-Nitroaniline	ND	0.42	0.072	mg/Kg dry	1	V-20	SW-846 8270E	12/7/21	12/8/21 11:44	BGL
4-Nitroaniline	ND	0.42	0.090	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 11:44	BGL
Nitrobenzene	ND	0.42	0.061	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 11:44	BGL
2-Nitrophenol	ND	0.42	0.066	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 11:44	BGL
4-Nitrophenol	ND	0.82	0.17	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 11:44	BGL
N-Nitrosodimethylamine	ND	0.42	0.063	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 11:44	BGL
N-Nitrosodiphenylamine/Diphenylamine	ND	0.42	0.063	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 11:44	BGL
N-Nitrosodi-n-propylamine	ND	0.42	0.058	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 11:44	BGL
Pentachloronitrobenzene	ND	0.42	0.071	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 11:44	BGL
Pentachlorophenol	ND	0.42	0.18	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 11:44	BGL
Phenanthrene	0.25	0.21	0.066	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 11:44	BGL
Phenol	ND	0.42	0.060	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 11:44	BGL
Pyrene	0.19	0.21	0.067	mg/Kg dry	1	J	SW-846 8270E	12/7/21	12/8/21 11:44	BGL
Pyridine	ND	0.42	0.043	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 11:44	BGL
1,2,4,5-Tetrachlorobenzene	ND	0.42	0.055	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 11:44	BGL
1,2,4-Trichlorobenzene	ND	0.42	0.053	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 11:44	BGL
2,4,5-Trichlorophenol	ND	0.42	0.065	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 11:44	BGL
2,4,6-Trichlorophenol	ND	0.42	0.065	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 11:44	BGL

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
2-Fluorophenol	62.3	30-130		12/8/21 11:44
Phenol-d6	65.7	30-130		12/8/21 11:44
Nitrobenzene-d5	62.6	30-130		12/8/21 11:44
2-Fluorobiphenyl	68.7	30-130		12/8/21 11:44
2,4,6-Tribromophenol	65.4	30-130		12/8/21 11:44
p-Terphenyl-d14	73.7	30-130		12/8/21 11:44

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Project Location: 1400 N. Royal St., Alexandria, VA Sample Description: Work Order: 21L0083

Date Received: 12/1/2021

Field Sample #: HRP-SB207-0-1-211013 Sampled: 10/13/2021 08:37

Sample ID: 21L0083-04

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	80.5		% Wt	1		SM 2540G	10/19/21	10/20/21 13:31	MJH

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Project Location: 1400 N. Royal St., Alexandria, VA Sample Description: Work Order: 21L0083

Date Received: 12/1/2021

Field Sample #: HRP-SB207-6-8-211013 Sampled: 10/13/2021 09:15

Sample ID: 21L0083-05

Sample Matrix: Soil

Sample Flags: H-10

Semivolatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acenaphthene	ND	0.19	0.060	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 12:11	BGL
Acenaphthylene	ND	0.19	0.059	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 12:11	BGL
Acetophenone	ND	0.38	0.052	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 12:11	BGL
Aniline	ND	0.38	0.080	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 12:11	BGL
Anthracene	ND	0.19	0.063	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 12:11	BGL
Benzidine	ND	0.74	0.18	mg/Kg dry	1	V-35	SW-846 8270E	12/7/21	12/8/21 12:11	BGL
Benzo(a)anthracene	ND	0.19	0.053	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 12:11	BGL
Benzo(a)pyrene	ND	0.19	0.059	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 12:11	BGL
Benzo(b)fluoranthene	ND	0.19	0.058	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 12:11	BGL
Benzo(g,h,i)perylene	ND	0.19	0.081	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 12:11	BGL
Benzo(k)fluoranthene	ND	0.19	0.052	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 12:11	BGL
Benzoic Acid	ND	1.1	0.46	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 12:11	BGL
Bis(2-chloroethoxy)methane	ND	0.38	0.050	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 12:11	BGL
Bis(2-chloroethyl)ether	ND	0.38	0.053	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 12:11	BGL
Bis(2-chloroisopropyl)ether	ND	0.38	0.087	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 12:11	BGL
Bis(2-Ethylhexyl)phthalate	ND	0.38	0.065	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 12:11	BGL
4-Bromophenylphenylether	ND	0.38	0.049	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 12:11	BGL
Butylbenzylphthalate	ND	0.38	0.061	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 12:11	BGL
Carbazole	ND	0.19	0.063	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 12:11	BGL
4-Chloroaniline	ND	0.74	0.051	mg/Kg dry	1	V-20, V-34	SW-846 8270E	12/7/21	12/8/21 12:11	BGL
4-Chloro-3-methylphenol	ND	0.74	0.064	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 12:11	BGL
2-Chloronaphthalene	ND	0.38	0.045	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 12:11	BGL
2-Chlorophenol	ND	0.38	0.053	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 12:11	BGL
4-Chlorophenylphenylether	ND	0.38	0.055	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 12:11	BGL
Chrysene	ND	0.19	0.055	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 12:11	BGL
Dibenz(a,h)anthracene	ND	0.19	0.078	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 12:11	BGL
Dibenzofuran	ND	0.38	0.057	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 12:11	BGL
Di-n-butylphthalate	ND	0.38	0.054	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 12:11	BGL
1,2-Dichlorobenzene	ND	0.38	0.044	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 12:11	BGL
1,3-Dichlorobenzene	ND	0.38	0.042	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 12:11	BGL
1,4-Dichlorobenzene	ND	0.38	0.040	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 12:11	BGL
3,3-Dichlorobenzidine	ND	0.19	0.056	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 12:11	BGL
2,4-Dichlorophenol	ND	0.38	0.057	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 12:11	BGL
Diethylphthalate	ND	0.38	0.059	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 12:11	BGL
2,4-Dimethylphenol	ND	0.38	0.10	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 12:11	BGL
Dimethylphthalate	ND	0.38	0.056	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 12:11	BGL
4,6-Dinitro-2-methylphenol	ND	0.38	0.26	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 12:11	BGL
2,4-Dinitrophenol	ND	0.74	0.33	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 12:11	BGL
2,4-Dinitrotoluene	ND	0.38	0.075	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 12:11	BGL
2,6-Dinitrotoluene	ND	0.38	0.064	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 12:11	BGL
Di-n-octylphthalate	ND	0.38	0.14	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 12:11	BGL
1,2-Diphenylhydrazine/Azobenzene	ND	0.38	0.055	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 12:11	BGL
Fluoranthene	ND	0.19	0.061	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 12:11	BGL
Fluorene	ND	0.19	0.065	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 12:11	BGL

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Project Location: 1400 N. Royal St., Alexandria, VA Sample Description: Work Order: 21L0083

Date Received: 12/1/2021

Field Sample #: HRP-SB207-6-8-211013 Sampled: 10/13/2021 09:15

Sample ID: 21L0083-05

Sample Matrix: Soil

Sample Flags: H-10

Semivolatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Hexachlorobenzene	ND	0.38	0.052	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 12:11	BGL
Hexachlorobutadiene	ND	0.38	0.049	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 12:11	BGL
Hexachlorocyclopentadiene	ND	0.38	0.16	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 12:11	BGL
Hexachloroethane	ND	0.38	0.046	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 12:11	BGL
Indeno(1,2,3-cd)pyrene	ND	0.19	0.087	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 12:11	BGL
Isophorone	ND	0.38	0.064	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 12:11	BGL
1-Methylnaphthalene	ND	0.19	0.053	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 12:11	BGL
2-Methylnaphthalene	ND	0.19	0.061	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 12:11	BGL
2-Methylphenol	ND	0.38	0.071	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 12:11	BGL
3/4-Methylphenol	ND	0.38	0.062	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 12:11	BGL
Naphthalene	ND	0.19	0.052	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 12:11	BGL
2-Nitroaniline	ND	0.38	0.082	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 12:11	BGL
3-Nitroaniline	ND	0.38	0.065	mg/Kg dry	1	V-20	SW-846 8270E	12/7/21	12/8/21 12:11	BGL
4-Nitroaniline	ND	0.38	0.082	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 12:11	BGL
Nitrobenzene	ND	0.38	0.056	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 12:11	BGL
2-Nitrophenol	ND	0.38	0.060	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 12:11	BGL
4-Nitrophenol	ND	0.74	0.16	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 12:11	BGL
N-Nitrosodimethylamine	ND	0.38	0.057	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 12:11	BGL
N-Nitrosodiphenylamine/Diphenylamine	ND	0.38	0.058	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 12:11	BGL
N-Nitrosodi-n-propylamine	ND	0.38	0.053	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 12:11	BGL
Pentachloronitrobenzene	ND	0.38	0.065	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 12:11	BGL
Pentachlorophenol	ND	0.38	0.17	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 12:11	BGL
Phenanthrene	ND	0.19	0.061	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 12:11	BGL
Phenol	ND	0.38	0.055	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 12:11	BGL
Pyrene	ND	0.19	0.061	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 12:11	BGL
Pyridine	ND	0.38	0.039	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 12:11	BGL
1,2,4,5-Tetrachlorobenzene	ND	0.38	0.050	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 12:11	BGL
1,2,4-Trichlorobenzene	ND	0.38	0.048	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 12:11	BGL
2,4,5-Trichlorophenol	ND	0.38	0.060	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 12:11	BGL
2,4,6-Trichlorophenol	ND	0.38	0.059	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 12:11	BGL

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
2-Fluorophenol	66.1	30-130		12/8/21 12:11
Phenol-d6	67.6	30-130		12/8/21 12:11
Nitrobenzene-d5	63.6	30-130		12/8/21 12:11
2-Fluorobiphenyl	65.0	30-130		12/8/21 12:11
2,4,6-Tribromophenol	66.2	30-130		12/8/21 12:11
p-Terphenyl-d14	73.5	30-130		12/8/21 12:11

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Project Location: 1400 N. Royal St., Alexandria, VA Sample Description: Work Order: 21L0083

Date Received: 12/1/2021

Field Sample #: HRP-SB207-6-8-211013 Sampled: 10/13/2021 09:15

Sample ID: 21L0083-05

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	86.3		% Wt	1		SM 2540G	10/19/21	10/20/21 13:31	MJH

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Project Location: 1400 N. Royal St., Alexandria, VA Sample Description: Work Order: 21L0083

Date Received: 12/1/2021

Field Sample #: HRP-DUP03-6-8-211013 Sampled: 10/13/2021 09:25

Sample ID: 21L0083-06

Sample Matrix: Soil

Sample Flags: H-10

Semivolatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acenaphthene	ND	0.21	0.065	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 12:38	BGL
Acenaphthylene	ND	0.21	0.063	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 12:38	BGL
Acetophenone	ND	0.41	0.056	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 12:38	BGL
Aniline	ND	0.41	0.086	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 12:38	BGL
Anthracene	ND	0.21	0.068	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 12:38	BGL
Benzidine	ND	0.80	0.19	mg/Kg dry	1	V-35	SW-846 8270E	12/7/21	12/8/21 12:38	BGL
Benzo(a)anthracene	ND	0.21	0.057	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 12:38	BGL
Benzo(a)pyrene	ND	0.21	0.063	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 12:38	BGL
Benzo(b)fluoranthene	ND	0.21	0.062	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 12:38	BGL
Benzo(g,h,i)perylene	ND	0.21	0.087	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 12:38	BGL
Benzo(k)fluoranthene	ND	0.21	0.056	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 12:38	BGL
Benzoic Acid	ND	1.2	0.49	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 12:38	BGL
Bis(2-chloroethoxy)methane	ND	0.41	0.054	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 12:38	BGL
Bis(2-chloroethyl)ether	ND	0.41	0.057	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 12:38	BGL
Bis(2-chloroisopropyl)ether	ND	0.41	0.094	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 12:38	BGL
Bis(2-Ethylhexyl)phthalate	ND	0.41	0.070	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 12:38	BGL
4-Bromophenylphenylether	ND	0.41	0.053	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 12:38	BGL
Butylbenzylphthalate	ND	0.41	0.066	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 12:38	BGL
Carbazole	ND	0.21	0.068	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 12:38	BGL
4-Chloroaniline	ND	0.80	0.055	mg/Kg dry	1	V-20, V-34	SW-846 8270E	12/7/21	12/8/21 12:38	BGL
4-Chloro-3-methylphenol	ND	0.80	0.069	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 12:38	BGL
2-Chloronaphthalene	ND	0.41	0.048	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 12:38	BGL
2-Chlorophenol	ND	0.41	0.057	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 12:38	BGL
4-Chlorophenylphenylether	ND	0.41	0.059	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 12:38	BGL
Chrysene	ND	0.21	0.060	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 12:38	BGL
Dibenz(a,h)anthracene	ND	0.21	0.084	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 12:38	BGL
Dibenzofuran	ND	0.41	0.061	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 12:38	BGL
Di-n-butylphthalate	ND	0.41	0.058	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 12:38	BGL
1,2-Dichlorobenzene	ND	0.41	0.047	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 12:38	BGL
1,3-Dichlorobenzene	ND	0.41	0.045	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 12:38	BGL
1,4-Dichlorobenzene	ND	0.41	0.043	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 12:38	BGL
3,3-Dichlorobenzidine	ND	0.21	0.060	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 12:38	BGL
2,4-Dichlorophenol	ND	0.41	0.061	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 12:38	BGL
Diethylphthalate	ND	0.41	0.063	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 12:38	BGL
2,4-Dimethylphenol	ND	0.41	0.11	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 12:38	BGL
Dimethylphthalate	ND	0.41	0.060	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 12:38	BGL
4,6-Dinitro-2-methylphenol	ND	0.41	0.28	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 12:38	BGL
2,4-Dinitrophenol	ND	0.80	0.36	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 12:38	BGL
2,4-Dinitrotoluene	ND	0.41	0.081	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 12:38	BGL
2,6-Dinitrotoluene	ND	0.41	0.069	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 12:38	BGL
Di-n-octylphthalate	ND	0.41	0.15	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 12:38	BGL
1,2-Diphenylhydrazine/Azobenzene	ND	0.41	0.059	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 12:38	BGL
Fluoranthene	ND	0.21	0.066	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 12:38	BGL
Fluorene	ND	0.21	0.070	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 12:38	BGL

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Project Location: 1400 N. Royal St., Alexandria, VA Sample Description: Work Order: 21L0083

Date Received: 12/1/2021

Field Sample #: HRP-DUP03-6-8-211013 Sampled: 10/13/2021 09:25

Sample ID: 21L0083-06

Sample Matrix: Soil

Sample Flags: H-10

Semivolatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Hexachlorobenzene	ND	0.41	0.056	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 12:38	BGL
Hexachlorobutadiene	ND	0.41	0.053	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 12:38	BGL
Hexachlorocyclopentadiene	ND	0.41	0.17	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 12:38	BGL
Hexachloroethane	ND	0.41	0.049	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 12:38	BGL
Indeno(1,2,3-cd)pyrene	ND	0.21	0.094	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 12:38	BGL
Isophorone	ND	0.41	0.069	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 12:38	BGL
1-Methylnaphthalene	ND	0.21	0.057	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 12:38	BGL
2-Methylnaphthalene	ND	0.21	0.065	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 12:38	BGL
2-Methylphenol	ND	0.41	0.077	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 12:38	BGL
3/4-Methylphenol	ND	0.41	0.067	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 12:38	BGL
Naphthalene	ND	0.21	0.056	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 12:38	BGL
2-Nitroaniline	ND	0.41	0.088	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 12:38	BGL
3-Nitroaniline	ND	0.41	0.070	mg/Kg dry	1	V-20	SW-846 8270E	12/7/21	12/8/21 12:38	BGL
4-Nitroaniline	ND	0.41	0.089	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 12:38	BGL
Nitrobenzene	ND	0.41	0.060	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 12:38	BGL
2-Nitrophenol	ND	0.41	0.065	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 12:38	BGL
4-Nitrophenol	ND	0.80	0.17	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 12:38	BGL
N-Nitrosodimethylamine	ND	0.41	0.062	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 12:38	BGL
N-Nitrosodiphenylamine/Diphenylamine	ND	0.41	0.062	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 12:38	BGL
N-Nitrosodi-n-propylamine	ND	0.41	0.057	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 12:38	BGL
Pentachloronitrobenzene	ND	0.41	0.070	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 12:38	BGL
Pentachlorophenol	ND	0.41	0.18	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 12:38	BGL
Phenanthrene	ND	0.21	0.065	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 12:38	BGL
Phenol	ND	0.41	0.059	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 12:38	BGL
Pyrene	ND	0.21	0.066	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 12:38	BGL
Pyridine	ND	0.41	0.042	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 12:38	BGL
1,2,4,5-Tetrachlorobenzene	ND	0.41	0.054	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 12:38	BGL
1,2,4-Trichlorobenzene	ND	0.41	0.052	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 12:38	BGL
2,4,5-Trichlorophenol	ND	0.41	0.064	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 12:38	BGL
2,4,6-Trichlorophenol	ND	0.41	0.064	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 12:38	BGL

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
2-Fluorophenol	62.6	30-130		12/8/21 12:38
Phenol-d6	64.3	30-130		12/8/21 12:38
Nitrobenzene-d5	61.3	30-130		12/8/21 12:38
2-Fluorobiphenyl	63.4	30-130		12/8/21 12:38
2,4,6-Tribromophenol	64.1	30-130		12/8/21 12:38
p-Terphenyl-d14	72.1	30-130		12/8/21 12:38

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Project Location: 1400 N. Royal St., Alexandria, VA Sample Description: Work Order: 21L0083

Date Received: 12/1/2021

Field Sample #: HRP-DUP03-6-8-211013 Sampled: 10/13/2021 09:25

Sample ID: 21L0083-06

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	81.4		% Wt	1		SM 2540G	10/19/21	10/20/21 13:31	MJH

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Project Location: 1400 N. Royal St., Alexandria, VA Sample Description: Work Order: 21L0083

Date Received: 12/1/2021

Field Sample #: HRP-SB207-16-18-211013 Sampled: 10/13/2021 09:32

Sample ID: 21L0083-07

Sample Matrix: Soil

Sample Flags: H-10

Semivolatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acenaphthene	ND	0.18	0.056	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 13:04	BGL
Acenaphthylene	ND	0.18	0.055	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 13:04	BGL
Acetophenone	ND	0.36	0.049	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 13:04	BGL
Aniline	ND	0.36	0.075	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 13:04	BGL
Anthracene	ND	0.18	0.059	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 13:04	BGL
Benzidine	ND	0.70	0.16	mg/Kg dry	1	V-35	SW-846 8270E	12/7/21	12/8/21 13:04	BGL
Benzo(a)anthracene	ND	0.18	0.050	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 13:04	BGL
Benzo(a)pyrene	ND	0.18	0.055	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 13:04	BGL
Benzo(b)fluoranthene	ND	0.18	0.054	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 13:04	BGL
Benzo(g,h,i)perylene	ND	0.18	0.076	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 13:04	BGL
Benzo(k)fluoranthene	ND	0.18	0.049	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 13:04	BGL
Benzoic Acid	ND	1.1	0.43	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 13:04	BGL
Bis(2-chloroethoxy)methane	ND	0.36	0.047	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 13:04	BGL
Bis(2-chloroethyl)ether	ND	0.36	0.049	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 13:04	BGL
Bis(2-chloroisopropyl)ether	ND	0.36	0.082	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 13:04	BGL
Bis(2-Ethylhexyl)phthalate	ND	0.36	0.061	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 13:04	BGL
4-Bromophenylphenylether	ND	0.36	0.046	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 13:04	BGL
Butylbenzylphthalate	ND	0.36	0.057	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 13:04	BGL
Carbazole	ND	0.18	0.059	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 13:04	BGL
4-Chloroaniline	ND	0.70	0.048	mg/Kg dry	1	V-20, V-34	SW-846 8270E	12/7/21	12/8/21 13:04	BGL
4-Chloro-3-methylphenol	ND	0.70	0.060	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 13:04	BGL
2-Chloronaphthalene	ND	0.36	0.042	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 13:04	BGL
2-Chlorophenol	ND	0.36	0.050	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 13:04	BGL
4-Chlorophenylphenylether	ND	0.36	0.051	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 13:04	BGL
Chrysene	ND	0.18	0.052	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 13:04	BGL
Dibenz(a,h)anthracene	ND	0.18	0.073	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 13:04	BGL
Dibenzofuran	ND	0.36	0.053	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 13:04	BGL
Di-n-butylphthalate	ND	0.36	0.051	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 13:04	BGL
1,2-Dichlorobenzene	ND	0.36	0.041	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 13:04	BGL
1,3-Dichlorobenzene	ND	0.36	0.040	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 13:04	BGL
1,4-Dichlorobenzene	ND	0.36	0.038	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 13:04	BGL
3,3-Dichlorobenzidine	ND	0.18	0.053	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 13:04	BGL
2,4-Dichlorophenol	ND	0.36	0.053	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 13:04	BGL
Diethylphthalate	ND	0.36	0.055	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 13:04	BGL
2,4-Dimethylphenol	ND	0.36	0.098	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 13:04	BGL
Dimethylphthalate	ND	0.36	0.052	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 13:04	BGL
4,6-Dinitro-2-methylphenol	ND	0.36	0.24	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 13:04	BGL
2,4-Dinitrophenol	ND	0.70	0.31	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 13:04	BGL
2,4-Dinitrotoluene	ND	0.36	0.070	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 13:04	BGL
2,6-Dinitrotoluene	ND	0.36	0.060	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 13:04	BGL
Di-n-octylphthalate	ND	0.36	0.13	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 13:04	BGL
1,2-Diphenylhydrazine/Azobenzene	ND	0.36	0.052	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 13:04	BGL
Fluoranthene	ND	0.18	0.057	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 13:04	BGL
Fluorene	ND	0.18	0.061	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 13:04	BGL

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Project Location: 1400 N. Royal St., Alexandria, VA Sample Description: Work Order: 21L0083

Date Received: 12/1/2021

Field Sample #: HRP-SB207-16-18-211013 Sampled: 10/13/2021 09:32

Sample ID: 21L0083-07

Sample Matrix: Soil

Sample Flags: H-10

Semivolatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Hexachlorobenzene	ND	0.36	0.049	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 13:04	BGL
Hexachlorobutadiene	ND	0.36	0.046	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 13:04	BGL
Hexachlorocyclopentadiene	ND	0.36	0.15	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 13:04	BGL
Hexachloroethane	ND	0.36	0.043	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 13:04	BGL
Indeno(1,2,3-cd)pyrene	ND	0.18	0.082	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 13:04	BGL
Isophorone	ND	0.36	0.060	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 13:04	BGL
1-Methylnaphthalene	ND	0.18	0.050	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 13:04	BGL
2-Methylnaphthalene	ND	0.18	0.057	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 13:04	BGL
2-Methylphenol	ND	0.36	0.067	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 13:04	BGL
3/4-Methylphenol	ND	0.36	0.058	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 13:04	BGL
Naphthalene	ND	0.18	0.049	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 13:04	BGL
2-Nitroaniline	ND	0.36	0.077	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 13:04	BGL
3-Nitroaniline	ND	0.36	0.061	mg/Kg dry	1	V-20	SW-846 8270E	12/7/21	12/8/21 13:04	BGL
4-Nitroaniline	ND	0.36	0.077	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 13:04	BGL
Nitrobenzene	ND	0.36	0.052	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 13:04	BGL
2-Nitrophenol	ND	0.36	0.056	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 13:04	BGL
4-Nitrophenol	ND	0.70	0.15	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 13:04	BGL
N-Nitrosodimethylamine	ND	0.36	0.054	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 13:04	BGL
N-Nitrosodiphenylamine/Diphenylamine	ND	0.36	0.054	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 13:04	BGL
N-Nitrosodi-n-propylamine	ND	0.36	0.050	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 13:04	BGL
Pentachloronitrobenzene	ND	0.36	0.061	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 13:04	BGL
Pentachlorophenol	ND	0.36	0.16	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 13:04	BGL
Phenanthrene	ND	0.18	0.057	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 13:04	BGL
Phenol	ND	0.36	0.051	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 13:04	BGL
Pyrene	ND	0.18	0.057	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 13:04	BGL
Pyridine	ND	0.36	0.037	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 13:04	BGL
1,2,4,5-Tetrachlorobenzene	ND	0.36	0.047	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 13:04	BGL
1,2,4-Trichlorobenzene	ND	0.36	0.045	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 13:04	BGL
2,4,5-Trichlorophenol	ND	0.36	0.056	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 13:04	BGL
2,4,6-Trichlorophenol	ND	0.36	0.056	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 13:04	BGL

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
2-Fluorophenol	63.1	30-130		12/8/21 13:04
Phenol-d6	66.1	30-130		12/8/21 13:04
Nitrobenzene-d5	61.4	30-130		12/8/21 13:04
2-Fluorobiphenyl	65.9	30-130		12/8/21 13:04
2,4,6-Tribromophenol	66.2	30-130		12/8/21 13:04
p-Terphenyl-d14	72.6	30-130		12/8/21 13:04

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Project Location: 1400 N. Royal St., Alexandria, VA Sample Description: Work Order: 21L0083

Date Received: 12/1/2021

Field Sample #: HRP-SB207-16-18-211013 Sampled: 10/13/2021 09:32

Sample ID: 21L0083-07

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	91.6		% Wt	1		SM 2540G	10/19/21	10/20/21 13:31	MJH

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Sample Extraction Data

Prep Method: % Solids **Analytical Method: SM 2540G**

Lab Number [Field ID]	Batch	Date
21L0083-01 [HRP-SB206-0-1-211012]	B292726	10/19/21
21L0083-02 [HRP-SB206-5-7-211012]	B292726	10/19/21
21L0083-03 [HRP-SB206-15-17-211012]	B292726	10/19/21
21L0083-04 [HRP-SB207-0-1-211013]	B292726	10/19/21
21L0083-05 [HRP-SB207-6-8-211013]	B292726	10/19/21
21L0083-06 [HRP-DUP03-6-8-211013]	B292726	10/19/21
21L0083-07 [HRP-SB207-16-18-211013]	B292726	10/19/21

Prep Method: SW-846 3546 **Analytical Method: SW-846 8270E**

Lab Number [Field ID]	Batch	Initial [g]	Final [mL]	Date
21L0083-01 [HRP-SB206-0-1-211012]	B296234	30.6	1.00	12/07/21
21L0083-02 [HRP-SB206-5-7-211012]	B296234	30.1	1.00	12/07/21
21L0083-03 [HRP-SB206-15-17-211012]	B296234	30.6	1.00	12/07/21
21L0083-04 [HRP-SB207-0-1-211013]	B296234	30.1	1.00	12/07/21
21L0083-05 [HRP-SB207-6-8-211013]	B296234	30.8	1.00	12/07/21
21L0083-06 [HRP-DUP03-6-8-211013]	B296234	30.3	1.00	12/07/21
21L0083-07 [HRP-SB207-16-18-211013]	B296234	30.9	1.00	12/07/21

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QUALITY CONTROL

Semivolatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B296234 - SW-846 3546										
Blank (B296234-BLK1)				Prepared: 12/07/21 Analyzed: 12/08/21						
Acenaphthene	ND	0.17	mg/Kg wet							
Acenaphthylene	ND	0.17	mg/Kg wet							
Acetophenone	ND	0.34	mg/Kg wet							
Aniline	ND	0.34	mg/Kg wet							
Anthracene	ND	0.17	mg/Kg wet							
Benzidine	ND	0.66	mg/Kg wet							V-35
Benzo(a)anthracene	ND	0.17	mg/Kg wet							
Benzo(a)pyrene	ND	0.17	mg/Kg wet							
Benzo(b)fluoranthene	ND	0.17	mg/Kg wet							
Benzo(g,h,i)perylene	ND	0.17	mg/Kg wet							
Benzo(k)fluoranthene	ND	0.17	mg/Kg wet							
Benzoic Acid	ND	1.0	mg/Kg wet							
Bis(2-chloroethoxy)methane	ND	0.34	mg/Kg wet							
Bis(2-chloroethyl)ether	ND	0.34	mg/Kg wet							
Bis(2-chloroisopropyl)ether	ND	0.34	mg/Kg wet							
Bis(2-Ethylhexyl)phthalate	ND	0.34	mg/Kg wet							
4-Bromophenylphenylether	ND	0.34	mg/Kg wet							
Butylbenzylphthalate	ND	0.34	mg/Kg wet							
Carbazole	ND	0.17	mg/Kg wet							
4-Chloroaniline	ND	0.66	mg/Kg wet							V-20, V-34
4-Chloro-3-methylphenol	ND	0.66	mg/Kg wet							
2-Chloronaphthalene	ND	0.34	mg/Kg wet							
2-Chlorophenol	ND	0.34	mg/Kg wet							
4-Chlorophenylphenylether	ND	0.34	mg/Kg wet							
Chrysene	ND	0.17	mg/Kg wet							
Dibenz(a,h)anthracene	ND	0.17	mg/Kg wet							
Dibenzofuran	ND	0.34	mg/Kg wet							
Di-n-butylphthalate	ND	0.34	mg/Kg wet							
1,2-Dichlorobenzene	ND	0.34	mg/Kg wet							
1,3-Dichlorobenzene	ND	0.34	mg/Kg wet							
1,4-Dichlorobenzene	ND	0.34	mg/Kg wet							
3,3-Dichlorobenzidine	ND	0.17	mg/Kg wet							
2,4-Dichlorophenol	ND	0.34	mg/Kg wet							
Diethylphthalate	ND	0.34	mg/Kg wet							
2,4-Dimethylphenol	ND	0.34	mg/Kg wet							
Dimethylphthalate	ND	0.34	mg/Kg wet							
4,6-Dinitro-2-methylphenol	ND	0.34	mg/Kg wet							
2,4-Dinitrophenol	ND	0.66	mg/Kg wet							
2,4-Dinitrotoluene	ND	0.34	mg/Kg wet							
2,6-Dinitrotoluene	ND	0.34	mg/Kg wet							
Di-n-octylphthalate	ND	0.34	mg/Kg wet							
1,2-Diphenylhydrazine/Azobenzene	ND	0.34	mg/Kg wet							
Fluoranthene	ND	0.17	mg/Kg wet							
Fluorene	ND	0.17	mg/Kg wet							
Hexachlorobenzene	ND	0.34	mg/Kg wet							
Hexachlorobutadiene	ND	0.34	mg/Kg wet							
Hexachlorocyclopentadiene	ND	0.34	mg/Kg wet							
Hexachloroethane	ND	0.34	mg/Kg wet							
Indeno(1,2,3-cd)pyrene	ND	0.17	mg/Kg wet							
Isophorone	ND	0.34	mg/Kg wet							
1-Methylnaphthalene	ND	0.17	mg/Kg wet							
2-Methylnaphthalene	ND	0.17	mg/Kg wet							

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QUALITY CONTROL

Semivolatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes	
Batch B296234 - SW-846 3546											
Blank (B296234-BLK1)				Prepared: 12/07/21 Analyzed: 12/08/21							
2-Methylphenol	ND	0.34	mg/Kg wet								
3/4-Methylphenol	ND	0.34	mg/Kg wet								
Naphthalene	ND	0.17	mg/Kg wet								
2-Nitroaniline	ND	0.34	mg/Kg wet								
3-Nitroaniline	ND	0.34	mg/Kg wet							V-20	
4-Nitroaniline	ND	0.34	mg/Kg wet								
Nitrobenzene	ND	0.34	mg/Kg wet								
2-Nitrophenol	ND	0.34	mg/Kg wet								
4-Nitrophenol	ND	0.66	mg/Kg wet								
N-Nitrosodimethylamine	ND	0.34	mg/Kg wet								
N-Nitrosodiphenylamine/Diphenylamine	ND	0.34	mg/Kg wet								
N-Nitrosodi-n-propylamine	ND	0.34	mg/Kg wet								
Pentachloronitrobenzene	ND	0.34	mg/Kg wet								
Pentachlorophenol	ND	0.34	mg/Kg wet								
Phenanthrene	ND	0.17	mg/Kg wet								
Phenol	ND	0.34	mg/Kg wet								
Pyrene	ND	0.17	mg/Kg wet								
Pyridine	ND	0.34	mg/Kg wet								
1,2,4,5-Tetrachlorobenzene	ND	0.34	mg/Kg wet								
1,2,4-Trichlorobenzene	ND	0.34	mg/Kg wet								
2,4,5-Trichlorophenol	ND	0.34	mg/Kg wet								
2,4,6-Trichlorophenol	ND	0.34	mg/Kg wet								
Surrogate: 2-Fluorophenol	*5.33*		mg/Kg wet	6.67		80.0	30-130				
Surrogate: Phenol-d6	*5.44*		mg/Kg wet	6.67		81.5	30-130				
Surrogate: Nitrobenzene-d5	*2.59*		mg/Kg wet	3.33		77.7	30-130				
Surrogate: 2-Fluorobiphenyl	*2.68*		mg/Kg wet	3.33		80.5	30-130				
Surrogate: 2,4,6-Tribromophenol	*5.77*		mg/Kg wet	6.67		86.6	30-130				
Surrogate: p-Terphenyl-d14	*3.23*		mg/Kg wet	3.33		96.9	30-130				
LCS (B296234-BS1)				Prepared: 12/07/21 Analyzed: 12/08/21							
Acenaphthene	1.21	0.17	mg/Kg wet	1.67		72.4	40-140				
Acenaphthylene	1.29	0.17	mg/Kg wet	1.67		77.4	40-140				
Acetophenone	1.27	0.34	mg/Kg wet	1.67		76.2	40-140				
Aniline	0.988	0.34	mg/Kg wet	1.67		59.3	10-140				†
Anthracene	1.38	0.17	mg/Kg wet	1.67		82.6	40-140				
Benzidine	2.05	0.66	mg/Kg wet	1.67		123	40-140			V-35	
Benzo(a)anthracene	1.29	0.17	mg/Kg wet	1.67		77.4	40-140				
Benzo(a)pyrene	1.41	0.17	mg/Kg wet	1.67		84.5	40-140				
Benzo(b)fluoranthene	1.33	0.17	mg/Kg wet	1.67		79.7	40-140				
Benzo(g,h,i)perylene	1.35	0.17	mg/Kg wet	1.67		80.8	40-140				
Benzo(k)fluoranthene	1.42	0.17	mg/Kg wet	1.67		85.1	40-140				
Benzoic Acid	0.709	1.0	mg/Kg wet	1.67		42.5	30-130			J	
Bis(2-chloroethoxy)methane	1.25	0.34	mg/Kg wet	1.67		75.2	40-140				
Bis(2-chloroethyl)ether	1.21	0.34	mg/Kg wet	1.67		72.7	40-140				
Bis(2-chloroisopropyl)ether	1.39	0.34	mg/Kg wet	1.67		83.5	40-140				
Bis(2-Ethylhexyl)phthalate	1.35	0.34	mg/Kg wet	1.67		81.2	40-140				
4-Bromophenylphenylether	1.26	0.34	mg/Kg wet	1.67		75.4	40-140				
Butylbenzylphthalate	1.31	0.34	mg/Kg wet	1.67		78.3	40-140				
Carbazole	1.35	0.17	mg/Kg wet	1.67		80.9	40-140				
4-Chloroaniline	0.997	0.66	mg/Kg wet	1.67		59.8	10-140			V-06, V-34	†
4-Chloro-3-methylphenol	1.24	0.66	mg/Kg wet	1.67		74.6	30-130				
2-Chloronaphthalene	1.08	0.34	mg/Kg wet	1.67		65.1	40-140				

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QUALITY CONTROL

Semivolatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes	
Batch B296234 - SW-846 3546											
LCS (B296234-BS1)				Prepared: 12/07/21 Analyzed: 12/08/21							
2-Chlorophenol	1.18	0.34	mg/Kg wet	1.67		70.5	30-130				
4-Chlorophenylphenylether	1.22	0.34	mg/Kg wet	1.67		73.1	40-140				
Chrysene	1.35	0.17	mg/Kg wet	1.67		81.1	40-140				
Dibenz(a,h)anthracene	1.42	0.17	mg/Kg wet	1.67		85.1	40-140				
Dibenzofuran	1.34	0.34	mg/Kg wet	1.67		80.6	40-140				
Di-n-butylphthalate	1.32	0.34	mg/Kg wet	1.67		79.0	40-140				
1,2-Dichlorobenzene	1.18	0.34	mg/Kg wet	1.67		71.0	40-140				
1,3-Dichlorobenzene	1.13	0.34	mg/Kg wet	1.67		67.9	40-140				
1,4-Dichlorobenzene	1.15	0.34	mg/Kg wet	1.67		69.0	40-140				
3,3-Dichlorobenzidine	1.00	0.17	mg/Kg wet	1.67		60.2	20-140				†
2,4-Dichlorophenol	1.20	0.34	mg/Kg wet	1.67		71.9	30-130				
Diethylphthalate	1.24	0.34	mg/Kg wet	1.67		74.6	40-140				
2,4-Dimethylphenol	1.21	0.34	mg/Kg wet	1.67		72.8	30-130				
Dimethylphthalate	1.24	0.34	mg/Kg wet	1.67		74.4	40-140				
4,6-Dinitro-2-methylphenol	1.19	0.34	mg/Kg wet	1.67		71.6	30-130				
2,4-Dinitrophenol	0.882	0.66	mg/Kg wet	1.67		52.9	30-130				
2,4-Dinitrotoluene	1.36	0.34	mg/Kg wet	1.67		81.6	40-140				
2,6-Dinitrotoluene	1.39	0.34	mg/Kg wet	1.67		83.2	40-140				
Di-n-octylphthalate	1.29	0.34	mg/Kg wet	1.67		77.5	40-140				
1,2-Diphenylhydrazine/Azobenzene	1.46	0.34	mg/Kg wet	1.67		87.4	40-140				
Fluoranthene	1.33	0.17	mg/Kg wet	1.67		79.6	40-140				
Fluorene	1.31	0.17	mg/Kg wet	1.67		78.7	40-140				
Hexachlorobenzene	1.38	0.34	mg/Kg wet	1.67		82.7	40-140				
Hexachlorobutadiene	1.17	0.34	mg/Kg wet	1.67		70.4	40-140				
Hexachlorocyclopentadiene	1.12	0.34	mg/Kg wet	1.67		67.5	40-140				
Hexachloroethane	1.18	0.34	mg/Kg wet	1.67		70.7	40-140				
Indeno(1,2,3-cd)pyrene	1.43	0.17	mg/Kg wet	1.67		85.5	40-140				
Isophorone	1.36	0.34	mg/Kg wet	1.67		81.8	40-140				
1-Methylnaphthalene	1.17	0.17	mg/Kg wet	1.67		70.1	40-140				
2-Methylnaphthalene	1.40	0.17	mg/Kg wet	1.67		84.1	40-140				
2-Methylphenol	1.31	0.34	mg/Kg wet	1.67		78.3	30-130				
3/4-Methylphenol	1.32	0.34	mg/Kg wet	1.67		79.4	30-130				
Naphthalene	1.23	0.17	mg/Kg wet	1.67		74.0	40-140				
2-Nitroaniline	1.69	0.34	mg/Kg wet	1.67		101	40-140				
3-Nitroaniline	1.29	0.34	mg/Kg wet	1.67		77.4	30-140			V-06	†
4-Nitroaniline	1.44	0.34	mg/Kg wet	1.67		86.1	40-140				
Nitrobenzene	1.25	0.34	mg/Kg wet	1.67		74.9	40-140				
2-Nitrophenol	1.19	0.34	mg/Kg wet	1.67		71.5	30-130				
4-Nitrophenol	1.22	0.66	mg/Kg wet	1.67		73.0	30-130				
N-Nitrosodimethylamine	1.20	0.34	mg/Kg wet	1.67		72.1	40-140				
N-Nitrosodiphenylamine/Diphenylamine	1.39	0.34	mg/Kg wet	1.67		83.4	40-140				
N-Nitrosodi-n-propylamine	1.26	0.34	mg/Kg wet	1.67		75.4	40-140				
Pentachloronitrobenzene	1.34	0.34	mg/Kg wet	1.67		80.1	40-140				
Pentachlorophenol	1.12	0.34	mg/Kg wet	1.67		67.2	30-130				
Phenanthrene	1.36	0.17	mg/Kg wet	1.67		81.6	40-140				
Phenol	1.18	0.34	mg/Kg wet	1.67		71.0	30-130				
Pyrene	1.37	0.17	mg/Kg wet	1.67		82.4	40-140				
Pyridine	0.800	0.34	mg/Kg wet	1.67		48.0	30-140				†
1,2,4,5-Tetrachlorobenzene	1.17	0.34	mg/Kg wet	1.67		70.0	40-140				
1,2,4-Trichlorobenzene	1.19	0.34	mg/Kg wet	1.67		71.5	40-140				
2,4,5-Trichlorophenol	1.33	0.34	mg/Kg wet	1.67		79.6	30-130				
2,4,6-Trichlorophenol	1.23	0.34	mg/Kg wet	1.67		73.7	30-130				

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QUALITY CONTROL

Semivolatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes	
Batch B296234 - SW-846 3546											
LCS (B296234-BS1)				Prepared: 12/07/21 Analyzed: 12/08/21							
Surrogate: 2-Fluorophenol	*5.04*		mg/Kg wet	6.67		75.5	30-130				
Surrogate: Phenol-d6	*5.05*		mg/Kg wet	6.67		75.8	30-130				
Surrogate: Nitrobenzene-d5	*2.54*		mg/Kg wet	3.33		76.2	30-130				
Surrogate: 2-Fluorobiphenyl	*2.54*		mg/Kg wet	3.33		76.2	30-130				
Surrogate: 2,4,6-Tribromophenol	*5.60*		mg/Kg wet	6.67		84.0	30-130				
Surrogate: p-Terphenyl-d14	*2.86*		mg/Kg wet	3.33		85.9	30-130				
LCS Dup (B296234-BSD1)				Prepared: 12/07/21 Analyzed: 12/08/21							
Acenaphthene	1.23	0.17	mg/Kg wet	1.67		73.8	40-140	1.89	30		
Acenaphthylene	1.32	0.17	mg/Kg wet	1.67		79.5	40-140	2.57	30		
Acetophenone	1.27	0.34	mg/Kg wet	1.67		76.4	40-140	0.236	30		
Aniline	1.03	0.34	mg/Kg wet	1.67		61.7	10-140	4.07	50		† ‡
Anthracene	1.39	0.17	mg/Kg wet	1.67		83.7	40-140	1.32	30		
Benzidine	2.14	0.66	mg/Kg wet	1.67		128	40-140	4.23	30	V-35	
Benzo(a)anthracene	1.32	0.17	mg/Kg wet	1.67		79.4	40-140	2.55	30		
Benzo(a)pyrene	1.44	0.17	mg/Kg wet	1.67		86.1	40-140	1.83	30		
Benzo(b)fluoranthene	1.34	0.17	mg/Kg wet	1.67		80.3	40-140	0.775	30		
Benzo(g,h,i)perylene	1.36	0.17	mg/Kg wet	1.67		81.7	40-140	1.08	30		
Benzo(k)fluoranthene	1.43	0.17	mg/Kg wet	1.67		86.0	40-140	0.982	30		
Benzoic Acid	0.794	1.0	mg/Kg wet	1.67		47.6	30-130	11.4	50	J	‡
Bis(2-chloroethoxy)methane	1.26	0.34	mg/Kg wet	1.67		75.9	40-140	0.873	30		
Bis(2-chloroethyl)ether	1.19	0.34	mg/Kg wet	1.67		71.3	40-140	1.92	30		
Bis(2-chloroisopropyl)ether	1.37	0.34	mg/Kg wet	1.67		82.5	40-140	1.23	30		
Bis(2-Ethylhexyl)phthalate	1.38	0.34	mg/Kg wet	1.67		83.0	40-140	2.19	30		
4-Bromophenylphenylether	1.28	0.34	mg/Kg wet	1.67		77.1	40-140	2.18	30		
Butylbenzylphthalate	1.33	0.34	mg/Kg wet	1.67		79.9	40-140	1.95	30		
Carbazole	1.37	0.17	mg/Kg wet	1.67		82.0	40-140	1.40	30		
4-Chloroaniline	1.01	0.66	mg/Kg wet	1.67		60.5	10-140	1.20	30	V-06, V-34	†
4-Chloro-3-methylphenol	1.28	0.66	mg/Kg wet	1.67		76.8	30-130	2.88	30		
2-Chloronaphthalene	1.11	0.34	mg/Kg wet	1.67		66.5	40-140	2.25	30		
2-Chlorophenol	1.17	0.34	mg/Kg wet	1.67		70.2	30-130	0.455	30		
4-Chlorophenylphenylether	1.26	0.34	mg/Kg wet	1.67		75.6	40-140	3.36	30		
Chrysene	1.38	0.17	mg/Kg wet	1.67		82.9	40-140	2.20	30		
Dibenz(a,h)anthracene	1.43	0.17	mg/Kg wet	1.67		85.8	40-140	0.749	30		
Dibenzofuran	1.39	0.34	mg/Kg wet	1.67		83.6	40-140	3.65	30		
Di-n-butylphthalate	1.33	0.34	mg/Kg wet	1.67		79.7	40-140	0.832	30		
1,2-Dichlorobenzene	1.18	0.34	mg/Kg wet	1.67		71.1	40-140	0.113	30		
1,3-Dichlorobenzene	1.13	0.34	mg/Kg wet	1.67		67.6	40-140	0.561	30		
1,4-Dichlorobenzene	1.14	0.34	mg/Kg wet	1.67		68.6	40-140	0.640	30		
3,3-Dichlorobenzidine	1.04	0.17	mg/Kg wet	1.67		62.7	20-140	4.04	50		† ‡
2,4-Dichlorophenol	1.22	0.34	mg/Kg wet	1.67		73.3	30-130	2.04	30		
Diethylphthalate	1.29	0.34	mg/Kg wet	1.67		77.7	40-140	4.02	30		
2,4-Dimethylphenol	1.23	0.34	mg/Kg wet	1.67		74.0	30-130	1.61	30		
Dimethylphthalate	1.30	0.34	mg/Kg wet	1.67		77.8	40-140	4.44	30		
4,6-Dinitro-2-methylphenol	1.24	0.34	mg/Kg wet	1.67		74.1	30-130	3.40	30		
2,4-Dinitrophenol	0.950	0.66	mg/Kg wet	1.67		57.0	30-130	7.42	30		
2,4-Dinitrotoluene	1.40	0.34	mg/Kg wet	1.67		84.0	40-140	2.95	30		
2,6-Dinitrotoluene	1.43	0.34	mg/Kg wet	1.67		86.0	40-140	3.31	30		
Di-n-octylphthalate	1.30	0.34	mg/Kg wet	1.67		78.0	40-140	0.566	30		
1,2-Diphenylhydrazine/Azobenzene	1.47	0.34	mg/Kg wet	1.67		88.0	40-140	0.752	30		
Fluoranthene	1.37	0.17	mg/Kg wet	1.67		82.5	40-140	3.53	30		
Fluorene	1.35	0.17	mg/Kg wet	1.67		81.2	40-140	3.13	30		

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QUALITY CONTROL

Semivolatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes	
Batch B296234 - SW-846 3546											
LCS Dup (B296234-BSD1)				Prepared: 12/07/21 Analyzed: 12/08/21							
Hexachlorobenzene	1.42	0.34	mg/Kg wet	1.67		85.3	40-140	3.02	30		
Hexachlorobutadiene	1.18	0.34	mg/Kg wet	1.67		70.8	40-140	0.567	30		
Hexachlorocyclopentadiene	1.14	0.34	mg/Kg wet	1.67		68.6	40-140	1.70	30		
Hexachloroethane	1.18	0.34	mg/Kg wet	1.67		70.6	40-140	0.142	30		
Indeno(1,2,3-cd)pyrene	1.43	0.17	mg/Kg wet	1.67		85.9	40-140	0.373	30		
Isophorone	1.38	0.34	mg/Kg wet	1.67		82.8	40-140	1.14	30		
1-Methylnaphthalene	1.19	0.17	mg/Kg wet	1.67		71.4	40-140	1.84	30		
2-Methylnaphthalene	1.43	0.17	mg/Kg wet	1.67		85.9	40-140	2.02	30		
2-Methylphenol	1.28	0.34	mg/Kg wet	1.67		77.0	30-130	1.73	30		
3/4-Methylphenol	1.33	0.34	mg/Kg wet	1.67		80.1	30-130	0.828	30		
Naphthalene	1.25	0.17	mg/Kg wet	1.67		75.0	40-140	1.37	30		
2-Nitroaniline	1.73	0.34	mg/Kg wet	1.67		104	40-140	2.46	30		
3-Nitroaniline	1.32	0.34	mg/Kg wet	1.67		79.2	30-140	2.27	30	V-06	†
4-Nitroaniline	1.49	0.34	mg/Kg wet	1.67		89.1	40-140	3.42	30		
Nitrobenzene	1.27	0.34	mg/Kg wet	1.67		75.9	40-140	1.41	30		
2-Nitrophenol	1.22	0.34	mg/Kg wet	1.67		73.1	30-130	2.16	30		
4-Nitrophenol	1.25	0.66	mg/Kg wet	1.67		74.9	30-130	2.57	50		‡
N-Nitrosodimethylamine	1.17	0.34	mg/Kg wet	1.67		70.3	40-140	2.42	30		
N-Nitrosodiphenylamine/Diphenylamine	1.42	0.34	mg/Kg wet	1.67		85.0	40-140	1.90	30		
N-Nitrosodi-n-propylamine	1.25	0.34	mg/Kg wet	1.67		74.8	40-140	0.799	30		
Pentachloronitrobenzene	1.38	0.34	mg/Kg wet	1.67		82.7	40-140	3.14	30		
Pentachlorophenol	1.16	0.34	mg/Kg wet	1.67		69.6	30-130	3.54	30		
Phenanthrene	1.39	0.17	mg/Kg wet	1.67		83.2	40-140	2.01	30		
Phenol	1.18	0.34	mg/Kg wet	1.67		70.8	30-130	0.367	30		
Pyrene	1.38	0.17	mg/Kg wet	1.67		83.0	40-140	0.798	30		
Pyridine	0.781	0.34	mg/Kg wet	1.67		46.8	30-140	2.40	30		†
1,2,4,5-Tetrachlorobenzene	1.20	0.34	mg/Kg wet	1.67		71.8	40-140	2.57	30		
1,2,4-Trichlorobenzene	1.20	0.34	mg/Kg wet	1.67		71.7	40-140	0.251	30		
2,4,5-Trichlorophenol	1.36	0.34	mg/Kg wet	1.67		81.7	30-130	2.50	30		
2,4,6-Trichlorophenol	1.26	0.34	mg/Kg wet	1.67		75.4	30-130	2.23	30		
Surrogate: 2-Fluorophenol	*4.99*		mg/Kg wet	6.67		74.8	30-130				
Surrogate: Phenol-d6	*4.99*		mg/Kg wet	6.67		74.8	30-130				
Surrogate: Nitrobenzene-d5	*2.54*		mg/Kg wet	3.33		76.3	30-130				
Surrogate: 2-Fluorobiphenyl	*2.58*		mg/Kg wet	3.33		77.5	30-130				
Surrogate: 2,4,6-Tribromophenol	*5.91*		mg/Kg wet	6.67		88.6	30-130				
Surrogate: p-Terphenyl-d14	*2.90*		mg/Kg wet	3.33		87.0	30-130				

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FLAG/QUALIFIER SUMMARY

*	QC result is outside of established limits.
†	Wide recovery limits established for difficult compound.
‡	Wide RPD limits established for difficult compound.
#	Data exceeded client recommended or regulatory level
ND	Not Detected
RL	Reporting Limit is at the level of quantitation (LOQ)
DL	Detection Limit is the lower limit of detection determined by the MDL study
MCL	Maximum Contaminant Level
	Percent recoveries and relative percent differences (RPDs) are determined by the software using values in the calculation which have not been rounded.
	No results have been blank subtracted unless specified in the case narrative section.
H-10	Analysis was requested after the recommended holding time had passed.
J	Detected but below the Reporting Limit (lowest calibration standard); therefore, result is an estimated concentration (CLP J-Flag).
V-06	Continuing calibration verification (CCV) did not meet method specifications and was biased on the high side for this compound.
V-20	Continuing calibration verification (CCV) did not meet method specifications and was biased on the high side. Data validation is not affected since sample result was "not detected" for this compound.
V-34	Initial calibration verification (ICV) did not meet method specifications and was biased on the low side for this compound. Reported result is estimated.
V-35	Initial calibration verification (ICV) did not meet method specifications and was biased on the high side for this compound. Reported result is estimated.

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CERTIFICATIONS

Certified Analyses included in this Report

Analyte	Certifications
SW-846 8270E in Soil	
Acenaphthene	CT,NY,NH,ME,NC,VA
Acenaphthylene	CT,NY,NH,ME,NC,VA
Acetophenone	NY,NH,ME,NC,VA
Aniline	NY,NH,ME,NC,VA
Anthracene	CT,NY,NH,ME,NC,VA
Benzidine	CT,NY,NH,ME,NC,VA
Benzo(a)anthracene	CT,NY,NH,ME,NC,VA
Benzo(a)pyrene	CT,NY,NH,ME,NC,VA
Benzo(b)fluoranthene	CT,NY,NH,ME,NC,VA
Benzo(g,h,i)perylene	CT,NY,NH,ME,NC,VA
Benzo(k)fluoranthene	CT,NY,NH,ME,NC,VA
Benzoic Acid	NY,NH,ME,NC,VA
Bis(2-chloroethoxy)methane	CT,NY,NH,ME,NC,VA
Bis(2-chloroethyl)ether	CT,NY,NH,ME,NC,VA
Bis(2-chloroisopropyl)ether	CT,NY,NH,ME,NC,VA
Bis(2-Ethylhexyl)phthalate	CT,NY,NH,ME,NC,VA
4-Bromophenylphenylether	CT,NY,NH,ME,NC,VA
Butylbenzylphthalate	CT,NY,NH,ME,NC,VA
Carbazole	NC
4-Chloroaniline	CT,NY,NH,ME,NC,VA
4-Chloro-3-methylphenol	CT,NY,NH,ME,NC,VA
2-Chloronaphthalene	CT,NY,NH,NC,VA
2-Chlorophenol	CT,NY,NH,ME,NC,VA
4-Chlorophenylphenylether	CT,NY,NH,ME,NC,VA
Chrysene	CT,NY,NH,ME,NC,VA
Dibenz(a,h)anthracene	CT,NY,NH,ME,NC,VA
Dibenzofuran	CT,NY,NH,ME,NC,VA
Di-n-butylphthalate	CT,NY,NH,ME,NC,VA
1,2-Dichlorobenzene	NY,NH,ME,NC,VA
1,3-Dichlorobenzene	NY,NH,ME,NC,VA
1,4-Dichlorobenzene	NY,NH,ME,NC,VA
3,3-Dichlorobenzidine	CT,NY,NH,ME,NC,VA
2,4-Dichlorophenol	CT,NY,NH,ME,NC,VA
Diethylphthalate	CT,NY,NH,ME,NC,VA
2,4-Dimethylphenol	CT,NY,NH,ME,NC,VA
Dimethylphthalate	CT,NY,NH,ME,NC,VA
4,6-Dinitro-2-methylphenol	CT,NY,NH,ME,NC,VA
2,4-Dinitrophenol	CT,NY,NH,ME,NC,VA
2,4-Dinitrotoluene	CT,NY,NH,ME,NC,VA
2,6-Dinitrotoluene	CT,NY,NH,ME,NC,VA
Di-n-octylphthalate	CT,NY,NH,ME,NC,VA
1,2-Diphenylhydrazine/Azobenzene	NY,NH,ME,NC,VA
Fluoranthene	CT,NY,NH,ME,NC,VA
Fluorene	NY,NH,ME,NC,VA
Hexachlorobenzene	CT,NY,NH,ME,NC,VA
Hexachlorobutadiene	CT,NY,NH,ME,NC,VA
Hexachlorocyclopentadiene	CT,NY,NH,ME,NC,VA

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CERTIFICATIONS

Certified Analyses included in this Report

Analyte	Certifications
SW-846 8270E in Soil	
Hexachloroethane	CT,NY,NH,ME,NC,VA
Indeno(1,2,3-cd)pyrene	CT,NY,NH,ME,NC,VA
Isophorone	CT,NY,NH,ME,NC,VA
1-Methylnaphthalene	NC
2-Methylnaphthalene	CT,NY,NH,ME,NC,VA
2-Methylphenol	CT,NY,NH,ME,NC,VA
3/4-Methylphenol	CT,NY,NH,ME,NC,VA
Naphthalene	CT,NY,NH,ME,NC,VA
2-Nitroaniline	CT,NY,NH,ME,NC,VA
3-Nitroaniline	CT,NY,NH,ME,NC,VA
4-Nitroaniline	CT,NY,NH,ME,NC,VA
Nitrobenzene	CT,NY,NH,ME,NC,VA
2-Nitrophenol	CT,NY,NH,ME,NC,VA
4-Nitrophenol	CT,NY,NH,ME,NC,VA
N-Nitrosodimethylamine	CT,NY,NH,ME,NC,VA
N-Nitrosodi-n-propylamine	CT,NY,NH,ME,NC,VA
Pentachloronitrobenzene	NY,NC
Pentachlorophenol	CT,NY,NH,ME,NC,VA
Phenanthrene	CT,NY,NH,ME,NC,VA
Phenol	CT,NY,NH,ME,NC,VA
Pyrene	CT,NY,NH,ME,NC,VA
Pyridine	CT,NY,NH,ME,NC,VA
1,2,4,5-Tetrachlorobenzene	NY,NC
1,2,4-Trichlorobenzene	CT,NY,NH,ME,NC,VA
2,4,5-Trichlorophenol	CT,NY,NH,ME,NC,VA
2,4,6-Trichlorophenol	CT,NY,NH,ME,NC,VA
2-Fluorophenol	NC

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Con-Test, a Pace Environmental Laboratory, operates under the following certifications and accreditations:

Code	Description	Number	Expires
AIHA	AIHA-LAP, LLC - ISO17025:2017	100033	03/1/2022
MA	Massachusetts DEP	M-MA100	06/30/2022
CT	Connecticut Department of Publilc Health	PH-0165	12/31/2022
NY	New York State Department of Health	10899 NELAP	04/1/2022
NH-S	New Hampshire Environmental Lab	2516 NELAP	02/5/2022
RI	Rhode Island Department of Health	LAO00112	12/30/2021
NC	North Carolina Div. of Water Quality	652	12/31/2021
NJ	New Jersey DEP	MA007 NELAP	06/30/2022
FL	Florida Department of Health	E871027 NELAP	06/30/2022
VT	Vermont Department of Health Lead Laboratory	LL720741	07/30/2022
ME	State of Maine	MA00100	06/9/2023
VA	Commonwealth of Virginia	460217	12/14/2021
NH-P	New Hampshire Environmental Lab	2557 NELAP	09/6/2022
VT-DW	Vermont Department of Health Drinking Water	VT-255716	06/12/2022
NC-DW	North Carolina Department of Health	25703	07/31/2022
PA	Commonwealth of Pennsylvania DEP	68-05812	06/30/2022
MI	Dept. of Env, Great Lakes, and Energy	9100	09/6/2022

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December 8, 2021

Sarah Ostertag
Ramboll US Consulting, Inc. - Arlington, VA
4350 North Fairfax Drive
Arlington, VA 22203

Project Location: 1400 N. Royal St., Alexandria, VA
Client Job Number:
Project Number: [none]
Laboratory Work Order Number: 21L0084

Enclosed are results of analyses for samples as received by the laboratory on December 1, 2021. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Kaitlyn A. Feliciano
Project Manager

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Ramboll US Consulting, Inc. - Arlington, VA
4350 North Fairfax Drive
Arlington, VA 22203
ATTN: Sarah Ostertag

REPORT DATE: 12/8/2021

PURCHASE ORDER NUMBER:

PROJECT NUMBER: [none]

ANALYTICAL SUMMARY

WORK ORDER NUMBER: 21L0084

The results of analyses performed on the following samples submitted to CON-TEST, a Pace Analytical Laboratory, are found in this report.

PROJECT LOCATION: 1400 N. Royal St., Alexandria, VA

FIELD SAMPLE #	LAB ID:	MATRIX	SAMPLE DESCRIPTION	TEST	SUB LAB
HRP-SB210-0-1-211028	21L0084-01	Soil		SM 2540G SW-846 8270E	

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CASE NARRATIVE SUMMARY

All reported results are within defined laboratory quality control objectives unless listed below or otherwise qualified in this report.

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SW-846 8270E

Qualifications:

H-10

Analysis was requested after the recommended holding time had passed.

Analyte & Samples(s) Qualified:

21L0084-01[HRP-SB210-0-1-211028]

MS-09

Matrix spike recovery and/or matrix spike duplicate recovery outside of control limits. Possibility of sample matrix effects that lead to a low bias for reported result or non-homogeneous sample aliquots cannot be eliminated.

Analyte & Samples(s) Qualified:

Benzidine
21L0084-01[HRP-SB210-0-1-211028], B296051-MS1, B296051-MSD1

Benzoic Acid
21L0084-01[HRP-SB210-0-1-211028], B296051-MS1, B296051-MSD1

Pyridine
21L0084-01[HRP-SB210-0-1-211028], B296051-MS1, B296051-MSD1

MS-22

Either matrix spike or MS duplicate is outside of control limits, but the other is within limits. RPD between the two MS/MSD results is within method specified criteria.

Analyte & Samples(s) Qualified:

Pentachlorophenol
B296051-MS1

V-05

Continuing calibration verification (CCV) did not meet method specifications and was biased on the low side for this compound.

Analyte & Samples(s) Qualified:

Benzidine
21L0084-01[HRP-SB210-0-1-211028], B296051-BLK1, B296051-BS1, B296051-BSD1, B296051-MS1, B296051-MSD1

Bis(2-chloroisopropyl)ether
21L0084-01[HRP-SB210-0-1-211028], B296051-BLK1, B296051-BS1, B296051-BSD1, B296051-MS1, B296051-MSD1

V-06

Continuing calibration verification (CCV) did not meet method specifications and was biased on the high side for this compound.

Analyte & Samples(s) Qualified:

Dibenz(a,h)anthracene
21L0084-01[HRP-SB210-0-1-211028], B296051-BLK1, B296051-BS1, B296051-BSD1, B296051-MS1, B296051-MSD1

Isophorone
B296051-BS1, B296051-BSD1, B296051-MS1, B296051-MSD1

N-Nitrosodi-n-propylamine
B296051-BS1, B296051-BSD1, B296051-MS1, B296051-MSD1

V-20

Continuing calibration verification (CCV) did not meet method specifications and was biased on the high side. Data validation is not affected since sample result was "not detected" for this compound.

Analyte & Samples(s) Qualified:

Isophorone
21L0084-01[HRP-SB210-0-1-211028], B296051-BLK1

N-Nitrosodi-n-propylamine
21L0084-01[HRP-SB210-0-1-211028], B296051-BLK1

V-35

Initial calibration verification (ICV) did not meet method specifications and was biased on the high side for this compound. Reported result is estimated.

Analyte & Samples(s) Qualified:

Benzidine
21L0084-01[HRP-SB210-0-1-211028], B296051-BLK1, B296051-BS1, B296051-BSD1, B296051-MS1, B296051-MSD1

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The results of analyses reported only relate to samples submitted to Con-Test, a Pace Analytical Laboratory, for testing.
I certify that the analyses listed above, unless specifically listed as subcontracted, if any, were performed under my direction according to the approved methodologies listed in this document, and that based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

Tod E. Kopyscinski
Laboratory Director

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Project Location: 1400 N. Royal St., Alexandria, VA Sample Description: Work Order: 21L0084

Date Received: 12/1/2021

Field Sample #: HRP-SB210-0-1-211028 Sampled: 10/28/2021 07:30

Sample ID: 21L0084-01

Sample Matrix: Soil

Sample Flags: H-10

Semivolatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acenaphthene	ND	0.20	0.062	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 21:47	BGL
Acenaphthylene	ND	0.20	0.060	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 21:47	BGL
Acetophenone	ND	0.40	0.054	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 21:47	BGL
Aniline	ND	0.40	0.082	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 21:47	BGL
Anthracene	ND	0.20	0.065	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 21:47	BGL
Benzidine	ND	0.77	0.18	mg/Kg dry	1	MS-09, V-05, V-35	SW-846 8270E	12/3/21	12/6/21 21:47	BGL
Benzo(a)anthracene	ND	0.20	0.055	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 21:47	BGL
Benzo(a)pyrene	ND	0.20	0.061	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 21:47	BGL
Benzo(b)fluoranthene	ND	0.20	0.060	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 21:47	BGL
Benzo(g,h,i)perylene	ND	0.20	0.083	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 21:47	BGL
Benzo(k)fluoranthene	ND	0.20	0.053	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 21:47	BGL
Benzoic Acid	ND	1.2	0.47	mg/Kg dry	1	MS-09	SW-846 8270E	12/3/21	12/6/21 21:47	BGL
Bis(2-chloroethoxy)methane	ND	0.40	0.051	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 21:47	BGL
Bis(2-chloroethyl)ether	ND	0.40	0.054	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 21:47	BGL
Bis(2-chloroisopropyl)ether	ND	0.40	0.090	mg/Kg dry	1	V-05	SW-846 8270E	12/3/21	12/6/21 21:47	BGL
Bis(2-Ethylhexyl)phthalate	ND	0.40	0.067	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 21:47	BGL
4-Bromophenylphenylether	ND	0.40	0.050	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 21:47	BGL
Butylbenzylphthalate	ND	0.40	0.063	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 21:47	BGL
Carbazole	ND	0.20	0.065	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 21:47	BGL
4-Chloroaniline	ND	0.77	0.053	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 21:47	BGL
4-Chloro-3-methylphenol	ND	0.77	0.066	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 21:47	BGL
2-Chloronaphthalene	ND	0.40	0.046	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 21:47	BGL
2-Chlorophenol	ND	0.40	0.055	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 21:47	BGL
4-Chlorophenylphenylether	ND	0.40	0.056	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 21:47	BGL
Chrysene	ND	0.20	0.057	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 21:47	BGL
Dibenz(a,h)anthracene	ND	0.20	0.080	mg/Kg dry	1	V-06	SW-846 8270E	12/3/21	12/6/21 21:47	BGL
Dibenzofuran	ND	0.40	0.058	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 21:47	BGL
Di-n-butylphthalate	ND	0.40	0.056	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 21:47	BGL
1,2-Dichlorobenzene	ND	0.40	0.045	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 21:47	BGL
1,3-Dichlorobenzene	ND	0.40	0.043	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 21:47	BGL
1,4-Dichlorobenzene	ND	0.40	0.041	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 21:47	BGL
3,3-Dichlorobenzidine	ND	0.20	0.058	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 21:47	BGL
2,4-Dichlorophenol	ND	0.40	0.059	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 21:47	BGL
Diethylphthalate	ND	0.40	0.060	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 21:47	BGL
2,4-Dimethylphenol	ND	0.40	0.11	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 21:47	BGL
Dimethylphthalate	ND	0.40	0.058	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 21:47	BGL
4,6-Dinitro-2-methylphenol	ND	0.40	0.27	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 21:47	BGL
2,4-Dinitrophenol	ND	0.77	0.34	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 21:47	BGL
2,4-Dinitrotoluene	ND	0.40	0.077	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 21:47	BGL
2,6-Dinitrotoluene	ND	0.40	0.066	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 21:47	BGL
Di-n-octylphthalate	ND	0.40	0.14	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 21:47	BGL
1,2-Diphenylhydrazine/Azobenzene	ND	0.40	0.057	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 21:47	BGL
Fluoranthene	ND	0.20	0.063	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 21:47	BGL
Fluorene	ND	0.20	0.067	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 21:47	BGL

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Project Location: 1400 N. Royal St., Alexandria, VA Sample Description: Work Order: 21L0084

Date Received: 12/1/2021

Field Sample #: HRP-SB210-0-1-211028 Sampled: 10/28/2021 07:30

Sample ID: 21L0084-01

Sample Matrix: Soil

Sample Flags: H-10

Semivolatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Hexachlorobenzene	ND	0.40	0.054	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 21:47	BGL
Hexachlorobutadiene	ND	0.40	0.050	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 21:47	BGL
Hexachlorocyclopentadiene	ND	0.40	0.17	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 21:47	BGL
Hexachloroethane	ND	0.40	0.047	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 21:47	BGL
Indeno(1,2,3-cd)pyrene	ND	0.20	0.089	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 21:47	BGL
Isophorone	ND	0.40	0.066	mg/Kg dry	1	V-20	SW-846 8270E	12/3/21	12/6/21 21:47	BGL
1-Methylnaphthalene	ND	0.20	0.055	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 21:47	BGL
2-Methylnaphthalene	ND	0.20	0.062	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 21:47	BGL
2-Methylphenol	ND	0.40	0.073	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 21:47	BGL
3/4-Methylphenol	ND	0.40	0.064	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 21:47	BGL
Naphthalene	ND	0.20	0.054	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 21:47	BGL
2-Nitroaniline	ND	0.40	0.084	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 21:47	BGL
3-Nitroaniline	ND	0.40	0.067	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 21:47	BGL
4-Nitroaniline	ND	0.40	0.085	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 21:47	BGL
Nitrobenzene	ND	0.40	0.057	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 21:47	BGL
2-Nitrophenol	ND	0.40	0.062	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 21:47	BGL
4-Nitrophenol	ND	0.77	0.16	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 21:47	BGL
N-Nitrosodimethylamine	ND	0.40	0.059	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 21:47	BGL
N-Nitrosodiphenylamine/Diphenylamine	ND	0.40	0.059	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 21:47	BGL
N-Nitrosodi-n-propylamine	ND	0.40	0.054	mg/Kg dry	1	V-20	SW-846 8270E	12/3/21	12/6/21 21:47	BGL
Pentachloronitrobenzene	ND	0.40	0.066	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 21:47	BGL
Pentachlorophenol	ND	0.40	0.17	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 21:47	BGL
Phenanthrene	ND	0.20	0.062	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 21:47	BGL
Phenol	ND	0.40	0.056	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 21:47	BGL
Pyrene	ND	0.20	0.063	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 21:47	BGL
Pyridine	ND	0.40	0.040	mg/Kg dry	1	MS-09	SW-846 8270E	12/3/21	12/6/21 21:47	BGL
1,2,4,5-Tetrachlorobenzene	ND	0.40	0.051	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 21:47	BGL
1,2,4-Trichlorobenzene	ND	0.40	0.050	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 21:47	BGL
2,4,5-Trichlorophenol	ND	0.40	0.061	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 21:47	BGL
2,4,6-Trichlorophenol	ND	0.40	0.061	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 21:47	BGL

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
2-Fluorophenol	58.1	30-130		12/6/21 21:47
Phenol-d6	67.7	30-130		12/6/21 21:47
Nitrobenzene-d5	55.1	30-130		12/6/21 21:47
2-Fluorobiphenyl	60.7	30-130		12/6/21 21:47
2,4,6-Tribromophenol	71.5	30-130		12/6/21 21:47
p-Terphenyl-d14	72.7	30-130		12/6/21 21:47

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Project Location: 1400 N. Royal St., Alexandria, VA Sample Description: Work Order: 21L0084

Date Received: 12/1/2021

Field Sample #: HRP-SB210-0-1-211028 Sampled: 10/28/2021 07:30

Sample ID: 21L0084-01

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	85.7		% Wt	1		SM 2540G	11/4/21	11/5/21 15:24	MJH

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Sample Extraction Data

Prep Method: % Solids **Analytical Method: SM 2540G**

Lab Number [Field ID]	Batch	Date
21L0084-01 [HRP-SB210-0-1-211028]	B294016	11/04/21

Prep Method: SW-846 3546 **Analytical Method: SW-846 8270E**

Lab Number [Field ID]	Batch	Initial [g]	Final [mL]	Date
21L0084-01 [HRP-SB210-0-1-211028]	B296051	30.1	1.00	12/03/21

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QUALITY CONTROL

Semivolatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B296051 - SW-846 3546										
Blank (B296051-BLK1)				Prepared: 12/03/21 Analyzed: 12/06/21						
Acenaphthene	ND	0.17	mg/Kg wet							
Acenaphthylene	ND	0.17	mg/Kg wet							
Acetophenone	ND	0.34	mg/Kg wet							
Aniline	ND	0.34	mg/Kg wet							
Anthracene	ND	0.17	mg/Kg wet							
Benzidine	ND	0.66	mg/Kg wet							V-05, V-35
Benzo(a)anthracene	ND	0.17	mg/Kg wet							
Benzo(a)pyrene	ND	0.17	mg/Kg wet							
Benzo(b)fluoranthene	ND	0.17	mg/Kg wet							
Benzo(g,h,i)perylene	ND	0.17	mg/Kg wet							
Benzo(k)fluoranthene	ND	0.17	mg/Kg wet							
Benzoic Acid	ND	1.0	mg/Kg wet							
Bis(2-chloroethoxy)methane	ND	0.34	mg/Kg wet							
Bis(2-chloroethyl)ether	ND	0.34	mg/Kg wet							
Bis(2-chloroisopropyl)ether	ND	0.34	mg/Kg wet							V-05
Bis(2-Ethylhexyl)phthalate	ND	0.34	mg/Kg wet							
4-Bromophenylphenylether	ND	0.34	mg/Kg wet							
Butylbenzylphthalate	ND	0.34	mg/Kg wet							
Carbazole	ND	0.17	mg/Kg wet							
4-Chloroaniline	ND	0.66	mg/Kg wet							
4-Chloro-3-methylphenol	ND	0.66	mg/Kg wet							
2-Chloronaphthalene	ND	0.34	mg/Kg wet							
2-Chlorophenol	ND	0.34	mg/Kg wet							
4-Chlorophenylphenylether	ND	0.34	mg/Kg wet							
Chrysene	ND	0.17	mg/Kg wet							
Dibenz(a,h)anthracene	ND	0.17	mg/Kg wet							V-06
Dibenzofuran	ND	0.34	mg/Kg wet							
Di-n-butylphthalate	ND	0.34	mg/Kg wet							
1,2-Dichlorobenzene	ND	0.34	mg/Kg wet							
1,3-Dichlorobenzene	ND	0.34	mg/Kg wet							
1,4-Dichlorobenzene	ND	0.34	mg/Kg wet							
3,3-Dichlorobenzidine	ND	0.17	mg/Kg wet							
2,4-Dichlorophenol	ND	0.34	mg/Kg wet							
Diethylphthalate	ND	0.34	mg/Kg wet							
2,4-Dimethylphenol	ND	0.34	mg/Kg wet							
Dimethylphthalate	ND	0.34	mg/Kg wet							
4,6-Dinitro-2-methylphenol	ND	0.34	mg/Kg wet							
2,4-Dinitrophenol	ND	0.66	mg/Kg wet							
2,4-Dinitrotoluene	ND	0.34	mg/Kg wet							
2,6-Dinitrotoluene	ND	0.34	mg/Kg wet							
Di-n-octylphthalate	ND	0.34	mg/Kg wet							
1,2-Diphenylhydrazine/Azobenzene	ND	0.34	mg/Kg wet							
Fluoranthene	ND	0.17	mg/Kg wet							
Fluorene	ND	0.17	mg/Kg wet							
Hexachlorobenzene	ND	0.34	mg/Kg wet							
Hexachlorobutadiene	ND	0.34	mg/Kg wet							
Hexachlorocyclopentadiene	ND	0.34	mg/Kg wet							
Hexachloroethane	ND	0.34	mg/Kg wet							
Indeno(1,2,3-cd)pyrene	ND	0.17	mg/Kg wet							
Isophorone	ND	0.34	mg/Kg wet							V-20
1-Methylnaphthalene	ND	0.17	mg/Kg wet							
2-Methylnaphthalene	ND	0.17	mg/Kg wet							

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QUALITY CONTROL

Semivolatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes	
Batch B296051 - SW-846 3546											
Blank (B296051-BLK1)				Prepared: 12/03/21 Analyzed: 12/06/21							
2-Methylphenol	ND	0.34	mg/Kg wet								
3/4-Methylphenol	ND	0.34	mg/Kg wet								
Naphthalene	ND	0.17	mg/Kg wet								
2-Nitroaniline	ND	0.34	mg/Kg wet								
3-Nitroaniline	ND	0.34	mg/Kg wet								
4-Nitroaniline	ND	0.34	mg/Kg wet								
Nitrobenzene	ND	0.34	mg/Kg wet								
2-Nitrophenol	ND	0.34	mg/Kg wet								
4-Nitrophenol	ND	0.66	mg/Kg wet								
N-Nitrosodimethylamine	ND	0.34	mg/Kg wet								
N-Nitrosodiphenylamine/Diphenylamine	ND	0.34	mg/Kg wet								
N-Nitrosodi-n-propylamine	ND	0.34	mg/Kg wet							V-20	
Pentachloronitrobenzene	ND	0.34	mg/Kg wet								
Pentachlorophenol	ND	0.34	mg/Kg wet								
Phenanthrene	ND	0.17	mg/Kg wet								
Phenol	ND	0.34	mg/Kg wet								
Pyrene	ND	0.17	mg/Kg wet								
Pyridine	ND	0.34	mg/Kg wet								
1,2,4,5-Tetrachlorobenzene	ND	0.34	mg/Kg wet								
1,2,4-Trichlorobenzene	ND	0.34	mg/Kg wet								
2,4,5-Trichlorophenol	ND	0.34	mg/Kg wet								
2,4,6-Trichlorophenol	ND	0.34	mg/Kg wet								
Surrogate: 2-Fluorophenol	*4.46*		mg/Kg wet	6.67		67.0	30-130				
Surrogate: Phenol-d6	*4.72*		mg/Kg wet	6.67		70.8	30-130				
Surrogate: Nitrobenzene-d5	*2.20*		mg/Kg wet	3.33		65.9	30-130				
Surrogate: 2-Fluorobiphenyl	*2.25*		mg/Kg wet	3.33		67.6	30-130				
Surrogate: 2,4,6-Tribromophenol	*5.35*		mg/Kg wet	6.67		80.2	30-130				
Surrogate: p-Terphenyl-d14	*2.59*		mg/Kg wet	3.33		77.8	30-130				
LCS (B296051-BS1)				Prepared: 12/03/21 Analyzed: 12/06/21							
Acenaphthene	1.19	0.17	mg/Kg wet	1.67		71.5	40-140				
Acenaphthylene	1.25	0.17	mg/Kg wet	1.67		75.0	40-140				
Acetophenone	1.23	0.34	mg/Kg wet	1.67		74.0	40-140				
Aniline	1.16	0.34	mg/Kg wet	1.67		69.5	10-140				†
Anthracene	1.23	0.17	mg/Kg wet	1.67		73.9	40-140				
Benzidine	2.10	0.66	mg/Kg wet	1.67		126	40-140			V-05, V-35	
Benzo(a)anthracene	1.19	0.17	mg/Kg wet	1.67		71.5	40-140				
Benzo(a)pyrene	1.32	0.17	mg/Kg wet	1.67		79.3	40-140				
Benzo(b)fluoranthene	1.31	0.17	mg/Kg wet	1.67		78.5	40-140				
Benzo(g,h,i)perylene	1.24	0.17	mg/Kg wet	1.67		74.2	40-140				
Benzo(k)fluoranthene	1.40	0.17	mg/Kg wet	1.67		83.8	40-140				
Benzoic Acid	0.854	1.0	mg/Kg wet	1.67		51.2	30-130			J	
Bis(2-chloroethoxy)methane	1.24	0.34	mg/Kg wet	1.67		74.7	40-140				
Bis(2-chloroethyl)ether	1.15	0.34	mg/Kg wet	1.67		69.0	40-140				
Bis(2-chloroisopropyl)ether	1.07	0.34	mg/Kg wet	1.67		64.5	40-140			V-05	
Bis(2-Ethylhexyl)phthalate	1.24	0.34	mg/Kg wet	1.67		74.3	40-140				
4-Bromophenylphenylether	1.13	0.34	mg/Kg wet	1.67		67.9	40-140				
Butylbenzylphthalate	1.22	0.34	mg/Kg wet	1.67		72.9	40-140				
Carbazole	1.22	0.17	mg/Kg wet	1.67		73.2	40-140				
4-Chloroaniline	1.25	0.66	mg/Kg wet	1.67		75.0	10-140				†
4-Chloro-3-methylphenol	1.34	0.66	mg/Kg wet	1.67		80.6	30-130				
2-Chloronaphthalene	1.04	0.34	mg/Kg wet	1.67		62.7	40-140				

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QUALITY CONTROL

Semivolatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes	
Batch B296051 - SW-846 3546											
LCS (B296051-BS1)				Prepared: 12/03/21 Analyzed: 12/06/21							
2-Chlorophenol	1.10	0.34	mg/Kg wet	1.67		66.3	30-130				
4-Chlorophenylphenylether	1.22	0.34	mg/Kg wet	1.67		73.1	40-140				
Chrysene	1.28	0.17	mg/Kg wet	1.67		77.0	40-140				
Dibenz(a,h)anthracene	1.30	0.17	mg/Kg wet	1.67		77.7	40-140			V-06	
Dibenzofuran	1.37	0.34	mg/Kg wet	1.67		82.0	40-140				
Di-n-butylphthalate	1.24	0.34	mg/Kg wet	1.67		74.5	40-140				
1,2-Dichlorobenzene	1.05	0.34	mg/Kg wet	1.67		62.9	40-140				
1,3-Dichlorobenzene	1.00	0.34	mg/Kg wet	1.67		60.2	40-140				
1,4-Dichlorobenzene	1.02	0.34	mg/Kg wet	1.67		61.4	40-140				
3,3-Dichlorobenzidine	1.26	0.17	mg/Kg wet	1.67		75.4	20-140				†
2,4-Dichlorophenol	1.20	0.34	mg/Kg wet	1.67		72.2	30-130				
Diethylphthalate	1.33	0.34	mg/Kg wet	1.67		79.8	40-140				
2,4-Dimethylphenol	1.22	0.34	mg/Kg wet	1.67		73.1	30-130				
Dimethylphthalate	1.28	0.34	mg/Kg wet	1.67		76.9	40-140				
4,6-Dinitro-2-methylphenol	1.15	0.34	mg/Kg wet	1.67		69.1	30-130				
2,4-Dinitrophenol	1.06	0.66	mg/Kg wet	1.67		63.9	30-130				
2,4-Dinitrotoluene	1.41	0.34	mg/Kg wet	1.67		84.4	40-140				
2,6-Dinitrotoluene	1.33	0.34	mg/Kg wet	1.67		79.8	40-140				
Di-n-octylphthalate	1.19	0.34	mg/Kg wet	1.67		71.3	40-140				
1,2-Diphenylhydrazine/Azobenzene	1.33	0.34	mg/Kg wet	1.67		80.1	40-140				
Fluoranthene	1.26	0.17	mg/Kg wet	1.67		75.6	40-140				
Fluorene	1.34	0.17	mg/Kg wet	1.67		80.1	40-140				
Hexachlorobenzene	1.19	0.34	mg/Kg wet	1.67		71.4	40-140				
Hexachlorobutadiene	1.21	0.34	mg/Kg wet	1.67		72.3	40-140				
Hexachlorocyclopentadiene	0.961	0.34	mg/Kg wet	1.67		57.7	40-140				
Hexachloroethane	1.12	0.34	mg/Kg wet	1.67		67.3	40-140				
Indeno(1,2,3-cd)pyrene	1.25	0.17	mg/Kg wet	1.67		75.2	40-140				
Isophorone	1.46	0.34	mg/Kg wet	1.67		87.5	40-140			V-06	
1-Methylnaphthalene	1.21	0.17	mg/Kg wet	1.67		72.8	40-140				
2-Methylnaphthalene	1.44	0.17	mg/Kg wet	1.67		86.1	40-140				
2-Methylphenol	1.28	0.34	mg/Kg wet	1.67		76.8	30-130				
3/4-Methylphenol	1.31	0.34	mg/Kg wet	1.67		78.5	30-130				
Naphthalene	1.18	0.17	mg/Kg wet	1.67		70.6	40-140				
2-Nitroaniline	1.78	0.34	mg/Kg wet	1.67		107	40-140				
3-Nitroaniline	1.26	0.34	mg/Kg wet	1.67		75.5	30-140				†
4-Nitroaniline	1.45	0.34	mg/Kg wet	1.67		87.0	40-140				
Nitrobenzene	1.28	0.34	mg/Kg wet	1.67		76.8	40-140				
2-Nitrophenol	1.08	0.34	mg/Kg wet	1.67		65.0	30-130				
4-Nitrophenol	1.39	0.66	mg/Kg wet	1.67		83.5	30-130				
N-Nitrosodimethylamine	1.22	0.34	mg/Kg wet	1.67		72.9	40-140				
N-Nitrosodiphenylamine/Diphenylamine	1.20	0.34	mg/Kg wet	1.67		72.0	40-140				
N-Nitrosodi-n-propylamine	1.33	0.34	mg/Kg wet	1.67		79.6	40-140			V-06	
Pentachloronitrobenzene	1.22	0.34	mg/Kg wet	1.67		73.5	40-140				
Pentachlorophenol	1.03	0.34	mg/Kg wet	1.67		61.8	30-130				
Phenanthrene	1.23	0.17	mg/Kg wet	1.67		74.0	40-140				
Phenol	1.23	0.34	mg/Kg wet	1.67		73.7	30-130				
Pyrene	1.18	0.17	mg/Kg wet	1.67		71.0	40-140				
Pyridine	0.628	0.34	mg/Kg wet	1.67		37.7	30-140				†
1,2,4,5-Tetrachlorobenzene	1.11	0.34	mg/Kg wet	1.67		66.9	40-140				
1,2,4-Trichlorobenzene	1.18	0.34	mg/Kg wet	1.67		71.1	40-140				
2,4,5-Trichlorophenol	1.28	0.34	mg/Kg wet	1.67		76.9	30-130				
2,4,6-Trichlorophenol	1.17	0.34	mg/Kg wet	1.67		70.2	30-130				

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QUALITY CONTROL

Semivolatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes	
Batch B296051 - SW-846 3546											
LCS (B296051-BS1)				Prepared: 12/03/21 Analyzed: 12/06/21							
Surrogate: 2-Fluorophenol	*5.20*		mg/Kg wet	6.67		77.9	30-130				
Surrogate: Phenol-d6	*5.67*		mg/Kg wet	6.67		85.0	30-130				
Surrogate: Nitrobenzene-d5	*2.64*		mg/Kg wet	3.33		79.3	30-130				
Surrogate: 2-Fluorobiphenyl	*2.55*		mg/Kg wet	3.33		76.5	30-130				
Surrogate: 2,4,6-Tribromophenol	*6.21*		mg/Kg wet	6.67		93.2	30-130				
Surrogate: p-Terphenyl-d14	*2.78*		mg/Kg wet	3.33		83.5	30-130				
LCS Dup (B296051-BSD1)				Prepared: 12/03/21 Analyzed: 12/06/21							
Acenaphthene	1.22	0.17	mg/Kg wet	1.67		73.2	40-140	2.35	30		
Acenaphthylene	1.25	0.17	mg/Kg wet	1.67		75.1	40-140	0.133	30		
Acetophenone	1.14	0.34	mg/Kg wet	1.67		68.6	40-140	7.52	30		
Aniline	1.13	0.34	mg/Kg wet	1.67		67.8	10-140	2.42	50		† ‡
Anthracene	1.21	0.17	mg/Kg wet	1.67		72.8	40-140	1.42	30		
Benzidine	2.20	0.66	mg/Kg wet	1.67		132	40-140	4.26	30	V-05, V-35	
Benzo(a)anthracene	1.21	0.17	mg/Kg wet	1.67		72.8	40-140	1.86	30		
Benzo(a)pyrene	1.34	0.17	mg/Kg wet	1.67		80.1	40-140	1.03	30		
Benzo(b)fluoranthene	1.30	0.17	mg/Kg wet	1.67		78.2	40-140	0.409	30		
Benzo(g,h,i)perylene	1.24	0.17	mg/Kg wet	1.67		74.1	40-140	0.135	30		
Benzo(k)fluoranthene	1.40	0.17	mg/Kg wet	1.67		84.3	40-140	0.595	30		
Benzoic Acid	0.888	1.0	mg/Kg wet	1.67		53.3	30-130	3.94	50	J	‡
Bis(2-chloroethoxy)methane	1.21	0.34	mg/Kg wet	1.67		72.6	40-140	2.80	30		
Bis(2-chloroethyl)ether	1.11	0.34	mg/Kg wet	1.67		66.7	40-140	3.36	30		
Bis(2-chloroisopropyl)ether	1.02	0.34	mg/Kg wet	1.67		61.4	40-140	4.83	30	V-05	
Bis(2-Ethylhexyl)phthalate	1.20	0.34	mg/Kg wet	1.67		72.2	40-140	2.81	30		
4-Bromophenylphenylether	1.08	0.34	mg/Kg wet	1.67		64.9	40-140	4.49	30		
Butylbenzylphthalate	1.19	0.34	mg/Kg wet	1.67		71.3	40-140	2.28	30		
Carbazole	1.26	0.17	mg/Kg wet	1.67		75.5	40-140	3.01	30		
4-Chloroaniline	1.18	0.66	mg/Kg wet	1.67		71.1	10-140	5.40	30		†
4-Chloro-3-methylphenol	1.29	0.66	mg/Kg wet	1.67		77.2	30-130	4.26	30		
2-Chloronaphthalene	1.05	0.34	mg/Kg wet	1.67		63.1	40-140	0.763	30		
2-Chlorophenol	1.06	0.34	mg/Kg wet	1.67		63.6	30-130	4.16	30		
4-Chlorophenylphenylether	1.25	0.34	mg/Kg wet	1.67		75.1	40-140	2.59	30		
Chrysene	1.28	0.17	mg/Kg wet	1.67		76.7	40-140	0.312	30		
Dibenz(a,h)anthracene	1.27	0.17	mg/Kg wet	1.67		76.3	40-140	1.82	30	V-06	
Dibenzofuran	1.33	0.34	mg/Kg wet	1.67		79.8	40-140	2.74	30		
Di-n-butylphthalate	1.24	0.34	mg/Kg wet	1.67		74.5	40-140	0.0268	30		
1,2-Dichlorobenzene	1.02	0.34	mg/Kg wet	1.67		61.0	40-140	3.00	30		
1,3-Dichlorobenzene	0.986	0.34	mg/Kg wet	1.67		59.2	40-140	1.64	30		
1,4-Dichlorobenzene	0.996	0.34	mg/Kg wet	1.67		59.7	40-140	2.77	30		
3,3-Dichlorobenzidine	1.30	0.17	mg/Kg wet	1.67		78.2	20-140	3.59	50		† ‡
2,4-Dichlorophenol	1.14	0.34	mg/Kg wet	1.67		68.1	30-130	5.82	30		
Diethylphthalate	1.33	0.34	mg/Kg wet	1.67		80.1	40-140	0.300	30		
2,4-Dimethylphenol	1.16	0.34	mg/Kg wet	1.67		69.9	30-130	4.53	30		
Dimethylphthalate	1.24	0.34	mg/Kg wet	1.67		74.6	40-140	3.04	30		
4,6-Dinitro-2-methylphenol	1.11	0.34	mg/Kg wet	1.67		66.7	30-130	3.62	30		
2,4-Dinitrophenol	1.14	0.66	mg/Kg wet	1.67		68.2	30-130	6.51	30		
2,4-Dinitrotoluene	1.46	0.34	mg/Kg wet	1.67		87.4	40-140	3.56	30		
2,6-Dinitrotoluene	1.35	0.34	mg/Kg wet	1.67		81.1	40-140	1.57	30		
Di-n-octylphthalate	1.13	0.34	mg/Kg wet	1.67		67.7	40-140	5.18	30		
1,2-Diphenylhydrazine/Azobenzene	1.28	0.34	mg/Kg wet	1.67		76.5	40-140	4.52	30		
Fluoranthene	1.33	0.17	mg/Kg wet	1.67		79.7	40-140	5.28	30		
Fluorene	1.33	0.17	mg/Kg wet	1.67		79.6	40-140	0.701	30		

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QUALITY CONTROL

Semivolatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes	
Batch B296051 - SW-846 3546											
LCS Dup (B296051-BSD1)				Prepared: 12/03/21 Analyzed: 12/06/21							
Hexachlorobenzene	1.18	0.34	mg/Kg wet	1.67		70.6	40-140	1.07	30		
Hexachlorobutadiene	1.25	0.34	mg/Kg wet	1.67		74.9	40-140	3.42	30		
Hexachlorocyclopentadiene	0.984	0.34	mg/Kg wet	1.67		59.0	40-140	2.33	30		
Hexachloroethane	1.06	0.34	mg/Kg wet	1.67		63.8	40-140	5.43	30		
Indeno(1,2,3-cd)pyrene	1.24	0.17	mg/Kg wet	1.67		74.7	40-140	0.694	30		
Isophorone	1.38	0.34	mg/Kg wet	1.67		82.8	40-140	5.57	30	V-06	
1-Methylnaphthalene	1.14	0.17	mg/Kg wet	1.67		68.2	40-140	6.55	30		
2-Methylnaphthalene	1.42	0.17	mg/Kg wet	1.67		84.9	40-140	1.43	30		
2-Methylphenol	1.19	0.34	mg/Kg wet	1.67		71.4	30-130	7.21	30		
3/4-Methylphenol	1.24	0.34	mg/Kg wet	1.67		74.4	30-130	5.34	30		
Naphthalene	1.19	0.17	mg/Kg wet	1.67		71.2	40-140	0.846	30		
2-Nitroaniline	1.78	0.34	mg/Kg wet	1.67		107	40-140	0.318	30		
3-Nitroaniline	1.32	0.34	mg/Kg wet	1.67		79.1	30-140	4.71	30		†
4-Nitroaniline	1.54	0.34	mg/Kg wet	1.67		92.6	40-140	6.23	30		
Nitrobenzene	1.27	0.34	mg/Kg wet	1.67		76.5	40-140	0.365	30		
2-Nitrophenol	1.07	0.34	mg/Kg wet	1.67		64.1	30-130	1.46	30		
4-Nitrophenol	1.51	0.66	mg/Kg wet	1.67		90.6	30-130	8.23	50		‡
N-Nitrosodimethylamine	1.09	0.34	mg/Kg wet	1.67		65.7	40-140	10.5	30		
N-Nitrosodiphenylamine/Diphenylamine	1.18	0.34	mg/Kg wet	1.67		70.7	40-140	1.82	30		
N-Nitrosodi-n-propylamine	1.24	0.34	mg/Kg wet	1.67		74.1	40-140	7.10	30	V-06	
Pentachloronitrobenzene	1.24	0.34	mg/Kg wet	1.67		74.5	40-140	1.35	30		
Pentachlorophenol	1.05	0.34	mg/Kg wet	1.67		62.9	30-130	1.80	30		
Phenanthrene	1.22	0.17	mg/Kg wet	1.67		73.4	40-140	0.896	30		
Phenol	1.15	0.34	mg/Kg wet	1.67		69.0	30-130	6.50	30		
Pyrene	1.18	0.17	mg/Kg wet	1.67		71.0	40-140	0.00	30		
Pyridine	0.698	0.34	mg/Kg wet	1.67		41.9	30-140	10.6	30		†
1,2,4,5-Tetrachlorobenzene	1.12	0.34	mg/Kg wet	1.67		67.2	40-140	0.478	30		
1,2,4-Trichlorobenzene	1.15	0.34	mg/Kg wet	1.67		69.0	40-140	3.00	30		
2,4,5-Trichlorophenol	1.26	0.34	mg/Kg wet	1.67		75.6	30-130	1.81	30		
2,4,6-Trichlorophenol	1.14	0.34	mg/Kg wet	1.67		68.1	30-130	3.09	30		
Surrogate: 2-Fluorophenol	*4.91*		mg/Kg wet	6.67		73.7	30-130				
Surrogate: Phenol-d6	*5.26*		mg/Kg wet	6.67		78.9	30-130				
Surrogate: Nitrobenzene-d5	*2.43*		mg/Kg wet	3.33		72.8	30-130				
Surrogate: 2-Fluorobiphenyl	*2.47*		mg/Kg wet	3.33		74.0	30-130				
Surrogate: 2,4,6-Tribromophenol	*6.52*		mg/Kg wet	6.67		97.8	30-130				
Surrogate: p-Terphenyl-d14	*2.72*		mg/Kg wet	3.33		81.7	30-130				
Matrix Spike (B296051-MS1)		**Source: 21L0084-01**		Prepared: 12/03/21 Analyzed: 12/06/21							
Acenaphthene	1.16	0.20	mg/Kg dry	1.94	ND	59.6	40-140				
Acenaphthylene	1.22	0.20	mg/Kg dry	1.94	ND	62.8	40-140				
Acetophenone	1.13	0.40	mg/Kg dry	1.94	ND	58.2	40-140				
Aniline	0.907	0.40	mg/Kg dry	1.94	ND	46.6	40-140				
Anthracene	1.19	0.20	mg/Kg dry	1.94	ND	61.3	40-140				
Benzidine	0.209	0.77	mg/Kg dry	1.94	ND	**10.8** *	40-140			MS-09, V-05, V-35, J	
Benzo(a)anthracene	1.21	0.20	mg/Kg dry	1.94	ND	62.3	40-140				
Benzo(a)pyrene	1.31	0.20	mg/Kg dry	1.94	ND	67.2	40-140				
Benzo(b)fluoranthene	1.33	0.20	mg/Kg dry	1.94	ND	68.3	40-140				
Benzo(g,h,i)perylene	1.16	0.20	mg/Kg dry	1.94	ND	59.5	40-140				
Benzo(k)fluoranthene	1.41	0.20	mg/Kg dry	1.94	ND	72.5	40-140				
Benzoic Acid	0.208	1.2	mg/Kg dry	1.94	ND	**10.7** *	40-140			MS-09, J	
Bis(2-chloroethoxy)methane	1.15	0.40	mg/Kg dry	1.94	ND	59.1	40-140				
Bis(2-chloroethyl)ether	1.04	0.40	mg/Kg dry	1.94	ND	53.3	40-140				

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QUALITY CONTROL

Semivolatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC		%REC Limits	RPD	RPD Limit	Notes
Batch B296051 - SW-846 3546											
Matrix Spike (B296051-MS1)		**Source: 21L0084-01**		Prepared: 12/03/21 Analyzed: 12/06/21							
Bis(2-chloroisopropyl)ether	0.951	0.40	mg/Kg dry	1.94	ND	48.9		40-140			V-05
Bis(2-Ethylhexyl)phthalate	1.12	0.40	mg/Kg dry	1.94	ND	57.8		40-140			
4-Bromophenylphenylether	1.15	0.40	mg/Kg dry	1.94	ND	59.2		40-140			
Butylbenzylphthalate	1.11	0.40	mg/Kg dry	1.94	ND	57.3		40-140			
Carbazole	1.23	0.20	mg/Kg dry	1.94	ND	63.4		40-140			
4-Chloroaniline	1.08	0.77	mg/Kg dry	1.94	ND	55.7		40-140			
4-Chloro-3-methylphenol	1.27	0.77	mg/Kg dry	1.94	ND	65.4		30-130			
2-Chloronaphthalene	1.03	0.40	mg/Kg dry	1.94	ND	53.0		40-140			
2-Chlorophenol	1.03	0.40	mg/Kg dry	1.94	ND	53.0		30-130			
4-Chlorophenylphenylether	1.18	0.40	mg/Kg dry	1.94	ND	60.9		40-140			
Chrysene	1.23	0.20	mg/Kg dry	1.94	ND	63.4		40-140			
Dibenz(a,h)anthracene	1.25	0.20	mg/Kg dry	1.94	ND	64.2		40-140			V-06
Dibenzofuran	1.33	0.40	mg/Kg dry	1.94	ND	68.5		40-140			
Di-n-butylphthalate	1.18	0.40	mg/Kg dry	1.94	ND	60.6		40-140			
1,2-Dichlorobenzene	0.911	0.40	mg/Kg dry	1.94	ND	46.8		40-140			
1,3-Dichlorobenzene	0.858	0.40	mg/Kg dry	1.94	ND	44.1		40-140			
1,4-Dichlorobenzene	0.870	0.40	mg/Kg dry	1.94	ND	44.7		40-140			
3,3-Dichlorobenzidine	1.09	0.20	mg/Kg dry	1.94	ND	56.2		40-140			
2,4-Dichlorophenol	1.13	0.40	mg/Kg dry	1.94	ND	58.3		30-130			
Diethylphthalate	1.25	0.40	mg/Kg dry	1.94	ND	64.4		40-140			
2,4-Dimethylphenol	1.08	0.40	mg/Kg dry	1.94	ND	55.7		30-130			
Dimethylphthalate	1.20	0.40	mg/Kg dry	1.94	ND	61.5		40-140			
4,6-Dinitro-2-methylphenol	0.937	0.40	mg/Kg dry	1.94	ND	48.2		30-130			
2,4-Dinitrophenol	0.801	0.77	mg/Kg dry	1.94	ND	41.2		30-130			
2,4-Dinitrotoluene	1.41	0.40	mg/Kg dry	1.94	ND	72.7		40-140			
2,6-Dinitrotoluene	1.33	0.40	mg/Kg dry	1.94	ND	68.5		40-140			
Di-n-octylphthalate	1.15	0.40	mg/Kg dry	1.94	ND	58.9		40-140			
1,2-Diphenylhydrazine/Azobenzene	1.29	0.40	mg/Kg dry	1.94	ND	66.3		40-140			
Fluoranthene	1.25	0.20	mg/Kg dry	1.94	ND	64.5		40-140			
Fluorene	1.28	0.20	mg/Kg dry	1.94	ND	65.6		40-140			
Hexachlorobenzene	1.24	0.40	mg/Kg dry	1.94	ND	63.7		40-140			
Hexachlorobutadiene	1.11	0.40	mg/Kg dry	1.94	ND	57.0		40-140			
Hexachlorocyclopentadiene	0.671	0.40	mg/Kg dry	1.94	ND	34.5		30-130			
Hexachloroethane	0.931	0.40	mg/Kg dry	1.94	ND	47.9		40-140			
Indeno(1,2,3-cd)pyrene	1.21	0.20	mg/Kg dry	1.94	ND	62.1		40-140			
Isophorone	1.35	0.40	mg/Kg dry	1.94	ND	69.4		40-140			V-06
1-Methylnaphthalene	1.20	0.20	mg/Kg dry	1.94	ND	61.5		40-140			
2-Methylnaphthalene	1.41	0.20	mg/Kg dry	1.94	ND	72.3		40-140			
2-Methylphenol	1.20	0.40	mg/Kg dry	1.94	ND	61.6		30-130			
3/4-Methylphenol	1.27	0.40	mg/Kg dry	1.94	ND	65.2		30-130			
Naphthalene	1.12	0.20	mg/Kg dry	1.94	ND	57.3		40-140			
2-Nitroaniline	1.68	0.40	mg/Kg dry	1.94	ND	86.5		40-140			
3-Nitroaniline	1.20	0.40	mg/Kg dry	1.94	ND	61.5		40-140			
4-Nitroaniline	1.35	0.40	mg/Kg dry	1.94	ND	69.4		40-140			
Nitrobenzene	1.19	0.40	mg/Kg dry	1.94	ND	61.3		40-140			
2-Nitrophenol	1.01	0.40	mg/Kg dry	1.94	ND	51.8		30-130			
4-Nitrophenol	1.24	0.77	mg/Kg dry	1.94	ND	63.9		30-130			
N-Nitrosodimethylamine	0.910	0.40	mg/Kg dry	1.94	ND	46.8		40-140			
N-Nitrosodiphenylamine/Diphenylamine	1.23	0.40	mg/Kg dry	1.94	ND	63.2		40-140			
N-Nitrosodi-n-propylamine	1.22	0.40	mg/Kg dry	1.94	ND	62.5		40-140			V-06
Pentachloronitrobenzene	1.19	0.40	mg/Kg dry	1.94	ND	61.2		40-140			
Pentachlorophenol	0.517	0.40	mg/Kg dry	1.94	ND	**26.6**	*	30-130			MS-22

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QUALITY CONTROL

Semivolatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC		%REC Limits	RPD	RPD Limit	Notes
Batch B296051 - SW-846 3546											
Matrix Spike (B296051-MS1)		**Source: 21L0084-01**		Prepared: 12/03/21 Analyzed: 12/06/21							
Phenanthrene	1.24	0.20	mg/Kg dry	1.94	ND	63.9		40-140			
Phenol	1.16	0.40	mg/Kg dry	1.94	ND	59.9		30-130			
Pyrene	1.18	0.20	mg/Kg dry	1.94	ND	60.9		40-140			
Pyridine	0.547	0.40	mg/Kg dry	1.94	ND	**28.1**	*	40-140			MS-09
1,2,4,5-Tetrachlorobenzene	1.05	0.40	mg/Kg dry	1.94	ND	54.2		40-140			
1,2,4-Trichlorobenzene	1.10	0.40	mg/Kg dry	1.94	ND	56.5		40-140			
2,4,5-Trichlorophenol	1.20	0.40	mg/Kg dry	1.94	ND	61.6		30-130			
2,4,6-Trichlorophenol	1.06	0.40	mg/Kg dry	1.94	ND	54.4		30-130			
Surrogate: 2-Fluorophenol	*4.57*		mg/Kg dry	7.78		58.7		30-130			
Surrogate: Phenol-d6	*5.25*		mg/Kg dry	7.78		67.4		30-130			
Surrogate: Nitrobenzene-d5	*2.39*		mg/Kg dry	3.89		61.3		30-130			
Surrogate: 2-Fluorobiphenyl	*2.32*		mg/Kg dry	3.89		59.7		30-130			
Surrogate: 2,4,6-Tribromophenol	*5.79*		mg/Kg dry	7.78		74.4		30-130			
Surrogate: p-Terphenyl-d14	*2.60*		mg/Kg dry	3.89		66.9		30-130			
Matrix Spike Dup (B296051-MSD1)		**Source: 21L0084-01**		Prepared: 12/03/21 Analyzed: 12/06/21							
Acenaphthene	1.26	0.20	mg/Kg dry	1.94	ND	64.8		40-140	8.42	30	
Acenaphthylene	1.32	0.20	mg/Kg dry	1.94	ND	67.7		40-140	7.54	30	
Acetophenone	1.26	0.40	mg/Kg dry	1.94	ND	65.0		40-140	11.0	30	
Aniline	0.944	0.40	mg/Kg dry	1.94	ND	48.5		40-140	3.99	30	
Anthracene	1.35	0.20	mg/Kg dry	1.94	ND	69.2		40-140	12.1	30	
Benzidine	0.213	0.77	mg/Kg dry	1.94	ND	**10.9**	*	40-140	1.66	30	MS-09, V-05, V-35, J
Benzo(a)anthracene	1.30	0.20	mg/Kg dry	1.94	ND	66.7		40-140	6.73	30	
Benzo(a)pyrene	1.47	0.20	mg/Kg dry	1.94	ND	75.7		40-140	12.0	30	
Benzo(b)fluoranthene	1.47	0.20	mg/Kg dry	1.94	ND	75.4		40-140	9.86	30	
Benzo(g,h,i)perylene	1.22	0.20	mg/Kg dry	1.94	ND	62.6		40-140	4.95	30	
Benzo(k)fluoranthene	1.59	0.20	mg/Kg dry	1.94	ND	81.8		40-140	12.0	30	
Benzoic Acid	0.225	1.2	mg/Kg dry	1.94	ND	**11.6**	*	40-140		30	MS-09, J
Bis(2-chloroethoxy)methane	1.27	0.40	mg/Kg dry	1.94	ND	65.2		40-140	9.85	30	
Bis(2-chloroethyl)ether	1.12	0.40	mg/Kg dry	1.94	ND	57.7		40-140	7.82	30	
Bis(2-chloroisopropyl)ether	1.06	0.40	mg/Kg dry	1.94	ND	54.5		40-140	10.9	30	V-05
Bis(2-Ethylhexyl)phthalate	1.31	0.40	mg/Kg dry	1.94	ND	67.3		40-140	15.2	30	
4-Bromophenylphenylether	1.22	0.40	mg/Kg dry	1.94	ND	62.5		40-140	5.39	30	
Butylbenzylphthalate	1.27	0.40	mg/Kg dry	1.94	ND	65.3		40-140	13.1	30	
Carbazole	1.35	0.20	mg/Kg dry	1.94	ND	69.6		40-140	9.32	30	
4-Chloroaniline	1.10	0.77	mg/Kg dry	1.94	ND	56.3		40-140	1.04	30	
4-Chloro-3-methylphenol	1.45	0.77	mg/Kg dry	1.94	ND	74.5		30-130	13.0	30	
2-Chloronaphthalene	1.05	0.40	mg/Kg dry	1.94	ND	53.8		40-140	1.53	30	
2-Chlorophenol	1.14	0.40	mg/Kg dry	1.94	ND	58.6		30-130	10.0	30	
4-Chlorophenylphenylether	1.29	0.40	mg/Kg dry	1.94	ND	66.5		40-140	8.85	30	
Chrysene	1.38	0.20	mg/Kg dry	1.94	ND	71.0		40-140	11.3	30	
Dibenz(a,h)anthracene	1.33	0.20	mg/Kg dry	1.94	ND	68.6		40-140	6.65	30	V-06
Dibenzofuran	1.42	0.40	mg/Kg dry	1.94	ND	73.0		40-140	6.25	30	
Di-n-butylphthalate	1.35	0.40	mg/Kg dry	1.94	ND	69.3		40-140	13.5	30	
1,2-Dichlorobenzene	1.03	0.40	mg/Kg dry	1.94	ND	53.0		40-140	12.3	30	
1,3-Dichlorobenzene	0.932	0.40	mg/Kg dry	1.94	ND	47.9		40-140	8.26	30	
1,4-Dichlorobenzene	0.958	0.40	mg/Kg dry	1.94	ND	49.3		40-140	9.62	30	
3,3-Dichlorobenzidine	1.16	0.20	mg/Kg dry	1.94	ND	59.9		40-140	6.27	30	
2,4-Dichlorophenol	1.23	0.40	mg/Kg dry	1.94	ND	63.4		30-130	8.32	30	
Diethylphthalate	1.38	0.40	mg/Kg dry	1.94	ND	70.7		40-140	9.35	30	
2,4-Dimethylphenol	1.21	0.40	mg/Kg dry	1.94	ND	62.1		30-130	10.8	30	
Dimethylphthalate	1.32	0.40	mg/Kg dry	1.94	ND	67.7		40-140	9.53	30	

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QUALITY CONTROL

Semivolatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC		%REC Limits	RPD	RPD Limit	Notes
Batch B296051 - SW-846 3546											
Matrix Spike Dup (B296051-MSD1)		**Source: 21L0084-01**		Prepared: 12/03/21 Analyzed: 12/06/21							
4,6-Dinitro-2-methylphenol	1.03	0.40	mg/Kg dry	1.94	ND	52.9		30-130	9.38	30	
2,4-Dinitrophenol	0.921	0.77	mg/Kg dry	1.94	ND	47.3		30-130	13.9	30	
2,4-Dinitrotoluene	1.44	0.40	mg/Kg dry	1.94	ND	74.1		40-140	1.83	30	
2,6-Dinitrotoluene	1.43	0.40	mg/Kg dry	1.94	ND	73.4		40-140	6.85	30	
Di-n-octylphthalate	1.35	0.40	mg/Kg dry	1.94	ND	69.2		40-140	16.2	30	
1,2-Diphenylhydrazine/Azobenzene	1.42	0.40	mg/Kg dry	1.94	ND	72.9		40-140	9.57	30	
Fluoranthene	1.47	0.20	mg/Kg dry	1.94	ND	75.4		40-140	15.5	30	
Fluorene	1.41	0.20	mg/Kg dry	1.94	ND	72.6		40-140	10.1	30	
Hexachlorobenzene	1.33	0.40	mg/Kg dry	1.94	ND	68.6		40-140	7.38	30	
Hexachlorobutadiene	1.23	0.40	mg/Kg dry	1.94	ND	63.2		40-140	10.4	30	
Hexachlorocyclopentadiene	0.799	0.40	mg/Kg dry	1.94	ND	41.1		30-130	17.5	30	
Hexachloroethane	1.04	0.40	mg/Kg dry	1.94	ND	53.5		40-140	11.1	30	
Indeno(1,2,3-cd)pyrene	1.32	0.20	mg/Kg dry	1.94	ND	67.8		40-140	8.83	30	
Isophorone	1.46	0.40	mg/Kg dry	1.94	ND	75.3		40-140	8.15	30	V-06
1-Methylnaphthalene	1.31	0.20	mg/Kg dry	1.94	ND	67.2		40-140	8.89	30	
2-Methylnaphthalene	1.54	0.20	mg/Kg dry	1.94	ND	79.4		40-140	9.41	30	
2-Methylphenol	1.33	0.40	mg/Kg dry	1.94	ND	68.6		30-130	10.6	30	
3/4-Methylphenol	1.38	0.40	mg/Kg dry	1.94	ND	71.0		30-130	8.58	30	
Naphthalene	1.22	0.20	mg/Kg dry	1.94	ND	62.9		40-140	9.22	30	
2-Nitroaniline	1.86	0.40	mg/Kg dry	1.94	ND	95.8		40-140	10.2	30	
3-Nitroaniline	1.28	0.40	mg/Kg dry	1.94	ND	66.0		40-140	7.12	30	
4-Nitroaniline	1.46	0.40	mg/Kg dry	1.94	ND	75.1		40-140	7.95	30	
Nitrobenzene	1.29	0.40	mg/Kg dry	1.94	ND	66.4		40-140	8.02	30	
2-Nitrophenol	1.12	0.40	mg/Kg dry	1.94	ND	57.4		30-130	10.2	30	
4-Nitrophenol	1.48	0.77	mg/Kg dry	1.94	ND	76.1		30-130	17.5	30	
N-Nitrosodimethylamine	1.01	0.40	mg/Kg dry	1.94	ND	51.7		40-140	9.99	30	
N-Nitrosodiphenylamine/Diphenylamine	1.28	0.40	mg/Kg dry	1.94	ND	65.7		40-140	3.82	30	
N-Nitrosodi-n-propylamine	1.35	0.40	mg/Kg dry	1.94	ND	69.6		40-140	10.7	30	V-06
Pentachloronitrobenzene	1.37	0.40	mg/Kg dry	1.94	ND	70.6		40-140	14.2	30	
Pentachlorophenol	0.593	0.40	mg/Kg dry	1.94	ND	30.5		30-130	13.7	30	
Phenanthrene	1.37	0.20	mg/Kg dry	1.94	ND	70.5		40-140	9.76	30	
Phenol	1.29	0.40	mg/Kg dry	1.94	ND	66.2		30-130	10.1	30	
Pyrene	1.33	0.20	mg/Kg dry	1.94	ND	68.3		40-140	11.5	30	
Pyridine	0.560	0.40	mg/Kg dry	1.94	ND	**28.8**	*	40-140	2.25	30	MS-09
1,2,4,5-Tetrachlorobenzene	1.16	0.40	mg/Kg dry	1.94	ND	59.8		40-140	9.75	30	
1,2,4-Trichlorobenzene	1.20	0.40	mg/Kg dry	1.94	ND	61.8		40-140	8.95	30	
2,4,5-Trichlorophenol	1.37	0.40	mg/Kg dry	1.94	ND	70.5		30-130	13.5	30	
2,4,6-Trichlorophenol	1.22	0.40	mg/Kg dry	1.94	ND	62.8		30-130	14.2	30	
Surrogate: 2-Fluorophenol	*5.08*		mg/Kg dry	7.78		65.2		30-130			
Surrogate: Phenol-d6	*5.72*		mg/Kg dry	7.78		73.5		30-130			
Surrogate: Nitrobenzene-d5	*2.64*		mg/Kg dry	3.89		68.0		30-130			
Surrogate: 2-Fluorobiphenyl	*2.60*		mg/Kg dry	3.89		66.8		30-130			
Surrogate: 2,4,6-Tribromophenol	*6.54*		mg/Kg dry	7.78		84.0		30-130			
Surrogate: p-Terphenyl-d14	*3.02*		mg/Kg dry	3.89		77.5		30-130			

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FLAG/QUALIFIER SUMMARY

*	QC result is outside of established limits.
†	Wide recovery limits established for difficult compound.
‡	Wide RPD limits established for difficult compound.
#	Data exceeded client recommended or regulatory level
ND	Not Detected
RL	Reporting Limit is at the level of quantitation (LOQ)
DL	Detection Limit is the lower limit of detection determined by the MDL study
MCL	Maximum Contaminant Level
	Percent recoveries and relative percent differences (RPDs) are determined by the software using values in the calculation which have not been rounded.
	No results have been blank subtracted unless specified in the case narrative section.
H-10	Analysis was requested after the recommended holding time had passed.
J	Detected but below the Reporting Limit (lowest calibration standard); therefore, result is an estimated concentration (CLP J-Flag).
MS-09	Matrix spike recovery and/or matrix spike duplicate recovery outside of control limits. Possibility of sample matrix effects that lead to a low bias for reported result or non-homogeneous sample aliquots cannot be eliminated.
MS-22	Either matrix spike or MS duplicate is outside of control limits, but the other is within limits. RPD between the two MS/MSD results is within method specified criteria.
V-05	Continuing calibration verification (CCV) did not meet method specifications and was biased on the low side for this compound.
V-06	Continuing calibration verification (CCV) did not meet method specifications and was biased on the high side for this compound.
V-20	Continuing calibration verification (CCV) did not meet method specifications and was biased on the high side. Data validation is not affected since sample result was "not detected" for this compound.
V-35	Initial calibration verification (ICV) did not meet method specifications and was biased on the high side for this compound. Reported result is estimated.

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CERTIFICATIONS

Certified Analyses included in this Report

Analyte	Certifications
SW-846 8270E in Soil	
Acenaphthene	CT,NY,NH,ME,NC,VA
Acenaphthylene	CT,NY,NH,ME,NC,VA
Acetophenone	NY,NH,ME,NC,VA
Aniline	NY,NH,ME,NC,VA
Anthracene	CT,NY,NH,ME,NC,VA
Benzidine	CT,NY,NH,ME,NC,VA
Benzo(a)anthracene	CT,NY,NH,ME,NC,VA
Benzo(a)pyrene	CT,NY,NH,ME,NC,VA
Benzo(b)fluoranthene	CT,NY,NH,ME,NC,VA
Benzo(g,h,i)perylene	CT,NY,NH,ME,NC,VA
Benzo(k)fluoranthene	CT,NY,NH,ME,NC,VA
Benzoic Acid	NY,NH,ME,NC,VA
Bis(2-chloroethoxy)methane	CT,NY,NH,ME,NC,VA
Bis(2-chloroethyl)ether	CT,NY,NH,ME,NC,VA
Bis(2-chloroisopropyl)ether	CT,NY,NH,ME,NC,VA
Bis(2-Ethylhexyl)phthalate	CT,NY,NH,ME,NC,VA
4-Bromophenylphenylether	CT,NY,NH,ME,NC,VA
Butylbenzylphthalate	CT,NY,NH,ME,NC,VA
Carbazole	NC
4-Chloroaniline	CT,NY,NH,ME,NC,VA
4-Chloro-3-methylphenol	CT,NY,NH,ME,NC,VA
2-Chloronaphthalene	CT,NY,NH,NC,VA
2-Chlorophenol	CT,NY,NH,ME,NC,VA
4-Chlorophenylphenylether	CT,NY,NH,ME,NC,VA
Chrysene	CT,NY,NH,ME,NC,VA
Dibenz(a,h)anthracene	CT,NY,NH,ME,NC,VA
Dibenzofuran	CT,NY,NH,ME,NC,VA
Di-n-butylphthalate	CT,NY,NH,ME,NC,VA
1,2-Dichlorobenzene	NY,NH,ME,NC,VA
1,3-Dichlorobenzene	NY,NH,ME,NC,VA
1,4-Dichlorobenzene	NY,NH,ME,NC,VA
3,3-Dichlorobenzidine	CT,NY,NH,ME,NC,VA
2,4-Dichlorophenol	CT,NY,NH,ME,NC,VA
Diethylphthalate	CT,NY,NH,ME,NC,VA
2,4-Dimethylphenol	CT,NY,NH,ME,NC,VA
Dimethylphthalate	CT,NY,NH,ME,NC,VA
4,6-Dinitro-2-methylphenol	CT,NY,NH,ME,NC,VA
2,4-Dinitrophenol	CT,NY,NH,ME,NC,VA
2,4-Dinitrotoluene	CT,NY,NH,ME,NC,VA
2,6-Dinitrotoluene	CT,NY,NH,ME,NC,VA
Di-n-octylphthalate	CT,NY,NH,ME,NC,VA
1,2-Diphenylhydrazine/Azobenzene	NY,NH,ME,NC,VA
Fluoranthene	CT,NY,NH,ME,NC,VA
Fluorene	NY,NH,ME,NC,VA
Hexachlorobenzene	CT,NY,NH,ME,NC,VA
Hexachlorobutadiene	CT,NY,NH,ME,NC,VA
Hexachlorocyclopentadiene	CT,NY,NH,ME,NC,VA

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CERTIFICATIONS

Certified Analyses included in this Report

Analyte	Certifications
SW-846 8270E in Soil	
Hexachloroethane	CT,NY,NH,ME,NC,VA
Indeno(1,2,3-cd)pyrene	CT,NY,NH,ME,NC,VA
Isophorone	CT,NY,NH,ME,NC,VA
1-Methylnaphthalene	NC
2-Methylnaphthalene	CT,NY,NH,ME,NC,VA
2-Methylphenol	CT,NY,NH,ME,NC,VA
3/4-Methylphenol	CT,NY,NH,ME,NC,VA
Naphthalene	CT,NY,NH,ME,NC,VA
2-Nitroaniline	CT,NY,NH,ME,NC,VA
3-Nitroaniline	CT,NY,NH,ME,NC,VA
4-Nitroaniline	CT,NY,NH,ME,NC,VA
Nitrobenzene	CT,NY,NH,ME,NC,VA
2-Nitrophenol	CT,NY,NH,ME,NC,VA
4-Nitrophenol	CT,NY,NH,ME,NC,VA
N-Nitrosodimethylamine	CT,NY,NH,ME,NC,VA
N-Nitrosodi-n-propylamine	CT,NY,NH,ME,NC,VA
Pentachloronitrobenzene	NY,NC
Pentachlorophenol	CT,NY,NH,ME,NC,VA
Phenanthrene	CT,NY,NH,ME,NC,VA
Phenol	CT,NY,NH,ME,NC,VA
Pyrene	CT,NY,NH,ME,NC,VA
Pyridine	CT,NY,NH,ME,NC,VA
1,2,4,5-Tetrachlorobenzene	NY,NC
1,2,4-Trichlorobenzene	CT,NY,NH,ME,NC,VA
2,4,5-Trichlorophenol	CT,NY,NH,ME,NC,VA
2,4,6-Trichlorophenol	CT,NY,NH,ME,NC,VA
2-Fluorophenol	NC

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Con-Test, a Pace Environmental Laboratory, operates under the following certifications and accreditations:

Code	Description	Number	Expires
AIHA	AIHA-LAP, LLC - ISO17025:2017	100033	03/1/2022
MA	Massachusetts DEP	M-MA100	06/30/2022
CT	Connecticut Department of Publilc Health	PH-0165	12/31/2022
NY	New York State Department of Health	10899 NELAP	04/1/2022
NH-S	New Hampshire Environmental Lab	2516 NELAP	02/5/2022
RI	Rhode Island Department of Health	LAO00112	12/30/2021
NC	North Carolina Div. of Water Quality	652	12/31/2021
NJ	New Jersey DEP	MA007 NELAP	06/30/2022
FL	Florida Department of Health	E871027 NELAP	06/30/2022
VT	Vermont Department of Health Lead Laboratory	LL720741	07/30/2022
ME	State of Maine	MA00100	06/9/2023
VA	Commonwealth of Virginia	460217	12/14/2021
NH-P	New Hampshire Environmental Lab	2557 NELAP	09/6/2022
VT-DW	Vermont Department of Health Drinking Water	VT-255716	06/12/2022
NC-DW	North Carolina Department of Health	25703	07/31/2022
PA	Commonwealth of Pennsylvania DEP	68-05812	06/30/2022
MI	Dept. of Env, Great Lakes, and Energy	9100	09/6/2022

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December 9, 2021

Sarah Ostertag
Ramboll US Consulting, Inc. - Arlington, VA
4350 North Fairfax Drive
Arlington, VA 22203

Project Location: 1400 N. Royal St, Alexandria, VA
Client Job Number:
Project Number: [none]
Laboratory Work Order Number: 21L0140

Enclosed are results of analyses for samples as received by the laboratory on December 2, 2021. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Kaitlyn A. Feliciano
Project Manager

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Ramboll US Consulting, Inc. - Arlington, VA
4350 North Fairfax Drive
Arlington, VA 22203
ATTN: Sarah Ostertag

REPORT DATE: 12/9/2021

PURCHASE ORDER NUMBER:

PROJECT NUMBER: [none]

ANALYTICAL SUMMARY

WORK ORDER NUMBER: 21L0140

The results of analyses performed on the following samples submitted to CON-TEST, a Pace Analytical Laboratory, are found in this report.

PROJECT LOCATION: 1400 N. Royal St, Alexandria, VA

FIELD SAMPLE #	LAB ID:	MATRIX	SAMPLE DESCRIPTION	TEST	SUB LAB
HRP-SB215-0-2-211018	21L0140-01	Soil		SM 2540G	
				SW-846 8270E	
HRP-SB215-5-7-211018	21L0140-02	Soil		SM 2540G	
				SW-846 8270E	
HRP-SB215-16-18-211018	21L0140-03	Soil		SM 2540G	
				SW-846 8270E	

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CASE NARRATIVE SUMMARY

All reported results are within defined laboratory quality control objectives unless listed below or otherwise qualified in this report.

SW-846 8270E

Qualifications:

H-10

Analysis was requested after the recommended holding time had passed.

Analyte & Samples(s) Qualified:

21L0140-01[HRP-SB215-0-2-211018], 21L0140-02[HRP-SB215-5-7-211018], 21L0140-03[HRP-SB215-16-18-211018]

V-06

Continuing calibration verification (CCV) did not meet method specifications and was biased on the high side for this compound.

Analyte & Samples(s) Qualified:

3-Nitroaniline
B296234-BS1, B296234-BSD1

4-Chloroaniline
B296234-BS1, B296234-BSD1

V-20

Continuing calibration verification (CCV) did not meet method specifications and was biased on the high side. Data validation is not affected since sample result was "not detected" for this compound.

Analyte & Samples(s) Qualified:

3-Nitroaniline
21L0140-01[HRP-SB215-0-2-211018], 21L0140-02[HRP-SB215-5-7-211018], 21L0140-03[HRP-SB215-16-18-211018], B296234-BLK1

4-Chloroaniline
21L0140-01[HRP-SB215-0-2-211018], 21L0140-02[HRP-SB215-5-7-211018], 21L0140-03[HRP-SB215-16-18-211018], B296234-BLK1

V-34

Initial calibration verification (ICV) did not meet method specifications and was biased on the low side for this compound. Reported result is estimated.

Analyte & Samples(s) Qualified:

4-Chloroaniline
21L0140-01[HRP-SB215-0-2-211018], 21L0140-02[HRP-SB215-5-7-211018], 21L0140-03[HRP-SB215-16-18-211018], B296234-BLK1, B296234-BS1, B296234-BSD1

V-35

Initial calibration verification (ICV) did not meet method specifications and was biased on the high side for this compound. Reported result is estimated.

Analyte & Samples(s) Qualified:

Benzidine
21L0140-01[HRP-SB215-0-2-211018], 21L0140-02[HRP-SB215-5-7-211018], 21L0140-03[HRP-SB215-16-18-211018], B296234-BLK1, B296234-BS1, B296234-BSD1

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The results of analyses reported only relate to samples submitted to Con-Test, a Pace Analytical Laboratory, for testing.
I certify that the analyses listed above, unless specifically listed as subcontracted, if any, were performed under my direction according to the approved methodologies listed in this document, and that based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

Lisa A. Worthington
Technical Representative

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Project Location: 1400 N. Royal St, Alexandria, VA Sample Description: Work Order: 21L0140

Date Received: 12/2/2021

Field Sample #: HRP-SB215-0-2-211018 Sampled: 10/18/2021 12:20

Sample ID: 21L0140-01

Sample Matrix: Soil

Sample Flags: H-10

Semivolatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acenaphthene	ND	0.18	0.056	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 17:52	BGL
Acenaphthylene	ND	0.18	0.055	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 17:52	BGL
Acetophenone	ND	0.36	0.049	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 17:52	BGL
Aniline	ND	0.36	0.074	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 17:52	BGL
Anthracene	ND	0.18	0.058	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 17:52	BGL
Benzidine	ND	0.69	0.16	mg/Kg dry	1	V-35	SW-846 8270E	12/7/21	12/8/21 17:52	BGL
Benzo(a)anthracene	0.078	0.18	0.050	mg/Kg dry	1	J	SW-846 8270E	12/7/21	12/8/21 17:52	BGL
Benzo(a)pyrene	0.065	0.18	0.055	mg/Kg dry	1	J	SW-846 8270E	12/7/21	12/8/21 17:52	BGL
Benzo(b)fluoranthene	0.11	0.18	0.054	mg/Kg dry	1	J	SW-846 8270E	12/7/21	12/8/21 17:52	BGL
Benzo(g,h,i)perylene	ND	0.18	0.075	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 17:52	BGL
Benzo(k)fluoranthene	ND	0.18	0.048	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 17:52	BGL
Benzoic Acid	ND	1.1	0.43	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 17:52	BGL
Bis(2-chloroethoxy)methane	ND	0.36	0.046	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 17:52	BGL
Bis(2-chloroethyl)ether	ND	0.36	0.049	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 17:52	BGL
Bis(2-chloroisopropyl)ether	ND	0.36	0.081	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 17:52	BGL
Bis(2-Ethylhexyl)phthalate	ND	0.36	0.060	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 17:52	BGL
4-Bromophenylphenylether	ND	0.36	0.046	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 17:52	BGL
Butylbenzylphthalate	ND	0.36	0.057	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 17:52	BGL
Carbazole	ND	0.18	0.059	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 17:52	BGL
4-Chloroaniline	ND	0.69	0.047	mg/Kg dry	1	V-20, V-34	SW-846 8270E	12/7/21	12/8/21 17:52	BGL
4-Chloro-3-methylphenol	ND	0.69	0.059	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 17:52	BGL
2-Chloronaphthalene	ND	0.36	0.041	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 17:52	BGL
2-Chlorophenol	ND	0.36	0.049	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 17:52	BGL
4-Chlorophenylphenylether	ND	0.36	0.051	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 17:52	BGL
Chrysene	0.12	0.18	0.052	mg/Kg dry	1	J	SW-846 8270E	12/7/21	12/8/21 17:52	BGL
Dibenz(a,h)anthracene	ND	0.18	0.072	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 17:52	BGL
Dibenzofuran	0.077	0.36	0.053	mg/Kg dry	1	J	SW-846 8270E	12/7/21	12/8/21 17:52	BGL
Di-n-butylphthalate	ND	0.36	0.050	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 17:52	BGL
1,2-Dichlorobenzene	ND	0.36	0.041	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 17:52	BGL
1,3-Dichlorobenzene	ND	0.36	0.039	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 17:52	BGL
1,4-Dichlorobenzene	ND	0.36	0.037	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 17:52	BGL
3,3-Dichlorobenzidine	ND	0.18	0.052	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 17:52	BGL
2,4-Dichlorophenol	ND	0.36	0.053	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 17:52	BGL
Diethylphthalate	ND	0.36	0.054	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 17:52	BGL
2,4-Dimethylphenol	ND	0.36	0.097	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 17:52	BGL
Dimethylphthalate	ND	0.36	0.052	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 17:52	BGL
4,6-Dinitro-2-methylphenol	ND	0.36	0.24	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 17:52	BGL
2,4-Dinitrophenol	ND	0.69	0.31	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 17:52	BGL
2,4-Dinitrotoluene	ND	0.36	0.070	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 17:52	BGL
2,6-Dinitrotoluene	ND	0.36	0.059	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 17:52	BGL
Di-n-octylphthalate	ND	0.36	0.13	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 17:52	BGL
1,2-Diphenylhydrazine/Azobenzene	ND	0.36	0.051	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 17:52	BGL
Fluoranthene	0.10	0.18	0.057	mg/Kg dry	1	J	SW-846 8270E	12/7/21	12/8/21 17:52	BGL
Fluorene	ND	0.18	0.060	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 17:52	BGL

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Project Location: 1400 N. Royal St, Alexandria, VA Sample Description: Work Order: 21L0140

Date Received: 12/2/2021

Field Sample #: HRP-SB215-0-2-211018 Sampled: 10/18/2021 12:20

Sample ID: 21L0140-01

Sample Matrix: Soil

Sample Flags: H-10

Semivolatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Hexachlorobenzene	ND	0.36	0.048	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 17:52	BGL
Hexachlorobutadiene	ND	0.36	0.046	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 17:52	BGL
Hexachlorocyclopentadiene	ND	0.36	0.15	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 17:52	BGL
Hexachloroethane	ND	0.36	0.042	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 17:52	BGL
Indeno(1,2,3-cd)pyrene	ND	0.18	0.081	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 17:52	BGL
Isophorone	ND	0.36	0.060	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 17:52	BGL
1-Methylnaphthalene	0.23	0.18	0.049	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 17:52	BGL
2-Methylnaphthalene	0.28	0.18	0.056	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 17:52	BGL
2-Methylphenol	ND	0.36	0.066	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 17:52	BGL
3/4-Methylphenol	ND	0.36	0.058	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 17:52	BGL
Naphthalene	0.098	0.18	0.049	mg/Kg dry	1	J	SW-846 8270E	12/7/21	12/8/21 17:52	BGL
2-Nitroaniline	ND	0.36	0.076	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 17:52	BGL
3-Nitroaniline	ND	0.36	0.061	mg/Kg dry	1	V-20	SW-846 8270E	12/7/21	12/8/21 17:52	BGL
4-Nitroaniline	ND	0.36	0.077	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 17:52	BGL
Nitrobenzene	ND	0.36	0.052	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 17:52	BGL
2-Nitrophenol	ND	0.36	0.056	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 17:52	BGL
4-Nitrophenol	ND	0.69	0.14	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 17:52	BGL
N-Nitrosodimethylamine	ND	0.36	0.053	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 17:52	BGL
N-Nitrosodiphenylamine/Diphenylamine	ND	0.36	0.054	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 17:52	BGL
N-Nitrosodi-n-propylamine	ND	0.36	0.049	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 17:52	BGL
Pentachloronitrobenzene	ND	0.36	0.060	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 17:52	BGL
Pentachlorophenol	ND	0.36	0.16	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 17:52	BGL
Phenanthrene	0.30	0.18	0.056	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 17:52	BGL
Phenol	ND	0.36	0.051	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 17:52	BGL
Pyrene	0.11	0.18	0.057	mg/Kg dry	1	J	SW-846 8270E	12/7/21	12/8/21 17:52	BGL
Pyridine	ND	0.36	0.036	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 17:52	BGL
1,2,4,5-Tetrachlorobenzene	ND	0.36	0.047	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 17:52	BGL
1,2,4-Trichlorobenzene	ND	0.36	0.045	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 17:52	BGL
2,4,5-Trichlorophenol	ND	0.36	0.056	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 17:52	BGL
2,4,6-Trichlorophenol	ND	0.36	0.055	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 17:52	BGL

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
2-Fluorophenol	57.5	30-130		12/8/21 17:52
Phenol-d6	59.4	30-130		12/8/21 17:52
Nitrobenzene-d5	56.7	30-130		12/8/21 17:52
2-Fluorobiphenyl	63.3	30-130		12/8/21 17:52
2,4,6-Tribromophenol	57.1	30-130		12/8/21 17:52
p-Terphenyl-d14	68.4	30-130		12/8/21 17:52

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Project Location: 1400 N. Royal St, Alexandria, VA Sample Description: Work Order: 21L0140

Date Received: 12/2/2021

Field Sample #: HRP-SB215-0-2-211018 Sampled: 10/18/2021 12:20

Sample ID: 21L0140-01

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	92.4		% Wt	1		SM 2540G	10/22/21	10/25/21 11:05	MJH

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Project Location: 1400 N. Royal St, Alexandria, VA Sample Description: Work Order: 21L0140

Date Received: 12/2/2021

Field Sample #: HRP-SB215-5-7-211018 Sampled: 10/18/2021 12:30

Sample ID: 21L0140-02

Sample Matrix: Soil

Sample Flags: H-10

Semivolatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acenaphthene	ND	0.19	0.061	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 18:18	BGL
Acenaphthylene	ND	0.19	0.059	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 18:18	BGL
Acetophenone	ND	0.39	0.053	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 18:18	BGL
Aniline	ND	0.39	0.081	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 18:18	BGL
Anthracene	ND	0.19	0.063	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 18:18	BGL
Benzidine	ND	0.75	0.18	mg/Kg dry	1	V-35	SW-846 8270E	12/7/21	12/8/21 18:18	BGL
Benzo(a)anthracene	ND	0.19	0.054	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 18:18	BGL
Benzo(a)pyrene	ND	0.19	0.060	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 18:18	BGL
Benzo(b)fluoranthene	ND	0.19	0.059	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 18:18	BGL
Benzo(g,h,i)perylene	ND	0.19	0.081	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 18:18	BGL
Benzo(k)fluoranthene	ND	0.19	0.053	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 18:18	BGL
Benzoic Acid	ND	1.1	0.46	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 18:18	BGL
Bis(2-chloroethoxy)methane	ND	0.39	0.051	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 18:18	BGL
Bis(2-chloroethyl)ether	ND	0.39	0.053	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 18:18	BGL
Bis(2-chloroisopropyl)ether	ND	0.39	0.088	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 18:18	BGL
Bis(2-Ethylhexyl)phthalate	ND	0.39	0.065	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 18:18	BGL
4-Bromophenylphenylether	ND	0.39	0.050	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 18:18	BGL
Butylbenzylphthalate	ND	0.39	0.062	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 18:18	BGL
Carbazole	ND	0.19	0.064	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 18:18	BGL
4-Chloroaniline	ND	0.75	0.052	mg/Kg dry	1	V-20, V-34	SW-846 8270E	12/7/21	12/8/21 18:18	BGL
4-Chloro-3-methylphenol	ND	0.75	0.064	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 18:18	BGL
2-Chloronaphthalene	ND	0.39	0.045	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 18:18	BGL
2-Chlorophenol	ND	0.39	0.054	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 18:18	BGL
4-Chlorophenylphenylether	ND	0.39	0.055	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 18:18	BGL
Chrysene	ND	0.19	0.056	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 18:18	BGL
Dibenz(a,h)anthracene	ND	0.19	0.079	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 18:18	BGL
Dibenzofuran	ND	0.39	0.057	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 18:18	BGL
Di-n-butylphthalate	ND	0.39	0.055	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 18:18	BGL
1,2-Dichlorobenzene	ND	0.39	0.044	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 18:18	BGL
1,3-Dichlorobenzene	ND	0.39	0.043	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 18:18	BGL
1,4-Dichlorobenzene	ND	0.39	0.041	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 18:18	BGL
3,3-Dichlorobenzidine	ND	0.19	0.057	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 18:18	BGL
2,4-Dichlorophenol	ND	0.39	0.058	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 18:18	BGL
Diethylphthalate	ND	0.39	0.059	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 18:18	BGL
2,4-Dimethylphenol	ND	0.39	0.11	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 18:18	BGL
Dimethylphthalate	ND	0.39	0.057	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 18:18	BGL
4,6-Dinitro-2-methylphenol	ND	0.39	0.26	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 18:18	BGL
2,4-Dinitrophenol	ND	0.75	0.34	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 18:18	BGL
2,4-Dinitrotoluene	ND	0.39	0.076	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 18:18	BGL
2,6-Dinitrotoluene	ND	0.39	0.065	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 18:18	BGL
Di-n-octylphthalate	ND	0.39	0.14	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 18:18	BGL
1,2-Diphenylhydrazine/Azobenzene	ND	0.39	0.056	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 18:18	BGL
Fluoranthene	ND	0.19	0.062	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 18:18	BGL
Fluorene	ND	0.19	0.065	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 18:18	BGL

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Project Location: 1400 N. Royal St, Alexandria, VA Sample Description: Work Order: 21L0140

Date Received: 12/2/2021

Field Sample #: HRP-SB215-5-7-211018 Sampled: 10/18/2021 12:30

Sample ID: 21L0140-02

Sample Matrix: Soil

Sample Flags: H-10

Semivolatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Hexachlorobenzene	ND	0.39	0.053	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 18:18	BGL
Hexachlorobutadiene	ND	0.39	0.050	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 18:18	BGL
Hexachlorocyclopentadiene	ND	0.39	0.16	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 18:18	BGL
Hexachloroethane	ND	0.39	0.046	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 18:18	BGL
Indeno(1,2,3-cd)pyrene	ND	0.19	0.088	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 18:18	BGL
Isophorone	ND	0.39	0.065	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 18:18	BGL
1-Methylnaphthalene	ND	0.19	0.054	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 18:18	BGL
2-Methylnaphthalene	ND	0.19	0.061	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 18:18	BGL
2-Methylphenol	ND	0.39	0.072	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 18:18	BGL
3/4-Methylphenol	ND	0.39	0.063	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 18:18	BGL
Naphthalene	ND	0.19	0.053	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 18:18	BGL
2-Nitroaniline	ND	0.39	0.083	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 18:18	BGL
3-Nitroaniline	ND	0.39	0.066	mg/Kg dry	1	V-20	SW-846 8270E	12/7/21	12/8/21 18:18	BGL
4-Nitroaniline	ND	0.39	0.083	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 18:18	BGL
Nitrobenzene	ND	0.39	0.056	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 18:18	BGL
2-Nitrophenol	ND	0.39	0.061	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 18:18	BGL
4-Nitrophenol	ND	0.75	0.16	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 18:18	BGL
N-Nitrosodimethylamine	ND	0.39	0.058	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 18:18	BGL
N-Nitrosodiphenylamine/Diphenylamine	ND	0.39	0.058	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 18:18	BGL
N-Nitrosodi-n-propylamine	ND	0.39	0.053	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 18:18	BGL
Pentachloronitrobenzene	ND	0.39	0.065	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 18:18	BGL
Pentachlorophenol	ND	0.39	0.17	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 18:18	BGL
Phenanthrene	ND	0.19	0.061	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 18:18	BGL
Phenol	ND	0.39	0.055	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 18:18	BGL
Pyrene	ND	0.19	0.062	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 18:18	BGL
Pyridine	ND	0.39	0.040	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 18:18	BGL
1,2,4,5-Tetrachlorobenzene	ND	0.39	0.051	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 18:18	BGL
1,2,4-Trichlorobenzene	ND	0.39	0.049	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 18:18	BGL
2,4,5-Trichlorophenol	ND	0.39	0.060	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 18:18	BGL
2,4,6-Trichlorophenol	ND	0.39	0.060	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 18:18	BGL

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
2-Fluorophenol	60.1	30-130		12/8/21 18:18
Phenol-d6	62.2	30-130		12/8/21 18:18
Nitrobenzene-d5	60.2	30-130		12/8/21 18:18
2-Fluorobiphenyl	63.6	30-130		12/8/21 18:18
2,4,6-Tribromophenol	59.8	30-130		12/8/21 18:18
p-Terphenyl-d14	71.4	30-130		12/8/21 18:18

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Project Location: 1400 N. Royal St, Alexandria, VA Sample Description: Work Order: 21L0140

Date Received: 12/2/2021

Field Sample #: HRP-SB215-5-7-211018 Sampled: 10/18/2021 12:30

Sample ID: 21L0140-02

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	86.4		% Wt	1		SM 2540G	10/22/21	10/25/21 11:05	MJH

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Project Location: 1400 N. Royal St, Alexandria, VA Sample Description: Work Order: 21L0140

Date Received: 12/2/2021

Field Sample #: HRP-SB215-16-18-211018 Sampled: 10/18/2021 12:50

Sample ID: 21L0140-03

Sample Matrix: Soil

Sample Flags: H-10

Semivolatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acenaphthene	ND	0.19	0.061	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 18:44	BGL
Acenaphthylene	ND	0.19	0.059	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 18:44	BGL
Acetophenone	ND	0.39	0.053	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 18:44	BGL
Aniline	ND	0.39	0.080	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 18:44	BGL
Anthracene	ND	0.19	0.063	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 18:44	BGL
Benzidine	ND	0.75	0.18	mg/Kg dry	1	V-35	SW-846 8270E	12/7/21	12/8/21 18:44	BGL
Benzo(a)anthracene	ND	0.19	0.054	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 18:44	BGL
Benzo(a)pyrene	ND	0.19	0.059	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 18:44	BGL
Benzo(b)fluoranthene	ND	0.19	0.058	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 18:44	BGL
Benzo(g,h,i)perylene	ND	0.19	0.081	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 18:44	BGL
Benzo(k)fluoranthene	ND	0.19	0.052	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 18:44	BGL
Benzoic Acid	ND	1.1	0.46	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 18:44	BGL
Bis(2-chloroethoxy)methane	ND	0.39	0.050	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 18:44	BGL
Bis(2-chloroethyl)ether	ND	0.39	0.053	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 18:44	BGL
Bis(2-chloroisopropyl)ether	ND	0.39	0.088	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 18:44	BGL
Bis(2-Ethylhexyl)phthalate	ND	0.39	0.065	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 18:44	BGL
4-Bromophenylphenylether	ND	0.39	0.049	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 18:44	BGL
Butylbenzylphthalate	ND	0.39	0.061	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 18:44	BGL
Carbazole	ND	0.19	0.064	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 18:44	BGL
4-Chloroaniline	ND	0.75	0.051	mg/Kg dry	1	V-20, V-34	SW-846 8270E	12/7/21	12/8/21 18:44	BGL
4-Chloro-3-methylphenol	ND	0.75	0.064	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 18:44	BGL
2-Chloronaphthalene	ND	0.39	0.045	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 18:44	BGL
2-Chlorophenol	ND	0.39	0.053	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 18:44	BGL
4-Chlorophenylphenylether	ND	0.39	0.055	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 18:44	BGL
Chrysene	ND	0.19	0.056	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 18:44	BGL
Dibenz(a,h)anthracene	ND	0.19	0.078	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 18:44	BGL
Dibenzofuran	ND	0.39	0.057	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 18:44	BGL
Di-n-butylphthalate	ND	0.39	0.055	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 18:44	BGL
1,2-Dichlorobenzene	ND	0.39	0.044	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 18:44	BGL
1,3-Dichlorobenzene	ND	0.39	0.042	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 18:44	BGL
1,4-Dichlorobenzene	ND	0.39	0.040	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 18:44	BGL
3,3-Dichlorobenzidine	ND	0.19	0.056	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 18:44	BGL
2,4-Dichlorophenol	ND	0.39	0.057	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 18:44	BGL
Diethylphthalate	ND	0.39	0.059	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 18:44	BGL
2,4-Dimethylphenol	ND	0.39	0.11	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 18:44	BGL
Dimethylphthalate	ND	0.39	0.056	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 18:44	BGL
4,6-Dinitro-2-methylphenol	ND	0.39	0.26	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 18:44	BGL
2,4-Dinitrophenol	ND	0.75	0.33	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 18:44	BGL
2,4-Dinitrotoluene	ND	0.39	0.075	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 18:44	BGL
2,6-Dinitrotoluene	ND	0.39	0.064	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 18:44	BGL
Di-n-octylphthalate	ND	0.39	0.14	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 18:44	BGL
1,2-Diphenylhydrazine/Azobenzene	ND	0.39	0.055	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 18:44	BGL
Fluoranthene	ND	0.19	0.061	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 18:44	BGL
Fluorene	ND	0.19	0.065	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 18:44	BGL

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Project Location: 1400 N. Royal St, Alexandria, VA Sample Description: Work Order: 21L0140

Date Received: 12/2/2021

Field Sample #: HRP-SB215-16-18-211018 Sampled: 10/18/2021 12:50

Sample ID: 21L0140-03

Sample Matrix: Soil

Sample Flags: H-10

Semivolatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Hexachlorobenzene	ND	0.39	0.052	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 18:44	BGL
Hexachlorobutadiene	ND	0.39	0.049	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 18:44	BGL
Hexachlorocyclopentadiene	ND	0.39	0.16	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 18:44	BGL
Hexachloroethane	ND	0.39	0.046	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 18:44	BGL
Indeno(1,2,3-cd)pyrene	ND	0.19	0.087	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 18:44	BGL
Isophorone	ND	0.39	0.064	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 18:44	BGL
1-Methylnaphthalene	ND	0.19	0.053	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 18:44	BGL
2-Methylnaphthalene	ND	0.19	0.061	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 18:44	BGL
2-Methylphenol	ND	0.39	0.072	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 18:44	BGL
3/4-Methylphenol	ND	0.39	0.062	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 18:44	BGL
Naphthalene	ND	0.19	0.053	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 18:44	BGL
2-Nitroaniline	ND	0.39	0.082	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 18:44	BGL
3-Nitroaniline	ND	0.39	0.066	mg/Kg dry	1	V-20	SW-846 8270E	12/7/21	12/8/21 18:44	BGL
4-Nitroaniline	ND	0.39	0.083	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 18:44	BGL
Nitrobenzene	ND	0.39	0.056	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 18:44	BGL
2-Nitrophenol	ND	0.39	0.060	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 18:44	BGL
4-Nitrophenol	ND	0.75	0.16	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 18:44	BGL
N-Nitrosodimethylamine	ND	0.39	0.058	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 18:44	BGL
N-Nitrosodiphenylamine/Diphenylamine	ND	0.39	0.058	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 18:44	BGL
N-Nitrosodi-n-propylamine	ND	0.39	0.053	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 18:44	BGL
Pentachloronitrobenzene	ND	0.39	0.065	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 18:44	BGL
Pentachlorophenol	ND	0.39	0.17	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 18:44	BGL
Phenanthrene	ND	0.19	0.061	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 18:44	BGL
Phenol	ND	0.39	0.055	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 18:44	BGL
Pyrene	ND	0.19	0.061	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 18:44	BGL
Pyridine	ND	0.39	0.039	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 18:44	BGL
1,2,4,5-Tetrachlorobenzene	ND	0.39	0.050	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 18:44	BGL
1,2,4-Trichlorobenzene	ND	0.39	0.048	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 18:44	BGL
2,4,5-Trichlorophenol	ND	0.39	0.060	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 18:44	BGL
2,4,6-Trichlorophenol	ND	0.39	0.060	mg/Kg dry	1		SW-846 8270E	12/7/21	12/8/21 18:44	BGL

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
2-Fluorophenol	64.7	30-130		12/8/21 18:44
Phenol-d6	67.0	30-130		12/8/21 18:44
Nitrobenzene-d5	63.8	30-130		12/8/21 18:44
2-Fluorobiphenyl	63.8	30-130		12/8/21 18:44
2,4,6-Tribromophenol	67.0	30-130		12/8/21 18:44
p-Terphenyl-d14	75.6	30-130		12/8/21 18:44

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Project Location: 1400 N. Royal St, Alexandria, VA Sample Description: Work Order: 21L0140

Date Received: 12/2/2021

Field Sample #: HRP-SB215-16-18-211018 Sampled: 10/18/2021 12:50

Sample ID: 21L0140-03

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	85.7		% Wt	1		SM 2540G	10/22/21	10/25/21 11:05	MJH

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Sample Extraction Data

Prep Method: % Solids **Analytical Method: SM 2540G**

Lab Number [Field ID]	Batch	Date
21L0140-01 [HRP-SB215-0-2-211018]	B292980	10/22/21
21L0140-02 [HRP-SB215-5-7-211018]	B292980	10/22/21
21L0140-03 [HRP-SB215-16-18-211018]	B292980	10/22/21

Prep Method: SW-846 3546 **Analytical Method: SW-846 8270E**

Lab Number [Field ID]	Batch	Initial [g]	Final [mL]	Date
21L0140-01 [HRP-SB215-0-2-211018]	B296234	30.9	1.00	12/07/21
21L0140-02 [HRP-SB215-5-7-211018]	B296234	30.4	1.00	12/07/21
21L0140-03 [HRP-SB215-16-18-211018]	B296234	30.8	1.00	12/07/21

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QUALITY CONTROL

Semivolatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B296234 - SW-846 3546										
Blank (B296234-BLK1)				Prepared: 12/07/21 Analyzed: 12/08/21						
Acenaphthene	ND	0.17	mg/Kg wet							
Acenaphthylene	ND	0.17	mg/Kg wet							
Acetophenone	ND	0.34	mg/Kg wet							
Aniline	ND	0.34	mg/Kg wet							
Anthracene	ND	0.17	mg/Kg wet							
Benzidine	ND	0.66	mg/Kg wet							V-35
Benzo(a)anthracene	ND	0.17	mg/Kg wet							
Benzo(a)pyrene	ND	0.17	mg/Kg wet							
Benzo(b)fluoranthene	ND	0.17	mg/Kg wet							
Benzo(g,h,i)perylene	ND	0.17	mg/Kg wet							
Benzo(k)fluoranthene	ND	0.17	mg/Kg wet							
Benzoic Acid	ND	1.0	mg/Kg wet							
Bis(2-chloroethoxy)methane	ND	0.34	mg/Kg wet							
Bis(2-chloroethyl)ether	ND	0.34	mg/Kg wet							
Bis(2-chloroisopropyl)ether	ND	0.34	mg/Kg wet							
Bis(2-Ethylhexyl)phthalate	ND	0.34	mg/Kg wet							
4-Bromophenylphenylether	ND	0.34	mg/Kg wet							
Butylbenzylphthalate	ND	0.34	mg/Kg wet							
Carbazole	ND	0.17	mg/Kg wet							
4-Chloroaniline	ND	0.66	mg/Kg wet							V-20, V-34
4-Chloro-3-methylphenol	ND	0.66	mg/Kg wet							
2-Chloronaphthalene	ND	0.34	mg/Kg wet							
2-Chlorophenol	ND	0.34	mg/Kg wet							
4-Chlorophenylphenylether	ND	0.34	mg/Kg wet							
Chrysene	ND	0.17	mg/Kg wet							
Dibenz(a,h)anthracene	ND	0.17	mg/Kg wet							
Dibenzofuran	ND	0.34	mg/Kg wet							
Di-n-butylphthalate	ND	0.34	mg/Kg wet							
1,2-Dichlorobenzene	ND	0.34	mg/Kg wet							
1,3-Dichlorobenzene	ND	0.34	mg/Kg wet							
1,4-Dichlorobenzene	ND	0.34	mg/Kg wet							
3,3-Dichlorobenzidine	ND	0.17	mg/Kg wet							
2,4-Dichlorophenol	ND	0.34	mg/Kg wet							
Diethylphthalate	ND	0.34	mg/Kg wet							
2,4-Dimethylphenol	ND	0.34	mg/Kg wet							
Dimethylphthalate	ND	0.34	mg/Kg wet							
4,6-Dinitro-2-methylphenol	ND	0.34	mg/Kg wet							
2,4-Dinitrophenol	ND	0.66	mg/Kg wet							
2,4-Dinitrotoluene	ND	0.34	mg/Kg wet							
2,6-Dinitrotoluene	ND	0.34	mg/Kg wet							
Di-n-octylphthalate	ND	0.34	mg/Kg wet							
1,2-Diphenylhydrazine/Azobenzene	ND	0.34	mg/Kg wet							
Fluoranthene	ND	0.17	mg/Kg wet							
Fluorene	ND	0.17	mg/Kg wet							
Hexachlorobenzene	ND	0.34	mg/Kg wet							
Hexachlorobutadiene	ND	0.34	mg/Kg wet							
Hexachlorocyclopentadiene	ND	0.34	mg/Kg wet							
Hexachloroethane	ND	0.34	mg/Kg wet							
Indeno(1,2,3-cd)pyrene	ND	0.17	mg/Kg wet							
Isophorone	ND	0.34	mg/Kg wet							
1-Methylnaphthalene	ND	0.17	mg/Kg wet							
2-Methylnaphthalene	ND	0.17	mg/Kg wet							

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QUALITY CONTROL

Semivolatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes	
Batch B296234 - SW-846 3546											
Blank (B296234-BLK1)				Prepared: 12/07/21 Analyzed: 12/08/21							
2-Methylphenol	ND	0.34	mg/Kg wet								
3/4-Methylphenol	ND	0.34	mg/Kg wet								
Naphthalene	ND	0.17	mg/Kg wet								
2-Nitroaniline	ND	0.34	mg/Kg wet								
3-Nitroaniline	ND	0.34	mg/Kg wet							V-20	
4-Nitroaniline	ND	0.34	mg/Kg wet								
Nitrobenzene	ND	0.34	mg/Kg wet								
2-Nitrophenol	ND	0.34	mg/Kg wet								
4-Nitrophenol	ND	0.66	mg/Kg wet								
N-Nitrosodimethylamine	ND	0.34	mg/Kg wet								
N-Nitrosodiphenylamine/Diphenylamine	ND	0.34	mg/Kg wet								
N-Nitrosodi-n-propylamine	ND	0.34	mg/Kg wet								
Pentachloronitrobenzene	ND	0.34	mg/Kg wet								
Pentachlorophenol	ND	0.34	mg/Kg wet								
Phenanthrene	ND	0.17	mg/Kg wet								
Phenol	ND	0.34	mg/Kg wet								
Pyrene	ND	0.17	mg/Kg wet								
Pyridine	ND	0.34	mg/Kg wet								
1,2,4,5-Tetrachlorobenzene	ND	0.34	mg/Kg wet								
1,2,4-Trichlorobenzene	ND	0.34	mg/Kg wet								
2,4,5-Trichlorophenol	ND	0.34	mg/Kg wet								
2,4,6-Trichlorophenol	ND	0.34	mg/Kg wet								
Surrogate: 2-Fluorophenol	*5.33*		mg/Kg wet	6.67		80.0	30-130				
Surrogate: Phenol-d6	*5.44*		mg/Kg wet	6.67		81.5	30-130				
Surrogate: Nitrobenzene-d5	*2.59*		mg/Kg wet	3.33		77.7	30-130				
Surrogate: 2-Fluorobiphenyl	*2.68*		mg/Kg wet	3.33		80.5	30-130				
Surrogate: 2,4,6-Tribromophenol	*5.77*		mg/Kg wet	6.67		86.6	30-130				
Surrogate: p-Terphenyl-d14	*3.23*		mg/Kg wet	3.33		96.9	30-130				
LCS (B296234-BS1)				Prepared: 12/07/21 Analyzed: 12/08/21							
Acenaphthene	1.21	0.17	mg/Kg wet	1.67		72.4	40-140				
Acenaphthylene	1.29	0.17	mg/Kg wet	1.67		77.4	40-140				
Acetophenone	1.27	0.34	mg/Kg wet	1.67		76.2	40-140				
Aniline	0.988	0.34	mg/Kg wet	1.67		59.3	10-140				†
Anthracene	1.38	0.17	mg/Kg wet	1.67		82.6	40-140				
Benzidine	2.05	0.66	mg/Kg wet	1.67		123	40-140			V-35	
Benzo(a)anthracene	1.29	0.17	mg/Kg wet	1.67		77.4	40-140				
Benzo(a)pyrene	1.41	0.17	mg/Kg wet	1.67		84.5	40-140				
Benzo(b)fluoranthene	1.33	0.17	mg/Kg wet	1.67		79.7	40-140				
Benzo(g,h,i)perylene	1.35	0.17	mg/Kg wet	1.67		80.8	40-140				
Benzo(k)fluoranthene	1.42	0.17	mg/Kg wet	1.67		85.1	40-140				
Benzoic Acid	0.709	1.0	mg/Kg wet	1.67		42.5	30-130			J	
Bis(2-chloroethoxy)methane	1.25	0.34	mg/Kg wet	1.67		75.2	40-140				
Bis(2-chloroethyl)ether	1.21	0.34	mg/Kg wet	1.67		72.7	40-140				
Bis(2-chloroisopropyl)ether	1.39	0.34	mg/Kg wet	1.67		83.5	40-140				
Bis(2-Ethylhexyl)phthalate	1.35	0.34	mg/Kg wet	1.67		81.2	40-140				
4-Bromophenylphenylether	1.26	0.34	mg/Kg wet	1.67		75.4	40-140				
Butylbenzylphthalate	1.31	0.34	mg/Kg wet	1.67		78.3	40-140				
Carbazole	1.35	0.17	mg/Kg wet	1.67		80.9	40-140				
4-Chloroaniline	0.997	0.66	mg/Kg wet	1.67		59.8	10-140			V-06, V-34	†
4-Chloro-3-methylphenol	1.24	0.66	mg/Kg wet	1.67		74.6	30-130				
2-Chloronaphthalene	1.08	0.34	mg/Kg wet	1.67		65.1	40-140				

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QUALITY CONTROL

Semivolatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes	
Batch B296234 - SW-846 3546											
LCS (B296234-BS1)				Prepared: 12/07/21 Analyzed: 12/08/21							
2-Chlorophenol	1.18	0.34	mg/Kg wet	1.67		70.5	30-130				
4-Chlorophenylphenylether	1.22	0.34	mg/Kg wet	1.67		73.1	40-140				
Chrysene	1.35	0.17	mg/Kg wet	1.67		81.1	40-140				
Dibenz(a,h)anthracene	1.42	0.17	mg/Kg wet	1.67		85.1	40-140				
Dibenzofuran	1.34	0.34	mg/Kg wet	1.67		80.6	40-140				
Di-n-butylphthalate	1.32	0.34	mg/Kg wet	1.67		79.0	40-140				
1,2-Dichlorobenzene	1.18	0.34	mg/Kg wet	1.67		71.0	40-140				
1,3-Dichlorobenzene	1.13	0.34	mg/Kg wet	1.67		67.9	40-140				
1,4-Dichlorobenzene	1.15	0.34	mg/Kg wet	1.67		69.0	40-140				
3,3-Dichlorobenzidine	1.00	0.17	mg/Kg wet	1.67		60.2	20-140				†
2,4-Dichlorophenol	1.20	0.34	mg/Kg wet	1.67		71.9	30-130				
Diethylphthalate	1.24	0.34	mg/Kg wet	1.67		74.6	40-140				
2,4-Dimethylphenol	1.21	0.34	mg/Kg wet	1.67		72.8	30-130				
Dimethylphthalate	1.24	0.34	mg/Kg wet	1.67		74.4	40-140				
4,6-Dinitro-2-methylphenol	1.19	0.34	mg/Kg wet	1.67		71.6	30-130				
2,4-Dinitrophenol	0.882	0.66	mg/Kg wet	1.67		52.9	30-130				
2,4-Dinitrotoluene	1.36	0.34	mg/Kg wet	1.67		81.6	40-140				
2,6-Dinitrotoluene	1.39	0.34	mg/Kg wet	1.67		83.2	40-140				
Di-n-octylphthalate	1.29	0.34	mg/Kg wet	1.67		77.5	40-140				
1,2-Diphenylhydrazine/Azobenzene	1.46	0.34	mg/Kg wet	1.67		87.4	40-140				
Fluoranthene	1.33	0.17	mg/Kg wet	1.67		79.6	40-140				
Fluorene	1.31	0.17	mg/Kg wet	1.67		78.7	40-140				
Hexachlorobenzene	1.38	0.34	mg/Kg wet	1.67		82.7	40-140				
Hexachlorobutadiene	1.17	0.34	mg/Kg wet	1.67		70.4	40-140				
Hexachlorocyclopentadiene	1.12	0.34	mg/Kg wet	1.67		67.5	40-140				
Hexachloroethane	1.18	0.34	mg/Kg wet	1.67		70.7	40-140				
Indeno(1,2,3-cd)pyrene	1.43	0.17	mg/Kg wet	1.67		85.5	40-140				
Isophorone	1.36	0.34	mg/Kg wet	1.67		81.8	40-140				
1-Methylnaphthalene	1.17	0.17	mg/Kg wet	1.67		70.1	40-140				
2-Methylnaphthalene	1.40	0.17	mg/Kg wet	1.67		84.1	40-140				
2-Methylphenol	1.31	0.34	mg/Kg wet	1.67		78.3	30-130				
3/4-Methylphenol	1.32	0.34	mg/Kg wet	1.67		79.4	30-130				
Naphthalene	1.23	0.17	mg/Kg wet	1.67		74.0	40-140				
2-Nitroaniline	1.69	0.34	mg/Kg wet	1.67		101	40-140				
3-Nitroaniline	1.29	0.34	mg/Kg wet	1.67		77.4	30-140			V-06	†
4-Nitroaniline	1.44	0.34	mg/Kg wet	1.67		86.1	40-140				
Nitrobenzene	1.25	0.34	mg/Kg wet	1.67		74.9	40-140				
2-Nitrophenol	1.19	0.34	mg/Kg wet	1.67		71.5	30-130				
4-Nitrophenol	1.22	0.66	mg/Kg wet	1.67		73.0	30-130				
N-Nitrosodimethylamine	1.20	0.34	mg/Kg wet	1.67		72.1	40-140				
N-Nitrosodiphenylamine/Diphenylamine	1.39	0.34	mg/Kg wet	1.67		83.4	40-140				
N-Nitrosodi-n-propylamine	1.26	0.34	mg/Kg wet	1.67		75.4	40-140				
Pentachloronitrobenzene	1.34	0.34	mg/Kg wet	1.67		80.1	40-140				
Pentachlorophenol	1.12	0.34	mg/Kg wet	1.67		67.2	30-130				
Phenanthrene	1.36	0.17	mg/Kg wet	1.67		81.6	40-140				
Phenol	1.18	0.34	mg/Kg wet	1.67		71.0	30-130				
Pyrene	1.37	0.17	mg/Kg wet	1.67		82.4	40-140				
Pyridine	0.800	0.34	mg/Kg wet	1.67		48.0	30-140				†
1,2,4,5-Tetrachlorobenzene	1.17	0.34	mg/Kg wet	1.67		70.0	40-140				
1,2,4-Trichlorobenzene	1.19	0.34	mg/Kg wet	1.67		71.5	40-140				
2,4,5-Trichlorophenol	1.33	0.34	mg/Kg wet	1.67		79.6	30-130				
2,4,6-Trichlorophenol	1.23	0.34	mg/Kg wet	1.67		73.7	30-130				

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QUALITY CONTROL

Semivolatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes	
Batch B296234 - SW-846 3546											
LCS (B296234-BS1)				Prepared: 12/07/21 Analyzed: 12/08/21							
Surrogate: 2-Fluorophenol	*5.04*		mg/Kg wet	6.67		75.5	30-130				
Surrogate: Phenol-d6	*5.05*		mg/Kg wet	6.67		75.8	30-130				
Surrogate: Nitrobenzene-d5	*2.54*		mg/Kg wet	3.33		76.2	30-130				
Surrogate: 2-Fluorobiphenyl	*2.54*		mg/Kg wet	3.33		76.2	30-130				
Surrogate: 2,4,6-Tribromophenol	*5.60*		mg/Kg wet	6.67		84.0	30-130				
Surrogate: p-Terphenyl-d14	*2.86*		mg/Kg wet	3.33		85.9	30-130				
LCS Dup (B296234-BSD1)				Prepared: 12/07/21 Analyzed: 12/08/21							
Acenaphthene	1.23	0.17	mg/Kg wet	1.67		73.8	40-140	1.89	30		
Acenaphthylene	1.32	0.17	mg/Kg wet	1.67		79.5	40-140	2.57	30		
Acetophenone	1.27	0.34	mg/Kg wet	1.67		76.4	40-140	0.236	30		
Aniline	1.03	0.34	mg/Kg wet	1.67		61.7	10-140	4.07	50		† ‡
Anthracene	1.39	0.17	mg/Kg wet	1.67		83.7	40-140	1.32	30		
Benzidine	2.14	0.66	mg/Kg wet	1.67		128	40-140	4.23	30	V-35	
Benzo(a)anthracene	1.32	0.17	mg/Kg wet	1.67		79.4	40-140	2.55	30		
Benzo(a)pyrene	1.44	0.17	mg/Kg wet	1.67		86.1	40-140	1.83	30		
Benzo(b)fluoranthene	1.34	0.17	mg/Kg wet	1.67		80.3	40-140	0.775	30		
Benzo(g,h,i)perylene	1.36	0.17	mg/Kg wet	1.67		81.7	40-140	1.08	30		
Benzo(k)fluoranthene	1.43	0.17	mg/Kg wet	1.67		86.0	40-140	0.982	30		
Benzoic Acid	0.794	1.0	mg/Kg wet	1.67		47.6	30-130	11.4	50	J	‡
Bis(2-chloroethoxy)methane	1.26	0.34	mg/Kg wet	1.67		75.9	40-140	0.873	30		
Bis(2-chloroethyl)ether	1.19	0.34	mg/Kg wet	1.67		71.3	40-140	1.92	30		
Bis(2-chloroisopropyl)ether	1.37	0.34	mg/Kg wet	1.67		82.5	40-140	1.23	30		
Bis(2-Ethylhexyl)phthalate	1.38	0.34	mg/Kg wet	1.67		83.0	40-140	2.19	30		
4-Bromophenylphenylether	1.28	0.34	mg/Kg wet	1.67		77.1	40-140	2.18	30		
Butylbenzylphthalate	1.33	0.34	mg/Kg wet	1.67		79.9	40-140	1.95	30		
Carbazole	1.37	0.17	mg/Kg wet	1.67		82.0	40-140	1.40	30		
4-Chloroaniline	1.01	0.66	mg/Kg wet	1.67		60.5	10-140	1.20	30	V-06, V-34	†
4-Chloro-3-methylphenol	1.28	0.66	mg/Kg wet	1.67		76.8	30-130	2.88	30		
2-Chloronaphthalene	1.11	0.34	mg/Kg wet	1.67		66.5	40-140	2.25	30		
2-Chlorophenol	1.17	0.34	mg/Kg wet	1.67		70.2	30-130	0.455	30		
4-Chlorophenylphenylether	1.26	0.34	mg/Kg wet	1.67		75.6	40-140	3.36	30		
Chrysene	1.38	0.17	mg/Kg wet	1.67		82.9	40-140	2.20	30		
Dibenz(a,h)anthracene	1.43	0.17	mg/Kg wet	1.67		85.8	40-140	0.749	30		
Dibenzofuran	1.39	0.34	mg/Kg wet	1.67		83.6	40-140	3.65	30		
Di-n-butylphthalate	1.33	0.34	mg/Kg wet	1.67		79.7	40-140	0.832	30		
1,2-Dichlorobenzene	1.18	0.34	mg/Kg wet	1.67		71.1	40-140	0.113	30		
1,3-Dichlorobenzene	1.13	0.34	mg/Kg wet	1.67		67.6	40-140	0.561	30		
1,4-Dichlorobenzene	1.14	0.34	mg/Kg wet	1.67		68.6	40-140	0.640	30		
3,3-Dichlorobenzidine	1.04	0.17	mg/Kg wet	1.67		62.7	20-140	4.04	50		† ‡
2,4-Dichlorophenol	1.22	0.34	mg/Kg wet	1.67		73.3	30-130	2.04	30		
Diethylphthalate	1.29	0.34	mg/Kg wet	1.67		77.7	40-140	4.02	30		
2,4-Dimethylphenol	1.23	0.34	mg/Kg wet	1.67		74.0	30-130	1.61	30		
Dimethylphthalate	1.30	0.34	mg/Kg wet	1.67		77.8	40-140	4.44	30		
4,6-Dinitro-2-methylphenol	1.24	0.34	mg/Kg wet	1.67		74.1	30-130	3.40	30		
2,4-Dinitrophenol	0.950	0.66	mg/Kg wet	1.67		57.0	30-130	7.42	30		
2,4-Dinitrotoluene	1.40	0.34	mg/Kg wet	1.67		84.0	40-140	2.95	30		
2,6-Dinitrotoluene	1.43	0.34	mg/Kg wet	1.67		86.0	40-140	3.31	30		
Di-n-octylphthalate	1.30	0.34	mg/Kg wet	1.67		78.0	40-140	0.566	30		
1,2-Diphenylhydrazine/Azobenzene	1.47	0.34	mg/Kg wet	1.67		88.0	40-140	0.752	30		
Fluoranthene	1.37	0.17	mg/Kg wet	1.67		82.5	40-140	3.53	30		
Fluorene	1.35	0.17	mg/Kg wet	1.67		81.2	40-140	3.13	30		

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QUALITY CONTROL

Semivolatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes	
Batch B296234 - SW-846 3546											
LCS Dup (B296234-BSD1)				Prepared: 12/07/21 Analyzed: 12/08/21							
Hexachlorobenzene	1.42	0.34	mg/Kg wet	1.67		85.3	40-140	3.02	30		
Hexachlorobutadiene	1.18	0.34	mg/Kg wet	1.67		70.8	40-140	0.567	30		
Hexachlorocyclopentadiene	1.14	0.34	mg/Kg wet	1.67		68.6	40-140	1.70	30		
Hexachloroethane	1.18	0.34	mg/Kg wet	1.67		70.6	40-140	0.142	30		
Indeno(1,2,3-cd)pyrene	1.43	0.17	mg/Kg wet	1.67		85.9	40-140	0.373	30		
Isophorone	1.38	0.34	mg/Kg wet	1.67		82.8	40-140	1.14	30		
1-Methylnaphthalene	1.19	0.17	mg/Kg wet	1.67		71.4	40-140	1.84	30		
2-Methylnaphthalene	1.43	0.17	mg/Kg wet	1.67		85.9	40-140	2.02	30		
2-Methylphenol	1.28	0.34	mg/Kg wet	1.67		77.0	30-130	1.73	30		
3/4-Methylphenol	1.33	0.34	mg/Kg wet	1.67		80.1	30-130	0.828	30		
Naphthalene	1.25	0.17	mg/Kg wet	1.67		75.0	40-140	1.37	30		
2-Nitroaniline	1.73	0.34	mg/Kg wet	1.67		104	40-140	2.46	30		
3-Nitroaniline	1.32	0.34	mg/Kg wet	1.67		79.2	30-140	2.27	30	V-06	†
4-Nitroaniline	1.49	0.34	mg/Kg wet	1.67		89.1	40-140	3.42	30		
Nitrobenzene	1.27	0.34	mg/Kg wet	1.67		75.9	40-140	1.41	30		
2-Nitrophenol	1.22	0.34	mg/Kg wet	1.67		73.1	30-130	2.16	30		
4-Nitrophenol	1.25	0.66	mg/Kg wet	1.67		74.9	30-130	2.57	50		‡
N-Nitrosodimethylamine	1.17	0.34	mg/Kg wet	1.67		70.3	40-140	2.42	30		
N-Nitrosodiphenylamine/Diphenylamine	1.42	0.34	mg/Kg wet	1.67		85.0	40-140	1.90	30		
N-Nitrosodi-n-propylamine	1.25	0.34	mg/Kg wet	1.67		74.8	40-140	0.799	30		
Pentachloronitrobenzene	1.38	0.34	mg/Kg wet	1.67		82.7	40-140	3.14	30		
Pentachlorophenol	1.16	0.34	mg/Kg wet	1.67		69.6	30-130	3.54	30		
Phenanthrene	1.39	0.17	mg/Kg wet	1.67		83.2	40-140	2.01	30		
Phenol	1.18	0.34	mg/Kg wet	1.67		70.8	30-130	0.367	30		
Pyrene	1.38	0.17	mg/Kg wet	1.67		83.0	40-140	0.798	30		
Pyridine	0.781	0.34	mg/Kg wet	1.67		46.8	30-140	2.40	30		†
1,2,4,5-Tetrachlorobenzene	1.20	0.34	mg/Kg wet	1.67		71.8	40-140	2.57	30		
1,2,4-Trichlorobenzene	1.20	0.34	mg/Kg wet	1.67		71.7	40-140	0.251	30		
2,4,5-Trichlorophenol	1.36	0.34	mg/Kg wet	1.67		81.7	30-130	2.50	30		
2,4,6-Trichlorophenol	1.26	0.34	mg/Kg wet	1.67		75.4	30-130	2.23	30		
Surrogate: 2-Fluorophenol	*4.99*		mg/Kg wet	6.67		74.8	30-130				
Surrogate: Phenol-d6	*4.99*		mg/Kg wet	6.67		74.8	30-130				
Surrogate: Nitrobenzene-d5	*2.54*		mg/Kg wet	3.33		76.3	30-130				
Surrogate: 2-Fluorobiphenyl	*2.58*		mg/Kg wet	3.33		77.5	30-130				
Surrogate: 2,4,6-Tribromophenol	*5.91*		mg/Kg wet	6.67		88.6	30-130				
Surrogate: p-Terphenyl-d14	*2.90*		mg/Kg wet	3.33		87.0	30-130				

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FLAG/QUALIFIER SUMMARY

*	QC result is outside of established limits.
†	Wide recovery limits established for difficult compound.
‡	Wide RPD limits established for difficult compound.
#	Data exceeded client recommended or regulatory level
ND	Not Detected
RL	Reporting Limit is at the level of quantitation (LOQ)
DL	Detection Limit is the lower limit of detection determined by the MDL study
MCL	Maximum Contaminant Level
	Percent recoveries and relative percent differences (RPDs) are determined by the software using values in the calculation which have not been rounded.
	No results have been blank subtracted unless specified in the case narrative section.
H-10	Analysis was requested after the recommended holding time had passed.
J	Detected but below the Reporting Limit (lowest calibration standard); therefore, result is an estimated concentration (CLP J-Flag).
V-06	Continuing calibration verification (CCV) did not meet method specifications and was biased on the high side for this compound.
V-20	Continuing calibration verification (CCV) did not meet method specifications and was biased on the high side. Data validation is not affected since sample result was "not detected" for this compound.
V-34	Initial calibration verification (ICV) did not meet method specifications and was biased on the low side for this compound. Reported result is estimated.
V-35	Initial calibration verification (ICV) did not meet method specifications and was biased on the high side for this compound. Reported result is estimated.

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CERTIFICATIONS

Certified Analyses included in this Report

Analyte	Certifications
SW-846 8270E in Soil	
Acenaphthene	CT,NY,NH,ME,NC,VA
Acenaphthylene	CT,NY,NH,ME,NC,VA
Acetophenone	NY,NH,ME,NC,VA
Aniline	NY,NH,ME,NC,VA
Anthracene	CT,NY,NH,ME,NC,VA
Benzidine	CT,NY,NH,ME,NC,VA
Benzo(a)anthracene	CT,NY,NH,ME,NC,VA
Benzo(a)pyrene	CT,NY,NH,ME,NC,VA
Benzo(b)fluoranthene	CT,NY,NH,ME,NC,VA
Benzo(g,h,i)perylene	CT,NY,NH,ME,NC,VA
Benzo(k)fluoranthene	CT,NY,NH,ME,NC,VA
Benzoic Acid	NY,NH,ME,NC,VA
Bis(2-chloroethoxy)methane	CT,NY,NH,ME,NC,VA
Bis(2-chloroethyl)ether	CT,NY,NH,ME,NC,VA
Bis(2-chloroisopropyl)ether	CT,NY,NH,ME,NC,VA
Bis(2-Ethylhexyl)phthalate	CT,NY,NH,ME,NC,VA
4-Bromophenylphenylether	CT,NY,NH,ME,NC,VA
Butylbenzylphthalate	CT,NY,NH,ME,NC,VA
Carbazole	NC
4-Chloroaniline	CT,NY,NH,ME,NC,VA
4-Chloro-3-methylphenol	CT,NY,NH,ME,NC,VA
2-Chloronaphthalene	CT,NY,NH,NC,VA
2-Chlorophenol	CT,NY,NH,ME,NC,VA
4-Chlorophenylphenylether	CT,NY,NH,ME,NC,VA
Chrysene	CT,NY,NH,ME,NC,VA
Dibenz(a,h)anthracene	CT,NY,NH,ME,NC,VA
Dibenzofuran	CT,NY,NH,ME,NC,VA
Di-n-butylphthalate	CT,NY,NH,ME,NC,VA
1,2-Dichlorobenzene	NY,NH,ME,NC,VA
1,3-Dichlorobenzene	NY,NH,ME,NC,VA
1,4-Dichlorobenzene	NY,NH,ME,NC,VA
3,3-Dichlorobenzidine	CT,NY,NH,ME,NC,VA
2,4-Dichlorophenol	CT,NY,NH,ME,NC,VA
Diethylphthalate	CT,NY,NH,ME,NC,VA
2,4-Dimethylphenol	CT,NY,NH,ME,NC,VA
Dimethylphthalate	CT,NY,NH,ME,NC,VA
4,6-Dinitro-2-methylphenol	CT,NY,NH,ME,NC,VA
2,4-Dinitrophenol	CT,NY,NH,ME,NC,VA
2,4-Dinitrotoluene	CT,NY,NH,ME,NC,VA
2,6-Dinitrotoluene	CT,NY,NH,ME,NC,VA
Di-n-octylphthalate	CT,NY,NH,ME,NC,VA
1,2-Diphenylhydrazine/Azobenzene	NY,NH,ME,NC,VA
Fluoranthene	CT,NY,NH,ME,NC,VA
Fluorene	NY,NH,ME,NC,VA
Hexachlorobenzene	CT,NY,NH,ME,NC,VA
Hexachlorobutadiene	CT,NY,NH,ME,NC,VA
Hexachlorocyclopentadiene	CT,NY,NH,ME,NC,VA

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CERTIFICATIONS

Certified Analyses included in this Report

Analyte	Certifications
SW-846 8270E in Soil	
Hexachloroethane	CT,NY,NH,ME,NC,VA
Indeno(1,2,3-cd)pyrene	CT,NY,NH,ME,NC,VA
Isophorone	CT,NY,NH,ME,NC,VA
1-Methylnaphthalene	NC
2-Methylnaphthalene	CT,NY,NH,ME,NC,VA
2-Methylphenol	CT,NY,NH,ME,NC,VA
3/4-Methylphenol	CT,NY,NH,ME,NC,VA
Naphthalene	CT,NY,NH,ME,NC,VA
2-Nitroaniline	CT,NY,NH,ME,NC,VA
3-Nitroaniline	CT,NY,NH,ME,NC,VA
4-Nitroaniline	CT,NY,NH,ME,NC,VA
Nitrobenzene	CT,NY,NH,ME,NC,VA
2-Nitrophenol	CT,NY,NH,ME,NC,VA
4-Nitrophenol	CT,NY,NH,ME,NC,VA
N-Nitrosodimethylamine	CT,NY,NH,ME,NC,VA
N-Nitrosodi-n-propylamine	CT,NY,NH,ME,NC,VA
Pentachloronitrobenzene	NY,NC
Pentachlorophenol	CT,NY,NH,ME,NC,VA
Phenanthrene	CT,NY,NH,ME,NC,VA
Phenol	CT,NY,NH,ME,NC,VA
Pyrene	CT,NY,NH,ME,NC,VA
Pyridine	CT,NY,NH,ME,NC,VA
1,2,4,5-Tetrachlorobenzene	NY,NC
1,2,4-Trichlorobenzene	CT,NY,NH,ME,NC,VA
2,4,5-Trichlorophenol	CT,NY,NH,ME,NC,VA
2,4,6-Trichlorophenol	CT,NY,NH,ME,NC,VA
2-Fluorophenol	NC

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Con-Test, a Pace Environmental Laboratory, operates under the following certifications and accreditations:

Code	Description	Number	Expires
AIHA	AIHA-LAP, LLC - ISO17025:2017	100033	03/1/2022
MA	Massachusetts DEP	M-MA100	06/30/2022
CT	Connecticut Department of Publilc Health	PH-0165	12/31/2022
NY	New York State Department of Health	10899 NELAP	04/1/2022
NH-S	New Hampshire Environmental Lab	2516 NELAP	02/5/2022
RI	Rhode Island Department of Health	LAO00112	12/30/2021
NC	North Carolina Div. of Water Quality	652	12/31/2021
NJ	New Jersey DEP	MA007 NELAP	06/30/2022
FL	Florida Department of Health	E871027 NELAP	06/30/2022
VT	Vermont Department of Health Lead Laboratory	LL720741	07/30/2022
ME	State of Maine	MA00100	06/9/2023
VA	Commonwealth of Virginia	460217	12/14/2021
NH-P	New Hampshire Environmental Lab	2557 NELAP	09/6/2022
VT-DW	Vermont Department of Health Drinking Water	VT-255716	06/12/2022
NC-DW	North Carolina Department of Health	25703	07/31/2022
PA	Commonwealth of Pennsylvania DEP	68-05812	06/30/2022
MI	Dept. of Env, Great Lakes, and Energy	9100	09/6/2022

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December 8, 2021

Sarah Ostertag
Ramboll US Consulting, Inc. - Arlington, VA
4350 North Fairfax Drive
Arlington, VA 22203

Project Location: 1400 N. Royal St., Alexandria, VA
Client Job Number:
Project Number: [none]
Laboratory Work Order Number: 21L0153

Enclosed are results of analyses for samples as received by the laboratory on December 2, 2021. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Kaitlyn A. Feliciano
Project Manager

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Ramboll US Consulting, Inc. - Arlington, VA
4350 North Fairfax Drive
Arlington, VA 22203
ATTN: Sarah Ostertag

REPORT DATE: 12/8/2021

PURCHASE ORDER NUMBER:

PROJECT NUMBER: [none]

ANALYTICAL SUMMARY

WORK ORDER NUMBER: 21L0153

The results of analyses performed on the following samples submitted to CON-TEST, a Pace Analytical Laboratory, are found in this report.

PROJECT LOCATION: 1400 N. Royal St., Alexandria, VA

FIELD SAMPLE #	LAB ID:	MATRIX	SAMPLE DESCRIPTION	TEST	SUB LAB
HRP-SB213-0-1-211015	21L0153-01	Soil		SM 2540G	
				SW-846 8270E	
HRP-SB213-5-7-211015	21L0153-02	Soil		SM 2540G	
				SW-846 8270E	
HRP-SB213-16-18-211015	21L0153-03	Soil		SM 2540G	
				SW-846 8270E	
HRP-SB212-0-2-211015	21L0153-04	Soil		SM 2540G	
				SW-846 8270E	
HRP-DUP04-0-2-211015	21L0153-05	Soil		SM 2540G	
				SW-846 8270E	
HRP-SB212-5-7-211015	21L0153-06	Soil		SM 2540G	
				SW-846 8270E	
HRP-SB212-15-17-211015	21L0153-07	Soil		SM 2540G	
				SW-846 8270E	
HRP-SB211-0-1-211015	21L0153-08	Soil		SM 2540G	
				SW-846 8270E	
HRP-SB211-5-7-211015	21L0153-09	Soil		SM 2540G	
				SW-846 8270E	
HRP-SB209-0-1-211013	21L0153-10	Soil		SM 2540G	
				SW-846 8270E	
HRP-SB209-5-7-211013	21L0153-11	Soil		SM 2540G	
				SW-846 8270E	
HRP-SB209-15-17-211013	21L0153-12	Soil		SM 2540G	
				SW-846 8270E	
HRP-SB208-0-1-211014	21L0153-13	Soil		SM 2540G	
				SW-846 8270E	
HRP-MW208-5-7-211014	21L0153-14	Soil		SM 2540G	
				SW-846 8270E	
HRP-SB208-18-20-211014	21L0153-15	Soil		SM 2540G	
				SW-846 8270E	
HRP-SB214-0-2-211014	21L0153-16	Soil		SM 2540G	
				SW-846 8270E	
HRP-SB214-5-7-211014	21L0153-17	Soil		SM 2540G	
				SW-846 8270E	
HRP-SB214-14-16-211014	21L0153-18	Soil		SM 2540G	
				SW-846 8270E	
HRP-SB211-15-17-211015	21L0153-19	Soil		SM 2540G	
				SW-846 8270E	

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CASE NARRATIVE SUMMARY

All reported results are within defined laboratory quality control objectives unless listed below or otherwise qualified in this report.

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SW-846 8270E

Qualifications:

H-10

Analysis was requested after the recommended holding time had passed.

Analyte & Samples(s) Qualified:

21L0153-01[HRP-SB213-0-1-211015], 21L0153-02[HRP-SB213-5-7-211015], 21L0153-03[HRP-SB213-16-18-211015], 21L0153-04[HRP-SB212-0-2-211015], 21L0153-05[HRP-DUP04-0-2-211015], 21L0153-06[HRP-SB212-5-7-211015], 21L0153-07[HRP-SB212-15-17-211015], 21L0153-08[HRP-SB211-0-1-211015], 21L0153-09[HRP-SB211-5-7-211015], 21L0153-10[HRP-SB209-0-1-211013], 21L0153-11[HRP-SB209-5-7-211013], 21L0153-12[HRP-SB209-15-17-211013], 21L0153-13[HRP-SB208-0-1-211014], 21L0153-14[HRP-MW208-5-7-211014], 21L0153-15[HRP-SB208-18-20-211014], 21L0153-16[HRP-SB214-0-2-211014], 21L0153-17[HRP-SB214-5-7-211014], 21L0153-18[HRP-SB214-14-16-211014], 21L0153-19[HRP-SB211-15-17-211015]

L-07

Either laboratory fortified blank/laboratory control sample or duplicate recovery is outside of control limits, but the other is within limits. RPD between the two LFB/LCS results is within method specified criteria.

Analyte & Samples(s) Qualified:

Hexachlorocyclopentadiene

B296003-BSD1

MS-09

Matrix spike recovery and/or matrix spike duplicate recovery outside of control limits. Possibility of sample matrix effects that lead to a low bias for reported result or non-homogeneous sample aliquots cannot be eliminated.

Analyte & Samples(s) Qualified:

3,3-Dichlorobenzidine

21L0153-01[HRP-SB213-0-1-211015], B296003-MS1, B296003-MSD1

Aniline

21L0153-01[HRP-SB213-0-1-211015], B296003-MS1, B296003-MSD1

Benzidine

21L0153-01[HRP-SB213-0-1-211015], B296003-MS1, B296003-MSD1

Pyridine

21L0153-01[HRP-SB213-0-1-211015], B296003-MS1, B296003-MSD1

S-07

One associated surrogate standard recovery is outside of control limits but the other(s) is/are within limits. All recoveries are > 10%.

Analyte & Samples(s) Qualified:

p-Terphenyl-d14

B296003-BS1

V-04

Initial calibration did not meet method specifications. Compound was calibrated using a response factor where %RSD is outside of method specified criteria. Reported result is estimated.

Analyte & Samples(s) Qualified:

2,4-Dinitrophenol

21L0153-01[HRP-SB213-0-1-211015], 21L0153-02[HRP-SB213-5-7-211015], 21L0153-03[HRP-SB213-16-18-211015], 21L0153-04[HRP-SB212-0-2-211015], 21L0153-05[HRP-DUP04-0-2-211015], 21L0153-06[HRP-SB212-5-7-211015], 21L0153-07[HRP-SB212-15-17-211015], 21L0153-08[HRP-SB211-0-1-211015], 21L0153-09[HRP-SB211-5-7-211015], 21L0153-10[HRP-SB209-0-1-211013], 21L0153-11[HRP-SB209-5-7-211013], 21L0153-12[HRP-SB209-15-17-211013], 21L0153-13[HRP-SB208-0-1-211014], 21L0153-14[HRP-MW208-5-7-211014], 21L0153-15[HRP-SB208-18-20-211014], 21L0153-16[HRP-SB214-0-2-211014], 21L0153-17[HRP-SB214-5-7-211014], 21L0153-18[HRP-SB214-14-16-211014], 21L0153-19[HRP-SB211-15-17-211015], B296003-BLK1, B296003-BS1, B296003-BSD1, B296003-MS1, B296003-MSD1, S066096-CCV1

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V-05

Continuing calibration verification (CCV) did not meet method specifications and was biased on the low side for this compound.

Analyte & Samples(s) Qualified:

4-Nitrophenol

21L0153-01[HRP-SB213-0-1-211015], 21L0153-02[HRP-SB213-5-7-211015], 21L0153-03[HRP-SB213-16-18-211015], 21L0153-04[HRP-SB212-0-2-211015], 21L0153-05[HRP-DUP04-0-2-211015], 21L0153-06[HRP-SB212-5-7-211015], 21L0153-07[HRP-SB212-15-17-211015], 21L0153-08[HRP-SB211-0-1-211015], 21L0153-09[HRP-SB211-5-7-211015], 21L0153-10[HRP-SB209-0-1-211013], 21L0153-11[HRP-SB209-5-7-211013], 21L0153-12[HRP-SB209-15-17-211013], 21L0153-13[HRP-SB208-0-1-211014], 21L0153-14[HRP-MW208-5-7-211014], 21L0153-15[HRP-SB208-18-20-211014], 21L0153-16[HRP-SB214-0-2-211014], 21L0153-17[HRP-SB214-5-7-211014], 21L0153-18[HRP-SB214-14-16-211014], 21L0153-19[HRP-SB211-15-17-211015], B296003-BLK1, B296003-BS1, B296003-BSD1, B296003-MS1, B296003-MSD1, S066096-CCV1

Benzidine

21L0153-01[HRP-SB213-0-1-211015], 21L0153-02[HRP-SB213-5-7-211015], 21L0153-03[HRP-SB213-16-18-211015], 21L0153-04[HRP-SB212-0-2-211015], 21L0153-05[HRP-DUP04-0-2-211015], 21L0153-06[HRP-SB212-5-7-211015], 21L0153-07[HRP-SB212-15-17-211015], 21L0153-08[HRP-SB211-0-1-211015], 21L0153-09[HRP-SB211-5-7-211015], 21L0153-10[HRP-SB209-0-1-211013], 21L0153-11[HRP-SB209-5-7-211013], 21L0153-12[HRP-SB209-15-17-211013], 21L0153-13[HRP-SB208-0-1-211014], 21L0153-14[HRP-MW208-5-7-211014], 21L0153-15[HRP-SB208-18-20-211014], 21L0153-16[HRP-SB214-0-2-211014], 21L0153-17[HRP-SB214-5-7-211014], 21L0153-18[HRP-SB214-14-16-211014], 21L0153-19[HRP-SB211-15-17-211015], B296003-BLK1, B296003-BS1, B296003-BSD1, B296003-MS1, B296003-MSD1, S066096-CCV1

Hexachlorobutadiene

21L0153-01[HRP-SB213-0-1-211015], 21L0153-02[HRP-SB213-5-7-211015], 21L0153-03[HRP-SB213-16-18-211015], 21L0153-04[HRP-SB212-0-2-211015], 21L0153-05[HRP-DUP04-0-2-211015], 21L0153-06[HRP-SB212-5-7-211015], 21L0153-07[HRP-SB212-15-17-211015], 21L0153-08[HRP-SB211-0-1-211015], 21L0153-09[HRP-SB211-5-7-211015], 21L0153-10[HRP-SB209-0-1-211013], 21L0153-11[HRP-SB209-5-7-211013], 21L0153-12[HRP-SB209-15-17-211013], 21L0153-13[HRP-SB208-0-1-211014], 21L0153-14[HRP-MW208-5-7-211014], 21L0153-15[HRP-SB208-18-20-211014], 21L0153-16[HRP-SB214-0-2-211014], 21L0153-17[HRP-SB214-5-7-211014], 21L0153-18[HRP-SB214-14-16-211014], 21L0153-19[HRP-SB211-15-17-211015], B296003-BLK1, B296003-BS1, B296003-BSD1, B296003-MS1, B296003-MSD1, S066096-CCV1

Hexachlorocyclopentadiene

21L0153-01[HRP-SB213-0-1-211015], 21L0153-02[HRP-SB213-5-7-211015], 21L0153-03[HRP-SB213-16-18-211015], 21L0153-04[HRP-SB212-0-2-211015], 21L0153-05[HRP-DUP04-0-2-211015], 21L0153-06[HRP-SB212-5-7-211015], 21L0153-07[HRP-SB212-15-17-211015], 21L0153-08[HRP-SB211-0-1-211015], 21L0153-09[HRP-SB211-5-7-211015], 21L0153-10[HRP-SB209-0-1-211013], 21L0153-11[HRP-SB209-5-7-211013], 21L0153-12[HRP-SB209-15-17-211013], 21L0153-13[HRP-SB208-0-1-211014], 21L0153-14[HRP-MW208-5-7-211014], 21L0153-15[HRP-SB208-18-20-211014], 21L0153-16[HRP-SB214-0-2-211014], 21L0153-17[HRP-SB214-5-7-211014], 21L0153-18[HRP-SB214-14-16-211014], 21L0153-19[HRP-SB211-15-17-211015], B296003-BLK1, B296003-BS1, B296003-BSD1, B296003-MS1, B296003-MSD1, S066096-CCV1

Pentachlorophenol

21L0153-01[HRP-SB213-0-1-211015], 21L0153-02[HRP-SB213-5-7-211015], 21L0153-03[HRP-SB213-16-18-211015], 21L0153-04[HRP-SB212-0-2-211015], 21L0153-05[HRP-DUP04-0-2-211015], 21L0153-06[HRP-SB212-5-7-211015], 21L0153-07[HRP-SB212-15-17-211015], 21L0153-08[HRP-SB211-0-1-211015], 21L0153-09[HRP-SB211-5-7-211015], 21L0153-10[HRP-SB209-0-1-211013], 21L0153-11[HRP-SB209-5-7-211013], 21L0153-12[HRP-SB209-15-17-211013], 21L0153-13[HRP-SB208-0-1-211014], 21L0153-14[HRP-MW208-5-7-211014], 21L0153-15[HRP-SB208-18-20-211014], 21L0153-16[HRP-SB214-0-2-211014], 21L0153-17[HRP-SB214-5-7-211014], 21L0153-18[HRP-SB214-14-16-211014], 21L0153-19[HRP-SB211-15-17-211015], B296003-BLK1, B296003-BS1, B296003-BSD1, B296003-MS1, B296003-MSD1, S066096-CCV1

V-34

Initial calibration verification (ICV) did not meet method specifications and was biased on the low side for this compound. Reported result is estimated.

Analyte & Samples(s) Qualified:

4-Chloroaniline

21L0153-01[HRP-SB213-0-1-211015], 21L0153-02[HRP-SB213-5-7-211015], 21L0153-03[HRP-SB213-16-18-211015], 21L0153-04[HRP-SB212-0-2-211015], 21L0153-05[HRP-DUP04-0-2-211015], 21L0153-06[HRP-SB212-5-7-211015], 21L0153-07[HRP-SB212-15-17-211015], 21L0153-08[HRP-SB211-0-1-211015], 21L0153-09[HRP-SB211-5-7-211015], 21L0153-10[HRP-SB209-0-1-211013], 21L0153-11[HRP-SB209-5-7-211013], 21L0153-12[HRP-SB209-15-17-211013], 21L0153-13[HRP-SB208-0-1-211014], 21L0153-14[HRP-MW208-5-7-211014], 21L0153-15[HRP-SB208-18-20-211014], 21L0153-16[HRP-SB214-0-2-211014], 21L0153-17[HRP-SB214-5-7-211014], 21L0153-18[HRP-SB214-14-16-211014], 21L0153-19[HRP-SB211-15-17-211015], B296003-BLK1, B296003-BS1, B296003-BSD1, B296003-MS1, B296003-MSD1, S066096-CCV1

The results of analyses reported only relate to samples submitted to Con-Test, a Pace Analytical Laboratory, for testing.
I certify that the analyses listed above, unless specifically listed as subcontracted, if any, were performed under my direction according to the approved methodologies listed in this document, and that based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

Lisa A. Worthington
Technical Representative

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Project Location: 1400 N. Royal St., Alexandria, VA Sample Description: Work Order: 21L0153

Date Received: 12/2/2021

Field Sample #: HRP-SB213-0-1-211015 Sampled: 10/15/2021 09:56

Sample ID: 21L0153-01

Sample Matrix: Soil

Sample Flags: H-10

Semivolatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acenaphthene	ND	0.20	0.063	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 15:33	BGL
Acenaphthylene	ND	0.20	0.061	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 15:33	BGL
Acetophenone	ND	0.40	0.054	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 15:33	BGL
Aniline	ND	0.40	0.083	mg/Kg dry	1	MS-09	SW-846 8270E	12/3/21	12/6/21 15:33	BGL
Anthracene	ND	0.20	0.065	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 15:33	BGL
Benzidine	ND	0.77	0.18	mg/Kg dry	1	MS-09, V-05	SW-846 8270E	12/3/21	12/6/21 15:33	BGL
Benzo(a)anthracene	ND	0.20	0.055	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 15:33	BGL
Benzo(a)pyrene	ND	0.20	0.061	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 15:33	BGL
Benzo(b)fluoranthene	ND	0.20	0.060	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 15:33	BGL
Benzo(g,h,i)perylene	ND	0.20	0.084	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 15:33	BGL
Benzo(k)fluoranthene	ND	0.20	0.054	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 15:33	BGL
Benzoic Acid	ND	1.2	0.48	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 15:33	BGL
Bis(2-chloroethoxy)methane	ND	0.40	0.052	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 15:33	BGL
Bis(2-chloroethyl)ether	ND	0.40	0.055	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 15:33	BGL
Bis(2-chloroisopropyl)ether	ND	0.40	0.091	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 15:33	BGL
Bis(2-Ethylhexyl)phthalate	ND	0.40	0.067	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 15:33	BGL
4-Bromophenylphenylether	ND	0.40	0.051	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 15:33	BGL
Butylbenzylphthalate	ND	0.40	0.063	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 15:33	BGL
Carbazole	ND	0.20	0.066	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 15:33	BGL
4-Chloroaniline	ND	0.77	0.053	mg/Kg dry	1	V-34	SW-846 8270E	12/3/21	12/6/21 15:33	BGL
4-Chloro-3-methylphenol	ND	0.77	0.066	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 15:33	BGL
2-Chloronaphthalene	ND	0.40	0.046	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 15:33	BGL
2-Chlorophenol	ND	0.40	0.055	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 15:33	BGL
4-Chlorophenylphenylether	ND	0.40	0.057	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 15:33	BGL
Chrysene	ND	0.20	0.058	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 15:33	BGL
Dibenz(a,h)anthracene	ND	0.20	0.081	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 15:33	BGL
Dibenzofuran	ND	0.40	0.059	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 15:33	BGL
Di-n-butylphthalate	ND	0.40	0.056	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 15:33	BGL
1,2-Dichlorobenzene	ND	0.40	0.046	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 15:33	BGL
1,3-Dichlorobenzene	ND	0.40	0.044	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 15:33	BGL
1,4-Dichlorobenzene	ND	0.40	0.042	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 15:33	BGL
3,3-Dichlorobenzidine	ND	0.20	0.058	mg/Kg dry	1	MS-09	SW-846 8270E	12/3/21	12/6/21 15:33	BGL
2,4-Dichlorophenol	ND	0.40	0.059	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 15:33	BGL
Diethylphthalate	ND	0.40	0.061	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 15:33	BGL
2,4-Dimethylphenol	ND	0.40	0.11	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 15:33	BGL
Dimethylphthalate	ND	0.40	0.058	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 15:33	BGL
4,6-Dinitro-2-methylphenol	ND	0.40	0.27	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 15:33	BGL
2,4-Dinitrophenol	ND	0.77	0.34	mg/Kg dry	1	V-04	SW-846 8270E	12/3/21	12/6/21 15:33	BGL
2,4-Dinitrotoluene	ND	0.40	0.078	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 15:33	BGL
2,6-Dinitrotoluene	ND	0.40	0.066	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 15:33	BGL
Di-n-octylphthalate	ND	0.40	0.14	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 15:33	BGL
1,2-Diphenylhydrazine/Azobenzene	ND	0.40	0.057	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 15:33	BGL
Fluoranthene	ND	0.20	0.063	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 15:33	BGL
Fluorene	ND	0.20	0.067	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 15:33	BGL

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Project Location: 1400 N. Royal St., Alexandria, VA Sample Description: Work Order: 21L0153

Date Received: 12/2/2021

Field Sample #: HRP-SB213-0-1-211015 Sampled: 10/15/2021 09:56

Sample ID: 21L0153-01

Sample Matrix: Soil

Sample Flags: H-10

Semivolatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Hexachlorobenzene	ND	0.40	0.054	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 15:33	BGL
Hexachlorobutadiene	ND	0.40	0.051	mg/Kg dry	1	V-05	SW-846 8270E	12/3/21	12/6/21 15:33	BGL
Hexachlorocyclopentadiene	ND	0.40	0.17	mg/Kg dry	1	V-05	SW-846 8270E	12/3/21	12/6/21 15:33	BGL
Hexachloroethane	ND	0.40	0.047	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 15:33	BGL
Indeno(1,2,3-cd)pyrene	ND	0.20	0.090	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 15:33	BGL
Isophorone	ND	0.40	0.067	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 15:33	BGL
1-Methylnaphthalene	0.083	0.20	0.055	mg/Kg dry	1	J	SW-846 8270E	12/3/21	12/6/21 15:33	BGL
2-Methylnaphthalene	0.13	0.20	0.063	mg/Kg dry	1	J	SW-846 8270E	12/3/21	12/6/21 15:33	BGL
2-Methylphenol	ND	0.40	0.074	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 15:33	BGL
3/4-Methylphenol	ND	0.40	0.064	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 15:33	BGL
Naphthalene	0.076	0.20	0.055	mg/Kg dry	1	J	SW-846 8270E	12/3/21	12/6/21 15:33	BGL
2-Nitroaniline	ND	0.40	0.085	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 15:33	BGL
3-Nitroaniline	ND	0.40	0.068	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 15:33	BGL
4-Nitroaniline	ND	0.40	0.086	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 15:33	BGL
Nitrobenzene	ND	0.40	0.058	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 15:33	BGL
2-Nitrophenol	ND	0.40	0.062	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 15:33	BGL
4-Nitrophenol	ND	0.77	0.16	mg/Kg dry	1	V-05	SW-846 8270E	12/3/21	12/6/21 15:33	BGL
N-Nitrosodimethylamine	ND	0.40	0.060	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 15:33	BGL
N-Nitrosodiphenylamine/Diphenylamine	ND	0.40	0.060	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 15:33	BGL
N-Nitrosodi-n-propylamine	ND	0.40	0.055	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 15:33	BGL
Pentachloronitrobenzene	ND	0.40	0.067	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 15:33	BGL
Pentachlorophenol	ND	0.40	0.17	mg/Kg dry	1	V-05	SW-846 8270E	12/3/21	12/6/21 15:33	BGL
Phenanthrene	0.067	0.20	0.063	mg/Kg dry	1	J	SW-846 8270E	12/3/21	12/6/21 15:33	BGL
Phenol	ND	0.40	0.057	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 15:33	BGL
Pyrene	ND	0.20	0.063	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 15:33	BGL
Pyridine	ND	0.40	0.041	mg/Kg dry	1	MS-09	SW-846 8270E	12/3/21	12/6/21 15:33	BGL
1,2,4,5-Tetrachlorobenzene	ND	0.40	0.052	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 15:33	BGL
1,2,4-Trichlorobenzene	ND	0.40	0.050	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 15:33	BGL
2,4,5-Trichlorophenol	ND	0.40	0.062	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 15:33	BGL
2,4,6-Trichlorophenol	ND	0.40	0.062	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 15:33	BGL

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
2-Fluorophenol	61.7	30-130		12/6/21 15:33
Phenol-d6	60.9	30-130		12/6/21 15:33
Nitrobenzene-d5	59.4	30-130		12/6/21 15:33
2-Fluorobiphenyl	70.0	30-130		12/6/21 15:33
2,4,6-Tribromophenol	69.5	30-130		12/6/21 15:33
p-Terphenyl-d14	102	30-130		12/6/21 15:33

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Project Location: 1400 N. Royal St., Alexandria, VA Sample Description: Work Order: 21L0153

Date Received: 12/2/2021

Field Sample #: HRP-SB213-0-1-211015 Sampled: 10/15/2021 09:56

Sample ID: 21L0153-01

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	85.2		% Wt	1		SM 2540G	10/20/21	10/21/21 11:24	TDK

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Project Location: 1400 N. Royal St., Alexandria, VA Sample Description: Work Order: 21L0153

Date Received: 12/2/2021

Field Sample #: HRP-SB213-5-7-211015 Sampled: 10/15/2021 10:05

Sample ID: 21L0153-02

Sample Matrix: Soil

Sample Flags: H-10

Semivolatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acenaphthene	ND	0.20	0.064	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 15:59	BGL
Acenaphthylene	ND	0.20	0.063	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 15:59	BGL
Acetophenone	ND	0.41	0.056	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 15:59	BGL
Aniline	ND	0.41	0.085	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 15:59	BGL
Anthracene	ND	0.20	0.067	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 15:59	BGL
Benzidine	ND	0.80	0.19	mg/Kg dry	1	V-05	SW-846 8270E	12/3/21	12/6/21 15:59	BGL
Benzo(a)anthracene	ND	0.20	0.057	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 15:59	BGL
Benzo(a)pyrene	ND	0.20	0.063	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 15:59	BGL
Benzo(b)fluoranthene	ND	0.20	0.062	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 15:59	BGL
Benzo(g,h,i)perylene	ND	0.20	0.086	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 15:59	BGL
Benzo(k)fluoranthene	ND	0.20	0.055	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 15:59	BGL
Benzoic Acid	ND	1.2	0.49	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 15:59	BGL
Bis(2-chloroethoxy)methane	ND	0.41	0.053	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 15:59	BGL
Bis(2-chloroethyl)ether	ND	0.41	0.056	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 15:59	BGL
Bis(2-chloroisopropyl)ether	ND	0.41	0.093	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 15:59	BGL
Bis(2-Ethylhexyl)phthalate	ND	0.41	0.069	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 15:59	BGL
4-Bromophenylphenylether	ND	0.41	0.052	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 15:59	BGL
Butylbenzylphthalate	ND	0.41	0.065	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 15:59	BGL
Carbazole	ND	0.20	0.067	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 15:59	BGL
4-Chloroaniline	ND	0.80	0.054	mg/Kg dry	1	V-34	SW-846 8270E	12/3/21	12/6/21 15:59	BGL
4-Chloro-3-methylphenol	ND	0.80	0.068	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 15:59	BGL
2-Chloronaphthalene	ND	0.41	0.048	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 15:59	BGL
2-Chlorophenol	ND	0.41	0.057	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 15:59	BGL
4-Chlorophenylphenylether	ND	0.41	0.058	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 15:59	BGL
Chrysene	ND	0.20	0.059	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 15:59	BGL
Dibenz(a,h)anthracene	ND	0.20	0.083	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 15:59	BGL
Dibenzofuran	ND	0.41	0.060	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 15:59	BGL
Di-n-butylphthalate	ND	0.41	0.058	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 15:59	BGL
1,2-Dichlorobenzene	ND	0.41	0.047	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 15:59	BGL
1,3-Dichlorobenzene	ND	0.41	0.045	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 15:59	BGL
1,4-Dichlorobenzene	ND	0.41	0.043	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 15:59	BGL
3,3-Dichlorobenzidine	ND	0.20	0.060	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 15:59	BGL
2,4-Dichlorophenol	ND	0.41	0.061	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 15:59	BGL
Diethylphthalate	ND	0.41	0.062	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 15:59	BGL
2,4-Dimethylphenol	ND	0.41	0.11	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 15:59	BGL
Dimethylphthalate	ND	0.41	0.060	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 15:59	BGL
4,6-Dinitro-2-methylphenol	ND	0.41	0.27	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 15:59	BGL
2,4-Dinitrophenol	ND	0.80	0.35	mg/Kg dry	1	V-04	SW-846 8270E	12/3/21	12/6/21 15:59	BGL
2,4-Dinitrotoluene	ND	0.41	0.080	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 15:59	BGL
2,6-Dinitrotoluene	ND	0.41	0.068	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 15:59	BGL
Di-n-octylphthalate	ND	0.41	0.14	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 15:59	BGL
1,2-Diphenylhydrazine/Azobenzene	ND	0.41	0.059	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 15:59	BGL
Fluoranthene	ND	0.20	0.065	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 15:59	BGL
Fluorene	ND	0.20	0.069	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 15:59	BGL

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Project Location: 1400 N. Royal St., Alexandria, VA Sample Description: Work Order: 21L0153

Date Received: 12/2/2021

Field Sample #: HRP-SB213-5-7-211015 Sampled: 10/15/2021 10:05

Sample ID: 21L0153-02

Sample Matrix: Soil

Sample Flags: H-10

Semivolatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Hexachlorobenzene	ND	0.41	0.056	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 15:59	BGL
Hexachlorobutadiene	ND	0.41	0.052	mg/Kg dry	1	V-05	SW-846 8270E	12/3/21	12/6/21 15:59	BGL
Hexachlorocyclopentadiene	ND	0.41	0.17	mg/Kg dry	1	V-05	SW-846 8270E	12/3/21	12/6/21 15:59	BGL
Hexachloroethane	ND	0.41	0.049	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 15:59	BGL
Indeno(1,2,3-cd)pyrene	ND	0.20	0.093	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 15:59	BGL
Isophorone	ND	0.41	0.068	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 15:59	BGL
1-Methylnaphthalene	ND	0.20	0.057	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 15:59	BGL
2-Methylnaphthalene	ND	0.20	0.065	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 15:59	BGL
2-Methylphenol	ND	0.41	0.076	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 15:59	BGL
3/4-Methylphenol	ND	0.41	0.066	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 15:59	BGL
Naphthalene	ND	0.20	0.056	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 15:59	BGL
2-Nitroaniline	ND	0.41	0.087	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 15:59	BGL
3-Nitroaniline	ND	0.41	0.070	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 15:59	BGL
4-Nitroaniline	ND	0.41	0.088	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 15:59	BGL
Nitrobenzene	ND	0.41	0.059	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 15:59	BGL
2-Nitrophenol	ND	0.41	0.064	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 15:59	BGL
4-Nitrophenol	ND	0.80	0.17	mg/Kg dry	1	V-05	SW-846 8270E	12/3/21	12/6/21 15:59	BGL
N-Nitrosodimethylamine	ND	0.41	0.061	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 15:59	BGL
N-Nitrosodiphenylamine/Diphenylamine	ND	0.41	0.061	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 15:59	BGL
N-Nitrosodi-n-propylamine	ND	0.41	0.056	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 15:59	BGL
Pentachloronitrobenzene	ND	0.41	0.069	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 15:59	BGL
Pentachlorophenol	ND	0.41	0.18	mg/Kg dry	1	V-05	SW-846 8270E	12/3/21	12/6/21 15:59	BGL
Phenanthrene	ND	0.20	0.065	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 15:59	BGL
Phenol	ND	0.41	0.058	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 15:59	BGL
Pyrene	ND	0.20	0.065	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 15:59	BGL
Pyridine	ND	0.41	0.042	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 15:59	BGL
1,2,4,5-Tetrachlorobenzene	ND	0.41	0.053	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 15:59	BGL
1,2,4-Trichlorobenzene	ND	0.41	0.051	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 15:59	BGL
2,4,5-Trichlorophenol	ND	0.41	0.064	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 15:59	BGL
2,4,6-Trichlorophenol	ND	0.41	0.063	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 15:59	BGL

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
2-Fluorophenol	63.1	30-130		12/6/21 15:59
Phenol-d6	61.5	30-130		12/6/21 15:59
Nitrobenzene-d5	60.1	30-130		12/6/21 15:59
2-Fluorobiphenyl	68.7	30-130		12/6/21 15:59
2,4,6-Tribromophenol	71.5	30-130		12/6/21 15:59
p-Terphenyl-d14	100	30-130		12/6/21 15:59

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Project Location: 1400 N. Royal St., Alexandria, VA Sample Description: Work Order: 21L0153

Date Received: 12/2/2021

Field Sample #: HRP-SB213-5-7-211015 Sampled: 10/15/2021 10:05

Sample ID: 21L0153-02

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	83.0		% Wt	1		SM 2540G	10/20/21	10/21/21 11:24	TDK

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Project Location: 1400 N. Royal St., Alexandria, VA Sample Description: Work Order: 21L0153

Date Received: 12/2/2021

Field Sample #: HRP-SB213-16-18-211015 Sampled: 10/15/2021 10:10

Sample ID: 21L0153-03

Sample Matrix: Soil

Sample Flags: H-10

Semivolatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acenaphthene	ND	0.18	0.057	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 16:25	BGL
Acenaphthylene	ND	0.18	0.056	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 16:25	BGL
Acetophenone	ND	0.37	0.050	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 16:25	BGL
Aniline	ND	0.37	0.076	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 16:25	BGL
Anthracene	ND	0.18	0.060	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 16:25	BGL
Benzidine	ND	0.71	0.17	mg/Kg dry	1	V-05	SW-846 8270E	12/3/21	12/6/21 16:25	BGL
Benzo(a)anthracene	ND	0.18	0.051	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 16:25	BGL
Benzo(a)pyrene	ND	0.18	0.056	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 16:25	BGL
Benzo(b)fluoranthene	ND	0.18	0.055	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 16:25	BGL
Benzo(g,h,i)perylene	ND	0.18	0.077	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 16:25	BGL
Benzo(k)fluoranthene	ND	0.18	0.049	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 16:25	BGL
Benzoic Acid	ND	1.1	0.43	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 16:25	BGL
Bis(2-chloroethoxy)methane	ND	0.37	0.048	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 16:25	BGL
Bis(2-chloroethyl)ether	ND	0.37	0.050	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 16:25	BGL
Bis(2-chloroisopropyl)ether	ND	0.37	0.083	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 16:25	BGL
Bis(2-Ethylhexyl)phthalate	ND	0.37	0.061	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 16:25	BGL
4-Bromophenylphenylether	ND	0.37	0.047	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 16:25	BGL
Butylbenzylphthalate	ND	0.37	0.058	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 16:25	BGL
Carbazole	ND	0.18	0.060	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 16:25	BGL
4-Chloroaniline	ND	0.71	0.048	mg/Kg dry	1	V-34	SW-846 8270E	12/3/21	12/6/21 16:25	BGL
4-Chloro-3-methylphenol	ND	0.71	0.061	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 16:25	BGL
2-Chloronaphthalene	ND	0.37	0.042	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 16:25	BGL
2-Chlorophenol	ND	0.37	0.051	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 16:25	BGL
4-Chlorophenylphenylether	ND	0.37	0.052	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 16:25	BGL
Chrysene	ND	0.18	0.053	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 16:25	BGL
Dibenz(a,h)anthracene	ND	0.18	0.074	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 16:25	BGL
Dibenzofuran	ND	0.37	0.054	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 16:25	BGL
Di-n-butylphthalate	ND	0.37	0.052	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 16:25	BGL
1,2-Dichlorobenzene	ND	0.37	0.042	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 16:25	BGL
1,3-Dichlorobenzene	ND	0.37	0.040	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 16:25	BGL
1,4-Dichlorobenzene	ND	0.37	0.038	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 16:25	BGL
3,3-Dichlorobenzidine	ND	0.18	0.053	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 16:25	BGL
2,4-Dichlorophenol	ND	0.37	0.054	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 16:25	BGL
Diethylphthalate	ND	0.37	0.056	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 16:25	BGL
2,4-Dimethylphenol	ND	0.37	0.10	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 16:25	BGL
Dimethylphthalate	ND	0.37	0.053	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 16:25	BGL
4,6-Dinitro-2-methylphenol	ND	0.37	0.25	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 16:25	BGL
2,4-Dinitrophenol	ND	0.71	0.32	mg/Kg dry	1	V-04	SW-846 8270E	12/3/21	12/6/21 16:25	BGL
2,4-Dinitrotoluene	ND	0.37	0.071	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 16:25	BGL
2,6-Dinitrotoluene	ND	0.37	0.061	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 16:25	BGL
Di-n-octylphthalate	ND	0.37	0.13	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 16:25	BGL
1,2-Diphenylhydrazine/Azobenzene	ND	0.37	0.052	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 16:25	BGL
Fluoranthene	ND	0.18	0.058	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 16:25	BGL
Fluorene	ND	0.18	0.061	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 16:25	BGL

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Project Location: 1400 N. Royal St., Alexandria, VA Sample Description: Work Order: 21L0153

Date Received: 12/2/2021

Field Sample #: HRP-SB213-16-18-211015 Sampled: 10/15/2021 10:10

Sample ID: 21L0153-03

Sample Matrix: Soil

Sample Flags: H-10

Semivolatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Hexachlorobenzene	ND	0.37	0.050	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 16:25	BGL
Hexachlorobutadiene	ND	0.37	0.047	mg/Kg dry	1	V-05	SW-846 8270E	12/3/21	12/6/21 16:25	BGL
Hexachlorocyclopentadiene	ND	0.37	0.15	mg/Kg dry	1	V-05	SW-846 8270E	12/3/21	12/6/21 16:25	BGL
Hexachloroethane	ND	0.37	0.043	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 16:25	BGL
Indeno(1,2,3-cd)pyrene	ND	0.18	0.083	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 16:25	BGL
Isophorone	ND	0.37	0.061	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 16:25	BGL
1-Methylnaphthalene	ND	0.18	0.051	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 16:25	BGL
2-Methylnaphthalene	ND	0.18	0.058	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 16:25	BGL
2-Methylphenol	ND	0.37	0.068	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 16:25	BGL
3/4-Methylphenol	ND	0.37	0.059	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 16:25	BGL
Naphthalene	ND	0.18	0.050	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 16:25	BGL
2-Nitroaniline	ND	0.37	0.078	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 16:25	BGL
3-Nitroaniline	ND	0.37	0.062	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 16:25	BGL
4-Nitroaniline	ND	0.37	0.078	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 16:25	BGL
Nitrobenzene	ND	0.37	0.053	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 16:25	BGL
2-Nitrophenol	ND	0.37	0.057	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 16:25	BGL
4-Nitrophenol	ND	0.71	0.15	mg/Kg dry	1	V-05	SW-846 8270E	12/3/21	12/6/21 16:25	BGL
N-Nitrosodimethylamine	ND	0.37	0.055	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 16:25	BGL
N-Nitrosodiphenylamine/Diphenylamine	ND	0.37	0.055	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 16:25	BGL
N-Nitrosodi-n-propylamine	ND	0.37	0.050	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 16:25	BGL
Pentachloronitrobenzene	ND	0.37	0.061	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 16:25	BGL
Pentachlorophenol	ND	0.37	0.16	mg/Kg dry	1	V-05	SW-846 8270E	12/3/21	12/6/21 16:25	BGL
Phenanthrene	ND	0.18	0.058	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 16:25	BGL
Phenol	ND	0.37	0.052	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 16:25	BGL
Pyrene	ND	0.18	0.058	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 16:25	BGL
Pyridine	ND	0.37	0.037	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 16:25	BGL
1,2,4,5-Tetrachlorobenzene	ND	0.37	0.048	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 16:25	BGL
1,2,4-Trichlorobenzene	ND	0.37	0.046	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 16:25	BGL
2,4,5-Trichlorophenol	ND	0.37	0.057	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 16:25	BGL
2,4,6-Trichlorophenol	ND	0.37	0.056	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 16:25	BGL

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
2-Fluorophenol	65.4	30-130		12/6/21 16:25
Phenol-d6	65.3	30-130		12/6/21 16:25
Nitrobenzene-d5	62.4	30-130		12/6/21 16:25
2-Fluorobiphenyl	73.5	30-130		12/6/21 16:25
2,4,6-Tribromophenol	74.0	30-130		12/6/21 16:25
p-Terphenyl-d14	108	30-130		12/6/21 16:25

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Project Location: 1400 N. Royal St., Alexandria, VA Sample Description: Work Order: 21L0153

Date Received: 12/2/2021

Field Sample #: HRP-SB213-16-18-211015 Sampled: 10/15/2021 10:10

Sample ID: 21L0153-03

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	93.1		% Wt	1		SM 2540G	10/20/21	10/21/21 11:24	TDK

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Project Location: 1400 N. Royal St., Alexandria, VA Sample Description: Work Order: 21L0153

Date Received: 12/2/2021

Field Sample #: HRP-SB212-0-2-211015 Sampled: 10/15/2021 11:25

Sample ID: 21L0153-04

Sample Matrix: Soil

Sample Flags: H-10

Semivolatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acenaphthene	ND	0.19	0.060	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 16:51	BGL
Acenaphthylene	ND	0.19	0.058	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 16:51	BGL
Acetophenone	ND	0.38	0.052	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 16:51	BGL
Aniline	ND	0.38	0.079	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 16:51	BGL
Anthracene	ND	0.19	0.062	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 16:51	BGL
Benzidine	ND	0.74	0.17	mg/Kg dry	1	V-05	SW-846 8270E	12/3/21	12/6/21 16:51	BGL
Benzo(a)anthracene	ND	0.19	0.053	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 16:51	BGL
Benzo(a)pyrene	ND	0.19	0.058	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 16:51	BGL
Benzo(b)fluoranthene	ND	0.19	0.057	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 16:51	BGL
Benzo(g,h,i)perylene	ND	0.19	0.080	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 16:51	BGL
Benzo(k)fluoranthene	ND	0.19	0.051	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 16:51	BGL
Benzoic Acid	ND	1.1	0.45	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 16:51	BGL
Bis(2-chloroethoxy)methane	ND	0.38	0.049	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 16:51	BGL
Bis(2-chloroethyl)ether	ND	0.38	0.052	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 16:51	BGL
Bis(2-chloroisopropyl)ether	ND	0.38	0.087	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 16:51	BGL
Bis(2-Ethylhexyl)phthalate	ND	0.38	0.064	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 16:51	BGL
4-Bromophenylphenylether	ND	0.38	0.049	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 16:51	BGL
Butylbenzylphthalate	ND	0.38	0.061	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 16:51	BGL
Carbazole	ND	0.19	0.063	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 16:51	BGL
4-Chloroaniline	ND	0.74	0.051	mg/Kg dry	1	V-34	SW-846 8270E	12/3/21	12/6/21 16:51	BGL
4-Chloro-3-methylphenol	ND	0.74	0.063	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 16:51	BGL
2-Chloronaphthalene	ND	0.38	0.044	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 16:51	BGL
2-Chlorophenol	ND	0.38	0.053	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 16:51	BGL
4-Chlorophenylphenylether	ND	0.38	0.054	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 16:51	BGL
Chrysene	ND	0.19	0.055	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 16:51	BGL
Dibenz(a,h)anthracene	ND	0.19	0.077	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 16:51	BGL
Dibenzofuran	ND	0.38	0.056	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 16:51	BGL
Di-n-butylphthalate	ND	0.38	0.054	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 16:51	BGL
1,2-Dichlorobenzene	ND	0.38	0.043	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 16:51	BGL
1,3-Dichlorobenzene	ND	0.38	0.042	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 16:51	BGL
1,4-Dichlorobenzene	ND	0.38	0.040	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 16:51	BGL
3,3-Dichlorobenzidine	ND	0.19	0.056	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 16:51	BGL
2,4-Dichlorophenol	ND	0.38	0.056	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 16:51	BGL
Diethylphthalate	ND	0.38	0.058	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 16:51	BGL
2,4-Dimethylphenol	ND	0.38	0.10	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 16:51	BGL
Dimethylphthalate	ND	0.38	0.055	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 16:51	BGL
4,6-Dinitro-2-methylphenol	ND	0.38	0.26	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 16:51	BGL
2,4-Dinitrophenol	ND	0.74	0.33	mg/Kg dry	1	V-04	SW-846 8270E	12/3/21	12/6/21 16:51	BGL
2,4-Dinitrotoluene	ND	0.38	0.074	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 16:51	BGL
2,6-Dinitrotoluene	ND	0.38	0.063	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 16:51	BGL
Di-n-octylphthalate	ND	0.38	0.13	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 16:51	BGL
1,2-Diphenylhydrazine/Azobenzene	ND	0.38	0.055	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 16:51	BGL
Fluoranthene	ND	0.19	0.061	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 16:51	BGL
Fluorene	ND	0.19	0.064	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 16:51	BGL

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Project Location: 1400 N. Royal St., Alexandria, VA Sample Description: Work Order: 21L0153

Date Received: 12/2/2021

Field Sample #: HRP-SB212-0-2-211015 Sampled: 10/15/2021 11:25

Sample ID: 21L0153-04

Sample Matrix: Soil

Sample Flags: H-10

Semivolatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Hexachlorobenzene	ND	0.38	0.052	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 16:51	BGL
Hexachlorobutadiene	ND	0.38	0.049	mg/Kg dry	1	V-05	SW-846 8270E	12/3/21	12/6/21 16:51	BGL
Hexachlorocyclopentadiene	ND	0.38	0.16	mg/Kg dry	1	V-05	SW-846 8270E	12/3/21	12/6/21 16:51	BGL
Hexachloroethane	ND	0.38	0.045	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 16:51	BGL
Indeno(1,2,3-cd)pyrene	ND	0.19	0.086	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 16:51	BGL
Isophorone	ND	0.38	0.063	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 16:51	BGL
1-Methylnaphthalene	ND	0.19	0.053	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 16:51	BGL
2-Methylnaphthalene	ND	0.19	0.060	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 16:51	BGL
2-Methylphenol	ND	0.38	0.070	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 16:51	BGL
3/4-Methylphenol	ND	0.38	0.061	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 16:51	BGL
Naphthalene	ND	0.19	0.052	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 16:51	BGL
2-Nitroaniline	ND	0.38	0.081	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 16:51	BGL
3-Nitroaniline	ND	0.38	0.065	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 16:51	BGL
4-Nitroaniline	ND	0.38	0.082	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 16:51	BGL
Nitrobenzene	ND	0.38	0.055	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 16:51	BGL
2-Nitrophenol	ND	0.38	0.059	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 16:51	BGL
4-Nitrophenol	ND	0.74	0.15	mg/Kg dry	1	V-05	SW-846 8270E	12/3/21	12/6/21 16:51	BGL
N-Nitrosodimethylamine	ND	0.38	0.057	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 16:51	BGL
N-Nitrosodiphenylamine/Diphenylamine	ND	0.38	0.057	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 16:51	BGL
N-Nitrosodi-n-propylamine	ND	0.38	0.052	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 16:51	BGL
Pentachloronitrobenzene	ND	0.38	0.064	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 16:51	BGL
Pentachlorophenol	ND	0.38	0.17	mg/Kg dry	1	V-05	SW-846 8270E	12/3/21	12/6/21 16:51	BGL
Phenanthrene	ND	0.19	0.060	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 16:51	BGL
Phenol	ND	0.38	0.054	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 16:51	BGL
Pyrene	ND	0.19	0.060	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 16:51	BGL
Pyridine	ND	0.38	0.039	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 16:51	BGL
1,2,4,5-Tetrachlorobenzene	ND	0.38	0.050	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 16:51	BGL
1,2,4-Trichlorobenzene	ND	0.38	0.048	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 16:51	BGL
2,4,5-Trichlorophenol	ND	0.38	0.059	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 16:51	BGL
2,4,6-Trichlorophenol	ND	0.38	0.059	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 16:51	BGL

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
2-Fluorophenol	57.4	30-130		12/6/21 16:51
Phenol-d6	58.5	30-130		12/6/21 16:51
Nitrobenzene-d5	56.1	30-130		12/6/21 16:51
2-Fluorobiphenyl	69.0	30-130		12/6/21 16:51
2,4,6-Tribromophenol	65.8	30-130		12/6/21 16:51
p-Terphenyl-d14	103	30-130		12/6/21 16:51

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Project Location: 1400 N. Royal St., Alexandria, VA Sample Description: Work Order: 21L0153

Date Received: 12/2/2021

Field Sample #: HRP-SB212-0-2-211015 Sampled: 10/15/2021 11:25

Sample ID: 21L0153-04

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	89.4		% Wt	1		SM 2540G	10/20/21	10/21/21 11:24	TDK

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Project Location: 1400 N. Royal St., Alexandria, VA Sample Description: Work Order: 21L0153

Date Received: 12/2/2021

Field Sample #: HRP-DUP04-0-2-211015 Sampled: 10/15/2021 11:25

Sample ID: 21L0153-05

Sample Matrix: Soil

Sample Flags: H-10

Semivolatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acenaphthene	ND	0.20	0.061	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 17:17	BGL
Acenaphthylene	ND	0.20	0.060	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 17:17	BGL
Acetophenone	ND	0.39	0.053	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 17:17	BGL
Aniline	ND	0.39	0.081	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 17:17	BGL
Anthracene	ND	0.20	0.064	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 17:17	BGL
Benzidine	ND	0.76	0.18	mg/Kg dry	1	V-05	SW-846 8270E	12/3/21	12/6/21 17:17	BGL
Benzo(a)anthracene	ND	0.20	0.054	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 17:17	BGL
Benzo(a)pyrene	ND	0.20	0.060	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 17:17	BGL
Benzo(b)fluoranthene	ND	0.20	0.059	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 17:17	BGL
Benzo(g,h,i)perylene	ND	0.20	0.082	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 17:17	BGL
Benzo(k)fluoranthene	ND	0.20	0.053	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 17:17	BGL
Benzoic Acid	ND	1.1	0.47	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 17:17	BGL
Bis(2-chloroethoxy)methane	ND	0.39	0.051	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 17:17	BGL
Bis(2-chloroethyl)ether	ND	0.39	0.054	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 17:17	BGL
Bis(2-chloroisopropyl)ether	ND	0.39	0.089	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 17:17	BGL
Bis(2-Ethylhexyl)phthalate	ND	0.39	0.066	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 17:17	BGL
4-Bromophenylphenylether	ND	0.39	0.050	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 17:17	BGL
Butylbenzylphthalate	ND	0.39	0.062	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 17:17	BGL
Carbazole	ND	0.20	0.064	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 17:17	BGL
4-Chloroaniline	ND	0.76	0.052	mg/Kg dry	1	V-34	SW-846 8270E	12/3/21	12/6/21 17:17	BGL
4-Chloro-3-methylphenol	ND	0.76	0.065	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 17:17	BGL
2-Chloronaphthalene	ND	0.39	0.045	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 17:17	BGL
2-Chlorophenol	ND	0.39	0.054	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 17:17	BGL
4-Chlorophenylphenylether	ND	0.39	0.056	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 17:17	BGL
Chrysene	ND	0.20	0.056	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 17:17	BGL
Dibenz(a,h)anthracene	ND	0.20	0.079	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 17:17	BGL
Dibenzofuran	ND	0.39	0.058	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 17:17	BGL
Di-n-butylphthalate	ND	0.39	0.055	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 17:17	BGL
1,2-Dichlorobenzene	ND	0.39	0.045	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 17:17	BGL
1,3-Dichlorobenzene	ND	0.39	0.043	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 17:17	BGL
1,4-Dichlorobenzene	ND	0.39	0.041	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 17:17	BGL
3,3-Dichlorobenzidine	ND	0.20	0.057	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 17:17	BGL
2,4-Dichlorophenol	ND	0.39	0.058	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 17:17	BGL
Diethylphthalate	ND	0.39	0.060	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 17:17	BGL
2,4-Dimethylphenol	ND	0.39	0.11	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 17:17	BGL
Dimethylphthalate	ND	0.39	0.057	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 17:17	BGL
4,6-Dinitro-2-methylphenol	ND	0.39	0.26	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 17:17	BGL
2,4-Dinitrophenol	ND	0.76	0.34	mg/Kg dry	1	V-04	SW-846 8270E	12/3/21	12/6/21 17:17	BGL
2,4-Dinitrotoluene	ND	0.39	0.076	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 17:17	BGL
2,6-Dinitrotoluene	ND	0.39	0.065	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 17:17	BGL
Di-n-octylphthalate	ND	0.39	0.14	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 17:17	BGL
1,2-Diphenylhydrazine/Azobenzene	ND	0.39	0.056	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 17:17	BGL
Fluoranthene	ND	0.20	0.062	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 17:17	BGL
Fluorene	ND	0.20	0.066	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 17:17	BGL

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Project Location: 1400 N. Royal St., Alexandria, VA Sample Description: Work Order: 21L0153

Date Received: 12/2/2021

Field Sample #: HRP-DUP04-0-2-211015 Sampled: 10/15/2021 11:25

Sample ID: 21L0153-05

Sample Matrix: Soil

Sample Flags: H-10

Semivolatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Hexachlorobenzene	ND	0.39	0.053	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 17:17	BGL
Hexachlorobutadiene	ND	0.39	0.050	mg/Kg dry	1	V-05	SW-846 8270E	12/3/21	12/6/21 17:17	BGL
Hexachlorocyclopentadiene	ND	0.39	0.16	mg/Kg dry	1	V-05	SW-846 8270E	12/3/21	12/6/21 17:17	BGL
Hexachloroethane	ND	0.39	0.046	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 17:17	BGL
Indeno(1,2,3-cd)pyrene	ND	0.20	0.088	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 17:17	BGL
Isophorone	ND	0.39	0.065	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 17:17	BGL
1-Methylnaphthalene	0.056	0.20	0.054	mg/Kg dry	1	J	SW-846 8270E	12/3/21	12/6/21 17:17	BGL
2-Methylnaphthalene	0.084	0.20	0.062	mg/Kg dry	1	J	SW-846 8270E	12/3/21	12/6/21 17:17	BGL
2-Methylphenol	ND	0.39	0.072	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 17:17	BGL
3/4-Methylphenol	ND	0.39	0.063	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 17:17	BGL
Naphthalene	0.056	0.20	0.053	mg/Kg dry	1	J	SW-846 8270E	12/3/21	12/6/21 17:17	BGL
2-Nitroaniline	ND	0.39	0.083	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 17:17	BGL
3-Nitroaniline	ND	0.39	0.067	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 17:17	BGL
4-Nitroaniline	ND	0.39	0.084	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 17:17	BGL
Nitrobenzene	ND	0.39	0.057	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 17:17	BGL
2-Nitrophenol	ND	0.39	0.061	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 17:17	BGL
4-Nitrophenol	ND	0.76	0.16	mg/Kg dry	1	V-05	SW-846 8270E	12/3/21	12/6/21 17:17	BGL
N-Nitrosodimethylamine	ND	0.39	0.058	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 17:17	BGL
N-Nitrosodiphenylamine/Diphenylamine	ND	0.39	0.059	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 17:17	BGL
N-Nitrosodi-n-propylamine	ND	0.39	0.054	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 17:17	BGL
Pentachloronitrobenzene	ND	0.39	0.066	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 17:17	BGL
Pentachlorophenol	ND	0.39	0.17	mg/Kg dry	1	V-05	SW-846 8270E	12/3/21	12/6/21 17:17	BGL
Phenanthrene	0.071	0.20	0.062	mg/Kg dry	1	J	SW-846 8270E	12/3/21	12/6/21 17:17	BGL
Phenol	ND	0.39	0.056	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 17:17	BGL
Pyrene	ND	0.20	0.062	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 17:17	BGL
Pyridine	ND	0.39	0.040	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 17:17	BGL
1,2,4,5-Tetrachlorobenzene	ND	0.39	0.051	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 17:17	BGL
1,2,4-Trichlorobenzene	ND	0.39	0.049	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 17:17	BGL
2,4,5-Trichlorophenol	ND	0.39	0.061	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 17:17	BGL
2,4,6-Trichlorophenol	ND	0.39	0.060	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 17:17	BGL

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
2-Fluorophenol	66.3	30-130		12/6/21 17:17
Phenol-d6	66.1	30-130		12/6/21 17:17
Nitrobenzene-d5	63.9	30-130		12/6/21 17:17
2-Fluorobiphenyl	78.0	30-130		12/6/21 17:17
2,4,6-Tribromophenol	77.0	30-130		12/6/21 17:17
p-Terphenyl-d14	115	30-130		12/6/21 17:17

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Project Location: 1400 N. Royal St., Alexandria, VA Sample Description: Work Order: 21L0153

Date Received: 12/2/2021

Field Sample #: HRP-DUP04-0-2-211015 Sampled: 10/15/2021 11:25

Sample ID: 21L0153-05

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	87.0		% Wt	1		SM 2540G	10/20/21	10/21/21 11:24	TDK

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Project Location: 1400 N. Royal St., Alexandria, VA Sample Description: Work Order: 21L0153

Date Received: 12/2/2021

Field Sample #: HRP-SB212-5-7-211015 Sampled: 10/15/2021 11:35

Sample ID: 21L0153-06

Sample Matrix: Soil

Sample Flags: H-10

Semivolatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acenaphthene	ND	0.20	0.063	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 17:42	BGL
Acenaphthylene	ND	0.20	0.062	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 17:42	BGL
Acetophenone	ND	0.40	0.055	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 17:42	BGL
Aniline	ND	0.40	0.084	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 17:42	BGL
Anthracene	ND	0.20	0.066	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 17:42	BGL
Benzidine	ND	0.79	0.19	mg/Kg dry	1	V-05	SW-846 8270E	12/3/21	12/6/21 17:42	BGL
Benzo(a)anthracene	ND	0.20	0.056	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 17:42	BGL
Benzo(a)pyrene	ND	0.20	0.062	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 17:42	BGL
Benzo(b)fluoranthene	ND	0.20	0.061	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 17:42	BGL
Benzo(g,h,i)perylene	ND	0.20	0.085	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 17:42	BGL
Benzo(k)fluoranthene	ND	0.20	0.055	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 17:42	BGL
Benzoic Acid	ND	1.2	0.48	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 17:42	BGL
Bis(2-chloroethoxy)methane	ND	0.40	0.053	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 17:42	BGL
Bis(2-chloroethyl)ether	ND	0.40	0.055	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 17:42	BGL
Bis(2-chloroisopropyl)ether	ND	0.40	0.092	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 17:42	BGL
Bis(2-Ethylhexyl)phthalate	ND	0.40	0.068	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 17:42	BGL
4-Bromophenylphenylether	ND	0.40	0.052	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 17:42	BGL
Butylbenzylphthalate	ND	0.40	0.064	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 17:42	BGL
Carbazole	ND	0.20	0.067	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 17:42	BGL
4-Chloroaniline	ND	0.79	0.054	mg/Kg dry	1	V-34	SW-846 8270E	12/3/21	12/6/21 17:42	BGL
4-Chloro-3-methylphenol	ND	0.79	0.067	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 17:42	BGL
2-Chloronaphthalene	ND	0.40	0.047	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 17:42	BGL
2-Chlorophenol	ND	0.40	0.056	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 17:42	BGL
4-Chlorophenylphenylether	ND	0.40	0.058	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 17:42	BGL
Chrysene	ND	0.20	0.058	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 17:42	BGL
Dibenz(a,h)anthracene	ND	0.20	0.082	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 17:42	BGL
Dibenzofuran	ND	0.40	0.060	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 17:42	BGL
Di-n-butylphthalate	ND	0.40	0.057	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 17:42	BGL
1,2-Dichlorobenzene	ND	0.40	0.046	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 17:42	BGL
1,3-Dichlorobenzene	ND	0.40	0.044	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 17:42	BGL
1,4-Dichlorobenzene	ND	0.40	0.042	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 17:42	BGL
3,3-Dichlorobenzidine	ND	0.20	0.059	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 17:42	BGL
2,4-Dichlorophenol	ND	0.40	0.060	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 17:42	BGL
Diethylphthalate	ND	0.40	0.062	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 17:42	BGL
2,4-Dimethylphenol	ND	0.40	0.11	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 17:42	BGL
Dimethylphthalate	ND	0.40	0.059	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 17:42	BGL
4,6-Dinitro-2-methylphenol	ND	0.40	0.27	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 17:42	BGL
2,4-Dinitrophenol	ND	0.79	0.35	mg/Kg dry	1	V-04	SW-846 8270E	12/3/21	12/6/21 17:42	BGL
2,4-Dinitrotoluene	ND	0.40	0.079	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 17:42	BGL
2,6-Dinitrotoluene	ND	0.40	0.067	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 17:42	BGL
Di-n-octylphthalate	ND	0.40	0.14	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 17:42	BGL
1,2-Diphenylhydrazine/Azobenzene	ND	0.40	0.058	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 17:42	BGL
Fluoranthene	ND	0.20	0.064	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 17:42	BGL
Fluorene	ND	0.20	0.068	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 17:42	BGL

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Project Location: 1400 N. Royal St., Alexandria, VA Sample Description: Work Order: 21L0153

Date Received: 12/2/2021

Field Sample #: HRP-SB212-5-7-211015 Sampled: 10/15/2021 11:35

Sample ID: 21L0153-06

Sample Matrix: Soil

Sample Flags: H-10

Semivolatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Hexachlorobenzene	ND	0.40	0.055	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 17:42	BGL
Hexachlorobutadiene	ND	0.40	0.052	mg/Kg dry	1	V-05	SW-846 8270E	12/3/21	12/6/21 17:42	BGL
Hexachlorocyclopentadiene	ND	0.40	0.17	mg/Kg dry	1	V-05	SW-846 8270E	12/3/21	12/6/21 17:42	BGL
Hexachloroethane	ND	0.40	0.048	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 17:42	BGL
Indeno(1,2,3-cd)pyrene	ND	0.20	0.092	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 17:42	BGL
Isophorone	ND	0.40	0.067	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 17:42	BGL
1-Methylnaphthalene	ND	0.20	0.056	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 17:42	BGL
2-Methylnaphthalene	ND	0.20	0.064	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 17:42	BGL
2-Methylphenol	ND	0.40	0.075	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 17:42	BGL
3/4-Methylphenol	ND	0.40	0.065	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 17:42	BGL
Naphthalene	ND	0.20	0.055	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 17:42	BGL
2-Nitroaniline	ND	0.40	0.086	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 17:42	BGL
3-Nitroaniline	ND	0.40	0.069	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 17:42	BGL
4-Nitroaniline	ND	0.40	0.087	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 17:42	BGL
Nitrobenzene	ND	0.40	0.059	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 17:42	BGL
2-Nitrophenol	ND	0.40	0.063	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 17:42	BGL
4-Nitrophenol	ND	0.79	0.16	mg/Kg dry	1	V-05	SW-846 8270E	12/3/21	12/6/21 17:42	BGL
N-Nitrosodimethylamine	ND	0.40	0.060	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 17:42	BGL
N-Nitrosodiphenylamine/Diphenylamine	ND	0.40	0.061	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 17:42	BGL
N-Nitrosodi-n-propylamine	ND	0.40	0.056	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 17:42	BGL
Pentachloronitrobenzene	ND	0.40	0.068	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 17:42	BGL
Pentachlorophenol	ND	0.40	0.18	mg/Kg dry	1	V-05	SW-846 8270E	12/3/21	12/6/21 17:42	BGL
Phenanthrene	ND	0.20	0.064	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 17:42	BGL
Phenol	ND	0.40	0.058	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 17:42	BGL
Pyrene	ND	0.20	0.064	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 17:42	BGL
Pyridine	ND	0.40	0.041	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 17:42	BGL
1,2,4,5-Tetrachlorobenzene	ND	0.40	0.053	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 17:42	BGL
1,2,4-Trichlorobenzene	ND	0.40	0.051	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 17:42	BGL
2,4,5-Trichlorophenol	ND	0.40	0.063	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 17:42	BGL
2,4,6-Trichlorophenol	ND	0.40	0.062	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 17:42	BGL

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
2-Fluorophenol	68.7	30-130		12/6/21 17:42
Phenol-d6	67.6	30-130		12/6/21 17:42
Nitrobenzene-d5	65.3	30-130		12/6/21 17:42
2-Fluorobiphenyl	75.6	30-130		12/6/21 17:42
2,4,6-Tribromophenol	81.0	30-130		12/6/21 17:42
p-Terphenyl-d14	114	30-130		12/6/21 17:42

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Project Location: 1400 N. Royal St., Alexandria, VA Sample Description: Work Order: 21L0153

Date Received: 12/2/2021

Field Sample #: HRP-SB212-5-7-211015 Sampled: 10/15/2021 11:35

Sample ID: 21L0153-06

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	84.0		% Wt	1		SM 2540G	10/20/21	10/21/21 11:24	TDK

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Project Location: 1400 N. Royal St., Alexandria, VA Sample Description: Work Order: 21L0153

Date Received: 12/2/2021

Field Sample #: HRP-SB212-15-17-211015 Sampled: 10/15/2021 11:40

Sample ID: 21L0153-07

Sample Matrix: Soil

Sample Flags: H-10

Semivolatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acenaphthene	ND	0.18	0.057	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 18:08	BGL
Acenaphthylene	ND	0.18	0.055	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 18:08	BGL
Acetophenone	ND	0.36	0.049	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 18:08	BGL
Aniline	ND	0.36	0.075	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 18:08	BGL
Anthracene	ND	0.18	0.059	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 18:08	BGL
Benzidine	ND	0.70	0.17	mg/Kg dry	1	V-05	SW-846 8270E	12/3/21	12/6/21 18:08	BGL
Benzo(a)anthracene	ND	0.18	0.050	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 18:08	BGL
Benzo(a)pyrene	ND	0.18	0.055	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 18:08	BGL
Benzo(b)fluoranthene	ND	0.18	0.054	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 18:08	BGL
Benzo(g,h,i)perylene	ND	0.18	0.076	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 18:08	BGL
Benzo(k)fluoranthene	ND	0.18	0.049	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 18:08	BGL
Benzoic Acid	ND	1.1	0.43	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 18:08	BGL
Bis(2-chloroethoxy)methane	ND	0.36	0.047	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 18:08	BGL
Bis(2-chloroethyl)ether	ND	0.36	0.049	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 18:08	BGL
Bis(2-chloroisopropyl)ether	ND	0.36	0.082	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 18:08	BGL
Bis(2-Ethylhexyl)phthalate	ND	0.36	0.061	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 18:08	BGL
4-Bromophenylphenylether	ND	0.36	0.046	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 18:08	BGL
Butylbenzylphthalate	ND	0.36	0.057	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 18:08	BGL
Carbazole	ND	0.18	0.059	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 18:08	BGL
4-Chloroaniline	ND	0.70	0.048	mg/Kg dry	1	V-34	SW-846 8270E	12/3/21	12/6/21 18:08	BGL
4-Chloro-3-methylphenol	ND	0.70	0.060	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 18:08	BGL
2-Chloronaphthalene	ND	0.36	0.042	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 18:08	BGL
2-Chlorophenol	ND	0.36	0.050	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 18:08	BGL
4-Chlorophenylphenylether	ND	0.36	0.051	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 18:08	BGL
Chrysene	ND	0.18	0.052	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 18:08	BGL
Dibenz(a,h)anthracene	ND	0.18	0.073	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 18:08	BGL
Dibenzofuran	ND	0.36	0.053	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 18:08	BGL
Di-n-butylphthalate	ND	0.36	0.051	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 18:08	BGL
1,2-Dichlorobenzene	ND	0.36	0.041	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 18:08	BGL
1,3-Dichlorobenzene	ND	0.36	0.040	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 18:08	BGL
1,4-Dichlorobenzene	ND	0.36	0.038	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 18:08	BGL
3,3-Dichlorobenzidine	ND	0.18	0.053	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 18:08	BGL
2,4-Dichlorophenol	ND	0.36	0.053	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 18:08	BGL
Diethylphthalate	ND	0.36	0.055	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 18:08	BGL
2,4-Dimethylphenol	ND	0.36	0.098	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 18:08	BGL
Dimethylphthalate	ND	0.36	0.052	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 18:08	BGL
4,6-Dinitro-2-methylphenol	ND	0.36	0.24	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 18:08	BGL
2,4-Dinitrophenol	ND	0.70	0.31	mg/Kg dry	1	V-04	SW-846 8270E	12/3/21	12/6/21 18:08	BGL
2,4-Dinitrotoluene	ND	0.36	0.070	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 18:08	BGL
2,6-Dinitrotoluene	ND	0.36	0.060	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 18:08	BGL
Di-n-octylphthalate	ND	0.36	0.13	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 18:08	BGL
1,2-Diphenylhydrazine/Azobenzene	ND	0.36	0.052	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 18:08	BGL
Fluoranthene	ND	0.18	0.057	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 18:08	BGL
Fluorene	ND	0.18	0.061	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 18:08	BGL

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Project Location: 1400 N. Royal St., Alexandria, VA Sample Description: Work Order: 21L0153

Date Received: 12/2/2021

Field Sample #: HRP-SB212-15-17-211015 Sampled: 10/15/2021 11:40

Sample ID: 21L0153-07

Sample Matrix: Soil

Sample Flags: H-10

Semivolatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Hexachlorobenzene	ND	0.36	0.049	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 18:08	BGL
Hexachlorobutadiene	ND	0.36	0.046	mg/Kg dry	1	V-05	SW-846 8270E	12/3/21	12/6/21 18:08	BGL
Hexachlorocyclopentadiene	ND	0.36	0.15	mg/Kg dry	1	V-05	SW-846 8270E	12/3/21	12/6/21 18:08	BGL
Hexachloroethane	ND	0.36	0.043	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 18:08	BGL
Indeno(1,2,3-cd)pyrene	ND	0.18	0.082	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 18:08	BGL
Isophorone	ND	0.36	0.060	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 18:08	BGL
1-Methylnaphthalene	ND	0.18	0.050	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 18:08	BGL
2-Methylnaphthalene	ND	0.18	0.057	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 18:08	BGL
2-Methylphenol	ND	0.36	0.067	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 18:08	BGL
3/4-Methylphenol	ND	0.36	0.058	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 18:08	BGL
Naphthalene	ND	0.18	0.049	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 18:08	BGL
2-Nitroaniline	ND	0.36	0.077	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 18:08	BGL
3-Nitroaniline	ND	0.36	0.061	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 18:08	BGL
4-Nitroaniline	ND	0.36	0.077	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 18:08	BGL
Nitrobenzene	ND	0.36	0.052	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 18:08	BGL
2-Nitrophenol	ND	0.36	0.056	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 18:08	BGL
4-Nitrophenol	ND	0.70	0.15	mg/Kg dry	1	V-05	SW-846 8270E	12/3/21	12/6/21 18:08	BGL
N-Nitrosodimethylamine	ND	0.36	0.054	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 18:08	BGL
N-Nitrosodiphenylamine/Diphenylamine	ND	0.36	0.054	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 18:08	BGL
N-Nitrosodi-n-propylamine	ND	0.36	0.050	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 18:08	BGL
Pentachloronitrobenzene	ND	0.36	0.061	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 18:08	BGL
Pentachlorophenol	ND	0.36	0.16	mg/Kg dry	1	V-05	SW-846 8270E	12/3/21	12/6/21 18:08	BGL
Phenanthrene	ND	0.18	0.057	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 18:08	BGL
Phenol	ND	0.36	0.051	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 18:08	BGL
Pyrene	ND	0.18	0.057	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 18:08	BGL
Pyridine	ND	0.36	0.037	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 18:08	BGL
1,2,4,5-Tetrachlorobenzene	ND	0.36	0.047	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 18:08	BGL
1,2,4-Trichlorobenzene	ND	0.36	0.045	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 18:08	BGL
2,4,5-Trichlorophenol	ND	0.36	0.056	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 18:08	BGL
2,4,6-Trichlorophenol	ND	0.36	0.056	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 18:08	BGL

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
2-Fluorophenol	65.2	30-130		12/6/21 18:08
Phenol-d6	64.2	30-130		12/6/21 18:08
Nitrobenzene-d5	62.0	30-130		12/6/21 18:08
2-Fluorobiphenyl	72.5	30-130		12/6/21 18:08
2,4,6-Tribromophenol	74.5	30-130		12/6/21 18:08
p-Terphenyl-d14	107	30-130		12/6/21 18:08

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Project Location: 1400 N. Royal St., Alexandria, VA Sample Description: Work Order: 21L0153

Date Received: 12/2/2021

Field Sample #: HRP-SB212-15-17-211015 Sampled: 10/15/2021 11:40

Sample ID: 21L0153-07

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	94.3		% Wt	1		SM 2540G	10/20/21	10/21/21 11:24	TDK

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Project Location: 1400 N. Royal St., Alexandria, VA Sample Description: Work Order: 21L0153

Date Received: 12/2/2021

Field Sample #: HRP-SB211-0-1-211015 Sampled: 10/15/2021 12:40

Sample ID: 21L0153-08

Sample Matrix: Soil

Sample Flags: H-10

Semivolatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acenaphthene	ND	0.19	0.059	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 18:34	BGL
Acenaphthylene	ND	0.19	0.058	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 18:34	BGL
Acetophenone	ND	0.38	0.052	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 18:34	BGL
Aniline	ND	0.38	0.079	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 18:34	BGL
Anthracene	ND	0.19	0.062	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 18:34	BGL
Benzidine	ND	0.74	0.17	mg/Kg dry	1	V-05	SW-846 8270E	12/3/21	12/6/21 18:34	BGL
Benzo(a)anthracene	0.070	0.19	0.053	mg/Kg dry	1	J	SW-846 8270E	12/3/21	12/6/21 18:34	BGL
Benzo(a)pyrene	0.065	0.19	0.058	mg/Kg dry	1	J	SW-846 8270E	12/3/21	12/6/21 18:34	BGL
Benzo(b)fluoranthene	0.091	0.19	0.057	mg/Kg dry	1	J	SW-846 8270E	12/3/21	12/6/21 18:34	BGL
Benzo(g,h,i)perylene	ND	0.19	0.080	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 18:34	BGL
Benzo(k)fluoranthene	ND	0.19	0.051	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 18:34	BGL
Benzoic Acid	ND	1.1	0.45	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 18:34	BGL
Bis(2-chloroethoxy)methane	ND	0.38	0.049	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 18:34	BGL
Bis(2-chloroethyl)ether	ND	0.38	0.052	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 18:34	BGL
Bis(2-chloroisopropyl)ether	ND	0.38	0.086	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 18:34	BGL
Bis(2-Ethylhexyl)phthalate	ND	0.38	0.064	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 18:34	BGL
4-Bromophenylphenylether	ND	0.38	0.048	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 18:34	BGL
Butylbenzylphthalate	ND	0.38	0.060	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 18:34	BGL
Carbazole	ND	0.19	0.062	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 18:34	BGL
4-Chloroaniline	ND	0.74	0.050	mg/Kg dry	1	V-34	SW-846 8270E	12/3/21	12/6/21 18:34	BGL
4-Chloro-3-methylphenol	ND	0.74	0.063	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 18:34	BGL
2-Chloronaphthalene	ND	0.38	0.044	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 18:34	BGL
2-Chlorophenol	ND	0.38	0.052	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 18:34	BGL
4-Chlorophenylphenylether	ND	0.38	0.054	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 18:34	BGL
Chrysene	0.10	0.19	0.055	mg/Kg dry	1	J	SW-846 8270E	12/3/21	12/6/21 18:34	BGL
Dibenz(a,h)anthracene	ND	0.19	0.077	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 18:34	BGL
Dibenzofuran	0.10	0.38	0.056	mg/Kg dry	1	J	SW-846 8270E	12/3/21	12/6/21 18:34	BGL
Di-n-butylphthalate	ND	0.38	0.053	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 18:34	BGL
1,2-Dichlorobenzene	ND	0.38	0.043	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 18:34	BGL
1,3-Dichlorobenzene	ND	0.38	0.042	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 18:34	BGL
1,4-Dichlorobenzene	ND	0.38	0.040	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 18:34	BGL
3,3-Dichlorobenzidine	ND	0.19	0.055	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 18:34	BGL
2,4-Dichlorophenol	ND	0.38	0.056	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 18:34	BGL
Diethylphthalate	ND	0.38	0.058	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 18:34	BGL
2,4-Dimethylphenol	ND	0.38	0.10	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 18:34	BGL
Dimethylphthalate	ND	0.38	0.055	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 18:34	BGL
4,6-Dinitro-2-methylphenol	ND	0.38	0.25	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 18:34	BGL
2,4-Dinitrophenol	ND	0.74	0.33	mg/Kg dry	1	V-04	SW-846 8270E	12/3/21	12/6/21 18:34	BGL
2,4-Dinitrotoluene	ND	0.38	0.074	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 18:34	BGL
2,6-Dinitrotoluene	ND	0.38	0.063	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 18:34	BGL
Di-n-octylphthalate	ND	0.38	0.13	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 18:34	BGL
1,2-Diphenylhydrazine/Azobenzene	ND	0.38	0.054	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 18:34	BGL
Fluoranthene	0.16	0.19	0.060	mg/Kg dry	1	J	SW-846 8270E	12/3/21	12/6/21 18:34	BGL
Fluorene	ND	0.19	0.064	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 18:34	BGL

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Project Location: 1400 N. Royal St., Alexandria, VA Sample Description: Work Order: 21L0153

Date Received: 12/2/2021

Field Sample #: HRP-SB211-0-1-211015 Sampled: 10/15/2021 12:40

Sample ID: 21L0153-08

Sample Matrix: Soil

Sample Flags: H-10

Semivolatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Hexachlorobenzene	ND	0.38	0.051	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 18:34	BGL
Hexachlorobutadiene	ND	0.38	0.048	mg/Kg dry	1	V-05	SW-846 8270E	12/3/21	12/6/21 18:34	BGL
Hexachlorocyclopentadiene	ND	0.38	0.16	mg/Kg dry	1	V-05	SW-846 8270E	12/3/21	12/6/21 18:34	BGL
Hexachloroethane	ND	0.38	0.045	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 18:34	BGL
Indeno(1,2,3-cd)pyrene	ND	0.19	0.086	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 18:34	BGL
Isophorone	ND	0.38	0.063	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 18:34	BGL
1-Methylnaphthalene	0.30	0.19	0.052	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 18:34	BGL
2-Methylnaphthalene	0.50	0.19	0.060	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 18:34	BGL
2-Methylphenol	ND	0.38	0.070	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 18:34	BGL
3/4-Methylphenol	ND	0.38	0.061	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 18:34	BGL
Naphthalene	0.29	0.19	0.052	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 18:34	BGL
2-Nitroaniline	ND	0.38	0.081	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 18:34	BGL
3-Nitroaniline	ND	0.38	0.065	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 18:34	BGL
4-Nitroaniline	ND	0.38	0.081	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 18:34	BGL
Nitrobenzene	ND	0.38	0.055	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 18:34	BGL
2-Nitrophenol	ND	0.38	0.059	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 18:34	BGL
4-Nitrophenol	ND	0.74	0.15	mg/Kg dry	1	V-05	SW-846 8270E	12/3/21	12/6/21 18:34	BGL
N-Nitrosodimethylamine	ND	0.38	0.057	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 18:34	BGL
N-Nitrosodiphenylamine/Diphenylamine	ND	0.38	0.057	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 18:34	BGL
N-Nitrosodi-n-propylamine	ND	0.38	0.052	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 18:34	BGL
Pentachloronitrobenzene	ND	0.38	0.064	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 18:34	BGL
Pentachlorophenol	ND	0.38	0.17	mg/Kg dry	1	V-05	SW-846 8270E	12/3/21	12/6/21 18:34	BGL
Phenanthrene	0.31	0.19	0.060	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 18:34	BGL
Phenol	ND	0.38	0.054	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 18:34	BGL
Pyrene	0.16	0.19	0.060	mg/Kg dry	1	J	SW-846 8270E	12/3/21	12/6/21 18:34	BGL
Pyridine	ND	0.38	0.039	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 18:34	BGL
1,2,4,5-Tetrachlorobenzene	ND	0.38	0.049	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 18:34	BGL
1,2,4-Trichlorobenzene	ND	0.38	0.048	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 18:34	BGL
2,4,5-Trichlorophenol	ND	0.38	0.059	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 18:34	BGL
2,4,6-Trichlorophenol	ND	0.38	0.058	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 18:34	BGL

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
2-Fluorophenol	56.3	30-130		12/6/21 18:34
Phenol-d6	58.1	30-130		12/6/21 18:34
Nitrobenzene-d5	58.1	30-130		12/6/21 18:34
2-Fluorobiphenyl	70.0	30-130		12/6/21 18:34
2,4,6-Tribromophenol	63.5	30-130		12/6/21 18:34
p-Terphenyl-d14	108	30-130		12/6/21 18:34

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Project Location: 1400 N. Royal St., Alexandria, VA Sample Description: Work Order: 21L0153

Date Received: 12/2/2021

Field Sample #: HRP-SB211-0-1-211015 Sampled: 10/15/2021 12:40

Sample ID: 21L0153-08

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	89.7		% Wt	1		SM 2540G	10/20/21	10/21/21 11:24	TDK

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Project Location: 1400 N. Royal St., Alexandria, VA Sample Description: Work Order: 21L0153

Date Received: 12/2/2021

Field Sample #: HRP-SB211-5-7-211015 Sampled: 10/15/2021 12:45

Sample ID: 21L0153-09

Sample Matrix: Soil

Sample Flags: H-10

Semivolatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acenaphthene	ND	0.20	0.063	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 19:00	BGL
Acenaphthylene	ND	0.20	0.061	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 19:00	BGL
Acetophenone	ND	0.40	0.055	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 19:00	BGL
Aniline	ND	0.40	0.083	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 19:00	BGL
Anthracene	ND	0.20	0.065	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 19:00	BGL
Benzidine	ND	0.78	0.18	mg/Kg dry	1	V-05	SW-846 8270E	12/3/21	12/6/21 19:00	BGL
Benzo(a)anthracene	ND	0.20	0.056	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 19:00	BGL
Benzo(a)pyrene	ND	0.20	0.061	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 19:00	BGL
Benzo(b)fluoranthene	ND	0.20	0.060	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 19:00	BGL
Benzo(g,h,i)perylene	ND	0.20	0.084	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 19:00	BGL
Benzo(k)fluoranthene	ND	0.20	0.054	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 19:00	BGL
Benzoic Acid	ND	1.2	0.48	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 19:00	BGL
Bis(2-chloroethoxy)methane	ND	0.40	0.052	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 19:00	BGL
Bis(2-chloroethyl)ether	ND	0.40	0.055	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 19:00	BGL
Bis(2-chloroisopropyl)ether	ND	0.40	0.091	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 19:00	BGL
Bis(2-Ethylhexyl)phthalate	ND	0.40	0.067	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 19:00	BGL
4-Bromophenylphenylether	ND	0.40	0.051	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 19:00	BGL
Butylbenzylphthalate	ND	0.40	0.064	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 19:00	BGL
Carbazole	ND	0.20	0.066	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 19:00	BGL
4-Chloroaniline	ND	0.78	0.053	mg/Kg dry	1	V-34	SW-846 8270E	12/3/21	12/6/21 19:00	BGL
4-Chloro-3-methylphenol	ND	0.78	0.066	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 19:00	BGL
2-Chloronaphthalene	ND	0.40	0.046	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 19:00	BGL
2-Chlorophenol	ND	0.40	0.055	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 19:00	BGL
4-Chlorophenylphenylether	ND	0.40	0.057	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 19:00	BGL
Chrysene	ND	0.20	0.058	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 19:00	BGL
Dibenz(a,h)anthracene	ND	0.20	0.081	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 19:00	BGL
Dibenzofuran	ND	0.40	0.059	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 19:00	BGL
Di-n-butylphthalate	ND	0.40	0.056	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 19:00	BGL
1,2-Dichlorobenzene	ND	0.40	0.046	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 19:00	BGL
1,3-Dichlorobenzene	ND	0.40	0.044	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 19:00	BGL
1,4-Dichlorobenzene	ND	0.40	0.042	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 19:00	BGL
3,3-Dichlorobenzidine	ND	0.20	0.058	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 19:00	BGL
2,4-Dichlorophenol	ND	0.40	0.059	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 19:00	BGL
Diethylphthalate	ND	0.40	0.061	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 19:00	BGL
2,4-Dimethylphenol	ND	0.40	0.11	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 19:00	BGL
Dimethylphthalate	ND	0.40	0.058	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 19:00	BGL
4,6-Dinitro-2-methylphenol	ND	0.40	0.27	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 19:00	BGL
2,4-Dinitrophenol	ND	0.78	0.35	mg/Kg dry	1	V-04	SW-846 8270E	12/3/21	12/6/21 19:00	BGL
2,4-Dinitrotoluene	ND	0.40	0.078	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 19:00	BGL
2,6-Dinitrotoluene	ND	0.40	0.067	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 19:00	BGL
Di-n-octylphthalate	ND	0.40	0.14	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 19:00	BGL
1,2-Diphenylhydrazine/Azobenzene	ND	0.40	0.057	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 19:00	BGL
Fluoranthene	ND	0.20	0.064	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 19:00	BGL
Fluorene	ND	0.20	0.067	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 19:00	BGL

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Project Location: 1400 N. Royal St., Alexandria, VA Sample Description: Work Order: 21L0153

Date Received: 12/2/2021

Field Sample #: HRP-SB211-5-7-211015 Sampled: 10/15/2021 12:45

Sample ID: 21L0153-09

Sample Matrix: Soil

Sample Flags: H-10

Semivolatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Hexachlorobenzene	ND	0.40	0.054	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 19:00	BGL
Hexachlorobutadiene	ND	0.40	0.051	mg/Kg dry	1	V-05	SW-846 8270E	12/3/21	12/6/21 19:00	BGL
Hexachlorocyclopentadiene	ND	0.40	0.17	mg/Kg dry	1	V-05	SW-846 8270E	12/3/21	12/6/21 19:00	BGL
Hexachloroethane	ND	0.40	0.048	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 19:00	BGL
Indeno(1,2,3-cd)pyrene	ND	0.20	0.091	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 19:00	BGL
Isophorone	ND	0.40	0.067	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 19:00	BGL
1-Methylnaphthalene	0.11	0.20	0.055	mg/Kg dry	1	J	SW-846 8270E	12/3/21	12/6/21 19:00	BGL
2-Methylnaphthalene	0.20	0.20	0.063	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 19:00	BGL
2-Methylphenol	ND	0.40	0.074	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 19:00	BGL
3/4-Methylphenol	ND	0.40	0.065	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 19:00	BGL
Naphthalene	0.13	0.20	0.055	mg/Kg dry	1	J	SW-846 8270E	12/3/21	12/6/21 19:00	BGL
2-Nitroaniline	ND	0.40	0.085	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 19:00	BGL
3-Nitroaniline	ND	0.40	0.068	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 19:00	BGL
4-Nitroaniline	ND	0.40	0.086	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 19:00	BGL
Nitrobenzene	ND	0.40	0.058	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 19:00	BGL
2-Nitrophenol	ND	0.40	0.063	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 19:00	BGL
4-Nitrophenol	ND	0.78	0.16	mg/Kg dry	1	V-05	SW-846 8270E	12/3/21	12/6/21 19:00	BGL
N-Nitrosodimethylamine	ND	0.40	0.060	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 19:00	BGL
N-Nitrosodiphenylamine/Diphenylamine	ND	0.40	0.060	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 19:00	BGL
N-Nitrosodi-n-propylamine	ND	0.40	0.055	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 19:00	BGL
Pentachloronitrobenzene	ND	0.40	0.067	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 19:00	BGL
Pentachlorophenol	ND	0.40	0.17	mg/Kg dry	1	V-05	SW-846 8270E	12/3/21	12/6/21 19:00	BGL
Phenanthrene	0.077	0.20	0.063	mg/Kg dry	1	J	SW-846 8270E	12/3/21	12/6/21 19:00	BGL
Phenol	ND	0.40	0.057	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 19:00	BGL
Pyrene	ND	0.20	0.064	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 19:00	BGL
Pyridine	ND	0.40	0.041	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 19:00	BGL
1,2,4,5-Tetrachlorobenzene	ND	0.40	0.052	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 19:00	BGL
1,2,4-Trichlorobenzene	ND	0.40	0.050	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 19:00	BGL
2,4,5-Trichlorophenol	ND	0.40	0.062	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 19:00	BGL
2,4,6-Trichlorophenol	ND	0.40	0.062	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 19:00	BGL

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
2-Fluorophenol	72.3	30-130		12/6/21 19:00
Phenol-d6	70.8	30-130		12/6/21 19:00
Nitrobenzene-d5	68.0	30-130		12/6/21 19:00
2-Fluorobiphenyl	79.9	30-130		12/6/21 19:00
2,4,6-Tribromophenol	82.2	30-130		12/6/21 19:00
p-Terphenyl-d14	107	30-130		12/6/21 19:00

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Project Location: 1400 N. Royal St., Alexandria, VA Sample Description: Work Order: 21L0153

Date Received: 12/2/2021

Field Sample #: HRP-SB211-5-7-211015 Sampled: 10/15/2021 12:45

Sample ID: 21L0153-09

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	84.9		% Wt	1		SM 2540G	10/20/21	10/21/21 11:24	TDK

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Project Location: 1400 N. Royal St., Alexandria, VA Sample Description: Work Order: 21L0153

Date Received: 12/2/2021

Field Sample #: HRP-SB209-0-1-211013 Sampled: 10/13/2021 13:40

Sample ID: 21L0153-10

Sample Matrix: Soil

Sample Flags: H-10

Semivolatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acenaphthene	ND	0.20	0.062	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 19:26	BGL
Acenaphthylene	ND	0.20	0.061	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 19:26	BGL
Acetophenone	ND	0.40	0.054	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 19:26	BGL
Aniline	ND	0.40	0.082	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 19:26	BGL
Anthracene	ND	0.20	0.065	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 19:26	BGL
Benzidine	ND	0.77	0.18	mg/Kg dry	1	V-05	SW-846 8270E	12/3/21	12/6/21 19:26	BGL
Benzo(a)anthracene	ND	0.20	0.055	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 19:26	BGL
Benzo(a)pyrene	ND	0.20	0.061	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 19:26	BGL
Benzo(b)fluoranthene	ND	0.20	0.060	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 19:26	BGL
Benzo(g,h,i)perylene	ND	0.20	0.083	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 19:26	BGL
Benzo(k)fluoranthene	ND	0.20	0.054	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 19:26	BGL
Benzoic Acid	ND	1.2	0.47	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 19:26	BGL
Bis(2-chloroethoxy)methane	ND	0.40	0.051	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 19:26	BGL
Bis(2-chloroethyl)ether	ND	0.40	0.054	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 19:26	BGL
Bis(2-chloroisopropyl)ether	ND	0.40	0.090	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 19:26	BGL
Bis(2-Ethylhexyl)phthalate	ND	0.40	0.067	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 19:26	BGL
4-Bromophenylphenylether	ND	0.40	0.050	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 19:26	BGL
Butylbenzylphthalate	ND	0.40	0.063	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 19:26	BGL
Carbazole	ND	0.20	0.065	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 19:26	BGL
4-Chloroaniline	ND	0.77	0.053	mg/Kg dry	1	V-34	SW-846 8270E	12/3/21	12/6/21 19:26	BGL
4-Chloro-3-methylphenol	ND	0.77	0.066	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 19:26	BGL
2-Chloronaphthalene	ND	0.40	0.046	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 19:26	BGL
2-Chlorophenol	ND	0.40	0.055	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 19:26	BGL
4-Chlorophenylphenylether	ND	0.40	0.056	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 19:26	BGL
Chrysene	ND	0.20	0.057	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 19:26	BGL
Dibenz(a,h)anthracene	ND	0.20	0.080	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 19:26	BGL
Dibenzofuran	ND	0.40	0.058	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 19:26	BGL
Di-n-butylphthalate	ND	0.40	0.056	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 19:26	BGL
1,2-Dichlorobenzene	ND	0.40	0.045	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 19:26	BGL
1,3-Dichlorobenzene	ND	0.40	0.043	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 19:26	BGL
1,4-Dichlorobenzene	ND	0.40	0.041	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 19:26	BGL
3,3-Dichlorobenzidine	ND	0.20	0.058	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 19:26	BGL
2,4-Dichlorophenol	ND	0.40	0.059	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 19:26	BGL
Diethylphthalate	ND	0.40	0.060	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 19:26	BGL
2,4-Dimethylphenol	ND	0.40	0.11	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 19:26	BGL
Dimethylphthalate	ND	0.40	0.058	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 19:26	BGL
4,6-Dinitro-2-methylphenol	ND	0.40	0.27	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 19:26	BGL
2,4-Dinitrophenol	ND	0.77	0.34	mg/Kg dry	1	V-04	SW-846 8270E	12/3/21	12/6/21 19:26	BGL
2,4-Dinitrotoluene	ND	0.40	0.077	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 19:26	BGL
2,6-Dinitrotoluene	ND	0.40	0.066	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 19:26	BGL
Di-n-octylphthalate	ND	0.40	0.14	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 19:26	BGL
1,2-Diphenylhydrazine/Azobenzene	ND	0.40	0.057	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 19:26	BGL
Fluoranthene	ND	0.20	0.063	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 19:26	BGL
Fluorene	ND	0.20	0.067	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 19:26	BGL

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Project Location: 1400 N. Royal St., Alexandria, VA Sample Description: Work Order: 21L0153

Date Received: 12/2/2021

Field Sample #: HRP-SB209-0-1-211013 Sampled: 10/13/2021 13:40

Sample ID: 21L0153-10

Sample Matrix: Soil

Sample Flags: H-10

Semivolatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Hexachlorobenzene	ND	0.40	0.054	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 19:26	BGL
Hexachlorobutadiene	ND	0.40	0.051	mg/Kg dry	1	V-05	SW-846 8270E	12/3/21	12/6/21 19:26	BGL
Hexachlorocyclopentadiene	ND	0.40	0.17	mg/Kg dry	1	V-05	SW-846 8270E	12/3/21	12/6/21 19:26	BGL
Hexachloroethane	ND	0.40	0.047	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 19:26	BGL
Indeno(1,2,3-cd)pyrene	ND	0.20	0.090	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 19:26	BGL
Isophorone	ND	0.40	0.066	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 19:26	BGL
1-Methylnaphthalene	0.11	0.20	0.055	mg/Kg dry	1	J	SW-846 8270E	12/3/21	12/6/21 19:26	BGL
2-Methylnaphthalene	0.16	0.20	0.063	mg/Kg dry	1	J	SW-846 8270E	12/3/21	12/6/21 19:26	BGL
2-Methylphenol	ND	0.40	0.073	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 19:26	BGL
3/4-Methylphenol	ND	0.40	0.064	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 19:26	BGL
Naphthalene	0.094	0.20	0.054	mg/Kg dry	1	J	SW-846 8270E	12/3/21	12/6/21 19:26	BGL
2-Nitroaniline	ND	0.40	0.084	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 19:26	BGL
3-Nitroaniline	ND	0.40	0.067	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 19:26	BGL
4-Nitroaniline	ND	0.40	0.085	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 19:26	BGL
Nitrobenzene	ND	0.40	0.057	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 19:26	BGL
2-Nitrophenol	ND	0.40	0.062	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 19:26	BGL
4-Nitrophenol	ND	0.77	0.16	mg/Kg dry	1	V-05	SW-846 8270E	12/3/21	12/6/21 19:26	BGL
N-Nitrosodimethylamine	ND	0.40	0.059	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 19:26	BGL
N-Nitrosodiphenylamine/Diphenylamine	ND	0.40	0.059	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 19:26	BGL
N-Nitrosodi-n-propylamine	ND	0.40	0.054	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 19:26	BGL
Pentachloronitrobenzene	ND	0.40	0.067	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 19:26	BGL
Pentachlorophenol	ND	0.40	0.17	mg/Kg dry	1	V-05	SW-846 8270E	12/3/21	12/6/21 19:26	BGL
Phenanthrene	0.10	0.20	0.062	mg/Kg dry	1	J	SW-846 8270E	12/3/21	12/6/21 19:26	BGL
Phenol	ND	0.40	0.056	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 19:26	BGL
Pyrene	ND	0.20	0.063	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 19:26	BGL
Pyridine	ND	0.40	0.040	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 19:26	BGL
1,2,4,5-Tetrachlorobenzene	ND	0.40	0.052	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 19:26	BGL
1,2,4-Trichlorobenzene	ND	0.40	0.050	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 19:26	BGL
2,4,5-Trichlorophenol	ND	0.40	0.062	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 19:26	BGL
2,4,6-Trichlorophenol	ND	0.40	0.061	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 19:26	BGL

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
2-Fluorophenol	61.1	30-130		12/6/21 19:26
Phenol-d6	61.7	30-130		12/6/21 19:26
Nitrobenzene-d5	60.7	30-130		12/6/21 19:26
2-Fluorobiphenyl	71.2	30-130		12/6/21 19:26
2,4,6-Tribromophenol	70.1	30-130		12/6/21 19:26
p-Terphenyl-d14	109	30-130		12/6/21 19:26

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Project Location: 1400 N. Royal St., Alexandria, VA Sample Description: Work Order: 21L0153

Date Received: 12/2/2021

Field Sample #: HRP-SB209-0-1-211013 Sampled: 10/13/2021 13:40

Sample ID: 21L0153-10

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	85.9		% Wt	1		SM 2540G	10/20/21	10/21/21 11:24	TDK

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Project Location: 1400 N. Royal St., Alexandria, VA Sample Description: Work Order: 21L0153

Date Received: 12/2/2021

Field Sample #: HRP-SB209-5-7-211013 Sampled: 10/13/2021 13:47

Sample ID: 21L0153-11

Sample Matrix: Soil

Sample Flags: H-10

Semivolatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acenaphthene	ND	0.21	0.065	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 19:51	BGL
Acenaphthylene	ND	0.21	0.063	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 19:51	BGL
Acetophenone	ND	0.41	0.057	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 19:51	BGL
Aniline	ND	0.41	0.086	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 19:51	BGL
Anthracene	ND	0.21	0.068	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 19:51	BGL
Benzidine	ND	0.80	0.19	mg/Kg dry	1	V-05	SW-846 8270E	12/3/21	12/6/21 19:51	BGL
Benzo(a)anthracene	ND	0.21	0.058	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 19:51	BGL
Benzo(a)pyrene	ND	0.21	0.064	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 19:51	BGL
Benzo(b)fluoranthene	ND	0.21	0.063	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 19:51	BGL
Benzo(g,h,i)perylene	ND	0.21	0.087	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 19:51	BGL
Benzo(k)fluoranthene	ND	0.21	0.056	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 19:51	BGL
Benzoic Acid	ND	1.2	0.49	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 19:51	BGL
Bis(2-chloroethoxy)methane	ND	0.41	0.054	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 19:51	BGL
Bis(2-chloroethyl)ether	ND	0.41	0.057	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 19:51	BGL
Bis(2-chloroisopropyl)ether	ND	0.41	0.094	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 19:51	BGL
Bis(2-Ethylhexyl)phthalate	ND	0.41	0.070	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 19:51	BGL
4-Bromophenylphenylether	ND	0.41	0.053	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 19:51	BGL
Butylbenzylphthalate	ND	0.41	0.066	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 19:51	BGL
Carbazole	ND	0.21	0.068	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 19:51	BGL
4-Chloroaniline	ND	0.80	0.055	mg/Kg dry	1	V-34	SW-846 8270E	12/3/21	12/6/21 19:51	BGL
4-Chloro-3-methylphenol	ND	0.80	0.069	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 19:51	BGL
2-Chloronaphthalene	ND	0.41	0.048	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 19:51	BGL
2-Chlorophenol	ND	0.41	0.057	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 19:51	BGL
4-Chlorophenylphenylether	ND	0.41	0.059	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 19:51	BGL
Chrysene	ND	0.21	0.060	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 19:51	BGL
Dibenz(a,h)anthracene	ND	0.21	0.084	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 19:51	BGL
Dibenzofuran	ND	0.41	0.061	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 19:51	BGL
Di-n-butylphthalate	ND	0.41	0.058	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 19:51	BGL
1,2-Dichlorobenzene	ND	0.41	0.047	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 19:51	BGL
1,3-Dichlorobenzene	ND	0.41	0.045	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 19:51	BGL
1,4-Dichlorobenzene	ND	0.41	0.043	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 19:51	BGL
3,3-Dichlorobenzidine	ND	0.21	0.061	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 19:51	BGL
2,4-Dichlorophenol	ND	0.41	0.062	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 19:51	BGL
Diethylphthalate	ND	0.41	0.063	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 19:51	BGL
2,4-Dimethylphenol	ND	0.41	0.11	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 19:51	BGL
Dimethylphthalate	ND	0.41	0.060	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 19:51	BGL
4,6-Dinitro-2-methylphenol	ND	0.41	0.28	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 19:51	BGL
2,4-Dinitrophenol	ND	0.80	0.36	mg/Kg dry	1	V-04	SW-846 8270E	12/3/21	12/6/21 19:51	BGL
2,4-Dinitrotoluene	ND	0.41	0.081	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 19:51	BGL
2,6-Dinitrotoluene	ND	0.41	0.069	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 19:51	BGL
Di-n-octylphthalate	ND	0.41	0.15	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 19:51	BGL
1,2-Diphenylhydrazine/Azobenzene	ND	0.41	0.060	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 19:51	BGL
Fluoranthene	ND	0.21	0.066	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 19:51	BGL
Fluorene	ND	0.21	0.070	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 19:51	BGL

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Project Location: 1400 N. Royal St., Alexandria, VA Sample Description: Work Order: 21L0153

Date Received: 12/2/2021

Field Sample #: HRP-SB209-5-7-211013 Sampled: 10/13/2021 13:47

Sample ID: 21L0153-11

Sample Matrix: Soil

Sample Flags: H-10

Semivolatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Hexachlorobenzene	ND	0.41	0.056	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 19:51	BGL
Hexachlorobutadiene	ND	0.41	0.053	mg/Kg dry	1	V-05	SW-846 8270E	12/3/21	12/6/21 19:51	BGL
Hexachlorocyclopentadiene	ND	0.41	0.17	mg/Kg dry	1	V-05	SW-846 8270E	12/3/21	12/6/21 19:51	BGL
Hexachloroethane	ND	0.41	0.049	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 19:51	BGL
Indeno(1,2,3-cd)pyrene	ND	0.21	0.094	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 19:51	BGL
Isophorone	ND	0.41	0.069	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 19:51	BGL
1-Methylnaphthalene	ND	0.21	0.057	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 19:51	BGL
2-Methylnaphthalene	ND	0.21	0.066	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 19:51	BGL
2-Methylphenol	ND	0.41	0.077	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 19:51	BGL
3/4-Methylphenol	ND	0.41	0.067	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 19:51	BGL
Naphthalene	ND	0.21	0.057	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 19:51	BGL
2-Nitroaniline	ND	0.41	0.088	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 19:51	BGL
3-Nitroaniline	ND	0.41	0.071	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 19:51	BGL
4-Nitroaniline	ND	0.41	0.089	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 19:51	BGL
Nitrobenzene	ND	0.41	0.060	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 19:51	BGL
2-Nitrophenol	ND	0.41	0.065	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 19:51	BGL
4-Nitrophenol	ND	0.80	0.17	mg/Kg dry	1	V-05	SW-846 8270E	12/3/21	12/6/21 19:51	BGL
N-Nitrosodimethylamine	ND	0.41	0.062	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 19:51	BGL
N-Nitrosodiphenylamine/Diphenylamine	ND	0.41	0.062	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 19:51	BGL
N-Nitrosodi-n-propylamine	ND	0.41	0.057	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 19:51	BGL
Pentachloronitrobenzene	ND	0.41	0.070	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 19:51	BGL
Pentachlorophenol	ND	0.41	0.18	mg/Kg dry	1	V-05	SW-846 8270E	12/3/21	12/6/21 19:51	BGL
Phenanthrene	ND	0.21	0.065	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 19:51	BGL
Phenol	ND	0.41	0.059	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 19:51	BGL
Pyrene	ND	0.21	0.066	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 19:51	BGL
Pyridine	ND	0.41	0.042	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 19:51	BGL
1,2,4,5-Tetrachlorobenzene	ND	0.41	0.054	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 19:51	BGL
1,2,4-Trichlorobenzene	ND	0.41	0.052	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 19:51	BGL
2,4,5-Trichlorophenol	ND	0.41	0.064	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 19:51	BGL
2,4,6-Trichlorophenol	ND	0.41	0.064	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 19:51	BGL

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
2-Fluorophenol	61.5	30-130		12/6/21 19:51
Phenol-d6	60.4	30-130		12/6/21 19:51
Nitrobenzene-d5	58.3	30-130		12/6/21 19:51
2-Fluorobiphenyl	71.3	30-130		12/6/21 19:51
2,4,6-Tribromophenol	82.1	30-130		12/6/21 19:51
p-Terphenyl-d14	121	30-130		12/6/21 19:51

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Project Location: 1400 N. Royal St., Alexandria, VA Sample Description: Work Order: 21L0153

Date Received: 12/2/2021

Field Sample #: HRP-SB209-5-7-211013 Sampled: 10/13/2021 13:47

Sample ID: 21L0153-11

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	82.0		% Wt	1		SM 2540G	10/20/21	10/21/21 11:24	TDK

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Project Location: 1400 N. Royal St., Alexandria, VA Sample Description: Work Order: 21L0153

Date Received: 12/2/2021

Field Sample #: HRP-SB209-15-17-211013 Sampled: 10/13/2021 13:55

Sample ID: 21L0153-12

Sample Matrix: Soil

Sample Flags: H-10

Semivolatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acenaphthene	ND	0.20	0.063	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 20:18	BGL
Acenaphthylene	ND	0.20	0.062	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 20:18	BGL
Acetophenone	ND	0.40	0.055	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 20:18	BGL
Aniline	ND	0.40	0.084	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 20:18	BGL
Anthracene	ND	0.20	0.066	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 20:18	BGL
Benzidine	ND	0.78	0.18	mg/Kg dry	1	V-05	SW-846 8270E	12/3/21	12/6/21 20:18	BGL
Benzo(a)anthracene	ND	0.20	0.056	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 20:18	BGL
Benzo(a)pyrene	ND	0.20	0.062	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 20:18	BGL
Benzo(b)fluoranthene	ND	0.20	0.061	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 20:18	BGL
Benzo(g,h,i)perylene	ND	0.20	0.085	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 20:18	BGL
Benzo(k)fluoranthene	ND	0.20	0.055	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 20:18	BGL
Benzoic Acid	ND	1.2	0.48	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 20:18	BGL
Bis(2-chloroethoxy)methane	ND	0.40	0.052	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 20:18	BGL
Bis(2-chloroethyl)ether	ND	0.40	0.055	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 20:18	BGL
Bis(2-chloroisopropyl)ether	ND	0.40	0.092	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 20:18	BGL
Bis(2-Ethylhexyl)phthalate	ND	0.40	0.068	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 20:18	BGL
4-Bromophenylphenylether	ND	0.40	0.051	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 20:18	BGL
Butylbenzylphthalate	ND	0.40	0.064	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 20:18	BGL
Carbazole	ND	0.20	0.066	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 20:18	BGL
4-Chloroaniline	ND	0.78	0.054	mg/Kg dry	1	V-34	SW-846 8270E	12/3/21	12/6/21 20:18	BGL
4-Chloro-3-methylphenol	ND	0.78	0.067	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 20:18	BGL
2-Chloronaphthalene	ND	0.40	0.047	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 20:18	BGL
2-Chlorophenol	ND	0.40	0.056	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 20:18	BGL
4-Chlorophenylphenylether	ND	0.40	0.058	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 20:18	BGL
Chrysene	ND	0.20	0.058	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 20:18	BGL
Dibenz(a,h)anthracene	ND	0.20	0.082	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 20:18	BGL
Dibenzofuran	ND	0.40	0.060	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 20:18	BGL
Di-n-butylphthalate	ND	0.40	0.057	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 20:18	BGL
1,2-Dichlorobenzene	ND	0.40	0.046	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 20:18	BGL
1,3-Dichlorobenzene	ND	0.40	0.044	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 20:18	BGL
1,4-Dichlorobenzene	ND	0.40	0.042	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 20:18	BGL
3,3-Dichlorobenzidine	ND	0.20	0.059	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 20:18	BGL
2,4-Dichlorophenol	ND	0.40	0.060	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 20:18	BGL
Diethylphthalate	ND	0.40	0.062	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 20:18	BGL
2,4-Dimethylphenol	ND	0.40	0.11	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 20:18	BGL
Dimethylphthalate	ND	0.40	0.059	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 20:18	BGL
4,6-Dinitro-2-methylphenol	ND	0.40	0.27	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 20:18	BGL
2,4-Dinitrophenol	ND	0.78	0.35	mg/Kg dry	1	V-04	SW-846 8270E	12/3/21	12/6/21 20:18	BGL
2,4-Dinitrotoluene	ND	0.40	0.079	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 20:18	BGL
2,6-Dinitrotoluene	ND	0.40	0.067	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 20:18	BGL
Di-n-octylphthalate	ND	0.40	0.14	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 20:18	BGL
1,2-Diphenylhydrazine/Azobenzene	ND	0.40	0.058	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 20:18	BGL
Fluoranthene	ND	0.20	0.064	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 20:18	BGL
Fluorene	ND	0.20	0.068	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 20:18	BGL

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Project Location: 1400 N. Royal St., Alexandria, VA Sample Description: Work Order: 21L0153

Date Received: 12/2/2021

Field Sample #: HRP-SB209-15-17-211013 Sampled: 10/13/2021 13:55

Sample ID: 21L0153-12

Sample Matrix: Soil

Sample Flags: H-10

Semivolatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Hexachlorobenzene	ND	0.40	0.055	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 20:18	BGL
Hexachlorobutadiene	ND	0.40	0.051	mg/Kg dry	1	V-05	SW-846 8270E	12/3/21	12/6/21 20:18	BGL
Hexachlorocyclopentadiene	ND	0.40	0.17	mg/Kg dry	1	V-05	SW-846 8270E	12/3/21	12/6/21 20:18	BGL
Hexachloroethane	ND	0.40	0.048	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 20:18	BGL
Indeno(1,2,3-cd)pyrene	ND	0.20	0.091	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 20:18	BGL
Isophorone	ND	0.40	0.067	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 20:18	BGL
1-Methylnaphthalene	ND	0.20	0.056	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 20:18	BGL
2-Methylnaphthalene	ND	0.20	0.064	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 20:18	BGL
2-Methylphenol	ND	0.40	0.075	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 20:18	BGL
3/4-Methylphenol	ND	0.40	0.065	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 20:18	BGL
Naphthalene	ND	0.20	0.055	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 20:18	BGL
2-Nitroaniline	ND	0.40	0.086	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 20:18	BGL
3-Nitroaniline	ND	0.40	0.069	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 20:18	BGL
4-Nitroaniline	ND	0.40	0.087	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 20:18	BGL
Nitrobenzene	ND	0.40	0.059	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 20:18	BGL
2-Nitrophenol	ND	0.40	0.063	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 20:18	BGL
4-Nitrophenol	ND	0.78	0.16	mg/Kg dry	1	V-05	SW-846 8270E	12/3/21	12/6/21 20:18	BGL
N-Nitrosodimethylamine	ND	0.40	0.060	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 20:18	BGL
N-Nitrosodiphenylamine/Diphenylamine	ND	0.40	0.060	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 20:18	BGL
N-Nitrosodi-n-propylamine	ND	0.40	0.055	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 20:18	BGL
Pentachloronitrobenzene	ND	0.40	0.068	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 20:18	BGL
Pentachlorophenol	ND	0.40	0.18	mg/Kg dry	1	V-05	SW-846 8270E	12/3/21	12/6/21 20:18	BGL
Phenanthrene	ND	0.20	0.064	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 20:18	BGL
Phenol	ND	0.40	0.057	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 20:18	BGL
Pyrene	ND	0.20	0.064	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 20:18	BGL
Pyridine	ND	0.40	0.041	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 20:18	BGL
1,2,4,5-Tetrachlorobenzene	ND	0.40	0.053	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 20:18	BGL
1,2,4-Trichlorobenzene	ND	0.40	0.051	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 20:18	BGL
2,4,5-Trichlorophenol	ND	0.40	0.063	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 20:18	BGL
2,4,6-Trichlorophenol	ND	0.40	0.062	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 20:18	BGL

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
2-Fluorophenol	69.0	30-130		12/6/21 20:18
Phenol-d6	68.4	30-130		12/6/21 20:18
Nitrobenzene-d5	63.6	30-130		12/6/21 20:18
2-Fluorobiphenyl	75.3	30-130		12/6/21 20:18
2,4,6-Tribromophenol	78.6	30-130		12/6/21 20:18
p-Terphenyl-d14	121	30-130		12/6/21 20:18

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Project Location: 1400 N. Royal St., Alexandria, VA Sample Description: Work Order: 21L0153

Date Received: 12/2/2021

Field Sample #: HRP-SB209-15-17-211013 Sampled: 10/13/2021 13:55

Sample ID: 21L0153-12

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	84.3		% Wt	1		SM 2540G	10/20/21	10/21/21 11:24	TDK

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39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: 1400 N. Royal St., Alexandria, VA Sample Description: Work Order: 21L0153

Date Received: 12/2/2021

Field Sample #: HRP-SB208-0-1-211014 Sampled: 10/14/2021 09:12

Sample ID: 21L0153-13

Sample Matrix: Soil

Sample Flags: H-10

Semivolatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acenaphthene	ND	0.22	0.069	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 20:43	BGL
Acenaphthylene	ND	0.22	0.067	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 20:43	BGL
Acetophenone	ND	0.44	0.060	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 20:43	BGL
Aniline	ND	0.44	0.091	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 20:43	BGL
Anthracene	ND	0.22	0.071	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 20:43	BGL
Benzidine	ND	0.85	0.20	mg/Kg dry	1	V-05	SW-846 8270E	12/3/21	12/6/21 20:43	BGL
Benzo(a)anthracene	ND	0.22	0.061	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 20:43	BGL
Benzo(a)pyrene	ND	0.22	0.067	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 20:43	BGL
Benzo(b)fluoranthene	ND	0.22	0.066	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 20:43	BGL
Benzo(g,h,i)perylene	ND	0.22	0.092	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 20:43	BGL
Benzo(k)fluoranthene	ND	0.22	0.059	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 20:43	BGL
Benzoic Acid	ND	1.3	0.52	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 20:43	BGL
Bis(2-chloroethoxy)methane	ND	0.44	0.057	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 20:43	BGL
Bis(2-chloroethyl)ether	ND	0.44	0.060	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 20:43	BGL
Bis(2-chloroisopropyl)ether	ND	0.44	0.10	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 20:43	BGL
Bis(2-Ethylhexyl)phthalate	ND	0.44	0.074	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 20:43	BGL
4-Bromophenylphenylether	ND	0.44	0.056	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 20:43	BGL
Butylbenzylphthalate	ND	0.44	0.070	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 20:43	BGL
Carbazole	ND	0.22	0.072	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 20:43	BGL
4-Chloroaniline	ND	0.85	0.058	mg/Kg dry	1	V-34	SW-846 8270E	12/3/21	12/6/21 20:43	BGL
4-Chloro-3-methylphenol	ND	0.85	0.073	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 20:43	BGL
2-Chloronaphthalene	ND	0.44	0.051	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 20:43	BGL
2-Chlorophenol	ND	0.44	0.061	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 20:43	BGL
4-Chlorophenylphenylether	ND	0.44	0.062	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 20:43	BGL
Chrysene	ND	0.22	0.063	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 20:43	BGL
Dibenz(a,h)anthracene	ND	0.22	0.089	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 20:43	BGL
Dibenzofuran	ND	0.44	0.065	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 20:43	BGL
Di-n-butylphthalate	ND	0.44	0.062	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 20:43	BGL
1,2-Dichlorobenzene	ND	0.44	0.050	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 20:43	BGL
1,3-Dichlorobenzene	ND	0.44	0.048	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 20:43	BGL
1,4-Dichlorobenzene	ND	0.44	0.046	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 20:43	BGL
3,3-Dichlorobenzidine	ND	0.22	0.064	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 20:43	BGL
2,4-Dichlorophenol	ND	0.44	0.065	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 20:43	BGL
Diethylphthalate	ND	0.44	0.067	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 20:43	BGL
2,4-Dimethylphenol	ND	0.44	0.12	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 20:43	BGL
Dimethylphthalate	ND	0.44	0.064	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 20:43	BGL
4,6-Dinitro-2-methylphenol	ND	0.44	0.29	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 20:43	BGL
2,4-Dinitrophenol	ND	0.85	0.38	mg/Kg dry	1	V-04	SW-846 8270E	12/3/21	12/6/21 20:43	BGL
2,4-Dinitrotoluene	ND	0.44	0.085	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 20:43	BGL
2,6-Dinitrotoluene	ND	0.44	0.073	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 20:43	BGL
Di-n-octylphthalate	ND	0.44	0.15	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 20:43	BGL
1,2-Diphenylhydrazine/Azobenzene	ND	0.44	0.063	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 20:43	BGL
Fluoranthene	ND	0.22	0.070	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 20:43	BGL
Fluorene	ND	0.22	0.074	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 20:43	BGL

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Project Location: 1400 N. Royal St., Alexandria, VA Sample Description: Work Order: 21L0153

Date Received: 12/2/2021

Field Sample #: HRP-SB208-0-1-211014 Sampled: 10/14/2021 09:12

Sample ID: 21L0153-13

Sample Matrix: Soil

Sample Flags: H-10

Semivolatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Hexachlorobenzene	ND	0.44	0.059	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 20:43	BGL
Hexachlorobutadiene	ND	0.44	0.056	mg/Kg dry	1	V-05	SW-846 8270E	12/3/21	12/6/21 20:43	BGL
Hexachlorocyclopentadiene	ND	0.44	0.18	mg/Kg dry	1	V-05	SW-846 8270E	12/3/21	12/6/21 20:43	BGL
Hexachloroethane	ND	0.44	0.052	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 20:43	BGL
Indeno(1,2,3-cd)pyrene	ND	0.22	0.099	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 20:43	BGL
Isophorone	ND	0.44	0.073	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 20:43	BGL
1-Methylnaphthalene	ND	0.22	0.061	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 20:43	BGL
2-Methylnaphthalene	ND	0.22	0.069	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 20:43	BGL
2-Methylphenol	ND	0.44	0.081	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 20:43	BGL
3/4-Methylphenol	ND	0.44	0.071	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 20:43	BGL
Naphthalene	ND	0.22	0.060	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 20:43	BGL
2-Nitroaniline	ND	0.44	0.093	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 20:43	BGL
3-Nitroaniline	ND	0.44	0.074	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 20:43	BGL
4-Nitroaniline	ND	0.44	0.094	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 20:43	BGL
Nitrobenzene	ND	0.44	0.063	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 20:43	BGL
2-Nitrophenol	ND	0.44	0.068	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 20:43	BGL
4-Nitrophenol	ND	0.85	0.18	mg/Kg dry	1	V-05	SW-846 8270E	12/3/21	12/6/21 20:43	BGL
N-Nitrosodimethylamine	ND	0.44	0.065	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 20:43	BGL
N-Nitrosodiphenylamine/Diphenylamine	ND	0.44	0.066	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 20:43	BGL
N-Nitrosodi-n-propylamine	ND	0.44	0.060	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 20:43	BGL
Pentachloronitrobenzene	ND	0.44	0.074	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 20:43	BGL
Pentachlorophenol	ND	0.44	0.19	mg/Kg dry	1	V-05	SW-846 8270E	12/3/21	12/6/21 20:43	BGL
Phenanthrene	ND	0.22	0.069	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 20:43	BGL
Phenol	ND	0.44	0.062	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 20:43	BGL
Pyrene	ND	0.22	0.070	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 20:43	BGL
Pyridine	ND	0.44	0.045	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 20:43	BGL
1,2,4,5-Tetrachlorobenzene	ND	0.44	0.057	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 20:43	BGL
1,2,4-Trichlorobenzene	ND	0.44	0.055	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 20:43	BGL
2,4,5-Trichlorophenol	ND	0.44	0.068	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 20:43	BGL
2,4,6-Trichlorophenol	ND	0.44	0.067	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 20:43	BGL

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
2-Fluorophenol	73.4	30-130		12/6/21 20:43
Phenol-d6	72.6	30-130		12/6/21 20:43
Nitrobenzene-d5	70.4	30-130		12/6/21 20:43
2-Fluorobiphenyl	81.5	30-130		12/6/21 20:43
2,4,6-Tribromophenol	85.2	30-130		12/6/21 20:43
p-Terphenyl-d14	123	30-130		12/6/21 20:43

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Project Location: 1400 N. Royal St., Alexandria, VA Sample Description: Work Order: 21L0153

Date Received: 12/2/2021

Field Sample #: HRP-SB208-0-1-211014 Sampled: 10/14/2021 09:12

Sample ID: 21L0153-13

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	77.7		% Wt	1		SM 2540G	10/20/21	10/21/21 11:24	TDK

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Project Location: 1400 N. Royal St., Alexandria, VA Sample Description: Work Order: 21L0153

Date Received: 12/2/2021

Field Sample #: HRP-MW208-5-7-211014 Sampled: 10/14/2021 09:20

Sample ID: 21L0153-14

Sample Matrix: Soil

Sample Flags: H-10

Semivolatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acenaphthene	ND	0.22	0.069	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 21:10	BGL
Acenaphthylene	ND	0.22	0.068	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 21:10	BGL
Acetophenone	ND	0.44	0.060	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 21:10	BGL
Aniline	ND	0.44	0.092	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 21:10	BGL
Anthracene	ND	0.22	0.072	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 21:10	BGL
Benzidine	ND	0.86	0.20	mg/Kg dry	1	V-05	SW-846 8270E	12/3/21	12/6/21 21:10	BGL
Benzo(a)anthracene	ND	0.22	0.061	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 21:10	BGL
Benzo(a)pyrene	ND	0.22	0.068	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 21:10	BGL
Benzo(b)fluoranthene	ND	0.22	0.067	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 21:10	BGL
Benzo(g,h,i)perylene	ND	0.22	0.093	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 21:10	BGL
Benzo(k)fluoranthene	ND	0.22	0.060	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 21:10	BGL
Benzoic Acid	ND	1.3	0.53	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 21:10	BGL
Bis(2-chloroethoxy)methane	ND	0.44	0.058	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 21:10	BGL
Bis(2-chloroethyl)ether	ND	0.44	0.061	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 21:10	BGL
Bis(2-chloroisopropyl)ether	ND	0.44	0.10	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 21:10	BGL
Bis(2-Ethylhexyl)phthalate	ND	0.44	0.074	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 21:10	BGL
4-Bromophenylphenylether	ND	0.44	0.056	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 21:10	BGL
Butylbenzylphthalate	ND	0.44	0.070	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 21:10	BGL
Carbazole	ND	0.22	0.073	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 21:10	BGL
4-Chloroaniline	ND	0.86	0.059	mg/Kg dry	1	V-34	SW-846 8270E	12/3/21	12/6/21 21:10	BGL
4-Chloro-3-methylphenol	ND	0.86	0.073	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 21:10	BGL
2-Chloronaphthalene	ND	0.44	0.051	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 21:10	BGL
2-Chlorophenol	ND	0.44	0.061	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 21:10	BGL
4-Chlorophenylphenylether	ND	0.44	0.063	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 21:10	BGL
Chrysene	ND	0.22	0.064	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 21:10	BGL
Dibenz(a,h)anthracene	ND	0.22	0.090	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 21:10	BGL
Dibenzofuran	ND	0.44	0.065	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 21:10	BGL
Di-n-butylphthalate	ND	0.44	0.062	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 21:10	BGL
1,2-Dichlorobenzene	ND	0.44	0.050	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 21:10	BGL
1,3-Dichlorobenzene	ND	0.44	0.048	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 21:10	BGL
1,4-Dichlorobenzene	ND	0.44	0.046	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 21:10	BGL
3,3-Dichlorobenzidine	ND	0.22	0.065	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 21:10	BGL
2,4-Dichlorophenol	ND	0.44	0.066	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 21:10	BGL
Diethylphthalate	ND	0.44	0.067	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 21:10	BGL
2,4-Dimethylphenol	ND	0.44	0.12	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 21:10	BGL
Dimethylphthalate	ND	0.44	0.064	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 21:10	BGL
4,6-Dinitro-2-methylphenol	ND	0.44	0.30	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 21:10	BGL
2,4-Dinitrophenol	ND	0.86	0.38	mg/Kg dry	1	V-04	SW-846 8270E	12/3/21	12/6/21 21:10	BGL
2,4-Dinitrotoluene	ND	0.44	0.086	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 21:10	BGL
2,6-Dinitrotoluene	ND	0.44	0.073	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 21:10	BGL
Di-n-octylphthalate	ND	0.44	0.16	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 21:10	BGL
1,2-Diphenylhydrazine/Azobenzene	ND	0.44	0.063	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 21:10	BGL
Fluoranthene	ND	0.22	0.070	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 21:10	BGL
Fluorene	ND	0.22	0.074	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 21:10	BGL

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Project Location: 1400 N. Royal St., Alexandria, VA Sample Description: Work Order: 21L0153

Date Received: 12/2/2021

Field Sample #: HRP-MW208-5-7-211014 Sampled: 10/14/2021 09:20

Sample ID: 21L0153-14

Sample Matrix: Soil

Sample Flags: H-10

Semivolatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Hexachlorobenzene	ND	0.44	0.060	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 21:10	BGL
Hexachlorobutadiene	ND	0.44	0.056	mg/Kg dry	1	V-05	SW-846 8270E	12/3/21	12/6/21 21:10	BGL
Hexachlorocyclopentadiene	ND	0.44	0.18	mg/Kg dry	1	V-05	SW-846 8270E	12/3/21	12/6/21 21:10	BGL
Hexachloroethane	ND	0.44	0.053	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 21:10	BGL
Indeno(1,2,3-cd)pyrene	ND	0.22	0.10	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 21:10	BGL
Isophorone	ND	0.44	0.074	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 21:10	BGL
1-Methylnaphthalene	ND	0.22	0.061	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 21:10	BGL
2-Methylnaphthalene	ND	0.22	0.070	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 21:10	BGL
2-Methylphenol	ND	0.44	0.082	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 21:10	BGL
3/4-Methylphenol	ND	0.44	0.071	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 21:10	BGL
Naphthalene	ND	0.22	0.060	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 21:10	BGL
2-Nitroaniline	ND	0.44	0.094	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 21:10	BGL
3-Nitroaniline	ND	0.44	0.075	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 21:10	BGL
4-Nitroaniline	ND	0.44	0.095	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 21:10	BGL
Nitrobenzene	ND	0.44	0.064	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 21:10	BGL
2-Nitrophenol	ND	0.44	0.069	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 21:10	BGL
4-Nitrophenol	ND	0.86	0.18	mg/Kg dry	1	V-05	SW-846 8270E	12/3/21	12/6/21 21:10	BGL
N-Nitrosodimethylamine	ND	0.44	0.066	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 21:10	BGL
N-Nitrosodiphenylamine/Diphenylamine	ND	0.44	0.066	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 21:10	BGL
N-Nitrosodi-n-propylamine	ND	0.44	0.061	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 21:10	BGL
Pentachloronitrobenzene	ND	0.44	0.074	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 21:10	BGL
Pentachlorophenol	ND	0.44	0.19	mg/Kg dry	1	V-05	SW-846 8270E	12/3/21	12/6/21 21:10	BGL
Phenanthrene	ND	0.22	0.070	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 21:10	BGL
Phenol	ND	0.44	0.063	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 21:10	BGL
Pyrene	ND	0.22	0.070	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 21:10	BGL
Pyridine	ND	0.44	0.045	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 21:10	BGL
1,2,4,5-Tetrachlorobenzene	ND	0.44	0.058	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 21:10	BGL
1,2,4-Trichlorobenzene	ND	0.44	0.055	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 21:10	BGL
2,4,5-Trichlorophenol	ND	0.44	0.069	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 21:10	BGL
2,4,6-Trichlorophenol	ND	0.44	0.068	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 21:10	BGL

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
2-Fluorophenol	67.2	30-130		12/6/21 21:10
Phenol-d6	67.4	30-130		12/6/21 21:10
Nitrobenzene-d5	65.9	30-130		12/6/21 21:10
2-Fluorobiphenyl	77.3	30-130		12/6/21 21:10
2,4,6-Tribromophenol	81.0	30-130		12/6/21 21:10
p-Terphenyl-d14	119	30-130		12/6/21 21:10

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Project Location: 1400 N. Royal St., Alexandria, VA Sample Description: Work Order: 21L0153

Date Received: 12/2/2021

Field Sample #: HRP-MW208-5-7-211014 Sampled: 10/14/2021 09:20

Sample ID: 21L0153-14

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	76.9		% Wt	1		SM 2540G	10/20/21	10/21/21 11:24	TDK

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Project Location: 1400 N. Royal St., Alexandria, VA Sample Description: Work Order: 21L0153

Date Received: 12/2/2021

Field Sample #: HRP-SB208-18-20-211014 Sampled: 10/14/2021 09:30

Sample ID: 21L0153-15

Sample Matrix: Soil

Sample Flags: H-10

Semivolatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acenaphthene	ND	0.21	0.065	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 21:35	BGL
Acenaphthylene	ND	0.21	0.063	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 21:35	BGL
Acetophenone	ND	0.42	0.057	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 21:35	BGL
Aniline	ND	0.42	0.086	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 21:35	BGL
Anthracene	ND	0.21	0.068	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 21:35	BGL
Benzidine	ND	0.81	0.19	mg/Kg dry	1	V-05	SW-846 8270E	12/3/21	12/6/21 21:35	BGL
Benzo(a)anthracene	ND	0.21	0.058	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 21:35	BGL
Benzo(a)pyrene	ND	0.21	0.064	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 21:35	BGL
Benzo(b)fluoranthene	ND	0.21	0.063	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 21:35	BGL
Benzo(g,h,i)perylene	ND	0.21	0.087	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 21:35	BGL
Benzo(k)fluoranthene	ND	0.21	0.056	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 21:35	BGL
Benzoic Acid	ND	1.2	0.49	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 21:35	BGL
Bis(2-chloroethoxy)methane	ND	0.42	0.054	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 21:35	BGL
Bis(2-chloroethyl)ether	ND	0.42	0.057	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 21:35	BGL
Bis(2-chloroisopropyl)ether	ND	0.42	0.095	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 21:35	BGL
Bis(2-Ethylhexyl)phthalate	ND	0.42	0.070	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 21:35	BGL
4-Bromophenylphenylether	ND	0.42	0.053	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 21:35	BGL
Butylbenzylphthalate	ND	0.42	0.066	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 21:35	BGL
Carbazole	ND	0.21	0.068	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 21:35	BGL
4-Chloroaniline	ND	0.81	0.055	mg/Kg dry	1	V-34	SW-846 8270E	12/3/21	12/6/21 21:35	BGL
4-Chloro-3-methylphenol	ND	0.81	0.069	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 21:35	BGL
2-Chloronaphthalene	ND	0.42	0.048	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 21:35	BGL
2-Chlorophenol	ND	0.42	0.057	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 21:35	BGL
4-Chlorophenylphenylether	ND	0.42	0.059	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 21:35	BGL
Chrysene	ND	0.21	0.060	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 21:35	BGL
Dibenz(a,h)anthracene	ND	0.21	0.084	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 21:35	BGL
Dibenzofuran	ND	0.42	0.061	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 21:35	BGL
Di-n-butylphthalate	ND	0.42	0.059	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 21:35	BGL
1,2-Dichlorobenzene	ND	0.42	0.047	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 21:35	BGL
1,3-Dichlorobenzene	ND	0.42	0.046	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 21:35	BGL
1,4-Dichlorobenzene	ND	0.42	0.043	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 21:35	BGL
3,3-Dichlorobenzidine	ND	0.21	0.061	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 21:35	BGL
2,4-Dichlorophenol	ND	0.42	0.062	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 21:35	BGL
Diethylphthalate	ND	0.42	0.063	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 21:35	BGL
2,4-Dimethylphenol	ND	0.42	0.11	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 21:35	BGL
Dimethylphthalate	ND	0.42	0.060	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 21:35	BGL
4,6-Dinitro-2-methylphenol	ND	0.42	0.28	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 21:35	BGL
2,4-Dinitrophenol	ND	0.81	0.36	mg/Kg dry	1	V-04	SW-846 8270E	12/3/21	12/6/21 21:35	BGL
2,4-Dinitrotoluene	ND	0.42	0.081	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 21:35	BGL
2,6-Dinitrotoluene	ND	0.42	0.069	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 21:35	BGL
Di-n-octylphthalate	ND	0.42	0.15	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 21:35	BGL
1,2-Diphenylhydrazine/Azobenzene	ND	0.42	0.060	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 21:35	BGL
Fluoranthene	ND	0.21	0.066	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 21:35	BGL
Fluorene	ND	0.21	0.070	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 21:35	BGL

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Project Location: 1400 N. Royal St., Alexandria, VA Sample Description: Work Order: 21L0153

Date Received: 12/2/2021

Field Sample #: HRP-SB208-18-20-211014 Sampled: 10/14/2021 09:30

Sample ID: 21L0153-15

Sample Matrix: Soil

Sample Flags: H-10

Semivolatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Hexachlorobenzene	ND	0.42	0.056	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 21:35	BGL
Hexachlorobutadiene	ND	0.42	0.053	mg/Kg dry	1	V-05	SW-846 8270E	12/3/21	12/6/21 21:35	BGL
Hexachlorocyclopentadiene	ND	0.42	0.17	mg/Kg dry	1	V-05	SW-846 8270E	12/3/21	12/6/21 21:35	BGL
Hexachloroethane	ND	0.42	0.049	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 21:35	BGL
Indeno(1,2,3-cd)pyrene	ND	0.21	0.094	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 21:35	BGL
Isophorone	ND	0.42	0.069	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 21:35	BGL
1-Methylnaphthalene	ND	0.21	0.057	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 21:35	BGL
2-Methylnaphthalene	ND	0.21	0.066	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 21:35	BGL
2-Methylphenol	ND	0.42	0.077	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 21:35	BGL
3/4-Methylphenol	ND	0.42	0.067	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 21:35	BGL
Naphthalene	ND	0.21	0.057	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 21:35	BGL
2-Nitroaniline	ND	0.42	0.088	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 21:35	BGL
3-Nitroaniline	ND	0.42	0.071	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 21:35	BGL
4-Nitroaniline	ND	0.42	0.089	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 21:35	BGL
Nitrobenzene	ND	0.42	0.060	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 21:35	BGL
2-Nitrophenol	ND	0.42	0.065	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 21:35	BGL
4-Nitrophenol	ND	0.81	0.17	mg/Kg dry	1	V-05	SW-846 8270E	12/3/21	12/6/21 21:35	BGL
N-Nitrosodimethylamine	ND	0.42	0.062	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 21:35	BGL
N-Nitrosodiphenylamine/Diphenylamine	ND	0.42	0.062	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 21:35	BGL
N-Nitrosodi-n-propylamine	ND	0.42	0.057	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 21:35	BGL
Pentachloronitrobenzene	ND	0.42	0.070	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 21:35	BGL
Pentachlorophenol	ND	0.42	0.18	mg/Kg dry	1	V-05	SW-846 8270E	12/3/21	12/6/21 21:35	BGL
Phenanthrene	ND	0.21	0.065	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 21:35	BGL
Phenol	ND	0.42	0.059	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 21:35	BGL
Pyrene	ND	0.21	0.066	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 21:35	BGL
Pyridine	ND	0.42	0.042	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 21:35	BGL
1,2,4,5-Tetrachlorobenzene	ND	0.42	0.054	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 21:35	BGL
1,2,4-Trichlorobenzene	ND	0.42	0.052	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 21:35	BGL
2,4,5-Trichlorophenol	ND	0.42	0.065	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 21:35	BGL
2,4,6-Trichlorophenol	ND	0.42	0.064	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 21:35	BGL

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
2-Fluorophenol	69.6	30-130		12/6/21 21:35
Phenol-d6	68.8	30-130		12/6/21 21:35
Nitrobenzene-d5	66.6	30-130		12/6/21 21:35
2-Fluorobiphenyl	77.4	30-130		12/6/21 21:35
2,4,6-Tribromophenol	80.9	30-130		12/6/21 21:35
p-Terphenyl-d14	117	30-130		12/6/21 21:35

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Project Location: 1400 N. Royal St., Alexandria, VA Sample Description: Work Order: 21L0153

Date Received: 12/2/2021

Field Sample #: HRP-SB208-18-20-211014 Sampled: 10/14/2021 09:30

Sample ID: 21L0153-15

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	81.9		% Wt	1		SM 2540G	10/20/21	10/21/21 11:24	TDK

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Project Location: 1400 N. Royal St., Alexandria, VA Sample Description: Work Order: 21L0153

Date Received: 12/2/2021

Field Sample #: HRP-SB214-0-2-211014 Sampled: 10/14/2021 13:58

Sample ID: 21L0153-16

Sample Matrix: Soil

Sample Flags: H-10

Semivolatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acenaphthene	0.065	0.19	0.061	mg/Kg dry	1	J	SW-846 8270E	12/3/21	12/6/21 22:01	BGL
Acenaphthylene	0.067	0.19	0.059	mg/Kg dry	1	J	SW-846 8270E	12/3/21	12/6/21 22:01	BGL
Acetophenone	ND	0.39	0.053	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 22:01	BGL
Aniline	ND	0.39	0.081	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 22:01	BGL
Anthracene	0.37	0.19	0.063	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 22:01	BGL
Benzidine	ND	0.75	0.18	mg/Kg dry	1	V-05	SW-846 8270E	12/3/21	12/6/21 22:01	BGL
Benzo(a)anthracene	1.8	0.19	0.054	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 22:01	BGL
Benzo(a)pyrene	1.5	0.19	0.059	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 22:01	BGL
Benzo(b)fluoranthene	1.9	0.19	0.058	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 22:01	BGL
Benzo(g,h,i)perylene	0.64	0.19	0.081	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 22:01	BGL
Benzo(k)fluoranthene	0.84	0.19	0.052	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 22:01	BGL
Benzoic Acid	ND	1.1	0.46	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 22:01	BGL
Bis(2-chloroethoxy)methane	ND	0.39	0.050	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 22:01	BGL
Bis(2-chloroethyl)ether	ND	0.39	0.053	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 22:01	BGL
Bis(2-chloroisopropyl)ether	ND	0.39	0.088	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 22:01	BGL
Bis(2-Ethylhexyl)phthalate	ND	0.39	0.065	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 22:01	BGL
4-Bromophenylphenylether	ND	0.39	0.049	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 22:01	BGL
Butylbenzylphthalate	ND	0.39	0.062	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 22:01	BGL
Carbazole	0.23	0.19	0.064	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 22:01	BGL
4-Chloroaniline	ND	0.75	0.051	mg/Kg dry	1	V-34	SW-846 8270E	12/3/21	12/6/21 22:01	BGL
4-Chloro-3-methylphenol	ND	0.75	0.064	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 22:01	BGL
2-Chloronaphthalene	ND	0.39	0.045	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 22:01	BGL
2-Chlorophenol	ND	0.39	0.054	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 22:01	BGL
4-Chlorophenylphenylether	ND	0.39	0.055	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 22:01	BGL
Chrysene	1.6	0.19	0.056	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 22:01	BGL
Dibenz(a,h)anthracene	0.21	0.19	0.079	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 22:01	BGL
Dibenzofuran	0.099	0.39	0.057	mg/Kg dry	1	J	SW-846 8270E	12/3/21	12/6/21 22:01	BGL
Di-n-butylphthalate	ND	0.39	0.055	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 22:01	BGL
1,2-Dichlorobenzene	ND	0.39	0.044	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 22:01	BGL
1,3-Dichlorobenzene	ND	0.39	0.042	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 22:01	BGL
1,4-Dichlorobenzene	ND	0.39	0.040	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 22:01	BGL
3,3-Dichlorobenzidine	ND	0.19	0.057	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 22:01	BGL
2,4-Dichlorophenol	ND	0.39	0.057	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 22:01	BGL
Diethylphthalate	ND	0.39	0.059	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 22:01	BGL
2,4-Dimethylphenol	ND	0.39	0.11	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 22:01	BGL
Dimethylphthalate	ND	0.39	0.056	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 22:01	BGL
4,6-Dinitro-2-methylphenol	ND	0.39	0.26	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 22:01	BGL
2,4-Dinitrophenol	ND	0.75	0.33	mg/Kg dry	1	V-04	SW-846 8270E	12/3/21	12/6/21 22:01	BGL
2,4-Dinitrotoluene	ND	0.39	0.076	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 22:01	BGL
2,6-Dinitrotoluene	ND	0.39	0.064	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 22:01	BGL
Di-n-octylphthalate	ND	0.39	0.14	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 22:01	BGL
1,2-Diphenylhydrazine/Azobenzene	ND	0.39	0.056	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 22:01	BGL
Fluoranthene	3.0	0.19	0.062	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 22:01	BGL
Fluorene	0.11	0.19	0.065	mg/Kg dry	1	J	SW-846 8270E	12/3/21	12/6/21 22:01	BGL

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Project Location: 1400 N. Royal St., Alexandria, VA Sample Description: Work Order: 21L0153

Date Received: 12/2/2021

Field Sample #: HRP-SB214-0-2-211014 Sampled: 10/14/2021 13:58

Sample ID: 21L0153-16

Sample Matrix: Soil

Sample Flags: H-10

Semivolatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Hexachlorobenzene	ND	0.39	0.052	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 22:01	BGL
Hexachlorobutadiene	ND	0.39	0.049	mg/Kg dry	1	V-05	SW-846 8270E	12/3/21	12/6/21 22:01	BGL
Hexachlorocyclopentadiene	ND	0.39	0.16	mg/Kg dry	1	V-05	SW-846 8270E	12/3/21	12/6/21 22:01	BGL
Hexachloroethane	ND	0.39	0.046	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 22:01	BGL
Indeno(1,2,3-cd)pyrene	0.73	0.19	0.088	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 22:01	BGL
Isophorone	ND	0.39	0.065	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 22:01	BGL
1-Methylnaphthalene	0.058	0.19	0.054	mg/Kg dry	1	J	SW-846 8270E	12/3/21	12/6/21 22:01	BGL
2-Methylnaphthalene	0.10	0.19	0.061	mg/Kg dry	1	J	SW-846 8270E	12/3/21	12/6/21 22:01	BGL
2-Methylphenol	ND	0.39	0.072	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 22:01	BGL
3/4-Methylphenol	ND	0.39	0.062	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 22:01	BGL
Naphthalene	0.15	0.19	0.053	mg/Kg dry	1	J	SW-846 8270E	12/3/21	12/6/21 22:01	BGL
2-Nitroaniline	ND	0.39	0.082	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 22:01	BGL
3-Nitroaniline	ND	0.39	0.066	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 22:01	BGL
4-Nitroaniline	ND	0.39	0.083	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 22:01	BGL
Nitrobenzene	ND	0.39	0.056	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 22:01	BGL
2-Nitrophenol	ND	0.39	0.061	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 22:01	BGL
4-Nitrophenol	ND	0.75	0.16	mg/Kg dry	1	V-05	SW-846 8270E	12/3/21	12/6/21 22:01	BGL
N-Nitrosodimethylamine	ND	0.39	0.058	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 22:01	BGL
N-Nitrosodiphenylamine/Diphenylamine	ND	0.39	0.058	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 22:01	BGL
N-Nitrosodi-n-propylamine	ND	0.39	0.053	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 22:01	BGL
Pentachloronitrobenzene	ND	0.39	0.065	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 22:01	BGL
Pentachlorophenol	ND	0.39	0.17	mg/Kg dry	1	V-05	SW-846 8270E	12/3/21	12/6/21 22:01	BGL
Phenanthrene	1.6	0.19	0.061	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 22:01	BGL
Phenol	ND	0.39	0.055	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 22:01	BGL
Pyrene	2.9	0.19	0.062	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 22:01	BGL
Pyridine	ND	0.39	0.040	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 22:01	BGL
1,2,4,5-Tetrachlorobenzene	ND	0.39	0.050	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 22:01	BGL
1,2,4-Trichlorobenzene	ND	0.39	0.049	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 22:01	BGL
2,4,5-Trichlorophenol	ND	0.39	0.060	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 22:01	BGL
2,4,6-Trichlorophenol	ND	0.39	0.060	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 22:01	BGL

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
2-Fluorophenol	65.9	30-130		12/6/21 22:01
Phenol-d6	68.3	30-130		12/6/21 22:01
Nitrobenzene-d5	67.4	30-130		12/6/21 22:01
2-Fluorobiphenyl	82.6	30-130		12/6/21 22:01
2,4,6-Tribromophenol	74.0	30-130		12/6/21 22:01
p-Terphenyl-d14	123	30-130		12/6/21 22:01

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Project Location: 1400 N. Royal St., Alexandria, VA Sample Description: Work Order: 21L0153

Date Received: 12/2/2021

Field Sample #: HRP-SB214-0-2-211014 Sampled: 10/14/2021 13:58

Sample ID: 21L0153-16

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	87.8		% Wt	1		SM 2540G	10/20/21	10/22/21 15:12	TDK

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Project Location: 1400 N. Royal St., Alexandria, VA Sample Description: Work Order: 21L0153

Date Received: 12/2/2021

Field Sample #: HRP-SB214-5-7-211014 Sampled: 10/14/2021 14:10

Sample ID: 21L0153-17

Sample Matrix: Soil

Sample Flags: H-10

Semivolatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acenaphthene	ND	0.21	0.067	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 22:28	BGL
Acenaphthylene	ND	0.21	0.065	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 22:28	BGL
Acetophenone	ND	0.43	0.058	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 22:28	BGL
Aniline	ND	0.43	0.089	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 22:28	BGL
Anthracene	ND	0.21	0.069	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 22:28	BGL
Benzidine	ND	0.83	0.19	mg/Kg dry	1	V-05	SW-846 8270E	12/3/21	12/6/21 22:28	BGL
Benzo(a)anthracene	ND	0.21	0.059	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 22:28	BGL
Benzo(a)pyrene	ND	0.21	0.065	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 22:28	BGL
Benzo(b)fluoranthene	ND	0.21	0.064	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 22:28	BGL
Benzo(g,h,i)perylene	ND	0.21	0.089	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 22:28	BGL
Benzo(k)fluoranthene	ND	0.21	0.058	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 22:28	BGL
Benzoic Acid	ND	1.3	0.51	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 22:28	BGL
Bis(2-chloroethoxy)methane	ND	0.43	0.055	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 22:28	BGL
Bis(2-chloroethyl)ether	ND	0.43	0.058	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 22:28	BGL
Bis(2-chloroisopropyl)ether	ND	0.43	0.097	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 22:28	BGL
Bis(2-Ethylhexyl)phthalate	ND	0.43	0.072	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 22:28	BGL
4-Bromophenylphenylether	ND	0.43	0.054	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 22:28	BGL
Butylbenzylphthalate	ND	0.43	0.068	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 22:28	BGL
Carbazole	ND	0.21	0.070	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 22:28	BGL
4-Chloroaniline	ND	0.83	0.057	mg/Kg dry	1	V-34	SW-846 8270E	12/3/21	12/6/21 22:28	BGL
4-Chloro-3-methylphenol	ND	0.83	0.071	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 22:28	BGL
2-Chloronaphthalene	ND	0.43	0.049	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 22:28	BGL
2-Chlorophenol	ND	0.43	0.059	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 22:28	BGL
4-Chlorophenylphenylether	ND	0.43	0.061	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 22:28	BGL
Chrysene	ND	0.21	0.061	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 22:28	BGL
Dibenz(a,h)anthracene	ND	0.21	0.086	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 22:28	BGL
Dibenzofuran	ND	0.43	0.063	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 22:28	BGL
Di-n-butylphthalate	ND	0.43	0.060	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 22:28	BGL
1,2-Dichlorobenzene	ND	0.43	0.049	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 22:28	BGL
1,3-Dichlorobenzene	ND	0.43	0.047	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 22:28	BGL
1,4-Dichlorobenzene	ND	0.43	0.044	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 22:28	BGL
3,3-Dichlorobenzidine	ND	0.21	0.062	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 22:28	BGL
2,4-Dichlorophenol	ND	0.43	0.063	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 22:28	BGL
Diethylphthalate	ND	0.43	0.065	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 22:28	BGL
2,4-Dimethylphenol	ND	0.43	0.12	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 22:28	BGL
Dimethylphthalate	ND	0.43	0.062	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 22:28	BGL
4,6-Dinitro-2-methylphenol	ND	0.43	0.29	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 22:28	BGL
2,4-Dinitrophenol	ND	0.83	0.37	mg/Kg dry	1	V-04	SW-846 8270E	12/3/21	12/6/21 22:28	BGL
2,4-Dinitrotoluene	ND	0.43	0.083	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 22:28	BGL
2,6-Dinitrotoluene	ND	0.43	0.071	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 22:28	BGL
Di-n-octylphthalate	ND	0.43	0.15	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 22:28	BGL
1,2-Diphenylhydrazine/Azobenzene	ND	0.43	0.061	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 22:28	BGL
Fluoranthene	ND	0.21	0.068	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 22:28	BGL
Fluorene	ND	0.21	0.072	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 22:28	BGL

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Project Location: 1400 N. Royal St., Alexandria, VA Sample Description: Work Order: 21L0153

Date Received: 12/2/2021

Field Sample #: HRP-SB214-5-7-211014 Sampled: 10/14/2021 14:10

Sample ID: 21L0153-17

Sample Matrix: Soil

Sample Flags: H-10

Semivolatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Hexachlorobenzene	ND	0.43	0.058	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 22:28	BGL
Hexachlorobutadiene	ND	0.43	0.054	mg/Kg dry	1	V-05	SW-846 8270E	12/3/21	12/6/21 22:28	BGL
Hexachlorocyclopentadiene	ND	0.43	0.18	mg/Kg dry	1	V-05	SW-846 8270E	12/3/21	12/6/21 22:28	BGL
Hexachloroethane	ND	0.43	0.051	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 22:28	BGL
Indeno(1,2,3-cd)pyrene	ND	0.21	0.096	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 22:28	BGL
Isophorone	ND	0.43	0.071	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 22:28	BGL
1-Methylnaphthalene	ND	0.21	0.059	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 22:28	BGL
2-Methylnaphthalene	ND	0.21	0.067	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 22:28	BGL
2-Methylphenol	ND	0.43	0.079	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 22:28	BGL
3/4-Methylphenol	ND	0.43	0.069	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 22:28	BGL
Naphthalene	ND	0.21	0.058	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 22:28	BGL
2-Nitroaniline	ND	0.43	0.091	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 22:28	BGL
3-Nitroaniline	ND	0.43	0.072	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 22:28	BGL
4-Nitroaniline	ND	0.43	0.091	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 22:28	BGL
Nitrobenzene	ND	0.43	0.062	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 22:28	BGL
2-Nitrophenol	ND	0.43	0.067	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 22:28	BGL
4-Nitrophenol	ND	0.83	0.17	mg/Kg dry	1	V-05	SW-846 8270E	12/3/21	12/6/21 22:28	BGL
N-Nitrosodimethylamine	ND	0.43	0.064	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 22:28	BGL
N-Nitrosodiphenylamine/Diphenylamine	ND	0.43	0.064	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 22:28	BGL
N-Nitrosodi-n-propylamine	ND	0.43	0.059	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 22:28	BGL
Pentachloronitrobenzene	ND	0.43	0.072	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 22:28	BGL
Pentachlorophenol	ND	0.43	0.19	mg/Kg dry	1	V-05	SW-846 8270E	12/3/21	12/6/21 22:28	BGL
Phenanthrene	ND	0.21	0.067	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 22:28	BGL
Phenol	ND	0.43	0.061	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 22:28	BGL
Pyrene	ND	0.21	0.068	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 22:28	BGL
Pyridine	ND	0.43	0.043	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 22:28	BGL
1,2,4,5-Tetrachlorobenzene	ND	0.43	0.055	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 22:28	BGL
1,2,4-Trichlorobenzene	ND	0.43	0.053	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 22:28	BGL
2,4,5-Trichlorophenol	ND	0.43	0.066	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 22:28	BGL
2,4,6-Trichlorophenol	ND	0.43	0.066	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 22:28	BGL

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
2-Fluorophenol	67.9	30-130		12/6/21 22:28
Phenol-d6	66.6	30-130		12/6/21 22:28
Nitrobenzene-d5	64.6	30-130		12/6/21 22:28
2-Fluorobiphenyl	77.6	30-130		12/6/21 22:28
2,4,6-Tribromophenol	80.9	30-130		12/6/21 22:28
p-Terphenyl-d14	116	30-130		12/6/21 22:28

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Project Location: 1400 N. Royal St., Alexandria, VA Sample Description: Work Order: 21L0153

Date Received: 12/2/2021

Field Sample #: HRP-SB214-5-7-211014 Sampled: 10/14/2021 14:10

Sample ID: 21L0153-17

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	79.9		% Wt	1		SM 2540G	10/20/21	10/21/21 11:24	TDK

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Project Location: 1400 N. Royal St., Alexandria, VA Sample Description: Work Order: 21L0153

Date Received: 12/2/2021

Field Sample #: HRP-SB214-14-16-211014 Sampled: 10/14/2021 14:35

Sample ID: 21L0153-18

Sample Matrix: Soil

Sample Flags: H-10

Semivolatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acenaphthene	ND	0.18	0.055	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 22:54	BGL
Acenaphthylene	ND	0.18	0.054	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 22:54	BGL
Acetophenone	ND	0.35	0.048	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 22:54	BGL
Aniline	ND	0.35	0.073	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 22:54	BGL
Anthracene	ND	0.18	0.057	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 22:54	BGL
Benzidine	ND	0.68	0.16	mg/Kg dry	1	V-05	SW-846 8270E	12/3/21	12/6/21 22:54	BGL
Benzo(a)anthracene	ND	0.18	0.049	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 22:54	BGL
Benzo(a)pyrene	ND	0.18	0.054	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 22:54	BGL
Benzo(b)fluoranthene	ND	0.18	0.053	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 22:54	BGL
Benzo(g,h,i)perylene	ND	0.18	0.074	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 22:54	BGL
Benzo(k)fluoranthene	ND	0.18	0.048	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 22:54	BGL
Benzoic Acid	ND	1.0	0.42	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 22:54	BGL
Bis(2-chloroethoxy)methane	ND	0.35	0.046	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 22:54	BGL
Bis(2-chloroethyl)ether	ND	0.35	0.048	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 22:54	BGL
Bis(2-chloroisopropyl)ether	ND	0.35	0.080	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 22:54	BGL
Bis(2-Ethylhexyl)phthalate	ND	0.35	0.059	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 22:54	BGL
4-Bromophenylphenylether	ND	0.35	0.045	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 22:54	BGL
Butylbenzylphthalate	ND	0.35	0.056	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 22:54	BGL
Carbazole	ND	0.18	0.058	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 22:54	BGL
4-Chloroaniline	ND	0.68	0.047	mg/Kg dry	1	V-34	SW-846 8270E	12/3/21	12/6/21 22:54	BGL
4-Chloro-3-methylphenol	ND	0.68	0.058	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 22:54	BGL
2-Chloronaphthalene	ND	0.35	0.041	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 22:54	BGL
2-Chlorophenol	ND	0.35	0.049	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 22:54	BGL
4-Chlorophenylphenylether	ND	0.35	0.050	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 22:54	BGL
Chrysene	ND	0.18	0.051	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 22:54	BGL
Dibenz(a,h)anthracene	ND	0.18	0.071	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 22:54	BGL
Dibenzofuran	ND	0.35	0.052	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 22:54	BGL
Di-n-butylphthalate	ND	0.35	0.050	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 22:54	BGL
1,2-Dichlorobenzene	ND	0.35	0.040	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 22:54	BGL
1,3-Dichlorobenzene	ND	0.35	0.039	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 22:54	BGL
1,4-Dichlorobenzene	ND	0.35	0.037	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 22:54	BGL
3,3-Dichlorobenzidine	ND	0.18	0.051	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 22:54	BGL
2,4-Dichlorophenol	ND	0.35	0.052	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 22:54	BGL
Diethylphthalate	ND	0.35	0.054	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 22:54	BGL
2,4-Dimethylphenol	ND	0.35	0.096	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 22:54	BGL
Dimethylphthalate	ND	0.35	0.051	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 22:54	BGL
4,6-Dinitro-2-methylphenol	ND	0.35	0.24	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 22:54	BGL
2,4-Dinitrophenol	ND	0.68	0.30	mg/Kg dry	1	V-04	SW-846 8270E	12/3/21	12/6/21 22:54	BGL
2,4-Dinitrotoluene	ND	0.35	0.069	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 22:54	BGL
2,6-Dinitrotoluene	ND	0.35	0.058	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 22:54	BGL
Di-n-octylphthalate	ND	0.35	0.12	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 22:54	BGL
1,2-Diphenylhydrazine/Azobenzene	ND	0.35	0.051	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 22:54	BGL
Fluoranthene	ND	0.18	0.056	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 22:54	BGL
Fluorene	ND	0.18	0.059	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 22:54	BGL

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Project Location: 1400 N. Royal St., Alexandria, VA Sample Description: Work Order: 21L0153

Date Received: 12/2/2021

Field Sample #: HRP-SB214-14-16-211014 Sampled: 10/14/2021 14:35

Sample ID: 21L0153-18

Sample Matrix: Soil

Sample Flags: H-10

Semivolatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Hexachlorobenzene	ND	0.35	0.048	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 22:54	BGL
Hexachlorobutadiene	ND	0.35	0.045	mg/Kg dry	1	V-05	SW-846 8270E	12/3/21	12/6/21 22:54	BGL
Hexachlorocyclopentadiene	ND	0.35	0.15	mg/Kg dry	1	V-05	SW-846 8270E	12/3/21	12/6/21 22:54	BGL
Hexachloroethane	ND	0.35	0.042	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 22:54	BGL
Indeno(1,2,3-cd)pyrene	ND	0.18	0.080	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 22:54	BGL
Isophorone	ND	0.35	0.059	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 22:54	BGL
1-Methylnaphthalene	ND	0.18	0.049	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 22:54	BGL
2-Methylnaphthalene	ND	0.18	0.056	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 22:54	BGL
2-Methylphenol	ND	0.35	0.065	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 22:54	BGL
3/4-Methylphenol	ND	0.35	0.057	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 22:54	BGL
Naphthalene	ND	0.18	0.048	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 22:54	BGL
2-Nitroaniline	ND	0.35	0.075	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 22:54	BGL
3-Nitroaniline	ND	0.35	0.060	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 22:54	BGL
4-Nitroaniline	ND	0.35	0.076	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 22:54	BGL
Nitrobenzene	ND	0.35	0.051	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 22:54	BGL
2-Nitrophenol	ND	0.35	0.055	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 22:54	BGL
4-Nitrophenol	ND	0.68	0.14	mg/Kg dry	1	V-05	SW-846 8270E	12/3/21	12/6/21 22:54	BGL
N-Nitrosodimethylamine	ND	0.35	0.053	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 22:54	BGL
N-Nitrosodiphenylamine/Diphenylamine	ND	0.35	0.053	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 22:54	BGL
N-Nitrosodi-n-propylamine	ND	0.35	0.048	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 22:54	BGL
Pentachloronitrobenzene	ND	0.35	0.059	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 22:54	BGL
Pentachlorophenol	ND	0.35	0.15	mg/Kg dry	1	V-05	SW-846 8270E	12/3/21	12/6/21 22:54	BGL
Phenanthrene	ND	0.18	0.056	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 22:54	BGL
Phenol	ND	0.35	0.050	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 22:54	BGL
Pyrene	ND	0.18	0.056	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 22:54	BGL
Pyridine	ND	0.35	0.036	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 22:54	BGL
1,2,4,5-Tetrachlorobenzene	ND	0.35	0.046	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 22:54	BGL
1,2,4-Trichlorobenzene	ND	0.35	0.044	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 22:54	BGL
2,4,5-Trichlorophenol	ND	0.35	0.055	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 22:54	BGL
2,4,6-Trichlorophenol	ND	0.35	0.054	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 22:54	BGL

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
2-Fluorophenol	68.6	30-130		12/6/21 22:54
Phenol-d6	67.5	30-130		12/6/21 22:54
Nitrobenzene-d5	64.5	30-130		12/6/21 22:54
2-Fluorobiphenyl	76.0	30-130		12/6/21 22:54
2,4,6-Tribromophenol	80.7	30-130		12/6/21 22:54
p-Terphenyl-d14	118	30-130		12/6/21 22:54

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Project Location: 1400 N. Royal St., Alexandria, VA Sample Description: Work Order: 21L0153

Date Received: 12/2/2021

Field Sample #: HRP-SB214-14-16-211014 Sampled: 10/14/2021 14:35

Sample ID: 21L0153-18

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	96.6		% Wt	1		SM 2540G	10/20/21	10/21/21 11:24	TDK

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Project Location: 1400 N. Royal St., Alexandria, VA Sample Description: Work Order: 21L0153

Date Received: 12/2/2021

Field Sample #: HRP-SB211-15-17-211015 Sampled: 10/15/2021 12:50

Sample ID: 21L0153-19

Sample Matrix: Soil

Sample Flags: H-10

Semivolatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acenaphthene	ND	0.19	0.058	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 23:20	BGL
Acenaphthylene	ND	0.19	0.057	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 23:20	BGL
Acetophenone	ND	0.37	0.051	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 23:20	BGL
Aniline	ND	0.37	0.078	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 23:20	BGL
Anthracene	ND	0.19	0.061	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 23:20	BGL
Benzidine	ND	0.72	0.17	mg/Kg dry	1	V-05	SW-846 8270E	12/3/21	12/6/21 23:20	BGL
Benzo(a)anthracene	ND	0.19	0.052	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 23:20	BGL
Benzo(a)pyrene	ND	0.19	0.057	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 23:20	BGL
Benzo(b)fluoranthene	ND	0.19	0.056	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 23:20	BGL
Benzo(g,h,i)perylene	ND	0.19	0.078	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 23:20	BGL
Benzo(k)fluoranthene	ND	0.19	0.050	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 23:20	BGL
Benzoic Acid	ND	1.1	0.44	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 23:20	BGL
Bis(2-chloroethoxy)methane	ND	0.37	0.048	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 23:20	BGL
Bis(2-chloroethyl)ether	ND	0.37	0.051	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 23:20	BGL
Bis(2-chloroisopropyl)ether	ND	0.37	0.085	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 23:20	BGL
Bis(2-Ethylhexyl)phthalate	ND	0.37	0.063	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 23:20	BGL
4-Bromophenylphenylether	ND	0.37	0.048	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 23:20	BGL
Butylbenzylphthalate	ND	0.37	0.059	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 23:20	BGL
Carbazole	ND	0.19	0.061	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 23:20	BGL
4-Chloroaniline	ND	0.72	0.049	mg/Kg dry	1	V-34	SW-846 8270E	12/3/21	12/6/21 23:20	BGL
4-Chloro-3-methylphenol	ND	0.72	0.062	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 23:20	BGL
2-Chloronaphthalene	ND	0.37	0.043	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 23:20	BGL
2-Chlorophenol	ND	0.37	0.052	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 23:20	BGL
4-Chlorophenylphenylether	ND	0.37	0.053	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 23:20	BGL
Chrysene	ND	0.19	0.054	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 23:20	BGL
Dibenz(a,h)anthracene	ND	0.19	0.076	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 23:20	BGL
Dibenzofuran	ND	0.37	0.055	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 23:20	BGL
Di-n-butylphthalate	ND	0.37	0.053	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 23:20	BGL
1,2-Dichlorobenzene	ND	0.37	0.042	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 23:20	BGL
1,3-Dichlorobenzene	ND	0.37	0.041	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 23:20	BGL
1,4-Dichlorobenzene	ND	0.37	0.039	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 23:20	BGL
3,3-Dichlorobenzidine	ND	0.19	0.054	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 23:20	BGL
2,4-Dichlorophenol	ND	0.37	0.055	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 23:20	BGL
Diethylphthalate	ND	0.37	0.057	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 23:20	BGL
2,4-Dimethylphenol	ND	0.37	0.10	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 23:20	BGL
Dimethylphthalate	ND	0.37	0.054	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 23:20	BGL
4,6-Dinitro-2-methylphenol	ND	0.37	0.25	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 23:20	BGL
2,4-Dinitrophenol	ND	0.72	0.32	mg/Kg dry	1	V-04	SW-846 8270E	12/3/21	12/6/21 23:20	BGL
2,4-Dinitrotoluene	ND	0.37	0.073	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 23:20	BGL
2,6-Dinitrotoluene	ND	0.37	0.062	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 23:20	BGL
Di-n-octylphthalate	ND	0.37	0.13	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 23:20	BGL
1,2-Diphenylhydrazine/Azobenzene	ND	0.37	0.053	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 23:20	BGL
Fluoranthene	ND	0.19	0.059	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 23:20	BGL
Fluorene	ND	0.19	0.063	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 23:20	BGL

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Project Location: 1400 N. Royal St., Alexandria, VA Sample Description: Work Order: 21L0153

Date Received: 12/2/2021

Field Sample #: HRP-SB211-15-17-211015 Sampled: 10/15/2021 12:50

Sample ID: 21L0153-19

Sample Matrix: Soil

Sample Flags: H-10

Semivolatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Hexachlorobenzene	ND	0.37	0.050	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 23:20	BGL
Hexachlorobutadiene	ND	0.37	0.048	mg/Kg dry	1	V-05	SW-846 8270E	12/3/21	12/6/21 23:20	BGL
Hexachlorocyclopentadiene	ND	0.37	0.16	mg/Kg dry	1	V-05	SW-846 8270E	12/3/21	12/6/21 23:20	BGL
Hexachloroethane	ND	0.37	0.044	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 23:20	BGL
Indeno(1,2,3-cd)pyrene	ND	0.19	0.084	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 23:20	BGL
Isophorone	ND	0.37	0.062	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 23:20	BGL
1-Methylnaphthalene	0.12	0.19	0.051	mg/Kg dry	1	J	SW-846 8270E	12/3/21	12/6/21 23:20	BGL
2-Methylnaphthalene	0.20	0.19	0.059	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 23:20	BGL
2-Methylphenol	ND	0.37	0.069	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 23:20	BGL
3/4-Methylphenol	ND	0.37	0.060	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 23:20	BGL
Naphthalene	0.13	0.19	0.051	mg/Kg dry	1	J	SW-846 8270E	12/3/21	12/6/21 23:20	BGL
2-Nitroaniline	ND	0.37	0.079	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 23:20	BGL
3-Nitroaniline	ND	0.37	0.063	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 23:20	BGL
4-Nitroaniline	ND	0.37	0.080	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 23:20	BGL
Nitrobenzene	ND	0.37	0.054	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 23:20	BGL
2-Nitrophenol	ND	0.37	0.058	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 23:20	BGL
4-Nitrophenol	ND	0.72	0.15	mg/Kg dry	1	V-05	SW-846 8270E	12/3/21	12/6/21 23:20	BGL
N-Nitrosodimethylamine	ND	0.37	0.056	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 23:20	BGL
N-Nitrosodiphenylamine/Diphenylamine	ND	0.37	0.056	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 23:20	BGL
N-Nitrosodi-n-propylamine	ND	0.37	0.051	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 23:20	BGL
Pentachloronitrobenzene	ND	0.37	0.063	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 23:20	BGL
Pentachlorophenol	ND	0.37	0.16	mg/Kg dry	1	V-05	SW-846 8270E	12/3/21	12/6/21 23:20	BGL
Phenanthrene	0.074	0.19	0.059	mg/Kg dry	1	J	SW-846 8270E	12/3/21	12/6/21 23:20	BGL
Phenol	ND	0.37	0.053	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 23:20	BGL
Pyrene	ND	0.19	0.059	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 23:20	BGL
Pyridine	ND	0.37	0.038	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 23:20	BGL
1,2,4,5-Tetrachlorobenzene	ND	0.37	0.048	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 23:20	BGL
1,2,4-Trichlorobenzene	ND	0.37	0.047	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 23:20	BGL
2,4,5-Trichlorophenol	ND	0.37	0.058	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 23:20	BGL
2,4,6-Trichlorophenol	ND	0.37	0.057	mg/Kg dry	1		SW-846 8270E	12/3/21	12/6/21 23:20	BGL

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
2-Fluorophenol	70.9	30-130		12/6/21 23:20
Phenol-d6	71.0	30-130		12/6/21 23:20
Nitrobenzene-d5	68.0	30-130		12/6/21 23:20
2-Fluorobiphenyl	80.0	30-130		12/6/21 23:20
2,4,6-Tribromophenol	82.7	30-130		12/6/21 23:20
p-Terphenyl-d14	107	30-130		12/6/21 23:20

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Project Location: 1400 N. Royal St., Alexandria, VA Sample Description: Work Order: 21L0153

Date Received: 12/2/2021

Field Sample #: HRP-SB211-15-17-211015 Sampled: 10/15/2021 12:50

Sample ID: 21L0153-19

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	91.3		% Wt	1		SM 2540G	10/20/21	10/22/21 15:12	TDK

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Sample Extraction Data

Prep Method: % Solids **Analytical Method: SM 2540G**

Lab Number [Field ID]	Batch	Date
21L0153-01 [HRP-SB213-0-1-211015]	B292869	10/20/21
21L0153-02 [HRP-SB213-5-7-211015]	B292869	10/20/21
21L0153-03 [HRP-SB213-16-18-211015]	B292869	10/20/21
21L0153-04 [HRP-SB212-0-2-211015]	B292869	10/20/21
21L0153-05 [HRP-DUP04-0-2-211015]	B292869	10/20/21
21L0153-06 [HRP-SB212-5-7-211015]	B292869	10/20/21
21L0153-07 [HRP-SB212-15-17-211015]	B292869	10/20/21
21L0153-08 [HRP-SB211-0-1-211015]	B292869	10/20/21
21L0153-09 [HRP-SB211-5-7-211015]	B292869	10/20/21
21L0153-10 [HRP-SB209-0-1-211013]	B292869	10/20/21
21L0153-11 [HRP-SB209-5-7-211013]	B292869	10/20/21
21L0153-12 [HRP-SB209-15-17-211013]	B292869	10/20/21
21L0153-13 [HRP-SB208-0-1-211014]	B292869	10/20/21
21L0153-14 [HRP-MW208-5-7-211014]	B292869	10/20/21
21L0153-15 [HRP-SB208-18-20-211014]	B292869	10/20/21
21L0153-17 [HRP-SB214-5-7-211014]	B292869	10/20/21
21L0153-18 [HRP-SB214-14-16-211014]	B292869	10/20/21

Prep Method: % Solids **Analytical Method: SM 2540G**

Lab Number [Field ID]	Batch	Date
21L0153-16 [HRP-SB214-0-2-211014]	B292891	10/20/21
21L0153-19 [HRP-SB211-15-17-211015]	B292891	10/20/21

Prep Method: SW-846 3546 **Analytical Method: SW-846 8270E**

Lab Number [Field ID]	Batch	Initial [g]	Final [mL]	Date
21L0153-01 [HRP-SB213-0-1-211015]	B296003	30.0	1.00	12/03/21
21L0153-02 [HRP-SB213-5-7-211015]	B296003	30.0	1.00	12/03/21
21L0153-03 [HRP-SB213-16-18-211015]	B296003	30.0	1.00	12/03/21
21L0153-04 [HRP-SB212-0-2-211015]	B296003	30.0	1.00	12/03/21
21L0153-05 [HRP-DUP04-0-2-211015]	B296003	30.0	1.00	12/03/21
21L0153-06 [HRP-SB212-5-7-211015]	B296003	30.0	1.00	12/03/21
21L0153-07 [HRP-SB212-15-17-211015]	B296003	30.0	1.00	12/03/21
21L0153-08 [HRP-SB211-0-1-211015]	B296003	30.0	1.00	12/03/21
21L0153-09 [HRP-SB211-5-7-211015]	B296003	30.0	1.00	12/03/21
21L0153-10 [HRP-SB209-0-1-211013]	B296003	30.0	1.00	12/03/21
21L0153-11 [HRP-SB209-5-7-211013]	B296003	30.0	1.00	12/03/21
21L0153-12 [HRP-SB209-15-17-211013]	B296003	30.0	1.00	12/03/21
21L0153-13 [HRP-SB208-0-1-211014]	B296003	30.0	1.00	12/03/21
21L0153-14 [HRP-MW208-5-7-211014]	B296003	30.0	1.00	12/03/21
21L0153-15 [HRP-SB208-18-20-211014]	B296003	30.0	1.00	12/03/21
21L0153-16 [HRP-SB214-0-2-211014]	B296003	30.0	1.00	12/03/21
21L0153-17 [HRP-SB214-5-7-211014]	B296003	30.0	1.00	12/03/21
21L0153-18 [HRP-SB214-14-16-211014]	B296003	30.0	1.00	12/03/21
21L0153-19 [HRP-SB211-15-17-211015]	B296003	30.0	1.00	12/03/21

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QUALITY CONTROL

Semivolatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B296003 - SW-846 3546										
Blank (B296003-BLK1)				Prepared: 12/03/21 Analyzed: 12/06/21						
Acenaphthene	ND	0.17	mg/Kg wet							
Acenaphthylene	ND	0.17	mg/Kg wet							
Acetophenone	ND	0.34	mg/Kg wet							
Aniline	ND	0.34	mg/Kg wet							
Anthracene	ND	0.17	mg/Kg wet							
Benzidine	ND	0.66	mg/Kg wet							V-05
Benzo(a)anthracene	ND	0.17	mg/Kg wet							
Benzo(a)pyrene	ND	0.17	mg/Kg wet							
Benzo(b)fluoranthene	ND	0.17	mg/Kg wet							
Benzo(g,h,i)perylene	ND	0.17	mg/Kg wet							
Benzo(k)fluoranthene	ND	0.17	mg/Kg wet							
Benzoic Acid	ND	1.0	mg/Kg wet							
Bis(2-chloroethoxy)methane	ND	0.34	mg/Kg wet							
Bis(2-chloroethyl)ether	ND	0.34	mg/Kg wet							
Bis(2-chloroisopropyl)ether	ND	0.34	mg/Kg wet							
Bis(2-Ethylhexyl)phthalate	ND	0.34	mg/Kg wet							
4-Bromophenylphenylether	ND	0.34	mg/Kg wet							
Butylbenzylphthalate	ND	0.34	mg/Kg wet							
Carbazole	ND	0.17	mg/Kg wet							
4-Chloroaniline	ND	0.66	mg/Kg wet							V-34
4-Chloro-3-methylphenol	ND	0.66	mg/Kg wet							
2-Chloronaphthalene	ND	0.34	mg/Kg wet							
2-Chlorophenol	ND	0.34	mg/Kg wet							
4-Chlorophenylphenylether	ND	0.34	mg/Kg wet							
Chrysene	ND	0.17	mg/Kg wet							
Dibenz(a,h)anthracene	ND	0.17	mg/Kg wet							
Dibenzofuran	ND	0.34	mg/Kg wet							
Di-n-butylphthalate	ND	0.34	mg/Kg wet							
1,2-Dichlorobenzene	ND	0.34	mg/Kg wet							
1,3-Dichlorobenzene	ND	0.34	mg/Kg wet							
1,4-Dichlorobenzene	ND	0.34	mg/Kg wet							
3,3-Dichlorobenzidine	ND	0.17	mg/Kg wet							
2,4-Dichlorophenol	ND	0.34	mg/Kg wet							
Diethylphthalate	ND	0.34	mg/Kg wet							
2,4-Dimethylphenol	ND	0.34	mg/Kg wet							
Dimethylphthalate	ND	0.34	mg/Kg wet							
4,6-Dinitro-2-methylphenol	ND	0.34	mg/Kg wet							
2,4-Dinitrophenol	ND	0.66	mg/Kg wet							V-04
2,4-Dinitrotoluene	ND	0.34	mg/Kg wet							
2,6-Dinitrotoluene	ND	0.34	mg/Kg wet							
Di-n-octylphthalate	ND	0.34	mg/Kg wet							
1,2-Diphenylhydrazine/Azobenzene	ND	0.34	mg/Kg wet							
Fluoranthene	ND	0.17	mg/Kg wet							
Fluorene	ND	0.17	mg/Kg wet							
Hexachlorobenzene	ND	0.34	mg/Kg wet							
Hexachlorobutadiene	ND	0.34	mg/Kg wet							V-05
Hexachlorocyclopentadiene	ND	0.34	mg/Kg wet							V-05
Hexachloroethane	ND	0.34	mg/Kg wet							
Indeno(1,2,3-cd)pyrene	ND	0.17	mg/Kg wet							
Isophorone	ND	0.34	mg/Kg wet							
1-Methylnaphthalene	ND	0.17	mg/Kg wet							
2-Methylnaphthalene	ND	0.17	mg/Kg wet							

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QUALITY CONTROL

Semivolatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes	
Batch B296003 - SW-846 3546											
Blank (B296003-BLK1)				Prepared: 12/03/21 Analyzed: 12/06/21							
2-Methylphenol	ND	0.34	mg/Kg wet								
3/4-Methylphenol	ND	0.34	mg/Kg wet								
Naphthalene	ND	0.17	mg/Kg wet								
2-Nitroaniline	ND	0.34	mg/Kg wet								
3-Nitroaniline	ND	0.34	mg/Kg wet								
4-Nitroaniline	ND	0.34	mg/Kg wet								
Nitrobenzene	ND	0.34	mg/Kg wet								
2-Nitrophenol	ND	0.34	mg/Kg wet								
4-Nitrophenol	ND	0.66	mg/Kg wet							V-05	
N-Nitrosodimethylamine	ND	0.34	mg/Kg wet								
N-Nitrosodiphenylamine/Diphenylamine	ND	0.34	mg/Kg wet								
N-Nitrosodi-n-propylamine	ND	0.34	mg/Kg wet								
Pentachloronitrobenzene	ND	0.34	mg/Kg wet								
Pentachlorophenol	ND	0.34	mg/Kg wet							V-05	
Phenanthrene	ND	0.17	mg/Kg wet								
Phenol	ND	0.34	mg/Kg wet								
Pyrene	ND	0.17	mg/Kg wet								
Pyridine	ND	0.34	mg/Kg wet								
1,2,4,5-Tetrachlorobenzene	ND	0.34	mg/Kg wet								
1,2,4-Trichlorobenzene	ND	0.34	mg/Kg wet								
2,4,5-Trichlorophenol	ND	0.34	mg/Kg wet								
2,4,6-Trichlorophenol	ND	0.34	mg/Kg wet								
Surrogate: 2-Fluorophenol	*4.34*		mg/Kg wet	6.67		65.1	30-130				
Surrogate: Phenol-d6	*4.18*		mg/Kg wet	6.67		62.7	30-130				
Surrogate: Nitrobenzene-d5	*2.04*		mg/Kg wet	3.33		61.2	30-130				
Surrogate: 2-Fluorobiphenyl	*2.48*		mg/Kg wet	3.33		74.5	30-130				
Surrogate: 2,4,6-Tribromophenol	*5.89*		mg/Kg wet	6.67		88.4	30-130				
Surrogate: p-Terphenyl-d14	*4.29*		mg/Kg wet	3.33		129	30-130				
LCS (B296003-BS1)				Prepared: 12/03/21 Analyzed: 12/06/21							
Acenaphthene	1.31	0.17	mg/Kg wet	1.67		78.4	40-140				
Acenaphthylene	1.51	0.17	mg/Kg wet	1.67		90.7	40-140				
Acetophenone	1.22	0.34	mg/Kg wet	1.67		73.4	40-140				
Aniline	0.993	0.34	mg/Kg wet	1.67		59.6	10-140				†
Anthracene	1.45	0.17	mg/Kg wet	1.67		86.9	40-140				
Benzidine	1.63	0.66	mg/Kg wet	1.67		97.8	40-140			V-05	
Benzo(a)anthracene	1.39	0.17	mg/Kg wet	1.67		83.6	40-140				
Benzo(a)pyrene	1.56	0.17	mg/Kg wet	1.67		93.9	40-140				
Benzo(b)fluoranthene	1.48	0.17	mg/Kg wet	1.67		89.0	40-140				
Benzo(g,h,i)perylene	1.56	0.17	mg/Kg wet	1.67		93.5	40-140				
Benzo(k)fluoranthene	1.68	0.17	mg/Kg wet	1.67		101	40-140				
Benzoic Acid	1.06	1.0	mg/Kg wet	1.67		63.5	30-130				
Bis(2-chloroethoxy)methane	1.32	0.34	mg/Kg wet	1.67		79.0	40-140				
Bis(2-chloroethyl)ether	1.35	0.34	mg/Kg wet	1.67		81.1	40-140				
Bis(2-chloroisopropyl)ether	1.81	0.34	mg/Kg wet	1.67		109	40-140				
Bis(2-Ethylhexyl)phthalate	1.50	0.34	mg/Kg wet	1.67		90.3	40-140				
4-Bromophenylphenylether	1.31	0.34	mg/Kg wet	1.67		78.7	40-140				
Butylbenzylphthalate	1.48	0.34	mg/Kg wet	1.67		88.6	40-140				
Carbazole	1.51	0.17	mg/Kg wet	1.67		90.5	40-140				
4-Chloroaniline	0.863	0.66	mg/Kg wet	1.67		51.8	10-140			V-34	†
4-Chloro-3-methylphenol	1.35	0.66	mg/Kg wet	1.67		81.0	30-130				
2-Chloronaphthalene	1.35	0.34	mg/Kg wet	1.67		81.1	40-140				

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QUALITY CONTROL

Semivolatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes	
Batch B296003 - SW-846 3546											
LCS (B296003-BS1)				Prepared: 12/03/21 Analyzed: 12/06/21							
2-Chlorophenol	1.37	0.34	mg/Kg wet	1.67		82.0	30-130				
4-Chlorophenylphenylether	1.28	0.34	mg/Kg wet	1.67		76.8	40-140				
Chrysene	1.47	0.17	mg/Kg wet	1.67		88.4	40-140				
Dibenz(a,h)anthracene	1.56	0.17	mg/Kg wet	1.67		93.4	40-140				
Dibenzofuran	1.47	0.34	mg/Kg wet	1.67		88.0	40-140				
Di-n-butylphthalate	1.49	0.34	mg/Kg wet	1.67		89.4	40-140				
1,2-Dichlorobenzene	1.21	0.34	mg/Kg wet	1.67		72.6	40-140				
1,3-Dichlorobenzene	1.16	0.34	mg/Kg wet	1.67		69.8	40-140				
1,4-Dichlorobenzene	1.20	0.34	mg/Kg wet	1.67		71.7	40-140				
3,3-Dichlorobenzidine	0.963	0.17	mg/Kg wet	1.67		57.8	20-140				†
2,4-Dichlorophenol	1.28	0.34	mg/Kg wet	1.67		76.8	30-130				
Diethylphthalate	1.35	0.34	mg/Kg wet	1.67		80.7	40-140				
2,4-Dimethylphenol	1.38	0.34	mg/Kg wet	1.67		82.8	30-130				
Dimethylphthalate	1.39	0.34	mg/Kg wet	1.67		83.3	40-140				
4,6-Dinitro-2-methylphenol	1.45	0.34	mg/Kg wet	1.67		87.0	30-130				
2,4-Dinitrophenol	1.53	0.66	mg/Kg wet	1.67		91.8	30-130			V-04	
2,4-Dinitrotoluene	1.61	0.34	mg/Kg wet	1.67		96.8	40-140				
2,6-Dinitrotoluene	1.65	0.34	mg/Kg wet	1.67		99.2	40-140				
Di-n-octylphthalate	1.34	0.34	mg/Kg wet	1.67		80.7	40-140				
1,2-Diphenylhydrazine/Azobenzene	1.31	0.34	mg/Kg wet	1.67		78.7	40-140				
Fluoranthene	1.45	0.17	mg/Kg wet	1.67		87.0	40-140				
Fluorene	1.39	0.17	mg/Kg wet	1.67		83.5	40-140				
Hexachlorobenzene	1.40	0.34	mg/Kg wet	1.67		84.3	40-140				
Hexachlorobutadiene	1.05	0.34	mg/Kg wet	1.67		63.2	40-140			V-05	
Hexachlorocyclopentadiene	0.667	0.34	mg/Kg wet	1.67		40.0	40-140			V-05	
Hexachloroethane	1.13	0.34	mg/Kg wet	1.67		67.6	40-140				
Indeno(1,2,3-cd)pyrene	1.47	0.17	mg/Kg wet	1.67		88.2	40-140				
Isophorone	1.31	0.34	mg/Kg wet	1.67		78.6	40-140				
1-Methylnaphthalene	1.24	0.17	mg/Kg wet	1.67		74.5	40-140				
2-Methylnaphthalene	1.54	0.17	mg/Kg wet	1.67		92.7	40-140				
2-Methylphenol	1.35	0.34	mg/Kg wet	1.67		81.2	30-130				
3/4-Methylphenol	1.36	0.34	mg/Kg wet	1.67		81.8	30-130				
Naphthalene	1.32	0.17	mg/Kg wet	1.67		79.4	40-140				
2-Nitroaniline	1.56	0.34	mg/Kg wet	1.67		93.9	40-140				
3-Nitroaniline	1.24	0.34	mg/Kg wet	1.67		74.3	30-140				†
4-Nitroaniline	1.62	0.34	mg/Kg wet	1.67		97.2	40-140				
Nitrobenzene	1.18	0.34	mg/Kg wet	1.67		71.1	40-140				
2-Nitrophenol	1.43	0.34	mg/Kg wet	1.67		85.8	30-130				
4-Nitrophenol	1.20	0.66	mg/Kg wet	1.67		72.1	30-130			V-05	
N-Nitrosodimethylamine	1.35	0.34	mg/Kg wet	1.67		81.3	40-140				
N-Nitrosodiphenylamine/Diphenylamine	1.59	0.34	mg/Kg wet	1.67		95.6	40-140				
N-Nitrosodi-n-propylamine	1.29	0.34	mg/Kg wet	1.67		77.2	40-140				
Pentachloronitrobenzene	1.40	0.34	mg/Kg wet	1.67		83.7	40-140				
Pentachlorophenol	1.03	0.34	mg/Kg wet	1.67		61.7	30-130			V-05	
Phenanthrene	1.46	0.17	mg/Kg wet	1.67		87.3	40-140				
Phenol	1.33	0.34	mg/Kg wet	1.67		79.5	30-130				
Pyrene	1.54	0.17	mg/Kg wet	1.67		92.5	40-140				
Pyridine	0.744	0.34	mg/Kg wet	1.67		44.6	30-140				†
1,2,4,5-Tetrachlorobenzene	1.25	0.34	mg/Kg wet	1.67		75.3	40-140				
1,2,4-Trichlorobenzene	1.17	0.34	mg/Kg wet	1.67		70.0	40-140				
2,4,5-Trichlorophenol	1.45	0.34	mg/Kg wet	1.67		86.9	30-130				
2,4,6-Trichlorophenol	1.37	0.34	mg/Kg wet	1.67		82.3	30-130				

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QUALITY CONTROL

Semivolatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes	
Batch B296003 - SW-846 3546											
LCS (B296003-BS1)				Prepared: 12/03/21 Analyzed: 12/06/21							
Surrogate: 2-Fluorophenol	*5.49*		mg/Kg wet	6.67		82.3	30-130				
Surrogate: Phenol-d6	*5.35*		mg/Kg wet	6.67		80.3	30-130				
Surrogate: Nitrobenzene-d5	*2.57*		mg/Kg wet	3.33		77.2	30-130				
Surrogate: 2-Fluorobiphenyl	*2.96*		mg/Kg wet	3.33		88.8	30-130				
Surrogate: 2,4,6-Tribromophenol	*6.10*		mg/Kg wet	6.67		91.5	30-130				
Surrogate: p-Terphenyl-d14	*4.34*		mg/Kg wet	3.33		130	30-130			S-07	
LCS Dup (B296003-BSD1)				Prepared: 12/03/21 Analyzed: 12/06/21							
Acenaphthene	1.28	0.17	mg/Kg wet	1.67		76.8	40-140	2.14	30		
Acenaphthylene	1.46	0.17	mg/Kg wet	1.67		87.5	40-140	3.57	30		
Acetophenone	1.14	0.34	mg/Kg wet	1.67		68.4	40-140	6.97	30		
Aniline	0.971	0.34	mg/Kg wet	1.67		58.3	10-140	2.17	50		† ‡
Anthracene	1.40	0.17	mg/Kg wet	1.67		84.0	40-140	3.37	30		
Benzidine	1.58	0.66	mg/Kg wet	1.67		94.6	40-140	3.33	30	V-05	
Benzo(a)anthracene	1.35	0.17	mg/Kg wet	1.67		80.8	40-140	3.43	30		
Benzo(a)pyrene	1.53	0.17	mg/Kg wet	1.67		91.8	40-140	2.20	30		
Benzo(b)fluoranthene	1.48	0.17	mg/Kg wet	1.67		88.6	40-140	0.496	30		
Benzo(g,h,i)perylene	1.56	0.17	mg/Kg wet	1.67		93.5	40-140	0.0214	30		
Benzo(k)fluoranthene	1.58	0.17	mg/Kg wet	1.67		94.7	40-140	6.08	30		
Benzoic Acid	1.12	1.0	mg/Kg wet	1.67		67.3	30-130	5.87	50		‡
Bis(2-chloroethoxy)methane	1.26	0.34	mg/Kg wet	1.67		75.4	40-140	4.64	30		
Bis(2-chloroethyl)ether	1.22	0.34	mg/Kg wet	1.67		73.4	40-140	9.96	30		
Bis(2-chloroisopropyl)ether	1.71	0.34	mg/Kg wet	1.67		103	40-140	5.77	30		
Bis(2-Ethylhexyl)phthalate	1.52	0.34	mg/Kg wet	1.67		91.0	40-140	0.839	30		
4-Bromophenylphenylether	1.30	0.34	mg/Kg wet	1.67		77.7	40-140	1.28	30		
Butylbenzylphthalate	1.46	0.34	mg/Kg wet	1.67		87.6	40-140	1.09	30		
Carbazole	1.43	0.17	mg/Kg wet	1.67		85.7	40-140	5.38	30		
4-Chloroaniline	0.817	0.66	mg/Kg wet	1.67		49.0	10-140	5.40	30	V-34	†
4-Chloro-3-methylphenol	1.28	0.66	mg/Kg wet	1.67		76.7	30-130	5.35	30		
2-Chloronaphthalene	1.33	0.34	mg/Kg wet	1.67		79.6	40-140	1.89	30		
2-Chlorophenol	1.22	0.34	mg/Kg wet	1.67		73.0	30-130	11.6	30		
4-Chlorophenylphenylether	1.26	0.34	mg/Kg wet	1.67		75.7	40-140	1.39	30		
Chrysene	1.42	0.17	mg/Kg wet	1.67		85.2	40-140	3.78	30		
Dibenz(a,h)anthracene	1.56	0.17	mg/Kg wet	1.67		93.8	40-140	0.427	30		
Dibenzofuran	1.42	0.34	mg/Kg wet	1.67		85.1	40-140	3.35	30		
Di-n-butylphthalate	1.47	0.34	mg/Kg wet	1.67		88.3	40-140	1.22	30		
1,2-Dichlorobenzene	1.10	0.34	mg/Kg wet	1.67		66.0	40-140	9.53	30		
1,3-Dichlorobenzene	1.07	0.34	mg/Kg wet	1.67		64.4	40-140	8.01	30		
1,4-Dichlorobenzene	1.08	0.34	mg/Kg wet	1.67		65.0	40-140	9.86	30		
3,3-Dichlorobenzidine	0.936	0.17	mg/Kg wet	1.67		56.2	20-140	2.84	50		† ‡
2,4-Dichlorophenol	1.22	0.34	mg/Kg wet	1.67		73.1	30-130	4.99	30		
Diethylphthalate	1.33	0.34	mg/Kg wet	1.67		79.8	40-140	1.15	30		
2,4-Dimethylphenol	1.30	0.34	mg/Kg wet	1.67		77.9	30-130	6.12	30		
Dimethylphthalate	1.35	0.34	mg/Kg wet	1.67		80.8	40-140	3.00	30		
4,6-Dinitro-2-methylphenol	1.40	0.34	mg/Kg wet	1.67		84.0	30-130	3.49	30		
2,4-Dinitrophenol	1.41	0.66	mg/Kg wet	1.67		84.8	30-130	7.93	30	V-04	
2,4-Dinitrotoluene	1.56	0.34	mg/Kg wet	1.67		93.4	40-140	3.62	30		
2,6-Dinitrotoluene	1.65	0.34	mg/Kg wet	1.67		98.8	40-140	0.384	30		
Di-n-octylphthalate	1.37	0.34	mg/Kg wet	1.67		82.2	40-140	1.94	30		
1,2-Diphenylhydrazine/Azobenzene	1.27	0.34	mg/Kg wet	1.67		76.0	40-140	3.52	30		
Fluoranthene	1.38	0.17	mg/Kg wet	1.67		82.6	40-140	5.17	30		
Fluorene	1.36	0.17	mg/Kg wet	1.67		81.5	40-140	2.38	30		

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QUALITY CONTROL

Semivolatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC		%REC Limits	RPD	RPD Limit	Notes	
Batch B296003 - SW-846 3546												
LCS Dup (B296003-BSD1)				Prepared: 12/03/21 Analyzed: 12/06/21								
Hexachlorobenzene	1.40	0.34	mg/Kg wet	1.67		83.7		40-140	0.666	30		
Hexachlorobutadiene	1.01	0.34	mg/Kg wet	1.67		60.8		40-140	3.90	30	V-05	
Hexachlorocyclopentadiene	0.646	0.34	mg/Kg wet	1.67		**38.8**	*	40-140	3.15	30	L-07, V-05	
Hexachloroethane	0.998	0.34	mg/Kg wet	1.67		59.9		40-140	12.1	30		
Indeno(1,2,3-cd)pyrene	1.56	0.17	mg/Kg wet	1.67		93.8		40-140	6.22	30		
Isophorone	1.24	0.34	mg/Kg wet	1.67		74.5		40-140	5.33	30		
1-Methylnaphthalene	1.18	0.17	mg/Kg wet	1.67		70.5		40-140	5.49	30		
2-Methylnaphthalene	1.46	0.17	mg/Kg wet	1.67		87.3		40-140	5.93	30		
2-Methylphenol	1.23	0.34	mg/Kg wet	1.67		73.9		30-130	9.39	30		
3/4-Methylphenol	1.26	0.34	mg/Kg wet	1.67		75.4		30-130	8.07	30		
Naphthalene	1.24	0.17	mg/Kg wet	1.67		74.7		40-140	6.13	30		
2-Nitroaniline	1.49	0.34	mg/Kg wet	1.67		89.6		40-140	4.62	30		
3-Nitroaniline	1.23	0.34	mg/Kg wet	1.67		73.9		30-140	0.513	30		†
4-Nitroaniline	1.52	0.34	mg/Kg wet	1.67		91.4		40-140	6.15	30		
Nitrobenzene	1.10	0.34	mg/Kg wet	1.67		66.1		40-140	7.26	30		
2-Nitrophenol	1.37	0.34	mg/Kg wet	1.67		82.1		30-130	4.38	30		
4-Nitrophenol	1.17	0.66	mg/Kg wet	1.67		70.0		30-130	2.90	50	V-05	‡
N-Nitrosodimethylamine	1.23	0.34	mg/Kg wet	1.67		73.7		40-140	9.81	30		
N-Nitrosodiphenylamine/Diphenylamine	1.55	0.34	mg/Kg wet	1.67		92.9		40-140	2.87	30		
N-Nitrosodi-n-propylamine	1.19	0.34	mg/Kg wet	1.67		71.6		40-140	7.50	30		
Pentachloronitrobenzene	1.43	0.34	mg/Kg wet	1.67		85.5		40-140	2.15	30		
Pentachlorophenol	1.01	0.34	mg/Kg wet	1.67		60.5		30-130	1.90	30	V-05	
Phenanthrene	1.40	0.17	mg/Kg wet	1.67		84.2		40-140	3.66	30		
Phenol	1.18	0.34	mg/Kg wet	1.67		70.9		30-130	11.5	30		
Pyrene	1.50	0.17	mg/Kg wet	1.67		89.9		40-140	2.85	30		
Pyridine	0.676	0.34	mg/Kg wet	1.67		40.6		30-140	9.48	30		†
1,2,4,5-Tetrachlorobenzene	1.23	0.34	mg/Kg wet	1.67		73.9		40-140	1.80	30		
1,2,4-Trichlorobenzene	1.12	0.34	mg/Kg wet	1.67		67.1		40-140	4.26	30		
2,4,5-Trichlorophenol	1.41	0.34	mg/Kg wet	1.67		84.7		30-130	2.54	30		
2,4,6-Trichlorophenol	1.34	0.34	mg/Kg wet	1.67		80.3		30-130	2.44	30		
Surrogate: 2-Fluorophenol	*4.96*		mg/Kg wet	6.67		74.5		30-130				
Surrogate: Phenol-d6	*4.89*		mg/Kg wet	6.67		73.3		30-130				
Surrogate: Nitrobenzene-d5	*2.35*		mg/Kg wet	3.33		70.6		30-130				
Surrogate: 2-Fluorobiphenyl	*2.85*		mg/Kg wet	3.33		85.5		30-130				
Surrogate: 2,4,6-Tribromophenol	*5.91*		mg/Kg wet	6.67		88.7		30-130				
Surrogate: p-Terphenyl-d14	*4.22*		mg/Kg wet	3.33		127		30-130				
Matrix Spike (B296003-MS1)		**Source: 21L0153-01**		Prepared: 12/03/21 Analyzed: 12/06/21								
Acenaphthene	1.34	0.20	mg/Kg dry	1.96	ND	68.4		40-140				
Acenaphthylene	1.52	0.20	mg/Kg dry	1.96	ND	77.9		40-140				
Acetophenone	1.22	0.40	mg/Kg dry	1.96	ND	62.6		40-140				
Aniline	0.672	0.40	mg/Kg dry	1.96	ND	**34.4**	*	40-140			MS-09	
Anthracene	1.45	0.20	mg/Kg dry	1.96	ND	74.2		40-140				
Benzidine	ND	0.77	mg/Kg dry	1.96	ND		*	40-140			MS-09, V-05	
Benzo(a)anthracene	1.42	0.20	mg/Kg dry	1.96	ND	72.5		40-140				
Benzo(a)pyrene	1.54	0.20	mg/Kg dry	1.96	ND	78.8		40-140				
Benzo(b)fluoranthene	1.44	0.20	mg/Kg dry	1.96	ND	73.8		40-140				
Benzo(g,h,i)perylene	1.48	0.20	mg/Kg dry	1.96	ND	75.7		40-140				
Benzo(k)fluoranthene	1.60	0.20	mg/Kg dry	1.96	ND	82.0		40-140				
Benzoic Acid	1.37	1.2	mg/Kg dry	1.96	ND	69.8		40-140				
Bis(2-chloroethoxy)methane	1.31	0.40	mg/Kg dry	1.96	ND	66.9		40-140				
Bis(2-chloroethyl)ether	1.35	0.40	mg/Kg dry	1.96	ND	69.1		40-140				

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QUALITY CONTROL

Semivolatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC		%REC Limits	RPD	RPD Limit	Notes
Batch B296003 - SW-846 3546											
Matrix Spike (B296003-MS1)		**Source: 21L0153-01**		Prepared: 12/03/21 Analyzed: 12/06/21							
Bis(2-chloroisopropyl)ether	1.81	0.40	mg/Kg dry	1.96	ND	92.7		40-140			
Bis(2-Ethylhexyl)phthalate	1.51	0.40	mg/Kg dry	1.96	ND	77.0		40-140			
4-Bromophenylphenylether	1.34	0.40	mg/Kg dry	1.96	ND	68.6		40-140			
Butylbenzylphthalate	1.49	0.40	mg/Kg dry	1.96	ND	76.3		40-140			
Carbazole	1.48	0.20	mg/Kg dry	1.96	ND	75.9		40-140			
4-Chloroaniline	0.843	0.77	mg/Kg dry	1.96	ND	43.1		40-140			V-34
4-Chloro-3-methylphenol	1.34	0.77	mg/Kg dry	1.96	ND	68.4		30-130			
2-Chloronaphthalene	1.42	0.40	mg/Kg dry	1.96	ND	72.7		40-140			
2-Chlorophenol	1.33	0.40	mg/Kg dry	1.96	ND	68.0		30-130			
4-Chlorophenylphenylether	1.27	0.40	mg/Kg dry	1.96	ND	64.8		40-140			
Chrysene	1.49	0.20	mg/Kg dry	1.96	ND	76.0		40-140			
Dibenz(a,h)anthracene	1.49	0.20	mg/Kg dry	1.96	ND	76.1		40-140			
Dibenzofuran	1.51	0.40	mg/Kg dry	1.96	ND	76.9		40-140			
Di-n-butylphthalate	1.50	0.40	mg/Kg dry	1.96	ND	76.5		40-140			
1,2-Dichlorobenzene	1.24	0.40	mg/Kg dry	1.96	ND	63.5		40-140			
1,3-Dichlorobenzene	1.19	0.40	mg/Kg dry	1.96	ND	61.1		40-140			
1,4-Dichlorobenzene	1.22	0.40	mg/Kg dry	1.96	ND	62.3		40-140			
3,3-Dichlorobenzidine	0.619	0.20	mg/Kg dry	1.96	ND	**31.6**	*	40-140			MS-09
2,4-Dichlorophenol	1.27	0.40	mg/Kg dry	1.96	ND	64.8		30-130			
Diethylphthalate	1.34	0.40	mg/Kg dry	1.96	ND	68.3		40-140			
2,4-Dimethylphenol	1.22	0.40	mg/Kg dry	1.96	ND	62.2		30-130			
Dimethylphthalate	1.41	0.40	mg/Kg dry	1.96	ND	72.2		40-140			
4,6-Dinitro-2-methylphenol	1.46	0.40	mg/Kg dry	1.96	ND	74.9		30-130			
2,4-Dinitrophenol	1.46	0.77	mg/Kg dry	1.96	ND	74.6		30-130			V-04
2,4-Dinitrotoluene	1.63	0.40	mg/Kg dry	1.96	ND	83.3		40-140			
2,6-Dinitrotoluene	1.70	0.40	mg/Kg dry	1.96	ND	86.9		40-140			
Di-n-octylphthalate	1.36	0.40	mg/Kg dry	1.96	ND	69.4		40-140			
1,2-Diphenylhydrazine/Azobenzene	1.33	0.40	mg/Kg dry	1.96	ND	67.9		40-140			
Fluoranthene	1.42	0.20	mg/Kg dry	1.96	ND	72.6		40-140			
Fluorene	1.42	0.20	mg/Kg dry	1.96	ND	72.7		40-140			
Hexachlorobenzene	1.43	0.40	mg/Kg dry	1.96	ND	73.3		40-140			
Hexachlorobutadiene	1.06	0.40	mg/Kg dry	1.96	ND	54.2		40-140			V-05
Hexachlorocyclopentadiene	0.607	0.40	mg/Kg dry	1.96	ND	31.0		30-130			V-05
Hexachloroethane	1.15	0.40	mg/Kg dry	1.96	ND	58.8		40-140			
Indeno(1,2,3-cd)pyrene	1.38	0.20	mg/Kg dry	1.96	ND	70.6		40-140			
Isophorone	1.31	0.40	mg/Kg dry	1.96	ND	66.9		40-140			
1-Methylnaphthalene	1.30	0.20	mg/Kg dry	1.96	0.0833	62.4		40-140			
2-Methylnaphthalene	1.64	0.20	mg/Kg dry	1.96	0.126	77.4		40-140			
2-Methylphenol	1.29	0.40	mg/Kg dry	1.96	ND	66.1		30-130			
3/4-Methylphenol	1.33	0.40	mg/Kg dry	1.96	ND	67.9		30-130			
Naphthalene	1.38	0.20	mg/Kg dry	1.96	0.0759	66.8		40-140			
2-Nitroaniline	1.56	0.40	mg/Kg dry	1.96	ND	79.6		40-140			
3-Nitroaniline	1.33	0.40	mg/Kg dry	1.96	ND	68.2		40-140			
4-Nitroaniline	1.45	0.40	mg/Kg dry	1.96	ND	74.2		40-140			
Nitrobenzene	1.20	0.40	mg/Kg dry	1.96	ND	61.3		40-140			
2-Nitrophenol	1.45	0.40	mg/Kg dry	1.96	ND	74.1		30-130			
4-Nitrophenol	1.21	0.77	mg/Kg dry	1.96	ND	62.1		30-130			V-05
N-Nitrosodimethylamine	1.34	0.40	mg/Kg dry	1.96	ND	68.7		40-140			
N-Nitrosodiphenylamine/Diphenylamine	1.58	0.40	mg/Kg dry	1.96	ND	80.9		40-140			
N-Nitrosodi-n-propylamine	1.30	0.40	mg/Kg dry	1.96	ND	66.5		40-140			
Pentachloronitrobenzene	1.40	0.40	mg/Kg dry	1.96	ND	71.6		40-140			
Pentachlorophenol	1.01	0.40	mg/Kg dry	1.96	ND	51.5		30-130			V-05

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QUALITY CONTROL

Semivolatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC		%REC Limits	RPD	RPD Limit	Notes
Batch B296003 - SW-846 3546											
Matrix Spike (B296003-MS1)		**Source: 21L0153-01**		Prepared: 12/03/21 Analyzed: 12/06/21							
Phenanthrene	1.51	0.20	mg/Kg dry	1.96	0.0669	73.5		40-140			
Phenol	1.28	0.40	mg/Kg dry	1.96	ND	65.5		30-130			
Pyrene	1.55	0.20	mg/Kg dry	1.96	ND	79.3		40-140			
Pyridine	0.371	0.40	mg/Kg dry	1.96	ND	**18.9**	*	40-140			MS-09, J
1,2,4,5-Tetrachlorobenzene	1.32	0.40	mg/Kg dry	1.96	ND	67.3		40-140			
1,2,4-Trichlorobenzene	1.19	0.40	mg/Kg dry	1.96	ND	60.7		40-140			
2,4,5-Trichlorophenol	1.48	0.40	mg/Kg dry	1.96	ND	75.8		30-130			
2,4,6-Trichlorophenol	1.37	0.40	mg/Kg dry	1.96	ND	70.2		30-130			
Surrogate: 2-Fluorophenol	*5.32*		mg/Kg dry	7.82		68.0		30-130			
Surrogate: Phenol-d6	*5.17*		mg/Kg dry	7.82		66.1		30-130			
Surrogate: Nitrobenzene-d5	*2.50*		mg/Kg dry	3.91		64.0		30-130			
Surrogate: 2-Fluorobiphenyl	*2.95*		mg/Kg dry	3.91		75.5		30-130			
Surrogate: 2,4,6-Tribromophenol	*5.88*		mg/Kg dry	7.82		75.2		30-130			
Surrogate: p-Terphenyl-d14	*4.24*		mg/Kg dry	3.91		108		30-130			
Matrix Spike Dup (B296003-MSD1)		**Source: 21L0153-01**		Prepared: 12/03/21 Analyzed: 12/06/21							
Acenaphthene	1.34	0.20	mg/Kg dry	1.96	ND	68.6		40-140	0.292	30	
Acenaphthylene	1.53	0.20	mg/Kg dry	1.96	ND	78.4		40-140	0.563	30	
Acetophenone	1.24	0.40	mg/Kg dry	1.96	ND	63.5		40-140	1.46	30	
Aniline	0.614	0.40	mg/Kg dry	1.96	ND	**31.4**	*	40-140	9.00	30	MS-09
Anthracene	1.48	0.20	mg/Kg dry	1.96	ND	75.5		40-140	1.74	30	
Benzidine	ND	0.77	mg/Kg dry	1.96	ND		*	40-140	NC	30	MS-09, V-05
Benzo(a)anthracene	1.40	0.20	mg/Kg dry	1.96	ND	71.7		40-140	1.16	30	
Benzo(a)pyrene	1.57	0.20	mg/Kg dry	1.96	ND	80.4		40-140	2.04	30	
Benzo(b)fluoranthene	1.45	0.20	mg/Kg dry	1.96	ND	74.2		40-140	0.541	30	
Benzo(g,h,i)perylene	1.50	0.20	mg/Kg dry	1.96	ND	76.8		40-140	1.44	30	
Benzo(k)fluoranthene	1.64	0.20	mg/Kg dry	1.96	ND	83.7		40-140	2.03	30	
Benzoic Acid	1.40	1.2	mg/Kg dry	1.96	ND	71.7		40-140	2.74	30	
Bis(2-chloroethoxy)methane	1.33	0.40	mg/Kg dry	1.96	ND	68.2		40-140	1.87	30	
Bis(2-chloroethyl)ether	1.40	0.40	mg/Kg dry	1.96	ND	71.7		40-140	3.61	30	
Bis(2-chloroisopropyl)ether	1.86	0.40	mg/Kg dry	1.96	ND	95.1		40-140	2.53	30	
Bis(2-Ethylhexyl)phthalate	1.57	0.40	mg/Kg dry	1.96	ND	80.2		40-140	4.04	30	
4-Bromophenylphenylether	1.33	0.40	mg/Kg dry	1.96	ND	68.0		40-140	0.966	30	
Butylbenzylphthalate	1.50	0.40	mg/Kg dry	1.96	ND	76.8		40-140	0.731	30	
Carbazole	1.49	0.20	mg/Kg dry	1.96	ND	76.1		40-140	0.263	30	
4-Chloroaniline	0.830	0.77	mg/Kg dry	1.96	ND	42.4		40-140	1.50	30	V-34
4-Chloro-3-methylphenol	1.34	0.77	mg/Kg dry	1.96	ND	68.7		30-130	0.438	30	
2-Chloronaphthalene	1.40	0.40	mg/Kg dry	1.96	ND	71.6		40-140	1.53	30	
2-Chlorophenol	1.33	0.40	mg/Kg dry	1.96	ND	67.8		30-130	0.324	30	
4-Chlorophenylphenylether	1.30	0.40	mg/Kg dry	1.96	ND	66.5		40-140	2.68	30	
Chrysene	1.46	0.20	mg/Kg dry	1.96	ND	74.5		40-140	1.94	30	
Dibenz(a,h)anthracene	1.48	0.20	mg/Kg dry	1.96	ND	75.9		40-140	0.316	30	
Dibenzofuran	1.50	0.40	mg/Kg dry	1.96	ND	76.9		40-140	0.104	30	
Di-n-butylphthalate	1.51	0.40	mg/Kg dry	1.96	ND	76.9		40-140	0.573	30	
1,2-Dichlorobenzene	1.24	0.40	mg/Kg dry	1.96	ND	63.2		40-140	0.505	30	
1,3-Dichlorobenzene	1.19	0.40	mg/Kg dry	1.96	ND	61.0		40-140	0.131	30	
1,4-Dichlorobenzene	1.21	0.40	mg/Kg dry	1.96	ND	61.9		40-140	0.676	30	
3,3-Dichlorobenzidine	0.648	0.20	mg/Kg dry	1.96	ND	**33.1**	*	40-140	4.63	30	MS-09
2,4-Dichlorophenol	1.28	0.40	mg/Kg dry	1.96	ND	65.5		30-130	1.07	30	
Diethylphthalate	1.38	0.40	mg/Kg dry	1.96	ND	70.4		40-140	3.06	30	
2,4-Dimethylphenol	1.19	0.40	mg/Kg dry	1.96	ND	61.1		30-130	1.88	30	
Dimethylphthalate	1.40	0.40	mg/Kg dry	1.96	ND	71.4		40-140	1.17	30	

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QUALITY CONTROL

Semivolatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC		%REC Limits	RPD	RPD Limit	Notes
Batch B296003 - SW-846 3546											
Matrix Spike Dup (B296003-MSD1)	**Source: 21L0153-01**			Prepared: 12/03/21 Analyzed: 12/06/21							
4,6-Dinitro-2-methylphenol	1.46	0.40	mg/Kg dry	1.96	ND	74.8		30-130	0.134	30	
2,4-Dinitrophenol	1.44	0.77	mg/Kg dry	1.96	ND	73.4		30-130	1.70	30	V-04
2,4-Dinitrotoluene	1.64	0.40	mg/Kg dry	1.96	ND	83.7		40-140	0.479	30	
2,6-Dinitrotoluene	1.70	0.40	mg/Kg dry	1.96	ND	86.8		40-140	0.0691	30	
Di-n-octylphthalate	1.44	0.40	mg/Kg dry	1.96	ND	73.7		40-140	5.96	30	
1,2-Diphenylhydrazine/Azobenzene	1.36	0.40	mg/Kg dry	1.96	ND	69.5		40-140	2.33	30	
Fluoranthene	1.44	0.20	mg/Kg dry	1.96	ND	73.5		40-140	1.29	30	
Fluorene	1.44	0.20	mg/Kg dry	1.96	ND	73.4		40-140	1.01	30	
Hexachlorobenzene	1.42	0.40	mg/Kg dry	1.96	ND	72.7		40-140	0.767	30	
Hexachlorobutadiene	1.09	0.40	mg/Kg dry	1.96	ND	55.7		40-140	2.66	30	V-05
Hexachlorocyclopentadiene	0.647	0.40	mg/Kg dry	1.96	ND	33.1		30-130	6.30	30	V-05
Hexachloroethane	1.16	0.40	mg/Kg dry	1.96	ND	59.1		40-140	0.509	30	
Indeno(1,2,3-cd)pyrene	1.40	0.20	mg/Kg dry	1.96	ND	71.8		40-140	1.71	30	
Isophorone	1.33	0.40	mg/Kg dry	1.96	ND	67.9		40-140	1.48	30	
1-Methylnaphthalene	1.32	0.20	mg/Kg dry	1.96	0.0833	63.4		40-140	1.55	30	
2-Methylnaphthalene	1.62	0.20	mg/Kg dry	1.96	0.126	76.4		40-140	1.27	30	
2-Methylphenol	1.30	0.40	mg/Kg dry	1.96	ND	66.2		30-130	0.272	30	
3/4-Methylphenol	1.35	0.40	mg/Kg dry	1.96	ND	68.9		30-130	1.35	30	
Naphthalene	1.39	0.20	mg/Kg dry	1.96	0.0759	67.0		40-140	0.339	30	
2-Nitroaniline	1.54	0.40	mg/Kg dry	1.96	ND	78.9		40-140	0.934	30	
3-Nitroaniline	1.32	0.40	mg/Kg dry	1.96	ND	67.4		40-140	1.09	30	
4-Nitroaniline	1.36	0.40	mg/Kg dry	1.96	ND	69.4		40-140	6.63	30	
Nitrobenzene	1.18	0.40	mg/Kg dry	1.96	ND	60.3		40-140	1.64	30	
2-Nitrophenol	1.46	0.40	mg/Kg dry	1.96	ND	74.9		30-130	0.993	30	
4-Nitrophenol	1.24	0.77	mg/Kg dry	1.96	ND	63.2		30-130	1.72	30	V-05
N-Nitrosodimethylamine	1.35	0.40	mg/Kg dry	1.96	ND	69.1		40-140	0.551	30	
N-Nitrosodiphenylamine/Diphenylamine	1.58	0.40	mg/Kg dry	1.96	ND	80.9		40-140	0.0248	30	
N-Nitrosodi-n-propylamine	1.32	0.40	mg/Kg dry	1.96	ND	67.7		40-140	1.76	30	
Pentachloronitrobenzene	1.43	0.40	mg/Kg dry	1.96	ND	73.3		40-140	2.35	30	
Pentachlorophenol	1.04	0.40	mg/Kg dry	1.96	ND	53.4		30-130	3.59	30	V-05
Phenanthrene	1.52	0.20	mg/Kg dry	1.96	0.0669	74.0		40-140	0.648	30	
Phenol	1.31	0.40	mg/Kg dry	1.96	ND	67.2		30-130	2.50	30	
Pyrene	1.55	0.20	mg/Kg dry	1.96	ND	79.4		40-140	0.0504	30	
Pyridine	0.366	0.40	mg/Kg dry	1.96	ND	**18.7**	*	40-140	1.28	30	MS-09, J
1,2,4,5-Tetrachlorobenzene	1.30	0.40	mg/Kg dry	1.96	ND	66.4		40-140	1.35	30	
1,2,4-Trichlorobenzene	1.19	0.40	mg/Kg dry	1.96	ND	60.8		40-140	0.263	30	
2,4,5-Trichlorophenol	1.43	0.40	mg/Kg dry	1.96	ND	72.9		30-130	3.87	30	
2,4,6-Trichlorophenol	1.36	0.40	mg/Kg dry	1.96	ND	69.8		30-130	0.686	30	
Surrogate: 2-Fluorophenol	*5.33*		mg/Kg dry	7.82		68.1		30-130			
Surrogate: Phenol-d6	*5.25*		mg/Kg dry	7.82		67.1		30-130			
Surrogate: Nitrobenzene-d5	*2.52*		mg/Kg dry	3.91		64.5		30-130			
Surrogate: 2-Fluorobiphenyl	*2.97*		mg/Kg dry	3.91		76.0		30-130			
Surrogate: 2,4,6-Tribromophenol	*5.96*		mg/Kg dry	7.82		76.2		30-130			
Surrogate: p-Terphenyl-d14	*4.27*		mg/Kg dry	3.91		109		30-130			

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QUALITY CONTROL

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total) - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD		RPD Limit	Notes
Batch B296281 - % Solids											
Duplicate (B296281-DUP1)	**Source: 21L0153-19**		Prepared: 12/07/21 Analyzed: 10/12/21								
% Solids	0.00		% Wt		91.3			**200**	*	5	

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FLAG/QUALIFIER SUMMARY

*	QC result is outside of established limits.
†	Wide recovery limits established for difficult compound.
‡	Wide RPD limits established for difficult compound.
#	Data exceeded client recommended or regulatory level
ND	Not Detected
RL	Reporting Limit is at the level of quantitation (LOQ)
DL	Detection Limit is the lower limit of detection determined by the MDL study
MCL	Maximum Contaminant Level
	Percent recoveries and relative percent differences (RPDs) are determined by the software using values in the calculation which have not been rounded.
	No results have been blank subtracted unless specified in the case narrative section.
H-10	Analysis was requested after the recommended holding time had passed.
J	Detected but below the Reporting Limit (lowest calibration standard); therefore, result is an estimated concentration (CLP J-Flag).
L-07	Either laboratory fortified blank/laboratory control sample or duplicate recovery is outside of control limits, but the other is within limits. RPD between the two LFB/LCS results is within method specified criteria.
MS-09	Matrix spike recovery and/or matrix spike duplicate recovery outside of control limits. Possibility of sample matrix effects that lead to a low bias for reported result or non-homogeneous sample aliquots cannot be eliminated.
S-07	One associated surrogate standard recovery is outside of control limits but the other(s) is/are within limits. All recoveries are > 10%.
V-04	Initial calibration did not meet method specifications. Compound was calibrated using a response factor where %RSD is outside of method specified criteria. Reported result is estimated.
V-05	Continuing calibration verification (CCV) did not meet method specifications and was biased on the low side for this compound.
V-34	Initial calibration verification (ICV) did not meet method specifications and was biased on the low side for this compound. Reported result is estimated.

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CERTIFICATIONS

Certified Analyses included in this Report

Analyte	Certifications
SW-846 8270E in Soil	
Acenaphthene	CT,NY,NH,ME,NC,VA
Acenaphthylene	CT,NY,NH,ME,NC,VA
Acetophenone	NY,NH,ME,NC,VA
Aniline	NY,NH,ME,NC,VA
Anthracene	CT,NY,NH,ME,NC,VA
Benzidine	CT,NY,NH,ME,NC,VA
Benzo(a)anthracene	CT,NY,NH,ME,NC,VA
Benzo(a)pyrene	CT,NY,NH,ME,NC,VA
Benzo(b)fluoranthene	CT,NY,NH,ME,NC,VA
Benzo(g,h,i)perylene	CT,NY,NH,ME,NC,VA
Benzo(k)fluoranthene	CT,NY,NH,ME,NC,VA
Benzoic Acid	NY,NH,ME,NC,VA
Bis(2-chloroethoxy)methane	CT,NY,NH,ME,NC,VA
Bis(2-chloroethyl)ether	CT,NY,NH,ME,NC,VA
Bis(2-chloroisopropyl)ether	CT,NY,NH,ME,NC,VA
Bis(2-Ethylhexyl)phthalate	CT,NY,NH,ME,NC,VA
4-Bromophenylphenylether	CT,NY,NH,ME,NC,VA
Butylbenzylphthalate	CT,NY,NH,ME,NC,VA
Carbazole	NC
4-Chloroaniline	CT,NY,NH,ME,NC,VA
4-Chloro-3-methylphenol	CT,NY,NH,ME,NC,VA
2-Chloronaphthalene	CT,NY,NH,NC,VA
2-Chlorophenol	CT,NY,NH,ME,NC,VA
4-Chlorophenylphenylether	CT,NY,NH,ME,NC,VA
Chrysene	CT,NY,NH,ME,NC,VA
Dibenz(a,h)anthracene	CT,NY,NH,ME,NC,VA
Dibenzofuran	CT,NY,NH,ME,NC,VA
Di-n-butylphthalate	CT,NY,NH,ME,NC,VA
1,2-Dichlorobenzene	NY,NH,ME,NC,VA
1,3-Dichlorobenzene	NY,NH,ME,NC,VA
1,4-Dichlorobenzene	NY,NH,ME,NC,VA
3,3-Dichlorobenzidine	CT,NY,NH,ME,NC,VA
2,4-Dichlorophenol	CT,NY,NH,ME,NC,VA
Diethylphthalate	CT,NY,NH,ME,NC,VA
2,4-Dimethylphenol	CT,NY,NH,ME,NC,VA
Dimethylphthalate	CT,NY,NH,ME,NC,VA
4,6-Dinitro-2-methylphenol	CT,NY,NH,ME,NC,VA
2,4-Dinitrophenol	CT,NY,NH,ME,NC,VA
2,4-Dinitrotoluene	CT,NY,NH,ME,NC,VA
2,6-Dinitrotoluene	CT,NY,NH,ME,NC,VA
Di-n-octylphthalate	CT,NY,NH,ME,NC,VA
1,2-Diphenylhydrazine/Azobenzene	NY,NH,ME,NC,VA
Fluoranthene	CT,NY,NH,ME,NC,VA
Fluorene	NY,NH,ME,NC,VA
Hexachlorobenzene	CT,NY,NH,ME,NC,VA
Hexachlorobutadiene	CT,NY,NH,ME,NC,VA
Hexachlorocyclopentadiene	CT,NY,NH,ME,NC,VA

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CERTIFICATIONS

Certified Analyses included in this Report

Analyte	Certifications
SW-846 8270E in Soil	
Hexachloroethane	CT,NY,NH,ME,NC,VA
Indeno(1,2,3-cd)pyrene	CT,NY,NH,ME,NC,VA
Isophorone	CT,NY,NH,ME,NC,VA
1-Methylnaphthalene	NC
2-Methylnaphthalene	CT,NY,NH,ME,NC,VA
2-Methylphenol	CT,NY,NH,ME,NC,VA
3/4-Methylphenol	CT,NY,NH,ME,NC,VA
Naphthalene	CT,NY,NH,ME,NC,VA
2-Nitroaniline	CT,NY,NH,ME,NC,VA
3-Nitroaniline	CT,NY,NH,ME,NC,VA
4-Nitroaniline	CT,NY,NH,ME,NC,VA
Nitrobenzene	CT,NY,NH,ME,NC,VA
2-Nitrophenol	CT,NY,NH,ME,NC,VA
4-Nitrophenol	CT,NY,NH,ME,NC,VA
N-Nitrosodimethylamine	CT,NY,NH,ME,NC,VA
N-Nitrosodi-n-propylamine	CT,NY,NH,ME,NC,VA
Pentachloronitrobenzene	NY,NC
Pentachlorophenol	CT,NY,NH,ME,NC,VA
Phenanthrene	CT,NY,NH,ME,NC,VA
Phenol	CT,NY,NH,ME,NC,VA
Pyrene	CT,NY,NH,ME,NC,VA
Pyridine	CT,NY,NH,ME,NC,VA
1,2,4,5-Tetrachlorobenzene	NY,NC
1,2,4-Trichlorobenzene	CT,NY,NH,ME,NC,VA
2,4,5-Trichlorophenol	CT,NY,NH,ME,NC,VA
2,4,6-Trichlorophenol	CT,NY,NH,ME,NC,VA
2-Fluorophenol	NC
SW-846 8270E in Water	
Acenaphthene	CT,NY,NC,ME,NH,VA
Acenaphthylene	CT,NY,NC,ME,NH,VA
Acetophenone	NY,NC
Aniline	CT,NY,NC,ME,VA
Anthracene	CT,NY,NC,ME,NH,VA
Benzidine	CT,NY,NC,ME,NH,VA
Benzo(a)anthracene	CT,NY,NC,ME,NH,VA
Benzo(a)pyrene	CT,NY,NC,ME,NH,VA
Benzo(b)fluoranthene	CT,NY,NC,ME,NH,VA
Benzo(g,h,i)perylene	CT,NY,NC,ME,NH,VA
Benzo(k)fluoranthene	CT,NY,NC,ME,NH,VA
Benzoic Acid	NY,NC,ME,NH,VA
Bis(2-chloroethoxy)methane	CT,NY,NC,ME,NH,VA
Bis(2-chloroethyl)ether	CT,NY,NC,ME,NH,VA
Bis(2-chloroisopropyl)ether	CT,NY,NC,ME,NH,VA
Bis(2-Ethylhexyl)phthalate	CT,NY,NC,ME,NH,VA
4-Bromophenylphenylether	CT,NY,NC,ME,NH,VA
Butylbenzylphthalate	CT,NY,NC,ME,NH,VA

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CERTIFICATIONS

Certified Analyses included in this Report

Analyte	Certifications
SW-846 8270E in Water	
Carbazole	NC
4-Chloroaniline	CT,NY,NC,ME,NH,VA
4-Chloro-3-methylphenol	CT,NY,NC,ME,NH,VA
2-Chloronaphthalene	CT,NY,NC,ME,NH,VA
2-Chlorophenol	CT,NY,NC,ME,NH,VA
4-Chlorophenylphenylether	CT,NY,NC,ME,NH,VA
Chrysene	CT,NY,NC,ME,NH,VA
Dibenz(a,h)anthracene	CT,NY,NC,ME,NH,VA
Dibenzofuran	CT,NY,NC,ME,NH,VA
Di-n-butylphthalate	CT,NY,NC,ME,NH,VA
1,2-Dichlorobenzene	CT,NY,NC,ME,NH,VA
1,3-Dichlorobenzene	CT,NY,NC,ME,NH,VA
1,4-Dichlorobenzene	CT,NY,NC,ME,NH,VA
3,3-Dichlorobenzidine	CT,NY,NC,ME,NH,VA
2,4-Dichlorophenol	CT,NY,NC,ME,NH,VA
Diethylphthalate	CT,NY,NC,ME,NH,VA
2,4-Dimethylphenol	CT,NY,NC,ME,NH,VA
Dimethylphthalate	CT,NY,NC,ME,NH,VA
4,6-Dinitro-2-methylphenol	CT,NY,NC,ME,NH,VA
2,4-Dinitrophenol	CT,NY,NC,ME,NH,VA
2,4-Dinitrotoluene	CT,NY,NC,ME,NH,VA
2,6-Dinitrotoluene	CT,NY,NC,ME,NH,VA
Di-n-octylphthalate	CT,NY,NC,ME,NH,VA
1,2-Diphenylhydrazine/Azobenzene	NY,NC
Fluoranthene	CT,NY,NC,ME,NH,VA
Fluorene	NY,NC,ME,NH,VA
Hexachlorobenzene	CT,NY,NC,ME,NH,VA
Hexachlorobutadiene	CT,NY,NC,ME,NH,VA
Hexachlorocyclopentadiene	CT,NY,NC,ME,NH,VA
Hexachloroethane	CT,NY,NC,ME,NH,VA
Indeno(1,2,3-cd)pyrene	CT,NY,NC,ME,NH,VA
Isophorone	CT,NY,NC,ME,NH,VA
1-Methylnaphthalene	NC
2-Methylnaphthalene	CT,NY,NC,ME,NH,VA
2-Methylphenol	CT,NY,NC,NH,VA
3/4-Methylphenol	CT,NY,NC,NH,VA
Naphthalene	CT,NY,NC,ME,NH,VA
2-Nitroaniline	CT,NY,NC,ME,NH,VA
3-Nitroaniline	CT,NY,NC,ME,NH,VA
4-Nitroaniline	CT,NY,NC,ME,NH,VA
Nitrobenzene	CT,NY,NC,ME,NH,VA
2-Nitrophenol	CT,NY,NC,ME,NH,VA
4-Nitrophenol	CT,NY,NC,ME,NH,VA
N-Nitrosodimethylamine	CT,NY,NC,ME,NH,VA
N-Nitrosodi-n-propylamine	CT,NY,NC,ME,NH,VA
Pentachloronitrobenzene	NC
Pentachlorophenol	CT,NY,NC,ME,NH,VA

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

CERTIFICATIONS

Certified Analyses included in this Report

Analyte	Certifications
SW-846 8270E in Water	
Phenanthrene	CT,NY,NC,ME,NH,VA
Phenol	CT,NY,NC,ME,NH,VA
Pyrene	CT,NY,NC,ME,NH,VA
Pyridine	CT,NY,NC,ME,NH,VA
1,2,4,5-Tetrachlorobenzene	NY,NC
1,2,4-Trichlorobenzene	CT,NY,NC,ME,NH,VA
2,4,5-Trichlorophenol	CT,NY,NC,ME,NH,VA
2,4,6-Trichlorophenol	CT,NY,NC,ME,NH,VA
2-Fluorophenol	NC

Con-Test, a Pace Environmental Laboratory, operates under the following certifications and accreditations:

Code	Description	Number	Expires
AIHA	AIHA-LAP, LLC - ISO17025:2017	100033	03/1/2022
MA	Massachusetts DEP	M-MA100	06/30/2022
CT	Connecticut Department of Publilc Health	PH-0165	12/31/2022
NY	New York State Department of Health	10899 NELAP	04/1/2022
NH-S	New Hampshire Environmental Lab	2516 NELAP	02/5/2022
RI	Rhode Island Department of Health	LAO00112	12/30/2021
NC	North Carolina Div. of Water Quality	652	12/31/2021
NJ	New Jersey DEP	MA007 NELAP	06/30/2022
FL	Florida Department of Health	E871027 NELAP	06/30/2022
VT	Vermont Department of Health Lead Laboratory	LL720741	07/30/2022
ME	State of Maine	MA00100	06/9/2023
VA	Commonwealth of Virginia	460217	12/14/2021
NH-P	New Hampshire Environmental Lab	2557 NELAP	09/6/2022
VT-DW	Vermont Department of Health Drinking Water	VT-255716	06/12/2022
NC-DW	North Carolina Department of Health	25703	07/31/2022
PA	Commonwealth of Pennsylvania DEP	68-05812	06/30/2022
MI	Dept. of Env, Great Lakes, and Energy	9100	09/6/2022

211070

21L0153

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CHAIN OF CUSTODY RECORD

39 Spruce Street
East Longmeadow, MA 01028

Doc # 381 Rev 5_07/13/2021

Page 1 of 3

Company Name: Ramboll
Address: 4350 N Fairfax Dr, Arlington, VA 22203
Phone: 703.516.2383
Project Name: HRP-SCR PRGS SCR
Project Location: 1400 N. Royal St. Alexandria, VA
Project Number:
Project Manager: Greg Grose
Pace Quote Name/Number:
Invoice Recipient: Sostertag@ramboll.com
Sampled By: Anne Kelly

Requested Turnaround Time
7-Day ☐ 10-Day ☒
PFAS 10-Day (std) ☐ Due Date: 25 day%

Rush Approval Required
1-Day ☐ 3-Day ☐
2-Day ☐ 4-Day ☐

Data Delivery
Format: PDF ☒ EXCEL ☒
Other: Ramboll EDD
CLP Like Data Pkg Required: ☐
Email To: Sostertag@ramboll.com
Fax To #:

Dissolved Metals Samples
○ Field Filtered
○ Lab to Filter

Orthophosphate Samples
○ Field Filtered
○ Lab to Filter

PCB ONLY
SOXHLET ☐
NON SOXHLET ☐

ANALYSIS REQUESTED

Pace Work Order#	Client Sample ID / Description	Beginning Date/Time	Ending Date/Time	COMP/GRAB	Matrix Code	Conc Code	VIALS	GLASS	PLASTIC	BACTERIA	ENCORE	VOCs	TPHGRO	TAL Metals	pH	Cyanide
01	HRP-TB03-211015	10/15/21 0730	—	Grab	W	C	2					X	X			
02	HRP-SB213-0-1-211015	10/15/21 0956	—	Grab	S	L		2						X	X	X
03	HRP-SB213-5-7-211015	10/15/21 1005	—	Grab	S	L		2						X	X	X
04	HRP-SB213-16-18-211015	10/15/21 1010	—	Grab	S	L		2						X	X	X
05	HRP-SB212-0-2-211015	10/15/21 1125	—	Grab	S	L		2						X	X	X
20	HRP-DUP04-0-2-211015	10/15/21 1125	—	Grab	S	L		2						X	X	X
07	HRP-SB212-5-7-211015	10/15/21 1135	—	Grab	S	L		2						X	X	X
08	HRP-SB212-15-17-211015	10/15/21 1140	—	Grab	S	L		2						X	X	X
09	HRP-SB211-0-1-211015	10/15/21 1240	—	Grab	S	L		1						X	X	X
10	HRP-SB211-5-7-211015	10/15/21 1245	—	Grab	S	L		2						X	X	X

Relinquished by: (signature) — Date/Time: 10/15 1421
Received by: (signature) — Date/Time: 10/15/21 1421
Relinquished by: (signature) — Date/Time: 10/15/21 4pm
Received by: (signature) — Date/Time: 10-15-21 1600
Relinquished by: (signature) — Date/Time: 10-18-21 1100
Received by: (signature) — Date/Time: 10/19 0954
Relinquished by: (signature) — Date/Time:
Received by: (signature) — Date/Time:

Client Comments:
TB: Trip Blank
EB: Equip blank

Detection Limit Requirements
MA
GW

Special Requirements
☐ MA MCP Required
MCP Certification Form Required
☐ CT RCP Required
RCP Certification Form Required
☐ MA State DW Required
PWSID #

Other: VA DEQ

Project Entity
Government ☐ Municipality ☐ MWRA ☐ WRTA ☐
Federal ☐ 21 J ☐ School ☐
City ☐ Brownfield ☐ MBTA ☐

NELAC and AIHA-LAP, LLC Accredited
Other
☐ Chromatogram
☐ AIHA-LAP,LLC

Please use the following codes to indicate possible sample concentration within the Conc Code column above:
H - High; M - Medium; L - Low; C - Clean; U - Unknown

[2] Preservation Code
Courier Use Only
Total Number Of:
VIALS
GLASS
PLASTIC
BACTERIA
ENCORE

Glassware in the fridge? Y / N
Glassware in freezer? Y / N
Prepackaged Cooler? Y / N
*Pace Analytical is not responsible for missing samples from prepacked coolers

[1] Matrix Codes:
GW = Ground Water
WW = Waste Water
DW = Drinking Water
A = Air
S = Soil
SL = Sludge
SOL = Solid
O = Other (please define)

[2] Preservation Codes:
I = Iced
H = HCL
M = Methanol
N = Nitric Acid
S = Sulfuric Acid
B = Sodium Bisulfate
X = Sodium Hydroxide
T = Sodium Thiosulfate
O = Other (please define)

Lab Comments:
Per client reactivate samples -02 through -13 and -15 through -21 for 8270
ok to run past hold 12/2/21 KF

211070

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Access COC's and Support Requests

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CHAIN OF CUSTODY RECORD

39 Spruce Street
East Longmeadow, MA 01028

Doc # 381 Rev 5_07/13/2021

Company Name: Ramboll
Address: 4350 N. Fairfax Dr., Arlington, VA 22203
Phone:
Project Name: HRP PRGS SCR
Project Location: 1400 N Royal St Alexandria VA
Project Number:
Project Manager: Greg Grose
Pace Quote Name/Number:
Invoice Recipient: Sostertag@ramboll.com
Sampled By: Anne Kelly

Requested Turnaround Time
7-Day ☐ 10-Day ☒ (5 days)
PFAS 10-Day (std) ☐ Due Date:

Rush Approval Required
1-Day ☐ 3-Day ☐
2-Day ☐ 4-Day ☐

Data Delivery
Format: PDF ☒ EXCEL ☒
Other: Ramboll EDD
CLP Like Data Pkg Required: ☐
Email To: Sostertag@ramboll.com
Fax To #:

Dissolved Metals Samples
○ Field Filtered
○ Lab to Filter

Orthophosphate Samples
○ Field Filtered
○ Lab to Filter

PCB ONLY
SOXHLET ☐
NON SOXHLET ☐

ANALYSIS REQUESTED

Pace Work Order#	Client Sample ID / Description	Beginning Date/Time	Ending Date/Time	COMP/GRAB	[1]Matrix Code	Conc Code	VIALS	GLASS	PLASTIC	BACTERIA	ENCORE	TAL Metals	pH	Cyanide	VOCs	TPH GRO	TPH ORO	TPH DRO
11	HRP-MW209-0-1-211013	10/13/21 1340	—	Grab	S	L		2				X	X	X				
12	HRP-MW209-5-7-211013	10/13/21 1347	—	Grab	S	L		2				X	X	X				
13	HRP-MW209-15-17-211013	10/13/21 1355	—	Grab	S	L		2				X	X	X				
14	HRP-EB03-211013	10/13/21 1645	—	Grab	W	C			2			X	X	X				
15	HRP-MW208-0-1-211014	10/14/21 0912	—	Grab	S	L		2				X	X	X				
16	HRP-MW208-5-7-211014	10/14/21 0920	—	Grab	S	L		2				X	X	X				
17	HRP-MW208-18-20-211014	10/14/21 0930	—	Grab	S	L		2				X	X	X				
18	HRP-MW214-0-2-211014	10/14/21 1358	—	Grab	S	L	4	3				X	X	X	X	X	X	X
19	HRP-MW214-5-7-211014	10/14/21 1410	—	Grab	S	L	4	3				X	X	X	X	X	X	X
20	HRP-MW214-14-16-211014	10/14/21 1435	—	Grab	S	L	4	3				X	X	X	X	X	X	X

Relinquished by: (signature) — Date/Time: 10/15 1410
Received by: (signature) LaShae Morris — Date/Time: 10/15/21 1210
Relinquished by: (signature) LaShae Morris — Date/Time: 10/15/21 4pm
Received by: (signature) Rachel Burruss — Date/Time: 10-15-21 1600
Relinquished by: (signature) Rachel Burruss — Date/Time: 10-18-21 1700
Received by: (signature) — Date/Time: 10/19 9:14
Relinquished by: (signature) — Date/Time:
Received by: (signature) — Date/Time:

Client Comments: EB: Equipment Blank

Detection Limit Requirements
MA
GW
Other: VA DEQ

Special Requirements
☐ MA MCP Required
MCP Certification Form Required
☐ CT RCP Required
RCP Certification Form Required
☐ MA State DW Required
PWSID #

Please use the following codes to indicate possible sample concentration within the Conc Code column above:
H - High; M - Medium; L - Low; C - Clean; U - Unknown

NELAC and AIHA-LAP, LLC Accredited

Project Entity
Government ☐ Municipality ☐ MWRA ☐ WRTA ☐
Federal ☐ 21 J ☐ School ☐
City ☐ Brownfield ☐ MBTA ☐

Other
☐ Chromatogram
☐ AIHA-LAP,LLC

Lab Comments:

Disclaimer: Pace Analytical is not responsible for any omitted information on the Chain of Custody. The Chain of Custody is a legal document that must be complete and accurate and is used to determine what analyses the laboratory will perform. Any missing information is not the laboratory's responsibility. Pace Analytical values your partnership on each project and will try to assist with missing information, but will not be held accountable.

[2] Preservation Code
Courier Use Only
Total Number Of:
VIALS
GLASS
PLASTIC
BACTERIA
ENCORE

Glassware in the fridge? Y / N
Glassware in freezer? Y / N
Prepackaged Cooler? Y / N
*Pace Analytical is not responsible for missing samples from prepacked coolers

[1] Matrix Codes:
GW = Ground Water
WW = Waste Water
DW = Drinking Water
A = Air
S = Soil
SL = Sludge
SOL = Solid
O = Other (please define)

[2] Preservation Codes:
I = Iced
H = HCL
M = Methanol
N = Nitric Acid
S = Sulfuric Acid
B = Sodium Bisulfate
X = Sodium Hydroxide
T = Sodium Thiosulfate
O = Other (please define)

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CHAIN OF CUSTODY RECORD

39 Spruce Street
East Longmeadow, MA 01028

Doc # 381 Rev 5_07/13/2021

Company Name: Ramboll
Address: 4350 N. Fairfax Dr. Arlington VA
Phone: 703-516-2383
Project Name: HRP - [redacted] PROS SCR
Project Location: 1400 N Royal St Alexandria, VA
Project Number:
Project Manager: Greg Grose
Pace Quote Name/Number:
Invoice Recipient: Sostertag@Ramboll.com
Sampled By: Anne Kelly

Requested Turnaround Time
7-Day ☐ 10-Day ☒ (5 day RP)
PFAS 10-Day (std) ☐ Due Date:

Rush-Approval Required
1-Day ☐ 3-Day ☐
2-Day ☐ 4-Day ☐

Data Delivery
Format: PDF ☒ EXCEL ☒
Other: Ramboll EDD
CLP Like Data Pkg Required: ☐
Email To: Sostertag@Ramboll.com
Fax To #:

Dissolved Metals Samples
○ Field Filtered
○ Lab to Filter

Orthophosphate Samples
○ Field Filtered
○ Lab to Filter

PCB ONLY
SOXHLET ☐
NON SOXHLET ☐

ANALYSIS REQUESTED

Pace Work Order#	Client Sample ID / Description	Beginning Date/Time	Ending Date/Time	COMP/GRAB	Matrix Code	Conc Code	VIALS	GLASS	PLASTIC	BACTERIA	ENCORE	TAL Metals	pH	Cyanide	VOCs
21	HRP-SB211-15-17-211015	10/15/21 1250	—	Grab	S	L		2				X	X	X	
22	HRP-EB04-211015	10/15/21 1405	—	Grab	W	C			2			X	X	X	
23	HRP-TB04-211015	10/15/21 1410	—	Grab	W	C		2							4

Relinquished by: (signature) — Date/Time: 10/15 1410
Received by: (signature) Tasha Morris — Date/Time: 10/15/21 1417
Relinquished by: (signature) Tasha Morris — Date/Time: 10/15/21 4pm
Received by: (signature) Rachel Burruss — Date/Time: 10-15-21 1800
Relinquished by: (signature) Rachel Burruss — Date/Time: 10-18-21 1700
Received by: (signature) — Date/Time: 10/19 9:54
Relinquished by: (signature) — Date/Time:
Received by: (signature) — Date/Time:

Client Comments:
TB: Trip Blank
EB: Equipment Blank

Detection Limit Requirements
MA
CT
Other: VA DEQ

Special Requirements
MA MCP Required ☐
MCP Certification Form Required
CT RCP Required ☐
RCP Certification Form Required
MA State DW Required ☐
PWSID #

Please use the following codes to indicate possible sample concentration within the Conc Code column above:
H - High; M - Medium; L - Low; C - Clean; U - Unknown

NELAC and AIHA-LAP, LLC Accredited

Project Entity
Government ☐ Municipality ☐ MWRA ☐ WRTA ☐
Federal ☐ 21 J ☐ School ☐
City ☐ Brownfield ☐ MBTA ☐

Other
☐ Chromatogram
☐ AIHA-LAP,LLC

Lab Comments:

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[2] Preservation Code
Courier Use Only
Total Number Of:
VIALS
GLASS
PLASTIC
BACTERIA
ENCORE

Glassware in the fridge? Y / N
Glassware in freezer? Y / N
Prepackaged Cooler? Y / N
*Pace Analytical is not responsible for missing samples from prepacked coolers

[1] Matrix Codes:
GW = Ground Water
WW = Waste Water
DW = Drinking Water
A = Air
S = Soil
SL = Sludge
SOL = Solid
O = Other (please define)

[2] Preservation Codes:
I = Iced
H = HCL
M = Methanol
N = Nitric Acid
S = Sulfuric Acid
B = Sodium Bisulfate
X = Sodium Hydroxide
T = Sodium Thiosulfate
O = Other (please define)

FedEx

TRACK ANOTHER SHIPMENT

285036984893

ADD NICKNAME

Delivered

THIS IS 1 OF 3 PIECES

DELIVERED

Signed for by: R.PIETRIAS

GET STATUS UPDATES

OBTAIN PROOF OF DELIVERY

FROM	TO
Mechanicsville, VA US	EAST LONGMEADOW, MA US

3 Piece Shipment

TRACKING ID	STATUS	SHIP DATE	DELIVERY DATE	HANDLING PIECE UNITS	SHIPPER CITY, STATE	RECIPIENT CITY, STATE
285036984893 (master)	Delivered	10/18/21	10/19/21	0	Mechanicsville VA	EAST LONGMEADOW MA
285036986793	Delivered	10/18/21	10/19/21	0	Mechanicsville VA	EAST LONGMEADOW MA
285036988752	Delivered	10/18/21	10/19/21	0	Mechanicsville VA	EAST LONGMEADOW MA

Travel History

TIME ZONE
Local Scan Time

Tuesday, October 19, 2021

9:54 AM	EAST LONGMEADOW, MA	Delivered
8:26 AM	WINDSOR LOCKS, CT	On FedEx vehicle for delivery

I Have Not Confirmed Sample Container Numbers With Lab Staff Before Relinquishing Over Samples_____

con-test® ANALYTICAL LABORATORY

Doc# 277 Rev 5 2017

Login Sample Receipt Checklist - (Rejection Criteria Listing - Using Acceptance Policy) Any False Statement will be brought to the attention of the Client - State True or False

Client Ramboll

Received By RLF Date 10/19/21 Time 954

How were the samples received? In Cooler T No Cooler _____ On Ice T No Ice _____ Direct from Sampling _____ Ambient _____ Melted Ice _____

Were samples within Temperature? 2-6°C T By Gun # 5 Actual Temp - 4, 5, 2.1 C By Blank # _____ Actual Temp - _____

Was Custody Seal Intact? NA Were Samples Tampered with? NT

Was COC Relinquished ? T Does Chain Agree With Samples? T

Are there broken/leaking/loose caps on any samples? F

Is COC in ink/ Legible? T Were samples received within holding time? F pH past hold

Did COC include all pertinent Information? Client T Project T Analysis T ID's T Sampler Name T Collection Dates/Times T

Are Sample labels filled out and legible? T

Are there Lab to Filters? F Who was notified? _____

Are there Rushes? F Who was notified? _____

Are there Short Holds? T Who was notified? Frank

Is there enough Volume? T

Is there Headspace where applicable? F MS/MSD? F

Proper Media/Containers Used? T Is splitting samples required? F

Were trip blanks received? T On COC? T

Do all samples have the proper pH? Acid T Base T

Vials	#	Containers:	#		#		#
Unp-		1 Liter Amb.		1 Liter Plastic		16 oz Amb.	
HCL-	4	500 mL Amb.		500 mL Plastic		8oz Amb/Clear	33
Meoh-	6	250 mL Amb.		250 mL Plastic	2	4oz Amb/Clear	3
Bisulfate-	6	Flashpoint		Col./Bacteria		2oz Amb/Clear	
DI-		Other Glass		Other Plastic	2	Encore	
Thiosulfate-		SOC Kit		Plastic Bag		Frozen:	
Sulfuric-		Perchlorate		Ziplock			

Unused Media

Vials	#	Containers:	#		#		#
Unp-		1 Liter Amb.		1 Liter Plastic		16 oz Amb.	
HCL-		500 mL Amb.		500 mL Plastic		8oz Amb/Clear	
Meoh-		250 mL Amb.		250 mL Plastic		4oz Amb/Clear	
Bisulfate-		Col./Bacteria		Flashpoint		2oz Amb/Clear	
DI-		Other Plastic		Other Glass		Encore	
Thiosulfate-		SOC Kit		Plastic Bag		Frozen:	
Sulfuric-		Perchlorate		Ziplock			

Comments:

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

December 6, 2021

Sarah Ostertag
Ramboll US Consulting, Inc. - Arlington, VA
4350 North Fairfax Drive
Arlington, VA 22203

Project Location: 1400 N. Royal St, Alexandria, VA
Client Job Number:
Project Number: [none]
Laboratory Work Order Number: 21L0159

Enclosed are results of analyses for samples as received by the laboratory on December 2, 2021. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Kaitlyn A. Feliciano
Project Manager

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Ramboll US Consulting, Inc. - Arlington, VA
4350 North Fairfax Drive
Arlington, VA 22203
ATTN: Sarah Ostertag

REPORT DATE: 12/6/2021

PURCHASE ORDER NUMBER:

PROJECT NUMBER: [none]

ANALYTICAL SUMMARY

WORK ORDER NUMBER: 21L0159

The results of analyses performed on the following samples submitted to CON-TEST, a Pace Analytical Laboratory, are found in this report.

PROJECT LOCATION: 1400 N. Royal St, Alexandria, VA

FIELD SAMPLE #	LAB ID:	MATRIX	SAMPLE DESCRIPTION	TEST	SUB LAB
HRP-MW205-211026	21L0159-01	Ground Water		SW-846 8015C	

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CASE NARRATIVE SUMMARY

All reported results are within defined laboratory quality control objectives unless listed below or otherwise qualified in this report.

SW-846 8015C

Qualifications:

H-10

Analysis was requested after the recommended holding time had passed.

Analyte & Samples(s) Qualified:

21L0159-01[HRP-MW205-211026]

The results of analyses reported only relate to samples submitted to Con-Test, a Pace Analytical Laboratory, for testing.
I certify that the analyses listed above, unless specifically listed as subcontracted, if any, were performed under my direction according to the approved methodologies listed in this document, and that based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

Tod E. Kopyscinski
Laboratory Director

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A Pace Analytical® Laboratory

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: 1400 N. Royal St, Alexandria, VA Sample Description: Work Order: 21L0159

Date Received: 12/2/2021

Field Sample #: HRP-MW205-211026 Sampled: 10/26/2021 12:30

Sample ID: 21L0159-01

Sample Matrix: Ground Water

Sample Flags: H-10

Semivolatile Organic Compounds by GC

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Methanol	ND	10	2.3	mg/L	1		SW-846 8015C	12/3/21	12/3/21 17:34	SFM
Isopropanol	ND	10	1.8	mg/L	1		SW-846 8015C	12/3/21	12/3/21 17:34	SFM
Ethanol	ND	10	2.5	mg/L	1		SW-846 8015C	12/3/21	12/3/21 17:34	SFM
Propylene glycol	ND	10	2.9	mg/L	1		SW-846 8015C	12/3/21	12/3/21 17:34	SFM
Ethylene glycol	ND	10	4.0	mg/L	1		SW-846 8015C	12/3/21	12/3/21 17:34	SFM

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Sample Extraction Data

Prep Method: Alcohol Prep **Analytical Method: SW-846 8015C**

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
21L0159-01 [HRP-MW205-211026]	B296024	1.00	1.00	12/03/21

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QUALITY CONTROL

Semivolatile Organic Compounds by GC - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B296024 - Alcohol Prep										
Blank (B296024-BLK1)				Prepared & Analyzed: 12/03/21						
Methanol	ND	10	mg/L							
Isopropanol	ND	10	mg/L							
Ethanol	ND	10	mg/L							
Propylene glycol	ND	10	mg/L							
Ethylene glycol	ND	10	mg/L							
LCS (B296024-BS1)				Prepared & Analyzed: 12/03/21						
Methanol	95.6	10	mg/L	100		95.6	40-140			
Isopropanol	87.5	10	mg/L	100		87.5	40-140			
Ethanol	105	10	mg/L	100		105	40-140			
Propylene glycol	102	10	mg/L	100		102	40-140			
Ethylene glycol	90.5	10	mg/L	100		90.5	40-140			
LCS Dup (B296024-BSD1)				Prepared & Analyzed: 12/03/21						
Methanol	98.6	10	mg/L	100		98.6	40-140	3.10	50	
Isopropanol	90.5	10	mg/L	100		90.5	40-140	3.35	50	
Ethanol	106	10	mg/L	100		106	40-140	1.31	50	
Propylene glycol	107	10	mg/L	100		107	40-140	4.25	50	
Ethylene glycol	95.0	10	mg/L	100		95.0	40-140	4.89	50	
Duplicate (B296024-DUP1)	**Source: 21L0159-01**			Prepared & Analyzed: 12/03/21						
Methanol	ND	10	mg/L		ND			NC	50	
Isopropanol	ND	10	mg/L		ND			NC	50	
Ethanol	ND	10	mg/L		ND			NC	50	
Propylene glycol	ND	10	mg/L		ND			NC	50	
Ethylene glycol	ND	10	mg/L		ND			NC	50	
Matrix Spike (B296024-MS1)	**Source: 21L0159-01**			Prepared & Analyzed: 12/03/21						
Methanol	111	10	mg/L	100	ND	111	40-140			
Isopropanol	111	10	mg/L	100	ND	111	40-140			
Ethanol	115	10	mg/L	100	ND	115	40-140			
Propylene glycol	114	10	mg/L	100	ND	114	40-140			
Ethylene glycol	83.0	10	mg/L	100	ND	83.0	40-140			

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FLAG/QUALIFIER SUMMARY

*	QC result is outside of established limits.
†	Wide recovery limits established for difficult compound.
‡	Wide RPD limits established for difficult compound.
#	Data exceeded client recommended or regulatory level
ND	Not Detected
RL	Reporting Limit is at the level of quantitation (LOQ)
DL	Detection Limit is the lower limit of detection determined by the MDL study
MCL	Maximum Contaminant Level
	Percent recoveries and relative percent differences (RPDs) are determined by the software using values in the calculation which have not been rounded.
	No results have been blank subtracted unless specified in the case narrative section.
H-10	Analysis was requested after the recommended holding time had passed.

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CERTIFICATIONS

Certified Analyses included in this Report

Analyte	Certifications
SW-846 8015C in Water	
Ethanol	NY
Ethylene glycol	NY

Con-Test, a Pace Environmental Laboratory, operates under the following certifications and accreditations:

Code	Description	Number	Expires
AIHA	AIHA-LAP, LLC - ISO17025:2017	100033	03/1/2022
MA	Massachusetts DEP	M-MA100	06/30/2022
CT	Connecticut Department of Publilc Health	PH-0165	12/31/2022
NY	New York State Department of Health	10899 NELAP	04/1/2022
NH-S	New Hampshire Environmental Lab	2516 NELAP	02/5/2022
RI	Rhode Island Department of Health	LAO00112	12/30/2021
NC	North Carolina Div. of Water Quality	652	12/31/2021
NJ	New Jersey DEP	MA007 NELAP	06/30/2022
FL	Florida Department of Health	E871027 NELAP	06/30/2022
VT	Vermont Department of Health Lead Laboratory	LL720741	07/30/2022
ME	State of Maine	MA00100	06/9/2023
VA	Commonwealth of Virginia	460217	12/14/2021
NH-P	New Hampshire Environmental Lab	2557 NELAP	09/6/2022
VT-DW	Vermont Department of Health Drinking Water	VT-255716	06/12/2022
NC-DW	North Carolina Department of Health	25703	07/31/2022
PA	Commonwealth of Pennsylvania DEP	68-05812	06/30/2022
MI	Dept. of Env, Great Lakes, and Energy	9100	09/6/2022

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

December 16, 2021

Greg Grose
Ramboll
4350 North Fairfax Dr
Suite 300
Arlington, VA 22203

RE: Project: HRP Alexandria CAPA
Pace Project No.: 92570908

Dear Greg Grose:

Enclosed are the analytical results for sample(s) received by the laboratory on November 05, 2021. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace National - Mt. Juliet
- Pace Analytical Services - Charlotte

A revised report is being submitted on 12/16/21 to report MDLs and applicable J vlags.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Angela M. Baioni

Angela Baioni
angela.baioni@pacelabs.com
(704)875-9092
Project Manager

Enclosures

cc: Taylor Carroll, Ramboll
Anne Kelly, Ramboll US Consulting, Inc.
Sarah Ostertag, Ramboll

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

CERTIFICATIONS

Project: HRP Alexandria CAPA
Pace Project No.: 92570908

Pace Analytical Services National

12065 Lebanon Road, Mt. Juliet, TN 37122
Alabama Certification #: 40660
Alaska Certification 17-026
Arizona Certification #: AZ0612
Arkansas Certification #: 88-0469
California Certification #: 2932
Canada Certification #: 1461.01
Colorado Certification #: TN00003
Connecticut Certification #: PH-0197
DOD Certification: #1461.01
EPA# TN00003
Florida Certification #: E87487
Georgia DW Certification #: 923
Georgia Certification: NELAP
Idaho Certification #: TN00003
Illinois Certification #: 200008
Indiana Certification #: C-TN-01
Iowa Certification #: 364
Kansas Certification #: E-10277
Kentucky UST Certification #: 16
Kentucky Certification #: 90010
Louisiana Certification #: AI30792
Louisiana DW Certification #: LA180010
Maine Certification #: TN0002
Maryland Certification #: 324
Massachusetts Certification #: M-TN003
Michigan Certification #: 9958
Minnesota Certification #: 047-999-395
Mississippi Certification #: TN00003
Missouri Certification #: 340
Montana Certification #: CERT0086
Nebraska Certification #: NE-OS-15-05
Nevada Certification #: TN-03-2002-34
New Hampshire Certification #: 2975
New Jersey Certification #: TN002
New Mexico DW Certification
New York Certification #: 11742
North Carolina Aquatic Toxicity Certification #: 41
North Carolina Drinking Water Certification #: 21704
North Carolina Environmental Certificate #: 375
North Dakota Certification #: R-140
Ohio VAP Certification #: CL0069
Oklahoma Certification #: 9915
Oregon Certification #: TN200002
Pennsylvania Certification #: 68-02979
Rhode Island Certification #: LAO00356
South Carolina Certification #: 84004
South Dakota Certification
Tennessee DW/Chem/Micro Certification #: 2006
Texas Certification #: T 104704245-17-14
Texas Mold Certification #: LAB0152
USDA Soil Permit #: P330-15-00234
Utah Certification #: TN00003
Virginia Certification #: VT2006
Vermont Dept. of Health: ID# VT-2006
Virginia Certification #: 460132
Washington Certification #: C847
West Virginia Certification #: 233
Wisconsin Certification #: 998093910
Wyoming UST Certification #: via A2LA 2926.01
A2LA-ISO 17025 Certification #: 1461.01
A2LA-ISO 17025 Certification #: 1461.02
AIHA-LAP/LLC EMLAP Certification #:100789

Pace Analytical Services Charlotte

South Carolina Laboratory ID: 99006
9800 Kincey Ave. Ste 100, Huntersville, NC 28078
North Carolina Drinking Water Certification #: 37706
North Carolina Field Services Certification #: 5342
North Carolina Wastewater Certification #: 12
South Carolina Laboratory ID: 99006
South Carolina Certification #: 99006001
South Carolina Drinking Water Cert. #: 99006003
Florida/NELAP Certification #: E87627
Kentucky UST Certification #: 84
Louisiana DoH Drinking Water #: LA029
Virginia/VELAP Certification #: 460221

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

SAMPLE SUMMARY

Project: HRP Alexandria CAPA
Pace Project No.: 92570908

Lab ID	Sample ID	Matrix	Date Collected	Date Received
92570908001	**HRP-MW05-211102**	Water	11/02/21 16:00	11/05/21 11:45
92570908002	**HRP-RW05S-211102**	Water	11/02/21 17:10	11/05/21 11:45
92570908003	**HRP-RW116S-211102**	Water	11/02/21 17:00	11/05/21 11:45
92570908004	**HRP-TW04-211102**	Water	11/02/21 15:00	11/05/21 11:45
92570908005	**HRP-TW05-211102**	Water	11/02/21 12:45	11/05/21 11:45
92570908006	**HRP-MW107-211102**	Water	11/02/21 10:40	11/05/21 11:45
92570908007	**HRP-RW117S-211103**	Water	11/03/21 10:20	11/05/21 11:45
92570908008	**HRP-MW104-211103**	Water	11/03/21 11:05	11/05/21 11:45
92570908009	**HRP-TW14-211104**	Water	11/04/21 14:00	11/05/21 11:45
92570908010	**HRP-EB11-211103**	Water	11/03/21 13:55	11/05/21 11:45
92570908011	**HRP-EB12-211103**	Water	11/03/21 14:00	11/05/21 11:45
92570908012	**HRP-TB03-211103**	Water	11/03/21 10:00	11/05/21 11:45

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

SAMPLE ANALYTE COUNT

Project: HRP Alexandria CAPA
Pace Project No.: 92570908

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
92570908001	**HRP-MW05-211102**	EPA 8015D	CAG	2	PAN
		EPA 8260D	SAS	4	PASI-C
92570908002	**HRP-RW05S-211102**	EPA 8015D	CAG	2	PAN
		EPA 8260D	SAS	4	PASI-C
92570908003	**HRP-RW116S-211102**	EPA 8015D	CAG	2	PAN
		EPA 8260D	SAS	4	PASI-C
92570908004	**HRP-TW04-211102**	EPA 8015D	CAG	2	PAN
		EPA 8260D	SAS	4	PASI-C
92570908005	**HRP-TW05-211102**	EPA 8015D	CAG	2	PAN
		EPA 8260D	SAS	4	PASI-C
92570908006	**HRP-MW107-211102**	EPA 8015D	CAG	2	PAN
		EPA 8260D	SAS	4	PASI-C
92570908007	**HRP-RW117S-211103**	EPA 8015D	CAG	2	PAN
		EPA 8260D	SAS	4	PASI-C
92570908008	**HRP-MW104-211103**	EPA 8015D	CAG	2	PAN
		EPA 8260D	NSCQ	4	PASI-C
92570908009	**HRP-TW14-211104**	EPA 8015D	CAG	2	PAN
		EPA 8260D	SAS	4	PASI-C
92570908010	**HRP-EB11-211103**	EPA 8015D	CAG	2	PAN
		EPA 8260D	NSCQ	4	PASI-C
92570908011	**HRP-EB12-211103**	EPA 8015D	CAG	2	PAN
		EPA 8260D	NSCQ	4	PASI-C
92570908012	**HRP-TB03-211103**	EPA 8260D	NSCQ	4	PASI-C

PAN = Pace National - Mt. Juliet
PASI-C = Pace Analytical Services - Charlotte

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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Huntersville, NC 28078
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ANALYTICAL RESULTS

Project: HRP Alexandria CAPA
Pace Project No.: 92570908

Sample: HRP-MW05-211102 **Lab ID: 92570908001** Collected: 11/02/21 16:00 Received: 11/05/21 11:45 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
SVOA (GC) 3511/8015	Analytical Method: EPA 8015D Preparation Method: 3511/8015 Pace National - Mt. Juliet								
Diesel Fuel Range	**6640**	ug/L	100	24.7	1	11/14/21 16:57	11/16/21 14:03	68334-30-5	pH
Surrogates									
o-Terphenyl (S)	118	%	31.0-160		1	11/14/21 16:57	11/16/21 14:03	84-15-1	
8260D MSV Low Level	Analytical Method: EPA 8260D Pace Analytical Services - Charlotte								
Naphthalene	**1.1**	ug/L	1.0	0.64	1		11/11/21 07:54	91-20-3	
Surrogates									
4-Bromofluorobenzene (S)	102	%	70-130		1		11/11/21 07:54	460-00-4	
1,2-Dichloroethane-d4 (S)	114	%	70-130		1		11/11/21 07:54	17060-07-0	
Toluene-d8 (S)	108	%	70-130		1		11/11/21 07:54	2037-26-5	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: HRP Alexandria CAPA
Pace Project No.: 92570908

Sample: HRP-RW05S-211102 **Lab ID: 92570908002** Collected: 11/02/21 17:10 Received: 11/05/21 11:45 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
SVOA (GC) 3511/8015	Analytical Method: EPA 8015D Preparation Method: 3511/8015 Pace National - Mt. Juliet								
Diesel Fuel Range	**20800**	ug/L	1000	247	10	11/14/21 16:57	11/16/21 17:01	68334-30-5	pH
Surrogates									
o-Terphenyl (S)	110	%	31.0-160		10	11/14/21 16:57	11/16/21 17:01	84-15-1	
8260D MSV Low Level	Analytical Method: EPA 8260D Pace Analytical Services - Charlotte								
Naphthalene	**0.91J**	ug/L	1.0	0.64	1		11/11/21 07:36	91-20-3	
Surrogates									
4-Bromofluorobenzene (S)	101	%	70-130		1		11/11/21 07:36	460-00-4	
1,2-Dichloroethane-d4 (S)	108	%	70-130		1		11/11/21 07:36	17060-07-0	
Toluene-d8 (S)	109	%	70-130		1		11/11/21 07:36	2037-26-5	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: HRP Alexandria CAPA
Pace Project No.: 92570908

Sample: HRP-RW116S-211102 **Lab ID: 92570908003** Collected: 11/02/21 17:00 Received: 11/05/21 11:45 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
SVOA (GC) 3511/8015	Analytical Method: EPA 8015D Preparation Method: 3511/8015 Pace National - Mt. Juliet								
Diesel Fuel Range	**13800**	ug/L	1000	247	10	11/14/21 16:57	11/16/21 16:17	68334-30-5	pH
Surrogates									
o-Terphenyl (S)	104	%	31.0-160		10	11/14/21 16:57	11/16/21 16:17	84-15-1	
8260D MSV Low Level	Analytical Method: EPA 8260D Pace Analytical Services - Charlotte								
Naphthalene	ND	ug/L	1.0	0.64	1		11/11/21 07:18	91-20-3	
Surrogates									
4-Bromofluorobenzene (S)	99	%	70-130		1		11/11/21 07:18	460-00-4	
1,2-Dichloroethane-d4 (S)	109	%	70-130		1		11/11/21 07:18	17060-07-0	
Toluene-d8 (S)	110	%	70-130		1		11/11/21 07:18	2037-26-5	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: HRP Alexandria CAPA
Pace Project No.: 92570908

Sample: HRP-TW04-211102 **Lab ID: 92570908004** Collected: 11/02/21 15:00 Received: 11/05/21 11:45 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
SVOA (GC) 3511/8015	Analytical Method: EPA 8015D Preparation Method: 3511/8015 Pace National - Mt. Juliet								
Diesel Fuel Range	**993**	ug/L	100	24.7	1	11/14/21 16:57	11/16/21 12:35	68334-30-5	pH
Surrogates									
o-Terphenyl (S)	112	%	31.0-160		1	11/14/21 16:57	11/16/21 12:35	84-15-1	
8260D MSV Low Level	Analytical Method: EPA 8260D Pace Analytical Services - Charlotte								
Naphthalene	ND	ug/L	1.0	0.64	1		11/09/21 06:49	91-20-3	
Surrogates									
4-Bromofluorobenzene (S)	102	%	70-130		1		11/09/21 06:49	460-00-4	
1,2-Dichloroethane-d4 (S)	100	%	70-130		1		11/09/21 06:49	17060-07-0	
Toluene-d8 (S)	106	%	70-130		1		11/09/21 06:49	2037-26-5	

REPORT OF LABORATORY ANALYSIS

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(704)875-9092

ANALYTICAL RESULTS

Project: HRP Alexandria CAPA
Pace Project No.: 92570908

Sample: HRP-TW05-211102 **Lab ID: 92570908005** Collected: 11/02/21 12:45 Received: 11/05/21 11:45 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
SVOA (GC) 3511/8015	Analytical Method: EPA 8015D Preparation Method: 3511/8015 Pace National - Mt. Juliet								
Diesel Fuel Range	**2940**	ug/L	100	24.7	1	11/14/21 16:57	11/16/21 12:56	68334-30-5	pH
Surrogates									
o-Terphenyl (S)	111	%	31.0-160		1	11/14/21 16:57	11/16/21 12:56	84-15-1	
8260D MSV Low Level	Analytical Method: EPA 8260D Pace Analytical Services - Charlotte								
Naphthalene	**0.89J**	ug/L	1.0	0.64	1		11/11/21 06:23	91-20-3	
Surrogates									
4-Bromofluorobenzene (S)	103	%	70-130		1		11/11/21 06:23	460-00-4	
1,2-Dichloroethane-d4 (S)	115	%	70-130		1		11/11/21 06:23	17060-07-0	
Toluene-d8 (S)	106	%	70-130		1		11/11/21 06:23	2037-26-5	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: HRP Alexandria CAPA
Pace Project No.: 92570908

Sample: HRP-MW107-211102 **Lab ID: 92570908006** Collected: 11/02/21 10:40 Received: 11/05/21 11:45 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
SVOA (GC) 3511/8015	Analytical Method: EPA 8015D Preparation Method: 3511/8015 Pace National - Mt. Juliet								
Diesel Fuel Range	**419**	ug/L	100	24.7	1	11/14/21 16:57	11/16/21 13:19	68334-30-5	pH
Surrogates									
o-Terphenyl (S)	103	%	31.0-160		1	11/14/21 16:57	11/16/21 13:19	84-15-1	
8260D MSV Low Level	Analytical Method: EPA 8260D Pace Analytical Services - Charlotte								
Naphthalene	ND	ug/L	1.0	0.64	1		11/09/21 06:30	91-20-3	
Surrogates									
4-Bromofluorobenzene (S)	100	%	70-130		1		11/09/21 06:30	460-00-4	
1,2-Dichloroethane-d4 (S)	101	%	70-130		1		11/09/21 06:30	17060-07-0	
Toluene-d8 (S)	106	%	70-130		1		11/09/21 06:30	2037-26-5	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: HRP Alexandria CAPA
Pace Project No.: 92570908

Sample: HRP-RW117S-211103 **Lab ID: 92570908007** Collected: 11/03/21 10:20 Received: 11/05/21 11:45 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
SVOA (GC) 3511/8015	Analytical Method: EPA 8015D Preparation Method: 3511/8015 Pace National - Mt. Juliet								
Diesel Fuel Range	**13400**	ug/L	2000	494	20	11/14/21 16:57	11/16/21 16:39	68334-30-5	pH
Surrogates									
o-Terphenyl (S)	105	%	31.0-160		20	11/14/21 16:57	11/16/21 16:39	84-15-1	S4
8260D MSV Low Level	Analytical Method: EPA 8260D Pace Analytical Services - Charlotte								
Naphthalene	ND	ug/L	1.0	0.64	1		11/11/21 06:42	91-20-3	
Surrogates									
4-Bromofluorobenzene (S)	100	%	70-130		1		11/11/21 06:42	460-00-4	
1,2-Dichloroethane-d4 (S)	115	%	70-130		1		11/11/21 06:42	17060-07-0	
Toluene-d8 (S)	109	%	70-130		1		11/11/21 06:42	2037-26-5	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: HRP Alexandria CAPA
Pace Project No.: 92570908

Sample: HRP-MW104-211103 **Lab ID: 92570908008** Collected: 11/03/21 11:05 Received: 11/05/21 11:45 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
SVOA (GC) 3511/8015	Analytical Method: EPA 8015D Preparation Method: 3511/8015 Pace National - Mt. Juliet								
Diesel Fuel Range	ND	ug/L	100	24.7	1	11/14/21 16:57	11/16/21 13:41	68334-30-5	pH
Surrogates									
o-Terphenyl (S)	90.0	%	31.0-160		1	11/14/21 16:57	11/16/21 13:41	84-15-1	
8260D MSV Low Level	Analytical Method: EPA 8260D Pace Analytical Services - Charlotte								
Naphthalene	ND	ug/L	1.0	0.64	1		11/09/21 07:01	91-20-3	
Surrogates									
4-Bromofluorobenzene (S)	102	%	70-130		1		11/09/21 07:01	460-00-4	
1,2-Dichloroethane-d4 (S)	97	%	70-130		1		11/09/21 07:01	17060-07-0	
Toluene-d8 (S)	106	%	70-130		1		11/09/21 07:01	2037-26-5	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: HRP Alexandria CAPA
Pace Project No.: 92570908

Sample: HRP-TW14-211104 **Lab ID: 92570908009** Collected: 11/04/21 14:00 Received: 11/05/21 11:45 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
SVOA (GC) 3511/8015	Analytical Method: EPA 8015D Preparation Method: 3511/8015 Pace National - Mt. Juliet								
Diesel Fuel Range	**3040**	ug/L	400	98.8	4	11/18/21 15:53	11/19/21 06:40	68334-30-5	pH
Surrogates									
o-Terphenyl (S)	116	%	31.0-160		4	11/18/21 15:53	11/19/21 06:40	84-15-1	
8260D MSV Low Level	Analytical Method: EPA 8260D Pace Analytical Services - Charlotte								
Naphthalene	ND	ug/L	1.0	0.64	1		11/11/21 07:00	91-20-3	
Surrogates									
4-Bromofluorobenzene (S)	101	%	70-130		1		11/11/21 07:00	460-00-4	
1,2-Dichloroethane-d4 (S)	113	%	70-130		1		11/11/21 07:00	17060-07-0	
Toluene-d8 (S)	108	%	70-130		1		11/11/21 07:00	2037-26-5	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: HRP Alexandria CAPA
Pace Project No.: 92570908

Sample: HRP-EB11-211103 **Lab ID: 92570908010** Collected: 11/03/21 13:55 Received: 11/05/21 11:45 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
SVOA (GC) 3511/8015	Analytical Method: EPA 8015D Preparation Method: 3511/8015 Pace National - Mt. Juliet								
Diesel Fuel Range	**256**	ug/L	100	24.7	1	11/14/21 16:57	11/16/21 18:29	68334-30-5	pH
Surrogates									
o-Terphenyl (S)	107	%	31.0-160		1	11/14/21 16:57	11/16/21 18:29	84-15-1	
8260D MSV Low Level	Analytical Method: EPA 8260D Pace Analytical Services - Charlotte								
Naphthalene	ND	ug/L	1.0	0.64	1		11/08/21 17:15	91-20-3	
Surrogates									
4-Bromofluorobenzene (S)	101	%	70-130		1		11/08/21 17:15	460-00-4	
1,2-Dichloroethane-d4 (S)	94	%	70-130		1		11/08/21 17:15	17060-07-0	
Toluene-d8 (S)	106	%	70-130		1		11/08/21 17:15	2037-26-5	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: HRP Alexandria CAPA
Pace Project No.: 92570908

Sample: HRP-EB12-211103 **Lab ID: 92570908011** Collected: 11/03/21 14:00 Received: 11/05/21 11:45 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
SVOA (GC) 3511/8015	Analytical Method: EPA 8015D Preparation Method: 3511/8015 Pace National - Mt. Juliet								
Diesel Fuel Range	ND	ug/L	100	24.7	1	11/14/21 16:57	11/16/21 14:48	68334-30-5	pH
Surrogates									
o-Terphenyl (S)	92.5	%	31.0-160		1	11/14/21 16:57	11/16/21 14:48	84-15-1	
8260D MSV Low Level	Analytical Method: EPA 8260D Pace Analytical Services - Charlotte								
Naphthalene	ND	ug/L	1.0	0.64	1		11/08/21 16:57	91-20-3	
Surrogates									
4-Bromofluorobenzene (S)	100	%	70-130		1		11/08/21 16:57	460-00-4	
1,2-Dichloroethane-d4 (S)	94	%	70-130		1		11/08/21 16:57	17060-07-0	
Toluene-d8 (S)	107	%	70-130		1		11/08/21 16:57	2037-26-5	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: HRP Alexandria CAPA
Pace Project No.: 92570908

Sample: HRP-TB03-211103 **Lab ID: 92570908012** Collected: 11/03/21 10:00 Received: 11/05/21 11:45 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260D MSV Low Level	Analytical Method: EPA 8260D Pace Analytical Services - Charlotte								
Naphthalene	ND	ug/L	1.0	0.64	1		11/08/21 15:47	91-20-3	
Surrogates									
4-Bromofluorobenzene (S)	101	%	70-130		1		11/08/21 15:47	460-00-4	
1,2-Dichloroethane-d4 (S)	94	%	70-130		1		11/08/21 15:47	17060-07-0	
Toluene-d8 (S)	107	%	70-130		1		11/08/21 15:47	2037-26-5	

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: HRP Alexandria CAPA
Pace Project No.: 92570908

QC Batch: 1774007
QC Batch Method: 3511/8015
Analysis Method: EPA 8015D
Analysis Description: SVOA (GC) 3511/8015
Laboratory: Pace National - Mt. Juliet
Associated Lab Samples: 92570908001, 92570908002, 92570908003, 92570908004, 92570908005, 92570908006, 92570908007, 92570908008, 92570908010, 92570908011

METHOD BLANK: R3729355-1 Matrix: Water
Associated Lab Samples: 92570908001, 92570908002, 92570908003, 92570908004, 92570908005, 92570908006, 92570908007, 92570908008, 92570908010, 92570908011

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Diesel Fuel Range	ug/L	ND	100	24.7	11/15/21 01:47	
o-Terphenyl (S)	%	90.5	31.0-160		11/15/21 01:47	

LABORATORY CONTROL SAMPLE & LCSD: R3729355-2 R3729355-3

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
Diesel Fuel Range	ug/L	1500	1460	1450	97.3	96.7	50.0-150	0.687	20	
o-Terphenyl (S)	%				94.0	94.5	31.0-160			

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: HRP Alexandria CAPA
Pace Project No.: 92570908

QC Batch: 1775926
QC Batch Method: 3511/8015
Analysis Method: EPA 8015D
Analysis Description: SVOA (GC) 3511/8015
Laboratory: Pace National - Mt. Juliet

Associated Lab Samples: 92570908009

METHOD BLANK: R3731572-1 Matrix: Water
Associated Lab Samples: 92570908009

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Diesel Fuel Range	ug/L	ND	100	24.7	11/19/21 02:40	
o-Terphenyl (S)	%	75	31.0-160		11/19/21 02:40	

LABORATORY CONTROL SAMPLE & LCSD: R3731572-2 R3731572-3

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
Diesel Fuel Range	ug/L	1500	1510	1520	101	101	50.0-150	0.660	20	
o-Terphenyl (S)	%				115	114	31.0-160			

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: HRP Alexandria CAPA
Pace Project No.: 92570908

QC Batch: 658243
QC Batch Method: EPA 8260D
Analysis Method: EPA 8260D
Analysis Description: 8260D MSV Low Level
Laboratory: Pace Analytical Services - Charlotte
Associated Lab Samples: 92570908010, 92570908011, 92570908012

METHOD BLANK: 3450097 Matrix: Water
Associated Lab Samples: 92570908010, 92570908011, 92570908012

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Naphthalene	ug/L	ND	1.0	0.64	11/08/21 14:54	
1,2-Dichloroethane-d4 (S)	%	94	70-130		11/08/21 14:54	
4-Bromofluorobenzene (S)	%	102	70-130		11/08/21 14:54	
Toluene-d8 (S)	%	107	70-130		11/08/21 14:54	

LABORATORY CONTROL SAMPLE: 3450098

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Naphthalene	ug/L	50	55.7	111	70-133	
1,2-Dichloroethane-d4 (S)	%			90	70-130	
4-Bromofluorobenzene (S)	%			97	70-130	
Toluene-d8 (S)	%			99	70-130	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3450099 3450100

Parameter	Units	92571045012 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Naphthalene	ug/L	ND	20	20	22.7	21.5	113	107	57-150	5	30	
1,2-Dichloroethane-d4 (S)	%						92	93	70-130			
4-Bromofluorobenzene (S)	%						97	97	70-130			
Toluene-d8 (S)	%						98	97	70-130			

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: HRP Alexandria CAPA
Pace Project No.: 92570908

QC Batch: 658248
QC Batch Method: EPA 8260D
Analysis Method: EPA 8260D
Analysis Description: 8260D MSV Low Level
Laboratory: Pace Analytical Services - Charlotte

Associated Lab Samples: 92570908008

METHOD BLANK: 3450121 Matrix: Water
Associated Lab Samples: 92570908008

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Naphthalene	ug/L	ND	1.0	0.64	11/09/21 02:19	
1,2-Dichloroethane-d4 (S)	%	95	70-130		11/09/21 02:19	
4-Bromofluorobenzene (S)	%	104	70-130		11/09/21 02:19	
Toluene-d8 (S)	%	108	70-130		11/09/21 02:19	

LABORATORY CONTROL SAMPLE: 3450122

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Naphthalene	ug/L	50	51.2	102	70-133	
1,2-Dichloroethane-d4 (S)	%			97	70-130	
4-Bromofluorobenzene (S)	%			100	70-130	
Toluene-d8 (S)	%			99	70-130	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3450123 3450124

Parameter	Units	92571063009 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Naphthalene	ug/L	ND	20	20	24.0	22.2	120	111	57-150	8	30	
1,2-Dichloroethane-d4 (S)	%						93	96	70-130			
4-Bromofluorobenzene (S)	%						98	97	70-130			
Toluene-d8 (S)	%						96	97	70-130			

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: HRP Alexandria CAPA
Pace Project No.: 92570908

QC Batch: 658251 | Analysis Method: EPA 8260D
QC Batch Method: EPA 8260D | Analysis Description: 8260D MSV Low Level
Laboratory: Pace Analytical Services - Charlotte
Associated Lab Samples: 92570908001, 92570908002, 92570908003, 92570908005, 92570908007, 92570908009

METHOD BLANK: 3450128 Matrix: Water
Associated Lab Samples: 92570908001, 92570908002, 92570908003, 92570908005, 92570908007, 92570908009

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Naphthalene	ug/L	ND	1.0	0.64	11/10/21 22:48	
1,2-Dichloroethane-d4 (S)	%	99	70-130		11/10/21 22:48	
4-Bromofluorobenzene (S)	%	99	70-130		11/10/21 22:48	
Toluene-d8 (S)	%	107	70-130		11/10/21 22:48	

LABORATORY CONTROL SAMPLE: 3450129

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Naphthalene	ug/L	50	51.1	102	70-133	
1,2-Dichloroethane-d4 (S)	%			97	70-130	
4-Bromofluorobenzene (S)	%			100	70-130	
Toluene-d8 (S)	%			97	70-130	

MATRIX SPIKE SAMPLE: 3450130

Parameter	Units	92570908001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Naphthalene	ug/L	1.1	20	23.8	114	57-150	
1,2-Dichloroethane-d4 (S)	%				119	70-130	
4-Bromofluorobenzene (S)	%				102	70-130	
Toluene-d8 (S)	%				100	70-130	

SAMPLE DUPLICATE: 3454226

Parameter	Units	92570908002 Result	Dup Result	RPD	Max RPD	Qualifiers
Naphthalene	ug/L	0.91J	0.95J		30	
1,2-Dichloroethane-d4 (S)	%	108	115			
4-Bromofluorobenzene (S)	%	101	102			
Toluene-d8 (S)	%	109	110			

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: HRP Alexandria CAPA
Pace Project No.: 92570908

QC Batch: 658254
QC Batch Method: EPA 8260D
Analysis Method: EPA 8260D
Analysis Description: 8260D MSV Low Level
Laboratory: Pace Analytical Services - Charlotte
Associated Lab Samples: 92570908004, 92570908006

METHOD BLANK: 3450138 Matrix: Water
Associated Lab Samples: 92570908004, 92570908006

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Naphthalene	ug/L	ND	1.0	0.64	11/09/21 00:11	
1,2-Dichloroethane-d4 (S)	%	99	70-130		11/09/21 00:11	
4-Bromofluorobenzene (S)	%	101	70-130		11/09/21 00:11	
Toluene-d8 (S)	%	105	70-130		11/09/21 00:11	

LABORATORY CONTROL SAMPLE: 3450139

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Naphthalene	ug/L	50	49.6	99	70-133	
1,2-Dichloroethane-d4 (S)	%			104	70-130	
4-Bromofluorobenzene (S)	%			102	70-130	
Toluene-d8 (S)	%			97	70-130	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3450140 3450141

Parameter	Units	92570908004 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Naphthalene	ug/L	ND	20	20	22.8	22.1	114	110	57-150	3	30	
1,2-Dichloroethane-d4 (S)	%						99	97	70-130			
4-Bromofluorobenzene (S)	%						101	101	70-130			
Toluene-d8 (S)	%						99	98	70-130			

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REPORT OF LABORATORY ANALYSIS

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QUALIFIERS

Project: HRP Alexandria CAPA
Pace Project No.: 92570908

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

Acid preservation may not be appropriate for 2 Chloroethylvinyl ether.

A separate vial preserved to a pH of 4-5 is recommended in SW846 Chapter 4 for the analysis of Acrolein and Acrylonitrile by EPA Method 8260.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

ANALYTE QUALIFIERS

S4	Surrogate recovery not evaluated against control limits due to sample dilution.
pH	Post-analysis pH measurement indicates insufficient VOA sample preservation.

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: HRP Alexandria CAPA
Pace Project No.: 92570908

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92570908001	**HRP-MW05-211102**	3511/8015	1774007	EPA 8015D	1774007
92570908002	**HRP-RW05S-211102**	3511/8015	1774007	EPA 8015D	1774007
92570908003	**HRP-RW116S-211102**	3511/8015	1774007	EPA 8015D	1774007
92570908004	**HRP-TW04-211102**	3511/8015	1774007	EPA 8015D	1774007
92570908005	**HRP-TW05-211102**	3511/8015	1774007	EPA 8015D	1774007
92570908006	**HRP-MW107-211102**	3511/8015	1774007	EPA 8015D	1774007
92570908007	**HRP-RW117S-211103**	3511/8015	1774007	EPA 8015D	1774007
92570908008	**HRP-MW104-211103**	3511/8015	1774007	EPA 8015D	1774007
92570908009	**HRP-TW14-211104**	3511/8015	1775926	EPA 8015D	1775926
92570908010	**HRP-EB11-211103**	3511/8015	1774007	EPA 8015D	1774007
92570908011	**HRP-EB12-211103**	3511/8015	1774007	EPA 8015D	1774007
92570908001	**HRP-MW05-211102**	EPA 8260D	658251		
92570908002	**HRP-RW05S-211102**	EPA 8260D	658251		
92570908003	**HRP-RW116S-211102**	EPA 8260D	658251		
92570908004	**HRP-TW04-211102**	EPA 8260D	658254		
92570908005	**HRP-TW05-211102**	EPA 8260D	658251		
92570908006	**HRP-MW107-211102**	EPA 8260D	658254		
92570908007	**HRP-RW117S-211103**	EPA 8260D	658251		
92570908008	**HRP-MW104-211103**	EPA 8260D	658248		
92570908009	**HRP-TW14-211104**	EPA 8260D	658251		
92570908010	**HRP-EB11-211103**	EPA 8260D	658243		
92570908011	**HRP-EB12-211103**	EPA 8260D	658243		
92570908012	**HRP-TB03-211103**	EPA 8260D	658243		

Pace Analytical®	Document Name: Sample Condition Upon Receipt(SCUR)	Document Revised: October 28, 2020 Page 1 of 2
	Document No.: F-CAR-CS-033-Rev.07	Issuing Authority: Pace Carolinas Quality Office

Laboratory receiving samples:
Asheville ☐ Eden ☐ Greenwood ☐ Huntersville ☐ Raleigh ☐ Mechanicsville ☒ Atlanta ☐ Kernersville ☐

Sample Condition Upon Receipt

WO# : 92570908

92570908

Client Name: Ramboll

Project #

Courier: ☒ Commercial ☐ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Pace ☐ Other:____

Custody Seal Present? ☐ Yes ☒ No Seals Intact? ☐ Yes ☐ No

Date/Initials Person Examining Contents: [illegible]

Packing Material: ☒ Bubble Wrap ☐ Bubble Bags ☐ None ☐ Other

Biological Tissue Frozen? ☐ Yes ☐ No ☒ N/A

Thermometer: ☒ IR Gun ID: T3

Type of Ice: ☒ Wet ☐ Blue ☐ None

Cooler Temp: 3.4 Correction Factor: Add/Subtract (°C) 0

Temp should be above freezing to 6°C
☐ Samples out of temp criteria. Samples on ice, cooling process has begun

Cooler Temp Corrected (°C): 3.4

USDA Regulated Soil (☐ N/A, water sample)

Did samples originate in a quarantine zone within the United States: CA, NY, or SC (check maps)? ☐ Yes ☒ No

Did samples originate from a foreign source (internationally, including Hawaii and Puerto Rico)? ☐ Yes ☒ No

				Comments/Discrepancy:
Chain of Custody Present?	☒ Yes	☐ No	☐ N/A	1.
Samples Arrived within Hold Time?	☒ Yes	☐ No	☐ N/A	2.
Short Hold Time Analysis (<72 hr.)?	☐ Yes	☒ No	☐ N/A	3.
Rush Turn Around Time Requested?	☐ Yes	☒ No	☐ N/A	4.
Sufficient Volume?	☒ Yes	☐ No	☐ N/A	5. 1/2 VOA for TPH-DRO
Correct Containers Used?	☒ Yes	☐ No	☐ N/A	6.
-Pace Containers Used?	☒ Yes	☐ No	☐ N/A	
Containers Intact?	☒ Yes	☐ No	☐ N/A	7.
Dissolved analysis: Samples Field Filtered?	☐ Yes	☒ No	☐ N/A	8.
Sample Labels Match COC? -Includes Date/Time/ID/Analysis Matrix:____	☐ Yes	☐ No	☐ N/A	9.
Headspace in VOA Vials (>5-6mm)?	☒ Yes	☐ No	☐ N/A	10. Documented on Chain
Trip Blank Present?	☒ Yes	☐ No	☐ N/A	11.
Trip Blank Custody Seals Present?	☒ Yes	☐ No	☐ N/A	

COMMENTS/SAMPLE DISCREPANCY

Field Data Required? ☐ Yes ☐ No

Lot ID of split containers:

CLIENT NOTIFICATION/RESOLUTION

Person contacted: _____ Date/Time: _____

Project Manager SCURF Review: _____ Date: _____

Project Manager SRF Review: _____ Date: _____

*Check mark top half of box if pH and/or dechlorination is verified and within the acceptance range for preservation samples.

Exceptions: VOA, Coliform, TOC, Oil and Grease, DRO/8015 (water) DOC, LLHg

**Bottom half of box is to list number of bottles

Project

WO#: 92570908

PM: AMB Due Date: 11/16/21

CLIENT: 92-RambollEn

Item#	BP4U-125 mL Plastic Unpreserved (N/A) (Cl-)	BP3U-250 mL Plastic Unpreserved (N/A)	BP2U-500 mL Plastic Unpreserved (N/A)	BP1U-1 liter Plastic Unpreserved (N/A)	BP4S-125 mL Plastic H2SO4 (pH < 2) (Cl-)	BP3N-250 mL plastic HNO3 (pH < 2)	BP4Z-125 mL Plastic ZN Acetate & NaOH (>9)	BP4C-125 mL Plastic NaOH (pH > 12) (Cl-)	WGFU-Wide-mouthed Glass jar Unpreserved	AG1U-1 liter Amber Unpreserved (N/A) (Cl-)	AG1H-1 liter Amber HCl (pH < 2)	AG3U-250 mL Amber Unpreserved (N/A) (Cl-)	AG1S-1 liter Amber H2SO4 (pH < 2)	AG3S-250 mL Amber H2SO4 (pH < 2)	AG3A(DG3A)-250 mL Amber NH4Cl (N/A)(Cl-)	DG9H-40 mL VOA HCl (N/A)	VG9T-40 mL VOA Na2S2O3 (N/A)	VG9U-40 mL VOA Unp (N/A)	DG9P-40 mL VOA H3PO4 (N/A)	VOAK (6 vials per kit)-5035 kit (N/A)	V/GK (3 vials per kit)-VPH/Gas kit (N/A)	SP5T-125 mL Sterile Plastic (N/A – lab)	SP2T-250 mL Sterile Plastic (N/A – lab)		BP3A-250 mL Plastic (NH2)2SO4 (9.3-9.7)	AG0U-100 mL Amber Unpreserved vials (N/A)	VSGU-20 mL Scintillation vials (N/A)	DG9U-40 mL Amber Unpreserved vials (N/A)
1																3		3											
2																3		3											
3																3		3											
4																3		3											
5																3		3											
6																3		3											
7																3		3											
8																3		3											
9																2		1											
10																3		3											
11																3		3											
12																2													

pH Adjustment Log for Preserved Samples

Sample ID	Type of Preservative	pH upon receipt	Date preservation adjusted	Time preservation adjusted	Amount of Preservative added	Lot #

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e. Out of hold, Incorrect preservative, out of temp, Incorrect containers.

Pace Analytical
www.pacelabs.com

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Pace Terms and Conditions found at https://info.pacelabs.com/hubfs/pas-standard-terms.pdf.

Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:	
Company:	Ramboll US Consulting, Inc.	Report To:	Anne Kelly	Attention:	
Address:	4350 North Fairfax Drive	Copy To:	Sarah Ostertag Greg Grose	Company Name:	
Arlington, VA 22203				Address:	
Email:	akelly@ramboll.com Sostertag@ramboll.com	Purchase Order #:		Pace Quote:	
Phone:	NONE Fax	Project Name:	HRP Alexandria	Pace Project Manager:	angela.baioni@pacelabs.com,
Requested Due Date:		Project #:		Pace Profile #:	8918

Regulatory Agency:

State / Location: VA

ITEM #	SAMPLE ID One Character per box. (A-Z, 0-9 / , -) Sample Ids must be unique	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	COLLECTED START TIME	COLLECTED END DATE	COLLECTED END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol	Other	Analyses Test: DRO by 8015	Naphthalene by 8260	Trip BLANK	Residual Chlorine (Y/N)	92570908
	MATRIX: Drinking Water DW, Water WT, Waste Water WW, Product P, Soil/Solid SL, Oil OL, Wipe WP, Air AR, Other OT, Tissue TS																	Y/N	N	N	NA	
1	HRP-MW05-211102	WT	G	11-2-21	1600				6	X			X					X	X			001
2	HRP-RW05S-211102	WT	G	11-2-21	1710				6	X			X					X	X			Water effervescing, bubbles unavoidable. 002
3	HRP-RW11S-211102	WT	G	11-2-21	1700				6	X			X					X	X			003
4	HRP-TW04-211102	WT	G	11-2-21	1500				6	X			X					X	X			004
5	HRP-TW05-211102	WT	G	11-2-21	1245				6	X			X					X	X			005
6	HRP-MW107-211102	WT	G	11-2-21	1040				6	X			X					X	X			006
7	HRP-RW11S-211103	WT	G	11-3-21	1020				6	X			X					X	X			Water effervescing, bubbles unavoidable. 007
8	HRP-MW104-211103	WT	G	11-3-21	1105				6	X			X					X	X			008
9	HRP-TW14-211104	WT	G	11-4-21	1400				3	X			X					X	X			See comments 009
10	HRP-EB11-211103	OT	NA	11-3-21	1355				6	X			X					X	X			Equipment Blank 010
11	HRP-EB12-211103	OT	NA	11-3-21	1400				6	X			X					X	X			Equipment Blank 011
12	HRP-TB03-211103	OT	NA	11-3-21	1000														X	X		Trip Blank 012

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME
HRP-TW14-211104: Due to low recovery, only 2 VOAs for Naphtha. and ½ VOA for TPH-DRO submitted. Run TPH-DRO if you can.	[signature] / Ramboll	11/5/21	0930	[signature]	11/5/21	9:30
	DCB-765-Recs/Ramboll	11/5/21	1145	Rashee Burruss	11-5-21	1145

SAMPLE CONDITIONS: TEMP in C | Received on Ice (Y/N) | Custody Sealed Cooler (Y/N) | Samples Intact (Y/N)

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Sarah Ostertag

SIGNATURE of SAMPLER: [signature] DATE Signed: 11/2/2021

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

December 16, 2021

Greg Grose
Ramboll
4350 North Fairfax Dr
Suite 300
Arlington, VA 22203

RE: Project: HRP Alexandria CAPA
Pace Project No.: 92570812

Dear Greg Grose:

Enclosed are the analytical results for sample(s) received by the laboratory on November 03, 2021. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace National - Mt. Juliet
- Pace Analytical Services - Charlotte

A revised report is being submitted on 12/16/21 to include MDLs and applicable J values.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Angela M. Baioni

Angela Baioni
angela.baioni@pacelabs.com
(704)875-9092
Project Manager

Enclosures

cc: Taylor Carroll, Ramboll
Anne Kelly, Ramboll US Consulting, Inc.
Sarah Ostertag, Ramboll

Pace Analytical Services, LLC
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CERTIFICATIONS

Project: HRP Alexandria CAPA
Pace Project No.: 92570812

Pace Analytical Services National

12065 Lebanon Road, Mt. Juliet, TN 37122
Alabama Certification #: 40660
Alaska Certification 17-026
Arizona Certification #: AZ0612
Arkansas Certification #: 88-0469
California Certification #: 2932
Canada Certification #: 1461.01
Colorado Certification #: TN00003
Connecticut Certification #: PH-0197
DOD Certification: #1461.01
EPA# TN00003
Florida Certification #: E87487
Georgia DW Certification #: 923
Georgia Certification: NELAP
Idaho Certification #: TN00003
Illinois Certification #: 200008
Indiana Certification #: C-TN-01
Iowa Certification #: 364
Kansas Certification #: E-10277
Kentucky UST Certification #: 16
Kentucky Certification #: 90010
Louisiana Certification #: AI30792
Louisiana DW Certification #: LA180010
Maine Certification #: TN0002
Maryland Certification #: 324
Massachusetts Certification #: M-TN003
Michigan Certification #: 9958
Minnesota Certification #: 047-999-395
Mississippi Certification #: TN00003
Missouri Certification #: 340
Montana Certification #: CERT0086
Nebraska Certification #: NE-OS-15-05
Nevada Certification #: TN-03-2002-34
New Hampshire Certification #: 2975
New Jersey Certification #: TN002
New Mexico DW Certification
New York Certification #: 11742
North Carolina Aquatic Toxicity Certification #: 41
North Carolina Drinking Water Certification #: 21704
North Carolina Environmental Certificate #: 375
North Dakota Certification #: R-140
Ohio VAP Certification #: CL0069
Oklahoma Certification #: 9915
Oregon Certification #: TN200002
Pennsylvania Certification #: 68-02979
Rhode Island Certification #: LAO00356
South Carolina Certification #: 84004
South Dakota Certification
Tennessee DW/Chem/Micro Certification #: 2006
Texas Certification #: T 104704245-17-14
Texas Mold Certification #: LAB0152
USDA Soil Permit #: P330-15-00234
Utah Certification #: TN00003
Virginia Certification #: VT2006
Vermont Dept. of Health: ID# VT-2006
Virginia Certification #: 460132
Washington Certification #: C847
West Virginia Certification #: 233
Wisconsin Certification #: 998093910
Wyoming UST Certification #: via A2LA 2926.01
A2LA-ISO 17025 Certification #: 1461.01
A2LA-ISO 17025 Certification #: 1461.02
AIHA-LAP/LLC EMLAP Certification #:100789

Pace Analytical Services Charlotte

South Carolina Laboratory ID: 99006
9800 Kincey Ave. Ste 100, Huntersville, NC 28078
North Carolina Drinking Water Certification #: 37706
North Carolina Field Services Certification #: 5342
North Carolina Wastewater Certification #: 12
South Carolina Laboratory ID: 99006
South Carolina Certification #: 99006001
South Carolina Drinking Water Cert. #: 99006003
Florida/NELAP Certification #: E87627
Kentucky UST Certification #: 84
Louisiana DoH Drinking Water #: LA029
Virginia/VELAP Certification #: 460221

Pace Analytical Services, LLC
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SAMPLE SUMMARY

Project: HRP Alexandria CAPA
Pace Project No.: 92570812

Lab ID	Sample ID	Matrix	Date Collected	Date Received
92570812001	**HRP-TW02-211101**	Water	11/01/21 12:43	11/03/21 14:55
92570812002	**HRP-TW03-211101**	Water	11/01/21 14:25	11/03/21 14:55
92570812003	**HRP-TW07-211101**	Water	11/01/21 15:50	11/03/21 14:55
92570812004	**HRP-TW06-211101**	Water	11/01/21 17:08	11/03/21 14:55
92570812005	**HRP-MW106-211101**	Water	11/01/21 10:35	11/03/21 14:55
92570812006	**HRP-MW33-211101**	Water	11/01/21 15:25	11/03/21 14:55
92570812007	**HRP-MW123S-211101**	Water	11/01/21 17:05	11/03/21 14:55
92570812008	**HRP-DUP06-211101**	Water	11/01/21 17:05	11/03/21 14:55
92570812009	**HRP-MW01S-211102**	Water	10/31/21 11:35	11/03/21 14:55
92570812010	**HRP-MW122-211102**	Water	11/02/21 14:20	11/03/21 14:55
92570812011	**HRP-DUP07-211102**	Water	11/02/21 14:20	11/03/21 14:55
92570812012	**HRP-TB02-21101**	Water	11/01/21 18:00	11/03/21 14:55

Pace Analytical Services, LLC
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(704)875-9092

SAMPLE ANALYTE COUNT

Project: HRP Alexandria CAPA
Pace Project No.: 92570812

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
92570812001	**HRP-TW02-211101**	EPA 8015D	CAG	2	PAN
		EPA 8260D	NSCQ	4	PASI-C
92570812002	**HRP-TW03-211101**	EPA 8015D	CAG	2	PAN
		EPA 8260D	NSCQ	4	PASI-C
92570812003	**HRP-TW07-211101**	EPA 8015D	CAG	2	PAN
		EPA 8260D	NSCQ	4	PASI-C
92570812004	**HRP-TW06-211101**	EPA 8015D	CAG	2	PAN
		EPA 8260D	SAS	4	PASI-C
92570812005	**HRP-MW106-211101**	EPA 8015D	CAG	2	PAN
		EPA 8260D	SAS	4	PASI-C
92570812006	**HRP-MW33-211101**	EPA 8015D	CAG	2	PAN
		EPA 8260D	SAS	4	PASI-C
92570812007	**HRP-MW123S-211101**	EPA 8015D	CAG	2	PAN
		EPA 8260D	SAS	4	PASI-C
92570812008	**HRP-DUP06-211101**	EPA 8015D	CAG	2	PAN
		EPA 8260D	SAS	4	PASI-C
92570812009	**HRP-MW01S-211102**	EPA 8015D	CAG	2	PAN
		EPA 8260D	NSCQ	4	PASI-C
92570812010	**HRP-MW122-211102**	EPA 8015D	CAG	2	PAN
		EPA 8260D	SAS	4	PASI-C
92570812011	**HRP-DUP07-211102**	EPA 8015D	CAG	2	PAN
		EPA 8260D	SAS	4	PASI-C
92570812012	**HRP-TB02-21101**	EPA 8260D	SAS	4	PASI-C

PAN = Pace National - Mt. Juliet
PASI-C = Pace Analytical Services - Charlotte

Pace Analytical Services, LLC
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Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: HRP Alexandria CAPA
Pace Project No.: 92570812

Sample: HRP-TW02-211101 **Lab ID: 92570812001** Collected: 11/01/21 12:43 Received: 11/03/21 14:55 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
SVOA (GC) 3511/8015	Analytical Method: EPA 8015D Preparation Method: 3511/8015 Pace National - Mt. Juliet								
Diesel Fuel Range	ND	ug/L	100	24.7	1	11/13/21 16:08	11/16/21 10:44	68334-30-5	pH
Surrogates									
o-Terphenyl (S)	97.4	%	31.0-160		1	11/13/21 16:08	11/16/21 10:44	84-15-1	
8260D MSV Low Level	Analytical Method: EPA 8260D Pace Analytical Services - Charlotte								
Naphthalene	ND	ug/L	1.0	0.64	1		11/06/21 09:23	91-20-3	
Surrogates									
4-Bromofluorobenzene (S)	98	%	70-130		1		11/06/21 09:23	460-00-4	
1,2-Dichloroethane-d4 (S)	104	%	70-130		1		11/06/21 09:23	17060-07-0	
Toluene-d8 (S)	101	%	70-130		1		11/06/21 09:23	2037-26-5	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: HRP Alexandria CAPA
Pace Project No.: 92570812

Sample: HRP-TW03-211101 **Lab ID: 92570812002** Collected: 11/01/21 14:25 Received: 11/03/21 14:55 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
SVOA (GC) 3511/8015	Analytical Method: EPA 8015D Preparation Method: 3511/8015 Pace National - Mt. Juliet								
Diesel Fuel Range	**296**	ug/L	100	24.7	1	11/13/21 16:08	11/15/21 08:00	68334-30-5	pH
Surrogates									
o-Terphenyl (S)	101	%	31.0-160		1	11/13/21 16:08	11/15/21 08:00	84-15-1	
8260D MSV Low Level	Analytical Method: EPA 8260D Pace Analytical Services - Charlotte								
Naphthalene	ND	ug/L	1.0	0.64	1		11/06/21 09:40	91-20-3	
Surrogates									
4-Bromofluorobenzene (S)	98	%	70-130		1		11/06/21 09:40	460-00-4	
1,2-Dichloroethane-d4 (S)	106	%	70-130		1		11/06/21 09:40	17060-07-0	
Toluene-d8 (S)	101	%	70-130		1		11/06/21 09:40	2037-26-5	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: HRP Alexandria CAPA
Pace Project No.: 92570812

Sample: HRP-TW07-211101 **Lab ID: 92570812003** Collected: 11/01/21 15:50 Received: 11/03/21 14:55 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
SVOA (GC) 3511/8015	Analytical Method: EPA 8015D Preparation Method: 3511/8015 Pace National - Mt. Juliet								
Diesel Fuel Range	**349**	ug/L	100	24.7	1	11/13/21 16:08	11/15/21 08:22	68334-30-5	pH
Surrogates									
o-Terphenyl (S)	104	%	31.0-160		1	11/13/21 16:08	11/15/21 08:22	84-15-1	
8260D MSV Low Level	Analytical Method: EPA 8260D Pace Analytical Services - Charlotte								
Naphthalene	ND	ug/L	1.0	0.64	1		11/06/21 09:57	91-20-3	
Surrogates									
4-Bromofluorobenzene (S)	97	%	70-130		1		11/06/21 09:57	460-00-4	
1,2-Dichloroethane-d4 (S)	104	%	70-130		1		11/06/21 09:57	17060-07-0	
Toluene-d8 (S)	101	%	70-130		1		11/06/21 09:57	2037-26-5	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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(704)875-9092

ANALYTICAL RESULTS

Project: HRP Alexandria CAPA
Pace Project No.: 92570812

Sample: HRP-TW06-211101 **Lab ID: 92570812004** Collected: 11/01/21 17:08 Received: 11/03/21 14:55 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
SVOA (GC) 3511/8015	Analytical Method: EPA 8015D Preparation Method: 3511/8015 Pace National - Mt. Juliet								
Diesel Fuel Range	**931**	ug/L	100	24.7	1	11/13/21 16:08	11/15/21 08:44	68334-30-5	pH
Surrogates									
o-Terphenyl (S)	114	%	31.0-160		1	11/13/21 16:08	11/15/21 08:44	84-15-1	
8260D MSV Low Level	Analytical Method: EPA 8260D Pace Analytical Services - Charlotte								
Naphthalene	ND	ug/L	1.0	0.64	1		11/06/21 22:20	91-20-3	
Surrogates									
4-Bromofluorobenzene (S)	95	%	70-130		1		11/06/21 22:20	460-00-4	
1,2-Dichloroethane-d4 (S)	96	%	70-130		1		11/06/21 22:20	17060-07-0	
Toluene-d8 (S)	106	%	70-130		1		11/06/21 22:20	2037-26-5	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: HRP Alexandria CAPA
Pace Project No.: 92570812

Sample: HRP-MW106-211101 **Lab ID: 92570812005** Collected: 11/01/21 10:35 Received: 11/03/21 14:55 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
SVOA (GC) 3511/8015	Analytical Method: EPA 8015D Preparation Method: 3511/8015 Pace National - Mt. Juliet								
Diesel Fuel Range	**1440**	ug/L	100	24.7	1	11/13/21 16:08	11/15/21 09:05	68334-30-5	pH
Surrogates									
o-Terphenyl (S)	102	%	31.0-160		1	11/13/21 16:08	11/15/21 09:05	84-15-1	
8260D MSV Low Level	Analytical Method: EPA 8260D Pace Analytical Services - Charlotte								
Naphthalene	ND	ug/L	1.0	0.64	1		11/06/21 19:37	91-20-3	
Surrogates									
4-Bromofluorobenzene (S)	96	%	70-130		1		11/06/21 19:37	460-00-4	
1,2-Dichloroethane-d4 (S)	98	%	70-130		1		11/06/21 19:37	17060-07-0	
Toluene-d8 (S)	102	%	70-130		1		11/06/21 19:37	2037-26-5	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: HRP Alexandria CAPA
Pace Project No.: 92570812

Sample: HRP-MW33-211101 **Lab ID: 92570812006** Collected: 11/01/21 15:25 Received: 11/03/21 14:55 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
SVOA (GC) 3511/8015	Analytical Method: EPA 8015D Preparation Method: 3511/8015 Pace National - Mt. Juliet								
Diesel Fuel Range	ND	ug/L	100	24.7	1	11/13/21 16:08	11/15/21 09:27	68334-30-5	
Surrogates									
o-Terphenyl (S)	91.6	%	31.0-160		1	11/13/21 16:08	11/15/21 09:27	84-15-1	
8260D MSV Low Level	Analytical Method: EPA 8260D Pace Analytical Services - Charlotte								
Naphthalene	ND	ug/L	1.0	0.64	1		11/06/21 19:55	91-20-3	
Surrogates									
4-Bromofluorobenzene (S)	91	%	70-130		1		11/06/21 19:55	460-00-4	
1,2-Dichloroethane-d4 (S)	95	%	70-130		1		11/06/21 19:55	17060-07-0	
Toluene-d8 (S)	107	%	70-130		1		11/06/21 19:55	2037-26-5	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: HRP Alexandria CAPA
Pace Project No.: 92570812

Sample: HRP-MW123S-211101 **Lab ID: 92570812007** Collected: 11/01/21 17:05 Received: 11/03/21 14:55 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
SVOA (GC) 3511/8015	Analytical Method: EPA 8015D Preparation Method: 3511/8015 Pace National - Mt. Juliet								
Diesel Fuel Range	**3030**	ug/L	100	24.7	1	11/13/21 16:08	11/15/21 09:49	68334-30-5	
Surrogates									
o-Terphenyl (S)	67.4	%	31.0-160		1	11/13/21 16:08	11/15/21 09:49	84-15-1	
8260D MSV Low Level	Analytical Method: EPA 8260D Pace Analytical Services - Charlotte								
Naphthalene	ND	ug/L	1.0	0.64	1		11/06/21 20:13	91-20-3	
Surrogates									
4-Bromofluorobenzene (S)	95	%	70-130		1		11/06/21 20:13	460-00-4	
1,2-Dichloroethane-d4 (S)	101	%	70-130		1		11/06/21 20:13	17060-07-0	
Toluene-d8 (S)	111	%	70-130		1		11/06/21 20:13	2037-26-5	

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ANALYTICAL RESULTS

Project: HRP Alexandria CAPA
Pace Project No.: 92570812

Sample: HRP-DUP06-211101 **Lab ID: 92570812008** Collected: 11/01/21 17:05 Received: 11/03/21 14:55 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
SVOA (GC) 3511/8015	Analytical Method: EPA 8015D Preparation Method: 3511/8015 Pace National - Mt. Juliet								
Diesel Fuel Range	**4530**	ug/L	200	49.4	2	11/13/21 16:08	11/15/21 10:11	68334-30-5	
Surrogates									
o-Terphenyl (S)	115	%	31.0-160		2	11/13/21 16:08	11/15/21 10:11	84-15-1	
8260D MSV Low Level	Analytical Method: EPA 8260D Pace Analytical Services - Charlotte								
Naphthalene	ND	ug/L	1.0	0.64	1		11/06/21 20:31	91-20-3	
Surrogates									
4-Bromofluorobenzene (S)	98	%	70-130		1		11/06/21 20:31	460-00-4	
1,2-Dichloroethane-d4 (S)	99	%	70-130		1		11/06/21 20:31	17060-07-0	
Toluene-d8 (S)	104	%	70-130		1		11/06/21 20:31	2037-26-5	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: HRP Alexandria CAPA
Pace Project No.: 92570812

Sample: HRP-MW01S-211102 **Lab ID: 92570812009** Collected: 10/31/21 11:35 Received: 11/03/21 14:55 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
SVOA (GC) 3511/8015	Analytical Method: EPA 8015D Preparation Method: 3511/8015 Pace National - Mt. Juliet								
Diesel Fuel Range	**3630**	ug/L	100	24.7	1	11/10/21 16:54	11/11/21 09:38	68334-30-5	pH
Surrogates									
o-Terphenyl (S)	116	%	31.0-160		1	11/10/21 16:54	11/11/21 09:38	84-15-1	
8260D MSV Low Level	Analytical Method: EPA 8260D Pace Analytical Services - Charlotte								
Naphthalene	ND	ug/L	1.0	0.64	1		11/06/21 09:05	91-20-3	
Surrogates									
4-Bromofluorobenzene (S)	100	%	70-130		1		11/06/21 09:05	460-00-4	
1,2-Dichloroethane-d4 (S)	103	%	70-130		1		11/06/21 09:05	17060-07-0	
Toluene-d8 (S)	99	%	70-130		1		11/06/21 09:05	2037-26-5	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: HRP Alexandria CAPA
Pace Project No.: 92570812

Sample: HRP-MW122-211102 **Lab ID: 92570812010** Collected: 11/02/21 14:20 Received: 11/03/21 14:55 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
SVOA (GC) 3511/8015	Analytical Method: EPA 8015D Preparation Method: 3511/8015 Pace National - Mt. Juliet								
Diesel Fuel Range	**2710**	ug/L	100	24.7	1	11/14/21 16:57	11/16/21 15:10	68334-30-5	pH
Surrogates									
o-Terphenyl (S)	111	%	31.0-160		1	11/14/21 16:57	11/16/21 15:10	84-15-1	
8260D MSV Low Level	Analytical Method: EPA 8260D Pace Analytical Services - Charlotte								
Naphthalene	ND	ug/L	1.0	0.64	1		11/06/21 20:49	91-20-3	
Surrogates									
4-Bromofluorobenzene (S)	96	%	70-130		1		11/06/21 20:49	460-00-4	
1,2-Dichloroethane-d4 (S)	102	%	70-130		1		11/06/21 20:49	17060-07-0	
Toluene-d8 (S)	106	%	70-130		1		11/06/21 20:49	2037-26-5	

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ANALYTICAL RESULTS

Project: HRP Alexandria CAPA
Pace Project No.: 92570812

Sample: HRP-DUP07-211102 **Lab ID: 92570812011** Collected: 11/02/21 14:20 Received: 11/03/21 14:55 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
SVOA (GC) 3511/8015	Analytical Method: EPA 8015D Preparation Method: 3511/8015 Pace National - Mt. Juliet								
Diesel Fuel Range	**2570**	ug/L	100	24.7	1	11/14/21 16:57	11/16/21 15:32	68334-30-5	pH
Surrogates									
o-Terphenyl (S)	110	%	31.0-160		1	11/14/21 16:57	11/16/21 15:32	84-15-1	
8260D MSV Low Level	Analytical Method: EPA 8260D Pace Analytical Services - Charlotte								
Naphthalene	ND	ug/L	1.0	0.64	1		11/06/21 21:07	91-20-3	
Surrogates									
4-Bromofluorobenzene (S)	100	%	70-130		1		11/06/21 21:07	460-00-4	
1,2-Dichloroethane-d4 (S)	98	%	70-130		1		11/06/21 21:07	17060-07-0	
Toluene-d8 (S)	106	%	70-130		1		11/06/21 21:07	2037-26-5	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: HRP Alexandria CAPA
Pace Project No.: 92570812

Sample: HRP-TB02-21101 **Lab ID: 92570812012** Collected: 11/01/21 18:00 Received: 11/03/21 14:55 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260D MSV Low Level	Analytical Method: EPA 8260D Pace Analytical Services - Charlotte								
Naphthalene	ND	ug/L	1.0	0.64	1		11/06/21 12:52	91-20-3	
Surrogates									
4-Bromofluorobenzene (S)	95	%	70-130		1		11/06/21 12:52	460-00-4	
1,2-Dichloroethane-d4 (S)	104	%	70-130		1		11/06/21 12:52	17060-07-0	
Toluene-d8 (S)	100	%	70-130		1		11/06/21 12:52	2037-26-5	

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: HRP Alexandria CAPA
Pace Project No.: 92570812

QC Batch: 1771975
QC Batch Method: 3511/8015
Analysis Method: EPA 8015D
Analysis Description: SVOA (GC) 3511/8015
Laboratory: Pace National - Mt. Juliet

Associated Lab Samples: 92570812009

METHOD BLANK: R3728357-1 Matrix: Water
Associated Lab Samples: 92570812009

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Diesel Fuel Range	ug/L	ND	100	24.7	11/10/21 23:47	
o-Terphenyl (S)	%	100	31.0-160		11/10/21 23:47	

LABORATORY CONTROL SAMPLE & LCSD: R3728357-2 R3728357-3

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
Diesel Fuel Range	ug/L	1500	1610	1580	107	105	50.0-150	1.88	20	
o-Terphenyl (S)	%				112	112	31.0-160			

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: HRP Alexandria CAPA
Pace Project No.: 92570812

QC Batch: 1772892 — Analysis Method: EPA 8015D
QC Batch Method: 3511/8015 — Analysis Description: SVOA (GC) 3511/8015
Laboratory: Pace National - Mt. Juliet
Associated Lab Samples: 92570812001, 92570812002, 92570812003, 92570812004, 92570812005, 92570812006, 92570812007, 92570812008

METHOD BLANK: R3729502-1 — Matrix: Water
Associated Lab Samples: 92570812001, 92570812002, 92570812003, 92570812004, 92570812005, 92570812006, 92570812007, 92570812008

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Diesel Fuel Range	ug/L	ND	100	24.7	11/15/21 01:05	
o-Terphenyl (S)	%	94	31.0-160		11/15/21 01:05	

LABORATORY CONTROL SAMPLE & LCSD: R3729502-2 R3729502-3

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
Diesel Fuel Range	ug/L	1500	1560	1570	104	105	50.0-150	0.639	20	
o-Terphenyl (S)	%				117	117	31.0-160			

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: HRP Alexandria CAPA
Pace Project No.: 92570812

QC Batch: 1774007
QC Batch Method: 3511/8015
Analysis Method: EPA 8015D
Analysis Description: SVOA (GC) 3511/8015
Laboratory: Pace National - Mt. Juliet
Associated Lab Samples: 92570812010, 92570812011

METHOD BLANK: R3729355-1 Matrix: Water
Associated Lab Samples: 92570812010, 92570812011

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Diesel Fuel Range	ug/L	ND	100	24.7	11/15/21 01:47	
o-Terphenyl (S)	%	90.5	31.0-160		11/15/21 01:47	

LABORATORY CONTROL SAMPLE & LCSD: R3729355-2 R3729355-3

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
Diesel Fuel Range	ug/L	1500	1460	1450	97.3	96.7	50.0-150	0.687	20	
o-Terphenyl (S)	%				94.0	94.5	31.0-160			

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: HRP Alexandria CAPA
Pace Project No.: 92570812

QC Batch: 657968
QC Batch Method: EPA 8260D
Analysis Method: EPA 8260D
Analysis Description: 8260D MSV Low Level
Laboratory: Pace Analytical Services - Charlotte
Associated Lab Samples: 92570812004, 92570812005, 92570812006, 92570812007, 92570812008, 92570812010, 92570812011

METHOD BLANK: 3448956 Matrix: Water
Associated Lab Samples: 92570812004, 92570812005, 92570812006, 92570812007, 92570812008, 92570812010, 92570812011

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Naphthalene	ug/L	ND	1.0	0.64	11/06/21 12:58	
1,2-Dichloroethane-d4 (S)	%	96	70-130		11/06/21 12:58	
4-Bromofluorobenzene (S)	%	102	70-130		11/06/21 12:58	
Toluene-d8 (S)	%	104	70-130		11/06/21 12:58	

LABORATORY CONTROL SAMPLE: 3448957

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Naphthalene	ug/L	50	48.3	97	70-133	
1,2-Dichloroethane-d4 (S)	%			101	70-130	
4-Bromofluorobenzene (S)	%			102	70-130	
Toluene-d8 (S)	%			96	70-130	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3448958 3448959

Parameter	Units	92570812005 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Naphthalene	ug/L	ND	20	20	21.0	20.2	105	101	57-150	4	30	
1,2-Dichloroethane-d4 (S)	%						111	108	70-130			
4-Bromofluorobenzene (S)	%						103	101	70-130			
Toluene-d8 (S)	%						97	99	70-130			

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: HRP Alexandria CAPA
Pace Project No.: 92570812

QC Batch: 657969
QC Batch Method: EPA 8260D
Analysis Method: EPA 8260D
Analysis Description: 8260D MSV Low Level
Laboratory: Pace Analytical Services - Charlotte
Associated Lab Samples: 92570812001, 92570812002, 92570812003, 92570812009

METHOD BLANK: 3448966 Matrix: Water
Associated Lab Samples: 92570812001, 92570812002, 92570812003, 92570812009

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Naphthalene	ug/L	ND	1.0	0.64	11/06/21 01:32	
1,2-Dichloroethane-d4 (S)	%	102	70-130		11/06/21 01:32	
4-Bromofluorobenzene (S)	%	102	70-130		11/06/21 01:32	
Toluene-d8 (S)	%	100	70-130		11/06/21 01:32	

LABORATORY CONTROL SAMPLE: 3448967

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Naphthalene	ug/L	50	56.6	113	70-133	
1,2-Dichloroethane-d4 (S)	%			104	70-130	
4-Bromofluorobenzene (S)	%			102	70-130	
Toluene-d8 (S)	%			98	70-130	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3448968 3448969

Parameter	Units	92570812003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Naphthalene	ug/L	ND	20	20	22.5	23.6	112	118	57-150	5	30	
1,2-Dichloroethane-d4 (S)	%						92	91	70-130			
4-Bromofluorobenzene (S)	%						96	95	70-130			
Toluene-d8 (S)	%						99	97	70-130			

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: HRP Alexandria CAPA
Pace Project No.: 92570812

QC Batch: 657972
QC Batch Method: EPA 8260D
Analysis Method: EPA 8260D
Analysis Description: 8260D MSV Low Level
Laboratory: Pace Analytical Services - Charlotte

Associated Lab Samples: 92570812012

METHOD BLANK: 3448976 Matrix: Water
Associated Lab Samples: 92570812012

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Naphthalene	ug/L	ND	1.0	0.64	11/06/21 11:58	
1,2-Dichloroethane-d4 (S)	%	98	70-130		11/06/21 11:58	
4-Bromofluorobenzene (S)	%	94	70-130		11/06/21 11:58	
Toluene-d8 (S)	%	101	70-130		11/06/21 11:58	

LABORATORY CONTROL SAMPLE: 3448977

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Naphthalene	ug/L	50	49.3	99	70-133	
1,2-Dichloroethane-d4 (S)	%			92	70-130	
4-Bromofluorobenzene (S)	%			100	70-130	
Toluene-d8 (S)	%			96	70-130	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3448978 3448979

Parameter	Units	92570893015 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Naphthalene	ug/L	ND	20	20	18.7	17.2	93	86	57-150	8	30	
1,2-Dichloroethane-d4 (S)	%						92	92	70-130			
4-Bromofluorobenzene (S)	%						96	96	70-130			
Toluene-d8 (S)	%						97	98	70-130			

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REPORT OF LABORATORY ANALYSIS

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QUALIFIERS

Project: HRP Alexandria CAPA
Pace Project No.: 92570812

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

Acid preservation may not be appropriate for 2 Chloroethylvinyl ether.

A separate vial preserved to a pH of 4-5 is recommended in SW846 Chapter 4 for the analysis of Acrolein and Acrylonitrile by EPA Method 8260.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

ANALYTE QUALIFIERS

pH	Post-analysis pH measurement indicates insufficient VOA sample preservation.

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: HRP Alexandria CAPA
Pace Project No.: 92570812

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92570812001	**HRP-TW02-211101**	3511/8015	1772892	EPA 8015D	1772892
92570812002	**HRP-TW03-211101**	3511/8015	1772892	EPA 8015D	1772892
92570812003	**HRP-TW07-211101**	3511/8015	1772892	EPA 8015D	1772892
92570812004	**HRP-TW06-211101**	3511/8015	1772892	EPA 8015D	1772892
92570812005	**HRP-MW106-211101**	3511/8015	1772892	EPA 8015D	1772892
92570812006	**HRP-MW33-211101**	3511/8015	1772892	EPA 8015D	1772892
92570812007	**HRP-MW123S-211101**	3511/8015	1772892	EPA 8015D	1772892
92570812008	**HRP-DUP06-211101**	3511/8015	1772892	EPA 8015D	1772892
92570812009	**HRP-MW01S-211102**	3511/8015	1771975	EPA 8015D	1771975
92570812010	**HRP-MW122-211102**	3511/8015	1774007	EPA 8015D	1774007
92570812011	**HRP-DUP07-211102**	3511/8015	1774007	EPA 8015D	1774007
92570812001	**HRP-TW02-211101**	EPA 8260D	657969		
92570812002	**HRP-TW03-211101**	EPA 8260D	657969		
92570812003	**HRP-TW07-211101**	EPA 8260D	657969		
92570812004	**HRP-TW06-211101**	EPA 8260D	657968		
92570812005	**HRP-MW106-211101**	EPA 8260D	657968		
92570812006	**HRP-MW33-211101**	EPA 8260D	657968		
92570812007	**HRP-MW123S-211101**	EPA 8260D	657968		
92570812008	**HRP-DUP06-211101**	EPA 8260D	657968		
92570812009	**HRP-MW01S-211102**	EPA 8260D	657969		
92570812010	**HRP-MW122-211102**	EPA 8260D	657968		
92570812011	**HRP-DUP07-211102**	EPA 8260D	657968		
92570812012	**HRP-TB02-21101**	EPA 8260D	657972		

Pace Analytical®	Document Name: Sample Condition Upon Receipt(SCUR)	Document Revised: October 28, 2020 Page 1 of 2
	Document No.: F-CAR-CS-033-Rev.07	Issuing Authority: Pace Carolinas Quality Office

Laboratory receiving samples:

Asheville ☐ Eden ☐ Greenwood ☐ Huntersville ☒ Raleigh ☐ Mechanicsville ☐ Atlanta ☐ Kernersville ☐

Sample Condition Upon Receipt

Client Name: Ramboll

Project #: WO# : 92570812

92570812

Courier: ☐ Commercial ☒ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Pace ☐ Other:____

Custody Seal Present? ☐ Yes ☒ No **Seals Intact?** ☐ Yes ☒ No

Date/Initials Person Examining Contents: KH 11/4/21

Packing Material: ☒ Bubble Wrap ☒ Bubble Bags ☐ None ☐ Other

Biological Tissue Frozen? ☐ Yes ☐ No ☒ N/A

Thermometer: ☒ IR Gun ID: 92T064 ☑ Wet ☐ Blue ☐ None

Type of Ice:

Cooler Temp: 5.9 **Correction Factor:** Add/Subtract (°C) 0

Cooler Temp Corrected (°C): 5.9

Temp should be above freezing to 6°C

☐ Samples out of temp criteria. Samples on ice, cooling process has begun

USDA Regulated Soil (☐ N/A, water sample)

Did samples originate in a quarantine zone within the United States: CA, NY, or SC (check maps)? ☐ Yes ☐ No

Did samples originate from a foreign source (internationally, including Hawaii and Puerto Rico)? ☐ Yes ☐ No

	KH 11/4/21			Comments/Discrepancy:
Chain of Custody Present?	☒ Yes	☒ No	☐ N/A	1.
Samples Arrived within Hold Time?	☒ Yes	☐ No	☐ N/A	2.
Short Hold Time Analysis (<72 hr.)?	☐ Yes	☒ No	☐ N/A	3.
Rush Turn Around Time Requested?	☐ Yes	☐ No	☐ N/A	4.
Sufficient Volume?	☒ Yes	☐ No	☐ N/A	5.
Correct Containers Used?	☒ Yes	☐ No	☐ N/A	6.
-Pace Containers Used?	☒ Yes	☐ No	☐ N/A	
Containers Intact?	☒ Yes	☐ No	☐ N/A	7.
Dissolved analysis: Samples Field Filtered?	☐ Yes	☐ No	☒ N/A	8.
Sample Labels Match COC?	☐ Yes	☐ No	☐ N/A	9.
-Includes Date/Time/ID/Analysis Matrix:____				
Headspace in VOA Vials (>5-6mm)?	☐ Yes	☐ No	☒ N/A	10.
Trip Blank Present?	☐ Yes	☒ No	☐ N/A	11.
Trip Blank Custody Seals Present?	☐ Yes	☐ No	☒ N/A	

COMMENTS/SAMPLE DISCREPANCY

Field Data Required? ☐ Yes ☐ No

Lot ID of split containers:

CLIENT NOTIFICATION/RESOLUTION

Person contacted: _____ Date/Time: _____

Project Manager SCURF Review: _____ **Date:** _____

Project Manager SRF Review: _____ **Date:** _____

***Check mark top half of box if pH and/or dechlorination is verified and within the acceptance range for preservation samples.**

Exceptions: VOA, Coliform, TOC, Oil and Grease, DRO/8015 (water) DOC, LLHg

****Bottom half of box is to list number of bottles**

Project

WO#: 92570812

PM: AMB Due Date: 11/12/21

CLIENT: 92-RambollEn

Item#	BP4U-125 mL Plastic Unpreserved (N/A) (Cl-)	BP3U-250 mL Plastic Unpreserved (N/A)	BP2U-500 mL Plastic Unpreserved (N/A)	BP1U-1 liter Plastic Unpreserved (N/A)	BP4S-125 mL Plastic H2SO4 (pH < 2) (Cl-)	BP3N-250 mL plastic HNO3 (pH < 2)	BP4Z-125 mL Plastic ZN Acetate & NaOH (>9)	BP4C-125 mL Plastic NaOH (pH > 12) (Cl-)	WGFU-Wide-mouthed Glass jar Unpreserved	AG1U-1 liter Amber Unpreserved (N/A) (Cl-)	AG1H-1 liter Amber HCl (pH < 2)	AG3U-250 mL Amber Unpreserved (N/A) (Cl-)	AG1S-1 liter Amber H2SO4 (pH < 2)	AG3S-250 mL Amber H2SO4 (pH < 2)	AG3A(DG3A)-250 mL Amber NH4Cl (N/A)(Cl-)	DG9H-40 mL VOA HCl (N/A)	VG9T-40 mL VOA Na2S2O3 (N/A)	VG9U-40 mL VOA Unp (N/A)	DG9P-40 mL VOA H3PO4 (N/A)	VOAK (6 vials per kit)-5035 kit (N/A)	V/GK (3 vials per kit)-VPH/Gas kit (N/A)	SP5T-125 mL Sterile Plastic (N/A – lab)	SP2T-250 mL Sterile Plastic (N/A – lab)		BP3A-250 mL Plastic (NH2)2SO4 (9.3-9.7)	AG0U-100 mL Amber Unpreserved vials (N/A)	VSGU-20 mL Scintillation vials (N/A)	DG9U-40 mL Amber Unpreserved vials (N/A)
1																3												3
2																3												3
3																3												3
4																3												3
5																3												3
6																3												3
7																3												3
8																3												3
9																3												3
10																3												3
11																3												3
12																2												

pH Adjustment Log for Preserved Samples

Sample ID	Type of Preservative	pH upon receipt	Date preservation adjusted	Time preservation adjusted	Amount of Preservative added	Lot #

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e. Out of hold, incorrect preservative, out of temp, incorrect containers.

Pace Analytical
WWW.PACELABS.COM

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Pace Terms and Conditions found at https://info.pacelabs.com/hubfs/pas-standard-terms.pdf.

Page : 1 Of 1

Section A – Required Client Information:		Section B – Required Project Information:		Section C – Invoice Information:	
Company:	Ramboll US Consulting, Inc.	Report To:	Anne Kelly	Attention:	
Address:	4350 North Fairfax Drive	Copy To:	Sarah Ostertag Greg Grose	Company Name:	
	Arlington, VA 22203			Address:	
Email:	akelly@ramboll.com Sostertag@ramboll.com	Purchase Order #:		Pace Quote:	
Phone:	NONE Fax	Project Name:	HRP Alexandria	Pace Project Manager:	angela.baioni@pacelabs.com,
Requested Due Date:		Project #:		Pace Profile #:	8918

Regulatory Agency	
State / Location	VA

ITEM #	SAMPLE ID One Character per box. (A-Z, 0-9 / , -) Sample Ids must be unique MATRIX / CODE: Drinking Water DW; Water WT; Waste Water WW; Product P; Soil/Solid SL; Oil OL; Wipe WP; Air AR; Other OT; Tissue TS	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	COLLECTED START TIME	COLLECTED END DATE	COLLECTED END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol	Other	Requested Analysis Filtered (Y/N) Y/N	Analyses Test: DRO by 8015	Naphthalene by 8260	Trip BLANK	Residual Chlorine (Y/N)	9257081C
																		Y/N	N	N	NA		
1	HRP-TW02-211101	WT GW	G	11.1.21	1243				6	X			X						X	X			001
2	HRP-TW03-211101	WT GW	G	11.1.21	1425				6	X			X						X	X			002
3	HRP-TW07-211101	WT GW	G	11.1.21	1550				6	X			X						X	X			003
4	HRP-TW06-211101	WT GW	G	11.1.21	1708				6	X			X						X	X			004
5	HRP-MW106-211101	WT	G	11.1.21	1035				6	X			X						X	X			005
6	HRP-MW 33-211101	WT	G	11.1.21	1525				6	X			X						X	X			006
7	HRP-MW 123S-211101	WT	G	11.1.21	1705				6	X			X						X	X			007
8	HRP-DUP06-211101	WT	G	11.1.21	1705				6	X			X						X	X			008
9	HRP-MW01S-211102	WT	G	11.2.21	1135				6	X			X						X	X			009
10	HRP-MW122-211102	WT	G	11.2.21	1420				6	X			X						X	X			010
11	HRP-DUP07-211102	WT	G	11.2.21	1420				6	X			X						X	X			011
12	HRP-TB02-211101	OT	N/A	11.1.21	1800				2											X	X			Trip Blank 012

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
	[signature] / Ramboll	11.3.21	1250	[signature]	11/3/21	1250				
	[signature]	11/3/21	1250	[signature] PACE	11/3/21	1455				
	[signature] PACE	11/3/21	1530	[signature] PACE	11/3/21	1830	5.9	Y	N	Y

SAMPLER NAME AND SIGNATURE		TEMP in C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
PRINT Name of SAMPLER:	Sarah Ostertag / Anne Kelly				
SIGNATURE of SAMPLER:	[signature] / [signature] DATE Signed: 11/1/2021				

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

December 16, 2021

Greg Grose
Ramboll
4350 North Fairfax Dr
Suite 300
Arlington, VA 22203

RE: Project: HRP-PRGS-CAPA
Pace Project No.: 92569702

Dear Greg Grose:

Enclosed are the analytical results for sample(s) received by the laboratory on October 29, 2021. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace National - Mt. Juliet
- Pace Analytical Services - Charlotte

A revised report is being submitted on 12/16/21 to include MDLs and applicable J values.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Angela M. Baioni

Angela Baioni
angela.baioni@pacelabs.com
(704)875-9092
Project Manager

Enclosures

cc: Taylor Carroll, Ramboll
Anne Kelly, Ramboll US Consulting, Inc.
Sarah Ostertag, Ramboll

Pace Analytical Services, LLC
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CERTIFICATIONS

Project: HRP-PRGS-CAPA
Pace Project No.: 92569702

Pace Analytical Services National

12065 Lebanon Road, Mt. Juliet, TN 37122
Alabama Certification #: 40660
Alaska Certification 17-026
Arizona Certification #: AZ0612
Arkansas Certification #: 88-0469
California Certification #: 2932
Canada Certification #: 1461.01
Colorado Certification #: TN00003
Connecticut Certification #: PH-0197
DOD Certification: #1461.01
EPA# TN00003
Florida Certification #: E87487
Georgia DW Certification #: 923
Georgia Certification: NELAP
Idaho Certification #: TN00003
Illinois Certification #: 200008
Indiana Certification #: C-TN-01
Iowa Certification #: 364
Kansas Certification #: E-10277
Kentucky UST Certification #: 16
Kentucky Certification #: 90010
Louisiana Certification #: AI30792
Louisiana DW Certification #: LA180010
Maine Certification #: TN0002
Maryland Certification #: 324
Massachusetts Certification #: M-TN003
Michigan Certification #: 9958
Minnesota Certification #: 047-999-395
Mississippi Certification #: TN00003
Missouri Certification #: 340
Montana Certification #: CERT0086
Nebraska Certification #: NE-OS-15-05
Nevada Certification #: TN-03-2002-34
New Hampshire Certification #: 2975
New Jersey Certification #: TN002
New Mexico DW Certification
New York Certification #: 11742
North Carolina Aquatic Toxicity Certification #: 41
North Carolina Drinking Water Certification #: 21704
North Carolina Environmental Certificate #: 375
North Dakota Certification #: R-140
Ohio VAP Certification #: CL0069
Oklahoma Certification #: 9915
Oregon Certification #: TN200002
Pennsylvania Certification #: 68-02979
Rhode Island Certification #: LAO00356
South Carolina Certification #: 84004
South Dakota Certification
Tennessee DW/Chem/Micro Certification #: 2006
Texas Certification #: T 104704245-17-14
Texas Mold Certification #: LAB0152
USDA Soil Permit #: P330-15-00234
Utah Certification #: TN00003
Virginia Certification #: VT2006
Vermont Dept. of Health: ID# VT-2006
Virginia Certification #: 460132
Washington Certification #: C847
West Virginia Certification #: 233
Wisconsin Certification #: 998093910
Wyoming UST Certification #: via A2LA 2926.01
A2LA-ISO 17025 Certification #: 1461.01
A2LA-ISO 17025 Certification #: 1461.02
AIHA-LAP/LLC EMLAP Certification #:100789

Pace Analytical Services Charlotte

South Carolina Laboratory ID: 99006
9800 Kincey Ave. Ste 100, Huntersville, NC 28078
North Carolina Drinking Water Certification #: 37706
North Carolina Field Services Certification #: 5342
North Carolina Wastewater Certification #: 12
South Carolina Laboratory ID: 99006
South Carolina Certification #: 99006001
South Carolina Drinking Water Cert. #: 99006003
Florida/NELAP Certification #: E87627
Kentucky UST Certification #: 84
Louisiana DoH Drinking Water #: LA029
Virginia/VELAP Certification #: 460221

Pace Analytical Services, LLC
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SAMPLE SUMMARY

Project: HRP-PRGS-CAPA
Pace Project No.: 92569702

Lab ID	Sample ID	Matrix	Date Collected	Date Received
92569702001	**HRP-MW27-211027**	Water	10/27/21 17:35	10/29/21 16:22
92569702002	**HRP-RW28S-211027**	Water	10/27/21 17:50	10/29/21 16:22
92569702003	**HRP-MW25S-211028**	Water	10/28/21 15:00	10/29/21 16:22
92569702004	**HRP-MW14-211028**	Water	10/28/21 14:35	10/29/21 16:22
92569702005	**HRP-RW118S-211028**	Water	10/28/21 16:30	10/29/21 16:22
92569702006	**HRP-MW25-211028**	Water	10/28/21 16:35	10/29/21 16:22
92569702007	**HRP-EB09-211028**	Water	10/28/21 17:15	10/29/21 16:22
92569702008	**HRP-EB10-211028**	Water	10/28/21 17:20	10/29/21 16:22
92569702009	**HRP-TB01-211028**	Water	10/28/21 17:25	10/29/21 16:22

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

SAMPLE ANALYTE COUNT

Project: HRP-PRGS-CAPA
Pace Project No.: 92569702

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
92569702001	**HRP-MW27-211027**	EPA 8015D	CAG	2	PAN
		EPA 8260D	CL	4	PASI-C
92569702002	**HRP-RW28S-211027**	EPA 8015D	CAG	2	PAN
		EPA 8260D	CL	4	PASI-C
92569702003	**HRP-MW25S-211028**	EPA 8015D	CAG	2	PAN
		EPA 8260D	CL	4	PASI-C
92569702004	**HRP-MW14-211028**	EPA 8015D	CAG	2	PAN
		EPA 8260D	CL	4	PASI-C
92569702005	**HRP-RW118S-211028**	EPA 8015D	CAG	2	PAN
		EPA 8260D	CL	4	PASI-C
92569702006	**HRP-MW25-211028**	EPA 8015D	CAG	2	PAN
		EPA 8260D	CL	4	PASI-C
92569702007	**HRP-EB09-211028**	EPA 8015D	CAG	2	PAN
		EPA 8260D	CL	4	PASI-C
92569702008	**HRP-EB10-211028**	EPA 8015D	CAG	2	PAN
		EPA 8260D	CL	4	PASI-C
92569702009	**HRP-TB01-211028**	EPA 8260D	CL	4	PASI-C

PAN = Pace National - Mt. Juliet
PASI-C = Pace Analytical Services - Charlotte

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: HRP-PRGS-CAPA
Pace Project No.: 92569702

Sample: HRP-MW27-211027 **Lab ID: 92569702001** Collected: 10/27/21 17:35 Received: 10/29/21 16:22 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
SVOA (GC) 3511/8015	Analytical Method: EPA 8015D Preparation Method: 3511/8015 Pace National - Mt. Juliet								
Diesel Fuel Range	**1720**	ug/L	100	24.7	1	11/09/21 10:08	11/09/21 19:39	68334-30-5	pH
Surrogates									
o-Terphenyl (S)	95.8	%	31.0-160		1	11/09/21 10:08	11/09/21 19:39	84-15-1	
8260D MSV Low Level	Analytical Method: EPA 8260D Pace Analytical Services - Charlotte								
Naphthalene	ND	ug/L	1.0	0.64	1		11/04/21 04:42	91-20-3	
Surrogates									
4-Bromofluorobenzene (S)	99	%	70-130		1		11/04/21 04:42	460-00-4	
1,2-Dichloroethane-d4 (S)	97	%	70-130		1		11/04/21 04:42	17060-07-0	
Toluene-d8 (S)	98	%	70-130		1		11/04/21 04:42	2037-26-5	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: HRP-PRGS-CAPA
Pace Project No.: 92569702

Sample: HRP-RW28S-211027 **Lab ID: 92569702002** Collected: 10/27/21 17:50 Received: 10/29/21 16:22 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
SVOA (GC) 3511/8015	Analytical Method: EPA 8015D Preparation Method: 3511/8015 Pace National - Mt. Juliet								
Diesel Fuel Range	**1330**	ug/L	100	24.7	1	11/09/21 10:08	11/09/21 19:59	68334-30-5	pH
Surrogates									
o-Terphenyl (S)	102	%	31.0-160		1	11/09/21 10:08	11/09/21 19:59	84-15-1	
8260D MSV Low Level	Analytical Method: EPA 8260D Pace Analytical Services - Charlotte								
Naphthalene	ND	ug/L	1.0	0.64	1		11/04/21 05:00	91-20-3	
Surrogates									
4-Bromofluorobenzene (S)	100	%	70-130		1		11/04/21 05:00	460-00-4	
1,2-Dichloroethane-d4 (S)	97	%	70-130		1		11/04/21 05:00	17060-07-0	
Toluene-d8 (S)	100	%	70-130		1		11/04/21 05:00	2037-26-5	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: HRP-PRGS-CAPA
Pace Project No.: 92569702

Sample: HRP-MW25S-211028 **Lab ID: 92569702003** Collected: 10/28/21 15:00 Received: 10/29/21 16:22 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
SVOA (GC) 3511/8015	Analytical Method: EPA 8015D Preparation Method: 3511/8015 Pace National - Mt. Juliet								
Diesel Fuel Range	**2110**	ug/L	100	24.7	1	11/10/21 13:28	11/11/21 13:21	68334-30-5	pH
Surrogates									
o-Terphenyl (S)	42.5	%	31.0-160		1	11/10/21 13:28	11/11/21 13:21	84-15-1	
8260D MSV Low Level	Analytical Method: EPA 8260D Pace Analytical Services - Charlotte								
Naphthalene	ND	ug/L	1.0	0.64	1		11/04/21 05:17	91-20-3	
Surrogates									
4-Bromofluorobenzene (S)	99	%	70-130		1		11/04/21 05:17	460-00-4	
1,2-Dichloroethane-d4 (S)	96	%	70-130		1		11/04/21 05:17	17060-07-0	
Toluene-d8 (S)	99	%	70-130		1		11/04/21 05:17	2037-26-5	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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ANALYTICAL RESULTS

Project: HRP-PRGS-CAPA
Pace Project No.: 92569702

Sample: HRP-MW14-211028 **Lab ID: 92569702004** Collected: 10/28/21 14:35 Received: 10/29/21 16:22 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
SVOA (GC) 3511/8015	Analytical Method: EPA 8015D Preparation Method: 3511/8015 Pace National - Mt. Juliet								
Diesel Fuel Range	**6490**	ug/L	500	123	5	11/10/21 13:28	11/12/21 05:43	68334-30-5	pH
Surrogates									
o-Terphenyl (S)	92.5	%	31.0-160		5	11/10/21 13:28	11/12/21 05:43	84-15-1	
8260D MSV Low Level	Analytical Method: EPA 8260D Pace Analytical Services - Charlotte								
Naphthalene	**0.85J**	ug/L	1.0	0.64	1		11/04/21 05:35	91-20-3	
Surrogates									
4-Bromofluorobenzene (S)	101	%	70-130		1		11/04/21 05:35	460-00-4	
1,2-Dichloroethane-d4 (S)	95	%	70-130		1		11/04/21 05:35	17060-07-0	
Toluene-d8 (S)	99	%	70-130		1		11/04/21 05:35	2037-26-5	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: HRP-PRGS-CAPA
Pace Project No.: 92569702

Sample: HRP-RW118S-211028 **Lab ID: 92569702005** Collected: 10/28/21 16:30 Received: 10/29/21 16:22 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
SVOA (GC) 3511/8015	Analytical Method: EPA 8015D Preparation Method: 3511/8015 Pace National - Mt. Juliet								
Diesel Fuel Range	**5310**	ug/L	500	123	5	11/10/21 13:28	11/12/21 06:09	68334-30-5	pH
Surrogates									
o-Terphenyl (S)	94.0	%	31.0-160		5	11/10/21 13:28	11/12/21 06:09	84-15-1	
8260D MSV Low Level	Analytical Method: EPA 8260D Pace Analytical Services - Charlotte								
Naphthalene	ND	ug/L	1.0	0.64	1		11/04/21 05:52	91-20-3	
Surrogates									
4-Bromofluorobenzene (S)	99	%	70-130		1		11/04/21 05:52	460-00-4	
1,2-Dichloroethane-d4 (S)	97	%	70-130		1		11/04/21 05:52	17060-07-0	
Toluene-d8 (S)	98	%	70-130		1		11/04/21 05:52	2037-26-5	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: HRP-PRGS-CAPA
Pace Project No.: 92569702

Sample: HRP-MW25-211028 **Lab ID: 92569702006** Collected: 10/28/21 16:35 Received: 10/29/21 16:22 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
SVOA (GC) 3511/8015	Analytical Method: EPA 8015D Preparation Method: 3511/8015 Pace National - Mt. Juliet								
Diesel Fuel Range	**8790**	ug/L	100	24.7	1	11/10/21 15:11	11/10/21 23:30	68334-30-5	pH
Surrogates									
o-Terphenyl (S)	117	%	31.0-160		1	11/10/21 15:11	11/10/21 23:30	84-15-1	
8260D MSV Low Level	Analytical Method: EPA 8260D Pace Analytical Services - Charlotte								
Naphthalene	ND	ug/L	1.0	0.64	1		11/04/21 06:10	91-20-3	
Surrogates									
4-Bromofluorobenzene (S)	101	%	70-130		1		11/04/21 06:10	460-00-4	
1,2-Dichloroethane-d4 (S)	95	%	70-130		1		11/04/21 06:10	17060-07-0	
Toluene-d8 (S)	99	%	70-130		1		11/04/21 06:10	2037-26-5	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: HRP-PRGS-CAPA
Pace Project No.: 92569702

Sample: HRP-EB09-211028 **Lab ID: 92569702007** Collected: 10/28/21 17:15 Received: 10/29/21 16:22 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
SVOA (GC) 3511/8015	Analytical Method: EPA 8015D Preparation Method: 3511/8015 Pace National - Mt. Juliet								
Diesel Fuel Range	**231**	ug/L	100	24.7	1	11/10/21 15:11	11/11/21 22:46	68334-30-5	pH
Surrogates									
o-Terphenyl (S)	88.5	%	31.0-160		1	11/10/21 15:11	11/11/21 22:46	84-15-1	
8260D MSV Low Level	Analytical Method: EPA 8260D Pace Analytical Services - Charlotte								
Naphthalene	ND	ug/L	1.0	0.64	1		11/04/21 02:05	91-20-3	
Surrogates									
4-Bromofluorobenzene (S)	99	%	70-130		1		11/04/21 02:05	460-00-4	
1,2-Dichloroethane-d4 (S)	95	%	70-130		1		11/04/21 02:05	17060-07-0	
Toluene-d8 (S)	99	%	70-130		1		11/04/21 02:05	2037-26-5	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: HRP-PRGS-CAPA
Pace Project No.: 92569702

Sample: HRP-EB10-211028 **Lab ID: 92569702008** Collected: 10/28/21 17:20 Received: 10/29/21 16:22 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
SVOA (GC) 3511/8015	Analytical Method: EPA 8015D Preparation Method: 3511/8015 Pace National - Mt. Juliet								
Diesel Fuel Range	ND	ug/L	100	24.7	1	11/10/21 15:11	11/11/21 21:54	68334-30-5	pH
Surrogates									
o-Terphenyl (S)	87.5	%	31.0-160		1	11/10/21 15:11	11/11/21 21:54	84-15-1	
8260D MSV Low Level	Analytical Method: EPA 8260D Pace Analytical Services - Charlotte								
Naphthalene	ND	ug/L	1.0	0.64	1		11/04/21 02:22	91-20-3	
Surrogates									
4-Bromofluorobenzene (S)	100	%	70-130		1		11/04/21 02:22	460-00-4	
1,2-Dichloroethane-d4 (S)	95	%	70-130		1		11/04/21 02:22	17060-07-0	
Toluene-d8 (S)	98	%	70-130		1		11/04/21 02:22	2037-26-5	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: HRP-PRGS-CAPA
Pace Project No.: 92569702

Sample: HRP-TB01-211028 **Lab ID: 92569702009** Collected: 10/28/21 17:25 Received: 10/29/21 16:22 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260D MSV Low Level	Analytical Method: EPA 8260D Pace Analytical Services - Charlotte								
Naphthalene	ND	ug/L	1.0	0.64	1		11/04/21 02:40	91-20-3	
Surrogates									
4-Bromofluorobenzene (S)	98	%	70-130		1		11/04/21 02:40	460-00-4	
1,2-Dichloroethane-d4 (S)	98	%	70-130		1		11/04/21 02:40	17060-07-0	
Toluene-d8 (S)	99	%	70-130		1		11/04/21 02:40	2037-26-5	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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QUALITY CONTROL DATA

Project: HRP-PRGS-CAPA
Pace Project No.: 92569702

QC Batch: 1770405
QC Batch Method: 3511/8015
Analysis Method: EPA 8015D
Analysis Description: SVOA (GC) 3511/8015
Laboratory: Pace National - Mt. Juliet
Associated Lab Samples: 92569702001, 92569702002

METHOD BLANK: R3727558-1 Matrix: Water
Associated Lab Samples: 92569702001, 92569702002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Diesel Fuel Range	ug/L	ND	100	24.7	11/09/21 15:38	
o-Terphenyl (S)	%	96.5	31.0-160		11/09/21 15:38	

LABORATORY CONTROL SAMPLE & LCSD: R3727558-2 R3727558-3

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
Diesel Fuel Range	ug/L	1500	1500	1620	100	108	50.0-150	7.69	20	
o-Terphenyl (S)	%				116	64.0	31.0-160			

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: HRP-PRGS-CAPA
Pace Project No.: 92569702

QC Batch: 1771432
QC Batch Method: 3511/8015
Analysis Method: EPA 8015D
Analysis Description: SVOA (GC) 3511/8015
Laboratory: Pace National - Mt. Juliet
Associated Lab Samples: 92569702003, 92569702004, 92569702005

METHOD BLANK: R3728420-1 Matrix: Water
Associated Lab Samples: 92569702003, 92569702004, 92569702005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Diesel Fuel Range	ug/L	ND	100	24.7	11/11/21 06:52	
o-Terphenyl (S)	%	84.5	31.0-160		11/11/21 06:52	

LABORATORY CONTROL SAMPLE & LCSD: R3728420-2 R3728420-3

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
Diesel Fuel Range	ug/L	1500	1500	1520	100	101	50.0-150	1.32	20	
o-Terphenyl (S)	%				95.0	93.0	31.0-160			

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: HRP-PRGS-CAPA
Pace Project No.: 92569702

QC Batch: 1771434
QC Batch Method: 3511/8015
Analysis Method: EPA 8015D
Analysis Description: SVOA (GC) 3511/8015
Laboratory: Pace National - Mt. Juliet
Associated Lab Samples: 92569702006, 92569702007, 92569702008

METHOD BLANK: R3728282-1 Matrix: Water
Associated Lab Samples: 92569702006, 92569702007, 92569702008

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Diesel Fuel Range	ug/L	ND	100	24.7	11/10/21 18:45	
o-Terphenyl (S)	%	93.5	31.0-160		11/10/21 18:45	

LABORATORY CONTROL SAMPLE & LCSD: R3728282-2 R3728282-3

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
Diesel Fuel Range	ug/L	1500	1460	1500	97.3	100	50.0-150	2.70	20	
o-Terphenyl (S)	%				87.5	93.0	31.0-160			

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: HRP-PRGS-CAPA
Pace Project No.: 92569702

QC Batch: 656942 | Analysis Method: EPA 8260D
QC Batch Method: EPA 8260D | Analysis Description: 8260D MSV Low Level
Laboratory: Pace Analytical Services - Charlotte
Associated Lab Samples: 92569702001, 92569702002, 92569702003, 92569702004, 92569702005, 92569702006, 92569702007, 92569702008, 92569702009

METHOD BLANK: 3443592 Matrix: Water
Associated Lab Samples: 92569702001, 92569702002, 92569702003, 92569702004, 92569702005, 92569702006, 92569702007, 92569702008, 92569702009

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Naphthalene	ug/L	ND	1.0	0.64	11/04/21 01:30	
1,2-Dichloroethane-d4 (S)	%	95	70-130		11/04/21 01:30	
4-Bromofluorobenzene (S)	%	100	70-130		11/04/21 01:30	
Toluene-d8 (S)	%	99	70-130		11/04/21 01:30	

LABORATORY CONTROL SAMPLE: 3443593

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Naphthalene	ug/L	50	54.5	109	70-133	
1,2-Dichloroethane-d4 (S)	%			97	70-130	
4-Bromofluorobenzene (S)	%			101	70-130	
Toluene-d8 (S)	%			98	70-130	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3443594 3443595

Parameter	Units	92569702006 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Naphthalene	ug/L	ND	20	20	27.2	24.3	134	119	57-150	11	30	
1,2-Dichloroethane-d4 (S)	%						99	97	70-130			
4-Bromofluorobenzene (S)	%						102	102	70-130			
Toluene-d8 (S)	%						96	96	70-130			

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

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QUALIFIERS

Project: HRP-PRGS-CAPA
Pace Project No.: 92569702

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

Acid preservation may not be appropriate for 2 Chloroethylvinyl ether.

A separate vial preserved to a pH of 4-5 is recommended in SW846 Chapter 4 for the analysis of Acrolein and Acrylonitrile by EPA Method 8260.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

ANALYTE QUALIFIERS

pH	Post-analysis pH measurement indicates insufficient VOA sample preservation.

Pace Analytical Services, LLC
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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: HRP-PRGS-CAPA
Pace Project No.: 92569702

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92569702001	**HRP-MW27-211027**	3511/8015	1770405	EPA 8015D	1770405
92569702002	**HRP-RW28S-211027**	3511/8015	1770405	EPA 8015D	1770405
92569702003	**HRP-MW25S-211028**	3511/8015	1771432	EPA 8015D	1771432
92569702004	**HRP-MW14-211028**	3511/8015	1771432	EPA 8015D	1771432
92569702005	**HRP-RW118S-211028**	3511/8015	1771432	EPA 8015D	1771432
92569702006	**HRP-MW25-211028**	3511/8015	1771434	EPA 8015D	1771434
92569702007	**HRP-EB09-211028**	3511/8015	1771434	EPA 8015D	1771434
92569702008	**HRP-EB10-211028**	3511/8015	1771434	EPA 8015D	1771434
92569702001	**HRP-MW27-211027**	EPA 8260D	656942		
92569702002	**HRP-RW28S-211027**	EPA 8260D	656942		
92569702003	**HRP-MW25S-211028**	EPA 8260D	656942		
92569702004	**HRP-MW14-211028**	EPA 8260D	656942		
92569702005	**HRP-RW118S-211028**	EPA 8260D	656942		
92569702006	**HRP-MW25-211028**	EPA 8260D	656942		
92569702007	**HRP-EB09-211028**	EPA 8260D	656942		
92569702008	**HRP-EB10-211028**	EPA 8260D	656942		
92569702009	**HRP-TB01-211028**	EPA 8260D	656942		

Pace Analytical®	Document Name: Sample Condition Upon Receipt(SCUR)	Document Revised: October 28, 2020 Page 1 of 2
	Document No.: F-CAR-CS-033-Rev.07	Issuing Authority: Pace Carolinas Quality Office

Laboratory receiving samples:

Asheville ☐ Eden ☐ Greenwood ☐ Huntersville ☑ Raleigh ☐ Mechanicsville ☐ Atlanta ☐ Kernersville ☐

Sample Condition Upon Receipt

Client Name: Ramboll

Project # WO# : 92569702

92569702

Courier: ☐ Commercial ☑ Fed Ex ☐ Pace ☐ UPS ☐ USPS ☐ Other:____ ☐ Client

Custody Seal Present? ☐ Yes ☑ No **Seals Intact?** ☐ Yes ☑ No

Date/Initials Person Examining Contents: 11/4/21 KS

Packing Material: ☐ Bubble Wrap ☑ Bubble Bags ☐ None ☐ Other

Biological Tissue Frozen? ☐ Yes ☐ No ☑ N/A

Thermometer: ☑ IR Gun ID: 92T064 **Type of Ice:** ☑ Wet ☐ Blue ☐ None

Cooler Temp: 2.9 **Correction Factor:** Add/Subtract (°C) 0

Cooler Temp Corrected (°C): 2.9

Temp should be above freezing to 6°C

☐ Samples out of temp criteria. Samples on ice, cooling process has begun

USDA Regulated Soil (☑ N/A, water sample)

Did samples originate in a quarantine zone within the United States: CA, NY, or SC (check maps)? ☐ Yes ☐ No

Did samples originate from a foreign source (Internationally, including Hawaii and Puerto Rico)? ☐ Yes ☐ No

				Comments/Discrepancy:
Chain of Custody Present?	☑ Yes	☐ No	☐ N/A	1.
Samples Arrived within Hold Time?	☑ Yes	☐ No	☐ N/A	2.
Short Hold Time Analysis (<72 hr.)?	☐ Yes	☑ No	☐ N/A	3.
Rush Turn Around Time Requested?	☐ Yes	☑ No	☐ N/A	4.
Sufficient Volume?	☑ Yes	☐ No	☐ N/A	5.
Correct Containers Used?	☑ Yes	☐ No	☐ N/A	6.
-Pace Containers Used?	☑ Yes	☐ No	☐ N/A	
Containers Intact?	☑ Yes	☐ No	☐ N/A	7.
Dissolved analysis: Samples Field Filtered?	☐ Yes	☐ No	☑ N/A	8.
Sample Labels Match COC? -Includes Date/Time/ID/Analysis Matrix: WT	☑ Yes	☐ No	☐ N/A	9.
Headspace in VOA Vials (>5-6mm)?	☐ Yes	☑ No	☐ N/A	10.
Trip Blank Present?	☑ Yes	☐ No	☐ N/A	11.
Trip Blank Custody Seals Present?	☑ Yes	☐ No	☐ N/A	

COMMENTS/SAMPLE DISCREPANCY

Field Data Required? ☐ Yes ☐ No

Lot ID of split containers:

CLIENT NOTIFICATION/RESOLUTION

Person contacted: _____ Date/Time: _____

Project Manager SCURF Review: _____ **Date:** _____

Project Manager SRF Review: _____ **Date:** _____

***Check mark top half of box if pH and/or dechlorination is verified and within the acceptance range for preservation samples.**

Exceptions: VOA, Coliform, TOC, Oil and Grease, DRO/8015 (water) DOC, LLHg

****Bottom half of box is to list number of bottles**

Project

WO# : 92569702

PM: AMB Due Date: 11/09/21

CLIENT: 92-RambollEn

Item#	BP4U-125 mL Plastic Unpreserved (N/A) (Cl-)	BP3U-250 mL Plastic Unpreserved (N/A)	BP2U-500 mL Plastic Unpreserved (N/A)	BP1U-1 liter Plastic Unpreserved (N/A)	BP4S-125 mL Plastic H2SO4 (pH < 2) (Cl-)	BP3N-250 mL plastic HNO3 (pH < 2)	BP4Z-125 mL Plastic ZN Acetate & NaOH (>9)	BP4C-125 mL Plastic NaOH (pH > 12) (Cl-)	WGFU-Wide-mouthed Glass jar Unpreserved	AG1U-1 liter Amber Unpreserved (N/A) (Cl-)	AG1H-1 liter Amber HCl (pH < 2)	AG3U-250 mL Amber Unpreserved (N/A) (Cl-)	AG1S-1 liter Amber H2SO4 (pH < 2)	AG3S-250 mL Amber H2SO4 (pH < 2)	AG3A(DG3A)-250 mL Amber NH4Cl (N/A)(Cl-)	DG9H-40 mL VOA HCl (N/A)	VG9T-40 mL VOA Na2S2O3 (N/A)	VG9U-40 mL VOA Unp (N/A)	DG9P-40 mL VOA H3PO4 (N/A)	VOAK (6 vials per kit)-5035 kit (N/A)	V/GK (3 vials per kit)-VPH/Gas kit (N/A)	SP5T-125 mL Sterile Plastic (N/A – lab)	SP2T-250 mL Sterile Plastic (N/A – lab)		BP3A-250 mL Plastic (NH2)2SO4 (9.3-9.7)	AG0U-100 mL Amber Unpreserved vials (N/A)	VSGU-20 mL Scintillation vials (N/A)	DG9U-40 mL Amber Unpreserved vials (N/A)
1	\				\	\	\	\			\		\	\	\	3								\	\			3
2	\				\	\	\	\			\		\	\	\	3								\	\			3
3	\				\	\	\	\			\		\	\	\	3								\	\			3
4	\				\	\	\	\			\		\	\	\	3								\	\			3
5	\				\	\	\	\			\		\	\	\	3								\	\			3
6	\				\	\	\	\			\		\	\	\	3								\	\			3
7	\				\	\	\	\			\		\	\	\	3								\	\			3
8	\				\	\	\	\			\		\	\	\	3								\	\			3
9	\				\	\	\	\			\		\	\	\	2								\	\			
10	\				\	\	\	\			\		\	\	\									\	\			
11	\				\	\	\	\			\		\	\	\									\	\			
12	\				\	\	\	\			\		\	\	\									\	\			

pH Adjustment Log for Preserved Samples

Sample ID	Type of Preservative	pH upon receipt	Date preservation adjusted	Time preservation adjusted	Amount of Preservative added	Lot #

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e. Out of hold, Incorrect preservative, out of temp, incorrect containers.

Pace Analytical

Phone: 413-525-2332
Fax: 413-525-6405
Access COC's and Support Requests

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CHAIN OF CUSTODY RECORD

39 Spruce Street
East Longmeadow, MA 01028

Doc # 381 Rev 5_07/13/2021

92569702

Page 1 of 1

Company Name: Ramboll
Address: 4350 N. Fairfax Dr. Arlington, VA
Phone: 703-516-2383
Project Name: HRP - PRGS - CAPA
Project Location: 1400 N. Royal St. Alexandria VA
Project Number:
Project Manager: Greg Grose
Pace Quote Name/Number:
Invoice Recipient: Sostertag@Ramboll.com
Sampled By: Anne Kelly

Requested Turnaround Time			
7-Day	☐	10-Day	☒ (5 day PO)
PFAS 10-Day (std)	☐	Due Date:	

Rush-Approval Required			
1-Day	☐	3-Day	☐
2-Day	☐	4-Day	☐

Dissolved Metals Samples	
○	Field Filtered
○	Lab to Filter

Orthophosphate Samples	
○	Field Filtered
○	Lab to Filter

Data Delivery
Format: PDF ☒ EXCEL ☒
Other: Ramboll EDD
CLP Like Data Pkg Required: ☐
Email To: Sostertag@Ramboll.com
Fax To #:

PCB ONLY
SOXHLET ☐
NON SOXHLET ☐

ANALYSIS REQUESTED

Pace Work Order#	Client Sample ID / Description	Beginning Date/Time	Ending Date/Time	COMP/GRAB	[1]Matrix Code	Conc Code	VIALS	GLASS	PLASTIC	BACTERIA	ENCORE	I	HI										[2] Preservation Code
												TPH-DRO (8015M)	Naphthalene (8260D)										Courier Use Only Total Number Of: VIALS GLASS PLASTIC BACTERIA ENCORE
92569702-001	HRP-MW27-211027	10/27	1735	Grab	GW	L	6					X	X										Glassware in the fridge? Y / N
-002 RW28S	HRP-RW28S-211027	10/27	1750	Grab	GW	L	6					X	X										Glassware in freezer? Y / N
-003	HRP-MW25S-211028	10/28	1500	Grab	GW	L	6					X	X										Prepackaged Cooler? Y / N
-004	HRP-MW14-211028	10/28	1435	Grab	GW	L	6					X	X										*Pace Analytical is not responsible for missing samples from prepacked coolers
-005	HRP-RW18S-211028	10.28.21	1630	G	GW	L	6					X	X										
-006	HRP-MW8S-211028	10/28	1635	G	GW	L	6					X	X										[1] Matrix Codes: GW = Ground Water; WW = Waste Water; DW = Drinking Water; A = Air; S = Soil; SL = Sludge; SOL = Solid; O = Other (please define)
-007	HRP-EB09-211028	10.28.21	1715	G	O-EB	C	6					X	X										
-008	HRP-EB10-211028	10.28.21	1720	G	O-EB	C	6					X	X										
-009	HRP-TB01-211028	10.28.21	1725	G	O-TB	C	2						X										
-010																							

Relinquished by: (signature) — Date/Time: 10/29/2021 @ 12:45
Received by: (signature) — Date/Time: 10/29/21 12:45
Relinquished by: (signature) — Date/Time: 10/29/21
Received by: (signature) Rachel Burruss/PACE — Date/Time: 1622 10-29-21
Relinquished by: (signature) Rachel Burruss/PACE — Date/Time: 10-29-21 1630
Received by: (signature) MJG Pace HVM — Date/Time: 1030-21 12:
Relinquished by: (signature) — Date/Time: 2.9°C
Received by: (signature) — Date/Time:

Client Comments:
EB: Equipment Blank
TB: Trip Blank

Detection Limit Requirements		Special Requirements	
MA		☐	MA MCP Required
			MCP Certification Form Required
		☐	CT RCP Required
CT			RCP Certification Form Required
		☐	MA State DW Required
Other: VA DEQ		PWSID #	

Please use the following codes to indicate possible sample concentration within the Conc Code column above:
H - High; M - Medium; L - Low; C - Clean; U - Unknown

NELAC and AIHA-LAP, LLC Accredited

Project Entity
Government ☐ Municipality ☐ MWRA ☐ WRTA ☐
Federal ☐ 21 J ☐ School ☐
City ☐ Brownfield ☐ MBTA ☐

Other
☐ Chromatogram
☐ AIHA-LAP,LLC

[2] Preservation Codes: I = Iced; H = HCL; M = Methanol; N = Nitric Acid; S = Sulfuric Acid; B = Sodium Bisulfate; X = Sodium Hydroxide; T = Sodium Thiosulfate; O = Other (please define)

Lab Comments:

Disclaimer: Pace Analytical is not responsible for any omitted information on the Chain of Custody. The Chain of Custody is a legal document that must be complete and accurate and is used to determine what analyses the laboratory will perform. Any missing information is not the laboratory's responsibility. Pace Analytical values your partnership on each project and will try to assist with missing information, but will not be held accountable.

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

October 28, 2021

Greg Grose
Ramboll
4350 North Fairfax Dr
Suite 300
Arlington, VA 22203

RE: Project: HRP PRGS SCR
Pace Project No.: 92566661

Dear Greg Grose:

Enclosed are the analytical results for sample(s) received by the laboratory on October 13, 2021. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace National - Mt. Juliet

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Angela M. Baioni

Angela Baioni
angela.baioni@pacelabs.com
(704)875-9092
Project Manager

Enclosures

cc: Taylor Carroll, Ramboll
Anne Kelly, Ramboll US Consulting, Inc.
Sarah Ostertag, Ramboll

Pace Analytical Services, LLC
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CERTIFICATIONS

Project: HRP PRGS SCR
Pace Project No.: 92566661

Pace Analytical Services National
12065 Lebanon Road, Mt. Juliet, TN 37122
Alabama Certification #: 40660
Alaska Certification 17-026
Arizona Certification #: AZ0612
Arkansas Certification #: 88-0469
California Certification #: 2932
Canada Certification #: 1461.01
Colorado Certification #: TN00003
Connecticut Certification #: PH-0197
DOD Certification: #1461.01
EPA# TN00003
Florida Certification #: E87487
Georgia DW Certification #: 923
Georgia Certification: NELAP
Idaho Certification #: TN00003
Illinois Certification #: 200008
Indiana Certification #: C-TN-01
Iowa Certification #: 364
Kansas Certification #: E-10277
Kentucky UST Certification #: 16
Kentucky Certification #: 90010
Louisiana Certification #: AI30792
Louisiana DW Certification #: LA180010
Maine Certification #: TN0002
Maryland Certification #: 324
Massachusetts Certification #: M-TN003
Michigan Certification #: 9958
Minnesota Certification #: 047-999-395
Mississippi Certification #: TN00003
Missouri Certification #: 340
Montana Certification #: CERT0086
Nebraska Certification #: NE-OS-15-05
Nevada Certification #: TN-03-2002-34
New Hampshire Certification #: 2975
New Jersey Certification #: TN002
New Mexico DW Certification
New York Certification #: 11742
North Carolina Aquatic Toxicity Certification #: 41
North Carolina Drinking Water Certification #: 21704
North Carolina Environmental Certificate #: 375
North Dakota Certification #: R-140
Ohio VAP Certification #: CL0069
Oklahoma Certification #: 9915
Oregon Certification #: TN200002
Pennsylvania Certification #: 68-02979
Rhode Island Certification #: LAO00356
South Carolina Certification #: 84004
South Dakota Certification
Tennessee DW/Chem/Micro Certification #: 2006
Texas Certification #: T 104704245-17-14
Texas Mold Certification #: LAB0152
USDA Soil Permit #: P330-15-00234
Utah Certification #: TN00003
Virginia Certification #: VT2006
Vermont Dept. of Health: ID# VT-2006
Virginia Certification #: 460132
Washington Certification #: C847
West Virginia Certification #: 233
Wisconsin Certification #: 998093910
Wyoming UST Certification #: via A2LA 2926.01
A2LA-ISO 17025 Certification #: 1461.01
A2LA-ISO 17025 Certification #: 1461.02
AIHA-LAP/LLC EMLAP Certification #:100789

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SAMPLE ANALYTE COUNT

Project: HRP PRGS SCR
Pace Project No.: 92566661

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
92566661001	**HRP-SB205-0-1-211011**	EPA 8015D	WCR	2	PAN
		SM 2540G	KDW	1	PAN
92566661002	**HRP-SB205-13-15-21011**	EPA 8015D	WCR	2	PAN
		SM 2540G	KDW	1	PAN
92566661003	**HRP-DUP02-13-15-21011**	EPA 8015D	WCR	2	PAN
		SM 2540G	KDW	1	PAN
92566661004	**HRP-SB206-5-7-211012**	EPA 8015D	JAS	2	PAN
		SM 2540G	KDW	1	PAN
92566661005	**HRP-SB206-15-17-211012**	EPA 8015D	JAS	2	PAN
		SM 2540G	KDW	1	PAN
92566661006	**HRP-SB207-0-1-211013**	EPA 8015D	JN	2	PAN
		SM 2540G	KDW	1	PAN
92566661007	**HRP-SB207-6-8-211013**	EPA 8015D	JN	2	PAN
		SM 2540G	KDW	1	PAN
92566661008	**HRP-DUP03-6-8-211013**	EPA 8015D	JN	2	PAN
		SM 2540G	KDW	1	PAN
92566661009	**HRP-SB207-16-18-211013**	EPA 8015D	JN	2	PAN
		SM 2540G	KDW	1	PAN

PAN = Pace National - Mt. Juliet

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ANALYTICAL RESULTS

Project: HRP PRGS SCR
Pace Project No.: 92566661

Sample: HRP-SB205-0-1-211011 **Lab ID: 92566661001** Collected: 10/11/21 11:43 Received: 10/13/21 12:40 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
SVOA (GC) 8015D	Analytical Method: EPA 8015D Preparation Method: 3546 Pace National - Mt. Juliet							
Diesel Range Organics(C10-C28)	ND	mg/kg	4.79	1	10/22/21 07:39	10/22/21 15:09		
Surrogates								
o-Terphenyl (S)	42.1	%	18.0-148	1	10/22/21 07:39	10/22/21 15:09	84-15-1	
Total Solids 2540 G-2011	Analytical Method: SM 2540G Preparation Method: SM 2540 G Pace National - Mt. Juliet							
Total Solids	**83.5**	%		1	10/20/21 10:46	10/20/21 10:53		

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: HRP PRGS SCR
Pace Project No.: 92566661

Sample: HRP-SB205-13-15-21011 **Lab ID: 92566661002** Collected: 10/11/21 12:30 Received: 10/13/21 12:40 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
SVOA (GC) 8015D	Analytical Method: EPA 8015D Preparation Method: 3546 Pace National - Mt. Juliet							
Diesel Range Organics(C10-C28)	ND	mg/kg	4.33	1	10/22/21 07:39	10/22/21 14:44		
Surrogates								
o-Terphenyl (S)	72.7	%	18.0-148	1	10/22/21 07:39	10/22/21 14:44	84-15-1	
Total Solids 2540 G-2011	Analytical Method: SM 2540G Preparation Method: SM 2540 G Pace National - Mt. Juliet							
Total Solids	**92.5**	%		1	10/20/21 10:55	10/20/21 11:02		

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: HRP PRGS SCR
Pace Project No.: 92566661

Sample: HRP-DUP02-13-15-21011 **Lab ID: 92566661003** Collected: 10/11/21 12:30 Received: 10/13/21 12:40 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
SVOA (GC) 8015D	Analytical Method: EPA 8015D Preparation Method: 3546 Pace National - Mt. Juliet							
Diesel Range Organics(C10-C28)	ND	mg/kg	4.66	1	10/22/21 07:39	10/22/21 14:58		
Surrogates								
o-Terphenyl (S)	46.2	%	18.0-148	1	10/22/21 07:39	10/22/21 14:58	84-15-1	
Total Solids 2540 G-2011	Analytical Method: SM 2540G Preparation Method: SM 2540 G Pace National - Mt. Juliet							
Total Solids	**85.8**	%		1	10/20/21 10:55	10/20/21 11:02		

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: HRP PRGS SCR
Pace Project No.: 92566661

Sample: HRP-SB206-5-7-211012 **Lab ID: 92566661004** Collected: 10/12/21 12:58 Received: 10/13/21 12:40 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
SVOA (GC) 8015D	Analytical Method: EPA 8015D Preparation Method: 3546 Pace National - Mt. Juliet							
Diesel Range Organics(C10-C28)	**4.70**	mg/kg	4.60	1	10/25/21 04:13	10/25/21 15:38		
Surrogates								
o-Terphenyl (S)	52.5	%	18.0-148	1	10/25/21 04:13	10/25/21 15:38	84-15-1	
Total Solids 2540 G-2011	Analytical Method: SM 2540G Preparation Method: SM 2540 G Pace National - Mt. Juliet							
Total Solids	**87.0**	%		1	10/20/21 10:55	10/20/21 11:02		

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: HRP PRGS SCR
Pace Project No.: 92566661

Sample: HRP-SB206-15-17-211012 **Lab ID: 92566661005** Collected: 10/12/21 13:45 Received: 10/13/21 12:40 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
SVOA (GC) 8015D	Analytical Method: EPA 8015D Preparation Method: 3546 Pace National - Mt. Juliet							
Diesel Range Organics(C10-C28)	ND	mg/kg	4.28	1	10/25/21 04:13	10/25/21 15:24		
Surrogates								
o-Terphenyl (S)	70.7	%	18.0-148	1	10/25/21 04:13	10/25/21 15:24	84-15-1	
Total Solids 2540 G-2011	Analytical Method: SM 2540G Preparation Method: SM 2540 G Pace National - Mt. Juliet							
Total Solids	**93.4**	%		1	10/20/21 10:55	10/20/21 11:02		

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: HRP PRGS SCR
Pace Project No.: 92566661

Sample: HRP-SB207-0-1-211013 **Lab ID: 92566661006** Collected: 10/13/21 08:37 Received: 10/13/21 12:40 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
SVOA (GC) 8015D	Analytical Method: EPA 8015D Preparation Method: 3546 Pace National - Mt. Juliet							
Diesel Range Organics(C10-C28)	**20.2**	mg/kg	4.46	1	10/26/21 15:29	10/27/21 02:40		
Surrogates								
o-Terphenyl (S)	62.0	%	18.0-148	1	10/26/21 15:29	10/27/21 02:40	84-15-1	
Total Solids 2540 G-2011	Analytical Method: SM 2540G Preparation Method: SM 2540 G Pace National - Mt. Juliet							
Total Solids	**89.7**	%		1	10/20/21 10:55	10/20/21 11:02		

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: HRP PRGS SCR
Pace Project No.: 92566661

Sample: HRP-SB207-6-8-211013 **Lab ID: 92566661007** Collected: 10/13/21 09:15 Received: 10/13/21 12:40 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
SVOA (GC) 8015D	Analytical Method: EPA 8015D Preparation Method: 3546 Pace National - Mt. Juliet							
Diesel Range Organics(C10-C28)	ND	mg/kg	4.29	1	10/26/21 15:29	10/27/21 01:10		
Surrogates								
o-Terphenyl (S)	72.6	%	18.0-148	1	10/26/21 15:29	10/27/21 01:10	84-15-1	
Total Solids 2540 G-2011	Analytical Method: SM 2540G Preparation Method: SM 2540 G Pace National - Mt. Juliet							
Total Solids	**93.2**	%		1	10/20/21 10:55	10/20/21 11:02		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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ANALYTICAL RESULTS

Project: HRP PRGS SCR
Pace Project No.: 92566661

Sample: HRP-DUP03-6-8-211013 **Lab ID: 92566661008** Collected: 10/13/21 09:15 Received: 10/13/21 12:40 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
SVOA (GC) 8015D	Analytical Method: EPA 8015D Preparation Method: 3546 Pace National - Mt. Juliet							
Diesel Range Organics(C10-C28)	ND	mg/kg	4.32	1	10/26/21 15:29	10/27/21 00:31		
Surrogates								
o-Terphenyl (S)	73.5	%	18.0-148	1	10/26/21 15:29	10/27/21 00:31	84-15-1	
Total Solids 2540 G-2011	Analytical Method: SM 2540G Preparation Method: SM 2540 G Pace National - Mt. Juliet							
Total Solids	**92.7**	%		1	10/20/21 10:55	10/20/21 11:02		

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: HRP PRGS SCR
Pace Project No.: 92566661

Sample: HRP-SB207-16-18-211013 **Lab ID: 92566661009** Collected: 10/13/21 09:32 Received: 10/13/21 12:40 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
SVOA (GC) 8015D	Analytical Method: EPA 8015D Preparation Method: 3546 Pace National - Mt. Juliet							
Diesel Range Organics(C10-C28)	ND	mg/kg	4.36	1	10/26/21 15:29	10/27/21 00:44		
Surrogates								
o-Terphenyl (S)	76.1	%	18.0-148	1	10/26/21 15:29	10/27/21 00:44	84-15-1	
Total Solids 2540 G-2011	Analytical Method: SM 2540G Preparation Method: SM 2540 G Pace National - Mt. Juliet							
Total Solids	**91.7**	%		1	10/20/21 10:55	10/20/21 11:02		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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QUALITY CONTROL DATA

Project: HRP PRGS SCR
Pace Project No.: 92566661

QC Batch: 1761238
QC Batch Method: 3546
Analysis Method: EPA 8015D
Analysis Description: SVOA (GC) 8015D
Laboratory: Pace National - Mt. Juliet
Associated Lab Samples: 92566661001, 92566661002, 92566661003

METHOD BLANK: R3720300-1 Matrix: Solid
Associated Lab Samples: 92566661001, 92566661002, 92566661003

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Diesel Range Organics(C10-C28)	mg/kg	ND	4.00	10/22/21 11:39	
o-Terphenyl (S)	%	68.5	18.0-148	10/22/21 11:39	

LABORATORY CONTROL SAMPLE: R3720300-2

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Diesel Range Organics(C10-C28)	mg/kg	50.0	40.4	80.8	50.0-150	
o-Terphenyl (S)	%			71.0	18.0-148	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: R3720300-3 R3720300-4

Parameter	Units	L1418104-08 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
Diesel Range Organics(C10-C28)	mg/kg	6.12	62.6	62.2	35.7	39.2	61.2	68.9	50.0-150	9.35	
o-Terphenyl (S)	%						53.9	61.4	18.0-148		

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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(704)875-9092

QUALITY CONTROL DATA

Project: HRP PRGS SCR
Pace Project No.: 92566661

QC Batch: 1761241
QC Batch Method: 3546
Analysis Method: EPA 8015D
Analysis Description: SVOA (GC) 8015D
Laboratory: Pace National - Mt. Juliet
Associated Lab Samples: 92566661004, 92566661005

METHOD BLANK: R3721248-1 Matrix: Solid
Associated Lab Samples: 92566661004, 92566661005

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Diesel Range Organics(C10-C28)	mg/kg	ND	4.00	10/25/21 12:55	
o-Terphenyl (S)	%	58	18.0-148	10/25/21 12:55	

LABORATORY CONTROL SAMPLE: R3721248-2

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Diesel Range Organics(C10-C28)	mg/kg	50.0	37.9	75.8	50.0-150	
o-Terphenyl (S)	%			66.1	18.0-148	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: R3721248-3 R3721248-4

Parameter	Units	L1418056-01 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
Diesel Range Organics(C10-C28)	mg/kg	2.80	49.0	49.4	29.3	38.8	54.1	72.9	50.0-150	27.9	R1
o-Terphenyl (S)	%						50.2	60.0	18.0-148		

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: HRP PRGS SCR
Pace Project No.: 92566661

QC Batch: 1763083 | Analysis Method: EPA 8015D
QC Batch Method: 3546 | Analysis Description: SVOA (GC) 8015D
Laboratory: Pace National - Mt. Juliet
Associated Lab Samples: 92566661006, 92566661007, 92566661008, 92566661009

METHOD BLANK: R3721895-1 Matrix: Solid
Associated Lab Samples: 92566661006, 92566661007, 92566661008, 92566661009

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Diesel Range Organics(C10-C28)	mg/kg	ND	4.00	10/26/21 22:09	
o-Terphenyl (S)	%	77.5	18.0-148	10/26/21 22:09	

LABORATORY CONTROL SAMPLE: R3721895-2

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Diesel Range Organics(C10-C28)	mg/kg	50.0	34.9	69.8	50.0-150	
o-Terphenyl (S)	%			99.1	18.0-148	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: HRP PRGS SCR
Pace Project No.: 92566661

QC Batch: 1759416
QC Batch Method: SM 2540 G
Analysis Method: SM 2540G
Analysis Description: Total Solids 2540 G-2011
Laboratory: Pace National - Mt. Juliet
Associated Lab Samples: 92566661001

METHOD BLANK: R3719273-1 Matrix: Solid
Associated Lab Samples: 92566661001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Total Solids	%	0.00200		10/20/21 10:53	

LABORATORY CONTROL SAMPLE: R3719273-2

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Solids	%	50.0	50.0	100	85.0-115	

SAMPLE DUPLICATE: R3719273-3

Parameter	Units	L1418000-05 Result	Dup Result	RPD	Qualifiers
Total Solids	%	78.5	78.5	0.00484	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: HRP PRGS SCR
Pace Project No.: 92566661

QC Batch: 1759420 Analysis Method: SM 2540G
QC Batch Method: SM 2540 G Analysis Description: Total Solids 2540 G-2011
Laboratory: Pace National - Mt. Juliet
Associated Lab Samples: 92566661002, 92566661003, 92566661004, 92566661005, 92566661006, 92566661007, 92566661008, 92566661009

METHOD BLANK: R3719276-1 Matrix: Solid
Associated Lab Samples: 92566661002, 92566661003, 92566661004, 92566661005, 92566661006, 92566661007, 92566661008, 92566661009

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Total Solids	%	0.00200		10/20/21 11:02	

LABORATORY CONTROL SAMPLE: R3719276-2

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Solids	%	50.0	50.0	100	85.0-115	

SAMPLE DUPLICATE: R3719276-3

Parameter	Units	92566661004 Result	Dup Result	RPD	Qualifiers
Total Solids	%	87.0	86.9	0.169	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALIFIERS

Project: HRP PRGS SCR
Pace Project No.: 92566661

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

Acid preservation may not be appropriate for 2 Chloroethylvinyl ether.

A separate vial preserved to a pH of 4-5 is recommended in SW846 Chapter 4 for the analysis of Acrolein and Acrylonitrile by EPA Method 8260.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

WORKORDER QUALIFIERS

WO: 92566661

[1]

ANALYTE QUALIFIERS

R1 RPD value was outside control limits.

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: HRP PRGS SCR
Pace Project No.: 92566661

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92566661001	**HRP-SB205-0-1-211011**	3546	1761238	EPA 8015D	1761238
92566661002	**HRP-SB205-13-15-21011**	3546	1761238	EPA 8015D	1761238
92566661003	**HRP-DUP02-13-15-21011**	3546	1761238	EPA 8015D	1761238
92566661004	**HRP-SB206-5-7-211012**	3546	1761241	EPA 8015D	1761241
92566661005	**HRP-SB206-15-17-211012**	3546	1761241	EPA 8015D	1761241
92566661006	**HRP-SB207-0-1-211013**	3546	1763083	EPA 8015D	1763083
92566661007	**HRP-SB207-6-8-211013**	3546	1763083	EPA 8015D	1763083
92566661008	**HRP-DUP03-6-8-211013**	3546	1763083	EPA 8015D	1763083
92566661009	**HRP-SB207-16-18-211013**	3546	1763083	EPA 8015D	1763083
92566661001	**HRP-SB205-0-1-211011**	SM 2540 G	1759416	SM 2540G	1759416
92566661002	**HRP-SB205-13-15-21011**	SM 2540 G	1759420	SM 2540G	1759420
92566661003	**HRP-DUP02-13-15-21011**	SM 2540 G	1759420	SM 2540G	1759420
92566661004	**HRP-SB206-5-7-211012**	SM 2540 G	1759420	SM 2540G	1759420
92566661005	**HRP-SB206-15-17-211012**	SM 2540 G	1759420	SM 2540G	1759420
92566661006	**HRP-SB207-0-1-211013**	SM 2540 G	1759420	SM 2540G	1759420
92566661007	**HRP-SB207-6-8-211013**	SM 2540 G	1759420	SM 2540G	1759420
92566661008	**HRP-DUP03-6-8-211013**	SM 2540 G	1759420	SM 2540G	1759420
92566661009	**HRP-SB207-16-18-211013**	SM 2540 G	1759420	SM 2540G	1759420

Pace Analytical®
Phone: 413-525-2332
Fax: 413-525-6405
Access COC's and Support Requests
19 Spruce Street
East Longmeadow, MA 01028

Company Name: Ramboll
Address: 4350 N Fairfax Dr. Ste 300
Phone:
Project Name: HRP PRGS SCR
Project Location: 1400 N. Royal St. Alexandria, VA
Project Number:
Project Manager: Greg Grose
Pace Quote Name/Number:
Invoice Recipient: sostertag@ramboll.com
Sampled By: Sarah Ostertag

Requested Turnaround Time: 7-Day ☐ 10-Day ☒ PFAS 10-Day (std) ☐ Due Date: 5-day standard

Rush-Approval Required: 1-Day ☐ 2-Day ☐ 3-Day ☐ 4-Day ☐

○ Field Filtered ○ Lab to Filter
○ Field Filtered ○ Lab to Filter

Data Delivery: Format: PDF ☒ EXCEL ☒ Other: Ramboll EDD CLP Like Data Pkg Required: ☐ Email To: Sostertag@ramboll.com Fax To #:

PCB ONLY: SOXHLET ☐ NON SOXHLET ☒

ANALYSIS REQUESTED

Pace Work Order#	Client Sample ID / Description	Beginning Date/Time	Ending Date/Time	COMP/GRAB	¹Matrix Code	Conc Code	VIALS	GLASS	PLASTIC	BACTERIA	ENCORE	TPH-GRO (M)	TPH-DRO (I)	TPH-ORO (I)	VOCs (MBI)	SVOCs (I)	TAL Metals (I)	Cyanide (I)	pH (I)
92566661	~~TB01~~ HRP-TB01-211011	10-11-21	1300	[TB]	O-Trip Blank	C	2					X			X				
001	HRP-SB205-0-1-211011	10-11-21	1143	G	S	C	1	2				X	X	X		X	X	X	X
002	HRP-SB205-13-15-211011	10-11-21	1230	G	S	C	1	2				X	X	X		X	X	X	X
003	HRP-DUP02-13-15-211011	10-11-21	1230	G	S	C	1	2				X	X	X		X	X	X	X
—	HRP-SB203-0-1-211012	10-12-21	0740	G	S	C		1								X	X		
—	HRP-SB203-11-13-211012	10-12-21	0757	G	S	C		2								X	X		
—	HRP-SB206-0-1-211012	10-12-21	1243	G	S	L		2									X	X	X
004	HRP-SB206-5-7-211012	10-12-21	1258	G	S	L	4	3				X	X	X	X		X	X	X
005	HRP-SB206-15-17-211012	10-12-21	1345	G	S	L	4	1.5	[low recovery]			X	X	X	X		X	X	X

Glassware in the fridge? Y / N
Glassware in freezer? Y / N
Prepackaged Cooler? Y / N
*Pace Analytical is not responsible for missing samples from prepacked coolers

² Preservation Code
Courier Use Only
Total Number of Containers:
GLASS
PLASTIC
BACTERIA
ENCORE

Relinquished by: (signature) [signature] Date/Time: 10-13-21 /1240
Received by: (signature) [illegible] Date/Time: [illegible]
Relinquished by: (signature) [illegible] Date/Time: 10/13/21 [illegible]
Received by: (signature) Rachel Burruss Date/Time: 10-13-21 1500
Relinquished by: (signature) Rachel Burruss Date/Time: 10-13-21 1700
Received by: (signature) Date/Time:
Relinquished by: (signature) Date/Time:
Received by: (signature) Date/Time:

Client Comments: TB01 = Trip Blank

Detection Limit Requirements
MA
CT
Other: Virginia DEQ

Special Requirements
☐ MA MCP Required
MCP Certification Form Required
☐ CT RCP Required
RCP Certification Form Required
☐ MA State DW Required
PWSID #

Please use the following codes to indicate possible sample concentration within the Conc Code column above:
H - High; M - Medium; L - Low; C - Clean; U - Unknown

NELAC and AIHA-LAP, LLC Accredited

Project Entity: Government ☐ Federal ☐ City ☐ Municipality ☐ 21 J ☐ Brownfield ☐ MWRA ☐ School ☐ MBTA ☐ WRTA ☐
Other: ☐ Chromatogram ☐ AIHA-LAP,LLC

¹ **Matrix Codes:**
GW = Ground Water
WW = Waste Water
DW = Drinking Water
A = Air
S = Soil
SL = Sludge
SOL = Solid
O = Other (please define)

² **Preservation Codes:**
I = Iced
H = HCL
M = Methanol
N = Nitric Acid
S = Sulfuric Acid
B = Sodium Bisulfate
X = Sodium Hydroxide
T = Sodium Thiosulfate
O = Other (please define)

Lab Comments:

WO#: 92566661
92566661

Pace Analytical

Phone: 413-525-2332
Fax: 413-525-6405
Access COC's and Support Requests

http://www.pacelabs.com

39 Spruce Street
East Longmeadow, MA 01028

CHAIN OF CUSTODY RECORD

Company Name: [illegible]
Address: 4350 N. Fairfax Drive
Phone: 7035162383
Project Name: [illegible] RR65 SCR
Project Location: 1460 N. Royal St. Alexandria VA
Project Number:
Project Manager: G. Grose
Pace Quote Name/Number:
Invoice Recipient: sostertag@ramboll.com
Sampled By: Anne Kelly

Regulatory Turnaround Time: 7-Day ☐ 10-Day ☒ PFAS 10-Day (std) ☐ Due Date: 5 days
Rush Approval Required: 1-Day ☐ 3-Day ☐ 2-Day ☐ 4-Day ☐
Dissolved Metals Samples: ○ Field Filtered ○ Lab to Filter
PCB: ○ Field Filtered ○ Lab to Filter
Deliverables: Format: PDF ☒ EXCEL ☒ Other: Ramboll EDD
CLP Like Data Pkg Required: ☐
Email To: Sostertag@ramboll.com
Fax To #:
PCB ONLY: SOXHLET ☐ NON SOXHLET ☐

ANALYSIS REQUESTED

Pace Work Order#	Client Sample ID / Description	Beginning Date/Time	Ending Date/Time	COMP/GRAB	[1]Matrix Code	Conc Code	VIALS	GLASS	PLASTIC	BACTERIA	ENCORE	VOCs	TAL Metals	TPH GRO	TPH ORO	TPH DRO	Cyanide	pH
006	HRP-MW207-0-1-211013	10/13/21 0837	—	Grab	S	L	4	3				X	X	X	X	X	X	X
007	HRP-MW207-6-8-211013	10/12/21 0915	—	Grab	S	L	4	3				X	X	X	X	X	X	X
008	HRP-DUP03-6-8-211013	10/13/21 0935	—	Grab	S	L	4	3				X	X	X	X	X	X	X
009	HRP-MW207-16-18-211013	10/12/21 0952	—	Grab	S	L	4	3				X	X	X	X	X	X	X
	HRP-TB02-211013	10-13-21	@1235	[TB]	Trip Blank		2											

[2] Preservation Code
Courier Use Only
Total Number Of:
VIALS
GLASS
PLASTIC
BACTERIA
ENCORE

Glassware in the fridge? Y / N
Glassware in freezer? Y / N
Prepackaged Cooler? Y / N
*Pace Analytical is not responsible for missing samples from prepacked coolers

[1] Matrix Codes:
GW = Ground Water
WW = Waste Water
DW = Drinking Water
A = Air
S = Soil
SL = Sludge
SOL = Solid
O = Other (please define)

[2] Preservation Codes:
I = Iced
H = HCL
M = Methanol
N = Nitric Acid
S = Sulfuric Acid
B = Sodium Bisulfate
X = Sodium Hydroxide
T = Sodium Thiosulfate
O = Other (please define)

Relinquished by: (signature)	Date/Time:
Sasha Ostertag	10-13-21 1240
Received by: (signature)	Date/Time:
DC Fed-Ex	10/13/21 1240
Relinquished by: (signature)	Date/Time:
DC Fed-Ex (10-14-21)	3 am
Received by: (signature)	Date/Time: 10-13-21
Rachel Burruss	1500
Relinquished by: (signature)	Date/Time: 10-14-21
Rachel Burruss	1100
Received by: (signature)	Date/Time:
Relinquished by: (signature)	Date/Time:
Received by: (signature)	Date/Time:

Client Comments:

Detection Limit Requirements
MA
CT

Special Requirements
☐ MA MCP Required
MCP Certification Form Required
☐ CT RCP Required
RCP Certification Form Required
☐ MA State DW Required
PWSID #

Please use the following codes to indicate possible sample concentration within the Conc Code column above:
H - High; M - Medium; L - Low; C - Clean; U - Unknown

NELAC and AIHA-LAP, LLC Accredited

Other: VA DEQ

Project Entity
Government ☐ Municipality ☐ MWRA ☐ WRTA ☐
Federal ☐ 21 J ☐ School ☐
City ☐ Brownfield ☐ MBTA ☐

Other
☐ Chromatogram
☐ AIHA-LAP,LLC

Lab Comments:

WO#: 92566661

PM: AMB Due Date: 10/27/21
CLIENT: 92-RambollEn

Disclaimer: Pace Analytical is not responsible for any omitted information on the Chain of Custody. The Chain of Custody is a legal document that must be complete and accurate and is used to determine what analyses the laboratory will perform. Any missing information is not the laboratory's responsibility. Pace Analytical values your partnership on each project and will try to assist with missing information, but will not be held accountable.

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

October 28, 2021

Greg Grose
Ramboll
4350 North Fairfax Dr
Suite 300
Arlington, VA 22203

RE: Project: HRP PRGS SCR
Pace Project No.: 92567218

Dear Greg Grose:

Enclosed are the analytical results for sample(s) received by the laboratory on October 15, 2021. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace National - Mt. Juliet

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Angela M. Baioni

Angela Baioni
angela.baioni@pacelabs.com
(704)875-9092
Project Manager

Enclosures

cc: Taylor Carroll, Ramboll
Anne Kelly, Ramboll US Consulting, Inc.
Sarah Ostertag, Ramboll

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

CERTIFICATIONS

Project: HRP PRGS SCR
Pace Project No.: 92567218

Pace Analytical Services National
12065 Lebanon Road, Mt. Juliet, TN 37122
Alabama Certification #: 40660
Alaska Certification 17-026
Arizona Certification #: AZ0612
Arkansas Certification #: 88-0469
California Certification #: 2932
Canada Certification #: 1461.01
Colorado Certification #: TN00003
Connecticut Certification #: PH-0197
DOD Certification: #1461.01
EPA# TN00003
Florida Certification #: E87487
Georgia DW Certification #: 923
Georgia Certification: NELAP
Idaho Certification #: TN00003
Illinois Certification #: 200008
Indiana Certification #: C-TN-01
Iowa Certification #: 364
Kansas Certification #: E-10277
Kentucky UST Certification #: 16
Kentucky Certification #: 90010
Louisiana Certification #: AI30792
Louisiana DW Certification #: LA180010
Maine Certification #: TN0002
Maryland Certification #: 324
Massachusetts Certification #: M-TN003
Michigan Certification #: 9958
Minnesota Certification #: 047-999-395
Mississippi Certification #: TN00003
Missouri Certification #: 340
Montana Certification #: CERT0086
Nebraska Certification #: NE-OS-15-05
Nevada Certification #: TN-03-2002-34
New Hampshire Certification #: 2975
New Jersey Certification #: TN002
New Mexico DW Certification
New York Certification #: 11742
North Carolina Aquatic Toxicity Certification #: 41
North Carolina Drinking Water Certification #: 21704
North Carolina Environmental Certificate #: 375
North Dakota Certification #: R-140
Ohio VAP Certification #: CL0069
Oklahoma Certification #: 9915
Oregon Certification #: TN200002
Pennsylvania Certification #: 68-02979
Rhode Island Certification #: LAO00356
South Carolina Certification #: 84004
South Dakota Certification
Tennessee DW/Chem/Micro Certification #: 2006
Texas Certification #: T 104704245-17-14
Texas Mold Certification #: LAB0152
USDA Soil Permit #: P330-15-00234
Utah Certification #: TN00003
Virginia Certification #: VT2006
Vermont Dept. of Health: ID# VT-2006
Virginia Certification #: 460132
Washington Certification #: C847
West Virginia Certification #: 233
Wisconsin Certification #: 998093910
Wyoming UST Certification #: via A2LA 2926.01
A2LA-ISO 17025 Certification #: 1461.01
A2LA-ISO 17025 Certification #: 1461.02
AIHA-LAP/LLC EMLAP Certification #:100789

Pace Analytical Services, LLC
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Huntersville, NC 28078
(704)875-9092

SAMPLE ANALYTE COUNT

Project: HRP PRGS SCR
Pace Project No.: 92567218

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
92567218001	**HRP-SB-214-0-2-211014**	EPA 8015D	JAS	2	PAN
		SM 2540G	KDW	1	PAN
92567218002	**HRP-SB-214-5-7-211014**	EPA 8015D	JAS	2	PAN
		SM 2540G	KDW	1	PAN
92567218003	**HRP-SB-214-14-16-211014**	EPA 8015D	JAS	2	PAN
		SM 2540G	KDW	1	PAN

PAN = Pace National - Mt. Juliet

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: HRP PRGS SCR
Pace Project No.: 92567218

Sample: HRP-SB-214-0-2-211014 **Lab ID: 92567218001** Collected: 10/14/21 13:58 Received: 10/15/21 13:21 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
SVOA (GC) 8015D	Analytical Method: EPA 8015D Preparation Method: 3546 Pace National - Mt. Juliet							
Oil Range Organics (C28-C40)	ND	mg/kg	4.49	1	10/27/21 16:09	10/28/21 04:53		
Surrogates								
o-Terphenyl (S)	74.4	%	18.0-148	1	10/27/21 16:09	10/28/21 04:53	84-15-1	
Total Solids 2540 G-2011	Analytical Method: SM 2540G Preparation Method: SM 2540 G Pace National - Mt. Juliet							
Total Solids	**89.0**	%		1	10/22/21 10:31	10/22/21 10:37		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: HRP PRGS SCR
Pace Project No.: 92567218

Sample: HRP-SB-214-5-7-211014 **Lab ID: 92567218002** Collected: 10/14/21 14:10 Received: 10/15/21 13:21 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
SVOA (GC) 8015D	Analytical Method: EPA 8015D Preparation Method: 3546 Pace National - Mt. Juliet							
Oil Range Organics (C28-C40)	ND	mg/kg	4.68	1	10/27/21 16:09	10/28/21 05:06		
Surrogates								
o-Terphenyl (S)	71.0	%	18.0-148	1	10/27/21 16:09	10/28/21 05:06	84-15-1	
Total Solids 2540 G-2011	Analytical Method: SM 2540G Preparation Method: SM 2540 G Pace National - Mt. Juliet							
Total Solids	**85.5**	%		1	10/22/21 10:31	10/22/21 10:37		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: HRP PRGS SCR
Pace Project No.: 92567218

Sample: HRP-SB-214-14-16-211014 **Lab ID: 92567218003** Collected: 10/14/21 14:35 Received: 10/15/21 13:21 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
SVOA (GC) 8015D	Analytical Method: EPA 8015D Preparation Method: 3546 Pace National - Mt. Juliet							
Oil Range Organics (C28-C40)	ND	mg/kg	4.82	1	10/27/21 16:09	10/28/21 05:19		
Surrogates								
o-Terphenyl (S)	72.7	%	18.0-148	1	10/27/21 16:09	10/28/21 05:19	84-15-1	
Total Solids 2540 G-2011	Analytical Method: SM 2540G Preparation Method: SM 2540 G Pace National - Mt. Juliet							
Total Solids	**83.0**	%		1	10/22/21 10:31	10/22/21 10:37		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: HRP PRGS SCR
Pace Project No.: 92567218

QC Batch: 1764424
QC Batch Method: 3546
Analysis Method: EPA 8015D
Analysis Description: SVOA (GC) 8015D
Laboratory: Pace National - Mt. Juliet
Associated Lab Samples: 92567218001, 92567218002, 92567218003

METHOD BLANK: R3722375-1 Matrix: Solid
Associated Lab Samples: 92567218001, 92567218002, 92567218003

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Oil Range Organics (C28-C40)	mg/kg	ND	4.00	10/28/21 02:17	
o-Terphenyl (S)	%	78.8	18.0-148	10/28/21 02:17	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: HRP PRGS SCR
Pace Project No.: 92567218

QC Batch: 1761662
QC Batch Method: SM 2540 G
Analysis Method: SM 2540G
Analysis Description: Total Solids 2540 G-2011
Laboratory: Pace National - Mt. Juliet
Associated Lab Samples: 92567218001, 92567218002, 92567218003

METHOD BLANK: R3720406-1 Matrix: Solid
Associated Lab Samples: 92567218001, 92567218002, 92567218003

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Total Solids	%	0.00100		10/22/21 10:37	

LABORATORY CONTROL SAMPLE: R3720406-2

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Solids	%	50.0	50.0	100	85.0-115	

SAMPLE DUPLICATE: R3720406-3

Parameter	Units	L1419711-01 Result	Dup Result	RPD	Qualifiers
Total Solids	%	79.4	79.2	0.237	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
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(704)875-9092

QUALIFIERS

Project: HRP PRGS SCR
Pace Project No.: 92567218

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

Acid preservation may not be appropriate for 2 Chloroethylvinyl ether.

A separate vial preserved to a pH of 4-5 is recommended in SW846 Chapter 4 for the analysis of Acrolein and Acrylonitrile by EPA Method 8260.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

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(704)875-9092

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: HRP PRGS SCR
Pace Project No.: 92567218

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92567218001	**HRP-SB-214-0-2-211014**	3546	1764424	EPA 8015D	1764424
92567218002	**HRP-SB-214-5-7-211014**	3546	1764424	EPA 8015D	1764424
92567218003	**HRP-SB-214-14-16-211014**	3546	1764424	EPA 8015D	1764424
92567218001	**HRP-SB-214-0-2-211014**	SM 2540 G	1761662	SM 2540G	1761662
92567218002	**HRP-SB-214-5-7-211014**	SM 2540 G	1761662	SM 2540G	1761662
92567218003	**HRP-SB-214-14-16-211014**	SM 2540 G	1761662	SM 2540G	1761662

Pace Analytical
Phone: 413-525-2332
Fax: 413-525-6405
Access COC's and Support Requests
http://www.pacelabs.com
39 Spruce Street
East Longmeadow, MA 01028

Doc # 381 Rev 5_07/13/2021

CHAIN OF CUSTODY RECORD

Company Name:
Address: 4350 N. Fairfax Dr., Arlington, VA 22203
Phone:
Project Name: RGS SCR
Project Location: 1400 N. Royal St Alexandria VA
Project Number:
Project Manager: Greg Grose
Pace Quote Name/Number:
Invoice Recipient: SOstertag@ramboll.com
Sampled By: Anne Kelly

Requested Turnaround
7-Day ☐ 10-Day ☒ 5 days
PFAS 10-Day (std) ☐ Due Date:

Rush Approval Req.
1 Day ☐ 3-Day ☐
2 Day ☐ 4-Day ☐

Dissolved
○ Field Filtered
○ Lab to Filter

Orthophosphate Samples
○ Field Filtered
○ Lab to Filter

Delivery
Format: PDF ☒ EXCEL ☒
Other: Ramboll EDD
CLP Like Data Pkg Required: ☐
Email To: SOstertag@ramboll.com
Fax To #:

PCB ONLY
SOXHLET ☐
NON SOXHLET ☐

ANALYSIS REQUESTED

Pace Work Order#	Client Sample ID / Description	Beginning Date/Time	Ending Date/Time	COMP/GRAB	[1]Matrix Code	Conc Code	VIALS	GLASS	PLASTIC	BACTERIA	ENCORE	TAL Metals	pH	Cyanide	VOCs	TPH GRO	TPH ORO	TPH DRO					[2] Preservation Code
	HRP-MW209-0-1-211013	10/13/21 1346	—	Grab	S	L		2				X	X	X									
	HRP-MW209-5-7-211013	10/13/21 1347	—	Grab	S	L		2				X	X	X									
	HRP-MW209-15-17-211013	10/13/21 1355	—	Grab	S	L		2				X	X	X									
	HRP-EB03-211013	10/13/21 1645	—	Grab	W	C			2			X	X	X									
	HRP-MW208-0-1-211014	10/14/21 0912	—	Grab	S	L		2				X	X	X									
	HRP-MW208-5-7-211014	10/14/21 0920	—	Grab	S	L		2				X	X	X									
	HRP-MW208-15-20-211014	10/14/21 0930	—	Grab	S	L		2				X	X	X									
92567218 001	HRP-MW214-0-2-211014	10/14/21 1358	—	Grab	S	L	4	3				X	X	X	X	X	X	X					
-002	HRP-MW214-5-7-211014	10/14/21 1410	—	Grab	S	L	4	3				X	X	X	X	X	X	X					
-003	HRP-MW214-14-16-211014	10/14/21 1435	—	Grab	S	L	4	3				X	X	X	X	X	X	X					

Relinquished by: (signature) — Date/Time: 10/15 1410
Received by: (signature) LaShae Morris — Date/Time: 10/15/21 1210
Relinquished by: (signature) LaShae Morris — Date/Time: 4pm 10/15/21
Received by: (signature) Rachel Burruss — Date/Time: 10-15-21 1600
Relinquished by: (signature) Rachel Burruss — Date/Time: 10-18-21 1700
Received by: (signature) — Date/Time:
Relinquished by: (signature) — Date/Time:
Received by: (signature) — Date/Time:
Lab Comments:

Client Comments: EB: Equipment Blank

Detection Limit Requirements
MA
CT

Special Requirements
☐ MA MCP Required
MCP Certification Form Required
☐ CT RCP Required
RCP Certification Form Required
☐ MA State DW Required

Please use the following codes to indicate possible sample concentration within the Conc Code column above:
H - High; M - Medium; L - Low; C - Clean; U - Unknown

Other: VA DEQ
PWSID #
NELAC and AIHA-LAP, LLC Accredited

Project Entity
Government ☐ Municipality ☐ MWRA ☐ WRTA ☐
Federal ☐ 21 J ☐ School ☐
City ☐ Brownfield ☐ MBTA ☐

Other
☐ Chromatogram
☐ AIHA-LAP,LLC

Courier Use Only
Total Number Of:
VIALS
GLASS
PLASTIC
BACTERIA
ENCORE

Glassware in the fridge? Y / N
Glassware in freezer? Y / N
Prepackaged Cooler? Y / N
*Pace Analytical is not responsible for missing samples from prepacked coolers

[1] Matrix Codes:
GW = Ground Water
WW = Waste Water
DW = Drinking Water
A = Air
S = Soil
SL = Sludge
SOL = Solid
O = Other (please define)

[2] Preservation Codes:
I = Iced
H = HCl
M = Methanol
N = Nitric Acid
S = Sulfuric Acid
B = Sodium Bisulfate
X = Sodium Hydroxide
T = Sodium Thiosulfate
O = Other (please define)

Disclaimer: Pace Analytical is not responsible for any omitted information on the Chain of Custody. The Chain of Custody is a legal document that must be complete and accurate and is used to determine what analyses the laboratory will perform. Any missing information is not the laboratory's responsibility. Pace Analytical values your partnership on each project and will try to assist with missing information, but will not be held accountable.

WO# : 92567218
92567218

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

November 02, 2021

Greg Grose
Ramboll
4350 North Fairfax Dr
Suite 300
Arlington, VA 22203

RE: Project: HRP PRGS SCR
Pace Project No.: 92567560

Dear Greg Grose:

Enclosed are the analytical results for sample(s) received by the laboratory on October 19, 2021. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace National - Mt. Juliet

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Angela M. Baioni

Angela Baioni
angela.baioni@pacelabs.com
(704)875-9092
Project Manager

Enclosures

cc: Taylor Carroll, Ramboll
Anne Kelly, Ramboll US Consulting, Inc.
Sarah Ostertag, Ramboll

Pace Analytical Services, LLC
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CERTIFICATIONS

Project: HRP PRGS SCR
Pace Project No.: 92567560

Pace Analytical Services National
12065 Lebanon Road, Mt. Juliet, TN 37122
Alabama Certification #: 40660
Alaska Certification 17-026
Arizona Certification #: AZ0612
Arkansas Certification #: 88-0469
California Certification #: 2932
Canada Certification #: 1461.01
Colorado Certification #: TN00003
Connecticut Certification #: PH-0197
DOD Certification: #1461.01
EPA# TN00003
Florida Certification #: E87487
Georgia DW Certification #: 923
Georgia Certification: NELAP
Idaho Certification #: TN00003
Illinois Certification #: 200008
Indiana Certification #: C-TN-01
Iowa Certification #: 364
Kansas Certification #: E-10277
Kentucky UST Certification #: 16
Kentucky Certification #: 90010
Louisiana Certification #: AI30792
Louisiana DW Certification #: LA180010
Maine Certification #: TN0002
Maryland Certification #: 324
Massachusetts Certification #: M-TN003
Michigan Certification #: 9958
Minnesota Certification #: 047-999-395
Mississippi Certification #: TN00003
Missouri Certification #: 340
Montana Certification #: CERT0086
Nebraska Certification #: NE-OS-15-05
Nevada Certification #: TN-03-2002-34
New Hampshire Certification #: 2975
New Jersey Certification #: TN002
New Mexico DW Certification
New York Certification #: 11742
North Carolina Aquatic Toxicity Certification #: 41
North Carolina Drinking Water Certification #: 21704
North Carolina Environmental Certificate #: 375
North Dakota Certification #: R-140
Ohio VAP Certification #: CL0069
Oklahoma Certification #: 9915
Oregon Certification #: TN200002
Pennsylvania Certification #: 68-02979
Rhode Island Certification #: LAO00356
South Carolina Certification #: 84004
South Dakota Certification
Tennessee DW/Chem/Micro Certification #: 2006
Texas Certification #: T 104704245-17-14
Texas Mold Certification #: LAB0152
USDA Soil Permit #: P330-15-00234
Utah Certification #: TN00003
Virginia Certification #: VT2006
Vermont Dept. of Health: ID# VT-2006
Virginia Certification #: 460132
Washington Certification #: C847
West Virginia Certification #: 233
Wisconsin Certification #: 998093910
Wyoming UST Certification #: via A2LA 2926.01
A2LA-ISO 17025 Certification #: 1461.01
A2LA-ISO 17025 Certification #: 1461.02
AIHA-LAP/LLC EMLAP Certification #:100789

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SAMPLE ANALYTE COUNT

Project: HRP PRGS SCR
Pace Project No.: 92567560

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
92567560001	**HRP-SB215-0-2-211018**	EPA 8015C	JN	2	PAN
		SM 2540G	KDW	1	PAN
92567560002	**HRP-SB215-5-7-211018**	EPA 8015C	JN	2	PAN
		SM 2540G	KDW	1	PAN
92567560003	**HRP-SB215-16-18-211018**	EPA 8015C	JN	2	PAN
		SM 2540G	KDW	1	PAN
92567560004	**HRP-SB216-1-3-211018**	EPA 8015C	JN	2	PAN
		SM 2540G	KDW	1	PAN

PAN = Pace National - Mt. Juliet

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ANALYTICAL RESULTS

Project: HRP PRGS SCR
Pace Project No.: 92567560

Sample: HRP-SB215-0-2-211018 **Lab ID: 92567560001** Collected: 10/18/21 12:20 Received: 10/19/21 13:26 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
SVOA (GC) 8015C	Analytical Method: EPA 8015C Preparation Method: 3546 Pace National - Mt. Juliet							
Diesel Fuel Range	**74.6**	mg/kg	4.28	1	10/29/21 22:39	10/30/21 23:41	68334-30-5	
Surrogates								
o-Terphenyl (S)	70.6	%	18.0-148	1	10/29/21 22:39	10/30/21 23:41	84-15-1	
Total Solids 2540 G-2011	Analytical Method: SM 2540G Preparation Method: SM 2540 G Pace National - Mt. Juliet							
Total Solids	**93.6**	%		1	10/25/21 14:26	10/25/21 14:37		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
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ANALYTICAL RESULTS

Project: HRP PRGS SCR
Pace Project No.: 92567560

Sample: HRP-SB215-5-7-211018 **Lab ID: 92567560002** Collected: 10/18/21 12:30 Received: 10/19/21 13:26 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
SVOA (GC) 8015C	Analytical Method: EPA 8015C Preparation Method: 3546 Pace National - Mt. Juliet							
Diesel Fuel Range	ND	mg/kg	4.60	1	10/29/21 22:39	10/30/21 19:51	68334-30-5	
Surrogates								
o-Terphenyl (S)	57.3	%	18.0-148	1	10/29/21 22:39	10/30/21 19:51	84-15-1	
Total Solids 2540 G-2011	Analytical Method: SM 2540G Preparation Method: SM 2540 G Pace National - Mt. Juliet							
Total Solids	**87.0**	%		1	10/25/21 14:26	10/25/21 14:37		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
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ANALYTICAL RESULTS

Project: HRP PRGS SCR
Pace Project No.: 92567560

Sample: HRP-SB215-16-18-211018 **Lab ID: 92567560003** Collected: 10/18/21 12:50 Received: 10/19/21 13:26 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
SVOA (GC) 8015C	Analytical Method: EPA 8015C Preparation Method: 3546 Pace National - Mt. Juliet							
Diesel Fuel Range	ND	mg/kg	5.08	1	10/29/21 22:39	10/30/21 21:26	68334-30-5	
Surrogates								
o-Terphenyl (S)	63.3	%	18.0-148	1	10/29/21 22:39	10/30/21 21:26	84-15-1	
Total Solids 2540 G-2011	Analytical Method: SM 2540G Preparation Method: SM 2540 G Pace National - Mt. Juliet							
Total Solids	**78.7**	%		1	10/25/21 14:26	10/25/21 14:37		

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: HRP PRGS SCR
Pace Project No.: 92567560

Sample: HRP-SB216-1-3-211018 **Lab ID: 92567560004** Collected: 10/18/21 14:55 Received: 10/19/21 13:26 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
SVOA (GC) 8015C	Analytical Method: EPA 8015C Preparation Method: 3546 Pace National - Mt. Juliet							
Diesel Fuel Range	**7.73**	mg/kg	4.92	1	10/29/21 22:39	10/30/21 22:47	68334-30-5	
Surrogates								
o-Terphenyl (S)	67.5	%	18.0-148	1	10/29/21 22:39	10/30/21 22:47	84-15-1	
Total Solids 2540 G-2011	Analytical Method: SM 2540G Preparation Method: SM 2540 G Pace National - Mt. Juliet							
Total Solids	**81.3**	%		1	10/25/21 14:26	10/25/21 14:37		

REPORT OF LABORATORY ANALYSIS

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9800 Kincey Ave. Suite 100
Huntersville, NC 28078
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QUALITY CONTROL DATA

Project: HRP PRGS SCR
Pace Project No.: 92567560

QC Batch: 1765155 — Analysis Method: EPA 8015C
QC Batch Method: 3546 — Analysis Description: SVOA (GC) 8015C
Laboratory: Pace National - Mt. Juliet
Associated Lab Samples: 92567560001, 92567560002, 92567560003, 92567560004

METHOD BLANK: R3723717-1 Matrix: Solid
Associated Lab Samples: 92567560001, 92567560002, 92567560003, 92567560004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Diesel Fuel Range	mg/kg	ND	4.00	10/30/21 19:24	
o-Terphenyl (S)	%	65.8	18.0-148	10/30/21 19:24	

LABORATORY CONTROL SAMPLE: R3723717-2

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Diesel Fuel Range	mg/kg	50.0	40.0	80.0	50.0-150	
o-Terphenyl (S)	%			68.2	18.0-148	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: HRP PRGS SCR
Pace Project No.: 92567560

QC Batch: 1762750
QC Batch Method: SM 2540 G
Analysis Method: SM 2540G
Analysis Description: Total Solids 2540 G-2011
Laboratory: Pace National - Mt. Juliet
Associated Lab Samples: 92567560001, 92567560002, 92567560003, 92567560004

METHOD BLANK: R3721347-1 Matrix: Solid
Associated Lab Samples: 92567560001, 92567560002, 92567560003, 92567560004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Total Solids	%	0.00100		10/25/21 14:37	

LABORATORY CONTROL SAMPLE: R3721347-2

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Solids	%	50.0	50.0	100	85.0-115	

SAMPLE DUPLICATE: R3721347-3

Parameter	Units	92567560001 Result	Dup Result	RPD	Qualifiers
Total Solids	%	93.6	92.8	0.829	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

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QUALIFIERS

Project: HRP PRGS SCR
Pace Project No.: 92567560

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

Acid preservation may not be appropriate for 2 Chloroethylvinyl ether.

A separate vial preserved to a pH of 4-5 is recommended in SW846 Chapter 4 for the analysis of Acrolein and Acrylonitrile by EPA Method 8260.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

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(704)875-9092

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: HRP PRGS SCR
Pace Project No.: 92567560

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92567560001	**HRP-SB215-0-2-211018**	3546	1765155	EPA 8015C	1765155
92567560002	**HRP-SB215-5-7-211018**	3546	1765155	EPA 8015C	1765155
92567560003	**HRP-SB215-16-18-211018**	3546	1765155	EPA 8015C	1765155
92567560004	**HRP-SB216-1-3-211018**	3546	1765155	EPA 8015C	1765155
92567560001	**HRP-SB215-0-2-211018**	SM 2540 G	1762750	SM 2540G	1762750
92567560002	**HRP-SB215-5-7-211018**	SM 2540 G	1762750	SM 2540G	1762750
92567560003	**HRP-SB215-16-18-211018**	SM 2540 G	1762750	SM 2540G	1762750
92567560004	**HRP-SB216-1-3-211018**	SM 2540 G	1762750	SM 2540G	1762750

Pace Analytical

Phone: 413-525-2332
Fax: 413-525-6405
Access COC's and Support Requests

http://www.pacelabs.com

CHAIN OF CUSTODY RECORD

39 Spruce Street
East Longmeadow, MA 01028

Doc # 381 Rev 5_07/13/2021

Page 1 of 2

Company Name: Ramboll
Address: 4350 N Fairfax Dr Ste 300, Arlington, VA
Phone: 7035162383
Project Name: HRP PRGS SCA
Project Location: 1400 N. Royal St. Alexandria, VA
Project Number:
Project Manager: Greg Grose
Pace Quote Name/Number:
Invoice Recipient: Sostertag@ramboll.com
Sampled By: Sarah Ostertag

Requested Turnaround Time
7-Day ☐ 10-Day ☒ 5 day TAT
PFAS 10-Day (std) ☐ Due Date: per PO

Rush Approval Required
1-Day ☐ 3-Day ☐
2-Day ☐ 4-Day ☐

Data Delivery
Format: PDF ☒ EXCEL ☒
Other: Ramboll EDD
CLP Like Data Pkg Required: ☐
Email To: Sostertag@ramboll.com
Fax To #:

Dissolved Metals Samples
○ Field Filtered
○ Lab to Filter

Orthophosphate Samples
○ Field Filtered
○ Lab to Filter

PCB ONLY
SOXHLET ☐
NON SOXHLET ☒

ANALYSIS REQUESTED

Pace Work Order#	Client Sample ID / Description	Beginning Date/Time	Ending Date/Time	COMP/GRAB	[1]Matrix Code	Conc Code	VIALS	GLASS	PLASTIC	BACTERIA	ENCORE	SVOCs	TAL Metals	Cyanide	TPH-GRO	TPH-DRO	TPH-ORO	VOCs	PCBs	pH			[2] Preservation Code
	HRP-EB05-211018	10.18.21	840	G	O-EB	C		4	2			X	X	X		X							Glassware in freezer? Y / N
	HRP-EB06-211018	10.18.21	859	G	O-EB	C		4	2			X	X	X		X							Prepackaged Cooler? Y / N
	HRP-SB204-0.8-1.8-211018	10/18.21	1103	G	S	C		1				X	X										*Pace Analytical is not responsible for missing samples from prepacked coolers
	HRP-SB204-6-8-211018	10.18.21	1130	G	S	L	3	1				X	X					X					
	HRP-SB204-13-15-211018	10.18.21	1135	G	S	L	3	1				X	X					X					
92567560-001	HRP-SB215-0-2-211018	10.18.21	1220	G	S	L	4	3					X	X	X	X	X	X		X			
-002	HRP-SB215-5-7-211018	10.18.21	1230	G	S	L	4	3					X	X	X	X	X	X		X			
-003	HRP-SB215-16-18-211018	10.18.21	1250	G	S	L	4	3					X	X	X	X	X	X		X			
-004	HRP-SB216-1-3-211018	10.18.21	1455	G	S	H	4	3				X	X	X	X	X	X	X		X			
	HRP-TB05-211018	10.18.21	1610	N/A	O-TB	C	2											X					

Relinquished by: (signature) Sarah A. Ostertag — Date/Time: 10.19.21 1326
Received by: (signature) [illegible] 1043 — Date/Time: 101921 1326
Relinquished by: (signature) [illegible] 1043 — Date/Time: 10 19 21 1520
Received by: (signature) Rachel Burrus — Date/Time: 10-19-21 1505
Relinquished by: (signature) — Date/Time:
Received by: (signature) — Date/Time:
Relinquished by: (signature) — Date/Time:
Received by: (signature) — Date/Time:

Client Comments:
EB: Equipment Blank
TB: Trip Blank

Detection Limit Requirements
MA
CT
Other: VA DEQ

Special Requirements
☐ MA MCP Required
MCP Certification Form Required
☐ CT RCP Required
RCP Certification Form Required
☐ MA State DW Required
PWSID #

Please use the following codes to indicate possible sample concentration within the Conc Code column above:
H - High; M - Medium; L - Low; C - Clean; U - Unknown

NELAC and AIHA-LAP, LLC Accredited

Project Entity
Government ☐ Municipality ☐ MWRA ☐ WRTA ☐
Federal ☐ 21 J ☐ School ☐
City ☐ Brownfield ☐ MBTA ☐

Other
☐ Chromatogram
☐ AIHA-LAP,LLC

Courier Use Only
Total Number Of:
VIALS
GLASS
PLASTIC
BACTERIA
ENCORE

Glassware in the fridge? Y / N

[1] Matrix Codes:
GW = Ground Water
WW = Waste Water
DW = Drinking Water
A = Air
S = Soil
SL = Sludge
SOL = Solid
O = Other (please define)

[2] Preservation Codes:
I = Iced
H = HCL
M = Methanol
N = Nitric Acid
S = Sulfuric Acid
B = Sodium Bisulfate
X = Sodium Hydroxide
T = Sodium Thiosulfate
O = Other (please define)

Lab Comments:

WO#: 92567560

92567560

Disclaimer: Pace Analytical is not responsible for any omitted information on the Chain of Custody. The Chain of Custody is a legal document that must be complete and accurate and is used to determine what analyses the laboratory will perform. Any missing information is not the laboratory's responsibility. Pace Analytical values your partnership on each project and will try to assist with missing information, but will not be held accountable.

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

November 03, 2021

Greg Grose
Ramboll
4350 North Fairfax Dr
Suite 300
Arlington, VA 22203

RE: Project: HRP PRGS SCR
Pace Project No.: 92568327

Dear Greg Grose:

Enclosed are the analytical results for sample(s) received by the laboratory on October 21, 2021. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Charlotte

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Angela M. Baioni

Angela Baioni
angela.baioni@pacelabs.com
(704)875-9092
Project Manager

Enclosures

cc: Taylor Carroll, Ramboll
Anne Kelly, Ramboll US Consulting, Inc.
Sarah Ostertag, Ramboll

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

CERTIFICATIONS

Project: HRP PRGS SCR
Pace Project No.: 92568327

Pace Analytical Services Charlotte
9800 Kincey Ave. Ste 100, Huntersville, NC 28078
Louisiana/NELAP Certification # LA170028
North Carolina Drinking Water Certification #: 37706
North Carolina Field Services Certification #: 5342
North Carolina Wastewater Certification #: 12
South Carolina Certification #: 99006001
Florida/NELAP Certification #: E87627
Kentucky UST Certification #: 84
Virginia/VELAP Certification #: 460221

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

SAMPLE ANALYTE COUNT

Project: HRP PRGS SCR
Pace Project No.: 92568327

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
92568327001	**HRP-SB225-0-1-211021**	EPA 8015C Modified	AP2	2	PASI-C
		SW-846	KDF	1	PASI-C
92568327002	**HRP-SB224-0-1-211021**	EPA 8015C Modified	AP2	2	PASI-C
		SW-846	KDF	1	PASI-C
92568327003	**HRP-SB227-0-1-211021**	EPA 8015C Modified	AP2	2	PASI-C
		SW-846	KDF	1	PASI-C

PASI-C = Pace Analytical Services - Charlotte

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: HRP PRGS SCR
Pace Project No.: 92568327

Sample: HRP-SB225-0-1-211021 **Lab ID: 92568327001** Collected: 10/21/21 07:45 Received: 10/21/21 13:15 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8015 GCS THC-ORO	Analytical Method: EPA 8015C Modified Preparation Method: EPA 3546 Pace Analytical Services - Charlotte							
Oil Range Organics (C28-C40)	**105**	mg/kg	20.5	1	11/01/21 11:32	11/02/21 10:46		
Surrogates								
n-Pentacosane (S)	65	%	32-130	1	11/01/21 11:32	11/02/21 10:46	629-99-2	
Percent Moisture	Analytical Method: SW-846 Pace Analytical Services - Charlotte							
Percent Moisture	**26.3**	%	0.10	1		11/02/21 16:54		N2

Pace Analytical Services, LLC
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ANALYTICAL RESULTS

Project: HRP PRGS SCR
Pace Project No.: 92568327

Sample: HRP-SB224-0-1-211021 **Lab ID: 92568327002** Collected: 10/21/21 08:25 Received: 10/21/21 13:15 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8015 GCS THC-ORO	Analytical Method: EPA 8015C Modified Preparation Method: EPA 3546 Pace Analytical Services - Charlotte							
Oil Range Organics (C28-C40)	**111**	mg/kg	29.0	1	11/02/21 14:24	11/02/21 16:41		
Surrogates								
n-Pentacosane (S)	66	%	32-130	1	11/02/21 14:24	11/02/21 16:41	629-99-2	
Percent Moisture	Analytical Method: SW-846 Pace Analytical Services - Charlotte							
Percent Moisture	**25.0**	%	0.10	1		11/02/21 16:55		N2

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: HRP PRGS SCR
Pace Project No.: 92568327

Sample: HRP-SB227-0-1-211021 **Lab ID: 92568327003** Collected: 10/21/21 08:50 Received: 10/21/21 13:15 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8015 GCS THC-ORO	Analytical Method: EPA 8015C Modified Preparation Method: EPA 3546 Pace Analytical Services - Charlotte							
Oil Range Organics (C28-C40)	**21.7**	mg/kg	17.9	1	11/01/21 11:32	11/02/21 11:36		
Surrogates								
n-Pentacosane (S)	64	%	32-130	1	11/01/21 11:32	11/02/21 11:36	629-99-2	
Percent Moisture	Analytical Method: SW-846 Pace Analytical Services - Charlotte							
Percent Moisture	**15.3**	%	0.10	1		11/02/21 16:55		N2

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: HRP PRGS SCR
Pace Project No.: 92568327

QC Batch: 656534
QC Batch Method: EPA 3546
Analysis Method: EPA 8015C Modified
Analysis Description: 8015 Solid GCSV ORO
Laboratory: Pace Analytical Services - Charlotte
Associated Lab Samples: 92568327001, 92568327003

METHOD BLANK: 3441651 Matrix: Solid
Associated Lab Samples: 92568327001, 92568327003

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Oil Range Organics (C28-C40)	mg/kg	ND	14.9	11/02/21 10:12	
n-Pentacosane (S)	%	51	32-130	11/02/21 10:12	

LABORATORY CONTROL SAMPLE: 3441652

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Oil Range Organics (C28-C40)	mg/kg	84.2	53.2	63	50-130	
n-Pentacosane (S)	%			60	32-130	

SAMPLE DUPLICATE: 3441654

Parameter	Units	92568327003 Result	Dup Result	RPD	Qualifiers
Oil Range Organics (C28-C40)	mg/kg	21.7	16.3J		
n-Pentacosane (S)	%	64	40		

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: HRP PRGS SCR
Pace Project No.: 92568327

QC Batch: 656925
QC Batch Method: EPA 3546
Analysis Method: EPA 8015C Modified
Analysis Description: 8015 Solid GCSV ORO
Laboratory: Pace Analytical Services - Charlotte

Associated Lab Samples: 92568327002

METHOD BLANK: 3443518 Matrix: Solid
Associated Lab Samples: 92568327002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Oil Range Organics (C28-C40)	mg/kg	ND	15.0	11/02/21 16:24	
n-Pentacosane (S)	%	52	32-130	11/02/21 16:24	

LABORATORY CONTROL SAMPLE & LCSD: 3443519 3443520

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
Oil Range Organics (C28-C40)	mg/kg	83.3	61.6	64.2	74	77	50-130	4	30	
n-Pentacosane (S)	%				68	68	32-130			

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: HRP PRGS SCR
Pace Project No.: 92568327

QC Batch: 657008
QC Batch Method: SW-846
Analysis Method: SW-846
Analysis Description: Dry Weight/Percent Moisture
Laboratory: Pace Analytical Services - Charlotte
Associated Lab Samples: 92568327001, 92568327002, 92568327003

SAMPLE DUPLICATE: 3444109

Parameter	Units	92568327001 Result	Dup Result	RPD	Qualifiers
Percent Moisture	%	26.3	26.6	1	N2

SAMPLE DUPLICATE: 3444111

Parameter	Units	92570104001 Result	Dup Result	RPD	Qualifiers
Percent Moisture	%	27.5	25.0	9	N2

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALIFIERS

Project: HRP PRGS SCR
Pace Project No.: 92568327

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

Acid preservation may not be appropriate for 2 Chloroethylvinyl ether.

A separate vial preserved to a pH of 4-5 is recommended in SW846 Chapter 4 for the analysis of Acrolein and Acrylonitrile by EPA Method 8260.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

ANALYTE QUALIFIERS

N2	The lab does not hold NELAC/TNI accreditation for this parameter but other accreditations/certifications may apply. A complete list of accreditations/certifications is available upon request.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: HRP PRGS SCR
Pace Project No.: 92568327

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92568327001	**HRP-SB225-0-1-211021**	EPA 3546	656534	EPA 8015C Modified	656780
92568327002	**HRP-SB224-0-1-211021**	EPA 3546	656925	EPA 8015C Modified	657096
92568327003	**HRP-SB227-0-1-211021**	EPA 3546	656534	EPA 8015C Modified	656780
92568327001	**HRP-SB225-0-1-211021**	SW-846	657008		
92568327002	**HRP-SB224-0-1-211021**	SW-846	657008		
92568327003	**HRP-SB227-0-1-211021**	SW-846	657008		

Pace Analytical

Phone: 413-525-2332
Fax: 413-525-6405
Access COC's and Support Requests

http://www.pacelabs.com

CHAIN OF CUSTODY RECORD

39 Spruce Street
East Longmeadow, MA 01028

Doc # 381 Rev 5_07/13/2021

Page 1 of 1

Company Name:	Ramboll
Address:	4350 N Fairfax Dr. Ste 300, Arlington VA
Phone:	703 516 2383
Project Name:	HRPPRGS SCR
Project Location:	1400 N Royal St, Alexandria VA
Project Number:	
Project Manager:	Greg Grose
Pace Quote Name/Number:	
Invoice Recipient:	Sostertag@ramboll.com
Sampled By:	Sarah Ostertag

Requested Turnaround Time
7-Day ☐ 10-Day ☒ 15 day PO
PFAS 10-Day (std) ☐ Due Date:

Rush-Approval Required
1-Day ☐ 3-Day ☐
2-Day ☐ 4-Day ☐

Data Delivery
Format: PDF ☒ EXCEL ☒
Other: Ramboll EDD
CLP Like Data Pkg Required: ☐
Email To: Sostertag@ramboll.com
Fax To #:

Dissolved Metals Samples
○ Field Filtered
○ Lab to Filter

Orthophosphate Samples
○ Field Filtered
○ Lab to Filter

PCB ONLY
SOXHLET ☐
NON SOXHLET ☒

ANALYSIS REQUESTED

Pace Work Order#	Client Sample ID / Description	Beginning Date/Time	Ending Date/Time	COMP/GRAB	Matrix Code	Conc Code	VIALS	GLASS	PLASTIC	BACTERIA	ENCORE	MBS	M	I	I	I	I	I	I	I		
												VOCs	TPH-GRO	TPH-DRO	TPH-DRO	PCBs	SVOCs	TAL Metals	pH	Cyanide		
92568327-001	HRP-SB225-0-1-211021	10.21.21	0745	G	S	M	4	3				X	X	X	X	X	X	X	X	X		
002	HRP-SB224-0-1-211021	10.21.21	0825	G	S	M	4	3				X	X	X	X	X	X	X	X	X		
003	HRP-SB227-0-1-211021	10.21.21	0850	G	S	M	4	3				X	X	X	X	X	X	X	X	X		
	HRP-EB07-211021	10.21.21	0925	G	O-EB	C		6	2						X	X	X	X		X		
	HRP-TB06-211021	10.21.21	0925	N/A	D-TB	C	2					X										

Courier Use Only
Total Number Of:
VIALS
GLASS
PLASTIC
BACTERIA
ENCORE

Glassware in the fridge? Y / N
Glassware in freezer? Y / N
Prepackaged Cooler? Y / N

*Pace Analytical is not responsible for missing samples from prepacked coolers

Relinquished by: (signature)	Date/Time: 10.21.21 1315	Client Comments: EB = Equipment Blank, TB = Trip Blank
Received by: (signature)	Date/Time: 10/21/21 15:15	
Relinquished by: (signature)	Date/Time: 10/21/21 15:15	
Received by: (signature)	Date/Time:	
Relinquished by: (signature)	Date/Time:	
Received by: (signature)	Date/Time:	
Relinquished by: (signature)	Date/Time:	
Received by: (signature)	Date/Time:	

Detection Limit Requirements
MA
CT
Other: VADEQ

Special Requirements
☐ MA MCP Required
MCP Certification Form Required
☐ CT RCP Required
RCP Certification Form Required
☐ MA State DW Required
PWSID #

Please use the following codes to indicate possible sample concentration within the Conc Code column above:
H - High; M - Medium; L - Low; C - Clean; U - Unknown

NELAC and AIHA-LAP, LLC Accredited

Project Entity
Government ☐ Municipality ☐ MWRA ☐ WRTA ☐
Federal ☐ 21 J ☐ School ☐
City ☐ Brownfield ☐ MBTA ☐

Other
☐ Chromatogram
☐ AIHA-LAP,LLC

Lab Comments:

WO# : 92568327
92568327

Disclaimer: Pace Analytical is not responsible for any omitted information on the Chain of Custody. The Chain of Custody is a legal document that must be complete and accurate and is used to determine what analyses the laboratory will perform. Any missing information is not the laboratory's responsibility. Pace Analytical values your partnership on each project and will try to assist with missing information, but will not be held accountable.

[1] Matrix Codes:
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WW = Waste Water
DW = Drinking Water
A = Air
S = Soil
SL = Sludge
SOL = Solid
O = Other (please define)

[2] Preservation Codes:
I = Iced
H = HCL
M = Methanol
N = Nitric Acid
S = Sulfuric Acid
B = Sodium Bisulfate
X = Sodium Hydroxide
T = Sodium Thiosulfate
O = Other (please define)

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

November 12, 2021

Greg Grose
Ramboll
4350 North Fairfax Dr
Suite 300
Arlington, VA 22203

RE: Project: HRP PRGS SCR
Pace Project No.: 92569427

Dear Greg Grose:

Enclosed are the analytical results for sample(s) received by the laboratory on October 28, 2021. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace National - Mt. Juliet

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Angela M. Baioni

Angela Baioni
angela.baioni@pacelabs.com
(704)875-9092
Project Manager

Enclosures

cc: Taylor Carroll, Ramboll
Anne Kelly, Ramboll US Consulting, Inc.
Sarah Ostertag, Ramboll

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

CERTIFICATIONS

Project: HRP PRGS SCR
Pace Project No.: 92569427

Pace Analytical Services National
12065 Lebanon Road, Mt. Juliet, TN 37122
Alabama Certification #: 40660
Alaska Certification 17-026
Arizona Certification #: AZ0612
Arkansas Certification #: 88-0469
California Certification #: 2932
Canada Certification #: 1461.01
Colorado Certification #: TN00003
Connecticut Certification #: PH-0197
DOD Certification: #1461.01
EPA# TN00003
Florida Certification #: E87487
Georgia DW Certification #: 923
Georgia Certification: NELAP
Idaho Certification #: TN00003
Illinois Certification #: 200008
Indiana Certification #: C-TN-01
Iowa Certification #: 364
Kansas Certification #: E-10277
Kentucky UST Certification #: 16
Kentucky Certification #: 90010
Louisiana Certification #: AI30792
Louisiana DW Certification #: LA180010
Maine Certification #: TN0002
Maryland Certification #: 324
Massachusetts Certification #: M-TN003
Michigan Certification #: 9958
Minnesota Certification #: 047-999-395
Mississippi Certification #: TN00003
Missouri Certification #: 340
Montana Certification #: CERT0086
Nebraska Certification #: NE-OS-15-05
Nevada Certification #: TN-03-2002-34
New Hampshire Certification #: 2975
New Jersey Certification #: TN002
New Mexico DW Certification
New York Certification #: 11742
North Carolina Aquatic Toxicity Certification #: 41
North Carolina Drinking Water Certification #: 21704
North Carolina Environmental Certificate #: 375
North Dakota Certification #: R-140
Ohio VAP Certification #: CL0069
Oklahoma Certification #: 9915
Oregon Certification #: TN200002
Pennsylvania Certification #: 68-02979
Rhode Island Certification #: LAO00356
South Carolina Certification #: 84004
South Dakota Certification
Tennessee DW/Chem/Micro Certification #: 2006
Texas Certification #: T 104704245-17-14
Texas Mold Certification #: LAB0152
USDA Soil Permit #: P330-15-00234
Utah Certification #: TN00003
Virginia Certification #: VT2006
Vermont Dept. of Health: ID# VT-2006
Virginia Certification #: 460132
Washington Certification #: C847
West Virginia Certification #: 233
Wisconsin Certification #: 998093910
Wyoming UST Certification #: via A2LA 2926.01
A2LA-ISO 17025 Certification #: 1461.01
A2LA-ISO 17025 Certification #: 1461.02
AIHA-LAP/LLC EMLAP Certification #:100789

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

SAMPLE ANALYTE COUNT

Project: HRP PRGS SCR
Pace Project No.: 92569427

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
92569427001	**HRP-MW72S-211027**	EPA 8015C	CAG	2	PAN
92569427002	**HRP-MW30S-211027**	EPA 8015C	CAG	2	PAN
92569427003	**HRP-MW209-211028**	EPA 8015C	CLG	2	PAN
92569427004	**HRP-MW100S-211028**	EPA 8015C	CAG	2	PAN

PAN = Pace National - Mt. Juliet

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: HRP PRGS SCR
Pace Project No.: 92569427

Sample: HRP-MW72S-211027 **Lab ID: 92569427001** Collected: 10/27/21 14:40 Received: 10/28/21 12:56 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
SVOA (GC) 8015C	Analytical Method: EPA 8015C Preparation Method: 3511/8015 Pace National - Mt. Juliet							
Oil Range Organics (C28-C40)	**1170**	ug/L	100	1	11/09/21 10:08	11/09/21 23:01		
Surrogates								
o-Terphenyl (S)	0.00	%	52.0-156	1	11/09/21 10:08	11/09/21 23:01	84-15-1	SR

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: HRP PRGS SCR
Pace Project No.: 92569427

Sample: HRP-MW30S-211027 **Lab ID: 92569427002** Collected: 10/27/21 14:58 Received: 10/28/21 12:56 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
SVOA (GC) 8015C	Analytical Method: EPA 8015C Preparation Method: 3511/8015 Pace National - Mt. Juliet							
Oil Range Organics (C28-C40)	ND	ug/L	100	1	11/09/21 10:08	11/09/21 19:19		
Surrogates								
o-Terphenyl (S)	88.4	%	52.0-156	1	11/09/21 10:08	11/09/21 19:19	84-15-1	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: HRP PRGS SCR
Pace Project No.: 92569427

Sample: HRP-MW209-211028 **Lab ID: 92569427003** Collected: 10/28/21 09:55 Received: 10/28/21 12:56 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
SVOA (GC) 8015C	Analytical Method: EPA 8015C Preparation Method: 3511/8015 Pace National - Mt. Juliet							
Oil Range Organics (C28-C40)	ND	ug/L	100	1	11/09/21 10:16	11/10/21 03:39		
Surrogates								
o-Terphenyl (S)	85.3	%	52.0-156	1	11/09/21 10:16	11/10/21 03:39	84-15-1	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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ANALYTICAL RESULTS

Project: HRP PRGS SCR
Pace Project No.: 92569427

Sample: HRP-MW100S-211028 **Lab ID: 92569427004** Collected: 10/28/21 09:50 Received: 10/28/21 12:56 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
SVOA (GC) 8015C	Analytical Method: EPA 8015C Preparation Method: 3511/8015 Pace National - Mt. Juliet							
Oil Range Organics (C28-C40)	ND	ug/L	100	1	11/09/21 10:16	11/10/21 22:10		
Surrogates								
o-Terphenyl (S)	90.0	%	52.0-156	1	11/09/21 10:16	11/10/21 22:10	84-15-1	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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Huntersville, NC 28078
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QUALITY CONTROL DATA

Project: HRP PRGS SCR
Pace Project No.: 92569427

QC Batch: 1770405
QC Batch Method: 3511/8015
Analysis Method: EPA 8015C
Analysis Description: SVOA (GC) 8015C
Laboratory: Pace National - Mt. Juliet
Associated Lab Samples: 92569427001, 92569427002

METHOD BLANK: R3727558-1 Matrix: Water
Associated Lab Samples: 92569427001, 92569427002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Oil Range Organics (C28-C40)	ug/L	ND	100	11/09/21 15:38	
o-Terphenyl (S)	%	96.5	52.0-156	11/09/21 15:38	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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QUALITY CONTROL DATA

Project: HRP PRGS SCR
Pace Project No.: 92569427

QC Batch: 1770820
QC Batch Method: 3511/8015
Analysis Method: EPA 8015C
Analysis Description: SVOA (GC) 8015C
Laboratory: Pace National - Mt. Juliet
Associated Lab Samples: 92569427003, 92569427004

METHOD BLANK: R3727822-1 Matrix: Water
Associated Lab Samples: 92569427003, 92569427004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Oil Range Organics (C28-C40)	ug/L	ND	100	11/09/21 19:25	
o-Terphenyl (S)	%	85.5	52.0-156	11/09/21 19:25	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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QUALIFIERS

Project: HRP PRGS SCR
Pace Project No.: 92569427

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

Acid preservation may not be appropriate for 2 Chloroethylvinyl ether.

A separate vial preserved to a pH of 4-5 is recommended in SW846 Chapter 4 for the analysis of Acrolein and Acrylonitrile by EPA Method 8260.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

SAMPLE QUALIFIERS

Sample: 92569427001

[1] Semi-Volatile Organic Compounds (GC) by Method 8015C - Surrogate failure due to matrix interference

ANALYTE QUALIFIERS

SR Surrogate recovery was below laboratory control limits. Results may be biased low.

Pace Analytical Services, LLC
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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: HRP PRGS SCR
Pace Project No.: 92569427

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92569427001	**HRP-MW72S-211027**	3511/8015	1770405	EPA 8015C	1770405
92569427002	**HRP-MW30S-211027**	3511/8015	1770405	EPA 8015C	1770405
92569427003	**HRP-MW209-211028**	3511/8015	1770820	EPA 8015C	1770820
92569427004	**HRP-MW100S-211028**	3511/8015	1770820	EPA 8015C	1770820

Pace Analytical

Phone: 413-525-2332
Fax: 413-525-6405
Access COC's and Support Requests

http://www.pacelabs.com

CHAIN OF CUSTODY RECORD

39 Spruce Street
East Longmeadow, MA 01028

Doc # 381 Rev 5_07/13/2021

Page 1 of 1

Company Name:
Address: 4350 N. Fairfax Dr., Arlington VA
Phone: 703-516-2328
Project Name: HRP-PRGS-SCR
Project Location: 1400 N. Royal St., Alexandria VA
Project Number:
Project Manager: Greg Grose
Pace Quote Name/Number:
Invoice Recipient: sostertag@Ramboll.com
Sampled By: Anne Kelly / Taylor Carroll / Sarah Ostertag

Requested Turnaround Time
7-Day ☐ 10-Day ☒ 5 day
PFAS 10-Day (std) ☐ Due Date: PO

Rush-Approval Required
1-Day ☐ 3-Day ☐
2-Day ☐ 4-Day ☐

Dissolved Metals Samples
◉ Field Filtered
○ Lab to Filter

Orthophosphate Samples
○ Field Filtered
○ Lab to Filter

Data Delivery
Format: PDF ☒ EXCEL ☒
Other: Ramboll EDD
CLP Like Data Pkg Required: ☐
Email To: Sostertag@Ramboll.com
Fax To #:

PCB ONLY
SOXHLET ☐
NON SOXHLET ☐

ANALYSIS REQUESTED

Pace Work Order#	Client Sample ID / Description	Beginning Date/Time	Ending Date/Time	COMP/GRAB	[1]Matrix Code	Conc Code	VIALS	GLASS	PLASTIC	BACTERIA	ENCORE	HI VOCs	I SVOCs	NI Total Metals	NI Dissolved Metals	HI TPH GRO	I TPH DRO	HI TPH ORO	SI Ammonia	I Sulfate	I Glycols	I pH + Cyanide
92569427-001	HRP-MW723-211027	10/27	1440	Grab	GW	L	9	4	5			X	X	X	X	X	X	X	X	X	X	
-002	HRP-MW303-211027	10/27	1458	Grab	GW	L	9	4	5			X	X	X	X	X	X	X	X	X	X	
	HRP-SB210-0-1-211028	10/28	0730	Grab	S	C		1						X								X
-003	HRP-MW209-211028	10.28.21	0955	G	GW	L	6	4	3			X	X	X	X	X	X	X		X		
-004	HRP-MW105-211028	10/28	0950	G	GW	L	9	4	4			X	X	X	X	X	X	X	X	X	X	
	HRP-TB08-211028	10/28	0950	G	~~GW~~ TB	C	2					X										
	HRP-EB08-211028	10.28.21	1140	G	O-EB	C		4	2				X	X			X			X		X

[2] Preservation Code
Courier Use Only
Total Number Of:
VIALS_____
GLASS_____
PLASTIC_____
BACTERIA_____
ENCORE_____

Glassware in the fridge? Y / N
Glassware in freezer? Y / N
Prepackaged Cooler? Y / N

*Pace Analytical is not responsible for missing samples from prepacked coolers

[1] Matrix Codes:
GW = Ground Water
WW = Waste Water
DW = Drinking Water
A = Air
S = Soil
SL = Sludge
SOL = Solid
O = Other (please define)

[2] Preservation Codes:
I = Iced
H = HCL
M = Methanol
N = Nitric Acid
S = Sulfuric Acid
B = Sodium Bisulfate
X = Sodium Hydroxide
T = Sodium Thiosulfate
O = Other (please define)

Relinquished by: (signature)	Date/Time:
[signature]	10.28.21 / 1256
Received by: (signature)	Date/Time:
[signature]	10/28/21 1256
Relinquished by: (signature)	Date/Time:
X	
Received by: (signature)	Date/Time:
[signature]	10/28/21 15:45
Relinquished by: (signature)	Date/Time:
Received by: (signature)	Date/Time:
Relinquished by: (signature)	Date/Time:
X	
Received by: (signature)	Date/Time:
X	

Client Comments:
HRP-SB210-0-1-211028: Soil sample collected into 1L amber jar since we had no soil jars left. Run for ~~Total Metals~~ TAL Metals, pH, and cyanide.
TB: Trip Blank
EB: Equipment Blank

Detection Limit Requirements
MA
CT
Other: VA DEQ

Special Requirements
☐ MA MCP Required
MCP Certification Form Required
☐ CT RCP Required
RCP Certification Form Required
☐ MA State DW Required
PWSID #

Please use the following codes to indicate possible sample concentration within the Conc Code column above:
H - High; M - Medium; L - Low; C - Clean; U - Unknown

Project Entity
Government ☐ Municipality ☐ MWRA ☐ WRTA ☐
Federal ☐ 21 J ☐ School ☐
City ☐ Brownfield ☐ MBTA ☐

Other
☐ Chromatogram
☐ AIHA-LAP,LLC

Lab Comments

WO# : 92569427
92569427

Disclaimer: Pace Analytical is not responsible for any omitted information on the Chain of Custody. The Chain of Custody is a legal document that must be complete and accurate and is used to determine what analyses the laboratory will perform. Any missing information is not the laboratory's responsibility. Pace Analytical values your partnership on each project and will try to assist with missing information, but will not be held accountable.

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

November 17, 2021

Greg Grose
Ramboll
4350 North Fairfax Dr
Suite 300
Arlington, VA 22203

RE: Project: HRP PRGS SCR
Pace Project No.: 92570802

Dear Greg Grose:

Enclosed are the analytical results for sample(s) received by the laboratory on November 04, 2021. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Asheville
- Pace Analytical Services - Charlotte

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Angela M. Baioni

Angela Baioni
angela.baioni@pacelabs.com
(704)875-9092
Project Manager

Enclosures

cc: Taylor Carroll, Ramboll
Anne Kelly, Ramboll US Consulting, Inc.
Sarah Ostertag, Ramboll

Pace Analytical Services, LLC
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Huntersville, NC 28078
(704)875-9092

CERTIFICATIONS

Project: HRP PRGS SCR
Pace Project No.: 92570802

Pace Analytical Services Charlotte
9800 Kincey Ave. Ste 100, Huntersville, NC 28078
Louisiana/NELAP Certification # LA170028
North Carolina Drinking Water Certification #: 37706
North Carolina Field Services Certification #: 5342
North Carolina Wastewater Certification #: 12
South Carolina Certification #: 99006001
Florida/NELAP Certification #: E87627
Kentucky UST Certification #: 84
Virginia/VELAP Certification #: 460221

Pace Analytical Services Asheville
2225 Riverside Drive, Asheville, NC 28804
Florida/NELAP Certification #: E87648
North Carolina Drinking Water Certification #: 37712
North Carolina Wastewater Certification #: 40
South Carolina Certification #: 99030001
Virginia/VELAP Certification #: 460222

Pace Analytical Services, LLC
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SAMPLE ANALYTE COUNT

Project: HRP PRGS SCR
Pace Project No.: 92570802

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
92570802001	**HRP-MW201-211102**	EPA 6010D	CBV	23	PASI-A
		EPA 7470A	DBB1	1	PASI-A
		EPA 8260D	SAS	63	PASI-C

PASI-A = Pace Analytical Services - Asheville
PASI-C = Pace Analytical Services - Charlotte

Pace Analytical Services, LLC
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(704)875-9092

ANALYTICAL RESULTS

Project: HRP PRGS SCR
Pace Project No.: 92570802

Sample: HRP-MW201-211102 **Lab ID: 92570802001** Collected: 11/02/21 09:15 Received: 11/04/21 10:30 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Asheville							
Aluminum	**245**	ug/L	100	1	11/12/21 12:13	11/16/21 02:45	7429-90-5	
Antimony	ND	ug/L	5.0	1	11/12/21 12:13	11/16/21 02:45	7440-36-0	
Arsenic	ND	ug/L	10.0	1	11/12/21 12:13	11/16/21 02:45	7440-38-2	
Barium	**27.3**	ug/L	5.0	1	11/12/21 12:13	11/16/21 02:45	7440-39-3	
Beryllium	ND	ug/L	1.0	1	11/12/21 12:13	11/16/21 02:45	7440-41-7	
Cadmium	ND	ug/L	1.0	1	11/12/21 12:13	11/16/21 02:45	7440-43-9	
Calcium	**46900**	ug/L	100	1	11/12/21 12:13	11/16/21 02:45	7440-70-2	
Chromium	ND	ug/L	5.0	1	11/12/21 12:13	11/15/21 05:35	7440-47-3	
Cobalt	**6.2**	ug/L	5.0	1	11/12/21 12:13	11/16/21 02:45	7440-48-4	
Copper	ND	ug/L	5.0	1	11/12/21 12:13	11/16/21 02:45	7440-50-8	
Iron	**221**	ug/L	50.0	1	11/12/21 12:13	11/16/21 02:45	7439-89-6	
Lead	ND	ug/L	5.0	1	11/12/21 12:13	11/16/21 02:45	7439-92-1	
Magnesium	**12800**	ug/L	100	1	11/12/21 12:13	11/15/21 05:35	7439-95-4	
Manganese	**334**	ug/L	5.0	1	11/12/21 12:13	11/16/21 02:45	7439-96-5	
Molybdenum	ND	ug/L	5.0	1	11/12/21 12:13	11/16/21 02:45	7439-98-7	
Nickel	**5.6**	ug/L	5.0	1	11/12/21 12:13	11/16/21 02:45	7440-02-0	
Selenium	ND	ug/L	10.0	1	11/12/21 12:13	11/16/21 02:45	7782-49-2	
Silver	ND	ug/L	5.0	1	11/12/21 12:13	11/16/21 02:45	7440-22-4	
Sodium	**15400**	ug/L	5000	1	11/12/21 12:13	11/16/21 02:45	7440-23-5	
Thallium	ND	ug/L	10.0	1	11/12/21 12:13	11/16/21 02:45	7440-28-0	
Hardness, Total(SM 2340B)	**170000**	ug/L	662	1	11/12/21 12:13	11/16/21 02:45		
Vanadium	ND	ug/L	5.0	1	11/12/21 12:13	11/16/21 02:45	7440-62-2	
Zinc	ND	ug/L	10.0	1	11/12/21 12:13	11/16/21 02:45	7440-66-6	
7470 Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Asheville							
Mercury	ND	ug/L	0.20	1	11/11/21 20:46	11/16/21 10:50	7439-97-6	
8260D MSV Low Level	Analytical Method: EPA 8260D Pace Analytical Services - Charlotte							
Acetone	ND	ug/L	25.0	1		11/06/21 21:26	67-64-1	
Benzene	ND	ug/L	1.0	1		11/06/21 21:26	71-43-2	
Bromobenzene	ND	ug/L	1.0	1		11/06/21 21:26	108-86-1	
Bromochloromethane	ND	ug/L	1.0	1		11/06/21 21:26	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	1		11/06/21 21:26	75-27-4	
Bromoform	ND	ug/L	1.0	1		11/06/21 21:26	75-25-2	
Bromomethane	ND	ug/L	2.0	1		11/06/21 21:26	74-83-9	
2-Butanone (MEK)	ND	ug/L	5.0	1		11/06/21 21:26	78-93-3	
Carbon tetrachloride	ND	ug/L	1.0	1		11/06/21 21:26	56-23-5	
Chlorobenzene	ND	ug/L	1.0	1		11/06/21 21:26	108-90-7	
Chloroethane	ND	ug/L	1.0	1		11/06/21 21:26	75-00-3	
Chloroform	ND	ug/L	1.0	1		11/06/21 21:26	67-66-3	
Chloromethane	ND	ug/L	1.0	1		11/06/21 21:26	74-87-3	
2-Chlorotoluene	ND	ug/L	1.0	1		11/06/21 21:26	95-49-8	
4-Chlorotoluene	ND	ug/L	1.0	1		11/06/21 21:26	106-43-4	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: HRP PRGS SCR
Pace Project No.: 92570802

Sample: HRP-MW201-211102 **Lab ID: 92570802001** Collected: 11/02/21 09:15 Received: 11/04/21 10:30 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260D MSV Low Level	Analytical Method: EPA 8260D Pace Analytical Services - Charlotte							
1,2-Dibromo-3-chloropropane	ND	ug/L	2.0	1		11/06/21 21:26	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	1		11/06/21 21:26	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	1		11/06/21 21:26	106-93-4	
Dibromomethane	ND	ug/L	1.0	1		11/06/21 21:26	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	1		11/06/21 21:26	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	1		11/06/21 21:26	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	1		11/06/21 21:26	106-46-7	
Dichlorodifluoromethane	ND	ug/L	1.0	1		11/06/21 21:26	75-71-8	
1,1-Dichloroethane	ND	ug/L	1.0	1		11/06/21 21:26	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	1		11/06/21 21:26	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	1		11/06/21 21:26	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	1		11/06/21 21:26	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	1		11/06/21 21:26	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	1		11/06/21 21:26	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	1		11/06/21 21:26	142-28-9	
2,2-Dichloropropane	ND	ug/L	1.0	1		11/06/21 21:26	594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	1		11/06/21 21:26	563-58-6	
cis-1,3-Dichloropropene	ND	ug/L	1.0	1		11/06/21 21:26	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	1		11/06/21 21:26	10061-02-6	
Diisopropyl ether	ND	ug/L	1.0	1		11/06/21 21:26	108-20-3	
Ethylbenzene	ND	ug/L	1.0	1		11/06/21 21:26	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	2.0	1		11/06/21 21:26	87-68-3	
2-Hexanone	ND	ug/L	5.0	1		11/06/21 21:26	591-78-6	
p-Isopropyltoluene	ND	ug/L	1.0	1		11/06/21 21:26	99-87-6	
Methylene Chloride	ND	ug/L	5.0	1		11/06/21 21:26	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	5.0	1		11/06/21 21:26	108-10-1	
Methyl-tert-butyl ether	ND	ug/L	1.0	1		11/06/21 21:26	1634-04-4	
Naphthalene	ND	ug/L	1.0	1		11/06/21 21:26	91-20-3	
Styrene	ND	ug/L	1.0	1		11/06/21 21:26	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	1		11/06/21 21:26	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		11/06/21 21:26	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	1		11/06/21 21:26	127-18-4	
Toluene	ND	ug/L	1.0	1		11/06/21 21:26	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	1.0	1		11/06/21 21:26	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	1.0	1		11/06/21 21:26	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	1		11/06/21 21:26	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	1		11/06/21 21:26	79-00-5	
Trichloroethene	ND	ug/L	1.0	1		11/06/21 21:26	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	1		11/06/21 21:26	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	1		11/06/21 21:26	96-18-4	
Vinyl acetate	ND	ug/L	2.0	1		11/06/21 21:26	108-05-4	
Vinyl chloride	ND	ug/L	1.0	1		11/06/21 21:26	75-01-4	
Xylene (Total)	ND	ug/L	1.0	1		11/06/21 21:26	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	1		11/06/21 21:26	179601-23-1	
o-Xylene	ND	ug/L	1.0	1		11/06/21 21:26	95-47-6	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: HRP PRGS SCR
Pace Project No.: 92570802

Sample: HRP-MW201-211102 **Lab ID: 92570802001** Collected: 11/02/21 09:15 Received: 11/04/21 10:30 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260D MSV Low Level	Analytical Method: EPA 8260D Pace Analytical Services - Charlotte							
Surrogates								
4-Bromofluorobenzene (S)	96	%	70-130	1		11/06/21 21:26	460-00-4	
1,2-Dichloroethane-d4 (S)	99	%	70-130	1		11/06/21 21:26	17060-07-0	
Toluene-d8 (S)	101	%	70-130	1		11/06/21 21:26	2037-26-5	

Pace Analytical Services, LLC
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(704)875-9092

QUALITY CONTROL DATA

Project: HRP PRGS SCR
Pace Project No.: 92570802

QC Batch: 659243
QC Batch Method: EPA 7470A
Analysis Method: EPA 7470A
Analysis Description: 7470 Mercury
Laboratory: Pace Analytical Services - Asheville

Associated Lab Samples: 92570802001

METHOD BLANK: 3455097 Matrix: Water
Associated Lab Samples: 92570802001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Mercury	ug/L	ND	0.20	11/16/21 09:40	

LABORATORY CONTROL SAMPLE: 3455098

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	ug/L	2.5	2.5	98	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3455099 3455100

Parameter	Units	92570374001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
Mercury	ug/L	ND	2.5	2.5	2.8	2.7	110	108	75-125	1	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: HRP PRGS SCR
Pace Project No.: 92570802

QC Batch: 659439
QC Batch Method: EPA 3010A
Analysis Method: EPA 6010D
Analysis Description: 6010 MET
Laboratory: Pace Analytical Services - Asheville
Associated Lab Samples: 92570802001

METHOD BLANK: 3455976 Matrix: Water
Associated Lab Samples: 92570802001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Aluminum	ug/L	ND	100	11/15/21 15:37	
Antimony	ug/L	ND	5.0	11/15/21 04:27	
Arsenic	ug/L	ND	10.0	11/15/21 04:27	
Barium	ug/L	ND	5.0	11/15/21 04:27	
Beryllium	ug/L	ND	1.0	11/15/21 04:27	
Cadmium	ug/L	ND	1.0	11/15/21 04:27	
Calcium	ug/L	ND	100	11/15/21 04:27	
Chromium	ug/L	ND	5.0	11/15/21 04:27	
Cobalt	ug/L	ND	5.0	11/15/21 04:27	
Copper	ug/L	ND	5.0	11/15/21 15:37	
Hardness, Total(SM 2340B)	ug/L	ND	662	11/15/21 04:27	
Iron	ug/L	ND	50.0	11/15/21 04:27	
Lead	ug/L	ND	5.0	11/15/21 04:27	
Magnesium	ug/L	ND	100	11/15/21 04:27	
Manganese	ug/L	ND	5.0	11/15/21 15:37	
Molybdenum	ug/L	ND	5.0	11/15/21 04:27	
Nickel	ug/L	ND	5.0	11/15/21 04:27	
Selenium	ug/L	ND	10.0	11/15/21 04:27	
Silver	ug/L	ND	5.0	11/15/21 04:27	
Sodium	ug/L	ND	5000	11/15/21 04:27	
Thallium	ug/L	ND	10.0	11/15/21 04:27	
Vanadium	ug/L	ND	5.0	11/15/21 04:27	
Zinc	ug/L	ND	10.0	11/15/21 04:27	

LABORATORY CONTROL SAMPLE: 3455977

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Aluminum	ug/L	5000	5030	101	80-120	
Antimony	ug/L	500	499	100	80-120	
Arsenic	ug/L	500	469	94	80-120	
Barium	ug/L	500	495	99	80-120	
Beryllium	ug/L	500	495	99	80-120	
Cadmium	ug/L	500	486	97	80-120	
Calcium	ug/L	5000	4910	98	80-120	
Chromium	ug/L	500	473	95	80-120	
Cobalt	ug/L	500	484	97	80-120	
Copper	ug/L	500	490	98	80-120	
Hardness, Total(SM 2340B)	ug/L	33100	31900	96	80-120	
Iron	ug/L	5000	4870	97	80-120	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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(704)875-9092

QUALITY CONTROL DATA

Project: HRP PRGS SCR
Pace Project No.: 92570802

LABORATORY CONTROL SAMPLE: 3455977

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Lead	ug/L	500	502	100	80-120	
Magnesium	ug/L	5000	4760	95	80-120	
Manganese	ug/L	500	462	92	80-120	
Molybdenum	ug/L	500	507	101	80-120	
Nickel	ug/L	500	484	97	80-120	
Selenium	ug/L	500	496	99	80-120	
Silver	ug/L	250	239	95	80-120	
Sodium	ug/L	5000	4840J	97	80-120	
Thallium	ug/L	500	478	96	80-120	
Vanadium	ug/L	500	478	96	80-120	
Zinc	ug/L	500	508	102	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3455978 3455979

Parameter	Units	92569641006 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
Aluminum	ug/L	1360	5000	5000	8550	9140	144	156	75-125	7	M1
Antimony	ug/L	ND	500	500	486	591	97	118	75-125	19	
Arsenic	ug/L	ND	500	500	479	564	96	112	75-125	16	
Barium	ug/L	79.9	500	500	565	666	97	117	75-125	16	
Beryllium	ug/L	ND	500	500	492	584	98	117	75-125	17	
Cadmium	ug/L	ND	500	500	486	590	97	118	75-125	19	
Calcium	ug/L	31400	5000	5000	34000	40100	52	175	75-125	17	M1
Chromium	ug/L	ND	500	500	471	581	94	116	75-125	21	R1
Cobalt	ug/L	ND	500	500	473	578	95	115	75-125	20	
Copper	ug/L	ND	500	500	517	536	103	107	75-125	4	
Hardness, Total(SM 2340B)	ug/L	129000	33100	33100	152000	182000	69	159	75-125	18	
Iron	ug/L	478	5000	5000	5530	6620	101	123	75-125	18	
Lead	ug/L	ND	500	500	491	590	98	118	75-125	18	
Magnesium	ug/L	12400	5000	5000	16300	19900	78	150	75-125	20	M1
Manganese	ug/L	836	500	500	1350	1380	102	108	75-125	2	
Molybdenum	ug/L	ND	500	500	493	599	98	120	75-125	19	
Nickel	ug/L	ND	500	500	474	578	94	115	75-125	20	
Selenium	ug/L	ND	500	500	518	556	103	110	75-125	7	
Silver	ug/L	ND	250	250	242	281	97	112	75-125	15	
Sodium	ug/L	28500	5000	5000	31600	36300	61	156	75-125	14	M1
Thallium	ug/L	ND	500	500	467	552	93	110	75-125	17	
Vanadium	ug/L	6.4	500	500	487	590	96	117	75-125	19	
Zinc	ug/L	ND	500	500	516	520	102	103	75-125	1	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
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(704)875-9092

QUALITY CONTROL DATA

Project: HRP PRGS SCR
Pace Project No.: 92570802

QC Batch: 657968
QC Batch Method: EPA 8260D
Analysis Method: EPA 8260D
Analysis Description: 8260D MSV Low Level
Laboratory: Pace Analytical Services - Charlotte

Associated Lab Samples: 92570802001

METHOD BLANK: 3448956 Matrix: Water
Associated Lab Samples: 92570802001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	ND	1.0	11/06/21 12:58	
1,1,1-Trichloroethane	ug/L	ND	1.0	11/06/21 12:58	
1,1,2,2-Tetrachloroethane	ug/L	ND	1.0	11/06/21 12:58	
1,1,2-Trichloroethane	ug/L	ND	1.0	11/06/21 12:58	
1,1-Dichloroethane	ug/L	ND	1.0	11/06/21 12:58	
1,1-Dichloroethene	ug/L	ND	1.0	11/06/21 12:58	
1,1-Dichloropropene	ug/L	ND	1.0	11/06/21 12:58	
1,2,3-Trichlorobenzene	ug/L	ND	1.0	11/06/21 12:58	
1,2,3-Trichloropropane	ug/L	ND	1.0	11/06/21 12:58	
1,2,4-Trichlorobenzene	ug/L	ND	1.0	11/06/21 12:58	
1,2-Dibromo-3-chloropropane	ug/L	ND	2.0	11/06/21 12:58	
1,2-Dibromoethane (EDB)	ug/L	ND	1.0	11/06/21 12:58	
1,2-Dichlorobenzene	ug/L	ND	1.0	11/06/21 12:58	
1,2-Dichloroethane	ug/L	ND	1.0	11/06/21 12:58	
1,2-Dichloropropane	ug/L	ND	1.0	11/06/21 12:58	
1,3-Dichlorobenzene	ug/L	ND	1.0	11/06/21 12:58	
1,3-Dichloropropane	ug/L	ND	1.0	11/06/21 12:58	
1,4-Dichlorobenzene	ug/L	ND	1.0	11/06/21 12:58	
2,2-Dichloropropane	ug/L	ND	1.0	11/06/21 12:58	
2-Butanone (MEK)	ug/L	ND	5.0	11/06/21 12:58	
2-Chlorotoluene	ug/L	ND	1.0	11/06/21 12:58	
2-Hexanone	ug/L	ND	5.0	11/06/21 12:58	
4-Chlorotoluene	ug/L	ND	1.0	11/06/21 12:58	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	5.0	11/06/21 12:58	
Acetone	ug/L	ND	25.0	11/06/21 12:58	
Benzene	ug/L	ND	1.0	11/06/21 12:58	
Bromobenzene	ug/L	ND	1.0	11/06/21 12:58	
Bromochloromethane	ug/L	ND	1.0	11/06/21 12:58	
Bromodichloromethane	ug/L	ND	1.0	11/06/21 12:58	
Bromoform	ug/L	ND	1.0	11/06/21 12:58	
Bromomethane	ug/L	ND	2.0	11/06/21 12:58	
Carbon tetrachloride	ug/L	ND	1.0	11/06/21 12:58	
Chlorobenzene	ug/L	ND	1.0	11/06/21 12:58	
Chloroethane	ug/L	ND	1.0	11/06/21 12:58	
Chloroform	ug/L	ND	1.0	11/06/21 12:58	
Chloromethane	ug/L	ND	1.0	11/06/21 12:58	
cis-1,2-Dichloroethene	ug/L	ND	1.0	11/06/21 12:58	
cis-1,3-Dichloropropene	ug/L	ND	1.0	11/06/21 12:58	
Dibromochloromethane	ug/L	ND	1.0	11/06/21 12:58	
Dibromomethane	ug/L	ND	1.0	11/06/21 12:58	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: HRP PRGS SCR
Pace Project No.: 92570802

METHOD BLANK: 3448956 Matrix: Water
Associated Lab Samples: 92570802001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Dichlorodifluoromethane	ug/L	ND	1.0	11/06/21 12:58	
Diisopropyl ether	ug/L	ND	1.0	11/06/21 12:58	
Ethylbenzene	ug/L	ND	1.0	11/06/21 12:58	
Hexachloro-1,3-butadiene	ug/L	ND	2.0	11/06/21 12:58	
m&p-Xylene	ug/L	ND	2.0	11/06/21 12:58	
Methyl-tert-butyl ether	ug/L	ND	1.0	11/06/21 12:58	
Methylene Chloride	ug/L	ND	5.0	11/06/21 12:58	
Naphthalene	ug/L	ND	1.0	11/06/21 12:58	
o-Xylene	ug/L	ND	1.0	11/06/21 12:58	
p-Isopropyltoluene	ug/L	ND	1.0	11/06/21 12:58	
Styrene	ug/L	ND	1.0	11/06/21 12:58	
Tetrachloroethene	ug/L	ND	1.0	11/06/21 12:58	
Toluene	ug/L	ND	1.0	11/06/21 12:58	
trans-1,2-Dichloroethene	ug/L	ND	1.0	11/06/21 12:58	
trans-1,3-Dichloropropene	ug/L	ND	1.0	11/06/21 12:58	
Trichloroethene	ug/L	ND	1.0	11/06/21 12:58	
Trichlorofluoromethane	ug/L	ND	1.0	11/06/21 12:58	
Vinyl acetate	ug/L	ND	2.0	11/06/21 12:58	
Vinyl chloride	ug/L	ND	1.0	11/06/21 12:58	
Xylene (Total)	ug/L	ND	1.0	11/06/21 12:58	
1,2-Dichloroethane-d4 (S)	%	96	70-130	11/06/21 12:58	
4-Bromofluorobenzene (S)	%	102	70-130	11/06/21 12:58	
Toluene-d8 (S)	%	104	70-130	11/06/21 12:58	

LABORATORY CONTROL SAMPLE: 3448957

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	50	53.7	107	70-130	
1,1,1-Trichloroethane	ug/L	50	49.6	99	70-130	
1,1,2,2-Tetrachloroethane	ug/L	50	51.7	103	70-130	
1,1,2-Trichloroethane	ug/L	50	52.4	105	70-130	
1,1-Dichloroethane	ug/L	50	49.4	99	70-130	
1,1-Dichloroethene	ug/L	50	46.9	94	70-132	
1,1-Dichloropropene	ug/L	50	53.2	106	70-131	
1,2,3-Trichlorobenzene	ug/L	50	49.4	99	70-134	
1,2,3-Trichloropropane	ug/L	50	50.8	102	70-130	
1,2,4-Trichlorobenzene	ug/L	50	50.1	100	70-130	
1,2-Dibromo-3-chloropropane	ug/L	50	46.8	94	70-132	
1,2-Dibromoethane (EDB)	ug/L	50	55.1	110	70-130	
1,2-Dichlorobenzene	ug/L	50	47.2	94	70-130	
1,2-Dichloroethane	ug/L	50	48.2	96	70-130	
1,2-Dichloropropane	ug/L	50	52.5	105	70-130	
1,3-Dichlorobenzene	ug/L	50	48.7	97	70-130	
1,3-Dichloropropane	ug/L	50	51.3	103	70-130	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: HRP PRGS SCR
Pace Project No.: 92570802

LABORATORY CONTROL SAMPLE: 3448957

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,4-Dichlorobenzene	ug/L	50	47.0	94	70-130	
2,2-Dichloropropane	ug/L	50	50.4	101	70-130	
2-Butanone (MEK)	ug/L	100	106	106	70-133	
2-Chlorotoluene	ug/L	50	49.2	98	70-130	
2-Hexanone	ug/L	100	106	106	70-130	
4-Chlorotoluene	ug/L	50	48.8	98	70-130	
4-Methyl-2-pentanone (MIBK)	ug/L	100	101	101	70-130	
Acetone	ug/L	100	98.6	99	70-144	
Benzene	ug/L	50	48.7	97	70-130	
Bromobenzene	ug/L	50	47.5	95	70-130	
Bromochloromethane	ug/L	50	50.1	100	70-130	
Bromodichloromethane	ug/L	50	49.0	98	70-130	
Bromoform	ug/L	50	54.0	108	70-131	
Bromomethane	ug/L	50	52.0	104	30-177	
Carbon tetrachloride	ug/L	50	49.1	98	70-130	
Chlorobenzene	ug/L	50	49.3	99	70-130	
Chloroethane	ug/L	50	59.5	119	46-131	
Chloroform	ug/L	50	50.5	101	70-130	
Chloromethane	ug/L	50	49.4	99	49-130	
cis-1,2-Dichloroethene	ug/L	50	48.0	96	70-130	
cis-1,3-Dichloropropene	ug/L	50	53.1	106	70-130	
Dibromochloromethane	ug/L	50	56.3	113	70-130	
Dibromomethane	ug/L	50	48.5	97	70-130	
Dichlorodifluoromethane	ug/L	50	49.5	99	52-134	
Diisopropyl ether	ug/L	50	51.2	102	70-131	
Ethylbenzene	ug/L	50	49.7	99	70-130	
Hexachloro-1,3-butadiene	ug/L	50	51.4	103	70-131	
m&p-Xylene	ug/L	100	100	100	70-130	
Methyl-tert-butyl ether	ug/L	50	52.2	104	70-130	
Methylene Chloride	ug/L	50	49.8	100	68-130	
Naphthalene	ug/L	50	48.3	97	70-133	
o-Xylene	ug/L	50	49.6	99	70-130	
p-Isopropyltoluene	ug/L	50	49.5	99	70-130	
Styrene	ug/L	50	52.3	105	70-130	
Tetrachloroethene	ug/L	50	49.6	99	70-130	
Toluene	ug/L	50	46.2	92	70-130	
trans-1,2-Dichloroethene	ug/L	50	47.8	96	70-130	
trans-1,3-Dichloropropene	ug/L	50	52.3	105	70-130	
Trichloroethene	ug/L	50	50.7	101	70-130	
Trichlorofluoromethane	ug/L	50	47.7	95	61-130	
Vinyl acetate	ug/L	100	105	105	70-140	
Vinyl chloride	ug/L	50	50.8	102	59-142	
Xylene (Total)	ug/L	150	150	100	70-130	
1,2-Dichloroethane-d4 (S)	%			101	70-130	
4-Bromofluorobenzene (S)	%			102	70-130	
Toluene-d8 (S)	%			96	70-130	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: HRP PRGS SCR
Pace Project No.: 92570802

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3448958 3448959

Parameter	Units	92570812005 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
1,1,1,2-Tetrachloroethane	ug/L	ND	20	20	21.0	19.9	105	99	70-135	5	
1,1,1-Trichloroethane	ug/L	ND	20	20	23.4	22.1	117	110	70-148	6	
1,1,2,2-Tetrachloroethane	ug/L	ND	20	20	19.9	18.7	99	94	70-131	6	
1,1,2-Trichloroethane	ug/L	ND	20	20	20.9	21.8	104	109	70-136	4	
1,1-Dichloroethane	ug/L	ND	20	20	22.6	22.5	113	112	70-147	1	
1,1-Dichloroethene	ug/L	ND	20	20	22.4	21.7	112	108	70-158	3	
1,1-Dichloropropene	ug/L	ND	20	20	22.9	22.2	114	111	70-149	3	
1,2,3-Trichlorobenzene	ug/L	ND	20	20	21.5	20.6	107	103	68-140	4	
1,2,3-Trichloropropane	ug/L	ND	20	20	19.5	18.5	97	93	67-137	5	
1,2,4-Trichlorobenzene	ug/L	ND	20	20	20.5	20.4	103	102	70-139	1	
1,2-Dibromo-3-chloropropane	ug/L	ND	20	20	19.0	18.7	95	94	69-136	2	
1,2-Dibromoethane (EDB)	ug/L	ND	20	20	21.4	20.1	107	100	70-137	6	
1,2-Dichlorobenzene	ug/L	ND	20	20	20.9	20.5	105	102	70-133	2	
1,2-Dichloroethane	ug/L	ND	20	20	21.1	20.7	106	104	67-138	2	
1,2-Dichloropropane	ug/L	ND	20	20	21.4	22.0	107	110	70-138	3	
1,3-Dichlorobenzene	ug/L	ND	20	20	20.2	19.9	101	100	70-133	2	
1,3-Dichloropropane	ug/L	ND	20	20	20.4	20.4	102	102	70-136	0	
1,4-Dichlorobenzene	ug/L	ND	20	20	19.6	19.8	98	99	70-133	1	
2,2-Dichloropropane	ug/L	ND	20	20	22.0	21.8	110	109	52-155	1	
2-Butanone (MEK)	ug/L	ND	40	40	43.9	41.1	110	103	61-147	6	
2-Chlorotoluene	ug/L	ND	20	20	21.0	20.9	105	105	70-141	0	
2-Hexanone	ug/L	ND	40	40	39.9	38.8	100	97	67-139	3	
4-Chlorotoluene	ug/L	ND	20	20	19.8	19.9	99	100	70-135	1	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	40	40	37.6	38.4	94	96	67-136	2	
Acetone	ug/L	ND	40	40	41.2	38.8	103	97	55-159	6	
Benzene	ug/L	ND	20	20	21.0	20.8	105	104	67-150	1	
Bromobenzene	ug/L	ND	20	20	21.1	20.3	106	102	70-134	4	
Bromochloromethane	ug/L	ND	20	20	22.6	22.6	113	113	70-146	0	
Bromodichloromethane	ug/L	ND	20	20	20.6	20.5	103	102	70-138	1	
Bromoform	ug/L	ND	20	20	19.5	18.8	98	94	57-138	3	
Bromomethane	ug/L	ND	20	20	27.3	25.5	137	127	10-200	7	
Carbon tetrachloride	ug/L	ND	20	20	20.9	20.5	104	103	70-147	2	
Chlorobenzene	ug/L	ND	20	20	21.0	20.4	105	102	70-137	3	
Chloroethane	ug/L	ND	20	20	28.6	27.4	143	137	51-166	4	v1
Chloroform	ug/L	ND	20	20	23.4	22.2	117	111	70-144	5	
Chloromethane	ug/L	ND	20	20	22.4	20.7	112	104	24-161	8	
cis-1,2-Dichloroethene	ug/L	ND	20	20	21.5	21.7	108	109	67-148	1	
cis-1,3-Dichloropropene	ug/L	ND	20	20	20.0	20.8	100	104	70-142	4	
Dibromochloromethane	ug/L	ND	20	20	21.9	19.9	110	99	68-138	10	
Dibromomethane	ug/L	ND	20	20	20.7	20.4	103	102	70-134	1	
Dichlorodifluoromethane	ug/L	ND	20	20	22.4	21.7	112	109	43-155	3	
Diisopropyl ether	ug/L	ND	20	20	20.8	19.8	104	99	65-146	5	
Ethylbenzene	ug/L	ND	20	20	21.4	20.6	107	103	68-143	4	
Hexachloro-1,3-butadiene	ug/L	ND	20	20	21.9	21.7	110	108	62-151	1	
m&p-Xylene	ug/L	ND	40	40	43.2	41.1	108	103	53-157	5	
Methyl-tert-butyl ether	ug/L	ND	20	20	20.7	19.3	103	96	59-156	7	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: HRP PRGS SCR
Pace Project No.: 92570802

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3448958 3448959

Parameter	Units	92570812005 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
Methylene Chloride	ug/L	ND	20	20	23.2	22.6	116	113	64-148	2	
Naphthalene	ug/L	ND	20	20	21.0	20.2	105	101	57-150	4	
o-Xylene	ug/L	ND	20	20	20.8	20.1	104	100	68-143	3	
p-Isopropyltoluene	ug/L	ND	20	20	20.9	20.5	104	102	70-141	2	
Styrene	ug/L	ND	20	20	21.1	20.2	105	101	70-136	4	
Tetrachloroethene	ug/L	ND	20	20	19.9	19.8	99	99	70-139	1	
Toluene	ug/L	ND	20	20	19.8	20.0	99	100	47-157	1	
trans-1,2-Dichloroethene	ug/L	ND	20	20	22.8	22.2	114	111	70-149	3	
trans-1,3-Dichloropropene	ug/L	ND	20	20	19.7	18.9	99	94	70-138	4	
Trichloroethene	ug/L	ND	20	20	21.5	21.0	107	105	70-149	2	
Trichlorofluoromethane	ug/L	ND	20	20	22.4	22.0	112	110	61-154	2	
Vinyl acetate	ug/L	ND	40	40	40.7	39.5	102	99	48-156	3	
Vinyl chloride	ug/L	ND	20	20	23.8	23.4	119	117	55-172	1	
Xylene (Total)	ug/L	ND	60	60	64.0	61.2	107	102	66-145	5	
1,2-Dichloroethane-d4 (S)	%						111	108	70-130		
4-Bromofluorobenzene (S)	%						103	101	70-130		
Toluene-d8 (S)	%						97	99	70-130		

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALIFIERS

Project: HRP PRGS SCR
Pace Project No.: 92570802

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

Acid preservation may not be appropriate for 2 Chloroethylvinyl ether.

A separate vial preserved to a pH of 4-5 is recommended in SW846 Chapter 4 for the analysis of Acrolein and Acrylonitrile by EPA Method 8260.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

ANALYTE QUALIFIERS

M1	Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.
R1	RPD value was outside control limits.
v1	The continuing calibration verification was above the method acceptance limit. Any detection for the analyte in the associated samples may have a high bias.

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: HRP PRGS SCR
Pace Project No.: 92570802

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92570802001	**HRP-MW201-211102**	EPA 3010A	659439	EPA 6010D	659582
92570802001	**HRP-MW201-211102**	EPA 7470A	659243	EPA 7470A	659349
92570802001	**HRP-MW201-211102**	EPA 8260D	657968		

Pace Analytical	Document Name: Sample Condition Upon Receipt(SCUR)	Document Revised: October 28, 2020 Page 1 of 2
	Document No.: F-CAR-CS-033-Rev.07	Issuing Authority: Pace Carolinas Quality Office

Laboratory receiving samples:
Asheville ☐ Eden ☐ Greenwood ☐ Huntersville ☒ Raleigh ☐ Mechanicsville ☐ Atlanta ☐ Kernersville ☐

Sample Condition Upon Receipt

Client Name: Rambol

Project #: **WO# : 92570802**

92570802

Courier: ☐ Commercial ☒ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Pace ☐ Other:___

Custody Seal Present? ☐ Yes ☒ No Seals Intact? ☐ Yes ☒ No

Date/Initials Person Examining Contents: KH 11/4/21

Packing Material: ☒ Bubble Wrap ☒ Bubble Bags ☐ None ☐ Other

Biological Tissue Frozen? ☐ Yes ☐ No ☒ N/A

Thermometer: ☒ IR Gun ID: 92T064 ☑ Wet ☐ Blue ☐ None

Type of Ice:

Cooler Temp: 5.9 Correction Factor: Add/Subtract (°C) 0

Temp should be above freezing to 6°C
☐ Samples out of temp criteria. Samples on ice, cooling process has begun

Cooler Temp Corrected (°C): 5.9

USDA Regulated Soil (☐ N/A, water sample)

Did samples originate in a quarantine zone within the United States: CA, NY, or SC (check maps)? ☐ Yes ☐ No

Did samples originate from a foreign source (Internationally, including Hawaii and Puerto Rico)? ☐ Yes ☐ No

KH 11/4/21

				Comments/Discrepancy:
Chain of Custody Present?	☒ Yes	☒ No	☐ N/A	1.
Samples Arrived within Hold Time?	☒ Yes	☐ No	☐ N/A	2.
Short Hold Time Analysis (<72 hr.)?	☐ Yes	☒ No	☐ N/A	3.
Rush Turn Around Time Requested?	☐ Yes	☐ No	☐ N/A	4.
Sufficient Volume?	☒ Yes	☐ No	☐ N/A	5.
Correct Containers Used?	☒ Yes	☐ No	☐ N/A	6.
-Pace Containers Used?	☒ Yes	☐ No	☐ N/A	
Containers Intact?	☒ Yes	☐ No	☐ N/A	7.
Dissolved analysis: Samples Field Filtered?	☐ Yes	☐ No	☒ N/A	8.
Sample Labels Match COC? -Includes Date/Time/ID/Analysis Matrix:___	☐ Yes	☐ No	☐ N/A	9.
Headspace in VOA Vials (>5-6mm)?	☐ Yes	☐ No	☒ N/A	10.
Trip Blank Present?	☐ Yes	☒ No	☐ N/A	11.
Trip Blank Custody Seals Present?	☐ Yes	☐ No	☒ N/A	

COMMENTS/SAMPLE DISCREPANCY

Field Data Required? ☐ Yes ☐ No

Lot ID of split containers:

CLIENT NOTIFICATION/RESOLUTION

Person contacted: Date/Time:

Project Manager SCURF Review: Date:

Project Manager SRF Review: Date:

WO#: 92570802

PM: AMB Due Date: 11/18/21

CLIENT: 92-RambollEn

**Check mark top half of box if pH and/or dechlorination is verified and within the acceptance range for preservation samples.

Project

Exceptions: VOA, Coliform, TOC, Oil and Grease, DRO/8015 (water) DOC, LLHg

**Bottom half of box is to list number of bottles

Item#	BP4U-125 mL Plastic Unpreserved (N/A) (Cl-)	BP3U-250 mL Plastic Unpreserved (N/A)	BP2U-500 mL Plastic Unpreserved (N/A)	BP1U-1 liter Plastic Unpreserved (N/A)	BP4S-125 mL Plastic H2SO4 (pH < 2) (Cl-)	BP3N-250 mL plastic HNO3 (pH < 2)	BP4Z-125 mL Plastic ZN Acetate & NaOH (>9)	BP4C-125 mL Plastic NaOH (pH > 12) (Cl-)	WGFU-Wide-mouthed Glass jar Unpreserved	AG1U-1 liter Amber Unpreserved (N/A) (Cl-)	AG1H-1 liter Amber HCl (pH < 2)	AG3U-250 mL Amber Unpreserved (N/A) (Cl-)	AG1S-1 liter Amber H2SO4 (pH < 2)	AG3S-250 mL Amber H2SO4 (pH < 2)	AG3A(DG3A)-250 mL Amber NH4Cl (N/A)(Cl-)	DG9H-40 mL VOA HCl (N/A)	VG9T-40 mL VOA Na2S2O3 (N/A)	VG9U-40 mL VOA Unp (N/A)	DG9P-40 mL VOA H3PO4 (N/A)	VOAK (6 vials per kit)-5035 kit (N/A)	V/GK (3 vials per kit)-VPH/Gas kit (N/A)	SP5T-125 mL Sterile Plastic (N/A – lab)	SP2T-250 mL Sterile Plastic (N/A – lab)		BP3A-250 mL Plastic (NH2)2SO4 (9.3-9.7)	AG0U-100 mL Amber Unpreserved vials (N/A)	VSGU-20 mL Scintillation vials (N/A)	DG9U-40 mL Amber Unpreserved vials (N/A)
1						1										3												
2																												
3																												
4																												
5																												
6																												
7																												
8																												
9																												
10																												
11																												
12																												

pH Adjustment Log for Preserved Samples

Sample ID	Type of Preservative	pH upon receipt	Date preservation adjusted	Time preservation adjusted	Amount of Preservative added	Lot #

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e. Out of hold, Incorrect preservative, out of temp, incorrect containers.

Pace Analytical®

Phone: 413-525-2332
Fax: 413-525-6405
Access COC's and Support Requests

http://www.pacelabs.com

CHAIN OF CUSTODY RECORD

39 Spruce Street
East Longmeadow, MA 01028

Doc # 381 Rev 5_07/13/2021

Page 1 of 1

Company Name: Ramboll
Address: 4350 N Fairfax Dr. Arlington VA
Phone:
Project Name: HRP ARGS SCR
Project Location: 1400 N Royal St Alexandria VA
Project Number:
Project Manager: Greg Grose
Pace Quote Name/Number:
Invoice Recipient: Sostertag@Ramboll.com
Sampled By: Anne Kelly

Requested Turnaround Time			
7-Day	☐	10-Day	☐
PFAS 10-Day (std)	☐	Due Date:	
Rush-Approval Required			
1-Day	☐	3-Day	☐
2-Day	☐	4-Day	☐

Dissolved Metals Samples	
O	Field Filtered
O	Lab to Filter
Orthophosphate Samples	
O	Field Filtered
O	Lab to Filter

Data Delivery
Format: PDF ☒ EXCEL ☒
Other: Ramboll EDD
CLP Like Data Pkg Required: ☐
Email To: Sostertag@ramboll.com
Fax To #:

PCB ONLY
SOXHLET ☐
NON SOXHLET ☐

ANALYSIS REQUESTED

Pace Work Order#	Client Sample ID / Description	Beginning Date/Time	Ending Date/Time	COMP/GRAB	[1]Matrix Code	Conc Code	VIALS	GLASS	PLASTIC	BACTERIA	ENCORE	VOCs (H)	Total Metals (N)
92570802-00	HRP-MW201-211102	11/2/21	0915	G	GW	L	3		1			X	X

[2] Preservation Code

Courier Use Only
Total Number Of:
VIALS
GLASS
PLASTIC
BACTERIA
ENCORE

Glassware in the fridge? Y / N
Glassware in freezer? Y / N
Prepackaged Cooler? Y / N
*Pace Analytical is not responsible for missing samples from prepacked coolers

[1] **Matrix Codes:**
GW = Ground Water
WW = Waste Water
DW = Drinking Water
A = Air
S = Soil
SL = Sludge
SOL = Solid
O = Other (please define)

[2] **Preservation Codes:**
I = Iced
H = HCL
M = Methanol
N = Nitric Acid
S = Sulfuric Acid
B = Sodium Bisulfate
X = Sodium Hydroxide
T = Sodium Thiosulfate
O = Other (please define)

Signature	Date/Time
Relinquished by: (signature) [signature]	Date/Time: 11/3/21 / 1250
Received by: (signature) [signature]	Date/Time: 11/3/21
Relinquished by: (signature) [signature]	Date/Time: 11/3/21 1250
Received by: (signature) [signature] PACE	Date/Time: 11/3/21 1455
Relinquished by: (signature) [signature] PACE	Date/Time: 11/3/21 1530
Received by: (signature) [signature] Pace HVL	Date/Time: 11/3/21 1530 / 11/4/21 10:50
Relinquished by: (signature)	Date/Time:
Received by: (signature)	Date/Time:

Client Comments:

Detection Limit Requirements
MA
CT
Other: VA DEQ

Special Requirements
☐ MA MCP Required
MCP Certification Form Required
☐ CT RCP Required
RCP Certification Form Required
☐ MA State DW Required
PWSID #

Please use the following codes to indicate possible sample concentration within the Conc Code column above:
H - High; M - Medium; L - Low; C - Clean; U - Unknown

NELAC and AIHA-LAP, LLC Accredited

Project Entity
Government ☐ Federal ☐ City ☐
Municipality ☐ 21 J ☐ Brownfield ☐
MWRA ☐ School ☐ MBTA ☐
WRTA ☐

Other
☐ Chromatogram
☐ AIHA-LAP,LLC

Lab Comments:

Disclaimer: Pace Analytical is not responsible for any omitted information on the Chain of Custody. The Chain of Custody is a legal document that must be complete and accurate and is used to determine what analyses the laboratory will perform. Any missing information is not the laboratory's responsibility. Pace Analytical values your partnership on each project and will try to assist with missing information, but will not be held accountable.

CWM Environmental
101 Parkview Drive Ext.
Kittanning, Pennsylvania 16201
724-543-3011
Lab # 03-457

Lab Analysis Report

Customer: Pace Analytical Charlotte
Project: Subcontracted
Sample: HRP-MW-201-211025
Collection Method: Grab

Sample Number: 21J2720-01
Collection: 10/25/2021 15:45
Received: 10/29/2021 10:00
Matrix: NPW

Cert	Analyte	Result	Reporting Limit	Units	Analysis Date	Analyst	Method
General Chemistry							
PA-DEP	Hydrazine	<0.002	0.002	mg/L	10/30/2021 20:11	EAS	ASTM D1385-88

Paul Bookmyer, Technical Director

PA DEP - Analytes associated with this are accredited under this matrix through 03-00457 scope expiring January 30, 2022. If no Cert appears next to the analyte no accreditation should be assumed for this matrix. Subcontracted analytes ran under associated laboratory scope of accreditation.

CWM Environmental
101 Parkview Drive Ext.
Kittanning, Pennsylvania 16201
724-543-3011
Lab # 03-457

Lab Analysis Report

Customer: Pace Analytical Charlotte
Project: Subcontracted
Sample: HRP-MW-202-211026
Collection Method: Grab

Sample Number: 21J2720-02
Collection: 10/26/2021 09:50
Received: 10/29/2021 10:00
Matrix: NPW

Cert	Analyte	Result	Reporting Limit	Units	Analysis Date	Analyst	Method
General Chemistry							
PA-DEP	Hydrazine	<0.002	0.002	mg/L	10/30/2021 20:11	EAS	ASTM D1385-88

Paul Bookmyer, Technical Director

PA DEP - Analytes associated with this are accredited under this matrix through 03-00457 scope expiring January 30, 2022. If no Cert appears next to the analyte no accreditation should be assumed for this matrix. Subcontracted analytes ran under associated laboratory scope of accreditation.

CWM Environmental
101 Parkview Drive Ext.
Kittanning, Pennsylvania 16201
724-543-3011
Lab # 03-457

Lab Analysis Report

Customer: Pace Analytical Charlotte
Project: Subcontracted
Sample: HRP-DUP-211026
Collection Method: Grab

Sample Number: 21J2720-03
Collection: 10/26/2021 10:00
Received: 10/29/2021 10:00
Matrix: NPW

Cert	Analyte	Result	Reporting Limit	Units	Analysis Date	Analyst	Method
General Chemistry							
PA-DEP	Hydrazine	<0.002	0.002	mg/L	10/30/2021 20:11	EAS	ASTM D1385-88

Paul Bookmyer, Technical Director

PA DEP - Analytes associated with this are accredited under this matrix through 03-00457 scope expiring January 30, 2022. If no Cert appears next to the analyte no accreditation should be assumed for this matrix. Subcontracted analytes ran under associated laboratory scope of accreditation.

CWM Environmental
101 Parkview Drive Ext.
Kittanning, Pennsylvania 16201
724-543-3011
Lab # 03-457

Lab Analysis Report

Customer: Pace Analytical Charlotte
Project: Subcontracted
Sample: HRP-MW205-211026
Collection Method: Grab

Sample Number: 21J2720-04
Collection: 10/26/2021 12:30
Received: 10/29/2021 10:00
Matrix: NPW

Cert	Analyte	Result	Reporting Limit	Units	Analysis Date	Analyst	Method
General Chemistry							
PA-DEP	Hydrazine	<0.002	0.002	mg/L	10/30/2021 20:11	EAS	ASTM D1385-88

Paul Bookmyer, Technical Director

PA DEP - Analytes associated with this are accredited under this matrix through 03-00457 scope expiring January 30, 2022. If no Cert appears next to the analyte no accreditation should be assumed for this matrix. Subcontracted analytes ran under associated laboratory scope of accreditation.

CWM Environmental
101 Parkview Drive Ext.
Kittanning, Pennsylvania 16201
724-543-3011
Lab # 03-457

Lab Analysis Report

Customer: Pace Analytical Charlotte
Project: Subcontracted
Sample: HRP-MW102-211027
Collection Method: Grab

Sample Number: 21J2720-05
Collection: 10/27/2021 10:45
Received: 10/29/2021 10:00
Matrix: NPW

Cert	Analyte	Result	Reporting Limit	Units	Analysis Date	Analyst	Method
General Chemistry							
PA-DEP	Hydrazine	0.002	0.002	mg/L	10/30/2021 20:11	EAS	ASTM D1385-88

Paul Bookmyer, Technical Director

PA DEP - Analytes associated with this are accredited under this matrix through 03-00457 scope expiring January 30, 2022. If no Cert appears next to the analyte no accreditation should be assumed for this matrix. Subcontracted analytes ran under associated laboratory scope of accreditation.

Chain of Custody

PASI Charlotte Laboratory

Pace Analytical
www.pacelabs.com

Workorder: 92569119 **Workorder Name:** HRP PRGS SCR **Results Requested By:** 11/10/2021

Report / Invoice To	Subcontract To
Angela Baioni Pace Analytical Charlotte 9800 Kincey Ave. Suite 100 Huntersville, NC 28078 Phone (704)875-9092 Email: angela.baioni@pacelabs.com	CWM Environmental 101 Parkview Dr. Extension Kittanning, PA 16201 724-543-3011

P.O. AMB 92569119

State of Sample Origin: VA

Item	Sample ID	Collect Date/Time	Lab ID	Matrix	Preserved Containers: HCL	Preserved Containers: Unpreserved AG1U	Requested Analysis: Hydrazine	LAB USE ONLY
1	HRP-MW201-211025	10/25/2021 15:45	92569119001	Water	1		X	3.6
2	HRP-MW202-211026	10/26/2021 09:50	92569119002	Water	1		X	4.1
3	HRP-DUP05-211026	10/26/2021 10:00	92569119003	Water	↓		X	4.0
4	HRP-MW205-211026	10/26/2021 12:30	92569119004	Water	↓		X	4.0
5	HRP-MW102-211027	10/27/2021 10:45	92569119006	Water	↓		X	3.8

Transfers	Released By	Date/Time	Received By	Date/Time
1	[signature]	10/28/21 1354	K Kake	10/29/21
2				
3				

Comments: 1000

Cooler Temperature on Receipt °C | Custody Seal (Y) or N | Received on Ice (Y) or N | Samples Intact (Y) or N

21J2720

RECEIVED on ICE