# Lot 10 Boundary Modification
# Field Investigation
# Summary Report

at

## iPark 84
## Former IBM East Fishkill Facility

April 2024

Prepared for:

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# TABLE OF CONTENTS

PROFESSIONAL ENGINEER CERTIFICATION

1 INTRODUCTION ..... 1
1.1 Site History and Previous Investigations ..... 2
2 SUBSURFACE INVESTIGATION FIELDWORK ..... 5
2.1 Soil and Sediment Investigation ..... 5
2.1.1 Soil Sampling ..... 5
2.1.2 Sediment Sampling ..... 7
2.2 Decontamination Procedures and Waste Handling ..... 7
2.3 Community Air Monitoring ..... 7
3 EVALUATION OF SOIL AND SEDIMENT INVESTIGATION SAMPLING RESULTS ..... 9
3.1 Soil Sampling Results ..... 9
3.2 Sediment Sampling Results ..... 10
4 SUMMARY OF GROUNDWATER MONITORING DATA ..... 12
5 CONCLUSION ..... 14
5.1 Soil ..... 14
5.2 Sediment ..... 15
5.3 Summary ..... 15

## TABLES

1 Summary of Soil Analysis – Volatile Organic Compounds (VOCs)
2 Summary of Soil Analysis – Semi-Volatile Organic Compounds (SVOCs)
3 Summary of Soil Analysis – Metals
4 Summary of Soil Analysis – Pesticides, Herbicides, Polychlorinated Biphenyls (PCBs)
5 Summary of Soil Analysis – Emerging Contaminants (1-4 Dioxane, PFAS)
6 Summary of Sediment Analysis – Volatile Organic Compounds (VOCs)
7 Summary of Sediment Analysis – Semi-Volatile Organic Compounds (SVOCs)
8 Summary of Sediment Analysis – Metals
9 Summary of Sediment Analysis – Pesticides, Herbicides, Polychlorinated Biphenyls (PCBs)
10 Summary of Sediment Analysis – Emerging Contaminants (1-4 Dioxane, PFAS)

## FIGURES

1 Site Plan
2 Lot 10 Sampling Locations

## APPENDICES


| | |
|---|---|
| APPENDIX A | Site Photographs |
| APPENDIX B | Soil Boring Logs |
| APPENDIX C | Community Air Monitoring Summary |
| APPENDIX D | Laboratory Analytical Reports |
| APPENDIX E | Data Usability Summary Report |
| APPENDIX F | Groundwater Monitoring Information |
| | |
| ATTACHMENT A | Lot 10 Boundary Modification Field Investigation Work Plan |
| ATTACHMENT B | Tank 253 (SWMU #69) Historic Documentation |

## Professional Engineer Certification

I certify that I am a professional engineer licensed to practice in New York State in accordance with New York State Education Law, Article 145, Section 7200 et seq. I have completed accredited university courses and degrees in engineering and have sufficient training and experience in remediation, groundwater hydrology, and related fields that enable me to make sound professional judgments with regards to engineering design.

I further certify that this submittal, "Lot 10 Boundary Modification Field Investigation Summary Report", dated April 2, 2024, was prepared under my direction.

Nora M Brew

4/2/2024

Nora M. Brew, P.E.
Walden Environmental Engineering, PLLC

Date

# 1 INTRODUCTION

Walden Environmental Engineering, PLLC ("Walden") has prepared this report on behalf of iPark East Fishkill, LLC ("iPark"), the owner of the iPark 84 Facility (former IBM East Fishkill Facility ["Facility" or "Site"]) in Hopewell Junction, New York, to summarize the results of the November 2022 subsurface investigation conducted on the Lot 10 parcel at the Site. The property designated as Lot 10 encompasses approximately 13.23 acres of land within the parcel currently identified as part of Parcel 6355-00-958962 on the Dutchess County Tax Map (Hopewell Condo II Unit #4). Lot 10 consists of the majority of the parking area located west of Building 330D (renamed Building 700) ("B330D/700"); the site location map is presented as **Figure 1**.

The Facility is being remediated in accordance with the Site's 6 NYCRR Part 373 Permit, EPA ID NYD000707901 ("RCRA Permit"). The "Interim Site Management Plan" ("ISMP" Revision 1 (DRAFT), May 2021) sets forth the procedures that govern the operation/implementation of remedial engineering and institutional controls and manage future redevelopment activities at the Facility.

This investigation was conducted to collect data to characterize existing soil and sediment conditions at Lot 10 in support of iPark's planned petition for a boundary modification that would be reflected in subsequent modifications to the RCRA Permit and the Site Management Plan for the iPark 84 Facility. The investigation included the advancement of thirteen (13) soil borings and two (2) sediment cores, and subsequent collection of numerous soil and sediment samples throughout Lot 10. The work was performed in accordance with the NYSDEC-approved "iPark Lot 10 Boundary Modification Field Investigation Work Plan" ("Work Plan", Walden, October 2022). A copy of the Work Plan and NYSDEC's December 2, 2022 approval letter are presented in **Attachment A;** note that approved the Work Plan prior to the investigation in an email dated November 18, 2022.

After the State determines the sampling results are sufficient to characterize environmental conditions in the proposed boundary modification area, NYSDEC will begin the remaining steps in the process, which include public notice of the proposed boundary modification, modification to the RCRA permit, issuing an environmental easement, and submitting a change of use notification. When formally approved by NYSDEC, the boundary modification would define the Lot 10 area that would be separated from the rest of the Facility, thereby removing the constraints imposed by RCRA permit and the deed restrictions that currently apply to this area. Areas outside the permitted facility boundary, as modified, would not be subject to Part 373 permit conditions and the boundary modification would not affect the deed restriction. NYSDEC and NYSDOH will require (i) an Environmental Easement to ensure certain controls on Lot 10, including commercial or industrial use, (ii) an excavation work plan, and (iii) a passive vapor

system for any new construction that includes follow up indoor air sampling to determine if additional actions are necessary.

A brief Site description and the objectives of this investigation are presented below. Section 2 describes the investigation fieldwork conducted at Lot 10. Section 3 summarizes the soil and sediment sampling results, Section 4 discusses groundwater monitoring data collected by IBM, and Section 5 presents conclusions based on the findings of the investigation.

### 1.1 Site History and Previous Investigations

The former IBM Fishkill Facility encompasses approximately 464 acres; the limits of the Facility are Interstate 84 (I-84) to the south, Route 52 to the north, John Jay Senior High School and wooded areas to the west, and Lime Kiln Road and wooded areas to the east. **Figure 1** illustrates the layout of the Site. The approximate boundaries of the Lot 10 area are shown on **Figure 2.** Lot 10 is located in the southwestern portion of the Site and is generally bounded by South Drive on the south, West Drive on the west, On-Demand Drive on the east, and a new parcel line to be established across the parking lot on the north side. In order to maintain traffic flow and access to B330D/700, On Demand Drive and the northernmost portion of the parking lot will remain under iPark's ownership.

As shown on **Figure 2**, the majority of Lot 10 is located in the Perimeter Area of the Facility, while the section of Lot 10 closest to B330D/700 lies within the Core Area (B330 Area of Concern, Operable Unit 8, AOC OU8) as defined in the ISMP. The Perimeter Area consists of the portions of the Site that are primarily outside the central portion of the Facility and are not associated with manufacturing activities. The B330 AOC OU8 portion of the Core Area is located beneath and adjacent to Building 330C (renamed Building 755) ("B330C/755") and B330D/700. IBM continues to operate groundwater extraction systems to remediate VOC plumes attributable to former solvent storage and distribution systems in this area. Site use and construction activities in the B330 AOC (OU8) are subject to the restrictions set forth in IBM's June 17, 2015 Declaration of Restrictions, Easements and Covenants. In addition, most of Lot 10 is located within the air permit restrictive use area and is subject to the restrictions set forth in GlobalFoundries' August 31, 2017 Declaration of Restrictions and Covenants (Dutchess County deed document #02-2017-8358 recorded November 8, 2017). The sampling proposed within Lot 10 was performed in accordance with the ISMP and "Intrusive Activities Work Plan" (Appendix B of the ISMP).

Currently, the surface of Lot 10 is covered by asphalt pavement and landscaped areas within the parking lot. A stream flows through the southwest corner of Lot 10 as shown on **Figure 2**; this stream drains to Gildersleeve Brook. In addition, the southwest corner of Lot 10 includes a small wetland area; the blue hatching shown on **Figure 2** corresponds to NYSDEC's mapping of State

Regulated Freshwater Wetland HJ-66. Stormwater flow from Lot 10 discharges to four (4) outfalls (#029, 032, 033 and 034) which are located north of Lot 10 along another stream that drains to Gildersleeve Brook. The stormwater outfall locations are identified on **Figure 2**.

The surface elevation at Lot 10 is approximately 250 feet, and the bedrock surface elevation varies from approximately 170 to 210 feet based on boring/monitoring well logs presented in ISMP Appendix H (Groundwater Monitoring Plan) and ISMP Figure 2-7 (Bedrock Surface Elevation Contour Map). The depth to bedrock is approximately 82 feet below grade (bg) at bedrock monitoring well 143. Refer to **Figure 2** for the locations of groundwater monitoring wells at and in the vicinity of Lot 10.

A review of available historical records indicates that the majority of the Lot 10 area has been open land or used as a parking lot. The only development on Lot 10 was Former Building 333 (B333) which was formerly located in the vicinity of the northwest corner of B330D/700 as shown in **Figure 2**. Available aerial photos indicate that B333 was removed between 1985 and 1995. A review of IBM's Solid Waste Management Unit ("SMWU") summaries and other historic documentation indicates that B333 was not used for manufacturing, waste treatment, or any chemically intensive activities. An industrial wastewater pump station well is listed as being associated with B333. This pump station well is an 800-gallon concrete manhole (measuring 4 feet in diameter and 8.5 feet deep) located outside Lot 10, approximately 50 feet northwest of the former B333 footprint. The pump station well was started up in 1969 and is identified as Tank 253 (SWMU #69). Tank 253 is listed as an active SMWU on the most recent SWMU inventory update (May 21, 2022). **Attachment B** provides information on SWMU #69 which has been extracted from IBM's September 1989 SWMU Questionnaire (Volume 2) and July 1991 RCRA Facility Assessment Preliminary Review Report. No further details on this SWMU are available in the historic project files reviewed by Walden.

According to the ISMP, during the mid-1980s PCE, breakdown products, and Freon® TF were detected as groundwater contamination and labeled as primary contaminants of concern for the Facility. PCE has been detected at concentrations up to approximately 150,000 ppb in the upper aquifer, where dense non-aqueous phase liquid ("DNAPL") has also been found. Contamination within the B330 AOC (OU8) includes soil VOC plumes that primarily consist of PCE series compounds. Several other plumes in the underlying deep bedrock have been sourced from the soil groundwater plumes. Groundwater is pumped from the deep bedrock extraction well PW-25 located west of B334 and northeast of B330D to contain the B330 AOC plume near the source. Two sub-slab depressurization systems (VE-1 and VE-10) are currently operated by IBM to extract vapor from beneath the northern and southern portions of B330D and prevent soil vapor intrusion impacts to indoor air quality.

Groundwater sampling results from IBM's on-going site-wide monitoring program will be used to support the Lot 10 boundary modification petition. Refer to Section 4 for a discussion of groundwater monitoring results.

# 2 SUBSURFACE INVESTIGATION FIELDWORK

The Lot 10 subsurface investigation was performed from November 29 through November 30, 2022. Lakewood Environmental Services Corp. (Lakewood) of Smithtown, NY was retained to perform the drilling activities. Walden performed field oversight and CAMP air monitoring during drilling and collected soil and sediment samples in accordance with the NYSDEC-approved Work Plan. Field work and sampling activities are described in further detail below. Photographs taken to document the work are presented in **Appendix A**.

## 2.1 Soil and Sediment Investigation

Soil and sediment sampling was conducted in general accordance with the NYSDEC Division of Environmental Resources (DER) "Technical Guidance for Site Investigation and Remediation" (DER-10); NYSDEC's "Sampling, Analysis and Assessment of Per- and Polyfluoroalkyl Substances (PFAS) Under NYSDEC's Part 375 Remedial Programs" (June 2021); the "Intrusive Activities Work Plan" (Appendix B of the ISMP); and 29 CFR 1910.120. All sampling locations were cleared by ground-penetrating radar before drilling commenced.

### *2.1.1 Soil Sampling*

Soil samples were collected at thirteen (13) locations (SB-1 through SB-13) throughout the Lot 10 area as depicted on **Figure 2**. NYSDEC approved the sampling locations presented in the approved Work Plan; these locations were chosen randomly to achieve representative coverage of the area, with certain locations chosen based on available information which suggested the potential for contamination may exist. Three (3) of the borings (SB-11 through SB-13) were located within the Former B333 Location at the northeast corner of Lot 10 to determine if the removed building has impacted soil conditions at this location.

Soil samples were collected utilizing a direct-push (e.g., Geoprobe®) drill rig with five (5)-foot long Macro-Cores® or similar, beginning at grade and continuing to a maximum depth of fifteen (15) feet below grade (bg). Groundwater was not encountered during drilling. Refusal occurred between 8 and 14 feet bg at 12 of the 13 boring locations. In these cases, the depth of refusal was recorded, drilling ceased, and the soil core was retrieved from the maximum depth reached.

Each soil core was visually inspected and field screened for the presence of organic vapors within the core depth using a photoionization detector (PID) that had been properly calibrated according to manufacturer's instructions each day prior to sampling. Observations and screening readings were recorded by field personnel on the boring logs provided in **Appendix B**. No

evidence of gross contamination was observed in any of the samples. Excess soils removed from each sampling location were placed back into their respective holes.

A total of three (3) soil samples were collected for laboratory analysis from each of the 13 sampling locations as follows:

- "A" Sample from the 0-1 ft bg interval
    - "A" Samples were analyzed for semi-volatile organic compounds (SVOCs) [including the full list of Per- and Polyfluoroalkyl Substances (PFAS), and 1,4 dioxane], target analyte list (TAL) metals, pesticides, herbicides and polychlorinated biphenyls (PCBs)
    - At 20% of the locations (SB-5, SB-10, and SB-12), more discrete sampling was performed as follows:
        - "A1" Sample from the 0 to 2-inch bg interval
        - "A2" Sample from 2 to 12-inch bg interval
            - "A1" & "A2" samples were analyzed for SVOCs (including the full list of PFAS and 1,4 dioxane), TAL metals, pesticides, herbicides and PCBs
- "B" Sample from the 1-2 ft bg interval
    - "B" samples were analyzed for volatile organic compounds (VOCs) only
- "C" Sample from the two (2)-foot soil depth interval (from 2 ft bg to the bottom of core) that exhibited the greatest visual or olfactory evidence of contamination (odors/staining) and/or the highest PID reading. If screening and observations showed no evidence of contamination from within the interval from 2 ft bg to the bottom of the core, the sample from the deepest unsaturated 2-foot soil interval was collected.
    - "C" samples were analyzed for VOCs, SVOCs (including the full list of PFAS and 1,4 dioxane), TAL metals, pesticides, herbicides and PCBs

Discrete grab samples from each boring were collected for VOC analysis from the "B" and "C" intervals described above. Composite samples were collected from the "A" (including the "A1" 0 to 2-inch samples and "A2" 2 to 12-inch samples at locations SB-5, SB-10 and SB-12) and "C" intervals for laboratory analysis of SVOCs (including PFAS and 1,4-dioxane), TAL metals, pesticides, herbicides and PCBs. A total of 42 soil samples were secured for laboratory analysis.

Field duplicates were collected at a rate of at least five percent (5%) (minimum of one field duplicate for every 20 samples) and one (1) equipment blank was collected per day throughout the soil sampling event. A total of four (4) field duplicates and two (2) equipment blanks were collected.

Sample bottles, provided by the laboratory and appropriate for the analysis being performed (VOCs, SVOCs, metals, pesticides, herbicides and PCBs), were labeled in the field, placed into a

sampling cooler and kept on ice for subsequent delivery to the laboratory. Each of the samples were sent under chain-of-custody protocol to Phoenix Environmental Laboratories, Inc. of Manchester, CT (NYSDOH ELAP #11301), a laboratory certified by the New York State Department of Health (NYSDOH) Environmental Laboratory Accreditation Program (ELAP) for analysis.

### *2.1.2 Sediment Sampling*

Sediment samples were collected in the Lot 10 wetland area at the following locations as shown on **Figure 2**:

- SED-1 and SED-2 are located along and within the boundary of the wetland area and along a stream that is located in the southwestern corner of Lot 10. There are no stormwater outfalls along this stream.

The sediment samples at each location were collected from the 0 to 2-inch and 2 to 12-inch depth intervals. The sediment samples were analyzed for VOCs, SVOCs (including PFAS and 1,4-dioxane), TAL metals, pesticides, herbicides and PCBs.

## 2.2 Decontamination Procedures and Waste Handling

Non-disposable sampling equipment was decontaminated between sampling intervals and locations using the following procedures:

- Removed any large debris, such as clumps of soil, from the equipment by hand;
- Washed and scrubbed the equipment with a detergent solution (Alconox); and
- Rinsed the equipment with potable water.

Disposable sampling supplies were bagged/containerized and properly disposed of as solid waste. No decontamination fluids were generated during the investigation.

## 2.3 Community Air Monitoring

Walden performed air monitoring during all ground intrusive activities as part of the Lot 10 investigation in accordance with the Community Air Monitoring Plan (CAMP) included in the NYSDEC-approved Work Plan. A general discussion of the CAMP activities is presented below and a detailed summary with the data sheets is presented in **Appendix C**.

Two (2) CAMP air monitoring stations (CAMP Station 1 and CAMP Station 2) were set up to monitor VOC and particulate concentrations in the work zone. VOC concentrations were monitored using Mini Rae 3000 PIDs and DataRams were used to monitor particulate concentrations throughout the duration of the intrusive activities. The instruments were calibrated daily to ensure accurate readings. Each CAMP station contained a PID and a dust

meter connected to a data logger to continuously record the VOC and dust concentrations. Background conditions were also collected prior to the start of work each day to record baseline conditions. In addition to the automated data logging, Walden recorded the VOC and dust concentrations at each monitoring station at regular intervals to ensure compliance with the NYSDEC and NYSDOH action levels. Figures containing the CAMP Station locations can be found in **Appendix C**. The air monitoring data collected indicated no air quality impacts or exceedances of the CAMP action levels during the Lot 10 sampling investigation.

# 3 EVALUATION OF SOIL AND SEDIMENT INVESTIGATION SAMPLING RESULTS

The soil and sediment samples were analyzed by Phoenix Laboratories for 6 NYCRR Part 375-6.8 VOCs, SVOCs, pesticides, herbicides, PCBs and TAL metals, via USEPA Methods 8260, 8270, 8081B, 8151A, 8082A and 6010, respectively. The soil samples were also analyzed for the full list of PFAS and 1,4-dioxane in accordance with NYSDEC's "Sampling, Analysis and Assessment of Per- and Polyfluoroalkyl Substances (PFAS) Under NYSDEC's Part 375 Remedial Programs" (June 2021). Note that Phoenix Laboratories contracted an outside laboratory with the required PFAS certification (York Analytical Laboratories of Stratford, CT, NYSDOH ELAP #10854 and #12058) to perform the PFAS analyses.

The laboratory analytical results are tabulated as follows:

- **Table 1** – Volatile Organic Compounds (VOCs) in Soil
- **Table 2** – Semi-Volatile Organic Compounds (SVOCs) in Soil
- **Table 3** – Metals in Soil
- **Table 4** – Pesticides, Herbicides and PCBs in Soil
- **Table 5** – PFAS and 1,4-Dioxane in Soil
- **Table 6** – Volatile Organic Compounds (VOCs) in Sediment
- **Table 7** – Semi-Volatile Organic Compounds (SVOCs) in Sediment
- **Table 8** – Metals in Sediment
- **Table 9** – Pesticides, Herbicides and PCBs in Sediment
- **Table 10** – PFAS and 1,4-Dioxane in Sediment

The laboratory analytical reports are provided in **Appendix D** (due to file size, the Category B laboratory data packages are being submitted separately). The Data Usability Summary Report (DUSR) is presented in **Appendix E**.

## 3.1 Soil Sampling Results

**Tables 1 through 5** compare the laboratory analytical data for the soil samples to the NYCRR Part 375-6.8(b) restricted use Soil Cleanup Objectives (SCOs) for various use categories.

- Several VOCs were detected in select soil samples as shown in **Table 1**. All of the reported VOC concentrations were less than the respective Unrestricted Use SCOs except acetone (a common laboratory contaminant) which was detected in SB-4B (1-2'), SB-8B (1-2'), and SB-9B (1-2') at concentrations above the Unrestricted Use SCO (50 ug/kg) but less than the Residential Use SCO (100,000 ug/kg).

- Several SVOCs were detected in shallow soil samples collected from borings throughout the paved parking lot areas and adjacent grass areas as shown in **Table 2**. The detected SVOCs are characteristic of asphalt and fill material, consistent with the study area conditions. All of the reported SVOC concentrations were less than the respective Unrestricted Use SCOs.

- Metals were detected in the soil samples as shown in **Table 3**. The majority of the reported concentrations were less than the respective Unrestricted Use SCOs. All of the concentrations were less than the respective Commercial Use SCOs, except arsenic in SB-10A1 (0-2") which was detected at a concentration (16.1 mg/kg) slightly above the Residential Use SCO, the Commercial Use SCO, and the Industrial Use SCO (all which are 16 mg/kg). SB-10 is located in the grassy area in the southwestern corner of Lot 10.

- No PCBs or herbicides were detected in any of the soil samples as shown in **Table 4**.

- The pesticides 4,4'-DDE and 4,4'-DDT were detected at concentrations above the respective Unrestricted Use SCOs in several soil samples at varying depths, but well below the respective Residential Use SCOs as shown in **Table 4**.

- 1,4-dioxane was not detected in any of the soil samples as shown in **Table 5**.

- Low concentrations of several PFAS compounds were detected in the soil samples. Although NYSDEC has not established Soil Cleanup Objectives for PFAS to date, guidance values for select PFAS compounds are recommended in NYSDEC's April 2023 "Sampling, Analysis and Assessment of Per- and Polyfluoroalkyl Substances (PFAS) Under NYSDEC's Part 375 Remedial Programs". These guidance values are listed in **Table 5**. The majority of the PFOS and PFOA concentrations detected in the soil samples were below the respective Unrestricted Use guidance values. All detected PFOS concentrations were below the respective Residential Use guidance value.

### 3.2 Sediment Sampling Results

**Tables 6 through 10** compare the laboratory analytical data for the sediment samples to the NYCRR Part 375-6.8(b) restricted use SCOs for various use categories.

- The only VOCs detected in the sediment samples were acetone (a common laboratory contaminant) and tetrahydrofuran, as shown in **Table 6**. The reported acetone concentration was below its respective Unrestricted Use SCO. No SCOs have been established for tetrahydrofuran.

- Several SVOCs were detected in select sediment samples as shown in **Table 7**. All reported SVOC concentrations were less than the respective Unrestricted Use SCOs, except for the dibenz(a,h)anthracene concentration detected in SED-01 (0-2") which was equal to the Unrestricted Use and Residential Use SCOs.

- Metals were detected in the sediment samples as shown in **Table 8**. The majority of the reported metals concentrations were less than the respective Unrestricted Use SCOs and all of the concentrations were less than the respective Commercial Use SCOs.

- No PCBs or herbicides were detected in any of the sediment samples as shown in **Table 9**.

- The only pesticide detected was 4,4'-DDE at a concentration above its respective Unrestricted Use SCO but below its Residential Use SCO as shown in **Table 9**.

- 1,4-dioxane was not detected in any of the sediment samples as shown in **Table 10**.

- Low concentrations of several PFAS compounds were detected in the sediment samples as shown in **Table 10**. All detected PFOA concentrations were below the respective NYSDEC Residential Use guidance value. All detected PFOS concentrations were below the respective Commercial Use guidance value.

# 4 SUMMARY OF GROUNDWATER MONITORING DATA

The most recent groundwater monitoring data for the Site is presented in the "2022 Annual Corrective Action Status Report" (IBM, May 2023 [The Annual Report]). IBM is responsible for managing the remedial efforts for the groundwater contamination on Site from the Former IBM East Fishkill Facility. The Annual Report presents data and figures that define the boundaries of the groundwater contaminant plumes.

The only IBM groundwater monitoring well located within the Lot 10 boundary is MW-143, a bedrock monitoring well in the north-central portion of the B330D/700 parking lot area. This well was previously installed by IBM to track the effectiveness of the groundwater remediation efforts based on reductions in contaminant concentrations. Several other IBM groundwater monitoring wells are located around the perimeter of the Lot 10 boundary as shown on **Figure 2**. These wells are designated as soil monitoring wells 059, 060, 061, 158, 572, 603 and 640, and bedrock monitoring wells 604 and 953. IBM previously operated a groundwater extraction system including production well PW-6, an inactive bedrock extraction well located west of Lot 10, to remediate VOC plumes attributable to the B330 Area of Concern (OU8). PW-6 was operated as part of the groundwater remediation system from the 1980's until it was shut down in 2007.

The 2022 Annual Report plume maps show the extent of the VOC contaminant plumes delineated based on the 2022 monitoring data and the New York State Class GA groundwater standards for tetrachloroethylene (PCE), trichloroethylene (TCE), cis-1,2-dichloroethylene (cis-1,2-DCE), vinyl chloride and Freon® TF. These plume maps have been extracted from the 2022 Annual Report and are provided in **Appendix F** for reference.

The plume maps show elevated concentrations of PCE, TCE, and cis-1,2-DCE in the soil groundwater unit beneath B330D/700 based on the MW-572 monitoring results. The monitoring results reported for MW-640 indicate that the VOC concentrations are significantly lower outside the western edge of B330D/700 as compared to the MW-572 results. The plume maps indicate that a small area on the eastern border of Lot 10 is within the outer limits of the PCE, TCE and cis-1,2-DCE plumes in the soil groundwater unit.

The bedrock groundwater unit plume maps show that the northeastern border of Lot 10 is located on the outer edge of the bedrock PCE plume. No other VOC plumes in the bedrock groundwater unit extend onto Lot 10.

Based on the data presented in the 2022 Annual Report, the only exceedances of the New York State Class GA groundwater standards or guidance values in the vicinity of Lot 10 were observed in the monitoring wells beneath (MW-572) and immediately adjacent to (MW-640 and MW-953)

B330D/700. All other VOC concentrations detected in groundwater samples collected from monitoring wells at and around the proposed Lot 10 boundary modification area meet the respective Class GA groundwater standards or guidance values.

# 5 CONCLUSION

The November 2022 subsurface investigation at Lot 10 included the advancement of thirteen (13) soil borings (SB-1 through SB-13) and the subsequent collection of numerous soil samples. Additionally, sediment samples were collected from two (2) locations in the wetland areas in the southwestern part of Lot 10. The investigation was performed to characterize existing soil and sediment conditions in the Lot 10 area in support of iPark's planned petition for a boundary modification that would be reflected in subsequent modifications to the RCRA Permit and the Site Management Plan for the iPark 84 Facility.

## 5.1 Soil

On-site soils consist mainly of brown to grey silty sand/clay and clay with trace amounts of pebbles. Refusal occurred at 12 of the 13 boring locations. No odor was detected at any of the soil boring locations.

The laboratory analytical data for the soil samples revealed the following:

- All of the reported VOC concentrations were less than the respective Unrestricted Use SCOs except acetone (a common laboratory contaminant) which was detected in several soil samples at concentrations above the Unrestricted Use SCO but less than the Residential Use SCO.

- All of the reported SVOC concentrations were less than the respective Unrestricted Use SCOs.

- The majority of the reported metals concentrations were less than the respective Unrestricted Use SCOs. All of the concentrations were less than the respective Commercial Use SCOs, except Arsenic in one surface soil sample which was slightly above the Residential/Commercial/Industrial Use SCO.

- No PCBs, herbicides or 1,4-dioxane were detected in any of the soil samples.

- 4,4'-DDE and 4,4'-DDT were detected at concentrations above the respective Unrestricted Use SCOs in several soil samples at varying depths, but well below the respective Residential Use SCOs. No other pesticides were detected in the soil samples.

- Low concentrations of several PFAS compounds were detected in the soil samples. The majority of the PFOS and PFOA concentrations detected in the soil samples were below

the respective NYSDEC Unrestricted Use guidance values. All detected PFOS concentrations were below the respective Residential Use guidance value.

## 5.2 Sediment

The laboratory analytical data for the sediment samples revealed the following:

- The only VOCs detected in the sediment samples were acetone (a common laboratory contaminant) and tetrahydrofuran. The reported acetone concentration was below its respective Unrestricted Use SCO. No SCOs have been established for tetrahydrofuran.

- All reported SVOC concentrations were less than the respective Unrestricted Use SCOs, except for the dibenz(a,h)anthracene concentration detected in one sample which was equal to the Unrestricted Use and Residential Use SCOs.

- The majority of the reported metals concentrations were less than the respective Unrestricted Use SCOs and all of the concentrations were less than the respective Commercial Use SCOs.

- No PCBs, herbicides, or 1,4-dioxane were detected in any of the sediment samples. The only pesticide detected was 4,4'-DDE at a concentration above its respective Unrestricted Use SCO but below its Residential Use SCO.

- Low concentrations of several PFAS compounds were detected in the sediment samples. All detected PFOA concentrations were below the respective NYSDEC Residential Use guidance value. All detected PFOS concentrations were below the respective Commercial Use guidance value.

## 5.3 Summary

The soil and sediment sampling results support a boundary modification for Lot 10 and the removal of Lot 10 from the RCRA Part 373 permit. Air monitoring in accordance with a State-approved Community Air Monitoring Plan (CAMP) would be performed during excavation activities in the Lot 10 area. Based on the soil and sediment sampling results, any soils excavated from Lot 10 would be suitable for on-site reuse as fill material.

Based on the 2022 Annual Report, a small area on the eastern border of Lot 10 is within the outer limits of the PCE, TCE and cis-1,2-DCE plumes in the soil groundwater unit. The bedrock groundwater unit plume maps show that the northeastern border of Lot 10 is located on the outer

edge of the bedrock PCE plume. No other VOC plumes in the bedrock groundwater unit extend onto Lot 10.

The only exceedances of the New York State Class GA groundwater standards or guidance values in the vicinity of Lot 10 were observed in the monitoring wells beneath and immediately adjacent to B330D/700. All other VOC concentrations detected in groundwater samples collected from monitoring wells at and around the proposed Lot 10 boundary modification area meet the respective Class GA groundwater standards or guidance values. The groundwater monitoring data in the project area supports the Lot 10 boundary modification petition.

# TABLES

**iPARK 84 CAMPUS**
**2070 NY ROUTE 52**
**HOPEWELL JUNCTION, NY**

**LOT 10 BOUNDARY MODIFICATION FIELD INVESTIGATION**

**TABLE 1**
**SUMMARY OF SOIL SAMPLING RESULTS - VOLATILE ORGANIC COMPOUNDS (VOCs)**

| | | | | | | Collection Date | 11/30/2022 | | 11/30/2022 | | 11/30/2022 | | 11/30/2022 | | 11/30/2022 | | 11/30/2022 | | 11/29/2022 | | 11/29/2022 | | 11/29/2022 | | 11/29/2022 | | 11/29/2022 | | 11/29/2022 | | 11/29/2022 | | 11/30/2022 | | 11/30/2022 | | 11/30/2022 | | 11/30/2022 | | 11/30

**iPARK 84 CAMPUS**
**2070 NY ROUTE 52**
**HOPEWELL JUNCTION, NY**

**LOT 10 BOUNDARY MODIFICATION FIELD INVESTIGATION**

**TABLE 2**
**SUMMARY OF SOIL SAMPLING RESULTS - SEMI-VOLATILE ORGANIC COMPOUNDS (SVOCs)**

| | | | | | Collection Date | 11/30/2022 | 11/30/2022 | 11/30/2022 | 11/30/2022 | 11/30/2022 | 11/30/2022 | 11/30/2022 | 11/29/2022 | 11/29/2022 | 11/29/2022 | 11/29/2022 | 11/29/2022 | 11/29/2022 | 11/29/2022 | 11/29/2022 | 11/29/2022 | 11/29/2022 | 11/29/2022 | 11/30/2022 | 11/30/2022 | 11/30/2022 | 11/30/2022 | 11/30/2022 | 11/30/2022 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Sample ID | SB-1A (0-1') | SB-1C (5.5-6.5') | SB-2A (0-1') | SB-2C (11-12') | SB-DUP3 (2C') | SB-3A (0-1') | SB-3C (8-9') | SB-4A (0-1') | SB-4C (10-12') | SB-5A1 (0-2') | SB-5A2 (2-12') | SB-5C (6-8') | SB-6A (0-1') | SB-6C (6-8') | SB-DUP2 (6C') | SB-7A (0-1') | SB-7C (6-8') | SB-8A (0-1') | SB-8C (13-15') | SB-9A (0-1') | SB-9C (6-8') | SB-DUP1 (9C') | SB-10A1 (0-2') | SB-10A2 (2-12') | SB-10C (9-11') | SB-11A (0-1') | SB-11C (3-4') | SB-12A1 (0-2') | SB-12A2 (2-12') | SB-12C (13-14') | SB-13A (0-1') | SB-13C (13-14') | SB-DUP4 (13C) |
| | | | | | Matrix | Soil | Soil | Soil | Soil | Soil | Soil | Soil | Soil | Soil | Soil | Soil | Soil | Soil | Soil | Soil | Soil | Soil | Soil | Soil | Soil | Soil | Soil | Soil | Soil | Soil | Soil | Soil | Soil | Soil | Soil | Soil | Soil |
| | | *NYCRR Part 375 SCOs* | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | CAS | Industrial Use Soil Cleanup Objective | Commercial Use Soil Cleanup Objective | Residential Use Soil Cleanup Objective | Unrestricted Use Soil Cleanup Objective | Result ug/kg | Q | Result ug/kg | Q | Result ug/kg | Q

**iPARK 84 CAMPUS**
**2070 NY ROUTE 52**
**HOPEWELL JUNCTION, NY**

**LOT 10 BOUNDARY MODIFICATION FIELD INVESTIGATION**

**TABLE 3**
**SUMMARY OF SOIL SAMPLING RESULTS - METALS**

| | | | | | | Collection Date | 11/30/2022 | | 11/30/2022 | | 11/30/2022 | | 11/30/2022 | | 11/30/2022 | | 11/30/2022 | | 11/29/2022 | | 11/29/2022 | | 11/29/2022 | | 11/29/2022 | | 11/29/2022 | | 11/29/2022 | | 11/29/2022 | | 11/29/2022 | | 11/29/2022 | | 11/29/2022 | | 11/29/2022 | | 11/29/2022 | | 11/30/2022 | | 11/30/2022 | | 11/30/2022 | | 11/30/2022 | | 11/30/2022 | | 11/30/2022 | | 11/30/2022 | | 11/30/2022 | | 11/30/2022 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Sample ID | SB-1A (0-1') | | SB-1C (5.5-6.5') | | SB-2A (0-1') | | SB-2C (11-12') | | SB-DUP3 (2C) | | SB-3A (0-1') | | SB-3C (8-9') | | SB-4A (0-1') | | SB-4C (10-12') | | SB-5A1 (0-2') | | SB-5A2 (2-12') | | SB-5C (6-8') | | SB-6A (0-1') | | SB-6C (6-8') | | SB-DUP2 (6C) | | SB-7A (0-1') | | SB-7C (6-8') | | SB-8A (0-1') | | SB-8C (13-15') | | SB-9A (0-1') | | SB-9C (6-8') | | SB-DUP1 (9C) | | SB-10A1 (0-2') | | SB-10A2 (2-12') | | SB-10C (9-11') | | SB-11A (0-1') | | SB-11C (3-4') | | SB-12A1 (0-2') | | SB-12A2 (2-12') | | SB-12C (13-14') | | SB-13A (0-1') | | SB-13C (13-14') | | SB-DUP4 (13C) | |
| | | | | | | Matrix | Soil | | Soil | | Soil | | Soil | | Soil | | Soil | | Soil | | Soil | | Soil | | Soil | | Soil | | Soil | | Soil | | Soil | | Soil | | Soil | | Soil | | Soil | | Soil | | Soil | | Soil | | Soil | | Soil | | Soil | | Soil | | Soil | |
| | | *NYCRR Part 375* SCOs | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | CAS | Industrial Use soil Cleanup Objective | | Commercial Use Soil Cleanup Objective | | Residential Use Soil Cleanup Objective | | Unrestricted Use Soil Cleanup Objective | | Result | Q | Result | Q | Result | Q | Result | Q | Result | Q | Result | Q | Result | Q | Result | Q | Result | Q | Result | Q | Result | Q | Result | Q | Result | Q | Result | Q | Result | Q | Result | Q | Result | Q | Result | Q | Result | Q | Result | Q | Result | Q | Result | Q | Result | Q | Result | Q | Result | Q | Result | Q |
| | | mg/kg | | mg/kg | | mg/kg | | mg/kg | | mg/kg | | mg/kg | | mg/kg | | mg/kg | | mg/kg | | mg/kg | | mg/kg | | mg/kg | | mg/kg | | mg/kg | | mg/kg | | mg/kg | | mg/kg | | mg/kg | | mg/kg | | mg/kg | | mg/kg | | mg/kg | | mg/kg | | mg/kg | | mg/kg | | mg/kg | | mg/kg | | mg/kg | | mg/kg | | mg/kg | |
| **Metals** | | | | | | | | | | | | | | | | | | |

**iPARK 84 CAMPUS**
**2070 NY ROUTE 52**
**HOPEWELL JUNCTION, NY**

**LOT 10 BOUNDARY MODIFICATION FIELD INVESTIGATION**

**TABLE 4**
**SUMMARY OF SOIL SAMPLING RESULTS - PCBs, PESTICIDES AND HERBICIDES**

| | | | | | Collection Date | 11/30/2022 | 11/30/2022 | 11/30/2022 | 11/30/2022 | 11/30/2022 | 11/30/2022 | 11/30/2022 | 11/29/2022 | 11/29/2022 | 11/29/2022 | 11/29/2022 | 11/29/2022 | 11/29/2022 | 11/29/2022 | 11/29/2022 | 11/29/2022 | 11/29/2022 | 11/29/2022 | 11/29/2022 | 11/29/2022 | 11/29/2022 | 11/29/2022 | 11/30/2022 | 11/30/2022 | 11/30/2022 | 11/30/2022 | 11/30/2022 | 11/30/2022 | 11/30/2022 | 11/30/2022 | 11/30/2022 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Sample ID | SB-1A (0-1') | SB-1C (5.5-6.5') | SB-2A (0-1') | SB-2C (11-12') | SB-DUP3 (2C) | SB-3A (0-1') | SB-3C (8-9') | SB-4A (0-1') | SB-4C (10-12') | SB-5A1 (0-2') | SB-5A2 (2-12") | SB-5C (6-8') | SB-6A (0-1') | SB-6C (6-8') | SB-DUP2 (6C) | SB-7A (0-1') | SB-7C (6-8') | SB-8A (0-1') | SB-8C (13-15') | SB-9A (0-1') | SB-9C (6-8') | SB-DUP1 (9C) | SB-10A1 (0-2') | SB-10A2 (2-12') | SB-10C (9-11') | SB-11A (0-1') | SB-11C (3-4') | SB-12A1 (0-2') | SB-12A2 (2-12') | SB-12C (13-14') | SB-13A (0-1') | SB-13C (13-14') | SB-DUP4 (13C) |
| | | | | | Matrix | Soil | Soil | Soil | Soil | Soil | Soil | Soil | Soil | Soil | Soil | Soil | Soil | Soil | Soil | Soil | Soil | Soil | Soil | Soil | Soil | Soil | Soil | Soil | Soil | Soil | Soil | Soil | Soil | Soil | Soil | Soil |
| | | *NYCRR Part 375 SCOs* | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | CAS | Industrial Use Soil Cleanup Objective | Commercial Use Soil Cleanup Objective | Residential Use Soil Cleanup Objective | Unrestricted Use Soil Cleanup Objective | Result ug/kg | Q | Result ug/kg | Q | Result ug/kg | Q

**iPARK 84 CAMPUS**
**2070 NY ROUTE 52**
**HOPEWELL JUNCTION, NY**

**LOT 10 BOUNDARY MODIFICATION FIELD INVESTIGATION**

**TABLE 5**
**SUMMARY OF SOIL SAMPLING RESULTS - PFAS AND 1,4-DIOXANE**

| | | | | | Collection Date | 11/30/2022 | | 11/30/2022 | | 11/30/2022 | | 11/30/2022 | | 11/30/2022 | | 11/30/2022 | | 11/29/2022 | | 11/29/2022 | | 11/29/2022 | | 11/29/2022 | | 11/29/2022 | | 11/29/2022 | | 11/29/2022 | | 11/29/2022 | | 11/29/2022 | | 11/29/2022 | | 11/29/2022 | | 11/29/2022 | | 11/29/2022 | | 11/29/2022 | | 11/30/2022 | | 11/30/2022 | | 11/30/2022 | | 11/30/2022 | | 11/30

**iPARK 84 CAMPUS**
**2070 NY ROUTE 52**
**HOPEWELL JUNCTION, NY**

**LOT 10 BOUNDARY MODIFICATION FIELD INVESTIGATION**

**TABLE 6**
**SUMMARY OF SURFACE SEDIMENT SAMPLING RESULTS - VOLATILE ORGANIC COMPOUNDS (VOCs)**

| | | | | | Collection Date | 11/29/2022 | | 11/29/2022 | | 11/29/2022 | | 11/29/2022 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Sample ID | SED-1 (0-2") | | SED-1 (2-12") | | SED-2 (0-2") | | SED-2 (2-12") | |
| | | | | | Matrix | Soil | | Soil | | Soil | | Soil | |
| | | *NYCRR Part 375 SCOs* | | | | | | | | | | | |
| | CAS | Commercial Use Soil Cleanup Objective | Residential Use Soil Cleanup Objective | Unrestricted Use Soil Cleanup Objective | Result ug/kg | Q | Result ug/kg | Q | Result ug/kg | Q | Result ug/kg | Q |
| **Volatiles** | | ug/kg | ug/kg | ug/kg | | | | | | | | |
| 1,1,1,2-Tetrachloroethane | 630-20-6 | NA | NA | NA | < 10 | U | < 7.4 | U | < 12 | U | < 5.6 | U |
| 1,1,1-Trichloroethane | 71-55-6 | 500,000 | 100,000 | 680 | < 10 | U | < 7.4 | U | < 12 | U | < 5.6 | U |
| 1,1,2,2-Tetrachloroethane | 79-34-5 | NA | NA | NA | < 10 | U | < 7.4 | U | < 12 | U | < 5.6 | U |
| 1,1,2-Trichloroethane | 79-00-5 | NA | NA | NA | < 10 | U | < 7.4 | U | < 12 | U | < 5.6 | U |
| 1,1-Dichloroethane | 75-34-3 | 240,000 | 19,000 | 270 | < 10 | U | < 7.4 | U | < 12 | U | < 5.6 | U |
| 1,1-Dichloroethene | 75-35-4 | 500,000 | 100,000 | 330 | < 10 | U | < 7.4 | U | < 12 | U | < 5.6 | U |
| 1,1-Dichloropropene | 563-58-6 | NA | NA | NA | < 10 | U | < 7.4 | U | < 12 | U | < 5.6 | U |
| 1,2,3-Trichlorobenzene | 87-61-6 | NA | NA | NA | < 10 | U | < 7.4 | U | < 12 | U | < 5.6 | U |
| 1,2,3-Trichloropropane | 96-18-4 | NA | NA | NA | < 10 | U | < 7.4 | U | < 12 | U | < 5.6 | U |
| 1,2,4-Trichlorobenzene | 120-82-1 | NA | NA | NA | < 10 | U | < 7.4 | U | < 12 | U | < 5.6 | U |
| 1,2,4-Trimethylbenzene | 95-63-6 | 190,000 | 47,000 | 3,600 | < 10 | U | < 7.4 | U | < 12 | U | < 5.6 | U |
| 1,2-Dibromo-3-chloropropane | 96-12-8 | NA | NA | NA | < 10 | U | < 7.4 | U | < 12 | U | < 5.6 | U |
| 1,2-Dibromoethane | 106-93-4 | NA | NA | NA | < 10 | U | < 7.4 | U | < 12 | U | < 5.6 | U |
| 1,2-Dichlorobenzene | 95-50-1 | 500,000 | 100,000 | 1,100 | < 10 | U | < 7.4 | U | < 12 | U | < 5.6 | U |
| 1,2-Dichloroethane | 107-06-2 | 30,000 | 2,300 | 20 | < 10 | U | < 7.4 | U | < 12 | U | < 5.6 | U |
| 1,2-Dichloropropane | 78-87-5 | NA | NA | NA | < 10 | U | < 7.4 | U | < 12 | U | < 5.6 | U |
| 1,3,5-Trimethylbenzene | 108-67-8 | 190,000 | 47,000 | 8,400 | < 10 | U | < 7.4 | U | < 12 | U | < 5.6 | U |
| 1,3-Dichlorobenzene | 541-73-1 | 280,000 | 17,000 | 2,400 | < 10 | U | < 7.4 | U | < 12 | U | < 5.6 | U |
| 1,3-Dichloropropane | 142-28-9 | NA | NA | NA | < 10 | U | < 7.4 | U | < 12 | U | < 5.6 | U |
| 1,4-Dichlorobenzene | 106-46-7 | 130,000 | 9,800 | 1,800 | < 10 | U | < 7.4 | U | < 12 | U | < 5.6 | U |
| 2,2-Dichloropropane | 594-20-7 | NA | NA | NA | < 10 | U | < 7.4 | U | < 12 | U | < 5.6 | U |
| 2-Chlorotoluene | 95-49-8 | NA | NA | NA | < 10 | U | < 7.4 | U | < 12 | U | < 5.6 | U |
| 2-Hexanone | 591-78-6 | NA | NA | NA | < 52 | U | < 37 | U | < 59 | U | < 28 | U |
| 2-Isopropyltoluene | 527-84-4 | NA | NA | NA | < 10 | U | < 7.4 | U | < 12 | U | < 5.6 | U |
| 4-Chlorotoluene | 106-43-4 | NA | NA | NA | < 10 | U | < 7.4 | U | < 12 | U | < 5.6 | U |
| 4-Methyl-2-pentanone | 108-10-1 | NA | NA | NA | < 52 | U | < 37 | U | < 59 | U | < 28 | U |
| Acetone | 67-64-1 | 500,000 | 100,000 | 50 | < 52 | U | < 37 | U | < 59 | U | **30** | S |
| Acrylonitrile | 107-13-1 | NA | NA | NA | < 21 | U | < 15 | U | < 24 | U | < 11 | U |
| Benzene | 71-43-2 | 44,000 | 2,900 | 60 | < 10 | U | < 7.4 | U | < 12 | U | < 5.6 | U |
| Bromobenzene | 108-86-1 | NA | NA | NA | < 10 | U | < 7.4 | U | < 12 | U | < 5.6 | U |
| Bromochloromethane | 74-97-5 | NA | NA | NA | < 10 | U | < 7.4 | U | < 12 | U | < 5.6 | U |
| Bromodichloromethane | 75-27-4 | NA | NA | NA | < 10 | U | < 7.4 | U | < 12 | U | < 5.6 | U |
| Bromoform | 75-25-2 | NA | NA | NA | < 10 | U | < 7.4 | U | < 12 | U | < 5.6 | U |
| Bromomethane | 74-83-9 | NA | NA | NA | < 10 | U | < 7.4 | U | < 12 | U | < 5.6 | U |
| Carbon Disulfide | 75-15-0 | NA | NA | NA | < 10 | U | < 7.4 | U | < 12 | U | < 5.6 | U |
| Carbon tetrachloride | 56-23-5 | 22,000 | 1,400 | 760 | < 10 | U | < 7.4 | U | < 12 | U | < 5.6 | U |
| Chlorobenzene | 108-90-7 | 500,000 | 100,000 | 1,100 | < 10 | U | < 7.4 | U | < 12 | U | < 5.6 | U |
| Chloroethane | 75-00-3 | NA | NA | NA | < 10 | U | < 7.4 | U | < 12 | U | < 5.6 | U |
| Chloroform | 67-66-3 | 350,000 | 10,000 | 370 | < 10 | U | < 7.4 | U | < 12 | U | < 5.6 | U |
| Chloromethane | 74-87-3 | NA | NA | NA | < 10 | U | < 7.4 | U | < 12 | U | < 5.6 | U |
| cis-1,2-Dichloroethene | 156-59-2 | 500,000 | 59,000 | 250 | < 10 | U | < 7.4 | U | < 12 | U | < 5.6 | U |
| cis-1,3-Dichloropropene | 10061-01-5 | NA | NA | NA | < 10 | U | < 7.4 | U | < 12 | U | < 5.6 | U |
| Dibromochloromethane | 124-48-1 | NA | NA | NA | < 10 | U | < 7.4 | U | < 12 | U | < 5.6 | U |
| Dibromomethane | 74-95-3 | NA | NA | NA | < 10 | U | < 7.4 | U | < 12 | U | < 5.6 | U |
| Dichlorodifluoromethane | 75-71-8 | NA | NA | NA | < 10 | U | < 7.4 | U | < 12 | U | < 5.6 | U |
| Ethylbenzene | 100-41-4 | 390,000 | 30,000 | 1,000 | < 10 | U | < 7.4 | U | < 12 | U | < 5.6 | U |
| Hexachlorobutadiene | 87-68-3 | NA | NA | NA | < 10 | U | < 7.4 | U | < 12 | U | < 5.6 | U |
| Isopropylbenzene | 98-82-8 | NA | NA | NA | < 10 | U | < 7.4 | U | < 12 | U | < 5.6 | U |
| m&p-Xylene | 179601-23-1 | NA | NA | NA | < 10 | U | < 7.4 | U | < 12 | U | < 5.6 | U |
| Methyl Ethyl Ketone | 78-93-3 | 500,000 | 100,000 | 120 | < 63 | U | < 44 | U | < 71 | U | < 34 | U |
| Methyl t-butyl ether (MTBE) | 1634-04-4 | 500,000 | 62,000 | 930 | < 21 | U | < 15 | U | < 24 | U | < 11 | U |
| Methylene chloride | 75-09-2 | 500,000 | 51,000 | 50 | < 10 | U | < 7.4 | U | < 12 | U | < 5.6 | U |
| Naphthalene | 91-20-3 | 500,000 | 100,000 | 12,000 | < 10 | U | < 7.4 | U | < 12 | U | < 5.6 | U |
| n-Butylbenzene | 104-51-8 | 500,000 | 100,000 | 12,000 | < 10 | U | < 7.4 | U | < 12 | U | < 5.6 | U |
| n-Propylbenzene | 103-65-1 | 500,000 | 100,000 | 3,900 | < 10 | U | < 7.4 | U | < 12 | U | < 5.6 | U |
| o-Xylene | 95-47-6 | NA | NA | NA | < 10 | U | < 7.4 | U | < 12 | U | < 5.6 | U |
| p-Isopropyltoluene | 99-87-6 | NA | NA | NA | < 10 | U | < 7.4 | U | < 12 | U | < 5.6 | U |
| sec-Butylbenzene | 135-98-8 | 500,000 | 100,000 | 11,000 | < 10 | U | < 7.4 | U | < 12 | U | < 5.6 | U |
| Styrene | 100-42-5 | NA | NA | NA | < 10 | U | < 7.4 | U | < 12 | U | < 5.6 | U |
| tert-Butylbenzene | 98-06-6 | 500,000 | 100,000 | 5,900 | < 10 | U | < 7.4 | U | < 12 | U | < 5.6 | U |
| Tetrachloroethene | 127-18-4 | 150,000 | 5,500 | 1,300 | < 10 | U | < 7.4 | U | < 12 | U | < 5.6 | U |
| Tetrahydrofuran (THF) | 109-99-9 | NA | NA | NA | < 21 | U | **6.8** | J | **12** | J | **7.9** | J |
| Toluene | 108-88-3 | 500,000 | 100,000 | 700 | < 10 | U | < 7.4 | U | < 12 | U | < 5.6 | U |
| trans-1,2-Dichloroethene | 156-60-5 | 500,000 | 100,000 | 190 | < 10 | U | < 7.4 | U | < 12 | U | < 5.6 | U |
| trans-1,3-Dichloropropene | 10061-02-6 | NA | NA | NA | < 10 | U | < 7.4 | U | < 12 | U | < 5.6 | U |
| trans-1,4-dichloro-2-butene | 110-57-6 | NA | NA | NA | < 21 | U | < 15 | U | < 24 | U | < 11 | U |
| Trichloroethene | 79-01-6 | 200,000 | 10,000 | 470 | < 10 | U | < 7.4 | U | < 12 | U | < 5.6 | U |
| Trichlorofluoromethane | 75-69-4 | NA | NA | NA | < 10 | U | < 7.4 | U | < 12 | U | < 5.6 | U |
| Trichlorotrifluoroethane | 76-13-1 | NA | NA | NA | < 10 | U | < 7.4 | U | < 12 | U | < 5.6 | U |
| Vinyl chloride | 75-01-4 | 13,000 | 210 | 20 | < 10 | U | < 7.4 | U | < 12 | U | < 5.6 | U |

Notes:
Concentrations are provided in micrograms per kilogram (ug/kg).
Q: Laboratory data qualifier
U - The compound was analyzed for but not detected at or above the Method Detection Limit (MDL). The number immediately preceding the "U" represents the Practical Quantitation Level (PQL) corrected for percent solids, weight and/or volume calculations, and dilution factors.
J: The value is estimated.
S: This compound is a solvent that is used in the laboratory.
NA: No applicable standard

**iPARK 84 CAMPUS**
**2070 NY ROUTE 52**
**HOPEWELL JUNCTION, NY**

**LOT 10 BOUNDARY MODIFICATION FIELD INVESTIGATION**

**TABLE 7**
**SUMMARY OF SURFACE SEDIMENT SAMPLING RESULTS - SEMIVOLATILE ORGANIC COMPOUNDS (SVOCs)**

| | | | | | Collection Date | 11/29/2022 | | 11/29/2022 | | 11/29/2022 | | 11/29/2022 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Sample ID | SED-1 (0-2") | | SED-1 (2-12") | | SED-2 (0-2") | | SED-2 (2-12") | |
| | | | | | Matrix | Soil | | Soil | | Soil | | Soil | |
| | | *NYCRR Part 375 SCOs* | | | | | | | | | | | |
| | CAS | Commercial Use Soil Cleanup Objective | Residential Use Soil Cleanup Objective | Unrestricted Use Soil Cleanup Objective | Result ug/kg | Q | Result ug/kg | Q | Result ug/kg | Q | Result ug/kg | Q |
| **Semivolatiles** | | ug/kg | ug/kg | ug/kg | | | | | | | | |
| 1,2,4,5-Tetrachlorobenzene | 95-94-3 | NA | NA | NA | < 450 | U | < 400 | U | < 460 | U | < 290 | U |
| 1,2,4-Trichlorobenzene | 120-82-1 | NA | NA | NA | < 450 | U | < 400 | U | < 460 | U | < 290 | U |
| 1,2-Dichlorobenzene | 95-50-1 | 500,000 | 100,000 | 1,100 | < 450 | U | < 400 | U | < 460 | U | < 290 | U |
| 1,2-Diphenylhydrazine | 122-66-7 | NA | NA | NA | < 450 | U | < 400 | U | < 460 | U | < 290 | U |
| 1,3-Dichlorobenzene | 541-73-1 | 280,000 | 17,000 | 2,400 | < 450 | U | < 400 | U | < 460 | U | < 290 | U |
| 1,4-Dichlorobenzene | 106-46-7 | 130,000 | 9,800 | 1,800 | < 450 | U | < 400 | U | < 460 | U | < 290 | U |
| 2,4,5-Trichlorophenol | 95-95-4 | NA | NA | NA | < 450 | U | < 400 | U | < 460 | U | < 290 | U |
| 2,4,6-Trichlorophenol | 88-06-2 | NA | NA | NA | < 450 | U | < 400 | U | < 460 | U | < 290 | U |
| 2,4-Dichlorophenol | 120-83-2 | NA | NA | NA | < 320 | U | < 290 | U | < 330 | U | < 210 | U |
| 2,4-Dimethylphenol | 105-67-9 | NA | NA | NA | < 320 | U | < 290 | U | < 330 | U | < 210 | U |
| 2,4-Dinitrophenol | 51-28-5 | NA | NA | NA | < 450 | U | < 400 | U | < 460 | U | < 290 | U |
| 2,4-Dinitrotoluene | 121-14-2 | NA | NA | NA | < 450 | U | < 400 | U | < 460 | U | < 290 | U |
| 2,6-Dinitrotoluene | 606-20-2 | NA | NA | NA | < 320 | U | < 290 | U | < 330 | U | < 210 | U |
| 2-Chloronaphthalene | 91-58-7 | NA | NA | NA | < 320 | U | < 290 | U | < 330 | U | < 210 | U |
| 2-Chlorophenol | 95-57-8 | NA | NA | NA | < 450 | U | < 400 | U | < 460 | U | < 290 | U |
| 2-Methylnaphthalene | 91-57-6 | NA | NA | NA | < 450 | U | < 400 | U | < 460 | U | < 290 | U |
| 2-Methylphenol (o-cresol) | 95-48-7 | 500,000 | 100,000 | 330 | < 450 | U | < 400 | U | < 460 | U | < 290 | U |
| 2-Nitroaniline | 88-74-4 | NA | NA | NA | < 450 | U | < 400 | U | < 460 | U | < 290 | U |
| 2-Nitrophenol | 88-75-5 | NA | NA | NA | < 450 | U | < 400 | U | < 460 | U | < 290 | U |
| 3&4-Methylphenol (m&p-cresol) | 108-39-4/106-44-5 | NA | NA | NA | < 450 | U | < 400 | U | < 460 | U | < 290 | U |
| 3,3'-Dichlorobenzidine | 91-94-1 | NA | NA | NA | < 450 | U | < 400 | U | < 460 | U | < 290 | U |
| 3-Nitroaniline | 99-09-2 | NA | NA | NA | < 320 | U | < 290 | U | < 330 | U | < 210 | U |
| 4,6-Dinitro-2-methylphenol | 534-52-1 | NA | NA | NA | < 640 | U | < 570 | U | < 650 | U | < 410 | U |
| 4-Bromophenyl phenyl ether | 101-55-3 | NA | NA | NA | < 380 | U | < 340 | U | < 390 | U | < 250 | U |
| 4-Chloro-3-methylphenol | 59-50-7 | NA | NA | NA | < 450 | U | < 400 | U | < 460 | U | < 290 | U |
| 4-Chloroaniline | 106-47-8 | NA | NA | NA | < 450 | U | < 400 | U | < 460 | U | < 290 | U |
| 4-Chlorophenyl phenyl ether | 7005-72-3 | NA | NA | NA | < 510 | U | < 460 | U | < 520 | U | < 330 | U |
| 4-Nitroaniline | 100-01-6 | NA | NA | NA | < 450 | U | < 400 | U | < 460 | U | < 290 | U |
| 4-Nitrophenol | 100-02-7 | NA | NA | NA | < 640 | U | < 570 | U | < 650 | U | < 410 | U |
| Acenaphthene | 83-32-9 | 500,000 | 100,000 | 20,000 | < 640 | U | < 570 | U | < 650 | U | < 410 | U |
| Acenaphthylene | 208-96-8 | 500,000 | 100,000 | 100,000 | < 450 | U | < 400 | U | < 460 | U | < 290 | U |
| Acetophenone | 98-86-2 | NA | NA | NA | < 450 | U | < 400 | U | < 460 | U | < 290 | U |
| Aniline | 62-53-3 | NA | NA | NA | < 450 | U | < 400 | U | < 460 | U | < 290 | U |
| Anthracene | 120-12-7 | 500,000 | 100,000 | 100,000 | < 510 | U | < 460 | U | < 520 | U | < 330 | U |
| Benz(a)anthracene | 56-55-3 | 5,600 | 1,000 | 1,000 | < 450 | U | < 400 | U | < 460 | U | < 290 | U |
| Benzidine | 92-87-5 | NA | NA | NA | < 450 | U | < 400 | U | < 460 | U | < 290 | U |
| Benzo(a)pyrene | 50-32-8 | 1,000 | 1,000 | 1,000 | < 640 | U | < 570 | U | < 650 | U | < 410 | U |
| Benzo(b)fluoranthene | 205-99-2 | 5,600 | 1,000 | 1,000 | < 320 | U | < 290 | U | < 330 | U | < 210 | U |
| Benzo(ghi)perylene | 191-24-2 | 500,000 | 100,000 | 100,000 | < 450 | U | < 400 | U | < 460 | U | < 290 | U |
| Benzo(k)fluoranthene | 207-08-9 | 56,000 | 1,000 | 800 | **430** | J | **190** | J | < 460 | U | < 290 | U |
| Benzoic acid | 65-85-0 | NA | NA | NA | < 450 | U | < 400 | U | < 460 | U | < 290 | U |
| Benzyl butyl phthalate | 85-68-7 | NA | NA | NA | < 3200 | U | < 2900 | U | < 3300 | U | < 2100 | U |
| Bis(2-chloroethoxy)methane | 111-91-1 | NA | NA | NA | < 450 | U | < 400 | U | < 460 | U | < 290 | U |
| Bis(2-chloroethyl)ether | 111-44-4 | NA | NA | NA | < 450 | U | < 400 | U | < 460 | U | < 290 | U |
| Bis(2-chloroisopropyl)ether | 108-60-1 | NA | NA | NA | < 320 | U | < 290 | U | < 330 | U | < 210 | U |
| Bis(2-ethylhexyl)phthalate | 117-81-7 | NA | NA | NA | < 450 | U | < 400 | U | < 460 | U | < 290 | U |
| Carbazole | 86-74-8 | NA | NA | NA | < 320 | U | < 290 | U | < 330 | U | < 210 | U |
| Chrysene | 218-01-9 | 56,000 | 1,000 | 1,000 | < 450 | U | < 400 | U | < 460 | U | < 290 | U |
| Dibenz(a,h)anthracene | 53-70-3 | 560 | 330 | 330 | **330** | | < 290 | U | < 330 | U | < 210 | U |
| Dibenzofuran | 132-64-9 | 350,000 | 14,000 | 7,000 | < 450 | U | < 400 | U | < 460 | U | < 290 | U |
| Diethyl phthalate | 84-66-2 | NA | NA | NA | < 450 | U | < 400 | U | < 460 | U | < 290 | U |
| Dimethylphthalate | 131-11-3 | NA | NA | NA | < 450 | U | < 400 | U | < 460 | U | < 290 | U |
| Di-n-butylphthalate | 84-74-2 | NA | NA | NA | < 450 | U | < 400 | U | < 460 | U | < 290 | U |
| Di-n-octylphthalate | 117-84-0 | NA | NA | NA | < 450 | U | < 400 | U | < 460 | U | < 290 | U |
| Fluoranthene | 206-44-0 | 500,000 | 100,000 | 100,000 | < 450 | U | < 400 | U | < 460 | U | < 290 | U |
| Fluorene | 86-73-7 | 500,000 | 100,000 | 30,000 | < 450 | U | < 400 | U | < 460 | U | < 290 | U |
| Hexachlorobenzene | 118-74-1 | 6,000 | 330 | 330 | < 320 | U | < 290 | U | < 330 | U | < 210 | U |
| Hexachlorobutadiene | 87-68-3 | NA | NA | NA | < 450 | U | < 400 | U | < 460 | U | < 290 | U |
| Hexachlorocyclopentadiene | 77-47-4 | NA | NA | NA | < 450 | U | < 400 | U | < 460 | U | < 290 | U |
| Hexachloroethane | 67-72-1 | NA | NA | NA | < 320 | U | < 290 | U | < 330 | U | < 210 | U |
| Indeno(1,2,3-cd)pyrene | 193-39-5 | 5,600 | 500 | 500 | **340** | J | < 400 | U | < 460 | U | < 290 | U |
| Isophorone | 78-59-1 | NA | NA | NA | < 320 | U | < 290 | U | < 330 | U | < 210 | U |
| Naphthalene | 91-20-3 | 500,000 | 100,000 | 12,000 | < 450 | U | < 400 | U | < 460 | U | < 290 | U |
| Nitrobenzene | 98-95-3 | NA | NA | NA | < 320 | U | < 290 | U | < 330 | U | < 210 | U |
| N-Nitrosodimethylamine | 62-75-9 | NA | NA | NA | < 450 | U | < 400 | U | < 460 | U | < 290 | U |
| N-Nitrosodi-n-propylamine | 621-64-7 | NA | NA | NA | < 320 | U | < 290 | U | < 330 | U | < 210 | U |
| N-Nitrosodiphenylamine | 86-30-6 | NA | NA | NA | < 450 | U | < 400 | U | < 460 | U | < 290 | U |
| Pentachloronitrobenzene | 82-68-8 | NA | NA | NA | < 450 | U | < 400 | U | < 460 | U | < 290 | U |
| Pentachlorophenol | 87-86-5 | 6,700 | 2,400 | 800 | < 380 | U | < 340 | U | < 390 | U | < 250 | U |
| Phenanthrene | 85-01-8 | 500,000 | 100,000 | 100,000 | < 450 | U | < 400 | U | < 460 | U | < 290 | U |
| Phenol | 108-95-2 | 500,000 | 100,000 | 330 | < 450 | U | < 400 | U | < 460 | U | < 290 | U |
| Pyrene | 129-00-0 | 500,000 | 100,000 | 100,000 | < 450 | U | < 400 | U | < 460 | U | < 290 | U |
| Pyridine | 110-86-1 | NA | NA | NA | < 450 | U | < 400 | U | < 460 | U | < 290 | U |

Notes:
Concentrations are provided in micrograms per kilogram (ug/kg).
Q: Laboratory data qualifier
U: The compound was analyzed for but not detected at or above the Method Detection Limit (MDL). The number immediately preceding the "U" represents the Practical Quantitation Level (PQL) corrected for percent solids, weight and/or volume calculations, and dilution factors.
J: The value is estimated.
**Bold** results indicate those detected above MDLs.
NA: No applicable standard
Result equals respective Part 375 Unrestricted & Residential Use SCOs but below the Commercial Use SCO

**iPARK 84 CAMPUS**
**2070 NY ROUTE 52**
**HOPEWELL JUNCTION, NY**

**LOT 10 BOUNDARY MODIFICATION FIELD INVESTIGATION**

**TABLE 8**
**SUMMARY OF SURFACE SEDIMENT SAMPLING RESULTS - METALS**

| | | | | | **Collection Date** | | 11/29/2022 | | 11/29/2022 | | 11/29/2022 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | **Sample ID** | | SED-1 (0-2") | | SED-1 (2-12") | | SED-2 (0-2") | | SED-2 (2-12") | |
| | | | | | **Matrix** | | Soil | | Soil | | Soil | | Soil | |
| | | ***NYCRR Part 375 SCOs*** | | | | | | | | | | | | |
| | **CAS** | **Commercial Use Soil Cleanup Objective** | **Residential Use Soil Cleanup Objective** | **Unrestricted Use Soil Cleanup Objective** | **Result ug/kg** | **Q** | **Result ug/kg** | **Q** | **Result ug/kg** | **Q** | **Result ug/kg** | **Q** |
| **Metals** | | **ug/kg** | **ug/kg** | **ug/kg** | | | | | | | | |
| Aluminum | 7429-90-5 | NA | NA | NA | **16,400** | | **18,800** | | **15,800** | | **14,600** | |
| Antimony | 7440-36-0 | NA | NA | NA | < 6.6 | U | < 6.2 | U | < 6.9 | U | < 4.1 | U |
| Arsenic | 7440-38-2 | 16 | 16 | 13 | **8.20** | | **7.90** | | **7.10** | | **5.44** | |
| Barium | 7440-39-3 | 400 | 350 | 350 | **132** | | **117** | | **115** | | **75.3** | |
| Beryllium | 7440-41-7 | 590 | 14 | 7.2 | **0.84** | | **0.85** | | **0.73** | | **0.57** | |
| Cadmium | 7440-43-9 | 9 | 3 | 2.5 | **2.33** | | **2.33** | | **2.11** | | **1.59** | |
| Calcium | 7440-70-2 | NA | NA | NA | **9,820** | | **8,070** | | **8,150** | | **13,300** | |
| Chromium | 7440-47-3 | 1,500 | 36 | 30 | **21.5** | | **23.7** | | **20.2** | | **17.1** | |
| Cobalt | 7440-48-4 | NA | NA | NA | **12.6** | | **13.1** | | **11.3** | | **9.0** | |
| Copper | 7440-50-8 | 270 | 270 | 50 | **27.5** | | **29.9** | | **24.2** | | **17.2** | |
| Iron | 7439-89-6 | NA | NA | NA | **33,600** | | **35,200** | | **31,600** | | **25,900** | |
| Lead | 7439-92-1 | 1,000 | 400 | 63 | **34.3** | | **34.6** | | **30.3** | | **16.6** | |
| Magnesium | 7439-95-4 | NA | NA | NA | **7,970** | | **8,130** | | **7,020** | | **11,900** | |
| Manganese | 7439-96-5 | 10,000 | 2,000 | 1,600 | **3,020** | | **2,060** | | **2,730** | | **1,040** | |
| Mercury | 7439-97-6 | 3 | 1 | 0.18 | **0.08** | | **0.09** | | **0.06** | | **0.03** | J |
| Nickel | 7440-02-0 | 310 | 140 | 30 | **24.6** | | **28.0** | | **23.9** | | **20.2** | |
| Potassium | 2023695 | NA | NA | NA | **1,720** | | **1,460** | | **1,520** | | **1,090** | |
| Selenium | 7782-49-2 | 1,500 | 36 | 4 | < 2.6 | U | < 2.5 | U | < 2.7 | U | < 1.6 | U |
| Silver | 7440-22-4 | 1,500 | 36 | 2 | < 0.66 | U | < 0.62 | U | < 0.69 | U | < 0.41 | U |
| Sodium | 7440-23-5 | NA | NA | NA | **168** | | **199** | | **270** | | **208** | |
| Thallium | 7440-28-0 | NA | NA | NA | < 2.6 | U | < 2.5 | U | < 2.7 | U | < 1.6 | U |
| Vanadium | 7440-62-2 | NA | NA | NA | **27.1** | | **28.3** | | **23.5** | | **20.0** | |
| Zinc | 7440-66-6 | 10,000 | 2,200 | 109 | **124** | | **121** | | **106** | | **57.7** | |

Notes:
Concentrations are provided in milligrams per kilogram (mg/kg).
Q: Laboratory data qualifier
U: The compound was analyzed for but not detected at or above the Method Detection Limit (MDL). The number immediately preceding the "U" represents the Practical Quantitation Level (PQL) corrected for percent solids, weight and/or volume calculations, and dilution factors.
J: The value is estimated.
**Bold** results indicate those detected above MDLs.
NA: No applicable standard
Result is above respective Part 375 Unrestricted Use SCO but below the Residential Use SCO
Result is above respective Part 375 Residential Use SCO but below the Commercial Use SCO

**iPARK 84 CAMPUS**
**2070 NY ROUTE 52**
**HOPEWELL JUNCTION, NY**

**LOT 10 BOUNDARY MODIFICATION FIELD INVESTIGATION**

**TABLE 9**
**SUMMARY OF SURFACE SEDIMENT SAMPLING RESULTS - PCBs, PESTICIDES AND HERBICIDES**

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | **Collection Date** | 11/29/2022 | | 11/29/2022 | | 11/29/2022 | | 11/29/2022 | |
| | | | | **Sample ID** | SED-1 (0-2") | | SED-1 (2-12") | | SED-2 (0-2") | | SED-2 (2-12") | |
| | | | | **Matrix** | Soil | | Soil | | Soil | | Soil | |
| | | *NYCRR Part 375 SCOs* | | | | | | | | | | |
| | **CAS** | **Commercial Use Soil Cleanup Objective** | **Residential Use Soil Cleanup Objective** | **Unrestricted Use Soil Cleanup Objective** | **Result ug/kg** | **Q** | **Result ug/kg** | **Q** | **Result ug/kg** | **Q** | **Result ug/kg** | **Q** |
| **PCBs** | | **ug/kg** | **ug/kg** | **ug/kg** | | | | | | | | |
| PCB-1016 | 12674-11-2 | 1,000 | 1,000 | 100 | < 130 | U | < 110 | U | < 130 | U | < 81 | U |
| PCB-1221 | 11104-28-2 | 1,000 | 1,000 | 100 | < 130 | U | < 110 | U | < 130 | U | < 81 | U |
| PCB-1232 | 11141-16-5 | 1,000 | 1,000 | 100 | < 130 | U | < 110 | U | < 130 | U | < 81 | U |
| PCB-1242 | 53469-21-9 | 1,000 | 1,000 | 100 | < 130 | U | < 110 | U | < 130 | U | < 81 | U |
| PCB-1248 | 12672-29-6 | 1,000 | 1,000 | 100 | < 130 | U | < 110 | U | < 130 | U | < 81 | U |
| PCB-1254 | 11097-69-1 | 1,000 | 1,000 | 100 | < 130 | U | < 110 | U | < 130 | U | < 81 | U |
| PCB-1260 | 11096-82-5 | 1,000 | 1,000 | 100 | < 130 | U | < 110 | U | < 130 | U | < 81 | U |
| PCB-1262 | 37324-23-5 | NA | NA | 100 | < 130 | U | < 110 | U | < 130 | U | < 81 | U |
| PCB-1268 | 11100-14-4 | NA | NA | 100 | < 130 | U | < 110 | U | < 130 | U | < 81 | U |
| **Pesticides** | | | | | | | | | | | | |
| 4,4' -DDD | 72-54-8 | 92,000 | 2,600 | 3 | < 3.8 | U | < 3.3 | U | < 4.0 | U | < 2.4 | U |
| 4,4' -DDE | 72-55-9 | 62,000 | 1,800 | 3.3 | **8.5** | | **9.7** | | **18** | | **8.3** | |
| 4,4' -DDT | 50-29-3 | 47,000 | 1,700 | 3.3 | < 3.8 | U | < 3.3 | U | < 4.0 | U | < 2.4 | U |
| a-BHC | 319-84-6 | 3,400 | 97 | 20 | < 13 | U | < 11 | U | < 13 | U | < 8.1 | U |
| a-Chlordane | 5103-71-9 | 24,000 | 910 | 94 | < 6.3 | U | < 5.6 | U | < 6.6 | U | < 4.1 | U |
| Alachlor | 15972-60-8 | NA | NA | NA | < 6.3 | U | < 5.6 | U | < 6.6 | U | < 4.1 | U |
| Aldrin | 309-00-2 | 680 | 19 | 5 | < 6.3 | U | < 5.6 | U | < 6.6 | U | < 4.1 | U |
| b-BHC | 319-85-7 | 3,000 | 72 | 36 | < 13 | U | < 11 | U | < 13 | U | < 8.1 | U |
| Chlordane | 57-74-9 | NA | NA | NA | < 63 | U | < 56 | U | < 66 | U | < 41 | U |
| d-BHC | 319-86-8 | 500,000 | 100,000 | 40 | < 13 | U | < 11 | U | < 13 | U | < 8.1 | U |
| Dieldrin | 60-57-1 | 1,400 | 39 | 5 | < 6.3 | U | < 5.6 | U | < 6.6 | U | < 4.1 | U |
| Endosulfan I | 959-98-8 | 200,000 | 4,800 | 2,400 | < 13 | U | < 11 | U | < 13 | U | < 8.1 | U |
| Endosulfan II | 33213-65-9 | 200,000 | 4,800 | 2,400 | < 13 | U | < 11 | U | < 13 | U | < 8.1 | U |
| Endosulfan sulfate | 1031-07-8 | 200,000 | 4,800 | 2,400 | < 13 | U | < 11 | U | < 13 | U | < 8.1 | U |
| Endrin | 72-20-8 | 89,000 | 2,200 | 14 | < 13 | U | < 11 | U | < 13 | U | < 8.1 | U |
| Endrin aldehyde | 7421-93-4 | NA | NA | NA | < 13 | U | < 11 | U | < 13 | U | < 8.1 | U |
| Endrin ketone | 53494-70-5 | NA | NA | NA | < 13 | U | < 11 | U | < 13 | U | < 8.1 | U |
| g-BHC | 58-89-9 | 9,200 | 280 | 100 | < 2.5 | U | < 2.2 | U | < 2.6 | U | < 1.6 | U |
| g-Chlordane | 5103-74-2 | NA | NA | NA | < 6.3 | U | < 5.6 | U | < 6.6 | U | < 4.1 | U |
| Heptachlor | 76-44-8 | 15,000 | 420 | 42 | < 13 | U | < 11 | U | < 13 | U | < 8.1 | U |
| Heptachlor epoxide | 1024-57-3 | NA | NA | NA | < 13 | U | < 11 | U | < 13 | U | < 8.1 | U |
| Methoxychlor | 72-43-5 | NA | NA | NA | < 63 | U | < 56 | U | < 66 | U | < 41 | U |
| Toxaphene | 8001-35-2 | NA | NA | NA | < 250 | U | < 220 | U | < 260 | U | < 160 | U |
| **Herbicides** | | | | | | | | | | | | |
| 2,4,5-T | 93-76-5 | NA | NA | NA | < 120 | U | < 120 | U | < 120 | U | < 120 | U |
| 2,4,5-TP (Silvex) | 93-72-1 | 500,000 | 58,000 | 3,800 | < 120 | U | < 120 | U | < 120 | U | < 120 | U |
| 2,4-D | 94-75-7 | NA | NA | NA | < 250 | U | < 250 | U | < 250 | U | < 250 | U |
| 2,4-DB | 94-82-6 | NA | NA | NA | < 2500 | U | < 2500 | U | < 2500 | U | < 2500 | U |
| Dalapon | 75-99-0 | NA | NA | NA | < 120 | U | < 120 | U | < 120 | U | < 120 | U |
| Dicamba | 1918-00-9 | NA | NA | NA | < 120 | U | < 120 | U | < 120 | U | < 120 | U |
| Dichloroprop | 120-36-5 | NA | NA | NA | < 250 | U | < 250 | U | < 250 | U | < 250 | U |
| Dinoseb | 88-85-7 | NA | NA | NA | < 250 | U | < 250 | U | < 250 | U | < 250 | U |

Notes:
Concentrations are provided in micrograms per kilogram (ug/kg).
Q: Laboratory data qualifier
U: The compound was analyzed for but not detected at or above the Method Detection Limit (MDL). The number immediately preceding the "U" represents the Practical Quantitation Level (PQL) corrected for percent solids, weight and/or volume calculations, and dilution factors.
**Bold** results indicate those detected above MDLs.
NA: No applicable standard
Result is above respective Part 375 Unrestricted Use SCO but below the Residential Use SCO

**iPARK 84 CAMPUS**
**2070 NY ROUTE 52**
**HOPEWELL JUNCTION, NY**

**LOT 10 BOUNDARY MODIFICATION FIELD INVESTIGATION**

**TABLE 10**
**SUMMARY OF SURFACE SEDIMENT SAMPLING RESULTS - PFAS and 1,4-DIOXANE**

| | | | | | Collection Date | | 11/29/2022 | | 11/29/2022 | | 11/29/2022 | | 11/29/2022 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Sample ID | | SED-1 (0-2") | | SED-1 (2-12") | | SED-2 (0-2") | | SED-2 (2-12") | |
| | | | | | Matrix | | Soil | | Soil | | Soil | | Soil | |
| | | *NYCRR Part 375 SCOs* | | | | | | | | | | | | |
| | **CAS** | **Commercial Use SCO (ug/kg)** | **Residential Use SCO (ug/kg)** | **Unrestricted Use SCO (ug/kg)** | **Result ug/kg** | **Q** | **Result ug/kg** | **Q** | **Result ug/kg** | **Q** | **Result ug/kg** | **Q** | **Result ug/kg** | **Q** |
| **PFAS** | | | | | | | | | | | | | | |
| 1H,1H,2H,2H-Perfluorodecanesulfonic acid | 39108-34-4 | NA | NA | NA | < 0.444 | U | < 0.442 | U | < 0.410 | U | < 0.341 | U | | |
| 1H,1H,2H,2H-Perfluorooctanesulfonic acid | 27619-97-2 | NA | NA | NA | < 0.444 | U | < 0.442 | U | < 0.410 | U | < 0.341 | U | | |
| NEtFOSAA | 2991-50-6 | NA | NA | NA | < 0.444 | U | < 0.442 | U | < 0.410 | U | < 0.341 | U | | |
| NMeFOSAA | 2355-31-9 | NA | NA | NA | < 0.444 | U | < 0.442 | U | < 0.410 | U | < 0.341 | U | | |
| Perfluoro-1-decanesulfonic acid (PFDS) | 335-77-3 | NA | NA | NA | < 0.444 | U | < 0.442 | U | < 0.410 | U | < 0.341 | U | | |
| Perfluoro-1-heptanesulfonic acid (PFHpS) | 375-92-8 | NA | NA | NA | < 0.444 | U | < 0.442 | U | < 0.410 | U | < 0.341 | U | | |
| Perfluoro-1-octanesulfonamide (FOSA) | 754-91-6 | NA | NA | NA | < 0.444 | U | < 0.442 | U | < 0.410 | U | < 0.341 | U | | |
| Perfluorobutanesulfonic acid (PFBS) | 375-73-5 | NA | NA | NA | < 0.444 | U | < 0.442 | U | < 0.410 | U | < 0.341 | U | | |
| Perfluorodecanoic acid (PFDA) | 335-76-2 | NA | NA | NA | < 0.444 | U | < 0.442 | U | < 0.410 | U | < 0.341 | U | | |
| Perfluorododecanoic acid (PFDoA) | 307-55-1 | NA | NA | NA | < 0.444 | U | < 0.442 | U | < 0.410 | U | < 0.341 | U | | |
| Perfluoroheptanoic acid (PFHpA) | 375-85-9 | NA | NA | NA | < 0.444 | U | < 0.442 | U | < 0.410 | U | < 0.341 | U | | |
| Perfluorohexanesulfonic Acid (PFHxS) | 355-46-4 | NA | NA | NA | **0.795** | | **0.817** | | **1.30** | | < 0.341 | U | | |
| Perfluorohexanoic acid (PFHxA) | 307-24-4 | NA | NA | NA | < 0.444 | U | < 0.442 | U | < 0.410 | U | < 0.341 | U | | |
| Perfluoro-n-butanoic acid (PFBA) | 375-22-4 | NA | NA | NA | < 0.444 | U | < 0.442 | U | < 0.410 | U | < 0.341 | U | | |
| Perfluorononanoic acid (PFNA) | 375-95-1 | NA | NA | NA | < 0.444 | U | < 0.442 | U | < 0.410 | U | < 0.341 | U | | |
| Perfluorooctanesulfonic Acid (PFOS) | 1763-23-1 | 440* | 8.8* | 0.88* | **22.3** | | **25.9** | | **22.7** | | **9.39** | | | |
| Perfluorooctanoic acid (PFOA) | 335-67-1 | 500* | 6.6* | 0.66* | **0.728** | | **0.819** | | **0.723** | | < 0.341 | U | | |
| Perfluoropentanoic acid (PFPeA) | 2706-90-3 | NA | NA | NA | < 0.444 | U | < 0.442 | U | < 0.410 | U | < 0.341 | U | | |
| Perfluorotetradecanoic acid (PFTA) | 376-06-7 | NA | NA | NA | < 0.444 | U | < 0.442 | U | < 0.410 | U | < 0.341 | U | | |
| Perfluorotridecanoic acid (PFTrDA) | 72629-94-8 | NA | NA | NA | **0.487** | | < 0.442 | U | **0.823** | | < 0.341 | U | | |
| Perfluoroundecanoic acid (PFUnA) | 2058-94-8 | NA | NA | NA | < 0.444 | U | **0.516** | | < 0.410 | U | < 0.341 | U | | |

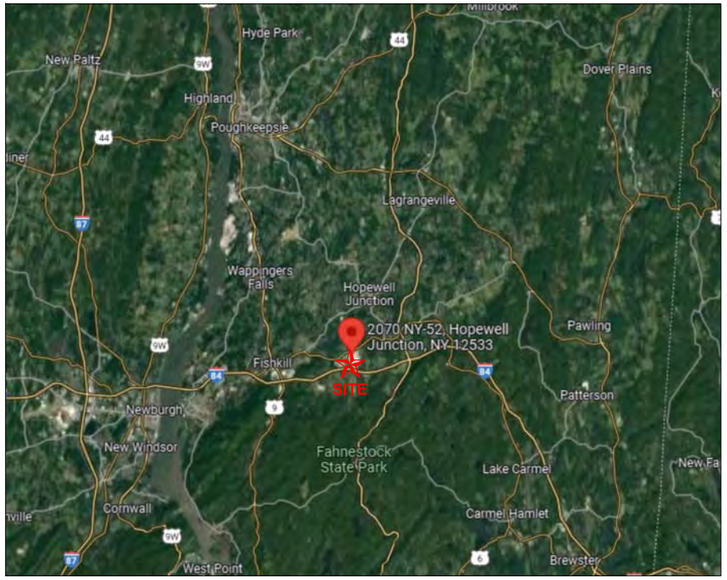
| | **CAS** | **Commercial Use SCO (ug/kg)** | **Residential Use SCO (ug/kg)** | **Unrestricted Use SCO (ug/kg)** | **Result ug/kg** | **Q** | **Result ug/kg** | **Q** | **Result ug/kg** | **Q** | **Result ug/kg** | **Q** |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **1,4-Dioxane** | | | | | | | | | | | | |
| 1,4-dioxane | 123-91-1 | 130,000 | 9,800 | 100 | < 130 | U | < 110 | U | < 130 | U | < 83 | U |

Notes:
Concentrations are provided in micrograms per kilogram (ug/kg).
Q: Laboratory data qualifier
U: The compound was analyzed for but not detected at or above the Method Detection Limit (MDL). The number immediately preceding the "U" represents the Practical Quantitation Level (PQL) corrected for percent solids, weight and/or volume calculations, and dilution factors.

**Bold** results indicate those detected above MDLs.
NA: No applicable standard

*Values listed are not SCOs. These are guidance values for PFOA and PFOS as listed in NYSDEC's April 2023 "Sampling, Analysis, and Assessment of Per- and Polyfluoroalkyl Substances (PFAS) Under NYSDEC's Part 375 Remedial Programs"
Result is above respective NYSDEC Unrestricted Use guidance value but below the Residential Use guidance value
Result is above respective NYSDEC Residential Use guidance value but below the Commercial Use guidance value

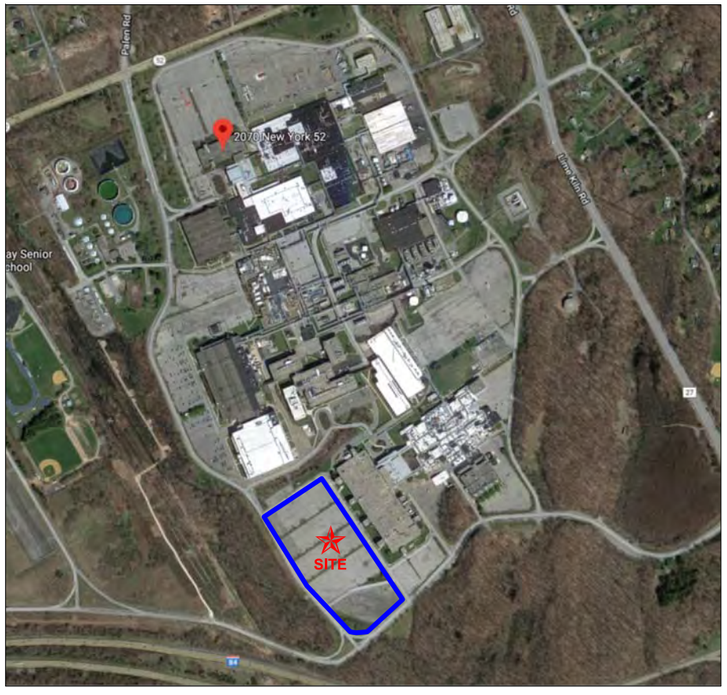
# FIGURES




SOURCE: GOOGLE MAPS

## SITE LOCATION MAP

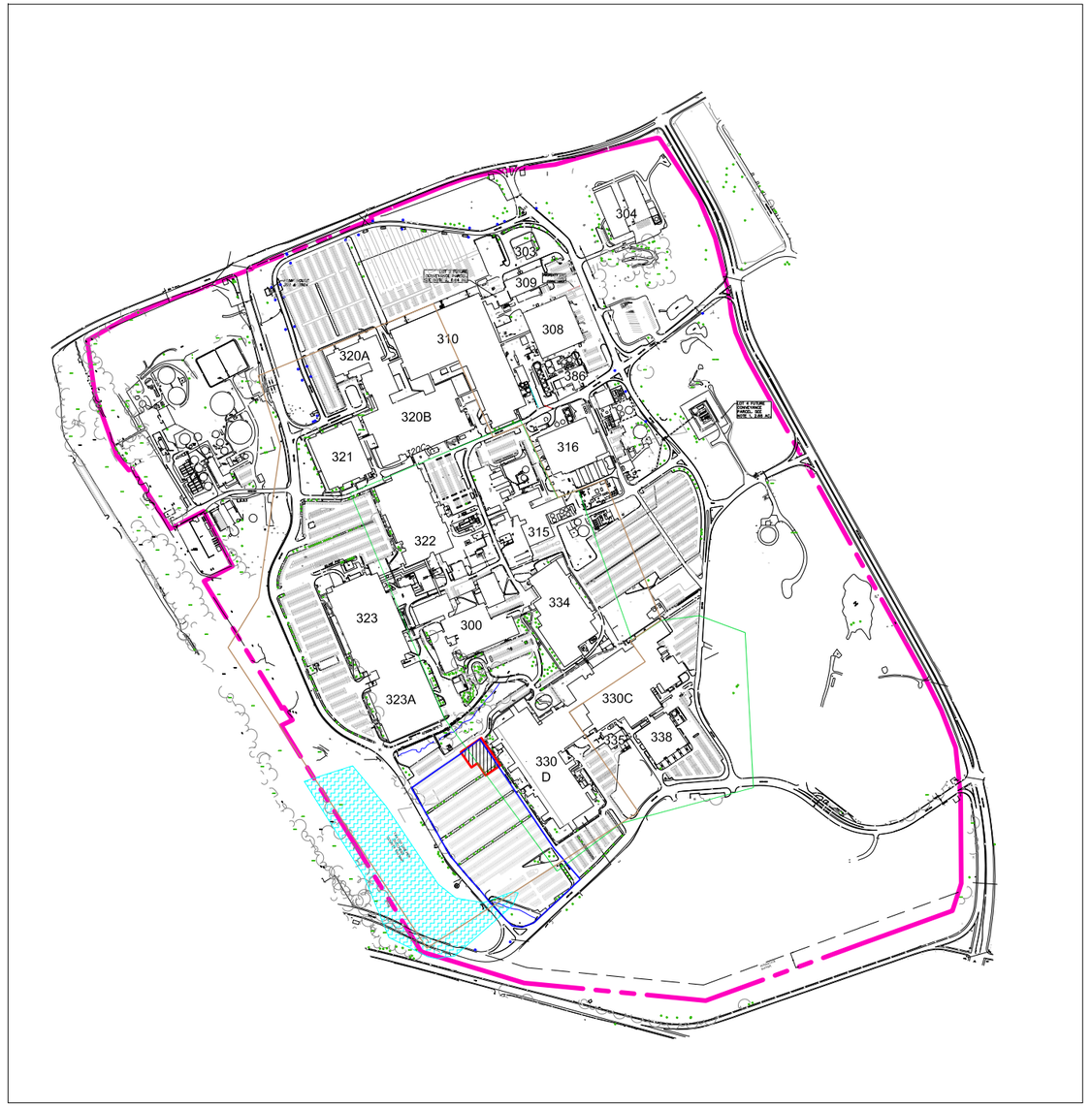
N.T.S.




SOURCE: GOOGLE MAPS

## SITE MAP

N.T.S.




0 500 1000 2000 3000

SCALE: 1"=1000'

## SITE PLAN

SCALE: 1" =1000'-0"

## LEGEND

PROPERTY LINE (FORMER IBM EAST FISHKILL FACILITY)

LOT 10 PROPERTY


Walden Environmental Engineering

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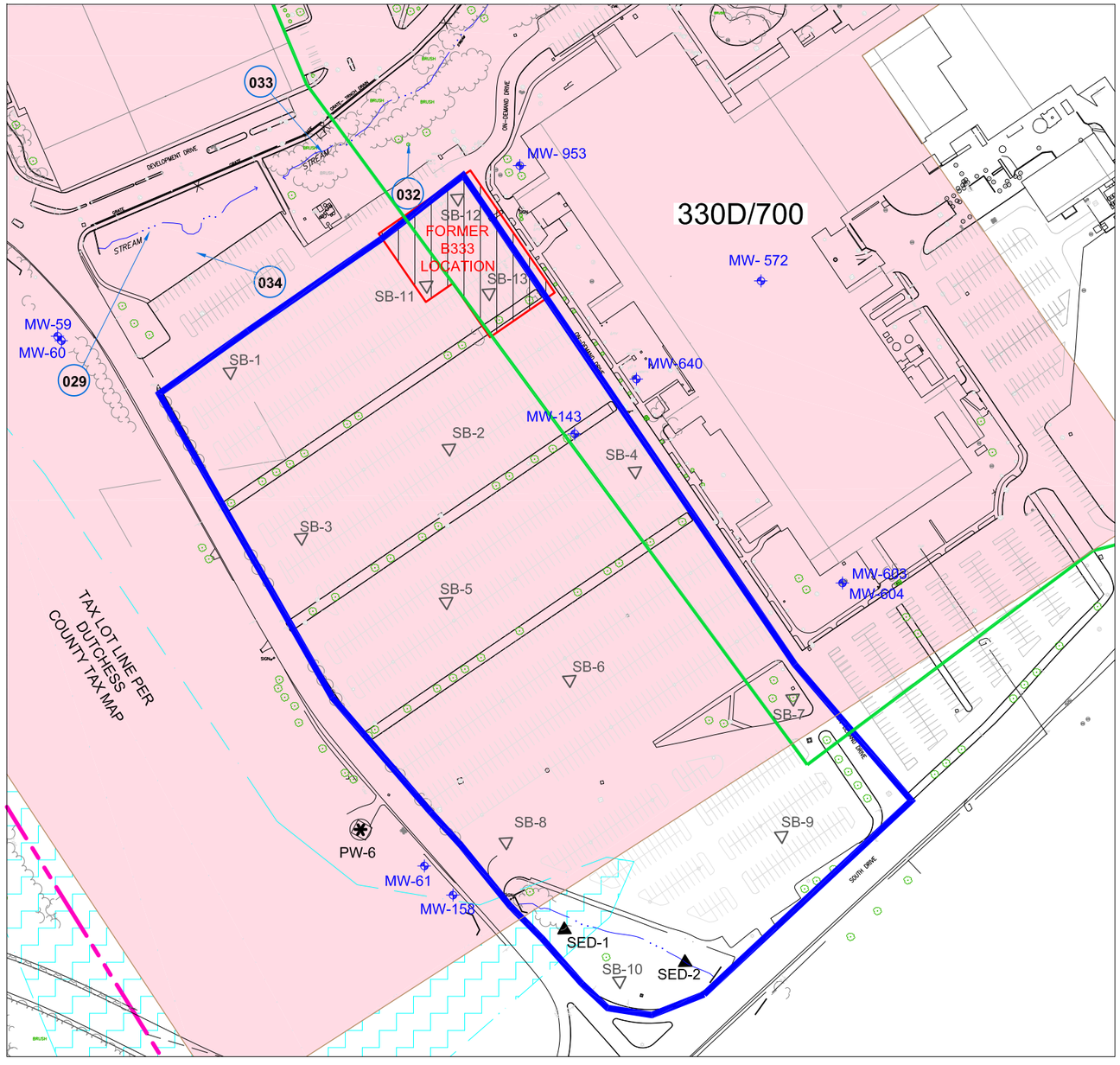
| | | | | | | |
|---|---|---|---|---|---|---|
| FOR: LOT 10 PARCEL, IPARK 84, Hopewell Junction, New York | | | DRAWING TITLE: SITE PLAN, LOT 10 BOUNDARY MODIFICATION INVESTIGATION | | | FIGURE NO: 1 |
| DESIGNED BY: NMB | DRAWN BY: LS | CHECKED BY: NMB | JOB NO: IPARK0118.62 | DATE: 11/14/23 | 11x17 | SHEET NO: 1 of 2 |
| APPROVED BY: NMB | SCALE: AS NOTED | CAD FILE LOCATION: Z:\iPark0118\iPark0118.62 - Furniture Warehouse\ACAD\iPark0118.62_ Figure 1 and 2 (11-14-23) LS.dwg | | | | |

## LEGEND

- PROPERTY LINE (FORMER IBM EAST FISHKILL FACILITY)
- LOT 10 PARCEL BOUNDARY LINE
- #00 STORMWATER OUTFALL
- SB-# SOIL BORING SAMPLING LOCATION
- SED-# SEDIMENT SAMPLING LOCATION
- ACTIVE IBM MONITORING WELLS (MW-#)
- INACTIVE BEDROCK EXTRACTION WELL PW-6
- STREAM
- RESTRICTIVE USE AREA BOUNDARY (CORE AREA)
- NY STATE REGULATED FRESHWATER WETLANDS BOUNDARY
- RESTRICTIVE USE AREA (GLOBALFOUNDRIES AIR PERMIT)




## SAMPLING LOCATIONS

SCALE: 1" = 200'-0"

0 100 200 400 600

SCALE: 1"=200'

SITE BASEMAP: CHAZEN ENGINEERING, LAND SURVEYING & LANDSCAPE ARCHITECTURE CO. D.P.C. POUGHKEEPSIE, NY (XBASE-SVY_51421-00.DWG 8/10/15); PARCELS: XSUBD_51539-00.DWG.
OFFSITE BASEMAP: "GROUNDWATER MONITORING BASEMAP", IBM EAST FISHKILL FACILITY (9718NEW.DWG, ORIGINAL DATE 12/21/98).
TOPOGRAPHY: PHOTOGRAMMETRY BY GOLDEN AERIAL SURVEYS, INC., NEWTON, CT (3/3/1997).
CONTOUR INTERVAL: 1 FOOT (HORIZONTAL DATUM BASED UPON IBM EAST FISHKILL COORDINATE SYSTEM; VERTICAL DATUM BASED UPON NATIONAL GEODETIC VERTICAL DATUM OF 1929).
HORIZONTAL ACCURACY: 90% OF ALL DETAIL, FIELD CHECKED, WILL BE WITHIN +/- 1.0 FOOT, THE REMAINING 10% OF DETAIL, WILL BE WITHIN +/- 2.0 FEET OF ITS TRUE POSITION.
VERTICAL ACCURACY: 90% OF ALL CONTOURS, FIELD CHECKED, WILL BE WITHIN +/- 0.5 FOOT. THE REMAINING 10% OF CONTOURS, FIELD CHECKED, WILL BE WITHIN +/- 1.0 FEET.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| | | | | | | |
|---|---|---|---|---|---|---|
| FOR: LOT 10 PARCEL<br>IPARK 84<br>Hopewell Junction, New York | | | DRAWING TITLE: FIGURE 2<br>LOT 10<br>SAMPLING LOCATIONS | | | FIGURE NO: 2 |
| DESIGNED BY: NMB | DRAWN BY: LS | CHECKED BY: NMB | JOB NO: iPARK0118.62 | DATE: 11/14/23 | 11x17 | SHEET NO: 2 of 2 |
| APPROVED BY: NMB | SCALE: AS NOTED | CAD FILE LOCATION: Z:\iPark0118\iPark0118.62 - Furniture Warehouse\ACAD\iPark0118.62_ Figure 1 and 2 (11-14-23) LS.dwg | | | | |

# APPENDIX A

## SITE PHOTOGRAPHS

**Site Photographs**
**Lot 10 Boundary Modification Soil Sampling, November 29-30, 2022**

**Photograph #1**
**View of Lakewood drilling within Lot 10.**

**Photograph #2**
**Alternate view of Lakewood drilling within Lot 10.**

**Photograph #3**
**View of typical soil boring.**

**Photograph #4**
**Alternate view of soil boring.**

**Photograph #7**
**GPR mark out by Underground Surveying within Lot 10.**

**Photograph #8**
**Hand auger sample by Lakewood in wetland area.**

**Photograph #9**
**Alternate view of hand auger sample collection within wetland area.**

**Photograph #10**
**Typical hand auger sample collection process.**

# APPENDIX B

## SOIL BORING LOGS

# BORING/WELL LOG

| ***WALDEN ENVIRONMENTAL ENGINEERING*** | | SHEET: 1 OF 13 |
|---|---|---|
| BORING/WELL I.D.: SB-01 | CLIENT: | iPark |
| DATE(S) DRILLED: 11/30/2022 | PROJECT NAME: | Lot 10 Boundary Modification Sampling |
| DRILL METHOD: Geoprobe | PROJECT NO.: | iPark0118.62 |
| BORING DIAMETER: 2" | PROJECT LOCATION: | East Fishkill, NY |
| SAMPLING METHOD/INTERVAL: Direct Push | | |
| LOGGED BY: ERL | DRILLING CONTR.: | Lakewood Environmental |
| REMARKS: | | |

**DESCRIPTIVE LOG**

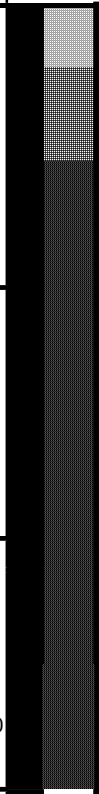
| SAMPLE INTERVAL | SAMPLE REC. (%) | BLOWS PER 6" | PID (ppm) | GRAPHIC COLUMN | DEPTH (FT) | DESCRIPTION OF MATERIAL |
|---|---|---|---|---|---|---|
| 0'-4' | 85 | NA | 0-1: 0.0<br>1-2: 0.0<br>2-4: 0.0 | | -0-<br>-1-<br>-2-<br>-3-<br>-4- | 0'-1': Fill, gravel, brown silty clay. No odor. Dry.<br>1'-2': Brown to dark brown, silty clay. Trace gravel. No odors. Dry.<br>2'-4': Brown to dark brown, silty clay. No odor. Trace gravel. Dry. |
| 4'-8' | 90 | NA | 4-6: 0.0<br>6-8: 0.0 | | -5-<br>-6-<br>-7-<br>-8- | 4'-6': Brown to dark brown clay, silt. No odor. Dry .<br>6'-8': Brown to grey clay. No odor. Moist. |
| 8'-12' | 100 | NA | 8-10: 0.0<br>10-12: 0.0 | | -9-<br>-10-<br>-11-<br>-12- | 8'-10': Brown to grey clay. No odor. Moist.<br>10'-12-: Brown to grey clay. No odor. Moist. Refusal at 12'. |
| | | | | | -13-<br>-14-<br>-15-<br>-16- | |
| | | | | | - | End of boring 12'. |

Fill
Sand/gravel
Clay
Silty sand/clay

# BORING/WELL LOG

| ***WALDEN ENVIRONMENTAL ENGINEERING*** | | SHEET: 2 OF 13 |
|---|---|---|
| BORING/WELL I.D.: SB-02 | CLIENT: | iPark |
| DATE(S) DRILLED: 11/30/2022 | PROJECT NAME: | Lot 10 Boundary Modification Sampling |
| DRILL METHOD: Geoprobe | PROJECT NO.: | iPark0118.62 |
| BORING DIAMETER: 2" | PROJECT LOCATION: | East Fishkill, NY |
| SAMPLING METHOD/INTERVAL: Direct Push | | |
| LOGGED BY: ERL | DRILLING CONTR.: | Lakewood Environmental |
| REMARKS: | | |

**DESCRIPTIVE LOG**

| SAMPLE INTERVAL | SAMPLE REC. (%) | BLOWS PER 6" | PID (ppm) | GRAPHIC COLUMN | DEPTH (FT) | DESCRIPTION OF MATERIAL |
|---|---|---|---|---|---|---|
| 0'-4' | 80 | NA | 0-1: 0.0<br>1-2: 0.0<br>2-4: 0.0 |  | -0-<br>-1-<br>-2-<br>-3-<br>-4- | 0'-1': Asphalt, gravel. Grey. No odor. Dry.<br>1'-2': Fill, brown clay with silt. No odor. Dry.<br>2'-4': Brown clay, gravel. No odor. Dry. |
| 4'-8' | 70 | NA | 4-6: 0.0<br>6-8: 0.0 | | -5-<br>-6-<br>-7-<br>-8- | 4'-8': Brown to dark brown clay, silt, gravel. No odor. Moist. |
| 8'-12' | 85 | NA | 8-10: 0.0<br>10-12: 0.0 | | -9-<br>-10-<br>-11-<br>-12- | 8'-10': Brown clay. No odor. Moist.<br>10'-12-: Brown to grey clay. No odor. Moist. Refusal at 12'. |
| | | | | | -13-<br>-14-<br>-15-<br>-16- | Dup 3 collected SB-02 |
| | | | | | - | End of boring 12'. |

Fill
Sand/gravel
Clay
Silty sand/clay

# BORING/WELL LOG

| ***WALDEN ENVIRONMENTAL ENGINEERING*** | | SHEET: 3 OF 13 |
|---|---|---|
| BORING/WELL I.D.: SB-03 | CLIENT: | iPark |
| DATE(S) DRILLED: 11/30/2022 | PROJECT NAME: | Lot 10 Boundary Modification Sampling |
| DRILL METHOD: Geoprobe | PROJECT NO.: | iPark0118.62 |
| BORING DIAMETER: 2" | PROJECT LOCATION: | East Fishkill, NY |
| SAMPLING METHOD/INTERVAL: Direct Push | | |
| LOGGED BY: LTG | DRILLING CONTR.: | Lakewood Environmental |
| REMARKS: | | |

**DESCRIPTIVE LOG**

| SAMPLE INTERVAL | SAMPLE REC. (%) | BLOWS PER 6" | PID (ppm) | GRAPHIC COLUMN | DEPTH (FT) | DESCRIPTION OF MATERIAL |
|---|---|---|---|---|---|---|
| 0'-4' | 90 | NA | 0-1: 0.0<br>1-2: 0.0<br>2-4: 0.0 | | -0-<br>-1-<br>-2-<br>-3-<br>-4- | 0'-1': Asphalt concrete, grey to dark . No odor. Dry.<br>1'-2': Tan silty clay. No odors. Dry.<br>2'-4': Clay with some gravel. Light brown. No odor. No sheen. Dry. |
| 4'-8' | 85 | NA | 4-6: 0.0<br>6-8: 0.1 | | -5-<br>-6-<br>-7-<br>-8- | 4'-8': Silty clay, brown clay. No odor. Dry.<br>6'-8': Tan to grey clay, silt. No odor. Moist. |
| 8'-12' | 100 | NA | 8-10: 0.0<br>10-12: 0.0 | | -9-<br>-10-<br>-11-<br>-12- | 8'-10': Brown to grey/brown clay. No odor. Moist.<br>10'-12-: Brown clay. No odor. Moist. Refusal at 11.5'. |
| | | | | | -13-<br>-14-<br>-15-<br>-16- | |
| | | | | | - | End of boring 11.5'. |

Fill
Sand/gravel
Clay
Silty sand/clay

# BORING/WELL LOG

| ***WALDEN ENVIRONMENTAL ENGINEERING*** | | SHEET: 4 OF 13 |
|---|---|---|
| BORING/WELL I.D.: SB-04 | CLIENT: | iPark |
| DATE(S) DRILLED: 11/29/2022 | PROJECT NAME: | Lot 10 Boundary Modification Sampling |
| DRILL METHOD: Geoprobe | PROJECT NO.: | iPark0118.62 |
| BORING DIAMETER: 2" | PROJECT LOCATION: | East Fishkill, NY |
| SAMPLING METHOD/INTERVAL: Direct Push | | |
| LOGGED BY: EMJ | DRILLING CONTR.: | Lakewood Environmental |
| REMARKS: | | |

**DESCRIPTIVE LOG**

| SAMPLE INTERVAL | SAMPLE REC. (%) | BLOWS PER 6" | PID (ppm) | GRAPHIC COLUMN | DEPTH (FT) | DESCRIPTION OF MATERIAL |
|---|---|---|---|---|---|---|
| 0'-4' | 70 | NA | 0-1: 0.0<br>1-2: 0.0<br>2-4: 0.0 | | -0-<br>-1-<br>-2-<br>-3-<br>-4- | 0'-2': Brown silty sand w/ pebbles. No odor. Dry.<br>2'-4': Grey to tan silt w/ sand, pebbles. No odor. Dry. |
| 4'-8' | 100 | NA | 4-6: 0.0<br>6-8: 0.1 | | -5-<br>-6-<br>-7-<br>-8- | 4'-6': Tan silty sand, trace pebbles. No odor. Dry.<br>6'-8': Tan clay w/ silt. Moist. |
| 8'-12' | 100 | NA | 8-10: 0.0<br>10-12: 0.0 | | -9-<br>-10-<br>-11-<br>-12- | 8'-12.5': Tan clay w/ silt. Moist. Refusal at 12'. |
| | | | | | -13-<br>-14-<br>-15-<br>-16- | |
| | | | | | - | End of boring 12.5'. |

Fill
Sand/gravel
Clay
Silty sand/clay

# BORING/WELL LOG

| ***WALDEN ENVIRONMENTAL ENGINEERING*** | | SHEET: 5 OF 13 |
|---|---|---|
| BORING/WELL I.D.: SB-05 | CLIENT: | iPark |
| DATE(S) DRILLED: 11/29/2022 | PROJECT NAME: | Lot 10 Boundary Modification Sampling |
| DRILL METHOD: Geoprobe | PROJECT NO.: | iPark0118.62 |
| BORING DIAMETER: 2" | PROJECT LOCATION: | East Fishkill, NY |
| SAMPLING METHOD/INTERVAL: Direct Push | | |
| LOGGED BY: EMJ | DRILLING CONTR.: | Lakewood Environmental |
| REMARKS: | | |

**DESCRIPTIVE LOG**

| SAMPLE INTERVAL | SAMPLE REC. (%) | BLOWS PER 6" | PID (ppm) | GRAPHIC COLUMN | DEPTH (FT) | DESCRIPTION OF MATERIAL |
|---|---|---|---|---|---|---|
| 0'-4' | 70 | NA | 0-1: 0.0<br>1-2: 0.0<br>2-4: 0.0 | | -0-<br>-1-<br>-2-<br>-3-<br>-4- | 0'-8': Brown orange silty sand w/ pebbles. No odor. Dry. |
| 4'-8' | 80 | NA | 4-6: 0.0<br>6-8: 0.1 | | -5-<br>-6-<br>-7-<br>-8- | |
| 8'-12.5' | 100 | NA | 8-10: 0.0<br>10-12.5: 0.0 | | -9-<br>-10-<br>-11-<br>-12- | 8'-10': Wet brown sand w/ gravel. No odor.<br>10'-11': Grey clay w/ silt. No odor. Moist.<br>11'-12.5': Grey silt. Refusal at 12.5'. |
| | | | | | -13-<br>-14-<br>-15-<br>-16- | |
| | | | | | - | End of boring 12.5'. |

Fill
Sand/gravel
Clay
Silty sand/clay

# BORING/WELL LOG

| ***WALDEN ENVIRONMENTAL ENGINEERING*** | | SHEET: 6 OF 13 |
|---|---|---|
| BORING/WELL I.D.: SB-06 | CLIENT: | iPark |
| DATE(S) DRILLED: 11/29/2022 | PROJECT NAME: | Lot 10 Boundary Modification Sampling |
| DRILL METHOD: Geoprobe | PROJECT NO.: | iPark0118.62 |
| BORING DIAMETER: 2" | PROJECT LOCATION: | East Fishkill, NY |
| SAMPLING METHOD/INTERVAL: Direct Push | | |
| LOGGED BY: EMJ | DRILLING CONTR.: | Lakewood Environmental |
| REMARKS: | | |

**DESCRIPTIVE LOG**

| SAMPLE INTERVAL | SAMPLE REC. (%) | BLOWS PER 6" | PID (ppm) | GRAPHIC COLUMN | DEPTH (FT) | DESCRIPTION OF MATERIAL |
|---|---|---|---|---|---|---|
| 0'-4' | 75 | NA | 0-1: 0.0<br>1-2: 0.0<br>2-4: 0.0 | | -0-<br>-1-<br>-2-<br>-3-<br>-4- | 0'-2': Brown silty sand w/ pebbles. No odor. Dry.<br>2'-3': Grey to brown silty sand. No odor. Moist.<br>3'-4': Silty brown to grey sand. No odor. Moist. |
| 4'-8' | 95 | NA | 4-6: 0.0<br>6-8: 0.1 | | -5-<br>-6-<br>-7-<br>-8- | 4'-8': Tan saturated clay w/ silt. No odor. |
| 8'-12' | 95 | NA | 8-10: 0.0<br>10-12: 0.1 | | -9-<br>-10-<br>-11-<br>-12- | 8'-12': Grey saturated clay w/ silt. No odor. Refusal at 11.5'.<br>Dup 2 collected SB-06 C (6-8) |
| | | | | | -13-<br>-14-<br>-15-<br>-16- | |
| | | | | | - | End of boring 11.5'. |

Fill
Sand/gravel
Clay
Silty sand/clay

# BORING/WELL LOG

| ***WALDEN ENVIRONMENTAL ENGINEERING*** | | SHEET: 7 OF 13 |
|---|---|---|
| BORING/WELL I.D.: SB-07 | CLIENT: | iPark |
| DATE(S) DRILLED: 11/29/2022 | PROJECT NAME: | Lot 10 Boundary Modification Sampling |
| DRILL METHOD: Geoprobe | PROJECT NO.: | iPark0118.62 |
| BORING DIAMETER: 2" | PROJECT LOCATION: | East Fishkill, NY |
| SAMPLING METHOD/INTERVAL: Direct Push | | |
| LOGGED BY: EMJ | DRILLING CONTR.: | Lakewood Environmental |
| REMARKS: | | |

**DESCRIPTIVE LOG**

| SAMPLE INTERVAL | SAMPLE REC. (%) | BLOWS PER 6" | PID (ppm) | GRAPHIC COLUMN | DEPTH (FT) | DESCRIPTION OF MATERIAL |
|---|---|---|---|---|---|---|
| 0'-4' | 90 | NA | 0-1: 0.0<br>1-2: 0.0<br>2-4: 0.1 | | -0-<br>-1-<br>-2-<br>-3-<br>-4- | 0'-1': Soil loam, brown, occasional organics.<br>1'-2': Dark brown silt. Occasional gravel. No odor.<br>2'-4': Tan light brown w/ coarse material, large pebbles. No odor. |
| 4'-8' | 65 | NA | 4-6: 0.0<br>6-8: 0.1 | | -5-<br>-6-<br>-7-<br>-8- | 4'-6': Tan saturated clay w/ silt, occasional rock. No odor.<br>6'-7': Dark grey silt. No odor.<br>7'-8': Tan brown sandy silt. No odor. Moist. |
| 8'-12' | 70 | NA | 8-10: 0.1<br>10-12: 0.0 | | -9-<br>-10-<br>-11-<br>-12- | 8'-10': Tan brown sandy silt. No odor. Moist. Refusal at 10'. |
| | | | | | -13-<br>-14-<br>-15-<br>-16- | |
| | | | | | - | End of boring 10'. |

Fill
Sand/gravel
Clay
Silty sand/clay

# BORING/WELL LOG

| ***WALDEN ENVIRONMENTAL ENGINEERING*** | | SHEET: 8 OF 13 |
|---|---|---|
| BORING/WELL I.D.: SB-08 | CLIENT: | iPark |
| DATE(S) DRILLED: 11/29/2022 | PROJECT NAME: | Lot 10 Boundary Modification Sampling |
| DRILL METHOD: Geoprobe | PROJECT NO.: | iPark0118.62 |
| BORING DIAMETER: 2" | PROJECT LOCATION: | East Fishkill, NY |
| SAMPLING METHOD/INTERVAL: Direct Push | | |
| LOGGED BY: EMJ | DRILLING CONTR.: | Lakewood Environmental |
| REMARKS: | | |

**DESCRIPTIVE LOG**

| SAMPLE INTERVAL | SAMPLE REC. (%) | BLOWS PER 6" | PID (ppm) | GRAPHIC COLUMN | DEPTH (FT) | DESCRIPTION OF MATERIAL |
|---|---|---|---|---|---|---|
| 0'-4' | 60 | NA | 0-1: 0.0<br>1-2: 0.0<br>2-4: 0.0 | | -0-<br>-1-<br>-2-<br>-3-<br>-4- | 1'-4': Brown grey silty sand w/ pebbles, trace cobbles. No odor. Dry. |
| 4'-8' | 100 | NA | 4-6: 0.0<br>6-8: 0.0 | | -5-<br>-6-<br>-7-<br>-8- | 4'-8': Brown grey silty sand w/ pebbles, trace cobbles. No odor. Dry.<br>8': Soil becomes compacted silt w/ clay. No odor. Moist. |
| 8'-12' | 85 | NA | 8-10: 0.0<br>10-12: 0.0 | | -9-<br>-10-<br>-11-<br>-12- | 8'-10': Brown grey silty sand w/ pebbles, trace cobbles/ No odor. Dry.<br>10'-12': Grey compacted silt, trace pebbles. Moist. |
| 12'-16' | 100 | NA | 12-14: 0.0<br>14-16: 0.0 | | -13-<br>-14-<br>-15-<br>-16- | 12'-16': Grey compacted silt, trace pebbles. Moist. |
| | | | | | - | End of boring 16'. |

Fill
Sand/gravel
Clay
Silty sand/clay

# BORING/WELL LOG

| ***WALDEN ENVIRONMENTAL ENGINEERING*** | | SHEET: 9 OF 13 |
|---|---|---|
| BORING/WELL I.D.: SB-09 | CLIENT: | iPark |
| DATE(S) DRILLED: 11/29/2022 | PROJECT NAME: | Lot 10 Boundary Modification Sampling |
| DRILL METHOD: Geoprobe | PROJECT NO.: | iPark0118.62 |
| BORING DIAMETER: 2" | PROJECT LOCATION: | East Fishkill, NY |
| SAMPLING METHOD/INTERVAL: Direct Push | | |
| LOGGED BY: EMJ | DRILLING CONTR.: | Lakewood Environmental |
| REMARKS: | | |

**DESCRIPTIVE LOG**

| SAMPLE INTERVAL | SAMPLE REC. (%) | BLOWS PER 6" | PID (ppm) | GRAPHIC COLUMN | DEPTH (FT) | DESCRIPTION OF MATERIAL |
|---|---|---|---|---|---|---|
| 0'-4' | 90 | NA | 0-1: 0.0<br>1-2: 0.0<br>2-4: 0.0 | | -0-<br>-1-<br>-2-<br>-3-<br>-4- | 0'-1': Brown sand, trace silt pebbles.<br>1'-3': Brown clay w/ silt.<br>3'-4': Tan brown to grey brown. No odor. No sheen. |
| 4'-8' | 95 | NA | 4-6: 0.1<br>6-8: 0.5 | | -5-<br>-6-<br>-7-<br>-8- | 4'-5': Tan brown to grey silt.<br>6'-8': Grey brown to tan brown. Moist. |
| 8'-12' | 100 | NA | 8-10: 0.0<br>10-12: 0.0 | | -9-<br>-10-<br>-11-<br>-12- | 8'-10': Occasional pebbles, gravel. Refusal at 10'.<br>Dup-1 collected fr4om SB-9 (6-8) |
| | | | | | -13-<br>-14-<br>-15-<br>-16- | |
| | | | | | - | End of boring 10'. |

Fill
Sand/gravel
Clay
Silty sand/clay

# BORING/WELL LOG

| ***WALDEN ENVIRONMENTAL ENGINEERING*** | | SHEET: 10 OF 13 |
|---|---|---|
| BORING/WELL I.D.: SB-10 | CLIENT: | iPark |
| DATE(S) DRILLED: 11/29/2022 | PROJECT NAME: | Lot 10 Boundary Modification Sampling |
| DRILL METHOD: Geoprobe | PROJECT NO.: | iPark0118.62 |
| BORING DIAMETER: 2" | PROJECT LOCATION: | East Fishkill, NY |
| SAMPLING METHOD/INTERVAL: Direct Push | | |
| LOGGED BY: EMJ | DRILLING CONTR.: | Lakewood Environmental |
| REMARKS: | | |

**DESCRIPTIVE LOG**

| SAMPLE INTERVAL | SAMPLE REC. (%) | BLOWS PER 6" | PID (ppm) | GRAPHIC COLUMN | DEPTH (FT) | DESCRIPTION OF MATERIAL |
|---|---|---|---|---|---|---|
| 0'-4' | 85 | NA | 0-1: 0.0<br>1-2: 0.0<br>2-4: 0.0 | | -0-<br>-1-<br>-2-<br>-3-<br>-4- | 0'-1': Dark brown silty sand w/ organics. No odor. Dry.<br>1'-4': Brown to grey silty sand w/ pebble. No odor. Dry. |
| 4'-8' | 90 | NA | 4-6: 0.0<br>6-8: 0.0 | | -5-<br>-6-<br>-7-<br>-8- | 4'-5': Brown to grey silty sand w/ pebble. No odor. Dry.<br>5'-7': Orange brown silty sand w/ pebbles. No odor. Dry.<br>7'-8': Grey brown silty sand w/ pebbles.<br>8': Moist beginning. No odor. |
| 8'-12' | 90 | NA | 8-10: 0.0<br>10-12: 0.0 | | -9-<br>-10-<br>-11-<br>-12- | 8'-11': Grey brown silty sand w/ pebbles. Moist. Refusal at 11'. |
| | | | | | -13-<br>-14-<br>-15-<br>-16- | |
| | | | | | - | End of boring 11'. |

Fill
Sand/gravel
Clay
Silty sand/clay

# BORING/WELL LOG

| ***WALDEN ENVIRONMENTAL ENGINEERING*** | | SHEET: 11 OF 13 |
|---|---|---|
| BORING/WELL I.D.: SB-11 | CLIENT: | iPark |
| DATE(S) DRILLED: 11/30/2022 | PROJECT NAME: | Lot 10 Boundary Modification Sampling |
| DRILL METHOD: Geoprobe | PROJECT NO.: | iPark0118.62 |
| BORING DIAMETER: 2" | PROJECT LOCATION: | East Fishkill, NY |
| SAMPLING METHOD/INTERVAL: Direct Push | | |
| LOGGED BY: ERL | DRILLING CONTR.: | Lakewood Environmental |
| REMARKS: | | |

**DESCRIPTIVE LOG**

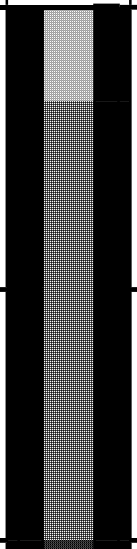
| SAMPLE INTERVAL | SAMPLE REC. (%) | BLOWS PER 6" | PID (ppm) | GRAPHIC COLUMN | DEPTH (FT) | DESCRIPTION OF MATERIAL |
|---|---|---|---|---|---|---|
| 0'-4' | 80 | NA | 0-1: 0.0<br>1-2: 0.0<br>2-4: 0.0 | | -0-<br>-1-<br>-2-<br>-3-<br>-4- | 0'-2': Grey to dark brown asphalt w/ some gravel. No odor. Dry.<br>2'-4': Brown clay w/ some silt. No odor. Dry.<br>4': Moisture starts. |
| 4'-8' | 70 | NA | 4-6: 0.0<br>6-8: 0.0 | | -5-<br>-6-<br>-7-<br>-8- | 5'-8': Light brown clay. No odor. Moist. Refusal at 8'. |
| | | | | | -9-<br>-10-<br>-11-<br>-12- | |
| | | | | | -13-<br>-14-<br>-15-<br>-16- | |
| | | | | | - | End of boring 8'. |

Fill
Sand/gravel
Clay
Silty sand/clay

# BORING/WELL LOG

| ***WALDEN ENVIRONMENTAL ENGINEERING*** | | SHEET: 12 OF 13 |
|---|---|---|
| BORING/WELL I.D.: SB-12 | CLIENT: | iPark |
| DATE(S) DRILLED: 11/30/2022 | PROJECT NAME: | Lot 10 Boundary Modification Sampling |
| DRILL METHOD: Geoprobe | PROJECT NO.: | iPark0118.62 |
| BORING DIAMETER: 2" | PROJECT LOCATION: | East Fishkill, NY |
| SAMPLING METHOD/INTERVAL: Direct Push | | |
| LOGGED BY: ERL | DRILLING CONTR.: | Lakewood Environmental |
| REMARKS: | | |

**DESCRIPTIVE LOG**

| SAMPLE INTERVAL | SAMPLE REC. (%) | BLOWS PER 6" | PID (ppm) | GRAPHIC COLUMN | DEPTH (FT) | DESCRIPTION OF MATERIAL |
|---|---|---|---|---|---|---|
| 0'-4' | 85 | NA | 0-1: 0.0<br>1-2: 0.0<br>2-4: 0.0 |  | -0-<br>-<br>-1-<br>-<br>-2-<br>-<br>-3-<br>-<br>-4- | 0'-1': Asphalt w/ clay and gravel. No odor. Dry.<br>1'-3': Brown clay and silt, gravel. No odor. Dry.<br>3'-4': Brown clay w/ silt. No odor. Dry. |
| 4'-8' | 90 | NA | 4-6: 0.0<br>6-8: 0.0 | | -<br>-5-<br>-<br>-6-<br>-<br>-7-<br>-<br>-8- | 4'-8': Brown clay w/ silt. No odor. |
| 8'-12' | 95 | NA | 8-10: 0.0<br>10-12: 0.0 | | -<br>-9-<br>-<br>-10-<br>-<br>-11-<br>-<br>-12- | 8'-9': Brown clay. No odor. Moist<br>9'-10': Dark brown silt w/ clay. No odor.<br>10'-12': Light brown to dark brown clay w/ silt. |
| 12'-16' | 100 | | | | -<br>-13-<br>-<br>-14-<br>-<br>-15-<br>-<br>-16- | 12'-14': Light brown to dark brown clay w/ silt. Refusal at 14'. |
| | | | | | - | End of boring 14'. |

Fill
Sand/gravel
Clay
Silty sand/clay

# BORING/WELL LOG

| ***WALDEN ENVIRONMENTAL ENGINEERING*** | | SHEET: 13 OF 13 |
|---|---|---|
| BORING/WELL I.D.: SB-13 | CLIENT: | iPark |
| DATE(S) DRILLED: 11/30/2022 | PROJECT NAME: | Lot 10 Boundary Modification Sampling |
| DRILL METHOD: Geoprobe | PROJECT NO.: | iPark0118.62 |
| BORING DIAMETER: 2" | PROJECT LOCATION: | East Fishkill, NY |
| SAMPLING METHOD/INTERVAL: Direct Push | | |
| LOGGED BY: ERL | DRILLING CONTR.: | Lakewood Environmental |
| REMARKS: | | |

**DESCRIPTIVE LOG**

| SAMPLE INTERVAL | SAMPLE REC. (%) | BLOWS PER 6" | PID (ppm) | GRAPHIC COLUMN | DEPTH (FT) | DESCRIPTION OF MATERIAL |
|---|---|---|---|---|---|---|
| 0'-4' | 95 | NA | 0-1: 0.0<br>1-2: 0.0<br>2-4: 0.0 | | -0-<br>-1-<br>-2-<br>-3-<br>-4- | 0'-1': Asphalt fill with some clay. No odor. Dry.<br>1'-2': Brown clay with some silt. No odor.<br>2'-4': Brown clay with silt. No odor. |
| 4'-8' | 75 | NA | 4-6: 0.0<br>6-8: 0.0 | | -5-<br>-6-<br>-7-<br>-8- | 4'-8': Brown clay with silt and gravel. No odor. |
| 8'-12' | 95 | NA | 8-10: 0.0<br>10-12: 0.0 | | -9-<br>-10-<br>-11-<br>-12- | 8'-12': Light to dark brown clay. No odor. |
| 12'-16' | 100 | | 12-14: 0.1 | | -13-<br>-14-<br>-15-<br>-16- | 12'-14': Light to dark brown clay. No odor. Refusal at 14'.<br>Dup 4 collected SB-13 |
| | | | | | - | End of boring 14'. |

Fill
Sand/gravel
Clay
Silty sand/clay

# APPENDIX C

## COMMUNITY AIR MONITORING SUMMARY

WALDEN

# TABLE OF CONTENTS

SUMMARY OF CAMP AIR MONITORING ACTIVITIES – NOVEMBER 29-30, 2022

- APPENDIX A - AIR MONITORING DAILY REPORTS

- APPENDIX B - CAMP STATION #1 AIR MONITORING DATA
    - DUST TRAK – PARTICULATES
    - PID - VOCs

- APPENDIX C - CAMP STATION #2 AIR MONITORING DATA
    - DUST TRAK – PARTICULATES
    - PID – VOCs

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## SUMMARY OF CAMP AIR MONITORING ACTIVITIES

Walden Environmental Engineering, PLLC (Walden) has prepared this report on behalf of iPark East Fishkill, LLC (iPark/Owner), to summarize the results of the Community Air Monitoring Program (CAMP) implemented during the November 2022 Lot 10 subsurface investigation conducted at the iPark 84 Facility (former IBM East Fishkill Facility [Facility]) located in Hopewell Junction, New York. The Facility is being remediated in accordance with the Site's 6 NYCRR Part 373 Permit, EPA ID NYD000707901 (RCRA Permit).

CAMP air monitoring was performed in accordance with the CAMP included in the "Lot 10 (Furniture Warehouse Parcel) Boundary Modification Field Investigation Work Plan" (Walden, July 2022). This Work Plan was approved by the New York State Department of Environmental Conservation (NYSDEC) and is required during all intrusive work at the Site.

Background air quality measurements within the work zone at upwind and downwind locations were recorded before the drilling and sampling work began each work day. Two (2) CAMP air monitoring stations (CAMP Station #1 [northern boundary of Lot 10] and CAMP Station #2 [western boundary of Lot 10]) were set up at the locations shown on **Figure 1**. Intrusive activities at Lot 10 began on November 29, 2022 and concluded on November 30, 2022. Lakewood Environmental Services Corp. (Lakewood) of Smithtown, NY was retained to perform drilling activities.

VOC concentrations were monitored using Mini Rae 3000 Photo-ionization detectors (PID) and DataRams were used to monitor particulate concentrations. The instruments were calibrated daily. Each CAMP air monitoring station had a PID and a dust meter connected to a data logger to continuously record the breathing zone VOC and dust concentrations during the work day. VOC and particulate concentrations were also collected prior to the start of work each day to record baseline conditions in the work area.

Walden manually recorded the VOC and dust concentrations at each monitoring station at regular intervals during the work day to ensure that appropriate actions were implemented as needed based on the action levels presented in the CAMP. In addition, Walden used a third PID to monitor breathing zone VOC concentrations in the immediate vicinity of the work activities to ensure the workers were protected in accordance with the HASP. The equipment also logged the concentrations every fifteen (15) minutes.

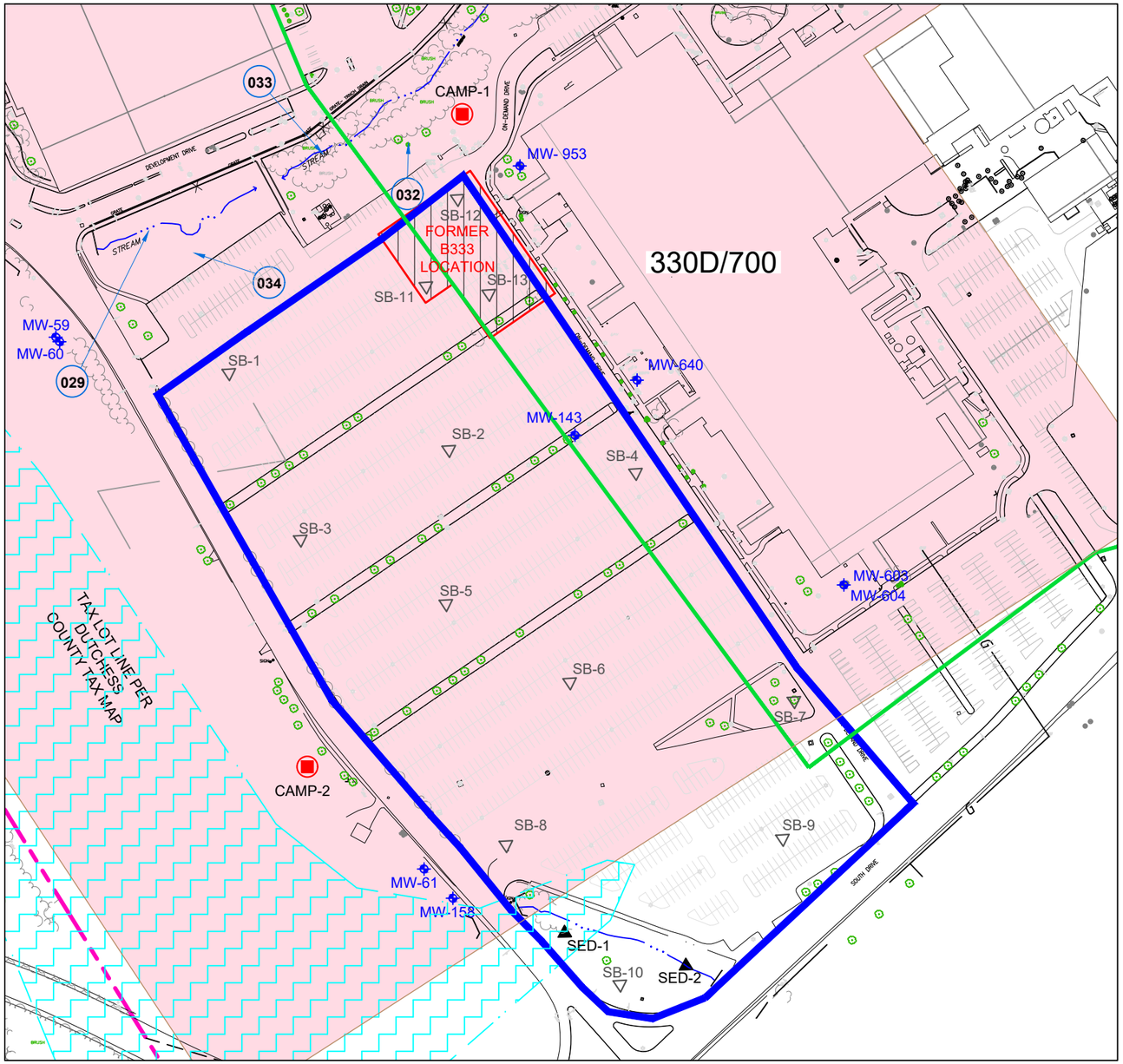
The dust action level established in the CAMP approved by the NYSDEC and NYSDOH is 0.150 $mg/m^3$ and the VOC action level is 5.0 ppm. No exceedances of these levels were recorded during the performance of drilling activities. The daily CAMP air monitoring records for

November 29-30, 2022 are included in **Appendix A**. The PID and DataRam data files are included in **Appendix B** (for Station CAMP-1) and **Appendix C** (for Station CAMP-2). All recorded VOC concentrations were below the 5 ppm CAMP action level throughout ground intrusive activities.

The CAMP air monitoring results show no visible dust or unpleasant odors during the excavation activities. No air quality impacts were observed throughout the CAMP activities during the Lot 10 sampling investigation.

## LEGEND

- PROPERTY LINE (FORMER IBM EAST FISHKILL FACILITY)
- LOT 10 PARCEL BOUNDARY LINE
- #00 STORMWATER OUTFALL
- SB-# PROPOSED SOIL BORING SAMPLING LOCATION
- SED-# PROPOSED SEDIMENT SAMPLING LOCATION
- ACTIVE IBM MONITORING WELLS (MW-#)
- STREAM
- RESTRICTIVE USE (CORE AREA)
- NY STATE REGULATED FRESHWATER WETLANDS BOUNDARY
- RESTRICTIVE USE AREA (GLOBALFOUNDRIES AIR PERMIT)
- CAMP AIR MONITORING LOCATION




## SAMPLING LOCATIONS

SCALE: 1" = 200'-0"

0 100 200 400 600

SCALE: 1"=200'

SITE BASEMAP: CHAZEN ENGINEERING, LAND SURVEYING & LANDSCAPE ARCHITECTURE CO. D.P.C. POUGHKEEPSIE, NY (XBASE-SVY_51421-00.DWG 8/10/15); PARCELS: XSUBD_51539-00.DWG.
OFFSITE BASEMAP: "GROUNDWATER MONITORING BASEMAP", IBM EAST FISHKILL FACILITY (9718NEW.DWG, ORIGINAL DATE 12/21/98).
TOPOGRAPHY: PHOTOGRAMMETRY BY GOLDEN AERIAL SURVEYS, INC., NEWTON, CT (3/3/1997).
CONTOUR INTERVAL: 1 FOOT (HORIZONTAL DATUM BASED UPON IBM EAST FISHKILL COORDINATE SYSTEM; VERTICAL DATUM BASED UPON NATIONAL GEODETIC VERTICAL DATUM OF 1929).
HORIZONTAL ACCURACY: 90% OF ALL DETAIL, FIELD CHECKED, WILL BE WITHIN +/- 1.0 FOOT, THE REMAINING 10% OF DETAIL, WILL BE WITHIN +/- 2.0 FEET OF ITS TRUE POSITION.
VERTICAL ACCURACY: 90% OF ALL CONTOURS, FIELD CHECKED, WILL BE WITHIN +/- 0.5 FOOT. THE REMAINING 10% OF CONTOURS, FIELD CHECKED, WILL BE WITHIN +/- 1.0 FEET.


Walden Environmental Engineering

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| | | | | | |
|---|---|---|---|---|---|
| FOR: LOT 10 PARCEL, IPARK 84, HOPEWELL JUNCTION, NEW YORK | DRAWING TITLE: FIGURE 2 SAMPLING LOCATIONS | | | FIGURE NO: 2 | ISSUED: XXXX |
| | | | | | REVISION NO: 0 |
| DESIGNED BY: NMB/EL | DRAWN BY: LS | CHECKED BY: NMB | JOB NO: iPARK0118.62 | DATE: 10/31/22 | 11x17 | SHEET NO: 2 of 2 |
| APPROVED BY: NMB | SCALE: AS NOTED | | CAD FILE NAME: Z:\iPark0118\iPark0118.62 - Furniture Warehouse\Sampling Plan\iPark0118.62_ Figure 1 and 2 (10-31-22) LS.dwg | | |

# APPENDIX A

## AIR MONITORING DAILY REPORTS

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# AIR MONITORING DAILY REPORT

| | | |
|---|---|---|
| PROJECT: iPARK0118.62 | DATE: 11/30/22 | DAY OF WEEK: [illegible] Day |
| AGENCY: NYSDEC | WEATHER: Drizzle | TEMPERARTURE: 42°F |
| CONTRACTOR: LAKEWOOD DRILLING | CONTACT: | WIND: 10mph |
| SITE ADDRESS: iPARK-84 LOT 10 WEST DRIVE HOPEWELL JUNCTION, NY 12533 | AIR MONITOR'S NAME: IAS SIGNATURE: [signature] | |

## DESCRIPTION OF WORK IN DETAIL

| TIME/LOCATION | EQUIPMENT & READING | NOTES |
|---|---|---|
| 8:00 Camp 1 | | Ambient/Background Reading |
| PID | 0.0 | |
| Dust | 0.007 | |
| 8:05 Camp 2 | | Ambient/Background reading |
| PID | 0.3 | |
| Dust | 0.011 | |
| 8:30 Camp 1 | | |
| PID | 0.0 | |
| Dust | 0.014 | |
| 8:35 Camp 2 | | |
| PID | 0.4 | |
| Dust | 0.010 | |
| 9:00 Camp 1 | | |
| PID | 0.0 | |
| Dust | 0.010 | |
| 9:05 Camp 2 | | |
| PID | 0.5 | |
| Dust | 0.009 | |
| 9:30 Camp 1 | | |
| PID | 0.0 | |
| Dust | 0.014 | |
| 9:35 Camp 2 | | |
| PID | ~~0.6~~ 0.6 | |
| Dust | 0.009 | |
| 10:10 Camp 1 | | |
| PID | 0.1 | |
| Dust | 0.015 | |
| 10:15 Camp 2 | | |
| PID | 0.7 | |
| Dust | 0.011 | |
| | | |

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# AIR MONITORING DAILY REPORT

| | | |
|---|---|---|
| PROJECT: IPARK0118.62 | DATE: 11/30/22 | DAY OF WEEK: Wednesday |
| AGENCY: NYSDEC | WEATHER: Drizzle | TEMPERARTURE: 50°f |
| CONTRACTOR: LAKEWOOD DRILLING | CONTACT: | WIND: 10mph |
| SITE ADDRESS: IPARK-84 LOT 10 WEST DRIVE HOPEWELL JUNCTION, NY 12533 | AIR MONITOR'S NAME: JAB SIGNATURE: | |

## DESCRIPTION OF WORK IN DETAIL

| TIME/LOCATION | EQUIPMENT & READING | NOTES |
|---|---|---|
| ~~Cor~~ 10:40 Compl | | Final reading of Day Drilling Finished |
| PID | 0.0 | |
| Dust | 0.011 | |
| 10:45 Compd | | Final reading of Day Drilling finished |
| PID | 0.8 | |
| Dust | 0.008 | |

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# AIR MONITORING DAILY REPORT

| | | |
|---|---|---|
| PROJECT: IPARK0118.62 | DATE: 11/29/22 | DAY OF WEEK: Tuesday |
| AGENCY: NYSDEC | WEATHER: Overcast | TEMPERARTURE: 31°F |
| CONTRACTOR: LAKEWOOD DRILLING | CONTACT: | WIND: 12mph |
| SITE ADDRESS: IPARK-84 LOT 10 WEST DRIVE HOPEWELL JUNCTION, NY 12533 | AIR MONITOR'S NAME: JA SIGNATURE: | |

## DESCRIPTION OF WORK IN DETAIL

| TIME/LOCATION | EQUIPMENT & READING | NOTES |
|---|---|---|
| 8:05 Camp 1 | | Ambient / Background Reading |
| PID | 0.0 | |
| Dust | 0.007 | |
| 8:05 Camp 2 | | Ambient / Background Reading |
| PID | 0.1 | |
| Dust | 0.010 | |
| 8:30 Camp 1 | | |
| PID | 0.0 | |
| Dust | 0.002 | |
| 8:35 Camp 2 | | |
| PID | 0.1 | |
| Dust | 0.009 | |
| 9:00 Camp 1 | | |
| PID | 0.0 | |
| Dust | 0.009 | |
| 9:05 Camp 2 | | |
| PID | 0.1 | |
| Dust | 0.009 | |
| 9:30 Camp 1 | | |
| PID | 0.0 | |
| Dust | 0.005 | |
| 9:35 Camp 2 | | |
| PID | 0.0 | |
| Dust | 0.005 | |
| 10:00 Camp 1 | | |
| PID | 0.0 | |
| Dust | 0.005 | |
| 10:05 Camp 2 | | |
| PID | 0.2 | |
| Dust | 0.006 | |
| | | |

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# AIR MONITORING DAILY REPORT

| | | |
|---|---|---|
| PROJECT: IPARK0118.62 | DATE: 11/29/22 | DAY OF WEEK: Tuesday |
| AGENCY: NYSDEC | WEATHER: Overcast | TEMPERARTURE: 40°F |
| CONTRACTOR: LAKEWOOD DRILLING | CONTACT: | WIND: 12mph |
| SITE ADDRESS: IPARK-84 LOT 10 WEST DRIVE HOPEWELL JUNCTION, NY 12533 | AIR MONITOR'S NAME: JAB<br>SIGNATURE: | |

## DESCRIPTION OF WORK IN DETAIL

| TIME/LOCATION | EQUIPMENT & READING | NOTES |
|---|---|---|
| 10:30 Camp 1 | | |
| PID | 0.1 | |
| Dust | 0.003 | |
| 10:35 Camp 2 | | |
| PID | 0.2 | |
| Dust | 0.008 | |
| 11:00 Camp 1 | | |
| PID | 0.1 | |
| Dust | 0.001 | |
| 11:05 Camp 2 | | |
| PID | 0.2 | |
| Dust | 0.003 | |
| 11:30 Camp 1 | | |
| PID | 0.1 | |
| Dust | 0.004 | |
| 11:35 Camp 2 | | |
| PID | 0.3 | Sanitary Cleanout next to camp station |
| Dust | 0.003 | |
| 12:00 Camp 1 | | |
| PID | 0.1 | |
| Dust | 0.001 | |
| 12:05 Camp 2 | | Active Loading Sanitary Cleanout next to camp/station // Landscaping gas powered equipment nearby |
| PID | 0.3 | |
| Dust | 0.009 | |
| 12:30 Camp 1 | | |
| PID | 0.1 | |
| Dust | 0.002 | |
| ~~12:35 Camp 2~~ | | |
| PID | 0.3 | |
| ~~Dust~~ | 0.003 | |
| | | |

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# AIR MONITORING DAILY REPORT

| | | |
|---|---|---|
| PROJECT: IPARK0118.62 | DATE: 11/29/22 | DAY OF WEEK: Tuesday |
| AGENCY: NYSDEC | WEATHER: Overcast | TEMPERARTURE: 43°F |
| CONTRACTOR: LAKEWOOD DRILLING | CONTACT: | WIND: 12 mph |
| SITE ADDRESS: IPARK-84 LOT 10 WEST DRIVE HOPEWELL JUNCTION, NY 12533 | AIR MONITOR'S NAME: JAB<br>SIGNATURE: | |

## DESCRIPTION OF WORK IN DETAIL

| TIME/LOCATION | EQUIPMENT & READING | NOTES |
|---|---|---|
| 13:00 Comp 1 | | |
| PID | 0.1 | |
| Dust | 0.003 | |
| 13:05 Comp 2 | | |
| PID | 0.2 | |
| Dust | 0.003 | |
| 13:30 Comp 1 | | |
| PID | 0.1 | |
| Dust | 0.003 | |
| 13:35 Comp 2 | | |
| PID | 0.3 | |
| Dust | 0.012 | |
| 14:00 Comp 1 | | Final Reading of Day drilling finished |
| PID | 0.1 | |
| Dust | 0.004 | |
| 14:05 Comp 2 | | Final Reading of Day drilling finished |
| PID | 0.2 | |
| Dust | 0.006 | |

# APPENDIX B

## CAMP-1 AIR MONITORING DATA

- **DATA RAM – PARTICULATES**
- **PID - VOCs**

| | |
|---|---|
| Calibration Time | 11/23/2022 11:57 |
| Peak | 0.3 |
| Min | 0.3 |
| Average | 0.3 |

**********

Datalog

| Index | Date/Time | PID(ppm) (Avg) | PID(ppm) (Max) | PID(ppm) (Real) |
|---|---|---|---|---|
| 1 | 11/23/2022 11:58 | 13.4 | 102.1 | 0.3 |
| 2 | 11/23/2022 11:59 | 0.3 | 0.3 | 0.3 |
| 3 | 11/23/2022 12:00 | 0.3 | 0.3 | 0.3 |
| 4 | 11/23/2022 12:01 | 0.3 | 0.3 | 0.3 |
| 5 | 11/23/2022 12:02 | 0.3 | 0.3 | 0.3 |
| 6 | 11/23/2022 12:03 | 0.3 | 0.3 | 0.3 |
| 7 | 11/23/2022 12:04 | 0.3 | 0.3 | 0.3 |
| 8 | 11/23/2022 12:05 | 0.3 | 0.3 | 0.3 |
| 9 | 11/23/2022 12:06 | 0.3 | 0.3 | 0.3 |
| 10 | 11/23/2022 12:07 | 0.3 | 0.3 | 0.3 |
| Peak | | 13.4 | 102.1 | 0.3 |
| Min | | 0.3 | 0.3 | 0.3 |
| Average | | 1.6 | 10.5 | 0.3 |

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TWA/STEL

| Index | Date/Time | PID(ppm) (TWA) | PID(ppm) (STEL) |
|---|---|---|---|
| 1 | 11/23/2022 11:58 | 0 | --- |
| 2 | 11/23/2022 11:59 | 0 | --- |
| 3 | 11/23/2022 12:00 | 0 | --- |
| 4 | 11/23/2022 12:01 | 0 | --- |
| 5 | 11/23/2022 12:02 | 0 | --- |
| 6 | 11/23/2022 12:03 | 0 | --- |
| 7 | 11/23/2022 12:04 | 0 | --- |
| 8 | 11/23/2022 12:05 | 0 | --- |
| 9 | 11/23/2022 12:06 | 0 | --- |
| 10 | 11/23/2022 12:07 | 0 | --- |

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22/11/29 07:59

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Summary

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| | |
|---|---|
| Unit Name | MiniRAE 3000 +(PGM-7320) |
| Unit SN | 592-601637 |
| Unit Firmware Ver | V2.22A |

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| | |
|---|---|
| Running Mode | Hygiene Mode |

| | |
|---|---|
| Datalog Mode | Auto |
| Diagnostic Mode | No |
| Stop Reason | Power Down |

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| | |
|---|---|
| Site ID | 12345678 |
| User ID | 12345678 |

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| | |
|---|---|
| Begin | 11/29/2022 7:59 |
| End | 11/29/2022 14:14 |
| Sample Period(s) | 60 |
| Number of Records | 374 |

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| | |
|---|---|
| Sensor | PID(ppm) |
| Sensor SN | S023030989B3 |
| Measure Type | Avg; Max; Real |
| Span | 100 |
| Span 2 | 1000 |
| Low Alarm | 50 |
| High Alarm | 100 |
| Over Alarm | 15000 |
| STEL Alarm | 25 |
| TWA Alarm | 10 |
| Measurement Gas | Isobutylene |
| Calibration Time | 11/23/2022 11:57 |
| Peak | 6.6 |
| Min | 0 |
| Average | 0.2 |

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Datalog

| Index | Date/Time | PID(ppm) (Avg) | PID(ppm) (Max) | PID(ppm) (Real) |
|---|---|---|---|---|
| 1 | 11/29/2022 8:00 | 0 | 0 | 0 |
| 2 | 11/29/2022 8:01 | 0 | 0 | 0 |
| 3 | 11/29/2022 8:02 | 0 | 0 | 0 |
| 4 | 11/29/2022 8:03 | 0 | 0 | 0 |
| 5 | 11/29/2022 8:04 | 0 | 0 | 0 |
| 6 | 11/29/2022 8:05 | 0 | 0 | 0 |
| 7 | 11/29/2022 8:06 | 0 | 0 | 0 |
| 8 | 11/29/2022 8:07 | 0 | 0 | 0 |
| 9 | 11/29/2022 8:08 | 0 | 0 | 0 |
| 10 | 11/29/2022 8:09 | 0 | 0 | 0 |
| 11 | 11/29/2022 8:10 | 0.1 | 0.2 | 0 |
| 12 | 11/29/2022 8:11 | 0 | 0.1 | 0 |
| 13 | 11/29/2022 8:12 | 0 | 0.1 | 0.1 |
| 14 | 11/29/2022 8:13 | 0.1 | 0.1 | 0.1 |
| 15 | 11/29/2022 8:14 | 0.1 | 0.1 | 0.1 |

| | | | | |
|---|---|---|---|---|
| 16 | 11/29/2022 8:15 | 0.1 | 0.1 | 0.1 |
| 17 | 11/29/2022 8:16 | 0.1 | 0.1 | 0.1 |
| 18 | 11/29/2022 8:17 | 0.1 | 0.1 | 0.1 |
| 19 | 11/29/2022 8:18 | 0.1 | 0.1 | 0.1 |
| 20 | 11/29/2022 8:19 | 0.1 | 0.1 | 0.1 |
| 21 | 11/29/2022 8:20 | 0.1 | 0.1 | 0.1 |
| 22 | 11/29/2022 8:21 | 0.1 | 0.1 | 0.1 |
| 23 | 11/29/2022 8:22 | 0.1 | 0.1 | 0.1 |
| 24 | 11/29/2022 8:23 | 0.1 | 0.1 | 0.1 |
| 25 | 11/29/2022 8:24 | 0.1 | 0.1 | 0.1 |
| 26 | 11/29/2022 8:25 | 0.1 | 0.1 | 0.1 |
| 27 | 11/29/2022 8:26 | 0.1 | 0.1 | 0.1 |
| 28 | 11/29/2022 8:27 | 0.1 | 0.1 | 0.1 |
| 29 | 11/29/2022 8:28 | 0.1 | 0.1 | 0.1 |
| 30 | 11/29/2022 8:29 | 0.1 | 0.1 | 0.1 |
| 31 | 11/29/2022 8:30 | 0.1 | 0.1 | 0.1 |
| 32 | 11/29/2022 8:31 | 0.1 | 0.1 | 0.1 |
| 33 | 11/29/2022 8:32 | 0.1 | 0.1 | 0.1 |
| 34 | 11/29/2022 8:33 | 0.1 | 0.1 | 0.1 |
| 35 | 11/29/2022 8:34 | 0.1 | 0.1 | 0.1 |
| 36 | 11/29/2022 8:35 | 0.1 | 0.1 | 0.1 |
| 37 | 11/29/2022 8:36 | 0.1 | 0.1 | 0.1 |
| 38 | 11/29/2022 8:37 | 0.1 | 0.1 | 0.1 |
| 39 | 11/29/2022 8:38 | 0.1 | 0.1 | 0.1 |
| 40 | 11/29/2022 8:39 | 0.1 | 0.1 | 0.1 |
| 41 | 11/29/2022 8:40 | 0.1 | 0.1 | 0.1 |
| 42 | 11/29/2022 8:41 | 0.1 | 0.1 | 0.1 |
| 43 | 11/29/2022 8:42 | 0.1 | 0.1 | 0.1 |
| 44 | 11/29/2022 8:43 | 0.1 | 0.1 | 0.1 |
| 45 | 11/29/2022 8:44 | 0.1 | 0.1 | 0.1 |
| 46 | 11/29/2022 8:45 | 0.1 | 0.1 | 0.1 |
| 47 | 11/29/2022 8:46 | 0.1 | 0.1 | 0.1 |
| 48 | 11/29/2022 8:47 | 0.1 | 0.1 | 0.1 |
| 49 | 11/29/2022 8:48 | 0.1 | 0.1 | 0.1 |
| 50 | 11/29/2022 8:49 | 0.1 | 0.1 | 0.1 |
| 51 | 11/29/2022 8:50 | 0.1 | 0.1 | 0.1 |
| 52 | 11/29/2022 8:51 | 0.1 | 0.1 | 0.1 |
| 53 | 11/29/2022 8:52 | 0.1 | 0.1 | 0.1 |
| 54 | 11/29/2022 8:53 | 0.1 | 0.1 | 0.1 |
| 55 | 11/29/2022 8:54 | 0.1 | 0.1 | 0.1 |
| 56 | 11/29/2022 8:55 | 0.1 | 0.1 | 0.1 |
| 57 | 11/29/2022 8:56 | 0.1 | 0.1 | 0.1 |
| 58 | 11/29/2022 8:57 | 0.1 | 0.1 | 0.1 |
| 59 | 11/29/2022 8:58 | 0.1 | 0.1 | 0.1 |
| 60 | 11/29/2022 8:59 | 0.1 | 0.1 | 0.1 |
| 61 | 11/29/2022 9:00 | 0.1 | 0.1 | 0.1 |
| 62 | 11/29/2022 9:01 | 0.1 | 0.1 | 0.1 |

| | | | | |
|---|---|---|---|---|
| 63 | 11/29/2022 9:02 | 0.1 | 0.1 | 0.1 |
| 64 | 11/29/2022 9:03 | 0.1 | 0.1 | 0.1 |
| 65 | 11/29/2022 9:04 | 0.1 | 0.1 | 0.1 |
| 66 | 11/29/2022 9:05 | 0.1 | 0.1 | 0.1 |
| 67 | 11/29/2022 9:06 | 0.1 | 0.1 | 0.1 |
| 68 | 11/29/2022 9:07 | 0.1 | 0.1 | 0.1 |
| 69 | 11/29/2022 9:08 | 0.1 | 0.1 | 0.1 |
| 70 | 11/29/2022 9:09 | 0.1 | 0.1 | 0.1 |
| 71 | 11/29/2022 9:10 | 0.1 | 0.1 | 0.1 |
| 72 | 11/29/2022 9:11 | 0.1 | 0.1 | 0.1 |
| 73 | 11/29/2022 9:12 | 0.1 | 0.1 | 0.1 |
| 74 | 11/29/2022 9:13 | 0.1 | 0.2 | 0.1 |
| 75 | 11/29/2022 9:14 | 0.1 | 0.1 | 0.1 |
| 76 | 11/29/2022 9:15 | 0.1 | 0.1 | 0.1 |
| 77 | 11/29/2022 9:16 | 0.1 | 0.1 | 0.1 |
| 78 | 11/29/2022 9:17 | 0.1 | 0.2 | 0.2 |
| 79 | 11/29/2022 9:18 | 0.2 | 0.2 | 0.2 |
| 80 | 11/29/2022 9:19 | 0.2 | 0.2 | 0.2 |
| 81 | 11/29/2022 9:20 | 0.2 | 0.2 | 0.2 |
| 82 | 11/29/2022 9:21 | 0.2 | 0.2 | 0.2 |
| 83 | 11/29/2022 9:22 | 0.2 | 0.2 | 0.2 |
| 84 | 11/29/2022 9:23 | 0.2 | 0.2 | 0.2 |
| 85 | 11/29/2022 9:24 | 0.2 | 0.2 | 0.2 |
| 86 | 11/29/2022 9:25 | 0.2 | 0.2 | 0.2 |
| 87 | 11/29/2022 9:26 | 0.2 | 0.2 | 0.2 |
| 88 | 11/29/2022 9:27 | 0.2 | 0.2 | 0.2 |
| 89 | 11/29/2022 9:28 | 0.2 | 0.2 | 0.2 |
| 90 | 11/29/2022 9:29 | 0.2 | 0.2 | 0.2 |
| 91 | 11/29/2022 9:30 | 0.2 | 0.2 | 0.2 |
| 92 | 11/29/2022 9:31 | 0.2 | 0.2 | 0.2 |
| 93 | 11/29/2022 9:32 | 0.2 | 0.2 | 0.2 |
| 94 | 11/29/2022 9:33 | 0.2 | 0.2 | 0.2 |
| 95 | 11/29/2022 9:34 | 0.2 | 0.2 | 0.2 |
| 96 | 11/29/2022 9:35 | 0.2 | 0.2 | 0.2 |
| 97 | 11/29/2022 9:36 | 0.2 | 0.2 | 0.2 |
| 98 | 11/29/2022 9:37 | 0.2 | 0.2 | 0.2 |
| 99 | 11/29/2022 9:38 | 0.2 | 0.2 | 0.2 |
| 100 | 11/29/2022 9:39 | 0.2 | 0.2 | 0.2 |
| 101 | 11/29/2022 9:40 | 0.2 | 0.2 | 0.2 |
| 102 | 11/29/2022 9:41 | 0.2 | 0.2 | 0.2 |
| 103 | 11/29/2022 9:42 | 0.2 | 0.2 | 0.2 |
| 104 | 11/29/2022 9:43 | 0.2 | 0.2 | 0.2 |
| 105 | 11/29/2022 9:44 | 0.2 | 0.2 | 0.2 |
| 106 | 11/29/2022 9:45 | 0.2 | 0.2 | 0.2 |
| 107 | 11/29/2022 9:46 | 0.2 | 0.2 | 0.2 |
| 108 | 11/29/2022 9:47 | 0.2 | 0.2 | 0.2 |
| 109 | 11/29/2022 9:48 | 0.2 | 0.2 | 0.2 |

| | | | | |
|---|---|---|---|---|
| 110 | 11/29/2022 9:49 | 0.2 | 0.2 | 0.2 |
| 111 | 11/29/2022 9:50 | 0.2 | 0.2 | 0.2 |
| 112 | 11/29/2022 9:51 | 0.2 | 0.2 | 0.2 |
| 113 | 11/29/2022 9:52 | 0.2 | 0.2 | 0.2 |
| 114 | 11/29/2022 9:53 | 0.2 | 0.2 | 0.2 |
| 115 | 11/29/2022 9:54 | 0.2 | 0.2 | 0.2 |
| 116 | 11/29/2022 9:55 | 0.2 | 0.2 | 0.2 |
| 117 | 11/29/2022 9:56 | 0.2 | 0.2 | 0.2 |
| 118 | 11/29/2022 9:57 | 0.2 | 0.2 | 0.2 |
| 119 | 11/29/2022 9:58 | 0.2 | 0.2 | 0.2 |
| 120 | 11/29/2022 9:59 | 0.2 | 0.2 | 0.2 |
| 121 | 11/29/2022 10:00 | 0.2 | 0.2 | 0.2 |
| 122 | 11/29/2022 10:01 | 0.2 | 0.2 | 0.2 |
| 123 | 11/29/2022 10:02 | 0.2 | 0.2 | 0.2 |
| 124 | 11/29/2022 10:03 | 0.2 | 0.2 | 0.2 |
| 125 | 11/29/2022 10:04 | 0.2 | 0.2 | 0.2 |
| 126 | 11/29/2022 10:05 | 0.2 | 0.2 | 0.2 |
| 127 | 11/29/2022 10:06 | 0.2 | 0.2 | 0.2 |
| 128 | 11/29/2022 10:07 | 0.2 | 0.2 | 0.2 |
| 129 | 11/29/2022 10:08 | 0.2 | 0.2 | 0.2 |
| 130 | 11/29/2022 10:09 | 0.2 | 0.2 | 0.2 |
| 131 | 11/29/2022 10:10 | 0.2 | 0.2 | 0.2 |
| 132 | 11/29/2022 10:11 | 0.2 | 0.2 | 0.2 |
| 133 | 11/29/2022 10:12 | 0.2 | 0.2 | 0.2 |
| 134 | 11/29/2022 10:13 | 0.2 | 0.2 | 0.2 |
| 135 | 11/29/2022 10:14 | 0.2 | 0.2 | 0.2 |
| 136 | 11/29/2022 10:15 | 0.2 | 0.2 | 0.2 |
| 137 | 11/29/2022 10:16 | 0.2 | 0.2 | 0.2 |
| 138 | 11/29/2022 10:17 | 0.2 | 0.2 | 0.2 |
| 139 | 11/29/2022 10:18 | 0.2 | 0.2 | 0.2 |
| 140 | 11/29/2022 10:19 | 0.2 | 0.2 | 0.2 |
| 141 | 11/29/2022 10:20 | 0.2 | 0.2 | 0.2 |
| 142 | 11/29/2022 10:21 | 0.2 | 0.2 | 0.2 |
| 143 | 11/29/2022 10:22 | 0.2 | 0.2 | 0.2 |
| 144 | 11/29/2022 10:23 | 0.2 | 0.2 | 0.2 |
| 145 | 11/29/2022 10:24 | 0.2 | 0.2 | 0.2 |
| 146 | 11/29/2022 10:25 | 0.2 | 0.2 | 0.2 |
| 147 | 11/29/2022 10:26 | 0.2 | 0.2 | 0.2 |
| 148 | 11/29/2022 10:27 | 0.2 | 0.2 | 0.2 |
| 149 | 11/29/2022 10:28 | 0.2 | 0.2 | 0.2 |
| 150 | 11/29/2022 10:29 | 0.2 | 0.2 | 0.2 |
| 151 | 11/29/2022 10:30 | 0.2 | 0.2 | 0.2 |
| 152 | 11/29/2022 10:31 | 0.2 | 0.2 | 0.2 |
| 153 | 11/29/2022 10:32 | 0.2 | 0.2 | 0.2 |
| 154 | 11/29/2022 10:33 | 0.2 | 0.2 | 0.2 |
| 155 | 11/29/2022 10:34 | 0.2 | 0.2 | 0.2 |
| 156 | 11/29/2022 10:35 | 0.2 | 0.2 | 0.2 |

| | | | | |
|---|---|---|---|---|
| 157 | 11/29/2022 10:36 | 0.2 | 0.2 | 0.2 |
| 158 | 11/29/2022 10:37 | 0.2 | 0.2 | 0.2 |
| 159 | 11/29/2022 10:38 | 0.2 | 0.2 | 0.2 |
| 160 | 11/29/2022 10:39 | 0.2 | 0.2 | 0.2 |
| 161 | 11/29/2022 10:40 | 0.2 | 0.2 | 0.2 |
| 162 | 11/29/2022 10:41 | 0.2 | 0.2 | 0.2 |
| 163 | 11/29/2022 10:42 | 0.2 | 0.2 | 0.2 |
| 164 | 11/29/2022 10:43 | 0.2 | 0.2 | 0.2 |
| 165 | 11/29/2022 10:44 | 0.2 | 0.2 | 0.2 |
| 166 | 11/29/2022 10:45 | 0.2 | 0.2 | 0.2 |
| 167 | 11/29/2022 10:46 | 0.2 | 0.2 | 0.2 |
| 168 | 11/29/2022 10:47 | 0.2 | 0.2 | 0.2 |
| 169 | 11/29/2022 10:48 | 0.2 | 0.2 | 0.2 |
| 170 | 11/29/2022 10:49 | 0.2 | 0.2 | 0.2 |
| 171 | 11/29/2022 10:50 | 0.2 | 0.2 | 0.2 |
| 172 | 11/29/2022 10:51 | 0.2 | 0.2 | 0.2 |
| 173 | 11/29/2022 10:52 | 0.2 | 0.2 | 0.2 |
| 174 | 11/29/2022 10:53 | 0.2 | 0.2 | 0.2 |
| 175 | 11/29/2022 10:54 | 0.2 | 0.2 | 0.2 |
| 176 | 11/29/2022 10:55 | 0.2 | 0.2 | 0.2 |
| 177 | 11/29/2022 10:56 | 0.2 | 0.2 | 0.2 |
| 178 | 11/29/2022 10:57 | 0.2 | 0.2 | 0.2 |
| 179 | 11/29/2022 10:58 | 0.2 | 0.2 | 0.2 |
| 180 | 11/29/2022 10:59 | 0.2 | 0.2 | 0.2 |
| 181 | 11/29/2022 11:00 | 0.2 | 0.2 | 0.2 |
| 182 | 11/29/2022 11:01 | 0.2 | 0.2 | 0.2 |
| 183 | 11/29/2022 11:02 | 0.2 | 0.2 | 0.2 |
| 184 | 11/29/2022 11:03 | 0.2 | 0.3 | 0.2 |
| 185 | 11/29/2022 11:04 | 0.2 | 0.2 | 0.2 |
| 186 | 11/29/2022 11:05 | 0.2 | 0.2 | 0.2 |
| 187 | 11/29/2022 11:06 | 0.2 | 0.2 | 0.2 |
| 188 | 11/29/2022 11:07 | 0.2 | 0.2 | 0.2 |
| 189 | 11/29/2022 11:08 | 0.2 | 0.2 | 0.2 |
| 190 | 11/29/2022 11:09 | 0.2 | 0.2 | 0.2 |
| 191 | 11/29/2022 11:10 | 0.2 | 0.2 | 0.2 |
| 192 | 11/29/2022 11:11 | 0.2 | 0.2 | 0.2 |
| 193 | 11/29/2022 11:12 | 0.2 | 0.2 | 0.2 |
| 194 | 11/29/2022 11:13 | 0.2 | 0.2 | 0.2 |
| 195 | 11/29/2022 11:14 | 0.2 | 0.2 | 0.2 |
| 196 | 11/29/2022 11:15 | 0.2 | 0.2 | 0.2 |
| 197 | 11/29/2022 11:16 | 0.2 | 0.2 | 0.2 |
| 198 | 11/29/2022 11:17 | 0.2 | 0.2 | 0.2 |
| 199 | 11/29/2022 11:18 | 0.2 | 0.2 | 0.2 |
| 200 | 11/29/2022 11:19 | 0.2 | 0.2 | 0.2 |
| 201 | 11/29/2022 11:20 | 0.2 | 0.2 | 0.2 |
| 202 | 11/29/2022 11:21 | 0.2 | 0.3 | 0.2 |
| 203 | 11/29/2022 11:22 | 0.2 | 0.2 | 0.2 |

| | | | | |
|---|---|---|---|---|
| 204 | 11/29/2022 11:23 | 0.2 | 0.2 | 0.2 |
| 205 | 11/29/2022 11:24 | 0.2 | 0.2 | 0.2 |
| 206 | 11/29/2022 11:25 | 0.2 | 0.2 | 0.2 |
| 207 | 11/29/2022 11:26 | 0.2 | 0.3 | 0.3 |
| 208 | 11/29/2022 11:27 | 0.3 | 0.3 | 0.3 |
| 209 | 11/29/2022 11:28 | 0.3 | 0.3 | 0.2 |
| 210 | 11/29/2022 11:29 | 0.2 | 0.3 | 0.2 |
| 211 | 11/29/2022 11:30 | 0.3 | 0.3 | 0.3 |
| 212 | 11/29/2022 11:31 | 0.3 | 0.3 | 0.3 |
| 213 | 11/29/2022 11:32 | 0.3 | 0.3 | 0.3 |
| 214 | 11/29/2022 11:33 | 0.3 | 0.3 | 0.3 |
| 215 | 11/29/2022 11:34 | 0.3 | 0.3 | 0.3 |
| 216 | 11/29/2022 11:35 | 0.3 | 0.3 | 0.3 |
| 217 | 11/29/2022 11:36 | 0.3 | 0.3 | 0.3 |
| 218 | 11/29/2022 11:37 | 0.3 | 0.3 | 0.3 |
| 219 | 11/29/2022 11:38 | 0.3 | 0.3 | 0.3 |
| 220 | 11/29/2022 11:39 | 0.3 | 0.3 | 0.3 |
| 221 | 11/29/2022 11:40 | 0.3 | 0.3 | 0.3 |
| 222 | 11/29/2022 11:41 | 0.3 | 0.3 | 0.3 |
| 223 | 11/29/2022 11:42 | 0.3 | 0.3 | 0.3 |
| 224 | 11/29/2022 11:43 | 0.3 | 0.3 | 0.3 |
| 225 | 11/29/2022 11:44 | 0.3 | 0.3 | 0.3 |
| 226 | 11/29/2022 11:45 | 0.3 | 0.3 | 0.3 |
| 227 | 11/29/2022 11:46 | 0.3 | 0.3 | 0.3 |
| 228 | 11/29/2022 11:47 | 0.3 | 0.3 | 0.3 |
| 229 | 11/29/2022 11:48 | 0.3 | 0.3 | 0.3 |
| 230 | 11/29/2022 11:49 | 0.3 | 0.3 | 0.3 |
| 231 | 11/29/2022 11:50 | 0.3 | 0.3 | 0.3 |
| 232 | 11/29/2022 11:51 | 0.3 | 0.3 | 0.3 |
| 233 | 11/29/2022 11:52 | 0.3 | 0.3 | 0.3 |
| 234 | 11/29/2022 11:53 | 0.3 | 0.4 | 0.3 |
| 235 | 11/29/2022 11:54 | 0.3 | 0.3 | 0.3 |
| 236 | 11/29/2022 11:55 | 0.3 | 0.3 | 0.3 |
| 237 | 11/29/2022 11:56 | 0.3 | 0.3 | 0.3 |
| 238 | 11/29/2022 11:57 | 0.3 | 0.3 | 0.3 |
| 239 | 11/29/2022 11:58 | 0.3 | 0.3 | 0.3 |
| 240 | 11/29/2022 11:59 | 0.3 | 0.3 | 0.3 |
| 241 | 11/29/2022 12:00 | 0.3 | 0.3 | 0.3 |
| 242 | 11/29/2022 12:01 | 0.3 | 0.3 | 0.3 |
| 243 | 11/29/2022 12:02 | 0.3 | 0.3 | 0.3 |
| 244 | 11/29/2022 12:03 | 0.3 | 0.3 | 0.3 |
| 245 | 11/29/2022 12:04 | 0.3 | 0.3 | 0.3 |
| 246 | 11/29/2022 12:05 | 0.3 | 0.3 | 0.3 |
| 247 | 11/29/2022 12:06 | 0.3 | 0.3 | 0.3 |
| 248 | 11/29/2022 12:07 | 0.3 | 0.3 | 0.3 |
| 249 | 11/29/2022 12:08 | 0.3 | 0.3 | 0.3 |
| 250 | 11/29/2022 12:09 | 0.3 | 0.3 | 0.3 |

| | | | | |
|---|---|---|---|---|
| 251 | 11/29/2022 12:10 | 0.3 | 0.3 | 0.3 |
| 252 | 11/29/2022 12:11 | 0.3 | 0.3 | 0.3 |
| 253 | 11/29/2022 12:12 | 0.3 | 0.3 | 0.3 |
| 254 | 11/29/2022 12:13 | 0.3 | 0.3 | 0.3 |
| 255 | 11/29/2022 12:14 | 0.3 | 0.4 | 0.3 |
| 256 | 11/29/2022 12:15 | 0.3 | 0.6 | 0.4 |
| 257 | 11/29/2022 12:16 | 0.3 | 0.5 | 0.3 |
| 258 | 11/29/2022 12:17 | 0.9 | 10.4 | 6.6 |
| 259 | 11/29/2022 12:18 | 1 | 4.6 | 0.4 |
| 260 | 11/29/2022 12:19 | 0.4 | 0.4 | 0.3 |
| 261 | 11/29/2022 12:20 | 0.3 | 0.3 | 0.3 |
| 262 | 11/29/2022 12:21 | 0.3 | 0.3 | 0.3 |
| 263 | 11/29/2022 12:22 | 0.3 | 0.3 | 0.3 |
| 264 | 11/29/2022 12:23 | 0.3 | 0.3 | 0.3 |
| 265 | 11/29/2022 12:24 | 0.3 | 0.3 | 0.3 |
| 266 | 11/29/2022 12:25 | 0.3 | 0.3 | 0.3 |
| 267 | 11/29/2022 12:26 | 0.3 | 0.3 | 0.3 |
| 268 | 11/29/2022 12:27 | 0.3 | 0.3 | 0.3 |
| 269 | 11/29/2022 12:28 | 0.3 | 0.3 | 0.3 |
| 270 | 11/29/2022 12:29 | 0.3 | 0.3 | 0.3 |
| 271 | 11/29/2022 12:30 | 0.3 | 0.3 | 0.3 |
| 272 | 11/29/2022 12:31 | 0.3 | 0.3 | 0.3 |
| 273 | 11/29/2022 12:32 | 0.3 | 0.3 | 0.3 |
| 274 | 11/29/2022 12:33 | 0.3 | 0.3 | 0.3 |
| 275 | 11/29/2022 12:34 | 0.3 | 0.3 | 0.3 |
| 276 | 11/29/2022 12:35 | 0.3 | 0.3 | 0.3 |
| 277 | 11/29/2022 12:36 | 0.3 | 0.3 | 0.3 |
| 278 | 11/29/2022 12:37 | 0.3 | 0.3 | 0.3 |
| 279 | 11/29/2022 12:38 | 0.3 | 0.3 | 0.3 |
| 280 | 11/29/2022 12:39 | 0.3 | 0.3 | 0.3 |
| 281 | 11/29/2022 12:40 | 0.3 | 0.3 | 0.3 |
| 282 | 11/29/2022 12:41 | 0.3 | 0.3 | 0.3 |
| 283 | 11/29/2022 12:42 | 0.3 | 0.3 | 0.3 |
| 284 | 11/29/2022 12:43 | 0.3 | 0.3 | 0.3 |
| 285 | 11/29/2022 12:44 | 0.3 | 0.3 | 0.3 |
| 286 | 11/29/2022 12:45 | 0.3 | 0.3 | 0.3 |
| 287 | 11/29/2022 12:46 | 0.3 | 0.3 | 0.3 |
| 288 | 11/29/2022 12:47 | 0.3 | 0.3 | 0.3 |
| 289 | 11/29/2022 12:48 | 0.3 | 0.3 | 0.3 |
| 290 | 11/29/2022 12:49 | 0.3 | 0.3 | 0.3 |
| 291 | 11/29/2022 12:50 | 0.3 | 0.3 | 0.3 |
| 292 | 11/29/2022 12:51 | 0.3 | 0.3 | 0.3 |
| 293 | 11/29/2022 12:52 | 0.3 | 0.3 | 0.3 |
| 294 | 11/29/2022 12:53 | 0.3 | 0.3 | 0.3 |
| 295 | 11/29/2022 12:54 | 0.2 | 0.3 | 0.2 |
| 296 | 11/29/2022 12:55 | 0.2 | 0.3 | 0.2 |
| 297 | 11/29/2022 12:56 | 0.3 | 0.3 | 0.3 |

| | | | | |
|---|---|---|---|---|
| 298 | 11/29/2022 12:57 | 0.3 | 0.3 | 0.3 |
| 299 | 11/29/2022 12:58 | 0.3 | 0.3 | 0.3 |
| 300 | 11/29/2022 12:59 | 0.3 | 0.3 | 0.3 |
| 301 | 11/29/2022 13:00 | 0.3 | 0.3 | 0.3 |
| 302 | 11/29/2022 13:01 | 0.3 | 0.3 | 0.3 |
| 303 | 11/29/2022 13:02 | 0.3 | 0.3 | 0.3 |
| 304 | 11/29/2022 13:03 | 0.3 | 0.3 | 0.2 |
| 305 | 11/29/2022 13:04 | 0.2 | 0.3 | 0.2 |
| 306 | 11/29/2022 13:05 | 0.2 | 0.2 | 0.2 |
| 307 | 11/29/2022 13:06 | 0.2 | 0.2 | 0.2 |
| 308 | 11/29/2022 13:07 | 0.2 | 0.2 | 0.2 |
| 309 | 11/29/2022 13:08 | 0.2 | 0.2 | 0.2 |
| 310 | 11/29/2022 13:09 | 0.2 | 0.2 | 0.2 |
| 311 | 11/29/2022 13:10 | 0.2 | 0.2 | 0.2 |
| 312 | 11/29/2022 13:11 | 0.2 | 0.2 | 0.2 |
| 313 | 11/29/2022 13:12 | 0.2 | 0.2 | 0.2 |
| 314 | 11/29/2022 13:13 | 0.2 | 0.2 | 0.2 |
| 315 | 11/29/2022 13:14 | 0.2 | 0.3 | 0.2 |
| 316 | 11/29/2022 13:15 | 0.2 | 0.3 | 0.2 |
| 317 | 11/29/2022 13:16 | 0.2 | 0.2 | 0.2 |
| 318 | 11/29/2022 13:17 | 0.2 | 0.2 | 0.2 |
| 319 | 11/29/2022 13:18 | 0.2 | 0.2 | 0.2 |
| 320 | 11/29/2022 13:19 | 0.2 | 0.2 | 0.2 |
| 321 | 11/29/2022 13:20 | 0.2 | 0.2 | 0.2 |
| 322 | 11/29/2022 13:21 | 0.2 | 0.2 | 0.2 |
| 323 | 11/29/2022 13:22 | 0.2 | 0.2 | 0.2 |
| 324 | 11/29/2022 13:23 | 0.2 | 0.2 | 0.2 |
| 325 | 11/29/2022 13:24 | 0.2 | 0.2 | 0.2 |
| 326 | 11/29/2022 13:25 | 0.2 | 0.2 | 0.2 |
| 327 | 11/29/2022 13:26 | 0.2 | 0.2 | 0.2 |
| 328 | 11/29/2022 13:27 | 0.2 | 0.2 | 0.2 |
| 329 | 11/29/2022 13:28 | 0.2 | 0.2 | 0.2 |
| 330 | 11/29/2022 13:29 | 0.2 | 0.2 | 0.2 |
| 331 | 11/29/2022 13:30 | 0.2 | 0.2 | 0.2 |
| 332 | 11/29/2022 13:31 | 0.2 | 0.2 | 0.2 |
| 333 | 11/29/2022 13:32 | 0.2 | 0.2 | 0.2 |
| 334 | 11/29/2022 13:33 | 0.2 | 0.2 | 0.2 |
| 335 | 11/29/2022 13:34 | 0.2 | 0.2 | 0.2 |
| 336 | 11/29/2022 13:35 | 0.2 | 0.2 | 0.2 |
| 337 | 11/29/2022 13:36 | 0.2 | 0.2 | 0.2 |
| 338 | 11/29/2022 13:37 | 0.2 | 0.2 | 0.2 |
| 339 | 11/29/2022 13:38 | 0.2 | 0.2 | 0.2 |
| 340 | 11/29/2022 13:39 | 0.2 | 0.2 | 0.2 |
| 341 | 11/29/2022 13:40 | 0.2 | 0.2 | 0.2 |
| 342 | 11/29/2022 13:41 | 0.2 | 0.2 | 0.2 |
| 343 | 11/29/2022 13:42 | 0.2 | 0.2 | 0.2 |
| 344 | 11/29/2022 13:43 | 0.2 | 0.2 | 0.2 |

| | | | | | |
|---|---|---|---|---|---|
| | 345 | 11/29/2022 13:44 | 0.2 | 0.2 | 0.2 |
| | 346 | 11/29/2022 13:45 | 0.2 | 0.2 | 0.2 |
| | 347 | 11/29/2022 13:46 | 0.2 | 0.2 | 0.2 |
| | 348 | 11/29/2022 13:47 | 0.2 | 0.2 | 0.2 |
| | 349 | 11/29/2022 13:48 | 0.2 | 0.2 | 0.2 |
| | 350 | 11/29/2022 13:49 | 0.2 | 0.2 | 0.2 |
| | 351 | 11/29/2022 13:50 | 0.2 | 0.2 | 0.2 |
| | 352 | 11/29/2022 13:51 | 0.2 | 0.2 | 0.2 |
| | 353 | 11/29/2022 13:52 | 0.2 | 0.2 | 0.2 |
| | 354 | 11/29/2022 13:53 | 0.2 | 0.2 | 0.2 |
| | 355 | 11/29/2022 13:54 | 0.2 | 0.2 | 0.2 |
| | 356 | 11/29/2022 13:55 | 0.2 | 0.2 | 0.2 |
| | 357 | 11/29/2022 13:56 | 0.2 | 0.2 | 0.2 |
| | 358 | 11/29/2022 13:57 | 0.2 | 0.2 | 0.2 |
| | 359 | 11/29/2022 13:58 | 0.2 | 0.2 | 0.2 |
| | 360 | 11/29/2022 13:59 | 0.2 | 0.2 | 0.2 |
| | 361 | 11/29/2022 14:00 | 0.2 | 0.2 | 0.2 |
| | 362 | 11/29/2022 14:01 | 0.2 | 0.2 | 0.2 |
| | 363 | 11/29/2022 14:02 | 0.2 | 0.2 | 0.2 |
| | 364 | 11/29/2022 14:03 | 0.2 | 0.2 | 0.2 |
| | 365 | 11/29/2022 14:04 | 0.2 | 0.2 | 0.2 |
| | 366 | 11/29/2022 14:05 | 0.2 | 0.2 | 0.2 |
| | 367 | 11/29/2022 14:06 | 0.2 | 0.2 | 0.2 |
| | 368 | 11/29/2022 14:07 | 0.2 | 0.2 | 0.2 |
| | 369 | 11/29/2022 14:08 | 0.2 | 0.2 | 0.2 |
| | 370 | 11/29/2022 14:09 | 0.2 | 0.2 | 0.2 |
| | 371 | 11/29/2022 14:10 | 0.2 | 0.2 | 0.2 |
| | 372 | 11/29/2022 14:11 | 0.2 | 0.2 | 0.2 |
| | 373 | 11/29/2022 14:12 | 0.2 | 0.2 | 0.2 |
| | 374 | 11/29/2022 14:13 | 0.2 | 0.2 | 0.2 |
| Peak | | | 1 | 10.4 | 6.6 |
| Min | | | 0 | 0 | 0 |
| Average | | | 0.2 | 0.2 | 0.2 |

**********

TWA/STEL

| Index | Date/Time | PID(ppm) (TWA) | PID(ppm) (STEL) |
|---|---|---|---|
| 1 | 11/29/2022 8:00 | 0 | --- |
| 2 | 11/29/2022 8:01 | 0 | --- |
| 3 | 11/29/2022 8:02 | 0 | --- |
| 4 | 11/29/2022 8:03 | 0 | --- |
| 5 | 11/29/2022 8:04 | 0 | --- |
| 6 | 11/29/2022 8:05 | 0 | --- |
| 7 | 11/29/2022 8:06 | 0 | --- |
| 8 | 11/29/2022 8:07 | 0 | --- |
| 9 | 11/29/2022 8:08 | 0 | --- |

| | | | |
|---|---|---|---|
| 10 | 11/29/2022 8:09 | 0 | --- |
| 11 | 11/29/2022 8:10 | 0 | --- |
| 12 | 11/29/2022 8:11 | 0 | --- |
| 13 | 11/29/2022 8:12 | 0 | --- |
| 14 | 11/29/2022 8:13 | 0 | --- |
| 15 | 11/29/2022 8:14 | 0 | 0 |
| 16 | 11/29/2022 8:15 | 0 | 0 |
| 17 | 11/29/2022 8:16 | 0 | 0 |
| 18 | 11/29/2022 8:17 | 0 | 0 |
| 19 | 11/29/2022 8:18 | 0 | 0 |
| 20 | 11/29/2022 8:19 | 0 | 0.1 |
| 21 | 11/29/2022 8:20 | 0 | 0.1 |
| 22 | 11/29/2022 8:21 | 0 | 0.1 |
| 23 | 11/29/2022 8:22 | 0 | 0.1 |
| 24 | 11/29/2022 8:23 | 0 | 0.1 |
| 25 | 11/29/2022 8:24 | 0 | 0.1 |
| 26 | 11/29/2022 8:25 | 0 | 0.1 |
| 27 | 11/29/2022 8:26 | 0 | 0.1 |
| 28 | 11/29/2022 8:27 | 0 | 0.1 |
| 29 | 11/29/2022 8:28 | 0 | 0.1 |
| 30 | 11/29/2022 8:29 | 0 | 0.1 |
| 31 | 11/29/2022 8:30 | 0 | 0.1 |
| 32 | 11/29/2022 8:31 | 0 | 0.1 |
| 33 | 11/29/2022 8:32 | 0 | 0.1 |
| 34 | 11/29/2022 8:33 | 0 | 0.1 |
| 35 | 11/29/2022 8:34 | 0 | 0.1 |
| 36 | 11/29/2022 8:35 | 0 | 0.1 |
| 37 | 11/29/2022 8:36 | 0 | 0.1 |
| 38 | 11/29/2022 8:37 | 0 | 0.1 |
| 39 | 11/29/2022 8:38 | 0 | 0.1 |
| 40 | 11/29/2022 8:39 | 0 | 0.1 |
| 41 | 11/29/2022 8:40 | 0 | 0.1 |
| 42 | 11/29/2022 8:41 | 0 | 0.1 |
| 43 | 11/29/2022 8:42 | 0 | 0.1 |
| 44 | 11/29/2022 8:43 | 0 | 0.1 |
| 45 | 11/29/2022 8:44 | 0 | 0.1 |
| 46 | 11/29/2022 8:45 | 0 | 0.1 |
| 47 | 11/29/2022 8:46 | 0 | 0.1 |
| 48 | 11/29/2022 8:47 | 0 | 0.1 |
| 49 | 11/29/2022 8:48 | 0 | 0.1 |
| 50 | 11/29/2022 8:49 | 0 | 0.1 |
| 51 | 11/29/2022 8:50 | 0 | 0.1 |
| 52 | 11/29/2022 8:51 | 0 | 0.1 |
| 53 | 11/29/2022 8:52 | 0 | 0.1 |
| 54 | 11/29/2022 8:53 | 0 | 0.1 |
| 55 | 11/29/2022 8:54 | 0 | 0.1 |
| 56 | 11/29/2022 8:55 | 0 | 0.1 |

| | | | |
|---|---|---|---|
| 57 | 11/29/2022 8:56 | 0 | 0.1 |
| 58 | 11/29/2022 8:57 | 0 | 0.1 |
| 59 | 11/29/2022 8:58 | 0 | 0.1 |
| 60 | 11/29/2022 8:59 | 0 | 0.1 |
| 61 | 11/29/2022 9:00 | 0 | 0.1 |
| 62 | 11/29/2022 9:01 | 0 | 0.1 |
| 63 | 11/29/2022 9:02 | 0 | 0.1 |
| 64 | 11/29/2022 9:03 | 0 | 0.1 |
| 65 | 11/29/2022 9:04 | 0 | 0.1 |
| 66 | 11/29/2022 9:05 | 0 | 0.1 |
| 67 | 11/29/2022 9:06 | 0 | 0.1 |
| 68 | 11/29/2022 9:07 | 0 | 0.1 |
| 69 | 11/29/2022 9:08 | 0 | 0.1 |
| 70 | 11/29/2022 9:09 | 0 | 0.1 |
| 71 | 11/29/2022 9:10 | 0 | 0.1 |
| 72 | 11/29/2022 9:11 | 0 | 0.1 |
| 73 | 11/29/2022 9:12 | 0 | 0.1 |
| 74 | 11/29/2022 9:13 | 0 | 0.1 |
| 75 | 11/29/2022 9:14 | 0 | 0.1 |
| 76 | 11/29/2022 9:15 | 0 | 0.1 |
| 77 | 11/29/2022 9:16 | 0 | 0.1 |
| 78 | 11/29/2022 9:17 | 0 | 0.1 |
| 79 | 11/29/2022 9:18 | 0 | 0.1 |
| 80 | 11/29/2022 9:19 | 0 | 0.1 |
| 81 | 11/29/2022 9:20 | 0 | 0.1 |
| 82 | 11/29/2022 9:21 | 0 | 0.1 |
| 83 | 11/29/2022 9:22 | 0 | 0.1 |
| 84 | 11/29/2022 9:23 | 0 | 0.2 |
| 85 | 11/29/2022 9:24 | 0 | 0.2 |
| 86 | 11/29/2022 9:25 | 0 | 0.2 |
| 87 | 11/29/2022 9:26 | 0 | 0.2 |
| 88 | 11/29/2022 9:27 | 0 | 0.2 |
| 89 | 11/29/2022 9:28 | 0 | 0.2 |
| 90 | 11/29/2022 9:29 | 0 | 0.2 |
| 91 | 11/29/2022 9:30 | 0 | 0.2 |
| 92 | 11/29/2022 9:31 | 0 | 0.2 |
| 93 | 11/29/2022 9:32 | 0 | 0.2 |
| 94 | 11/29/2022 9:33 | 0 | 0.2 |
| 95 | 11/29/2022 9:34 | 0 | 0.2 |
| 96 | 11/29/2022 9:35 | 0 | 0.2 |
| 97 | 11/29/2022 9:36 | 0 | 0.2 |
| 98 | 11/29/2022 9:37 | 0 | 0.2 |
| 99 | 11/29/2022 9:38 | 0 | 0.2 |
| 100 | 11/29/2022 9:39 | 0 | 0.2 |
| 101 | 11/29/2022 9:40 | 0 | 0.2 |
| 102 | 11/29/2022 9:41 | 0 | 0.2 |
| 103 | 11/29/2022 9:42 | 0 | 0.2 |

| | | | |
|---|---|---|---|
| 104 | 11/29/2022 9:43 | 0 | 0.2 |
| 105 | 11/29/2022 9:44 | 0 | 0.2 |
| 106 | 11/29/2022 9:45 | 0 | 0.2 |
| 107 | 11/29/2022 9:46 | 0 | 0.2 |
| 108 | 11/29/2022 9:47 | 0 | 0.2 |
| 109 | 11/29/2022 9:48 | 0 | 0.2 |
| 110 | 11/29/2022 9:49 | 0 | 0.2 |
| 111 | 11/29/2022 9:50 | 0 | 0.2 |
| 112 | 11/29/2022 9:51 | 0 | 0.2 |
| 113 | 11/29/2022 9:52 | 0 | 0.2 |
| 114 | 11/29/2022 9:53 | 0 | 0.2 |
| 115 | 11/29/2022 9:54 | 0 | 0.2 |
| 116 | 11/29/2022 9:55 | 0 | 0.2 |
| 117 | 11/29/2022 9:56 | 0 | 0.2 |
| 118 | 11/29/2022 9:57 | 0 | 0.2 |
| 119 | 11/29/2022 9:58 | 0 | 0.2 |
| 120 | 11/29/2022 9:59 | 0 | 0.2 |
| 121 | 11/29/2022 10:00 | 0 | 0.2 |
| 122 | 11/29/2022 10:01 | 0 | 0.2 |
| 123 | 11/29/2022 10:02 | 0 | 0.2 |
| 124 | 11/29/2022 10:03 | 0 | 0.2 |
| 125 | 11/29/2022 10:04 | 0 | 0.2 |
| 126 | 11/29/2022 10:05 | 0 | 0.2 |
| 127 | 11/29/2022 10:06 | 0 | 0.2 |
| 128 | 11/29/2022 10:07 | 0 | 0.2 |
| 129 | 11/29/2022 10:08 | 0 | 0.2 |
| 130 | 11/29/2022 10:09 | 0 | 0.2 |
| 131 | 11/29/2022 10:10 | 0 | 0.2 |
| 132 | 11/29/2022 10:11 | 0 | 0.2 |
| 133 | 11/29/2022 10:12 | 0 | 0.2 |
| 134 | 11/29/2022 10:13 | 0 | 0.2 |
| 135 | 11/29/2022 10:14 | 0 | 0.2 |
| 136 | 11/29/2022 10:15 | 0 | 0.2 |
| 137 | 11/29/2022 10:16 | 0 | 0.2 |
| 138 | 11/29/2022 10:17 | 0 | 0.2 |
| 139 | 11/29/2022 10:18 | 0 | 0.2 |
| 140 | 11/29/2022 10:19 | 0 | 0.2 |
| 141 | 11/29/2022 10:20 | 0 | 0.2 |
| 142 | 11/29/2022 10:21 | 0 | 0.2 |
| 143 | 11/29/2022 10:22 | 0 | 0.2 |
| 144 | 11/29/2022 10:23 | 0 | 0.2 |
| 145 | 11/29/2022 10:24 | 0 | 0.2 |
| 146 | 11/29/2022 10:25 | 0 | 0.2 |
| 147 | 11/29/2022 10:26 | 0 | 0.2 |
| 148 | 11/29/2022 10:27 | 0 | 0.2 |
| 149 | 11/29/2022 10:28 | 0 | 0.2 |
| 150 | 11/29/2022 10:29 | 0 | 0.2 |

| | | | |
|---|---|---|---|
| 151 | 11/29/2022 10:30 | 0 | 0.2 |
| 152 | 11/29/2022 10:31 | 0 | 0.2 |
| 153 | 11/29/2022 10:32 | 0 | 0.2 |
| 154 | 11/29/2022 10:33 | 0 | 0.2 |
| 155 | 11/29/2022 10:34 | 0 | 0.2 |
| 156 | 11/29/2022 10:35 | 0 | 0.2 |
| 157 | 11/29/2022 10:36 | 0 | 0.2 |
| 158 | 11/29/2022 10:37 | 0 | 0.2 |
| 159 | 11/29/2022 10:38 | 0 | 0.2 |
| 160 | 11/29/2022 10:39 | 0 | 0.2 |
| 161 | 11/29/2022 10:40 | 0 | 0.2 |
| 162 | 11/29/2022 10:41 | 0 | 0.2 |
| 163 | 11/29/2022 10:42 | 0 | 0.2 |
| 164 | 11/29/2022 10:43 | 0 | 0.2 |
| 165 | 11/29/2022 10:44 | 0.1 | 0.2 |
| 166 | 11/29/2022 10:45 | 0.1 | 0.2 |
| 167 | 11/29/2022 10:46 | 0.1 | 0.2 |
| 168 | 11/29/2022 10:47 | 0.1 | 0.2 |
| 169 | 11/29/2022 10:48 | 0.1 | 0.2 |
| 170 | 11/29/2022 10:49 | 0.1 | 0.2 |
| 171 | 11/29/2022 10:50 | 0.1 | 0.2 |
| 172 | 11/29/2022 10:51 | 0.1 | 0.2 |
| 173 | 11/29/2022 10:52 | 0.1 | 0.2 |
| 174 | 11/29/2022 10:53 | 0.1 | 0.2 |
| 175 | 11/29/2022 10:54 | 0.1 | 0.2 |
| 176 | 11/29/2022 10:55 | 0.1 | 0.2 |
| 177 | 11/29/2022 10:56 | 0.1 | 0.2 |
| 178 | 11/29/2022 10:57 | 0.1 | 0.2 |
| 179 | 11/29/2022 10:58 | 0.1 | 0.2 |
| 180 | 11/29/2022 10:59 | 0.1 | 0.2 |
| 181 | 11/29/2022 11:00 | 0.1 | 0.2 |
| 182 | 11/29/2022 11:01 | 0.1 | 0.2 |
| 183 | 11/29/2022 11:02 | 0.1 | 0.2 |
| 184 | 11/29/2022 11:03 | 0.1 | 0.2 |
| 185 | 11/29/2022 11:04 | 0.1 | 0.2 |
| 186 | 11/29/2022 11:05 | 0.1 | 0.2 |
| 187 | 11/29/2022 11:06 | 0.1 | 0.2 |
| 188 | 11/29/2022 11:07 | 0.1 | 0.2 |
| 189 | 11/29/2022 11:08 | 0.1 | 0.2 |
| 190 | 11/29/2022 11:09 | 0.1 | 0.2 |
| 191 | 11/29/2022 11:10 | 0.1 | 0.2 |
| 192 | 11/29/2022 11:11 | 0.1 | 0.2 |
| 193 | 11/29/2022 11:12 | 0.1 | 0.2 |
| 194 | 11/29/2022 11:13 | 0.1 | 0.2 |
| 195 | 11/29/2022 11:14 | 0.1 | 0.2 |
| 196 | 11/29/2022 11:15 | 0.1 | 0.2 |
| 197 | 11/29/2022 11:16 | 0.1 | 0.2 |

| | | | |
|---|---|---|---|
| 198 | 11/29/2022 11:17 | 0.1 | 0.2 |
| 199 | 11/29/2022 11:18 | 0.1 | 0.2 |
| 200 | 11/29/2022 11:19 | 0.1 | 0.2 |
| 201 | 11/29/2022 11:20 | 0.1 | 0.2 |
| 202 | 11/29/2022 11:21 | 0.1 | 0.2 |
| 203 | 11/29/2022 11:22 | 0.1 | 0.2 |
| 204 | 11/29/2022 11:23 | 0.1 | 0.2 |
| 205 | 11/29/2022 11:24 | 0.1 | 0.2 |
| 206 | 11/29/2022 11:25 | 0.1 | 0.2 |
| 207 | 11/29/2022 11:26 | 0.1 | 0.2 |
| 208 | 11/29/2022 11:27 | 0.1 | 0.2 |
| 209 | 11/29/2022 11:28 | 0.1 | 0.2 |
| 210 | 11/29/2022 11:29 | 0.1 | 0.2 |
| 211 | 11/29/2022 11:30 | 0.1 | 0.2 |
| 212 | 11/29/2022 11:31 | 0.1 | 0.2 |
| 213 | 11/29/2022 11:32 | 0.1 | 0.2 |
| 214 | 11/29/2022 11:33 | 0.1 | 0.3 |
| 215 | 11/29/2022 11:34 | 0.1 | 0.3 |
| 216 | 11/29/2022 11:35 | 0.1 | 0.3 |
| 217 | 11/29/2022 11:36 | 0.1 | 0.3 |
| 218 | 11/29/2022 11:37 | 0.1 | 0.3 |
| 219 | 11/29/2022 11:38 | 0.1 | 0.3 |
| 220 | 11/29/2022 11:39 | 0.1 | 0.3 |
| 221 | 11/29/2022 11:40 | 0.1 | 0.3 |
| 222 | 11/29/2022 11:41 | 0.1 | 0.3 |
| 223 | 11/29/2022 11:42 | 0.1 | 0.3 |
| 224 | 11/29/2022 11:43 | 0.1 | 0.3 |
| 225 | 11/29/2022 11:44 | 0.1 | 0.3 |
| 226 | 11/29/2022 11:45 | 0.1 | 0.3 |
| 227 | 11/29/2022 11:46 | 0.1 | 0.3 |
| 228 | 11/29/2022 11:47 | 0.1 | 0.3 |
| 229 | 11/29/2022 11:48 | 0.1 | 0.3 |
| 230 | 11/29/2022 11:49 | 0.1 | 0.3 |
| 231 | 11/29/2022 11:50 | 0.1 | 0.3 |
| 232 | 11/29/2022 11:51 | 0.1 | 0.3 |
| 233 | 11/29/2022 11:52 | 0.1 | 0.3 |
| 234 | 11/29/2022 11:53 | 0.1 | 0.3 |
| 235 | 11/29/2022 11:54 | 0.1 | 0.3 |
| 236 | 11/29/2022 11:55 | 0.1 | 0.3 |
| 237 | 11/29/2022 11:56 | 0.1 | 0.3 |
| 238 | 11/29/2022 11:57 | 0.1 | 0.3 |
| 239 | 11/29/2022 11:58 | 0.1 | 0.3 |
| 240 | 11/29/2022 11:59 | 0.1 | 0.3 |
| 241 | 11/29/2022 12:00 | 0.1 | 0.3 |
| 242 | 11/29/2022 12:01 | 0.1 | 0.3 |
| 243 | 11/29/2022 12:02 | 0.1 | 0.3 |
| 244 | 11/29/2022 12:03 | 0.1 | 0.3 |

| | | | |
|---|---|---|---|
| 245 | 11/29/2022 12:04 | 0.1 | 0.3 |
| 246 | 11/29/2022 12:05 | 0.1 | 0.3 |
| 247 | 11/29/2022 12:06 | 0.1 | 0.3 |
| 248 | 11/29/2022 12:07 | 0.1 | 0.3 |
| 249 | 11/29/2022 12:08 | 0.1 | 0.3 |
| 250 | 11/29/2022 12:09 | 0.1 | 0.3 |
| 251 | 11/29/2022 12:10 | 0.1 | 0.3 |
| 252 | 11/29/2022 12:11 | 0.1 | 0.3 |
| 253 | 11/29/2022 12:12 | 0.1 | 0.3 |
| 254 | 11/29/2022 12:13 | 0.1 | 0.3 |
| 255 | 11/29/2022 12:14 | 0.1 | 0.3 |
| 256 | 11/29/2022 12:15 | 0.1 | 0.3 |
| 257 | 11/29/2022 12:16 | 0.1 | 0.3 |
| 258 | 11/29/2022 12:17 | 0.1 | 0.7 |
| 259 | 11/29/2022 12:18 | 0.1 | 0.8 |
| 260 | 11/29/2022 12:19 | 0.1 | 0.8 |
| 261 | 11/29/2022 12:20 | 0.1 | 0.8 |
| 262 | 11/29/2022 12:21 | 0.1 | 0.8 |
| 263 | 11/29/2022 12:22 | 0.1 | 0.8 |
| 264 | 11/29/2022 12:23 | 0.1 | 0.8 |
| 265 | 11/29/2022 12:24 | 0.1 | 0.8 |
| 266 | 11/29/2022 12:25 | 0.1 | 0.8 |
| 267 | 11/29/2022 12:26 | 0.1 | 0.8 |
| 268 | 11/29/2022 12:27 | 0.1 | 0.8 |
| 269 | 11/29/2022 12:28 | 0.1 | 0.8 |
| 270 | 11/29/2022 12:29 | 0.1 | 0.8 |
| 271 | 11/29/2022 12:30 | 0.1 | 0.8 |
| 272 | 11/29/2022 12:31 | 0.1 | 0.7 |
| 273 | 11/29/2022 12:32 | 0.1 | 0.7 |
| 274 | 11/29/2022 12:33 | 0.1 | 0.3 |
| 275 | 11/29/2022 12:34 | 0.1 | 0.3 |
| 276 | 11/29/2022 12:35 | 0.1 | 0.3 |
| 277 | 11/29/2022 12:36 | 0.1 | 0.3 |
| 278 | 11/29/2022 12:37 | 0.1 | 0.3 |
| 279 | 11/29/2022 12:38 | 0.1 | 0.3 |
| 280 | 11/29/2022 12:39 | 0.1 | 0.3 |
| 281 | 11/29/2022 12:40 | 0.1 | 0.3 |
| 282 | 11/29/2022 12:41 | 0.1 | 0.3 |
| 283 | 11/29/2022 12:42 | 0.1 | 0.3 |
| 284 | 11/29/2022 12:43 | 0.1 | 0.3 |
| 285 | 11/29/2022 12:44 | 0.1 | 0.3 |
| 286 | 11/29/2022 12:45 | 0.1 | 0.3 |
| 287 | 11/29/2022 12:46 | 0.1 | 0.3 |
| 288 | 11/29/2022 12:47 | 0.1 | 0.3 |
| 289 | 11/29/2022 12:48 | 0.1 | 0.3 |
| 290 | 11/29/2022 12:49 | 0.1 | 0.3 |
| 291 | 11/29/2022 12:50 | 0.1 | 0.3 |

| | | | |
|---|---|---|---|
| 292 | 11/29/2022 12:51 | 0.1 | 0.3 |
| 293 | 11/29/2022 12:52 | 0.1 | 0.3 |
| 294 | 11/29/2022 12:53 | 0.1 | 0.3 |
| 295 | 11/29/2022 12:54 | 0.1 | 0.3 |
| 296 | 11/29/2022 12:55 | 0.1 | 0.3 |
| 297 | 11/29/2022 12:56 | 0.1 | 0.3 |
| 298 | 11/29/2022 12:57 | 0.1 | 0.3 |
| 299 | 11/29/2022 12:58 | 0.1 | 0.3 |
| 300 | 11/29/2022 12:59 | 0.1 | 0.3 |
| 301 | 11/29/2022 13:00 | 0.1 | 0.3 |
| 302 | 11/29/2022 13:01 | 0.1 | 0.3 |
| 303 | 11/29/2022 13:02 | 0.1 | 0.3 |
| 304 | 11/29/2022 13:03 | 0.1 | 0.3 |
| 305 | 11/29/2022 13:04 | 0.1 | 0.3 |
| 306 | 11/29/2022 13:05 | 0.1 | 0.3 |
| 307 | 11/29/2022 13:06 | 0.1 | 0.3 |
| 308 | 11/29/2022 13:07 | 0.1 | 0.3 |
| 309 | 11/29/2022 13:08 | 0.1 | 0.3 |
| 310 | 11/29/2022 13:09 | 0.1 | 0.3 |
| 311 | 11/29/2022 13:10 | 0.1 | 0.3 |
| 312 | 11/29/2022 13:11 | 0.1 | 0.3 |
| 313 | 11/29/2022 13:12 | 0.1 | 0.3 |
| 314 | 11/29/2022 13:13 | 0.1 | 0.2 |
| 315 | 11/29/2022 13:14 | 0.1 | 0.2 |
| 316 | 11/29/2022 13:15 | 0.1 | 0.2 |
| 317 | 11/29/2022 13:16 | 0.1 | 0.2 |
| 318 | 11/29/2022 13:17 | 0.1 | 0.2 |
| 319 | 11/29/2022 13:18 | 0.1 | 0.2 |
| 320 | 11/29/2022 13:19 | 0.1 | 0.2 |
| 321 | 11/29/2022 13:20 | 0.1 | 0.2 |
| 322 | 11/29/2022 13:21 | 0.1 | 0.2 |
| 323 | 11/29/2022 13:22 | 0.1 | 0.2 |
| 324 | 11/29/2022 13:23 | 0.1 | 0.2 |
| 325 | 11/29/2022 13:24 | 0.1 | 0.2 |
| 326 | 11/29/2022 13:25 | 0.2 | 0.2 |
| 327 | 11/29/2022 13:26 | 0.2 | 0.2 |
| 328 | 11/29/2022 13:27 | 0.2 | 0.2 |
| 329 | 11/29/2022 13:28 | 0.2 | 0.2 |
| 330 | 11/29/2022 13:29 | 0.2 | 0.2 |
| 331 | 11/29/2022 13:30 | 0.2 | 0.2 |
| 332 | 11/29/2022 13:31 | 0.2 | 0.2 |
| 333 | 11/29/2022 13:32 | 0.2 | 0.2 |
| 334 | 11/29/2022 13:33 | 0.2 | 0.2 |
| 335 | 11/29/2022 13:34 | 0.2 | 0.2 |
| 336 | 11/29/2022 13:35 | 0.2 | 0.2 |
| 337 | 11/29/2022 13:36 | 0.2 | 0.2 |
| 338 | 11/29/2022 13:37 | 0.2 | 0.2 |

| | | | |
|---|---|---|---|
| 339 | 11/29/2022 13:38 | 0.2 | 0.2 |
| 340 | 11/29/2022 13:39 | 0.2 | 0.2 |
| 341 | 11/29/2022 13:40 | 0.2 | 0.2 |
| 342 | 11/29/2022 13:41 | 0.2 | 0.2 |
| 343 | 11/29/2022 13:42 | 0.2 | 0.2 |
| 344 | 11/29/2022 13:43 | 0.2 | 0.2 |
| 345 | 11/29/2022 13:44 | 0.2 | 0.2 |
| 346 | 11/29/2022 13:45 | 0.2 | 0.2 |
| 347 | 11/29/2022 13:46 | 0.2 | 0.2 |
| 348 | 11/29/2022 13:47 | 0.2 | 0.2 |
| 349 | 11/29/2022 13:48 | 0.2 | 0.2 |
| 350 | 11/29/2022 13:49 | 0.2 | 0.2 |
| 351 | 11/29/2022 13:50 | 0.2 | 0.2 |
| 352 | 11/29/2022 13:51 | 0.2 | 0.2 |
| 353 | 11/29/2022 13:52 | 0.2 | 0.2 |
| 354 | 11/29/2022 13:53 | 0.2 | 0.2 |
| 355 | 11/29/2022 13:54 | 0.2 | 0.2 |
| 356 | 11/29/2022 13:55 | 0.2 | 0.2 |
| 357 | 11/29/2022 13:56 | 0.2 | 0.2 |
| 358 | 11/29/2022 13:57 | 0.2 | 0.2 |
| 359 | 11/29/2022 13:58 | 0.2 | 0.2 |
| 360 | 11/29/2022 13:59 | 0.2 | 0.2 |
| 361 | 11/29/2022 14:00 | 0.2 | 0.2 |
| 362 | 11/29/2022 14:01 | 0.2 | 0.2 |
| 363 | 11/29/2022 14:02 | 0.2 | 0.2 |
| 364 | 11/29/2022 14:03 | 0.2 | 0.2 |
| 365 | 11/29/2022 14:04 | 0.2 | 0.2 |
| 366 | 11/29/2022 14:05 | 0.2 | 0.2 |
| 367 | 11/29/2022 14:06 | 0.2 | 0.2 |
| 368 | 11/29/2022 14:07 | 0.2 | 0.2 |
| 369 | 11/29/2022 14:08 | 0.2 | 0.2 |
| 370 | 11/29/2022 14:09 | 0.2 | 0.2 |
| 371 | 11/29/2022 14:10 | 0.2 | 0.2 |
| 372 | 11/29/2022 14:11 | 0.2 | 0.2 |
| 373 | 11/29/2022 14:12 | 0.2 | 0.2 |
| 374 | 11/29/2022 14:13 | 0.2 | 0.2 |

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22/11/30 07:51

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Summary

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| | |
|---|---|
| Unit Name | MiniRAE 3000 +(PGM-7320) |
| Unit SN | 592-601637 |
| Unit Firmware Ver | V2.22A |

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| | |
|---|---|
| Running Mode | Hygiene Mode |
| Datalog Mode | Auto |

| | |
|---|---|
| Diagnostic Mode | No |
| Stop Reason | Power Down |

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| | |
|---|---|
| Site ID | 12345678 |
| User ID | 12345678 |

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| | |
|---|---|
| Begin | 11/30/2022 7:51 |
| End | 11/30/2022 13:07 |
| Sample Period(s) | 60 |
| Number of Records | 315 |

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| | |
|---|---|
| Sensor | PID(ppm) |
| Sensor SN | S023030989B3 |
| Measure Type | Avg; Max; Real |
| Span | 100 |
| Span 2 | 1000 |
| Low Alarm | 50 |
| High Alarm | 100 |
| Over Alarm | 15000 |
| STEL Alarm | 25 |
| TWA Alarm | 10 |
| Measurement Gas | Isobutylene |
| Calibration Time | 11/30/2022 7:51 |
| Peak | 0.9 |
| Min | 0.2 |
| Average | 0.7 |

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Datalog

| Index | Date/Time | PID(ppm) (Avg) | PID(ppm) (Max) | PID(ppm) (Real) |
|---|---|---|---|---|
| 1 | 11/30/2022 7:52 | 0.2 | 0.4 | 0.2 |
| 2 | 11/30/2022 7:53 | 0.2 | 0.2 | 0.2 |
| 3 | 11/30/2022 7:54 | 0.2 | 0.2 | 0.2 |
| 4 | 11/30/2022 7:55 | 0.2 | 0.2 | 0.2 |
| 5 | 11/30/2022 7:56 | 0.2 | 0.2 | 0.2 |
| 6 | 11/30/2022 7:57 | 0.2 | 0.2 | 0.2 |
| 7 | 11/30/2022 7:58 | 0.2 | 0.2 | 0.2 |
| 8 | 11/30/2022 7:59 | 0.2 | 0.2 | 0.2 |
| 9 | 11/30/2022 8:00 | 0.2 | 0.2 | 0.2 |
| 10 | 11/30/2022 8:01 | 0.2 | 0.2 | 0.2 |
| 11 | 11/30/2022 8:02 | 0.3 | 0.3 | 0.3 |
| 12 | 11/30/2022 8:03 | 0.3 | 0.3 | 0.3 |
| 13 | 11/30/2022 8:04 | 0.3 | 0.3 | 0.3 |
| 14 | 11/30/2022 8:05 | 0.3 | 0.3 | 0.3 |
| 15 | 11/30/2022 8:06 | 0.3 | 0.3 | 0.3 |
| 16 | 11/30/2022 8:07 | 0.3 | 0.3 | 0.3 |

| | | | | |
|---|---|---|---|---|
| 17 | 11/30/2022 8:08 | 0.3 | 0.3 | 0.3 |
| 18 | 11/30/2022 8:09 | 0.3 | 0.3 | 0.3 |
| 19 | 11/30/2022 8:10 | 0.3 | 0.3 | 0.3 |
| 20 | 11/30/2022 8:11 | 0.3 | 0.3 | 0.3 |
| 21 | 11/30/2022 8:12 | 0.3 | 0.3 | 0.3 |
| 22 | 11/30/2022 8:13 | 0.3 | 0.3 | 0.3 |
| 23 | 11/30/2022 8:14 | 0.3 | 0.3 | 0.3 |
| 24 | 11/30/2022 8:15 | 0.3 | 0.3 | 0.3 |
| 25 | 11/30/2022 8:16 | 0.3 | 0.3 | 0.3 |
| 26 | 11/30/2022 8:17 | 0.3 | 0.3 | 0.3 |
| 27 | 11/30/2022 8:18 | 0.3 | 0.3 | 0.3 |
| 28 | 11/30/2022 8:19 | 0.3 | 0.3 | 0.3 |
| 29 | 11/30/2022 8:20 | 0.3 | 0.3 | 0.3 |
| 30 | 11/30/2022 8:21 | 0.3 | 0.3 | 0.3 |
| 31 | 11/30/2022 8:22 | 0.3 | 0.4 | 0.3 |
| 32 | 11/30/2022 8:23 | 0.3 | 0.4 | 0.3 |
| 33 | 11/30/2022 8:24 | 0.4 | 0.4 | 0.4 |
| 34 | 11/30/2022 8:25 | 0.4 | 0.4 | 0.4 |
| 35 | 11/30/2022 8:26 | 0.4 | 0.4 | 0.4 |
| 36 | 11/30/2022 8:27 | 0.4 | 0.4 | 0.4 |
| 37 | 11/30/2022 8:28 | 0.4 | 0.4 | 0.4 |
| 38 | 11/30/2022 8:29 | 0.4 | 0.4 | 0.4 |
| 39 | 11/30/2022 8:30 | 0.4 | 0.4 | 0.4 |
| 40 | 11/30/2022 8:31 | 0.4 | 0.4 | 0.4 |
| 41 | 11/30/2022 8:32 | 0.4 | 0.4 | 0.4 |
| 42 | 11/30/2022 8:33 | 0.4 | 0.4 | 0.4 |
| 43 | 11/30/2022 8:34 | 0.4 | 0.4 | 0.4 |
| 44 | 11/30/2022 8:35 | 0.4 | 0.4 | 0.4 |
| 45 | 11/30/2022 8:36 | 0.4 | 0.4 | 0.4 |
| 46 | 11/30/2022 8:37 | 0.4 | 0.4 | 0.4 |
| 47 | 11/30/2022 8:38 | 0.4 | 0.4 | 0.4 |
| 48 | 11/30/2022 8:39 | 0.4 | 0.4 | 0.4 |
| 49 | 11/30/2022 8:40 | 0.4 | 0.4 | 0.4 |
| 50 | 11/30/2022 8:41 | 0.4 | 0.4 | 0.4 |
| 51 | 11/30/2022 8:42 | 0.4 | 0.4 | 0.4 |
| 52 | 11/30/2022 8:43 | 0.4 | 0.4 | 0.4 |
| 53 | 11/30/2022 8:44 | 0.4 | 0.4 | 0.4 |
| 54 | 11/30/2022 8:45 | 0.4 | 0.4 | 0.4 |
| 55 | 11/30/2022 8:46 | 0.4 | 0.5 | 0.4 |
| 56 | 11/30/2022 8:47 | 0.4 | 0.5 | 0.4 |
| 57 | 11/30/2022 8:48 | 0.4 | 0.5 | 0.4 |
| 58 | 11/30/2022 8:49 | 0.4 | 0.5 | 0.5 |
| 59 | 11/30/2022 8:50 | 0.5 | 0.5 | 0.5 |
| 60 | 11/30/2022 8:51 | 0.5 | 0.5 | 0.5 |
| 61 | 11/30/2022 8:52 | 0.5 | 0.5 | 0.5 |
| 62 | 11/30/2022 8:53 | 0.5 | 0.5 | 0.5 |
| 63 | 11/30/2022 8:54 | 0.5 | 0.5 | 0.5 |

| | | | | |
|---|---|---|---|---|
| 64 | 11/30/2022 8:55 | 0.5 | 0.5 | 0.5 |
| 65 | 11/30/2022 8:56 | 0.5 | 0.5 | 0.5 |
| 66 | 11/30/2022 8:57 | 0.5 | 0.5 | 0.5 |
| 67 | 11/30/2022 8:58 | 0.5 | 0.5 | 0.5 |
| 68 | 11/30/2022 8:59 | 0.5 | 0.5 | 0.5 |
| 69 | 11/30/2022 9:00 | 0.5 | 0.5 | 0.5 |
| 70 | 11/30/2022 9:01 | 0.5 | 0.5 | 0.5 |
| 71 | 11/30/2022 9:02 | 0.5 | 0.5 | 0.5 |
| 72 | 11/30/2022 9:03 | 0.5 | 0.5 | 0.5 |
| 73 | 11/30/2022 9:04 | 0.5 | 0.5 | 0.5 |
| 74 | 11/30/2022 9:05 | 0.5 | 0.5 | 0.5 |
| 75 | 11/30/2022 9:06 | 0.5 | 0.5 | 0.5 |
| 76 | 11/30/2022 9:07 | 0.5 | 0.5 | 0.5 |
| 77 | 11/30/2022 9:08 | 0.5 | 0.5 | 0.5 |
| 78 | 11/30/2022 9:09 | 0.5 | 0.5 | 0.5 |
| 79 | 11/30/2022 9:10 | 0.5 | 0.5 | 0.5 |
| 80 | 11/30/2022 9:11 | 0.5 | 0.5 | 0.5 |
| 81 | 11/30/2022 9:12 | 0.5 | 0.5 | 0.5 |
| 82 | 11/30/2022 9:13 | 0.5 | 0.5 | 0.5 |
| 83 | 11/30/2022 9:14 | 0.5 | 0.5 | 0.5 |
| 84 | 11/30/2022 9:15 | 0.5 | 0.5 | 0.5 |
| 85 | 11/30/2022 9:16 | 0.5 | 0.5 | 0.5 |
| 86 | 11/30/2022 9:17 | 0.5 | 0.5 | 0.5 |
| 87 | 11/30/2022 9:18 | 0.5 | 0.5 | 0.5 |
| 88 | 11/30/2022 9:19 | 0.5 | 0.6 | 0.5 |
| 89 | 11/30/2022 9:20 | 0.5 | 0.6 | 0.5 |
| 90 | 11/30/2022 9:21 | 0.5 | 0.6 | 0.6 |
| 91 | 11/30/2022 9:22 | 0.6 | 0.6 | 0.6 |
| 92 | 11/30/2022 9:23 | 0.6 | 0.6 | 0.5 |
| 93 | 11/30/2022 9:24 | 0.6 | 0.6 | 0.6 |
| 94 | 11/30/2022 9:25 | 0.6 | 0.6 | 0.6 |
| 95 | 11/30/2022 9:26 | 0.6 | 0.6 | 0.6 |
| 96 | 11/30/2022 9:27 | 0.6 | 0.6 | 0.6 |
| 97 | 11/30/2022 9:28 | 0.6 | 0.6 | 0.6 |
| 98 | 11/30/2022 9:29 | 0.6 | 0.6 | 0.6 |
| 99 | 11/30/2022 9:30 | 0.6 | 0.6 | 0.6 |
| 100 | 11/30/2022 9:31 | 0.6 | 0.6 | 0.6 |
| 101 | 11/30/2022 9:32 | 0.6 | 0.6 | 0.6 |
| 102 | 11/30/2022 9:33 | 0.6 | 0.6 | 0.6 |
| 103 | 11/30/2022 9:34 | 0.6 | 0.6 | 0.6 |
| 104 | 11/30/2022 9:35 | 0.6 | 0.6 | 0.6 |
| 105 | 11/30/2022 9:36 | 0.6 | 0.6 | 0.6 |
| 106 | 11/30/2022 9:37 | 0.6 | 0.6 | 0.6 |
| 107 | 11/30/2022 9:38 | 0.6 | 0.6 | 0.6 |
| 108 | 11/30/2022 9:39 | 0.6 | 0.6 | 0.6 |
| 109 | 11/30/2022 9:40 | 0.6 | 0.6 | 0.6 |
| 110 | 11/30/2022 9:41 | 0.6 | 0.6 | 0.6 |

| | | | | |
|---|---|---|---|---|
| 111 | 11/30/2022 9:42 | 0.6 | 0.6 | 0.6 |
| 112 | 11/30/2022 9:43 | 0.6 | 0.6 | 0.6 |
| 113 | 11/30/2022 9:44 | 0.6 | 0.6 | 0.6 |
| 114 | 11/30/2022 9:45 | 0.6 | 0.6 | 0.6 |
| 115 | 11/30/2022 9:46 | 0.6 | 0.6 | 0.6 |
| 116 | 11/30/2022 9:47 | 0.6 | 0.6 | 0.6 |
| 117 | 11/30/2022 9:48 | 0.6 | 0.6 | 0.6 |
| 118 | 11/30/2022 9:49 | 0.6 | 0.6 | 0.6 |
| 119 | 11/30/2022 9:50 | 0.6 | 0.6 | 0.6 |
| 120 | 11/30/2022 9:51 | 0.6 | 0.7 | 0.6 |
| 121 | 11/30/2022 9:52 | 0.6 | 0.7 | 0.6 |
| 122 | 11/30/2022 9:53 | 0.6 | 0.7 | 0.6 |
| 123 | 11/30/2022 9:54 | 0.6 | 0.6 | 0.6 |
| 124 | 11/30/2022 9:55 | 0.6 | 0.7 | 0.6 |
| 125 | 11/30/2022 9:56 | 0.6 | 0.7 | 0.6 |
| 126 | 11/30/2022 9:57 | 0.6 | 0.7 | 0.7 |
| 127 | 11/30/2022 9:58 | 0.7 | 0.7 | 0.7 |
| 128 | 11/30/2022 9:59 | 0.7 | 0.7 | 0.7 |
| 129 | 11/30/2022 10:00 | 0.7 | 0.7 | 0.7 |
| 130 | 11/30/2022 10:01 | 0.7 | 0.7 | 0.7 |
| 131 | 11/30/2022 10:02 | 0.7 | 0.7 | 0.7 |
| 132 | 11/30/2022 10:03 | 0.7 | 0.7 | 0.7 |
| 133 | 11/30/2022 10:04 | 0.7 | 0.7 | 0.7 |
| 134 | 11/30/2022 10:05 | 0.7 | 0.7 | 0.7 |
| 135 | 11/30/2022 10:06 | 0.7 | 0.7 | 0.7 |
| 136 | 11/30/2022 10:07 | 0.7 | 0.7 | 0.7 |
| 137 | 11/30/2022 10:08 | 0.7 | 0.7 | 0.7 |
| 138 | 11/30/2022 10:09 | 0.7 | 0.7 | 0.7 |
| 139 | 11/30/2022 10:10 | 0.7 | 0.7 | 0.7 |
| 140 | 11/30/2022 10:11 | 0.7 | 0.7 | 0.7 |
| 141 | 11/30/2022 10:12 | 0.7 | 0.7 | 0.7 |
| 142 | 11/30/2022 10:13 | 0.7 | 0.7 | 0.7 |
| 143 | 11/30/2022 10:14 | 0.7 | 0.7 | 0.7 |
| 144 | 11/30/2022 10:15 | 0.7 | 0.7 | 0.7 |
| 145 | 11/30/2022 10:16 | 0.7 | 0.7 | 0.7 |
| 146 | 11/30/2022 10:17 | 0.7 | 0.7 | 0.7 |
| 147 | 11/30/2022 10:18 | 0.7 | 0.7 | 0.7 |
| 148 | 11/30/2022 10:19 | 0.7 | 0.7 | 0.7 |
| 149 | 11/30/2022 10:20 | 0.7 | 0.7 | 0.7 |
| 150 | 11/30/2022 10:21 | 0.7 | 0.7 | 0.7 |
| 151 | 11/30/2022 10:22 | 0.7 | 0.7 | 0.7 |
| 152 | 11/30/2022 10:23 | 0.7 | 0.7 | 0.7 |
| 153 | 11/30/2022 10:24 | 0.7 | 0.7 | 0.7 |
| 154 | 11/30/2022 10:25 | 0.7 | 0.7 | 0.7 |
| 155 | 11/30/2022 10:26 | 0.7 | 0.7 | 0.7 |
| 156 | 11/30/2022 10:27 | 0.7 | 0.7 | 0.7 |
| 157 | 11/30/2022 10:28 | 0.7 | 0.7 | 0.7 |

| | | | | |
|---|---|---|---|---|
| 158 | 11/30/2022 10:29 | 0.7 | 0.7 | 0.7 |
| 159 | 11/30/2022 10:30 | 0.7 | 0.8 | 0.7 |
| 160 | 11/30/2022 10:31 | 0.7 | 0.7 | 0.7 |
| 161 | 11/30/2022 10:32 | 0.7 | 0.7 | 0.7 |
| 162 | 11/30/2022 10:33 | 0.7 | 0.8 | 0.7 |
| 163 | 11/30/2022 10:34 | 0.7 | 0.7 | 0.7 |
| 164 | 11/30/2022 10:35 | 0.8 | 0.9 | 0.8 |
| 165 | 11/30/2022 10:36 | 0.7 | 0.8 | 0.7 |
| 166 | 11/30/2022 10:37 | 0.7 | 0.7 | 0.7 |
| 167 | 11/30/2022 10:38 | 0.7 | 0.8 | 0.7 |
| 168 | 11/30/2022 10:39 | 0.7 | 0.8 | 0.8 |
| 169 | 11/30/2022 10:40 | 0.7 | 0.8 | 0.7 |
| 170 | 11/30/2022 10:41 | 0.7 | 0.8 | 0.7 |
| 171 | 11/30/2022 10:42 | 0.7 | 0.8 | 0.7 |
| 172 | 11/30/2022 10:43 | 0.7 | 0.8 | 0.7 |
| 173 | 11/30/2022 10:44 | 0.7 | 0.8 | 0.7 |
| 174 | 11/30/2022 10:45 | 0.7 | 0.7 | 0.7 |
| 175 | 11/30/2022 10:46 | 0.7 | 0.8 | 0.8 |
| 176 | 11/30/2022 10:47 | 0.7 | 0.8 | 0.8 |
| 177 | 11/30/2022 10:48 | 0.7 | 0.8 | 0.7 |
| 178 | 11/30/2022 10:49 | 0.7 | 0.8 | 0.7 |
| 179 | 11/30/2022 10:50 | 0.8 | 0.8 | 0.8 |
| 180 | 11/30/2022 10:51 | 0.8 | 0.8 | 0.8 |
| 181 | 11/30/2022 10:52 | 0.8 | 0.8 | 0.8 |
| 182 | 11/30/2022 10:53 | 0.8 | 0.8 | 0.8 |
| 183 | 11/30/2022 10:54 | 0.8 | 0.8 | 0.8 |
| 184 | 11/30/2022 10:55 | 0.8 | 0.8 | 0.8 |
| 185 | 11/30/2022 10:56 | 0.8 | 0.8 | 0.8 |
| 186 | 11/30/2022 10:57 | 0.8 | 0.8 | 0.8 |
| 187 | 11/30/2022 10:58 | 0.8 | 0.8 | 0.8 |
| 188 | 11/30/2022 10:59 | 0.8 | 0.8 | 0.8 |
| 189 | 11/30/2022 11:00 | 0.8 | 0.8 | 0.8 |
| 190 | 11/30/2022 11:01 | 0.8 | 0.8 | 0.8 |
| 191 | 11/30/2022 11:02 | 0.8 | 0.8 | 0.8 |
| 192 | 11/30/2022 11:03 | 0.8 | 0.9 | 0.8 |
| 193 | 11/30/2022 11:04 | 0.8 | 0.8 | 0.8 |
| 194 | 11/30/2022 11:05 | 0.8 | 0.8 | 0.8 |
| 195 | 11/30/2022 11:06 | 0.8 | 0.8 | 0.8 |
| 196 | 11/30/2022 11:07 | 0.8 | 0.8 | 0.8 |
| 197 | 11/30/2022 11:08 | 0.8 | 0.8 | 0.8 |
| 198 | 11/30/2022 11:09 | 0.8 | 0.8 | 0.8 |
| 199 | 11/30/2022 11:10 | 0.8 | 0.8 | 0.8 |
| 200 | 11/30/2022 11:11 | 0.8 | 0.8 | 0.8 |
| 201 | 11/30/2022 11:12 | 0.8 | 0.8 | 0.8 |
| 202 | 11/30/2022 11:13 | 0.8 | 0.8 | 0.8 |
| 203 | 11/30/2022 11:14 | 0.8 | 0.8 | 0.8 |
| 204 | 11/30/2022 11:15 | 0.8 | 0.8 | 0.8 |

| | | | | |
|---|---|---|---|---|
| 205 | 11/30/2022 11:16 | 0.8 | 0.8 | 0.8 |
| 206 | 11/30/2022 11:17 | 0.8 | 0.8 | 0.8 |
| 207 | 11/30/2022 11:18 | 0.8 | 0.8 | 0.8 |
| 208 | 11/30/2022 11:19 | 0.8 | 0.8 | 0.8 |
| 209 | 11/30/2022 11:20 | 0.8 | 0.8 | 0.8 |
| 210 | 11/30/2022 11:21 | 0.8 | 0.8 | 0.8 |
| 211 | 11/30/2022 11:22 | 0.8 | 0.8 | 0.8 |
| 212 | 11/30/2022 11:23 | 0.8 | 0.8 | 0.8 |
| 213 | 11/30/2022 11:24 | 0.8 | 0.8 | 0.8 |
| 214 | 11/30/2022 11:25 | 0.8 | 0.8 | 0.8 |
| 215 | 11/30/2022 11:26 | 0.8 | 0.8 | 0.8 |
| 216 | 11/30/2022 11:27 | 0.8 | 0.8 | 0.8 |
| 217 | 11/30/2022 11:28 | 0.8 | 0.8 | 0.8 |
| 218 | 11/30/2022 11:29 | 0.8 | 0.8 | 0.8 |
| 219 | 11/30/2022 11:30 | 0.8 | 0.8 | 0.8 |
| 220 | 11/30/2022 11:31 | 0.8 | 0.8 | 0.8 |
| 221 | 11/30/2022 11:32 | 0.8 | 0.8 | 0.8 |
| 222 | 11/30/2022 11:33 | 0.8 | 0.8 | 0.8 |
| 223 | 11/30/2022 11:34 | 0.8 | 0.8 | 0.8 |
| 224 | 11/30/2022 11:35 | 0.8 | 0.8 | 0.8 |
| 225 | 11/30/2022 11:36 | 0.8 | 0.8 | 0.8 |
| 226 | 11/30/2022 11:37 | 0.8 | 0.8 | 0.8 |
| 227 | 11/30/2022 11:38 | 0.8 | 0.8 | 0.8 |
| 228 | 11/30/2022 11:39 | 0.8 | 0.8 | 0.8 |
| 229 | 11/30/2022 11:40 | 0.8 | 0.8 | 0.8 |
| 230 | 11/30/2022 11:41 | 0.8 | 0.8 | 0.8 |
| 231 | 11/30/2022 11:42 | 0.8 | 0.8 | 0.8 |
| 232 | 11/30/2022 11:43 | 0.8 | 0.8 | 0.8 |
| 233 | 11/30/2022 11:44 | 0.8 | 0.8 | 0.8 |
| 234 | 11/30/2022 11:45 | 0.8 | 0.8 | 0.8 |
| 235 | 11/30/2022 11:46 | 0.8 | 0.8 | 0.8 |
| 236 | 11/30/2022 11:47 | 0.8 | 0.9 | 0.8 |
| 237 | 11/30/2022 11:48 | 0.8 | 0.8 | 0.8 |
| 238 | 11/30/2022 11:49 | 0.8 | 0.8 | 0.8 |
| 239 | 11/30/2022 11:50 | 0.8 | 0.8 | 0.8 |
| 240 | 11/30/2022 11:51 | 0.8 | 0.8 | 0.8 |
| 241 | 11/30/2022 11:52 | 0.8 | 0.8 | 0.8 |
| 242 | 11/30/2022 11:53 | 0.8 | 0.8 | 0.8 |
| 243 | 11/30/2022 11:54 | 0.8 | 0.8 | 0.8 |
| 244 | 11/30/2022 11:55 | 0.8 | 0.8 | 0.8 |
| 245 | 11/30/2022 11:56 | 0.8 | 0.9 | 0.8 |
| 246 | 11/30/2022 11:57 | 0.8 | 0.8 | 0.8 |
| 247 | 11/30/2022 11:58 | 0.8 | 0.8 | 0.8 |
| 248 | 11/30/2022 11:59 | 0.8 | 0.9 | 0.8 |
| 249 | 11/30/2022 12:00 | 0.8 | 0.8 | 0.8 |
| 250 | 11/30/2022 12:01 | 0.8 | 0.8 | 0.8 |
| 251 | 11/30/2022 12:02 | 0.8 | 0.8 | 0.8 |

| | | | | |
|---|---|---|---|---|
| 252 | 11/30/2022 12:03 | 0.8 | 0.8 | 0.8 |
| 253 | 11/30/2022 12:04 | 0.9 | 0.9 | 0.8 |
| 254 | 11/30/2022 12:05 | 0.8 | 0.8 | 0.8 |
| 255 | 11/30/2022 12:06 | 0.8 | 0.9 | 0.9 |
| 256 | 11/30/2022 12:07 | 0.9 | 0.9 | 0.9 |
| 257 | 11/30/2022 12:08 | 0.9 | 0.9 | 0.9 |
| 258 | 11/30/2022 12:09 | 0.9 | 1 | 0.9 |
| 259 | 11/30/2022 12:10 | 0.9 | 0.9 | 0.9 |
| 260 | 11/30/2022 12:11 | 0.9 | 0.9 | 0.8 |
| 261 | 11/30/2022 12:12 | 0.9 | 0.9 | 0.9 |
| 262 | 11/30/2022 12:13 | 0.9 | 0.9 | 0.9 |
| 263 | 11/30/2022 12:14 | 0.9 | 0.9 | 0.9 |
| 264 | 11/30/2022 12:15 | 0.8 | 0.9 | 0.9 |
| 265 | 11/30/2022 12:16 | 0.9 | 0.9 | 0.9 |
| 266 | 11/30/2022 12:17 | 0.9 | 0.9 | 0.9 |
| 267 | 11/30/2022 12:18 | 0.9 | 0.9 | 0.9 |
| 268 | 11/30/2022 12:19 | 0.9 | 0.9 | 0.9 |
| 269 | 11/30/2022 12:20 | 0.9 | 0.9 | 0.9 |
| 270 | 11/30/2022 12:21 | 0.9 | 0.9 | 0.9 |
| 271 | 11/30/2022 12:22 | 0.9 | 0.9 | 0.9 |
| 272 | 11/30/2022 12:23 | 0.9 | 0.9 | 0.9 |
| 273 | 11/30/2022 12:24 | 0.9 | 0.9 | 0.9 |
| 274 | 11/30/2022 12:25 | 0.9 | 0.9 | 0.9 |
| 275 | 11/30/2022 12:26 | 0.9 | 0.9 | 0.9 |
| 276 | 11/30/2022 12:27 | 0.9 | 0.9 | 0.9 |
| 277 | 11/30/2022 12:28 | 0.9 | 0.9 | 0.9 |
| 278 | 11/30/2022 12:29 | 0.9 | 0.9 | 0.9 |
| 279 | 11/30/2022 12:30 | 0.9 | 0.9 | 0.9 |
| 280 | 11/30/2022 12:31 | 0.9 | 0.9 | 0.9 |
| 281 | 11/30/2022 12:32 | 0.9 | 0.9 | 0.9 |
| 282 | 11/30/2022 12:33 | 0.9 | 0.9 | 0.9 |
| 283 | 11/30/2022 12:34 | 0.9 | 0.9 | 0.9 |
| 284 | 11/30/2022 12:35 | 0.9 | 0.9 | 0.9 |
| 285 | 11/30/2022 12:36 | 0.9 | 0.9 | 0.9 |
| 286 | 11/30/2022 12:37 | 0.9 | 0.9 | 0.9 |
| 287 | 11/30/2022 12:38 | 0.9 | 0.9 | 0.9 |
| 288 | 11/30/2022 12:39 | 0.9 | 0.9 | 0.9 |
| 289 | 11/30/2022 12:40 | 0.9 | 0.9 | 0.9 |
| 290 | 11/30/2022 12:41 | 0.9 | 0.9 | 0.9 |
| 291 | 11/30/2022 12:42 | 0.9 | 0.9 | 0.9 |
| 292 | 11/30/2022 12:43 | 0.9 | 0.9 | 0.9 |
| 293 | 11/30/2022 12:44 | 0.9 | 0.9 | 0.9 |
| 294 | 11/30/2022 12:45 | 0.9 | 0.9 | 0.9 |
| 295 | 11/30/2022 12:46 | 0.9 | 0.9 | 0.9 |
| 296 | 11/30/2022 12:47 | 0.9 | 0.9 | 0.9 |
| 297 | 11/30/2022 12:48 | 0.9 | 0.9 | 0.9 |
| 298 | 11/30/2022 12:49 | 0.9 | 0.9 | 0.9 |

| | | | | | |
|---|---|---|---|---|---|
| | 299 | 11/30/2022 12:50 | 0.9 | 0.9 | 0.9 |
| | 300 | 11/30/2022 12:51 | 0.9 | 0.9 | 0.9 |
| | 301 | 11/30/2022 12:52 | 0.9 | 0.9 | 0.9 |
| | 302 | 11/30/2022 12:53 | 0.9 | 0.9 | 0.9 |
| | 303 | 11/30/2022 12:54 | 0.9 | 0.9 | 0.9 |
| | 304 | 11/30/2022 12:55 | 0.9 | 0.9 | 0.9 |
| | 305 | 11/30/2022 12:56 | 0.9 | 0.9 | 0.9 |
| | 306 | 11/30/2022 12:57 | 0.9 | 0.9 | 0.9 |
| | 307 | 11/30/2022 12:58 | 0.9 | 0.9 | 0.9 |
| | 308 | 11/30/2022 12:59 | 0.9 | 0.9 | 0.9 |
| | 309 | 11/30/2022 13:00 | 0.9 | 0.9 | 0.9 |
| | 310 | 11/30/2022 13:01 | 0.9 | 0.9 | 0.9 |
| | 311 | 11/30/2022 13:02 | 0.9 | 0.9 | 0.9 |
| | 312 | 11/30/2022 13:03 | 0.9 | 0.9 | 0.9 |
| | 313 | 11/30/2022 13:04 | 0.9 | 0.9 | 0.9 |
| | 314 | 11/30/2022 13:05 | 0.9 | 0.9 | 0.9 |
| | 315 | 11/30/2022 13:06 | 0.9 | 0.9 | 0.9 |
| Peak | | | 0.9 | 1 | 0.9 |
| Min | | | 0.2 | 0.2 | 0.2 |
| Average | | | 0.7 | 0.7 | 0.7 |

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TWA/STEL

| Index | Date/Time | PID(ppm) (TWA) | PID(ppm) (STEL) |
|---|---|---|---|
| 1 | 11/30/2022 7:52 | 0 | --- |
| 2 | 11/30/2022 7:53 | 0 | --- |
| 3 | 11/30/2022 7:54 | 0 | --- |
| 4 | 11/30/2022 7:55 | 0 | --- |
| 5 | 11/30/2022 7:56 | 0 | --- |
| 6 | 11/30/2022 7:57 | 0 | --- |
| 7 | 11/30/2022 7:58 | 0 | --- |
| 8 | 11/30/2022 7:59 | 0 | --- |
| 9 | 11/30/2022 8:00 | 0 | --- |
| 10 | 11/30/2022 8:01 | 0 | --- |
| 11 | 11/30/2022 8:02 | 0 | --- |
| 12 | 11/30/2022 8:03 | 0 | --- |
| 13 | 11/30/2022 8:04 | 0 | --- |
| 14 | 11/30/2022 8:05 | 0 | --- |
| 15 | 11/30/2022 8:06 | 0 | 0.2 |
| 16 | 11/30/2022 8:07 | 0 | 0.3 |
| 17 | 11/30/2022 8:08 | 0 | 0.3 |
| 18 | 11/30/2022 8:09 | 0 | 0.3 |
| 19 | 11/30/2022 8:10 | 0 | 0.3 |
| 20 | 11/30/2022 8:11 | 0 | 0.3 |
| 21 | 11/30/2022 8:12 | 0 | 0.3 |
| 22 | 11/30/2022 8:13 | 0 | 0.3 |

| | | | |
|---|---|---|---|
| 23 | 11/30/2022 8:14 | 0 | 0.3 |
| 24 | 11/30/2022 8:15 | 0 | 0.3 |
| 25 | 11/30/2022 8:16 | 0 | 0.3 |
| 26 | 11/30/2022 8:17 | 0 | 0.3 |
| 27 | 11/30/2022 8:18 | 0 | 0.3 |
| 28 | 11/30/2022 8:19 | 0 | 0.3 |
| 29 | 11/30/2022 8:20 | 0 | 0.3 |
| 30 | 11/30/2022 8:21 | 0 | 0.3 |
| 31 | 11/30/2022 8:22 | 0 | 0.3 |
| 32 | 11/30/2022 8:23 | 0 | 0.3 |
| 33 | 11/30/2022 8:24 | 0 | 0.3 |
| 34 | 11/30/2022 8:25 | 0 | 0.3 |
| 35 | 11/30/2022 8:26 | 0 | 0.3 |
| 36 | 11/30/2022 8:27 | 0 | 0.3 |
| 37 | 11/30/2022 8:28 | 0 | 0.4 |
| 38 | 11/30/2022 8:29 | 0 | 0.4 |
| 39 | 11/30/2022 8:30 | 0 | 0.4 |
| 40 | 11/30/2022 8:31 | 0 | 0.4 |
| 41 | 11/30/2022 8:32 | 0 | 0.4 |
| 42 | 11/30/2022 8:33 | 0 | 0.4 |
| 43 | 11/30/2022 8:34 | 0 | 0.4 |
| 44 | 11/30/2022 8:35 | 0 | 0.4 |
| 45 | 11/30/2022 8:36 | 0 | 0.4 |
| 46 | 11/30/2022 8:37 | 0 | 0.4 |
| 47 | 11/30/2022 8:38 | 0 | 0.4 |
| 48 | 11/30/2022 8:39 | 0 | 0.4 |
| 49 | 11/30/2022 8:40 | 0 | 0.4 |
| 50 | 11/30/2022 8:41 | 0 | 0.4 |
| 51 | 11/30/2022 8:42 | 0 | 0.4 |
| 52 | 11/30/2022 8:43 | 0 | 0.4 |
| 53 | 11/30/2022 8:44 | 0 | 0.4 |
| 54 | 11/30/2022 8:45 | 0 | 0.4 |
| 55 | 11/30/2022 8:46 | 0 | 0.4 |
| 56 | 11/30/2022 8:47 | 0 | 0.4 |
| 57 | 11/30/2022 8:48 | 0 | 0.4 |
| 58 | 11/30/2022 8:49 | 0 | 0.4 |
| 59 | 11/30/2022 8:50 | 0 | 0.4 |
| 60 | 11/30/2022 8:51 | 0 | 0.4 |
| 61 | 11/30/2022 8:52 | 0 | 0.5 |
| 62 | 11/30/2022 8:53 | 0 | 0.5 |
| 63 | 11/30/2022 8:54 | 0 | 0.5 |
| 64 | 11/30/2022 8:55 | 0 | 0.5 |
| 65 | 11/30/2022 8:56 | 0 | 0.5 |
| 66 | 11/30/2022 8:57 | 0 | 0.5 |
| 67 | 11/30/2022 8:58 | 0 | 0.5 |
| 68 | 11/30/2022 8:59 | 0.1 | 0.5 |
| 69 | 11/30/2022 9:00 | 0.1 | 0.5 |

| | | | |
|---|---|---|---|
| 70 | 11/30/2022 9:01 | 0.1 | 0.5 |
| 71 | 11/30/2022 9:02 | 0.1 | 0.5 |
| 72 | 11/30/2022 9:03 | 0.1 | 0.5 |
| 73 | 11/30/2022 9:04 | 0.1 | 0.5 |
| 74 | 11/30/2022 9:05 | 0.1 | 0.5 |
| 75 | 11/30/2022 9:06 | 0.1 | 0.5 |
| 76 | 11/30/2022 9:07 | 0.1 | 0.5 |
| 77 | 11/30/2022 9:08 | 0.1 | 0.5 |
| 78 | 11/30/2022 9:09 | 0.1 | 0.5 |
| 79 | 11/30/2022 9:10 | 0.1 | 0.5 |
| 80 | 11/30/2022 9:11 | 0.1 | 0.5 |
| 81 | 11/30/2022 9:12 | 0.1 | 0.5 |
| 82 | 11/30/2022 9:13 | 0.1 | 0.5 |
| 83 | 11/30/2022 9:14 | 0.1 | 0.5 |
| 84 | 11/30/2022 9:15 | 0.1 | 0.5 |
| 85 | 11/30/2022 9:16 | 0.1 | 0.5 |
| 86 | 11/30/2022 9:17 | 0.1 | 0.5 |
| 87 | 11/30/2022 9:18 | 0.1 | 0.5 |
| 88 | 11/30/2022 9:19 | 0.1 | 0.5 |
| 89 | 11/30/2022 9:20 | 0.1 | 0.5 |
| 90 | 11/30/2022 9:21 | 0.1 | 0.5 |
| 91 | 11/30/2022 9:22 | 0.1 | 0.5 |
| 92 | 11/30/2022 9:23 | 0.1 | 0.5 |
| 93 | 11/30/2022 9:24 | 0.1 | 0.6 |
| 94 | 11/30/2022 9:25 | 0.1 | 0.6 |
| 95 | 11/30/2022 9:26 | 0.1 | 0.6 |
| 96 | 11/30/2022 9:27 | 0.1 | 0.6 |
| 97 | 11/30/2022 9:28 | 0.1 | 0.6 |
| 98 | 11/30/2022 9:29 | 0.1 | 0.6 |
| 99 | 11/30/2022 9:30 | 0.1 | 0.6 |
| 100 | 11/30/2022 9:31 | 0.1 | 0.6 |
| 101 | 11/30/2022 9:32 | 0.1 | 0.6 |
| 102 | 11/30/2022 9:33 | 0.1 | 0.6 |
| 103 | 11/30/2022 9:34 | 0.1 | 0.6 |
| 104 | 11/30/2022 9:35 | 0.1 | 0.6 |
| 105 | 11/30/2022 9:36 | 0.1 | 0.6 |
| 106 | 11/30/2022 9:37 | 0.1 | 0.6 |
| 107 | 11/30/2022 9:38 | 0.1 | 0.6 |
| 108 | 11/30/2022 9:39 | 0.1 | 0.6 |
| 109 | 11/30/2022 9:40 | 0.1 | 0.6 |
| 110 | 11/30/2022 9:41 | 0.1 | 0.6 |
| 111 | 11/30/2022 9:42 | 0.1 | 0.6 |
| 112 | 11/30/2022 9:43 | 0.1 | 0.6 |
| 113 | 11/30/2022 9:44 | 0.1 | 0.6 |
| 114 | 11/30/2022 9:45 | 0.1 | 0.6 |
| 115 | 11/30/2022 9:46 | 0.1 | 0.6 |
| 116 | 11/30/2022 9:47 | 0.1 | 0.6 |

| | | | |
|---|---|---|---|
| 117 | 11/30/2022 9:48 | 0.1 | 0.6 |
| 118 | 11/30/2022 9:49 | 0.1 | 0.6 |
| 119 | 11/30/2022 9:50 | 0.1 | 0.6 |
| 120 | 11/30/2022 9:51 | 0.1 | 0.6 |
| 121 | 11/30/2022 9:52 | 0.1 | 0.6 |
| 122 | 11/30/2022 9:53 | 0.1 | 0.6 |
| 123 | 11/30/2022 9:54 | 0.1 | 0.6 |
| 124 | 11/30/2022 9:55 | 0.1 | 0.6 |
| 125 | 11/30/2022 9:56 | 0.1 | 0.6 |
| 126 | 11/30/2022 9:57 | 0.1 | 0.6 |
| 127 | 11/30/2022 9:58 | 0.1 | 0.7 |
| 128 | 11/30/2022 9:59 | 0.1 | 0.7 |
| 129 | 11/30/2022 10:00 | 0.1 | 0.7 |
| 130 | 11/30/2022 10:01 | 0.1 | 0.7 |
| 131 | 11/30/2022 10:02 | 0.1 | 0.7 |
| 132 | 11/30/2022 10:03 | 0.1 | 0.7 |
| 133 | 11/30/2022 10:04 | 0.1 | 0.7 |
| 134 | 11/30/2022 10:05 | 0.1 | 0.7 |
| 135 | 11/30/2022 10:06 | 0.1 | 0.7 |
| 136 | 11/30/2022 10:07 | 0.1 | 0.7 |
| 137 | 11/30/2022 10:08 | 0.1 | 0.7 |
| 138 | 11/30/2022 10:09 | 0.1 | 0.7 |
| 139 | 11/30/2022 10:10 | 0.1 | 0.7 |
| 140 | 11/30/2022 10:11 | 0.1 | 0.7 |
| 141 | 11/30/2022 10:12 | 0.1 | 0.7 |
| 142 | 11/30/2022 10:13 | 0.1 | 0.7 |
| 143 | 11/30/2022 10:14 | 0.1 | 0.7 |
| 144 | 11/30/2022 10:15 | 0.1 | 0.7 |
| 145 | 11/30/2022 10:16 | 0.1 | 0.7 |
| 146 | 11/30/2022 10:17 | 0.1 | 0.7 |
| 147 | 11/30/2022 10:18 | 0.1 | 0.7 |
| 148 | 11/30/2022 10:19 | 0.2 | 0.7 |
| 149 | 11/30/2022 10:20 | 0.2 | 0.7 |
| 150 | 11/30/2022 10:21 | 0.2 | 0.7 |
| 151 | 11/30/2022 10:22 | 0.2 | 0.7 |
| 152 | 11/30/2022 10:23 | 0.2 | 0.7 |
| 153 | 11/30/2022 10:24 | 0.2 | 0.7 |
| 154 | 11/30/2022 10:25 | 0.2 | 0.7 |
| 155 | 11/30/2022 10:26 | 0.2 | 0.7 |
| 156 | 11/30/2022 10:27 | 0.2 | 0.7 |
| 157 | 11/30/2022 10:28 | 0.2 | 0.7 |
| 158 | 11/30/2022 10:29 | 0.2 | 0.7 |
| 159 | 11/30/2022 10:30 | 0.2 | 0.7 |
| 160 | 11/30/2022 10:31 | 0.2 | 0.7 |
| 161 | 11/30/2022 10:32 | 0.2 | 0.7 |
| 162 | 11/30/2022 10:33 | 0.2 | 0.7 |
| 163 | 11/30/2022 10:34 | 0.2 | 0.7 |

| | | | |
|---|---|---|---|
| 164 | 11/30/2022 10:35 | 0.2 | 0.8 |
| 165 | 11/30/2022 10:36 | 0.2 | 0.8 |
| 166 | 11/30/2022 10:37 | 0.2 | 0.8 |
| 167 | 11/30/2022 10:38 | 0.2 | 0.8 |
| 168 | 11/30/2022 10:39 | 0.2 | 0.8 |
| 169 | 11/30/2022 10:40 | 0.2 | 0.8 |
| 170 | 11/30/2022 10:41 | 0.2 | 0.8 |
| 171 | 11/30/2022 10:42 | 0.2 | 0.8 |
| 172 | 11/30/2022 10:43 | 0.2 | 0.8 |
| 173 | 11/30/2022 10:44 | 0.2 | 0.8 |
| 174 | 11/30/2022 10:45 | 0.2 | 0.8 |
| 175 | 11/30/2022 10:46 | 0.2 | 0.8 |
| 176 | 11/30/2022 10:47 | 0.2 | 0.8 |
| 177 | 11/30/2022 10:48 | 0.2 | 0.8 |
| 178 | 11/30/2022 10:49 | 0.2 | 0.8 |
| 179 | 11/30/2022 10:50 | 0.2 | 0.8 |
| 180 | 11/30/2022 10:51 | 0.2 | 0.8 |
| 181 | 11/30/2022 10:52 | 0.2 | 0.8 |
| 182 | 11/30/2022 10:53 | 0.2 | 0.8 |
| 183 | 11/30/2022 10:54 | 0.2 | 0.8 |
| 184 | 11/30/2022 10:55 | 0.2 | 0.8 |
| 185 | 11/30/2022 10:56 | 0.2 | 0.8 |
| 186 | 11/30/2022 10:57 | 0.2 | 0.8 |
| 187 | 11/30/2022 10:58 | 0.2 | 0.8 |
| 188 | 11/30/2022 10:59 | 0.2 | 0.8 |
| 189 | 11/30/2022 11:00 | 0.2 | 0.8 |
| 190 | 11/30/2022 11:01 | 0.2 | 0.8 |
| 191 | 11/30/2022 11:02 | 0.2 | 0.8 |
| 192 | 11/30/2022 11:03 | 0.2 | 0.8 |
| 193 | 11/30/2022 11:04 | 0.2 | 0.8 |
| 194 | 11/30/2022 11:05 | 0.2 | 0.9 |
| 195 | 11/30/2022 11:06 | 0.2 | 0.9 |
| 196 | 11/30/2022 11:07 | 0.2 | 0.9 |
| 197 | 11/30/2022 11:08 | 0.2 | 0.9 |
| 198 | 11/30/2022 11:09 | 0.2 | 0.9 |
| 199 | 11/30/2022 11:10 | 0.2 | 0.9 |
| 200 | 11/30/2022 11:11 | 0.2 | 0.9 |
| 201 | 11/30/2022 11:12 | 0.2 | 0.9 |
| 202 | 11/30/2022 11:13 | 0.2 | 0.9 |
| 203 | 11/30/2022 11:14 | 0.2 | 0.9 |
| 204 | 11/30/2022 11:15 | 0.2 | 0.9 |
| 205 | 11/30/2022 11:16 | 0.2 | 0.9 |
| 206 | 11/30/2022 11:17 | 0.2 | 0.9 |
| 207 | 11/30/2022 11:18 | 0.2 | 0.9 |
| 208 | 11/30/2022 11:19 | 0.2 | 0.9 |
| 209 | 11/30/2022 11:20 | 0.2 | 0.9 |
| 210 | 11/30/2022 11:21 | 0.2 | 0.9 |

| | | | |
|---|---|---|---|
| 211 | 11/30/2022 11:22 | 0.3 | 0.9 |
| 212 | 11/30/2022 11:23 | 0.3 | 0.9 |
| 213 | 11/30/2022 11:24 | 0.3 | 0.9 |
| 214 | 11/30/2022 11:25 | 0.3 | 0.9 |
| 215 | 11/30/2022 11:26 | 0.3 | 0.9 |
| 216 | 11/30/2022 11:27 | 0.3 | 0.9 |
| 217 | 11/30/2022 11:28 | 0.3 | 0.9 |
| 218 | 11/30/2022 11:29 | 0.3 | 0.9 |
| 219 | 11/30/2022 11:30 | 0.3 | 0.9 |
| 220 | 11/30/2022 11:31 | 0.3 | 0.9 |
| 221 | 11/30/2022 11:32 | 0.3 | 0.9 |
| 222 | 11/30/2022 11:33 | 0.3 | 0.9 |
| 223 | 11/30/2022 11:34 | 0.3 | 0.9 |
| 224 | 11/30/2022 11:35 | 0.3 | 0.9 |
| 225 | 11/30/2022 11:36 | 0.3 | 0.9 |
| 226 | 11/30/2022 11:37 | 0.3 | 0.9 |
| 227 | 11/30/2022 11:38 | 0.3 | 0.9 |
| 228 | 11/30/2022 11:39 | 0.3 | 0.9 |
| 229 | 11/30/2022 11:40 | 0.3 | 0.9 |
| 230 | 11/30/2022 11:41 | 0.3 | 0.9 |
| 231 | 11/30/2022 11:42 | 0.3 | 0.9 |
| 232 | 11/30/2022 11:43 | 0.3 | 0.9 |
| 233 | 11/30/2022 11:44 | 0.3 | 0.9 |
| 234 | 11/30/2022 11:45 | 0.3 | 0.9 |
| 235 | 11/30/2022 11:46 | 0.3 | 0.9 |
| 236 | 11/30/2022 11:47 | 0.3 | 0.9 |
| 237 | 11/30/2022 11:48 | 0.3 | 0.9 |
| 238 | 11/30/2022 11:49 | 0.3 | 0.9 |
| 239 | 11/30/2022 11:50 | 0.3 | 0.9 |
| 240 | 11/30/2022 11:51 | 0.3 | 0.9 |
| 241 | 11/30/2022 11:52 | 0.3 | 0.9 |
| 242 | 11/30/2022 11:53 | 0.3 | 0.9 |
| 243 | 11/30/2022 11:54 | 0.3 | 0.9 |
| 244 | 11/30/2022 11:55 | 0.3 | 0.9 |
| 245 | 11/30/2022 11:56 | 0.3 | 0.9 |
| 246 | 11/30/2022 11:57 | 0.3 | 0.9 |
| 247 | 11/30/2022 11:58 | 0.3 | 0.9 |
| 248 | 11/30/2022 11:59 | 0.3 | 0.9 |
| 249 | 11/30/2022 12:00 | 0.3 | 0.9 |
| 250 | 11/30/2022 12:01 | 0.3 | 0.9 |
| 251 | 11/30/2022 12:02 | 0.3 | 0.9 |
| 252 | 11/30/2022 12:03 | 0.3 | 0.9 |
| 253 | 11/30/2022 12:04 | 0.3 | 0.9 |
| 254 | 11/30/2022 12:05 | 0.3 | 0.9 |
| 255 | 11/30/2022 12:06 | 0.3 | 0.9 |
| 256 | 11/30/2022 12:07 | 0.3 | 0.9 |
| 257 | 11/30/2022 12:08 | 0.3 | 0.9 |

| | | | |
|---|---|---|---|
| 258 | 11/30/2022 12:09 | 0.3 | 0.9 |
| 259 | 11/30/2022 12:10 | 0.3 | 0.9 |
| 260 | 11/30/2022 12:11 | 0.3 | 0.9 |
| 261 | 11/30/2022 12:12 | 0.3 | 0.9 |
| 262 | 11/30/2022 12:13 | 0.3 | 0.9 |
| 263 | 11/30/2022 12:14 | 0.3 | 0.9 |
| 264 | 11/30/2022 12:15 | 0.3 | 0.9 |
| 265 | 11/30/2022 12:16 | 0.3 | 0.9 |
| 266 | 11/30/2022 12:17 | 0.3 | 0.9 |
| 267 | 11/30/2022 12:18 | 0.3 | 0.9 |
| 268 | 11/30/2022 12:19 | 0.3 | 0.9 |
| 269 | 11/30/2022 12:20 | 0.3 | 0.9 |
| 270 | 11/30/2022 12:21 | 0.4 | 1 |
| 271 | 11/30/2022 12:22 | 0.4 | 1 |
| 272 | 11/30/2022 12:23 | 0.4 | 1 |
| 273 | 11/30/2022 12:24 | 0.4 | 1 |
| 274 | 11/30/2022 12:25 | 0.4 | 1 |
| 275 | 11/30/2022 12:26 | 0.4 | 1 |
| 276 | 11/30/2022 12:27 | 0.4 | 1 |
| 277 | 11/30/2022 12:28 | 0.4 | 1 |
| 278 | 11/30/2022 12:29 | 0.4 | 1 |
| 279 | 11/30/2022 12:30 | 0.4 | 1 |
| 280 | 11/30/2022 12:31 | 0.4 | 1 |
| 281 | 11/30/2022 12:32 | 0.4 | 1 |
| 282 | 11/30/2022 12:33 | 0.4 | 1 |
| 283 | 11/30/2022 12:34 | 0.4 | 1 |
| 284 | 11/30/2022 12:35 | 0.4 | 1 |
| 285 | 11/30/2022 12:36 | 0.4 | 1 |
| 286 | 11/30/2022 12:37 | 0.4 | 1 |
| 287 | 11/30/2022 12:38 | 0.4 | 1 |
| 288 | 11/30/2022 12:39 | 0.4 | 1 |
| 289 | 11/30/2022 12:40 | 0.4 | 1 |
| 290 | 11/30/2022 12:41 | 0.4 | 1 |
| 291 | 11/30/2022 12:42 | 0.4 | 1 |
| 292 | 11/30/2022 12:43 | 0.4 | 1 |
| 293 | 11/30/2022 12:44 | 0.4 | 1 |
| 294 | 11/30/2022 12:45 | 0.4 | 1 |
| 295 | 11/30/2022 12:46 | 0.4 | 1 |
| 296 | 11/30/2022 12:47 | 0.4 | 1 |
| 297 | 11/30/2022 12:48 | 0.4 | 1 |
| 298 | 11/30/2022 12:49 | 0.4 | 1 |
| 299 | 11/30/2022 12:50 | 0.4 | 1 |
| 300 | 11/30/2022 12:51 | 0.4 | 1 |
| 301 | 11/30/2022 12:52 | 0.4 | 1 |
| 302 | 11/30/2022 12:53 | 0.4 | 1 |
| 303 | 11/30/2022 12:54 | 0.4 | 1 |
| 304 | 11/30/2022 12:55 | 0.4 | 1 |

| | | | |
|---|---|---|---|
| 305 | 11/30/2022 12:56 | 0.4 | 1 |
| 306 | 11/30/2022 12:57 | 0.4 | 1 |
| 307 | 11/30/2022 12:58 | 0.4 | 1 |
| 308 | 11/30/2022 12:59 | 0.4 | 1 |
| 309 | 11/30/2022 13:00 | 0.4 | 1 |
| 310 | 11/30/2022 13:01 | 0.4 | 1 |
| 311 | 11/30/2022 13:02 | 0.4 | 1 |
| 312 | 11/30/2022 13:03 | 0.4 | 1 |
| 313 | 11/30/2022 13:04 | 0.4 | 1 |
| 314 | 11/30/2022 13:05 | 0.4 | 1 |
| 315 | 11/30/2022 13:06 | 0.4 | 1 |

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22/12/01 07:34

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Summary

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| | |
|---|---|
| Unit Name | MiniRAE 3000 +(PGM-7320) |
| Unit SN | 592-601637 |
| Unit Firmware Ver | V2.22A |

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| | |
|---|---|
| Running Mode | Hygiene Mode |
| Datalog Mode | Auto |
| Diagnostic Mode | No |
| Stop Reason | Power Down |

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| | |
|---|---|
| Site ID | 12345678 |
| User ID | 12345678 |

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| | |
|---|---|
| Begin | 12/1/2022 7:34 |
| End | 12/1/2022 12:26 |
| Sample Period(s) | 60 |
| Number of Records | 291 |

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| | |
|---|---|
| Sensor | PID(ppm) |
| Sensor SN | S023030989B3 |
| Measure Type | Avg; Max; Real |
| Span | 100 |
| Span 2 | 1000 |
| Low Alarm | 50 |
| High Alarm | 100 |
| Over Alarm | 15000 |
| STEL Alarm | 25 |
| TWA Alarm | 10 |
| Measurement Gas | Isobutylene |
| Calibration Time | 11/30/2022 7:51 |
| Peak | 1 |
| Min | 0.2 |

| Device | |
|---|---|
| Timestamp (America/New_York) | VOC ppm AVG 15m (ppm) |
| 11/29/2022 7:47 | 0 |
| 11/29/2022 7:48 | 0 |
| 11/29/2022 7:49 | 0 |
| 11/29/2022 7:50 | 0 |
| 11/29/2022 7:51 | 0 |
| 11/29/2022 7:52 | 0 |
| 11/29/2022 7:53 | 0 |
| 11/29/2022 7:54 | 0 |
| 11/29/2022 7:55 | 0 |
| 11/29/2022 7:56 | 0 |
| 11/29/2022 7:57 | 0 |
| 11/29/2022 7:58 | 0 |
| 11/29/2022 7:59 | 0 |
| 11/29/2022 8:00 | 0 |
| 11/29/2022 8:01 | 0 |
| 11/29/2022 8:02 | 0 |
| 11/29/2022 8:03 | 0 |
| 11/29/2022 8:04 | 0 |
| 11/29/2022 8:05 | 0 |
| 11/29/2022 8:06 | 0 |
| 11/29/2022 8:07 | 0 |
| 11/29/2022 8:08 | 0 |
| 11/29/2022 8:09 | 0 |
| 11/29/2022 8:10 | 0 |
| 11/29/2022 8:11 | 0 |
| 11/29/2022 8:12 | 0 |
| 11/29/2022 8:13 | 0 |
| 11/29/2022 8:14 | 0 |
| 11/29/2022 8:15 | 0 |
| 11/29/2022 8:16 | 0 |
| 11/29/2022 8:17 | 0 |
| 11/29/2022 8:18 | 0 |
| 11/29/2022 8:19 | 0 |
| 11/29/2022 8:20 | 0 |
| 11/29/2022 8:21 | 0 |
| 11/29/2022 8:22 | 0 |
| 11/29/2022 8:23 | 0 |
| 11/29/2022 8:24 | 0 |
| 11/29/2022 8:25 | 0 |
| 11/29/2022 8:26 | 0 |
| 11/29/2022 8:27 | 0 |
| 11/29/2022 8:28 | 0 |
| 11/29/2022 8:29 | 0 |
| 11/29/2022 8:30 | 0 |
| 11/29/2022 8:31 | 0 |

| | |
|---|---|
| 11/29/2022 8:32 | 0 |
| 11/29/2022 8:33 | 0 |
| 11/29/2022 8:34 | 0 |
| 11/29/2022 8:35 | 0 |
| 11/29/2022 8:36 | 0 |
| 11/29/2022 8:37 | 0 |
| 11/29/2022 8:38 | 0 |
| 11/29/2022 8:39 | 0.0001 |
| 11/29/2022 8:40 | 0.0001 |
| 11/29/2022 8:41 | 0.0001 |
| 11/29/2022 8:42 | 0.0003 |
| 11/29/2022 8:43 | 0.0005 |
| 11/29/2022 8:44 | 0.0007 |
| 11/29/2022 8:45 | 0.0008 |
| 11/29/2022 8:46 | 0.0008 |
| 11/29/2022 8:47 | 0.0012 |
| 11/29/2022 8:48 | 0.0019 |
| 11/29/2022 8:49 | 0.0023 |
| 11/29/2022 8:50 | 0.0032 |
| 11/29/2022 8:51 | 0.0039 |
| 11/29/2022 8:52 | 0.0049 |
| 11/29/2022 8:53 | 0.0058 |
| 11/29/2022 8:54 | 0.0065 |
| 11/29/2022 8:55 | 0.0076 |
| 11/29/2022 8:56 | 0.0085 |
| 11/29/2022 8:57 | 0.0096 |
| 11/29/2022 8:58 | 0.0103 |
| 11/29/2022 8:59 | 0.0111 |
| 11/29/2022 9:00 | 0.012 |
| 11/29/2022 9:01 | 0.0132 |
| 11/29/2022 9:02 | 0.0138 |
| 11/29/2022 9:03 | 0.0143 |
| 11/29/2022 9:04 | 0.015 |
| 11/29/2022 9:05 | 0.0154 |
| 11/29/2022 9:06 | 0.016 |
| 11/29/2022 9:07 | 0.0165 |
| 11/29/2022 9:08 | 0.0166 |
| 11/29/2022 9:09 | 0.0169 |
| 11/29/2022 9:10 | 0.0175 |
| 11/29/2022 9:11 | 0.0181 |
| 11/29/2022 9:12 | 0.0185 |
| 11/29/2022 9:13 | 0.019 |
| 11/29/2022 9:14 | 0.0198 |
| 11/29/2022 9:15 | 0.0203 |
| 11/29/2022 9:16 | 0.021 |
| 11/29/2022 9:17 | 0.0217 |
| 11/29/2022 9:18 | 0.0221 |

| | |
|---|---|
| 11/29/2022 9:19 | 0.0229 |
| 11/29/2022 9:20 | 0.0234 |
| 11/29/2022 9:21 | 0.0236 |
| 11/29/2022 9:22 | 0.0237 |
| 11/29/2022 9:23 | 0.0243 |
| 11/29/2022 9:24 | 0.0247 |
| 11/29/2022 9:25 | 0.0247 |
| 11/29/2022 9:26 | 0.0249 |
| 11/29/2022 9:27 | 0.025 |
| 11/29/2022 9:28 | 0.0251 |
| 11/29/2022 9:29 | 0.0251 |
| 11/29/2022 9:30 | 0.0255 |
| 11/29/2022 9:31 | 0.0252 |
| 11/29/2022 9:32 | 0.0254 |
| 11/29/2022 9:33 | 0.0258 |
| 11/29/2022 9:34 | 0.0257 |
| 11/29/2022 9:35 | 0.0261 |
| 11/29/2022 9:36 | 0.027 |
| 11/29/2022 9:37 | 0.0279 |
| 11/29/2022 9:38 | 0.0284 |
| 11/29/2022 9:39 | 0.0293 |
| 11/29/2022 9:40 | 0.0302 |
| 11/29/2022 9:41 | 0.0311 |
| 11/29/2022 9:42 | 0.0319 |
| 11/29/2022 9:43 | 0.0328 |
| 11/29/2022 9:44 | 0.0338 |
| 11/29/2022 9:45 | 0.0347 |
| 11/29/2022 9:46 | 0.0357 |
| 11/29/2022 9:47 | 0.0366 |
| 11/29/2022 9:48 | 0.0373 |
| 11/29/2022 9:49 | 0.0385 |
| 11/29/2022 9:50 | 0.0395 |
| 11/29/2022 9:51 | 0.0405 |
| 11/29/2022 9:52 | 0.0412 |
| 11/29/2022 9:53 | 0.0423 |
| 11/29/2022 9:54 | 0.0429 |
| 11/29/2022 9:55 | 0.0437 |
| 11/29/2022 9:56 | 0.0442 |
| 11/29/2022 9:57 | 0.0448 |
| 11/29/2022 9:58 | 0.0455 |
| 11/29/2022 9:59 | 0.0457 |
| 11/29/2022 10:00 | 0.0459 |
| 11/29/2022 10:01 | 0.0467 |
| 11/29/2022 10:02 | 0.0473 |
| 11/29/2022 10:03 | 0.0482 |
| 11/29/2022 10:04 | 0.0483 |
| 11/29/2022 10:05 | 0.0483 |

| | |
|---|---|
| 11/29/2022 10:06 | 0.0483 |
| 11/29/2022 10:07 | 0.0487 |
| 11/29/2022 10:08 | 0.049 |
| 11/29/2022 10:09 | 0.0497 |
| 11/29/2022 10:10 | 0.05 |
| 11/29/2022 10:11 | 0.0508 |
| 11/29/2022 10:12 | 0.0514 |
| 11/29/2022 10:13 | 0.0518 |
| 11/29/2022 10:14 | 0.0525 |
| 11/29/2022 10:15 | 0.0531 |
| 11/29/2022 10:16 | 0.0534 |
| 11/29/2022 10:17 | 0.0537 |
| 11/29/2022 10:18 | 0.0539 |
| 11/29/2022 10:19 | 0.0547 |
| 11/29/2022 10:20 | 0.0555 |
| 11/29/2022 10:21 | 0.0563 |
| 11/29/2022 10:22 | 0.0571 |
| 11/29/2022 10:23 | 0.0577 |
| 11/29/2022 10:24 | 0.0581 |
| 11/29/2022 10:25 | 0.0589 |
| 11/29/2022 10:26 | 0.0593 |
| 11/29/2022 10:27 | 0.0598 |
| 11/29/2022 10:28 | 0.0609 |
| 11/29/2022 10:29 | 0.0616 |
| 11/29/2022 10:30 | 0.0623 |
| 11/29/2022 10:31 | 0.0629 |
| 11/29/2022 10:32 | 0.0637 |
| 11/29/2022 10:33 | 0.0643 |
| 11/29/2022 10:34 | 0.0649 |
| 11/29/2022 10:35 | 0.0657 |
| 11/29/2022 10:36 | 0.0657 |
| 11/29/2022 10:37 | 0.0662 |
| 11/29/2022 10:38 | 0.0665 |
| 11/29/2022 10:39 | 0.0671 |
| 11/29/2022 10:40 | 0.0673 |
| 11/29/2022 10:41 | 0.0677 |
| 11/29/2022 10:42 | 0.0681 |
| 11/29/2022 10:43 | 0.0684 |
| 11/29/2022 10:44 | 0.0687 |
| 11/29/2022 10:45 | 0.069 |
| 11/29/2022 10:46 | 0.0695 |
| 11/29/2022 10:47 | 0.0699 |
| 11/29/2022 10:48 | 0.0701 |
| 11/29/2022 10:49 | 0.0702 |
| 11/29/2022 10:50 | 0.0704 |
| 11/29/2022 10:51 | 0.0709 |
| 11/29/2022 10:52 | 0.071 |

| | |
|---|---|
| 11/29/2022 10:53 | 0.0712 |
| 11/29/2022 10:54 | 0.0715 |
| 11/29/2022 10:55 | 0.0717 |
| 11/29/2022 10:56 | 0.0719 |
| 11/29/2022 10:57 | 0.0721 |
| 11/29/2022 10:58 | 0.0721 |
| 11/29/2022 10:59 | 0.0722 |
| 11/29/2022 11:00 | 0.0724 |
| 11/29/2022 11:01 | 0.072 |
| 11/29/2022 11:02 | 0.072 |
| 11/29/2022 11:03 | 0.0723 |
| 11/29/2022 11:04 | 0.0721 |
| 11/29/2022 11:05 | 0.0721 |
| 11/29/2022 11:06 | 0.072 |
| 11/29/2022 11:07 | 0.0721 |
| 11/29/2022 11:08 | 0.0721 |
| 11/29/2022 11:09 | 0.0719 |
| 11/29/2022 11:10 | 0.0719 |
| 11/29/2022 11:11 | 0.0718 |
| 11/29/2022 11:12 | 0.0718 |
| 11/29/2022 11:13 | 0.0719 |
| 11/29/2022 11:14 | 0.0717 |
| 11/29/2022 11:15 | 0.0718 |
| 11/29/2022 11:16 | 0.0724 |
| 11/29/2022 11:17 | 0.0725 |
| 11/29/2022 11:18 | 0.0729 |
| 11/29/2022 11:19 | 0.0733 |
| 11/29/2022 11:20 | 0.0734 |
| 11/29/2022 11:21 | 0.0738 |
| 11/29/2022 11:22 | 0.0739 |
| 11/29/2022 11:23 | 0.0744 |
| 11/29/2022 11:24 | 0.0747 |
| 11/29/2022 11:25 | 0.0748 |
| 11/29/2022 11:26 | 0.0751 |
| 11/29/2022 11:27 | 0.0754 |
| 11/29/2022 11:28 | 0.0757 |
| 11/29/2022 11:29 | 0.0761 |
| 11/29/2022 11:30 | 0.0763 |
| 11/29/2022 11:31 | 0.0763 |
| 11/29/2022 11:32 | 0.0762 |
| 11/29/2022 11:33 | 0.076 |
| 11/29/2022 11:34 | 0.0759 |
| 11/29/2022 11:35 | 0.0759 |
| 11/29/2022 11:36 | 0.076 |
| 11/29/2022 11:37 | 0.0759 |
| 11/29/2022 11:38 | 0.0757 |
| 11/29/2022 11:39 | 0.0758 |

| | |
|---|---|
| 11/29/2022 11:40 | 0.0761 |
| 11/29/2022 11:41 | 0.076 |
| 11/29/2022 11:42 | 0.076 |
| 11/29/2022 11:43 | 0.076 |
| 11/29/2022 11:44 | 0.0764 |
| 11/29/2022 11:45 | 0.0768 |
| 11/29/2022 11:46 | 0.0773 |
| 11/29/2022 11:47 | 0.0779 |
| 11/29/2022 11:48 | 0.0781 |
| 11/29/2022 11:49 | 0.0786 |
| 11/29/2022 11:50 | 0.0789 |
| 11/29/2022 11:51 | 0.0793 |
| 11/29/2022 11:52 | 0.0797 |
| 11/29/2022 11:53 | 0.0801 |
| 11/29/2022 11:54 | 0.0802 |
| 11/29/2022 11:55 | 0.08 |
| 11/29/2022 11:56 | 0.0803 |
| 11/29/2022 11:57 | 0.0809 |
| 11/29/2022 11:58 | 0.0811 |
| 11/29/2022 11:59 | 0.0811 |
| 11/29/2022 12:00 | 0.0811 |
| 11/29/2022 12:01 | 0.0809 |
| 11/29/2022 12:02 | 0.0809 |
| 11/29/2022 12:03 | 0.0809 |
| 11/29/2022 12:04 | 0.081 |
| 11/29/2022 12:05 | 0.0809 |
| 11/29/2022 12:06 | 0.0805 |
| 11/29/2022 12:07 | 0.0805 |
| 11/29/2022 12:08 | 0.0805 |
| 11/29/2022 12:09 | 0.0807 |
| 11/29/2022 12:10 | 0.081 |
| 11/29/2022 12:11 | 0.0809 |
| 11/29/2022 12:12 | 0.08 |
| 11/29/2022 12:13 | 0.0795 |
| 11/29/2022 12:14 | 0.0789 |
| 11/29/2022 12:15 | 0.0783 |
| 11/29/2022 12:16 | 0.078 |
| 11/29/2022 12:17 | 0.0776 |
| 11/29/2022 12:18 | 0.0775 |
| 11/29/2022 12:19 | 0.0773 |
| 11/29/2022 12:20 | 0.0773 |
| 11/29/2022 12:21 | 0.0776 |
| 11/29/2022 12:22 | 0.0777 |
| 11/29/2022 12:23 | 0.0777 |
| 11/29/2022 12:24 | 0.0776 |
| 11/29/2022 12:25 | 0.0778 |
| 11/29/2022 12:26 | 0.0777 |

| | |
|---|---|
| 11/29/2022 12:27 | 0.0781 |
| 11/29/2022 12:28 | 0.0783 |
| 11/29/2022 12:29 | 0.0785 |
| 11/29/2022 12:30 | 0.0785 |
| 11/29/2022 12:31 | 0.0787 |
| 11/29/2022 12:32 | 0.0785 |
| 11/29/2022 12:33 | 0.0783 |
| 11/29/2022 12:34 | 0.0779 |
| 11/29/2022 12:35 | 0.0778 |
| 11/29/2022 12:36 | 0.0771 |
| 11/29/2022 12:37 | 0.0767 |
| 11/29/2022 12:38 | 0.0763 |
| 11/29/2022 12:39 | 0.076 |
| 11/29/2022 12:40 | 0.0755 |
| 11/29/2022 12:41 | 0.0753 |
| 11/29/2022 12:42 | 0.0747 |
| 11/29/2022 12:43 | 0.0746 |
| 11/29/2022 12:44 | 0.0746 |
| 11/29/2022 12:45 | 0.0743 |
| 11/29/2022 12:46 | 0.074 |
| 11/29/2022 12:47 | 0.0737 |
| 11/29/2022 12:48 | 0.0737 |
| 11/29/2022 12:49 | 0.0737 |
| 11/29/2022 12:50 | 0.0735 |
| 11/29/2022 12:51 | 0.0737 |
| 11/29/2022 12:52 | 0.0735 |
| 11/29/2022 12:53 | 0.0735 |
| 11/29/2022 12:54 | 0.0736 |
| 11/29/2022 12:55 | 0.0735 |
| 11/29/2022 12:56 | 0.0733 |
| 11/29/2022 12:57 | 0.0736 |
| 11/29/2022 12:58 | 0.0735 |
| 11/29/2022 12:59 | 0.0731 |
| 11/29/2022 13:00 | 0.0737 |
| 11/29/2022 13:01 | 0.0741 |
| 11/29/2022 13:02 | 0.0743 |
| 11/29/2022 13:03 | 0.0743 |
| 11/29/2022 13:04 | 0.074 |
| 11/29/2022 13:05 | 0.0737 |
| 11/29/2022 13:06 | 0.0735 |
| 11/29/2022 13:07 | 0.0731 |
| 11/29/2022 13:08 | 0.073 |
| 11/29/2022 13:09 | 0.0724 |
| 11/29/2022 13:10 | 0.0722 |
| 11/29/2022 13:11 | 0.0719 |
| 11/29/2022 13:12 | 0.0717 |
| 11/29/2022 13:13 | 0.0713 |

| | |
|---|---|
| 11/29/2022 13:14 | 0.0711 |
| 11/29/2022 13:15 | 0.0701 |
| 11/29/2022 13:16 | 0.0694 |
| 11/29/2022 13:17 | 0.0691 |
| 11/29/2022 13:18 | 0.0687 |
| 11/29/2022 13:19 | 0.0686 |
| 11/29/2022 13:20 | 0.0686 |
| 11/29/2022 13:21 | 0.0683 |
| 11/29/2022 13:22 | 0.0682 |
| 11/29/2022 13:23 | 0.0679 |
| 11/29/2022 13:24 | 0.0677 |
| 11/29/2022 13:25 | 0.0673 |
| 11/29/2022 13:26 | 0.0672 |
| 11/29/2022 13:27 | 0.0669 |
| 11/29/2022 13:28 | 0.0667 |
| 11/29/2022 13:29 | 0.0669 |
| 11/29/2022 13:30 | 0.0671 |
| 11/29/2022 13:31 | 0.0671 |
| 11/29/2022 13:32 | 0.0671 |
| 11/29/2022 13:33 | 0.0672 |
| 11/29/2022 13:34 | 0.067 |
| 11/29/2022 13:35 | 0.0669 |
| 11/29/2022 13:36 | 0.0667 |
| 11/29/2022 13:37 | 0.0664 |
| 11/29/2022 13:38 | 0.0661 |
| 11/29/2022 13:39 | 0.0659 |
| 11/29/2022 13:40 | 0.0659 |
| 11/29/2022 13:41 | 0.0655 |
| 11/29/2022 13:42 | 0.0653 |
| 11/29/2022 13:43 | 0.0649 |
| 11/29/2022 13:44 | 0.0641 |
| 11/29/2022 13:45 | 0.0635 |
| 11/29/2022 13:46 | 0.0631 |
| 11/29/2022 13:47 | 0.063 |
| 11/29/2022 13:48 | 0.0627 |
| 11/29/2022 13:49 | 0.0627 |
| 11/29/2022 13:50 | 0.0625 |
| 11/29/2022 13:51 | 0.0625 |
| 11/29/2022 13:52 | 0.0626 |
| 11/29/2022 13:53 | 0.0628 |
| 11/29/2022 13:54 | 0.0629 |
| 11/29/2022 13:55 | 0.0629 |
| 11/29/2022 13:56 | 0.0631 |
| 11/29/2022 13:57 | 0.0629 |
| 11/29/2022 13:58 | 0.0629 |
| 11/29/2022 13:59 | 0.0628 |
| 11/29/2022 14:00 | 0.0629 |

| | |
|---|---|
| 11/29/2022 14:01 | 0.0629 |
| 11/29/2022 14:02 | 0.0622 |
| 11/29/2022 14:03 | 0.0618 |
| 11/29/2022 14:04 | 0.0614 |
| 11/29/2022 14:05 | 0.0613 |
| 11/29/2022 14:06 | 0.0609 |

# APPENDIX C

## CAMP-2 AIR MONITORING DATA

- **DATA RAM – PARTICULATES**
- **PID - VOCs**

| | |
|---|---|
| User ID | 12345678 |

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| | |
|---|---|
| Begin | 11/23/2022 12:02 |
| End | 11/23/2022 12:05 |
| Sample Period(s) | 60 |
| Number of Records | 2 |

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| | |
|---|---|
| Sensor | PID(ppm) |
| Sensor SN | S023031037B3 |
| Measure Type | Avg; Max; Real |
| Span | 100 |
| Span 2 | 1000 |
| Low Alarm | 50 |
| High Alarm | 100 |
| Over Alarm | 15000 |
| STEL Alarm | 25 |
| TWA Alarm | 10 |
| Measurement Gas | Isobutylene |
| Calibration Time | 11/23/2022 12:02 |
| Peak | 0.4 |
| Min | 0.3 |
| Average | 0.4 |

**********

Datalog

| Index | Date/Time | PID(ppm) (Avg) | PID(ppm) (Max) | PID(ppm) (Real) |
|---|---|---|---|---|
| 1 | 11/23/2022 12:03 | 9.7 | 99.8 | 0.4 |
| 2 | 11/23/2022 12:04 | 0.4 | 0.4 | 0.3 |
| Peak | | 9.7 | 99.8 | 0.4 |
| Min | | 0.4 | 0.4 | 0.3 |
| Average | | 5.1 | 50.1 | 0.4 |

**********

TWA/STEL

| Index | Date/Time | PID(ppm) (TWA) | PID(ppm) (STEL) |
|---|---|---|---|
| 1 | 11/23/2022 12:03 | 0 | --- |
| 2 | 11/23/2022 12:04 | 0 | --- |

==========

22/11/23 12:05

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Summary

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| | |
|---|---|
| Unit Name | MiniRAE 3000 +(PGM-7320) |
| Unit SN | 592-601739 |
| Unit Firmware Ver | V2.22A |

| | |
|---|---|
| Running Mode | Hygiene Mode |
| Datalog Mode | Auto |
| Diagnostic Mode | No |
| Stop Reason | Power Down |

| | |
|---|---|
| Site ID | 12345678 |
| User ID | 12345678 |

| | |
|---|---|
| Begin | 11/23/2022 12:05 |
| End | 11/23/2022 12:11 |
| Sample Period(s) | 60 |
| Number of Records | 6 |

| | |
|---|---|
| Sensor | PID(ppm) |
| Sensor SN | S023031037B3 |
| Measure Type | Avg; Max; Real |
| Span | 100 |
| Span 2 | 1000 |
| Low Alarm | 50 |
| High Alarm | 100 |
| Over Alarm | 15000 |
| STEL Alarm | 25 |
| TWA Alarm | 10 |
| Measurement Gas | Isobutylene |
| Calibration Time | 11/23/2022 12:02 |
| Peak | 0.4 |
| Min | 0.3 |
| Average | 0.3 |

**********

Datalog

| Index | Date/Time | PID(ppm) (Avg) | PID(ppm) (Max) | PID(ppm) (Real) |
|---|---|---|---|---|
| 1 | 11/23/2022 12:06 | 0.3 | 0.3 | 0.3 |
| 2 | 11/23/2022 12:07 | 0.3 | 0.3 | 0.3 |
| 3 | 11/23/2022 12:08 | 0.3 | 0.3 | 0.3 |
| 4 | 11/23/2022 12:09 | 0.3 | 0.3 | 0.3 |
| 5 | 11/23/2022 12:10 | 0.3 | 0.4 | 0.4 |
| 6 | 11/23/2022 12:11 | 0.4 | 0.4 | 0.3 |
| Peak | | 0.4 | 0.4 | 0.4 |
| Min | | 0.3 | 0.3 | 0.3 |
| Average | | 0.3 | 0.3 | 0.3 |

**********

TWA/STEL

| | PID(ppm) | PID(ppm) |
|---|---|---|

| Index | Date/Time | (TWA) | (STEL) |
|---|---|---|---|
| 1 | 11/23/2022 12:06 | 0 | --- |
| 2 | 11/23/2022 12:07 | 0 | --- |
| 3 | 11/23/2022 12:08 | 0 | --- |
| 4 | 11/23/2022 12:09 | 0 | --- |
| 5 | 11/23/2022 12:10 | 0 | --- |
| 6 | 11/23/2022 12:11 | 0 | --- |

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22/11/29 06:43

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Summary

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| | |
|---|---|
| Unit Name | MiniRAE 3000 +(PGM-7320) |
| Unit SN | 592-601739 |
| Unit Firmware Ver | V2.22A |

---

| | |
|---|---|
| Running Mode | Hygiene Mode |
| Datalog Mode | Auto |
| Diagnostic Mode | No |
| Stop Reason | Power Down |

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| | |
|---|---|
| Site ID | 12345678 |
| User ID | 12345678 |

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| | |
|---|---|
| Begin | 11/29/2022 6:43 |
| End | 11/29/2022 6:49 |
| Sample Period(s) | 60 |
| Number of Records | 5 |

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| | |
|---|---|
| Sensor | PID(ppm) |
| Sensor SN | S023031037B3 |
| Measure Type | Avg; Max; Real |
| Span | 100 |
| Span 2 | 1000 |
| Low Alarm | 50 |
| High Alarm | 100 |
| Over Alarm | 15000 |
| STEL Alarm | 25 |
| TWA Alarm | 10 |
| Measurement Gas | Isobutylene |
| Calibration Time | 11/23/2022 12:02 |
| Peak | 0 |
| Min | 0 |
| Average | 0 |

**********

Datalog

| Index | Date/Time | PID(ppm) (Avg) | PID(ppm) (Max) | PID(ppm) (Real) |
|---|---|---|---|---|
| 1 | 11/29/2022 6:44 | 0 | 0.1 | 0 |
| 2 | 11/29/2022 6:45 | 0 | 0 | 0 |
| 3 | 11/29/2022 6:46 | 0 | 0 | 0 |
| 4 | 11/29/2022 6:47 | 0 | 0 | 0 |
| 5 | 11/29/2022 6:48 | 0 | 0 | 0 |
| Peak | | 0 | 0.1 | 0 |
| Min | | 0 | 0 | 0 |
| Average | | 0 | 0 | 0 |

**********

TWA/STEL

| Index | Date/Time | PID(ppm) (TWA) | PID(ppm) (STEL) |
|---|---|---|---|
| 1 | 11/29/2022 6:44 | 0 | --- |
| 2 | 11/29/2022 6:45 | 0 | --- |
| 3 | 11/29/2022 6:46 | 0 | --- |
| 4 | 11/29/2022 6:47 | 0 | --- |
| 5 | 11/29/2022 6:48 | 0 | --- |

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22/11/29 07:47

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Summary

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| | |
|---|---|
| Unit Name | MiniRAE 3000 +(PGM-7320) |
| Unit SN | 592-601739 |
| Unit Firmware Ver | V2.22A |

---

| | |
|---|---|
| Running Mode | Hygiene Mode |
| Datalog Mode | Auto |
| Diagnostic Mode | No |
| Stop Reason | Power Down |

---

| | |
|---|---|
| Site ID | 12345678 |
| User ID | 12345678 |

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| | |
|---|---|
| Begin | 11/29/2022 7:47 |
| End | 11/29/2022 14:08 |
| Sample Period(s) | 60 |
| Number of Records | 381 |

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| | |
|---|---|
| Sensor | PID(ppm) |
| Sensor SN | S023031037B3 |
| Measure Type | Avg; Max; Real |
| Span | 100 |
| Span 2 | 1000 |

| | |
|---|---|
| Low Alarm | 50 |
| High Alarm | 100 |
| Over Alarm | 15000 |
| STEL Alarm | 25 |
| TWA Alarm | 10 |
| Measurement Gas | Isobutylene |
| Calibration Time | 11/23/2022 12:02 |
| Peak | 0.1 |
| Min | 0 |
| Average | 0.1 |

**********

Datalog

| Index | Date/Time | PID(ppm) (Avg) | PID(ppm) (Max) | PID(ppm) (Real) |
|---|---|---|---|---|
| 1 | 11/29/2022 7:48 | 0 | 0 | 0 |
| 2 | 11/29/2022 7:49 | 0 | 0 | 0 |
| 3 | 11/29/2022 7:50 | 0 | 0 | 0 |
| 4 | 11/29/2022 7:51 | 0 | 0 | 0 |
| 5 | 11/29/2022 7:52 | 0 | 0 | 0 |
| 6 | 11/29/2022 7:53 | 0 | 0 | 0 |
| 7 | 11/29/2022 7:54 | 0 | 0 | 0 |
| 8 | 11/29/2022 7:55 | 0 | 0 | 0 |
| 9 | 11/29/2022 7:56 | 0 | 0 | 0 |
| 10 | 11/29/2022 7:57 | 0 | 0 | 0 |
| 11 | 11/29/2022 7:58 | 0 | 0 | 0 |
| 12 | 11/29/2022 7:59 | 0 | 0 | 0 |
| 13 | 11/29/2022 8:00 | 0 | 0 | 0 |
| 14 | 11/29/2022 8:01 | 0 | 0 | 0 |
| 15 | 11/29/2022 8:02 | 0 | 0 | 0 |
| 16 | 11/29/2022 8:03 | 0 | 0 | 0 |
| 17 | 11/29/2022 8:04 | 0 | 0 | 0 |
| 18 | 11/29/2022 8:05 | 0 | 0 | 0 |
| 19 | 11/29/2022 8:06 | 0 | 0 | 0 |
| 20 | 11/29/2022 8:07 | 0 | 0 | 0 |
| 21 | 11/29/2022 8:08 | 0 | 0 | 0 |
| 22 | 11/29/2022 8:09 | 0 | 0 | 0 |
| 23 | 11/29/2022 8:10 | 0 | 0 | 0 |
| 24 | 11/29/2022 8:11 | 0 | 0 | 0 |
| 25 | 11/29/2022 8:12 | 0 | 0 | 0 |
| 26 | 11/29/2022 8:13 | 0 | 0 | 0 |
| 27 | 11/29/2022 8:14 | 0 | 0 | 0 |
| 28 | 11/29/2022 8:15 | 0 | 0 | 0 |
| 29 | 11/29/2022 8:16 | 0 | 0 | 0 |
| 30 | 11/29/2022 8:17 | 0 | 0 | 0 |
| 31 | 11/29/2022 8:18 | 0 | 0 | 0 |
| 32 | 11/29/2022 8:19 | 0 | 0 | 0 |

| | | | | |
|---|---|---|---|---|
| 33 | 11/29/2022 8:20 | 0 | 0 | 0 |
| 34 | 11/29/2022 8:21 | 0 | 0 | 0 |
| 35 | 11/29/2022 8:22 | 0 | 0 | 0 |
| 36 | 11/29/2022 8:23 | 0 | 0 | 0 |
| 37 | 11/29/2022 8:24 | 0 | 0 | 0 |
| 38 | 11/29/2022 8:25 | 0 | 0 | 0 |
| 39 | 11/29/2022 8:26 | 0 | 0 | 0 |
| 40 | 11/29/2022 8:27 | 0 | 0 | 0 |
| 41 | 11/29/2022 8:28 | 0 | 0 | 0 |
| 42 | 11/29/2022 8:29 | 0 | 0 | 0 |
| 43 | 11/29/2022 8:30 | 0 | 0 | 0 |
| 44 | 11/29/2022 8:31 | 0 | 0 | 0 |
| 45 | 11/29/2022 8:32 | 0 | 0 | 0 |
| 46 | 11/29/2022 8:33 | 0 | 0 | 0 |
| 47 | 11/29/2022 8:34 | 0 | 0 | 0 |
| 48 | 11/29/2022 8:35 | 0 | 0 | 0 |
| 49 | 11/29/2022 8:36 | 0 | 0 | 0 |
| 50 | 11/29/2022 8:37 | 0 | 0 | 0 |
| 51 | 11/29/2022 8:38 | 0 | 0 | 0 |
| 52 | 11/29/2022 8:39 | 0 | 0 | 0 |
| 53 | 11/29/2022 8:40 | 0 | 0 | 0 |
| 54 | 11/29/2022 8:41 | 0 | 0 | 0 |
| 55 | 11/29/2022 8:42 | 0 | 0 | 0 |
| 56 | 11/29/2022 8:43 | 0 | 0 | 0 |
| 57 | 11/29/2022 8:44 | 0 | 0 | 0 |
| 58 | 11/29/2022 8:45 | 0 | 0 | 0 |
| 59 | 11/29/2022 8:46 | 0 | 0 | 0 |
| 60 | 11/29/2022 8:47 | 0 | 0 | 0 |
| 61 | 11/29/2022 8:48 | 0 | 0 | 0 |
| 62 | 11/29/2022 8:49 | 0 | 0 | 0 |
| 63 | 11/29/2022 8:50 | 0 | 0 | 0 |
| 64 | 11/29/2022 8:51 | 0 | 0 | 0 |
| 65 | 11/29/2022 8:52 | 0 | 0 | 0 |
| 66 | 11/29/2022 8:53 | 0 | 0 | 0 |
| 67 | 11/29/2022 8:54 | 0 | 0 | 0 |
| 68 | 11/29/2022 8:55 | 0 | 0 | 0 |
| 69 | 11/29/2022 8:56 | 0 | 0 | 0 |
| 70 | 11/29/2022 8:57 | 0 | 0 | 0 |
| 71 | 11/29/2022 8:58 | 0 | 0 | 0 |
| 72 | 11/29/2022 8:59 | 0 | 0 | 0 |
| 73 | 11/29/2022 9:00 | 0 | 0 | 0 |
| 74 | 11/29/2022 9:01 | 0 | 0 | 0 |
| 75 | 11/29/2022 9:02 | 0 | 0 | 0 |
| 76 | 11/29/2022 9:03 | 0 | 0 | 0 |
| 77 | 11/29/2022 9:04 | 0 | 0 | 0 |
| 78 | 11/29/2022 9:05 | 0 | 0 | 0 |
| 79 | 11/29/2022 9:06 | 0 | 0 | 0 |

| | | | | |
|---|---|---|---|---|
| 80 | 11/29/2022 9:07 | 0 | 0 | 0 |
| 81 | 11/29/2022 9:08 | 0 | 0 | 0 |
| 82 | 11/29/2022 9:09 | 0 | 0 | 0 |
| 83 | 11/29/2022 9:10 | 0 | 0 | 0 |
| 84 | 11/29/2022 9:11 | 0 | 0 | 0 |
| 85 | 11/29/2022 9:12 | 0 | 0 | 0 |
| 86 | 11/29/2022 9:13 | 0 | 0 | 0 |
| 87 | 11/29/2022 9:14 | 0 | 0 | 0 |
| 88 | 11/29/2022 9:15 | 0 | 0 | 0 |
| 89 | 11/29/2022 9:16 | 0 | 0 | 0 |
| 90 | 11/29/2022 9:17 | 0 | 0 | 0 |
| 91 | 11/29/2022 9:18 | 0 | 0 | 0 |
| 92 | 11/29/2022 9:19 | 0 | 0 | 0 |
| 93 | 11/29/2022 9:20 | 0 | 0 | 0 |
| 94 | 11/29/2022 9:21 | 0 | 0 | 0 |
| 95 | 11/29/2022 9:22 | 0 | 0 | 0 |
| 96 | 11/29/2022 9:23 | 0 | 0 | 0 |
| 97 | 11/29/2022 9:24 | 0 | 0 | 0 |
| 98 | 11/29/2022 9:25 | 0 | 0 | 0 |
| 99 | 11/29/2022 9:26 | 0 | 0 | 0 |
| 100 | 11/29/2022 9:27 | 0 | 0 | 0 |
| 101 | 11/29/2022 9:28 | 0 | 0 | 0 |
| 102 | 11/29/2022 9:29 | 0 | 0 | 0 |
| 103 | 11/29/2022 9:30 | 0 | 0 | 0 |
| 104 | 11/29/2022 9:31 | 0 | 0 | 0 |
| 105 | 11/29/2022 9:32 | 0 | 0 | 0 |
| 106 | 11/29/2022 9:33 | 0 | 0 | 0 |
| 107 | 11/29/2022 9:34 | 0 | 0 | 0 |
| 108 | 11/29/2022 9:35 | 0 | 0 | 0 |
| 109 | 11/29/2022 9:36 | 0 | 0 | 0 |
| 110 | 11/29/2022 9:37 | 0 | 0 | 0 |
| 111 | 11/29/2022 9:38 | 0 | 0 | 0 |
| 112 | 11/29/2022 9:39 | 0 | 0 | 0 |
| 113 | 11/29/2022 9:40 | 0 | 0 | 0 |
| 114 | 11/29/2022 9:41 | 0 | 0 | 0 |
| 115 | 11/29/2022 9:42 | 0 | 0 | 0 |
| 116 | 11/29/2022 9:43 | 0 | 0 | 0 |
| 117 | 11/29/2022 9:44 | 0 | 0 | 0 |
| 118 | 11/29/2022 9:45 | 0 | 0 | 0 |
| 119 | 11/29/2022 9:46 | 0 | 0 | 0 |
| 120 | 11/29/2022 9:47 | 0 | 0 | 0 |
| 121 | 11/29/2022 9:48 | 0 | 0 | 0 |
| 122 | 11/29/2022 9:49 | 0 | 0 | 0 |
| 123 | 11/29/2022 9:50 | 0 | 0 | 0 |
| 124 | 11/29/2022 9:51 | 0 | 0 | 0 |
| 125 | 11/29/2022 9:52 | 0 | 0.1 | 0 |
| 126 | 11/29/2022 9:53 | 0 | 0.1 | 0.1 |

| | | | | |
|---|---|---|---|---|
| 127 | 11/29/2022 9:54 | 0 | 0.1 | 0 |
| 128 | 11/29/2022 9:55 | 0 | 0.1 | 0 |
| 129 | 11/29/2022 9:56 | 0 | 0 | 0 |
| 130 | 11/29/2022 9:57 | 0 | 0.1 | 0 |
| 131 | 11/29/2022 9:58 | 0 | 0.1 | 0 |
| 132 | 11/29/2022 9:59 | 0 | 0.1 | 0 |
| 133 | 11/29/2022 10:00 | 0 | 0.1 | 0 |
| 134 | 11/29/2022 10:01 | 0 | 0 | 0 |
| 135 | 11/29/2022 10:02 | 0 | 0 | 0 |
| 136 | 11/29/2022 10:03 | 0 | 0.1 | 0 |
| 137 | 11/29/2022 10:04 | 0 | 0.1 | 0 |
| 138 | 11/29/2022 10:05 | 0.1 | 0.1 | 0.1 |
| 139 | 11/29/2022 10:06 | 0 | 0.1 | 0 |
| 140 | 11/29/2022 10:07 | 0 | 0.1 | 0.1 |
| 141 | 11/29/2022 10:08 | 0.1 | 0.1 | 0 |
| 142 | 11/29/2022 10:09 | 0 | 0.1 | 0 |
| 143 | 11/29/2022 10:10 | 0.1 | 0.1 | 0.1 |
| 144 | 11/29/2022 10:11 | 0.1 | 0.1 | 0.1 |
| 145 | 11/29/2022 10:12 | 0.1 | 0.1 | 0.1 |
| 146 | 11/29/2022 10:13 | 0.1 | 0.1 | 0.1 |
| 147 | 11/29/2022 10:14 | 0.1 | 0.1 | 0.1 |
| 148 | 11/29/2022 10:15 | 0.1 | 0.1 | 0.1 |
| 149 | 11/29/2022 10:16 | 0.1 | 0.1 | 0.1 |
| 150 | 11/29/2022 10:17 | 0.1 | 0.1 | 0.1 |
| 151 | 11/29/2022 10:18 | 0.1 | 0.1 | 0.1 |
| 152 | 11/29/2022 10:19 | 0.1 | 0.1 | 0.1 |
| 153 | 11/29/2022 10:20 | 0.1 | 0.1 | 0.1 |
| 154 | 11/29/2022 10:21 | 0.1 | 0.1 | 0.1 |
| 155 | 11/29/2022 10:22 | 0.1 | 0.1 | 0.1 |
| 156 | 11/29/2022 10:23 | 0.1 | 0.1 | 0.1 |
| 157 | 11/29/2022 10:24 | 0.1 | 0.1 | 0.1 |
| 158 | 11/29/2022 10:25 | 0.1 | 0.1 | 0.1 |
| 159 | 11/29/2022 10:26 | 0.1 | 0.1 | 0.1 |
| 160 | 11/29/2022 10:27 | 0.1 | 0.1 | 0.1 |
| 161 | 11/29/2022 10:28 | 0.1 | 0.1 | 0.1 |
| 162 | 11/29/2022 10:29 | 0.1 | 0.1 | 0.1 |
| 163 | 11/29/2022 10:30 | 0.1 | 0.1 | 0.1 |
| 164 | 11/29/2022 10:31 | 0.1 | 0.1 | 0.1 |
| 165 | 11/29/2022 10:32 | 0.1 | 0.1 | 0.1 |
| 166 | 11/29/2022 10:33 | 0.1 | 0.1 | 0.1 |
| 167 | 11/29/2022 10:34 | 0.1 | 0.1 | 0.1 |
| 168 | 11/29/2022 10:35 | 0.1 | 0.1 | 0.1 |
| 169 | 11/29/2022 10:36 | 0.1 | 0.1 | 0.1 |
| 170 | 11/29/2022 10:37 | 0.1 | 0.1 | 0.1 |
| 171 | 11/29/2022 10:38 | 0.1 | 0.1 | 0.1 |
| 172 | 11/29/2022 10:39 | 0.1 | 0.1 | 0.1 |
| 173 | 11/29/2022 10:40 | 0.1 | 0.1 | 0.1 |

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|---|---|---|---|---|
| 174 | 11/29/2022 10:41 | 0.1 | 0.1 | 0.1 |
| 175 | 11/29/2022 10:42 | 0.1 | 0.1 | 0.1 |
| 176 | 11/29/2022 10:43 | 0.1 | 0.1 | 0.1 |
| 177 | 11/29/2022 10:44 | 0.1 | 0.1 | 0.1 |
| 178 | 11/29/2022 10:45 | 0.1 | 0.1 | 0.1 |
| 179 | 11/29/2022 10:46 | 0.1 | 0.1 | 0.1 |
| 180 | 11/29/2022 10:47 | 0.1 | 0.1 | 0.1 |
| 181 | 11/29/2022 10:48 | 0.1 | 0.1 | 0.1 |
| 182 | 11/29/2022 10:49 | 0.1 | 0.1 | 0.1 |
| 183 | 11/29/2022 10:50 | 0.1 | 0.1 | 0.1 |
| 184 | 11/29/2022 10:51 | 0.1 | 0.1 | 0.1 |
| 185 | 11/29/2022 10:52 | 0.1 | 0.1 | 0.1 |
| 186 | 11/29/2022 10:53 | 0.1 | 0.1 | 0.1 |
| 187 | 11/29/2022 10:54 | 0.1 | 0.1 | 0.1 |
| 188 | 11/29/2022 10:55 | 0.1 | 0.1 | 0.1 |
| 189 | 11/29/2022 10:56 | 0.1 | 0.1 | 0.1 |
| 190 | 11/29/2022 10:57 | 0.1 | 0.1 | 0.1 |
| 191 | 11/29/2022 10:58 | 0.1 | 0.1 | 0.1 |
| 192 | 11/29/2022 10:59 | 0.1 | 0.1 | 0.1 |
| 193 | 11/29/2022 11:00 | 0.1 | 0.1 | 0.1 |
| 194 | 11/29/2022 11:01 | 0.1 | 0.1 | 0.1 |
| 195 | 11/29/2022 11:02 | 0.1 | 0.1 | 0.1 |
| 196 | 11/29/2022 11:03 | 0.1 | 0.1 | 0.1 |
| 197 | 11/29/2022 11:04 | 0.1 | 0.1 | 0.1 |
| 198 | 11/29/2022 11:05 | 0.1 | 0.1 | 0.1 |
| 199 | 11/29/2022 11:06 | 0.1 | 0.1 | 0.1 |
| 200 | 11/29/2022 11:07 | 0.1 | 0.1 | 0.1 |
| 201 | 11/29/2022 11:08 | 0.1 | 0.1 | 0.1 |
| 202 | 11/29/2022 11:09 | 0.1 | 0.1 | 0.1 |
| 203 | 11/29/2022 11:10 | 0.1 | 0.1 | 0.1 |
| 204 | 11/29/2022 11:11 | 0.1 | 0.1 | 0.1 |
| 205 | 11/29/2022 11:12 | 0.1 | 0.1 | 0.1 |
| 206 | 11/29/2022 11:13 | 0.1 | 0.1 | 0.1 |
| 207 | 11/29/2022 11:14 | 0.1 | 0.1 | 0.1 |
| 208 | 11/29/2022 11:15 | 0.1 | 0.1 | 0.1 |
| 209 | 11/29/2022 11:16 | 0.1 | 0.1 | 0.1 |
| 210 | 11/29/2022 11:17 | 0.1 | 0.1 | 0.1 |
| 211 | 11/29/2022 11:18 | 0.1 | 0.1 | 0.1 |
| 212 | 11/29/2022 11:19 | 0.1 | 0.1 | 0.1 |
| 213 | 11/29/2022 11:20 | 0.1 | 0.1 | 0.1 |
| 214 | 11/29/2022 11:21 | 0.1 | 0.1 | 0.1 |
| 215 | 11/29/2022 11:22 | 0.1 | 0.1 | 0.1 |
| 216 | 11/29/2022 11:23 | 0.1 | 0.1 | 0.1 |
| 217 | 11/29/2022 11:24 | 0.1 | 0.1 | 0.1 |
| 218 | 11/29/2022 11:25 | 0.1 | 0.1 | 0.1 |
| 219 | 11/29/2022 11:26 | 0.1 | 0.1 | 0.1 |
| 220 | 11/29/2022 11:27 | 0.1 | 0.1 | 0.1 |

| | | | | |
|---|---|---|---|---|
| 221 | 11/29/2022 11:28 | 0.1 | 0.1 | 0.1 |
| 222 | 11/29/2022 11:29 | 0.1 | 0.1 | 0.1 |
| 223 | 11/29/2022 11:30 | 0.1 | 0.1 | 0.1 |
| 224 | 11/29/2022 11:31 | 0.1 | 0.1 | 0.1 |
| 225 | 11/29/2022 11:32 | 0.1 | 0.1 | 0.1 |
| 226 | 11/29/2022 11:33 | 0.1 | 0.1 | 0.1 |
| 227 | 11/29/2022 11:34 | 0.1 | 0.1 | 0.1 |
| 228 | 11/29/2022 11:35 | 0.1 | 0.1 | 0.1 |
| 229 | 11/29/2022 11:36 | 0.1 | 0.1 | 0.1 |
| 230 | 11/29/2022 11:37 | 0.1 | 0.1 | 0.1 |
| 231 | 11/29/2022 11:38 | 0.1 | 0.1 | 0.1 |
| 232 | 11/29/2022 11:39 | 0.1 | 0.1 | 0.1 |
| 233 | 11/29/2022 11:40 | 0.1 | 0.1 | 0.1 |
| 234 | 11/29/2022 11:41 | 0.1 | 0.1 | 0.1 |
| 235 | 11/29/2022 11:42 | 0.1 | 0.1 | 0.1 |
| 236 | 11/29/2022 11:43 | 0.1 | 0.1 | 0.1 |
| 237 | 11/29/2022 11:44 | 0.1 | 0.1 | 0.1 |
| 238 | 11/29/2022 11:45 | 0.1 | 0.1 | 0.1 |
| 239 | 11/29/2022 11:46 | 0.1 | 0.1 | 0.1 |
| 240 | 11/29/2022 11:47 | 0.1 | 0.1 | 0.1 |
| 241 | 11/29/2022 11:48 | 0.1 | 0.1 | 0.1 |
| 242 | 11/29/2022 11:49 | 0.1 | 0.1 | 0.1 |
| 243 | 11/29/2022 11:50 | 0.1 | 0.1 | 0.1 |
| 244 | 11/29/2022 11:51 | 0.1 | 0.1 | 0.1 |
| 245 | 11/29/2022 11:52 | 0.1 | 0.1 | 0.1 |
| 246 | 11/29/2022 11:53 | 0.1 | 0.1 | 0.1 |
| 247 | 11/29/2022 11:54 | 0.1 | 0.1 | 0.1 |
| 248 | 11/29/2022 11:55 | 0.1 | 0.1 | 0.1 |
| 249 | 11/29/2022 11:56 | 0.1 | 0.1 | 0.1 |
| 250 | 11/29/2022 11:57 | 0.1 | 0.1 | 0.1 |
| 251 | 11/29/2022 11:58 | 0.1 | 0.1 | 0.1 |
| 252 | 11/29/2022 11:59 | 0.1 | 0.1 | 0.1 |
| 253 | 11/29/2022 12:00 | 0.1 | 0.1 | 0.1 |
| 254 | 11/29/2022 12:01 | 0.1 | 0.1 | 0.1 |
| 255 | 11/29/2022 12:02 | 0.1 | 0.1 | 0.1 |
| 256 | 11/29/2022 12:03 | 0.1 | 0.1 | 0.1 |
| 257 | 11/29/2022 12:04 | 0.1 | 0.1 | 0.1 |
| 258 | 11/29/2022 12:05 | 0.1 | 0.1 | 0.1 |
| 259 | 11/29/2022 12:06 | 0.1 | 0.1 | 0.1 |
| 260 | 11/29/2022 12:07 | 0.1 | 0.1 | 0.1 |
| 261 | 11/29/2022 12:08 | 0.1 | 0.1 | 0.1 |
| 262 | 11/29/2022 12:09 | 0.1 | 0.1 | 0.1 |
| 263 | 11/29/2022 12:10 | 0.1 | 0.1 | 0.1 |
| 264 | 11/29/2022 12:11 | 0.1 | 0.1 | 0.1 |
| 265 | 11/29/2022 12:12 | 0.1 | 0.1 | 0.1 |
| 266 | 11/29/2022 12:13 | 0.1 | 0.1 | 0.1 |
| 267 | 11/29/2022 12:14 | 0.1 | 0.1 | 0.1 |

| | | | | |
|---|---|---|---|---|
| 268 | 11/29/2022 12:15 | 0.1 | 0.1 | 0.1 |
| 269 | 11/29/2022 12:16 | 0.1 | 0.1 | 0.1 |
| 270 | 11/29/2022 12:17 | 0.1 | 0.1 | 0.1 |
| 271 | 11/29/2022 12:18 | 0.1 | 0.1 | 0.1 |
| 272 | 11/29/2022 12:19 | 0.1 | 0.1 | 0.1 |
| 273 | 11/29/2022 12:20 | 0.1 | 0.1 | 0.1 |
| 274 | 11/29/2022 12:21 | 0.1 | 0.1 | 0.1 |
| 275 | 11/29/2022 12:22 | 0.1 | 0.1 | 0.1 |
| 276 | 11/29/2022 12:23 | 0.1 | 0.1 | 0.1 |
| 277 | 11/29/2022 12:24 | 0.1 | 0.1 | 0.1 |
| 278 | 11/29/2022 12:25 | 0.1 | 0.1 | 0.1 |
| 279 | 11/29/2022 12:26 | 0.1 | 0.1 | 0.1 |
| 280 | 11/29/2022 12:27 | 0.1 | 0.1 | 0.1 |
| 281 | 11/29/2022 12:28 | 0.1 | 0.1 | 0.1 |
| 282 | 11/29/2022 12:29 | 0.1 | 0.1 | 0.1 |
| 283 | 11/29/2022 12:30 | 0.1 | 0.1 | 0.1 |
| 284 | 11/29/2022 12:31 | 0.1 | 0.1 | 0.1 |
| 285 | 11/29/2022 12:32 | 0.1 | 0.1 | 0.1 |
| 286 | 11/29/2022 12:33 | 0.1 | 0.1 | 0.1 |
| 287 | 11/29/2022 12:34 | 0.1 | 0.1 | 0.1 |
| 288 | 11/29/2022 12:35 | 0.1 | 0.1 | 0.1 |
| 289 | 11/29/2022 12:36 | 0.1 | 0.1 | 0.1 |
| 290 | 11/29/2022 12:37 | 0.1 | 0.1 | 0.1 |
| 291 | 11/29/2022 12:38 | 0.1 | 0.1 | 0.1 |
| 292 | 11/29/2022 12:39 | 0.1 | 0.1 | 0.1 |
| 293 | 11/29/2022 12:40 | 0.1 | 0.1 | 0.1 |
| 294 | 11/29/2022 12:41 | 0.1 | 0.1 | 0.1 |
| 295 | 11/29/2022 12:42 | 0.1 | 0.1 | 0.1 |
| 296 | 11/29/2022 12:43 | 0.1 | 0.1 | 0.1 |
| 297 | 11/29/2022 12:44 | 0.1 | 0.1 | 0.1 |
| 298 | 11/29/2022 12:45 | 0.1 | 0.1 | 0.1 |
| 299 | 11/29/2022 12:46 | 0.1 | 0.1 | 0.1 |
| 300 | 11/29/2022 12:47 | 0.1 | 0.1 | 0.1 |
| 301 | 11/29/2022 12:48 | 0.1 | 0.1 | 0.1 |
| 302 | 11/29/2022 12:49 | 0.1 | 0.1 | 0.1 |
| 303 | 11/29/2022 12:50 | 0.1 | 0.1 | 0.1 |
| 304 | 11/29/2022 12:51 | 0.1 | 0.1 | 0.1 |
| 305 | 11/29/2022 12:52 | 0.1 | 0.1 | 0.1 |
| 306 | 11/29/2022 12:53 | 0.1 | 0.1 | 0.1 |
| 307 | 11/29/2022 12:54 | 0.1 | 0.1 | 0.1 |
| 308 | 11/29/2022 12:55 | 0.1 | 0.1 | 0.1 |
| 309 | 11/29/2022 12:56 | 0.1 | 0.1 | 0.1 |
| 310 | 11/29/2022 12:57 | 0.1 | 0.1 | 0.1 |
| 311 | 11/29/2022 12:58 | 0.1 | 0.1 | 0.1 |
| 312 | 11/29/2022 12:59 | 0.1 | 0.1 | 0.1 |
| 313 | 11/29/2022 13:00 | 0.1 | 0.1 | 0.1 |
| 314 | 11/29/2022 13:01 | 0.1 | 0.1 | 0.1 |

| | | | | |
|---|---|---|---|---|
| 315 | 11/29/2022 13:02 | 0.1 | 0.1 | 0.1 |
| 316 | 11/29/2022 13:03 | 0.1 | 0.1 | 0.1 |
| 317 | 11/29/2022 13:04 | 0.1 | 0.1 | 0.1 |
| 318 | 11/29/2022 13:05 | 0.1 | 0.1 | 0.1 |
| 319 | 11/29/2022 13:06 | 0.1 | 0.1 | 0.1 |
| 320 | 11/29/2022 13:07 | 0.1 | 0.1 | 0.1 |
| 321 | 11/29/2022 13:08 | 0.1 | 0.1 | 0.1 |
| 322 | 11/29/2022 13:09 | 0.1 | 0.1 | 0.1 |
| 323 | 11/29/2022 13:10 | 0.1 | 0.1 | 0.1 |
| 324 | 11/29/2022 13:11 | 0.1 | 0.1 | 0.1 |
| 325 | 11/29/2022 13:12 | 0.1 | 0.1 | 0.1 |
| 326 | 11/29/2022 13:13 | 0.1 | 0.1 | 0.1 |
| 327 | 11/29/2022 13:14 | 0.1 | 0.1 | 0.1 |
| 328 | 11/29/2022 13:15 | 0.1 | 0.1 | 0.1 |
| 329 | 11/29/2022 13:16 | 0.1 | 0.1 | 0.1 |
| 330 | 11/29/2022 13:17 | 0.1 | 0.1 | 0.1 |
| 331 | 11/29/2022 13:18 | 0.1 | 0.1 | 0.1 |
| 332 | 11/29/2022 13:19 | 0.1 | 0.1 | 0.1 |
| 333 | 11/29/2022 13:20 | 0.1 | 0.1 | 0.1 |
| 334 | 11/29/2022 13:21 | 0.1 | 0.1 | 0.1 |
| 335 | 11/29/2022 13:22 | 0.1 | 0.1 | 0.1 |
| 336 | 11/29/2022 13:23 | 0.1 | 0.1 | 0.1 |
| 337 | 11/29/2022 13:24 | 0.1 | 0.1 | 0.1 |
| 338 | 11/29/2022 13:25 | 0.1 | 0.1 | 0.1 |
| 339 | 11/29/2022 13:26 | 0.1 | 0.1 | 0.1 |
| 340 | 11/29/2022 13:27 | 0.1 | 0.1 | 0.1 |
| 341 | 11/29/2022 13:28 | 0.1 | 0.1 | 0.1 |
| 342 | 11/29/2022 13:29 | 0.1 | 0.1 | 0.1 |
| 343 | 11/29/2022 13:30 | 0.1 | 0.1 | 0.1 |
| 344 | 11/29/2022 13:31 | 0.1 | 0.1 | 0.1 |
| 345 | 11/29/2022 13:32 | 0.1 | 0.1 | 0.1 |
| 346 | 11/29/2022 13:33 | 0.1 | 0.1 | 0.1 |
| 347 | 11/29/2022 13:34 | 0.1 | 0.1 | 0.1 |
| 348 | 11/29/2022 13:35 | 0.1 | 0.1 | 0.1 |
| 349 | 11/29/2022 13:36 | 0.1 | 0.1 | 0.1 |
| 350 | 11/29/2022 13:37 | 0.1 | 0.1 | 0.1 |
| 351 | 11/29/2022 13:38 | 0.1 | 0.1 | 0.1 |
| 352 | 11/29/2022 13:39 | 0.1 | 0.1 | 0.1 |
| 353 | 11/29/2022 13:40 | 0.1 | 0.1 | 0.1 |
| 354 | 11/29/2022 13:41 | 0.1 | 0.1 | 0.1 |
| 355 | 11/29/2022 13:42 | 0.1 | 0.1 | 0.1 |
| 356 | 11/29/2022 13:43 | 0.1 | 0.1 | 0.1 |
| 357 | 11/29/2022 13:44 | 0.1 | 0.1 | 0.1 |
| 358 | 11/29/2022 13:45 | 0.1 | 0.1 | 0.1 |
| 359 | 11/29/2022 13:46 | 0.1 | 0.1 | 0.1 |
| 360 | 11/29/2022 13:47 | 0.1 | 0.1 | 0.1 |
| 361 | 11/29/2022 13:48 | 0.1 | 0.1 | 0.1 |

| | | | | | |
|---|---|---|---|---|---|
| | 362 | 11/29/2022 13:49 | 0.1 | 0.1 | 0.1 |
| | 363 | 11/29/2022 13:50 | 0.1 | 0.1 | 0.1 |
| | 364 | 11/29/2022 13:51 | 0.1 | 0.1 | 0.1 |
| | 365 | 11/29/2022 13:52 | 0.1 | 0.1 | 0.1 |
| | 366 | 11/29/2022 13:53 | 0.1 | 0.1 | 0.1 |
| | 367 | 11/29/2022 13:54 | 0.1 | 0.1 | 0.1 |
| | 368 | 11/29/2022 13:55 | 0.1 | 0.1 | 0.1 |
| | 369 | 11/29/2022 13:56 | 0.1 | 0.1 | 0.1 |
| | 370 | 11/29/2022 13:57 | 0.1 | 0.1 | 0.1 |
| | 371 | 11/29/2022 13:58 | 0.1 | 0.1 | 0.1 |
| | 372 | 11/29/2022 13:59 | 0.1 | 0.1 | 0.1 |
| | 373 | 11/29/2022 14:00 | 0.1 | 0.1 | 0.1 |
| | 374 | 11/29/2022 14:01 | 0.1 | 0.1 | 0.1 |
| | 375 | 11/29/2022 14:02 | 0.1 | 0.1 | 0.1 |
| | 376 | 11/29/2022 14:03 | 0.1 | 0.1 | 0.1 |
| | 377 | 11/29/2022 14:04 | 0.1 | 0.1 | 0.1 |
| | 378 | 11/29/2022 14:05 | 0.1 | 0.1 | 0.1 |
| | 379 | 11/29/2022 14:06 | 0.1 | 0.1 | 0.1 |
| | 380 | 11/29/2022 14:07 | 0.1 | 0.1 | 0.1 |
| | 381 | 11/29/2022 14:08 | 0.1 | 0.1 | 0.1 |
| Peak | | | 0.1 | 0.1 | 0.1 |
| Min | | | 0 | 0 | 0 |
| Average | | | 0.1 | 0.1 | 0.1 |

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TWA/STEL

| Index | Date/Time | PID(ppm) (TWA) | PID(ppm) (STEL) |
|---|---|---|---|
| 1 | 11/29/2022 7:48 | 0 | --- |
| 2 | 11/29/2022 7:49 | 0 | --- |
| 3 | 11/29/2022 7:50 | 0 | --- |
| 4 | 11/29/2022 7:51 | 0 | --- |
| 5 | 11/29/2022 7:52 | 0 | --- |
| 6 | 11/29/2022 7:53 | 0 | --- |
| 7 | 11/29/2022 7:54 | 0 | --- |
| 8 | 11/29/2022 7:55 | 0 | --- |
| 9 | 11/29/2022 7:56 | 0 | --- |
| 10 | 11/29/2022 7:57 | 0 | --- |
| 11 | 11/29/2022 7:58 | 0 | --- |
| 12 | 11/29/2022 7:59 | 0 | --- |
| 13 | 11/29/2022 8:00 | 0 | --- |
| 14 | 11/29/2022 8:01 | 0 | --- |
| 15 | 11/29/2022 8:02 | 0 | 0 |
| 16 | 11/29/2022 8:03 | 0 | 0 |
| 17 | 11/29/2022 8:04 | 0 | 0 |
| 18 | 11/29/2022 8:05 | 0 | 0 |
| 19 | 11/29/2022 8:06 | 0 | 0 |

| | | | |
|---|---|---|---|
| 20 | 11/29/2022 8:07 | 0 | 0 |
| 21 | 11/29/2022 8:08 | 0 | 0 |
| 22 | 11/29/2022 8:09 | 0 | 0 |
| 23 | 11/29/2022 8:10 | 0 | 0 |
| 24 | 11/29/2022 8:11 | 0 | 0 |
| 25 | 11/29/2022 8:12 | 0 | 0 |
| 26 | 11/29/2022 8:13 | 0 | 0 |
| 27 | 11/29/2022 8:14 | 0 | 0 |
| 28 | 11/29/2022 8:15 | 0 | 0 |
| 29 | 11/29/2022 8:16 | 0 | 0 |
| 30 | 11/29/2022 8:17 | 0 | 0 |
| 31 | 11/29/2022 8:18 | 0 | 0 |
| 32 | 11/29/2022 8:19 | 0 | 0 |
| 33 | 11/29/2022 8:20 | 0 | 0 |
| 34 | 11/29/2022 8:21 | 0 | 0 |
| 35 | 11/29/2022 8:22 | 0 | 0 |
| 36 | 11/29/2022 8:23 | 0 | 0 |
| 37 | 11/29/2022 8:24 | 0 | 0 |
| 38 | 11/29/2022 8:25 | 0 | 0 |
| 39 | 11/29/2022 8:26 | 0 | 0 |
| 40 | 11/29/2022 8:27 | 0 | 0 |
| 41 | 11/29/2022 8:28 | 0 | 0 |
| 42 | 11/29/2022 8:29 | 0 | 0 |
| 43 | 11/29/2022 8:30 | 0 | 0 |
| 44 | 11/29/2022 8:31 | 0 | 0 |
| 45 | 11/29/2022 8:32 | 0 | 0 |
| 46 | 11/29/2022 8:33 | 0 | 0 |
| 47 | 11/29/2022 8:34 | 0 | 0 |
| 48 | 11/29/2022 8:35 | 0 | 0 |
| 49 | 11/29/2022 8:36 | 0 | 0 |
| 50 | 11/29/2022 8:37 | 0 | 0 |
| 51 | 11/29/2022 8:38 | 0 | 0 |
| 52 | 11/29/2022 8:39 | 0 | 0 |
| 53 | 11/29/2022 8:40 | 0 | 0 |
| 54 | 11/29/2022 8:41 | 0 | 0 |
| 55 | 11/29/2022 8:42 | 0 | 0 |
| 56 | 11/29/2022 8:43 | 0 | 0 |
| 57 | 11/29/2022 8:44 | 0 | 0 |
| 58 | 11/29/2022 8:45 | 0 | 0 |
| 59 | 11/29/2022 8:46 | 0 | 0 |
| 60 | 11/29/2022 8:47 | 0 | 0 |
| 61 | 11/29/2022 8:48 | 0 | 0 |
| 62 | 11/29/2022 8:49 | 0 | 0 |
| 63 | 11/29/2022 8:50 | 0 | 0 |
| 64 | 11/29/2022 8:51 | 0 | 0 |
| 65 | 11/29/2022 8:52 | 0 | 0 |
| 66 | 11/29/2022 8:53 | 0 | 0 |

| | | | |
|---|---|---|---|
| 67 | 11/29/2022 8:54 | 0 | 0 |
| 68 | 11/29/2022 8:55 | 0 | 0 |
| 69 | 11/29/2022 8:56 | 0 | 0 |
| 70 | 11/29/2022 8:57 | 0 | 0 |
| 71 | 11/29/2022 8:58 | 0 | 0 |
| 72 | 11/29/2022 8:59 | 0 | 0 |
| 73 | 11/29/2022 9:00 | 0 | 0 |
| 74 | 11/29/2022 9:01 | 0 | 0 |
| 75 | 11/29/2022 9:02 | 0 | 0 |
| 76 | 11/29/2022 9:03 | 0 | 0 |
| 77 | 11/29/2022 9:04 | 0 | 0 |
| 78 | 11/29/2022 9:05 | 0 | 0 |
| 79 | 11/29/2022 9:06 | 0 | 0 |
| 80 | 11/29/2022 9:07 | 0 | 0 |
| 81 | 11/29/2022 9:08 | 0 | 0 |
| 82 | 11/29/2022 9:09 | 0 | 0 |
| 83 | 11/29/2022 9:10 | 0 | 0 |
| 84 | 11/29/2022 9:11 | 0 | 0 |
| 85 | 11/29/2022 9:12 | 0 | 0 |
| 86 | 11/29/2022 9:13 | 0 | 0 |
| 87 | 11/29/2022 9:14 | 0 | 0 |
| 88 | 11/29/2022 9:15 | 0 | 0 |
| 89 | 11/29/2022 9:16 | 0 | 0 |
| 90 | 11/29/2022 9:17 | 0 | 0 |
| 91 | 11/29/2022 9:18 | 0 | 0 |
| 92 | 11/29/2022 9:19 | 0 | 0 |
| 93 | 11/29/2022 9:20 | 0 | 0 |
| 94 | 11/29/2022 9:21 | 0 | 0 |
| 95 | 11/29/2022 9:22 | 0 | 0 |
| 96 | 11/29/2022 9:23 | 0 | 0 |
| 97 | 11/29/2022 9:24 | 0 | 0 |
| 98 | 11/29/2022 9:25 | 0 | 0 |
| 99 | 11/29/2022 9:26 | 0 | 0 |
| 100 | 11/29/2022 9:27 | 0 | 0 |
| 101 | 11/29/2022 9:28 | 0 | 0 |
| 102 | 11/29/2022 9:29 | 0 | 0 |
| 103 | 11/29/2022 9:30 | 0 | 0 |
| 104 | 11/29/2022 9:31 | 0 | 0 |
| 105 | 11/29/2022 9:32 | 0 | 0 |
| 106 | 11/29/2022 9:33 | 0 | 0 |
| 107 | 11/29/2022 9:34 | 0 | 0 |
| 108 | 11/29/2022 9:35 | 0 | 0 |
| 109 | 11/29/2022 9:36 | 0 | 0 |
| 110 | 11/29/2022 9:37 | 0 | 0 |
| 111 | 11/29/2022 9:38 | 0 | 0 |
| 112 | 11/29/2022 9:39 | 0 | 0 |
| 113 | 11/29/2022 9:40 | 0 | 0 |

| | | | |
|---|---|---|---|
| 114 | 11/29/2022 9:41 | 0 | 0 |
| 115 | 11/29/2022 9:42 | 0 | 0 |
| 116 | 11/29/2022 9:43 | 0 | 0 |
| 117 | 11/29/2022 9:44 | 0 | 0 |
| 118 | 11/29/2022 9:45 | 0 | 0 |
| 119 | 11/29/2022 9:46 | 0 | 0 |
| 120 | 11/29/2022 9:47 | 0 | 0 |
| 121 | 11/29/2022 9:48 | 0 | 0 |
| 122 | 11/29/2022 9:49 | 0 | 0 |
| 123 | 11/29/2022 9:50 | 0 | 0 |
| 124 | 11/29/2022 9:51 | 0 | 0 |
| 125 | 11/29/2022 9:52 | 0 | 0 |
| 126 | 11/29/2022 9:53 | 0 | 0 |
| 127 | 11/29/2022 9:54 | 0 | 0 |
| 128 | 11/29/2022 9:55 | 0 | 0 |
| 129 | 11/29/2022 9:56 | 0 | 0 |
| 130 | 11/29/2022 9:57 | 0 | 0 |
| 131 | 11/29/2022 9:58 | 0 | 0 |
| 132 | 11/29/2022 9:59 | 0 | 0 |
| 133 | 11/29/2022 10:00 | 0 | 0 |
| 134 | 11/29/2022 10:01 | 0 | 0 |
| 135 | 11/29/2022 10:02 | 0 | 0 |
| 136 | 11/29/2022 10:03 | 0 | 0 |
| 137 | 11/29/2022 10:04 | 0 | 0 |
| 138 | 11/29/2022 10:05 | 0 | 0 |
| 139 | 11/29/2022 10:06 | 0 | 0 |
| 140 | 11/29/2022 10:07 | 0 | 0 |
| 141 | 11/29/2022 10:08 | 0 | 0 |
| 142 | 11/29/2022 10:09 | 0 | 0 |
| 143 | 11/29/2022 10:10 | 0 | 0 |
| 144 | 11/29/2022 10:11 | 0 | 0 |
| 145 | 11/29/2022 10:12 | 0 | 0 |
| 146 | 11/29/2022 10:13 | 0 | 0 |
| 147 | 11/29/2022 10:14 | 0 | 0 |
| 148 | 11/29/2022 10:15 | 0 | 0.1 |
| 149 | 11/29/2022 10:16 | 0 | 0.1 |
| 150 | 11/29/2022 10:17 | 0 | 0.1 |
| 151 | 11/29/2022 10:18 | 0 | 0.1 |
| 152 | 11/29/2022 10:19 | 0 | 0.1 |
| 153 | 11/29/2022 10:20 | 0 | 0.1 |
| 154 | 11/29/2022 10:21 | 0 | 0.1 |
| 155 | 11/29/2022 10:22 | 0 | 0.1 |
| 156 | 11/29/2022 10:23 | 0 | 0.1 |
| 157 | 11/29/2022 10:24 | 0 | 0.1 |
| 158 | 11/29/2022 10:25 | 0 | 0.1 |
| 159 | 11/29/2022 10:26 | 0 | 0.1 |
| 160 | 11/29/2022 10:27 | 0 | 0.1 |

| | | | |
|---|---|---|---|
| 161 | 11/29/2022 10:28 | 0 | 0.1 |
| 162 | 11/29/2022 10:29 | 0 | 0.1 |
| 163 | 11/29/2022 10:30 | 0 | 0.1 |
| 164 | 11/29/2022 10:31 | 0 | 0.1 |
| 165 | 11/29/2022 10:32 | 0 | 0.1 |
| 166 | 11/29/2022 10:33 | 0 | 0.1 |
| 167 | 11/29/2022 10:34 | 0 | 0.1 |
| 168 | 11/29/2022 10:35 | 0 | 0.1 |
| 169 | 11/29/2022 10:36 | 0 | 0.1 |
| 170 | 11/29/2022 10:37 | 0 | 0.1 |
| 171 | 11/29/2022 10:38 | 0 | 0.1 |
| 172 | 11/29/2022 10:39 | 0 | 0.1 |
| 173 | 11/29/2022 10:40 | 0 | 0.1 |
| 174 | 11/29/2022 10:41 | 0 | 0.1 |
| 175 | 11/29/2022 10:42 | 0 | 0.1 |
| 176 | 11/29/2022 10:43 | 0 | 0.1 |
| 177 | 11/29/2022 10:44 | 0 | 0.1 |
| 178 | 11/29/2022 10:45 | 0 | 0.1 |
| 179 | 11/29/2022 10:46 | 0 | 0.1 |
| 180 | 11/29/2022 10:47 | 0 | 0.1 |
| 181 | 11/29/2022 10:48 | 0 | 0.1 |
| 182 | 11/29/2022 10:49 | 0 | 0.1 |
| 183 | 11/29/2022 10:50 | 0 | 0.1 |
| 184 | 11/29/2022 10:51 | 0 | 0.1 |
| 185 | 11/29/2022 10:52 | 0 | 0.1 |
| 186 | 11/29/2022 10:53 | 0 | 0.1 |
| 187 | 11/29/2022 10:54 | 0 | 0.1 |
| 188 | 11/29/2022 10:55 | 0 | 0.1 |
| 189 | 11/29/2022 10:56 | 0 | 0.1 |
| 190 | 11/29/2022 10:57 | 0 | 0.1 |
| 191 | 11/29/2022 10:58 | 0 | 0.1 |
| 192 | 11/29/2022 10:59 | 0 | 0.1 |
| 193 | 11/29/2022 11:00 | 0 | 0.1 |
| 194 | 11/29/2022 11:01 | 0 | 0.1 |
| 195 | 11/29/2022 11:02 | 0 | 0.1 |
| 196 | 11/29/2022 11:03 | 0 | 0.1 |
| 197 | 11/29/2022 11:04 | 0 | 0.1 |
| 198 | 11/29/2022 11:05 | 0 | 0.1 |
| 199 | 11/29/2022 11:06 | 0 | 0.1 |
| 200 | 11/29/2022 11:07 | 0 | 0.1 |
| 201 | 11/29/2022 11:08 | 0 | 0.1 |
| 202 | 11/29/2022 11:09 | 0 | 0.1 |
| 203 | 11/29/2022 11:10 | 0 | 0.1 |
| 204 | 11/29/2022 11:11 | 0 | 0.1 |
| 205 | 11/29/2022 11:12 | 0 | 0.1 |
| 206 | 11/29/2022 11:13 | 0 | 0.1 |
| 207 | 11/29/2022 11:14 | 0 | 0.1 |

| | | | |
|---|---|---|---|
| 208 | 11/29/2022 11:15 | 0 | 0.1 |
| 209 | 11/29/2022 11:16 | 0 | 0.1 |
| 210 | 11/29/2022 11:17 | 0 | 0.1 |
| 211 | 11/29/2022 11:18 | 0 | 0.1 |
| 212 | 11/29/2022 11:19 | 0 | 0.1 |
| 213 | 11/29/2022 11:20 | 0 | 0.1 |
| 214 | 11/29/2022 11:21 | 0 | 0.1 |
| 215 | 11/29/2022 11:22 | 0 | 0.1 |
| 216 | 11/29/2022 11:23 | 0 | 0.1 |
| 217 | 11/29/2022 11:24 | 0 | 0.1 |
| 218 | 11/29/2022 11:25 | 0 | 0.1 |
| 219 | 11/29/2022 11:26 | 0 | 0.1 |
| 220 | 11/29/2022 11:27 | 0 | 0.1 |
| 221 | 11/29/2022 11:28 | 0 | 0.1 |
| 222 | 11/29/2022 11:29 | 0 | 0.1 |
| 223 | 11/29/2022 11:30 | 0 | 0.1 |
| 224 | 11/29/2022 11:31 | 0 | 0.1 |
| 225 | 11/29/2022 11:32 | 0 | 0.1 |
| 226 | 11/29/2022 11:33 | 0 | 0.1 |
| 227 | 11/29/2022 11:34 | 0 | 0.1 |
| 228 | 11/29/2022 11:35 | 0 | 0.1 |
| 229 | 11/29/2022 11:36 | 0 | 0.1 |
| 230 | 11/29/2022 11:37 | 0 | 0.1 |
| 231 | 11/29/2022 11:38 | 0 | 0.1 |
| 232 | 11/29/2022 11:39 | 0 | 0.1 |
| 233 | 11/29/2022 11:40 | 0 | 0.1 |
| 234 | 11/29/2022 11:41 | 0 | 0.1 |
| 235 | 11/29/2022 11:42 | 0 | 0.1 |
| 236 | 11/29/2022 11:43 | 0 | 0.1 |
| 237 | 11/29/2022 11:44 | 0 | 0.1 |
| 238 | 11/29/2022 11:45 | 0 | 0.1 |
| 239 | 11/29/2022 11:46 | 0 | 0.1 |
| 240 | 11/29/2022 11:47 | 0 | 0.1 |
| 241 | 11/29/2022 11:48 | 0 | 0.1 |
| 242 | 11/29/2022 11:49 | 0 | 0.1 |
| 243 | 11/29/2022 11:50 | 0 | 0.1 |
| 244 | 11/29/2022 11:51 | 0 | 0.1 |
| 245 | 11/29/2022 11:52 | 0 | 0.1 |
| 246 | 11/29/2022 11:53 | 0 | 0.1 |
| 247 | 11/29/2022 11:54 | 0 | 0.1 |
| 248 | 11/29/2022 11:55 | 0 | 0.1 |
| 249 | 11/29/2022 11:56 | 0 | 0.1 |
| 250 | 11/29/2022 11:57 | 0 | 0.1 |
| 251 | 11/29/2022 11:58 | 0 | 0.1 |
| 252 | 11/29/2022 11:59 | 0 | 0.1 |
| 253 | 11/29/2022 12:00 | 0 | 0.1 |
| 254 | 11/29/2022 12:01 | 0 | 0.1 |

| | | | |
|---|---|---|---|
| 255 | 11/29/2022 12:02 | 0 | 0.1 |
| 256 | 11/29/2022 12:03 | 0 | 0.1 |
| 257 | 11/29/2022 12:04 | 0 | 0.1 |
| 258 | 11/29/2022 12:05 | 0 | 0.1 |
| 259 | 11/29/2022 12:06 | 0 | 0.1 |
| 260 | 11/29/2022 12:07 | 0 | 0.1 |
| 261 | 11/29/2022 12:08 | 0 | 0.1 |
| 262 | 11/29/2022 12:09 | 0 | 0.1 |
| 263 | 11/29/2022 12:10 | 0 | 0.1 |
| 264 | 11/29/2022 12:11 | 0 | 0.1 |
| 265 | 11/29/2022 12:12 | 0 | 0.1 |
| 266 | 11/29/2022 12:13 | 0 | 0.1 |
| 267 | 11/29/2022 12:14 | 0 | 0.1 |
| 268 | 11/29/2022 12:15 | 0 | 0.1 |
| 269 | 11/29/2022 12:16 | 0 | 0.1 |
| 270 | 11/29/2022 12:17 | 0 | 0.1 |
| 271 | 11/29/2022 12:18 | 0 | 0.1 |
| 272 | 11/29/2022 12:19 | 0 | 0.1 |
| 273 | 11/29/2022 12:20 | 0 | 0.1 |
| 274 | 11/29/2022 12:21 | 0 | 0.1 |
| 275 | 11/29/2022 12:22 | 0 | 0.1 |
| 276 | 11/29/2022 12:23 | 0 | 0.1 |
| 277 | 11/29/2022 12:24 | 0 | 0.1 |
| 278 | 11/29/2022 12:25 | 0 | 0.1 |
| 279 | 11/29/2022 12:26 | 0 | 0.1 |
| 280 | 11/29/2022 12:27 | 0 | 0.1 |
| 281 | 11/29/2022 12:28 | 0 | 0.1 |
| 282 | 11/29/2022 12:29 | 0 | 0.1 |
| 283 | 11/29/2022 12:30 | 0 | 0.1 |
| 284 | 11/29/2022 12:31 | 0 | 0.1 |
| 285 | 11/29/2022 12:32 | 0 | 0.1 |
| 286 | 11/29/2022 12:33 | 0 | 0.1 |
| 287 | 11/29/2022 12:34 | 0 | 0.1 |
| 288 | 11/29/2022 12:35 | 0 | 0.1 |
| 289 | 11/29/2022 12:36 | 0 | 0.1 |
| 290 | 11/29/2022 12:37 | 0 | 0.1 |
| 291 | 11/29/2022 12:38 | 0 | 0.1 |
| 292 | 11/29/2022 12:39 | 0 | 0.1 |
| 293 | 11/29/2022 12:40 | 0 | 0.1 |
| 294 | 11/29/2022 12:41 | 0 | 0.1 |
| 295 | 11/29/2022 12:42 | 0 | 0.1 |
| 296 | 11/29/2022 12:43 | 0 | 0.1 |
| 297 | 11/29/2022 12:44 | 0 | 0.1 |
| 298 | 11/29/2022 12:45 | 0 | 0.1 |
| 299 | 11/29/2022 12:46 | 0 | 0.1 |
| 300 | 11/29/2022 12:47 | 0 | 0.1 |
| 301 | 11/29/2022 12:48 | 0 | 0.1 |

| | | | |
|---|---|---|---|
| 302 | 11/29/2022 12:49 | 0 | 0.1 |
| 303 | 11/29/2022 12:50 | 0 | 0.1 |
| 304 | 11/29/2022 12:51 | 0 | 0.1 |
| 305 | 11/29/2022 12:52 | 0 | 0.1 |
| 306 | 11/29/2022 12:53 | 0 | 0.1 |
| 307 | 11/29/2022 12:54 | 0 | 0.1 |
| 308 | 11/29/2022 12:55 | 0 | 0.1 |
| 309 | 11/29/2022 12:56 | 0 | 0.1 |
| 310 | 11/29/2022 12:57 | 0 | 0.1 |
| 311 | 11/29/2022 12:58 | 0 | 0.1 |
| 312 | 11/29/2022 12:59 | 0 | 0.1 |
| 313 | 11/29/2022 13:00 | 0 | 0.1 |
| 314 | 11/29/2022 13:01 | 0 | 0.1 |
| 315 | 11/29/2022 13:02 | 0 | 0.1 |
| 316 | 11/29/2022 13:03 | 0 | 0.1 |
| 317 | 11/29/2022 13:04 | 0 | 0.1 |
| 318 | 11/29/2022 13:05 | 0 | 0.1 |
| 319 | 11/29/2022 13:06 | 0 | 0.1 |
| 320 | 11/29/2022 13:07 | 0 | 0.1 |
| 321 | 11/29/2022 13:08 | 0 | 0.1 |
| 322 | 11/29/2022 13:09 | 0 | 0.1 |
| 323 | 11/29/2022 13:10 | 0 | 0.1 |
| 324 | 11/29/2022 13:11 | 0 | 0.1 |
| 325 | 11/29/2022 13:12 | 0 | 0.1 |
| 326 | 11/29/2022 13:13 | 0 | 0.1 |
| 327 | 11/29/2022 13:14 | 0 | 0.1 |
| 328 | 11/29/2022 13:15 | 0 | 0.1 |
| 329 | 11/29/2022 13:16 | 0 | 0.1 |
| 330 | 11/29/2022 13:17 | 0 | 0.1 |
| 331 | 11/29/2022 13:18 | 0 | 0.1 |
| 332 | 11/29/2022 13:19 | 0 | 0.1 |
| 333 | 11/29/2022 13:20 | 0 | 0.1 |
| 334 | 11/29/2022 13:21 | 0 | 0.1 |
| 335 | 11/29/2022 13:22 | 0 | 0.1 |
| 336 | 11/29/2022 13:23 | 0 | 0.1 |
| 337 | 11/29/2022 13:24 | 0 | 0.1 |
| 338 | 11/29/2022 13:25 | 0 | 0.1 |
| 339 | 11/29/2022 13:26 | 0 | 0.1 |
| 340 | 11/29/2022 13:27 | 0 | 0.1 |
| 341 | 11/29/2022 13:28 | 0 | 0.1 |
| 342 | 11/29/2022 13:29 | 0 | 0.1 |
| 343 | 11/29/2022 13:30 | 0 | 0.1 |
| 344 | 11/29/2022 13:31 | 0 | 0.1 |
| 345 | 11/29/2022 13:32 | 0 | 0.1 |
| 346 | 11/29/2022 13:33 | 0 | 0.1 |
| 347 | 11/29/2022 13:34 | 0 | 0.1 |
| 348 | 11/29/2022 13:35 | 0 | 0.1 |

| | | | |
|---|---|---|---|
| 349 | 11/29/2022 13:36 | 0 | 0.1 |
| 350 | 11/29/2022 13:37 | 0 | 0.1 |
| 351 | 11/29/2022 13:38 | 0 | 0.1 |
| 352 | 11/29/2022 13:39 | 0 | 0.1 |
| 353 | 11/29/2022 13:40 | 0 | 0.1 |
| 354 | 11/29/2022 13:41 | 0 | 0.1 |
| 355 | 11/29/2022 13:42 | 0 | 0.1 |
| 356 | 11/29/2022 13:43 | 0 | 0.1 |
| 357 | 11/29/2022 13:44 | 0 | 0.1 |
| 358 | 11/29/2022 13:45 | 0 | 0.1 |
| 359 | 11/29/2022 13:46 | 0 | 0.1 |
| 360 | 11/29/2022 13:47 | 0 | 0.1 |
| 361 | 11/29/2022 13:48 | 0 | 0.1 |
| 362 | 11/29/2022 13:49 | 0 | 0.1 |
| 363 | 11/29/2022 13:50 | 0 | 0.1 |
| 364 | 11/29/2022 13:51 | 0 | 0.1 |
| 365 | 11/29/2022 13:52 | 0 | 0.1 |
| 366 | 11/29/2022 13:53 | 0 | 0.1 |
| 367 | 11/29/2022 13:54 | 0 | 0.1 |
| 368 | 11/29/2022 13:55 | 0 | 0.1 |
| 369 | 11/29/2022 13:56 | 0 | 0.1 |
| 370 | 11/29/2022 13:57 | 0 | 0.1 |
| 371 | 11/29/2022 13:58 | 0 | 0.1 |
| 372 | 11/29/2022 13:59 | 0 | 0.1 |
| 373 | 11/29/2022 14:00 | 0 | 0.1 |
| 374 | 11/29/2022 14:01 | 0 | 0.1 |
| 375 | 11/29/2022 14:02 | 0 | 0.1 |
| 376 | 11/29/2022 14:03 | 0 | 0.1 |
| 377 | 11/29/2022 14:04 | 0 | 0.1 |
| 378 | 11/29/2022 14:05 | 0 | 0.1 |
| 379 | 11/29/2022 14:06 | 0 | 0.1 |
| 380 | 11/29/2022 14:07 | 0.1 | 0.1 |
| 381 | 11/29/2022 14:08 | 0.1 | 0.1 |

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22/11/30 07:30

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Summary

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| | |
|---|---|
| Unit Name | MiniRAE 3000 +(PGM-7320) |
| Unit SN | 592-601739 |
| Unit Firmware Ver | V2.22A |

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| | |
|---|---|
| Running Mode | Hygiene Mode |
| Datalog Mode | Auto |
| Diagnostic Mode | No |
| Stop Reason | Pause in Menu Mode |

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| | |
|---|---|
| Site ID | 12345678 |
| User ID | 12345678 |

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| | |
|---|---|
| Begin | 11/30/2022 7:30 |
| End | 11/30/2022 7:31 |
| Sample Period(s) | 60 |
| Number of Records | 1 |

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| | |
|---|---|
| Sensor | PID(ppm) |
| Sensor SN | S023031037B3 |
| Measure Type | Avg; Max; Real |
| Span | 100 |
| Span 2 | 1000 |
| Low Alarm | 50 |
| High Alarm | 100 |
| Over Alarm | 15000 |
| STEL Alarm | 25 |
| TWA Alarm | 10 |
| Measurement Gas | Isobutylene |
| Calibration Time | 11/23/2022 12:02 |
| Peak | 0 |
| Min | 0 |
| Average | 0 |

**********

Datalog

| Index | Date/Time | PID(ppm) (Avg) | PID(ppm) (Max) | PID(ppm) (Real) |
|---|---|---|---|---|
| 1 | 11/30/2022 7:31 | 0 | 0 | 0 |
| Peak | | 0 | 0 | 0 |
| Min | | 0 | 0 | 0 |
| Average | | 0 | 0 | 0 |

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TWA/STEL

| Index | Date/Time | PID(ppm) (TWA) | PID(ppm) (STEL) |
|---|---|---|---|
| 1 | 11/30/2022 7:31 | 0 | --- |

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22/11/30 07:43

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Summary

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| | |
|---|---|
| Unit Name | MiniRAE 3000 +(PGM-7320) |
| Unit SN | 592-601739 |
| Unit Firmware Ver | V2.22A |

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| | |
|---|---|
| Running Mode | Hygiene Mode |
| Datalog Mode | Auto |
| Diagnostic Mode | No |
| Stop Reason | Power Down |

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| | |
|---|---|
| Site ID | 12345678 |
| User ID | 12345678 |

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| | |
|---|---|
| Begin | 11/30/2022 7:43 |
| End | 11/30/2022 13:03 |
| Sample Period(s) | 60 |
| Number of Records | 320 |

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| | |
|---|---|
| Sensor | PID(ppm) |
| Sensor SN | S023031037B3 |
| Measure Type | Avg; Max; Real |
| Span | 100 |
| Span 2 | 1000 |
| Low Alarm | 50 |
| High Alarm | 100 |
| Over Alarm | 15000 |
| STEL Alarm | 25 |
| TWA Alarm | 10 |
| Measurement Gas | Isobutylene |
| Calibration Time | 11/30/2022 7:42 |
| Peak | 0.7 |
| Min | 0 |
| Average | 0.2 |

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Datalog

| Index | Date/Time | PID(ppm) (Avg) | PID(ppm) (Max) | PID(ppm) (Real) |
|---|---|---|---|---|
| 1 | 11/30/2022 7:44 | 0 | 0 | 0 |
| 2 | 11/30/2022 7:45 | 0 | 0 | 0 |
| 3 | 11/30/2022 7:46 | 0 | 0 | 0 |
| 4 | 11/30/2022 7:47 | 0 | 0 | 0 |
| 5 | 11/30/2022 7:48 | 0 | 0 | 0 |
| 6 | 11/30/2022 7:49 | 0 | 0 | 0 |
| 7 | 11/30/2022 7:50 | 0 | 0 | 0 |
| 8 | 11/30/2022 7:51 | 0 | 0 | 0 |
| 9 | 11/30/2022 7:52 | 0 | 0 | 0 |
| 10 | 11/30/2022 7:53 | 0 | 0 | 0 |
| 11 | 11/30/2022 7:54 | 0 | 0 | 0 |
| 12 | 11/30/2022 7:55 | 0 | 0 | 0 |
| 13 | 11/30/2022 7:56 | 0 | 0 | 0 |
| 14 | 11/30/2022 7:57 | 0 | 0 | 0 |

| | | | | |
|---|---|---|---|---|
| 15 | 11/30/2022 7:58 | 0 | 0 | 0 |
| 16 | 11/30/2022 7:59 | 0 | 0 | 0 |
| 17 | 11/30/2022 8:00 | 0 | 0 | 0 |
| 18 | 11/30/2022 8:01 | 0 | 0 | 0 |
| 19 | 11/30/2022 8:02 | 0 | 0 | 0 |
| 20 | 11/30/2022 8:03 | 0 | 0 | 0 |
| 21 | 11/30/2022 8:04 | 0 | 0 | 0 |
| 22 | 11/30/2022 8:05 | 0 | 0 | 0 |
| 23 | 11/30/2022 8:06 | 0 | 0 | 0 |
| 24 | 11/30/2022 8:07 | 0 | 0 | 0 |
| 25 | 11/30/2022 8:08 | 0 | 0 | 0 |
| 26 | 11/30/2022 8:09 | 0 | 0 | 0 |
| 27 | 11/30/2022 8:10 | 0 | 0 | 0 |
| 28 | 11/30/2022 8:11 | 0 | 0 | 0 |
| 29 | 11/30/2022 8:12 | 0 | 0 | 0 |
| 30 | 11/30/2022 8:13 | 0 | 0 | 0 |
| 31 | 11/30/2022 8:14 | 0 | 0 | 0 |
| 32 | 11/30/2022 8:15 | 0 | 0 | 0 |
| 33 | 11/30/2022 8:16 | 0 | 0 | 0 |
| 34 | 11/30/2022 8:17 | 0 | 0 | 0 |
| 35 | 11/30/2022 8:18 | 0 | 0 | 0 |
| 36 | 11/30/2022 8:19 | 0 | 0 | 0 |
| 37 | 11/30/2022 8:20 | 0 | 0 | 0 |
| 38 | 11/30/2022 8:21 | 0 | 0 | 0 |
| 39 | 11/30/2022 8:22 | 0 | 0 | 0 |
| 40 | 11/30/2022 8:23 | 0 | 0 | 0 |
| 41 | 11/30/2022 8:24 | 0 | 0 | 0 |
| 42 | 11/30/2022 8:25 | 0 | 0 | 0 |
| 43 | 11/30/2022 8:26 | 0 | 0 | 0 |
| 44 | 11/30/2022 8:27 | 0 | 0 | 0 |
| 45 | 11/30/2022 8:28 | 0 | 0 | 0 |
| 46 | 11/30/2022 8:29 | 0 | 0 | 0 |
| 47 | 11/30/2022 8:30 | 0 | 0 | 0 |
| 48 | 11/30/2022 8:31 | 0 | 0 | 0 |
| 49 | 11/30/2022 8:32 | 0 | 0 | 0 |
| 50 | 11/30/2022 8:33 | 0 | 0 | 0 |
| 51 | 11/30/2022 8:34 | 0 | 0 | 0 |
| 52 | 11/30/2022 8:35 | 0 | 0 | 0 |
| 53 | 11/30/2022 8:36 | 0 | 0 | 0 |
| 54 | 11/30/2022 8:37 | 0 | 0 | 0 |
| 55 | 11/30/2022 8:38 | 0 | 0 | 0 |
| 56 | 11/30/2022 8:39 | 0 | 0 | 0 |
| 57 | 11/30/2022 8:40 | 0 | 0 | 0 |
| 58 | 11/30/2022 8:41 | 0 | 0 | 0 |
| 59 | 11/30/2022 8:42 | 0 | 0 | 0 |
| 60 | 11/30/2022 8:43 | 0 | 0 | 0 |
| 61 | 11/30/2022 8:44 | 0 | 0 | 0 |

| | | | | |
|---|---|---|---|---|
| 62 | 11/30/2022 8:45 | 0 | 0 | 0 |
| 63 | 11/30/2022 8:46 | 0 | 0 | 0 |
| 64 | 11/30/2022 8:47 | 0 | 0 | 0 |
| 65 | 11/30/2022 8:48 | 0 | 0 | 0 |
| 66 | 11/30/2022 8:49 | 0 | 0 | 0 |
| 67 | 11/30/2022 8:50 | 0 | 0 | 0 |
| 68 | 11/30/2022 8:51 | 0 | 0 | 0 |
| 69 | 11/30/2022 8:52 | 0 | 0 | 0 |
| 70 | 11/30/2022 8:53 | 0 | 0 | 0 |
| 71 | 11/30/2022 8:54 | 0 | 0 | 0 |
| 72 | 11/30/2022 8:55 | 0 | 0 | 0 |
| 73 | 11/30/2022 8:56 | 0 | 0 | 0 |
| 74 | 11/30/2022 8:57 | 0 | 0 | 0 |
| 75 | 11/30/2022 8:58 | 0 | 0 | 0 |
| 76 | 11/30/2022 8:59 | 0 | 0 | 0 |
| 77 | 11/30/2022 9:00 | 0 | 0 | 0 |
| 78 | 11/30/2022 9:01 | 0 | 0 | 0 |
| 79 | 11/30/2022 9:02 | 0 | 0 | 0 |
| 80 | 11/30/2022 9:03 | 0 | 0 | 0 |
| 81 | 11/30/2022 9:04 | 0 | 0 | 0 |
| 82 | 11/30/2022 9:05 | 0 | 0 | 0 |
| 83 | 11/30/2022 9:06 | 0 | 0 | 0 |
| 84 | 11/30/2022 9:07 | 0 | 0 | 0 |
| 85 | 11/30/2022 9:08 | 0 | 0 | 0 |
| 86 | 11/30/2022 9:09 | 0 | 0 | 0 |
| 87 | 11/30/2022 9:10 | 0 | 0 | 0 |
| 88 | 11/30/2022 9:11 | 0 | 0 | 0 |
| 89 | 11/30/2022 9:12 | 0 | 0 | 0 |
| 90 | 11/30/2022 9:13 | 0 | 0 | 0 |
| 91 | 11/30/2022 9:14 | 0 | 0 | 0 |
| 92 | 11/30/2022 9:15 | 0 | 0 | 0 |
| 93 | 11/30/2022 9:16 | 0 | 0 | 0 |
| 94 | 11/30/2022 9:17 | 0 | 0 | 0 |
| 95 | 11/30/2022 9:18 | 0 | 0 | 0 |
| 96 | 11/30/2022 9:19 | 0 | 0 | 0 |
| 97 | 11/30/2022 9:20 | 0 | 0 | 0 |
| 98 | 11/30/2022 9:21 | 0 | 0 | 0 |
| 99 | 11/30/2022 9:22 | 0 | 0 | 0 |
| 100 | 11/30/2022 9:23 | 0 | 0 | 0 |
| 101 | 11/30/2022 9:24 | 0 | 0 | 0 |
| 102 | 11/30/2022 9:25 | 0 | 0 | 0 |
| 103 | 11/30/2022 9:26 | 0 | 0 | 0 |
| 104 | 11/30/2022 9:27 | 0 | 0 | 0 |
| 105 | 11/30/2022 9:28 | 0 | 0 | 0 |
| 106 | 11/30/2022 9:29 | 0 | 0 | 0 |
| 107 | 11/30/2022 9:30 | 0 | 0 | 0 |
| 108 | 11/30/2022 9:31 | 0 | 0 | 0 |

| | | | | |
|---|---|---|---|---|
| 109 | 11/30/2022 9:32 | 0 | 0 | 0 |
| 110 | 11/30/2022 9:33 | 0 | 0 | 0 |
| 111 | 11/30/2022 9:34 | 0 | 0 | 0 |
| 112 | 11/30/2022 9:35 | 0 | 0 | 0 |
| 113 | 11/30/2022 9:36 | 0 | 0 | 0 |
| 114 | 11/30/2022 9:37 | 0 | 0 | 0 |
| 115 | 11/30/2022 9:38 | 0 | 0 | 0 |
| 116 | 11/30/2022 9:39 | 0 | 0 | 0 |
| 117 | 11/30/2022 9:40 | 0 | 0 | 0 |
| 118 | 11/30/2022 9:41 | 0 | 0 | 0 |
| 119 | 11/30/2022 9:42 | 0 | 0 | 0 |
| 120 | 11/30/2022 9:43 | 0 | 0 | 0 |
| 121 | 11/30/2022 9:44 | 0 | 0 | 0 |
| 122 | 11/30/2022 9:45 | 0 | 0 | 0 |
| 123 | 11/30/2022 9:46 | 0 | 0 | 0 |
| 124 | 11/30/2022 9:47 | 0 | 0 | 0 |
| 125 | 11/30/2022 9:48 | 0 | 0 | 0 |
| 126 | 11/30/2022 9:49 | 0 | 0 | 0 |
| 127 | 11/30/2022 9:50 | 0 | 0 | 0 |
| 128 | 11/30/2022 9:51 | 0 | 0 | 0 |
| 129 | 11/30/2022 9:52 | 0 | 0 | 0 |
| 130 | 11/30/2022 9:53 | 0 | 0 | 0 |
| 131 | 11/30/2022 9:54 | 0 | 0.1 | 0 |
| 132 | 11/30/2022 9:55 | 0 | 0.1 | 0 |
| 133 | 11/30/2022 9:56 | 0 | 0.1 | 0 |
| 134 | 11/30/2022 9:57 | 0 | 0.1 | 0 |
| 135 | 11/30/2022 9:58 | 0 | 0.1 | 0 |
| 136 | 11/30/2022 9:59 | 0 | 0.1 | 0.1 |
| 137 | 11/30/2022 10:00 | 0 | 0.1 | 0.1 |
| 138 | 11/30/2022 10:01 | 0.1 | 0.1 | 0.1 |
| 139 | 11/30/2022 10:02 | 0.1 | 0.1 | 0.1 |
| 140 | 11/30/2022 10:03 | 0.1 | 0.1 | 0.1 |
| 141 | 11/30/2022 10:04 | 0.1 | 0.1 | 0.1 |
| 142 | 11/30/2022 10:05 | 0.1 | 0.1 | 0.1 |
| 143 | 11/30/2022 10:06 | 0.1 | 0.1 | 0.1 |
| 144 | 11/30/2022 10:07 | 0.1 | 0.1 | 0.1 |
| 145 | 11/30/2022 10:08 | 0.1 | 0.1 | 0.1 |
| 146 | 11/30/2022 10:09 | 0.1 | 0.1 | 0.1 |
| 147 | 11/30/2022 10:10 | 0.1 | 0.1 | 0.1 |
| 148 | 11/30/2022 10:11 | 0.1 | 0.1 | 0.1 |
| 149 | 11/30/2022 10:12 | 0.1 | 0.1 | 0.1 |
| 150 | 11/30/2022 10:13 | 0.1 | 0.1 | 0.1 |
| 151 | 11/30/2022 10:14 | 0.1 | 0.1 | 0.1 |
| 152 | 11/30/2022 10:15 | 0.1 | 0.1 | 0.1 |
| 153 | 11/30/2022 10:16 | 0.1 | 0.1 | 0.1 |
| 154 | 11/30/2022 10:17 | 0.1 | 0.1 | 0.1 |
| 155 | 11/30/2022 10:18 | 0.1 | 0.1 | 0.1 |

| | | | | |
|---|---|---|---|---|
| 156 | 11/30/2022 10:19 | 0.1 | 0.1 | 0.1 |
| 157 | 11/30/2022 10:20 | 0.1 | 0.1 | 0.1 |
| 158 | 11/30/2022 10:21 | 0.1 | 0.1 | 0.1 |
| 159 | 11/30/2022 10:22 | 0.1 | 0.1 | 0.1 |
| 160 | 11/30/2022 10:23 | 0.1 | 0.1 | 0.1 |
| 161 | 11/30/2022 10:24 | 0.1 | 0.2 | 0.2 |
| 162 | 11/30/2022 10:25 | 0.1 | 0.2 | 0.1 |
| 163 | 11/30/2022 10:26 | 0.1 | 0.2 | 0.2 |
| 164 | 11/30/2022 10:27 | 0.1 | 0.2 | 0.2 |
| 165 | 11/30/2022 10:28 | 0.1 | 0.2 | 0.1 |
| 166 | 11/30/2022 10:29 | 0.1 | 0.2 | 0.2 |
| 167 | 11/30/2022 10:30 | 0.2 | 0.2 | 0.1 |
| 168 | 11/30/2022 10:31 | 0.2 | 0.2 | 0.2 |
| 169 | 11/30/2022 10:32 | 0.2 | 0.2 | 0.2 |
| 170 | 11/30/2022 10:33 | 0.2 | 0.2 | 0.2 |
| 171 | 11/30/2022 10:34 | 0.2 | 0.2 | 0.2 |
| 172 | 11/30/2022 10:35 | 0.2 | 0.2 | 0.2 |
| 173 | 11/30/2022 10:36 | 0.2 | 0.2 | 0.2 |
| 174 | 11/30/2022 10:37 | 0.2 | 0.2 | 0.2 |
| 175 | 11/30/2022 10:38 | 0.2 | 0.2 | 0.2 |
| 176 | 11/30/2022 10:39 | 0.2 | 0.2 | 0.2 |
| 177 | 11/30/2022 10:40 | 0.2 | 0.2 | 0.2 |
| 178 | 11/30/2022 10:41 | 0.2 | 0.2 | 0.2 |
| 179 | 11/30/2022 10:42 | 0.2 | 0.2 | 0.2 |
| 180 | 11/30/2022 10:43 | 0.2 | 0.2 | 0.2 |
| 181 | 11/30/2022 10:44 | 0.2 | 0.2 | 0.2 |
| 182 | 11/30/2022 10:45 | 0.2 | 0.2 | 0.2 |
| 183 | 11/30/2022 10:46 | 0.2 | 0.2 | 0.2 |
| 184 | 11/30/2022 10:47 | 0.2 | 0.2 | 0.2 |
| 185 | 11/30/2022 10:48 | 0.2 | 0.2 | 0.2 |
| 186 | 11/30/2022 10:49 | 0.2 | 0.2 | 0.2 |
| 187 | 11/30/2022 10:50 | 0.2 | 0.2 | 0.2 |
| 188 | 11/30/2022 10:51 | 0.2 | 0.2 | 0.2 |
| 189 | 11/30/2022 10:52 | 0.2 | 0.2 | 0.2 |
| 190 | 11/30/2022 10:53 | 0.2 | 0.2 | 0.2 |
| 191 | 11/30/2022 10:54 | 0.3 | 0.3 | 0.3 |
| 192 | 11/30/2022 10:55 | 0.2 | 0.3 | 0.2 |
| 193 | 11/30/2022 10:56 | 0.3 | 0.3 | 0.3 |
| 194 | 11/30/2022 10:57 | 0.3 | 0.3 | 0.3 |
| 195 | 11/30/2022 10:58 | 0.3 | 0.3 | 0.2 |
| 196 | 11/30/2022 10:59 | 0.2 | 0.3 | 0.3 |
| 197 | 11/30/2022 11:00 | 0.2 | 0.3 | 0.2 |
| 198 | 11/30/2022 11:01 | 0.2 | 0.3 | 0.2 |
| 199 | 11/30/2022 11:02 | 0.2 | 0.3 | 0.2 |
| 200 | 11/30/2022 11:03 | 0.2 | 0.3 | 0.2 |
| 201 | 11/30/2022 11:04 | 0.3 | 0.3 | 0.2 |
| 202 | 11/30/2022 11:05 | 0.3 | 0.3 | 0.3 |

| | | | | |
|---|---|---|---|---|
| 203 | 11/30/2022 11:06 | 0.3 | 0.3 | 0.3 |
| 204 | 11/30/2022 11:07 | 0.3 | 0.3 | 0.3 |
| 205 | 11/30/2022 11:08 | 0.3 | 0.3 | 0.3 |
| 206 | 11/30/2022 11:09 | 0.3 | 0.3 | 0.3 |
| 207 | 11/30/2022 11:10 | 0.3 | 0.3 | 0.3 |
| 208 | 11/30/2022 11:11 | 0.3 | 0.3 | 0.3 |
| 209 | 11/30/2022 11:12 | 0.3 | 0.3 | 0.3 |
| 210 | 11/30/2022 11:13 | 0.3 | 0.3 | 0.3 |
| 211 | 11/30/2022 11:14 | 0.3 | 0.3 | 0.3 |
| 212 | 11/30/2022 11:15 | 0.3 | 0.3 | 0.3 |
| 213 | 11/30/2022 11:16 | 0.3 | 0.3 | 0.3 |
| 214 | 11/30/2022 11:17 | 0.3 | 0.3 | 0.3 |
| 215 | 11/30/2022 11:18 | 0.3 | 0.3 | 0.3 |
| 216 | 11/30/2022 11:19 | 0.3 | 0.3 | 0.3 |
| 217 | 11/30/2022 11:20 | 0.3 | 0.3 | 0.3 |
| 218 | 11/30/2022 11:21 | 0.3 | 0.3 | 0.3 |
| 219 | 11/30/2022 11:22 | 0.3 | 0.3 | 0.3 |
| 220 | 11/30/2022 11:23 | 0.3 | 0.3 | 0.3 |
| 221 | 11/30/2022 11:24 | 0.3 | 0.3 | 0.3 |
| 222 | 11/30/2022 11:25 | 0.3 | 0.4 | 0.3 |
| 223 | 11/30/2022 11:26 | 0.3 | 0.3 | 0.3 |
| 224 | 11/30/2022 11:27 | 0.3 | 0.3 | 0.3 |
| 225 | 11/30/2022 11:28 | 0.3 | 0.3 | 0.3 |
| 226 | 11/30/2022 11:29 | 0.3 | 0.3 | 0.3 |
| 227 | 11/30/2022 11:30 | 0.3 | 0.4 | 0.3 |
| 228 | 11/30/2022 11:31 | 0.3 | 0.3 | 0.3 |
| 229 | 11/30/2022 11:32 | 0.3 | 0.4 | 0.3 |
| 230 | 11/30/2022 11:33 | 0.3 | 0.4 | 0.3 |
| 231 | 11/30/2022 11:34 | 0.3 | 0.4 | 0.3 |
| 232 | 11/30/2022 11:35 | 0.3 | 0.3 | 0.3 |
| 233 | 11/30/2022 11:36 | 0.3 | 0.3 | 0.3 |
| 234 | 11/30/2022 11:37 | 0.3 | 0.3 | 0.3 |
| 235 | 11/30/2022 11:38 | 0.3 | 0.4 | 0.3 |
| 236 | 11/30/2022 11:39 | 0.3 | 0.4 | 0.3 |
| 237 | 11/30/2022 11:40 | 0.3 | 0.4 | 0.3 |
| 238 | 11/30/2022 11:41 | 0.3 | 0.4 | 0.4 |
| 239 | 11/30/2022 11:42 | 0.3 | 0.4 | 0.4 |
| 240 | 11/30/2022 11:43 | 0.3 | 0.4 | 0.4 |
| 241 | 11/30/2022 11:44 | 0.3 | 0.4 | 0.3 |
| 242 | 11/30/2022 11:45 | 0.3 | 0.4 | 0.4 |
| 243 | 11/30/2022 11:46 | 0.4 | 0.4 | 0.3 |
| 244 | 11/30/2022 11:47 | 0.3 | 0.4 | 0.3 |
| 245 | 11/30/2022 11:48 | 0.4 | 0.4 | 0.4 |
| 246 | 11/30/2022 11:49 | 0.4 | 0.4 | 0.4 |
| 247 | 11/30/2022 11:50 | 0.4 | 0.4 | 0.4 |
| 248 | 11/30/2022 11:51 | 0.4 | 0.4 | 0.4 |
| 249 | 11/30/2022 11:52 | 0.4 | 0.4 | 0.4 |

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|---|---|---|---|---|
| 250 | 11/30/2022 11:53 | 0.4 | 0.4 | 0.4 |
| 251 | 11/30/2022 11:54 | 0.4 | 0.4 | 0.4 |
| 252 | 11/30/2022 11:55 | 0.4 | 0.4 | 0.4 |
| 253 | 11/30/2022 11:56 | 0.4 | 0.4 | 0.4 |
| 254 | 11/30/2022 11:57 | 0.4 | 0.4 | 0.4 |
| 255 | 11/30/2022 11:58 | 0.4 | 0.4 | 0.4 |
| 256 | 11/30/2022 11:59 | 0.4 | 0.5 | 0.5 |
| 257 | 11/30/2022 12:00 | 0.4 | 0.5 | 0.4 |
| 258 | 11/30/2022 12:01 | 0.4 | 0.4 | 0.4 |
| 259 | 11/30/2022 12:02 | 0.4 | 0.4 | 0.4 |
| 260 | 11/30/2022 12:03 | 0.4 | 0.4 | 0.4 |
| 261 | 11/30/2022 12:04 | 0.4 | 0.4 | 0.4 |
| 262 | 11/30/2022 12:05 | 0.4 | 0.4 | 0.4 |
| 263 | 11/30/2022 12:06 | 0.4 | 0.4 | 0.4 |
| 264 | 11/30/2022 12:07 | 0.4 | 0.5 | 0.4 |
| 265 | 11/30/2022 12:08 | 0.4 | 0.5 | 0.4 |
| 266 | 11/30/2022 12:09 | 0.4 | 0.5 | 0.4 |
| 267 | 11/30/2022 12:10 | 0.4 | 0.5 | 0.4 |
| 268 | 11/30/2022 12:11 | 0.5 | 0.5 | 0.5 |
| 269 | 11/30/2022 12:12 | 0.5 | 0.5 | 0.5 |
| 270 | 11/30/2022 12:13 | 0.5 | 0.5 | 0.4 |
| 271 | 11/30/2022 12:14 | 0.5 | 0.5 | 0.5 |
| 272 | 11/30/2022 12:15 | 0.5 | 0.5 | 0.5 |
| 273 | 11/30/2022 12:16 | 0.5 | 0.5 | 0.5 |
| 274 | 11/30/2022 12:17 | 0.5 | 0.5 | 0.5 |
| 275 | 11/30/2022 12:18 | 0.5 | 0.5 | 0.5 |
| 276 | 11/30/2022 12:19 | 0.5 | 0.5 | 0.5 |
| 277 | 11/30/2022 12:20 | 0.5 | 0.5 | 0.5 |
| 278 | 11/30/2022 12:21 | 0.5 | 0.5 | 0.5 |
| 279 | 11/30/2022 12:22 | 0.5 | 0.5 | 0.5 |
| 280 | 11/30/2022 12:23 | 0.5 | 0.5 | 0.5 |
| 281 | 11/30/2022 12:24 | 0.5 | 0.5 | 0.5 |
| 282 | 11/30/2022 12:25 | 0.5 | 0.5 | 0.5 |
| 283 | 11/30/2022 12:26 | 0.5 | 0.5 | 0.5 |
| 284 | 11/30/2022 12:27 | 0.5 | 0.5 | 0.5 |
| 285 | 11/30/2022 12:28 | 0.5 | 0.5 | 0.5 |
| 286 | 11/30/2022 12:29 | 0.5 | 0.6 | 0.6 |
| 287 | 11/30/2022 12:30 | 0.5 | 0.6 | 0.6 |
| 288 | 11/30/2022 12:31 | 0.5 | 0.6 | 0.6 |
| 289 | 11/30/2022 12:32 | 0.5 | 0.6 | 0.5 |
| 290 | 11/30/2022 12:33 | 0.5 | 0.6 | 0.5 |
| 291 | 11/30/2022 12:34 | 0.6 | 0.6 | 0.6 |
| 292 | 11/30/2022 12:35 | 0.6 | 0.6 | 0.6 |
| 293 | 11/30/2022 12:36 | 0.6 | 0.6 | 0.6 |
| 294 | 11/30/2022 12:37 | 0.6 | 0.6 | 0.6 |
| 295 | 11/30/2022 12:38 | 0.6 | 0.6 | 0.5 |
| 296 | 11/30/2022 12:39 | 0.6 | 0.6 | 0.6 |

| | | | | | |
|---|---|---|---|---|---|
| | 297 | 11/30/2022 12:40 | 0.6 | 0.6 | 0.6 |
| | 298 | 11/30/2022 12:41 | 0.6 | 0.6 | 0.6 |
| | 299 | 11/30/2022 12:42 | 0.6 | 0.6 | 0.6 |
| | 300 | 11/30/2022 12:43 | 0.6 | 0.6 | 0.6 |
| | 301 | 11/30/2022 12:44 | 0.6 | 0.6 | 0.6 |
| | 302 | 11/30/2022 12:45 | 0.6 | 0.6 | 0.6 |
| | 303 | 11/30/2022 12:46 | 0.6 | 0.6 | 0.6 |
| | 304 | 11/30/2022 12:47 | 0.6 | 0.6 | 0.6 |
| | 305 | 11/30/2022 12:48 | 0.6 | 0.6 | 0.6 |
| | 306 | 11/30/2022 12:49 | 0.6 | 0.6 | 0.6 |
| | 307 | 11/30/2022 12:50 | 0.6 | 0.6 | 0.6 |
| | 308 | 11/30/2022 12:51 | 0.6 | 0.6 | 0.6 |
| | 309 | 11/30/2022 12:52 | 0.6 | 0.7 | 0.7 |
| | 310 | 11/30/2022 12:53 | 0.6 | 0.7 | 0.6 |
| | 311 | 11/30/2022 12:54 | 0.6 | 0.7 | 0.7 |
| | 312 | 11/30/2022 12:55 | 0.6 | 0.7 | 0.6 |
| | 313 | 11/30/2022 12:56 | 0.7 | 0.7 | 0.6 |
| | 314 | 11/30/2022 12:57 | 0.7 | 0.7 | 0.7 |
| | 315 | 11/30/2022 12:58 | 0.7 | 0.7 | 0.6 |
| | 316 | 11/30/2022 12:59 | 0.6 | 0.7 | 0.7 |
| | 317 | 11/30/2022 13:00 | 0.7 | 0.7 | 0.7 |
| | 318 | 11/30/2022 13:01 | 0.7 | 0.7 | 0.7 |
| | 319 | 11/30/2022 13:02 | 0.7 | 0.7 | 0.7 |
| | 320 | 11/30/2022 13:03 | 0.7 | 0.7 | 0.7 |
| Peak | | | 0.7 | 0.7 | 0.7 |
| Min | | | 0 | 0 | 0 |
| Average | | | 0.2 | 0.2 | 0.2 |

**********

TWA/STEL

| Index | Date/Time | PID(ppm) (TWA) | PID(ppm) (STEL) |
|---|---|---|---|
| 1 | 11/30/2022 7:44 | 0 | --- |
| 2 | 11/30/2022 7:45 | 0 | --- |
| 3 | 11/30/2022 7:46 | 0 | --- |
| 4 | 11/30/2022 7:47 | 0 | --- |
| 5 | 11/30/2022 7:48 | 0 | --- |
| 6 | 11/30/2022 7:49 | 0 | --- |
| 7 | 11/30/2022 7:50 | 0 | --- |
| 8 | 11/30/2022 7:51 | 0 | --- |
| 9 | 11/30/2022 7:52 | 0 | --- |
| 10 | 11/30/2022 7:53 | 0 | --- |
| 11 | 11/30/2022 7:54 | 0 | --- |
| 12 | 11/30/2022 7:55 | 0 | --- |
| 13 | 11/30/2022 7:56 | 0 | --- |
| 14 | 11/30/2022 7:57 | 0 | --- |
| 15 | 11/30/2022 7:58 | 0 | 0 |

| | | | |
|---|---|---|---|
| 16 | 11/30/2022 7:59 | 0 | 0 |
| 17 | 11/30/2022 8:00 | 0 | 0 |
| 18 | 11/30/2022 8:01 | 0 | 0 |
| 19 | 11/30/2022 8:02 | 0 | 0 |
| 20 | 11/30/2022 8:03 | 0 | 0 |
| 21 | 11/30/2022 8:04 | 0 | 0 |
| 22 | 11/30/2022 8:05 | 0 | 0 |
| 23 | 11/30/2022 8:06 | 0 | 0 |
| 24 | 11/30/2022 8:07 | 0 | 0 |
| 25 | 11/30/2022 8:08 | 0 | 0 |
| 26 | 11/30/2022 8:09 | 0 | 0 |
| 27 | 11/30/2022 8:10 | 0 | 0 |
| 28 | 11/30/2022 8:11 | 0 | 0 |
| 29 | 11/30/2022 8:12 | 0 | 0 |
| 30 | 11/30/2022 8:13 | 0 | 0 |
| 31 | 11/30/2022 8:14 | 0 | 0 |
| 32 | 11/30/2022 8:15 | 0 | 0 |
| 33 | 11/30/2022 8:16 | 0 | 0 |
| 34 | 11/30/2022 8:17 | 0 | 0 |
| 35 | 11/30/2022 8:18 | 0 | 0 |
| 36 | 11/30/2022 8:19 | 0 | 0 |
| 37 | 11/30/2022 8:20 | 0 | 0 |
| 38 | 11/30/2022 8:21 | 0 | 0 |
| 39 | 11/30/2022 8:22 | 0 | 0 |
| 40 | 11/30/2022 8:23 | 0 | 0 |
| 41 | 11/30/2022 8:24 | 0 | 0 |
| 42 | 11/30/2022 8:25 | 0 | 0 |
| 43 | 11/30/2022 8:26 | 0 | 0 |
| 44 | 11/30/2022 8:27 | 0 | 0 |
| 45 | 11/30/2022 8:28 | 0 | 0 |
| 46 | 11/30/2022 8:29 | 0 | 0 |
| 47 | 11/30/2022 8:30 | 0 | 0 |
| 48 | 11/30/2022 8:31 | 0 | 0 |
| 49 | 11/30/2022 8:32 | 0 | 0 |
| 50 | 11/30/2022 8:33 | 0 | 0 |
| 51 | 11/30/2022 8:34 | 0 | 0 |
| 52 | 11/30/2022 8:35 | 0 | 0 |
| 53 | 11/30/2022 8:36 | 0 | 0 |
| 54 | 11/30/2022 8:37 | 0 | 0 |
| 55 | 11/30/2022 8:38 | 0 | 0 |
| 56 | 11/30/2022 8:39 | 0 | 0 |
| 57 | 11/30/2022 8:40 | 0 | 0 |
| 58 | 11/30/2022 8:41 | 0 | 0 |
| 59 | 11/30/2022 8:42 | 0 | 0 |
| 60 | 11/30/2022 8:43 | 0 | 0 |
| 61 | 11/30/2022 8:44 | 0 | 0 |
| 62 | 11/30/2022 8:45 | 0 | 0 |

| | | | |
|---|---|---|---|
| 63 | 11/30/2022 8:46 | 0 | 0 |
| 64 | 11/30/2022 8:47 | 0 | 0 |
| 65 | 11/30/2022 8:48 | 0 | 0 |
| 66 | 11/30/2022 8:49 | 0 | 0 |
| 67 | 11/30/2022 8:50 | 0 | 0 |
| 68 | 11/30/2022 8:51 | 0 | 0 |
| 69 | 11/30/2022 8:52 | 0 | 0 |
| 70 | 11/30/2022 8:53 | 0 | 0 |
| 71 | 11/30/2022 8:54 | 0 | 0 |
| 72 | 11/30/2022 8:55 | 0 | 0 |
| 73 | 11/30/2022 8:56 | 0 | 0 |
| 74 | 11/30/2022 8:57 | 0 | 0 |
| 75 | 11/30/2022 8:58 | 0 | 0 |
| 76 | 11/30/2022 8:59 | 0 | 0 |
| 77 | 11/30/2022 9:00 | 0 | 0 |
| 78 | 11/30/2022 9:01 | 0 | 0 |
| 79 | 11/30/2022 9:02 | 0 | 0 |
| 80 | 11/30/2022 9:03 | 0 | 0 |
| 81 | 11/30/2022 9:04 | 0 | 0 |
| 82 | 11/30/2022 9:05 | 0 | 0 |
| 83 | 11/30/2022 9:06 | 0 | 0 |
| 84 | 11/30/2022 9:07 | 0 | 0 |
| 85 | 11/30/2022 9:08 | 0 | 0 |
| 86 | 11/30/2022 9:09 | 0 | 0 |
| 87 | 11/30/2022 9:10 | 0 | 0 |
| 88 | 11/30/2022 9:11 | 0 | 0 |
| 89 | 11/30/2022 9:12 | 0 | 0 |
| 90 | 11/30/2022 9:13 | 0 | 0 |
| 91 | 11/30/2022 9:14 | 0 | 0 |
| 92 | 11/30/2022 9:15 | 0 | 0 |
| 93 | 11/30/2022 9:16 | 0 | 0 |
| 94 | 11/30/2022 9:17 | 0 | 0 |
| 95 | 11/30/2022 9:18 | 0 | 0 |
| 96 | 11/30/2022 9:19 | 0 | 0 |
| 97 | 11/30/2022 9:20 | 0 | 0 |
| 98 | 11/30/2022 9:21 | 0 | 0 |
| 99 | 11/30/2022 9:22 | 0 | 0 |
| 100 | 11/30/2022 9:23 | 0 | 0 |
| 101 | 11/30/2022 9:24 | 0 | 0 |
| 102 | 11/30/2022 9:25 | 0 | 0 |
| 103 | 11/30/2022 9:26 | 0 | 0 |
| 104 | 11/30/2022 9:27 | 0 | 0 |
| 105 | 11/30/2022 9:28 | 0 | 0 |
| 106 | 11/30/2022 9:29 | 0 | 0 |
| 107 | 11/30/2022 9:30 | 0 | 0 |
| 108 | 11/30/2022 9:31 | 0 | 0 |
| 109 | 11/30/2022 9:32 | 0 | 0 |

| | | | |
|---|---|---|---|
| 110 | 11/30/2022 9:33 | 0 | 0 |
| 111 | 11/30/2022 9:34 | 0 | 0 |
| 112 | 11/30/2022 9:35 | 0 | 0 |
| 113 | 11/30/2022 9:36 | 0 | 0 |
| 114 | 11/30/2022 9:37 | 0 | 0 |
| 115 | 11/30/2022 9:38 | 0 | 0 |
| 116 | 11/30/2022 9:39 | 0 | 0 |
| 117 | 11/30/2022 9:40 | 0 | 0 |
| 118 | 11/30/2022 9:41 | 0 | 0 |
| 119 | 11/30/2022 9:42 | 0 | 0 |
| 120 | 11/30/2022 9:43 | 0 | 0 |
| 121 | 11/30/2022 9:44 | 0 | 0 |
| 122 | 11/30/2022 9:45 | 0 | 0 |
| 123 | 11/30/2022 9:46 | 0 | 0 |
| 124 | 11/30/2022 9:47 | 0 | 0 |
| 125 | 11/30/2022 9:48 | 0 | 0 |
| 126 | 11/30/2022 9:49 | 0 | 0 |
| 127 | 11/30/2022 9:50 | 0 | 0 |
| 128 | 11/30/2022 9:51 | 0 | 0 |
| 129 | 11/30/2022 9:52 | 0 | 0 |
| 130 | 11/30/2022 9:53 | 0 | 0 |
| 131 | 11/30/2022 9:54 | 0 | 0 |
| 132 | 11/30/2022 9:55 | 0 | 0 |
| 133 | 11/30/2022 9:56 | 0 | 0 |
| 134 | 11/30/2022 9:57 | 0 | 0 |
| 135 | 11/30/2022 9:58 | 0 | 0 |
| 136 | 11/30/2022 9:59 | 0 | 0 |
| 137 | 11/30/2022 10:00 | 0 | 0 |
| 138 | 11/30/2022 10:01 | 0 | 0 |
| 139 | 11/30/2022 10:02 | 0 | 0 |
| 140 | 11/30/2022 10:03 | 0 | 0 |
| 141 | 11/30/2022 10:04 | 0 | 0 |
| 142 | 11/30/2022 10:05 | 0 | 0 |
| 143 | 11/30/2022 10:06 | 0 | 0.1 |
| 144 | 11/30/2022 10:07 | 0 | 0.1 |
| 145 | 11/30/2022 10:08 | 0 | 0.1 |
| 146 | 11/30/2022 10:09 | 0 | 0.1 |
| 147 | 11/30/2022 10:10 | 0 | 0.1 |
| 148 | 11/30/2022 10:11 | 0 | 0.1 |
| 149 | 11/30/2022 10:12 | 0 | 0.1 |
| 150 | 11/30/2022 10:13 | 0 | 0.1 |
| 151 | 11/30/2022 10:14 | 0 | 0.1 |
| 152 | 11/30/2022 10:15 | 0 | 0.1 |
| 153 | 11/30/2022 10:16 | 0 | 0.1 |
| 154 | 11/30/2022 10:17 | 0 | 0.1 |
| 155 | 11/30/2022 10:18 | 0 | 0.1 |
| 156 | 11/30/2022 10:19 | 0 | 0.1 |

| | | | |
|---|---|---|---|
| 157 | 11/30/2022 10:20 | 0 | 0.1 |
| 158 | 11/30/2022 10:21 | 0 | 0.1 |
| 159 | 11/30/2022 10:22 | 0 | 0.1 |
| 160 | 11/30/2022 10:23 | 0 | 0.1 |
| 161 | 11/30/2022 10:24 | 0 | 0.1 |
| 162 | 11/30/2022 10:25 | 0 | 0.1 |
| 163 | 11/30/2022 10:26 | 0 | 0.1 |
| 164 | 11/30/2022 10:27 | 0 | 0.1 |
| 165 | 11/30/2022 10:28 | 0 | 0.1 |
| 166 | 11/30/2022 10:29 | 0 | 0.1 |
| 167 | 11/30/2022 10:30 | 0 | 0.1 |
| 168 | 11/30/2022 10:31 | 0 | 0.1 |
| 169 | 11/30/2022 10:32 | 0 | 0.1 |
| 170 | 11/30/2022 10:33 | 0 | 0.2 |
| 171 | 11/30/2022 10:34 | 0 | 0.2 |
| 172 | 11/30/2022 10:35 | 0 | 0.2 |
| 173 | 11/30/2022 10:36 | 0 | 0.2 |
| 174 | 11/30/2022 10:37 | 0 | 0.2 |
| 175 | 11/30/2022 10:38 | 0 | 0.2 |
| 176 | 11/30/2022 10:39 | 0 | 0.2 |
| 177 | 11/30/2022 10:40 | 0 | 0.2 |
| 178 | 11/30/2022 10:41 | 0 | 0.2 |
| 179 | 11/30/2022 10:42 | 0 | 0.2 |
| 180 | 11/30/2022 10:43 | 0 | 0.2 |
| 181 | 11/30/2022 10:44 | 0 | 0.2 |
| 182 | 11/30/2022 10:45 | 0 | 0.2 |
| 183 | 11/30/2022 10:46 | 0 | 0.2 |
| 184 | 11/30/2022 10:47 | 0 | 0.2 |
| 185 | 11/30/2022 10:48 | 0 | 0.2 |
| 186 | 11/30/2022 10:49 | 0 | 0.2 |
| 187 | 11/30/2022 10:50 | 0 | 0.2 |
| 188 | 11/30/2022 10:51 | 0 | 0.2 |
| 189 | 11/30/2022 10:52 | 0 | 0.2 |
| 190 | 11/30/2022 10:53 | 0 | 0.2 |
| 191 | 11/30/2022 10:54 | 0 | 0.2 |
| 192 | 11/30/2022 10:55 | 0 | 0.2 |
| 193 | 11/30/2022 10:56 | 0 | 0.2 |
| 194 | 11/30/2022 10:57 | 0 | 0.2 |
| 195 | 11/30/2022 10:58 | 0 | 0.2 |
| 196 | 11/30/2022 10:59 | 0 | 0.2 |
| 197 | 11/30/2022 11:00 | 0 | 0.2 |
| 198 | 11/30/2022 11:01 | 0 | 0.2 |
| 199 | 11/30/2022 11:02 | 0 | 0.2 |
| 200 | 11/30/2022 11:03 | 0 | 0.2 |
| 201 | 11/30/2022 11:04 | 0 | 0.2 |
| 202 | 11/30/2022 11:05 | 0 | 0.2 |
| 203 | 11/30/2022 11:06 | 0 | 0.3 |

| | | | |
|---|---|---|---|
| 204 | 11/30/2022 11:07 | 0 | 0.3 |
| 205 | 11/30/2022 11:08 | 0 | 0.3 |
| 206 | 11/30/2022 11:09 | 0 | 0.3 |
| 207 | 11/30/2022 11:10 | 0 | 0.3 |
| 208 | 11/30/2022 11:11 | 0 | 0.3 |
| 209 | 11/30/2022 11:12 | 0 | 0.3 |
| 210 | 11/30/2022 11:13 | 0 | 0.3 |
| 211 | 11/30/2022 11:14 | 0 | 0.3 |
| 212 | 11/30/2022 11:15 | 0 | 0.3 |
| 213 | 11/30/2022 11:16 | 0 | 0.3 |
| 214 | 11/30/2022 11:17 | 0 | 0.3 |
| 215 | 11/30/2022 11:18 | 0 | 0.3 |
| 216 | 11/30/2022 11:19 | 0 | 0.3 |
| 217 | 11/30/2022 11:20 | 0 | 0.3 |
| 218 | 11/30/2022 11:21 | 0 | 0.3 |
| 219 | 11/30/2022 11:22 | 0 | 0.3 |
| 220 | 11/30/2022 11:23 | 0 | 0.3 |
| 221 | 11/30/2022 11:24 | 0 | 0.3 |
| 222 | 11/30/2022 11:25 | 0 | 0.3 |
| 223 | 11/30/2022 11:26 | 0 | 0.3 |
| 224 | 11/30/2022 11:27 | 0 | 0.3 |
| 225 | 11/30/2022 11:28 | 0 | 0.3 |
| 226 | 11/30/2022 11:29 | 0 | 0.3 |
| 227 | 11/30/2022 11:30 | 0 | 0.3 |
| 228 | 11/30/2022 11:31 | 0 | 0.3 |
| 229 | 11/30/2022 11:32 | 0 | 0.3 |
| 230 | 11/30/2022 11:33 | 0 | 0.3 |
| 231 | 11/30/2022 11:34 | 0 | 0.3 |
| 232 | 11/30/2022 11:35 | 0 | 0.3 |
| 233 | 11/30/2022 11:36 | 0 | 0.3 |
| 234 | 11/30/2022 11:37 | 0 | 0.3 |
| 235 | 11/30/2022 11:38 | 0 | 0.3 |
| 236 | 11/30/2022 11:39 | 0 | 0.3 |
| 237 | 11/30/2022 11:40 | 0 | 0.3 |
| 238 | 11/30/2022 11:41 | 0 | 0.3 |
| 239 | 11/30/2022 11:42 | 0 | 0.3 |
| 240 | 11/30/2022 11:43 | 0 | 0.3 |
| 241 | 11/30/2022 11:44 | 0 | 0.3 |
| 242 | 11/30/2022 11:45 | 0 | 0.3 |
| 243 | 11/30/2022 11:46 | 0 | 0.3 |
| 244 | 11/30/2022 11:47 | 0.1 | 0.3 |
| 245 | 11/30/2022 11:48 | 0.1 | 0.4 |
| 246 | 11/30/2022 11:49 | 0.1 | 0.4 |
| 247 | 11/30/2022 11:50 | 0.1 | 0.4 |
| 248 | 11/30/2022 11:51 | 0.1 | 0.4 |
| 249 | 11/30/2022 11:52 | 0.1 | 0.4 |
| 250 | 11/30/2022 11:53 | 0.1 | 0.4 |

| | | | |
|---|---|---|---|
| 251 | 11/30/2022 11:54 | 0.1 | 0.4 |
| 252 | 11/30/2022 11:55 | 0.1 | 0.4 |
| 253 | 11/30/2022 11:56 | 0.1 | 0.4 |
| 254 | 11/30/2022 11:57 | 0.1 | 0.4 |
| 255 | 11/30/2022 11:58 | 0.1 | 0.4 |
| 256 | 11/30/2022 11:59 | 0.1 | 0.4 |
| 257 | 11/30/2022 12:00 | 0.1 | 0.4 |
| 258 | 11/30/2022 12:01 | 0.1 | 0.4 |
| 259 | 11/30/2022 12:02 | 0.1 | 0.4 |
| 260 | 11/30/2022 12:03 | 0.1 | 0.4 |
| 261 | 11/30/2022 12:04 | 0.1 | 0.4 |
| 262 | 11/30/2022 12:05 | 0.1 | 0.4 |
| 263 | 11/30/2022 12:06 | 0.1 | 0.4 |
| 264 | 11/30/2022 12:07 | 0.1 | 0.4 |
| 265 | 11/30/2022 12:08 | 0.1 | 0.4 |
| 266 | 11/30/2022 12:09 | 0.1 | 0.4 |
| 267 | 11/30/2022 12:10 | 0.1 | 0.4 |
| 268 | 11/30/2022 12:11 | 0.1 | 0.4 |
| 269 | 11/30/2022 12:12 | 0.1 | 0.4 |
| 270 | 11/30/2022 12:13 | 0.1 | 0.4 |
| 271 | 11/30/2022 12:14 | 0.1 | 0.5 |
| 272 | 11/30/2022 12:15 | 0.1 | 0.5 |
| 273 | 11/30/2022 12:16 | 0.1 | 0.5 |
| 274 | 11/30/2022 12:17 | 0.1 | 0.5 |
| 275 | 11/30/2022 12:18 | 0.1 | 0.5 |
| 276 | 11/30/2022 12:19 | 0.1 | 0.5 |
| 277 | 11/30/2022 12:20 | 0.1 | 0.5 |
| 278 | 11/30/2022 12:21 | 0.1 | 0.5 |
| 279 | 11/30/2022 12:22 | 0.1 | 0.5 |
| 280 | 11/30/2022 12:23 | 0.1 | 0.5 |
| 281 | 11/30/2022 12:24 | 0.1 | 0.5 |
| 282 | 11/30/2022 12:25 | 0.1 | 0.5 |
| 283 | 11/30/2022 12:26 | 0.1 | 0.5 |
| 284 | 11/30/2022 12:27 | 0.1 | 0.5 |
| 285 | 11/30/2022 12:28 | 0.1 | 0.5 |
| 286 | 11/30/2022 12:29 | 0.1 | 0.5 |
| 287 | 11/30/2022 12:30 | 0.1 | 0.5 |
| 288 | 11/30/2022 12:31 | 0.1 | 0.6 |
| 289 | 11/30/2022 12:32 | 0.1 | 0.6 |
| 290 | 11/30/2022 12:33 | 0.1 | 0.6 |
| 291 | 11/30/2022 12:34 | 0.1 | 0.6 |
| 292 | 11/30/2022 12:35 | 0.1 | 0.6 |
| 293 | 11/30/2022 12:36 | 0.1 | 0.6 |
| 294 | 11/30/2022 12:37 | 0.1 | 0.6 |
| 295 | 11/30/2022 12:38 | 0.1 | 0.6 |
| 296 | 11/30/2022 12:39 | 0.1 | 0.6 |
| 297 | 11/30/2022 12:40 | 0.1 | 0.6 |

| | | | |
|---|---|---|---|
| 298 | 11/30/2022 12:41 | 0.1 | 0.6 |
| 299 | 11/30/2022 12:42 | 0.1 | 0.6 |
| 300 | 11/30/2022 12:43 | 0.1 | 0.6 |
| 301 | 11/30/2022 12:44 | 0.1 | 0.6 |
| 302 | 11/30/2022 12:45 | 0.1 | 0.6 |
| 303 | 11/30/2022 12:46 | 0.1 | 0.6 |
| 304 | 11/30/2022 12:47 | 0.1 | 0.6 |
| 305 | 11/30/2022 12:48 | 0.1 | 0.6 |
| 306 | 11/30/2022 12:49 | 0.1 | 0.6 |
| 307 | 11/30/2022 12:50 | 0.1 | 0.6 |
| 308 | 11/30/2022 12:51 | 0.1 | 0.6 |
| 309 | 11/30/2022 12:52 | 0.1 | 0.6 |
| 310 | 11/30/2022 12:53 | 0.1 | 0.6 |
| 311 | 11/30/2022 12:54 | 0.1 | 0.7 |
| 312 | 11/30/2022 12:55 | 0.1 | 0.7 |
| 313 | 11/30/2022 12:56 | 0.1 | 0.7 |
| 314 | 11/30/2022 12:57 | 0.1 | 0.7 |
| 315 | 11/30/2022 12:58 | 0.1 | 0.7 |
| 316 | 11/30/2022 12:59 | 0.1 | 0.7 |
| 317 | 11/30/2022 13:00 | 0.1 | 0.7 |
| 318 | 11/30/2022 13:01 | 0.1 | 0.7 |
| 319 | 11/30/2022 13:02 | 0.1 | 0.7 |
| 320 | 11/30/2022 13:03 | 0.1 | 0.7 |

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22/12/01 07:46

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Summary

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| | |
|---|---|
| Unit Name | MiniRAE 3000 +(PGM-7320) |
| Unit SN | 592-601739 |
| Unit Firmware Ver | V2.22A |

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| | |
|---|---|
| Running Mode | Hygiene Mode |
| Datalog Mode | Auto |
| Diagnostic Mode | No |
| Stop Reason | Power Down |

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| | |
|---|---|
| Site ID | 12345678 |
| User ID | 12345678 |

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| | |
|---|---|
| Begin | 12/1/2022 7:46 |
| End | 12/1/2022 12:28 |
| Sample Period(s) | 60 |
| Number of Records | 282 |

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| | |
|---|---|
| Sensor | PID(ppm) |
| Sensor SN | S023031037B3 |

Device

| Timestamp (America/New_York) | VOC ppm AVG 15m (ppm) |
|---|---|
| 11/29/2022 8:00 | 0.044 |
| 11/29/2022 8:01 | 0.042 |
| 11/29/2022 8:02 | 0.0407 |
| 11/29/2022 8:03 | 0.0403 |
| 11/29/2022 8:04 | 0.0398 |
| 11/29/2022 8:05 | 0.0395 |
| 11/29/2022 8:06 | 0.0399 |
| 11/29/2022 8:07 | 0.0399 |
| 11/29/2022 8:08 | 0.0453 |
| 11/29/2022 8:09 | 0.0458 |
| 11/29/2022 8:10 | 0.0461 |
| 11/29/2022 8:11 | 0.0464 |
| 11/29/2022 8:12 | 0.0468 |
| 11/29/2022 8:13 | 0.0473 |
| 11/29/2022 8:14 | 0.0475 |
| 11/29/2022 8:15 | 0.0483 |
| 11/29/2022 8:16 | 0.0495 |
| 11/29/2022 8:17 | 0.0507 |
| 11/29/2022 8:18 | 0.052 |
| 11/29/2022 8:19 | 0.0533 |
| 11/29/2022 8:20 | 0.0549 |
| 11/29/2022 8:21 | 0.0561 |
| 11/29/2022 8:22 | 0.0577 |
| 11/29/2022 8:23 | 0.0559 |
| 11/29/2022 8:24 | 0.057 |
| 11/29/2022 8:25 | 0.0578 |
| 11/29/2022 8:26 | 0.0589 |
| 11/29/2022 8:27 | 0.06 |
| 11/29/2022 8:28 | 0.0611 |
| 11/29/2022 8:29 | 0.0627 |
| 11/29/2022 8:30 | 0.0637 |
| 11/29/2022 8:31 | 0.0647 |
| 11/29/2022 8:32 | 0.066 |
| 11/29/2022 8:33 | 0.0673 |
| 11/29/2022 8:34 | 0.0688 |
| 11/29/2022 8:35 | 0.07 |
| 11/29/2022 8:36 | 0.0715 |
| 11/29/2022 8:37 | 0.0731 |
| 11/29/2022 8:38 | 0.0749 |
| 11/29/2022 8:39 | 0.0763 |
| 11/29/2022 8:40 | 0.0784 |
| 11/29/2022 8:41 | 0.0801 |
| 11/29/2022 8:42 | 0.0821 |
| 11/29/2022 8:43 | 0.0838 |
| 11/29/2022 8:44 | 0.0853 |

| | |
|---|---|
| 11/29/2022 8:45 | 0.0872 |
| 11/29/2022 8:46 | 0.0893 |
| 11/29/2022 8:47 | 0.0911 |
| 11/29/2022 8:48 | 0.0928 |
| 11/29/2022 8:49 | 0.0945 |
| 11/29/2022 8:50 | 0.0965 |
| 11/29/2022 8:51 | 0.0983 |
| 11/29/2022 8:52 | 0.1 |
| 11/29/2022 8:53 | 0.1017 |
| 11/29/2022 8:54 | 0.1035 |
| 11/29/2022 8:55 | 0.1051 |
| 11/29/2022 8:56 | 0.1069 |
| 11/29/2022 8:57 | 0.1085 |
| 11/29/2022 8:58 | 0.1101 |
| 11/29/2022 8:59 | 0.1118 |
| 11/29/2022 9:00 | 0.1136 |
| 11/29/2022 9:01 | 0.1151 |
| 11/29/2022 9:02 | 0.1167 |
| 11/29/2022 9:03 | 0.1185 |
| 11/29/2022 9:04 | 0.1203 |
| 11/29/2022 9:05 | 0.1217 |
| 11/29/2022 9:06 | 0.1231 |
| 11/29/2022 9:07 | 0.1247 |
| 11/29/2022 9:08 | 0.1263 |
| 11/29/2022 9:09 | 0.1279 |
| 11/29/2022 9:10 | 0.1297 |
| 11/29/2022 9:11 | 0.1313 |
| 11/29/2022 9:12 | 0.1329 |
| 11/29/2022 9:13 | 0.1345 |
| 11/29/2022 9:14 | 0.1359 |
| 11/29/2022 9:15 | 0.1375 |
| 11/29/2022 9:16 | 0.1391 |
| 11/29/2022 9:17 | 0.1407 |
| 11/29/2022 9:18 | 0.1423 |
| 11/29/2022 9:19 | 0.1439 |
| 11/29/2022 9:20 | 0.1449 |
| 11/29/2022 9:21 | 0.1461 |
| 11/29/2022 9:22 | 0.1474 |
| 11/29/2022 9:23 | 0.1483 |
| 11/29/2022 9:24 | 0.1495 |
| 11/29/2022 9:25 | 0.1507 |
| 11/29/2022 9:26 | 0.1519 |
| 11/29/2022 9:27 | 0.1533 |
| 11/29/2022 9:28 | 0.1545 |
| 11/29/2022 9:29 | 0.1558 |
| 11/29/2022 9:30 | 0.1569 |
| 11/29/2022 9:31 | 0.1581 |

| | |
|---|---|
| 11/29/2022 9:32 | 0.1592 |
| 11/29/2022 9:33 | 0.1603 |
| 11/29/2022 9:34 | 0.1615 |
| 11/29/2022 9:35 | 0.1631 |
| 11/29/2022 9:36 | 0.1646 |
| 11/29/2022 9:37 | 0.166 |
| 11/29/2022 9:38 | 0.1676 |
| 11/29/2022 9:39 | 0.169 |
| 11/29/2022 9:40 | 0.1702 |
| 11/29/2022 9:41 | 0.1717 |
| 11/29/2022 9:42 | 0.1728 |
| 11/29/2022 9:43 | 0.1741 |
| 11/29/2022 9:44 | 0.1755 |
| 11/29/2022 9:45 | 0.1765 |
| 11/29/2022 9:46 | 0.1775 |
| 11/29/2022 9:47 | 0.1784 |
| 11/29/2022 9:48 | 0.1795 |
| 11/29/2022 9:49 | 0.1803 |
| 11/29/2022 9:50 | 0.1813 |
| 11/29/2022 9:51 | 0.1824 |
| 11/29/2022 9:52 | 0.1831 |
| 11/29/2022 9:53 | 0.1839 |
| 11/29/2022 9:54 | 0.1845 |
| 11/29/2022 9:55 | 0.1855 |
| 11/29/2022 9:56 | 0.1862 |
| 11/29/2022 9:57 | 0.1871 |
| 11/29/2022 9:58 | 0.1877 |
| 11/29/2022 9:59 | 0.1885 |
| 11/29/2022 10:00 | 0.1897 |
| 11/29/2022 10:01 | 0.1908 |
| 11/29/2022 10:02 | 0.1919 |
| 11/29/2022 10:03 | 0.1927 |
| 11/29/2022 10:04 | 0.1936 |
| 11/29/2022 10:05 | 0.1943 |
| 11/29/2022 10:06 | 0.1951 |
| 11/29/2022 10:07 | 0.1961 |
| 11/29/2022 10:08 | 0.1971 |
| 11/29/2022 10:09 | 0.1981 |
| 11/29/2022 10:10 | 0.1991 |
| 11/29/2022 10:11 | 0.2001 |
| 11/29/2022 10:12 | 0.201 |
| 11/29/2022 10:13 | 0.2021 |
| 11/29/2022 10:14 | 0.2029 |
| 11/29/2022 10:15 | 0.2034 |
| 11/29/2022 10:16 | 0.2041 |
| 11/29/2022 10:17 | 0.2049 |
| 11/29/2022 10:18 | 0.2059 |

| | |
|---|---|
| 11/29/2022 10:19 | 0.2068 |
| 11/29/2022 10:20 | 0.2077 |
| 11/29/2022 10:21 | 0.2083 |
| 11/29/2022 10:22 | 0.2089 |
| 11/29/2022 10:23 | 0.2097 |
| 11/29/2022 10:24 | 0.2105 |
| 11/29/2022 10:25 | 0.2109 |
| 11/29/2022 10:26 | 0.2115 |
| 11/29/2022 10:27 | 0.2122 |
| 11/29/2022 10:28 | 0.2129 |
| 11/29/2022 10:29 | 0.2137 |
| 11/29/2022 10:30 | 0.2146 |
| 11/29/2022 10:31 | 0.2153 |
| 11/29/2022 10:32 | 0.2157 |
| 11/29/2022 10:33 | 0.2163 |
| 11/29/2022 10:34 | 0.217 |
| 11/29/2022 10:35 | 0.218 |
| 11/29/2022 10:36 | 0.2192 |
| 11/29/2022 10:37 | 0.2201 |
| 11/29/2022 10:38 | 0.2209 |
| 11/29/2022 10:39 | 0.2215 |
| 11/29/2022 10:40 | 0.2223 |
| 11/29/2022 10:41 | 0.223 |
| 11/29/2022 10:42 | 0.2237 |
| 11/29/2022 10:43 | 0.2242 |
| 11/29/2022 10:44 | 0.2247 |
| 11/29/2022 10:45 | 0.2253 |
| 11/29/2022 10:46 | 0.2263 |
| 11/29/2022 10:47 | 0.2273 |
| 11/29/2022 10:48 | 0.2281 |
| 11/29/2022 10:49 | 0.229 |
| 11/29/2022 10:50 | 0.2297 |
| 11/29/2022 10:51 | 0.2303 |
| 11/29/2022 10:52 | 0.2311 |
| 11/29/2022 10:53 | 0.2318 |
| 11/29/2022 10:54 | 0.2327 |
| 11/29/2022 10:55 | 0.2335 |
| 11/29/2022 10:56 | 0.2341 |
| 11/29/2022 10:57 | 0.2345 |
| 11/29/2022 10:58 | 0.2351 |
| 11/29/2022 10:59 | 0.2359 |
| 11/29/2022 11:00 | 0.2365 |
| 11/29/2022 11:01 | 0.2373 |
| 11/29/2022 11:02 | 0.2377 |
| 11/29/2022 11:03 | 0.238 |
| 11/29/2022 11:04 | 0.2383 |
| 11/29/2022 11:05 | 0.2387 |

| | |
|---|---|
| 11/29/2022 11:06 | 0.2392 |
| 11/29/2022 11:07 | 0.2395 |
| 11/29/2022 11:08 | 0.2401 |
| 11/29/2022 11:09 | 0.2404 |
| 11/29/2022 11:10 | 0.2411 |
| 11/29/2022 11:11 | 0.2416 |
| 11/29/2022 11:12 | 0.2419 |
| 11/29/2022 11:13 | 0.2423 |
| 11/29/2022 11:14 | 0.2426 |
| 11/29/2022 11:15 | 0.2431 |
| 11/29/2022 11:16 | 0.2431 |
| 11/29/2022 11:17 | 0.2436 |
| 11/29/2022 11:18 | 0.2441 |
| 11/29/2022 11:19 | 0.2447 |
| 11/29/2022 11:20 | 0.2448 |
| 11/29/2022 11:21 | 0.2451 |
| 11/29/2022 11:22 | 0.2452 |
| 11/29/2022 11:23 | 0.2453 |
| 11/29/2022 11:24 | 0.2455 |
| 11/29/2022 11:25 | 0.2457 |
| 11/29/2022 11:26 | 0.2461 |
| 11/29/2022 11:27 | 0.2467 |
| 11/29/2022 11:28 | 0.2473 |
| 11/29/2022 11:29 | 0.2479 |
| 11/29/2022 11:30 | 0.2483 |
| 11/29/2022 11:31 | 0.2488 |
| 11/29/2022 11:32 | 0.2491 |
| 11/29/2022 11:33 | 0.2496 |
| 11/29/2022 11:34 | 0.2503 |
| 11/29/2022 11:35 | 0.2509 |
| 11/29/2022 11:36 | 0.2513 |
| 11/29/2022 11:37 | 0.2519 |
| 11/29/2022 11:38 | 0.2523 |
| 11/29/2022 11:39 | 0.2527 |
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| 11/29/2022 11:42 | 0.2531 |
| 11/29/2022 11:43 | 0.2531 |
| 11/29/2022 11:44 | 0.2534 |
| 11/29/2022 11:45 | 0.2535 |
| 11/29/2022 11:46 | 0.2539 |
| 11/29/2022 11:47 | 0.2543 |
| 11/29/2022 11:48 | 0.2546 |
| 11/29/2022 11:49 | 0.2547 |
| 11/29/2022 11:50 | 0.2553 |
| 11/29/2022 11:51 | 0.2557 |
| 11/29/2022 11:52 | 0.2559 |

| | |
|---|---|
| 11/29/2022 11:53 | 0.2566 |
| 11/29/2022 11:54 | 0.2571 |
| 11/29/2022 11:55 | 0.2573 |
| 11/29/2022 11:56 | 0.2579 |
| 11/29/2022 11:57 | 0.2583 |
| 11/29/2022 11:58 | 0.2587 |
| 11/29/2022 11:59 | 0.259 |
| 11/29/2022 12:00 | 0.2593 |
| 11/29/2022 12:01 | 0.2597 |
| 11/29/2022 12:02 | 0.2599 |
| 11/29/2022 12:03 | 0.2601 |
| 11/29/2022 12:04 | 0.2603 |
| 11/29/2022 12:05 | 0.2606 |
| 11/29/2022 12:06 | 0.2607 |
| 11/29/2022 12:07 | 0.2613 |
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| 11/29/2022 12:09 | 0.2629 |
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| 11/29/2022 12:12 | 0.2649 |
| 11/29/2022 12:13 | 0.2663 |
| 11/29/2022 12:14 | 0.2667 |
| 11/29/2022 12:15 | 0.2695 |
| 11/29/2022 12:16 | 0.2871 |
| 11/29/2022 12:17 | 0.2933 |
| 11/29/2022 12:18 | 0.2972 |
| 11/29/2022 12:19 | 0.2997 |
| 11/29/2022 12:20 | 0.3015 |
| 11/29/2022 12:21 | 0.303 |
| 11/29/2022 12:22 | 0.304 |
| 11/29/2022 12:23 | 0.3039 |
| 11/29/2022 12:24 | 0.3043 |
| 11/29/2022 12:25 | 0.3047 |
| 11/29/2022 12:26 | 0.3051 |
| 11/29/2022 12:27 | 0.3043 |
| 11/29/2022 12:28 | 0.3037 |
| 11/29/2022 12:29 | 0.3039 |
| 11/29/2022 12:30 | 0.3015 |
| 11/29/2022 12:31 | 0.2841 |
| 11/29/2022 12:32 | 0.2781 |
| 11/29/2022 12:33 | 0.2747 |
| 11/29/2022 12:34 | 0.2723 |
| 11/29/2022 12:35 | 0.2705 |
| 11/29/2022 12:36 | 0.269 |
| 11/29/2022 12:37 | 0.2677 |
| 11/29/2022 12:38 | 0.2666 |
| 11/29/2022 12:39 | 0.2659 |

| | |
|---|---|
| 11/29/2022 12:40 | 0.2653 |
| 11/29/2022 12:41 | 0.2645 |
| 11/29/2022 12:42 | 0.2637 |
| 11/29/2022 12:43 | 0.2629 |
| 11/29/2022 12:44 | 0.2619 |
| 11/29/2022 12:45 | 0.2612 |
| 11/29/2022 12:46 | 0.2604 |
| 11/29/2022 12:47 | 0.2597 |
| 11/29/2022 12:48 | 0.2586 |
| 11/29/2022 12:49 | 0.2576 |
| 11/29/2022 12:50 | 0.2565 |
| 11/29/2022 12:51 | 0.2557 |
| 11/29/2022 12:52 | 0.255 |
| 11/29/2022 12:53 | 0.254 |
| 11/29/2022 12:54 | 0.2535 |
| 11/29/2022 12:55 | 0.2528 |
| 11/29/2022 12:56 | 0.2524 |
| 11/29/2022 12:57 | 0.2521 |
| 11/29/2022 12:58 | 0.2517 |
| 11/29/2022 12:59 | 0.2515 |
| 11/29/2022 13:00 | 0.2519 |
| 11/29/2022 13:01 | 0.2517 |
| 11/29/2022 13:02 | 0.2513 |
| 11/29/2022 13:03 | 0.2509 |
| 11/29/2022 13:04 | 0.2506 |
| 11/29/2022 13:05 | 0.2503 |
| 11/29/2022 13:06 | 0.2499 |
| 11/29/2022 13:07 | 0.2495 |
| 11/29/2022 13:08 | 0.2492 |
| 11/29/2022 13:09 | 0.2487 |
| 11/29/2022 13:10 | 0.2479 |
| 11/29/2022 13:11 | 0.2476 |
| 11/29/2022 13:12 | 0.2473 |
| 11/29/2022 13:13 | 0.2471 |
| 11/29/2022 13:14 | 0.2467 |
| 11/29/2022 13:15 | 0.2455 |
| 11/29/2022 13:16 | 0.2451 |
| 11/29/2022 13:17 | 0.2449 |
| 11/29/2022 13:18 | 0.2448 |
| 11/29/2022 13:19 | 0.2447 |
| 11/29/2022 13:20 | 0.2444 |
| 11/29/2022 13:21 | 0.2443 |
| 11/29/2022 13:22 | 0.2444 |
| 11/29/2022 13:23 | 0.2441 |
| 11/29/2022 13:24 | 0.2439 |
| 11/29/2022 13:25 | 0.2441 |
| 11/29/2022 13:26 | 0.2436 |

| | |
|---|---|
| 11/29/2022 13:27 | 0.2429 |
| 11/29/2022 13:28 | 0.2421 |
| 11/29/2022 13:29 | 0.2416 |
| 11/29/2022 13:30 | 0.2413 |
| 11/29/2022 13:31 | 0.2407 |
| 11/29/2022 13:32 | 0.2402 |
| 11/29/2022 13:33 | 0.2397 |
| 11/29/2022 13:34 | 0.2393 |
| 11/29/2022 13:35 | 0.2389 |
| 11/29/2022 13:36 | 0.2387 |
| 11/29/2022 13:37 | 0.2381 |
| 11/29/2022 13:38 | 0.238 |
| 11/29/2022 13:39 | 0.2378 |
| 11/29/2022 13:40 | 0.2373 |
| 11/29/2022 13:41 | 0.2371 |
| 11/29/2022 13:42 | 0.2373 |
| 11/29/2022 13:43 | 0.2371 |
| 11/29/2022 13:44 | 0.2369 |
| 11/29/2022 13:45 | 0.2367 |
| 11/29/2022 13:46 | 0.2365 |
| 11/29/2022 13:47 | 0.2363 |
| 11/29/2022 13:48 | 0.2365 |
| 11/29/2022 13:49 | 0.2365 |
| 11/29/2022 13:50 | 0.2363 |
| 11/29/2022 13:51 | 0.2361 |
| 11/29/2022 13:52 | 0.2361 |
| 11/29/2022 13:53 | 0.2359 |
| 11/29/2022 13:54 | 0.2358 |
| 11/29/2022 13:55 | 0.2358 |
| 11/29/2022 13:56 | 0.2358 |
| 11/29/2022 13:57 | 0.2357 |
| 11/29/2022 13:58 | 0.2358 |
| 11/29/2022 13:59 | 0.2357 |
| 11/29/2022 14:00 | 0.2358 |
| 11/29/2022 14:01 | 0.2359 |
| 11/29/2022 14:02 | 0.2362 |
| 11/29/2022 14:03 | 0.2359 |
| 11/29/2022 14:04 | 0.2356 |
| 11/29/2022 14:05 | 0.2356 |
| 11/29/2022 14:06 | 0.2356 |
| 11/29/2022 14:07 | 0.2358 |
| 11/29/2022 14:08 | 0.2359 |
| 11/29/2022 14:09 | 0.2361 |
| 11/29/2022 14:10 | 0.2359 |
| 11/29/2022 14:11 | 0.2357 |

Device

| Timestamp (America/New_York) | VOC ppm AVG 15m (ppm) |
|---|---|
| 11/30/2022 7:52 | 0.2 |
| 11/30/2022 7:53 | 0.2 |
| 11/30/2022 7:54 | 0.1987 |
| 11/30/2022 7:55 | 0.2008 |
| 11/30/2022 7:56 | 0.2038 |
| 11/30/2022 7:57 | 0.2072 |
| 11/30/2022 7:58 | 0.211 |
| 11/30/2022 7:59 | 0.2141 |
| 11/30/2022 8:00 | 0.2186 |
| 11/30/2022 8:01 | 0.2226 |
| 11/30/2022 8:02 | 0.227 |
| 11/30/2022 8:03 | 0.2308 |
| 11/30/2022 8:04 | 0.2346 |
| 11/30/2022 8:05 | 0.2386 |
| 11/30/2022 8:06 | 0.2421 |
| 11/30/2022 8:07 | 0.2483 |
| 11/30/2022 8:08 | 0.2548 |
| 11/30/2022 8:09 | 0.262 |
| 11/30/2022 8:10 | 0.2689 |
| 11/30/2022 8:11 | 0.2755 |
| 11/30/2022 8:12 | 0.2821 |
| 11/30/2022 8:13 | 0.2877 |
| 11/30/2022 8:14 | 0.2937 |
| 11/30/2022 8:15 | 0.2987 |
| 11/30/2022 8:16 | 0.303 |
| 11/30/2022 8:17 | 0.3073 |
| 11/30/2022 8:18 | 0.3114 |
| 11/30/2022 8:19 | 0.3154 |
| 11/30/2022 8:20 | 0.3193 |
| 11/30/2022 8:21 | 0.3229 |
| 11/30/2022 8:22 | 0.3267 |
| 11/30/2022 8:23 | 0.3308 |
| 11/30/2022 8:24 | 0.335 |
| 11/30/2022 8:25 | 0.3389 |
| 11/30/2022 8:26 | 0.3431 |
| 11/30/2022 8:27 | 0.3469 |
| 11/30/2022 8:28 | 0.3508 |
| 11/30/2022 8:29 | 0.3545 |
| 11/30/2022 8:30 | 0.3584 |
| 11/30/2022 8:31 | 0.3627 |
| 11/30/2022 8:32 | 0.366 |
| 11/30/2022 8:33 | 0.3699 |
| 11/30/2022 8:34 | 0.3737 |
| 11/30/2022 8:35 | 0.3773 |
| 11/30/2022 8:36 | 0.3818 |

| | |
|---|---|
| 11/30/2022 8:37 | 0.3858 |
| 11/30/2022 8:38 | 0.3897 |
| 11/30/2022 8:39 | 0.3936 |
| 11/30/2022 8:40 | 0.3971 |
| 11/30/2022 8:41 | 0.4003 |
| 11/30/2022 8:42 | 0.4041 |
| 11/30/2022 8:43 | 0.4086 |
| 11/30/2022 8:44 | 0.4127 |
| 11/30/2022 8:45 | 0.4165 |
| 11/30/2022 8:46 | 0.4205 |
| 11/30/2022 8:47 | 0.4247 |
| 11/30/2022 8:48 | 0.4289 |
| 11/30/2022 8:49 | 0.4322 |
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| 11/30/2022 8:51 | 0.4397 |
| 11/30/2022 8:52 | 0.4435 |
| 11/30/2022 8:53 | 0.4469 |
| 11/30/2022 8:54 | 0.4497 |
| 11/30/2022 8:55 | 0.453 |
| 11/30/2022 8:56 | 0.4562 |
| 11/30/2022 8:57 | 0.4587 |
| 11/30/2022 8:58 | 0.461 |
| 11/30/2022 8:59 | 0.4632 |
| 11/30/2022 9:00 | 0.4667 |
| 11/30/2022 9:01 | 0.4699 |
| 11/30/2022 9:02 | 0.4729 |
| 11/30/2022 9:03 | 0.475 |
| 11/30/2022 9:04 | 0.4783 |
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| 11/30/2022 9:07 | 0.4859 |
| 11/30/2022 9:08 | 0.4885 |
| 11/30/2022 9:09 | 0.4914 |
| 11/30/2022 9:10 | 0.494 |
| 11/30/2022 9:11 | 0.4965 |
| 11/30/2022 9:12 | 0.4995 |
| 11/30/2022 9:13 | 0.5023 |
| 11/30/2022 9:14 | 0.5051 |
| 11/30/2022 9:15 | 0.5069 |
| 11/30/2022 9:16 | 0.5096 |
| 11/30/2022 9:17 | 0.5129 |
| 11/30/2022 9:18 | 0.5167 |
| 11/30/2022 9:19 | 0.5196 |
| 11/30/2022 9:20 | 0.5229 |
| 11/30/2022 9:21 | 0.5261 |
| 11/30/2022 9:22 | 0.5293 |
| 11/30/2022 9:23 | 0.5327 |

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|---|---|
| 11/30/2022 9:24 | 0.5359 |
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| 11/30/2022 9:26 | 0.5431 |
| 11/30/2022 9:27 | 0.5461 |
| 11/30/2022 9:28 | 0.5501 |
| 11/30/2022 9:29 | 0.5535 |
| 11/30/2022 9:30 | 0.5569 |
| 11/30/2022 9:31 | 0.5598 |
| 11/30/2022 9:32 | 0.5624 |
| 11/30/2022 9:33 | 0.565 |
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| 11/30/2022 9:35 | 0.5704 |
| 11/30/2022 9:36 | 0.5744 |
| 11/30/2022 9:37 | 0.5779 |
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| 11/30/2022 9:39 | 0.5823 |
| 11/30/2022 9:40 | 0.5849 |
| 11/30/2022 9:41 | 0.5889 |
| 11/30/2022 9:42 | 0.5919 |
| 11/30/2022 9:43 | 0.5941 |
| 11/30/2022 9:44 | 0.5976 |
| 11/30/2022 9:45 | 0.6009 |
| 11/30/2022 9:46 | 0.6033 |
| 11/30/2022 9:47 | 0.6055 |
| 11/30/2022 9:48 | 0.6084 |
| 11/30/2022 9:49 | 0.6109 |
| 11/30/2022 9:50 | 0.6143 |
| 11/30/2022 9:51 | 0.616 |
| 11/30/2022 9:52 | 0.6184 |
| 11/30/2022 9:53 | 0.6217 |
| 11/30/2022 9:54 | 0.6251 |
| 11/30/2022 9:55 | 0.6279 |
| 11/30/2022 9:56 | 0.6301 |
| 11/30/2022 9:57 | 0.6331 |
| 11/30/2022 9:58 | 0.6363 |
| 11/30/2022 9:59 | 0.6383 |
| 11/30/2022 10:00 | 0.6411 |
| 11/30/2022 10:01 | 0.6442 |
| 11/30/2022 10:02 | 0.6477 |
| 11/30/2022 10:03 | 0.6507 |
| 11/30/2022 10:04 | 0.6537 |
| 11/30/2022 10:05 | 0.6557 |
| 11/30/2022 10:06 | 0.6589 |
| 11/30/2022 10:07 | 0.6617 |
| 11/30/2022 10:08 | 0.6648 |
| 11/30/2022 10:09 | 0.6676 |
| 11/30/2022 10:10 | 0.6704 |

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|---|---|
| 11/30/2022 10:11 | 0.6733 |
| 11/30/2022 10:12 | 0.6759 |
| 11/30/2022 10:13 | 0.6781 |
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| 11/30/2022 10:15 | 0.6837 |
| 11/30/2022 10:16 | 0.6867 |
| 11/30/2022 10:17 | 0.6891 |
| 11/30/2022 10:18 | 0.6917 |
| 11/30/2022 10:19 | 0.6947 |
| 11/30/2022 10:20 | 0.6974 |
| 11/30/2022 10:21 | 0.6991 |
| 11/30/2022 10:22 | 0.7013 |
| 11/30/2022 10:23 | 0.7035 |
| 11/30/2022 10:24 | 0.7052 |
| 11/30/2022 10:25 | 0.7061 |
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| 11/30/2022 10:27 | 0.7109 |
| 11/30/2022 10:28 | 0.7129 |
| 11/30/2022 10:29 | 0.7141 |
| 11/30/2022 10:30 | 0.7161 |
| 11/30/2022 10:31 | 0.7177 |
| 11/30/2022 10:32 | 0.7194 |
| 11/30/2022 10:33 | 0.7244 |
| 11/30/2022 10:34 | 0.7268 |
| 11/30/2022 10:35 | 0.7277 |
| 11/30/2022 10:36 | 0.7295 |
| 11/30/2022 10:37 | 0.7307 |
| 11/30/2022 10:38 | 0.7326 |
| 11/30/2022 10:39 | 0.7347 |
| 11/30/2022 10:40 | 0.7374 |
| 11/30/2022 10:41 | 0.7381 |
| 11/30/2022 10:42 | 0.7391 |
| 11/30/2022 10:43 | 0.7401 |
| 11/30/2022 10:44 | 0.7415 |
| 11/30/2022 10:45 | 0.7424 |
| 11/30/2022 10:46 | 0.7436 |
| 11/30/2022 10:47 | 0.7452 |
| 11/30/2022 10:48 | 0.743 |
| 11/30/2022 10:49 | 0.7434 |
| 11/30/2022 10:50 | 0.7455 |
| 11/30/2022 10:51 | 0.7468 |
| 11/30/2022 10:52 | 0.749 |
| 11/30/2022 10:53 | 0.7503 |
| 11/30/2022 10:54 | 0.7516 |
| 11/30/2022 10:55 | 0.753 |
| 11/30/2022 10:56 | 0.7549 |
| 11/30/2022 10:57 | 0.7558 |

| | |
|---|---|
| 11/30/2022 10:58 | 0.7575 |
| 11/30/2022 10:59 | 0.76 |
| 11/30/2022 11:00 | 0.7618 |
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| 11/30/2022 11:02 | 0.7648 |
| 11/30/2022 11:03 | 0.7656 |
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| 11/30/2022 11:05 | 0.7675 |
| 11/30/2022 11:06 | 0.7687 |
| 11/30/2022 11:07 | 0.7686 |
| 11/30/2022 11:08 | 0.7693 |
| 11/30/2022 11:09 | 0.7705 |
| 11/30/2022 11:10 | 0.7711 |
| 11/30/2022 11:11 | 0.7713 |
| 11/30/2022 11:12 | 0.7729 |
| 11/30/2022 11:13 | 0.7738 |
| 11/30/2022 11:14 | 0.7737 |
| 11/30/2022 11:15 | 0.775 |
| 11/30/2022 11:16 | 0.7763 |
| 11/30/2022 11:17 | 0.777 |
| 11/30/2022 11:18 | 0.7788 |
| 11/30/2022 11:19 | 0.7805 |
| 11/30/2022 11:20 | 0.7816 |
| 11/30/2022 11:21 | 0.7833 |
| 11/30/2022 11:22 | 0.7847 |
| 11/30/2022 11:23 | 0.7859 |
| 11/30/2022 11:24 | 0.7864 |
| 11/30/2022 11:25 | 0.7875 |
| 11/30/2022 11:26 | 0.7891 |
| 11/30/2022 11:27 | 0.7909 |
| 11/30/2022 11:28 | 0.7933 |
| 11/30/2022 11:29 | 0.7951 |
| 11/30/2022 11:30 | 0.7959 |
| 11/30/2022 11:31 | 0.7971 |
| 11/30/2022 11:32 | 0.8008 |
| 11/30/2022 11:33 | 0.8018 |
| 11/30/2022 11:34 | 0.803 |
| 11/30/2022 11:35 | 0.8046 |
| 11/30/2022 11:36 | 0.8058 |
| 11/30/2022 11:37 | 0.807 |
| 11/30/2022 11:38 | 0.808 |
| 11/30/2022 11:39 | 0.8096 |
| 11/30/2022 11:40 | 0.811 |
| 11/30/2022 11:41 | 0.8127 |
| 11/30/2022 11:42 | 0.8133 |
| 11/30/2022 11:43 | 0.8133 |
| 11/30/2022 11:44 | 0.8145 |

| | |
|---|---|
| 11/30/2022 11:45 | 0.8175 |
| 11/30/2022 11:46 | 0.8195 |
| 11/30/2022 11:47 | 0.8189 |
| 11/30/2022 11:48 | 0.8206 |
| 11/30/2022 11:49 | 0.8214 |
| 11/30/2022 11:50 | 0.8227 |
| 11/30/2022 11:51 | 0.8241 |
| 11/30/2022 11:52 | 0.8259 |
| 11/30/2022 11:53 | 0.8277 |
| 11/30/2022 11:54 | 0.8301 |
| 11/30/2022 11:55 | 0.8321 |
| 11/30/2022 11:56 | 0.8338 |
| 11/30/2022 11:57 | 0.8353 |
| 11/30/2022 11:58 | 0.8369 |
| 11/30/2022 11:59 | 0.838 |
| 11/30/2022 12:00 | 0.838 |
| 11/30/2022 12:01 | 0.8382 |
| 11/30/2022 12:02 | 0.839 |
| 11/30/2022 12:03 | 0.8396 |
| 11/30/2022 12:04 | 0.8411 |
| 11/30/2022 12:05 | 0.8424 |
| 11/30/2022 12:06 | 0.8435 |
| 11/30/2022 12:07 | 0.8451 |
| 11/30/2022 12:08 | 0.8464 |
| 11/30/2022 12:09 | 0.8463 |
| 11/30/2022 12:10 | 0.8466 |
| 11/30/2022 12:11 | 0.8477 |
| 11/30/2022 12:12 | 0.8488 |
| 11/30/2022 12:13 | 0.8497 |
| 11/30/2022 12:14 | 0.8511 |
| 11/30/2022 12:15 | 0.8514 |
| 11/30/2022 12:16 | 0.8528 |
| 11/30/2022 12:17 | 0.8539 |
| 11/30/2022 12:18 | 0.855 |
| 11/30/2022 12:19 | 0.8559 |
| 11/30/2022 12:20 | 0.8566 |
| 11/30/2022 12:21 | 0.8573 |
| 11/30/2022 12:22 | 0.8583 |
| 11/30/2022 12:23 | 0.8591 |
| 11/30/2022 12:24 | 0.8601 |
| 11/30/2022 12:25 | 0.8616 |
| 11/30/2022 12:26 | 0.8623 |
| 11/30/2022 12:27 | 0.8633 |
| 11/30/2022 12:28 | 0.8646 |
| 11/30/2022 12:29 | 0.8649 |
| 11/30/2022 12:30 | 0.8665 |
| 11/30/2022 12:31 | 0.8672 |

| | |
|---|---|
| 11/30/2022 12:32 | 0.8682 |
| 11/30/2022 12:33 | 0.8689 |
| 11/30/2022 12:34 | 0.8697 |
| 11/30/2022 12:35 | 0.8711 |
| 11/30/2022 12:36 | 0.872 |
| 11/30/2022 12:37 | 0.8721 |
| 11/30/2022 12:38 | 0.8735 |
| 11/30/2022 12:39 | 0.8739 |
| 11/30/2022 12:40 | 0.875 |
| 11/30/2022 12:41 | 0.8761 |
| 11/30/2022 12:42 | 0.8771 |
| 11/30/2022 12:43 | 0.878 |
| 11/30/2022 12:44 | 0.8789 |
| 11/30/2022 12:45 | 0.8785 |
| 11/30/2022 12:46 | 0.8791 |
| 11/30/2022 12:47 | 0.8791 |
| 11/30/2022 12:48 | 0.8803 |
| 11/30/2022 12:49 | 0.881 |
| 11/30/2022 12:50 | 0.8815 |
| 11/30/2022 12:51 | 0.8814 |
| 11/30/2022 12:52 | 0.8831 |
| 11/30/2022 12:53 | 0.8838 |
| 11/30/2022 12:54 | 0.8851 |
| 11/30/2022 12:55 | 0.8857 |
| 11/30/2022 12:56 | 0.886 |
| 11/30/2022 12:57 | 0.8862 |
| 11/30/2022 12:58 | 0.8865 |
| 11/30/2022 12:59 | 0.8881 |
| 11/30/2022 13:00 | 0.8901 |
| 11/30/2022 13:01 | 0.8913 |
| 11/30/2022 13:02 | 0.8919 |
| 11/30/2022 13:03 | 0.8924 |
| 11/30/2022 13:04 | 0.8941 |
| 11/30/2022 13:05 | 0.8951 |

# APPENDIX D

## LABORATORY ANALYTICAL REPORTS

**(Note: Category B deliverables packages submitted separately due to file size)**

PHOENIX
Environmental Laboratories, Inc.

**Tuesday, December 20, 2022**

**Attn: Nora Brew**
**Walden Environmental Engineering PLLC**
**16 Spring Street**
**Oyster Bay, NY 11771**

**Project ID:** IPARK0118.62-LOT 10 BOUNDARY MODIFICAT.
**SDG ID:** GCM95248
**Sample ID#s:** CM95248 - CM95277

**This laboratory is in compliance with the NELAC requirements of procedures used except where indicated.**

**This report contains results for the parameters tested, under the sampling conditions described on the Chain Of Custody, as received by the laboratory. This report is incomplete unless all pages indicated in the pagination at the bottom of the page are included.**

**All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.**

**A scanned version of the COC form accompanies the analytical report and is an exact duplicate of the original.**

**If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200. The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.**

**Sincerely yours,**

**Phyllis Shiller**
**Laboratory Director**

**NELAC - #NY11301**
**CT Lab Registration #PH-0618**
**MA Lab Registration #M-CT007**
**ME Lab Registration #CT-007**
**NH Lab Registration #213693-A,B**
**NJ Lab Registration #CT-003**
**NY Lab Registration #11301**
**PA Lab Registration #68-03530**
**RI Lab Registration #63**
**VT Lab Registration #VT11301**

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

# SDG Comments

December 20, 2022

SDG I.D.: GCM95248

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Any compound that is not detected above the MDL/LOD is reported as ND on the report and is reported in the electronic deliverables (EDD) as <RL or U at the RL per state and EPA guidance.

Version 1: Analysis results minus raw data.

Version 2: Complete report with raw data.

PHOENIX

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

# Sample Id Cross Reference

December 20, 2022

SDG I.D.: GCM95248

Project ID: IPARK0118.62-LOT 10 BOUNDARY MODIFICAT.

| Client Id | Lab Id | Matrix |
|---|---|---|
| SED-1 (0-2``) | CM95248 | SEDIMENT |
| SED-1 (2-12``) | CM95249 | SEDIMENT |
| SED-2 (0-2``) | CM95250 | SEDIMENT |
| SED-2 (2-12``) | CM95251 | SEDIMENT |
| SB-10A1 (0-2``) | CM95252 | SOIL |
| SB-10A2 (2-12``) | CM95253 | SOIL |
| SB-10B (1-2`) | CM95254 | SOIL |
| SB-10C (9-11`) | CM95255 | SOIL |
| SB-9A (0-1`) | CM95256 | SOIL |
| SB-9B (1-2`) | CM95257 | SOIL |
| SB-9C (6-8`) | CM95258 | SOIL |
| SB-DUP1 | CM95259 | SOIL |
| SB-8A (0-1`) | CM95260 | SOIL |
| SB-8B (1-2`) | CM95261 | SOIL |
| SB-8C (13-15`) | CM95262 | SOIL |
| SB-7A (0-1`) | CM95263 | SOIL |
| SB-7B (1-2`) | CM95264 | SOIL |
| SB-7C (6-8`) | CM95265 | SOIL |
| SB-6A (0-1`) | CM95266 | SOIL |
| SB-6B (1-2`) | CM95267 | SOIL |
| SB-6C (6-8`) | CM95268 | SOIL |
| SB-DUP2 | CM95269 | SOIL |
| EQUIPMENT BLANK 11292022 | CM95270 | WATER |
| SB-5A1 (0-2``) | CM95271 | SOIL |
| SB-5A2 (2-12``) | CM95272 | SOIL |
| SB-5B (1-2`) | CM95273 | SOIL |
| SB-5C (6-8`) | CM95274 | SOIL |
| SB-4A (0-1`) | CM95275 | SOIL |
| SB-4B (1-2`) | CM95276 | SOIL |
| SB-4C (10-12`) | CM95277 | SOIL |

PHOENIX
Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

# Analysis Report

December 20, 2022

FOR: Attn: Nora Brew
Walden Environmental Engineering PLLC
16 Spring Street
Oyster Bay, NY 11771

| Sample Information | | Custody Information | | Date | Time |
|---|---|---|---|---|---|
| Matrix: | SEDIMENT | Collected by: | | 11/29/22 | 8:30 |
| Location Code: | WALDENE-IPARK | Received by: | CP | 12/01/22 | 17:12 |
| Rush Request: | Standard | Analyzed by: | see "By" below | | |
| P.O.#: | | | | | |

## Laboratory Data

SDG ID: GCM95248
Phoenix ID: CM95248

Project ID: IPARK0118.62-LOT 10 BOUNDARY MODIFICAT.
Client ID: SED-1 (0-2``)

| Parameter | Result | RL/ PQL | LOD/ MDL | Units | Dilution | Date/Time | By | Reference |
|---|---|---|---|---|---|---|---|---|
| Aluminum | 16400 | 66 | 13 | mg/Kg | 10 | 12/02/22 | TH | SW6010D |
| Antimony | ND | 6.6 | 6.6 | mg/Kg | 1 | 12/02/22 | TH | SW6010D |
| Arsenic | 8.2 | 1.3 | 1.3 | mg/Kg | 1 | 12/02/22 | TH | SW6010D |
| Barium | 132 | 1.3 | 0.66 | mg/Kg | 1 | 12/02/22 | TH | SW6010D |
| Beryllium | 0.84 | 0.53 | 0.26 | mg/Kg | 1 | 12/02/22 | TH | SW6010D |
| Calcium | 9820 | 6.6 | 6.1 | mg/Kg | 1 | 12/02/22 | TH | SW6010D |
| Cadmium | 2.33 | 0.66 | 0.66 | mg/Kg | 1 | 12/02/22 | TH | SW6010D |
| Chromium | 21.5 | 0.66 | 0.66 | mg/Kg | 1 | 12/02/22 | TH | SW6010D |
| Cobalt | 12.6 | 0.66 | 0.66 | mg/Kg | 1 | 12/02/22 | TH | SW6010D |
| Copper | 27.5 | 1.3 | 0.66 | mg/kg | 1 | 12/02/22 | TH | SW6010D |
| Iron | 33600 | 66 | 66 | mg/Kg | 10 | 12/02/22 | TH | SW6010D |
| Lead | 34.3 | 1.3 | 0.66 | mg/Kg | 1 | 12/02/22 | TH | SW6010D |
| Magnesium | 7970 | 6.6 | 6.6 | mg/Kg | 1 | 12/02/22 | TH | SW6010D |
| Manganese | 3020 | 66 | 66 | mg/Kg | 100 | 12/09/22 | TH | SW6010D |
| Mercury | 0.08 | 0.05 | 0.03 | mg/Kg | 2 | 12/05/22 | PM | SW7471B |
| Nickel | 24.6 | 0.66 | 0.66 | mg/Kg | 1 | 12/02/22 | TH | SW6010D |
| Potassium | 1720 | 13 | 5.1 | mg/Kg | 1 | 12/02/22 | TH | SW6010D |
| Selenium | ND | 2.6 | 2.2 | mg/Kg | 1 | 12/02/22 | TH | SW6010D |
| Silver | ND | 0.66 | 0.66 | mg/Kg | 1 | 12/02/22 | TH | SW6010D |
| Sodium | 168 | 13 | 5.7 | mg/Kg | 1 | 12/02/22 | TH | SW6010D |
| Thallium | ND | 2.6 | 2.6 | mg/Kg | 1 | 12/02/22 | TH | SW6010D |
| Vanadium | 27.1 | 0.66 | 0.66 | mg/Kg | 1 | 12/02/22 | TH | SW6010D |
| Zinc | 124 | 1.3 | 0.66 | mg/Kg | 1 | 12/02/22 | TH | SW6010D |
| Percent Solid | 52 | | | % | | 12/01/22 | Q | SW846-%Solid |
| Extraction for SVOA SIM | Completed | | | | | 12/02/22 | O/Y | SW3545A |
| Soil Extraction for PCB | Completed | | | | | 12/01/22 | B/MO | SW3545A |
| Soil Extraction for Pesticide | Completed | | | | | 12/01/22 | B/MO | SW3545A |

**Ver 1**

Project ID: IPARK0118.62-LOT 10 BOUNDARY MODIFICAT. Phoenix I.D.: CM95248
Client ID: SED-1 (0-2``)

| Parameter | Result | RL/ PQL | LOD/ MDL | Units | Dilution | Date/Time | By | Reference | |
|---|---|---|---|---|---|---|---|---|---|
| Field Extraction | Completed | | | | | 11/29/22 | | SW5035A | 1 |
| Mercury Digestion | Completed | | | | | 12/02/22 | AB/AB | SW7471B | |
| Soil Extraction for Herbicide | Completed | | | | | 12/02/22 | L/D | SW3546 | |
| Soil Extraction for SVOA | Completed | | | | | 12/03/22 | E/Y | SW3546 | |
| Total Metals Digest | Completed | | | | | 12/01/22 | | SW3050B | |
| PFAS (21) | Completed | | | | | 12/07/22 | *** | EPA 537m | C |

## PFAS (21)

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **1H,1H,2H,2H-Perfluorodecanesulfonic acid** | ND | 0.444 | 0.0455 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| **1H,1H,2H,2H-Perfluorooctanesulfonic acid** | ND | 0.444 | 0.117 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| NEtFOSAA | ND | 0.444 | 0.185 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| NMeFOSAA | ND | 0.444 | 0.185 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| **Perfluoro-1-decanesulfonic acid (PFDS)** | ND | 0.444 | 0.0909 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| **Perfluoro-1-heptanesulfonic acid (PFHpS)** | ND | 0.444 | 0.0876 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| **Perfluoro-1-octanesulfonamide (FOSA)** | ND | 0.444 | 0.0829 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| Perfluorobutanesulfonic acid (PFBS) | ND | 0.444 | 0.355 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| Perfluorodecanoic acid (PFDA) | ND | 0.444 | 0.0909 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| Perfluorododecanoic acid (PFDoA) | ND | 0.444 | 0.133 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| Perfluoroheptanoic acid (PFHpA) | ND | 0.444 | 0.0808 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| **Perfluorohexanesulfonic Acid (PFHxS)** | 0.795 | 0.444 | 0.0551 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| Perfluorohexanoic acid (PFHxA) | ND | 0.444 | 0.117 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| Perfluoro-n-butanoic acid (PFBA) | ND | 0.444 | 0.324 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| Perfluorononanoic acid (PFNA) | ND | 0.444 | 0.106 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| Perfluorooctanesulfonic Acid (PFOS) | 22.3 | 0.444 | 0.0778 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| Perfluorooctanoic acid (PFOA) | 0.728 | 0.444 | 0.137 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| Perfluoropentanoic acid (PFPeA) | ND | 0.444 | 0.163 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| Perfluorotetradecanoic acid (PFTA) | ND | 0.444 | 0.133 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| Perfluorotridecanoic acid (PFTrDA) | 0.487 | 0.444 | 0.0773 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| Perfluoroundecanoic acid (PFUnA) | ND | 0.444 | 0.207 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| **QA/QC Surrogates** | | | | | | | | | |
| % d3-N-MeFOSAA | 57.5 | | | % | 1 | 12/11/22 | *** | 25 - 150 % | C |
| % d5-NEtFOSA | 53.9 | | | % | 1 | 12/11/22 | *** | 25 - 150 % | C |
| % M2-6:2FTS | 327 | | | % | 1 | 12/11/22 | *** | 25 - 200 % | C,3 |
| % M2-8:2FTS | 269 | | | % | 1 | 12/11/22 | *** | 25 - 200 % | C,3 |
| % M2PFTeDA | 39.4 | | | % | 1 | 12/11/22 | *** | 10 - 150 % | C |
| % M3PFBS | 73.9 | | | % | 1 | 12/11/22 | *** | 25 - 150 % | C |
| % M3PFHxS | 69.5 | | | % | 1 | 12/11/22 | *** | 25 - 150 % | C |
| % M4PFHpA | 50.2 | | | % | 1 | 12/11/22 | *** | 25 - 150 % | C |
| % M5PFHxA | 61.4 | | | % | 1 | 12/11/22 | *** | 25 - 150 % | C |
| % M5PFPeA | 65.7 | | | % | 1 | 12/11/22 | *** | 25 - 150 % | C |
| % M6PFDA | 54.8 | | | % | 1 | 12/11/22 | *** | 25 - 150 % | C |
| % M7PFUdA | 41.5 | | | % | 1 | 12/11/22 | *** | 25 - 150 % | C |
| % M8FOSA | 35.0 | | | % | 1 | 12/11/22 | *** | 10 - 150 % | C |
| % M8PFOA | 59.7 | | | % | 1 | 12/11/22 | *** | 25 - 150 % | C |
| % M8PFOS | 66.7 | | | % | 1 | 12/11/22 | *** | 25 - 150 % | C |
| % M9PFNA | 53.4 | | | % | 1 | 12/11/22 | *** | 25 - 150 % | C |
| % MPFBA | 80.2 | | | % | 1 | 12/11/22 | *** | 25 - 150 % | C |
| % MPFDoA | 44.4 | | | % | 1 | 12/11/22 | *** | 25 - 150 % | C |

Project ID: IPARK0118.62-LOT 10 BOUNDARY MODIFICAT. Phoenix I.D.: CM95248
Client ID: SED-1 (0-2``)

| Parameter | Result | RL/ PQL | LOD/ MDL | Units | Dilution | Date/Time | By | Reference | |
|---|---|---|---|---|---|---|---|---|---|
| **Chlorinated Herbicides** | | | | | | | | | |
| 2,4,5-T | ND | 120 | 120 | ug/Kg | 10 | 12/05/22 | PS | SW8151A | |
| 2,4,5-TP (Silvex) | ND | 120 | 120 | ug/Kg | 10 | 12/05/22 | PS | SW8151A | |
| 2,4-D | ND | 250 | 250 | ug/Kg | 10 | 12/05/22 | PS | SW8151A | |
| 2,4-DB | ND | 2500 | 2500 | ug/Kg | 10 | 12/05/22 | PS | SW8151A | |
| Dalapon | ND | 120 | 120 | ug/Kg | 10 | 12/05/22 | PS | SW8151A | |
| Dicamba | ND | 120 | 120 | ug/Kg | 10 | 12/05/22 | PS | SW8151A | |
| Dichloroprop | ND | 250 | 250 | ug/Kg | 10 | 12/05/22 | PS | SW8151A | |
| Dinoseb | ND | 250 | 250 | ug/Kg | 10 | 12/05/22 | PS | SW8151A | |
| **QA/QC Surrogates** | | | | | | | | | |
| % DCAA | 70 | | | % | 10 | 12/05/22 | PS | 30 - 150 % | |
| % DCAA (Confirmation) | 80 | | | % | 10 | 12/05/22 | PS | 30 - 150 % | |
| **Polychlorinated Biphenyls** | | | | | | | | | |
| PCB-1016 | ND | 130 | 130 | ug/Kg | 2 | 12/03/22 | SC | SW8082A | |
| PCB-1221 | ND | 130 | 130 | ug/Kg | 2 | 12/03/22 | SC | SW8082A | |
| PCB-1232 | ND | 130 | 130 | ug/Kg | 2 | 12/03/22 | SC | SW8082A | |
| PCB-1242 | ND | 130 | 130 | ug/Kg | 2 | 12/03/22 | SC | SW8082A | |
| PCB-1248 | ND | 130 | 130 | ug/Kg | 2 | 12/03/22 | SC | SW8082A | |
| PCB-1254 | ND | 130 | 130 | ug/Kg | 2 | 12/03/22 | SC | SW8082A | |
| PCB-1260 | ND | 130 | 130 | ug/Kg | 2 | 12/03/22 | SC | SW8082A | |
| PCB-1262 | ND | 130 | 130 | ug/Kg | 2 | 12/03/22 | SC | SW8082A | |
| PCB-1268 | ND | 130 | 130 | ug/Kg | 2 | 12/03/22 | SC | SW8082A | |
| **QA/QC Surrogates** | | | | | | | | | |
| % DCBP | 35 | | | % | 2 | 12/03/22 | SC | 30 - 150 % | |
| % DCBP (Confirmation) | 29 | | | % | 2 | 12/03/22 | SC | 30 - 150 % | 3 |
| % TCMX | 36 | | | % | 2 | 12/03/22 | SC | 30 - 150 % | |
| % TCMX (Confirmation) | 35 | | | % | 2 | 12/03/22 | SC | 30 - 150 % | |
| **Pesticides - Soil** | | | | | | | | | |
| 4,4' -DDD | ND | 3.8 | 3.8 | ug/Kg | 2 | 12/02/22 | AW | SW8081B | |
| 4,4' -DDE | 8.5 | 3.8 | 3.8 | ug/Kg | 2 | 12/02/22 | AW | SW8081B | |
| 4,4' -DDT | ND | 3.8 | 3.8 | ug/Kg | 2 | 12/02/22 | AW | SW8081B | |
| a-BHC | ND | 13 | 13 | ug/Kg | 2 | 12/02/22 | AW | SW8081B | |
| a-Chlordane | ND | 6.3 | 6.3 | ug/Kg | 2 | 12/02/22 | AW | SW8081B | |
| Alachlor | ND | 6.3 | 6.3 | ug/Kg | 2 | 12/02/22 | AW | SW8081B | |
| Aldrin | ND | 6.3 | 6.3 | ug/Kg | 2 | 12/02/22 | AW | SW8081B | |
| b-BHC | ND | 13 | 13 | ug/Kg | 2 | 12/02/22 | AW | SW8081B | |
| Chlordane | ND | 63 | 63 | ug/Kg | 2 | 12/02/22 | AW | SW8081B | |
| d-BHC | ND | 13 | 13 | ug/Kg | 2 | 12/02/22 | AW | SW8081B | |
| Dieldrin | ND | 6.3 | 6.3 | ug/Kg | 2 | 12/02/22 | AW | SW8081B | |
| Endosulfan I | ND | 13 | 13 | ug/Kg | 2 | 12/02/22 | AW | SW8081B | |
| Endosulfan II | ND | 13 | 13 | ug/Kg | 2 | 12/02/22 | AW | SW8081B | |
| Endosulfan sulfate | ND | 13 | 13 | ug/Kg | 2 | 12/02/22 | AW | SW8081B | |
| Endrin | ND | 13 | 13 | ug/Kg | 2 | 12/02/22 | AW | SW8081B | |
| Endrin aldehyde | ND | 13 | 13 | ug/Kg | 2 | 12/02/22 | AW | SW8081B | |
| Endrin ketone | ND | 13 | 13 | ug/Kg | 2 | 12/02/22 | AW | SW8081B | |
| g-BHC | ND | 2.5 | 2.5 | ug/Kg | 2 | 12/02/22 | AW | SW8081B | |
| g-Chlordane | ND | 6.3 | 6.3 | ug/Kg | 2 | 12/02/22 | AW | SW8081B | |

| Parameter | Result | RL/ PQL | LOD/ MDL | Units | Dilution | Date/Time | By | Reference | |
|---|---|---|---|---|---|---|---|---|---|
| Heptachlor | ND | 13 | 13 | ug/Kg | 2 | 12/02/22 | AW | SW8081B | |
| Heptachlor epoxide | ND | 13 | 13 | ug/Kg | 2 | 12/02/22 | AW | SW8081B | |
| Methoxychlor | ND | 63 | 63 | ug/Kg | 2 | 12/02/22 | AW | SW8081B | |
| Toxaphene | ND | 250 | 250 | ug/Kg | 2 | 12/02/22 | AW | SW8081B | |
| **QA/QC Surrogates** | | | | | | | | | |
| % DCBP | 46 | | | % | 2 | 12/02/22 | AW | 30 - 150 % | |
| % DCBP (Confirmation) | 34 | | | % | 2 | 12/02/22 | AW | 30 - 150 % | |
| % TCMX | 45 | | | % | 2 | 12/02/22 | AW | 30 - 150 % | |
| % TCMX (Confirmation) | 40 | | | % | 2 | 12/02/22 | AW | 30 - 150 % | |
| **Volatiles** | | | | | | | | | |
| 1,1,1,2-Tetrachloroethane | ND | 10 | 2.1 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| 1,1,1-Trichloroethane | ND | 10 | 1.0 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| 1,1,2,2-Tetrachloroethane | ND | 10 | 2.1 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| 1,1,2-Trichloroethane | ND | 10 | 2.1 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| 1,1-Dichloroethane | ND | 10 | 2.1 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| 1,1-Dichloroethene | ND | 10 | 1.0 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| 1,1-Dichloropropene | ND | 10 | 1.0 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| 1,2,3-Trichlorobenzene | ND | 10 | 2.1 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| 1,2,3-Trichloropropane | ND | 10 | 1.0 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| 1,2,4-Trichlorobenzene | ND | 10 | 2.1 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| 1,2,4-Trimethylbenzene | ND | 10 | 1.0 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| 1,2-Dibromo-3-chloropropane | ND | 10 | 2.1 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| 1,2-Dibromoethane | ND | 10 | 1.0 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| 1,2-Dichlorobenzene | ND | 10 | 1.0 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| 1,2-Dichloroethane | ND | 10 | 1.0 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| 1,2-Dichloropropane | ND | 10 | 2.1 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| 1,3,5-Trimethylbenzene | ND | 10 | 1.0 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| 1,3-Dichlorobenzene | ND | 10 | 1.0 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| 1,3-Dichloropropane | ND | 10 | 2.1 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| 1,4-Dichlorobenzene | ND | 10 | 1.0 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| 2,2-Dichloropropane | ND | 10 | 1.0 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| 2-Chlorotoluene | ND | 10 | 2.1 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| 2-Hexanone | ND | 52 | 10 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| 2-Isopropyltoluene | ND | 10 | 1.0 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | 1 |
| 4-Chlorotoluene | ND | 10 | 1.0 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| 4-Methyl-2-pentanone | ND | 52 | 10 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| Acetone | ND | 52 | 10 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| Acrylonitrile | ND | 21 | 2.1 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| Benzene | ND | 10 | 1.0 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| Bromobenzene | ND | 10 | 1.0 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| Bromochloromethane | ND | 10 | 1.0 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| Bromodichloromethane | ND | 10 | 2.1 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| Bromoform | ND | 10 | 2.1 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| Bromomethane | ND | 10 | 4.2 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| Carbon Disulfide | ND | 10 | 2.1 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| Carbon tetrachloride | ND | 10 | 2.1 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| Chlorobenzene | ND | 10 | 1.0 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| Chloroethane | ND | 10 | 1.0 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| Chloroform | ND | 10 | 1.0 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |

Project ID: IPARK0118.62-LOT 10 BOUNDARY MODIFICAT. Phoenix I.D.: CM95248
Client ID: SED-1 (0-2``)

| Parameter | Result | RL/ PQL | LOD/ MDL | Units | Dilution | Date/Time | By | Reference | |
|---|---|---|---|---|---|---|---|---|---|
| Chloromethane | ND | 10 | 2.1 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| cis-1,2-Dichloroethene | ND | 10 | 1.0 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| cis-1,3-Dichloropropene | ND | 10 | 1.0 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| Dibromochloromethane | ND | 10 | 2.1 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| Dibromomethane | ND | 10 | 2.1 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| Dichlorodifluoromethane | ND | 10 | 1.0 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| Ethylbenzene | ND | 10 | 1.0 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| Hexachlorobutadiene | ND | 10 | 1.0 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| Isopropylbenzene | ND | 10 | 1.0 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| m&p-Xylene | ND | 10 | 2.1 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| Methyl Ethyl Ketone | ND | 63 | 10 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| Methyl t-butyl ether (MTBE) | ND | 21 | 2.1 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| Methylene chloride | ND | 10 | 10 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| Naphthalene | ND | 10 | 2.1 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| n-Butylbenzene | ND | 10 | 1.0 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| n-Propylbenzene | ND | 10 | 2.1 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| o-Xylene | ND | 10 | 2.1 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| p-Isopropyltoluene | ND | 10 | 1.0 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| sec-Butylbenzene | ND | 10 | 1.0 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| Styrene | ND | 10 | 1.0 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| tert-Butylbenzene | ND | 10 | 1.0 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| Tetrachloroethene | ND | 10 | 2.1 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| Tetrahydrofuran (THF) | ND | 21 | 5.2 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| Toluene | ND | 10 | 1.0 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| trans-1,2-Dichloroethene | ND | 10 | 1.0 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| trans-1,3-Dichloropropene | ND | 10 | 1.0 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| trans-1,4-dichloro-2-butene | ND | 21 | 5.2 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| Trichloroethene | ND | 10 | 1.0 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| Trichlorofluoromethane | ND | 10 | 2.1 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| Trichlorotrifluoroethane | ND | 10 | 1.0 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| Vinyl chloride | ND | 10 | 1.0 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| **QA/QC Surrogates** | | | | | | | | | |
| % 1,2-dichlorobenzene-d4 | 94 | | | % | 1 | 12/05/22 | JLI | 70 - 130 % | |
| % Bromofluorobenzene | 93 | | | % | 1 | 12/05/22 | JLI | 70 - 130 % | |
| % Dibromofluoromethane | 101 | | | % | 1 | 12/05/22 | JLI | 70 - 130 % | |
| % Toluene-d8 | 94 | | | % | 1 | 12/05/22 | JLI | 70 - 130 % | |
| **Semivolatiles** | | | | | | | | | |
| 1,2,4,5-Tetrachlorobenzene | ND | 450 | 230 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 1,2,4-Trichlorobenzene | ND | 450 | 190 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 1,2-Dichlorobenzene | ND | 450 | 180 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 1,2-Diphenylhydrazine | ND | 450 | 210 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 1,3-Dichlorobenzene | ND | 450 | 190 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 1,4-Dichlorobenzene | ND | 450 | 190 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2,2'-Oxybis(1-Chloropropane) | ND | 450 | 180 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | 1 |
| 2,4,5-Trichlorophenol | ND | 450 | 350 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2,4,6-Trichlorophenol | ND | 320 | 200 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2,4-Dichlorophenol | ND | 320 | 230 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2,4-Dimethylphenol | ND | 450 | 160 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2,4-Dinitrophenol | ND | 450 | 450 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |

Project ID: IPARK0118.62-LOT 10 BOUNDARY MODIFICAT. Phoenix I.D.: CM95248

Client ID: SED-1 (0-2``)

| Parameter | Result | | RL/ PQL | LOD/ MDL | Units | Dilution | Date/Time | By | Reference | |
|---|---|---|---|---|---|---|---|---|---|---|
| 2,4-Dinitrotoluene | ND | | 320 | 250 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2,6-Dinitrotoluene | ND | | 320 | 200 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2-Chloronaphthalene | ND | | 450 | 180 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2-Chlorophenol | ND | | 450 | 180 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2-Methylnaphthalene | ND | | 450 | 190 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2-Methylphenol (o-cresol) | ND | | 450 | 300 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2-Nitroaniline | ND | | 450 | 450 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2-Nitrophenol | ND | | 450 | 410 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 3&4-Methylphenol (m&p-cresol) | ND | | 450 | 250 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | 1 |
| 3,3'-Dichlorobenzidine | ND | | 320 | 300 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 3-Nitroaniline | ND | | 640 | 1300 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 4,6-Dinitro-2-methylphenol | ND | | 380 | 130 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 4-Bromophenyl phenyl ether | ND | | 450 | 190 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 4-Chloro-3-methylphenol | ND | | 450 | 230 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 4-Chloroaniline | ND | | 510 | 300 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 4-Chlorophenyl phenyl ether | ND | | 450 | 220 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 4-Nitroaniline | ND | | 640 | 210 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 4-Nitrophenol | ND | | 640 | 290 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Acenaphthene | ND | | 450 | 190 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Acenaphthylene | ND | | 450 | 180 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Acetophenone | ND | | 450 | 200 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Aniline | ND | | 510 | 510 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Anthracene | ND | | 450 | 210 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Benz(a)anthracene | ND | | 450 | 220 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Benzidine | ND | | 640 | 380 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Benzo(a)pyrene | ND | | 320 | 210 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Benzo(b)fluoranthene | ND | | 450 | 220 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Benzo(ghi)perylene | 430 | J | 450 | 210 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Benzo(k)fluoranthene | ND | | 450 | 210 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Benzoic acid | ND | | 3200 | 1300 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Benzyl butyl phthalate | ND | | 450 | 170 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Bis(2-chloroethoxy)methane | ND | | 450 | 180 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Bis(2-chloroethyl)ether | ND | | 320 | 170 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Bis(2-ethylhexyl)phthalate | ND | | 450 | 180 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Carbazole | ND | | 320 | 260 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Chrysene | ND | | 450 | 220 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Dibenz(a,h)anthracene | 330 | | 320 | 210 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Dibenzofuran | ND | | 450 | 190 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Diethyl phthalate | ND | | 450 | 200 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Dimethylphthalate | ND | | 450 | 200 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Di-n-butylphthalate | ND | | 450 | 170 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Di-n-octylphthalate | ND | | 450 | 170 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Fluoranthene | ND | | 450 | 210 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Fluorene | ND | | 450 | 210 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Hexachlorobenzene | ND | | 320 | 190 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Hexachlorobutadiene | ND | | 450 | 230 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Hexachlorocyclopentadiene | ND | | 450 | 200 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Hexachloroethane | ND | | 320 | 190 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Indeno(1,2,3-cd)pyrene | 340 | J | 450 | 210 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |

Project ID: IPARK0118.62-LOT 10 BOUNDARY MODIFICAT. Phoenix I.D.: CM95248
Client ID: SED-1 (0-2``)

| Parameter | Result | RL/ PQL | LOD/ MDL | Units | Dilution | Date/Time | By | Reference | |
|---|---|---|---|---|---|---|---|---|---|
| Isophorone | ND | 320 | 180 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Naphthalene | ND | 450 | 180 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Nitrobenzene | ND | 320 | 220 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| N-Nitrosodimethylamine | ND | 450 | 180 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| N-Nitrosodi-n-propylamine | ND | 320 | 210 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| N-Nitrosodiphenylamine | ND | 450 | 250 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Pentachloronitrobenzene | ND | 450 | 240 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Pentachlorophenol | ND | 380 | 240 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Phenanthrene | ND | 450 | 180 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Phenol | ND | 450 | 200 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Pyrene | ND | 450 | 220 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Pyridine | ND | 450 | 160 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| **QA/QC Surrogates** | | | | | | | | | |
| % 2,4,6-Tribromophenol | 143 | | | % | 1 | 12/04/22 | WB | 30 - 130 % | 3 |
| % 2-Fluorobiphenyl | 94 | | | % | 1 | 12/04/22 | WB | 30 - 130 % | |
| % 2-Fluorophenol | 57 | | | % | 1 | 12/04/22 | WB | 30 - 130 % | |
| % Nitrobenzene-d5 | 74 | | | % | 1 | 12/04/22 | WB | 30 - 130 % | |
| % Phenol-d5 | 77 | | | % | 1 | 12/04/22 | WB | 30 - 130 % | |
| % Terphenyl-d14 | 65 | | | % | 1 | 12/04/22 | WB | 30 - 130 % | |

## 1,4-Dioxane

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 1,4-dioxane | ND | 130 | 130 | ug/Kg | 1 | 12/04/22 | WB | SW8270D (SIM) | |
| **QA/QC Surrogates** | | | | | | | | | |
| % 2-Fluorobiphenyl | 23 | | | % | 1 | 12/04/22 | WB | 30 - 130 % | 3 |
| % Nitrobenzene-d5 | 45 | | | % | 1 | 12/04/22 | WB | 30 - 130 % | |
| % Terphenyl-d14 | 69 | | | % | 1 | 12/04/22 | WB | 30 - 130 % | |

| Parameter | Result | RL/ PQL | LOD/ MDL | Units | Dilution | Date/Time | By | Reference |
|---|---|---|---|---|---|---|---|---|

1 = This parameter is not certified by the primary accrediting authority (NY NELAC) for this matrix. NY NELAC does not offer certification for all parameters at this time.
3 = This parameter exceeds laboratory specified limits.
C = This parameter is subcontracted.

RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected BRL=Below Reporting Level L=Biased Low J=Estimated Below RL LOD=Limit of Detection MDL=Method Detection Limit1
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

## Comments:

*See attached

Per 1.4.6 of EPA method 8270D, 1,2-Diphenylhydrazine is unstable and readily converts to Azobenzene. Azobenzene is used for the calibration of 1,2-Diphenylhydrazine.

Semi-Volatile Comment:
One of the surrogate recoveries was above the upper range due to sample matrix interference. The other surrogates associated with this sample were within QA/QC criteria. No significant bias is suspected.

Semi-Volatile Comment:
Poor surrogate recovery was observed for one acid and/or one base surrogate. The other surrogates associated with this sample were within QA/QC criteria. No significant bias suspected.

Herbicide Comment:
Matrix interference was observed due to the suspected presence of PCB in the sample. A dilution was required, not all requested criteria could be met.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

PFAS (21) (EPA 537m), PFOA/PFOS - Soil Extraction (EPA 537m) were analyzed by NY certified lab #12058.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200.
The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.

**Phyllis Shiller, Laboratory Director**
**December 20, 2022**
**Reviewed and Released by: Phyllis Shiller, Laboratory Director**

PHOENIX

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

# Analysis Report

December 20, 2022

FOR: Attn: Nora Brew
Walden Environmental Engineering PLLC
16 Spring Street
Oyster Bay, NY 11771

| Sample Information | | Custody Information | | Date | Time |
|---|---|---|---|---|---|
| Matrix: | SEDIMENT | Collected by: | | 11/29/22 | 8:30 |
| Location Code: | WALDENE-IPARK | Received by: | CP | 12/01/22 | 17:12 |
| Rush Request: | Standard | Analyzed by: | see "By" below | | |
| P.O.#: | | | | | |

## Laboratory Data

SDG ID: GCM95248
Phoenix ID: CM95249

Project ID: IPARK0118.62-LOT 10 BOUNDARY MODIFICAT.
Client ID: SED-1 (2-12``)

| Parameter | Result | RL/ PQL | LOD/ MDL | Units | Dilution | Date/Time | By | Reference |
|---|---|---|---|---|---|---|---|---|
| Aluminum | 18800 | 62 | 12 | mg/Kg | 10 | 12/02/22 | TH | SW6010D |
| Antimony | ND | 6.2 | 6.2 | mg/Kg | 1 | 12/02/22 | TH | SW6010D |
| Arsenic | 7.9 | 1.2 | 1.2 | mg/Kg | 1 | 12/02/22 | TH | SW6010D |
| Barium | 117 | 1.2 | 0.62 | mg/Kg | 1 | 12/02/22 | TH | SW6010D |
| Beryllium | 0.85 | 0.49 | 0.25 | mg/Kg | 1 | 12/02/22 | TH | SW6010D |
| Calcium | 8070 | 6.2 | 5.7 | mg/Kg | 1 | 12/02/22 | TH | SW6010D |
| Cadmium | 2.33 | 0.62 | 0.62 | mg/Kg | 1 | 12/02/22 | TH | SW6010D |
| Chromium | 23.7 | 0.62 | 0.62 | mg/Kg | 1 | 12/02/22 | TH | SW6010D |
| Cobalt | 13.1 | 0.62 | 0.62 | mg/Kg | 1 | 12/02/22 | TH | SW6010D |
| Copper | 29.9 | 1.2 | 0.62 | mg/kg | 1 | 12/02/22 | TH | SW6010D |
| Iron | 35200 | 62 | 62 | mg/Kg | 10 | 12/02/22 | TH | SW6010D |
| Lead | 34.6 | 1.2 | 0.62 | mg/Kg | 1 | 12/02/22 | TH | SW6010D |
| Magnesium | 8130 | 6.2 | 6.2 | mg/Kg | 1 | 12/02/22 | TH | SW6010D |
| Manganese | 2060 | 6.2 | 6.2 | mg/Kg | 10 | 12/02/22 | TH | SW6010D |
| Mercury | 0.09 | 0.04 | 0.03 | mg/Kg | 2 | 12/05/22 | PM | SW7471B |
| Nickel | 28.0 | 0.62 | 0.62 | mg/Kg | 1 | 12/02/22 | TH | SW6010D |
| Potassium | 1460 | 12 | 4.8 | mg/Kg | 1 | 12/02/22 | TH | SW6010D |
| Selenium | ND | 2.5 | 2.1 | mg/Kg | 1 | 12/02/22 | TH | SW6010D |
| Silver | ND | 0.62 | 0.62 | mg/Kg | 1 | 12/02/22 | TH | SW6010D |
| Sodium | 199 | 12 | 5.3 | mg/Kg | 1 | 12/02/22 | TH | SW6010D |
| Thallium | ND | 2.5 | 2.5 | mg/Kg | 1 | 12/02/22 | TH | SW6010D |
| Vanadium | 28.3 | 0.62 | 0.62 | mg/Kg | 1 | 12/02/22 | TH | SW6010D |
| Zinc | 121 | 1.2 | 0.62 | mg/Kg | 1 | 12/02/22 | TH | SW6010D |
| Percent Solid | 58 | | | % | | 12/01/22 | Q | SW846-%Solid |
| Extraction for SVOA SIM | Completed | | | | | 12/02/22 | O/Y | SW3545A |
| Soil Extraction for PCB | Completed | | | | | 12/01/22 | B/MO | SW3545A |
| Soil Extraction for Pesticide | Completed | | | | | 12/01/22 | B/MO | SW3545A |

**Ver 1**

Project ID: IPARK0118.62-LOT 10 BOUNDARY MODIFICAT. Phoenix I.D.: CM95249

Client ID: SED-1 (2-12``)

| Parameter | Result | RL/ PQL | LOD/ MDL | Units | Dilution | Date/Time | By | Reference | |
|---|---|---|---|---|---|---|---|---|---|
| Field Extraction | Completed | | | | | 11/29/22 | | SW5035A | 1 |
| Mercury Digestion | Completed | | | | | 12/02/22 | AB/AB | SW7471B | |
| Soil Extraction for Herbicide | Completed | | | | | 12/02/22 | L/D | SW3546 | |
| Soil Extraction for SVOA | Completed | | | | | 12/03/22 | E/Y | SW3546 | |
| Total Metals Digest | Completed | | | | | 12/01/22 | | SW3050B | |
| PFAS (21) | Completed | | | | | 12/07/22 | *** | EPA 537m | C |

## PFAS (21)

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **1H,1H,2H,2H-Perfluorodecanesulfonic acid** | ND | 0.442 | 0.0452 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| **1H,1H,2H,2H-Perfluorooctanesulfonic acid** | ND | 0.442 | 0.117 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| NEtFOSAA | ND | 0.442 | 0.184 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| NMeFOSAA | ND | 0.442 | 0.185 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| **Perfluoro-1-decanesulfonic acid (PFDS)** | ND | 0.442 | 0.0905 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| **Perfluoro-1-heptanesulfonic acid (PFHpS)** | ND | 0.442 | 0.0871 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| **Perfluoro-1-octanesulfonamide (FOSA)** | ND | 0.442 | 0.0825 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| Perfluorobutanesulfonic acid (PFBS) | ND | 0.442 | 0.353 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| Perfluorodecanoic acid (PFDA) | ND | 0.442 | 0.0905 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| Perfluorododecanoic acid (PFDoA) | ND | 0.442 | 0.133 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| Perfluoroheptanoic acid (PFHpA) | ND | 0.442 | 0.0804 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| **Perfluorohexanesulfonic Acid (PFHxS)** | 0.817 | 0.442 | 0.0548 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| Perfluorohexanoic acid (PFHxA) | ND | 0.442 | 0.116 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| Perfluoro-n-butanoic acid (PFBA) | ND | 0.442 | 0.323 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| Perfluorononanoic acid (PFNA) | ND | 0.442 | 0.106 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| Perfluorooctanesulfonic Acid (PFOS) | 25.9 | 0.442 | 0.0774 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| Perfluorooctanoic acid (PFOA) | 0.819 | 0.442 | 0.136 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| Perfluoropentanoic acid (PFPeA) | ND | 0.442 | 0.162 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| Perfluorotetradecanoic acid (PFTA) | ND | 0.442 | 0.132 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| Perfluorotridecanoic acid (PFTrDA) | ND | 0.442 | 0.0769 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| Perfluoroundecanoic acid (PFUnA) | 0.516 | 0.442 | 0.206 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| **QA/QC Surrogates** | | | | | | | | | |
| % d3-N-MeFOSAA | 45.5 | | | % | 1 | 12/11/22 | *** | 25 - 150 % | C |
| % d5-NEtFOSA | 37.7 | | | % | 1 | 12/11/22 | *** | 25 - 150 % | C |
| % M2-6:2FTS | 379 | | | % | 1 | 12/11/22 | *** | 25 - 200 % | C,3 |
| % M2-8:2FTS | 212 | | | % | 1 | 12/11/22 | *** | 25 - 200 % | C,3 |
| % M2PFTeDA | 6.91 | | | % | 1 | 12/11/22 | *** | 10 - 150 % | C,3 |
| % M3PFBS | 83.8 | | | % | 1 | 12/11/22 | *** | 25 - 150 % | C |
| % M3PFHxS | 90.9 | | | % | 1 | 12/11/22 | *** | 25 - 150 % | C |
| % M4PFHpA | 57.6 | | | % | 1 | 12/11/22 | *** | 25 - 150 % | C |
| % M5PFHxA | 67.3 | | | % | 1 | 12/11/22 | *** | 25 - 150 % | C |
| % M5PFPeA | 75.8 | | | % | 1 | 12/11/22 | *** | 25 - 150 % | C |
| % M6PFDA | 60.7 | | | % | 1 | 12/11/22 | *** | 25 - 150 % | C |
| % M7PFUdA | 38.5 | | | % | 1 | 12/11/22 | *** | 25 - 150 % | C |
| % M8FOSA | 15.4 | | | % | 1 | 12/11/22 | *** | 10 - 150 % | C |
| % M8PFOA | 66.5 | | | % | 1 | 12/11/22 | *** | 25 - 150 % | C |
| % M8PFOS | 66.7 | | | % | 1 | 12/11/22 | *** | 25 - 150 % | C |
| % M9PFNA | 61.2 | | | % | 1 | 12/11/22 | *** | 25 - 150 % | C |
| % MPFBA | 91.2 | | | % | 1 | 12/11/22 | *** | 25 - 150 % | C |
| % MPFDoA | 20.1 | | | % | 1 | 12/11/22 | *** | 25 - 150 % | C,3 |

Project ID: IPARK0118.62-LOT 10 BOUNDARY MODIFICAT. Phoenix I.D.: CM95249
Client ID: SED-1 (2-12``)

| Parameter | Result | RL/ PQL | LOD/ MDL | Units | Dilution | Date/Time | By | Reference |
|---|---|---|---|---|---|---|---|---|
| **Chlorinated Herbicides** | | | | | | | | |
| 2,4,5-T | ND | 120 | 120 | ug/Kg | 10 | 12/05/22 | PS | SW8151A |
| 2,4,5-TP (Silvex) | ND | 120 | 120 | ug/Kg | 10 | 12/05/22 | PS | SW8151A |
| 2,4-D | ND | 250 | 250 | ug/Kg | 10 | 12/05/22 | PS | SW8151A |
| 2,4-DB | ND | 2500 | 2500 | ug/Kg | 10 | 12/05/22 | PS | SW8151A |
| Dalapon | ND | 120 | 120 | ug/Kg | 10 | 12/05/22 | PS | SW8151A |
| Dicamba | ND | 120 | 120 | ug/Kg | 10 | 12/05/22 | PS | SW8151A |
| Dichloroprop | ND | 250 | 250 | ug/Kg | 10 | 12/05/22 | PS | SW8151A |
| Dinoseb | ND | 250 | 250 | ug/Kg | 10 | 12/05/22 | PS | SW8151A |
| **QA/QC Surrogates** | | | | | | | | |
| % DCAA | 77 | | | % | 10 | 12/05/22 | PS | 30 - 150 % |
| % DCAA (Confirmation) | 88 | | | % | 10 | 12/05/22 | PS | 30 - 150 % |
| **Polychlorinated Biphenyls** | | | | | | | | |
| PCB-1016 | ND | 110 | 110 | ug/Kg | 2 | 12/02/22 | SC | SW8082A |
| PCB-1221 | ND | 110 | 110 | ug/Kg | 2 | 12/02/22 | SC | SW8082A |
| PCB-1232 | ND | 110 | 110 | ug/Kg | 2 | 12/02/22 | SC | SW8082A |
| PCB-1242 | ND | 110 | 110 | ug/Kg | 2 | 12/02/22 | SC | SW8082A |
| PCB-1248 | ND | 110 | 110 | ug/Kg | 2 | 12/02/22 | SC | SW8082A |
| PCB-1254 | ND | 110 | 110 | ug/Kg | 2 | 12/02/22 | SC | SW8082A |
| PCB-1260 | ND | 110 | 110 | ug/Kg | 2 | 12/02/22 | SC | SW8082A |
| PCB-1262 | ND | 110 | 110 | ug/Kg | 2 | 12/02/22 | SC | SW8082A |
| PCB-1268 | ND | 110 | 110 | ug/Kg | 2 | 12/02/22 | SC | SW8082A |
| **QA/QC Surrogates** | | | | | | | | |
| % DCBP | 51 | | | % | 2 | 12/02/22 | SC | 30 - 150 % |
| % DCBP (Confirmation) | 51 | | | % | 2 | 12/02/22 | SC | 30 - 150 % |
| % TCMX | 71 | | | % | 2 | 12/02/22 | SC | 30 - 150 % |
| % TCMX (Confirmation) | 72 | | | % | 2 | 12/02/22 | SC | 30 - 150 % |
| **Pesticides - Soil** | | | | | | | | |
| 4,4' -DDD | ND | 3.3 | 3.3 | ug/Kg | 2 | 12/02/22 | AW | SW8081B |
| 4,4' -DDE | 9.7 | 3.3 | 3.3 | ug/Kg | 2 | 12/02/22 | AW | SW8081B |
| 4,4' -DDT | ND | 3.3 | 3.3 | ug/Kg | 2 | 12/02/22 | AW | SW8081B |
| a-BHC | ND | 11 | 11 | ug/Kg | 2 | 12/02/22 | AW | SW8081B |
| a-Chlordane | ND | 5.6 | 5.6 | ug/Kg | 2 | 12/02/22 | AW | SW8081B |
| Alachlor | ND | 5.6 | 5.6 | ug/Kg | 2 | 12/02/22 | AW | SW8081B |
| Aldrin | ND | 5.6 | 5.6 | ug/Kg | 2 | 12/02/22 | AW | SW8081B |
| b-BHC | ND | 11 | 11 | ug/Kg | 2 | 12/02/22 | AW | SW8081B |
| Chlordane | ND | 56 | 56 | ug/Kg | 2 | 12/02/22 | AW | SW8081B |
| d-BHC | ND | 11 | 11 | ug/Kg | 2 | 12/02/22 | AW | SW8081B |
| Dieldrin | ND | 5.6 | 5.6 | ug/Kg | 2 | 12/02/22 | AW | SW8081B |
| Endosulfan I | ND | 11 | 11 | ug/Kg | 2 | 12/02/22 | AW | SW8081B |
| Endosulfan II | ND | 11 | 11 | ug/Kg | 2 | 12/02/22 | AW | SW8081B |
| Endosulfan sulfate | ND | 11 | 11 | ug/Kg | 2 | 12/02/22 | AW | SW8081B |
| Endrin | ND | 11 | 11 | ug/Kg | 2 | 12/02/22 | AW | SW8081B |
| Endrin aldehyde | ND | 11 | 11 | ug/Kg | 2 | 12/02/22 | AW | SW8081B |
| Endrin ketone | ND | 11 | 11 | ug/Kg | 2 | 12/02/22 | AW | SW8081B |
| g-BHC | ND | 2.2 | 2.2 | ug/Kg | 2 | 12/02/22 | AW | SW8081B |
| g-Chlordane | ND | 5.6 | 5.6 | ug/Kg | 2 | 12/02/22 | AW | SW8081B |

Project ID: IPARK0118.62-LOT 10 BOUNDARY MODIFICAT. Phoenix I.D.: CM95249
Client ID: SED-1 (2-12``)

| Parameter | Result | RL/ PQL | LOD/ MDL | Units | Dilution | Date/Time | By | Reference | |
|---|---|---|---|---|---|---|---|---|---|
| Heptachlor | ND | 11 | 11 | ug/Kg | 2 | 12/02/22 | AW | SW8081B | |
| Heptachlor epoxide | ND | 11 | 11 | ug/Kg | 2 | 12/02/22 | AW | SW8081B | |
| Methoxychlor | ND | 56 | 56 | ug/Kg | 2 | 12/02/22 | AW | SW8081B | |
| Toxaphene | ND | 220 | 220 | ug/Kg | 2 | 12/02/22 | AW | SW8081B | |
| **QA/QC Surrogates** | | | | | | | | | |
| % DCBP | 54 | | | % | 2 | 12/02/22 | AW | 30 - 150 % | |
| % DCBP (Confirmation) | 58 | | | % | 2 | 12/02/22 | AW | 30 - 150 % | |
| % TCMX | 67 | | | % | 2 | 12/02/22 | AW | 30 - 150 % | |
| % TCMX (Confirmation) | 71 | | | % | 2 | 12/02/22 | AW | 30 - 150 % | |
| **Volatiles** | | | | | | | | | |
| 1,1,1,2-Tetrachloroethane | ND | 7.4 | 1.5 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| 1,1,1-Trichloroethane | ND | 7.4 | 0.74 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| 1,1,2,2-Tetrachloroethane | ND | 7.4 | 1.5 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| 1,1,2-Trichloroethane | ND | 7.4 | 1.5 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| 1,1-Dichloroethane | ND | 7.4 | 1.5 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| 1,1-Dichloroethene | ND | 7.4 | 0.74 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| 1,1-Dichloropropene | ND | 7.4 | 0.74 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| 1,2,3-Trichlorobenzene | ND | 7.4 | 1.5 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| 1,2,3-Trichloropropane | ND | 7.4 | 0.74 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| 1,2,4-Trichlorobenzene | ND | 7.4 | 1.5 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| 1,2,4-Trimethylbenzene | ND | 7.4 | 0.74 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| 1,2-Dibromo-3-chloropropane | ND | 7.4 | 1.5 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| 1,2-Dibromoethane | ND | 7.4 | 0.74 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| 1,2-Dichlorobenzene | ND | 7.4 | 0.74 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| 1,2-Dichloroethane | ND | 7.4 | 0.74 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| 1,2-Dichloropropane | ND | 7.4 | 1.5 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| 1,3,5-Trimethylbenzene | ND | 7.4 | 0.74 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| 1,3-Dichlorobenzene | ND | 7.4 | 0.74 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| 1,3-Dichloropropane | ND | 7.4 | 1.5 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| 1,4-Dichlorobenzene | ND | 7.4 | 0.74 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| 2,2-Dichloropropane | ND | 7.4 | 0.74 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| 2-Chlorotoluene | ND | 7.4 | 1.5 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| 2-Hexanone | ND | 37 | 7.4 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| 2-Isopropyltoluene | ND | 7.4 | 0.74 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | 1 |
| 4-Chlorotoluene | ND | 7.4 | 0.74 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| 4-Methyl-2-pentanone | ND | 37 | 7.4 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| Acetone | ND | 37 | 7.4 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| Acrylonitrile | ND | 15 | 1.5 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| Benzene | ND | 7.4 | 0.74 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| Bromobenzene | ND | 7.4 | 0.74 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| Bromochloromethane | ND | 7.4 | 0.74 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| Bromodichloromethane | ND | 7.4 | 1.5 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| Bromoform | ND | 7.4 | 1.5 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| Bromomethane | ND | 7.4 | 3.0 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| Carbon Disulfide | ND | 7.4 | 1.5 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| Carbon tetrachloride | ND | 7.4 | 1.5 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| Chlorobenzene | ND | 7.4 | 0.74 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| Chloroethane | ND | 7.4 | 0.74 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| Chloroform | ND | 7.4 | 0.74 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |

Project ID: IPARK0118.62-LOT 10 BOUNDARY MODIFICAT. Phoenix I.D.: CM95249
Client ID: SED-1 (2-12``)

| Parameter | Result | | RL/ PQL | LOD/ MDL | Units | Dilution | Date/Time | By | Reference | |
|---|---|---|---|---|---|---|---|---|---|---|
| Chloromethane | ND | | 7.4 | 1.5 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| cis-1,2-Dichloroethene | ND | | 7.4 | 0.74 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| cis-1,3-Dichloropropene | ND | | 7.4 | 0.74 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| Dibromochloromethane | ND | | 7.4 | 1.5 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| Dibromomethane | ND | | 7.4 | 1.5 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| Dichlorodifluoromethane | ND | | 7.4 | 0.74 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| Ethylbenzene | ND | | 7.4 | 0.74 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| Hexachlorobutadiene | ND | | 7.4 | 0.74 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| Isopropylbenzene | ND | | 7.4 | 0.74 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| m&p-Xylene | ND | | 7.4 | 1.5 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| Methyl Ethyl Ketone | ND | | 44 | 7.4 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| Methyl t-butyl ether (MTBE) | ND | | 15 | 1.5 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| Methylene chloride | ND | | 7.4 | 7.4 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| Naphthalene | ND | | 7.4 | 1.5 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| n-Butylbenzene | ND | | 7.4 | 0.74 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| n-Propylbenzene | ND | | 7.4 | 1.5 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| o-Xylene | ND | | 7.4 | 1.5 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| p-Isopropyltoluene | ND | | 7.4 | 0.74 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| sec-Butylbenzene | ND | | 7.4 | 0.74 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| Styrene | ND | | 7.4 | 0.74 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| tert-Butylbenzene | ND | | 7.4 | 0.74 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| Tetrachloroethene | ND | | 7.4 | 1.5 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| Tetrahydrofuran (THF) | 6.8 | J | 15 | 3.7 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| Toluene | ND | | 7.4 | 0.74 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| trans-1,2-Dichloroethene | ND | | 7.4 | 0.74 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| trans-1,3-Dichloropropene | ND | | 7.4 | 0.74 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| trans-1,4-dichloro-2-butene | ND | | 15 | 3.7 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| Trichloroethene | ND | | 7.4 | 0.74 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| Trichlorofluoromethane | ND | | 7.4 | 1.5 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| Trichlorotrifluoroethane | ND | | 7.4 | 0.74 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| Vinyl chloride | ND | | 7.4 | 0.74 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| **QA/QC Surrogates** | | | | | | | | | | |
| % 1,2-dichlorobenzene-d4 | 94 | | | | % | 1 | 12/05/22 | JLI | 70 - 130 % | |
| % Bromofluorobenzene | 93 | | | | % | 1 | 12/05/22 | JLI | 70 - 130 % | |
| % Dibromofluoromethane | 104 | | | | % | 1 | 12/05/22 | JLI | 70 - 130 % | |
| % Toluene-d8 | 95 | | | | % | 1 | 12/05/22 | JLI | 70 - 130 % | |
| **Semivolatiles** | | | | | | | | | | |
| 1,2,4,5-Tetrachlorobenzene | ND | | 400 | 200 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 1,2,4-Trichlorobenzene | ND | | 400 | 170 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 1,2-Dichlorobenzene | ND | | 400 | 160 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 1,2-Diphenylhydrazine | ND | | 400 | 190 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 1,3-Dichlorobenzene | ND | | 400 | 170 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 1,4-Dichlorobenzene | ND | | 400 | 170 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2,2'-Oxybis(1-Chloropropane) | ND | | 400 | 160 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | 1 |
| 2,4,5-Trichlorophenol | ND | | 400 | 310 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2,4,6-Trichlorophenol | ND | | 290 | 180 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2,4-Dichlorophenol | ND | | 290 | 200 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2,4-Dimethylphenol | ND | | 400 | 140 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2,4-Dinitrophenol | ND | | 400 | 400 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |

Project ID: IPARK0118.62-LOT 10 BOUNDARY MODIFICAT. Phoenix I.D.: CM95249

Client ID: SED-1 (2-12``)

| Parameter | Result | | RL/ PQL | LOD/ MDL | Units | Dilution | Date/Time | By | Reference | |
|---|---|---|---|---|---|---|---|---|---|---|
| 2,4-Dinitrotoluene | ND | | 290 | 230 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2,6-Dinitrotoluene | ND | | 290 | 180 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2-Chloronaphthalene | ND | | 400 | 160 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2-Chlorophenol | ND | | 400 | 160 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2-Methylnaphthalene | ND | | 400 | 170 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2-Methylphenol (o-cresol) | ND | | 400 | 270 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2-Nitroaniline | ND | | 400 | 400 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2-Nitrophenol | ND | | 400 | 360 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 3&4-Methylphenol (m&p-cresol) | ND | | 400 | 230 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | 1 |
| 3,3'-Dichlorobenzidine | ND | | 290 | 270 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 3-Nitroaniline | ND | | 570 | 1100 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 4,6-Dinitro-2-methylphenol | ND | | 340 | 110 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 4-Bromophenyl phenyl ether | ND | | 400 | 170 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 4-Chloro-3-methylphenol | ND | | 400 | 200 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 4-Chloroaniline | ND | | 460 | 270 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 4-Chlorophenyl phenyl ether | ND | | 400 | 190 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 4-Nitroaniline | ND | | 570 | 190 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 4-Nitrophenol | ND | | 570 | 260 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Acenaphthene | ND | | 400 | 170 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Acenaphthylene | ND | | 400 | 160 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Acetophenone | ND | | 400 | 180 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Aniline | ND | | 460 | 460 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Anthracene | ND | | 400 | 190 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Benz(a)anthracene | ND | | 400 | 190 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Benzidine | ND | | 570 | 340 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Benzo(a)pyrene | ND | | 290 | 190 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Benzo(b)fluoranthene | ND | | 400 | 200 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Benzo(ghi)perylene | 190 | J | 400 | 190 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Benzo(k)fluoranthene | ND | | 400 | 190 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Benzoic acid | ND | | 2900 | 1100 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Benzyl butyl phthalate | ND | | 400 | 150 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Bis(2-chloroethoxy)methane | ND | | 400 | 160 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Bis(2-chloroethyl)ether | ND | | 290 | 150 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Bis(2-ethylhexyl)phthalate | ND | | 400 | 170 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Carbazole | ND | | 290 | 230 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Chrysene | ND | | 400 | 190 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Dibenz(a,h)anthracene | ND | | 290 | 190 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Dibenzofuran | ND | | 400 | 170 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Diethyl phthalate | ND | | 400 | 180 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Dimethylphthalate | ND | | 400 | 180 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Di-n-butylphthalate | ND | | 400 | 150 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Di-n-octylphthalate | ND | | 400 | 150 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Fluoranthene | ND | | 400 | 190 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Fluorene | ND | | 400 | 190 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Hexachlorobenzene | ND | | 290 | 170 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Hexachlorobutadiene | ND | | 400 | 210 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Hexachlorocyclopentadiene | ND | | 400 | 180 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Hexachloroethane | ND | | 290 | 170 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Indeno(1,2,3-cd)pyrene | ND | | 400 | 190 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |

Project ID: IPARK0118.62-LOT 10 BOUNDARY MODIFICAT. Phoenix I.D.: CM95249
Client ID: SED-1 (2-12``)

| Parameter | Result | RL/ PQL | LOD/ MDL | Units | Dilution | Date/Time | By | Reference | |
|---|---|---|---|---|---|---|---|---|---|
| Isophorone | ND | 290 | 160 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Naphthalene | ND | 400 | 170 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Nitrobenzene | ND | 290 | 200 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| N-Nitrosodimethylamine | ND | 400 | 160 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| N-Nitrosodi-n-propylamine | ND | 290 | 190 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| N-Nitrosodiphenylamine | ND | 400 | 220 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Pentachloronitrobenzene | ND | 400 | 210 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Pentachlorophenol | ND | 340 | 220 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Phenanthrene | ND | 400 | 160 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Phenol | ND | 400 | 180 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Pyrene | ND | 400 | 200 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Pyridine | ND | 400 | 140 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| **QA/QC Surrogates** | | | | | | | | | |
| % 2,4,6-Tribromophenol | 149 | | | % | 1 | 12/04/22 | WB | 30 - 130 % | 3 |
| % 2-Fluorobiphenyl | 83 | | | % | 1 | 12/04/22 | WB | 30 - 130 % | |
| % 2-Fluorophenol | 56 | | | % | 1 | 12/04/22 | WB | 30 - 130 % | |
| % Nitrobenzene-d5 | 71 | | | % | 1 | 12/04/22 | WB | 30 - 130 % | |
| % Phenol-d5 | 74 | | | % | 1 | 12/04/22 | WB | 30 - 130 % | |
| % Terphenyl-d14 | 62 | | | % | 1 | 12/04/22 | WB | 30 - 130 % | |

## 1,4-Dioxane

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 1,4-dioxane | ND | 110 | 110 | ug/Kg | 1 | 12/04/22 | WB | SW8270D (SIM) | |
| **QA/QC Surrogates** | | | | | | | | | |
| % 2-Fluorobiphenyl | 22 | | | % | 1 | 12/04/22 | WB | 30 - 130 % | 3 |
| % Nitrobenzene-d5 | 47 | | | % | 1 | 12/04/22 | WB | 30 - 130 % | |
| % Terphenyl-d14 | 72 | | | % | 1 | 12/04/22 | WB | 30 - 130 % | |

| Parameter | Result | RL/ PQL | LOD/ MDL | Units | Dilution | Date/Time | By | Reference |
|---|---|---|---|---|---|---|---|---|

1 = This parameter is not certified by the primary accrediting authority (NY NELAC) for this matrix. NY NELAC does not offer certification for all parameters at this time.
3 = This parameter exceeds laboratory specified limits.
C = This parameter is subcontracted.

RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected BRL=Below Reporting Level L=Biased Low J=Estimated Below RL LOD=Limit of Detection MDL=Method Detection Limit1
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

## Comments:

*See attached

Per 1.4.6 of EPA method 8270D, 1,2-Diphenylhydrazine is unstable and readily converts to Azobenzene. Azobenzene is used for the calibration of 1,2-Diphenylhydrazine.

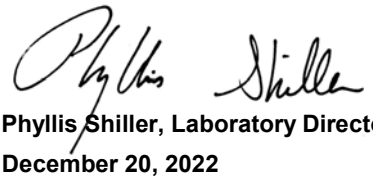
Semi-Volatile Comment:
One of the surrogate recoveries was above the upper range due to sample matrix interference. The other surrogates associated with this sample were within QA/QC criteria. No significant bias is suspected.

Semi-Volatile Comment:
Poor surrogate recovery was observed for one acid and/or one base surrogate. The other surrogates associated with this sample were within QA/QC criteria. No significant bias suspected.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

PFAS (21) (EPA 537m), PFOA/PFOS - Soil Extraction (EPA 537m) were analyzed by NY certified lab #12058.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200.
The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.



**Phyllis Shiller, Laboratory Director**
**December 20, 2022**
**Reviewed and Released by: Phyllis Shiller, Laboratory Director**

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

# Analysis Report

December 20, 2022

FOR: Attn: Nora Brew
Walden Environmental Engineering PLLC
16 Spring Street
Oyster Bay, NY 11771

| Sample Information | | Custody Information | | Date | Time |
|---|---|---|---|---|---|
| Matrix: | SEDIMENT | Collected by: | | 11/29/22 | 8:45 |
| Location Code: | WALDENE-IPARK | Received by: | CP | 12/01/22 | 17:12 |
| Rush Request: | Standard | Analyzed by: | see "By" below | | |
| P.O.#: | | | | | |

## Laboratory Data

SDG ID: GCM95248
Phoenix ID: CM95250

Project ID: IPARK0118.62-LOT 10 BOUNDARY MODIFICAT.
Client ID: SED-2 (0-2``)

| Parameter | Result | RL/ PQL | LOD/ MDL | Units | Dilution | Date/Time | By | Reference |
|---|---|---|---|---|---|---|---|---|
| Aluminum | 15800 | 69 | 14 | mg/Kg | 10 | 12/02/22 | TH | SW6010D |
| Antimony | ND | 6.9 | 6.9 | mg/Kg | 1 | 12/02/22 | TH | SW6010D |
| Arsenic | 7.1 | 1.4 | 1.4 | mg/Kg | 1 | 12/02/22 | TH | SW6010D |
| Barium | 115 | 1.4 | 0.69 | mg/Kg | 1 | 12/02/22 | TH | SW6010D |
| Beryllium | 0.73 | 0.55 | 0.27 | mg/Kg | 1 | 12/02/22 | TH | SW6010D |
| Calcium | 8150 | 6.9 | 6.3 | mg/Kg | 1 | 12/02/22 | TH | SW6010D |
| Cadmium | 2.11 | 0.69 | 0.69 | mg/Kg | 1 | 12/02/22 | TH | SW6010D |
| Chromium | 20.2 | 0.69 | 0.69 | mg/Kg | 1 | 12/02/22 | TH | SW6010D |
| Cobalt | 11.3 | 0.69 | 0.69 | mg/Kg | 1 | 12/02/22 | TH | SW6010D |
| Copper | 24.2 | 1.4 | 0.69 | mg/kg | 1 | 12/02/22 | TH | SW6010D |
| Iron | 31600 | 69 | 69 | mg/Kg | 10 | 12/02/22 | TH | SW6010D |
| Lead | 30.3 | 1.4 | 0.69 | mg/Kg | 1 | 12/02/22 | TH | SW6010D |
| Magnesium | 7020 | 6.9 | 6.9 | mg/Kg | 1 | 12/02/22 | TH | SW6010D |
| Manganese | 2730 | 6.9 | 6.9 | mg/Kg | 10 | 12/02/22 | TH | SW6010D |
| Mercury | 0.06 | 0.05 | 0.03 | mg/Kg | 2 | 12/05/22 | PM | SW7471B |
| Nickel | 23.9 | 0.69 | 0.69 | mg/Kg | 1 | 12/02/22 | TH | SW6010D |
| Potassium | 1520 | 14 | 5.3 | mg/Kg | 1 | 12/02/22 | TH | SW6010D |
| Selenium | ND | 2.7 | 2.3 | mg/Kg | 1 | 12/02/22 | TH | SW6010D |
| Silver | ND | 0.69 | 0.69 | mg/Kg | 1 | 12/02/22 | TH | SW6010D |
| Sodium | 270 | 14 | 5.9 | mg/Kg | 1 | 12/02/22 | TH | SW6010D |
| Thallium | ND | 2.7 | 2.7 | mg/Kg | 1 | 12/02/22 | TH | SW6010D |
| Vanadium | 23.5 | 0.69 | 0.69 | mg/Kg | 1 | 12/02/22 | TH | SW6010D |
| Zinc | 106 | 1.4 | 0.69 | mg/Kg | 1 | 12/02/22 | TH | SW6010D |
| Percent Solid | 50 | | | % | | 12/01/22 | Q | SW846-%Solid |
| Extraction for SVOA SIM | Completed | | | | | 12/02/22 | O/Y | SW3545A |
| Soil Extraction for PCB | Completed | | | | | 12/01/22 | B/MO | SW3545A |
| Soil Extraction for Pesticide | Completed | | | | | 12/01/22 | B/MO | SW3545A |

**Ver 1**

Project ID: IPARK0118.62-LOT 10 BOUNDARY MODIFICAT. Phoenix I.D.: CM95250

Client ID: SED-2 (0-2``)

| Parameter | Result | RL/ PQL | LOD/ MDL | Units | Dilution | Date/Time | By | Reference | |
|---|---|---|---|---|---|---|---|---|---|
| Field Extraction | Completed | | | | | 11/29/22 | | SW5035A | 1 |
| Mercury Digestion | Completed | | | | | 12/02/22 | AB/AB | SW7471B | |
| Soil Extraction for Herbicide | Completed | | | | | 12/02/22 | L/D | SW3546 | |
| Soil Extraction for SVOA | Completed | | | | | 12/03/22 | E/Y | SW3546 | |
| Total Metals Digest | Completed | | | | | 12/01/22 | | SW3050B | |
| PFAS (21) | Completed | | | | | 12/07/22 | *** | EPA 537m | C |

## PFAS (21)

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **1H,1H,2H,2H-Perfluorodecanesulfonic acid** | ND | 0.410 | 0.0419 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| **1H,1H,2H,2H-Perfluorooctanesulfonic acid** | ND | 0.410 | 0.108 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| NEtFOSAA | ND | 0.410 | 0.171 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| NMeFOSAA | ND | 0.410 | 0.171 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| **Perfluoro-1-decanesulfonic acid (PFDS)** | ND | 0.410 | 0.0839 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| **Perfluoro-1-heptanesulfonic acid (PFHpS)** | ND | 0.410 | 0.0808 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| **Perfluoro-1-octanesulfonamide (FOSA)** | ND | 0.410 | 0.0765 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| Perfluorobutanesulfonic acid (PFBS) | ND | 0.410 | 0.328 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| Perfluorodecanoic acid (PFDA) | ND | 0.410 | 0.0839 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| Perfluorododecanoic acid (PFDoA) | ND | 0.410 | 0.123 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| Perfluoroheptanoic acid (PFHpA) | ND | 0.410 | 0.0745 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| **Perfluorohexanesulfonic Acid (PFHxS)** | 1.30 | 0.410 | 0.0508 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| Perfluorohexanoic acid (PFHxA) | ND | 0.410 | 0.108 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| Perfluoro-n-butanoic acid (PFBA) | ND | 0.410 | 0.299 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| Perfluorononanoic acid (PFNA) | ND | 0.410 | 0.0980 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| Perfluorooctanesulfonic Acid (PFOS) | 22.7 | 0.410 | 0.0717 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| Perfluorooctanoic acid (PFOA) | 0.723 | 0.410 | 0.126 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| Perfluoropentanoic acid (PFPeA) | ND | 0.410 | 0.151 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| Perfluorotetradecanoic acid (PFTA) | ND | 0.410 | 0.122 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| Perfluorotridecanoic acid (PFTrDA) | 0.823 | 0.410 | 0.0713 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| Perfluoroundecanoic acid (PFUnA) | ND | 0.410 | 0.191 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| **QA/QC Surrogates** | | | | | | | | | |
| % d3-N-MeFOSAA | 56.3 | | | % | 1 | 12/11/22 | *** | 25 - 150 % | C |
| % d5-NEtFOSA | 44.5 | | | % | 1 | 12/11/22 | *** | 25 - 150 % | C |
| % M2-6:2FTS | 448 | | | % | 1 | 12/11/22 | *** | 25 - 200 % | C,3 |
| % M2-8:2FTS | 262 | | | % | 1 | 12/11/22 | *** | 25 - 200 % | C,3 |
| % M2PFTeDA | 9.58 | | | % | 1 | 12/11/22 | *** | 10 - 150 % | C,3 |
| % M3PFBS | 94.4 | | | % | 1 | 12/11/22 | *** | 25 - 150 % | C |
| % M3PFHxS | 89.4 | | | % | 1 | 12/11/22 | *** | 25 - 150 % | C |
| % M4PFHpA | 59.2 | | | % | 1 | 12/11/22 | *** | 25 - 150 % | C |
| % M5PFHxA | 73.0 | | | % | 1 | 12/11/22 | *** | 25 - 150 % | C |
| % M5PFPeA | 88.2 | | | % | 1 | 12/11/22 | *** | 25 - 150 % | C |
| % M6PFDA | 66.1 | | | % | 1 | 12/11/22 | *** | 25 - 150 % | C |
| % M7PFUdA | 38.2 | | | % | 1 | 12/11/22 | *** | 25 - 150 % | C |
| % M8FOSA | 11.7 | | | % | 1 | 12/11/22 | *** | 10 - 150 % | C |
| % M8PFOA | 67.3 | | | % | 1 | 12/11/22 | *** | 25 - 150 % | C |
| % M8PFOS | 71.4 | | | % | 1 | 12/11/22 | *** | 25 - 150 % | C |
| % M9PFNA | 64.3 | | | % | 1 | 12/11/22 | *** | 25 - 150 % | C |
| % MPFBA | 93.5 | | | % | 1 | 12/11/22 | *** | 25 - 150 % | C |
| % MPFDoA | 24.1 | | | % | 1 | 12/11/22 | *** | 25 - 150 % | C,3 |

Project ID: IPARK0118.62-LOT 10 BOUNDARY MODIFICAT. Phoenix I.D.: CM95250
Client ID: SED-2 (0-2``)

| Parameter | Result | RL/ PQL | LOD/ MDL | Units | Dilution | Date/Time | By | Reference |
|---|---|---|---|---|---|---|---|---|
| **Chlorinated Herbicides** | | | | | | | | |
| 2,4,5-T | ND | 120 | 120 | ug/Kg | 10 | 12/05/22 | PS | SW8151A |
| 2,4,5-TP (Silvex) | ND | 120 | 120 | ug/Kg | 10 | 12/05/22 | PS | SW8151A |
| 2,4-D | ND | 250 | 250 | ug/Kg | 10 | 12/05/22 | PS | SW8151A |
| 2,4-DB | ND | 2500 | 2500 | ug/Kg | 10 | 12/05/22 | PS | SW8151A |
| Dalapon | ND | 120 | 120 | ug/Kg | 10 | 12/05/22 | PS | SW8151A |
| Dicamba | ND | 120 | 120 | ug/Kg | 10 | 12/05/22 | PS | SW8151A |
| Dichloroprop | ND | 250 | 250 | ug/Kg | 10 | 12/05/22 | PS | SW8151A |
| Dinoseb | ND | 250 | 250 | ug/Kg | 10 | 12/05/22 | PS | SW8151A |
| **QA/QC Surrogates** | | | | | | | | |
| % DCAA | 53 | | | % | 10 | 12/05/22 | PS | 30 - 150 % |
| % DCAA (Confirmation) | 80 | | | % | 10 | 12/05/22 | PS | 30 - 150 % |
| **Polychlorinated Biphenyls** | | | | | | | | |
| PCB-1016 | ND | 130 | 130 | ug/Kg | 2 | 12/02/22 | SC | SW8082A |
| PCB-1221 | ND | 130 | 130 | ug/Kg | 2 | 12/02/22 | SC | SW8082A |
| PCB-1232 | ND | 130 | 130 | ug/Kg | 2 | 12/02/22 | SC | SW8082A |
| PCB-1242 | ND | 130 | 130 | ug/Kg | 2 | 12/02/22 | SC | SW8082A |
| PCB-1248 | ND | 130 | 130 | ug/Kg | 2 | 12/02/22 | SC | SW8082A |
| PCB-1254 | ND | 130 | 130 | ug/Kg | 2 | 12/02/22 | SC | SW8082A |
| PCB-1260 | ND | 130 | 130 | ug/Kg | 2 | 12/02/22 | SC | SW8082A |
| PCB-1262 | ND | 130 | 130 | ug/Kg | 2 | 12/02/22 | SC | SW8082A |
| PCB-1268 | ND | 130 | 130 | ug/Kg | 2 | 12/02/22 | SC | SW8082A |
| **QA/QC Surrogates** | | | | | | | | |
| % DCBP | 61 | | | % | 2 | 12/02/22 | SC | 30 - 150 % |
| % DCBP (Confirmation) | 56 | | | % | 2 | 12/02/22 | SC | 30 - 150 % |
| % TCMX | 68 | | | % | 2 | 12/02/22 | SC | 30 - 150 % |
| % TCMX (Confirmation) | 62 | | | % | 2 | 12/02/22 | SC | 30 - 150 % |
| **Pesticides - Soil** | | | | | | | | |
| 4,4' -DDD | ND | 4.0 | 4.0 | ug/Kg | 2 | 12/02/22 | AW | SW8081B |
| 4,4' -DDE | 18 | 4.0 | 4.0 | ug/Kg | 2 | 12/02/22 | AW | SW8081B |
| 4,4' -DDT | ND | 4.0 | 4.0 | ug/Kg | 2 | 12/02/22 | AW | SW8081B |
| a-BHC | ND | 13 | 13 | ug/Kg | 2 | 12/02/22 | AW | SW8081B |
| a-Chlordane | ND | 6.6 | 6.6 | ug/Kg | 2 | 12/02/22 | AW | SW8081B |
| Alachlor | ND | 6.6 | 6.6 | ug/Kg | 2 | 12/02/22 | AW | SW8081B |
| Aldrin | ND | 6.6 | 6.6 | ug/Kg | 2 | 12/02/22 | AW | SW8081B |
| b-BHC | ND | 13 | 13 | ug/Kg | 2 | 12/02/22 | AW | SW8081B |
| Chlordane | ND | 66 | 66 | ug/Kg | 2 | 12/02/22 | AW | SW8081B |
| d-BHC | ND | 13 | 13 | ug/Kg | 2 | 12/02/22 | AW | SW8081B |
| Dieldrin | ND | 6.6 | 6.6 | ug/Kg | 2 | 12/02/22 | AW | SW8081B |
| Endosulfan I | ND | 13 | 13 | ug/Kg | 2 | 12/02/22 | AW | SW8081B |
| Endosulfan II | ND | 13 | 13 | ug/Kg | 2 | 12/02/22 | AW | SW8081B |
| Endosulfan sulfate | ND | 13 | 13 | ug/Kg | 2 | 12/02/22 | AW | SW8081B |
| Endrin | ND | 13 | 13 | ug/Kg | 2 | 12/02/22 | AW | SW8081B |
| Endrin aldehyde | ND | 13 | 13 | ug/Kg | 2 | 12/02/22 | AW | SW8081B |
| Endrin ketone | ND | 13 | 13 | ug/Kg | 2 | 12/02/22 | AW | SW8081B |
| g-BHC | ND | 2.6 | 2.6 | ug/Kg | 2 | 12/02/22 | AW | SW8081B |
| g-Chlordane | ND | 6.6 | 6.6 | ug/Kg | 2 | 12/02/22 | AW | SW8081B |

| Parameter | Result | RL/ PQL | LOD/ MDL | Units | Dilution | Date/Time | By | Reference | |
|---|---|---|---|---|---|---|---|---|---|
| Heptachlor | ND | 13 | 13 | ug/Kg | 2 | 12/02/22 | AW | SW8081B | |
| Heptachlor epoxide | ND | 13 | 13 | ug/Kg | 2 | 12/02/22 | AW | SW8081B | |
| Methoxychlor | ND | 66 | 66 | ug/Kg | 2 | 12/02/22 | AW | SW8081B | |
| Toxaphene | ND | 260 | 260 | ug/Kg | 2 | 12/02/22 | AW | SW8081B | |
| **QA/QC Surrogates** | | | | | | | | | |
| % DCBP | 82 | | | % | 2 | 12/02/22 | AW | 30 - 150 % | |
| % DCBP (Confirmation) | 100 | | | % | 2 | 12/02/22 | AW | 30 - 150 % | |
| % TCMX | 75 | | | % | 2 | 12/02/22 | AW | 30 - 150 % | |
| % TCMX (Confirmation) | 68 | | | % | 2 | 12/02/22 | AW | 30 - 150 % | |
| **Volatiles** | | | | | | | | | |
| 1,1,1,2-Tetrachloroethane | ND | 12 | 2.4 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| 1,1,1-Trichloroethane | ND | 12 | 1.2 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| 1,1,2,2-Tetrachloroethane | ND | 12 | 2.4 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| 1,1,2-Trichloroethane | ND | 12 | 2.4 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| 1,1-Dichloroethane | ND | 12 | 2.4 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| 1,1-Dichloroethene | ND | 12 | 1.2 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| 1,1-Dichloropropene | ND | 12 | 1.2 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| 1,2,3-Trichlorobenzene | ND | 12 | 2.4 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| 1,2,3-Trichloropropane | ND | 12 | 1.2 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| 1,2,4-Trichlorobenzene | ND | 12 | 2.4 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| 1,2,4-Trimethylbenzene | ND | 12 | 1.2 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| 1,2-Dibromo-3-chloropropane | ND | 12 | 2.4 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| 1,2-Dibromoethane | ND | 12 | 1.2 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| 1,2-Dichlorobenzene | ND | 12 | 1.2 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| 1,2-Dichloroethane | ND | 12 | 1.2 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| 1,2-Dichloropropane | ND | 12 | 2.4 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| 1,3,5-Trimethylbenzene | ND | 12 | 1.2 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| 1,3-Dichlorobenzene | ND | 12 | 1.2 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| 1,3-Dichloropropane | ND | 12 | 2.4 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| 1,4-Dichlorobenzene | ND | 12 | 1.2 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| 2,2-Dichloropropane | ND | 12 | 1.2 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| 2-Chlorotoluene | ND | 12 | 2.4 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| 2-Hexanone | ND | 59 | 12 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| 2-Isopropyltoluene | ND | 12 | 1.2 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | 1 |
| 4-Chlorotoluene | ND | 12 | 1.2 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| 4-Methyl-2-pentanone | ND | 59 | 12 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| Acetone | ND | 59 | 12 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| Acrylonitrile | ND | 24 | 2.4 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| Benzene | ND | 12 | 1.2 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| Bromobenzene | ND | 12 | 1.2 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| Bromochloromethane | ND | 12 | 1.2 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| Bromodichloromethane | ND | 12 | 2.4 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| Bromoform | ND | 12 | 2.4 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| Bromomethane | ND | 12 | 4.7 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| Carbon Disulfide | ND | 12 | 2.4 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| Carbon tetrachloride | ND | 12 | 2.4 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| Chlorobenzene | ND | 12 | 1.2 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| Chloroethane | ND | 12 | 1.2 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| Chloroform | ND | 12 | 1.2 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |

Project ID: IPARK0118.62-LOT 10 BOUNDARY MODIFICAT. Phoenix I.D.: CM95250

Client ID: SED-2 (0-2``)

| Parameter | Result | | RL/ PQL | LOD/ MDL | Units | Dilution | Date/Time | By | Reference | |
|---|---|---|---|---|---|---|---|---|---|---|
| Chloromethane | ND | | 12 | 2.4 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| cis-1,2-Dichloroethene | ND | | 12 | 1.2 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| cis-1,3-Dichloropropene | ND | | 12 | 1.2 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| Dibromochloromethane | ND | | 12 | 2.4 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| Dibromomethane | ND | | 12 | 2.4 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| Dichlorodifluoromethane | ND | | 12 | 1.2 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| Ethylbenzene | ND | | 12 | 1.2 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| Hexachlorobutadiene | ND | | 12 | 1.2 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| Isopropylbenzene | ND | | 12 | 1.2 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| m&p-Xylene | ND | | 12 | 2.4 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| Methyl Ethyl Ketone | ND | | 71 | 12 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| Methyl t-butyl ether (MTBE) | ND | | 24 | 2.4 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| Methylene chloride | ND | | 12 | 12 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| Naphthalene | ND | | 12 | 2.4 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| n-Butylbenzene | ND | | 12 | 1.2 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| n-Propylbenzene | ND | | 12 | 2.4 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| o-Xylene | ND | | 12 | 2.4 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| p-Isopropyltoluene | ND | | 12 | 1.2 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| sec-Butylbenzene | ND | | 12 | 1.2 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| Styrene | ND | | 12 | 1.2 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| tert-Butylbenzene | ND | | 12 | 1.2 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| Tetrachloroethene | ND | | 12 | 2.4 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| Tetrahydrofuran (THF) | 12 | J | 24 | 5.9 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| Toluene | ND | | 12 | 1.2 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| trans-1,2-Dichloroethene | ND | | 12 | 1.2 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| trans-1,3-Dichloropropene | ND | | 12 | 1.2 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| trans-1,4-dichloro-2-butene | ND | | 24 | 5.9 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| Trichloroethene | ND | | 12 | 1.2 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| Trichlorofluoromethane | ND | | 12 | 2.4 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| Trichlorotrifluoroethane | ND | | 12 | 1.2 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| Vinyl chloride | ND | | 12 | 1.2 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| **QA/QC Surrogates** | | | | | | | | | | |
| % 1,2-dichlorobenzene-d4 | 94 | | | | % | 1 | 12/05/22 | JLI | 70 - 130 % | |
| % Bromofluorobenzene | 92 | | | | % | 1 | 12/05/22 | JLI | 70 - 130 % | |
| % Dibromofluoromethane | 102 | | | | % | 1 | 12/05/22 | JLI | 70 - 130 % | |
| % Toluene-d8 | 94 | | | | % | 1 | 12/05/22 | JLI | 70 - 130 % | |
| **Semivolatiles** | | | | | | | | | | |
| 1,2,4,5-Tetrachlorobenzene | ND | | 460 | 230 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 1,2,4-Trichlorobenzene | ND | | 460 | 200 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 1,2-Dichlorobenzene | ND | | 460 | 180 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 1,2-Diphenylhydrazine | ND | | 460 | 210 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 1,3-Dichlorobenzene | ND | | 460 | 190 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 1,4-Dichlorobenzene | ND | | 460 | 190 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2,2'-Oxybis(1-Chloropropane) | ND | | 460 | 180 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | 1 |
| 2,4,5-Trichlorophenol | ND | | 460 | 360 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2,4,6-Trichlorophenol | ND | | 330 | 210 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2,4-Dichlorophenol | ND | | 330 | 230 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2,4-Dimethylphenol | ND | | 460 | 160 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2,4-Dinitrophenol | ND | | 460 | 460 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |

Project ID: IPARK0118.62-LOT 10 BOUNDARY MODIFICAT. Phoenix I.D.: CM95250

Client ID: SED-2 (0-2``)

| Parameter | Result | RL/ PQL | LOD/ MDL | Units | Dilution | Date/Time | By | Reference | |
|---|---|---|---|---|---|---|---|---|---|
| 2,4-Dinitrotoluene | ND | 330 | 260 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2,6-Dinitrotoluene | ND | 330 | 210 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2-Chloronaphthalene | ND | 460 | 180 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2-Chlorophenol | ND | 460 | 180 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2-Methylnaphthalene | ND | 460 | 190 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2-Methylphenol (o-cresol) | ND | 460 | 310 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2-Nitroaniline | ND | 460 | 460 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2-Nitrophenol | ND | 460 | 410 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 3&4-Methylphenol (m&p-cresol) | ND | 460 | 260 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | 1 |
| 3,3'-Dichlorobenzidine | ND | 330 | 310 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 3-Nitroaniline | ND | 650 | 1300 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 4,6-Dinitro-2-methylphenol | ND | 390 | 130 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 4-Bromophenyl phenyl ether | ND | 460 | 190 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 4-Chloro-3-methylphenol | ND | 460 | 230 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 4-Chloroaniline | ND | 520 | 300 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 4-Chlorophenyl phenyl ether | ND | 460 | 220 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 4-Nitroaniline | ND | 650 | 220 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 4-Nitrophenol | ND | 650 | 290 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Acenaphthene | ND | 460 | 200 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Acenaphthylene | ND | 460 | 180 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Acetophenone | ND | 460 | 200 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Aniline | ND | 520 | 520 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Anthracene | ND | 460 | 210 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Benz(a)anthracene | ND | 460 | 220 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Benzidine | ND | 650 | 380 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Benzo(a)pyrene | ND | 330 | 210 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Benzo(b)fluoranthene | ND | 460 | 220 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Benzo(ghi)perylene | ND | 460 | 210 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Benzo(k)fluoranthene | ND | 460 | 220 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Benzoic acid | ND | 3300 | 1300 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Benzyl butyl phthalate | ND | 460 | 170 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Bis(2-chloroethoxy)methane | ND | 460 | 180 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Bis(2-chloroethyl)ether | ND | 330 | 180 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Bis(2-ethylhexyl)phthalate | ND | 460 | 190 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Carbazole | ND | 330 | 260 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Chrysene | ND | 460 | 220 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Dibenz(a,h)anthracene | ND | 330 | 210 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Dibenzofuran | ND | 460 | 190 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Diethyl phthalate | ND | 460 | 210 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Dimethylphthalate | ND | 460 | 200 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Di-n-butylphthalate | ND | 460 | 170 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Di-n-octylphthalate | ND | 460 | 170 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Fluoranthene | ND | 460 | 210 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Fluorene | ND | 460 | 210 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Hexachlorobenzene | ND | 330 | 190 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Hexachlorobutadiene | ND | 460 | 240 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Hexachlorocyclopentadiene | ND | 460 | 200 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Hexachloroethane | ND | 330 | 200 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Indeno(1,2,3-cd)pyrene | ND | 460 | 220 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |

| Parameter | Result | RL/ PQL | LOD/ MDL | Units | Dilution | Date/Time | By | Reference | |
|---|---|---|---|---|---|---|---|---|---|
| Isophorone | ND | 330 | 180 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Naphthalene | ND | 460 | 190 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Nitrobenzene | ND | 330 | 230 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| N-Nitrosodimethylamine | ND | 460 | 180 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| N-Nitrosodi-n-propylamine | ND | 330 | 210 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| N-Nitrosodiphenylamine | ND | 460 | 250 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Pentachloronitrobenzene | ND | 460 | 240 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Pentachlorophenol | ND | 390 | 250 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Phenanthrene | ND | 460 | 190 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Phenol | ND | 460 | 210 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Pyrene | ND | 460 | 220 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Pyridine | ND | 460 | 160 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| **QA/QC Surrogates** | | | | | | | | | |
| % 2,4,6-Tribromophenol | 135 | | | % | 1 | 12/04/22 | WB | 30 - 130 % | 3 |
| % 2-Fluorobiphenyl | 67 | | | % | 1 | 12/04/22 | WB | 30 - 130 % | |
| % 2-Fluorophenol | 50 | | | % | 1 | 12/04/22 | WB | 30 - 130 % | |
| % Nitrobenzene-d5 | 62 | | | % | 1 | 12/04/22 | WB | 30 - 130 % | |
| % Phenol-d5 | 69 | | | % | 1 | 12/04/22 | WB | 30 - 130 % | |
| % Terphenyl-d14 | 59 | | | % | 1 | 12/04/22 | WB | 30 - 130 % | |

## 1,4-Dioxane

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 1,4-dioxane | ND | 130 | 130 | ug/Kg | 1 | 12/04/22 | WB | SW8270D (SIM) | |
| **QA/QC Surrogates** | | | | | | | | | |
| % 2-Fluorobiphenyl | 23 | | | % | 1 | 12/04/22 | WB | 30 - 130 % | 3 |
| % Nitrobenzene-d5 | 48 | | | % | 1 | 12/04/22 | WB | 30 - 130 % | |
| % Terphenyl-d14 | 74 | | | % | 1 | 12/04/22 | WB | 30 - 130 % | |

| Parameter | Result | RL/ PQL | LOD/ MDL | Units | Dilution | Date/Time | By | Reference |
|---|---|---|---|---|---|---|---|---|

1 = This parameter is not certified by the primary accrediting authority (NY NELAC) for this matrix. NY NELAC does not offer certification for all parameters at this time.
3 = This parameter exceeds laboratory specified limits.
C = This parameter is subcontracted.

RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected BRL=Below Reporting Level L=Biased Low J=Estimated Below RL LOD=Limit of Detection MDL=Method Detection Limit1
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

## Comments:

*See attached

Per 1.4.6 of EPA method 8270D, 1,2-Diphenylhydrazine is unstable and readily converts to Azobenzene. Azobenzene is used for the calibration of 1,2-Diphenylhydrazine.

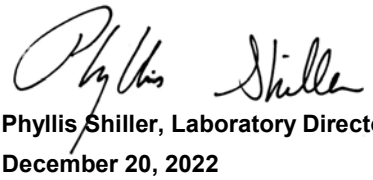
Semi-Volatile Comment:
One of the surrogate recoveries was above the upper range due to sample matrix interference. The other surrogates associated with this sample were within QA/QC criteria. No significant bias is suspected.

Semi-Volatile Comment:
Poor surrogate recovery was observed for one acid and/or one base surrogate. The other surrogates associated with this sample were within QA/QC criteria. No significant bias suspected.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

PFAS (21) (EPA 537m), PFOA/PFOS - Soil Extraction (EPA 537m) were analyzed by NY certified lab #12058.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200.
The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.



**Phyllis Shiller, Laboratory Director**
**December 20, 2022**
**Reviewed and Released by: Phyllis Shiller, Laboratory Director**

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

# Analysis Report

December 20, 2022

FOR: Attn: Nora Brew
Walden Environmental Engineering PLLC
16 Spring Street
Oyster Bay, NY 11771

| Sample Information | | Custody Information | | Date | Time |
|---|---|---|---|---|---|
| Matrix: | SEDIMENT | Collected by: | | 11/29/22 | 8:45 |
| Location Code: | WALDENE-IPARK | Received by: | CP | 12/01/22 | 17:12 |
| Rush Request: | Standard | Analyzed by: | see "By" below | | |
| P.O.#: | | | | | |

## Laboratory Data

SDG ID: GCM95248
Phoenix ID: CM95251

Project ID: IPARK0118.62-LOT 10 BOUNDARY MODIFICAT.
Client ID: SED-2 (2-12``)

| Parameter | Result | | RL/ PQL | LOD/ MDL | Units | Dilution | Date/Time | By | Reference |
|---|---|---|---|---|---|---|---|---|---|
| Aluminum | 14600 | | 41 | 8.2 | mg/Kg | 10 | 12/02/22 | TH | SW6010D |
| Antimony | ND | | 4.1 | 4.1 | mg/Kg | 1 | 12/02/22 | TH | SW6010D |
| Arsenic | 5.44 | | 0.82 | 0.82 | mg/Kg | 1 | 12/02/22 | TH | SW6010D |
| Barium | 75.3 | | 0.8 | 0.41 | mg/Kg | 1 | 12/02/22 | TH | SW6010D |
| Beryllium | 0.57 | | 0.33 | 0.16 | mg/Kg | 1 | 12/02/22 | TH | SW6010D |
| Calcium | 13300 | | 4.1 | 3.8 | mg/Kg | 1 | 12/02/22 | TH | SW6010D |
| Cadmium | 1.59 | | 0.41 | 0.41 | mg/Kg | 1 | 12/02/22 | TH | SW6010D |
| Chromium | 17.1 | | 0.41 | 0.41 | mg/Kg | 1 | 12/02/22 | TH | SW6010D |
| Cobalt | 9.00 | | 0.41 | 0.41 | mg/Kg | 1 | 12/02/22 | TH | SW6010D |
| Copper | 17.2 | | 0.8 | 0.41 | mg/kg | 1 | 12/02/22 | TH | SW6010D |
| Iron | 25900 | | 41 | 41 | mg/Kg | 10 | 12/02/22 | TH | SW6010D |
| Lead | 16.6 | | 0.8 | 0.41 | mg/Kg | 1 | 12/02/22 | TH | SW6010D |
| Magnesium | 11900 | | 41 | 41 | mg/Kg | 10 | 12/02/22 | TH | SW6010D |
| Manganese | 1040 | | 4.1 | 4.1 | mg/Kg | 10 | 12/02/22 | TH | SW6010D |
| Mercury | 0.03 | J | 0.03 | 0.02 | mg/Kg | 2 | 12/05/22 | PM | SW7471B |
| Nickel | 20.2 | | 0.41 | 0.41 | mg/Kg | 1 | 12/02/22 | TH | SW6010D |
| Potassium | 1090 | | 8 | 3.2 | mg/Kg | 1 | 12/02/22 | TH | SW6010D |
| Selenium | ND | | 1.6 | 1.4 | mg/Kg | 1 | 12/02/22 | TH | SW6010D |
| Silver | ND | | 0.41 | 0.41 | mg/Kg | 1 | 12/02/22 | TH | SW6010D |
| Sodium | 208 | | 8 | 3.5 | mg/Kg | 1 | 12/02/22 | TH | SW6010D |
| Thallium | ND | | 1.6 | 1.6 | mg/Kg | 1 | 12/02/22 | TH | SW6010D |
| Vanadium | 20.0 | | 0.41 | 0.41 | mg/Kg | 1 | 12/02/22 | TH | SW6010D |
| Zinc | 57.7 | | 0.8 | 0.41 | mg/Kg | 1 | 12/02/22 | TH | SW6010D |
| Percent Solid | 80 | | | | % | | 12/01/22 | Q | SW846-%Solid |
| Extraction for SVOA SIM | Completed | | | | | | 12/02/22 | O/Y | SW3545A |
| Soil Extraction for PCB | Completed | | | | | | 12/01/22 | B/MO | SW3545A |
| Soil Extraction for Pesticide | Completed | | | | | | 12/01/22 | B/MO | SW3545A |

**Ver 1**

Project ID: IPARK0118.62-LOT 10 BOUNDARY MODIFICAT. Phoenix I.D.: CM95251

Client ID: SED-2 (2-12``)

| Parameter | Result | RL/ PQL | LOD/ MDL | Units | Dilution | Date/Time | By | Reference | |
|---|---|---|---|---|---|---|---|---|---|
| Field Extraction | Completed | | | | | 11/29/22 | | SW5035A | 1 |
| Mercury Digestion | Completed | | | | | 12/02/22 | AB/AB | SW7471B | |
| Soil Extraction for Herbicide | Completed | | | | | 12/02/22 | L/D | SW3546 | |
| Soil Extraction for SVOA | Completed | | | | | 12/03/22 | E/Y | SW3546 | |
| Total Metals Digest | Completed | | | | | 12/01/22 | | SW3050B | |
| PFAS (21) | Completed | | | | | 12/07/22 | *** | EPA 537m | C |

## PFAS (21)

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **1H,1H,2H,2H-Perfluorodecanesulfonic acid** | ND | 0.341 | 0.0349 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| **1H,1H,2H,2H-Perfluorooctanesulfonic acid** | ND | 0.341 | 0.0900 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| NEtFOSAA | ND | 0.341 | 0.142 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| NMeFOSAA | ND | 0.341 | 0.142 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| **Perfluoro-1-decanesulfonic acid (PFDS)** | ND | 0.341 | 0.0698 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| **Perfluoro-1-heptanesulfonic acid (PFHpS)** | ND | 0.341 | 0.0672 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| **Perfluoro-1-octanesulfonamide (FOSA)** | ND | 0.341 | 0.0637 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| Perfluorobutanesulfonic acid (PFBS) | ND | 0.341 | 0.273 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| Perfluorodecanoic acid (PFDA) | ND | 0.341 | 0.0698 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| Perfluorododecanoic acid (PFDoA) | ND | 0.341 | 0.102 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| Perfluoroheptanoic acid (PFHpA) | ND | 0.341 | 0.0620 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| **Perfluorohexanesulfonic Acid (PFHxS)** | ND | 0.341 | 0.0423 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| Perfluorohexanoic acid (PFHxA) | ND | 0.341 | 0.0898 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| Perfluoro-n-butanoic acid (PFBA) | ND | 0.341 | 0.249 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| Perfluorononanoic acid (PFNA) | ND | 0.341 | 0.0815 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| Perfluorooctanesulfonic Acid (PFOS) | 9.39 | 0.341 | 0.0597 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| Perfluorooctanoic acid (PFOA) | ND | 0.341 | 0.105 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| Perfluoropentanoic acid (PFPeA) | ND | 0.341 | 0.125 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| Perfluorotetradecanoic acid (PFTA) | ND | 0.341 | 0.102 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| Perfluorotridecanoic acid (PFTrDA) | ND | 0.341 | 0.0593 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| Perfluoroundecanoic acid (PFUnA) | ND | 0.341 | 0.159 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| **QA/QC Surrogates** | | | | | | | | | |
| % d3-N-MeFOSAA | 52.3 | | | % | 1 | 12/11/22 | *** | 25 - 150 % | C |
| % d5-NEtFOSA | 62.1 | | | % | 1 | 12/11/22 | *** | 25 - 150 % | C |
| % M2-6:2FTS | 203 | | | % | 1 | 12/11/22 | *** | 25 - 200 % | C,3 |
| % M2-8:2FTS | 153 | | | % | 1 | 12/11/22 | *** | 25 - 200 % | C |
| % M2PFTeDA | 46.4 | | | % | 1 | 12/11/22 | *** | 10 - 150 % | C |
| % M3PFBS | 75.2 | | | % | 1 | 12/11/22 | *** | 25 - 150 % | C |
| % M3PFHxS | 84.2 | | | % | 1 | 12/11/22 | *** | 25 - 150 % | C |
| % M4PFHpA | 63.3 | | | % | 1 | 12/11/22 | *** | 25 - 150 % | C |
| % M5PFHxA | 68.7 | | | % | 1 | 12/11/22 | *** | 25 - 150 % | C |
| % M5PFPeA | 68.8 | | | % | 1 | 12/11/22 | *** | 25 - 150 % | C |
| % M6PFDA | 58.2 | | | % | 1 | 12/11/22 | *** | 25 - 150 % | C |
| % M7PFUdA | 36.7 | | | % | 1 | 12/11/22 | *** | 25 - 150 % | C |
| % M8FOSA | 39.9 | | | % | 1 | 12/11/22 | *** | 10 - 150 % | C |
| % M8PFOA | 74.7 | | | % | 1 | 12/11/22 | *** | 25 - 150 % | C |
| % M8PFOS | 69.9 | | | % | 1 | 12/11/22 | *** | 25 - 150 % | C |
| % M9PFNA | 64.3 | | | % | 1 | 12/11/22 | *** | 25 - 150 % | C |
| % MPFBA | 72.8 | | | % | 1 | 12/11/22 | *** | 25 - 150 % | C |
| % MPFDoA | 48.5 | | | % | 1 | 12/11/22 | *** | 25 - 150 % | C |

Project ID: IPARK0118.62-LOT 10 BOUNDARY MODIFICAT. Phoenix I.D.: CM95251
Client ID: SED-2 (2-12``)

| Parameter | Result | RL/ PQL | LOD/ MDL | Units | Dilution | Date/Time | By | Reference |
|---|---|---|---|---|---|---|---|---|
| **Chlorinated Herbicides** | | | | | | | | |
| 2,4,5-T | ND | 120 | 120 | ug/Kg | 10 | 12/05/22 | PS | SW8151A |
| 2,4,5-TP (Silvex) | ND | 120 | 120 | ug/Kg | 10 | 12/05/22 | PS | SW8151A |
| 2,4-D | ND | 250 | 250 | ug/Kg | 10 | 12/05/22 | PS | SW8151A |
| 2,4-DB | ND | 2500 | 2500 | ug/Kg | 10 | 12/05/22 | PS | SW8151A |
| Dalapon | ND | 120 | 120 | ug/Kg | 10 | 12/05/22 | PS | SW8151A |
| Dicamba | ND | 120 | 120 | ug/Kg | 10 | 12/05/22 | PS | SW8151A |
| Dichloroprop | ND | 250 | 250 | ug/Kg | 10 | 12/05/22 | PS | SW8151A |
| Dinoseb | ND | 250 | 250 | ug/Kg | 10 | 12/05/22 | PS | SW8151A |
| **QA/QC Surrogates** | | | | | | | | |
| % DCAA | 68 | | | % | 10 | 12/05/22 | PS | 30 - 150 % |
| % DCAA (Confirmation) | 65 | | | % | 10 | 12/05/22 | PS | 30 - 150 % |
| **Polychlorinated Biphenyls** | | | | | | | | |
| PCB-1016 | ND | 81 | 81 | ug/Kg | 2 | 12/02/22 | SC | SW8082A |
| PCB-1221 | ND | 81 | 81 | ug/Kg | 2 | 12/02/22 | SC | SW8082A |
| PCB-1232 | ND | 81 | 81 | ug/Kg | 2 | 12/02/22 | SC | SW8082A |
| PCB-1242 | ND | 81 | 81 | ug/Kg | 2 | 12/02/22 | SC | SW8082A |
| PCB-1248 | ND | 81 | 81 | ug/Kg | 2 | 12/02/22 | SC | SW8082A |
| PCB-1254 | ND | 81 | 81 | ug/Kg | 2 | 12/02/22 | SC | SW8082A |
| PCB-1260 | ND | 81 | 81 | ug/Kg | 2 | 12/02/22 | SC | SW8082A |
| PCB-1262 | ND | 81 | 81 | ug/Kg | 2 | 12/02/22 | SC | SW8082A |
| PCB-1268 | ND | 81 | 81 | ug/Kg | 2 | 12/02/22 | SC | SW8082A |
| **QA/QC Surrogates** | | | | | | | | |
| % DCBP | 54 | | | % | 2 | 12/02/22 | SC | 30 - 150 % |
| % DCBP (Confirmation) | 55 | | | % | 2 | 12/02/22 | SC | 30 - 150 % |
| % TCMX | 56 | | | % | 2 | 12/02/22 | SC | 30 - 150 % |
| % TCMX (Confirmation) | 57 | | | % | 2 | 12/02/22 | SC | 30 - 150 % |
| **Pesticides - Soil** | | | | | | | | |
| 4,4' -DDD | ND | 2.4 | 2.4 | ug/Kg | 2 | 12/02/22 | AW | SW8081B |
| 4,4' -DDE | 8.3 | 2.4 | 2.4 | ug/Kg | 2 | 12/02/22 | AW | SW8081B |
| 4,4' -DDT | ND | 2.4 | 2.4 | ug/Kg | 2 | 12/02/22 | AW | SW8081B |
| a-BHC | ND | 8.1 | 8.1 | ug/Kg | 2 | 12/02/22 | AW | SW8081B |
| a-Chlordane | ND | 4.1 | 4.1 | ug/Kg | 2 | 12/02/22 | AW | SW8081B |
| Alachlor | ND | 4.1 | 4.1 | ug/Kg | 2 | 12/02/22 | AW | SW8081B |
| Aldrin | ND | 4.1 | 4.1 | ug/Kg | 2 | 12/02/22 | AW | SW8081B |
| b-BHC | ND | 8.1 | 8.1 | ug/Kg | 2 | 12/02/22 | AW | SW8081B |
| Chlordane | ND | 41 | 41 | ug/Kg | 2 | 12/02/22 | AW | SW8081B |
| d-BHC | ND | 8.1 | 8.1 | ug/Kg | 2 | 12/02/22 | AW | SW8081B |
| Dieldrin | ND | 4.1 | 4.1 | ug/Kg | 2 | 12/02/22 | AW | SW8081B |
| Endosulfan I | ND | 8.1 | 8.1 | ug/Kg | 2 | 12/02/22 | AW | SW8081B |
| Endosulfan II | ND | 8.1 | 8.1 | ug/Kg | 2 | 12/02/22 | AW | SW8081B |
| Endosulfan sulfate | ND | 8.1 | 8.1 | ug/Kg | 2 | 12/02/22 | AW | SW8081B |
| Endrin | ND | 8.1 | 8.1 | ug/Kg | 2 | 12/02/22 | AW | SW8081B |
| Endrin aldehyde | ND | 8.1 | 8.1 | ug/Kg | 2 | 12/02/22 | AW | SW8081B |
| Endrin ketone | ND | 8.1 | 8.1 | ug/Kg | 2 | 12/02/22 | AW | SW8081B |
| g-BHC | ND | 1.6 | 1.6 | ug/Kg | 2 | 12/02/22 | AW | SW8081B |
| g-Chlordane | ND | 4.1 | 4.1 | ug/Kg | 2 | 12/02/22 | AW | SW8081B |

| Parameter | Result | | RL/ PQL | LOD/ MDL | Units | Dilution | Date/Time | By | Reference | |
|---|---|---|---|---|---|---|---|---|---|---|
| Heptachlor | ND | | 8.1 | 8.1 | ug/Kg | 2 | 12/02/22 | AW | SW8081B | |
| Heptachlor epoxide | ND | | 8.1 | 8.1 | ug/Kg | 2 | 12/02/22 | AW | SW8081B | |
| Methoxychlor | ND | | 41 | 41 | ug/Kg | 2 | 12/02/22 | AW | SW8081B | |
| Toxaphene | ND | | 160 | 160 | ug/Kg | 2 | 12/02/22 | AW | SW8081B | |
| **QA/QC Surrogates** | | | | | | | | | | |
| % DCBP | 52 | | | | % | 2 | 12/02/22 | AW | 30 - 150 % | |
| % DCBP (Confirmation) | 73 | | | | % | 2 | 12/02/22 | AW | 30 - 150 % | |
| % TCMX | 72 | | | | % | 2 | 12/02/22 | AW | 30 - 150 % | |
| % TCMX (Confirmation) | 68 | | | | % | 2 | 12/02/22 | AW | 30 - 150 % | |
| **Volatiles** | | | | | | | | | | |
| 1,1,1,2-Tetrachloroethane | ND | | 5.6 | 1.1 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| 1,1,1-Trichloroethane | ND | | 5.6 | 0.56 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| 1,1,2,2-Tetrachloroethane | ND | | 5.6 | 1.1 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| 1,1,2-Trichloroethane | ND | | 5.6 | 1.1 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| 1,1-Dichloroethane | ND | | 5.6 | 1.1 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| 1,1-Dichloroethene | ND | | 5.6 | 0.56 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| 1,1-Dichloropropene | ND | | 5.6 | 0.56 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| 1,2,3-Trichlorobenzene | ND | | 5.6 | 1.1 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| 1,2,3-Trichloropropane | ND | | 5.6 | 0.56 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| 1,2,4-Trichlorobenzene | ND | | 5.6 | 1.1 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| 1,2,4-Trimethylbenzene | ND | | 5.6 | 0.56 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| 1,2-Dibromo-3-chloropropane | ND | | 5.6 | 1.1 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| 1,2-Dibromoethane | ND | | 5.6 | 0.56 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| 1,2-Dichlorobenzene | ND | | 5.6 | 0.56 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| 1,2-Dichloroethane | ND | | 5.6 | 0.56 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| 1,2-Dichloropropane | ND | | 5.6 | 1.1 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| 1,3,5-Trimethylbenzene | ND | | 5.6 | 0.56 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| 1,3-Dichlorobenzene | ND | | 5.6 | 0.56 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| 1,3-Dichloropropane | ND | | 5.6 | 1.1 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| 1,4-Dichlorobenzene | ND | | 5.6 | 0.56 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| 2,2-Dichloropropane | ND | | 5.6 | 0.56 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| 2-Chlorotoluene | ND | | 5.6 | 1.1 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| 2-Hexanone | ND | | 28 | 5.6 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| 2-Isopropyltoluene | ND | | 5.6 | 0.56 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | 1 |
| 4-Chlorotoluene | ND | | 5.6 | 0.56 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| 4-Methyl-2-pentanone | ND | | 28 | 5.6 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| Acetone | 30 | S | 28 | 5.6 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| Acrylonitrile | ND | | 11 | 1.1 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| Benzene | ND | | 5.6 | 0.56 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| Bromobenzene | ND | | 5.6 | 0.56 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| Bromochloromethane | ND | | 5.6 | 0.56 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| Bromodichloromethane | ND | | 5.6 | 1.1 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| Bromoform | ND | | 5.6 | 1.1 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| Bromomethane | ND | | 5.6 | 2.3 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| Carbon Disulfide | ND | | 5.6 | 1.1 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| Carbon tetrachloride | ND | | 5.6 | 1.1 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| Chlorobenzene | ND | | 5.6 | 0.56 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| Chloroethane | ND | | 5.6 | 0.56 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| Chloroform | ND | | 5.6 | 0.56 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |

Project ID: IPARK0118.62-LOT 10 BOUNDARY MODIFICAT. Phoenix I.D.: CM95251
Client ID: SED-2 (2-12``)

| Parameter | Result | | RL/ PQL | LOD/ MDL | Units | Dilution | Date/Time | By | Reference | |
|---|---|---|---|---|---|---|---|---|---|---|
| Chloromethane | ND | | 5.6 | 1.1 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| cis-1,2-Dichloroethene | ND | | 5.6 | 0.56 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| cis-1,3-Dichloropropene | ND | | 5.6 | 0.56 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| Dibromochloromethane | ND | | 5.6 | 1.1 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| Dibromomethane | ND | | 5.6 | 1.1 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| Dichlorodifluoromethane | ND | | 5.6 | 0.56 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| Ethylbenzene | ND | | 5.6 | 0.56 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| Hexachlorobutadiene | ND | | 5.6 | 0.56 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| Isopropylbenzene | ND | | 5.6 | 0.56 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| m&p-Xylene | ND | | 5.6 | 1.1 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| Methyl Ethyl Ketone | ND | | 34 | 5.6 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| Methyl t-butyl ether (MTBE) | ND | | 11 | 1.1 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| Methylene chloride | ND | | 5.6 | 5.6 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| Naphthalene | ND | | 5.6 | 1.1 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| n-Butylbenzene | ND | | 5.6 | 0.56 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| n-Propylbenzene | ND | | 5.6 | 1.1 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| o-Xylene | ND | | 5.6 | 1.1 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| p-Isopropyltoluene | ND | | 5.6 | 0.56 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| sec-Butylbenzene | ND | | 5.6 | 0.56 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| Styrene | ND | | 5.6 | 0.56 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| tert-Butylbenzene | ND | | 5.6 | 0.56 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| Tetrachloroethene | ND | | 5.6 | 1.1 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| Tetrahydrofuran (THF) | 7.9 | J | 11 | 2.8 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| Toluene | ND | | 5.6 | 0.56 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| trans-1,2-Dichloroethene | ND | | 5.6 | 0.56 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| trans-1,3-Dichloropropene | ND | | 5.6 | 0.56 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| trans-1,4-dichloro-2-butene | ND | | 11 | 2.8 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| Trichloroethene | ND | | 5.6 | 0.56 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| Trichlorofluoromethane | ND | | 5.6 | 1.1 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| Trichlorotrifluoroethane | ND | | 5.6 | 0.56 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| Vinyl chloride | ND | | 5.6 | 0.56 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| **QA/QC Surrogates** | | | | | | | | | | |
| % 1,2-dichlorobenzene-d4 | 95 | | | | % | 1 | 12/05/22 | JLI | 70 - 130 % | |
| % Bromofluorobenzene | 94 | | | | % | 1 | 12/05/22 | JLI | 70 - 130 % | |
| % Dibromofluoromethane | 100 | | | | % | 1 | 12/05/22 | JLI | 70 - 130 % | |
| % Toluene-d8 | 95 | | | | % | 1 | 12/05/22 | JLI | 70 - 130 % | |
| **Semivolatiles** | | | | | | | | | | |
| 1,2,4,5-Tetrachlorobenzene | ND | | 290 | 140 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 1,2,4-Trichlorobenzene | ND | | 290 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 1,2-Dichlorobenzene | ND | | 290 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 1,2-Diphenylhydrazine | ND | | 290 | 130 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 1,3-Dichlorobenzene | ND | | 290 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 1,4-Dichlorobenzene | ND | | 290 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2,2'-Oxybis(1-Chloropropane) | ND | | 290 | 110 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | 1 |
| 2,4,5-Trichlorophenol | ND | | 290 | 230 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2,4,6-Trichlorophenol | ND | | 210 | 130 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2,4-Dichlorophenol | ND | | 210 | 140 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2,4-Dimethylphenol | ND | | 290 | 100 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2,4-Dinitrophenol | ND | | 290 | 290 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |

Project ID: IPARK0118.62-LOT 10 BOUNDARY MODIFICAT. Phoenix I.D.: CM95251

Client ID: SED-2 (2-12``)

| Parameter | Result | RL/ PQL | LOD/ MDL | Units | Dilution | Date/Time | By | Reference | |
|---|---|---|---|---|---|---|---|---|---|
| 2,4-Dinitrotoluene | ND | 210 | 160 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2,6-Dinitrotoluene | ND | 210 | 130 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2-Chloronaphthalene | ND | 290 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2-Chlorophenol | ND | 290 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2-Methylnaphthalene | ND | 290 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2-Methylphenol (o-cresol) | ND | 290 | 190 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2-Nitroaniline | ND | 290 | 290 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2-Nitrophenol | ND | 290 | 260 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 3&4-Methylphenol (m&p-cresol) | ND | 290 | 160 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | 1 |
| 3,3'-Dichlorobenzidine | ND | 210 | 190 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 3-Nitroaniline | ND | 410 | 820 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 4,6-Dinitro-2-methylphenol | ND | 250 | 82 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 4-Bromophenyl phenyl ether | ND | 290 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 4-Chloro-3-methylphenol | ND | 290 | 140 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 4-Chloroaniline | ND | 330 | 190 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 4-Chlorophenyl phenyl ether | ND | 290 | 140 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 4-Nitroaniline | ND | 410 | 140 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 4-Nitrophenol | ND | 410 | 190 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Acenaphthene | ND | 290 | 130 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Acenaphthylene | ND | 290 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Acetophenone | ND | 290 | 130 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Aniline | ND | 330 | 330 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Anthracene | ND | 290 | 130 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Benz(a)anthracene | ND | 290 | 140 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Benzidine | ND | 410 | 240 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Benzo(a)pyrene | ND | 210 | 130 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Benzo(b)fluoranthene | ND | 290 | 140 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Benzo(ghi)perylene | ND | 290 | 130 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Benzo(k)fluoranthene | ND | 290 | 140 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Benzoic acid | ND | 2100 | 820 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Benzyl butyl phthalate | ND | 290 | 110 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Bis(2-chloroethoxy)methane | ND | 290 | 110 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Bis(2-chloroethyl)ether | ND | 210 | 110 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Bis(2-ethylhexyl)phthalate | ND | 290 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Carbazole | ND | 210 | 160 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Chrysene | ND | 290 | 140 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Dibenz(a,h)anthracene | ND | 210 | 130 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Dibenzofuran | ND | 290 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Diethyl phthalate | ND | 290 | 130 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Dimethylphthalate | ND | 290 | 130 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Di-n-butylphthalate | ND | 290 | 110 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Di-n-octylphthalate | ND | 290 | 110 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Fluoranthene | ND | 290 | 130 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Fluorene | ND | 290 | 140 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Hexachlorobenzene | ND | 210 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Hexachlorobutadiene | ND | 290 | 150 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Hexachlorocyclopentadiene | ND | 290 | 130 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Hexachloroethane | ND | 210 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Indeno(1,2,3-cd)pyrene | ND | 290 | 140 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |

Project ID: IPARK0118.62-LOT 10 BOUNDARY MODIFICAT. Phoenix I.D.: CM95251
Client ID: SED-2 (2-12``)

| Parameter | Result | RL/ PQL | LOD/ MDL | Units | Dilution | Date/Time | By | Reference | |
|---|---|---|---|---|---|---|---|---|---|
| Isophorone | ND | 210 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Naphthalene | ND | 290 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Nitrobenzene | ND | 210 | 140 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| N-Nitrosodimethylamine | ND | 290 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| N-Nitrosodi-n-propylamine | ND | 210 | 130 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| N-Nitrosodiphenylamine | ND | 290 | 160 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Pentachloronitrobenzene | ND | 290 | 150 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Pentachlorophenol | ND | 250 | 160 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Phenanthrene | ND | 290 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Phenol | ND | 290 | 130 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Pyrene | ND | 290 | 140 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Pyridine | ND | 290 | 100 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| **QA/QC Surrogates** | | | | | | | | | |
| % 2,4,6-Tribromophenol | 147 | | | % | 1 | 12/04/22 | WB | 30 - 130 % | 3 |
| % 2-Fluorobiphenyl | 80 | | | % | 1 | 12/04/22 | WB | 30 - 130 % | |
| % 2-Fluorophenol | 67 | | | % | 1 | 12/04/22 | WB | 30 - 130 % | |
| % Nitrobenzene-d5 | 74 | | | % | 1 | 12/04/22 | WB | 30 - 130 % | |
| % Phenol-d5 | 82 | | | % | 1 | 12/04/22 | WB | 30 - 130 % | |
| % Terphenyl-d14 | 64 | | | % | 1 | 12/04/22 | WB | 30 - 130 % | |
| **1,4-Dioxane** | | | | | | | | | |
| 1,4-dioxane | ND | 83 | 83 | ug/Kg | 1 | 12/04/22 | WB | SW8270D (SIM) | |
| **QA/QC Surrogates** | | | | | | | | | |
| % 2-Fluorobiphenyl | 33 | | | % | 1 | 12/04/22 | WB | 30 - 130 % | |
| % Nitrobenzene-d5 | 47 | | | % | 1 | 12/04/22 | WB | 30 - 130 % | |
| % Terphenyl-d14 | 71 | | | % | 1 | 12/04/22 | WB | 30 - 130 % | |

| Parameter | Result | RL/ PQL | LOD/ MDL | Units | Dilution | Date/Time | By | Reference |
|---|---|---|---|---|---|---|---|---|

1 = This parameter is not certified by the primary accrediting authority (NY NELAC) for this matrix. NY NELAC does not offer certification for all parameters at this time.
3 = This parameter exceeds laboratory specified limits.
C = This parameter is subcontracted.

RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected BRL=Below Reporting Level L=Biased Low J=Estimated Below RL LOD=Limit of Detection MDL=Method Detection Limit1
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

## Comments:

*See attached

Per 1.4.6 of EPA method 8270D, 1,2-Diphenylhydrazine is unstable and readily converts to Azobenzene. Azobenzene is used for the calibration of 1,2-Diphenylhydrazine.

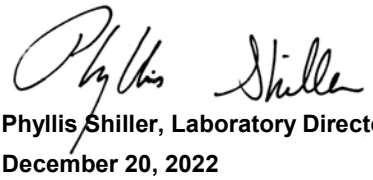
Semi-Volatile Comment:
One of the surrogate recoveries was above the upper range due to sample matrix interference. The other surrogates associated with this sample were within QA/QC criteria. No significant bias is suspected.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

PFAS (21) (EPA 537m), PFOA/PFOS - Soil Extraction (EPA 537m) were analyzed by NY certified lab #12058.

S - Laboratory solvent, contamination is possible.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200.
The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.



**Phyllis Shiller, Laboratory Director**
**December 20, 2022**
**Reviewed and Released by: Phyllis Shiller, Laboratory Director**

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

# Analysis Report

December 20, 2022

FOR: Attn: Nora Brew
Walden Environmental Engineering PLLC
16 Spring Street
Oyster Bay, NY 11771

| Sample Information | | Custody Information | | Date | Time |
|---|---|---|---|---|---|
| Matrix: | SOIL | Collected by: | | 11/29/22 | 10:40 |
| Location Code: | WALDENE-IPARK | Received by: | CP | 12/01/22 | 17:12 |
| Rush Request: | Standard | Analyzed by: | see "By" below | | |
| P.O.#: | | | | | |

## Laboratory Data

SDG ID: GCM95248
Phoenix ID: CM95252

Project ID: IPARK0118.62-LOT 10 BOUNDARY MODIFICAT.
Client ID: SB-10A1 (0-2``)

| Parameter | Result | RL/ PQL | LOD/ MDL | Units | Dilution | Date/Time | By | Reference |
|---|---|---|---|---|---|---|---|---|
| Aluminum | 47400 | 100 | 21 | mg/Kg | 10 | 12/02/22 | TH | SW6010D |
| Antimony | ND | 10 | 10 | mg/Kg | 1 | 12/02/22 | TH | SW6010D |
| Arsenic | 16.1 | 2.1 | 2.1 | mg/Kg | 1 | 12/02/22 | TH | SW6010D |
| Barium | 196 | 2.1 | 1.0 | mg/Kg | 1 | 12/02/22 | TH | SW6010D |
| Beryllium | 1.76 | 0.82 | 0.41 | mg/Kg | 1 | 12/02/22 | TH | SW6010D |
| Calcium | 5200 | 10 | 9.5 | mg/Kg | 1 | 12/02/22 | TH | SW6010D |
| Cadmium | 6.3 | 1.0 | 1.0 | mg/Kg | 1 | 12/02/22 | TH | SW6010D |
| Chromium | 85.9 | 1.0 | 1.0 | mg/Kg | 1 | 12/02/22 | TH | SW6010D |
| Cobalt | 31.0 | 1.0 | 1.0 | mg/Kg | 1 | 12/02/22 | TH | SW6010D |
| Copper | 91.0 | 2.1 | 1.0 | mg/kg | 1 | 12/02/22 | TH | SW6010D |
| Iron | 81900 | 100 | 100 | mg/Kg | 10 | 12/02/22 | TH | SW6010D |
| Lead | 188 | 2.1 | 1.0 | mg/Kg | 1 | 12/02/22 | TH | SW6010D |
| Magnesium | 17700 | 100 | 100 | mg/Kg | 10 | 12/02/22 | TH | SW6010D |
| Manganese | 2690 | 10 | 10 | mg/Kg | 10 | 12/02/22 | TH | SW6010D |
| Mercury | 0.06 J | 0.08 | 0.05 | mg/Kg | 2 | 12/05/22 | PM | SW7471B |
| Nickel | 75.3 | 1.0 | 1.0 | mg/Kg | 1 | 12/02/22 | TH | SW6010D |
| Potassium | 3770 | 21 | 8.0 | mg/Kg | 1 | 12/02/22 | TH | SW6010D |
| Selenium | ND | 4.1 | 3.5 | mg/Kg | 1 | 12/02/22 | TH | SW6010D |
| Silver | ND | 1.0 | 1.0 | mg/Kg | 1 | 12/02/22 | TH | SW6010D |
| Sodium | 1750 | 21 | 8.8 | mg/Kg | 1 | 12/02/22 | TH | SW6010D |
| Thallium | ND | 4.1 | 4.1 | mg/Kg | 1 | 12/02/22 | TH | SW6010D |
| Vanadium | 82.1 | 1.0 | 1.0 | mg/Kg | 1 | 12/02/22 | TH | SW6010D |
| Zinc | 484 | 21 | 10 | mg/Kg | 10 | 12/02/22 | TH | SW6010D |
| Percent Solid | 32 | | | % | | 12/01/22 | Q | SW846-%Solid |
| Extraction for SVOA SIM | Completed | | | | | 12/02/22 | O/Y | SW3545A |
| Soil Extraction for PCB | Completed | | | | | 12/01/22 | B/MO | SW3545A |
| Soil Extraction for Pesticide | Completed | | | | | 12/01/22 | B/MO | SW3545A |

**Ver 1**

Project ID: IPARK0118.62-LOT 10 BOUNDARY MODIFICAT. Phoenix I.D.: CM95252
Client ID: SB-10A1 (0-2``)

| Parameter | Result | RL/ PQL | LOD/ MDL | Units | Dilution | Date/Time | By | Reference | |
|---|---|---|---|---|---|---|---|---|---|
| Mercury Digestion | Completed | | | | | 12/02/22 | AB/AB | SW7471B | |
| Soil Extraction for Herbicide | Completed | | | | | 12/05/22 | J/D | SW3546 | |
| Soil Extraction for SVOA | Completed | | | | | 12/03/22 | E/Y | SW3546 | |
| Total Metals Digest | Completed | | | | | 12/01/22 | | SW3050B | |
| PFAS (21) | Completed | | | | | 12/07/22 | *** | EPA 537m | C |
| **PFAS (21)** | | | | | | | | | |
| 1H,1H,2H,2H-Perfluorodecanesulfonic acid | ND | 0.321 | 0.0329 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| 1H,1H,2H,2H-Perfluorooctanesulfonic acid | ND | 0.321 | 0.0849 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| NEtFOSAA | ND | 0.321 | 0.134 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| NMeFOSAA | ND | 0.321 | 0.134 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| Perfluoro-1-decanesulfonic acid (PFDS) | ND | 0.321 | 0.0658 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| Perfluoro-1-heptanesulfonic acid (PFHpS) | ND | 0.321 | 0.0634 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| Perfluoro-1-octanesulfonamide (FOSA) | ND | 0.321 | 0.0600 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| Perfluorobutanesulfonic acid (PFBS) | ND | 0.321 | 0.257 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| Perfluorodecanoic acid (PFDA) | ND | 0.321 | 0.0658 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| Perfluorododecanoic acid (PFDoA) | ND | 0.321 | 0.0964 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| Perfluoroheptanoic acid (PFHpA) | ND | 0.321 | 0.0585 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| Perfluorohexanesulfonic Acid (PFHxS) | ND | 0.321 | 0.0399 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| Perfluorohexanoic acid (PFHxA) | ND | 0.321 | 0.0847 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| Perfluoro-n-butanoic acid (PFBA) | ND | 0.321 | 0.235 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| Perfluorononanoic acid (PFNA) | ND | 0.321 | 0.0769 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| Perfluorooctanesulfonic Acid (PFOS) | 2.55 | 0.321 | 0.0563 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| Perfluorooctanoic acid (PFOA) | 0.402 | 0.321 | 0.0993 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| Perfluoropentanoic acid (PFPeA) | ND | 0.321 | 0.118 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| Perfluorotetradecanoic acid (PFTA) | ND | 0.321 | 0.0960 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| Perfluorotridecanoic acid (PFTrDA) | 0.361 | 0.321 | 0.0559 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| Perfluoroundecanoic acid (PFUnA) | ND | 0.321 | 0.150 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| **QA/QC Surrogates** | | | | | | | | | |
| % d3-N-MeFOSAA | 59.8 | | | % | 1 | 12/11/22 | *** | 25 - 150 % | C |
| % d5-NEtFOSA | 62.4 | | | % | 1 | 12/11/22 | *** | 25 - 150 % | C |
| % M2-6:2FTS | 306 | | | % | 1 | 12/11/22 | *** | 25 - 200 % | C,3 |
| % M2-8:2FTS | 199 | | | % | 1 | 12/11/22 | *** | 25 - 200 % | C |
| % M2PFTeDA | 37.9 | | | % | 1 | 12/11/22 | *** | 10 - 150 % | C |
| % M3PFBS | 66.0 | | | % | 1 | 12/11/22 | *** | 25 - 150 % | C |
| % M3PFHxS | 74.0 | | | % | 1 | 12/11/22 | *** | 25 - 150 % | C |
| % M4PFHpA | 55.7 | | | % | 1 | 12/11/22 | *** | 25 - 150 % | C |
| % M5PFHxA | 64.0 | | | % | 1 | 12/11/22 | *** | 25 - 150 % | C |
| % M5PFPeA | 65.8 | | | % | 1 | 12/11/22 | *** | 25 - 150 % | C |
| % M6PFDA | 49.1 | | | % | 1 | 12/11/22 | *** | 25 - 150 % | C |
| % M7PFUdA | 40.5 | | | % | 1 | 12/11/22 | *** | 25 - 150 % | C |
| % M8FOSA | 43.1 | | | % | 1 | 12/11/22 | *** | 10 - 150 % | C |
| % M8PFOA | 61.7 | | | % | 1 | 12/11/22 | *** | 25 - 150 % | C |
| % M8PFOS | 63.9 | | | % | 1 | 12/11/22 | *** | 25 - 150 % | C |
| % M9PFNA | 51.7 | | | % | 1 | 12/11/22 | *** | 25 - 150 % | C |
| % MPFBA | 71.9 | | | % | 1 | 12/11/22 | *** | 25 - 150 % | C |
| % MPFDoA | 43.3 | | | % | 1 | 12/11/22 | *** | 25 - 150 % | C |
| **Chlorinated Herbicides** | | | | | | | | | |
| 2,4,5-T | ND | 390 | 390 | ug/Kg | 10 | 12/06/22 | JRB | SW8151A | |

**Ver 1**

Project ID: IPARK0118.62-LOT 10 BOUNDARY MODIFICAT. Phoenix I.D.: CM95252
Client ID: SB-10A1 (0-2``)

| Parameter | Result | RL/ PQL | LOD/ MDL | Units | Dilution | Date/Time | By | Reference |
|---|---|---|---|---|---|---|---|---|
| 2,4,5-TP (Silvex) | ND | 390 | 390 | ug/Kg | 10 | 12/06/22 | JRB | SW8151A |
| 2,4-D | ND | 780 | 780 | ug/Kg | 10 | 12/06/22 | JRB | SW8151A |
| 2,4-DB | ND | 7800 | 7800 | ug/Kg | 10 | 12/06/22 | JRB | SW8151A |
| Dalapon | ND | 390 | 390 | ug/Kg | 10 | 12/06/22 | JRB | SW8151A |
| Dicamba | ND | 390 | 390 | ug/Kg | 10 | 12/06/22 | JRB | SW8151A |
| Dichloroprop | ND | 780 | 780 | ug/Kg | 10 | 12/06/22 | JRB | SW8151A |
| Dinoseb | ND | 780 | 780 | ug/Kg | 10 | 12/06/22 | JRB | SW8151A |
| **QA/QC Surrogates** | | | | | | | | |
| % DCAA | 79 | | | % | 10 | 12/06/22 | JRB | 30 - 150 % |
| % DCAA (Confirmation) | 80 | | | % | 10 | 12/06/22 | JRB | 30 - 150 % |
| **Polychlorinated Biphenyls** | | | | | | | | |
| PCB-1016 | ND | 200 | 200 | ug/Kg | 2 | 12/02/22 | SC | SW8082A |
| PCB-1221 | ND | 200 | 200 | ug/Kg | 2 | 12/02/22 | SC | SW8082A |
| PCB-1232 | ND | 200 | 200 | ug/Kg | 2 | 12/02/22 | SC | SW8082A |
| PCB-1242 | ND | 200 | 200 | ug/Kg | 2 | 12/02/22 | SC | SW8082A |
| PCB-1248 | ND | 200 | 200 | ug/Kg | 2 | 12/02/22 | SC | SW8082A |
| PCB-1254 | ND | 200 | 200 | ug/Kg | 2 | 12/02/22 | SC | SW8082A |
| PCB-1260 | ND | 200 | 200 | ug/Kg | 2 | 12/02/22 | SC | SW8082A |
| PCB-1262 | ND | 200 | 200 | ug/Kg | 2 | 12/02/22 | SC | SW8082A |
| PCB-1268 | ND | 200 | 200 | ug/Kg | 2 | 12/02/22 | SC | SW8082A |
| **QA/QC Surrogates** | | | | | | | | |
| % DCBP | 53 | | | % | 2 | 12/02/22 | SC | 30 - 150 % |
| % DCBP (Confirmation) | 52 | | | % | 2 | 12/02/22 | SC | 30 - 150 % |
| % TCMX | 61 | | | % | 2 | 12/02/22 | SC | 30 - 150 % |
| % TCMX (Confirmation) | 59 | | | % | 2 | 12/02/22 | SC | 30 - 150 % |
| **Pesticides - Soil** | | | | | | | | |
| 4,4' -DDD | ND | 6.1 | 6.1 | ug/Kg | 2 | 12/02/22 | AW | SW8081B |
| 4,4' -DDE | 13 | 6.1 | 6.1 | ug/Kg | 2 | 12/02/22 | AW | SW8081B |
| 4,4' -DDT | ND | 6.1 | 6.1 | ug/Kg | 2 | 12/02/22 | AW | SW8081B |
| a-BHC | ND | 20 | 20 | ug/Kg | 2 | 12/02/22 | AW | SW8081B |
| a-Chlordane | ND | 10 | 10 | ug/Kg | 2 | 12/02/22 | AW | SW8081B |
| Alachlor | ND | 10 | 10 | ug/Kg | 2 | 12/02/22 | AW | SW8081B |
| Aldrin | ND | 10 | 10 | ug/Kg | 2 | 12/02/22 | AW | SW8081B |
| b-BHC | ND | 20 | 20 | ug/Kg | 2 | 12/02/22 | AW | SW8081B |
| Chlordane | ND | 100 | 100 | ug/Kg | 2 | 12/02/22 | AW | SW8081B |
| d-BHC | ND | 20 | 20 | ug/Kg | 2 | 12/02/22 | AW | SW8081B |
| Dieldrin | ND | 10 | 10 | ug/Kg | 2 | 12/02/22 | AW | SW8081B |
| Endosulfan I | ND | 20 | 20 | ug/Kg | 2 | 12/02/22 | AW | SW8081B |
| Endosulfan II | ND | 20 | 20 | ug/Kg | 2 | 12/02/22 | AW | SW8081B |
| Endosulfan sulfate | ND | 20 | 20 | ug/Kg | 2 | 12/02/22 | AW | SW8081B |
| Endrin | ND | 20 | 20 | ug/Kg | 2 | 12/02/22 | AW | SW8081B |
| Endrin aldehyde | ND | 20 | 20 | ug/Kg | 2 | 12/02/22 | AW | SW8081B |
| Endrin ketone | ND | 20 | 20 | ug/Kg | 2 | 12/02/22 | AW | SW8081B |
| g-BHC | ND | 4.1 | 4.1 | ug/Kg | 2 | 12/02/22 | AW | SW8081B |
| g-Chlordane | ND | 10 | 10 | ug/Kg | 2 | 12/02/22 | AW | SW8081B |
| Heptachlor | ND | 20 | 20 | ug/Kg | 2 | 12/02/22 | AW | SW8081B |
| Heptachlor epoxide | ND | 20 | 20 | ug/Kg | 2 | 12/02/22 | AW | SW8081B |
| Methoxychlor | ND | 100 | 100 | ug/Kg | 2 | 12/02/22 | AW | SW8081B |

| Parameter | Result | | RL/ PQL | LOD/ MDL | Units | Dilution | Date/Time | By | Reference | |
|---|---|---|---|---|---|---|---|---|---|---|
| Toxaphene | ND | | 410 | 410 | ug/Kg | 2 | 12/02/22 | AW | SW8081B | |
| **QA/QC Surrogates** | | | | | | | | | | |
| % DCBP | 52 | | | | % | 2 | 12/02/22 | AW | 30 - 150 % | |
| % DCBP (Confirmation) | 61 | | | | % | 2 | 12/02/22 | AW | 30 - 150 % | |
| % TCMX | 60 | | | | % | 2 | 12/02/22 | AW | 30 - 150 % | |
| % TCMX (Confirmation) | 65 | | | | % | 2 | 12/02/22 | AW | 30 - 150 % | |
| **Semivolatiles** | | | | | | | | | | |
| 1,2,4,5-Tetrachlorobenzene | ND | | 710 | 360 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 1,2,4-Trichlorobenzene | ND | | 710 | 310 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 1,2-Dichlorobenzene | ND | | 710 | 290 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 1,2-Diphenylhydrazine | ND | | 710 | 330 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 1,3-Dichlorobenzene | ND | | 710 | 300 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 1,4-Dichlorobenzene | ND | | 710 | 300 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2,2'-Oxybis(1-Chloropropane) | ND | | 710 | 280 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | 1 |
| 2,4,5-Trichlorophenol | ND | | 710 | 560 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2,4,6-Trichlorophenol | ND | | 510 | 330 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2,4-Dichlorophenol | ND | | 510 | 360 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2,4-Dimethylphenol | ND | | 710 | 250 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2,4-Dinitrophenol | ND | | 710 | 710 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2,4-Dinitrotoluene | ND | | 510 | 400 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2,6-Dinitrotoluene | ND | | 510 | 320 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2-Chloronaphthalene | ND | | 710 | 290 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2-Chlorophenol | ND | | 710 | 290 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2-Methylnaphthalene | ND | | 710 | 300 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2-Methylphenol (o-cresol) | ND | | 710 | 480 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2-Nitroaniline | ND | | 710 | 710 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2-Nitrophenol | ND | | 710 | 650 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 3&4-Methylphenol (m&p-cresol) | ND | | 710 | 400 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | 1 |
| 3,3'-Dichlorobenzidine | ND | | 510 | 480 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 3-Nitroaniline | ND | | 1000 | 2000 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 4,6-Dinitro-2-methylphenol | ND | | 610 | 200 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 4-Bromophenyl phenyl ether | ND | | 710 | 300 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 4-Chloro-3-methylphenol | ND | | 710 | 360 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 4-Chloroaniline | ND | | 810 | 470 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 4-Chlorophenyl phenyl ether | ND | | 710 | 340 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 4-Nitroaniline | ND | | 1000 | 340 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 4-Nitrophenol | ND | | 1000 | 460 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Acenaphthene | ND | | 710 | 310 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Acenaphthylene | ND | | 710 | 290 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Acetophenone | ND | | 710 | 320 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Aniline | ND | | 810 | 810 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Anthracene | ND | | 710 | 330 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Benz(a)anthracene | 460 | J | 710 | 340 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Benzidine | ND | | 1000 | 600 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Benzo(a)pyrene | 530 | | 510 | 330 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Benzo(b)fluoranthene | 860 | | 710 | 350 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Benzo(ghi)perylene | 440 | J | 710 | 330 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Benzo(k)fluoranthene | ND | | 710 | 340 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Benzoic acid | ND | | 5100 | 2000 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |

Project ID: IPARK0118.62-LOT 10 BOUNDARY MODIFICAT. Phoenix I.D.: CM95252
Client ID: SB-10A1 (0-2``)

| Parameter | Result | | RL/ PQL | LOD/ MDL | Units | Dilution | Date/Time | By | Reference |
|---|---|---|---|---|---|---|---|---|---|
| Benzyl butyl phthalate | ND | | 710 | 260 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Bis(2-chloroethoxy)methane | ND | | 710 | 280 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Bis(2-chloroethyl)ether | ND | | 510 | 270 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Bis(2-ethylhexyl)phthalate | ND | | 710 | 290 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Carbazole | ND | | 510 | 410 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Chrysene | 540 | J | 710 | 340 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Dibenz(a,h)anthracene | ND | | 510 | 330 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Dibenzofuran | ND | | 710 | 300 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Diethyl phthalate | ND | | 710 | 320 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Dimethylphthalate | ND | | 710 | 320 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Di-n-butylphthalate | ND | | 710 | 270 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Di-n-octylphthalate | ND | | 710 | 260 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Fluoranthene | 760 | | 710 | 330 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Fluorene | ND | | 710 | 340 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Hexachlorobenzene | ND | | 510 | 300 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Hexachlorobutadiene | ND | | 710 | 370 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Hexachlorocyclopentadiene | ND | | 710 | 310 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Hexachloroethane | ND | | 510 | 310 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Indeno(1,2,3-cd)pyrene | 400 | J | 710 | 340 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Isophorone | ND | | 510 | 290 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Naphthalene | ND | | 710 | 290 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Nitrobenzene | ND | | 510 | 360 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| N-Nitrosodimethylamine | ND | | 710 | 290 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| N-Nitrosodi-n-propylamine | ND | | 510 | 330 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| N-Nitrosodiphenylamine | ND | | 710 | 390 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Pentachloronitrobenzene | ND | | 710 | 380 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Pentachlorophenol | ND | | 610 | 380 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Phenanthrene | 500 | J | 710 | 290 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Phenol | ND | | 710 | 330 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Pyrene | 620 | J | 710 | 350 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Pyridine | ND | | 710 | 250 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| **QA/QC Surrogates** | | | | | | | | | |
| % 2,4,6-Tribromophenol | 115 | | | | % | 1 | 12/04/22 | WB | 30 - 130 % |
| % 2-Fluorobiphenyl | 73 | | | | % | 1 | 12/04/22 | WB | 30 - 130 % |
| % 2-Fluorophenol | 60 | | | | % | 1 | 12/04/22 | WB | 30 - 130 % |
| % Nitrobenzene-d5 | 66 | | | | % | 1 | 12/04/22 | WB | 30 - 130 % |
| % Phenol-d5 | 72 | | | | % | 1 | 12/04/22 | WB | 30 - 130 % |
| % Terphenyl-d14 | 58 | | | | % | 1 | 12/04/22 | WB | 30 - 130 % |
| **1,4-Dioxane** | | | | | | | | | |
| 1,4-dioxane | ND | | 200 | 200 | ug/Kg | 1 | 12/04/22 | WB | SW8270D (SIM) |
| **QA/QC Surrogates** | | | | | | | | | |
| % 2-Fluorobiphenyl | 44 | | | | % | 1 | 12/04/22 | WB | 30 - 130 % |
| % Nitrobenzene-d5 | 53 | | | | % | 1 | 12/04/22 | WB | 30 - 130 % |
| % Terphenyl-d14 | 60 | | | | % | 1 | 12/04/22 | WB | 30 - 130 % |

| Parameter | Result | RL/ PQL | LOD/ MDL | Units | Dilution | Date/Time | By | Reference |
|---|---|---|---|---|---|---|---|---|

1 = This parameter is not certified by the primary accrediting authority (NY NELAC) for this matrix. NY NELAC does not offer certification for all parameters at this time.
3 = This parameter exceeds laboratory specified limits.
C = This parameter is subcontracted.

RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected BRL=Below Reporting Level L=Biased Low J=Estimated Below RL LOD=Limit of Detection MDL=Method Detection Limit1
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

## Comments:

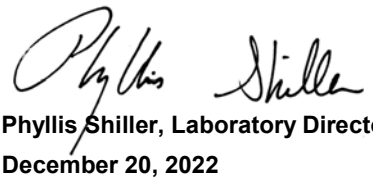
*See attached

Per 1.4.6 of EPA method 8270D, 1,2-Diphenylhydrazine is unstable and readily converts to Azobenzene. Azobenzene is used for the calibration of 1,2-Diphenylhydrazine.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

PFAS (21) (EPA 537m), PFOA/PFOS - Soil Extraction (EPA 537m) were analyzed by NY certified lab #12058.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200.
The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.



**Phyllis Shiller, Laboratory Director**
**December 20, 2022**
**Reviewed and Released by: Phyllis Shiller, Laboratory Director**

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

# Analysis Report

December 20, 2022

FOR: Attn: Nora Brew
Walden Environmental Engineering PLLC
16 Spring Street
Oyster Bay, NY 11771

| Sample Information | | Custody Information | | Date | Time |
|---|---|---|---|---|---|
| Matrix: | SOIL | Collected by: | | 11/29/22 | 10:45 |
| Location Code: | WALDENE-IPARK | Received by: | CP | 12/01/22 | 17:12 |
| Rush Request: | Standard | Analyzed by: | see "By" below | | |
| P.O.#: | | | | | |

## Laboratory Data

SDG ID: GCM95248
Phoenix ID: CM95253

Project ID: IPARK0118.62-LOT 10 BOUNDARY MODIFICAT.
Client ID: SB-10A2 (2-12``)

| Parameter | Result | | RL/ PQL | LOD/ MDL | Units | Dilution | Date/Time | By | Reference |
|---|---|---|---|---|---|---|---|---|---|
| Aluminum | 13400 | | 40 | 8.1 | mg/Kg | 10 | 12/02/22 | TH | SW6010D |
| Antimony | ND | | 4.0 | 4.0 | mg/Kg | 1 | 12/02/22 | TH | SW6010D |
| Arsenic | 4.28 | | 0.81 | 0.81 | mg/Kg | 1 | 12/02/22 | TH | SW6010D |
| Barium | 49.7 | | 0.8 | 0.40 | mg/Kg | 1 | 12/02/22 | TH | SW6010D |
| Beryllium | 0.49 | | 0.32 | 0.16 | mg/Kg | 1 | 12/02/22 | TH | SW6010D |
| Calcium | 1890 | | 4.0 | 3.7 | mg/Kg | 1 | 12/02/22 | TH | SW6010D |
| Cadmium | 1.61 | | 0.40 | 0.40 | mg/Kg | 1 | 12/02/22 | TH | SW6010D |
| Chromium | 18.4 | | 0.40 | 0.40 | mg/Kg | 1 | 12/02/22 | TH | SW6010D |
| Cobalt | 8.09 | | 0.40 | 0.40 | mg/Kg | 1 | 12/02/22 | TH | SW6010D |
| Copper | 21.3 | | 0.8 | 0.40 | mg/kg | 1 | 12/02/22 | TH | SW6010D |
| Iron | 24000 | | 40 | 40 | mg/Kg | 10 | 12/02/22 | TH | SW6010D |
| Lead | 28.3 | | 0.8 | 0.40 | mg/Kg | 1 | 12/02/22 | TH | SW6010D |
| Magnesium | 5660 | | 4.0 | 4.0 | mg/Kg | 1 | 12/02/22 | TH | SW6010D |
| Manganese | 742 | | 4.0 | 4.0 | mg/Kg | 10 | 12/02/22 | TH | SW6010D |
| Mercury | 0.02 | J | 0.03 | 0.02 | mg/Kg | 2 | 12/05/22 | PM | SW7471B |
| Nickel | 19.2 | | 0.40 | 0.40 | mg/Kg | 1 | 12/02/22 | TH | SW6010D |
| Potassium | 1040 | | 8 | 3.2 | mg/Kg | 1 | 12/02/22 | TH | SW6010D |
| Selenium | ND | | 1.6 | 1.4 | mg/Kg | 1 | 12/02/22 | TH | SW6010D |
| Silver | ND | | 0.40 | 0.40 | mg/Kg | 1 | 12/02/22 | TH | SW6010D |
| Sodium | 529 | | 8 | 3.5 | mg/Kg | 1 | 12/02/22 | TH | SW6010D |
| Thallium | ND | | 1.6 | 1.6 | mg/Kg | 1 | 12/02/22 | TH | SW6010D |
| Vanadium | 20.1 | | 0.40 | 0.40 | mg/Kg | 1 | 12/02/22 | TH | SW6010D |
| Zinc | 78.6 | | 0.8 | 0.40 | mg/Kg | 1 | 12/02/22 | TH | SW6010D |
| Percent Solid | 87 | | | | % | | 12/01/22 | Q | SW846-%Solid |
| Extraction for SVOA SIM | Completed | | | | | | 12/02/22 | O/Y | SW3545A |
| Soil Extraction for PCB | Completed | | | | | | 12/01/22 | B/MO | SW3545A |
| Soil Extraction for Pesticide | Completed | | | | | | 12/01/22 | B/MO | SW3545A |

**Ver 1**

Project ID: IPARK0118.62-LOT 10 BOUNDARY MODIFICAT. Phoenix I.D.: CM95253
Client ID: SB-10A2 (2-12``)

| Parameter | Result | RL/ PQL | LOD/ MDL | Units | Dilution | Date/Time | By | Reference | |
|---|---|---|---|---|---|---|---|---|---|
| Mercury Digestion | Completed | | | | | 12/02/22 | AB/AB | SW7471B | |
| Soil Extraction for Herbicide | Completed | | | | | 12/05/22 | J/D | SW3546 | |
| Soil Extraction for SVOA | Completed | | | | | 12/03/22 | E/Y | SW3546 | |
| Total Metals Digest | Completed | | | | | 12/01/22 | | SW3050B | |
| PFAS (21) | Completed | | | | | 12/07/22 | *** | EPA 537m | C |
| **PFAS (21)** | | | | | | | | | |
| 1H,1H,2H,2H-Perfluorodecanesulfonic acid | ND | 0.301 | 0.0308 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| 1H,1H,2H,2H-Perfluorooctanesulfonic acid | ND | 0.301 | 0.0795 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| NEtFOSAA | ND | 0.301 | 0.125 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| NMeFOSAA | ND | 0.301 | 0.126 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| Perfluoro-1-decanesulfonic acid (PFDS) | ND | 0.301 | 0.0617 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| Perfluoro-1-heptanesulfonic acid (PFHpS) | ND | 0.301 | 0.0594 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| Perfluoro-1-octanesulfonamide (FOSA) | ND | 0.301 | 0.0562 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| Perfluorobutanesulfonic acid (PFBS) | ND | 0.301 | 0.241 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| Perfluorodecanoic acid (PFDA) | ND | 0.301 | 0.0617 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| Perfluorododecanoic acid (PFDoA) | ND | 0.301 | 0.0903 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| Perfluoroheptanoic acid (PFHpA) | ND | 0.301 | 0.0548 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| Perfluorohexanesulfonic Acid (PFHxS) | ND | 0.301 | 0.0373 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| Perfluorohexanoic acid (PFHxA) | ND | 0.301 | 0.0794 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| Perfluoro-n-butanoic acid (PFBA) | ND | 0.301 | 0.220 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| Perfluorononanoic acid (PFNA) | ND | 0.301 | 0.0720 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| Perfluorooctanesulfonic Acid (PFOS) | 2.70 | 0.301 | 0.0527 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| Perfluorooctanoic acid (PFOA) | 0.332 | 0.301 | 0.0930 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| Perfluoropentanoic acid (PFPeA) | ND | 0.301 | 0.111 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| Perfluorotetradecanoic acid (PFTA) | ND | 0.301 | 0.0900 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| Perfluorotridecanoic acid (PFTrDA) | 0.377 | 0.301 | 0.0524 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| Perfluoroundecanoic acid (PFUnA) | 0.464 | 0.301 | 0.140 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| **QA/QC Surrogates** | | | | | | | | | |
| % d3-N-MeFOSAA | 63.0 | | | % | 1 | 12/11/22 | *** | 25 - 150 % | C |
| % d5-NEtFOSA | 66.9 | | | % | 1 | 12/11/22 | *** | 25 - 150 % | C |
| % M2-6:2FTS | 335 | | | % | 1 | 12/11/22 | *** | 25 - 200 % | C,3 |
| % M2-8:2FTS | 200 | | | % | 1 | 12/11/22 | *** | 25 - 200 % | C |
| % M2PFTeDA | 36.0 | | | % | 1 | 12/11/22 | *** | 10 - 150 % | C |
| % M3PFBS | 75.9 | | | % | 1 | 12/11/22 | *** | 25 - 150 % | C |
| % M3PFHxS | 82.4 | | | % | 1 | 12/11/22 | *** | 25 - 150 % | C |
| % M4PFHpA | 57.5 | | | % | 1 | 12/11/22 | *** | 25 - 150 % | C |
| % M5PFHxA | 70.0 | | | % | 1 | 12/11/22 | *** | 25 - 150 % | C |
| % M5PFPeA | 73.0 | | | % | 1 | 12/11/22 | *** | 25 - 150 % | C |
| % M6PFDA | 49.6 | | | % | 1 | 12/11/22 | *** | 25 - 150 % | C |
| % M7PFUdA | 42.0 | | | % | 1 | 12/11/22 | *** | 25 - 150 % | C |
| % M8FOSA | 45.7 | | | % | 1 | 12/11/22 | *** | 10 - 150 % | C |
| % M8PFOA | 63.4 | | | % | 1 | 12/11/22 | *** | 25 - 150 % | C |
| % M8PFOS | 64.4 | | | % | 1 | 12/11/22 | *** | 25 - 150 % | C |
| % M9PFNA | 61.3 | | | % | 1 | 12/11/22 | *** | 25 - 150 % | C |
| % MPFBA | 78.1 | | | % | 1 | 12/11/22 | *** | 25 - 150 % | C |
| % MPFDoA | 46.6 | | | % | 1 | 12/11/22 | *** | 25 - 150 % | C |
| **Chlorinated Herbicides** | | | | | | | | | |
| 2,4,5-T | ND | 140 | 140 | ug/Kg | 10 | 12/06/22 | JRB | SW8151A | |

**Ver 1**

| Parameter | Result | RL/ PQL | LOD/ MDL | Units | Dilution | Date/Time | By | Reference |
|---|---|---|---|---|---|---|---|---|
| 2,4,5-TP (Silvex) | ND | 140 | 140 | ug/Kg | 10 | 12/06/22 | JRB | SW8151A |
| 2,4-D | ND | 290 | 290 | ug/Kg | 10 | 12/06/22 | JRB | SW8151A |
| 2,4-DB | ND | 2900 | 2900 | ug/Kg | 10 | 12/06/22 | JRB | SW8151A |
| Dalapon | ND | 140 | 140 | ug/Kg | 10 | 12/06/22 | JRB | SW8151A |
| Dicamba | ND | 140 | 140 | ug/Kg | 10 | 12/06/22 | JRB | SW8151A |
| Dichloroprop | ND | 290 | 290 | ug/Kg | 10 | 12/06/22 | JRB | SW8151A |
| Dinoseb | ND | 290 | 290 | ug/Kg | 10 | 12/06/22 | JRB | SW8151A |
| **QA/QC Surrogates** | | | | | | | | |
| % DCAA | 92 | | | % | 10 | 12/06/22 | JRB | 30 - 150 % |
| % DCAA (Confirmation) | 94 | | | % | 10 | 12/06/22 | JRB | 30 - 150 % |
| **Polychlorinated Biphenyls** | | | | | | | | |
| PCB-1016 | ND | 75 | 75 | ug/Kg | 2 | 12/02/22 | SC | SW8082A |
| PCB-1221 | ND | 75 | 75 | ug/Kg | 2 | 12/02/22 | SC | SW8082A |
| PCB-1232 | ND | 75 | 75 | ug/Kg | 2 | 12/02/22 | SC | SW8082A |
| PCB-1242 | ND | 75 | 75 | ug/Kg | 2 | 12/02/22 | SC | SW8082A |
| PCB-1248 | ND | 75 | 75 | ug/Kg | 2 | 12/02/22 | SC | SW8082A |
| PCB-1254 | ND | 75 | 75 | ug/Kg | 2 | 12/02/22 | SC | SW8082A |
| PCB-1260 | ND | 75 | 75 | ug/Kg | 2 | 12/02/22 | SC | SW8082A |
| PCB-1262 | ND | 75 | 75 | ug/Kg | 2 | 12/02/22 | SC | SW8082A |
| PCB-1268 | ND | 75 | 75 | ug/Kg | 2 | 12/02/22 | SC | SW8082A |
| **QA/QC Surrogates** | | | | | | | | |
| % DCBP | 73 | | | % | 2 | 12/02/22 | SC | 30 - 150 % |
| % DCBP (Confirmation) | 78 | | | % | 2 | 12/02/22 | SC | 30 - 150 % |
| % TCMX | 76 | | | % | 2 | 12/02/22 | SC | 30 - 150 % |
| % TCMX (Confirmation) | 75 | | | % | 2 | 12/02/22 | SC | 30 - 150 % |
| **Pesticides - Soil** | | | | | | | | |
| 4,4' -DDD | ND | 2.2 | 2.2 | ug/Kg | 2 | 12/02/22 | AW | SW8081B |
| 4,4' -DDE | ND | 2.2 | 2.2 | ug/Kg | 2 | 12/02/22 | AW | SW8081B |
| 4,4' -DDT | ND | 2.2 | 2.2 | ug/Kg | 2 | 12/02/22 | AW | SW8081B |
| a-BHC | ND | 7.5 | 7.5 | ug/Kg | 2 | 12/02/22 | AW | SW8081B |
| a-Chlordane | ND | 3.7 | 3.7 | ug/Kg | 2 | 12/02/22 | AW | SW8081B |
| Alachlor | ND | 3.7 | 3.7 | ug/Kg | 2 | 12/02/22 | AW | SW8081B |
| Aldrin | ND | 3.7 | 3.7 | ug/Kg | 2 | 12/02/22 | AW | SW8081B |
| b-BHC | ND | 7.5 | 7.5 | ug/Kg | 2 | 12/02/22 | AW | SW8081B |
| Chlordane | ND | 37 | 37 | ug/Kg | 2 | 12/02/22 | AW | SW8081B |
| d-BHC | ND | 7.5 | 7.5 | ug/Kg | 2 | 12/02/22 | AW | SW8081B |
| Dieldrin | ND | 3.7 | 3.7 | ug/Kg | 2 | 12/02/22 | AW | SW8081B |
| Endosulfan I | ND | 7.5 | 7.5 | ug/Kg | 2 | 12/02/22 | AW | SW8081B |
| Endosulfan II | ND | 7.5 | 7.5 | ug/Kg | 2 | 12/02/22 | AW | SW8081B |
| Endosulfan sulfate | ND | 7.5 | 7.5 | ug/Kg | 2 | 12/02/22 | AW | SW8081B |
| Endrin | ND | 7.5 | 7.5 | ug/Kg | 2 | 12/02/22 | AW | SW8081B |
| Endrin aldehyde | ND | 7.5 | 7.5 | ug/Kg | 2 | 12/02/22 | AW | SW8081B |
| Endrin ketone | ND | 7.5 | 7.5 | ug/Kg | 2 | 12/02/22 | AW | SW8081B |
| g-BHC | ND | 1.5 | 1.5 | ug/Kg | 2 | 12/02/22 | AW | SW8081B |
| g-Chlordane | ND | 3.7 | 3.7 | ug/Kg | 2 | 12/02/22 | AW | SW8081B |
| Heptachlor | ND | 7.5 | 7.5 | ug/Kg | 2 | 12/02/22 | AW | SW8081B |
| Heptachlor epoxide | ND | 7.5 | 7.5 | ug/Kg | 2 | 12/02/22 | AW | SW8081B |
| Methoxychlor | ND | 37 | 37 | ug/Kg | 2 | 12/02/22 | AW | SW8081B |

| Parameter | Result | RL/ PQL | LOD/ MDL | Units | Dilution | Date/Time | By | Reference | |
|---|---|---|---|---|---|---|---|---|---|
| Toxaphene | ND | 150 | 150 | ug/Kg | 2 | 12/02/22 | AW | SW8081B | |
| **QA/QC Surrogates** | | | | | | | | | |
| % DCBP | 65 | | | % | 2 | 12/02/22 | AW | 30 - 150 % | |
| % DCBP (Confirmation) | 114 | | | % | 2 | 12/02/22 | AW | 30 - 150 % | |
| % TCMX | 52 | | | % | 2 | 12/02/22 | AW | 30 - 150 % | |
| % TCMX (Confirmation) | 76 | | | % | 2 | 12/02/22 | AW | 30 - 150 % | |
| **Semivolatiles** | | | | | | | | | |
| 1,2,4,5-Tetrachlorobenzene | ND | 270 | 130 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 1,2,4-Trichlorobenzene | ND | 270 | 110 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 1,2-Dichlorobenzene | ND | 270 | 110 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 1,2-Diphenylhydrazine | ND | 270 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 1,3-Dichlorobenzene | ND | 270 | 110 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 1,4-Dichlorobenzene | ND | 270 | 110 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2,2'-Oxybis(1-Chloropropane) | ND | 270 | 110 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | 1 |
| 2,4,5-Trichlorophenol | ND | 270 | 210 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2,4,6-Trichlorophenol | ND | 190 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2,4-Dichlorophenol | ND | 190 | 130 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2,4-Dimethylphenol | ND | 270 | 94 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2,4-Dinitrophenol | ND | 270 | 270 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2,4-Dinitrotoluene | ND | 190 | 150 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2,6-Dinitrotoluene | ND | 190 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2-Chloronaphthalene | ND | 270 | 110 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2-Chlorophenol | ND | 270 | 110 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2-Methylnaphthalene | ND | 270 | 110 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2-Methylphenol (o-cresol) | ND | 270 | 180 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2-Nitroaniline | ND | 270 | 270 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2-Nitrophenol | ND | 270 | 240 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 3&4-Methylphenol (m&p-cresol) | ND | 270 | 150 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | 1 |
| 3,3'-Dichlorobenzidine | ND | 190 | 180 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 3-Nitroaniline | ND | 380 | 760 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 4,6-Dinitro-2-methylphenol | ND | 230 | 76 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 4-Bromophenyl phenyl ether | ND | 270 | 110 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 4-Chloro-3-methylphenol | ND | 270 | 130 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 4-Chloroaniline | ND | 300 | 180 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 4-Chlorophenyl phenyl ether | ND | 270 | 130 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 4-Nitroaniline | ND | 380 | 130 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 4-Nitrophenol | ND | 380 | 170 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Acenaphthene | ND | 270 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Acenaphthylene | ND | 270 | 110 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Acetophenone | ND | 270 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Aniline | ND | 300 | 300 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Anthracene | ND | 270 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Benz(a)anthracene | ND | 270 | 130 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Benzidine | ND | 380 | 220 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Benzo(a)pyrene | ND | 190 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Benzo(b)fluoranthene | ND | 270 | 130 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Benzo(ghi)perylene | ND | 270 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Benzo(k)fluoranthene | ND | 270 | 130 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Benzoic acid | ND | 1900 | 760 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |

Project ID: IPARK0118.62-LOT 10 BOUNDARY MODIFICAT. Phoenix I.D.: CM95253
Client ID: SB-10A2 (2-12``)

| Parameter | Result | RL/ PQL | LOD/ MDL | Units | Dilution | Date/Time | By | Reference | |
|---|---|---|---|---|---|---|---|---|---|
| Benzyl butyl phthalate | ND | 270 | 98 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Bis(2-chloroethoxy)methane | ND | 270 | 110 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Bis(2-chloroethyl)ether | ND | 190 | 100 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Bis(2-ethylhexyl)phthalate | ND | 270 | 110 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Carbazole | ND | 190 | 150 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Chrysene | ND | 270 | 130 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Dibenz(a,h)anthracene | ND | 190 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Dibenzofuran | ND | 270 | 110 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Diethyl phthalate | ND | 270 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Dimethylphthalate | ND | 270 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Di-n-butylphthalate | ND | 270 | 100 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Di-n-octylphthalate | ND | 270 | 98 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Fluoranthene | ND | 270 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Fluorene | ND | 270 | 130 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Hexachlorobenzene | ND | 190 | 110 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Hexachlorobutadiene | ND | 270 | 140 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Hexachlorocyclopentadiene | ND | 270 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Hexachloroethane | ND | 190 | 110 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Indeno(1,2,3-cd)pyrene | ND | 270 | 130 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Isophorone | ND | 190 | 110 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Naphthalene | ND | 270 | 110 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Nitrobenzene | ND | 190 | 130 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| N-Nitrosodimethylamine | ND | 270 | 110 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| N-Nitrosodi-n-propylamine | ND | 190 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| N-Nitrosodiphenylamine | ND | 270 | 150 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Pentachloronitrobenzene | ND | 270 | 140 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Pentachlorophenol | ND | 230 | 140 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Phenanthrene | ND | 270 | 110 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Phenol | ND | 270 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Pyrene | ND | 270 | 130 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Pyridine | ND | 270 | 94 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| **QA/QC Surrogates** | | | | | | | | | |
| % 2,4,6-Tribromophenol | 134 | | | % | 1 | 12/04/22 | WB | 30 - 130 % | 3 |
| % 2-Fluorobiphenyl | 78 | | | % | 1 | 12/04/22 | WB | 30 - 130 % | |
| % 2-Fluorophenol | 59 | | | % | 1 | 12/04/22 | WB | 30 - 130 % | |
| % Nitrobenzene-d5 | 71 | | | % | 1 | 12/04/22 | WB | 30 - 130 % | |
| % Phenol-d5 | 74 | | | % | 1 | 12/04/22 | WB | 30 - 130 % | |
| % Terphenyl-d14 | 64 | | | % | 1 | 12/04/22 | WB | 30 - 130 % | |
| **1,4-Dioxane** | | | | | | | | | |
| 1,4-dioxane | ND | 75 | 75 | ug/Kg | 1 | 12/04/22 | WB | SW8270D (SIM) | |
| **QA/QC Surrogates** | | | | | | | | | |
| % 2-Fluorobiphenyl | 40 | | | % | 1 | 12/04/22 | WB | 30 - 130 % | |
| % Nitrobenzene-d5 | 47 | | | % | 1 | 12/04/22 | WB | 30 - 130 % | |
| % Terphenyl-d14 | 70 | | | % | 1 | 12/04/22 | WB | 30 - 130 % | |

| Parameter | Result | RL/ PQL | LOD/ MDL | Units | Dilution | Date/Time | By | Reference |
|---|---|---|---|---|---|---|---|---|

1 = This parameter is not certified by the primary accrediting authority (NY NELAC) for this matrix. NY NELAC does not offer certification for all parameters at this time.
3 = This parameter exceeds laboratory specified limits.
C = This parameter is subcontracted.

RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected BRL=Below Reporting Level L=Biased Low J=Estimated Below RL LOD=Limit of Detection MDL=Method Detection Limit1
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

## Comments:

*See attached

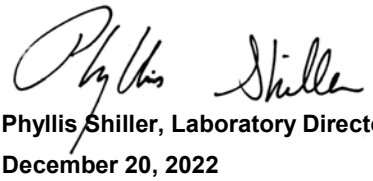
Per 1.4.6 of EPA method 8270D, 1,2-Diphenylhydrazine is unstable and readily converts to Azobenzene. Azobenzene is used for the calibration of 1,2-Diphenylhydrazine.

Semi-Volatile Comment:
One of the surrogate recoveries was above the upper range due to sample matrix interference. The other surrogates associated with this sample were within QA/QC criteria. No significant bias is suspected.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

PFAS (21) (EPA 537m), PFOA/PFOS - Soil Extraction (EPA 537m) were analyzed by NY certified lab #12058.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200.
The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.



**Phyllis Shiller, Laboratory Director**
**December 20, 2022**
**Reviewed and Released by: Phyllis Shiller, Laboratory Director**

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

# Analysis Report

December 20, 2022

FOR: Attn: Nora Brew
Walden Environmental Engineering PLLC
16 Spring Street
Oyster Bay, NY 11771

| Sample Information | | Custody Information | | Date | Time |
|---|---|---|---|---|---|
| Matrix: | SOIL | Collected by: | | 11/29/22 | 10:50 |
| Location Code: | WALDENE-IPARK | Received by: | CP | 12/01/22 | 17:12 |
| Rush Request: | Standard | Analyzed by: | see "By" below | | |
| P.O.#: | | | | | |

## Laboratory Data

SDG ID: GCM95248
Phoenix ID: CM95254

Project ID: IPARK0118.62-LOT 10 BOUNDARY MODIFICAT.
Client ID: SB-10B (1-2`)

| Parameter | Result | RL/ PQL | LOD/ MDL | Units | Dilution | Date/Time | By | Reference | |
|---|---|---|---|---|---|---|---|---|---|
| Field Extraction | Completed | | | | | 11/29/22 | | SW5035A | 1 |
| **Volatiles** | | | | | | | | | |
| 1,1,1,2-Tetrachloroethane | ND | 3.8 | 0.76 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| 1,1,1-Trichloroethane | ND | 3.8 | 0.38 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| 1,1,2,2-Tetrachloroethane | ND | 3.8 | 0.76 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| 1,1,2-Trichloroethane | ND | 3.8 | 0.76 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| 1,1-Dichloroethane | ND | 3.8 | 0.76 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| 1,1-Dichloroethene | ND | 3.8 | 0.38 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| 1,1-Dichloropropene | ND | 3.8 | 0.38 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| 1,2,3-Trichlorobenzene | ND | 3.8 | 0.76 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| 1,2,3-Trichloropropane | ND | 3.8 | 0.38 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| 1,2,4-Trichlorobenzene | ND | 3.8 | 0.76 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| 1,2,4-Trimethylbenzene | ND | 3.8 | 0.38 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| 1,2-Dibromo-3-chloropropane | ND | 3.8 | 0.76 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| 1,2-Dibromoethane | ND | 3.8 | 0.38 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| 1,2-Dichlorobenzene | ND | 3.8 | 0.38 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| 1,2-Dichloroethane | ND | 3.8 | 0.38 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| 1,2-Dichloropropane | ND | 3.8 | 0.76 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| 1,3,5-Trimethylbenzene | ND | 3.8 | 0.38 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| 1,3-Dichlorobenzene | ND | 3.8 | 0.38 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| 1,3-Dichloropropane | ND | 3.8 | 0.76 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| 1,4-Dichlorobenzene | ND | 3.8 | 0.38 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| 2,2-Dichloropropane | ND | 3.8 | 0.38 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| 2-Chlorotoluene | ND | 3.8 | 0.76 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| 2-Hexanone | ND | 19 | 3.8 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| 2-Isopropyltoluene | ND | 3.8 | 0.38 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | 1 |

Project ID: IPARK0118.62-LOT 10 BOUNDARY MODIFICAT. Phoenix I.D.: CM95254

Client ID: SB-10B (1-2`)

| Parameter | Result | | RL/ PQL | LOD/ MDL | Units | Dilution | Date/Time | By | Reference |
|---|---|---|---|---|---|---|---|---|---|
| 4-Chlorotoluene | ND | | 3.8 | 0.38 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C |
| 4-Methyl-2-pentanone | ND | | 19 | 3.8 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C |
| Acetone | ND | | 19 | 3.8 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C |
| Acrylonitrile | ND | | 7.6 | 0.76 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C |
| Benzene | ND | | 3.8 | 0.38 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C |
| Bromobenzene | ND | | 3.8 | 0.38 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C |
| Bromochloromethane | ND | | 3.8 | 0.38 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C |
| Bromodichloromethane | ND | | 3.8 | 0.76 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C |
| Bromoform | ND | | 3.8 | 0.76 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C |
| Bromomethane | ND | | 3.8 | 1.5 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C |
| Carbon Disulfide | ND | | 3.8 | 0.76 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C |
| Carbon tetrachloride | ND | | 3.8 | 0.76 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C |
| Chlorobenzene | ND | | 3.8 | 0.38 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C |
| Chloroethane | ND | | 3.8 | 0.38 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C |
| Chloroform | ND | | 3.8 | 0.38 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C |
| Chloromethane | ND | | 3.8 | 0.76 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C |
| cis-1,2-Dichloroethene | ND | | 3.8 | 0.38 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C |
| cis-1,3-Dichloropropene | ND | | 3.8 | 0.38 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C |
| Dibromochloromethane | ND | | 3.8 | 0.76 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C |
| Dibromomethane | ND | | 3.8 | 0.76 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C |
| Dichlorodifluoromethane | ND | | 3.8 | 0.38 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C |
| Ethylbenzene | ND | | 3.8 | 0.38 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C |
| Hexachlorobutadiene | ND | | 3.8 | 0.38 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C |
| Isopropylbenzene | ND | | 3.8 | 0.38 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C |
| m&p-Xylene | ND | | 3.8 | 0.76 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C |
| Methyl Ethyl Ketone | ND | | 23 | 3.8 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C |
| Methyl t-butyl ether (MTBE) | ND | | 7.6 | 0.76 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C |
| Methylene chloride | ND | | 3.8 | 3.8 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C |
| Naphthalene | ND | | 3.8 | 0.76 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C |
| n-Butylbenzene | ND | | 3.8 | 0.38 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C |
| n-Propylbenzene | ND | | 3.8 | 0.76 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C |
| o-Xylene | ND | | 3.8 | 0.76 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C |
| p-Isopropyltoluene | ND | | 3.8 | 0.38 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C |
| sec-Butylbenzene | ND | | 3.8 | 0.38 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C |
| Styrene | ND | | 3.8 | 0.38 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C |
| tert-Butylbenzene | ND | | 3.8 | 0.38 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C |
| Tetrachloroethene | ND | | 3.8 | 0.76 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C |
| Tetrahydrofuran (THF) | 4.9 | J | 7.6 | 1.9 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C |
| Toluene | ND | | 3.8 | 0.38 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C |
| trans-1,2-Dichloroethene | ND | | 3.8 | 0.38 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C |
| trans-1,3-Dichloropropene | ND | | 3.8 | 0.38 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C |
| trans-1,4-dichloro-2-butene | ND | | 7.6 | 1.9 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C |
| Trichloroethene | ND | | 3.8 | 0.38 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C |
| Trichlorofluoromethane | ND | | 3.8 | 0.76 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C |
| Trichlorotrifluoroethane | ND | | 3.8 | 0.38 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C |
| Vinyl chloride | ND | | 3.8 | 0.38 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C |
| **QA/QC Surrogates** | | | | | | | | | |
| % 1,2-dichlorobenzene-d4 | 93 | | | | % | 1 | 12/05/22 | JLI | 70 - 130 % |
| % Bromofluorobenzene | 93 | | | | % | 1 | 12/05/22 | JLI | 70 - 130 % |

Project ID: IPARK0118.62-LOT 10 BOUNDARY MODIFICAT. Phoenix I.D.: CM95254
Client ID: SB-10B (1-2`)

| Parameter | Result | RL/ PQL | LOD/ MDL | Units | Dilution | Date/Time | By | Reference |
|---|---|---|---|---|---|---|---|---|
| % Dibromofluoromethane | 99 | | | % | 1 | 12/05/22 | JLI | 70 - 130 % |
| % Toluene-d8 | 95 | | | % | 1 | 12/05/22 | JLI | 70 - 130 % |

1 = This parameter is not certified by the primary accrediting authority (NY NELAC) for this matrix. NY NELAC does not offer certification for all parameters at this time.

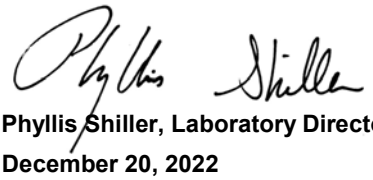
RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected BRL=Below Reporting Level L=Biased Low J=Estimated Below RL LOD=Limit of Detection MDL=Method Detection Limit1
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

## Comments:

Results are reported on an ``as received`` basis, and are not corrected for dry weight.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200.
The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.



**Phyllis Shiller, Laboratory Director**
**December 20, 2022**
**Reviewed and Released by: Phyllis Shiller, Laboratory Director**

PHOENIX
Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

# Analysis Report

December 20, 2022

FOR: Attn: Nora Brew
Walden Environmental Engineering PLLC
16 Spring Street
Oyster Bay, NY 11771

| Sample Information | | Custody Information | | Date | Time |
|---|---|---|---|---|---|
| Matrix: | SOIL | Collected by: | | 11/29/22 | 10:30 |
| Location Code: | WALDENE-IPARK | Received by: | CP | 12/01/22 | 17:12 |
| Rush Request: | Standard | Analyzed by: | see "By" below | | |
| P.O.#: | | | | | |

## Laboratory Data

SDG ID: GCM95248
Phoenix ID: CM95255

Project ID: IPARK0118.62-LOT 10 BOUNDARY MODIFICAT.
Client ID: SB-10C (9-11`)

| Parameter | Result | RL/ PQL | LOD/ MDL | Units | Dilution | Date/Time | By | Reference |
|---|---|---|---|---|---|---|---|---|
| Aluminum | 7670 | 35 | 7.0 | mg/Kg | 10 | 12/02/22 | TH | SW6010D |
| Antimony | ND | 3.5 | 3.5 | mg/Kg | 1 | 12/02/22 | TH | SW6010D |
| Arsenic | 3.91 | 0.70 | 0.70 | mg/Kg | 1 | 12/02/22 | TH | SW6010D |
| Barium | 107 | 0.7 | 0.35 | mg/Kg | 1 | 12/02/22 | TH | SW6010D |
| Beryllium | 0.50 | 0.28 | 0.14 | mg/Kg | 1 | 12/02/22 | TH | SW6010D |
| Calcium | 38500 | 35 | 32 | mg/Kg | 10 | 12/02/22 | TH | SW6010D |
| Cadmium | 1.15 | 0.35 | 0.35 | mg/Kg | 1 | 12/02/22 | TH | SW6010D |
| Chromium | 8.99 | 0.35 | 0.35 | mg/Kg | 1 | 12/02/22 | TH | SW6010D |
| Cobalt | 9.35 | 0.35 | 0.35 | mg/Kg | 1 | 12/02/22 | TH | SW6010D |
| Copper | 17.6 | 0.7 | 0.35 | mg/kg | 1 | 12/02/22 | TH | SW6010D |
| Iron | 19800 | 35 | 35 | mg/Kg | 10 | 12/02/22 | TH | SW6010D |
| Lead | 13.1 | 0.7 | 0.35 | mg/Kg | 1 | 12/02/22 | TH | SW6010D |
| Magnesium | 20900 | 35 | 35 | mg/Kg | 10 | 12/02/22 | TH | SW6010D |
| Manganese | 1350 | 3.5 | 3.5 | mg/Kg | 10 | 12/02/22 | TH | SW6010D |
| Mercury | ND | 0.03 | 0.02 | mg/Kg | 2 | 12/05/22 | PM | SW7471B |
| Nickel | 17.0 | 0.35 | 0.35 | mg/Kg | 1 | 12/02/22 | TH | SW6010D |
| Potassium | 1220 | 7 | 2.7 | mg/Kg | 1 | 12/02/22 | TH | SW6010D |
| Selenium | ND | 1.4 | 1.2 | mg/Kg | 1 | 12/02/22 | TH | SW6010D |
| Silver | ND | 0.35 | 0.35 | mg/Kg | 1 | 12/02/22 | TH | SW6010D |
| Sodium | 160 | 7 | 3.0 | mg/Kg | 1 | 12/02/22 | TH | SW6010D |
| Thallium | ND | 1.4 | 1.4 | mg/Kg | 1 | 12/02/22 | TH | SW6010D |
| Vanadium | 10.9 | 0.35 | 0.35 | mg/Kg | 1 | 12/02/22 | TH | SW6010D |
| Zinc | 42.5 | 0.7 | 0.35 | mg/Kg | 1 | 12/02/22 | TH | SW6010D |
| Percent Solid | 93 | | | % | | 12/01/22 | Q | SW846-%Solid |
| Extraction for SVOA SIM | Completed | | | | | 12/02/22 | O/Y | SW3545A |
| Soil Extraction for PCB | Completed | | | | | 12/01/22 | B/MO | SW3545A |
| Soil Extraction for Pesticide | Completed | | | | | 12/01/22 | B/MO | SW3545A |

**Ver 1**

Project ID: IPARK0118.62-LOT 10 BOUNDARY MODIFICAT. Phoenix I.D.: CM95255
Client ID: SB-10C (9-11`)

| Parameter | Result | RL/ PQL | LOD/ MDL | Units | Dilution | Date/Time | By | Reference | |
|---|---|---|---|---|---|---|---|---|---|
| Field Extraction | Completed | | | | | 11/29/22 | | SW5035A | 1 |
| Mercury Digestion | Completed | | | | | 12/02/22 | AB/AB | SW7471B | |
| Soil Extraction for Herbicide | Completed | | | | | 12/05/22 | J/D | SW3546 | |
| Soil Extraction for SVOA | Completed | | | | | 12/03/22 | E/Y | SW3546 | |
| Total Metals Digest | Completed | | | | | 12/01/22 | | SW3050B | |
| PFAS (21) | Completed | | | | | 12/08/22 | *** | EPA 537m | C |

## PFAS (21)

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **1H,1H,2H,2H-Perfluorodecanesulfonic acid** | 0.467 | 0.277 | 0.0284 | ng/g | 1 | 12/12/22 | *** | EPA 537m | C |
| **1H,1H,2H,2H-Perfluorooctanesulfonic acid** | 0.353 | 0.277 | 0.0732 | ng/g | 1 | 12/12/22 | *** | EPA 537m | C |
| NEtFOSAA | ND | 0.277 | 0.116 | ng/g | 1 | 12/12/22 | *** | EPA 537m | C |
| NMeFOSAA | ND | 0.277 | 0.116 | ng/g | 1 | 12/12/22 | *** | EPA 537m | C |
| **Perfluoro-1-decanesulfonic acid (PFDS)** | ND | 0.277 | 0.0568 | ng/g | 1 | 12/12/22 | *** | EPA 537m | C |
| **Perfluoro-1-heptanesulfonic acid (PFHpS)** | ND | 0.277 | 0.0547 | ng/g | 1 | 12/12/22 | *** | EPA 537m | C |
| **Perfluoro-1-octanesulfonamide (FOSA)** | ND | 0.277 | 0.0518 | ng/g | 1 | 12/12/22 | *** | EPA 537m | C |
| Perfluorobutanesulfonic acid (PFBS) | ND | 0.277 | 0.222 | ng/g | 1 | 12/12/22 | *** | EPA 537m | C |
| Perfluorodecanoic acid (PFDA) | ND | 0.277 | 0.0568 | ng/g | 1 | 12/12/22 | *** | EPA 537m | C |
| Perfluorododecanoic acid (PFDoA) | ND | 0.277 | 0.0832 | ng/g | 1 | 12/12/22 | *** | EPA 537m | C |
| Perfluoroheptanoic acid (PFHpA) | ND | 0.277 | 0.0505 | ng/g | 1 | 12/12/22 | *** | EPA 537m | C |
| **Perfluorohexanesulfonic Acid (PFHxS)** | ND | 0.277 | 0.0344 | ng/g | 1 | 12/12/22 | *** | EPA 537m | C |
| Perfluorohexanoic acid (PFHxA) | ND | 0.277 | 0.0731 | ng/g | 1 | 12/12/22 | *** | EPA 537m | C |
| Perfluoro-n-butanoic acid (PFBA) | ND | 0.277 | 0.203 | ng/g | 1 | 12/12/22 | *** | EPA 537m | C |
| Perfluorononanoic acid (PFNA) | ND | 0.277 | 0.0663 | ng/g | 1 | 12/12/22 | *** | EPA 537m | C |
| Perfluorooctanesulfonic Acid (PFOS) | ND | 0.277 | 0.0486 | ng/g | 1 | 12/12/22 | *** | EPA 537m | C |
| Perfluorooctanoic acid (PFOA) | ND | 0.277 | 0.0856 | ng/g | 1 | 12/12/22 | *** | EPA 537m | C |
| Perfluoropentanoic acid (PFPeA) | ND | 0.277 | 0.102 | ng/g | 1 | 12/12/22 | *** | EPA 537m | C |
| Perfluorotetradecanoic acid (PFTA) | ND | 0.277 | 0.0828 | ng/g | 1 | 12/12/22 | *** | EPA 537m | C |
| Perfluorotridecanoic acid (PFTrDA) | ND | 0.277 | 0.0482 | ng/g | 1 | 12/12/22 | *** | EPA 537m | C |
| Perfluoroundecanoic acid (PFUnA) | ND | 0.277 | 0.129 | ng/g | 1 | 12/12/22 | *** | EPA 537m | C |
| **QA/QC Surrogates** | | | | | | | | | |
| % d3-N-MeFOSAA | 61.6 | | | % | 1 | 12/12/22 | *** | 25 - 150 % | C |
| % d5-NEtFOSA | 60.7 | | | % | 1 | 12/12/22 | *** | 25 - 150 % | C |
| % M2-6:2FTS | 93.3 | | | % | 1 | 12/12/22 | *** | 25 - 200 % | C |
| % M2-8:2FTS | 98.8 | | | % | 1 | 12/12/22 | *** | 25 - 200 % | C |
| % M2PFTeDA | 38.0 | | | % | 1 | 12/12/22 | *** | 10 - 150 % | C |
| % M3PFBS | 87.4 | | | % | 1 | 12/12/22 | *** | 25 - 150 % | C |
| % M3PFHxS | 86.0 | | | % | 1 | 12/12/22 | *** | 25 - 150 % | C |
| % M4PFHpA | 97.0 | | | % | 1 | 12/12/22 | *** | 25 - 150 % | C |
| % M5PFHxA | 99.3 | | | % | 1 | 12/12/22 | *** | 25 - 150 % | C |
| % M5PFPeA | 107 | | | % | 1 | 12/12/22 | *** | 25 - 150 % | C |
| % M6PFDA | 75.5 | | | % | 1 | 12/12/22 | *** | 25 - 150 % | C |
| % M7PFUdA | 55.6 | | | % | 1 | 12/12/22 | *** | 25 - 150 % | C |
| % M8FOSA | 56.2 | | | % | 1 | 12/12/22 | *** | 10 - 150 % | C |
| % M8PFOA | 105 | | | % | 1 | 12/12/22 | *** | 25 - 150 % | C |
| % M8PFOS | 72.8 | | | % | 1 | 12/12/22 | *** | 25 - 150 % | C |
| % M9PFNA | 86.7 | | | % | 1 | 12/12/22 | *** | 25 - 150 % | C |
| % MPFBA | 93.8 | | | % | 1 | 12/12/22 | *** | 25 - 150 % | C |
| % MPFDoA | 56.0 | | | % | 1 | 12/12/22 | *** | 25 - 150 % | C |

Project ID: IPARK0118.62-LOT 10 BOUNDARY MODIFICAT. Phoenix I.D.: CM95255
Client ID: SB-10C (9-11`)

| Parameter | Result | RL/ PQL | LOD/ MDL | Units | Dilution | Date/Time | By | Reference |
|---|---|---|---|---|---|---|---|---|
| **Chlorinated Herbicides** | | | | | | | | |
| 2,4,5-T | ND | 130 | 130 | ug/Kg | 10 | 12/06/22 | JRB | SW8151A |
| 2,4,5-TP (Silvex) | ND | 130 | 130 | ug/Kg | 10 | 12/06/22 | JRB | SW8151A |
| 2,4-D | ND | 270 | 270 | ug/Kg | 10 | 12/06/22 | JRB | SW8151A |
| 2,4-DB | ND | 2700 | 2700 | ug/Kg | 10 | 12/06/22 | JRB | SW8151A |
| Dalapon | ND | 130 | 130 | ug/Kg | 10 | 12/06/22 | JRB | SW8151A |
| Dicamba | ND | 130 | 130 | ug/Kg | 10 | 12/06/22 | JRB | SW8151A |
| Dichloroprop | ND | 270 | 270 | ug/Kg | 10 | 12/06/22 | JRB | SW8151A |
| Dinoseb | ND | 270 | 270 | ug/Kg | 10 | 12/06/22 | JRB | SW8151A |
| **QA/QC Surrogates** | | | | | | | | |
| % DCAA | 81 | | | % | 10 | 12/06/22 | JRB | 30 - 150 % |
| % DCAA (Confirmation) | 84 | | | % | 10 | 12/06/22 | JRB | 30 - 150 % |
| **Polychlorinated Biphenyls** | | | | | | | | |
| PCB-1016 | ND | 69 | 69 | ug/Kg | 2 | 12/02/22 | SC | SW8082A |
| PCB-1221 | ND | 69 | 69 | ug/Kg | 2 | 12/02/22 | SC | SW8082A |
| PCB-1232 | ND | 69 | 69 | ug/Kg | 2 | 12/02/22 | SC | SW8082A |
| PCB-1242 | ND | 69 | 69 | ug/Kg | 2 | 12/02/22 | SC | SW8082A |
| PCB-1248 | ND | 69 | 69 | ug/Kg | 2 | 12/02/22 | SC | SW8082A |
| PCB-1254 | ND | 69 | 69 | ug/Kg | 2 | 12/02/22 | SC | SW8082A |
| PCB-1260 | ND | 69 | 69 | ug/Kg | 2 | 12/02/22 | SC | SW8082A |
| PCB-1262 | ND | 69 | 69 | ug/Kg | 2 | 12/02/22 | SC | SW8082A |
| PCB-1268 | ND | 69 | 69 | ug/Kg | 2 | 12/02/22 | SC | SW8082A |
| **QA/QC Surrogates** | | | | | | | | |
| % DCBP | 79 | | | % | 2 | 12/02/22 | SC | 30 - 150 % |
| % DCBP (Confirmation) | 85 | | | % | 2 | 12/02/22 | SC | 30 - 150 % |
| % TCMX | 79 | | | % | 2 | 12/02/22 | SC | 30 - 150 % |
| % TCMX (Confirmation) | 79 | | | % | 2 | 12/02/22 | SC | 30 - 150 % |
| **Pesticides - Soil** | | | | | | | | |
| 4,4' -DDD | ND | 2.1 | 2.1 | ug/Kg | 2 | 12/03/22 | AW | SW8081B |
| 4,4' -DDE | ND | 2.1 | 2.1 | ug/Kg | 2 | 12/03/22 | AW | SW8081B |
| 4,4' -DDT | ND | 2.1 | 2.1 | ug/Kg | 2 | 12/03/22 | AW | SW8081B |
| a-BHC | ND | 6.9 | 6.9 | ug/Kg | 2 | 12/03/22 | AW | SW8081B |
| a-Chlordane | ND | 3.5 | 3.5 | ug/Kg | 2 | 12/03/22 | AW | SW8081B |
| Alachlor | ND | 3.5 | 3.5 | ug/Kg | 2 | 12/03/22 | AW | SW8081B |
| Aldrin | ND | 3.5 | 3.5 | ug/Kg | 2 | 12/03/22 | AW | SW8081B |
| b-BHC | ND | 6.9 | 6.9 | ug/Kg | 2 | 12/03/22 | AW | SW8081B |
| Chlordane | ND | 35 | 35 | ug/Kg | 2 | 12/03/22 | AW | SW8081B |
| d-BHC | ND | 6.9 | 6.9 | ug/Kg | 2 | 12/03/22 | AW | SW8081B |
| Dieldrin | ND | 3.5 | 3.5 | ug/Kg | 2 | 12/03/22 | AW | SW8081B |
| Endosulfan I | ND | 6.9 | 6.9 | ug/Kg | 2 | 12/03/22 | AW | SW8081B |
| Endosulfan II | ND | 6.9 | 6.9 | ug/Kg | 2 | 12/03/22 | AW | SW8081B |
| Endosulfan sulfate | ND | 6.9 | 6.9 | ug/Kg | 2 | 12/03/22 | AW | SW8081B |
| Endrin | ND | 6.9 | 6.9 | ug/Kg | 2 | 12/03/22 | AW | SW8081B |
| Endrin aldehyde | ND | 6.9 | 6.9 | ug/Kg | 2 | 12/03/22 | AW | SW8081B |
| Endrin ketone | ND | 6.9 | 6.9 | ug/Kg | 2 | 12/03/22 | AW | SW8081B |
| g-BHC | ND | 1.4 | 1.4 | ug/Kg | 2 | 12/03/22 | AW | SW8081B |
| g-Chlordane | ND | 3.5 | 3.5 | ug/Kg | 2 | 12/03/22 | AW | SW8081B |

| Parameter | Result | RL/ PQL | LOD/ MDL | Units | Dilution | Date/Time | By | Reference | |
|---|---|---|---|---|---|---|---|---|---|
| Heptachlor | ND | 6.9 | 6.9 | ug/Kg | 2 | 12/03/22 | AW | SW8081B | |
| Heptachlor epoxide | ND | 6.9 | 6.9 | ug/Kg | 2 | 12/03/22 | AW | SW8081B | |
| Methoxychlor | ND | 35 | 35 | ug/Kg | 2 | 12/03/22 | AW | SW8081B | |
| Toxaphene | ND | 140 | 140 | ug/Kg | 2 | 12/03/22 | AW | SW8081B | |
| **QA/QC Surrogates** | | | | | | | | | |
| % DCBP | 85 | | | % | 2 | 12/03/22 | AW | 30 - 150 % | |
| % DCBP (Confirmation) | 63 | | | % | 2 | 12/03/22 | AW | 30 - 150 % | |
| % TCMX | 73 | | | % | 2 | 12/03/22 | AW | 30 - 150 % | |
| % TCMX (Confirmation) | 80 | | | % | 2 | 12/03/22 | AW | 30 - 150 % | |
| **Volatiles** | | | | | | | | | |
| 1,1,1,2-Tetrachloroethane | ND | 4.0 | 0.80 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| 1,1,1-Trichloroethane | ND | 4.0 | 0.40 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| 1,1,2,2-Tetrachloroethane | ND | 4.0 | 0.80 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| 1,1,2-Trichloroethane | ND | 4.0 | 0.80 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| 1,1-Dichloroethane | ND | 4.0 | 0.80 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| 1,1-Dichloroethene | ND | 4.0 | 0.40 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| 1,1-Dichloropropene | ND | 4.0 | 0.40 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| 1,2,3-Trichlorobenzene | ND | 4.0 | 0.80 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| 1,2,3-Trichloropropane | ND | 4.0 | 0.40 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| 1,2,4-Trichlorobenzene | ND | 4.0 | 0.80 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| 1,2,4-Trimethylbenzene | ND | 4.0 | 0.40 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| 1,2-Dibromo-3-chloropropane | ND | 4.0 | 0.80 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| 1,2-Dibromoethane | ND | 4.0 | 0.40 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| 1,2-Dichlorobenzene | ND | 4.0 | 0.40 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| 1,2-Dichloroethane | ND | 4.0 | 0.40 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| 1,2-Dichloropropane | ND | 4.0 | 0.80 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| 1,3,5-Trimethylbenzene | ND | 4.0 | 0.40 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| 1,3-Dichlorobenzene | ND | 4.0 | 0.40 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| 1,3-Dichloropropane | ND | 4.0 | 0.80 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| 1,4-Dichlorobenzene | ND | 4.0 | 0.40 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| 2,2-Dichloropropane | ND | 4.0 | 0.40 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| 2-Chlorotoluene | ND | 4.0 | 0.80 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| 2-Hexanone | ND | 20 | 4.0 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| 2-Isopropyltoluene | ND | 4.0 | 0.40 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | 1 |
| 4-Chlorotoluene | ND | 4.0 | 0.40 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| 4-Methyl-2-pentanone | ND | 20 | 4.0 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| Acetone | ND | 20 | 4.0 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| Acrylonitrile | ND | 8.0 | 0.80 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| Benzene | ND | 4.0 | 0.40 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| Bromobenzene | ND | 4.0 | 0.40 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| Bromochloromethane | ND | 4.0 | 0.40 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| Bromodichloromethane | ND | 4.0 | 0.80 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| Bromoform | ND | 4.0 | 0.80 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| Bromomethane | ND | 4.0 | 1.6 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| Carbon Disulfide | ND | 4.0 | 0.80 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| Carbon tetrachloride | ND | 4.0 | 0.80 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| Chlorobenzene | ND | 4.0 | 0.40 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| Chloroethane | ND | 4.0 | 0.40 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| Chloroform | ND | 4.0 | 0.40 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |

Project ID: IPARK0118.62-LOT 10 BOUNDARY MODIFICAT. Phoenix I.D.: CM95255
Client ID: SB-10C (9-11`)

| Parameter | Result | | RL/ PQL | LOD/ MDL | Units | Dilution | Date/Time | By | Reference | |
|---|---|---|---|---|---|---|---|---|---|---|
| Chloromethane | ND | | 4.0 | 0.80 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| cis-1,2-Dichloroethene | ND | | 4.0 | 0.40 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| cis-1,3-Dichloropropene | ND | | 4.0 | 0.40 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| Dibromochloromethane | ND | | 4.0 | 0.80 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| Dibromomethane | ND | | 4.0 | 0.80 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| Dichlorodifluoromethane | ND | | 4.0 | 0.40 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| Ethylbenzene | ND | | 4.0 | 0.40 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| Hexachlorobutadiene | ND | | 4.0 | 0.40 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| Isopropylbenzene | ND | | 4.0 | 0.40 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| m&p-Xylene | ND | | 4.0 | 0.80 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| Methyl Ethyl Ketone | ND | | 24 | 4.0 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| Methyl t-butyl ether (MTBE) | ND | | 8.0 | 0.80 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| Methylene chloride | ND | | 4.0 | 4.0 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| Naphthalene | ND | | 4.0 | 0.80 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| n-Butylbenzene | ND | | 4.0 | 0.40 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| n-Propylbenzene | ND | | 4.0 | 0.80 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| o-Xylene | ND | | 4.0 | 0.80 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| p-Isopropyltoluene | ND | | 4.0 | 0.40 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| sec-Butylbenzene | ND | | 4.0 | 0.40 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| Styrene | ND | | 4.0 | 0.40 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| tert-Butylbenzene | ND | | 4.0 | 0.40 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| Tetrachloroethene | ND | | 4.0 | 0.80 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| Tetrahydrofuran (THF) | 7.3 | J | 8.0 | 2.0 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| Toluene | ND | | 4.0 | 0.40 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| trans-1,2-Dichloroethene | ND | | 4.0 | 0.40 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| trans-1,3-Dichloropropene | ND | | 4.0 | 0.40 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| trans-1,4-dichloro-2-butene | ND | | 8.0 | 2.0 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| Trichloroethene | ND | | 4.0 | 0.40 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| Trichlorofluoromethane | ND | | 4.0 | 0.80 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| Trichlorotrifluoroethane | ND | | 4.0 | 0.40 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| Vinyl chloride | ND | | 4.0 | 0.40 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| **QA/QC Surrogates** | | | | | | | | | | |
| % 1,2-dichlorobenzene-d4 | 94 | | | | % | 1 | 12/05/22 | JLI | 70 - 130 % | |
| % Bromofluorobenzene | 95 | | | | % | 1 | 12/05/22 | JLI | 70 - 130 % | |
| % Dibromofluoromethane | 103 | | | | % | 1 | 12/05/22 | JLI | 70 - 130 % | |
| % Toluene-d8 | 94 | | | | % | 1 | 12/05/22 | JLI | 70 - 130 % | |
| **Semivolatiles** | | | | | | | | | | |
| 1,2,4,5-Tetrachlorobenzene | ND | | 250 | 130 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 1,2,4-Trichlorobenzene | ND | | 250 | 110 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 1,2-Dichlorobenzene | ND | | 250 | 100 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 1,2-Diphenylhydrazine | ND | | 250 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 1,3-Dichlorobenzene | ND | | 250 | 110 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 1,4-Dichlorobenzene | ND | | 250 | 110 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2,2'-Oxybis(1-Chloropropane) | ND | | 250 | 100 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | 1 |
| 2,4,5-Trichlorophenol | ND | | 250 | 200 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2,4,6-Trichlorophenol | ND | | 180 | 110 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2,4-Dichlorophenol | ND | | 180 | 130 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2,4-Dimethylphenol | ND | | 250 | 89 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2,4-Dinitrophenol | ND | | 250 | 250 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |

Project ID: IPARK0118.62-LOT 10 BOUNDARY MODIFICAT. Phoenix I.D.: CM95255

Client ID: SB-10C (9-11`)

| Parameter | Result | RL/ PQL | LOD/ MDL | Units | Dilution | Date/Time | By | Reference | |
|---|---|---|---|---|---|---|---|---|---|
| 2,4-Dinitrotoluene | ND | 180 | 140 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2,6-Dinitrotoluene | ND | 180 | 110 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2-Chloronaphthalene | ND | 250 | 100 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2-Chlorophenol | ND | 250 | 100 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2-Methylnaphthalene | ND | 250 | 110 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2-Methylphenol (o-cresol) | ND | 250 | 170 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2-Nitroaniline | ND | 250 | 250 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2-Nitrophenol | ND | 250 | 230 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 3&4-Methylphenol (m&p-cresol) | ND | 250 | 140 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | 1 |
| 3,3'-Dichlorobenzidine | ND | 180 | 170 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 3-Nitroaniline | ND | 360 | 720 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 4,6-Dinitro-2-methylphenol | ND | 220 | 72 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 4-Bromophenyl phenyl ether | ND | 250 | 110 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 4-Chloro-3-methylphenol | ND | 250 | 130 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 4-Chloroaniline | ND | 290 | 170 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 4-Chlorophenyl phenyl ether | ND | 250 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 4-Nitroaniline | ND | 360 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 4-Nitrophenol | ND | 360 | 160 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Acenaphthene | ND | 250 | 110 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Acenaphthylene | ND | 250 | 100 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Acetophenone | ND | 250 | 110 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Aniline | ND | 290 | 290 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Anthracene | ND | 250 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Benz(a)anthracene | ND | 250 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Benzidine | ND | 360 | 210 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Benzo(a)pyrene | ND | 180 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Benzo(b)fluoranthene | ND | 250 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Benzo(ghi)perylene | ND | 250 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Benzo(k)fluoranthene | ND | 250 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Benzoic acid | ND | 1800 | 720 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Benzyl butyl phthalate | ND | 250 | 92 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Bis(2-chloroethoxy)methane | ND | 250 | 99 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Bis(2-chloroethyl)ether | ND | 180 | 97 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Bis(2-ethylhexyl)phthalate | ND | 250 | 100 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Carbazole | ND | 180 | 140 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Chrysene | ND | 250 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Dibenz(a,h)anthracene | ND | 180 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Dibenzofuran | ND | 250 | 100 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Diethyl phthalate | ND | 250 | 110 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Dimethylphthalate | ND | 250 | 110 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Di-n-butylphthalate | ND | 250 | 95 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Di-n-octylphthalate | ND | 250 | 92 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Fluoranthene | ND | 250 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Fluorene | ND | 250 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Hexachlorobenzene | ND | 180 | 100 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Hexachlorobutadiene | ND | 250 | 130 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Hexachlorocyclopentadiene | ND | 250 | 110 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Hexachloroethane | ND | 180 | 110 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Indeno(1,2,3-cd)pyrene | ND | 250 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |

Project ID: IPARK0118.62-LOT 10 BOUNDARY MODIFICAT. Phoenix I.D.: CM95255
Client ID: SB-10C (9-11`)

| Parameter | Result | RL/ PQL | LOD/ MDL | Units | Dilution | Date/Time | By | Reference |
|---|---|---|---|---|---|---|---|---|
| Isophorone | ND | 180 | 100 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Naphthalene | ND | 250 | 100 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Nitrobenzene | ND | 180 | 130 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| N-Nitrosodimethylamine | ND | 250 | 100 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| N-Nitrosodi-n-propylamine | ND | 180 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| N-Nitrosodiphenylamine | ND | 250 | 140 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Pentachloronitrobenzene | ND | 250 | 130 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Pentachlorophenol | ND | 220 | 140 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Phenanthrene | ND | 250 | 100 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Phenol | ND | 250 | 110 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Pyrene | ND | 250 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Pyridine | ND | 250 | 88 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| **QA/QC Surrogates** | | | | | | | | |
| % 2,4,6-Tribromophenol | 106 | | | % | 1 | 12/04/22 | WB | 30 - 130 % |
| % 2-Fluorobiphenyl | 68 | | | % | 1 | 12/04/22 | WB | 30 - 130 % |
| % 2-Fluorophenol | 56 | | | % | 1 | 12/04/22 | WB | 30 - 130 % |
| % Nitrobenzene-d5 | 62 | | | % | 1 | 12/04/22 | WB | 30 - 130 % |
| % Phenol-d5 | 67 | | | % | 1 | 12/04/22 | WB | 30 - 130 % |
| % Terphenyl-d14 | 53 | | | % | 1 | 12/04/22 | WB | 30 - 130 % |
| **1,4-Dioxane** | | | | | | | | |
| 1,4-dioxane | ND | 71 | 71 | ug/Kg | 1 | 12/04/22 | WB | SW8270D (SIM) |
| **QA/QC Surrogates** | | | | | | | | |
| % 2-Fluorobiphenyl | 34 | | | % | 1 | 12/04/22 | WB | 30 - 130 % |
| % Nitrobenzene-d5 | 41 | | | % | 1 | 12/04/22 | WB | 30 - 130 % |
| % Terphenyl-d14 | 66 | | | % | 1 | 12/04/22 | WB | 30 - 130 % |

| Parameter | Result | RL/ PQL | LOD/ MDL | Units | Dilution | Date/Time | By | Reference |
|---|---|---|---|---|---|---|---|---|

1 = This parameter is not certified by the primary accrediting authority (NY NELAC) for this matrix. NY NELAC does not offer certification for all parameters at this time.
C = This parameter is subcontracted.

RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected BRL=Below Reporting Level L=Biased Low J=Estimated Below RL LOD=Limit of Detection MDL=Method Detection Limit1
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

## Comments:

*See attached

Per 1.4.6 of EPA method 8270D, 1,2-Diphenylhydrazine is unstable and readily converts to Azobenzene. Azobenzene is used for the calibration of 1,2-Diphenylhydrazine.

Semi-Volatile Comment:
One of the surrogate recoveries was above the upper range due to sample matrix interference. The other surrogates associated with this sample were within QA/QC criteria. No significant bias is suspected.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

PFAS (21) (EPA 537m), PFOA/PFOS - Soil Extraction (EPA 537m) were analyzed by NY certified lab #12058.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200.
The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.

**Phyllis Shiller, Laboratory Director**
**December 20, 2022**
**Reviewed and Released by: Phyllis Shiller, Laboratory Director**

PHOENIX
Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

# Analysis Report

December 20, 2022

FOR: Attn: Nora Brew
Walden Environmental Engineering PLLC
16 Spring Street
Oyster Bay, NY 11771

| Sample Information | | Custody Information | | Date | Time |
|---|---|---|---|---|---|
| Matrix: | SOIL | Collected by: | | 11/29/22 | 12:00 |
| Location Code: | WALDENE-IPARK | Received by: | CP | 12/01/22 | 17:12 |
| Rush Request: | Standard | Analyzed by: | see "By" below | | |
| P.O.#: | | | | | |

## Laboratory Data

SDG ID: GCM95248
Phoenix ID: CM95256

Project ID: IPARK0118.62-LOT 10 BOUNDARY MODIFICAT.
Client ID: SB-9A (0-1`)

| Parameter | Result | RL/ PQL | LOD/ MDL | Units | Dilution | Date/Time | By | Reference |
|---|---|---|---|---|---|---|---|---|
| Aluminum | 12800 | 34 | 6.8 | mg/Kg | 10 | 12/02/22 | TH | SW6010D |
| Antimony | ND | 3.4 | 3.4 | mg/Kg | 1 | 12/02/22 | TH | SW6010D |
| Arsenic | 5.07 | 0.68 | 0.68 | mg/Kg | 1 | 12/02/22 | TH | SW6010D |
| Barium | 43.9 | 0.7 | 0.34 | mg/Kg | 1 | 12/02/22 | TH | SW6010D |
| Beryllium | 0.36 | 0.27 | 0.14 | mg/Kg | 1 | 12/02/22 | TH | SW6010D |
| Calcium | 16100 | 34 | 31 | mg/Kg | 10 | 12/02/22 | TH | SW6010D |
| Cadmium | 1.74 | 0.34 | 0.34 | mg/Kg | 1 | 12/02/22 | TH | SW6010D |
| Chromium | 14.1 | 0.34 | 0.34 | mg/Kg | 1 | 12/02/22 | TH | SW6010D |
| Cobalt | 11.4 | 0.34 | 0.34 | mg/Kg | 1 | 12/02/22 | TH | SW6010D |
| Copper | 32.5 | 0.7 | 0.34 | mg/kg | 1 | 12/02/22 | TH | SW6010D |
| Iron | 31000 | 34 | 34 | mg/Kg | 10 | 12/02/22 | TH | SW6010D |
| Lead | 14.6 | 0.7 | 0.34 | mg/Kg | 1 | 12/02/22 | TH | SW6010D |
| Magnesium | 10500 | 34 | 34 | mg/Kg | 10 | 12/02/22 | TH | SW6010D |
| Manganese | 1280 | 3.4 | 3.4 | mg/Kg | 10 | 12/02/22 | TH | SW6010D |
| Mercury | ND | 0.03 | 0.02 | mg/Kg | 2 | 12/05/22 | PM | SW7471B |
| Nickel | 24.9 | 0.34 | 0.34 | mg/Kg | 1 | 12/02/22 | TH | SW6010D |
| Potassium | 1060 | 7 | 2.6 | mg/Kg | 1 | 12/02/22 | TH | SW6010D |
| Selenium | ND | 1.4 | 1.1 | mg/Kg | 1 | 12/02/22 | TH | SW6010D |
| Silver | ND | 0.34 | 0.34 | mg/Kg | 1 | 12/02/22 | TH | SW6010D |
| Sodium | 51 | 7 | 2.9 | mg/Kg | 1 | 12/02/22 | TH | SW6010D |
| Thallium | ND | 1.4 | 1.4 | mg/Kg | 1 | 12/02/22 | TH | SW6010D |
| Vanadium | 14.9 | 0.34 | 0.34 | mg/Kg | 1 | 12/02/22 | TH | SW6010D |
| Zinc | 72.9 | 0.7 | 0.34 | mg/Kg | 1 | 12/02/22 | TH | SW6010D |
| Percent Solid | 88 | | | % | | 12/01/22 | Q | SW846-%Solid |
| Extraction for SVOA SIM | Completed | | | | | 12/02/22 | O/Y | SW3545A |
| Soil Extraction for PCB | Completed | | | | | 12/01/22 | B/MO | SW3545A |
| Soil Extraction for Pesticide | Completed | | | | | 12/01/22 | B/MO | SW3545A |

**Ver 1**

Project ID: IPARK0118.62-LOT 10 BOUNDARY MODIFICAT. Phoenix I.D.: CM95256
Client ID: SB-9A (0-1`)

| Parameter | Result | RL/ PQL | LOD/ MDL | Units | Dilution | Date/Time | By | Reference | |
|---|---|---|---|---|---|---|---|---|---|
| Mercury Digestion | Completed | | | | | 12/02/22 | AB/AB | SW7471B | |
| Soil Extraction for Herbicide | Completed | | | | | 12/05/22 | J/D | SW3546 | |
| Soil Extraction for SVOA | Completed | | | | | 12/03/22 | E/Y | SW3546 | |
| Total Metals Digest | Completed | | | | | 12/01/22 | | SW3050B | |
| PFAS (21) | Completed | | | | | 12/08/22 | *** | EPA 537m | C |
| **PFAS (21)** | | | | | | | | | |
| **1H,1H,2H,2H-Perfluorodecanesulfonic acid** | ND | 0.256 | 0.0262 | ng/g | 1 | 12/12/22 | *** | EPA 537m | C |
| **1H,1H,2H,2H-Perfluorooctanesulfonic acid** | ND | 0.256 | 0.0675 | ng/g | 1 | 12/12/22 | *** | EPA 537m | C |
| NEtFOSAA | ND | 0.256 | 0.107 | ng/g | 1 | 12/12/22 | *** | EPA 537m | C |
| NMeFOSAA | ND | 0.256 | 0.107 | ng/g | 1 | 12/12/22 | *** | EPA 537m | C |
| **Perfluoro-1-decanesulfonic acid (PFDS)** | ND | 0.256 | 0.0523 | ng/g | 1 | 12/12/22 | *** | EPA 537m | C |
| **Perfluoro-1-heptanesulfonic acid (PFHpS)** | ND | 0.256 | 0.0504 | ng/g | 1 | 12/12/22 | *** | EPA 537m | C |
| **Perfluoro-1-octanesulfonamide (FOSA)** | ND | 0.256 | 0.0477 | ng/g | 1 | 12/12/22 | *** | EPA 537m | C |
| Perfluorobutanesulfonic acid (PFBS) | ND | 0.256 | 0.204 | ng/g | 1 | 12/12/22 | *** | EPA 537m | C |
| Perfluorodecanoic acid (PFDA) | ND | 0.256 | 0.0523 | ng/g | 1 | 12/12/22 | *** | EPA 537m | C |
| Perfluorododecanoic acid (PFDoA) | ND | 0.256 | 0.0767 | ng/g | 1 | 12/12/22 | *** | EPA 537m | C |
| Perfluoroheptanoic acid (PFHpA) | ND | 0.256 | 0.0465 | ng/g | 1 | 12/12/22 | *** | EPA 537m | C |
| **Perfluorohexanesulfonic Acid (PFHxS)** | ND | 0.256 | 0.0317 | ng/g | 1 | 12/12/22 | *** | EPA 537m | C |
| Perfluorohexanoic acid (PFHxA) | ND | 0.256 | 0.0674 | ng/g | 1 | 12/12/22 | *** | EPA 537m | C |
| Perfluoro-n-butanoic acid (PFBA) | ND | 0.256 | 0.187 | ng/g | 1 | 12/12/22 | *** | EPA 537m | C |
| Perfluorononanoic acid (PFNA) | ND | 0.256 | 0.0611 | ng/g | 1 | 12/12/22 | *** | EPA 537m | C |
| Perfluorooctanesulfonic Acid (PFOS) | ND | 0.256 | 0.0448 | ng/g | 1 | 12/12/22 | *** | EPA 537m | C |
| Perfluorooctanoic acid (PFOA) | ND | 0.256 | 0.0789 | ng/g | 1 | 12/12/22 | *** | EPA 537m | C |
| Perfluoropentanoic acid (PFPeA) | ND | 0.256 | 0.0939 | ng/g | 1 | 12/12/22 | *** | EPA 537m | C |
| Perfluorotetradecanoic acid (PFTA) | ND | 0.256 | 0.0763 | ng/g | 1 | 12/12/22 | *** | EPA 537m | C |
| Perfluorotridecanoic acid (PFTrDA) | ND | 0.256 | 0.0445 | ng/g | 1 | 12/12/22 | *** | EPA 537m | C |
| Perfluoroundecanoic acid (PFUnA) | ND | 0.256 | 0.119 | ng/g | 1 | 12/12/22 | *** | EPA 537m | C |
| **QA/QC Surrogates** | | | | | | | | | |
| % d3-N-MeFOSAA | 71.9 | | | % | 1 | 12/12/22 | *** | 25 - 150 % | C |
| % d5-NEtFOSA | 74.2 | | | % | 1 | 12/12/22 | *** | 25 - 150 % | C |
| % M2-6:2FTS | 168 | | | % | 1 | 12/12/22 | *** | 25 - 200 % | C |
| % M2-8:2FTS | 160 | | | % | 1 | 12/12/22 | *** | 25 - 200 % | C |
| % M2PFTeDA | 47.0 | | | % | 1 | 12/12/22 | *** | 10 - 150 % | C |
| % M3PFBS | 94.1 | | | % | 1 | 12/12/22 | *** | 25 - 150 % | C |
| % M3PFHxS | 108 | | | % | 1 | 12/12/22 | *** | 25 - 150 % | C |
| % M4PFHpA | 95.0 | | | % | 1 | 12/12/22 | *** | 25 - 150 % | C |
| % M5PFHxA | 97.7 | | | % | 1 | 12/12/22 | *** | 25 - 150 % | C |
| % M5PFPeA | 98.9 | | | % | 1 | 12/12/22 | *** | 25 - 150 % | C |
| % M6PFDA | 68.3 | | | % | 1 | 12/12/22 | *** | 25 - 150 % | C |
| % M7PFUdA | 59.6 | | | % | 1 | 12/12/22 | *** | 25 - 150 % | C |
| % M8FOSA | 51.6 | | | % | 1 | 12/12/22 | *** | 10 - 150 % | C |
| % M8PFOA | 103 | | | % | 1 | 12/12/22 | *** | 25 - 150 % | C |
| % M8PFOS | 85.1 | | | % | 1 | 12/12/22 | *** | 25 - 150 % | C |
| % M9PFNA | 78.6 | | | % | 1 | 12/12/22 | *** | 25 - 150 % | C |
| % MPFBA | 88.7 | | | % | 1 | 12/12/22 | *** | 25 - 150 % | C |
| % MPFDoA | 64.8 | | | % | 1 | 12/12/22 | *** | 25 - 150 % | C |
| **Chlorinated Herbicides** | | | | | | | | | |
| 2,4,5-T | ND | 140 | 140 | ug/Kg | 10 | 12/06/22 | JRB | SW8151A | |

**Ver 1**

Project ID: IPARK0118.62-LOT 10 BOUNDARY MODIFICAT. Phoenix I.D.: CM95256
Client ID: SB-9A (0-1`)

| Parameter | Result | RL/ PQL | LOD/ MDL | Units | Dilution | Date/Time | By | Reference |
|---|---|---|---|---|---|---|---|---|
| 2,4,5-TP (Silvex) | ND | 140 | 140 | ug/Kg | 10 | 12/06/22 | JRB | SW8151A |
| 2,4-D | ND | 280 | 280 | ug/Kg | 10 | 12/06/22 | JRB | SW8151A |
| 2,4-DB | ND | 2800 | 2800 | ug/Kg | 10 | 12/06/22 | JRB | SW8151A |
| Dalapon | ND | 140 | 140 | ug/Kg | 10 | 12/06/22 | JRB | SW8151A |
| Dicamba | ND | 140 | 140 | ug/Kg | 10 | 12/06/22 | JRB | SW8151A |
| Dichloroprop | ND | 280 | 280 | ug/Kg | 10 | 12/06/22 | JRB | SW8151A |
| Dinoseb | ND | 280 | 280 | ug/Kg | 10 | 12/06/22 | JRB | SW8151A |
| **QA/QC Surrogates** | | | | | | | | |
| % DCAA | 99 | | | % | 10 | 12/06/22 | JRB | 30 - 150 % |
| % DCAA (Confirmation) | 98 | | | % | 10 | 12/06/22 | JRB | 30 - 150 % |
| **Polychlorinated Biphenyls** | | | | | | | | |
| PCB-1016 | ND | 74 | 74 | ug/Kg | 2 | 12/02/22 | SC | SW8082A |
| PCB-1221 | ND | 74 | 74 | ug/Kg | 2 | 12/02/22 | SC | SW8082A |
| PCB-1232 | ND | 74 | 74 | ug/Kg | 2 | 12/02/22 | SC | SW8082A |
| PCB-1242 | ND | 74 | 74 | ug/Kg | 2 | 12/02/22 | SC | SW8082A |
| PCB-1248 | ND | 74 | 74 | ug/Kg | 2 | 12/02/22 | SC | SW8082A |
| PCB-1254 | ND | 74 | 74 | ug/Kg | 2 | 12/02/22 | SC | SW8082A |
| PCB-1260 | ND | 74 | 74 | ug/Kg | 2 | 12/02/22 | SC | SW8082A |
| PCB-1262 | ND | 74 | 74 | ug/Kg | 2 | 12/02/22 | SC | SW8082A |
| PCB-1268 | ND | 74 | 74 | ug/Kg | 2 | 12/02/22 | SC | SW8082A |
| **QA/QC Surrogates** | | | | | | | | |
| % DCBP | 78 | | | % | 2 | 12/02/22 | SC | 30 - 150 % |
| % DCBP (Confirmation) | 79 | | | % | 2 | 12/02/22 | SC | 30 - 150 % |
| % TCMX | 79 | | | % | 2 | 12/02/22 | SC | 30 - 150 % |
| % TCMX (Confirmation) | 76 | | | % | 2 | 12/02/22 | SC | 30 - 150 % |
| **Pesticides - Soil** | | | | | | | | |
| 4,4' -DDD | ND | 2.2 | 2.2 | ug/Kg | 2 | 12/02/22 | AW | SW8081B |
| 4,4' -DDE | 4.7 | 2.2 | 2.2 | ug/Kg | 2 | 12/02/22 | AW | SW8081B |
| 4,4' -DDT | ND | 2.2 | 2.2 | ug/Kg | 2 | 12/02/22 | AW | SW8081B |
| a-BHC | ND | 7.4 | 7.4 | ug/Kg | 2 | 12/02/22 | AW | SW8081B |
| a-Chlordane | ND | 3.7 | 3.7 | ug/Kg | 2 | 12/02/22 | AW | SW8081B |
| Alachlor | ND | 3.7 | 3.7 | ug/Kg | 2 | 12/02/22 | AW | SW8081B |
| Aldrin | ND | 3.7 | 3.7 | ug/Kg | 2 | 12/02/22 | AW | SW8081B |
| b-BHC | ND | 7.4 | 7.4 | ug/Kg | 2 | 12/02/22 | AW | SW8081B |
| Chlordane | ND | 37 | 37 | ug/Kg | 2 | 12/02/22 | AW | SW8081B |
| d-BHC | ND | 7.4 | 7.4 | ug/Kg | 2 | 12/02/22 | AW | SW8081B |
| Dieldrin | ND | 3.7 | 3.7 | ug/Kg | 2 | 12/02/22 | AW | SW8081B |
| Endosulfan I | ND | 7.4 | 7.4 | ug/Kg | 2 | 12/02/22 | AW | SW8081B |
| Endosulfan II | ND | 7.4 | 7.4 | ug/Kg | 2 | 12/02/22 | AW | SW8081B |
| Endosulfan sulfate | ND | 7.4 | 7.4 | ug/Kg | 2 | 12/02/22 | AW | SW8081B |
| Endrin | ND | 7.4 | 7.4 | ug/Kg | 2 | 12/02/22 | AW | SW8081B |
| Endrin aldehyde | ND | 7.4 | 7.4 | ug/Kg | 2 | 12/02/22 | AW | SW8081B |
| Endrin ketone | ND | 7.4 | 7.4 | ug/Kg | 2 | 12/02/22 | AW | SW8081B |
| g-BHC | ND | 1.5 | 1.5 | ug/Kg | 2 | 12/02/22 | AW | SW8081B |
| g-Chlordane | ND | 3.7 | 3.7 | ug/Kg | 2 | 12/02/22 | AW | SW8081B |
| Heptachlor | ND | 7.4 | 7.4 | ug/Kg | 2 | 12/02/22 | AW | SW8081B |
| Heptachlor epoxide | ND | 7.4 | 7.4 | ug/Kg | 2 | 12/02/22 | AW | SW8081B |
| Methoxychlor | ND | 37 | 37 | ug/Kg | 2 | 12/02/22 | AW | SW8081B |

Project ID: IPARK0118.62-LOT 10 BOUNDARY MODIFICAT. Phoenix I.D.: CM95256
Client ID: SB-9A (0-1`)

| Parameter | Result | RL/ PQL | LOD/ MDL | Units | Dilution | Date/Time | By | Reference | |
|---|---|---|---|---|---|---|---|---|---|
| Toxaphene | ND | 150 | 150 | ug/Kg | 2 | 12/02/22 | AW | SW8081B | |
| **QA/QC Surrogates** | | | | | | | | | |
| % DCBP | 75 | | | % | 2 | 12/02/22 | AW | 30 - 150 % | |
| % DCBP (Confirmation) | 78 | | | % | 2 | 12/02/22 | AW | 30 - 150 % | |
| % TCMX | 71 | | | % | 2 | 12/02/22 | AW | 30 - 150 % | |
| % TCMX (Confirmation) | 75 | | | % | 2 | 12/02/22 | AW | 30 - 150 % | |
| **Semivolatiles** | | | | | | | | | |
| 1,2,4,5-Tetrachlorobenzene | ND | 260 | 130 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 1,2,4-Trichlorobenzene | ND | 260 | 110 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 1,2-Dichlorobenzene | ND | 260 | 110 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 1,2-Diphenylhydrazine | ND | 260 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 1,3-Dichlorobenzene | ND | 260 | 110 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 1,4-Dichlorobenzene | ND | 260 | 110 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2,2'-Oxybis(1-Chloropropane) | ND | 260 | 100 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | 1 |
| 2,4,5-Trichlorophenol | ND | 260 | 210 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2,4,6-Trichlorophenol | ND | 190 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2,4-Dichlorophenol | ND | 190 | 130 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2,4-Dimethylphenol | ND | 260 | 94 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2,4-Dinitrophenol | ND | 260 | 260 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2,4-Dinitrotoluene | ND | 190 | 150 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2,6-Dinitrotoluene | ND | 190 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2-Chloronaphthalene | ND | 260 | 110 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2-Chlorophenol | ND | 260 | 110 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2-Methylnaphthalene | ND | 260 | 110 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2-Methylphenol (o-cresol) | ND | 260 | 180 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2-Nitroaniline | ND | 260 | 260 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2-Nitrophenol | ND | 260 | 240 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 3&4-Methylphenol (m&p-cresol) | ND | 260 | 150 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | 1 |
| 3,3'-Dichlorobenzidine | ND | 190 | 180 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 3-Nitroaniline | ND | 380 | 750 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 4,6-Dinitro-2-methylphenol | ND | 230 | 75 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 4-Bromophenyl phenyl ether | ND | 260 | 110 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 4-Chloro-3-methylphenol | ND | 260 | 130 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 4-Chloroaniline | ND | 300 | 180 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 4-Chlorophenyl phenyl ether | ND | 260 | 130 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 4-Nitroaniline | ND | 380 | 130 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 4-Nitrophenol | ND | 380 | 170 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Acenaphthene | ND | 260 | 110 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Acenaphthylene | ND | 260 | 110 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Acetophenone | ND | 260 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Aniline | ND | 300 | 300 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Anthracene | ND | 260 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Benz(a)anthracene | ND | 260 | 130 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Benzidine | ND | 380 | 220 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Benzo(a)pyrene | ND | 190 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Benzo(b)fluoranthene | ND | 260 | 130 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Benzo(ghi)perylene | ND | 260 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Benzo(k)fluoranthene | ND | 260 | 130 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Benzoic acid | ND | 1900 | 750 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |

Project ID: IPARK0118.62-LOT 10 BOUNDARY MODIFICAT. Phoenix I.D.: CM95256
Client ID: SB-9A (0-1`)

| Parameter | Result | RL/ PQL | LOD/ MDL | Units | Dilution | Date/Time | By | Reference |
|---|---|---|---|---|---|---|---|---|
| Benzyl butyl phthalate | ND | 260 | 97 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Bis(2-chloroethoxy)methane | ND | 260 | 100 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Bis(2-chloroethyl)ether | ND | 190 | 100 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Bis(2-ethylhexyl)phthalate | ND | 260 | 110 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Carbazole | ND | 190 | 150 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Chrysene | ND | 260 | 130 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Dibenz(a,h)anthracene | ND | 190 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Dibenzofuran | ND | 260 | 110 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Diethyl phthalate | ND | 260 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Dimethylphthalate | ND | 260 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Di-n-butylphthalate | ND | 260 | 100 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Di-n-octylphthalate | ND | 260 | 97 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Fluoranthene | ND | 260 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Fluorene | ND | 260 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Hexachlorobenzene | ND | 190 | 110 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Hexachlorobutadiene | ND | 260 | 140 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Hexachlorocyclopentadiene | ND | 260 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Hexachloroethane | ND | 190 | 110 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Indeno(1,2,3-cd)pyrene | ND | 260 | 130 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Isophorone | ND | 190 | 110 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Naphthalene | ND | 260 | 110 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Nitrobenzene | ND | 190 | 130 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| N-Nitrosodimethylamine | ND | 260 | 110 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| N-Nitrosodi-n-propylamine | ND | 190 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| N-Nitrosodiphenylamine | ND | 260 | 140 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Pentachloronitrobenzene | ND | 260 | 140 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Pentachlorophenol | ND | 230 | 140 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Phenanthrene | ND | 260 | 110 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Phenol | ND | 260 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Pyrene | ND | 260 | 130 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Pyridine | ND | 260 | 93 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| **QA/QC Surrogates** | | | | | | | | |
| % 2,4,6-Tribromophenol | 96 | | | % | 1 | 12/04/22 | WB | 30 - 130 % |
| % 2-Fluorobiphenyl | 65 | | | % | 1 | 12/04/22 | WB | 30 - 130 % |
| % 2-Fluorophenol | 49 | | | % | 1 | 12/04/22 | WB | 30 - 130 % |
| % Nitrobenzene-d5 | 54 | | | % | 1 | 12/04/22 | WB | 30 - 130 % |
| % Phenol-d5 | 63 | | | % | 1 | 12/04/22 | WB | 30 - 130 % |
| % Terphenyl-d14 | 49 | | | % | 1 | 12/04/22 | WB | 30 - 130 % |
| **1,4-Dioxane** | | | | | | | | |
| 1,4-dioxane | ND | 74 | 74 | ug/Kg | 1 | 12/04/22 | WB | SW8270D (SIM) |
| **QA/QC Surrogates** | | | | | | | | |
| % 2-Fluorobiphenyl | 45 | | | % | 1 | 12/04/22 | WB | 30 - 130 % |
| % Nitrobenzene-d5 | 56 | | | % | 1 | 12/04/22 | WB | 30 - 130 % |
| % Terphenyl-d14 | 65 | | | % | 1 | 12/04/22 | WB | 30 - 130 % |

| Parameter | Result | RL/ PQL | LOD/ MDL | Units | Dilution | Date/Time | By | Reference |
|---|---|---|---|---|---|---|---|---|

1 = This parameter is not certified by the primary accrediting authority (NY NELAC) for this matrix. NY NELAC does not offer certification for all parameters at this time.
C = This parameter is subcontracted.

RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected BRL=Below Reporting Level L=Biased Low LOD=Limit of Detection MDL=Method Detection Limit1
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

## Comments:

*See attached

Per 1.4.6 of EPA method 8270D, 1,2-Diphenylhydrazine is unstable and readily converts to Azobenzene. Azobenzene is used for the calibration of 1,2-Diphenylhydrazine.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

PFAS (21) (EPA 537m), PFOA/PFOS - Soil Extraction (EPA 537m) were analyzed by NY certified lab #12058.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200.
The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.

**Phyllis Shiller, Laboratory Director**
**December 20, 2022**
**Reviewed and Released by: Phyllis Shiller, Laboratory Director**

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

# Analysis Report

December 20, 2022

FOR: Attn: Nora Brew
Walden Environmental Engineering PLLC
16 Spring Street
Oyster Bay, NY 11771

| Sample Information | | Custody Information | | Date | Time |
|---|---|---|---|---|---|
| Matrix: | SOIL | Collected by: | | 11/29/22 | 12:00 |
| Location Code: | WALDENE-IPARK | Received by: | CP | 12/01/22 | 17:12 |
| Rush Request: | Standard | Analyzed by: | see "By" below | | |
| P.O.#: | | | | | |

## Laboratory Data

SDG ID: GCM95248
Phoenix ID: CM95257

Project ID: IPARK0118.62-LOT 10 BOUNDARY MODIFICAT.
Client ID: SB-9B (1-2`)

| Parameter | Result | RL/ PQL | LOD/ MDL | Units | Dilution | Date/Time | By | Reference | |
|---|---|---|---|---|---|---|---|---|---|
| Field Extraction | Completed | | | | | 11/29/22 | | SW5035A | 1 |
| **Volatiles** | | | | | | | | | |
| 1,1,1,2-Tetrachloroethane | ND | 6.1 | 1.2 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| 1,1,1-Trichloroethane | ND | 6.1 | 0.61 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| 1,1,2,2-Tetrachloroethane | ND | 6.1 | 1.2 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| 1,1,2-Trichloroethane | ND | 6.1 | 1.2 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| 1,1-Dichloroethane | ND | 6.1 | 1.2 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| 1,1-Dichloroethene | ND | 6.1 | 0.61 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| 1,1-Dichloropropene | ND | 6.1 | 0.61 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| 1,2,3-Trichlorobenzene | ND | 6.1 | 1.2 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| 1,2,3-Trichloropropane | ND | 6.1 | 0.61 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| 1,2,4-Trichlorobenzene | ND | 6.1 | 1.2 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| 1,2,4-Trimethylbenzene | ND | 6.1 | 0.61 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| 1,2-Dibromo-3-chloropropane | ND | 6.1 | 1.2 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| 1,2-Dibromoethane | ND | 6.1 | 0.61 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| 1,2-Dichlorobenzene | ND | 6.1 | 0.61 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| 1,2-Dichloroethane | ND | 6.1 | 0.61 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| 1,2-Dichloropropane | ND | 6.1 | 1.2 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| 1,3,5-Trimethylbenzene | ND | 6.1 | 0.61 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| 1,3-Dichlorobenzene | ND | 6.1 | 0.61 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| 1,3-Dichloropropane | ND | 6.1 | 1.2 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| 1,4-Dichlorobenzene | ND | 6.1 | 0.61 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| 2,2-Dichloropropane | ND | 6.1 | 0.61 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| 2-Chlorotoluene | ND | 6.1 | 1.2 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| 2-Hexanone | ND | 30 | 6.1 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| 2-Isopropyltoluene | ND | 6.1 | 0.61 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | 1 |

Project ID: IPARK0118.62-LOT 10 BOUNDARY MODIFICAT. Phoenix I.D.: CM95257

Client ID: SB-9B (1-2`)

| Parameter | Result | | RL/ PQL | LOD/ MDL | Units | Dilution | Date/Time | By | Reference |
|---|---|---|---|---|---|---|---|---|---|
| 4-Chlorotoluene | ND | | 6.1 | 0.61 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C |
| 4-Methyl-2-pentanone | ND | | 30 | 6.1 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C |
| Acetone | 85 | S | 30 | 6.1 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C |
| Acrylonitrile | ND | | 12 | 1.2 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C |
| Benzene | ND | | 6.1 | 0.61 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C |
| Bromobenzene | ND | | 6.1 | 0.61 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C |
| Bromochloromethane | ND | | 6.1 | 0.61 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C |
| Bromodichloromethane | ND | | 6.1 | 1.2 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C |
| Bromoform | ND | | 6.1 | 1.2 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C |
| Bromomethane | ND | | 6.1 | 2.4 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C |
| Carbon Disulfide | 1.4 | J | 6.1 | 1.2 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C |
| Carbon tetrachloride | ND | | 6.1 | 1.2 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C |
| Chlorobenzene | ND | | 6.1 | 0.61 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C |
| Chloroethane | ND | | 6.1 | 0.61 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C |
| Chloroform | ND | | 6.1 | 0.61 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C |
| Chloromethane | ND | | 6.1 | 1.2 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C |
| cis-1,2-Dichloroethene | ND | | 6.1 | 0.61 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C |
| cis-1,3-Dichloropropene | ND | | 6.1 | 0.61 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C |
| Dibromochloromethane | ND | | 6.1 | 1.2 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C |
| Dibromomethane | ND | | 6.1 | 1.2 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C |
| Dichlorodifluoromethane | ND | | 6.1 | 0.61 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C |
| Ethylbenzene | ND | | 6.1 | 0.61 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C |
| Hexachlorobutadiene | ND | | 6.1 | 0.61 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C |
| Isopropylbenzene | ND | | 6.1 | 0.61 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C |
| m&p-Xylene | ND | | 6.1 | 1.2 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C |
| Methyl Ethyl Ketone | 24 | J | 36 | 6.1 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C |
| Methyl t-butyl ether (MTBE) | ND | | 12 | 1.2 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C |
| Methylene chloride | ND | | 6.1 | 6.1 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C |
| Naphthalene | ND | | 6.1 | 1.2 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C |
| n-Butylbenzene | ND | | 6.1 | 0.61 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C |
| n-Propylbenzene | ND | | 6.1 | 1.2 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C |
| o-Xylene | ND | | 6.1 | 1.2 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C |
| p-Isopropyltoluene | ND | | 6.1 | 0.61 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C |
| sec-Butylbenzene | ND | | 6.1 | 0.61 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C |
| Styrene | ND | | 6.1 | 0.61 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C |
| tert-Butylbenzene | ND | | 6.1 | 0.61 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C |
| Tetrachloroethene | ND | | 6.1 | 1.2 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C |
| Tetrahydrofuran (THF) | 10 | J | 12 | 3.0 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C |
| Toluene | ND | | 6.1 | 0.61 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C |
| trans-1,2-Dichloroethene | ND | | 6.1 | 0.61 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C |
| trans-1,3-Dichloropropene | ND | | 6.1 | 0.61 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C |
| trans-1,4-dichloro-2-butene | ND | | 12 | 3.0 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C |
| Trichloroethene | ND | | 6.1 | 0.61 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C |
| Trichlorofluoromethane | ND | | 6.1 | 1.2 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C |
| Trichlorotrifluoroethane | ND | | 6.1 | 0.61 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C |
| Vinyl chloride | ND | | 6.1 | 0.61 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C |
| **QA/QC Surrogates** | | | | | | | | | |
| % 1,2-dichlorobenzene-d4 | 95 | | | | % | 1 | 12/05/22 | JLI | 70 - 130 % |
| % Bromofluorobenzene | 95 | | | | % | 1 | 12/05/22 | JLI | 70 - 130 % |

Project ID: IPARK0118.62-LOT 10 BOUNDARY MODIFICAT. Phoenix I.D.: CM95257
Client ID: SB-9B (1-2`)

| Parameter | Result | RL/ PQL | LOD/ MDL | Units | Dilution | Date/Time | By | Reference |
|---|---|---|---|---|---|---|---|---|
| % Dibromofluoromethane | 100 | | | % | 1 | 12/05/22 | JLI | 70 - 130 % |
| % Toluene-d8 | 95 | | | % | 1 | 12/05/22 | JLI | 70 - 130 % |

1 = This parameter is not certified by the primary accrediting authority (NY NELAC) for this matrix. NY NELAC does not offer certification for all parameters at this time.

RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected BRL=Below Reporting Level L=Biased Low J=Estimated Below RL LOD=Limit of Detection MDL=Method Detection Limit1
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

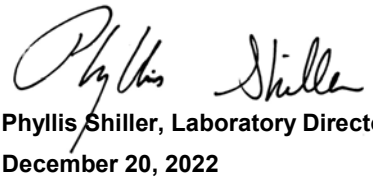
## Comments:

Results are reported on an ``as received`` basis, and are not corrected for dry weight.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

S - Laboratory solvent, contamination is possible.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200.
The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.



**Phyllis Shiller, Laboratory Director**
**December 20, 2022**
**Reviewed and Released by: Phyllis Shiller, Laboratory Director**

PHOENIX
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ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

# Analysis Report

December 20, 2022

FOR: Attn: Nora Brew
Walden Environmental Engineering PLLC
16 Spring Street
Oyster Bay, NY 11771

| Sample Information | | Custody Information | | Date | Time |
|---|---|---|---|---|---|
| Matrix: | SOIL | Collected by: | | 11/29/22 | 12:00 |
| Location Code: | WALDENE-IPARK | Received by: | CP | 12/01/22 | 17:12 |
| Rush Request: | Standard | Analyzed by: | see "By" below | | |
| P.O.#: | | | | | |

## Laboratory Data

SDG ID: GCM95248
Phoenix ID: CM95258

Project ID: IPARK0118.62-LOT 10 BOUNDARY MODIFICAT.
Client ID: SB-9C (6-8`)

| Parameter | Result | RL/ PQL | LOD/ MDL | Units | Dilution | Date/Time | By | Reference |
|---|---|---|---|---|---|---|---|---|
| Aluminum | 16100 | 39 | 7.7 | mg/Kg | 10 | 12/02/22 | TH | SW6010D |
| Antimony | ND | 3.9 | 3.9 | mg/Kg | 1 | 12/02/22 | TH | SW6010D |
| Arsenic | 7.42 | 0.77 | 0.77 | mg/Kg | 1 | 12/02/22 | TH | SW6010D |
| Barium | 74.1 | 0.8 | 0.39 | mg/Kg | 1 | 12/02/22 | TH | SW6010D |
| Beryllium | 0.60 | 0.31 | 0.15 | mg/Kg | 1 | 12/02/22 | TH | SW6010D |
| Calcium | 1860 | 3.9 | 3.6 | mg/Kg | 1 | 12/02/22 | TH | SW6010D |
| Cadmium | 2.06 | 0.39 | 0.39 | mg/Kg | 1 | 12/02/22 | TH | SW6010D |
| Chromium | 18.4 | 0.39 | 0.39 | mg/Kg | 1 | 12/02/22 | TH | SW6010D |
| Cobalt | 14.6 | 0.39 | 0.39 | mg/Kg | 1 | 12/02/22 | TH | SW6010D |
| Copper | 31.1 | 0.8 | 0.39 | mg/kg | 1 | 12/02/22 | TH | SW6010D |
| Iron | 36000 | 39 | 39 | mg/Kg | 10 | 12/02/22 | TH | SW6010D |
| Lead | 14.6 | 0.8 | 0.39 | mg/Kg | 1 | 12/02/22 | TH | SW6010D |
| Magnesium | 7820 | 39 | 39 | mg/Kg | 10 | 12/02/22 | TH | SW6010D |
| Manganese | 1480 | 3.9 | 3.9 | mg/Kg | 10 | 12/02/22 | TH | SW6010D |
| Mercury | ND | 0.03 | 0.02 | mg/Kg | 2 | 12/05/22 | PM | SW7471B |
| Nickel | 31.3 | 0.39 | 0.39 | mg/Kg | 1 | 12/02/22 | TH | SW6010D |
| Potassium | 1630 | 8 | 3.0 | mg/Kg | 1 | 12/02/22 | TH | SW6010D |
| Selenium | ND | 1.5 | 1.3 | mg/Kg | 1 | 12/02/22 | TH | SW6010D |
| Silver | ND | 0.39 | 0.39 | mg/Kg | 1 | 12/02/22 | TH | SW6010D |
| Sodium | 218 | 8 | 3.3 | mg/Kg | 1 | 12/02/22 | TH | SW6010D |
| Thallium | ND | 1.5 | 1.5 | mg/Kg | 1 | 12/02/22 | TH | SW6010D |
| Vanadium | 18.6 | 0.39 | 0.39 | mg/Kg | 1 | 12/02/22 | TH | SW6010D |
| Zinc | 81.7 | 0.8 | 0.39 | mg/Kg | 1 | 12/02/22 | TH | SW6010D |
| Percent Solid | 84 | | | % | | 12/01/22 | Q | SW846-%Solid |
| Extraction for SVOA SIM | Completed | | | | | 12/02/22 | O/Y | SW3545A |
| Soil Extraction for PCB | Completed | | | | | 12/01/22 | B/MO | SW3545A |
| Soil Extraction for Pesticide | Completed | | | | | 12/01/22 | B/MO | SW3545A |

**Ver 1**

Project ID: IPARK0118.62-LOT 10 BOUNDARY MODIFICAT. Phoenix I.D.: CM95258

Client ID: SB-9C (6-8`)

| Parameter | Result | RL/ PQL | LOD/ MDL | Units | Dilution | Date/Time | By | Reference | |
|---|---|---|---|---|---|---|---|---|---|
| Field Extraction | Completed | | | | | 11/29/22 | | SW5035A | 1 |
| Mercury Digestion | Completed | | | | | 12/02/22 | AB/AB | SW7471B | |
| Soil Extraction for Herbicide | Completed | | | | | 12/06/22 | J/D | SW3546 | |
| Soil Extraction for SVOA | Completed | | | | | 12/03/22 | E/Y | SW3546 | |
| Total Metals Digest | Completed | | | | | 12/01/22 | | SW3050B | |
| PFAS (21) | Completed | | | | | 12/08/22 | *** | EPA 537m | C |

## PFAS (21)

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **1H,1H,2H,2H-Perfluorodecanesulfonic acid** | ND | 0.285 | 0.0292 | ng/g | 1 | 12/12/22 | *** | EPA 537m | C |
| **1H,1H,2H,2H-Perfluorooctanesulfonic acid** | ND | 0.285 | 0.0753 | ng/g | 1 | 12/12/22 | *** | EPA 537m | C |
| NEtFOSAA | ND | 0.285 | 0.119 | ng/g | 1 | 12/12/22 | *** | EPA 537m | C |
| NMeFOSAA | ND | 0.285 | 0.119 | ng/g | 1 | 12/12/22 | *** | EPA 537m | C |
| **Perfluoro-1-decanesulfonic acid (PFDS)** | ND | 0.285 | 0.0584 | ng/g | 1 | 12/12/22 | *** | EPA 537m | C |
| **Perfluoro-1-heptanesulfonic acid (PFHpS)** | ND | 0.285 | 0.0563 | ng/g | 1 | 12/12/22 | *** | EPA 537m | C |
| **Perfluoro-1-octanesulfonamide (FOSA)** | ND | 0.285 | 0.0533 | ng/g | 1 | 12/12/22 | *** | EPA 537m | C |
| Perfluorobutanesulfonic acid (PFBS) | ND | 0.285 | 0.228 | ng/g | 1 | 12/12/22 | *** | EPA 537m | C |
| Perfluorodecanoic acid (PFDA) | ND | 0.285 | 0.0584 | ng/g | 1 | 12/12/22 | *** | EPA 537m | C |
| Perfluorododecanoic acid (PFDoA) | ND | 0.285 | 0.0856 | ng/g | 1 | 12/12/22 | *** | EPA 537m | C |
| Perfluoroheptanoic acid (PFHpA) | ND | 0.285 | 0.0519 | ng/g | 1 | 12/12/22 | *** | EPA 537m | C |
| **Perfluorohexanesulfonic Acid (PFHxS)** | ND | 0.285 | 0.0354 | ng/g | 1 | 12/12/22 | *** | EPA 537m | C |
| Perfluorohexanoic acid (PFHxA) | ND | 0.285 | 0.0752 | ng/g | 1 | 12/12/22 | *** | EPA 537m | C |
| Perfluoro-n-butanoic acid (PFBA) | ND | 0.285 | 0.208 | ng/g | 1 | 12/12/22 | *** | EPA 537m | C |
| Perfluorononanoic acid (PFNA) | ND | 0.285 | 0.0682 | ng/g | 1 | 12/12/22 | *** | EPA 537m | C |
| Perfluorooctanesulfonic Acid (PFOS) | ND | 0.285 | 0.0500 | ng/g | 1 | 12/12/22 | *** | EPA 537m | C |
| Perfluorooctanoic acid (PFOA) | ND | 0.285 | 0.0881 | ng/g | 1 | 12/12/22 | *** | EPA 537m | C |
| Perfluoropentanoic acid (PFPeA) | ND | 0.285 | 0.105 | ng/g | 1 | 12/12/22 | *** | EPA 537m | C |
| Perfluorotetradecanoic acid (PFTA) | ND | 0.285 | 0.0852 | ng/g | 1 | 12/12/22 | *** | EPA 537m | C |
| Perfluorotridecanoic acid (PFTrDA) | ND | 0.285 | 0.0496 | ng/g | 1 | 12/12/22 | *** | EPA 537m | C |
| Perfluoroundecanoic acid (PFUnA) | ND | 0.285 | 0.133 | ng/g | 1 | 12/12/22 | *** | EPA 537m | C |
| **QA/QC Surrogates** | | | | | | | | | |
| % d3-N-MeFOSAA | 67.1 | | | % | 1 | 12/12/22 | *** | 25 - 150 % | C |
| % d5-NEtFOSA | 68.3 | | | % | 1 | 12/12/22 | *** | 25 - 150 % | C |
| % M2-6:2FTS | 104 | | | % | 1 | 12/12/22 | *** | 25 - 200 % | C |
| % M2-8:2FTS | 85.0 | | | % | 1 | 12/12/22 | *** | 25 - 200 % | C |
| % M2PFTeDA | 36.2 | | | % | 1 | 12/12/22 | *** | 10 - 150 % | C |
| % M3PFBS | 88.8 | | | % | 1 | 12/12/22 | *** | 25 - 150 % | C |
| % M3PFHxS | 104 | | | % | 1 | 12/12/22 | *** | 25 - 150 % | C |
| % M4PFHpA | 100 | | | % | 1 | 12/12/22 | *** | 25 - 150 % | C |
| % M5PFHxA | 104 | | | % | 1 | 12/12/22 | *** | 25 - 150 % | C |
| % M5PFPeA | 109 | | | % | 1 | 12/12/22 | *** | 25 - 150 % | C |
| % M6PFDA | 81.6 | | | % | 1 | 12/12/22 | *** | 25 - 150 % | C |
| % M7PFUdA | 64.0 | | | % | 1 | 12/12/22 | *** | 25 - 150 % | C |
| % M8FOSA | 57.8 | | | % | 1 | 12/12/22 | *** | 10 - 150 % | C |
| % M8PFOA | 102 | | | % | 1 | 12/12/22 | *** | 25 - 150 % | C |
| % M8PFOS | 79.3 | | | % | 1 | 12/12/22 | *** | 25 - 150 % | C |
| % M9PFNA | 92.0 | | | % | 1 | 12/12/22 | *** | 25 - 150 % | C |
| % MPFBA | 95.1 | | | % | 1 | 12/12/22 | *** | 25 - 150 % | C |
| % MPFDoA | 59.0 | | | % | 1 | 12/12/22 | *** | 25 - 150 % | C |

Project ID: IPARK0118.62-LOT 10 BOUNDARY MODIFICAT. Phoenix I.D.: CM95258
Client ID: SB-9C (6-8`)

| Parameter | Result | RL/ PQL | LOD/ MDL | Units | Dilution | Date/Time | By | Reference |
|---|---|---|---|---|---|---|---|---|
| **Chlorinated Herbicides** | | | | | | | | |
| 2,4,5-T | ND | 150 | 150 | ug/Kg | 10 | 12/08/22 | JRB | SW8151A |
| 2,4,5-TP (Silvex) | ND | 150 | 150 | ug/Kg | 10 | 12/08/22 | JRB | SW8151A |
| 2,4-D | ND | 290 | 290 | ug/Kg | 10 | 12/08/22 | JRB | SW8151A |
| 2,4-DB | ND | 2900 | 2900 | ug/Kg | 10 | 12/08/22 | JRB | SW8151A |
| Dalapon | ND | 150 | 150 | ug/Kg | 10 | 12/08/22 | JRB | SW8151A |
| Dicamba | ND | 150 | 150 | ug/Kg | 10 | 12/08/22 | JRB | SW8151A |
| Dichloroprop | ND | 290 | 290 | ug/Kg | 10 | 12/08/22 | JRB | SW8151A |
| Dinoseb | ND | 290 | 290 | ug/Kg | 10 | 12/08/22 | JRB | SW8151A |
| **QA/QC Surrogates** | | | | | | | | |
| % DCAA | 84 | | | % | 10 | 12/08/22 | JRB | 30 - 150 % |
| % DCAA (Confirmation) | 88 | | | % | 10 | 12/08/22 | JRB | 30 - 150 % |
| **Polychlorinated Biphenyls** | | | | | | | | |
| PCB-1016 | ND | 78 | 78 | ug/Kg | 2 | 12/02/22 | SC | SW8082A |
| PCB-1221 | ND | 78 | 78 | ug/Kg | 2 | 12/02/22 | SC | SW8082A |
| PCB-1232 | ND | 78 | 78 | ug/Kg | 2 | 12/02/22 | SC | SW8082A |
| PCB-1242 | ND | 78 | 78 | ug/Kg | 2 | 12/02/22 | SC | SW8082A |
| PCB-1248 | ND | 78 | 78 | ug/Kg | 2 | 12/02/22 | SC | SW8082A |
| PCB-1254 | ND | 78 | 78 | ug/Kg | 2 | 12/02/22 | SC | SW8082A |
| PCB-1260 | ND | 78 | 78 | ug/Kg | 2 | 12/02/22 | SC | SW8082A |
| PCB-1262 | ND | 78 | 78 | ug/Kg | 2 | 12/02/22 | SC | SW8082A |
| PCB-1268 | ND | 78 | 78 | ug/Kg | 2 | 12/02/22 | SC | SW8082A |
| **QA/QC Surrogates** | | | | | | | | |
| % DCBP | 84 | | | % | 2 | 12/02/22 | SC | 30 - 150 % |
| % DCBP (Confirmation) | 84 | | | % | 2 | 12/02/22 | SC | 30 - 150 % |
| % TCMX | 78 | | | % | 2 | 12/02/22 | SC | 30 - 150 % |
| % TCMX (Confirmation) | 78 | | | % | 2 | 12/02/22 | SC | 30 - 150 % |
| **Pesticides - Soil** | | | | | | | | |
| 4,4' -DDD | ND | 2.3 | 2.3 | ug/Kg | 2 | 12/02/22 | AW | SW8081B |
| 4,4' -DDE | ND | 2.3 | 2.3 | ug/Kg | 2 | 12/02/22 | AW | SW8081B |
| 4,4' -DDT | ND | 2.3 | 2.3 | ug/Kg | 2 | 12/02/22 | AW | SW8081B |
| a-BHC | ND | 7.8 | 7.8 | ug/Kg | 2 | 12/02/22 | AW | SW8081B |
| a-Chlordane | ND | 3.9 | 3.9 | ug/Kg | 2 | 12/02/22 | AW | SW8081B |
| Alachlor | ND | 3.9 | 3.9 | ug/Kg | 2 | 12/02/22 | AW | SW8081B |
| Aldrin | ND | 3.9 | 3.9 | ug/Kg | 2 | 12/02/22 | AW | SW8081B |
| b-BHC | ND | 7.8 | 7.8 | ug/Kg | 2 | 12/02/22 | AW | SW8081B |
| Chlordane | ND | 39 | 39 | ug/Kg | 2 | 12/02/22 | AW | SW8081B |
| d-BHC | ND | 7.8 | 7.8 | ug/Kg | 2 | 12/02/22 | AW | SW8081B |
| Dieldrin | ND | 3.9 | 3.9 | ug/Kg | 2 | 12/02/22 | AW | SW8081B |
| Endosulfan I | ND | 7.8 | 7.8 | ug/Kg | 2 | 12/02/22 | AW | SW8081B |
| Endosulfan II | ND | 7.8 | 7.8 | ug/Kg | 2 | 12/02/22 | AW | SW8081B |
| Endosulfan sulfate | ND | 7.8 | 7.8 | ug/Kg | 2 | 12/02/22 | AW | SW8081B |
| Endrin | ND | 7.8 | 7.8 | ug/Kg | 2 | 12/02/22 | AW | SW8081B |
| Endrin aldehyde | ND | 7.8 | 7.8 | ug/Kg | 2 | 12/02/22 | AW | SW8081B |
| Endrin ketone | ND | 7.8 | 7.8 | ug/Kg | 2 | 12/02/22 | AW | SW8081B |
| g-BHC | ND | 1.6 | 1.6 | ug/Kg | 2 | 12/02/22 | AW | SW8081B |
| g-Chlordane | ND | 3.9 | 3.9 | ug/Kg | 2 | 12/02/22 | AW | SW8081B |

Project ID: IPARK0118.62-LOT 10 BOUNDARY MODIFICAT. Phoenix I.D.: CM95258
Client ID: SB-9C (6-8`)

| Parameter | Result | RL/ PQL | LOD/ MDL | Units | Dilution | Date/Time | By | Reference | |
|---|---|---|---|---|---|---|---|---|---|
| Heptachlor | ND | 7.8 | 7.8 | ug/Kg | 2 | 12/02/22 | AW | SW8081B | |
| Heptachlor epoxide | ND | 7.8 | 7.8 | ug/Kg | 2 | 12/02/22 | AW | SW8081B | |
| Methoxychlor | ND | 39 | 39 | ug/Kg | 2 | 12/02/22 | AW | SW8081B | |
| Toxaphene | ND | 160 | 160 | ug/Kg | 2 | 12/02/22 | AW | SW8081B | |
| **QA/QC Surrogates** | | | | | | | | | |
| % DCBP | 98 | | | % | 2 | 12/02/22 | AW | 30 - 150 % | |
| % DCBP (Confirmation) | 143 | | | % | 2 | 12/02/22 | AW | 30 - 150 % | |
| % TCMX | 88 | | | % | 2 | 12/02/22 | AW | 30 - 150 % | |
| % TCMX (Confirmation) | 89 | | | % | 2 | 12/02/22 | AW | 30 - 150 % | |
| **Volatiles** | | | | | | | | | |
| 1,1,1,2-Tetrachloroethane | ND | 4.2 | 0.83 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,1,1-Trichloroethane | ND | 4.2 | 0.42 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,1,2,2-Tetrachloroethane | ND | 4.2 | 0.83 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,1,2-Trichloroethane | ND | 4.2 | 0.83 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,1-Dichloroethane | ND | 4.2 | 0.83 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,1-Dichloroethene | ND | 4.2 | 0.42 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,1-Dichloropropene | ND | 4.2 | 0.42 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,2,3-Trichlorobenzene | ND | 4.2 | 0.83 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,2,3-Trichloropropane | ND | 4.2 | 0.42 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,2,4-Trichlorobenzene | ND | 4.2 | 0.83 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,2,4-Trimethylbenzene | ND | 4.2 | 0.42 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,2-Dibromo-3-chloropropane | ND | 4.2 | 0.83 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,2-Dibromoethane | ND | 4.2 | 0.42 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,2-Dichlorobenzene | ND | 4.2 | 0.42 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,2-Dichloroethane | ND | 4.2 | 0.42 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,2-Dichloropropane | ND | 4.2 | 0.83 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,3,5-Trimethylbenzene | ND | 4.2 | 0.42 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,3-Dichlorobenzene | ND | 4.2 | 0.42 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,3-Dichloropropane | ND | 4.2 | 0.83 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,4-Dichlorobenzene | ND | 4.2 | 0.42 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 2,2-Dichloropropane | ND | 4.2 | 0.42 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 2-Chlorotoluene | ND | 4.2 | 0.83 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 2-Hexanone | ND | 21 | 4.2 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 2-Isopropyltoluene | ND | 4.2 | 0.42 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | 1 |
| 4-Chlorotoluene | ND | 4.2 | 0.42 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 4-Methyl-2-pentanone | ND | 21 | 4.2 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Acetone | ND | 21 | 4.2 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Acrylonitrile | ND | 8.3 | 0.83 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Benzene | ND | 4.2 | 0.42 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Bromobenzene | ND | 4.2 | 0.42 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Bromochloromethane | ND | 4.2 | 0.42 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Bromodichloromethane | ND | 4.2 | 0.83 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Bromoform | ND | 4.2 | 0.83 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Bromomethane | ND | 4.2 | 1.7 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Carbon Disulfide | ND | 4.2 | 0.83 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Carbon tetrachloride | ND | 4.2 | 0.83 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Chlorobenzene | ND | 4.2 | 0.42 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Chloroethane | ND | 4.2 | 0.42 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Chloroform | ND | 4.2 | 0.42 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |

Project ID: IPARK0118.62-LOT 10 BOUNDARY MODIFICAT. Phoenix I.D.: CM95258

Client ID: SB-9C (6-8`)

| Parameter | Result | | RL/ PQL | LOD/ MDL | Units | Dilution | Date/Time | By | Reference | |
|---|---|---|---|---|---|---|---|---|---|---|
| Chloromethane | ND | | 4.2 | 0.83 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| cis-1,2-Dichloroethene | ND | | 4.2 | 0.42 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| cis-1,3-Dichloropropene | ND | | 4.2 | 0.42 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Dibromochloromethane | ND | | 4.2 | 0.83 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Dibromomethane | ND | | 4.2 | 0.83 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Dichlorodifluoromethane | ND | | 4.2 | 0.42 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Ethylbenzene | ND | | 4.2 | 0.42 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Hexachlorobutadiene | ND | | 4.2 | 0.42 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Isopropylbenzene | ND | | 4.2 | 0.42 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| m&p-Xylene | ND | | 4.2 | 0.83 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Methyl Ethyl Ketone | ND | | 25 | 4.2 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Methyl t-butyl ether (MTBE) | ND | | 8.3 | 0.83 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Methylene chloride | ND | | 4.2 | 4.2 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Naphthalene | ND | | 4.2 | 0.83 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| n-Butylbenzene | ND | | 4.2 | 0.42 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| n-Propylbenzene | ND | | 4.2 | 0.83 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| o-Xylene | ND | | 4.2 | 0.83 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| p-Isopropyltoluene | ND | | 4.2 | 0.42 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| sec-Butylbenzene | ND | | 4.2 | 0.42 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Styrene | ND | | 4.2 | 0.42 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| tert-Butylbenzene | ND | | 4.2 | 0.42 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Tetrachloroethene | ND | | 4.2 | 0.83 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Tetrahydrofuran (THF) | 6.3 | J | 8.3 | 2.1 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Toluene | ND | | 4.2 | 0.42 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| trans-1,2-Dichloroethene | ND | | 4.2 | 0.42 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| trans-1,3-Dichloropropene | ND | | 4.2 | 0.42 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| trans-1,4-dichloro-2-butene | ND | | 8.3 | 2.1 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Trichloroethene | ND | | 4.2 | 0.42 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Trichlorofluoromethane | ND | | 4.2 | 0.83 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Trichlorotrifluoroethane | ND | | 4.2 | 0.42 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Vinyl chloride | ND | | 4.2 | 0.42 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| **QA/QC Surrogates** | | | | | | | | | | |
| % 1,2-dichlorobenzene-d4 | 95 | | | | % | 1 | 12/06/22 | JLI | 70 - 130 % | |
| % Bromofluorobenzene | 94 | | | | % | 1 | 12/06/22 | JLI | 70 - 130 % | |
| % Dibromofluoromethane | 100 | | | | % | 1 | 12/06/22 | JLI | 70 - 130 % | |
| % Toluene-d8 | 96 | | | | % | 1 | 12/06/22 | JLI | 70 - 130 % | |
| **Semivolatiles** | | | | | | | | | | |
| 1,2,4,5-Tetrachlorobenzene | ND | | 280 | 140 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 1,2,4-Trichlorobenzene | ND | | 280 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 1,2-Dichlorobenzene | ND | | 280 | 110 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 1,2-Diphenylhydrazine | ND | | 280 | 130 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 1,3-Dichlorobenzene | ND | | 280 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 1,4-Dichlorobenzene | ND | | 280 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2,2'-Oxybis(1-Chloropropane) | ND | | 280 | 110 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | 1 |
| 2,4,5-Trichlorophenol | ND | | 280 | 220 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2,4,6-Trichlorophenol | ND | | 200 | 130 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2,4-Dichlorophenol | ND | | 200 | 140 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2,4-Dimethylphenol | ND | | 280 | 98 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2,4-Dinitrophenol | ND | | 280 | 280 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |

Project ID: IPARK0118.62-LOT 10 BOUNDARY MODIFICAT. Phoenix I.D.: CM95258

Client ID: SB-9C (6-8`)

| Parameter | Result | RL/ PQL | LOD/ MDL | Units | Dilution | Date/Time | By | Reference | |
|---|---|---|---|---|---|---|---|---|---|
| 2,4-Dinitrotoluene | ND | 200 | 150 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2,6-Dinitrotoluene | ND | 200 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2-Chloronaphthalene | ND | 280 | 110 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2-Chlorophenol | ND | 280 | 110 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2-Methylnaphthalene | ND | 280 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2-Methylphenol (o-cresol) | ND | 280 | 180 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2-Nitroaniline | ND | 280 | 280 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2-Nitrophenol | ND | 280 | 250 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 3&4-Methylphenol (m&p-cresol) | ND | 280 | 150 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | 1 |
| 3,3'-Dichlorobenzidine | ND | 200 | 190 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 3-Nitroaniline | ND | 390 | 790 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 4,6-Dinitro-2-methylphenol | ND | 240 | 79 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 4-Bromophenyl phenyl ether | ND | 280 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 4-Chloro-3-methylphenol | ND | 280 | 140 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 4-Chloroaniline | ND | 310 | 180 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 4-Chlorophenyl phenyl ether | ND | 280 | 130 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 4-Nitroaniline | ND | 390 | 130 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 4-Nitrophenol | ND | 390 | 180 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Acenaphthene | ND | 280 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Acenaphthylene | ND | 280 | 110 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Acetophenone | ND | 280 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Aniline | ND | 310 | 310 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Anthracene | ND | 280 | 130 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Benz(a)anthracene | ND | 280 | 130 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Benzidine | ND | 390 | 230 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Benzo(a)pyrene | ND | 200 | 130 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Benzo(b)fluoranthene | ND | 280 | 130 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Benzo(ghi)perylene | ND | 280 | 130 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Benzo(k)fluoranthene | ND | 280 | 130 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Benzoic acid | ND | 2000 | 790 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Benzyl butyl phthalate | ND | 280 | 100 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Bis(2-chloroethoxy)methane | ND | 280 | 110 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Bis(2-chloroethyl)ether | ND | 200 | 110 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Bis(2-ethylhexyl)phthalate | ND | 280 | 110 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Carbazole | ND | 200 | 160 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Chrysene | ND | 280 | 130 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Dibenz(a,h)anthracene | ND | 200 | 130 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Dibenzofuran | ND | 280 | 110 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Diethyl phthalate | ND | 280 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Dimethylphthalate | ND | 280 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Di-n-butylphthalate | ND | 280 | 100 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Di-n-octylphthalate | ND | 280 | 100 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Fluoranthene | ND | 280 | 130 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Fluorene | ND | 280 | 130 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Hexachlorobenzene | ND | 200 | 110 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Hexachlorobutadiene | ND | 280 | 140 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Hexachlorocyclopentadiene | ND | 280 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Hexachloroethane | ND | 200 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Indeno(1,2,3-cd)pyrene | ND | 280 | 130 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |

| Parameter | Result | RL/ PQL | LOD/ MDL | Units | Dilution | Date/Time | By | Reference |
|---|---|---|---|---|---|---|---|---|
| Isophorone | ND | 200 | 110 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Naphthalene | ND | 280 | 110 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Nitrobenzene | ND | 200 | 140 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| N-Nitrosodimethylamine | ND | 280 | 110 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| N-Nitrosodi-n-propylamine | ND | 200 | 130 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| N-Nitrosodiphenylamine | ND | 280 | 150 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Pentachloronitrobenzene | ND | 280 | 150 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Pentachlorophenol | ND | 240 | 150 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Phenanthrene | ND | 280 | 110 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Phenol | ND | 280 | 130 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Pyrene | ND | 280 | 140 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Pyridine | ND | 280 | 97 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| **QA/QC Surrogates** | | | | | | | | |
| % 2,4,6-Tribromophenol | 104 | | | % | 1 | 12/04/22 | WB | 30 - 130 % |
| % 2-Fluorobiphenyl | 74 | | | % | 1 | 12/04/22 | WB | 30 - 130 % |
| % 2-Fluorophenol | 67 | | | % | 1 | 12/04/22 | WB | 30 - 130 % |
| % Nitrobenzene-d5 | 67 | | | % | 1 | 12/04/22 | WB | 30 - 130 % |
| % Phenol-d5 | 76 | | | % | 1 | 12/04/22 | WB | 30 - 130 % |
| % Terphenyl-d14 | 58 | | | % | 1 | 12/04/22 | WB | 30 - 130 % |
| **1,4-Dioxane** | | | | | | | | |
| 1,4-dioxane | ND | 77 | 77 | ug/Kg | 1 | 12/04/22 | WB | SW8270D (SIM) |
| **QA/QC Surrogates** | | | | | | | | |
| % 2-Fluorobiphenyl | 42 | | | % | 1 | 12/04/22 | WB | 30 - 130 % |
| % Nitrobenzene-d5 | 51 | | | % | 1 | 12/04/22 | WB | 30 - 130 % |
| % Terphenyl-d14 | 73 | | | % | 1 | 12/04/22 | WB | 30 - 130 % |

Project ID: IPARK0118.62-LOT 10 BOUNDARY MODIFICAT. Phoenix I.D.: CM95258
Client ID: SB-9C (6-8`)

| Parameter | Result | RL/ PQL | LOD/ MDL | Units | Dilution | Date/Time | By | Reference |
|---|---|---|---|---|---|---|---|---|

1 = This parameter is not certified by the primary accrediting authority (NY NELAC) for this matrix. NY NELAC does not offer certification for all parameters at this time.
C = This parameter is subcontracted.

RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected BRL=Below Reporting Level L=Biased Low J=Estimated Below RL LOD=Limit of Detection MDL=Method Detection Limit1
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

## Comments:

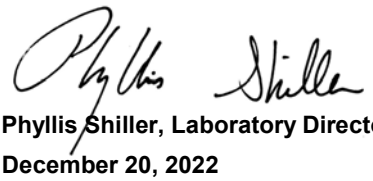
*See attached

Per 1.4.6 of EPA method 8270D, 1,2-Diphenylhydrazine is unstable and readily converts to Azobenzene. Azobenzene is used for the calibration of 1,2-Diphenylhydrazine.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

PFAS (21) (EPA 537m), PFOA/PFOS - Soil Extraction (EPA 537m) were analyzed by NY certified lab #12058.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200.
The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.



**Phyllis Shiller, Laboratory Director**
**December 20, 2022**
**Reviewed and Released by: Phyllis Shiller, Laboratory Director**

PHOENIX
Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

# Analysis Report

December 20, 2022

FOR: Attn: Nora Brew
Walden Environmental Engineering PLLC
16 Spring Street
Oyster Bay, NY 11771

| Sample Information | | Custody Information | | Date | Time |
|---|---|---|---|---|---|
| Matrix: | SOIL | Collected by: | | 11/29/22 | 12:00 |
| Location Code: | WALDENE-IPARK | Received by: | CP | 12/01/22 | 17:12 |
| Rush Request: | Standard | Analyzed by: | see "By" below | | |
| P.O.#: | | | | | |

## Laboratory Data

SDG ID: GCM95248
Phoenix ID: CM95259

Project ID: IPARK0118.62-LOT 10 BOUNDARY MODIFICAT.
Client ID: SB-DUP1

| Parameter | Result | RL/ PQL | LOD/ MDL | Units | Dilution | Date/Time | By | Reference |
|---|---|---|---|---|---|---|---|---|
| Aluminum | 15600 | 44 | 8.8 | mg/Kg | 10 | 12/02/22 | TH | SW6010D |
| Antimony | ND | 4.4 | 4.4 | mg/Kg | 1 | 12/02/22 | TH | SW6010D |
| Arsenic | 7.29 | 0.88 | 0.88 | mg/Kg | 1 | 12/02/22 | TH | SW6010D |
| Barium | 55.8 | 0.9 | 0.44 | mg/Kg | 1 | 12/02/22 | TH | SW6010D |
| Beryllium | 0.61 | 0.35 | 0.18 | mg/Kg | 1 | 12/02/22 | TH | SW6010D |
| Calcium | 1690 | 4.4 | 4.0 | mg/Kg | 1 | 12/02/22 | TH | SW6010D |
| Cadmium | 2.14 | 0.44 | 0.44 | mg/Kg | 1 | 12/02/22 | TH | SW6010D |
| Chromium | 17.2 | 0.44 | 0.44 | mg/Kg | 1 | 12/02/22 | TH | SW6010D |
| Cobalt | 13.3 | 0.44 | 0.44 | mg/Kg | 1 | 12/02/22 | TH | SW6010D |
| Copper | 40.3 | 0.9 | 0.44 | mg/kg | 1 | 12/02/22 | TH | SW6010D |
| Iron | 37800 | 44 | 44 | mg/Kg | 10 | 12/02/22 | TH | SW6010D |
| Lead | 25.8 | 0.9 | 0.44 | mg/Kg | 1 | 12/02/22 | TH | SW6010D |
| Magnesium | 7270 | 44 | 44 | mg/Kg | 10 | 12/02/22 | TH | SW6010D |
| Manganese | 839 | 4.4 | 4.4 | mg/Kg | 10 | 12/02/22 | TH | SW6010D |
| Mercury | ND | 0.03 | 0.02 | mg/Kg | 2 | 12/05/22 | PM | SW7471B |
| Nickel | 30.0 | 0.44 | 0.44 | mg/Kg | 1 | 12/02/22 | TH | SW6010D |
| Potassium | 1340 | 9 | 3.4 | mg/Kg | 1 | 12/02/22 | TH | SW6010D |
| Selenium | ND | 1.8 | 1.5 | mg/Kg | 1 | 12/02/22 | TH | SW6010D |
| Silver | ND | 0.44 | 0.44 | mg/Kg | 1 | 12/02/22 | TH | SW6010D |
| Sodium | 154 | 9 | 3.8 | mg/Kg | 1 | 12/02/22 | TH | SW6010D |
| Thallium | ND | 1.8 | 1.8 | mg/Kg | 1 | 12/02/22 | TH | SW6010D |
| Vanadium | 17.9 | 0.44 | 0.44 | mg/Kg | 1 | 12/02/22 | TH | SW6010D |
| Zinc | 89.4 | 0.9 | 0.44 | mg/Kg | 1 | 12/02/22 | TH | SW6010D |
| Percent Solid | 78 | | | % | | 12/01/22 | Q | SW846-%Solid |
| Extraction for SVOA SIM | Completed | | | | | 12/02/22 | O/Y | SW3545A |
| Soil Extraction for PCB | Completed | | | | | 12/01/22 | B/MO | SW3545A |
| Soil Extraction for Pesticide | Completed | | | | | 12/01/22 | B/MO | SW3545A |

**Ver 1**

Project ID: IPARK0118.62-LOT 10 BOUNDARY MODIFICAT. Phoenix I.D.: CM95259

Client ID: SB-DUP1

| Parameter | Result | RL/ PQL | LOD/ MDL | Units | Dilution | Date/Time | By | Reference | |
|---|---|---|---|---|---|---|---|---|---|
| Field Extraction | Completed | | | | | 11/29/22 | | SW5035A | 1 |
| Mercury Digestion | Completed | | | | | 12/02/22 | AB/AB | SW7471B | |
| Soil Extraction for Herbicide | Completed | | | | | 12/07/22 | J/D | SW3546 | |
| Soil Extraction for SVOA | Completed | | | | | 12/03/22 | E/Y | SW3546 | |
| Total Metals Digest | Completed | | | | | 12/01/22 | | SW3050B | |
| PFAS (21) | Completed | | | | | 12/08/22 | *** | EPA 537m | C |

## PFAS (21)

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **1H,1H,2H,2H-Perfluorodecanesulfonic acid** | ND | 0.292 | 0.0299 | ng/g | 1 | 12/12/22 | *** | EPA 537m | C |
| **1H,1H,2H,2H-Perfluorooctanesulfonic acid** | ND | 0.292 | 0.0772 | ng/g | 1 | 12/12/22 | *** | EPA 537m | C |
| NEtFOSAA | ND | 0.292 | 0.122 | ng/g | 1 | 12/12/22 | *** | EPA 537m | C |
| NMeFOSAA | ND | 0.292 | 0.122 | ng/g | 1 | 12/12/22 | *** | EPA 537m | C |
| **Perfluoro-1-decanesulfonic acid (PFDS)** | ND | 0.292 | 0.0599 | ng/g | 1 | 12/12/22 | *** | EPA 537m | C |
| **Perfluoro-1-heptanesulfonic acid (PFHpS)** | ND | 0.292 | 0.0577 | ng/g | 1 | 12/12/22 | *** | EPA 537m | C |
| **Perfluoro-1-octanesulfonamide (FOSA)** | ND | 0.292 | 0.0546 | ng/g | 1 | 12/12/22 | *** | EPA 537m | C |
| Perfluorobutanesulfonic acid (PFBS) | ND | 0.292 | 0.234 | ng/g | 1 | 12/12/22 | *** | EPA 537m | C |
| Perfluorodecanoic acid (PFDA) | ND | 0.292 | 0.0599 | ng/g | 1 | 12/12/22 | *** | EPA 537m | C |
| Perfluorododecanoic acid (PFDoA) | ND | 0.292 | 0.0877 | ng/g | 1 | 12/12/22 | *** | EPA 537m | C |
| Perfluoroheptanoic acid (PFHpA) | ND | 0.292 | 0.0532 | ng/g | 1 | 12/12/22 | *** | EPA 537m | C |
| **Perfluorohexanesulfonic Acid (PFHxS)** | ND | 0.292 | 0.0363 | ng/g | 1 | 12/12/22 | *** | EPA 537m | C |
| Perfluorohexanoic acid (PFHxA) | ND | 0.292 | 0.0771 | ng/g | 1 | 12/12/22 | *** | EPA 537m | C |
| Perfluoro-n-butanoic acid (PFBA) | ND | 0.292 | 0.214 | ng/g | 1 | 12/12/22 | *** | EPA 537m | C |
| Perfluorononanoic acid (PFNA) | ND | 0.292 | 0.0699 | ng/g | 1 | 12/12/22 | *** | EPA 537m | C |
| Perfluorooctanesulfonic Acid (PFOS) | ND | 0.292 | 0.0512 | ng/g | 1 | 12/12/22 | *** | EPA 537m | C |
| Perfluorooctanoic acid (PFOA) | ND | 0.292 | 0.0903 | ng/g | 1 | 12/12/22 | *** | EPA 537m | C |
| Perfluoropentanoic acid (PFPeA) | ND | 0.292 | 0.107 | ng/g | 1 | 12/12/22 | *** | EPA 537m | C |
| Perfluorotetradecanoic acid (PFTA) | ND | 0.292 | 0.0874 | ng/g | 1 | 12/12/22 | *** | EPA 537m | C |
| Perfluorotridecanoic acid (PFTrDA) | ND | 0.292 | 0.0509 | ng/g | 1 | 12/12/22 | *** | EPA 537m | C |
| Perfluoroundecanoic acid (PFUnA) | ND | 0.292 | 0.136 | ng/g | 1 | 12/12/22 | *** | EPA 537m | C |
| **QA/QC Surrogates** | | | | | | | | | |
| % d3-N-MeFOSAA | 51.6 | | | % | 1 | 12/12/22 | *** | 25 - 150 % | C |
| % d5-NEtFOSA | 52.5 | | | % | 1 | 12/12/22 | *** | 25 - 150 % | C |
| % M2-6:2FTS | 104 | | | % | 1 | 12/12/22 | *** | 25 - 200 % | C |
| % M2-8:2FTS | 79.5 | | | % | 1 | 12/12/22 | *** | 25 - 200 % | C |
| % M2PFTeDA | 27.9 | | | % | 1 | 12/12/22 | *** | 10 - 150 % | C |
| % M3PFBS | 71.8 | | | % | 1 | 12/12/22 | *** | 25 - 150 % | C |
| % M3PFHxS | 83.5 | | | % | 1 | 12/12/22 | *** | 25 - 150 % | C |
| % M4PFHpA | 85.8 | | | % | 1 | 12/12/22 | *** | 25 - 150 % | C |
| % M5PFHxA | 83.3 | | | % | 1 | 12/12/22 | *** | 25 - 150 % | C |
| % M5PFPeA | 96.6 | | | % | 1 | 12/12/22 | *** | 25 - 150 % | C |
| % M6PFDA | 63.9 | | | % | 1 | 12/12/22 | *** | 25 - 150 % | C |
| % M7PFUdA | 53.1 | | | % | 1 | 12/12/22 | *** | 25 - 150 % | C |
| % M8FOSA | 47.7 | | | % | 1 | 12/12/22 | *** | 10 - 150 % | C |
| % M8PFOA | 88.2 | | | % | 1 | 12/12/22 | *** | 25 - 150 % | C |
| % M8PFOS | 64.4 | | | % | 1 | 12/12/22 | *** | 25 - 150 % | C |
| % M9PFNA | 73.5 | | | % | 1 | 12/12/22 | *** | 25 - 150 % | C |
| % MPFBA | 81.6 | | | % | 1 | 12/12/22 | *** | 25 - 150 % | C |
| % MPFDoA | 53.5 | | | % | 1 | 12/12/22 | *** | 25 - 150 % | C |

Project ID: IPARK0118.62-LOT 10 BOUNDARY MODIFICAT. Phoenix I.D.: CM95259
Client ID: SB-DUP1

| Parameter | Result | RL/ PQL | LOD/ MDL | Units | Dilution | Date/Time | By | Reference |
|---|---|---|---|---|---|---|---|---|
| **Chlorinated Herbicides** | | | | | | | | |
| 2,4,5-T | ND | 160 | 160 | ug/Kg | 10 | 12/08/22 | JRB | SW8151A |
| 2,4,5-TP (Silvex) | ND | 160 | 160 | ug/Kg | 10 | 12/08/22 | JRB | SW8151A |
| 2,4-D | ND | 310 | 310 | ug/Kg | 10 | 12/08/22 | JRB | SW8151A |
| 2,4-DB | ND | 3100 | 3100 | ug/Kg | 10 | 12/08/22 | JRB | SW8151A |
| Dalapon | ND | 160 | 160 | ug/Kg | 10 | 12/08/22 | JRB | SW8151A |
| Dicamba | ND | 160 | 160 | ug/Kg | 10 | 12/08/22 | JRB | SW8151A |
| Dichloroprop | ND | 310 | 310 | ug/Kg | 10 | 12/08/22 | JRB | SW8151A |
| Dinoseb | ND | 310 | 310 | ug/Kg | 10 | 12/08/22 | JRB | SW8151A |
| **QA/QC Surrogates** | | | | | | | | |
| % DCAA | 86 | | | % | 10 | 12/08/22 | JRB | 30 - 150 % |
| % DCAA (Confirmation) | 78 | | | % | 10 | 12/08/22 | JRB | 30 - 150 % |
| **Polychlorinated Biphenyls** | | | | | | | | |
| PCB-1016 | ND | 84 | 84 | ug/Kg | 2 | 12/02/22 | SC | SW8082A |
| PCB-1221 | ND | 84 | 84 | ug/Kg | 2 | 12/02/22 | SC | SW8082A |
| PCB-1232 | ND | 84 | 84 | ug/Kg | 2 | 12/02/22 | SC | SW8082A |
| PCB-1242 | ND | 84 | 84 | ug/Kg | 2 | 12/02/22 | SC | SW8082A |
| PCB-1248 | ND | 84 | 84 | ug/Kg | 2 | 12/02/22 | SC | SW8082A |
| PCB-1254 | ND | 84 | 84 | ug/Kg | 2 | 12/02/22 | SC | SW8082A |
| PCB-1260 | ND | 84 | 84 | ug/Kg | 2 | 12/02/22 | SC | SW8082A |
| PCB-1262 | ND | 84 | 84 | ug/Kg | 2 | 12/02/22 | SC | SW8082A |
| PCB-1268 | ND | 84 | 84 | ug/Kg | 2 | 12/02/22 | SC | SW8082A |
| **QA/QC Surrogates** | | | | | | | | |
| % DCBP | 99 | | | % | 2 | 12/02/22 | SC | 30 - 150 % |
| % DCBP (Confirmation) | 97 | | | % | 2 | 12/02/22 | SC | 30 - 150 % |
| % TCMX | 89 | | | % | 2 | 12/02/22 | SC | 30 - 150 % |
| % TCMX (Confirmation) | 83 | | | % | 2 | 12/02/22 | SC | 30 - 150 % |
| **Pesticides - Soil** | | | | | | | | |
| 4,4' -DDD | ND | 2.5 | 2.5 | ug/Kg | 2 | 12/02/22 | AW | SW8081B |
| 4,4' -DDE | ND | 2.5 | 2.5 | ug/Kg | 2 | 12/02/22 | AW | SW8081B |
| 4,4' -DDT | ND | 2.5 | 2.5 | ug/Kg | 2 | 12/02/22 | AW | SW8081B |
| a-BHC | ND | 8.4 | 8.4 | ug/Kg | 2 | 12/02/22 | AW | SW8081B |
| a-Chlordane | ND | 4.2 | 4.2 | ug/Kg | 2 | 12/02/22 | AW | SW8081B |
| Alachlor | ND | 4.2 | 4.2 | ug/Kg | 2 | 12/02/22 | AW | SW8081B |
| Aldrin | ND | 4.2 | 4.2 | ug/Kg | 2 | 12/02/22 | AW | SW8081B |
| b-BHC | ND | 8.4 | 8.4 | ug/Kg | 2 | 12/02/22 | AW | SW8081B |
| Chlordane | ND | 42 | 42 | ug/Kg | 2 | 12/02/22 | AW | SW8081B |
| d-BHC | ND | 8.4 | 8.4 | ug/Kg | 2 | 12/02/22 | AW | SW8081B |
| Dieldrin | ND | 4.2 | 4.2 | ug/Kg | 2 | 12/02/22 | AW | SW8081B |
| Endosulfan I | ND | 8.4 | 8.4 | ug/Kg | 2 | 12/02/22 | AW | SW8081B |
| Endosulfan II | ND | 8.4 | 8.4 | ug/Kg | 2 | 12/02/22 | AW | SW8081B |
| Endosulfan sulfate | ND | 8.4 | 8.4 | ug/Kg | 2 | 12/02/22 | AW | SW8081B |
| Endrin | ND | 8.4 | 8.4 | ug/Kg | 2 | 12/02/22 | AW | SW8081B |
| Endrin aldehyde | ND | 8.4 | 8.4 | ug/Kg | 2 | 12/02/22 | AW | SW8081B |
| Endrin ketone | ND | 8.4 | 8.4 | ug/Kg | 2 | 12/02/22 | AW | SW8081B |
| g-BHC | ND | 1.7 | 1.7 | ug/Kg | 2 | 12/02/22 | AW | SW8081B |
| g-Chlordane | ND | 4.2 | 4.2 | ug/Kg | 2 | 12/02/22 | AW | SW8081B |

Project ID: IPARK0118.62-LOT 10 BOUNDARY MODIFICAT. Phoenix I.D.: CM95259
Client ID: SB-DUP1

| Parameter | Result | RL/ PQL | LOD/ MDL | Units | Dilution | Date/Time | By | Reference | |
|---|---|---|---|---|---|---|---|---|---|
| Heptachlor | ND | 8.4 | 8.4 | ug/Kg | 2 | 12/02/22 | AW | SW8081B | |
| Heptachlor epoxide | ND | 8.4 | 8.4 | ug/Kg | 2 | 12/02/22 | AW | SW8081B | |
| Methoxychlor | ND | 42 | 42 | ug/Kg | 2 | 12/02/22 | AW | SW8081B | |
| Toxaphene | ND | 170 | 170 | ug/Kg | 2 | 12/02/22 | AW | SW8081B | |
| **QA/QC Surrogates** | | | | | | | | | |
| % DCBP | 117 | | | % | 2 | 12/02/22 | AW | 30 - 150 % | |
| % DCBP (Confirmation) | 69 | | | % | 2 | 12/02/22 | AW | 30 - 150 % | |
| % TCMX | 103 | | | % | 2 | 12/02/22 | AW | 30 - 150 % | |
| % TCMX (Confirmation) | 84 | | | % | 2 | 12/02/22 | AW | 30 - 150 % | |
| **Volatiles** | | | | | | | | | |
| 1,1,1,2-Tetrachloroethane | ND | 4.9 | 0.99 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| 1,1,1-Trichloroethane | ND | 4.9 | 0.49 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| 1,1,2,2-Tetrachloroethane | ND | 4.9 | 0.99 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| 1,1,2-Trichloroethane | ND | 4.9 | 0.99 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| 1,1-Dichloroethane | ND | 4.9 | 0.99 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| 1,1-Dichloroethene | ND | 4.9 | 0.49 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| 1,1-Dichloropropene | ND | 4.9 | 0.49 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| 1,2,3-Trichlorobenzene | ND | 4.9 | 0.99 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| 1,2,3-Trichloropropane | ND | 4.9 | 0.49 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| 1,2,4-Trichlorobenzene | ND | 4.9 | 0.99 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| 1,2,4-Trimethylbenzene | ND | 4.9 | 0.49 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| 1,2-Dibromo-3-chloropropane | ND | 4.9 | 0.99 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| 1,2-Dibromoethane | ND | 4.9 | 0.49 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| 1,2-Dichlorobenzene | ND | 4.9 | 0.49 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| 1,2-Dichloroethane | ND | 4.9 | 0.49 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| 1,2-Dichloropropane | ND | 4.9 | 0.99 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| 1,3,5-Trimethylbenzene | ND | 4.9 | 0.49 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| 1,3-Dichlorobenzene | ND | 4.9 | 0.49 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| 1,3-Dichloropropane | ND | 4.9 | 0.99 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| 1,4-Dichlorobenzene | ND | 4.9 | 0.49 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| 2,2-Dichloropropane | ND | 4.9 | 0.49 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| 2-Chlorotoluene | ND | 4.9 | 0.99 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| 2-Hexanone | ND | 25 | 4.9 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| 2-Isopropyltoluene | ND | 4.9 | 0.49 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | 1 |
| 4-Chlorotoluene | ND | 4.9 | 0.49 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| 4-Methyl-2-pentanone | ND | 25 | 4.9 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| Acetone | ND | 25 | 4.9 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| Acrylonitrile | ND | 9.9 | 0.99 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| Benzene | ND | 4.9 | 0.49 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| Bromobenzene | ND | 4.9 | 0.49 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| Bromochloromethane | ND | 4.9 | 0.49 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| Bromodichloromethane | ND | 4.9 | 0.99 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| Bromoform | ND | 4.9 | 0.99 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| Bromomethane | ND | 4.9 | 2.0 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| Carbon Disulfide | ND | 4.9 | 0.99 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| Carbon tetrachloride | ND | 4.9 | 0.99 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| Chlorobenzene | ND | 4.9 | 0.49 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| Chloroethane | ND | 4.9 | 0.49 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| Chloroform | ND | 4.9 | 0.49 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |

Project ID: IPARK0118.62-LOT 10 BOUNDARY MODIFICAT. Phoenix I.D.: CM95259

Client ID: SB-DUP1

| Parameter | Result | | RL/ PQL | LOD/ MDL | Units | Dilution | Date/Time | By | Reference | |
|---|---|---|---|---|---|---|---|---|---|---|
| Chloromethane | ND | | 4.9 | 0.99 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| cis-1,2-Dichloroethene | ND | | 4.9 | 0.49 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| cis-1,3-Dichloropropene | ND | | 4.9 | 0.49 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| Dibromochloromethane | ND | | 4.9 | 0.99 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| Dibromomethane | ND | | 4.9 | 0.99 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| Dichlorodifluoromethane | ND | | 4.9 | 0.49 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| Ethylbenzene | ND | | 4.9 | 0.49 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| Hexachlorobutadiene | ND | | 4.9 | 0.49 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| Isopropylbenzene | ND | | 4.9 | 0.49 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| m&p-Xylene | ND | | 4.9 | 0.99 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| Methyl Ethyl Ketone | ND | | 30 | 4.9 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| Methyl t-butyl ether (MTBE) | ND | | 9.9 | 0.99 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| Methylene chloride | ND | | 4.9 | 4.9 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| Naphthalene | ND | | 4.9 | 0.99 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| n-Butylbenzene | ND | | 4.9 | 0.49 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| n-Propylbenzene | ND | | 4.9 | 0.99 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| o-Xylene | ND | | 4.9 | 0.99 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| p-Isopropyltoluene | ND | | 4.9 | 0.49 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| sec-Butylbenzene | ND | | 4.9 | 0.49 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| Styrene | ND | | 4.9 | 0.49 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| tert-Butylbenzene | ND | | 4.9 | 0.49 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| Tetrachloroethene | ND | | 4.9 | 0.99 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| Tetrahydrofuran (THF) | 8.1 | J | 9.9 | 2.5 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| Toluene | ND | | 4.9 | 0.49 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| trans-1,2-Dichloroethene | ND | | 4.9 | 0.49 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| trans-1,3-Dichloropropene | ND | | 4.9 | 0.49 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| trans-1,4-dichloro-2-butene | ND | | 9.9 | 2.5 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| Trichloroethene | ND | | 4.9 | 0.49 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| Trichlorofluoromethane | ND | | 4.9 | 0.99 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| Trichlorotrifluoroethane | ND | | 4.9 | 0.49 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| Vinyl chloride | ND | | 4.9 | 0.49 | ug/Kg | 1 | 12/05/22 | JLI | SW8260C | |
| **QA/QC Surrogates** | | | | | | | | | | |
| % 1,2-dichlorobenzene-d4 | 94 | | | | % | 1 | 12/05/22 | JLI | 70 - 130 % | |
| % Bromofluorobenzene | 94 | | | | % | 1 | 12/05/22 | JLI | 70 - 130 % | |
| % Dibromofluoromethane | 99 | | | | % | 1 | 12/05/22 | JLI | 70 - 130 % | |
| % Toluene-d8 | 95 | | | | % | 1 | 12/05/22 | JLI | 70 - 130 % | |
| **Semivolatiles** | | | | | | | | | | |
| 1,2,4,5-Tetrachlorobenzene | ND | | 300 | 150 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 1,2,4-Trichlorobenzene | ND | | 300 | 130 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 1,2-Dichlorobenzene | ND | | 300 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 1,2-Diphenylhydrazine | ND | | 300 | 140 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 1,3-Dichlorobenzene | ND | | 300 | 130 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 1,4-Dichlorobenzene | ND | | 300 | 130 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2,2'-Oxybis(1-Chloropropane) | ND | | 300 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | 1 |
| 2,4,5-Trichlorophenol | ND | | 300 | 230 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2,4,6-Trichlorophenol | ND | | 210 | 140 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2,4-Dichlorophenol | ND | | 210 | 150 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2,4-Dimethylphenol | ND | | 300 | 100 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2,4-Dinitrophenol | ND | | 300 | 300 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |

Project ID: IPARK0118.62-LOT 10 BOUNDARY MODIFICAT. Phoenix I.D.: CM95259

Client ID: SB-DUP1

| Parameter | Result | RL/ PQL | LOD/ MDL | Units | Dilution | Date/Time | By | Reference | |
|---|---|---|---|---|---|---|---|---|---|
| 2,4-Dinitrotoluene | ND | 210 | 170 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2,6-Dinitrotoluene | ND | 210 | 130 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2-Chloronaphthalene | ND | 300 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2-Chlorophenol | ND | 300 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2-Methylnaphthalene | ND | 300 | 130 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2-Methylphenol (o-cresol) | ND | 300 | 200 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2-Nitroaniline | ND | 300 | 300 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2-Nitrophenol | ND | 300 | 270 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 3&4-Methylphenol (m&p-cresol) | ND | 300 | 170 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | 1 |
| 3,3'-Dichlorobenzidine | ND | 210 | 200 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 3-Nitroaniline | ND | 420 | 840 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 4,6-Dinitro-2-methylphenol | ND | 250 | 84 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 4-Bromophenyl phenyl ether | ND | 300 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 4-Chloro-3-methylphenol | ND | 300 | 150 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 4-Chloroaniline | ND | 340 | 200 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 4-Chlorophenyl phenyl ether | ND | 300 | 140 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 4-Nitroaniline | ND | 420 | 140 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 4-Nitrophenol | ND | 420 | 190 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Acenaphthene | ND | 300 | 130 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Acenaphthylene | ND | 300 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Acetophenone | ND | 300 | 130 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Aniline | ND | 340 | 340 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Anthracene | ND | 300 | 140 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Benz(a)anthracene | ND | 300 | 140 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Benzidine | ND | 420 | 250 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Benzo(a)pyrene | ND | 210 | 140 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Benzo(b)fluoranthene | ND | 300 | 140 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Benzo(ghi)perylene | ND | 300 | 140 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Benzo(k)fluoranthene | ND | 300 | 140 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Benzoic acid | ND | 2100 | 840 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Benzyl butyl phthalate | ND | 300 | 110 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Bis(2-chloroethoxy)methane | ND | 300 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Bis(2-chloroethyl)ether | ND | 210 | 110 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Bis(2-ethylhexyl)phthalate | ND | 300 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Carbazole | ND | 210 | 170 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Chrysene | ND | 300 | 140 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Dibenz(a,h)anthracene | ND | 210 | 140 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Dibenzofuran | ND | 300 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Diethyl phthalate | ND | 300 | 130 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Dimethylphthalate | ND | 300 | 130 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Di-n-butylphthalate | ND | 300 | 110 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Di-n-octylphthalate | ND | 300 | 110 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Fluoranthene | ND | 300 | 140 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Fluorene | ND | 300 | 140 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Hexachlorobenzene | ND | 210 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Hexachlorobutadiene | ND | 300 | 150 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Hexachlorocyclopentadiene | ND | 300 | 130 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Hexachloroethane | ND | 210 | 130 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Indeno(1,2,3-cd)pyrene | ND | 300 | 140 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |

Project ID: IPARK0118.62-LOT 10 BOUNDARY MODIFICAT. Phoenix I.D.: CM95259
Client ID: SB-DUP1

| Parameter | Result | RL/ PQL | LOD/ MDL | Units | Dilution | Date/Time | By | Reference |
|---|---|---|---|---|---|---|---|---|
| Isophorone | ND | 210 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Naphthalene | ND | 300 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Nitrobenzene | ND | 210 | 150 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| N-Nitrosodimethylamine | ND | 300 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| N-Nitrosodi-n-propylamine | ND | 210 | 140 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| N-Nitrosodiphenylamine | ND | 300 | 160 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Pentachloronitrobenzene | ND | 300 | 160 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Pentachlorophenol | ND | 250 | 160 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Phenanthrene | ND | 300 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Phenol | ND | 300 | 140 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Pyrene | ND | 300 | 150 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Pyridine | ND | 300 | 100 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| **QA/QC Surrogates** | | | | | | | | |
| % 2,4,6-Tribromophenol | 90 | | | % | 1 | 12/04/22 | WB | 30 - 130 % |
| % 2-Fluorobiphenyl | 61 | | | % | 1 | 12/04/22 | WB | 30 - 130 % |
| % 2-Fluorophenol | 52 | | | % | 1 | 12/04/22 | WB | 30 - 130 % |
| % Nitrobenzene-d5 | 54 | | | % | 1 | 12/04/22 | WB | 30 - 130 % |
| % Phenol-d5 | 62 | | | % | 1 | 12/04/22 | WB | 30 - 130 % |
| % Terphenyl-d14 | 51 | | | % | 1 | 12/04/22 | WB | 30 - 130 % |
| **1,4-Dioxane** | | | | | | | | |
| 1,4-dioxane | ND | 83 | 83 | ug/Kg | 1 | 12/04/22 | WB | SW8270D (SIM) |
| **QA/QC Surrogates** | | | | | | | | |
| % 2-Fluorobiphenyl | 40 | | | % | 1 | 12/04/22 | WB | 30 - 130 % |
| % Nitrobenzene-d5 | 47 | | | % | 1 | 12/04/22 | WB | 30 - 130 % |
| % Terphenyl-d14 | 75 | | | % | 1 | 12/04/22 | WB | 30 - 130 % |

Project ID: IPARK0118.62-LOT 10 BOUNDARY MODIFICAT. Phoenix I.D.: CM95259
Client ID: SB-DUP1

| Parameter | Result | RL/ PQL | LOD/ MDL | Units | Dilution | Date/Time | By | Reference |
|---|---|---|---|---|---|---|---|---|

1 = This parameter is not certified by the primary accrediting authority (NY NELAC) for this matrix. NY NELAC does not offer certification for all parameters at this time.
C = This parameter is subcontracted.

RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected BRL=Below Reporting Level L=Biased Low J=Estimated Below RL LOD=Limit of Detection MDL=Method Detection Limit1
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

## Comments:

*See attached

Per 1.4.6 of EPA method 8270D, 1,2-Diphenylhydrazine is unstable and readily converts to Azobenzene. Azobenzene is used for the calibration of 1,2-Diphenylhydrazine.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

PFAS (21) (EPA 537m), PFOA/PFOS - Soil Extraction (EPA 537m) were analyzed by NY certified lab #12058.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200.
The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.

**Phyllis Shiller, Laboratory Director**
**December 20, 2022**
**Reviewed and Released by: Phyllis Shiller, Laboratory Director**

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

# Analysis Report

December 20, 2022

FOR: Attn: Nora Brew
Walden Environmental Engineering PLLC
16 Spring Street
Oyster Bay, NY 11771

| Sample Information | | Custody Information | | Date | Time |
|---|---|---|---|---|---|
| Matrix: | SOIL | Collected by: | | 11/29/22 | 11:15 |
| Location Code: | WALDENE-IPARK | Received by: | CP | 12/01/22 | 17:12 |
| Rush Request: | Standard | Analyzed by: | see "By" below | | |
| P.O.#: | | | | | |

## Laboratory Data

SDG ID: GCM95248
Phoenix ID: CM95260

Project ID: IPARK0118.62-LOT 10 BOUNDARY MODIFICAT.
Client ID: SB-8A (0-1`)

| Parameter | Result | RL/ PQL | LOD/ MDL | Units | Dilution | Date/Time | By | Reference |
|---|---|---|---|---|---|---|---|---|
| Aluminum | 15900 | 33 | 6.6 | mg/Kg | 10 | 12/02/22 | TH | SW6010D |
| Antimony | ND | 3.3 | 3.3 | mg/Kg | 1 | 12/02/22 | TH | SW6010D |
| Arsenic | 6.53 | 0.66 | 0.66 | mg/Kg | 1 | 12/02/22 | TH | SW6010D |
| Barium | 86.0 | 0.7 | 0.33 | mg/Kg | 1 | 12/02/22 | TH | SW6010D |
| Beryllium | 0.60 | 0.26 | 0.13 | mg/Kg | 1 | 12/02/22 | TH | SW6010D |
| Calcium | 10100 | 3.3 | 3.0 | mg/Kg | 1 | 12/02/22 | TH | SW6010D |
| Cadmium | 1.85 | 0.33 | 0.33 | mg/Kg | 1 | 12/02/22 | TH | SW6010D |
| Chromium | 18.1 | 0.33 | 0.33 | mg/Kg | 1 | 12/02/22 | TH | SW6010D |
| Cobalt | 14.6 | 0.33 | 0.33 | mg/Kg | 1 | 12/02/22 | TH | SW6010D |
| Copper | 40.1 | 0.7 | 0.33 | mg/kg | 1 | 12/02/22 | TH | SW6010D |
| Iron | 32900 | 33 | 33 | mg/Kg | 10 | 12/02/22 | TH | SW6010D |
| Lead | 24.0 | 0.7 | 0.33 | mg/Kg | 1 | 12/02/22 | TH | SW6010D |
| Magnesium | 9210 | 33 | 33 | mg/Kg | 10 | 12/02/22 | TH | SW6010D |
| Manganese | 3650 | 33 | 33 | mg/Kg | 100 | 12/09/22 | TH | SW6010D |
| Mercury | ND | 0.03 | 0.02 | mg/Kg | 2 | 12/05/22 | PM | SW7471B |
| Nickel | 29.1 | 0.33 | 0.33 | mg/Kg | 1 | 12/02/22 | TH | SW6010D |
| Potassium | 2110 | 7 | 2.6 | mg/Kg | 1 | 12/02/22 | TH | SW6010D |
| Selenium | ND | 1.3 | 1.1 | mg/Kg | 1 | 12/02/22 | TH | SW6010D |
| Silver | ND | 0.33 | 0.33 | mg/Kg | 1 | 12/02/22 | TH | SW6010D |
| Sodium | 100 | 7 | 2.8 | mg/Kg | 1 | 12/02/22 | TH | SW6010D |
| Thallium | ND | 1.3 | 1.3 | mg/Kg | 1 | 12/02/22 | TH | SW6010D |
| Vanadium | 18.6 | 0.33 | 0.33 | mg/Kg | 1 | 12/02/22 | TH | SW6010D |
| Zinc | 80.6 | 0.7 | 0.33 | mg/Kg | 1 | 12/02/22 | TH | SW6010D |
| Percent Solid | 90 | | | % | | 12/01/22 | Q | SW846-%Solid |
| Extraction for SVOA SIM | Completed | | | | | 12/02/22 | O/Y | SW3545A |
| Soil Extraction for PCB | Completed | | | | | 12/01/22 | B/MO | SW3545A |
| Soil Extraction for Pesticide | Completed | | | | | 12/01/22 | B/MO | SW3545A |

**Ver 1**

Project ID: IPARK0118.62-LOT 10 BOUNDARY MODIFICAT. Phoenix I.D.: CM95260
Client ID: SB-8A (0-1`)

| Parameter | Result | RL/ PQL | LOD/ MDL | Units | Dilution | Date/Time | By | Reference | |
|---|---|---|---|---|---|---|---|---|---|
| Mercury Digestion | Completed | | | | | 12/02/22 | AB/AB | SW7471B | |
| Soil Extraction for Herbicide | Completed | | | | | 12/07/22 | J/D | SW3546 | |
| Soil Extraction for SVOA | Completed | | | | | 12/03/22 | E/Y | SW3546 | |
| Total Metals Digest | Completed | | | | | 12/01/22 | | SW3050B | |
| PFAS (21) | Completed | | | | | 12/08/22 | *** | EPA 537m | C |
| **PFAS (21)** | | | | | | | | | |
| 1H,1H,2H,2H-Perfluorodecanesulfonic acid | ND | 0.270 | 0.0276 | ng/g | 1 | 12/12/22 | *** | EPA 537m | C |
| 1H,1H,2H,2H-Perfluorooctanesulfonic acid | ND | 0.270 | 0.0712 | ng/g | 1 | 12/12/22 | *** | EPA 537m | C |
| NEtFOSAA | ND | 0.270 | 0.112 | ng/g | 1 | 12/12/22 | *** | EPA 537m | C |
| NMeFOSAA | ND | 0.270 | 0.113 | ng/g | 1 | 12/12/22 | *** | EPA 537m | C |
| Perfluoro-1-decanesulfonic acid (PFDS) | ND | 0.270 | 0.0553 | ng/g | 1 | 12/12/22 | *** | EPA 537m | C |
| Perfluoro-1-heptanesulfonic acid (PFHpS) | ND | 0.270 | 0.0532 | ng/g | 1 | 12/12/22 | *** | EPA 537m | C |
| Perfluoro-1-octanesulfonamide (FOSA) | ND | 0.270 | 0.0504 | ng/g | 1 | 12/12/22 | *** | EPA 537m | C |
| Perfluorobutanesulfonic acid (PFBS) | ND | 0.270 | 0.216 | ng/g | 1 | 12/12/22 | *** | EPA 537m | C |
| Perfluorodecanoic acid (PFDA) | ND | 0.270 | 0.0553 | ng/g | 1 | 12/12/22 | *** | EPA 537m | C |
| Perfluorododecanoic acid (PFDoA) | ND | 0.270 | 0.0810 | ng/g | 1 | 12/12/22 | *** | EPA 537m | C |
| Perfluoroheptanoic acid (PFHpA) | ND | 0.270 | 0.0491 | ng/g | 1 | 12/12/22 | *** | EPA 537m | C |
| Perfluorohexanesulfonic Acid (PFHxS) | ND | 0.270 | 0.0335 | ng/g | 1 | 12/12/22 | *** | EPA 537m | C |
| Perfluorohexanoic acid (PFHxA) | ND | 0.270 | 0.0711 | ng/g | 1 | 12/12/22 | *** | EPA 537m | C |
| Perfluoro-n-butanoic acid (PFBA) | ND | 0.270 | 0.197 | ng/g | 1 | 12/12/22 | *** | EPA 537m | C |
| Perfluorononanoic acid (PFNA) | ND | 0.270 | 0.0645 | ng/g | 1 | 12/12/22 | *** | EPA 537m | C |
| Perfluorooctanesulfonic Acid (PFOS) | ND | 0.270 | 0.0473 | ng/g | 1 | 12/12/22 | *** | EPA 537m | C |
| Perfluorooctanoic acid (PFOA) | ND | 0.270 | 0.0833 | ng/g | 1 | 12/12/22 | *** | EPA 537m | C |
| Perfluoropentanoic acid (PFPeA) | ND | 0.270 | 0.0992 | ng/g | 1 | 12/12/22 | *** | EPA 537m | C |
| Perfluorotetradecanoic acid (PFTA) | ND | 0.270 | 0.0806 | ng/g | 1 | 12/12/22 | *** | EPA 537m | C |
| Perfluorotridecanoic acid (PFTrDA) | ND | 0.270 | 0.0470 | ng/g | 1 | 12/12/22 | *** | EPA 537m | C |
| Perfluoroundecanoic acid (PFUnA) | ND | 0.270 | 0.126 | ng/g | 1 | 12/12/22 | *** | EPA 537m | C |
| **QA/QC Surrogates** | | | | | | | | | |
| % d3-N-MeFOSAA | 62.4 | | | % | 1 | 12/12/22 | *** | 25 - 150 % | C |
| % d5-NEtFOSA | 59.5 | | | % | 1 | 12/12/22 | *** | 25 - 150 % | C |
| % M2-6:2FTS | 140 | | | % | 1 | 12/12/22 | *** | 25 - 200 % | C |
| % M2-8:2FTS | 136 | | | % | 1 | 12/12/22 | *** | 25 - 200 % | C |
| % M2PFTeDA | 48.3 | | | % | 1 | 12/12/22 | *** | 10 - 150 % | C |
| % M3PFBS | 102 | | | % | 1 | 12/12/22 | *** | 25 - 150 % | C |
| % M3PFHxS | 127 | | | % | 1 | 12/12/22 | *** | 25 - 150 % | C |
| % M4PFHpA | 108 | | | % | 1 | 12/12/22 | *** | 25 - 150 % | C |
| % M5PFHxA | 109 | | | % | 1 | 12/12/22 | *** | 25 - 150 % | C |
| % M5PFPeA | 113 | | | % | 1 | 12/12/22 | *** | 25 - 150 % | C |
| % M6PFDA | 80.3 | | | % | 1 | 12/12/22 | *** | 25 - 150 % | C |
| % M7PFUdA | 64.8 | | | % | 1 | 12/12/22 | *** | 25 - 150 % | C |
| % M8FOSA | 52.7 | | | % | 1 | 12/12/22 | *** | 10 - 150 % | C |
| % M8PFOA | 118 | | | % | 1 | 12/12/22 | *** | 25 - 150 % | C |
| % M8PFOS | 91.7 | | | % | 1 | 12/12/22 | *** | 25 - 150 % | C |
| % M9PFNA | 93.9 | | | % | 1 | 12/12/22 | *** | 25 - 150 % | C |
| % MPFBA | 102 | | | % | 1 | 12/12/22 | *** | 25 - 150 % | C |
| % MPFDoA | 65.3 | | | % | 1 | 12/12/22 | *** | 25 - 150 % | C |
| **Chlorinated Herbicides** | | | | | | | | | |
| 2,4,5-T | ND | 140 | 140 | ug/Kg | 10 | 12/08/22 | JRB | SW8151A | |

**Ver 1**

Project ID: IPARK0118.62-LOT 10 BOUNDARY MODIFICAT. Phoenix I.D.: CM95260
Client ID: SB-8A (0-1`)

| Parameter | Result | RL/ PQL | LOD/ MDL | Units | Dilution | Date/Time | By | Reference |
|---|---|---|---|---|---|---|---|---|
| 2,4,5-TP (Silvex) | ND | 140 | 140 | ug/Kg | 10 | 12/08/22 | JRB | SW8151A |
| 2,4-D | ND | 270 | 270 | ug/Kg | 10 | 12/08/22 | JRB | SW8151A |
| 2,4-DB | ND | 2700 | 2700 | ug/Kg | 10 | 12/08/22 | JRB | SW8151A |
| Dalapon | ND | 140 | 140 | ug/Kg | 10 | 12/08/22 | JRB | SW8151A |
| Dicamba | ND | 140 | 140 | ug/Kg | 10 | 12/08/22 | JRB | SW8151A |
| Dichloroprop | ND | 270 | 270 | ug/Kg | 10 | 12/08/22 | JRB | SW8151A |
| Dinoseb | ND | 270 | 270 | ug/Kg | 10 | 12/08/22 | JRB | SW8151A |
| **QA/QC Surrogates** | | | | | | | | |
| % DCAA | 107 | | | % | 10 | 12/08/22 | JRB | 30 - 150 % |
| % DCAA (Confirmation) | 90 | | | % | 10 | 12/08/22 | JRB | 30 - 150 % |
| **Polychlorinated Biphenyls** | | | | | | | | |
| PCB-1016 | ND | 73 | 73 | ug/Kg | 2 | 12/02/22 | SC | SW8082A |
| PCB-1221 | ND | 73 | 73 | ug/Kg | 2 | 12/02/22 | SC | SW8082A |
| PCB-1232 | ND | 73 | 73 | ug/Kg | 2 | 12/02/22 | SC | SW8082A |
| PCB-1242 | ND | 73 | 73 | ug/Kg | 2 | 12/02/22 | SC | SW8082A |
| PCB-1248 | ND | 73 | 73 | ug/Kg | 2 | 12/02/22 | SC | SW8082A |
| PCB-1254 | ND | 73 | 73 | ug/Kg | 2 | 12/02/22 | SC | SW8082A |
| PCB-1260 | ND | 73 | 73 | ug/Kg | 2 | 12/02/22 | SC | SW8082A |
| PCB-1262 | ND | 73 | 73 | ug/Kg | 2 | 12/02/22 | SC | SW8082A |
| PCB-1268 | ND | 73 | 73 | ug/Kg | 2 | 12/02/22 | SC | SW8082A |
| **QA/QC Surrogates** | | | | | | | | |
| % DCBP | 75 | | | % | 2 | 12/02/22 | SC | 30 - 150 % |
| % DCBP (Confirmation) | 83 | | | % | 2 | 12/02/22 | SC | 30 - 150 % |
| % TCMX | 79 | | | % | 2 | 12/02/22 | SC | 30 - 150 % |
| % TCMX (Confirmation) | 78 | | | % | 2 | 12/02/22 | SC | 30 - 150 % |
| **Pesticides - Soil** | | | | | | | | |
| 4,4' -DDD | ND | 2.2 | 2.2 | ug/Kg | 2 | 12/02/22 | AW | SW8081B |
| 4,4' -DDE | ND | 2.2 | 2.2 | ug/Kg | 2 | 12/02/22 | AW | SW8081B |
| 4,4' -DDT | ND | 2.2 | 2.2 | ug/Kg | 2 | 12/02/22 | AW | SW8081B |
| a-BHC | ND | 7.3 | 7.3 | ug/Kg | 2 | 12/02/22 | AW | SW8081B |
| a-Chlordane | ND | 3.7 | 3.7 | ug/Kg | 2 | 12/02/22 | AW | SW8081B |
| Alachlor | ND | 3.7 | 3.7 | ug/Kg | 2 | 12/02/22 | AW | SW8081B |
| Aldrin | ND | 3.7 | 3.7 | ug/Kg | 2 | 12/02/22 | AW | SW8081B |
| b-BHC | ND | 7.3 | 7.3 | ug/Kg | 2 | 12/02/22 | AW | SW8081B |
| Chlordane | ND | 37 | 37 | ug/Kg | 2 | 12/02/22 | AW | SW8081B |
| d-BHC | ND | 7.3 | 7.3 | ug/Kg | 2 | 12/02/22 | AW | SW8081B |
| Dieldrin | ND | 3.7 | 3.7 | ug/Kg | 2 | 12/02/22 | AW | SW8081B |
| Endosulfan I | ND | 7.3 | 7.3 | ug/Kg | 2 | 12/02/22 | AW | SW8081B |
| Endosulfan II | ND | 7.3 | 7.3 | ug/Kg | 2 | 12/02/22 | AW | SW8081B |
| Endosulfan sulfate | ND | 7.3 | 7.3 | ug/Kg | 2 | 12/02/22 | AW | SW8081B |
| Endrin | ND | 7.3 | 7.3 | ug/Kg | 2 | 12/02/22 | AW | SW8081B |
| Endrin aldehyde | ND | 7.3 | 7.3 | ug/Kg | 2 | 12/02/22 | AW | SW8081B |
| Endrin ketone | ND | 7.3 | 7.3 | ug/Kg | 2 | 12/02/22 | AW | SW8081B |
| g-BHC | ND | 1.5 | 1.5 | ug/Kg | 2 | 12/02/22 | AW | SW8081B |
| g-Chlordane | ND | 3.7 | 3.7 | ug/Kg | 2 | 12/02/22 | AW | SW8081B |
| Heptachlor | ND | 7.3 | 7.3 | ug/Kg | 2 | 12/02/22 | AW | SW8081B |
| Heptachlor epoxide | ND | 7.3 | 7.3 | ug/Kg | 2 | 12/02/22 | AW | SW8081B |
| Methoxychlor | ND | 37 | 37 | ug/Kg | 2 | 12/02/22 | AW | SW8081B |

Project ID: IPARK0118.62-LOT 10 BOUNDARY MODIFICAT. Phoenix I.D.: CM95260
Client ID: SB-8A (0-1`)

| Parameter | Result | RL/ PQL | LOD/ MDL | Units | Dilution | Date/Time | By | Reference | |
|---|---|---|---|---|---|---|---|---|---|
| Toxaphene | ND | 150 | 150 | ug/Kg | 2 | 12/02/22 | AW | SW8081B | |
| **QA/QC Surrogates** | | | | | | | | | |
| % DCBP | 66 | | | % | 2 | 12/02/22 | AW | 30 - 150 % | |
| % DCBP (Confirmation) | 116 | | | % | 2 | 12/02/22 | AW | 30 - 150 % | |
| % TCMX | 59 | | | % | 2 | 12/02/22 | AW | 30 - 150 % | |
| % TCMX (Confirmation) | 78 | | | % | 2 | 12/02/22 | AW | 30 - 150 % | |
| **Semivolatiles** | | | | | | | | | |
| 1,2,4,5-Tetrachlorobenzene | ND | 260 | 130 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 1,2,4-Trichlorobenzene | ND | 260 | 110 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 1,2-Dichlorobenzene | ND | 260 | 100 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 1,2-Diphenylhydrazine | ND | 260 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 1,3-Dichlorobenzene | ND | 260 | 110 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 1,4-Dichlorobenzene | ND | 260 | 110 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2,2'-Oxybis(1-Chloropropane) | ND | 260 | 100 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | 1 |
| 2,4,5-Trichlorophenol | ND | 260 | 200 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2,4,6-Trichlorophenol | ND | 180 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2,4-Dichlorophenol | ND | 180 | 130 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2,4-Dimethylphenol | ND | 260 | 92 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2,4-Dinitrophenol | ND | 260 | 260 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2,4-Dinitrotoluene | ND | 180 | 150 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2,6-Dinitrotoluene | ND | 180 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2-Chloronaphthalene | ND | 260 | 110 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2-Chlorophenol | ND | 260 | 110 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2-Methylnaphthalene | ND | 260 | 110 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2-Methylphenol (o-cresol) | ND | 260 | 170 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2-Nitroaniline | ND | 260 | 260 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2-Nitrophenol | ND | 260 | 230 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 3&4-Methylphenol (m&p-cresol) | ND | 260 | 150 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | 1 |
| 3,3'-Dichlorobenzidine | ND | 180 | 170 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 3-Nitroaniline | ND | 370 | 740 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 4,6-Dinitro-2-methylphenol | ND | 220 | 74 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 4-Bromophenyl phenyl ether | ND | 260 | 110 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 4-Chloro-3-methylphenol | ND | 260 | 130 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 4-Chloroaniline | ND | 300 | 170 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 4-Chlorophenyl phenyl ether | ND | 260 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 4-Nitroaniline | ND | 370 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 4-Nitrophenol | ND | 370 | 170 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Acenaphthene | ND | 260 | 110 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Acenaphthylene | ND | 260 | 100 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Acetophenone | ND | 260 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Aniline | ND | 300 | 300 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Anthracene | ND | 260 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Benz(a)anthracene | ND | 260 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Benzidine | ND | 370 | 220 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Benzo(a)pyrene | ND | 180 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Benzo(b)fluoranthene | ND | 260 | 130 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Benzo(ghi)perylene | ND | 260 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Benzo(k)fluoranthene | ND | 260 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Benzoic acid | ND | 1800 | 740 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |

Project ID: IPARK0118.62-LOT 10 BOUNDARY MODIFICAT. Phoenix I.D.: CM95260
Client ID: SB-8A (0-1`)

| Parameter | Result | RL/ PQL | LOD/ MDL | Units | Dilution | Date/Time | By | Reference |
|---|---|---|---|---|---|---|---|---|
| Benzyl butyl phthalate | ND | 260 | 95 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Bis(2-chloroethoxy)methane | ND | 260 | 100 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Bis(2-chloroethyl)ether | ND | 180 | 100 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Bis(2-ethylhexyl)phthalate | ND | 260 | 110 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Carbazole | ND | 180 | 150 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Chrysene | ND | 260 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Dibenz(a,h)anthracene | ND | 180 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Dibenzofuran | ND | 260 | 110 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Diethyl phthalate | ND | 260 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Dimethylphthalate | ND | 260 | 110 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Di-n-butylphthalate | ND | 260 | 98 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Di-n-octylphthalate | ND | 260 | 95 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Fluoranthene | ND | 260 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Fluorene | ND | 260 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Hexachlorobenzene | ND | 180 | 110 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Hexachlorobutadiene | ND | 260 | 130 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Hexachlorocyclopentadiene | ND | 260 | 110 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Hexachloroethane | ND | 180 | 110 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Indeno(1,2,3-cd)pyrene | ND | 260 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Isophorone | ND | 180 | 100 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Naphthalene | ND | 260 | 110 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Nitrobenzene | ND | 180 | 130 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| N-Nitrosodimethylamine | ND | 260 | 100 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| N-Nitrosodi-n-propylamine | ND | 180 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| N-Nitrosodiphenylamine | ND | 260 | 140 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Pentachloronitrobenzene | ND | 260 | 140 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Pentachlorophenol | ND | 220 | 140 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Phenanthrene | ND | 260 | 110 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Phenol | ND | 260 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Pyrene | ND | 260 | 130 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Pyridine | ND | 260 | 91 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| **QA/QC Surrogates** | | | | | | | | |
| % 2,4,6-Tribromophenol | 107 | | | % | 1 | 12/04/22 | WB | 30 - 130 % |
| % 2-Fluorobiphenyl | 83 | | | % | 1 | 12/04/22 | WB | 30 - 130 % |
| % 2-Fluorophenol | 68 | | | % | 1 | 12/04/22 | WB | 30 - 130 % |
| % Nitrobenzene-d5 | 74 | | | % | 1 | 12/04/22 | WB | 30 - 130 % |
| % Phenol-d5 | 81 | | | % | 1 | 12/04/22 | WB | 30 - 130 % |
| % Terphenyl-d14 | 60 | | | % | 1 | 12/04/22 | WB | 30 - 130 % |
| **1,4-Dioxane** | | | | | | | | |
| 1,4-dioxane | ND | 74 | 74 | ug/Kg | 1 | 12/04/22 | WB | SW8270D (SIM) |
| **QA/QC Surrogates** | | | | | | | | |
| % 2-Fluorobiphenyl | 43 | | | % | 1 | 12/04/22 | WB | 30 - 130 % |
| % Nitrobenzene-d5 | 48 | | | % | 1 | 12/04/22 | WB | 30 - 130 % |
| % Terphenyl-d14 | 74 | | | % | 1 | 12/04/22 | WB | 30 - 130 % |

| Parameter | Result | RL/ PQL | LOD/ MDL | Units | Dilution | Date/Time | By | Reference |
|---|---|---|---|---|---|---|---|---|

1 = This parameter is not certified by the primary accrediting authority (NY NELAC) for this matrix. NY NELAC does not offer certification for all parameters at this time.
C = This parameter is subcontracted.

RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected BRL=Below Reporting Level L=Biased Low LOD=Limit of Detection MDL=Method Detection Limit1
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

## Comments:

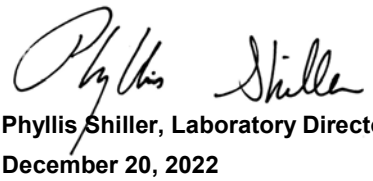
*See attached

Per 1.4.6 of EPA method 8270D, 1,2-Diphenylhydrazine is unstable and readily converts to Azobenzene. Azobenzene is used for the calibration of 1,2-Diphenylhydrazine.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

PFAS (21) (EPA 537m), PFOA/PFOS - Soil Extraction (EPA 537m) were analyzed by NY certified lab #12058.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200.
The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.



**Phyllis Shiller, Laboratory Director**
**December 20, 2022**
**Reviewed and Released by: Phyllis Shiller, Laboratory Director**

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

# Analysis Report

December 20, 2022

FOR: Attn: Nora Brew
Walden Environmental Engineering PLLC
16 Spring Street
Oyster Bay, NY 11771

| Sample Information | | Custody Information | | Date | Time |
|---|---|---|---|---|---|
| Matrix: | SOIL | Collected by: | | 11/29/22 | 11:20 |
| Location Code: | WALDENE-IPARK | Received by: | CP | 12/01/22 | 17:12 |
| Rush Request: | Standard | Analyzed by: | see "By" below | | |
| P.O.#: | | | | | |

## Laboratory Data

SDG ID: GCM95248
Phoenix ID: CM95261

Project ID: IPARK0118.62-LOT 10 BOUNDARY MODIFICAT.
Client ID: SB-8B (1-2`)

| Parameter | Result | RL/ PQL | LOD/ MDL | Units | Dilution | Date/Time | By | Reference | |
|---|---|---|---|---|---|---|---|---|---|
| Field Extraction | Completed | | | | | 11/29/22 | | SW5035A | 1 |
| **Volatiles** | | | | | | | | | |
| 1,1,1,2-Tetrachloroethane | ND | 4.7 | 0.93 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,1,1-Trichloroethane | ND | 4.7 | 0.47 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,1,2,2-Tetrachloroethane | ND | 4.7 | 0.93 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,1,2-Trichloroethane | ND | 4.7 | 0.93 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,1-Dichloroethane | ND | 4.7 | 0.93 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,1-Dichloroethene | ND | 4.7 | 0.47 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,1-Dichloropropene | ND | 4.7 | 0.47 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,2,3-Trichlorobenzene | ND | 4.7 | 0.93 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,2,3-Trichloropropane | ND | 4.7 | 0.47 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,2,4-Trichlorobenzene | ND | 4.7 | 0.93 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,2,4-Trimethylbenzene | ND | 4.7 | 0.47 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,2-Dibromo-3-chloropropane | ND | 4.7 | 0.93 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,2-Dibromoethane | ND | 4.7 | 0.47 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,2-Dichlorobenzene | ND | 4.7 | 0.47 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,2-Dichloroethane | ND | 4.7 | 0.47 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,2-Dichloropropane | ND | 4.7 | 0.93 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,3,5-Trimethylbenzene | ND | 4.7 | 0.47 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,3-Dichlorobenzene | ND | 4.7 | 0.47 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,3-Dichloropropane | ND | 4.7 | 0.93 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,4-Dichlorobenzene | ND | 4.7 | 0.47 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 2,2-Dichloropropane | ND | 4.7 | 0.47 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 2-Chlorotoluene | ND | 4.7 | 0.93 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 2-Hexanone | ND | 23 | 4.7 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 2-Isopropyltoluene | ND | 4.7 | 0.47 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | 1 |

Project ID: IPARK0118.62-LOT 10 BOUNDARY MODIFICAT. Phoenix I.D.: CM95261

Client ID: SB-8B (1-2`)

| Parameter | Result | | RL/ PQL | LOD/ MDL | Units | Dilution | Date/Time | By | Reference |
|---|---|---|---|---|---|---|---|---|---|
| 4-Chlorotoluene | ND | | 4.7 | 0.47 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| 4-Methyl-2-pentanone | ND | | 23 | 4.7 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| Acetone | 56 | S | 23 | 4.7 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| Acrylonitrile | ND | | 9.3 | 0.93 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| Benzene | ND | | 4.7 | 0.47 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| Bromobenzene | ND | | 4.7 | 0.47 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| Bromochloromethane | ND | | 4.7 | 0.47 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| Bromodichloromethane | ND | | 4.7 | 0.93 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| Bromoform | ND | | 4.7 | 0.93 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| Bromomethane | ND | | 4.7 | 1.9 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| Carbon Disulfide | 2.7 | J | 4.7 | 0.93 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| Carbon tetrachloride | ND | | 4.7 | 0.93 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| Chlorobenzene | ND | | 4.7 | 0.47 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| Chloroethane | ND | | 4.7 | 0.47 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| Chloroform | ND | | 4.7 | 0.47 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| Chloromethane | ND | | 4.7 | 0.93 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| cis-1,2-Dichloroethene | ND | | 4.7 | 0.47 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| cis-1,3-Dichloropropene | ND | | 4.7 | 0.47 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| Dibromochloromethane | ND | | 4.7 | 0.93 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| Dibromomethane | ND | | 4.7 | 0.93 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| Dichlorodifluoromethane | ND | | 4.7 | 0.47 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| Ethylbenzene | ND | | 4.7 | 0.47 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| Hexachlorobutadiene | ND | | 4.7 | 0.47 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| Isopropylbenzene | ND | | 4.7 | 0.47 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| m&p-Xylene | ND | | 4.7 | 0.93 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| Methyl Ethyl Ketone | 10 | J | 28 | 4.7 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| Methyl t-butyl ether (MTBE) | ND | | 9.3 | 0.93 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| Methylene chloride | ND | | 4.7 | 4.7 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| Naphthalene | ND | | 4.7 | 0.93 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| n-Butylbenzene | ND | | 4.7 | 0.47 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| n-Propylbenzene | ND | | 4.7 | 0.93 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| o-Xylene | ND | | 4.7 | 0.93 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| p-Isopropyltoluene | ND | | 4.7 | 0.47 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| sec-Butylbenzene | ND | | 4.7 | 0.47 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| Styrene | ND | | 4.7 | 0.47 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| tert-Butylbenzene | ND | | 4.7 | 0.47 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| Tetrachloroethene | ND | | 4.7 | 0.93 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| Tetrahydrofuran (THF) | 7.2 | J | 9.3 | 2.3 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| Toluene | ND | | 4.7 | 0.47 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| trans-1,2-Dichloroethene | ND | | 4.7 | 0.47 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| trans-1,3-Dichloropropene | ND | | 4.7 | 0.47 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| trans-1,4-dichloro-2-butene | ND | | 9.3 | 2.3 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| Trichloroethene | ND | | 4.7 | 0.47 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| Trichlorofluoromethane | ND | | 4.7 | 0.93 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| Trichlorotrifluoroethane | ND | | 4.7 | 0.47 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| Vinyl chloride | ND | | 4.7 | 0.47 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| **QA/QC Surrogates** | | | | | | | | | |
| % 1,2-dichlorobenzene-d4 | 96 | | | | % | 1 | 12/06/22 | JLI | 70 - 130 % |
| % Bromofluorobenzene | 100 | | | | % | 1 | 12/06/22 | JLI | 70 - 130 % |

**Ver 1**

Project ID: IPARK0118.62-LOT 10 BOUNDARY MODIFICAT. Phoenix I.D.: CM95261
Client ID: SB-8B (1-2`)

| Parameter | Result | RL/ PQL | LOD/ MDL | Units | Dilution | Date/Time | By | Reference |
|---|---|---|---|---|---|---|---|---|
| % Dibromofluoromethane | 103 | | | % | 1 | 12/06/22 | JLI | 70 - 130 % |
| % Toluene-d8 | 94 | | | % | 1 | 12/06/22 | JLI | 70 - 130 % |

1 = This parameter is not certified by the primary accrediting authority (NY NELAC) for this matrix. NY NELAC does not offer certification for all parameters at this time.

RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected BRL=Below Reporting Level L=Biased Low J=Estimated Below RL LOD=Limit of Detection MDL=Method Detection Limit1
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

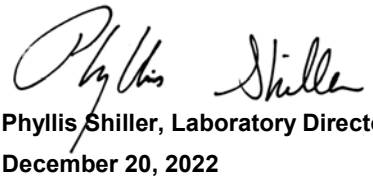
## Comments:

Results are reported on an ``as received`` basis, and are not corrected for dry weight.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

S - Laboratory solvent, contamination is possible.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200.
The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.



**Phyllis Shiller, Laboratory Director**
**December 20, 2022**
**Reviewed and Released by: Phyllis Shiller, Laboratory Director**

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

# Analysis Report

December 20, 2022

FOR: Attn: Nora Brew
Walden Environmental Engineering PLLC
16 Spring Street
Oyster Bay, NY 11771

| Sample Information | | Custody Information | | Date | Time |
|---|---|---|---|---|---|
| Matrix: | SOIL | Collected by: | | 11/29/22 | 11:30 |
| Location Code: | WALDENE-IPARK | Received by: | CP | 12/01/22 | 17:12 |
| Rush Request: | Standard | Analyzed by: | see "By" below | | |
| P.O.#: | | | | | |

## Laboratory Data

SDG ID: GCM95248
Phoenix ID: CM95262

Project ID: IPARK0118.62-LOT 10 BOUNDARY MODIFICAT.
Client ID: SB-8C (13-15`)

| Parameter | Result | RL/ PQL | LOD/ MDL | Units | Dilution | Date/Time | By | Reference |
|---|---|---|---|---|---|---|---|---|
| Aluminum | 8160 | 35 | 7.0 | mg/Kg | 10 | 12/02/22 | TH | SW6010D |
| Antimony | ND | 3.5 | 3.5 | mg/Kg | 1 | 12/02/22 | TH | SW6010D |
| Arsenic | 4.44 | 0.70 | 0.70 | mg/Kg | 1 | 12/02/22 | TH | SW6010D |
| Barium | 22.7 | 0.7 | 0.35 | mg/Kg | 1 | 12/02/22 | TH | SW6010D |
| Beryllium | 0.38 | 0.28 | 0.14 | mg/Kg | 1 | 12/02/22 | TH | SW6010D |
| Calcium | 36700 | 35 | 32 | mg/Kg | 10 | 12/02/22 | TH | SW6010D |
| Cadmium | 1.19 | 0.35 | 0.35 | mg/Kg | 1 | 12/02/22 | TH | SW6010D |
| Chromium | 9.51 | 0.35 | 0.35 | mg/Kg | 1 | 12/02/22 | TH | SW6010D |
| Cobalt | 7.89 | 0.35 | 0.35 | mg/Kg | 1 | 12/02/22 | TH | SW6010D |
| Copper | 20.4 | 0.7 | 0.35 | mg/kg | 1 | 12/02/22 | TH | SW6010D |
| Iron | 21400 | 35 | 35 | mg/Kg | 10 | 12/02/22 | TH | SW6010D |
| Lead | 10.3 | 0.7 | 0.35 | mg/Kg | 1 | 12/02/22 | TH | SW6010D |
| Magnesium | 18500 | 35 | 35 | mg/Kg | 10 | 12/02/22 | TH | SW6010D |
| Manganese | 540 | 3.5 | 3.5 | mg/Kg | 10 | 12/02/22 | TH | SW6010D |
| Mercury | ND | 0.03 | 0.02 | mg/Kg | 2 | 12/05/22 | PM | SW7471B |
| Nickel | 16.5 | 0.35 | 0.35 | mg/Kg | 1 | 12/02/22 | TH | SW6010D |
| Potassium | 1090 | 7 | 2.7 | mg/Kg | 1 | 12/02/22 | TH | SW6010D |
| Selenium | ND | 1.4 | 1.2 | mg/Kg | 1 | 12/02/22 | TH | SW6010D |
| Silver | ND | 0.35 | 0.35 | mg/Kg | 1 | 12/02/22 | TH | SW6010D |
| Sodium | 90 | 7 | 3.0 | mg/Kg | 1 | 12/02/22 | TH | SW6010D |
| Thallium | ND | 1.4 | 1.4 | mg/Kg | 1 | 12/02/22 | TH | SW6010D |
| Vanadium | 10.7 | 0.35 | 0.35 | mg/Kg | 1 | 12/02/22 | TH | SW6010D |
| Zinc | 49.0 | 0.7 | 0.35 | mg/Kg | 1 | 12/02/22 | TH | SW6010D |
| Percent Solid | 90 | | | % | | 12/01/22 | Q | SW846-%Solid |
| Extraction for SVOA SIM | Completed | | | | | 12/02/22 | O/Y | SW3545A |
| Soil Extraction for PCB | Completed | | | | | 12/01/22 | B/MO | SW3545A |
| Soil Extraction for Pesticide | Completed | | | | | 12/01/22 | B/MO | SW3545A |

**Ver 1**

Project ID: IPARK0118.62-LOT 10 BOUNDARY MODIFICAT. Phoenix I.D.: CM95262

Client ID: SB-8C (13-15`)

| Parameter | Result | RL/ PQL | LOD/ MDL | Units | Dilution | Date/Time | By | Reference | |
|---|---|---|---|---|---|---|---|---|---|
| Field Extraction | Completed | | | | | 11/29/22 | | SW5035A | 1 |
| Mercury Digestion | Completed | | | | | 12/02/22 | AB/AB | SW7471B | |
| Soil Extraction for Herbicide | Completed | | | | | 12/07/22 | J/D | SW3546 | |
| Soil Extraction for SVOA | Completed | | | | | 12/03/22 | E/Y | SW3546 | |
| Total Metals Digest | Completed | | | | | 12/01/22 | | SW3050B | |
| PFAS (21) | Completed | | | | | 12/08/22 | *** | EPA 537m | C |

## PFAS (21)

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **1H,1H,2H,2H-Perfluorodecanesulfonic acid** | ND | 0.258 | 0.0265 | ng/g | 1 | 12/12/22 | *** | EPA 537m | C |
| **1H,1H,2H,2H-Perfluorooctanesulfonic acid** | ND | 0.258 | 0.0682 | ng/g | 1 | 12/12/22 | *** | EPA 537m | C |
| NEtFOSAA | ND | 0.258 | 0.108 | ng/g | 1 | 12/12/22 | *** | EPA 537m | C |
| NMeFOSAA | ND | 0.258 | 0.108 | ng/g | 1 | 12/12/22 | *** | EPA 537m | C |
| **Perfluoro-1-decanesulfonic acid (PFDS)** | ND | 0.258 | 0.0529 | ng/g | 1 | 12/12/22 | *** | EPA 537m | C |
| **Perfluoro-1-heptanesulfonic acid (PFHpS)** | ND | 0.258 | 0.0510 | ng/g | 1 | 12/12/22 | *** | EPA 537m | C |
| **Perfluoro-1-octanesulfonamide (FOSA)** | ND | 0.258 | 0.0483 | ng/g | 1 | 12/12/22 | *** | EPA 537m | C |
| Perfluorobutanesulfonic acid (PFBS) | ND | 0.258 | 0.207 | ng/g | 1 | 12/12/22 | *** | EPA 537m | C |
| Perfluorodecanoic acid (PFDA) | ND | 0.258 | 0.0529 | ng/g | 1 | 12/12/22 | *** | EPA 537m | C |
| Perfluorododecanoic acid (PFDoA) | ND | 0.258 | 0.0775 | ng/g | 1 | 12/12/22 | *** | EPA 537m | C |
| Perfluoroheptanoic acid (PFHpA) | ND | 0.258 | 0.0470 | ng/g | 1 | 12/12/22 | *** | EPA 537m | C |
| **Perfluorohexanesulfonic Acid (PFHxS)** | ND | 0.258 | 0.0320 | ng/g | 1 | 12/12/22 | *** | EPA 537m | C |
| Perfluorohexanoic acid (PFHxA) | ND | 0.258 | 0.0681 | ng/g | 1 | 12/12/22 | *** | EPA 537m | C |
| Perfluoro-n-butanoic acid (PFBA) | ND | 0.258 | 0.189 | ng/g | 1 | 12/12/22 | *** | EPA 537m | C |
| Perfluorononanoic acid (PFNA) | ND | 0.258 | 0.0618 | ng/g | 1 | 12/12/22 | *** | EPA 537m | C |
| Perfluorooctanesulfonic Acid (PFOS) | ND | 0.258 | 0.0453 | ng/g | 1 | 12/12/22 | *** | EPA 537m | C |
| Perfluorooctanoic acid (PFOA) | ND | 0.258 | 0.0798 | ng/g | 1 | 12/12/22 | *** | EPA 537m | C |
| Perfluoropentanoic acid (PFPeA) | ND | 0.258 | 0.0950 | ng/g | 1 | 12/12/22 | *** | EPA 537m | C |
| Perfluorotetradecanoic acid (PFTA) | ND | 0.258 | 0.0772 | ng/g | 1 | 12/12/22 | *** | EPA 537m | C |
| Perfluorotridecanoic acid (PFTrDA) | ND | 0.258 | 0.0450 | ng/g | 1 | 12/12/22 | *** | EPA 537m | C |
| Perfluoroundecanoic acid (PFUnA) | ND | 0.258 | 0.120 | ng/g | 1 | 12/12/22 | *** | EPA 537m | C |
| **QA/QC Surrogates** | | | | | | | | | |
| % d3-N-MeFOSAA | 44.8 | | | % | 1 | 12/12/22 | *** | 25 - 150 % | C |
| % d5-NEtFOSA | 48.0 | | | % | 1 | 12/12/22 | *** | 25 - 150 % | C |
| % M2-6:2FTS | 83.7 | | | % | 1 | 12/12/22 | *** | 25 - 200 % | C |
| % M2-8:2FTS | 89.9 | | | % | 1 | 12/12/22 | *** | 25 - 200 % | C |
| % M2PFTeDA | 27.8 | | | % | 1 | 12/12/22 | *** | 10 - 150 % | C |
| % M3PFBS | 75.9 | | | % | 1 | 12/12/22 | *** | 25 - 150 % | C |
| % M3PFHxS | 84.8 | | | % | 1 | 12/12/22 | *** | 25 - 150 % | C |
| % M4PFHpA | 83.7 | | | % | 1 | 12/12/22 | *** | 25 - 150 % | C |
| % M5PFHxA | 84.6 | | | % | 1 | 12/12/22 | *** | 25 - 150 % | C |
| % M5PFPeA | 89.2 | | | % | 1 | 12/12/22 | *** | 25 - 150 % | C |
| % M6PFDA | 62.2 | | | % | 1 | 12/12/22 | *** | 25 - 150 % | C |
| % M7PFUdA | 49.2 | | | % | 1 | 12/12/22 | *** | 25 - 150 % | C |
| % M8FOSA | 43.9 | | | % | 1 | 12/12/22 | *** | 10 - 150 % | C |
| % M8PFOA | 83.2 | | | % | 1 | 12/12/22 | *** | 25 - 150 % | C |
| % M8PFOS | 64.7 | | | % | 1 | 12/12/22 | *** | 25 - 150 % | C |
| % M9PFNA | 72.3 | | | % | 1 | 12/12/22 | *** | 25 - 150 % | C |
| % MPFBA | 83.9 | | | % | 1 | 12/12/22 | *** | 25 - 150 % | C |
| % MPFDoA | 49.0 | | | % | 1 | 12/12/22 | *** | 25 - 150 % | C |

Project ID: IPARK0118.62-LOT 10 BOUNDARY MODIFICAT. Phoenix I.D.: CM95262
Client ID: SB-8C (13-15`)

| Parameter | Result | RL/ PQL | LOD/ MDL | Units | Dilution | Date/Time | By | Reference |
|---|---|---|---|---|---|---|---|---|
| **Chlorinated Herbicides** | | | | | | | | |
| 2,4,5-T | ND | 140 | 140 | ug/Kg | 10 | 12/09/22 | JRB | SW8151A |
| 2,4,5-TP (Silvex) | ND | 140 | 140 | ug/Kg | 10 | 12/09/22 | JRB | SW8151A |
| 2,4-D | ND | 270 | 270 | ug/Kg | 10 | 12/09/22 | JRB | SW8151A |
| 2,4-DB | ND | 2700 | 2700 | ug/Kg | 10 | 12/09/22 | JRB | SW8151A |
| Dalapon | ND | 140 | 140 | ug/Kg | 10 | 12/09/22 | JRB | SW8151A |
| Dicamba | ND | 140 | 140 | ug/Kg | 10 | 12/09/22 | JRB | SW8151A |
| Dichloroprop | ND | 270 | 270 | ug/Kg | 10 | 12/09/22 | JRB | SW8151A |
| Dinoseb | ND | 270 | 270 | ug/Kg | 10 | 12/09/22 | JRB | SW8151A |
| **QA/QC Surrogates** | | | | | | | | |
| % DCAA | 90 | | | % | 10 | 12/09/22 | JRB | 30 - 150 % |
| % DCAA (Confirmation) | 83 | | | % | 10 | 12/09/22 | JRB | 30 - 150 % |
| **Polychlorinated Biphenyls** | | | | | | | | |
| PCB-1016 | ND | 73 | 73 | ug/Kg | 2 | 12/02/22 | SC | SW8082A |
| PCB-1221 | ND | 73 | 73 | ug/Kg | 2 | 12/02/22 | SC | SW8082A |
| PCB-1232 | ND | 73 | 73 | ug/Kg | 2 | 12/02/22 | SC | SW8082A |
| PCB-1242 | ND | 73 | 73 | ug/Kg | 2 | 12/02/22 | SC | SW8082A |
| PCB-1248 | ND | 73 | 73 | ug/Kg | 2 | 12/02/22 | SC | SW8082A |
| PCB-1254 | ND | 73 | 73 | ug/Kg | 2 | 12/02/22 | SC | SW8082A |
| PCB-1260 | ND | 73 | 73 | ug/Kg | 2 | 12/02/22 | SC | SW8082A |
| PCB-1262 | ND | 73 | 73 | ug/Kg | 2 | 12/02/22 | SC | SW8082A |
| PCB-1268 | ND | 73 | 73 | ug/Kg | 2 | 12/02/22 | SC | SW8082A |
| **QA/QC Surrogates** | | | | | | | | |
| % DCBP | 76 | | | % | 2 | 12/02/22 | SC | 30 - 150 % |
| % DCBP (Confirmation) | 85 | | | % | 2 | 12/02/22 | SC | 30 - 150 % |
| % TCMX | 73 | | | % | 2 | 12/02/22 | SC | 30 - 150 % |
| % TCMX (Confirmation) | 74 | | | % | 2 | 12/02/22 | SC | 30 - 150 % |
| **Pesticides - Soil** | | | | | | | | |
| 4,4' -DDD | ND | 2.2 | 2.2 | ug/Kg | 2 | 12/02/22 | AW | SW8081B |
| 4,4' -DDE | ND | 2.2 | 2.2 | ug/Kg | 2 | 12/02/22 | AW | SW8081B |
| 4,4' -DDT | ND | 2.2 | 2.2 | ug/Kg | 2 | 12/02/22 | AW | SW8081B |
| a-BHC | ND | 7.3 | 7.3 | ug/Kg | 2 | 12/02/22 | AW | SW8081B |
| a-Chlordane | ND | 3.6 | 3.6 | ug/Kg | 2 | 12/02/22 | AW | SW8081B |
| Alachlor | ND | 3.6 | 3.6 | ug/Kg | 2 | 12/02/22 | AW | SW8081B |
| Aldrin | ND | 3.6 | 3.6 | ug/Kg | 2 | 12/02/22 | AW | SW8081B |
| b-BHC | ND | 7.3 | 7.3 | ug/Kg | 2 | 12/02/22 | AW | SW8081B |
| Chlordane | ND | 36 | 36 | ug/Kg | 2 | 12/02/22 | AW | SW8081B |
| d-BHC | ND | 7.3 | 7.3 | ug/Kg | 2 | 12/02/22 | AW | SW8081B |
| Dieldrin | ND | 3.6 | 3.6 | ug/Kg | 2 | 12/02/22 | AW | SW8081B |
| Endosulfan I | ND | 7.3 | 7.3 | ug/Kg | 2 | 12/02/22 | AW | SW8081B |
| Endosulfan II | ND | 7.3 | 7.3 | ug/Kg | 2 | 12/02/22 | AW | SW8081B |
| Endosulfan sulfate | ND | 7.3 | 7.3 | ug/Kg | 2 | 12/02/22 | AW | SW8081B |
| Endrin | ND | 7.3 | 7.3 | ug/Kg | 2 | 12/02/22 | AW | SW8081B |
| Endrin aldehyde | ND | 7.3 | 7.3 | ug/Kg | 2 | 12/02/22 | AW | SW8081B |
| Endrin ketone | ND | 7.3 | 7.3 | ug/Kg | 2 | 12/02/22 | AW | SW8081B |
| g-BHC | ND | 1.5 | 1.5 | ug/Kg | 2 | 12/02/22 | AW | SW8081B |
| g-Chlordane | ND | 3.6 | 3.6 | ug/Kg | 2 | 12/02/22 | AW | SW8081B |

Project ID: IPARK0118.62-LOT 10 BOUNDARY MODIFICAT. Phoenix I.D.: CM95262
Client ID: SB-8C (13-15`)

| Parameter | Result | RL/ PQL | LOD/ MDL | Units | Dilution | Date/Time | By | Reference | |
|---|---|---|---|---|---|---|---|---|---|
| Heptachlor | ND | 7.3 | 7.3 | ug/Kg | 2 | 12/02/22 | AW | SW8081B | |
| Heptachlor epoxide | ND | 7.3 | 7.3 | ug/Kg | 2 | 12/02/22 | AW | SW8081B | |
| Methoxychlor | ND | 36 | 36 | ug/Kg | 2 | 12/02/22 | AW | SW8081B | |
| Toxaphene | ND | 150 | 150 | ug/Kg | 2 | 12/02/22 | AW | SW8081B | |
| **QA/QC Surrogates** | | | | | | | | | |
| % DCBP | 76 | | | % | 2 | 12/02/22 | AW | 30 - 150 % | |
| % DCBP (Confirmation) | 80 | | | % | 2 | 12/02/22 | AW | 30 - 150 % | |
| % TCMX | 70 | | | % | 2 | 12/02/22 | AW | 30 - 150 % | |
| % TCMX (Confirmation) | 75 | | | % | 2 | 12/02/22 | AW | 30 - 150 % | |
| **Volatiles** | | | | | | | | | |
| 1,1,1,2-Tetrachloroethane | ND | 3.8 | 0.76 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,1,1-Trichloroethane | ND | 3.8 | 0.38 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,1,2,2-Tetrachloroethane | ND | 3.8 | 0.76 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,1,2-Trichloroethane | ND | 3.8 | 0.76 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,1-Dichloroethane | ND | 3.8 | 0.76 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,1-Dichloroethene | ND | 3.8 | 0.38 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,1-Dichloropropene | ND | 3.8 | 0.38 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,2,3-Trichlorobenzene | ND | 3.8 | 0.76 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,2,3-Trichloropropane | ND | 3.8 | 0.38 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,2,4-Trichlorobenzene | ND | 3.8 | 0.76 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,2,4-Trimethylbenzene | ND | 3.8 | 0.38 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,2-Dibromo-3-chloropropane | ND | 3.8 | 0.76 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,2-Dibromoethane | ND | 3.8 | 0.38 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,2-Dichlorobenzene | ND | 3.8 | 0.38 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,2-Dichloroethane | ND | 3.8 | 0.38 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,2-Dichloropropane | ND | 3.8 | 0.76 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,3,5-Trimethylbenzene | ND | 3.8 | 0.38 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,3-Dichlorobenzene | ND | 3.8 | 0.38 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,3-Dichloropropane | ND | 3.8 | 0.76 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,4-Dichlorobenzene | ND | 3.8 | 0.38 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 2,2-Dichloropropane | ND | 3.8 | 0.38 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 2-Chlorotoluene | ND | 3.8 | 0.76 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 2-Hexanone | ND | 19 | 3.8 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 2-Isopropyltoluene | ND | 3.8 | 0.38 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | 1 |
| 4-Chlorotoluene | ND | 3.8 | 0.38 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 4-Methyl-2-pentanone | ND | 19 | 3.8 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Acetone | ND | 19 | 3.8 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Acrylonitrile | ND | 7.6 | 0.76 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Benzene | ND | 3.8 | 0.38 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Bromobenzene | ND | 3.8 | 0.38 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Bromochloromethane | ND | 3.8 | 0.38 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Bromodichloromethane | ND | 3.8 | 0.76 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Bromoform | ND | 3.8 | 0.76 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Bromomethane | ND | 3.8 | 1.5 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Carbon Disulfide | ND | 3.8 | 0.76 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Carbon tetrachloride | ND | 3.8 | 0.76 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Chlorobenzene | ND | 3.8 | 0.38 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Chloroethane | ND | 3.8 | 0.38 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Chloroform | ND | 3.8 | 0.38 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |

Project ID: IPARK0118.62-LOT 10 BOUNDARY MODIFICAT. Phoenix I.D.: CM95262

Client ID: SB-8C (13-15`)

| Parameter | Result | | RL/ PQL | LOD/ MDL | Units | Dilution | Date/Time | By | Reference | |
|---|---|---|---|---|---|---|---|---|---|---|
| Chloromethane | ND | | 3.8 | 0.76 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| cis-1,2-Dichloroethene | ND | | 3.8 | 0.38 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| cis-1,3-Dichloropropene | ND | | 3.8 | 0.38 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Dibromochloromethane | ND | | 3.8 | 0.76 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Dibromomethane | ND | | 3.8 | 0.76 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Dichlorodifluoromethane | ND | | 3.8 | 0.38 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Ethylbenzene | ND | | 3.8 | 0.38 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Hexachlorobutadiene | ND | | 3.8 | 0.38 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Isopropylbenzene | ND | | 3.8 | 0.38 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| m&p-Xylene | ND | | 3.8 | 0.76 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Methyl Ethyl Ketone | ND | | 23 | 3.8 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Methyl t-butyl ether (MTBE) | ND | | 7.6 | 0.76 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Methylene chloride | ND | | 3.8 | 3.8 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Naphthalene | ND | | 3.8 | 0.76 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| n-Butylbenzene | ND | | 3.8 | 0.38 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| n-Propylbenzene | ND | | 3.8 | 0.76 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| o-Xylene | ND | | 3.8 | 0.76 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| p-Isopropyltoluene | ND | | 3.8 | 0.38 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| sec-Butylbenzene | ND | | 3.8 | 0.38 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Styrene | ND | | 3.8 | 0.38 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| tert-Butylbenzene | ND | | 3.8 | 0.38 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Tetrachloroethene | ND | | 3.8 | 0.76 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Tetrahydrofuran (THF) | 3.6 | J | 7.6 | 1.9 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Toluene | ND | | 3.8 | 0.38 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| trans-1,2-Dichloroethene | ND | | 3.8 | 0.38 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| trans-1,3-Dichloropropene | ND | | 3.8 | 0.38 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| trans-1,4-dichloro-2-butene | ND | | 7.6 | 1.9 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Trichloroethene | ND | | 3.8 | 0.38 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Trichlorofluoromethane | ND | | 3.8 | 0.76 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Trichlorotrifluoroethane | ND | | 3.8 | 0.38 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Vinyl chloride | ND | | 3.8 | 0.38 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| **QA/QC Surrogates** | | | | | | | | | | |
| % 1,2-dichlorobenzene-d4 | 96 | | | | % | 1 | 12/06/22 | JLI | 70 - 130 % | |
| % Bromofluorobenzene | 98 | | | | % | 1 | 12/06/22 | JLI | 70 - 130 % | |
| % Dibromofluoromethane | 96 | | | | % | 1 | 12/06/22 | JLI | 70 - 130 % | |
| % Toluene-d8 | 101 | | | | % | 1 | 12/06/22 | JLI | 70 - 130 % | |
| **Semivolatiles** | | | | | | | | | | |
| 1,2,4,5-Tetrachlorobenzene | ND | | 260 | 130 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 1,2,4-Trichlorobenzene | ND | | 260 | 110 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 1,2-Dichlorobenzene | ND | | 260 | 100 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 1,2-Diphenylhydrazine | ND | | 260 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 1,3-Dichlorobenzene | ND | | 260 | 110 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 1,4-Dichlorobenzene | ND | | 260 | 110 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2,2'-Oxybis(1-Chloropropane) | ND | | 260 | 100 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | 1 |
| 2,4,5-Trichlorophenol | ND | | 260 | 200 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2,4,6-Trichlorophenol | ND | | 180 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2,4-Dichlorophenol | ND | | 180 | 130 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2,4-Dimethylphenol | ND | | 260 | 91 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2,4-Dinitrophenol | ND | | 260 | 260 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |

Project ID: IPARK0118.62-LOT 10 BOUNDARY MODIFICAT. Phoenix I.D.: CM95262

Client ID: SB-8C (13-15`)

| Parameter | Result | RL/ PQL | LOD/ MDL | Units | Dilution | Date/Time | By | Reference | |
|---|---|---|---|---|---|---|---|---|---|
| 2,4-Dinitrotoluene | ND | 180 | 140 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2,6-Dinitrotoluene | ND | 180 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2-Chloronaphthalene | ND | 260 | 100 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2-Chlorophenol | ND | 260 | 100 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2-Methylnaphthalene | ND | 260 | 110 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2-Methylphenol (o-cresol) | ND | 260 | 170 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2-Nitroaniline | ND | 260 | 260 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2-Nitrophenol | ND | 260 | 230 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 3&4-Methylphenol (m&p-cresol) | ND | 260 | 140 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | 1 |
| 3,3'-Dichlorobenzidine | ND | 180 | 170 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 3-Nitroaniline | ND | 370 | 730 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 4,6-Dinitro-2-methylphenol | ND | 220 | 73 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 4-Bromophenyl phenyl ether | ND | 260 | 110 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 4-Chloro-3-methylphenol | ND | 260 | 130 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 4-Chloroaniline | ND | 290 | 170 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 4-Chlorophenyl phenyl ether | ND | 260 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 4-Nitroaniline | ND | 370 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 4-Nitrophenol | ND | 370 | 170 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Acenaphthene | ND | 260 | 110 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Acenaphthylene | ND | 260 | 100 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Acetophenone | ND | 260 | 110 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Aniline | ND | 290 | 290 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Anthracene | ND | 260 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Benz(a)anthracene | ND | 260 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Benzidine | ND | 370 | 220 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Benzo(a)pyrene | ND | 180 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Benzo(b)fluoranthene | ND | 260 | 130 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Benzo(ghi)perylene | ND | 260 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Benzo(k)fluoranthene | ND | 260 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Benzoic acid | ND | 1800 | 730 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Benzyl butyl phthalate | ND | 260 | 94 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Bis(2-chloroethoxy)methane | ND | 260 | 100 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Bis(2-chloroethyl)ether | ND | 180 | 99 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Bis(2-ethylhexyl)phthalate | ND | 260 | 110 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Carbazole | ND | 180 | 150 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Chrysene | ND | 260 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Dibenz(a,h)anthracene | ND | 180 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Dibenzofuran | ND | 260 | 110 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Diethyl phthalate | ND | 260 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Dimethylphthalate | ND | 260 | 110 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Di-n-butylphthalate | ND | 260 | 97 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Di-n-octylphthalate | ND | 260 | 94 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Fluoranthene | ND | 260 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Fluorene | ND | 260 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Hexachlorobenzene | ND | 180 | 110 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Hexachlorobutadiene | ND | 260 | 130 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Hexachlorocyclopentadiene | ND | 260 | 110 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Hexachloroethane | ND | 180 | 110 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Indeno(1,2,3-cd)pyrene | ND | 260 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |

Project ID: IPARK0118.62-LOT 10 BOUNDARY MODIFICAT. Phoenix I.D.: CM95262
Client ID: SB-8C (13-15`)

| Parameter | Result | RL/ PQL | LOD/ MDL | Units | Dilution | Date/Time | By | Reference |
|---|---|---|---|---|---|---|---|---|
| Isophorone | ND | 180 | 100 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Naphthalene | ND | 260 | 110 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Nitrobenzene | ND | 180 | 130 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| N-Nitrosodimethylamine | ND | 260 | 100 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| N-Nitrosodi-n-propylamine | ND | 180 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| N-Nitrosodiphenylamine | ND | 260 | 140 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Pentachloronitrobenzene | ND | 260 | 140 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Pentachlorophenol | ND | 220 | 140 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Phenanthrene | ND | 260 | 100 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Phenol | ND | 260 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Pyrene | ND | 260 | 130 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Pyridine | ND | 260 | 90 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| **QA/QC Surrogates** | | | | | | | | |
| % 2,4,6-Tribromophenol | 92 | | | % | 1 | 12/04/22 | WB | 30 - 130 % |
| % 2-Fluorobiphenyl | 58 | | | % | 1 | 12/04/22 | WB | 30 - 130 % |
| % 2-Fluorophenol | 41 | | | % | 1 | 12/04/22 | WB | 30 - 130 % |
| % Nitrobenzene-d5 | 47 | | | % | 1 | 12/04/22 | WB | 30 - 130 % |
| % Phenol-d5 | 54 | | | % | 1 | 12/04/22 | WB | 30 - 130 % |
| % Terphenyl-d14 | 47 | | | % | 1 | 12/04/22 | WB | 30 - 130 % |
| **1,4-Dioxane** | | | | | | | | |
| 1,4-dioxane | ND | 74 | 74 | ug/Kg | 1 | 12/04/22 | WB | SW8270D (SIM) |
| **QA/QC Surrogates** | | | | | | | | |
| % 2-Fluorobiphenyl | 38 | | | % | 1 | 12/04/22 | WB | 30 - 130 % |
| % Nitrobenzene-d5 | 49 | | | % | 1 | 12/04/22 | WB | 30 - 130 % |
| % Terphenyl-d14 | 67 | | | % | 1 | 12/04/22 | WB | 30 - 130 % |

Project ID: IPARK0118.62-LOT 10 BOUNDARY MODIFICAT. Phoenix I.D.: CM95262
Client ID: SB-8C (13-15`)

| Parameter | Result | RL/ PQL | LOD/ MDL | Units | Dilution | Date/Time | By | Reference |
|---|---|---|---|---|---|---|---|---|

1 = This parameter is not certified by the primary accrediting authority (NY NELAC) for this matrix. NY NELAC does not offer certification for all parameters at this time.
C = This parameter is subcontracted.

RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected BRL=Below Reporting Level L=Biased Low J=Estimated Below RL LOD=Limit of Detection MDL=Method Detection Limit1
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

## Comments:

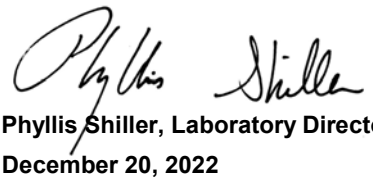
*See attached

Per 1.4.6 of EPA method 8270D, 1,2-Diphenylhydrazine is unstable and readily converts to Azobenzene. Azobenzene is used for the calibration of 1,2-Diphenylhydrazine.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

PFAS (21) (EPA 537m), PFOA/PFOS - Soil Extraction (EPA 537m) were analyzed by NY certified lab #12058.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200.
The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.



**Phyllis Shiller, Laboratory Director**
**December 20, 2022**
**Reviewed and Released by: Phyllis Shiller, Laboratory Director**

PHOENIX

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

# Analysis Report

December 20, 2022

FOR: Attn: Nora Brew
Walden Environmental Engineering PLLC
16 Spring Street
Oyster Bay, NY 11771

| Sample Information | | Custody Information | | Date | Time |
|---|---|---|---|---|---|
| Matrix: | SOIL | Collected by: | | 11/29/22 | 12:45 |
| Location Code: | WALDENE-IPARK | Received by: | CP | 12/01/22 | 17:12 |
| Rush Request: | Standard | Analyzed by: | see "By" below | | |
| P.O.#: | | | | | |

## Laboratory Data

SDG ID: GCM95248
Phoenix ID: CM95263

Project ID: IPARK0118.62-LOT 10 BOUNDARY MODIFICAT.
Client ID: SB-7A (0-1`)

| Parameter | Result | RL/ PQL | LOD/ MDL | Units | Dilution | Date/Time | By | Reference |
|---|---|---|---|---|---|---|---|---|
| Aluminum | 18600 | 39 | 7.7 | mg/Kg | 10 | 12/02/22 | TH | SW6010D |
| Antimony | ND | 3.9 | 3.9 | mg/Kg | 1 | 12/02/22 | TH | SW6010D |
| Arsenic | 6.95 | 0.77 | 0.77 | mg/Kg | 1 | 12/02/22 | TH | SW6010D |
| Barium | 85.0 | 0.8 | 0.39 | mg/Kg | 1 | 12/02/22 | TH | SW6010D |
| Beryllium | 0.74 | 0.31 | 0.15 | mg/Kg | 1 | 12/02/22 | TH | SW6010D |
| Calcium | 3350 | 3.9 | 3.6 | mg/Kg | 1 | 12/02/22 | TH | SW6010D |
| Cadmium | 2.08 | 0.39 | 0.39 | mg/Kg | 1 | 12/02/22 | TH | SW6010D |
| Chromium | 19.7 | 0.39 | 0.39 | mg/Kg | 1 | 12/02/22 | TH | SW6010D |
| Cobalt | 13.2 | 0.39 | 0.39 | mg/Kg | 1 | 12/02/22 | TH | SW6010D |
| Copper | 25.4 | 0.8 | 0.39 | mg/kg | 1 | 12/02/22 | TH | SW6010D |
| Iron | 33800 | 39 | 39 | mg/Kg | 10 | 12/02/22 | TH | SW6010D |
| Lead | 29.2 | 0.8 | 0.39 | mg/Kg | 1 | 12/02/22 | TH | SW6010D |
| Magnesium | 7850 | 39 | 39 | mg/Kg | 10 | 12/02/22 | TH | SW6010D |
| Manganese | 1200 | 3.9 | 3.9 | mg/Kg | 10 | 12/02/22 | TH | SW6010D |
| Mercury | 0.05 | 0.03 | 0.02 | mg/Kg | 2 | 12/05/22 | PM | SW7471B |
| Nickel | 28.2 | 0.39 | 0.39 | mg/Kg | 1 | 12/02/22 | TH | SW6010D |
| Potassium | 1540 | 8 | 3.0 | mg/Kg | 1 | 12/02/22 | TH | SW6010D |
| Selenium | ND | 1.5 | 1.3 | mg/Kg | 1 | 12/02/22 | TH | SW6010D |
| Silver | ND | 0.39 | 0.39 | mg/Kg | 1 | 12/02/22 | TH | SW6010D |
| Sodium | 47 | 8 | 3.3 | mg/Kg | 1 | 12/02/22 | TH | SW6010D |
| Thallium | ND | 1.5 | 1.5 | mg/Kg | 1 | 12/02/22 | TH | SW6010D |
| Vanadium | 26.9 | 0.39 | 0.39 | mg/Kg | 1 | 12/02/22 | TH | SW6010D |
| Zinc | 76.8 | 0.8 | 0.39 | mg/Kg | 1 | 12/02/22 | TH | SW6010D |
| Percent Solid | 82 | | | % | | 12/01/22 | Q | SW846-%Solid |
| Extraction for SVOA SIM | Completed | | | | | 12/02/22 | O/Y | SW3545A |
| Soil Extraction for PCB | Completed | | | | | 12/01/22 | B/Y | SW3545A |
| Soil Extraction for Pesticide | Completed | | | | | 12/01/22 | B/Y | SW3545A |

**Ver 1**

Project ID: IPARK0118.62-LOT 10 BOUNDARY MODIFICAT. Phoenix I.D.: CM95263
Client ID: SB-7A (0-1`)

| Parameter | Result | RL/ PQL | LOD/ MDL | Units | Dilution | Date/Time | By | Reference | |
|---|---|---|---|---|---|---|---|---|---|
| Mercury Digestion | Completed | | | | | 12/02/22 | AB/AB | SW7471B | |
| Soil Extraction for Herbicide | Completed | | | | | 12/07/22 | J/D | SW3546 | |
| Soil Extraction for SVOA | Completed | | | | | 12/03/22 | E/Y | SW3546 | |
| Total Metals Digest | Completed | | | | | 12/01/22 | | SW3050B | |
| PFAS (21) | Completed | | | | | 12/08/22 | *** | EPA 537m | C |
| **PFAS (21)** | | | | | | | | | |
| 1H,1H,2H,2H-Perfluorodecanesulfonic acid | ND | 0.300 | 0.0308 | ng/g | 1 | 12/12/22 | *** | EPA 537m | C |
| 1H,1H,2H,2H-Perfluorooctanesulfonic acid | ND | 0.300 | 0.0793 | ng/g | 1 | 12/12/22 | *** | EPA 537m | C |
| NEtFOSAA | ND | 0.300 | 0.125 | ng/g | 1 | 12/12/22 | *** | EPA 537m | C |
| NMeFOSAA | ND | 0.300 | 0.125 | ng/g | 1 | 12/12/22 | *** | EPA 537m | C |
| Perfluoro-1-decanesulfonic acid (PFDS) | ND | 0.300 | 0.0615 | ng/g | 1 | 12/12/22 | *** | EPA 537m | C |
| Perfluoro-1-heptanesulfonic acid (PFHpS) | ND | 0.300 | 0.0592 | ng/g | 1 | 12/12/22 | *** | EPA 537m | C |
| Perfluoro-1-octanesulfonamide (FOSA) | ND | 0.300 | 0.0561 | ng/g | 1 | 12/12/22 | *** | EPA 537m | C |
| Perfluorobutanesulfonic acid (PFBS) | ND | 0.300 | 0.240 | ng/g | 1 | 12/12/22 | *** | EPA 537m | C |
| Perfluorodecanoic acid (PFDA) | ND | 0.300 | 0.0615 | ng/g | 1 | 12/12/22 | *** | EPA 537m | C |
| Perfluorododecanoic acid (PFDoA) | ND | 0.300 | 0.0901 | ng/g | 1 | 12/12/22 | *** | EPA 537m | C |
| Perfluoroheptanoic acid (PFHpA) | 0.702 | 0.300 | 0.0547 | ng/g | 1 | 12/12/22 | *** | EPA 537m | C |
| Perfluorohexanesulfonic Acid (PFHxS) | ND | 0.300 | 0.0372 | ng/g | 1 | 12/12/22 | *** | EPA 537m | C |
| Perfluorohexanoic acid (PFHxA) | 0.514 | 0.300 | 0.0792 | ng/g | 1 | 12/12/22 | *** | EPA 537m | C |
| Perfluoro-n-butanoic acid (PFBA) | 0.859 | 0.300 | 0.220 | ng/g | 1 | 12/12/22 | *** | EPA 537m | C |
| Perfluorononanoic acid (PFNA) | ND | 0.300 | 0.0719 | ng/g | 1 | 12/12/22 | *** | EPA 537m | C |
| Perfluorooctanesulfonic Acid (PFOS) | 1.00 | 0.300 | 0.0526 | ng/g | 1 | 12/12/22 | *** | EPA 537m | C |
| Perfluorooctanoic acid (PFOA) | 4.56 | 0.300 | 0.0928 | ng/g | 1 | 12/12/22 | *** | EPA 537m | C |
| Perfluoropentanoic acid (PFPeA) | 0.484 | 0.300 | 0.110 | ng/g | 1 | 12/12/22 | *** | EPA 537m | C |
| Perfluorotetradecanoic acid (PFTA) | ND | 0.300 | 0.0898 | ng/g | 1 | 12/12/22 | *** | EPA 537m | C |
| Perfluorotridecanoic acid (PFTrDA) | ND | 0.300 | 0.0523 | ng/g | 1 | 12/12/22 | *** | EPA 537m | C |
| Perfluoroundecanoic acid (PFUnA) | ND | 0.300 | 0.140 | ng/g | 1 | 12/12/22 | *** | EPA 537m | C |
| **QA/QC Surrogates** | | | | | | | | | |
| % d3-N-MeFOSAA | 83.8 | | | % | 1 | 12/12/22 | *** | 25 - 150 % | C |
| % d5-NEtFOSA | 97.3 | | | % | 1 | 12/12/22 | *** | 25 - 150 % | C |
| % M2-6:2FTS | 295 | | | % | 1 | 12/12/22 | *** | 25 - 200 % | C,3 |
| % M2-8:2FTS | 249 | | | % | 1 | 12/12/22 | *** | 25 - 200 % | C,3 |
| % M2PFTeDA | 56.3 | | | % | 1 | 12/12/22 | *** | 10 - 150 % | C |
| % M3PFBS | 95.4 | | | % | 1 | 12/12/22 | *** | 25 - 150 % | C |
| % M3PFHxS | 106 | | | % | 1 | 12/12/22 | *** | 25 - 150 % | C |
| % M4PFHpA | 93.3 | | | % | 1 | 12/12/22 | *** | 25 - 150 % | C |
| % M5PFHxA | 98.5 | | | % | 1 | 12/12/22 | *** | 25 - 150 % | C |
| % M5PFPeA | 106 | | | % | 1 | 12/12/22 | *** | 25 - 150 % | C |
| % M6PFDA | 82.4 | | | % | 1 | 12/12/22 | *** | 25 - 150 % | C |
| % M7PFUdA | 67.9 | | | % | 1 | 12/12/22 | *** | 25 - 150 % | C |
| % M8FOSA | 63.0 | | | % | 1 | 12/12/22 | *** | 10 - 150 % | C |
| % M8PFOA | 99.2 | | | % | 1 | 12/12/22 | *** | 25 - 150 % | C |
| % M8PFOS | 90.6 | | | % | 1 | 12/12/22 | *** | 25 - 150 % | C |
| % M9PFNA | 95.3 | | | % | 1 | 12/12/22 | *** | 25 - 150 % | C |
| % MPFBA | 95.4 | | | % | 1 | 12/12/22 | *** | 25 - 150 % | C |
| % MPFDoA | 70.9 | | | % | 1 | 12/12/22 | *** | 25 - 150 % | C |
| **Chlorinated Herbicides** | | | | | | | | | |
| 2,4,5-T | ND | 150 | 150 | ug/Kg | 10 | 12/09/22 | JRB | SW8151A | |

**Ver 1**

Project ID: IPARK0118.62-LOT 10 BOUNDARY MODIFICAT. Phoenix I.D.: CM95263
Client ID: SB-7A (0-1`)

| Parameter | Result | RL/ PQL | LOD/ MDL | Units | Dilution | Date/Time | By | Reference |
|---|---|---|---|---|---|---|---|---|
| 2,4,5-TP (Silvex) | ND | 150 | 150 | ug/Kg | 10 | 12/09/22 | JRB | SW8151A |
| 2,4-D | ND | 300 | 300 | ug/Kg | 10 | 12/09/22 | JRB | SW8151A |
| 2,4-DB | ND | 3000 | 3000 | ug/Kg | 10 | 12/09/22 | JRB | SW8151A |
| Dalapon | ND | 150 | 150 | ug/Kg | 10 | 12/09/22 | JRB | SW8151A |
| Dicamba | ND | 150 | 150 | ug/Kg | 10 | 12/09/22 | JRB | SW8151A |
| Dichloroprop | ND | 300 | 300 | ug/Kg | 10 | 12/09/22 | JRB | SW8151A |
| Dinoseb | ND | 300 | 300 | ug/Kg | 10 | 12/09/22 | JRB | SW8151A |
| **QA/QC Surrogates** | | | | | | | | |
| % DCAA | 75 | | | % | 10 | 12/09/22 | JRB | 30 - 150 % |
| % DCAA (Confirmation) | 78 | | | % | 10 | 12/09/22 | JRB | 30 - 150 % |
| **Polychlorinated Biphenyls** | | | | | | | | |
| PCB-1016 | ND | 80 | 80 | ug/Kg | 2 | 12/03/22 | SC | SW8082A |
| PCB-1221 | ND | 80 | 80 | ug/Kg | 2 | 12/03/22 | SC | SW8082A |
| PCB-1232 | ND | 80 | 80 | ug/Kg | 2 | 12/03/22 | SC | SW8082A |
| PCB-1242 | ND | 80 | 80 | ug/Kg | 2 | 12/03/22 | SC | SW8082A |
| PCB-1248 | ND | 80 | 80 | ug/Kg | 2 | 12/03/22 | SC | SW8082A |
| PCB-1254 | ND | 80 | 80 | ug/Kg | 2 | 12/03/22 | SC | SW8082A |
| PCB-1260 | ND | 80 | 80 | ug/Kg | 2 | 12/03/22 | SC | SW8082A |
| PCB-1262 | ND | 80 | 80 | ug/Kg | 2 | 12/03/22 | SC | SW8082A |
| PCB-1268 | ND | 80 | 80 | ug/Kg | 2 | 12/03/22 | SC | SW8082A |
| **QA/QC Surrogates** | | | | | | | | |
| % DCBP | 62 | | | % | 2 | 12/03/22 | SC | 30 - 150 % |
| % DCBP (Confirmation) | 52 | | | % | 2 | 12/03/22 | SC | 30 - 150 % |
| % TCMX | 56 | | | % | 2 | 12/03/22 | SC | 30 - 150 % |
| % TCMX (Confirmation) | 56 | | | % | 2 | 12/03/22 | SC | 30 - 150 % |
| **Pesticides - Soil** | | | | | | | | |
| 4,4' -DDD | ND | 2.4 | 2.4 | ug/Kg | 2 | 12/03/22 | AW | SW8081B |
| 4,4' -DDE | 5.3 | 2.4 | 2.4 | ug/Kg | 2 | 12/03/22 | AW | SW8081B |
| 4,4' -DDT | 4.0 | 2.4 | 2.4 | ug/Kg | 2 | 12/03/22 | AW | SW8081B |
| a-BHC | ND | 8.0 | 8.0 | ug/Kg | 2 | 12/03/22 | AW | SW8081B |
| a-Chlordane | ND | 4.0 | 4.0 | ug/Kg | 2 | 12/03/22 | AW | SW8081B |
| Alachlor | ND | 4.0 | 4.0 | ug/Kg | 2 | 12/03/22 | AW | SW8081B |
| Aldrin | ND | 4.0 | 4.0 | ug/Kg | 2 | 12/03/22 | AW | SW8081B |
| b-BHC | ND | 8.0 | 8.0 | ug/Kg | 2 | 12/03/22 | AW | SW8081B |
| Chlordane | ND | 40 | 40 | ug/Kg | 2 | 12/03/22 | AW | SW8081B |
| d-BHC | ND | 8.0 | 8.0 | ug/Kg | 2 | 12/03/22 | AW | SW8081B |
| Dieldrin | ND | 4.0 | 4.0 | ug/Kg | 2 | 12/03/22 | AW | SW8081B |
| Endosulfan I | ND | 8.0 | 8.0 | ug/Kg | 2 | 12/03/22 | AW | SW8081B |
| Endosulfan II | ND | 8.0 | 8.0 | ug/Kg | 2 | 12/03/22 | AW | SW8081B |
| Endosulfan sulfate | ND | 8.0 | 8.0 | ug/Kg | 2 | 12/03/22 | AW | SW8081B |
| Endrin | ND | 8.0 | 8.0 | ug/Kg | 2 | 12/03/22 | AW | SW8081B |
| Endrin aldehyde | ND | 8.0 | 8.0 | ug/Kg | 2 | 12/03/22 | AW | SW8081B |
| Endrin ketone | ND | 8.0 | 8.0 | ug/Kg | 2 | 12/03/22 | AW | SW8081B |
| g-BHC | ND | 1.6 | 1.6 | ug/Kg | 2 | 12/03/22 | AW | SW8081B |
| g-Chlordane | ND | 4.0 | 4.0 | ug/Kg | 2 | 12/03/22 | AW | SW8081B |
| Heptachlor | ND | 8.0 | 8.0 | ug/Kg | 2 | 12/03/22 | AW | SW8081B |
| Heptachlor epoxide | ND | 8.0 | 8.0 | ug/Kg | 2 | 12/03/22 | AW | SW8081B |
| Methoxychlor | ND | 40 | 40 | ug/Kg | 2 | 12/03/22 | AW | SW8081B |

Project ID: IPARK0118.62-LOT 10 BOUNDARY MODIFICAT. Phoenix I.D.: CM95263
Client ID: SB-7A (0-1`)

| Parameter | Result | RL/ PQL | LOD/ MDL | Units | Dilution | Date/Time | By | Reference | |
|---|---|---|---|---|---|---|---|---|---|
| Toxaphene | ND | 160 | 160 | ug/Kg | 2 | 12/03/22 | AW | SW8081B | |
| **QA/QC Surrogates** | | | | | | | | | |
| % DCBP | 56 | | | % | 2 | 12/03/22 | AW | 30 - 150 % | |
| % DCBP (Confirmation) | 62 | | | % | 2 | 12/03/22 | AW | 30 - 150 % | |
| % TCMX | 55 | | | % | 2 | 12/03/22 | AW | 30 - 150 % | |
| % TCMX (Confirmation) | 59 | | | % | 2 | 12/03/22 | AW | 30 - 150 % | |
| **Semivolatiles** | | | | | | | | | |
| 1,2,4,5-Tetrachlorobenzene | ND | 280 | 140 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 1,2,4-Trichlorobenzene | ND | 280 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 1,2-Dichlorobenzene | ND | 280 | 110 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 1,2-Diphenylhydrazine | ND | 280 | 130 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 1,3-Dichlorobenzene | ND | 280 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 1,4-Dichlorobenzene | ND | 280 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2,2'-Oxybis(1-Chloropropane) | ND | 280 | 110 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | 1 |
| 2,4,5-Trichlorophenol | ND | 280 | 220 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2,4,6-Trichlorophenol | ND | 200 | 130 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2,4-Dichlorophenol | ND | 200 | 140 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2,4-Dimethylphenol | ND | 280 | 99 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2,4-Dinitrophenol | ND | 280 | 280 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2,4-Dinitrotoluene | ND | 200 | 160 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2,6-Dinitrotoluene | ND | 200 | 130 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2-Chloronaphthalene | ND | 280 | 110 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2-Chlorophenol | ND | 280 | 110 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2-Methylnaphthalene | ND | 280 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2-Methylphenol (o-cresol) | ND | 280 | 190 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2-Nitroaniline | ND | 280 | 280 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2-Nitrophenol | ND | 280 | 250 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 3&4-Methylphenol (m&p-cresol) | ND | 280 | 160 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | 1 |
| 3,3'-Dichlorobenzidine | ND | 200 | 190 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 3-Nitroaniline | ND | 400 | 790 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 4,6-Dinitro-2-methylphenol | ND | 240 | 79 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 4-Bromophenyl phenyl ether | ND | 280 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 4-Chloro-3-methylphenol | ND | 280 | 140 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 4-Chloroaniline | ND | 320 | 190 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 4-Chlorophenyl phenyl ether | ND | 280 | 130 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 4-Nitroaniline | ND | 400 | 130 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 4-Nitrophenol | ND | 400 | 180 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Acenaphthene | ND | 280 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Acenaphthylene | ND | 280 | 110 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Acetophenone | ND | 280 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Aniline | ND | 320 | 320 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Anthracene | ND | 280 | 130 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Benz(a)anthracene | ND | 280 | 130 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Benzidine | ND | 400 | 230 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Benzo(a)pyrene | ND | 200 | 130 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Benzo(b)fluoranthene | ND | 280 | 140 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Benzo(ghi)perylene | ND | 280 | 130 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Benzo(k)fluoranthene | ND | 280 | 130 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Benzoic acid | ND | 2000 | 790 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |

Project ID: IPARK0118.62-LOT 10 BOUNDARY MODIFICAT. Phoenix I.D.: CM95263
Client ID: SB-7A (0-1`)

| Parameter | Result | RL/ PQL | LOD/ MDL | Units | Dilution | Date/Time | By | Reference |
|---|---|---|---|---|---|---|---|---|
| Benzyl butyl phthalate | ND | 280 | 100 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Bis(2-chloroethoxy)methane | ND | 280 | 110 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Bis(2-chloroethyl)ether | ND | 200 | 110 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Bis(2-ethylhexyl)phthalate | ND | 280 | 110 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Carbazole | ND | 200 | 160 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Chrysene | ND | 280 | 130 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Dibenz(a,h)anthracene | ND | 200 | 130 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Dibenzofuran | ND | 280 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Diethyl phthalate | ND | 280 | 130 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Dimethylphthalate | ND | 280 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Di-n-butylphthalate | ND | 280 | 110 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Di-n-octylphthalate | ND | 280 | 100 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Fluoranthene | ND | 280 | 130 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Fluorene | ND | 280 | 130 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Hexachlorobenzene | ND | 200 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Hexachlorobutadiene | ND | 280 | 140 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Hexachlorocyclopentadiene | ND | 280 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Hexachloroethane | ND | 200 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Indeno(1,2,3-cd)pyrene | ND | 280 | 130 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Isophorone | ND | 200 | 110 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Naphthalene | ND | 280 | 110 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Nitrobenzene | ND | 200 | 140 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| N-Nitrosodimethylamine | ND | 280 | 110 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| N-Nitrosodi-n-propylamine | ND | 200 | 130 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| N-Nitrosodiphenylamine | ND | 280 | 150 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Pentachloronitrobenzene | ND | 280 | 150 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Pentachlorophenol | ND | 240 | 150 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Phenanthrene | ND | 280 | 110 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Phenol | ND | 280 | 130 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Pyrene | ND | 280 | 140 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Pyridine | ND | 280 | 98 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| **QA/QC Surrogates** | | | | | | | | |
| % 2,4,6-Tribromophenol | 107 | | | % | 1 | 12/04/22 | WB | 30 - 130 % |
| % 2-Fluorobiphenyl | 68 | | | % | 1 | 12/04/22 | WB | 30 - 130 % |
| % 2-Fluorophenol | 49 | | | % | 1 | 12/04/22 | WB | 30 - 130 % |
| % Nitrobenzene-d5 | 55 | | | % | 1 | 12/04/22 | WB | 30 - 130 % |
| % Phenol-d5 | 69 | | | % | 1 | 12/04/22 | WB | 30 - 130 % |
| % Terphenyl-d14 | 55 | | | % | 1 | 12/04/22 | WB | 30 - 130 % |
| **1,4-Dioxane** | | | | | | | | |
| 1,4-dioxane | ND | 79 | 79 | ug/Kg | 1 | 12/05/22 | WB | SW8270D (SIM) |
| **QA/QC Surrogates** | | | | | | | | |
| % 2-Fluorobiphenyl | 40 | | | % | 1 | 12/05/22 | WB | 30 - 130 % |
| % Nitrobenzene-d5 | 48 | | | % | 1 | 12/05/22 | WB | 30 - 130 % |
| % Terphenyl-d14 | 72 | | | % | 1 | 12/05/22 | WB | 30 - 130 % |

| Parameter | Result | RL/ PQL | LOD/ MDL | Units | Dilution | Date/Time | By | Reference |
|---|---|---|---|---|---|---|---|---|

1 = This parameter is not certified by the primary accrediting authority (NY NELAC) for this matrix. NY NELAC does not offer certification for all parameters at this time.
3 = This parameter exceeds laboratory specified limits.
C = This parameter is subcontracted.

RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected BRL=Below Reporting Level L=Biased Low LOD=Limit of Detection MDL=Method Detection Limit1
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

## Comments:

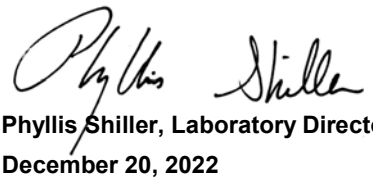
*See attached

Per 1.4.6 of EPA method 8270D, 1,2-Diphenylhydrazine is unstable and readily converts to Azobenzene. Azobenzene is used for the calibration of 1,2-Diphenylhydrazine.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

PFAS (21) (EPA 537m), PFOA/PFOS - Soil Extraction (EPA 537m) were analyzed by NY certified lab #12058.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200.
The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.



**Phyllis Shiller, Laboratory Director**
**December 20, 2022**
**Reviewed and Released by: Phyllis Shiller, Laboratory Director**

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

# Analysis Report

December 20, 2022

FOR: Attn: Nora Brew
Walden Environmental Engineering PLLC
16 Spring Street
Oyster Bay, NY 11771

| Sample Information | | Custody Information | | Date | Time |
|---|---|---|---|---|---|
| Matrix: | SOIL | Collected by: | | 11/29/22 | 12:45 |
| Location Code: | WALDENE-IPARK | Received by: | CP | 12/01/22 | 17:12 |
| Rush Request: | Standard | Analyzed by: | see "By" below | | |
| P.O.#: | | | | | |

## Laboratory Data

SDG ID: GCM95248
Phoenix ID: CM95264

Project ID: IPARK0118.62-LOT 10 BOUNDARY MODIFICAT.
Client ID: SB-7B (1-2`)

| Parameter | Result | RL/ PQL | LOD/ MDL | Units | Dilution | Date/Time | By | Reference | |
|---|---|---|---|---|---|---|---|---|---|
| Field Extraction | Completed | | | | | 11/29/22 | | SW5035A | 1 |
| **Volatiles** | | | | | | | | | |
| 1,1,1,2-Tetrachloroethane | ND | 4.9 | 0.97 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,1,1-Trichloroethane | ND | 4.9 | 0.49 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,1,2,2-Tetrachloroethane | ND | 4.9 | 0.97 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,1,2-Trichloroethane | ND | 4.9 | 0.97 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,1-Dichloroethane | ND | 4.9 | 0.97 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,1-Dichloroethene | ND | 4.9 | 0.49 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,1-Dichloropropene | ND | 4.9 | 0.49 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,2,3-Trichlorobenzene | ND | 4.9 | 0.97 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,2,3-Trichloropropane | ND | 4.9 | 0.49 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,2,4-Trichlorobenzene | ND | 4.9 | 0.97 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,2,4-Trimethylbenzene | ND | 4.9 | 0.49 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,2-Dibromo-3-chloropropane | ND | 4.9 | 0.97 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,2-Dibromoethane | ND | 4.9 | 0.49 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,2-Dichlorobenzene | ND | 4.9 | 0.49 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,2-Dichloroethane | ND | 4.9 | 0.49 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,2-Dichloropropane | ND | 4.9 | 0.97 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,3,5-Trimethylbenzene | ND | 4.9 | 0.49 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,3-Dichlorobenzene | ND | 4.9 | 0.49 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,3-Dichloropropane | ND | 4.9 | 0.97 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,4-Dichlorobenzene | ND | 4.9 | 0.49 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 2,2-Dichloropropane | ND | 4.9 | 0.49 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 2-Chlorotoluene | ND | 4.9 | 0.97 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 2-Hexanone | ND | 24 | 4.9 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 2-Isopropyltoluene | ND | 4.9 | 0.49 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | 1 |

Project ID: IPARK0118.62-LOT 10 BOUNDARY MODIFICAT. Phoenix I.D.: CM95264

Client ID: SB-7B (1-2`)

| Parameter | Result | | RL/ PQL | LOD/ MDL | Units | Dilution | Date/Time | By | Reference |
|---|---|---|---|---|---|---|---|---|---|
| 4-Chlorotoluene | ND | | 4.9 | 0.49 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| 4-Methyl-2-pentanone | ND | | 24 | 4.9 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| Acetone | ND | | 24 | 4.9 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| Acrylonitrile | ND | | 9.7 | 0.97 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| Benzene | ND | | 4.9 | 0.49 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| Bromobenzene | ND | | 4.9 | 0.49 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| Bromochloromethane | ND | | 4.9 | 0.49 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| Bromodichloromethane | ND | | 4.9 | 0.97 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| Bromoform | ND | | 4.9 | 0.97 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| Bromomethane | ND | | 4.9 | 1.9 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| Carbon Disulfide | ND | | 4.9 | 0.97 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| Carbon tetrachloride | ND | | 4.9 | 0.97 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| Chlorobenzene | ND | | 4.9 | 0.49 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| Chloroethane | ND | | 4.9 | 0.49 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| Chloroform | ND | | 4.9 | 0.49 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| Chloromethane | ND | | 4.9 | 0.97 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| cis-1,2-Dichloroethene | ND | | 4.9 | 0.49 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| cis-1,3-Dichloropropene | ND | | 4.9 | 0.49 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| Dibromochloromethane | ND | | 4.9 | 0.97 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| Dibromomethane | ND | | 4.9 | 0.97 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| Dichlorodifluoromethane | ND | | 4.9 | 0.49 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| Ethylbenzene | ND | | 4.9 | 0.49 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| Hexachlorobutadiene | ND | | 4.9 | 0.49 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| Isopropylbenzene | ND | | 4.9 | 0.49 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| m&p-Xylene | ND | | 4.9 | 0.97 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| Methyl Ethyl Ketone | ND | | 29 | 4.9 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| Methyl t-butyl ether (MTBE) | ND | | 9.7 | 0.97 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| Methylene chloride | ND | | 4.9 | 4.9 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| Naphthalene | ND | | 4.9 | 0.97 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| n-Butylbenzene | ND | | 4.9 | 0.49 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| n-Propylbenzene | ND | | 4.9 | 0.97 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| o-Xylene | ND | | 4.9 | 0.97 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| p-Isopropyltoluene | ND | | 4.9 | 0.49 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| sec-Butylbenzene | ND | | 4.9 | 0.49 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| Styrene | ND | | 4.9 | 0.49 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| tert-Butylbenzene | ND | | 4.9 | 0.49 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| Tetrachloroethene | ND | | 4.9 | 0.97 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| Tetrahydrofuran (THF) | 8.6 | J | 9.7 | 2.4 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| Toluene | ND | | 4.9 | 0.49 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| trans-1,2-Dichloroethene | ND | | 4.9 | 0.49 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| trans-1,3-Dichloropropene | ND | | 4.9 | 0.49 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| trans-1,4-dichloro-2-butene | ND | | 9.7 | 2.4 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| Trichloroethene | ND | | 4.9 | 0.49 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| Trichlorofluoromethane | ND | | 4.9 | 0.97 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| Trichlorotrifluoroethane | ND | | 4.9 | 0.49 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| Vinyl chloride | ND | | 4.9 | 0.49 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| **QA/QC Surrogates** | | | | | | | | | |
| % 1,2-dichlorobenzene-d4 | 96 | | | | % | 1 | 12/06/22 | JLI | 70 - 130 % |
| % Bromofluorobenzene | 100 | | | | % | 1 | 12/06/22 | JLI | 70 - 130 % |

**Ver 1**

Project ID: IPARK0118.62-LOT 10 BOUNDARY MODIFICAT. Phoenix I.D.: CM95264
Client ID: SB-7B (1-2`)

| Parameter | Result | RL/ PQL | LOD/ MDL | Units | Dilution | Date/Time | By | Reference |
|---|---|---|---|---|---|---|---|---|
| % Dibromofluoromethane | 105 | | | % | 1 | 12/06/22 | JLI | 70 - 130 % |
| % Toluene-d8 | 95 | | | % | 1 | 12/06/22 | JLI | 70 - 130 % |

1 = This parameter is not certified by the primary accrediting authority (NY NELAC) for this matrix. NY NELAC does not offer certification for all parameters at this time.

RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected BRL=Below Reporting Level L=Biased Low J=Estimated Below RL LOD=Limit of Detection MDL=Method Detection Limit1
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

## Comments:

Results are reported on an ``as received`` basis, and are not corrected for dry weight.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200.
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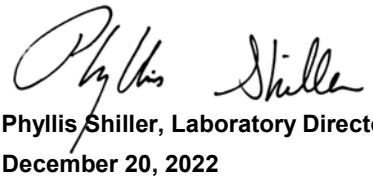


**Phyllis Shiller, Laboratory Director**
**December 20, 2022**
**Reviewed and Released by: Phyllis Shiller, Laboratory Director**

PHOENIX
Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

# Analysis Report

December 20, 2022

FOR: Attn: Nora Brew
Walden Environmental Engineering PLLC
16 Spring Street
Oyster Bay, NY 11771

| Sample Information | | Custody Information | | Date | Time |
|---|---|---|---|---|---|
| Matrix: | SOIL | Collected by: | | 11/29/22 | 12:45 |
| Location Code: | WALDENE-IPARK | Received by: | CP | 12/01/22 | 17:12 |
| Rush Request: | Standard | Analyzed by: | see "By" below | | |
| P.O.#: | | | | | |

## Laboratory Data

SDG ID: GCM95248
Phoenix ID: CM95265

Project ID: IPARK0118.62-LOT 10 BOUNDARY MODIFICAT.
Client ID: SB-7C (6-8`)

| Parameter | Result | RL/ PQL | LOD/ MDL | Units | Dilution | Date/Time | By | Reference |
|---|---|---|---|---|---|---|---|---|
| Aluminum | 8920 | 37 | 7.4 | mg/Kg | 10 | 12/02/22 | TH | SW6010D |
| Antimony | ND | 3.7 | 3.7 | mg/Kg | 1 | 12/02/22 | TH | SW6010D |
| Arsenic | 4.71 | 0.74 | 0.74 | mg/Kg | 1 | 12/02/22 | TH | SW6010D |
| Barium | 99.9 | 0.7 | 0.37 | mg/Kg | 1 | 12/02/22 | TH | SW6010D |
| Beryllium | 0.42 | 0.29 | 0.15 | mg/Kg | 1 | 12/02/22 | TH | SW6010D |
| Calcium | 19900 | 37 | 34 | mg/Kg | 10 | 12/02/22 | TH | SW6010D |
| Cadmium | 1.36 | 0.37 | 0.37 | mg/Kg | 1 | 12/02/22 | TH | SW6010D |
| Chromium | 10.3 | 0.37 | 0.37 | mg/Kg | 1 | 12/02/22 | TH | SW6010D |
| Cobalt | 8.64 | 0.37 | 0.37 | mg/Kg | 1 | 12/02/22 | TH | SW6010D |
| Copper | 23.4 | 0.7 | 0.37 | mg/kg | 1 | 12/02/22 | TH | SW6010D |
| Iron | 23400 | 37 | 37 | mg/Kg | 10 | 12/02/22 | TH | SW6010D |
| Lead | 12.1 | 0.7 | 0.37 | mg/Kg | 1 | 12/02/22 | TH | SW6010D |
| Magnesium | 14600 | 37 | 37 | mg/Kg | 10 | 12/02/22 | TH | SW6010D |
| Manganese | 2440 | 37 | 37 | mg/Kg | 100 | 12/09/22 | TH | SW6010D |
| Mercury | ND | 0.03 | 0.02 | mg/Kg | 2 | 12/05/22 | PM | SW7471B |
| Nickel | 19.3 | 0.37 | 0.37 | mg/Kg | 1 | 12/02/22 | TH | SW6010D |
| Potassium | 1010 | 7 | 2.9 | mg/Kg | 1 | 12/02/22 | TH | SW6010D |
| Selenium | ND | 1.5 | 1.3 | mg/Kg | 1 | 12/02/22 | TH | SW6010D |
| Silver | ND | 0.37 | 0.37 | mg/Kg | 1 | 12/02/22 | TH | SW6010D |
| Sodium | 170 | 7 | 3.2 | mg/Kg | 1 | 12/02/22 | TH | SW6010D |
| Thallium | ND | 1.5 | 1.5 | mg/Kg | 1 | 12/02/22 | TH | SW6010D |
| Vanadium | 12.0 | 0.37 | 0.37 | mg/Kg | 1 | 12/02/22 | TH | SW6010D |
| Zinc | 53.0 | 0.7 | 0.37 | mg/Kg | 1 | 12/02/22 | TH | SW6010D |
| Percent Solid | 87 | | | % | | 12/01/22 | Q | SW846-%Solid |
| Extraction for SVOA SIM | Completed | | | | | 12/02/22 | O/Y | SW3545A |
| Soil Extraction for PCB | Completed | | | | | 12/01/22 | B/MO | SW3545A |
| Soil Extraction for Pesticide | Completed | | | | | 12/01/22 | B/MO | SW3545A |

**Ver 1**

Project ID: IPARK0118.62-LOT 10 BOUNDARY MODIFICAT. Phoenix I.D.: CM95265
Client ID: SB-7C (6-8`)

| Parameter | Result | RL/ PQL | LOD/ MDL | Units | Dilution | Date/Time | By | Reference | |
|---|---|---|---|---|---|---|---|---|---|
| Field Extraction | Completed | | | | | 11/29/22 | | SW5035A | 1 |
| Mercury Digestion | Completed | | | | | 12/02/22 | AB/AB | SW7471B | |
| Soil Extraction for Herbicide | Completed | | | | | 12/07/22 | J/D | SW3546 | |
| Soil Extraction for SVOA | Completed | | | | | 12/03/22 | E/Y | SW3546 | |
| Total Metals Digest | Completed | | | | | 12/01/22 | | SW3050B | |
| PFAS (21) | Completed | | | | | 12/08/22 | *** | EPA 537m | C |

## PFAS (21)

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **1H,1H,2H,2H-Perfluorodecanesulfonic acid** | ND | 0.275 | 0.0282 | ng/g | 1 | 12/12/22 | *** | EPA 537m | C |
| **1H,1H,2H,2H-Perfluorooctanesulfonic acid** | ND | 0.275 | 0.0727 | ng/g | 1 | 12/12/22 | *** | EPA 537m | C |
| NEtFOSAA | ND | 0.275 | 0.115 | ng/g | 1 | 12/12/22 | *** | EPA 537m | C |
| NMeFOSAA | ND | 0.275 | 0.115 | ng/g | 1 | 12/12/22 | *** | EPA 537m | C |
| **Perfluoro-1-decanesulfonic acid (PFDS)** | ND | 0.275 | 0.0564 | ng/g | 1 | 12/12/22 | *** | EPA 537m | C |
| **Perfluoro-1-heptanesulfonic acid (PFHpS)** | ND | 0.275 | 0.0543 | ng/g | 1 | 12/12/22 | *** | EPA 537m | C |
| **Perfluoro-1-octanesulfonamide (FOSA)** | ND | 0.275 | 0.0514 | ng/g | 1 | 12/12/22 | *** | EPA 537m | C |
| Perfluorobutanesulfonic acid (PFBS) | ND | 0.275 | 0.220 | ng/g | 1 | 12/12/22 | *** | EPA 537m | C |
| Perfluorodecanoic acid (PFDA) | ND | 0.275 | 0.0564 | ng/g | 1 | 12/12/22 | *** | EPA 537m | C |
| Perfluorododecanoic acid (PFDoA) | ND | 0.275 | 0.0826 | ng/g | 1 | 12/12/22 | *** | EPA 537m | C |
| Perfluoroheptanoic acid (PFHpA) | ND | 0.275 | 0.0501 | ng/g | 1 | 12/12/22 | *** | EPA 537m | C |
| **Perfluorohexanesulfonic Acid (PFHxS)** | ND | 0.275 | 0.0341 | ng/g | 1 | 12/12/22 | *** | EPA 537m | C |
| Perfluorohexanoic acid (PFHxA) | ND | 0.275 | 0.0725 | ng/g | 1 | 12/12/22 | *** | EPA 537m | C |
| Perfluoro-n-butanoic acid (PFBA) | ND | 0.275 | 0.201 | ng/g | 1 | 12/12/22 | *** | EPA 537m | C |
| Perfluorononanoic acid (PFNA) | ND | 0.275 | 0.0658 | ng/g | 1 | 12/12/22 | *** | EPA 537m | C |
| Perfluorooctanesulfonic Acid (PFOS) | 2.12 | 0.275 | 0.0482 | ng/g | 1 | 12/12/22 | *** | EPA 537m | C |
| Perfluorooctanoic acid (PFOA) | ND | 0.275 | 0.0850 | ng/g | 1 | 12/12/22 | *** | EPA 537m | C |
| Perfluoropentanoic acid (PFPeA) | ND | 0.275 | 0.101 | ng/g | 1 | 12/12/22 | *** | EPA 537m | C |
| Perfluorotetradecanoic acid (PFTA) | ND | 0.275 | 0.0822 | ng/g | 1 | 12/12/22 | *** | EPA 537m | C |
| Perfluorotridecanoic acid (PFTrDA) | ND | 0.275 | 0.0479 | ng/g | 1 | 12/12/22 | *** | EPA 537m | C |
| Perfluoroundecanoic acid (PFUnA) | ND | 0.275 | 0.128 | ng/g | 1 | 12/12/22 | *** | EPA 537m | C |
| **QA/QC Surrogates** | | | | | | | | | |
| % d3-N-MeFOSAA | 55.8 | | | % | 1 | 12/12/22 | *** | 25 - 150 % | C |
| % d5-NEtFOSA | 57.8 | | | % | 1 | 12/12/22 | *** | 25 - 150 % | C |
| % M2-6:2FTS | 115 | | | % | 1 | 12/12/22 | *** | 25 - 200 % | C |
| % M2-8:2FTS | 115 | | | % | 1 | 12/12/22 | *** | 25 - 200 % | C |
| % M2PFTeDA | 38.9 | | | % | 1 | 12/12/22 | *** | 10 - 150 % | C |
| % M3PFBS | 82.1 | | | % | 1 | 12/12/22 | *** | 25 - 150 % | C |
| % M3PFHxS | 87.2 | | | % | 1 | 12/12/22 | *** | 25 - 150 % | C |
| % M4PFHpA | 90.5 | | | % | 1 | 12/12/22 | *** | 25 - 150 % | C |
| % M5PFHxA | 94.1 | | | % | 1 | 12/12/22 | *** | 25 - 150 % | C |
| % M5PFPeA | 97.9 | | | % | 1 | 12/12/22 | *** | 25 - 150 % | C |
| % M6PFDA | 74.0 | | | % | 1 | 12/12/22 | *** | 25 - 150 % | C |
| % M7PFUdA | 55.1 | | | % | 1 | 12/12/22 | *** | 25 - 150 % | C |
| % M8FOSA | 54.0 | | | % | 1 | 12/12/22 | *** | 10 - 150 % | C |
| % M8PFOA | 85.9 | | | % | 1 | 12/12/22 | *** | 25 - 150 % | C |
| % M8PFOS | 70.4 | | | % | 1 | 12/12/22 | *** | 25 - 150 % | C |
| % M9PFNA | 80.0 | | | % | 1 | 12/12/22 | *** | 25 - 150 % | C |
| % MPFBA | 87.8 | | | % | 1 | 12/12/22 | *** | 25 - 150 % | C |
| % MPFDoA | 57.6 | | | % | 1 | 12/12/22 | *** | 25 - 150 % | C |

Project ID: IPARK0118.62-LOT 10 BOUNDARY MODIFICAT. Phoenix I.D.: CM95265
Client ID: SB-7C (6-8`)

| Parameter | Result | RL/ PQL | LOD/ MDL | Units | Dilution | Date/Time | By | Reference |
|---|---|---|---|---|---|---|---|---|
| **Chlorinated Herbicides** | | | | | | | | |
| 2,4,5-T | ND | 140 | 140 | ug/Kg | 10 | 12/09/22 | JRB | SW8151A |
| 2,4,5-TP (Silvex) | ND | 140 | 140 | ug/Kg | 10 | 12/09/22 | JRB | SW8151A |
| 2,4-D | ND | 280 | 280 | ug/Kg | 10 | 12/09/22 | JRB | SW8151A |
| 2,4-DB | ND | 2800 | 2800 | ug/Kg | 10 | 12/09/22 | JRB | SW8151A |
| Dalapon | ND | 140 | 140 | ug/Kg | 10 | 12/09/22 | JRB | SW8151A |
| Dicamba | ND | 140 | 140 | ug/Kg | 10 | 12/09/22 | JRB | SW8151A |
| Dichloroprop | ND | 280 | 280 | ug/Kg | 10 | 12/09/22 | JRB | SW8151A |
| Dinoseb | ND | 280 | 280 | ug/Kg | 10 | 12/09/22 | JRB | SW8151A |
| **QA/QC Surrogates** | | | | | | | | |
| % DCAA | 134 | | | % | 10 | 12/09/22 | JRB | 30 - 150 % |
| % DCAA (Confirmation) | 120 | | | % | 10 | 12/09/22 | JRB | 30 - 150 % |
| **Polychlorinated Biphenyls** | | | | | | | | |
| PCB-1016 | ND | 75 | 75 | ug/Kg | 2 | 12/02/22 | SC | SW8082A |
| PCB-1221 | ND | 75 | 75 | ug/Kg | 2 | 12/02/22 | SC | SW8082A |
| PCB-1232 | ND | 75 | 75 | ug/Kg | 2 | 12/02/22 | SC | SW8082A |
| PCB-1242 | ND | 75 | 75 | ug/Kg | 2 | 12/02/22 | SC | SW8082A |
| PCB-1248 | ND | 75 | 75 | ug/Kg | 2 | 12/02/22 | SC | SW8082A |
| PCB-1254 | ND | 75 | 75 | ug/Kg | 2 | 12/02/22 | SC | SW8082A |
| PCB-1260 | ND | 75 | 75 | ug/Kg | 2 | 12/02/22 | SC | SW8082A |
| PCB-1262 | ND | 75 | 75 | ug/Kg | 2 | 12/02/22 | SC | SW8082A |
| PCB-1268 | ND | 75 | 75 | ug/Kg | 2 | 12/02/22 | SC | SW8082A |
| **QA/QC Surrogates** | | | | | | | | |
| % DCBP | 73 | | | % | 2 | 12/02/22 | SC | 30 - 150 % |
| % DCBP (Confirmation) | 82 | | | % | 2 | 12/02/22 | SC | 30 - 150 % |
| % TCMX | 70 | | | % | 2 | 12/02/22 | SC | 30 - 150 % |
| % TCMX (Confirmation) | 70 | | | % | 2 | 12/02/22 | SC | 30 - 150 % |
| **Pesticides - Soil** | | | | | | | | |
| 4,4' -DDD | ND | 2.3 | 2.3 | ug/Kg | 2 | 12/02/22 | AW | SW8081B |
| 4,4' -DDE | ND | 2.3 | 2.3 | ug/Kg | 2 | 12/02/22 | AW | SW8081B |
| 4,4' -DDT | ND | 2.3 | 2.3 | ug/Kg | 2 | 12/02/22 | AW | SW8081B |
| a-BHC | ND | 7.5 | 7.5 | ug/Kg | 2 | 12/02/22 | AW | SW8081B |
| a-Chlordane | ND | 3.8 | 3.8 | ug/Kg | 2 | 12/02/22 | AW | SW8081B |
| Alachlor | ND | 3.8 | 3.8 | ug/Kg | 2 | 12/02/22 | AW | SW8081B |
| Aldrin | ND | 3.8 | 3.8 | ug/Kg | 2 | 12/02/22 | AW | SW8081B |
| b-BHC | ND | 7.5 | 7.5 | ug/Kg | 2 | 12/02/22 | AW | SW8081B |
| Chlordane | ND | 38 | 38 | ug/Kg | 2 | 12/02/22 | AW | SW8081B |
| d-BHC | ND | 7.5 | 7.5 | ug/Kg | 2 | 12/02/22 | AW | SW8081B |
| Dieldrin | ND | 3.8 | 3.8 | ug/Kg | 2 | 12/02/22 | AW | SW8081B |
| Endosulfan I | ND | 7.5 | 7.5 | ug/Kg | 2 | 12/02/22 | AW | SW8081B |
| Endosulfan II | ND | 7.5 | 7.5 | ug/Kg | 2 | 12/02/22 | AW | SW8081B |
| Endosulfan sulfate | ND | 7.5 | 7.5 | ug/Kg | 2 | 12/02/22 | AW | SW8081B |
| Endrin | ND | 7.5 | 7.5 | ug/Kg | 2 | 12/02/22 | AW | SW8081B |
| Endrin aldehyde | ND | 7.5 | 7.5 | ug/Kg | 2 | 12/02/22 | AW | SW8081B |
| Endrin ketone | ND | 7.5 | 7.5 | ug/Kg | 2 | 12/02/22 | AW | SW8081B |
| g-BHC | ND | 1.5 | 1.5 | ug/Kg | 2 | 12/02/22 | AW | SW8081B |
| g-Chlordane | ND | 3.8 | 3.8 | ug/Kg | 2 | 12/02/22 | AW | SW8081B |

Project ID: IPARK0118.62-LOT 10 BOUNDARY MODIFICAT. Phoenix I.D.: CM95265
Client ID: SB-7C (6-8`)

| Parameter | Result | RL/ PQL | LOD/ MDL | Units | Dilution | Date/Time | By | Reference | |
|---|---|---|---|---|---|---|---|---|---|
| Heptachlor | ND | 7.5 | 7.5 | ug/Kg | 2 | 12/02/22 | AW | SW8081B | |
| Heptachlor epoxide | ND | 7.5 | 7.5 | ug/Kg | 2 | 12/02/22 | AW | SW8081B | |
| Methoxychlor | ND | 38 | 38 | ug/Kg | 2 | 12/02/22 | AW | SW8081B | |
| Toxaphene | ND | 150 | 150 | ug/Kg | 2 | 12/02/22 | AW | SW8081B | |
| **QA/QC Surrogates** | | | | | | | | | |
| % DCBP | 90 | | | % | 2 | 12/02/22 | AW | 30 - 150 % | |
| % DCBP (Confirmation) | 60 | | | % | 2 | 12/02/22 | AW | 30 - 150 % | |
| % TCMX | 87 | | | % | 2 | 12/02/22 | AW | 30 - 150 % | |
| % TCMX (Confirmation) | 79 | | | % | 2 | 12/02/22 | AW | 30 - 150 % | |
| **Volatiles** | | | | | | | | | |
| 1,1,1,2-Tetrachloroethane | ND | 4.4 | 0.87 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,1,1-Trichloroethane | ND | 4.4 | 0.44 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,1,2,2-Tetrachloroethane | ND | 4.4 | 0.87 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,1,2-Trichloroethane | ND | 4.4 | 0.87 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,1-Dichloroethane | ND | 4.4 | 0.87 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,1-Dichloroethene | ND | 4.4 | 0.44 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,1-Dichloropropene | ND | 4.4 | 0.44 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,2,3-Trichlorobenzene | ND | 4.4 | 0.87 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,2,3-Trichloropropane | ND | 4.4 | 0.44 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,2,4-Trichlorobenzene | ND | 4.4 | 0.87 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,2,4-Trimethylbenzene | ND | 4.4 | 0.44 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,2-Dibromo-3-chloropropane | ND | 4.4 | 0.87 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,2-Dibromoethane | ND | 4.4 | 0.44 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,2-Dichlorobenzene | ND | 4.4 | 0.44 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,2-Dichloroethane | ND | 4.4 | 0.44 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,2-Dichloropropane | ND | 4.4 | 0.87 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,3,5-Trimethylbenzene | ND | 4.4 | 0.44 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,3-Dichlorobenzene | ND | 4.4 | 0.44 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,3-Dichloropropane | ND | 4.4 | 0.87 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,4-Dichlorobenzene | ND | 4.4 | 0.44 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 2,2-Dichloropropane | ND | 4.4 | 0.44 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 2-Chlorotoluene | ND | 4.4 | 0.87 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 2-Hexanone | ND | 22 | 4.4 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 2-Isopropyltoluene | ND | 4.4 | 0.44 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | 1 |
| 4-Chlorotoluene | ND | 4.4 | 0.44 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 4-Methyl-2-pentanone | ND | 22 | 4.4 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Acetone | ND | 22 | 4.4 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Acrylonitrile | ND | 8.7 | 0.87 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Benzene | ND | 4.4 | 0.44 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Bromobenzene | ND | 4.4 | 0.44 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Bromochloromethane | ND | 4.4 | 0.44 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Bromodichloromethane | ND | 4.4 | 0.87 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Bromoform | ND | 4.4 | 0.87 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Bromomethane | ND | 4.4 | 1.7 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Carbon Disulfide | ND | 4.4 | 0.87 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Carbon tetrachloride | ND | 4.4 | 0.87 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Chlorobenzene | ND | 4.4 | 0.44 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Chloroethane | ND | 4.4 | 0.44 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Chloroform | ND | 4.4 | 0.44 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |

Project ID: IPARK0118.62-LOT 10 BOUNDARY MODIFICAT. Phoenix I.D.: CM95265

Client ID: SB-7C (6-8`)

| Parameter | Result | | RL/ PQL | LOD/ MDL | Units | Dilution | Date/Time | By | Reference | |
|---|---|---|---|---|---|---|---|---|---|---|
| Chloromethane | ND | | 4.4 | 0.87 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| cis-1,2-Dichloroethene | ND | | 4.4 | 0.44 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| cis-1,3-Dichloropropene | ND | | 4.4 | 0.44 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Dibromochloromethane | ND | | 4.4 | 0.87 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Dibromomethane | ND | | 4.4 | 0.87 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Dichlorodifluoromethane | ND | | 4.4 | 0.44 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Ethylbenzene | ND | | 4.4 | 0.44 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Hexachlorobutadiene | ND | | 4.4 | 0.44 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Isopropylbenzene | ND | | 4.4 | 0.44 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| m&p-Xylene | ND | | 4.4 | 0.87 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Methyl Ethyl Ketone | ND | | 26 | 4.4 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Methyl t-butyl ether (MTBE) | ND | | 8.7 | 0.87 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Methylene chloride | ND | | 4.4 | 4.4 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Naphthalene | ND | | 4.4 | 0.87 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| n-Butylbenzene | ND | | 4.4 | 0.44 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| n-Propylbenzene | ND | | 4.4 | 0.87 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| o-Xylene | ND | | 4.4 | 0.87 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| p-Isopropyltoluene | ND | | 4.4 | 0.44 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| sec-Butylbenzene | ND | | 4.4 | 0.44 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Styrene | ND | | 4.4 | 0.44 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| tert-Butylbenzene | ND | | 4.4 | 0.44 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Tetrachloroethene | ND | | 4.4 | 0.87 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Tetrahydrofuran (THF) | 7.3 | J | 8.7 | 2.2 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Toluene | ND | | 4.4 | 0.44 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| trans-1,2-Dichloroethene | ND | | 4.4 | 0.44 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| trans-1,3-Dichloropropene | ND | | 4.4 | 0.44 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| trans-1,4-dichloro-2-butene | ND | | 8.7 | 2.2 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Trichloroethene | ND | | 4.4 | 0.44 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Trichlorofluoromethane | ND | | 4.4 | 0.87 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Trichlorotrifluoroethane | ND | | 4.4 | 0.44 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Vinyl chloride | ND | | 4.4 | 0.44 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| **QA/QC Surrogates** | | | | | | | | | | |
| % 1,2-dichlorobenzene-d4 | 98 | | | | % | 1 | 12/06/22 | JLI | 70 - 130 % | |
| % Bromofluorobenzene | 100 | | | | % | 1 | 12/06/22 | JLI | 70 - 130 % | |
| % Dibromofluoromethane | 102 | | | | % | 1 | 12/06/22 | JLI | 70 - 130 % | |
| % Toluene-d8 | 94 | | | | % | 1 | 12/06/22 | JLI | 70 - 130 % | |
| **Semivolatiles** | | | | | | | | | | |
| 1,2,4,5-Tetrachlorobenzene | ND | | 260 | 130 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 1,2,4-Trichlorobenzene | ND | | 260 | 110 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 1,2-Dichlorobenzene | ND | | 260 | 110 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 1,2-Diphenylhydrazine | ND | | 260 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 1,3-Dichlorobenzene | ND | | 260 | 110 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 1,4-Dichlorobenzene | ND | | 260 | 110 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2,2'-Oxybis(1-Chloropropane) | ND | | 260 | 100 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | 1 |
| 2,4,5-Trichlorophenol | ND | | 260 | 200 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2,4,6-Trichlorophenol | ND | | 190 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2,4-Dichlorophenol | ND | | 190 | 130 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2,4-Dimethylphenol | ND | | 260 | 93 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2,4-Dinitrophenol | ND | | 260 | 260 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |

Project ID: IPARK0118.62-LOT 10 BOUNDARY MODIFICAT. Phoenix I.D.: CM95265

Client ID: SB-7C (6-8`)

| Parameter | Result | RL/ PQL | LOD/ MDL | Units | Dilution | Date/Time | By | Reference | |
|---|---|---|---|---|---|---|---|---|---|
| 2,4-Dinitrotoluene | ND | 190 | 150 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2,6-Dinitrotoluene | ND | 190 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2-Chloronaphthalene | ND | 260 | 110 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2-Chlorophenol | ND | 260 | 110 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2-Methylnaphthalene | ND | 260 | 110 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2-Methylphenol (o-cresol) | ND | 260 | 180 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2-Nitroaniline | ND | 260 | 260 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2-Nitrophenol | ND | 260 | 240 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 3&4-Methylphenol (m&p-cresol) | ND | 260 | 150 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | 1 |
| 3,3'-Dichlorobenzidine | ND | 190 | 180 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 3-Nitroaniline | ND | 370 | 750 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 4,6-Dinitro-2-methylphenol | ND | 220 | 75 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 4-Bromophenyl phenyl ether | ND | 260 | 110 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 4-Chloro-3-methylphenol | ND | 260 | 130 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 4-Chloroaniline | ND | 300 | 170 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 4-Chlorophenyl phenyl ether | ND | 260 | 130 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 4-Nitroaniline | ND | 370 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 4-Nitrophenol | ND | 370 | 170 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Acenaphthene | ND | 260 | 110 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Acenaphthylene | ND | 260 | 100 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Acetophenone | ND | 260 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Aniline | ND | 300 | 300 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Anthracene | ND | 260 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Benz(a)anthracene | ND | 260 | 130 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Benzidine | ND | 370 | 220 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Benzo(a)pyrene | ND | 190 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Benzo(b)fluoranthene | ND | 260 | 130 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Benzo(ghi)perylene | ND | 260 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Benzo(k)fluoranthene | ND | 260 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Benzoic acid | ND | 1900 | 750 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Benzyl butyl phthalate | ND | 260 | 96 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Bis(2-chloroethoxy)methane | ND | 260 | 100 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Bis(2-chloroethyl)ether | ND | 190 | 100 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Bis(2-ethylhexyl)phthalate | ND | 260 | 110 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Carbazole | ND | 190 | 150 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Chrysene | ND | 260 | 130 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Dibenz(a,h)anthracene | ND | 190 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Dibenzofuran | ND | 260 | 110 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Diethyl phthalate | ND | 260 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Dimethylphthalate | ND | 260 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Di-n-butylphthalate | ND | 260 | 99 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Di-n-octylphthalate | ND | 260 | 96 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Fluoranthene | ND | 260 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Fluorene | ND | 260 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Hexachlorobenzene | ND | 190 | 110 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Hexachlorobutadiene | ND | 260 | 140 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Hexachlorocyclopentadiene | ND | 260 | 110 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Hexachloroethane | ND | 190 | 110 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Indeno(1,2,3-cd)pyrene | ND | 260 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |

Project ID: IPARK0118.62-LOT 10 BOUNDARY MODIFICAT. Phoenix I.D.: CM95265
Client ID: SB-7C (6-8`)

| Parameter | Result | RL/ PQL | LOD/ MDL | Units | Dilution | Date/Time | By | Reference | |
|---|---|---|---|---|---|---|---|---|---|
| Isophorone | ND | 190 | 100 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Naphthalene | ND | 260 | 110 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Nitrobenzene | ND | 190 | 130 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| N-Nitrosodimethylamine | ND | 260 | 110 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| N-Nitrosodi-n-propylamine | ND | 190 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| N-Nitrosodiphenylamine | ND | 260 | 140 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Pentachloronitrobenzene | ND | 260 | 140 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Pentachlorophenol | ND | 220 | 140 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Phenanthrene | ND | 260 | 110 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Phenol | ND | 260 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Pyrene | ND | 260 | 130 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Pyridine | ND | 260 | 92 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| **QA/QC Surrogates** | | | | | | | | | |
| % 2,4,6-Tribromophenol | 90 | | | % | 1 | 12/04/22 | WB | 30 - 130 % | |
| % 2-Fluorobiphenyl | 73 | | | % | 1 | 12/04/22 | WB | 30 - 130 % | |
| % 2-Fluorophenol | 56 | | | % | 1 | 12/04/22 | WB | 30 - 130 % | |
| % Nitrobenzene-d5 | 66 | | | % | 1 | 12/04/22 | WB | 30 - 130 % | |
| % Phenol-d5 | 71 | | | % | 1 | 12/04/22 | WB | 30 - 130 % | |
| % Terphenyl-d14 | 54 | | | % | 1 | 12/04/22 | WB | 30 - 130 % | |
| **1,4-Dioxane** | | | | | | | | | |
| 1,4-dioxane | ND | 75 | 75 | ug/Kg | 1 | 12/05/22 | WB | SW8270D (SIM) | |
| **QA/QC Surrogates** | | | | | | | | | |
| % 2-Fluorobiphenyl | 29 | | | % | 1 | 12/05/22 | WB | 30 - 130 % | 3 |
| % Nitrobenzene-d5 | 30 | | | % | 1 | 12/05/22 | WB | 30 - 130 % | |
| % Terphenyl-d14 | 37 | | | % | 1 | 12/05/22 | WB | 30 - 130 % | |

| Parameter | Result | RL/ PQL | LOD/ MDL | Units | Dilution | Date/Time | By | Reference |
|---|---|---|---|---|---|---|---|---|

1 = This parameter is not certified by the primary accrediting authority (NY NELAC) for this matrix. NY NELAC does not offer certification for all parameters at this time.
3 = This parameter exceeds laboratory specified limits.
C = This parameter is subcontracted.

RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected BRL=Below Reporting Level L=Biased Low J=Estimated Below RL LOD=Limit of Detection MDL=Method Detection Limit1
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

## Comments:

*See attached

Per 1.4.6 of EPA method 8270D, 1,2-Diphenylhydrazine is unstable and readily converts to Azobenzene. Azobenzene is used for the calibration of 1,2-Diphenylhydrazine.

Semi-Volatile Comment:
Poor surrogate recovery was observed for one acid and/or one base surrogate. The other surrogates associated with this sample were within QA/QC criteria. No significant bias suspected.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

PFAS (21) (EPA 537m), PFOA/PFOS - Soil Extraction (EPA 537m) were analyzed by NY certified lab #12058.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200.
The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.

**Phyllis Shiller, Laboratory Director**
**December 20, 2022**
**Reviewed and Released by: Phyllis Shiller, Laboratory Director**

PHOENIX
Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

# Analysis Report

December 20, 2022

FOR: Attn: Nora Brew
Walden Environmental Engineering PLLC
16 Spring Street
Oyster Bay, NY 11771

| Sample Information | | Custody Information | | Date | Time |
|---|---|---|---|---|---|
| Matrix: | SOIL | Collected by: | | 11/29/22 | 14:15 |
| Location Code: | WALDENE-IPARK | Received by: | CP | 12/01/22 | 17:12 |
| Rush Request: | Standard | Analyzed by: | see "By" below | | |
| P.O.#: | | | | | |

## Laboratory Data

SDG ID: GCM95248
Phoenix ID: CM95266

Project ID: IPARK0118.62-LOT 10 BOUNDARY MODIFICAT.
Client ID: SB-6A (0-1`)

| Parameter | Result | RL/ PQL | LOD/ MDL | Units | Dilution | Date/Time | By | Reference |
|---|---|---|---|---|---|---|---|---|
| Aluminum | 11900 | 38 | 7.7 | mg/Kg | 10 | 12/02/22 | TH | SW6010D |
| Antimony | ND | 3.8 | 3.8 | mg/Kg | 1 | 12/02/22 | TH | SW6010D |
| Arsenic | 4.03 | 0.77 | 0.77 | mg/Kg | 1 | 12/02/22 | TH | SW6010D |
| Barium | 41.7 | 0.8 | 0.38 | mg/Kg | 1 | 12/02/22 | TH | SW6010D |
| Beryllium | 0.37 | 0.31 | 0.15 | mg/Kg | 1 | 12/02/22 | TH | SW6010D |
| Calcium | 5450 | 3.8 | 3.5 | mg/Kg | 1 | 12/02/22 | TH | SW6010D |
| Cadmium | 1.68 | 0.38 | 0.38 | mg/Kg | 1 | 12/02/22 | TH | SW6010D |
| Chromium | 12.7 | 0.38 | 0.38 | mg/Kg | 1 | 12/02/22 | TH | SW6010D |
| Cobalt | 11.8 | 0.38 | 0.38 | mg/Kg | 1 | 12/02/22 | TH | SW6010D |
| Copper | 29.4 | 0.8 | 0.38 | mg/kg | 1 | 12/02/22 | TH | SW6010D |
| Iron | 28500 | 38 | 38 | mg/Kg | 10 | 12/02/22 | TH | SW6010D |
| Lead | 15.0 | 0.8 | 0.38 | mg/Kg | 1 | 12/02/22 | TH | SW6010D |
| Magnesium | 7320 | 38 | 38 | mg/Kg | 10 | 12/02/22 | TH | SW6010D |
| Manganese | 1500 | 3.8 | 3.8 | mg/Kg | 10 | 12/02/22 | TH | SW6010D |
| Mercury | ND | 0.03 | 0.02 | mg/Kg | 2 | 12/05/22 | PM | SW7471B |
| Nickel | 24.5 | 0.38 | 0.38 | mg/Kg | 1 | 12/02/22 | TH | SW6010D |
| Potassium | 855 | 8 | 3.0 | mg/Kg | 1 | 12/02/22 | TH | SW6010D |
| Selenium | ND | 1.5 | 1.3 | mg/Kg | 1 | 12/02/22 | TH | SW6010D |
| Silver | ND | 0.38 | 0.38 | mg/Kg | 1 | 12/02/22 | TH | SW6010D |
| Sodium | 45 | 8 | 3.3 | mg/Kg | 1 | 12/02/22 | TH | SW6010D |
| Thallium | ND | 1.5 | 1.5 | mg/Kg | 1 | 12/02/22 | TH | SW6010D |
| Vanadium | 13.2 | 0.38 | 0.38 | mg/Kg | 1 | 12/02/22 | TH | SW6010D |
| Zinc | 70.2 | 0.8 | 0.38 | mg/Kg | 1 | 12/02/22 | TH | SW6010D |
| Percent Solid | 92 | | | % | | 12/01/22 | Q | SW846-%Solid |
| Extraction for SVOA SIM | Completed | | | | | 12/02/22 | O/Y | SW3545A |
| Soil Extraction for PCB | Completed | | | | | 12/01/22 | B/MO | SW3545A |
| Soil Extraction for Pesticide | Completed | | | | | 12/01/22 | B/MO | SW3545A |

**Ver 1**

Project ID: IPARK0118.62-LOT 10 BOUNDARY MODIFICAT. Phoenix I.D.: CM95266
Client ID: SB-6A (0-1`)

| Parameter | Result | RL/ PQL | LOD/ MDL | Units | Dilution | Date/Time | By | Reference | |
|---|---|---|---|---|---|---|---|---|---|
| Mercury Digestion | Completed | | | | | 12/02/22 | AB/AB | SW7471B | |
| Soil Extraction for Herbicide | Completed | | | | | 12/07/22 | J/D | SW3546 | |
| Soil Extraction for SVOA | Completed | | | | | 12/03/22 | Y/L | SW3546 | |
| Total Metals Digest | Completed | | | | | 12/01/22 | | SW3050B | |
| PFAS (21) | Completed | | | | | 12/08/22 | *** | EPA 537m | C |
| **PFAS (21)** | | | | | | | | | |
| 1H,1H,2H,2H-Perfluorodecanesulfonic acid | ND | 0.257 | 0.0263 | ng/g | 1 | 12/12/22 | *** | EPA 537m | C |
| 1H,1H,2H,2H-Perfluorooctanesulfonic acid | ND | 0.257 | 0.0678 | ng/g | 1 | 12/12/22 | *** | EPA 537m | C |
| NEtFOSAA | ND | 0.257 | 0.107 | ng/g | 1 | 12/12/22 | *** | EPA 537m | C |
| NMeFOSAA | ND | 0.257 | 0.107 | ng/g | 1 | 12/12/22 | *** | EPA 537m | C |
| Perfluoro-1-decanesulfonic acid (PFDS) | ND | 0.257 | 0.0526 | ng/g | 1 | 12/12/22 | *** | EPA 537m | C |
| Perfluoro-1-heptanesulfonic acid (PFHpS) | ND | 0.257 | 0.0506 | ng/g | 1 | 12/12/22 | *** | EPA 537m | C |
| Perfluoro-1-octanesulfonamide (FOSA) | ND | 0.257 | 0.0479 | ng/g | 1 | 12/12/22 | *** | EPA 537m | C |
| Perfluorobutanesulfonic acid (PFBS) | ND | 0.257 | 0.205 | ng/g | 1 | 12/12/22 | *** | EPA 537m | C |
| Perfluorodecanoic acid (PFDA) | ND | 0.257 | 0.0526 | ng/g | 1 | 12/12/22 | *** | EPA 537m | C |
| Perfluorododecanoic acid (PFDoA) | ND | 0.257 | 0.0770 | ng/g | 1 | 12/12/22 | *** | EPA 537m | C |
| Perfluoroheptanoic acid (PFHpA) | ND | 0.257 | 0.0467 | ng/g | 1 | 12/12/22 | *** | EPA 537m | C |
| Perfluorohexanesulfonic Acid (PFHxS) | ND | 0.257 | 0.0318 | ng/g | 1 | 12/12/22 | *** | EPA 537m | C |
| Perfluorohexanoic acid (PFHxA) | ND | 0.257 | 0.0677 | ng/g | 1 | 12/12/22 | *** | EPA 537m | C |
| Perfluoro-n-butanoic acid (PFBA) | ND | 0.257 | 0.188 | ng/g | 1 | 12/12/22 | *** | EPA 537m | C |
| Perfluorononanoic acid (PFNA) | ND | 0.257 | 0.0614 | ng/g | 1 | 12/12/22 | *** | EPA 537m | C |
| Perfluorooctanesulfonic Acid (PFOS) | ND | 0.257 | 0.0450 | ng/g | 1 | 12/12/22 | *** | EPA 537m | C |
| Perfluorooctanoic acid (PFOA) | ND | 0.257 | 0.0793 | ng/g | 1 | 12/12/22 | *** | EPA 537m | C |
| Perfluoropentanoic acid (PFPeA) | ND | 0.257 | 0.0943 | ng/g | 1 | 12/12/22 | *** | EPA 537m | C |
| Perfluorotetradecanoic acid (PFTA) | ND | 0.257 | 0.0767 | ng/g | 1 | 12/12/22 | *** | EPA 537m | C |
| Perfluorotridecanoic acid (PFTrDA) | ND | 0.257 | 0.0447 | ng/g | 1 | 12/12/22 | *** | EPA 537m | C |
| Perfluoroundecanoic acid (PFUnA) | ND | 0.257 | 0.119 | ng/g | 1 | 12/12/22 | *** | EPA 537m | C |
| **QA/QC Surrogates** | | | | | | | | | |
| % d3-N-MeFOSAA | 38.5 | | | % | 1 | 12/12/22 | *** | 25 - 150 % | C |
| % d5-NEtFOSA | 39.2 | | | % | 1 | 12/12/22 | *** | 25 - 150 % | C |
| % M2-6:2FTS | 81.5 | | | % | 1 | 12/12/22 | *** | 25 - 200 % | C |
| % M2-8:2FTS | 70.7 | | | % | 1 | 12/12/22 | *** | 25 - 200 % | C |
| % M2PFTeDA | 27.3 | | | % | 1 | 12/12/22 | *** | 10 - 150 % | C |
| % M3PFBS | 68.8 | | | % | 1 | 12/12/22 | *** | 25 - 150 % | C |
| % M3PFHxS | 83.9 | | | % | 1 | 12/12/22 | *** | 25 - 150 % | C |
| % M4PFHpA | 79.4 | | | % | 1 | 12/12/22 | *** | 25 - 150 % | C |
| % M5PFHxA | 77.3 | | | % | 1 | 12/12/22 | *** | 25 - 150 % | C |
| % M5PFPeA | 80.0 | | | % | 1 | 12/12/22 | *** | 25 - 150 % | C |
| % M6PFDA | 54.6 | | | % | 1 | 12/12/22 | *** | 25 - 150 % | C |
| % M7PFUdA | 37.5 | | | % | 1 | 12/12/22 | *** | 25 - 150 % | C |
| % M8FOSA | 34.5 | | | % | 1 | 12/12/22 | *** | 10 - 150 % | C |
| % M8PFOA | 76.0 | | | % | 1 | 12/12/22 | *** | 25 - 150 % | C |
| % M8PFOS | 59.3 | | | % | 1 | 12/12/22 | *** | 25 - 150 % | C |
| % M9PFNA | 61.8 | | | % | 1 | 12/12/22 | *** | 25 - 150 % | C |
| % MPFBA | 76.8 | | | % | 1 | 12/12/22 | *** | 25 - 150 % | C |
| % MPFDoA | 39.9 | | | % | 1 | 12/12/22 | *** | 25 - 150 % | C |
| **Chlorinated Herbicides** | | | | | | | | | |
| 2,4,5-T | ND | 130 | 130 | ug/Kg | 10 | 12/09/22 | JRB | SW8151A | |

**Ver 1**

Project ID: IPARK0118.62-LOT 10 BOUNDARY MODIFICAT. Phoenix I.D.: CM95266
Client ID: SB-6A (0-1`)

| Parameter | Result | RL/ PQL | LOD/ MDL | Units | Dilution | Date/Time | By | Reference |
|---|---|---|---|---|---|---|---|---|
| 2,4,5-TP (Silvex) | ND | 130 | 130 | ug/Kg | 10 | 12/09/22 | JRB | SW8151A |
| 2,4-D | ND | 270 | 270 | ug/Kg | 10 | 12/09/22 | JRB | SW8151A |
| 2,4-DB | ND | 2700 | 2700 | ug/Kg | 10 | 12/09/22 | JRB | SW8151A |
| Dalapon | ND | 130 | 130 | ug/Kg | 10 | 12/09/22 | JRB | SW8151A |
| Dicamba | ND | 130 | 130 | ug/Kg | 10 | 12/09/22 | JRB | SW8151A |
| Dichloroprop | ND | 270 | 270 | ug/Kg | 10 | 12/09/22 | JRB | SW8151A |
| Dinoseb | ND | 270 | 270 | ug/Kg | 10 | 12/09/22 | JRB | SW8151A |
| **QA/QC Surrogates** | | | | | | | | |
| % DCAA | 115 | | | % | 10 | 12/09/22 | JRB | 30 - 150 % |
| % DCAA (Confirmation) | 102 | | | % | 10 | 12/09/22 | JRB | 30 - 150 % |
| **Polychlorinated Biphenyls** | | | | | | | | |
| PCB-1016 | ND | 71 | 71 | ug/Kg | 2 | 12/02/22 | SC | SW8082A |
| PCB-1221 | ND | 71 | 71 | ug/Kg | 2 | 12/02/22 | SC | SW8082A |
| PCB-1232 | ND | 71 | 71 | ug/Kg | 2 | 12/02/22 | SC | SW8082A |
| PCB-1242 | ND | 71 | 71 | ug/Kg | 2 | 12/02/22 | SC | SW8082A |
| PCB-1248 | ND | 71 | 71 | ug/Kg | 2 | 12/02/22 | SC | SW8082A |
| PCB-1254 | ND | 71 | 71 | ug/Kg | 2 | 12/02/22 | SC | SW8082A |
| PCB-1260 | ND | 71 | 71 | ug/Kg | 2 | 12/02/22 | SC | SW8082A |
| PCB-1262 | ND | 71 | 71 | ug/Kg | 2 | 12/02/22 | SC | SW8082A |
| PCB-1268 | ND | 71 | 71 | ug/Kg | 2 | 12/02/22 | SC | SW8082A |
| **QA/QC Surrogates** | | | | | | | | |
| % DCBP | 66 | | | % | 2 | 12/02/22 | SC | 30 - 150 % |
| % DCBP (Confirmation) | 75 | | | % | 2 | 12/02/22 | SC | 30 - 150 % |
| % TCMX | 65 | | | % | 2 | 12/02/22 | SC | 30 - 150 % |
| % TCMX (Confirmation) | 65 | | | % | 2 | 12/02/22 | SC | 30 - 150 % |
| **Pesticides - Soil** | | | | | | | | |
| 4,4' -DDD | ND | 2.1 | 2.1 | ug/Kg | 2 | 12/03/22 | AW | SW8081B |
| 4,4' -DDE | ND | 2.1 | 2.1 | ug/Kg | 2 | 12/03/22 | AW | SW8081B |
| 4,4' -DDT | ND | 2.1 | 2.1 | ug/Kg | 2 | 12/03/22 | AW | SW8081B |
| a-BHC | ND | 7.1 | 7.1 | ug/Kg | 2 | 12/03/22 | AW | SW8081B |
| a-Chlordane | ND | 3.5 | 3.5 | ug/Kg | 2 | 12/03/22 | AW | SW8081B |
| Alachlor | ND | 3.5 | 3.5 | ug/Kg | 2 | 12/03/22 | AW | SW8081B |
| Aldrin | ND | 3.5 | 3.5 | ug/Kg | 2 | 12/03/22 | AW | SW8081B |
| b-BHC | ND | 7.1 | 7.1 | ug/Kg | 2 | 12/03/22 | AW | SW8081B |
| Chlordane | ND | 35 | 35 | ug/Kg | 2 | 12/03/22 | AW | SW8081B |
| d-BHC | ND | 7.1 | 7.1 | ug/Kg | 2 | 12/03/22 | AW | SW8081B |
| Dieldrin | ND | 3.5 | 3.5 | ug/Kg | 2 | 12/03/22 | AW | SW8081B |
| Endosulfan I | ND | 7.1 | 7.1 | ug/Kg | 2 | 12/03/22 | AW | SW8081B |
| Endosulfan II | ND | 7.1 | 7.1 | ug/Kg | 2 | 12/03/22 | AW | SW8081B |
| Endosulfan sulfate | ND | 7.1 | 7.1 | ug/Kg | 2 | 12/03/22 | AW | SW8081B |
| Endrin | ND | 7.1 | 7.1 | ug/Kg | 2 | 12/03/22 | AW | SW8081B |
| Endrin aldehyde | ND | 7.1 | 7.1 | ug/Kg | 2 | 12/03/22 | AW | SW8081B |
| Endrin ketone | ND | 7.1 | 7.1 | ug/Kg | 2 | 12/03/22 | AW | SW8081B |
| g-BHC | ND | 1.4 | 1.4 | ug/Kg | 2 | 12/03/22 | AW | SW8081B |
| g-Chlordane | ND | 3.5 | 3.5 | ug/Kg | 2 | 12/03/22 | AW | SW8081B |
| Heptachlor | ND | 7.1 | 7.1 | ug/Kg | 2 | 12/03/22 | AW | SW8081B |
| Heptachlor epoxide | ND | 7.1 | 7.1 | ug/Kg | 2 | 12/03/22 | AW | SW8081B |
| Methoxychlor | ND | 35 | 35 | ug/Kg | 2 | 12/03/22 | AW | SW8081B |

Project ID: IPARK0118.62-LOT 10 BOUNDARY MODIFICAT. Phoenix I.D.: CM95266
Client ID: SB-6A (0-1`)

| Parameter | Result | RL/ PQL | LOD/ MDL | Units | Dilution | Date/Time | By | Reference | |
|---|---|---|---|---|---|---|---|---|---|
| Toxaphene | ND | 140 | 140 | ug/Kg | 2 | 12/03/22 | AW | SW8081B | |
| **QA/QC Surrogates** | | | | | | | | | |
| % DCBP | 72 | | | % | 2 | 12/03/22 | AW | 30 - 150 % | |
| % DCBP (Confirmation) | 52 | | | % | 2 | 12/03/22 | AW | 30 - 150 % | |
| % TCMX | 69 | | | % | 2 | 12/03/22 | AW | 30 - 150 % | |
| % TCMX (Confirmation) | 70 | | | % | 2 | 12/03/22 | AW | 30 - 150 % | |
| **Semivolatiles** | | | | | | | | | |
| 1,2,4,5-Tetrachlorobenzene | ND | 250 | 130 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 1,2,4-Trichlorobenzene | ND | 250 | 110 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 1,2-Dichlorobenzene | ND | 250 | 100 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 1,2-Diphenylhydrazine | ND | 250 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 1,3-Dichlorobenzene | ND | 250 | 110 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 1,4-Dichlorobenzene | ND | 250 | 110 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2,2'-Oxybis(1-Chloropropane) | ND | 250 | 100 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | 1 |
| 2,4,5-Trichlorophenol | ND | 250 | 200 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2,4,6-Trichlorophenol | ND | 180 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2,4-Dichlorophenol | ND | 180 | 130 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2,4-Dimethylphenol | ND | 250 | 89 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2,4-Dinitrophenol | ND | 250 | 250 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2,4-Dinitrotoluene | ND | 180 | 140 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2,6-Dinitrotoluene | ND | 180 | 110 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2-Chloronaphthalene | ND | 250 | 100 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2-Chlorophenol | ND | 250 | 100 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2-Methylnaphthalene | ND | 250 | 110 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2-Methylphenol (o-cresol) | ND | 250 | 170 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2-Nitroaniline | ND | 250 | 250 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2-Nitrophenol | ND | 250 | 230 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 3&4-Methylphenol (m&p-cresol) | ND | 250 | 140 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | 1 |
| 3,3'-Dichlorobenzidine | ND | 180 | 170 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 3-Nitroaniline | ND | 360 | 720 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 4,6-Dinitro-2-methylphenol | ND | 220 | 72 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 4-Bromophenyl phenyl ether | ND | 250 | 110 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 4-Chloro-3-methylphenol | ND | 250 | 130 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 4-Chloroaniline | ND | 290 | 170 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 4-Chlorophenyl phenyl ether | ND | 250 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 4-Nitroaniline | ND | 360 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 4-Nitrophenol | ND | 360 | 160 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Acenaphthene | ND | 250 | 110 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Acenaphthylene | ND | 250 | 100 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Acetophenone | ND | 250 | 110 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Aniline | ND | 290 | 290 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Anthracene | ND | 250 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Benz(a)anthracene | ND | 250 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Benzidine | ND | 360 | 210 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Benzo(a)pyrene | ND | 180 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Benzo(b)fluoranthene | ND | 250 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Benzo(ghi)perylene | ND | 250 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Benzo(k)fluoranthene | ND | 250 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Benzoic acid | ND | 1800 | 720 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |

Project ID: IPARK0118.62-LOT 10 BOUNDARY MODIFICAT. Phoenix I.D.: CM95266
Client ID: SB-6A (0-1`)

| Parameter | Result | RL/ PQL | LOD/ MDL | Units | Dilution | Date/Time | By | Reference |
|---|---|---|---|---|---|---|---|---|
| Benzyl butyl phthalate | ND | 250 | 93 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Bis(2-chloroethoxy)methane | ND | 250 | 99 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Bis(2-chloroethyl)ether | ND | 180 | 97 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Bis(2-ethylhexyl)phthalate | ND | 250 | 100 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Carbazole | ND | 180 | 140 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Chrysene | ND | 250 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Dibenz(a,h)anthracene | ND | 180 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Dibenzofuran | ND | 250 | 110 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Diethyl phthalate | ND | 250 | 110 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Dimethylphthalate | ND | 250 | 110 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Di-n-butylphthalate | ND | 250 | 96 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Di-n-octylphthalate | ND | 250 | 93 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Fluoranthene | ND | 250 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Fluorene | ND | 250 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Hexachlorobenzene | ND | 180 | 110 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Hexachlorobutadiene | ND | 250 | 130 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Hexachlorocyclopentadiene | ND | 250 | 110 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Hexachloroethane | ND | 180 | 110 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Indeno(1,2,3-cd)pyrene | ND | 250 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Isophorone | ND | 180 | 100 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Naphthalene | ND | 250 | 100 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Nitrobenzene | ND | 180 | 130 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| N-Nitrosodimethylamine | ND | 250 | 100 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| N-Nitrosodi-n-propylamine | ND | 180 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| N-Nitrosodiphenylamine | ND | 250 | 140 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Pentachloronitrobenzene | ND | 250 | 130 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Pentachlorophenol | ND | 220 | 140 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Phenanthrene | ND | 250 | 100 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Phenol | ND | 250 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Pyrene | ND | 250 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Pyridine | ND | 250 | 89 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| **QA/QC Surrogates** | | | | | | | | |
| % 2,4,6-Tribromophenol | 101 | | | % | 1 | 12/04/22 | WB | 30 - 130 % |
| % 2-Fluorobiphenyl | 77 | | | % | 1 | 12/04/22 | WB | 30 - 130 % |
| % 2-Fluorophenol | 70 | | | % | 1 | 12/04/22 | WB | 30 - 130 % |
| % Nitrobenzene-d5 | 79 | | | % | 1 | 12/04/22 | WB | 30 - 130 % |
| % Phenol-d5 | 89 | | | % | 1 | 12/04/22 | WB | 30 - 130 % |
| % Terphenyl-d14 | 84 | | | % | 1 | 12/04/22 | WB | 30 - 130 % |
| **1,4-Dioxane** | | | | | | | | |
| 1,4-dioxane | ND | 71 | 71 | ug/Kg | 1 | 12/05/22 | WB | SW8270D (SIM) |
| **QA/QC Surrogates** | | | | | | | | |
| % 2-Fluorobiphenyl | 49 | | | % | 1 | 12/05/22 | WB | 30 - 130 % |
| % Nitrobenzene-d5 | 62 | | | % | 1 | 12/05/22 | WB | 30 - 130 % |
| % Terphenyl-d14 | 69 | | | % | 1 | 12/05/22 | WB | 30 - 130 % |

| Parameter | Result | RL/ PQL | LOD/ MDL | Units | Dilution | Date/Time | By | Reference |
|---|---|---|---|---|---|---|---|---|

1 = This parameter is not certified by the primary accrediting authority (NY NELAC) for this matrix. NY NELAC does not offer certification for all parameters at this time.
C = This parameter is subcontracted.

RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected BRL=Below Reporting Level L=Biased Low LOD=Limit of Detection MDL=Method Detection Limit1
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

## Comments:

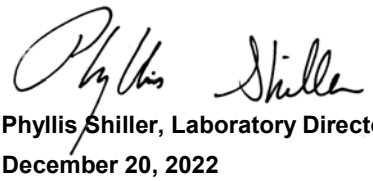
*See attached

Per 1.4.6 of EPA method 8270D, 1,2-Diphenylhydrazine is unstable and readily converts to Azobenzene. Azobenzene is used for the calibration of 1,2-Diphenylhydrazine.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

PFAS (21) (EPA 537m), PFOA/PFOS - Soil Extraction (EPA 537m) were analyzed by NY certified lab #12058.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200.
The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.



**Phyllis Shiller, Laboratory Director**
**December 20, 2022**
**Reviewed and Released by: Phyllis Shiller, Laboratory Director**

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

# Analysis Report

December 20, 2022

FOR: Attn: Nora Brew
Walden Environmental Engineering PLLC
16 Spring Street
Oyster Bay, NY 11771

| Sample Information | | Custody Information | | Date | Time |
|---|---|---|---|---|---|
| Matrix: | SOIL | Collected by: | | 11/29/22 | 14:15 |
| Location Code: | WALDENE-IPARK | Received by: | CP | 12/01/22 | 17:12 |
| Rush Request: | Standard | Analyzed by: | see "By" below | | |
| P.O.#: | | | | | |

## Laboratory Data

SDG ID: GCM95248
Phoenix ID: CM95267

Project ID: IPARK0118.62-LOT 10 BOUNDARY MODIFICAT.
Client ID: SB-6B (1-2`)

| Parameter | Result | RL/ PQL | LOD/ MDL | Units | Dilution | Date/Time | By | Reference | |
|---|---|---|---|---|---|---|---|---|---|
| Field Extraction | Completed | | | | | 11/29/22 | | SW5035A | 1 |
| **Volatiles** | | | | | | | | | |
| 1,1,1,2-Tetrachloroethane | ND | 3.2 | 0.63 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,1,1-Trichloroethane | ND | 3.2 | 0.32 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,1,2,2-Tetrachloroethane | ND | 3.2 | 0.63 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,1,2-Trichloroethane | ND | 3.2 | 0.63 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,1-Dichloroethane | ND | 3.2 | 0.63 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,1-Dichloroethene | ND | 3.2 | 0.32 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,1-Dichloropropene | ND | 3.2 | 0.32 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,2,3-Trichlorobenzene | ND | 3.2 | 0.63 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,2,3-Trichloropropane | ND | 3.2 | 0.32 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,2,4-Trichlorobenzene | ND | 3.2 | 0.63 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,2,4-Trimethylbenzene | ND | 3.2 | 0.32 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,2-Dibromo-3-chloropropane | ND | 3.2 | 0.63 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,2-Dibromoethane | ND | 3.2 | 0.32 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,2-Dichlorobenzene | ND | 3.2 | 0.32 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,2-Dichloroethane | ND | 3.2 | 0.32 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,2-Dichloropropane | ND | 3.2 | 0.63 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,3,5-Trimethylbenzene | ND | 3.2 | 0.32 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,3-Dichlorobenzene | ND | 3.2 | 0.32 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,3-Dichloropropane | ND | 3.2 | 0.63 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,4-Dichlorobenzene | ND | 3.2 | 0.32 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 2,2-Dichloropropane | ND | 3.2 | 0.32 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 2-Chlorotoluene | ND | 3.2 | 0.63 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 2-Hexanone | ND | 16 | 3.2 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 2-Isopropyltoluene | ND | 3.2 | 0.32 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | 1 |

Project ID: IPARK0118.62-LOT 10 BOUNDARY MODIFICAT. Phoenix I.D.: CM95267

Client ID: SB-6B (1-2`)

| Parameter | Result | | RL/ PQL | LOD/ MDL | Units | Dilution | Date/Time | By | Reference |
|---|---|---|---|---|---|---|---|---|---|
| 4-Chlorotoluene | ND | | 3.2 | 0.32 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| 4-Methyl-2-pentanone | ND | | 16 | 3.2 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| Acetone | 6.5 | JS | 16 | 3.2 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| Acrylonitrile | ND | | 6.3 | 0.63 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| Benzene | ND | | 3.2 | 0.32 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| Bromobenzene | ND | | 3.2 | 0.32 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| Bromochloromethane | ND | | 3.2 | 0.32 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| Bromodichloromethane | ND | | 3.2 | 0.63 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| Bromoform | ND | | 3.2 | 0.63 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| Bromomethane | ND | | 3.2 | 1.3 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| Carbon Disulfide | ND | | 3.2 | 0.63 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| Carbon tetrachloride | ND | | 3.2 | 0.63 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| Chlorobenzene | ND | | 3.2 | 0.32 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| Chloroethane | ND | | 3.2 | 0.32 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| Chloroform | ND | | 3.2 | 0.32 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| Chloromethane | ND | | 3.2 | 0.63 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| cis-1,2-Dichloroethene | ND | | 3.2 | 0.32 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| cis-1,3-Dichloropropene | ND | | 3.2 | 0.32 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| Dibromochloromethane | ND | | 3.2 | 0.63 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| Dibromomethane | ND | | 3.2 | 0.63 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| Dichlorodifluoromethane | ND | | 3.2 | 0.32 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| Ethylbenzene | ND | | 3.2 | 0.32 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| Hexachlorobutadiene | ND | | 3.2 | 0.32 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| Isopropylbenzene | ND | | 3.2 | 0.32 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| m&p-Xylene | ND | | 3.2 | 0.63 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| Methyl Ethyl Ketone | ND | | 19 | 3.2 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| Methyl t-butyl ether (MTBE) | ND | | 6.3 | 0.63 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| Methylene chloride | ND | | 3.2 | 3.2 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| Naphthalene | ND | | 3.2 | 0.63 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| n-Butylbenzene | ND | | 3.2 | 0.32 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| n-Propylbenzene | ND | | 3.2 | 0.63 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| o-Xylene | ND | | 3.2 | 0.63 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| p-Isopropyltoluene | ND | | 3.2 | 0.32 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| sec-Butylbenzene | ND | | 3.2 | 0.32 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| Styrene | ND | | 3.2 | 0.32 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| tert-Butylbenzene | ND | | 3.2 | 0.32 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| Tetrachloroethene | ND | | 3.2 | 0.63 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| Tetrahydrofuran (THF) | 4.8 | J | 6.3 | 1.6 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| Toluene | ND | | 3.2 | 0.32 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| trans-1,2-Dichloroethene | ND | | 3.2 | 0.32 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| trans-1,3-Dichloropropene | ND | | 3.2 | 0.32 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| trans-1,4-dichloro-2-butene | ND | | 6.3 | 1.6 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| Trichloroethene | ND | | 3.2 | 0.32 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| Trichlorofluoromethane | ND | | 3.2 | 0.63 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| Trichlorotrifluoroethane | ND | | 3.2 | 0.32 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| Vinyl chloride | ND | | 3.2 | 0.32 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| **QA/QC Surrogates** | | | | | | | | | |
| % 1,2-dichlorobenzene-d4 | 97 | | | | % | 1 | 12/06/22 | JLI | 70 - 130 % |
| % Bromofluorobenzene | 99 | | | | % | 1 | 12/06/22 | JLI | 70 - 130 % |

Project ID: IPARK0118.62-LOT 10 BOUNDARY MODIFICAT. Phoenix I.D.: CM95267
Client ID: SB-6B (1-2`)

| Parameter | Result | RL/ PQL | LOD/ MDL | Units | Dilution | Date/Time | By | Reference |
|---|---|---|---|---|---|---|---|---|
| % Dibromofluoromethane | 99 | | | % | 1 | 12/06/22 | JLI | 70 - 130 % |
| % Toluene-d8 | 94 | | | % | 1 | 12/06/22 | JLI | 70 - 130 % |

1 = This parameter is not certified by the primary accrediting authority (NY NELAC) for this matrix. NY NELAC does not offer certification for all parameters at this time.

RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected BRL=Below Reporting Level L=Biased Low J=Estimated Below RL LOD=Limit of Detection MDL=Method Detection Limit1
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

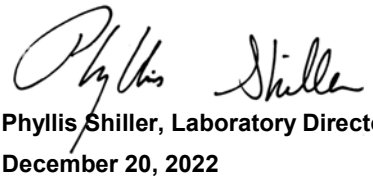
## Comments:

Results are reported on an ``as received`` basis, and are not corrected for dry weight.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

S - Laboratory solvent, contamination is possible.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200.
The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.



**Phyllis Shiller, Laboratory Director**
**December 20, 2022**
**Reviewed and Released by: Phyllis Shiller, Laboratory Director**

PHOENIX
Environmental Laboratories, Inc.
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Tel. (860) 645-1102 Fax (860) 645-0823

ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

# Analysis Report

December 20, 2022

FOR: Attn: Nora Brew
Walden Environmental Engineering PLLC
16 Spring Street
Oyster Bay, NY 11771

| Sample Information | | Custody Information | | Date | Time |
|---|---|---|---|---|---|
| Matrix: | SOIL | Collected by: | | 11/29/22 | 14:15 |
| Location Code: | WALDENE-IPARK | Received by: | CP | 12/01/22 | 17:12 |
| Rush Request: | Standard | Analyzed by: | see "By" below | | |
| P.O.#: | | | | | |

## Laboratory Data

SDG ID: GCM95248
Phoenix ID: CM95268

Project ID: IPARK0118.62-LOT 10 BOUNDARY MODIFICAT.
Client ID: SB-6C (6-8`)

| Parameter | Result | RL/ PQL | LOD/ MDL | Units | Dilution | Date/Time | By | Reference |
|---|---|---|---|---|---|---|---|---|
| Aluminum | 23800 | 38 | 7.6 | mg/Kg | 10 | 12/02/22 | TH | SW6010D |
| Antimony | ND | 3.8 | 3.8 | mg/Kg | 1 | 12/02/22 | TH | SW6010D |
| Arsenic | 9.01 | 0.76 | 0.76 | mg/Kg | 1 | 12/02/22 | TH | SW6010D |
| Barium | 129 | 0.8 | 0.38 | mg/Kg | 1 | 12/02/22 | TH | SW6010D |
| Beryllium | 0.87 | 0.31 | 0.15 | mg/Kg | 1 | 12/02/22 | TH | SW6010D |
| Calcium | 2470 | 3.8 | 3.5 | mg/Kg | 1 | 12/02/22 | TH | SW6010D |
| Cadmium | 2.51 | 0.38 | 0.38 | mg/Kg | 1 | 12/02/22 | TH | SW6010D |
| Chromium | 25.3 | 0.38 | 0.38 | mg/Kg | 1 | 12/02/22 | TH | SW6010D |
| Cobalt | 20.1 | 0.38 | 0.38 | mg/Kg | 1 | 12/02/22 | TH | SW6010D |
| Copper | 41.5 | 0.8 | 0.38 | mg/kg | 1 | 12/02/22 | TH | SW6010D |
| Iron | 48000 | 38 | 38 | mg/Kg | 10 | 12/02/22 | TH | SW6010D |
| Lead | 20.4 | 0.8 | 0.38 | mg/Kg | 1 | 12/02/22 | TH | SW6010D |
| Magnesium | 10500 | 38 | 38 | mg/Kg | 10 | 12/02/22 | TH | SW6010D |
| Manganese | 2200 | 38 | 38 | mg/Kg | 100 | 12/09/22 | TH | SW6010D |
| Mercury | ND | 0.03 | 0.02 | mg/Kg | 2 | 12/05/22 | PM | SW7471B |
| Nickel | 43.2 | 0.38 | 0.38 | mg/Kg | 1 | 12/02/22 | TH | SW6010D |
| Potassium | 2240 | 8 | 3.0 | mg/Kg | 1 | 12/02/22 | TH | SW6010D |
| Selenium | ND | 1.5 | 1.3 | mg/Kg | 1 | 12/02/22 | TH | SW6010D |
| Silver | ND | 0.38 | 0.38 | mg/Kg | 1 | 12/02/22 | TH | SW6010D |
| Sodium | 874 | 8 | 3.3 | mg/Kg | 1 | 12/02/22 | TH | SW6010D |
| Thallium | ND | 1.5 | 1.5 | mg/Kg | 1 | 12/02/22 | TH | SW6010D |
| Vanadium | 24.8 | 0.38 | 0.38 | mg/Kg | 1 | 12/02/22 | TH | SW6010D |
| Zinc | 98.9 | 0.8 | 0.38 | mg/Kg | 1 | 12/02/22 | TH | SW6010D |
| Percent Solid | 79 | | | % | | 12/01/22 | Q | SW846-%Solid |
| Extraction for SVOA SIM | Completed | | | | | 12/02/22 | O/Y | SW3545A |
| Soil Extraction for PCB | Completed | | | | | 12/01/22 | B/MO | SW3545A |
| Soil Extraction for Pesticide | Completed | | | | | 12/01/22 | B/MO | SW3545A |

**Ver 1**

Project ID: IPARK0118.62-LOT 10 BOUNDARY MODIFICAT. Phoenix I.D.: CM95268
Client ID: SB-6C (6-8`)

| Parameter | Result | RL/ PQL | LOD/ MDL | Units | Dilution | Date/Time | By | Reference | |
|---|---|---|---|---|---|---|---|---|---|
| Field Extraction | Completed | | | | | 11/29/22 | | SW5035A | 1 |
| Mercury Digestion | Completed | | | | | 12/02/22 | AB/AB | SW7471B | |
| Soil Extraction for Herbicide | Completed | | | | | 12/07/22 | J/D | SW3546 | |
| Soil Extraction for SVOA | Completed | | | | | 12/03/22 | Y/L | SW3546 | |
| Total Metals Digest | Completed | | | | | 12/01/22 | | SW3050B | |
| **Chlorinated Herbicides** | | | | | | | | | |
| 2,4,5-T | ND | 160 | 160 | ug/Kg | 10 | 12/09/22 | JRB | SW8151A | |
| 2,4,5-TP (Silvex) | ND | 160 | 160 | ug/Kg | 10 | 12/09/22 | JRB | SW8151A | |
| 2,4-D | ND | 310 | 310 | ug/Kg | 10 | 12/09/22 | JRB | SW8151A | |
| 2,4-DB | ND | 3100 | 3100 | ug/Kg | 10 | 12/09/22 | JRB | SW8151A | |
| Dalapon | ND | 160 | 160 | ug/Kg | 10 | 12/09/22 | JRB | SW8151A | |
| Dicamba | ND | 160 | 160 | ug/Kg | 10 | 12/09/22 | JRB | SW8151A | |
| Dichloroprop | ND | 310 | 310 | ug/Kg | 10 | 12/09/22 | JRB | SW8151A | |
| Dinoseb | ND | 310 | 310 | ug/Kg | 10 | 12/09/22 | JRB | SW8151A | |
| **QA/QC Surrogates** | | | | | | | | | |
| % DCAA | 79 | | | % | 10 | 12/09/22 | JRB | 30 - 150 % | |
| % DCAA (Confirmation) | 76 | | | % | 10 | 12/09/22 | JRB | 30 - 150 % | |
| **Polychlorinated Biphenyls** | | | | | | | | | |
| PCB-1016 | ND | 82 | 82 | ug/Kg | 2 | 12/03/22 | SC | SW8082A | |
| PCB-1221 | ND | 82 | 82 | ug/Kg | 2 | 12/03/22 | SC | SW8082A | |
| PCB-1232 | ND | 82 | 82 | ug/Kg | 2 | 12/03/22 | SC | SW8082A | |
| PCB-1242 | ND | 82 | 82 | ug/Kg | 2 | 12/03/22 | SC | SW8082A | |
| PCB-1248 | ND | 82 | 82 | ug/Kg | 2 | 12/03/22 | SC | SW8082A | |
| PCB-1254 | ND | 82 | 82 | ug/Kg | 2 | 12/03/22 | SC | SW8082A | |
| PCB-1260 | ND | 82 | 82 | ug/Kg | 2 | 12/03/22 | SC | SW8082A | |
| PCB-1262 | ND | 82 | 82 | ug/Kg | 2 | 12/03/22 | SC | SW8082A | |
| PCB-1268 | ND | 82 | 82 | ug/Kg | 2 | 12/03/22 | SC | SW8082A | |
| **QA/QC Surrogates** | | | | | | | | | |
| % DCBP | 79 | | | % | 2 | 12/03/22 | SC | 30 - 150 % | |
| % DCBP (Confirmation) | 88 | | | % | 2 | 12/03/22 | SC | 30 - 150 % | |
| % TCMX | 69 | | | % | 2 | 12/03/22 | SC | 30 - 150 % | |
| % TCMX (Confirmation) | 70 | | | % | 2 | 12/03/22 | SC | 30 - 150 % | |
| **Pesticides - Soil** | | | | | | | | | |
| 4,4' -DDD | ND | 2.5 | 2.5 | ug/Kg | 2 | 12/02/22 | AW | SW8081B | |
| 4,4' -DDE | ND | 2.5 | 2.5 | ug/Kg | 2 | 12/02/22 | AW | SW8081B | |
| 4,4' -DDT | ND | 2.5 | 2.5 | ug/Kg | 2 | 12/02/22 | AW | SW8081B | |
| a-BHC | ND | 8.2 | 8.2 | ug/Kg | 2 | 12/02/22 | AW | SW8081B | |
| a-Chlordane | ND | 4.1 | 4.1 | ug/Kg | 2 | 12/02/22 | AW | SW8081B | |
| Alachlor | ND | 4.1 | 4.1 | ug/Kg | 2 | 12/02/22 | AW | SW8081B | |
| Aldrin | ND | 4.1 | 4.1 | ug/Kg | 2 | 12/02/22 | AW | SW8081B | |
| b-BHC | ND | 8.2 | 8.2 | ug/Kg | 2 | 12/02/22 | AW | SW8081B | |
| Chlordane | ND | 41 | 41 | ug/Kg | 2 | 12/02/22 | AW | SW8081B | |
| d-BHC | ND | 8.2 | 8.2 | ug/Kg | 2 | 12/02/22 | AW | SW8081B | |
| Dieldrin | ND | 4.1 | 4.1 | ug/Kg | 2 | 12/02/22 | AW | SW8081B | |
| Endosulfan I | ND | 8.2 | 8.2 | ug/Kg | 2 | 12/02/22 | AW | SW8081B | |
| Endosulfan II | ND | 8.2 | 8.2 | ug/Kg | 2 | 12/02/22 | AW | SW8081B | |
| Endosulfan sulfate | ND | 8.2 | 8.2 | ug/Kg | 2 | 12/02/22 | AW | SW8081B | |

Project ID: IPARK0118.62-LOT 10 BOUNDARY MODIFICAT. Phoenix I.D.: CM95268

Client ID: SB-6C (6-8`)

| Parameter | Result | RL/ PQL | LOD/ MDL | Units | Dilution | Date/Time | By | Reference | |
|---|---|---|---|---|---|---|---|---|---|
| Endrin | ND | 8.2 | 8.2 | ug/Kg | 2 | 12/02/22 | AW | SW8081B | |
| Endrin aldehyde | ND | 8.2 | 8.2 | ug/Kg | 2 | 12/02/22 | AW | SW8081B | |
| Endrin ketone | ND | 8.2 | 8.2 | ug/Kg | 2 | 12/02/22 | AW | SW8081B | |
| g-BHC | ND | 1.6 | 1.6 | ug/Kg | 2 | 12/02/22 | AW | SW8081B | |
| g-Chlordane | ND | 4.1 | 4.1 | ug/Kg | 2 | 12/02/22 | AW | SW8081B | |
| Heptachlor | ND | 8.2 | 8.2 | ug/Kg | 2 | 12/02/22 | AW | SW8081B | |
| Heptachlor epoxide | ND | 8.2 | 8.2 | ug/Kg | 2 | 12/02/22 | AW | SW8081B | |
| Methoxychlor | ND | 41 | 41 | ug/Kg | 2 | 12/02/22 | AW | SW8081B | |
| Toxaphene | ND | 160 | 160 | ug/Kg | 2 | 12/02/22 | AW | SW8081B | |
| **QA/QC Surrogates** | | | | | | | | | |
| % DCBP | 91 | | | % | 2 | 12/02/22 | AW | 30 - 150 % | |
| % DCBP (Confirmation) | 128 | | | % | 2 | 12/02/22 | AW | 30 - 150 % | |
| % TCMX | 82 | | | % | 2 | 12/02/22 | AW | 30 - 150 % | |
| % TCMX (Confirmation) | 83 | | | % | 2 | 12/02/22 | AW | 30 - 150 % | |
| **Volatiles** | | | | | | | | | |
| 1,1,1,2-Tetrachloroethane | ND | 5.3 | 1.1 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,1,1-Trichloroethane | ND | 5.3 | 0.53 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,1,2,2-Tetrachloroethane | ND | 5.3 | 1.1 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,1,2-Trichloroethane | ND | 5.3 | 1.1 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,1-Dichloroethane | ND | 5.3 | 1.1 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,1-Dichloroethene | ND | 5.3 | 0.53 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,1-Dichloropropene | ND | 5.3 | 0.53 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,2,3-Trichlorobenzene | ND | 5.3 | 1.1 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,2,3-Trichloropropane | ND | 5.3 | 0.53 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,2,4-Trichlorobenzene | ND | 5.3 | 1.1 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,2,4-Trimethylbenzene | ND | 5.3 | 0.53 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,2-Dibromo-3-chloropropane | ND | 5.3 | 1.1 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,2-Dibromoethane | ND | 5.3 | 0.53 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,2-Dichlorobenzene | ND | 5.3 | 0.53 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,2-Dichloroethane | ND | 5.3 | 0.53 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,2-Dichloropropane | ND | 5.3 | 1.1 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,3,5-Trimethylbenzene | ND | 5.3 | 0.53 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,3-Dichlorobenzene | ND | 5.3 | 0.53 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,3-Dichloropropane | ND | 5.3 | 1.1 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,4-Dichlorobenzene | ND | 5.3 | 0.53 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 2,2-Dichloropropane | ND | 5.3 | 0.53 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 2-Chlorotoluene | ND | 5.3 | 1.1 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 2-Hexanone | ND | 27 | 5.3 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 2-Isopropyltoluene | ND | 5.3 | 0.53 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | 1 |
| 4-Chlorotoluene | ND | 5.3 | 0.53 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 4-Methyl-2-pentanone | ND | 27 | 5.3 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Acetone | ND | 27 | 5.3 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Acrylonitrile | ND | 11 | 1.1 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Benzene | ND | 5.3 | 0.53 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Bromobenzene | ND | 5.3 | 0.53 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Bromochloromethane | ND | 5.3 | 0.53 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Bromodichloromethane | ND | 5.3 | 1.1 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Bromoform | ND | 5.3 | 1.1 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Bromomethane | ND | 5.3 | 2.1 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |

Project ID: IPARK0118.62-LOT 10 BOUNDARY MODIFICAT. Phoenix I.D.: CM95268
Client ID: SB-6C (6-8`)

| Parameter | Result | | RL/ PQL | LOD/ MDL | Units | Dilution | Date/Time | By | Reference | |
|---|---|---|---|---|---|---|---|---|---|---|
| Carbon Disulfide | ND | | 5.3 | 1.1 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Carbon tetrachloride | ND | | 5.3 | 1.1 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Chlorobenzene | ND | | 5.3 | 0.53 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Chloroethane | ND | | 5.3 | 0.53 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Chloroform | ND | | 5.3 | 0.53 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Chloromethane | ND | | 5.3 | 1.1 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| cis-1,2-Dichloroethene | ND | | 5.3 | 0.53 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| cis-1,3-Dichloropropene | ND | | 5.3 | 0.53 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Dibromochloromethane | ND | | 5.3 | 1.1 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Dibromomethane | ND | | 5.3 | 1.1 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Dichlorodifluoromethane | ND | | 5.3 | 0.53 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Ethylbenzene | ND | | 5.3 | 0.53 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Hexachlorobutadiene | ND | | 5.3 | 0.53 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Isopropylbenzene | ND | | 5.3 | 0.53 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| m&p-Xylene | ND | | 5.3 | 1.1 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Methyl Ethyl Ketone | ND | | 32 | 5.3 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Methyl t-butyl ether (MTBE) | ND | | 11 | 1.1 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Methylene chloride | ND | | 5.3 | 5.3 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Naphthalene | ND | | 5.3 | 1.1 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| n-Butylbenzene | ND | | 5.3 | 0.53 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| n-Propylbenzene | ND | | 5.3 | 1.1 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| o-Xylene | ND | | 5.3 | 1.1 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| p-Isopropyltoluene | ND | | 5.3 | 0.53 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| sec-Butylbenzene | ND | | 5.3 | 0.53 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Styrene | ND | | 5.3 | 0.53 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| tert-Butylbenzene | ND | | 5.3 | 0.53 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Tetrachloroethene | ND | | 5.3 | 1.1 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Tetrahydrofuran (THF) | 8.0 | J | 11 | 2.7 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Toluene | ND | | 5.3 | 0.53 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| trans-1,2-Dichloroethene | ND | | 5.3 | 0.53 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| trans-1,3-Dichloropropene | ND | | 5.3 | 0.53 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| trans-1,4-dichloro-2-butene | ND | | 11 | 2.7 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Trichloroethene | ND | | 5.3 | 0.53 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Trichlorofluoromethane | ND | | 5.3 | 1.1 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Trichlorotrifluoroethane | ND | | 5.3 | 0.53 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Vinyl chloride | ND | | 5.3 | 0.53 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| **QA/QC Surrogates** | | | | | | | | | | |
| % 1,2-dichlorobenzene-d4 | 95 | | | | % | 1 | 12/06/22 | JLI | 70 - 130 % | |
| % Bromofluorobenzene | 100 | | | | % | 1 | 12/06/22 | JLI | 70 - 130 % | |
| % Dibromofluoromethane | 98 | | | | % | 1 | 12/06/22 | JLI | 70 - 130 % | |
| % Toluene-d8 | 94 | | | | % | 1 | 12/06/22 | JLI | 70 - 130 % | |
| **Semivolatiles** | | | | | | | | | | |
| 1,2,4,5-Tetrachlorobenzene | ND | | 290 | 140 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 1,2,4-Trichlorobenzene | ND | | 290 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 1,2-Dichlorobenzene | ND | | 290 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 1,2-Diphenylhydrazine | ND | | 290 | 130 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 1,3-Dichlorobenzene | ND | | 290 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 1,4-Dichlorobenzene | ND | | 290 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2,2'-Oxybis(1-Chloropropane) | ND | | 290 | 110 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | 1 |

Project ID: IPARK0118.62-LOT 10 BOUNDARY MODIFICAT. Phoenix I.D.: CM95268

Client ID: SB-6C (6-8`)

| Parameter | Result | RL/ PQL | LOD/ MDL | Units | Dilution | Date/Time | By | Reference | |
|---|---|---|---|---|---|---|---|---|---|
| 2,4,5-Trichlorophenol | ND | 290 | 220 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2,4,6-Trichlorophenol | ND | 200 | 130 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2,4-Dichlorophenol | ND | 200 | 140 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2,4-Dimethylphenol | ND | 290 | 100 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2,4-Dinitrophenol | ND | 290 | 290 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2,4-Dinitrotoluene | ND | 200 | 160 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2,6-Dinitrotoluene | ND | 200 | 130 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2-Chloronaphthalene | ND | 290 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2-Chlorophenol | ND | 290 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2-Methylnaphthalene | ND | 290 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2-Methylphenol (o-cresol) | ND | 290 | 190 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2-Nitroaniline | ND | 290 | 290 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2-Nitrophenol | ND | 290 | 260 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 3&4-Methylphenol (m&p-cresol) | ND | 290 | 160 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | 1 |
| 3,3'-Dichlorobenzidine | ND | 200 | 190 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 3-Nitroaniline | ND | 410 | 820 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 4,6-Dinitro-2-methylphenol | ND | 250 | 82 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 4-Bromophenyl phenyl ether | ND | 290 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 4-Chloro-3-methylphenol | ND | 290 | 140 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 4-Chloroaniline | ND | 330 | 190 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 4-Chlorophenyl phenyl ether | ND | 290 | 140 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 4-Nitroaniline | ND | 410 | 140 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 4-Nitrophenol | ND | 410 | 180 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Acenaphthene | ND | 290 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Acenaphthylene | ND | 290 | 110 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Acetophenone | ND | 290 | 130 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Aniline | ND | 330 | 330 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Anthracene | ND | 290 | 130 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Benz(a)anthracene | ND | 290 | 140 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Benzidine | ND | 410 | 240 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Benzo(a)pyrene | ND | 200 | 130 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Benzo(b)fluoranthene | ND | 290 | 140 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Benzo(ghi)perylene | ND | 290 | 130 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Benzo(k)fluoranthene | ND | 290 | 140 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Benzoic acid | ND | 2000 | 820 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Benzyl butyl phthalate | ND | 290 | 110 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Bis(2-chloroethoxy)methane | ND | 290 | 110 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Bis(2-chloroethyl)ether | ND | 200 | 110 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Bis(2-ethylhexyl)phthalate | ND | 290 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Carbazole | ND | 200 | 160 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Chrysene | ND | 290 | 140 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Dibenz(a,h)anthracene | ND | 200 | 130 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Dibenzofuran | ND | 290 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Diethyl phthalate | ND | 290 | 130 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Dimethylphthalate | ND | 290 | 130 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Di-n-butylphthalate | ND | 290 | 110 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Di-n-octylphthalate | ND | 290 | 110 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Fluoranthene | ND | 290 | 130 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Fluorene | ND | 290 | 130 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |

Project ID: IPARK0118.62-LOT 10 BOUNDARY MODIFICAT. Phoenix I.D.: CM95268
Client ID: SB-6C (6-8`)

| Parameter | Result | RL/ PQL | LOD/ MDL | Units | Dilution | Date/Time | By | Reference |
|---|---|---|---|---|---|---|---|---|
| Hexachlorobenzene | ND | 200 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Hexachlorobutadiene | ND | 290 | 150 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Hexachlorocyclopentadiene | ND | 290 | 130 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Hexachloroethane | ND | 200 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Indeno(1,2,3-cd)pyrene | ND | 290 | 140 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Isophorone | ND | 200 | 110 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Naphthalene | ND | 290 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Nitrobenzene | ND | 200 | 140 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| N-Nitrosodimethylamine | ND | 290 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| N-Nitrosodi-n-propylamine | ND | 200 | 130 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| N-Nitrosodiphenylamine | ND | 290 | 160 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Pentachloronitrobenzene | ND | 290 | 150 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Pentachlorophenol | ND | 250 | 150 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Phenanthrene | ND | 290 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Phenol | ND | 290 | 130 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Pyrene | ND | 290 | 140 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Pyridine | ND | 290 | 100 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| **QA/QC Surrogates** | | | | | | | | |
| % 2,4,6-Tribromophenol | 81 | | | % | 1 | 12/04/22 | WB | 30 - 130 % |
| % 2-Fluorobiphenyl | 62 | | | % | 1 | 12/04/22 | WB | 30 - 130 % |
| % 2-Fluorophenol | 52 | | | % | 1 | 12/04/22 | WB | 30 - 130 % |
| % Nitrobenzene-d5 | 64 | | | % | 1 | 12/04/22 | WB | 30 - 130 % |
| % Phenol-d5 | 66 | | | % | 1 | 12/04/22 | WB | 30 - 130 % |
| % Terphenyl-d14 | 81 | | | % | 1 | 12/04/22 | WB | 30 - 130 % |
| **1,4-Dioxane** | | | | | | | | |
| 1,4-dioxane | ND | 84 | 84 | ug/Kg | 1 | 12/05/22 | WB | SW8270D (SIM) |
| **QA/QC Surrogates** | | | | | | | | |
| % 2-Fluorobiphenyl | 39 | | | % | 1 | 12/05/22 | WB | 30 - 130 % |
| % Nitrobenzene-d5 | 46 | | | % | 1 | 12/05/22 | WB | 30 - 130 % |
| % Terphenyl-d14 | 71 | | | % | 1 | 12/05/22 | WB | 30 - 130 % |

| Parameter | Result | RL/ PQL | LOD/ MDL | Units | Dilution | Date/Time | By | Reference |
|---|---|---|---|---|---|---|---|---|

1 = This parameter is not certified by the primary accrediting authority (NY NELAC) for this matrix. NY NELAC does not offer certification for all parameters at this time.

RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected BRL=Below Reporting Level L=Biased Low J=Estimated Below RL LOD=Limit of Detection MDL=Method Detection Limit1
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

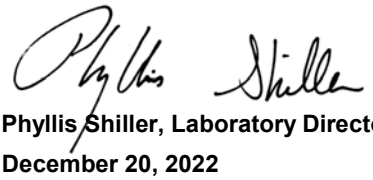
## Comments:

*See attached

Per 1.4.6 of EPA method 8270D, 1,2-Diphenylhydrazine is unstable and readily converts to Azobenzene. Azobenzene is used for the calibration of 1,2-Diphenylhydrazine.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200.
The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.



**Phyllis Shiller, Laboratory Director**
**December 20, 2022**
**Reviewed and Released by: Phyllis Shiller, Laboratory Director**

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

# Analysis Report

December 20, 2022

FOR: Attn: Nora Brew
Walden Environmental Engineering PLLC
16 Spring Street
Oyster Bay, NY 11771

| Sample Information | | Custody Information | | Date | Time |
|---|---|---|---|---|---|
| Matrix: | SOIL | Collected by: | | 11/29/22 | 14:30 |
| Location Code: | WALDENE-IPARK | Received by: | CP | 12/01/22 | 17:12 |
| Rush Request: | Standard | Analyzed by: | see "By" below | | |
| P.O.#: | | | | | |

## Laboratory Data

SDG ID: GCM95248
Phoenix ID: CM95269

Project ID: IPARK0118.62-LOT 10 BOUNDARY MODIFICAT.
Client ID: SB-DUP2

| Parameter | Result | RL/ PQL | LOD/ MDL | Units | Dilution | Date/Time | By | Reference |
|---|---|---|---|---|---|---|---|---|
| Aluminum | 22700 | 38 | 7.5 | mg/Kg | 10 | 12/02/22 | TH | SW6010D |
| Antimony | ND | 3.8 | 3.8 | mg/Kg | 1 | 12/02/22 | TH | SW6010D |
| Arsenic | 6.98 | 0.75 | 0.75 | mg/Kg | 1 | 12/02/22 | TH | SW6010D |
| Barium | 108 | 0.8 | 0.38 | mg/Kg | 1 | 12/02/22 | TH | SW6010D |
| Beryllium | 0.78 | 0.30 | 0.15 | mg/Kg | 1 | 12/02/22 | TH | SW6010D |
| Calcium | 2320 | 3.8 | 3.5 | mg/Kg | 1 | 12/02/22 | TH | SW6010D |
| Cadmium | 2.34 | 0.38 | 0.38 | mg/Kg | 1 | 12/02/22 | TH | SW6010D |
| Chromium | 26.5 | 0.38 | 0.38 | mg/Kg | 1 | 12/02/22 | TH | SW6010D |
| Cobalt | 16.7 | 0.38 | 0.38 | mg/Kg | 1 | 12/02/22 | TH | SW6010D |
| Copper | 35.5 | 0.8 | 0.38 | mg/kg | 1 | 12/02/22 | TH | SW6010D |
| Iron | 45000 | 38 | 38 | mg/Kg | 10 | 12/02/22 | TH | SW6010D |
| Lead | 17.5 | 0.8 | 0.38 | mg/Kg | 1 | 12/02/22 | TH | SW6010D |
| Magnesium | 10100 | 38 | 38 | mg/Kg | 10 | 12/02/22 | TH | SW6010D |
| Manganese | 946 | 3.8 | 3.8 | mg/Kg | 10 | 12/02/22 | TH | SW6010D |
| Mercury | ND | 0.03 | 0.02 | mg/Kg | 2 | 12/05/22 | PM | SW7471B |
| Nickel | 37.2 | 0.38 | 0.38 | mg/Kg | 1 | 12/02/22 | TH | SW6010D |
| Potassium | 1930 | 8 | 2.9 | mg/Kg | 1 | 12/02/22 | TH | SW6010D |
| Selenium | ND | 1.5 | 1.3 | mg/Kg | 1 | 12/02/22 | TH | SW6010D |
| Silver | ND | 0.38 | 0.38 | mg/Kg | 1 | 12/02/22 | TH | SW6010D |
| Sodium | 872 | 8 | 3.2 | mg/Kg | 1 | 12/02/22 | TH | SW6010D |
| Thallium | ND | 1.5 | 1.5 | mg/Kg | 1 | 12/02/22 | TH | SW6010D |
| Vanadium | 24.0 | 0.38 | 0.38 | mg/Kg | 1 | 12/02/22 | TH | SW6010D |
| Zinc | 95.5 | 0.8 | 0.38 | mg/Kg | 1 | 12/02/22 | TH | SW6010D |
| Percent Solid | 79 | | | % | | 12/01/22 | Q | SW846-%Solid |
| Extraction for SVOA SIM | Completed | | | | | 12/02/22 | O/Y | SW3545A |
| Soil Extraction for PCB | Completed | | | | | 12/01/22 | B/MO | SW3545A |
| Soil Extraction for Pesticide | Completed | | | | | 12/01/22 | B/MO | SW3545A |

**Ver 1**

Project ID: IPARK0118.62-LOT 10 BOUNDARY MODIFICAT. Phoenix I.D.: CM95269

Client ID: SB-DUP2

| Parameter | Result | RL/ PQL | LOD/ MDL | Units | Dilution | Date/Time | By | Reference | |
|---|---|---|---|---|---|---|---|---|---|
| Field Extraction | Completed | | | | | 11/29/22 | | SW5035A | 1 |
| Mercury Digestion | Completed | | | | | 12/02/22 | AB/AB | SW7471B | |
| Soil Extraction for Herbicide | Completed | | | | | 12/07/22 | J/D | SW3546 | |
| Soil Extraction for SVOA | Completed | | | | | 12/03/22 | Y/L | SW3546 | |
| Total Metals Digest | Completed | | | | | 12/01/22 | | SW3050B | |
| PFAS (21) | Completed | | | | | 12/08/22 | *** | EPA 537m | C |

## PFAS (21)

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **1H,1H,2H,2H-Perfluorodecanesulfonic acid** | ND | 0.288 | 0.0295 | ng/g | 1 | 12/12/22 | *** | EPA 537m | C |
| **1H,1H,2H,2H-Perfluorooctanesulfonic acid** | ND | 0.288 | 0.0761 | ng/g | 1 | 12/12/22 | *** | EPA 537m | C |
| NEtFOSAA | ND | 0.288 | 0.120 | ng/g | 1 | 12/12/22 | *** | EPA 537m | C |
| NMeFOSAA | ND | 0.288 | 0.120 | ng/g | 1 | 12/12/22 | *** | EPA 537m | C |
| **Perfluoro-1-decanesulfonic acid (PFDS)** | ND | 0.288 | 0.0591 | ng/g | 1 | 12/12/22 | *** | EPA 537m | C |
| **Perfluoro-1-heptanesulfonic acid (PFHpS)** | ND | 0.288 | 0.0569 | ng/g | 1 | 12/12/22 | *** | EPA 537m | C |
| **Perfluoro-1-octanesulfonamide (FOSA)** | ND | 0.288 | 0.0539 | ng/g | 1 | 12/12/22 | *** | EPA 537m | C |
| Perfluorobutanesulfonic acid (PFBS) | ND | 0.288 | 0.231 | ng/g | 1 | 12/12/22 | *** | EPA 537m | C |
| Perfluorodecanoic acid (PFDA) | ND | 0.288 | 0.0591 | ng/g | 1 | 12/12/22 | *** | EPA 537m | C |
| Perfluorododecanoic acid (PFDoA) | ND | 0.288 | 0.0865 | ng/g | 1 | 12/12/22 | *** | EPA 537m | C |
| Perfluoroheptanoic acid (PFHpA) | ND | 0.288 | 0.0525 | ng/g | 1 | 12/12/22 | *** | EPA 537m | C |
| **Perfluorohexanesulfonic Acid (PFHxS)** | ND | 0.288 | 0.0358 | ng/g | 1 | 12/12/22 | *** | EPA 537m | C |
| Perfluorohexanoic acid (PFHxA) | ND | 0.288 | 0.0760 | ng/g | 1 | 12/12/22 | *** | EPA 537m | C |
| Perfluoro-n-butanoic acid (PFBA) | ND | 0.288 | 0.211 | ng/g | 1 | 12/12/22 | *** | EPA 537m | C |
| Perfluorononanoic acid (PFNA) | ND | 0.288 | 0.0690 | ng/g | 1 | 12/12/22 | *** | EPA 537m | C |
| Perfluorooctanesulfonic Acid (PFOS) | ND | 0.288 | 0.0505 | ng/g | 1 | 12/12/22 | *** | EPA 537m | C |
| Perfluorooctanoic acid (PFOA) | ND | 0.288 | 0.0891 | ng/g | 1 | 12/12/22 | *** | EPA 537m | C |
| Perfluoropentanoic acid (PFPeA) | ND | 0.288 | 0.106 | ng/g | 1 | 12/12/22 | *** | EPA 537m | C |
| Perfluorotetradecanoic acid (PFTA) | ND | 0.288 | 0.0862 | ng/g | 1 | 12/12/22 | *** | EPA 537m | C |
| Perfluorotridecanoic acid (PFTrDA) | ND | 0.288 | 0.0502 | ng/g | 1 | 12/12/22 | *** | EPA 537m | C |
| Perfluoroundecanoic acid (PFUnA) | ND | 0.288 | 0.134 | ng/g | 1 | 12/12/22 | *** | EPA 537m | C |
| **QA/QC Surrogates** | | | | | | | | | |
| % d3-N-MeFOSAA | 47.4 | | | % | 1 | 12/12/22 | *** | 25 - 150 % | C |
| % d5-NEtFOSA | 50.5 | | | % | 1 | 12/12/22 | *** | 25 - 150 % | C |
| % M2-6:2FTS | 90.0 | | | % | 1 | 12/12/22 | *** | 25 - 200 % | C |
| % M2-8:2FTS | 79.0 | | | % | 1 | 12/12/22 | *** | 25 - 200 % | C |
| % M2PFTeDA | 32.0 | | | % | 1 | 12/12/22 | *** | 10 - 150 % | C |
| % M3PFBS | 67.8 | | | % | 1 | 12/12/22 | *** | 25 - 150 % | C |
| % M3PFHxS | 77.2 | | | % | 1 | 12/12/22 | *** | 25 - 150 % | C |
| % M4PFHpA | 81.2 | | | % | 1 | 12/12/22 | *** | 25 - 150 % | C |
| % M5PFHxA | 77.4 | | | % | 1 | 12/12/22 | *** | 25 - 150 % | C |
| % M5PFPeA | 82.7 | | | % | 1 | 12/12/22 | *** | 25 - 150 % | C |
| % M6PFDA | 67.7 | | | % | 1 | 12/12/22 | *** | 25 - 150 % | C |
| % M7PFUdA | 49.8 | | | % | 1 | 12/12/22 | *** | 25 - 150 % | C |
| % M8FOSA | 44.8 | | | % | 1 | 12/12/22 | *** | 10 - 150 % | C |
| % M8PFOA | 81.1 | | | % | 1 | 12/12/22 | *** | 25 - 150 % | C |
| % M8PFOS | 59.1 | | | % | 1 | 12/12/22 | *** | 25 - 150 % | C |
| % M9PFNA | 71.6 | | | % | 1 | 12/12/22 | *** | 25 - 150 % | C |
| % MPFBA | 79.1 | | | % | 1 | 12/12/22 | *** | 25 - 150 % | C |
| % MPFDoA | 42.0 | | | % | 1 | 12/12/22 | *** | 25 - 150 % | C |

Project ID: IPARK0118.62-LOT 10 BOUNDARY MODIFICAT. Phoenix I.D.: CM95269
Client ID: SB-DUP2

| Parameter | Result | RL/ PQL | LOD/ MDL | Units | Dilution | Date/Time | By | Reference |
|---|---|---|---|---|---|---|---|---|
| **Chlorinated Herbicides** | | | | | | | | |
| 2,4,5-T | ND | 150 | 150 | ug/Kg | 10 | 12/09/22 | JRB | SW8151A |
| 2,4,5-TP (Silvex) | ND | 150 | 150 | ug/Kg | 10 | 12/09/22 | JRB | SW8151A |
| 2,4-D | ND | 310 | 310 | ug/Kg | 10 | 12/09/22 | JRB | SW8151A |
| 2,4-DB | ND | 3100 | 3100 | ug/Kg | 10 | 12/09/22 | JRB | SW8151A |
| Dalapon | ND | 150 | 150 | ug/Kg | 10 | 12/09/22 | JRB | SW8151A |
| Dicamba | ND | 150 | 150 | ug/Kg | 10 | 12/09/22 | JRB | SW8151A |
| Dichloroprop | ND | 310 | 310 | ug/Kg | 10 | 12/09/22 | JRB | SW8151A |
| Dinoseb | ND | 310 | 310 | ug/Kg | 10 | 12/09/22 | JRB | SW8151A |
| **QA/QC Surrogates** | | | | | | | | |
| % DCAA | 101 | | | % | 10 | 12/09/22 | JRB | 30 - 150 % |
| % DCAA (Confirmation) | 84 | | | % | 10 | 12/09/22 | JRB | 30 - 150 % |
| **Polychlorinated Biphenyls** | | | | | | | | |
| PCB-1016 | ND | 82 | 82 | ug/Kg | 2 | 12/03/22 | SC | SW8082A |
| PCB-1221 | ND | 82 | 82 | ug/Kg | 2 | 12/03/22 | SC | SW8082A |
| PCB-1232 | ND | 82 | 82 | ug/Kg | 2 | 12/03/22 | SC | SW8082A |
| PCB-1242 | ND | 82 | 82 | ug/Kg | 2 | 12/03/22 | SC | SW8082A |
| PCB-1248 | ND | 82 | 82 | ug/Kg | 2 | 12/03/22 | SC | SW8082A |
| PCB-1254 | ND | 82 | 82 | ug/Kg | 2 | 12/03/22 | SC | SW8082A |
| PCB-1260 | ND | 82 | 82 | ug/Kg | 2 | 12/03/22 | SC | SW8082A |
| PCB-1262 | ND | 82 | 82 | ug/Kg | 2 | 12/03/22 | SC | SW8082A |
| PCB-1268 | ND | 82 | 82 | ug/Kg | 2 | 12/03/22 | SC | SW8082A |
| **QA/QC Surrogates** | | | | | | | | |
| % DCBP | 74 | | | % | 2 | 12/03/22 | SC | 30 - 150 % |
| % DCBP (Confirmation) | 81 | | | % | 2 | 12/03/22 | SC | 30 - 150 % |
| % TCMX | 70 | | | % | 2 | 12/03/22 | SC | 30 - 150 % |
| % TCMX (Confirmation) | 68 | | | % | 2 | 12/03/22 | SC | 30 - 150 % |
| **Pesticides - Soil** | | | | | | | | |
| 4,4' -DDD | ND | 2.5 | 2.5 | ug/Kg | 2 | 12/02/22 | AW | SW8081B |
| 4,4' -DDE | ND | 2.5 | 2.5 | ug/Kg | 2 | 12/02/22 | AW | SW8081B |
| 4,4' -DDT | ND | 2.5 | 2.5 | ug/Kg | 2 | 12/02/22 | AW | SW8081B |
| a-BHC | ND | 8.2 | 8.2 | ug/Kg | 2 | 12/02/22 | AW | SW8081B |
| a-Chlordane | ND | 4.1 | 4.1 | ug/Kg | 2 | 12/02/22 | AW | SW8081B |
| Alachlor | ND | 4.1 | 4.1 | ug/Kg | 2 | 12/02/22 | AW | SW8081B |
| Aldrin | ND | 4.1 | 4.1 | ug/Kg | 2 | 12/02/22 | AW | SW8081B |
| b-BHC | ND | 8.2 | 8.2 | ug/Kg | 2 | 12/02/22 | AW | SW8081B |
| Chlordane | ND | 41 | 41 | ug/Kg | 2 | 12/02/22 | AW | SW8081B |
| d-BHC | ND | 8.2 | 8.2 | ug/Kg | 2 | 12/02/22 | AW | SW8081B |
| Dieldrin | ND | 4.1 | 4.1 | ug/Kg | 2 | 12/02/22 | AW | SW8081B |
| Endosulfan I | ND | 8.2 | 8.2 | ug/Kg | 2 | 12/02/22 | AW | SW8081B |
| Endosulfan II | ND | 8.2 | 8.2 | ug/Kg | 2 | 12/02/22 | AW | SW8081B |
| Endosulfan sulfate | ND | 8.2 | 8.2 | ug/Kg | 2 | 12/02/22 | AW | SW8081B |
| Endrin | ND | 8.2 | 8.2 | ug/Kg | 2 | 12/02/22 | AW | SW8081B |
| Endrin aldehyde | ND | 8.2 | 8.2 | ug/Kg | 2 | 12/02/22 | AW | SW8081B |
| Endrin ketone | ND | 8.2 | 8.2 | ug/Kg | 2 | 12/02/22 | AW | SW8081B |
| g-BHC | ND | 1.6 | 1.6 | ug/Kg | 2 | 12/02/22 | AW | SW8081B |
| g-Chlordane | ND | 4.1 | 4.1 | ug/Kg | 2 | 12/02/22 | AW | SW8081B |

Project ID: IPARK0118.62-LOT 10 BOUNDARY MODIFICAT. Phoenix I.D.: CM95269
Client ID: SB-DUP2

| Parameter | Result | RL/ PQL | LOD/ MDL | Units | Dilution | Date/Time | By | Reference | |
|---|---|---|---|---|---|---|---|---|---|
| Heptachlor | ND | 8.2 | 8.2 | ug/Kg | 2 | 12/02/22 | AW | SW8081B | |
| Heptachlor epoxide | ND | 8.2 | 8.2 | ug/Kg | 2 | 12/02/22 | AW | SW8081B | |
| Methoxychlor | ND | 41 | 41 | ug/Kg | 2 | 12/02/22 | AW | SW8081B | |
| Toxaphene | ND | 160 | 160 | ug/Kg | 2 | 12/02/22 | AW | SW8081B | |
| **QA/QC Surrogates** | | | | | | | | | |
| % DCBP | 92 | | | % | 2 | 12/02/22 | AW | 30 - 150 % | |
| % DCBP (Confirmation) | 55 | | | % | 2 | 12/02/22 | AW | 30 - 150 % | |
| % TCMX | 92 | | | % | 2 | 12/02/22 | AW | 30 - 150 % | |
| % TCMX (Confirmation) | 70 | | | % | 2 | 12/02/22 | AW | 30 - 150 % | |
| **Volatiles** | | | | | | | | | |
| 1,1,1,2-Tetrachloroethane | ND | 5.0 | 1.0 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,1,1-Trichloroethane | ND | 5.0 | 0.50 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,1,2,2-Tetrachloroethane | ND | 5.0 | 1.0 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,1,2-Trichloroethane | ND | 5.0 | 1.0 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,1-Dichloroethane | ND | 5.0 | 1.0 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,1-Dichloroethene | ND | 5.0 | 0.50 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,1-Dichloropropene | ND | 5.0 | 0.50 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,2,3-Trichlorobenzene | ND | 5.0 | 1.0 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,2,3-Trichloropropane | ND | 5.0 | 0.50 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,2,4-Trichlorobenzene | ND | 5.0 | 1.0 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,2,4-Trimethylbenzene | ND | 5.0 | 0.50 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,2-Dibromo-3-chloropropane | ND | 5.0 | 1.0 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,2-Dibromoethane | ND | 5.0 | 0.50 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,2-Dichlorobenzene | ND | 5.0 | 0.50 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,2-Dichloroethane | ND | 5.0 | 0.50 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,2-Dichloropropane | ND | 5.0 | 1.0 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,3,5-Trimethylbenzene | ND | 5.0 | 0.50 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,3-Dichlorobenzene | ND | 5.0 | 0.50 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,3-Dichloropropane | ND | 5.0 | 1.0 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,4-Dichlorobenzene | ND | 5.0 | 0.50 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 2,2-Dichloropropane | ND | 5.0 | 0.50 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 2-Chlorotoluene | ND | 5.0 | 1.0 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 2-Hexanone | ND | 25 | 5.0 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 2-Isopropyltoluene | ND | 5.0 | 0.50 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | 1 |
| 4-Chlorotoluene | ND | 5.0 | 0.50 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 4-Methyl-2-pentanone | ND | 25 | 5.0 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Acetone | ND | 25 | 5.0 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Acrylonitrile | ND | 10 | 1.0 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Benzene | ND | 5.0 | 0.50 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Bromobenzene | ND | 5.0 | 0.50 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Bromochloromethane | ND | 5.0 | 0.50 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Bromodichloromethane | ND | 5.0 | 1.0 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Bromoform | ND | 5.0 | 1.0 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Bromomethane | ND | 5.0 | 2.0 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Carbon Disulfide | ND | 5.0 | 1.0 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Carbon tetrachloride | ND | 5.0 | 1.0 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Chlorobenzene | ND | 5.0 | 0.50 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Chloroethane | ND | 5.0 | 0.50 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Chloroform | ND | 5.0 | 0.50 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |

**Ver 1**

Project ID: IPARK0118.62-LOT 10 BOUNDARY MODIFICAT. Phoenix I.D.: CM95269

Client ID: SB-DUP2

| Parameter | Result | | RL/ PQL | LOD/ MDL | Units | Dilution | Date/Time | By | Reference | |
|---|---|---|---|---|---|---|---|---|---|---|
| Chloromethane | ND | | 5.0 | 1.0 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| cis-1,2-Dichloroethene | ND | | 5.0 | 0.50 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| cis-1,3-Dichloropropene | ND | | 5.0 | 0.50 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Dibromochloromethane | ND | | 5.0 | 1.0 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Dibromomethane | ND | | 5.0 | 1.0 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Dichlorodifluoromethane | ND | | 5.0 | 0.50 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Ethylbenzene | ND | | 5.0 | 0.50 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Hexachlorobutadiene | ND | | 5.0 | 0.50 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Isopropylbenzene | ND | | 5.0 | 0.50 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| m&p-Xylene | ND | | 5.0 | 1.0 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Methyl Ethyl Ketone | ND | | 30 | 5.0 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Methyl t-butyl ether (MTBE) | ND | | 10 | 1.0 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Methylene chloride | ND | | 5.0 | 5.0 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Naphthalene | ND | | 5.0 | 1.0 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| n-Butylbenzene | ND | | 5.0 | 0.50 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| n-Propylbenzene | ND | | 5.0 | 1.0 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| o-Xylene | ND | | 5.0 | 1.0 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| p-Isopropyltoluene | ND | | 5.0 | 0.50 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| sec-Butylbenzene | ND | | 5.0 | 0.50 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Styrene | ND | | 5.0 | 0.50 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| tert-Butylbenzene | ND | | 5.0 | 0.50 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Tetrachloroethene | ND | | 5.0 | 1.0 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Tetrahydrofuran (THF) | 8.7 | J | 10 | 2.5 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Toluene | ND | | 5.0 | 0.50 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| trans-1,2-Dichloroethene | ND | | 5.0 | 0.50 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| trans-1,3-Dichloropropene | ND | | 5.0 | 0.50 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| trans-1,4-dichloro-2-butene | ND | | 10 | 2.5 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Trichloroethene | ND | | 5.0 | 0.50 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Trichlorofluoromethane | ND | | 5.0 | 1.0 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Trichlorotrifluoroethane | ND | | 5.0 | 0.50 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Vinyl chloride | ND | | 5.0 | 0.50 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| **QA/QC Surrogates** | | | | | | | | | | |
| % 1,2-dichlorobenzene-d4 | 97 | | | | % | 1 | 12/06/22 | JLI | 70 - 130 % | |
| % Bromofluorobenzene | 99 | | | | % | 1 | 12/06/22 | JLI | 70 - 130 % | |
| % Dibromofluoromethane | 102 | | | | % | 1 | 12/06/22 | JLI | 70 - 130 % | |
| % Toluene-d8 | 95 | | | | % | 1 | 12/06/22 | JLI | 70 - 130 % | |
| **Semivolatiles** | | | | | | | | | | |
| 1,2,4,5-Tetrachlorobenzene | ND | | 290 | 150 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 1,2,4-Trichlorobenzene | ND | | 290 | 130 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 1,2-Dichlorobenzene | ND | | 290 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 1,2-Diphenylhydrazine | ND | | 290 | 140 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 1,3-Dichlorobenzene | ND | | 290 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 1,4-Dichlorobenzene | ND | | 290 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2,2'-Oxybis(1-Chloropropane) | ND | | 290 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | 1 |
| 2,4,5-Trichlorophenol | ND | | 290 | 230 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2,4,6-Trichlorophenol | ND | | 210 | 130 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2,4-Dichlorophenol | ND | | 210 | 150 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2,4-Dimethylphenol | ND | | 290 | 100 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2,4-Dinitrophenol | ND | | 290 | 290 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |

Project ID: IPARK0118.62-LOT 10 BOUNDARY MODIFICAT. Phoenix I.D.: CM95269

Client ID: SB-DUP2

| Parameter | Result | RL/ PQL | LOD/ MDL | Units | Dilution | Date/Time | By | Reference | |
|---|---|---|---|---|---|---|---|---|---|
| 2,4-Dinitrotoluene | ND | 210 | 160 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2,6-Dinitrotoluene | ND | 210 | 130 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2-Chloronaphthalene | ND | 290 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2-Chlorophenol | ND | 290 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2-Methylnaphthalene | ND | 290 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2-Methylphenol (o-cresol) | ND | 290 | 190 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2-Nitroaniline | ND | 290 | 290 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2-Nitrophenol | ND | 290 | 260 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 3&4-Methylphenol (m&p-cresol) | ND | 290 | 160 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | 1 |
| 3,3'-Dichlorobenzidine | ND | 210 | 200 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 3-Nitroaniline | ND | 410 | 830 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 4,6-Dinitro-2-methylphenol | ND | 250 | 83 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 4-Bromophenyl phenyl ether | ND | 290 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 4-Chloro-3-methylphenol | ND | 290 | 150 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 4-Chloroaniline | ND | 330 | 190 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 4-Chlorophenyl phenyl ether | ND | 290 | 140 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 4-Nitroaniline | ND | 410 | 140 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 4-Nitrophenol | ND | 410 | 190 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Acenaphthene | ND | 290 | 130 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Acenaphthylene | ND | 290 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Acetophenone | ND | 290 | 130 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Aniline | ND | 330 | 330 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Anthracene | ND | 290 | 140 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Benz(a)anthracene | ND | 290 | 140 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Benzidine | ND | 410 | 240 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Benzo(a)pyrene | ND | 210 | 140 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Benzo(b)fluoranthene | ND | 290 | 140 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Benzo(ghi)perylene | ND | 290 | 130 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Benzo(k)fluoranthene | ND | 290 | 140 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Benzoic acid | ND | 2100 | 830 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Benzyl butyl phthalate | ND | 290 | 110 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Bis(2-chloroethoxy)methane | ND | 290 | 110 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Bis(2-chloroethyl)ether | ND | 210 | 110 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Bis(2-ethylhexyl)phthalate | ND | 290 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Carbazole | ND | 210 | 170 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Chrysene | ND | 290 | 140 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Dibenz(a,h)anthracene | ND | 210 | 130 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Dibenzofuran | ND | 290 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Diethyl phthalate | ND | 290 | 130 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Dimethylphthalate | ND | 290 | 130 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Di-n-butylphthalate | ND | 290 | 110 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Di-n-octylphthalate | ND | 290 | 110 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Fluoranthene | ND | 290 | 130 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Fluorene | ND | 290 | 140 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Hexachlorobenzene | ND | 210 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Hexachlorobutadiene | ND | 290 | 150 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Hexachlorocyclopentadiene | ND | 290 | 130 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Hexachloroethane | ND | 210 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Indeno(1,2,3-cd)pyrene | ND | 290 | 140 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |

Project ID: IPARK0118.62-LOT 10 BOUNDARY MODIFICAT. Phoenix I.D.: CM95269
Client ID: SB-DUP2

| Parameter | Result | RL/ PQL | LOD/ MDL | Units | Dilution | Date/Time | By | Reference |
|---|---|---|---|---|---|---|---|---|
| Isophorone | ND | 210 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Naphthalene | ND | 290 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Nitrobenzene | ND | 210 | 150 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| N-Nitrosodimethylamine | ND | 290 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| N-Nitrosodi-n-propylamine | ND | 210 | 130 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| N-Nitrosodiphenylamine | ND | 290 | 160 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Pentachloronitrobenzene | ND | 290 | 150 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Pentachlorophenol | ND | 250 | 160 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Phenanthrene | ND | 290 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Phenol | ND | 290 | 130 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Pyrene | ND | 290 | 140 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Pyridine | ND | 290 | 100 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| **QA/QC Surrogates** | | | | | | | | |
| % 2,4,6-Tribromophenol | 85 | | | % | 1 | 12/04/22 | WB | 30 - 130 % |
| % 2-Fluorobiphenyl | 68 | | | % | 1 | 12/04/22 | WB | 30 - 130 % |
| % 2-Fluorophenol | 59 | | | % | 1 | 12/04/22 | WB | 30 - 130 % |
| % Nitrobenzene-d5 | 71 | | | % | 1 | 12/04/22 | WB | 30 - 130 % |
| % Phenol-d5 | 73 | | | % | 1 | 12/04/22 | WB | 30 - 130 % |
| % Terphenyl-d14 | 80 | | | % | 1 | 12/04/22 | WB | 30 - 130 % |
| **1,4-Dioxane** | | | | | | | | |
| 1,4-dioxane | ND | 84 | 84 | ug/Kg | 1 | 12/05/22 | WB | SW8270D (SIM) |
| **QA/QC Surrogates** | | | | | | | | |
| % 2-Fluorobiphenyl | 55 | | | % | 1 | 12/05/22 | WB | 30 - 130 % |
| % Nitrobenzene-d5 | 53 | | | % | 1 | 12/05/22 | WB | 30 - 130 % |
| % Terphenyl-d14 | 109 | | | % | 1 | 12/05/22 | WB | 30 - 130 % |

Project ID: IPARK0118.62-LOT 10 BOUNDARY MODIFICAT. Phoenix I.D.: CM95269
Client ID: SB-DUP2

| Parameter | Result | RL/ PQL | LOD/ MDL | Units | Dilution | Date/Time | By | Reference |
|---|---|---|---|---|---|---|---|---|

1 = This parameter is not certified by the primary accrediting authority (NY NELAC) for this matrix. NY NELAC does not offer certification for all parameters at this time.
C = This parameter is subcontracted.

RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected BRL=Below Reporting Level L=Biased Low J=Estimated Below RL LOD=Limit of Detection MDL=Method Detection Limit1
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

## Comments:

*See attached

Per 1.4.6 of EPA method 8270D, 1,2-Diphenylhydrazine is unstable and readily converts to Azobenzene. Azobenzene is used for the calibration of 1,2-Diphenylhydrazine.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

PFAS (21) (EPA 537m), PFOA/PFOS - Soil Extraction (EPA 537m) were analyzed by NY certified lab #12058.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200.
The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.

**Phyllis Shiller, Laboratory Director**
**December 20, 2022**
**Reviewed and Released by: Phyllis Shiller, Laboratory Director**

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

# Analysis Report

December 20, 2022

FOR: Attn: Nora Brew
Walden Environmental Engineering PLLC
16 Spring Street
Oyster Bay, NY 11771

| Sample Information | | Custody Information | | Date | Time |
|---|---|---|---|---|---|
| Matrix: | WATER | Collected by: | | 11/29/22 | 13:35 |
| Location Code: | WALDENE-IPARK | Received by: | CP | 12/01/22 | 17:12 |
| Rush Request: | Standard | Analyzed by: | see "By" below | | |
| P.O.#: | | | | | |

## Laboratory Data

SDG ID: GCM95248
Phoenix ID: CM95270

Project ID: IPARK0118.62-LOT 10 BOUNDARY MODIFICAT.
Client ID: EQUIPMENT BLANK 11292022

| Parameter | Result | RL/ PQL | LOD/ MDL | Units | Dilution | Date/Time | By | Reference |
|---|---|---|---|---|---|---|---|---|
| Aluminum | 0.003 J | 0.020 | 0.0024 | mg/L | 1 | 12/03/22 | CPP | SW6010D/E200.7 |
| Antimony | ND | 0.0030 | 0.0005 | mg/L | 5 | 12/07/22 | CPP | SW6020B/E200.8 |
| Arsenic - LDL | ND | 0.004 | 0.001 | mg/L | 1 | 12/03/22 | CPP | SW6010D/E200.7 |
| Barium | ND | 0.010 | 0.001 | mg/L | 1 | 12/03/22 | CPP | SW6010D/E200.7 |
| Beryllium | ND | 0.001 | 0.001 | mg/L | 1 | 12/03/22 | CPP | SW6010D/E200.7 |
| Calcium | 0.042 | 0.010 | 0.003 | mg/L | 1 | 12/03/22 | CPP | SW6010D/E200.7 |
| Cadmium | ND | 0.004 | 0.0005 | mg/L | 1 | 12/03/22 | CPP | SW6010D/E200.7 |
| Chromium | ND | 0.001 | 0.001 | mg/L | 1 | 12/03/22 | CPP | SW6010D/E200.7 |
| Cobalt | ND | 0.005 | 0.001 | mg/L | 1 | 12/03/22 | CPP | SW6010D/E200.7 |
| Copper | ND | 0.005 | 0.001 | mg/L | 1 | 12/03/22 | CPP | SW6010D/E200.7 |
| Iron | 0.02 | 0.01 | 0.01 | mg/L | 1 | 12/03/22 | CPP | SW6010D/E200.7 |
| Lead | 0.002 | 0.001 | 0.001 | mg/L | 1 | 12/03/22 | CPP | SW6010D/E200.7 |
| Magnesium | ND | 0.010 | 0.01 | mg/L | 1 | 12/03/22 | CPP | SW6010D/E200.7 |
| Manganese | ND | 0.005 | 0.001 | mg/L | 1 | 12/03/22 | CPP | SW6010D/E200.7 |
| Mercury | ND | 0.0002 | 0.00015 | mg/L | 1 | 12/02/22 | IE | SW7470/E245.1 |
| Nickel | ND | 0.004 | 0.001 | mg/L | 1 | 12/03/22 | CPP | SW6010D/E200.7 |
| Potassium | ND | 0.1 | 0.1 | mg/L | 1 | 12/03/22 | CPP | SW6010D/E200.7 |
| Selenium | ND | 0.010 | 0.0005 | mg/L | 5 | 12/07/22 | CPP | SW6020B/E200.8 |
| Silver | ND | 0.005 | 0.001 | mg/L | 1 | 12/03/22 | CPP | SW6010D/E200.7 |
| Sodium | ND | 0.10 | 0.1 | mg/L | 1 | 12/03/22 | CPP | SW6010D/E200.7 |
| Thallium | ND | 0.0005 | 0.0005 | mg/L | 5 | 12/07/22 | CPP | SW6020B/E200.8 |
| Vanadium | 0.003 J | 0.010 | 0.001 | mg/L | 1 | 12/03/22 | CPP | SW6010D/E200.7 |
| Zinc | ND | 0.010 | 0.002 | mg/L | 1 | 12/03/22 | CPP | SW6010D/E200.7 |
| | | | | | | | | |
| Mercury Digestion | Completed | | | | | 12/02/22 | KL/KL | SW7470/245.1 |
| Extraction for Herbicide | Completed | | | | | 12/06/22 | CV/D | SW8151A |
| Semi-Volatile Extraction | Completed | | | | | 12/02/22 | X/K | SW3520C |
| Total Metals Digestion | Completed | | | | | 12/02/22 | AG | |

**Ver 1**

Project ID: IPARK0118.62-LOT 10 BOUNDARY MODIFICAT. Phoenix I.D.: CM95270
Client ID: EQUIPMENT BLANK 11292022

| Parameter | Result | RL/ PQL | LOD/ MDL | Units | Dilution | Date/Time | By | Reference | |
|---|---|---|---|---|---|---|---|---|---|
| Total Metals Digestion MS | Completed | | | | | 12/02/22 | AG | | |
| **Chlorinated Herbicides** | | | | | | | | | |
| 2,4,5-T | ND | 2.8 | 2.8 | ug/L | 10 | 12/08/22 | JRB | SW8151A | |
| 2,4,5-TP (Silvex) | ND | 2.8 | 2.8 | ug/L | 10 | 12/08/22 | JRB | SW8151A | |
| 2,4-D | ND | 5.6 | 5.6 | ug/L | 10 | 12/08/22 | JRB | SW8151A | |
| 2,4-DB | ND | 56 | 56 | ug/L | 10 | 12/08/22 | JRB | SW8151A | |
| Dalapon | ND | 2.8 | 2.8 | ug/L | 10 | 12/08/22 | JRB | SW8151A | |
| Dicamba | ND | 2.8 | 2.8 | ug/L | 10 | 12/08/22 | JRB | SW8151A | |
| Dichloroprop | ND | 5.6 | 5.6 | ug/L | 10 | 12/08/22 | JRB | SW8151A | |
| Dinoseb | ND | 5.6 | 5.6 | ug/L | 10 | 12/08/22 | JRB | SW8151A | |
| **QA/QC Surrogates** | | | | | | | | | |
| % DCAA | 118 | | | % | 10 | 12/08/22 | JRB | 30 - 150 % | |
| % DCAA (Confirmation) | 120 | | | % | 10 | 12/08/22 | JRB | 30 - 150 % | |
| **Volatiles** | | | | | | | | | |
| 1,1,1,2-Tetrachloroethane | ND | 1.0 | 0.25 | ug/L | 1 | 12/02/22 | MH | SW8260C | |
| 1,1,1-Trichloroethane | ND | 5.0 | 0.25 | ug/L | 1 | 12/02/22 | MH | SW8260C | |
| 1,1,2,2-Tetrachloroethane | ND | 1.0 | 0.25 | ug/L | 1 | 12/02/22 | MH | SW8260C | |
| 1,1,2-Trichloroethane | ND | 1.0 | 0.25 | ug/L | 1 | 12/02/22 | MH | SW8260C | |
| 1,1-Dichloroethane | ND | 5.0 | 0.25 | ug/L | 1 | 12/02/22 | MH | SW8260C | |
| 1,1-Dichloroethene | ND | 1.0 | 0.25 | ug/L | 1 | 12/02/22 | MH | SW8260C | |
| 1,1-Dichloropropene | ND | 1.0 | 0.25 | ug/L | 1 | 12/02/22 | MH | SW8260C | |
| 1,2,3-Trichlorobenzene | ND | 1.0 | 0.25 | ug/L | 1 | 12/02/22 | MH | SW8260C | |
| 1,2,3-Trichloropropane | ND | 1.0 | 0.25 | ug/L | 1 | 12/02/22 | MH | SW8260C | |
| 1,2,4-Trichlorobenzene | ND | 1.0 | 0.25 | ug/L | 1 | 12/02/22 | MH | SW8260C | |
| 1,2,4-Trimethylbenzene | ND | 1.0 | 0.25 | ug/L | 1 | 12/02/22 | MH | SW8260C | |
| 1,2-Dibromo-3-chloropropane | ND | 1.0 | 0.50 | ug/L | 1 | 12/02/22 | MH | SW8260C | |
| 1,2-Dibromoethane | ND | 1.0 | 0.25 | ug/L | 1 | 12/02/22 | MH | SW8260C | |
| 1,2-Dichlorobenzene | ND | 1.0 | 0.25 | ug/L | 1 | 12/02/22 | MH | SW8260C | |
| 1,2-Dichloroethane | ND | 0.60 | 0.50 | ug/L | 1 | 12/02/22 | MH | SW8260C | |
| 1,2-Dichloropropane | ND | 1.0 | 0.25 | ug/L | 1 | 12/02/22 | MH | SW8260C | |
| 1,3,5-Trimethylbenzene | ND | 1.0 | 0.25 | ug/L | 1 | 12/02/22 | MH | SW8260C | |
| 1,3-Dichlorobenzene | ND | 1.0 | 0.25 | ug/L | 1 | 12/02/22 | MH | SW8260C | |
| 1,3-Dichloropropane | ND | 1.0 | 0.25 | ug/L | 1 | 12/02/22 | MH | SW8260C | |
| 1,4-Dichlorobenzene | ND | 1.0 | 0.25 | ug/L | 1 | 12/02/22 | MH | SW8260C | |
| 2,2-Dichloropropane | ND | 1.0 | 0.25 | ug/L | 1 | 12/02/22 | MH | SW8260C | |
| 2-Chlorotoluene | ND | 1.0 | 0.25 | ug/L | 1 | 12/02/22 | MH | SW8260C | |
| 2-Hexanone | ND | 2.5 | 2.5 | ug/L | 1 | 12/02/22 | MH | SW8260C | |
| 2-Isopropyltoluene | ND | 1.0 | 0.25 | ug/L | 1 | 12/02/22 | MH | SW8260C | 1 |
| 4-Chlorotoluene | ND | 1.0 | 0.25 | ug/L | 1 | 12/02/22 | MH | SW8260C | |
| 4-Methyl-2-pentanone | ND | 2.5 | 2.5 | ug/L | 1 | 12/02/22 | MH | SW8260C | |
| Acetone | ND | 5.0 | 2.5 | ug/L | 1 | 12/02/22 | MH | SW8260C | |
| Acrolein | ND | 5.0 | 2.5 | ug/L | 1 | 12/02/22 | MH | SW8260C | |
| Acrylonitrile | ND | 5.0 | 2.5 | ug/L | 1 | 12/02/22 | MH | SW8260C | |
| Benzene | ND | 0.70 | 0.25 | ug/L | 1 | 12/02/22 | MH | SW8260C | |
| Bromobenzene | ND | 1.0 | 0.25 | ug/L | 1 | 12/02/22 | MH | SW8260C | |
| Bromochloromethane | ND | 1.0 | 0.25 | ug/L | 1 | 12/02/22 | MH | SW8260C | |
| Bromodichloromethane | ND | 1.0 | 0.25 | ug/L | 1 | 12/02/22 | MH | SW8260C | |
| Bromoform | ND | 5.0 | 0.25 | ug/L | 1 | 12/02/22 | MH | SW8260C | |

Project ID: IPARK0118.62-LOT 10 BOUNDARY MODIFICAT. Phoenix I.D.: CM95270
Client ID: EQUIPMENT BLANK 11292022

| Parameter | Result | RL/ PQL | LOD/ MDL | Units | Dilution | Date/Time | By | Reference | |
|---|---|---|---|---|---|---|---|---|---|
| Bromomethane | ND | 5.0 | 0.25 | ug/L | 1 | 12/02/22 | MH | SW8260C | |
| Carbon Disulfide | ND | 1.0 | 0.25 | ug/L | 1 | 12/02/22 | MH | SW8260C | B |
| Carbon tetrachloride | ND | 1.0 | 0.25 | ug/L | 1 | 12/02/22 | MH | SW8260C | |
| Chlorobenzene | ND | 5.0 | 0.25 | ug/L | 1 | 12/02/22 | MH | SW8260C | |
| Chloroethane | ND | 5.0 | 0.25 | ug/L | 1 | 12/02/22 | MH | SW8260C | |
| Chloroform | ND | 5.0 | 0.25 | ug/L | 1 | 12/02/22 | MH | SW8260C | |
| Chloromethane | ND | 5.0 | 0.25 | ug/L | 1 | 12/02/22 | MH | SW8260C | |
| cis-1,2-Dichloroethene | ND | 1.0 | 0.25 | ug/L | 1 | 12/02/22 | MH | SW8260C | |
| cis-1,3-Dichloropropene | ND | 0.40 | 0.25 | ug/L | 1 | 12/02/22 | MH | SW8260C | |
| Dibromochloromethane | ND | 1.0 | 0.25 | ug/L | 1 | 12/02/22 | MH | SW8260C | |
| Dibromomethane | ND | 1.0 | 0.25 | ug/L | 1 | 12/02/22 | MH | SW8260C | |
| Dichlorodifluoromethane | ND | 1.0 | 0.25 | ug/L | 1 | 12/02/22 | MH | SW8260C | |
| Ethylbenzene | ND | 1.0 | 0.25 | ug/L | 1 | 12/02/22 | MH | SW8260C | |
| Hexachlorobutadiene | ND | 0.50 | 0.20 | ug/L | 1 | 12/02/22 | MH | SW8260C | |
| Isopropylbenzene | ND | 1.0 | 0.25 | ug/L | 1 | 12/02/22 | MH | SW8260C | |
| m&p-Xylene | ND | 1.0 | 0.25 | ug/L | 1 | 12/02/22 | MH | SW8260C | |
| Methyl ethyl ketone | ND | 2.5 | 2.5 | ug/L | 1 | 12/02/22 | MH | SW8260C | |
| Methyl t-butyl ether (MTBE) | ND | 1.0 | 0.25 | ug/L | 1 | 12/02/22 | MH | SW8260C | |
| Methylene chloride | ND | 3.0 | 1.0 | ug/L | 1 | 12/02/22 | MH | SW8260C | |
| Naphthalene | ND | 1.0 | 1.0 | ug/L | 1 | 12/02/22 | MH | SW8260C | |
| n-Butylbenzene | ND | 1.0 | 0.25 | ug/L | 1 | 12/02/22 | MH | SW8260C | |
| n-Propylbenzene | ND | 1.0 | 0.25 | ug/L | 1 | 12/02/22 | MH | SW8260C | |
| o-Xylene | ND | 1.0 | 0.25 | ug/L | 1 | 12/02/22 | MH | SW8260C | |
| p-Isopropyltoluene | ND | 1.0 | 0.25 | ug/L | 1 | 12/02/22 | MH | SW8260C | |
| sec-Butylbenzene | ND | 1.0 | 0.25 | ug/L | 1 | 12/02/22 | MH | SW8260C | |
| Styrene | ND | 1.0 | 0.25 | ug/L | 1 | 12/02/22 | MH | SW8260C | |
| tert-Butylbenzene | ND | 1.0 | 0.25 | ug/L | 1 | 12/02/22 | MH | SW8260C | |
| Tetrachloroethene | ND | 1.0 | 0.25 | ug/L | 1 | 12/02/22 | MH | SW8260C | |
| Tetrahydrofuran (THF) | ND | 5.0 | 2.5 | ug/L | 1 | 12/02/22 | MH | SW8260C | 1 |
| Toluene | ND | 1.0 | 0.25 | ug/L | 1 | 12/02/22 | MH | SW8260C | |
| trans-1,2-Dichloroethene | ND | 5.0 | 0.25 | ug/L | 1 | 12/02/22 | MH | SW8260C | |
| trans-1,3-Dichloropropene | ND | 0.40 | 0.25 | ug/L | 1 | 12/02/22 | MH | SW8260C | |
| trans-1,4-dichloro-2-butene | ND | 2.5 | 2.5 | ug/L | 1 | 12/02/22 | MH | SW8260C | |
| Trichloroethene | ND | 1.0 | 0.25 | ug/L | 1 | 12/02/22 | MH | SW8260C | |
| Trichlorofluoromethane | ND | 1.0 | 0.25 | ug/L | 1 | 12/02/22 | MH | SW8260C | |
| Trichlorotrifluoroethane | ND | 1.0 | 0.25 | ug/L | 1 | 12/02/22 | MH | SW8260C | |
| Vinyl chloride | ND | 1.0 | 0.25 | ug/L | 1 | 12/02/22 | MH | SW8260C | |
| **QA/QC Surrogates** | | | | | | | | | |
| % 1,2-dichlorobenzene-d4 | 100 | | | % | 1 | 12/02/22 | MH | 70 - 130 % | |
| % Bromofluorobenzene | 98 | | | % | 1 | 12/02/22 | MH | 70 - 130 % | |
| % Dibromofluoromethane | 102 | | | % | 1 | 12/02/22 | MH | 70 - 130 % | |
| % Toluene-d8 | 92 | | | % | 1 | 12/02/22 | MH | 70 - 130 % | |
| **1,4-dioxane** | | | | | | | | | |
| 1,4-dioxane | ND | 0.20 | 0.20 | ug/l | 1 | 12/05/22 | AW | SW8270DSIM | 1 |
| **QA/QC Surrogates** | | | | | | | | | |
| % 1,4-dioxane-d8 | 89 | | | % | 1 | 12/05/22 | AW | 70 - 130 % | |
| **Semivolatiles** | | | | | | | | | |
| 1,2,4,5-Tetrachlorobenzene | ND | 3.5 | 3.5 | ug/L | 1 | 12/05/22 | WB | SW8270D | |

**Ver 1**

Project ID: IPARK0118.62-LOT 10 BOUNDARY MODIFICAT. Phoenix I.D.: CM95270

Client ID: EQUIPMENT BLANK 11292022

| Parameter | Result | RL/ PQL | LOD/ MDL | Units | Dilution | Date/Time | By | Reference | |
|---|---|---|---|---|---|---|---|---|---|
| 1,2,4-Trichlorobenzene | ND | 5.0 | 1.5 | ug/L | 1 | 12/05/22 | WB | SW8270D | |
| 1,2-Dichlorobenzene | ND | 0.99 | 0.99 | ug/L | 1 | 12/05/22 | WB | SW8270D | |
| 1,2-Diphenylhydrazine | ND | 5.0 | 1.6 | ug/L | 1 | 12/05/22 | WB | SW8270D | |
| 1,3-Dichlorobenzene | ND | 0.99 | 0.99 | ug/L | 1 | 12/05/22 | WB | SW8270D | |
| 1,4-Dichlorobenzene | ND | 0.99 | 0.99 | ug/L | 1 | 12/05/22 | WB | SW8270D | |
| 2,2'-Oxybis(1-Chloropropane) | ND | 5.0 | 1.4 | ug/L | 1 | 12/05/22 | WB | SW8270D | 1 |
| 2,4,5-Trichlorophenol | ND | 0.99 | 0.99 | ug/L | 1 | 12/05/22 | WB | SW8270D | |
| 2,4,6-Trichlorophenol | ND | 0.99 | 0.99 | ug/L | 1 | 12/05/22 | WB | SW8270D | |
| 2,4-Dichlorophenol | ND | 0.99 | 0.99 | ug/L | 1 | 12/05/22 | WB | SW8270D | |
| 2,4-Dimethylphenol | ND | 0.99 | 0.99 | ug/L | 1 | 12/05/22 | WB | SW8270D | |
| 2,4-Dinitrophenol | ND | 0.99 | 0.99 | ug/L | 1 | 12/05/22 | WB | SW8270D | |
| 2,4-Dinitrotoluene | ND | 5.0 | 2.0 | ug/L | 1 | 12/05/22 | WB | SW8270D | |
| 2,6-Dinitrotoluene | ND | 5.0 | 1.6 | ug/L | 1 | 12/05/22 | WB | SW8270D | |
| 2-Chloronaphthalene | ND | 5.0 | 1.4 | ug/L | 1 | 12/05/22 | WB | SW8270D | |
| 2-Chlorophenol | ND | 0.99 | 0.99 | ug/L | 1 | 12/05/22 | WB | SW8270D | |
| 2-Methylnaphthalene | ND | 5.0 | 1.5 | ug/L | 1 | 12/05/22 | WB | SW8270D | |
| 2-Methylphenol (o-cresol) | ND | 0.99 | 0.99 | ug/L | 1 | 12/05/22 | WB | SW8270D | |
| 2-Nitroaniline | ND | 5.0 | 2.0 | ug/L | 1 | 12/05/22 | WB | SW8270D | |
| 2-Nitrophenol | ND | 0.99 | 0.99 | ug/L | 1 | 12/05/22 | WB | SW8270D | |
| 3&4-Methylphenol (m&p-cresol) | ND | 0.99 | 0.99 | ug/L | 1 | 12/05/22 | WB | SW8270D | |
| 3,3'-Dichlorobenzidine | ND | 5.0 | 2.3 | ug/L | 1 | 12/05/22 | WB | SW8270D | |
| 3-Nitroaniline | ND | 5.0 | 2.0 | ug/L | 1 | 12/05/22 | WB | SW8270D | |
| 4,6-Dinitro-2-methylphenol | ND | 0.99 | 0.99 | ug/L | 1 | 12/05/22 | WB | SW8270D | |
| 4-Bromophenyl phenyl ether | ND | 5.0 | 1.5 | ug/L | 1 | 12/05/22 | WB | SW8270D | |
| 4-Chloro-3-methylphenol | ND | 0.99 | 0.99 | ug/L | 1 | 12/05/22 | WB | SW8270D | |
| 4-Chloroaniline | ND | 3.5 | 2.3 | ug/L | 1 | 12/05/22 | WB | SW8270D | |
| 4-Chlorophenyl phenyl ether | ND | 5.0 | 1.7 | ug/L | 1 | 12/05/22 | WB | SW8270D | |
| 4-Nitroaniline | ND | 5.0 | 1.7 | ug/L | 1 | 12/05/22 | WB | SW8270D | |
| 4-Nitrophenol | ND | 0.99 | 0.99 | ug/L | 1 | 12/05/22 | WB | SW8270D | |
| Acenaphthene | ND | 5.0 | 1.5 | ug/L | 1 | 12/05/22 | WB | SW8270D | |
| Acetophenone | ND | 5.0 | 1.5 | ug/L | 1 | 12/05/22 | WB | SW8270D | |
| Aniline | ND | 3.5 | 3.5 | ug/L | 1 | 12/05/22 | WB | SW8270D | |
| Anthracene | ND | 5.0 | 1.6 | ug/L | 1 | 12/05/22 | WB | SW8270D | |
| Benzidine | ND | 4.5 | 2.9 | ug/L | 1 | 12/05/22 | WB | SW8270D | |
| Benzoic acid | ND | 25 | 9.9 | ug/L | 1 | 12/05/22 | WB | SW8270D | |
| Benzyl butyl phthalate | ND | 5.0 | 1.3 | ug/L | 1 | 12/05/22 | WB | SW8270D | |
| Bis(2-chloroethoxy)methane | ND | 5.0 | 1.4 | ug/L | 1 | 12/05/22 | WB | SW8270D | |
| Bis(2-chloroethyl)ether | ND | 0.99 | 0.99 | ug/L | 1 | 12/05/22 | WB | SW8270D | |
| Bis(2-ethylhexyl)phthalate | ND | 0.99 | 0.99 | ug/L | 1 | 12/05/22 | WB | SW8270D | |
| Carbazole | ND | 5.0 | 3.8 | ug/L | 1 | 12/05/22 | WB | SW8270D | |
| Dibenzofuran | ND | 5.0 | 1.4 | ug/L | 1 | 12/05/22 | WB | SW8270D | |
| Diethyl phthalate | ND | 5.0 | 1.6 | ug/L | 1 | 12/05/22 | WB | SW8270D | |
| Dimethylphthalate | ND | 5.0 | 1.5 | ug/L | 1 | 12/05/22 | WB | SW8270D | |
| Di-n-butylphthalate | ND | 5.0 | 1.3 | ug/L | 1 | 12/05/22 | WB | SW8270D | |
| Di-n-octylphthalate | ND | 5.0 | 1.3 | ug/L | 1 | 12/05/22 | WB | SW8270D | |
| Fluoranthene | ND | 5.0 | 1.6 | ug/L | 1 | 12/05/22 | WB | SW8270D | |
| Fluorene | ND | 5.0 | 1.6 | ug/L | 1 | 12/05/22 | WB | SW8270D | |
| Hexachloroethane | ND | 0.99 | 0.99 | ug/L | 1 | 12/05/22 | WB | SW8270D | |
| Isophorone | ND | 5.0 | 1.4 | ug/L | 1 | 12/05/22 | WB | SW8270D | |

Project ID: IPARK0118.62-LOT 10 BOUNDARY MODIFICAT. Phoenix I.D.: CM95270
Client ID: EQUIPMENT BLANK 11292022

| Parameter | Result | RL/ PQL | LOD/ MDL | Units | Dilution | Date/Time | By | Reference |
|---|---|---|---|---|---|---|---|---|
| Naphthalene | ND | 5.0 | 1.4 | ug/L | 1 | 12/05/22 | WB | SW8270D |
| N-Nitrosodi-n-propylamine | ND | 5.0 | 1.6 | ug/L | 1 | 12/05/22 | WB | SW8270D |
| N-Nitrosodiphenylamine | ND | 5.0 | 1.9 | ug/L | 1 | 12/05/22 | WB | SW8270D |
| Pentachloronitrobenzene | ND | 2.5 | 2.5 | ug/L | 1 | 12/05/22 | WB | SW8270D |
| Phenol | ND | 0.99 | 0.99 | ug/L | 1 | 12/05/22 | WB | SW8270D |
| Pyrene | ND | 5.0 | 1.7 | ug/L | 1 | 12/05/22 | WB | SW8270D |
| Pyridine | ND | 9.9 | 1.2 | ug/L | 1 | 12/05/22 | WB | SW8270D |
| **QA/QC Surrogates** | | | | | | | | |
| % 2,4,6-Tribromophenol | 86 | | | % | 1 | 12/05/22 | WB | 15 - 110 % |
| % 2-Fluorobiphenyl | 77 | | | % | 1 | 12/05/22 | WB | 30 - 130 % |
| % 2-Fluorophenol | 71 | | | % | 1 | 12/05/22 | WB | 15 - 110 % |
| % Nitrobenzene-d5 | 82 | | | % | 1 | 12/05/22 | WB | 30 - 130 % |
| % Phenol-d5 | 83 | | | % | 1 | 12/05/22 | WB | 15 - 110 % |
| % Terphenyl-d14 | 85 | | | % | 1 | 12/05/22 | WB | 30 - 130 % |
| **Semivolatiles** | | | | | | | | |
| Acenaphthylene | ND | 0.50 | 0.50 | ug/L | 1 | 12/05/22 | WB | SW8270D (SIM) |
| Benz(a)anthracene | ND | 0.02 | 0.02 | ug/L | 1 | 12/05/22 | WB | SW8270D (SIM) |
| Benzo(a)pyrene | ND | 0.02 | 0.02 | ug/L | 1 | 12/05/22 | WB | SW8270D (SIM) |
| Benzo(b)fluoranthene | ND | 0.02 | 0.02 | ug/L | 1 | 12/05/22 | WB | SW8270D (SIM) |
| Benzo(ghi)perylene | ND | 0.50 | 0.50 | ug/L | 1 | 12/05/22 | WB | SW8270D (SIM) |
| Benzo(k)fluoranthene | ND | 0.02 | 0.02 | ug/L | 1 | 12/05/22 | WB | SW8270D (SIM) |
| Chrysene | ND | 0.02 | 0.02 | ug/L | 1 | 12/05/22 | WB | SW8270D (SIM) |
| Dibenz(a,h)anthracene | ND | 0.50 | 0.50 | ug/L | 1 | 12/05/22 | WB | SW8270D (SIM) |
| Hexachlorobenzene | ND | 0.04 | 0.04 | ug/L | 1 | 12/05/22 | WB | SW8270D (SIM) |
| Hexachlorobutadiene | ND | 0.50 | 0.50 | ug/L | 1 | 12/05/22 | WB | SW8270D (SIM) |
| Hexachlorocyclopentadiene | ND | 0.50 | 0.50 | ug/L | 1 | 12/05/22 | WB | SW8270D (SIM) |
| Indeno(1,2,3-cd)pyrene | ND | 0.02 | 0.02 | ug/L | 1 | 12/05/22 | WB | SW8270D (SIM) |
| Nitrobenzene | ND | 0.40 | 0.40 | ug/L | 1 | 12/05/22 | WB | SW8270D (SIM) |
| N-Nitrosodimethylamine | ND | 0.10 | 0.10 | ug/L | 1 | 12/05/22 | WB | SW8270D (SIM) |
| Pentachlorophenol | ND | 0.50 | 0.50 | ug/L | 1 | 12/05/22 | WB | SW8270D (SIM) |
| Phenanthrene | ND | 0.50 | 0.50 | ug/L | 1 | 12/05/22 | WB | SW8270D (SIM) |
| **QA/QC Surrogates** | | | | | | | | |
| % 2,4,6-Tribromophenol | 100 | | | % | 1 | 12/05/22 | WB | 15 - 110 % |
| % 2-Fluorobiphenyl | 73 | | | % | 1 | 12/05/22 | WB | 30 - 130 % |
| % 2-Fluorophenol | 82 | | | % | 1 | 12/05/22 | WB | 15 - 110 % |
| % Nitrobenzene-d5 | 84 | | | % | 1 | 12/05/22 | WB | 30 - 130 % |
| % Phenol-d5 | 81 | | | % | 1 | 12/05/22 | WB | 15 - 110 % |
| % Terphenyl-d14 | 104 | | | % | 1 | 12/05/22 | WB | 30 - 130 % |
| Extraction for 1,4-Dioxane | Completed | | | | | 12/05/22 | G/G | |

Project ID: IPARK0118.62-LOT 10 BOUNDARY MODIFICAT. Phoenix I.D.: CM95270

Client ID: EQUIPMENT BLANK 11292022

| Parameter | Result | RL/ PQL | LOD/ MDL | Units | Dilution | Date/Time | By | Reference |
|---|---|---|---|---|---|---|---|---|

1 = This parameter is not certified by the primary accrediting authority (NY NELAC) for this matrix. NY NELAC does not offer certification for all parameters at this time.
B = Present in blank, no bias suspected.

RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected BRL=Below Reporting Level L=Biased Low J=Estimated Below RL LOD=Limit of Detection MDL=Method Detection Limit1
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

## Comments:

*See attached

Per 1.4.6 of EPA method 8270D, 1,2-Diphenylhydrazine is unstable and readily converts to Azobenzene. Azobenzene is used for the calibration of 1,2-Diphenylhydrazine.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200.
The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.

**Phyllis Shiller, Laboratory Director**

**December 20, 2022**

**Reviewed and Released by: Phyllis Shiller, Laboratory Director**

PHOENIX
Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

# Analysis Report

December 20, 2022

FOR: Attn: Nora Brew
Walden Environmental Engineering PLLC
16 Spring Street
Oyster Bay, NY 11771

| Sample Information | | Custody Information | | Date | Time |
|---|---|---|---|---|---|
| Matrix: | SOIL | Collected by: | | 11/29/22 | 13:30 |
| Location Code: | WALDENE-IPARK | Received by: | CP | 12/01/22 | 17:12 |
| Rush Request: | Standard | Analyzed by: | see "By" below | | |
| P.O.#: | | | | | |

## Laboratory Data

SDG ID: GCM95248
Phoenix ID: CM95271

Project ID: IPARK0118.62-LOT 10 BOUNDARY MODIFICAT.
Client ID: SB-5A1 (0-2``)

| Parameter | Result | RL/ PQL | LOD/ MDL | Units | Dilution | Date/Time | By | Reference |
|---|---|---|---|---|---|---|---|---|
| Aluminum | 15100 | 35 | 7.0 | mg/Kg | 10 | 12/02/22 | TH | SW6010D |
| Antimony | ND | 3.5 | 3.5 | mg/Kg | 1 | 12/02/22 | TH | SW6010D |
| Arsenic | 5.76 | 0.70 | 0.70 | mg/Kg | 1 | 12/02/22 | TH | SW6010D |
| Barium | 37.7 | 0.7 | 0.35 | mg/Kg | 1 | 12/02/22 | TH | SW6010D |
| Beryllium | 0.47 | 0.28 | 0.14 | mg/Kg | 1 | 12/02/22 | TH | SW6010D |
| Calcium | 6130 | 3.5 | 3.2 | mg/Kg | 1 | 12/02/22 | TH | SW6010D |
| Cadmium | 1.76 | 0.35 | 0.35 | mg/Kg | 1 | 12/02/22 | TH | SW6010D |
| Chromium | 16.0 | 0.35 | 0.35 | mg/Kg | 1 | 12/02/22 | TH | SW6010D |
| Cobalt | 12.3 | 0.35 | 0.35 | mg/Kg | 1 | 12/02/22 | TH | SW6010D |
| Copper | 45.8 | 0.7 | 0.35 | mg/kg | 1 | 12/02/22 | TH | SW6010D |
| Iron | 32000 | 35 | 35 | mg/Kg | 10 | 12/02/22 | TH | SW6010D |
| Lead | 30.0 | 0.7 | 0.35 | mg/Kg | 1 | 12/02/22 | TH | SW6010D |
| Magnesium | 10100 | 35 | 35 | mg/Kg | 10 | 12/02/22 | TH | SW6010D |
| Manganese | 1140 | 3.5 | 3.5 | mg/Kg | 10 | 12/02/22 | TH | SW6010D |
| Mercury | ND | 0.03 | 0.02 | mg/Kg | 2 | 12/05/22 | PM | SW7471B |
| Nickel | 26.5 | 0.35 | 0.35 | mg/Kg | 1 | 12/02/22 | TH | SW6010D |
| Potassium | 944 | 7 | 2.7 | mg/Kg | 1 | 12/02/22 | TH | SW6010D |
| Selenium | ND | 1.4 | 1.2 | mg/Kg | 1 | 12/02/22 | TH | SW6010D |
| Silver | ND | 0.35 | 0.35 | mg/Kg | 1 | 12/02/22 | TH | SW6010D |
| Sodium | 88 | 7 | 3.0 | mg/Kg | 1 | 12/02/22 | TH | SW6010D |
| Thallium | ND | 1.4 | 1.4 | mg/Kg | 1 | 12/02/22 | TH | SW6010D |
| Vanadium | 18.5 | 0.35 | 0.35 | mg/Kg | 1 | 12/02/22 | TH | SW6010D |
| Zinc | 75.1 | 0.7 | 0.35 | mg/Kg | 1 | 12/02/22 | TH | SW6010D |
| Percent Solid | 87 | | | % | | 12/01/22 | Q | SW846-%Solid |
| Extraction for SVOA SIM | Completed | | | | | 12/02/22 | O/Y | SW3545A |
| Soil Extraction for PCB | Completed | | | | | 12/01/22 | B/MO | SW3545A |
| Soil Extraction for Pesticide | Completed | | | | | 12/01/22 | B/MO | SW3545A |

**Ver 1**

Project ID: IPARK0118.62-LOT 10 BOUNDARY MODIFICAT. Phoenix I.D.: CM95271
Client ID: SB-5A1 (0-2``)

| Parameter | Result | RL/ PQL | LOD/ MDL | Units | Dilution | Date/Time | By | Reference | |
|---|---|---|---|---|---|---|---|---|---|
| Mercury Digestion | Completed | | | | | 12/02/22 | AB/AB | SW7471B | |
| Soil Extraction for Herbicide | Completed | | | | | 12/07/22 | J/D | SW3546 | |
| Soil Extraction for SVOA | Completed | | | | | 12/03/22 | Y/L | SW3546 | |
| Total Metals Digest | Completed | | | | | 12/01/22 | | SW3050B | |
| PFAS (21) | Completed | | | | | 12/08/22 | *** | EPA 537m | C |
| **PFAS (21)** | | | | | | | | | |
| 1H,1H,2H,2H-Perfluorodecanesulfonic acid | ND | 0.268 | 0.0275 | ng/g | 1 | 12/12/22 | *** | EPA 537m | C |
| 1H,1H,2H,2H-Perfluorooctanesulfonic acid | ND | 0.268 | 0.0708 | ng/g | 1 | 12/12/22 | *** | EPA 537m | C |
| NEtFOSAA | ND | 0.268 | 0.112 | ng/g | 1 | 12/12/22 | *** | EPA 537m | C |
| NMeFOSAA | ND | 0.268 | 0.112 | ng/g | 1 | 12/12/22 | *** | EPA 537m | C |
| Perfluoro-1-decanesulfonic acid (PFDS) | ND | 0.268 | 0.0549 | ng/g | 1 | 12/12/22 | *** | EPA 537m | C |
| Perfluoro-1-heptanesulfonic acid (PFHpS) | ND | 0.268 | 0.0529 | ng/g | 1 | 12/12/22 | *** | EPA 537m | C |
| Perfluoro-1-octanesulfonamide (FOSA) | ND | 0.268 | 0.0501 | ng/g | 1 | 12/12/22 | *** | EPA 537m | C |
| Perfluorobutanesulfonic acid (PFBS) | ND | 0.268 | 0.215 | ng/g | 1 | 12/12/22 | *** | EPA 537m | C |
| Perfluorodecanoic acid (PFDA) | ND | 0.268 | 0.0549 | ng/g | 1 | 12/12/22 | *** | EPA 537m | C |
| Perfluorododecanoic acid (PFDoA) | ND | 0.268 | 0.0805 | ng/g | 1 | 12/12/22 | *** | EPA 537m | C |
| Perfluoroheptanoic acid (PFHpA) | ND | 0.268 | 0.0488 | ng/g | 1 | 12/12/22 | *** | EPA 537m | C |
| Perfluorohexanesulfonic Acid (PFHxS) | ND | 0.268 | 0.0333 | ng/g | 1 | 12/12/22 | *** | EPA 537m | C |
| Perfluorohexanoic acid (PFHxA) | ND | 0.268 | 0.0707 | ng/g | 1 | 12/12/22 | *** | EPA 537m | C |
| Perfluoro-n-butanoic acid (PFBA) | ND | 0.268 | 0.196 | ng/g | 1 | 12/12/22 | *** | EPA 537m | C |
| Perfluorononanoic acid (PFNA) | ND | 0.268 | 0.0642 | ng/g | 1 | 12/12/22 | *** | EPA 537m | C |
| Perfluorooctanesulfonic Acid (PFOS) | ND | 0.268 | 0.0470 | ng/g | 1 | 12/12/22 | *** | EPA 537m | C |
| Perfluorooctanoic acid (PFOA) | ND | 0.268 | 0.0828 | ng/g | 1 | 12/12/22 | *** | EPA 537m | C |
| Perfluoropentanoic acid (PFPeA) | ND | 0.268 | 0.0986 | ng/g | 1 | 12/12/22 | *** | EPA 537m | C |
| Perfluorotetradecanoic acid (PFTA) | ND | 0.268 | 0.0801 | ng/g | 1 | 12/12/22 | *** | EPA 537m | C |
| Perfluorotridecanoic acid (PFTrDA) | ND | 0.268 | 0.0467 | ng/g | 1 | 12/12/22 | *** | EPA 537m | C |
| Perfluoroundecanoic acid (PFUnA) | ND | 0.268 | 0.125 | ng/g | 1 | 12/12/22 | *** | EPA 537m | C |
| **QA/QC Surrogates** | | | | | | | | | |
| % d3-N-MeFOSAA | 41.2 | | | % | 1 | 12/12/22 | *** | 25 - 150 % | C |
| % d5-NEtFOSA | 46.5 | | | % | 1 | 12/12/22 | *** | 25 - 150 % | C |
| % M2-6:2FTS | 79.1 | | | % | 1 | 12/12/22 | *** | 25 - 200 % | C |
| % M2-8:2FTS | 85.4 | | | % | 1 | 12/12/22 | *** | 25 - 200 % | C |
| % M2PFTeDA | 35.5 | | | % | 1 | 12/12/22 | *** | 10 - 150 % | C |
| % M3PFBS | 68.8 | | | % | 1 | 12/12/22 | *** | 25 - 150 % | C |
| % M3PFHxS | 75.7 | | | % | 1 | 12/12/22 | *** | 25 - 150 % | C |
| % M4PFHpA | 78.5 | | | % | 1 | 12/12/22 | *** | 25 - 150 % | C |
| % M5PFHxA | 77.9 | | | % | 1 | 12/12/22 | *** | 25 - 150 % | C |
| % M5PFPeA | 81.4 | | | % | 1 | 12/12/22 | *** | 25 - 150 % | C |
| % M6PFDA | 54.1 | | | % | 1 | 12/12/22 | *** | 25 - 150 % | C |
| % M7PFUdA | 42.3 | | | % | 1 | 12/12/22 | *** | 25 - 150 % | C |
| % M8FOSA | 36.9 | | | % | 1 | 12/12/22 | *** | 10 - 150 % | C |
| % M8PFOA | 74.4 | | | % | 1 | 12/12/22 | *** | 25 - 150 % | C |
| % M8PFOS | 55.5 | | | % | 1 | 12/12/22 | *** | 25 - 150 % | C |
| % M9PFNA | 61.9 | | | % | 1 | 12/12/22 | *** | 25 - 150 % | C |
| % MPFBA | 77.2 | | | % | 1 | 12/12/22 | *** | 25 - 150 % | C |
| % MPFDoA | 44.9 | | | % | 1 | 12/12/22 | *** | 25 - 150 % | C |
| **Chlorinated Herbicides** | | | | | | | | | |
| 2,4,5-T | ND | 140 | 140 | ug/Kg | 10 | 12/09/22 | JRB | SW8151A | |

**Ver 1**

Project ID: IPARK0118.62-LOT 10 BOUNDARY MODIFICAT. Phoenix I.D.: CM95271
Client ID: SB-5A1 (0-2``)

| Parameter | Result | RL/ PQL | LOD/ MDL | Units | Dilution | Date/Time | By | Reference |
|---|---|---|---|---|---|---|---|---|
| 2,4,5-TP (Silvex) | ND | 140 | 140 | ug/Kg | 10 | 12/09/22 | JRB | SW8151A |
| 2,4-D | ND | 280 | 280 | ug/Kg | 10 | 12/09/22 | JRB | SW8151A |
| 2,4-DB | ND | 2800 | 2800 | ug/Kg | 10 | 12/09/22 | JRB | SW8151A |
| Dalapon | ND | 140 | 140 | ug/Kg | 10 | 12/09/22 | JRB | SW8151A |
| Dicamba | ND | 140 | 140 | ug/Kg | 10 | 12/09/22 | JRB | SW8151A |
| Dichloroprop | ND | 280 | 280 | ug/Kg | 10 | 12/09/22 | JRB | SW8151A |
| Dinoseb | ND | 280 | 280 | ug/Kg | 10 | 12/09/22 | JRB | SW8151A |
| **QA/QC Surrogates** | | | | | | | | |
| % DCAA | 116 | | | % | 10 | 12/09/22 | JRB | 30 - 150 % |
| % DCAA (Confirmation) | 104 | | | % | 10 | 12/09/22 | JRB | 30 - 150 % |
| **Polychlorinated Biphenyls** | | | | | | | | |
| PCB-1016 | ND | 75 | 75 | ug/Kg | 2 | 12/02/22 | SC | SW8082A |
| PCB-1221 | ND | 75 | 75 | ug/Kg | 2 | 12/02/22 | SC | SW8082A |
| PCB-1232 | ND | 75 | 75 | ug/Kg | 2 | 12/02/22 | SC | SW8082A |
| PCB-1242 | ND | 75 | 75 | ug/Kg | 2 | 12/02/22 | SC | SW8082A |
| PCB-1248 | ND | 75 | 75 | ug/Kg | 2 | 12/02/22 | SC | SW8082A |
| PCB-1254 | ND | 75 | 75 | ug/Kg | 2 | 12/02/22 | SC | SW8082A |
| PCB-1260 | ND | 75 | 75 | ug/Kg | 2 | 12/02/22 | SC | SW8082A |
| PCB-1262 | ND | 75 | 75 | ug/Kg | 2 | 12/02/22 | SC | SW8082A |
| PCB-1268 | ND | 75 | 75 | ug/Kg | 2 | 12/02/22 | SC | SW8082A |
| **QA/QC Surrogates** | | | | | | | | |
| % DCBP | 70 | | | % | 2 | 12/02/22 | SC | 30 - 150 % |
| % DCBP (Confirmation) | 76 | | | % | 2 | 12/02/22 | SC | 30 - 150 % |
| % TCMX | 68 | | | % | 2 | 12/02/22 | SC | 30 - 150 % |
| % TCMX (Confirmation) | 67 | | | % | 2 | 12/02/22 | SC | 30 - 150 % |
| **Pesticides - Soil** | | | | | | | | |
| 4,4' -DDD | ND | 2.2 | 2.2 | ug/Kg | 2 | 12/03/22 | AW | SW8081B |
| 4,4' -DDE | ND | 2.2 | 2.2 | ug/Kg | 2 | 12/03/22 | AW | SW8081B |
| 4,4' -DDT | ND | 2.2 | 2.2 | ug/Kg | 2 | 12/03/22 | AW | SW8081B |
| a-BHC | ND | 7.5 | 7.5 | ug/Kg | 2 | 12/03/22 | AW | SW8081B |
| a-Chlordane | ND | 3.7 | 3.7 | ug/Kg | 2 | 12/03/22 | AW | SW8081B |
| Alachlor | ND | 3.7 | 3.7 | ug/Kg | 2 | 12/03/22 | AW | SW8081B |
| Aldrin | ND | 3.7 | 3.7 | ug/Kg | 2 | 12/03/22 | AW | SW8081B |
| b-BHC | ND | 7.5 | 7.5 | ug/Kg | 2 | 12/03/22 | AW | SW8081B |
| Chlordane | ND | 37 | 37 | ug/Kg | 2 | 12/03/22 | AW | SW8081B |
| d-BHC | ND | 7.5 | 7.5 | ug/Kg | 2 | 12/03/22 | AW | SW8081B |
| Dieldrin | ND | 3.7 | 3.7 | ug/Kg | 2 | 12/03/22 | AW | SW8081B |
| Endosulfan I | ND | 7.5 | 7.5 | ug/Kg | 2 | 12/03/22 | AW | SW8081B |
| Endosulfan II | ND | 7.5 | 7.5 | ug/Kg | 2 | 12/03/22 | AW | SW8081B |
| Endosulfan sulfate | ND | 7.5 | 7.5 | ug/Kg | 2 | 12/03/22 | AW | SW8081B |
| Endrin | ND | 7.5 | 7.5 | ug/Kg | 2 | 12/03/22 | AW | SW8081B |
| Endrin aldehyde | ND | 7.5 | 7.5 | ug/Kg | 2 | 12/03/22 | AW | SW8081B |
| Endrin ketone | ND | 7.5 | 7.5 | ug/Kg | 2 | 12/03/22 | AW | SW8081B |
| g-BHC | ND | 1.5 | 1.5 | ug/Kg | 2 | 12/03/22 | AW | SW8081B |
| g-Chlordane | ND | 3.7 | 3.7 | ug/Kg | 2 | 12/03/22 | AW | SW8081B |
| Heptachlor | ND | 7.5 | 7.5 | ug/Kg | 2 | 12/03/22 | AW | SW8081B |
| Heptachlor epoxide | ND | 7.5 | 7.5 | ug/Kg | 2 | 12/03/22 | AW | SW8081B |
| Methoxychlor | ND | 37 | 37 | ug/Kg | 2 | 12/03/22 | AW | SW8081B |

Project ID: IPARK0118.62-LOT 10 BOUNDARY MODIFICAT. Phoenix I.D.: CM95271
Client ID: SB-5A1 (0-2``)

| Parameter | Result | RL/ PQL | LOD/ MDL | Units | Dilution | Date/Time | By | Reference | |
|---|---|---|---|---|---|---|---|---|---|
| Toxaphene | ND | 150 | 150 | ug/Kg | 2 | 12/03/22 | AW | SW8081B | |
| **QA/QC Surrogates** | | | | | | | | | |
| % DCBP | 68 | | | % | 2 | 12/03/22 | AW | 30 - 150 % | |
| % DCBP (Confirmation) | 71 | | | % | 2 | 12/03/22 | AW | 30 - 150 % | |
| % TCMX | 67 | | | % | 2 | 12/03/22 | AW | 30 - 150 % | |
| % TCMX (Confirmation) | 71 | | | % | 2 | 12/03/22 | AW | 30 - 150 % | |
| **Semivolatiles** | | | | | | | | | |
| 1,2,4,5-Tetrachlorobenzene | ND | 270 | 130 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 1,2,4-Trichlorobenzene | ND | 270 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 1,2-Dichlorobenzene | ND | 270 | 110 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 1,2-Diphenylhydrazine | ND | 270 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 1,3-Dichlorobenzene | ND | 270 | 110 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 1,4-Dichlorobenzene | ND | 270 | 110 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2,2'-Oxybis(1-Chloropropane) | ND | 270 | 110 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | 1 |
| 2,4,5-Trichlorophenol | ND | 270 | 210 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2,4,6-Trichlorophenol | ND | 190 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2,4-Dichlorophenol | ND | 190 | 130 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2,4-Dimethylphenol | ND | 270 | 94 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2,4-Dinitrophenol | ND | 270 | 270 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2,4-Dinitrotoluene | ND | 190 | 150 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2,6-Dinitrotoluene | ND | 190 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2-Chloronaphthalene | ND | 270 | 110 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2-Chlorophenol | ND | 270 | 110 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2-Methylnaphthalene | ND | 270 | 110 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2-Methylphenol (o-cresol) | ND | 270 | 180 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2-Nitroaniline | ND | 270 | 270 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2-Nitrophenol | ND | 270 | 240 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 3&4-Methylphenol (m&p-cresol) | ND | 270 | 150 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | 1 |
| 3,3'-Dichlorobenzidine | ND | 190 | 180 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 3-Nitroaniline | ND | 380 | 760 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 4,6-Dinitro-2-methylphenol | ND | 230 | 76 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 4-Bromophenyl phenyl ether | ND | 270 | 110 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 4-Chloro-3-methylphenol | ND | 270 | 130 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 4-Chloroaniline | ND | 300 | 180 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 4-Chlorophenyl phenyl ether | ND | 270 | 130 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 4-Nitroaniline | ND | 380 | 130 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 4-Nitrophenol | ND | 380 | 170 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Acenaphthene | ND | 270 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Acenaphthylene | ND | 270 | 110 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Acetophenone | ND | 270 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Aniline | ND | 300 | 300 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Anthracene | ND | 270 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Benz(a)anthracene | ND | 270 | 130 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Benzidine | ND | 380 | 220 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Benzo(a)pyrene | ND | 190 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Benzo(b)fluoranthene | ND | 270 | 130 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Benzo(ghi)perylene | ND | 270 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Benzo(k)fluoranthene | ND | 270 | 130 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Benzoic acid | ND | 1900 | 760 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |

Project ID: IPARK0118.62-LOT 10 BOUNDARY MODIFICAT. Phoenix I.D.: CM95271
Client ID: SB-5A1 (0-2``)

| Parameter | Result | RL/ PQL | LOD/ MDL | Units | Dilution | Date/Time | By | Reference |
|---|---|---|---|---|---|---|---|---|
| Benzyl butyl phthalate | ND | 270 | 98 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Bis(2-chloroethoxy)methane | ND | 270 | 110 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Bis(2-chloroethyl)ether | ND | 190 | 100 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Bis(2-ethylhexyl)phthalate | ND | 270 | 110 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Carbazole | ND | 190 | 150 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Chrysene | ND | 270 | 130 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Dibenz(a,h)anthracene | ND | 190 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Dibenzofuran | ND | 270 | 110 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Diethyl phthalate | ND | 270 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Dimethylphthalate | ND | 270 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Di-n-butylphthalate | ND | 270 | 100 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Di-n-octylphthalate | ND | 270 | 98 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Fluoranthene | ND | 270 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Fluorene | ND | 270 | 130 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Hexachlorobenzene | ND | 190 | 110 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Hexachlorobutadiene | ND | 270 | 140 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Hexachlorocyclopentadiene | ND | 270 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Hexachloroethane | ND | 190 | 110 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Indeno(1,2,3-cd)pyrene | ND | 270 | 130 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Isophorone | ND | 190 | 110 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Naphthalene | ND | 270 | 110 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Nitrobenzene | ND | 190 | 130 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| N-Nitrosodimethylamine | ND | 270 | 110 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| N-Nitrosodi-n-propylamine | ND | 190 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| N-Nitrosodiphenylamine | ND | 270 | 150 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Pentachloronitrobenzene | ND | 270 | 140 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Pentachlorophenol | ND | 230 | 140 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Phenanthrene | ND | 270 | 110 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Phenol | ND | 270 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Pyrene | ND | 270 | 130 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Pyridine | ND | 270 | 94 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| **QA/QC Surrogates** | | | | | | | | |
| % 2,4,6-Tribromophenol | 94 | | | % | 1 | 12/04/22 | WB | 30 - 130 % |
| % 2-Fluorobiphenyl | 73 | | | % | 1 | 12/04/22 | WB | 30 - 130 % |
| % 2-Fluorophenol | 66 | | | % | 1 | 12/04/22 | WB | 30 - 130 % |
| % Nitrobenzene-d5 | 74 | | | % | 1 | 12/04/22 | WB | 30 - 130 % |
| % Phenol-d5 | 82 | | | % | 1 | 12/04/22 | WB | 30 - 130 % |
| % Terphenyl-d14 | 78 | | | % | 1 | 12/04/22 | WB | 30 - 130 % |
| **1,4-Dioxane** | | | | | | | | |
| 1,4-dioxane | ND | 76 | 76 | ug/Kg | 1 | 12/05/22 | WB | SW8270D (SIM) |
| **QA/QC Surrogates** | | | | | | | | |
| % 2-Fluorobiphenyl | 64 | | | % | 1 | 12/05/22 | WB | 30 - 130 % |
| % Nitrobenzene-d5 | 67 | | | % | 1 | 12/05/22 | WB | 30 - 130 % |
| % Terphenyl-d14 | 103 | | | % | 1 | 12/05/22 | WB | 30 - 130 % |

| Parameter | Result | RL/ PQL | LOD/ MDL | Units | Dilution | Date/Time | By | Reference |
|---|---|---|---|---|---|---|---|---|

1 = This parameter is not certified by the primary accrediting authority (NY NELAC) for this matrix. NY NELAC does not offer certification for all parameters at this time.
C = This parameter is subcontracted.

RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected BRL=Below Reporting Level L=Biased Low LOD=Limit of Detection MDL=Method Detection Limit1
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

## Comments:

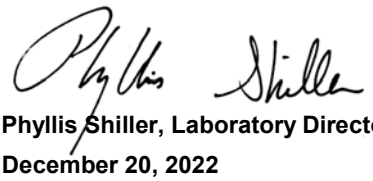
*See attached

Per 1.4.6 of EPA method 8270D, 1,2-Diphenylhydrazine is unstable and readily converts to Azobenzene. Azobenzene is used for the calibration of 1,2-Diphenylhydrazine.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

PFAS (21) (EPA 537m), PFOA/PFOS - Soil Extraction (EPA 537m) were analyzed by NY certified lab #12058.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200.
The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.



**Phyllis Shiller, Laboratory Director**
**December 20, 2022**
**Reviewed and Released by: Phyllis Shiller, Laboratory Director**

PHOENIX
Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

# Analysis Report

December 20, 2022

FOR: Attn: Nora Brew
Walden Environmental Engineering PLLC
16 Spring Street
Oyster Bay, NY 11771

| Sample Information | | Custody Information | | Date | Time |
|---|---|---|---|---|---|
| Matrix: | SOIL | Collected by: | | 11/29/22 | 13:30 |
| Location Code: | WALDENE-IPARK | Received by: | CP | 12/01/22 | 17:12 |
| Rush Request: | Standard | Analyzed by: | see "By" below | | |
| P.O.#: | | | | | |

## Laboratory Data

SDG ID: GCM95248
Phoenix ID: CM95272

Project ID: IPARK0118.62-LOT 10 BOUNDARY MODIFICAT.
Client ID: SB-5A2 (2-12``)

| Parameter | Result | RL/ PQL | LOD/ MDL | Units | Dilution | Date/Time | By | Reference |
|---|---|---|---|---|---|---|---|---|
| Aluminum | 15800 | 37 | 7.3 | mg/Kg | 10 | 12/03/22 | CPP | SW6010D |
| Antimony | ND | 3.7 | 3.7 | mg/Kg | 1 | 12/03/22 | CPP | SW6010D |
| Arsenic | 8.28 | 0.73 | 0.73 | mg/Kg | 1 | 12/03/22 | CPP | SW6010D |
| Barium | 40.2 | 0.7 | 0.37 | mg/Kg | 1 | 12/03/22 | TH | SW6010D |
| Beryllium | 0.52 | 0.29 | 0.15 | mg/Kg | 1 | 12/03/22 | CPP | SW6010D |
| Calcium | 411 | 3.7 | 3.4 | mg/Kg | 1 | 12/03/22 | CPP | SW6010D |
| Cadmium | 1.94 | 0.37 | 0.37 | mg/Kg | 1 | 12/03/22 | CPP | SW6010D |
| Chromium | 16.9 | 0.37 | 0.37 | mg/Kg | 1 | 12/03/22 | CPP | SW6010D |
| Cobalt | 10.6 | 0.37 | 0.37 | mg/Kg | 1 | 12/03/22 | CPP | SW6010D |
| Copper | 39.2 | 0.7 | 0.37 | mg/kg | 1 | 12/03/22 | CPP | SW6010D |
| Iron | 31300 | 37 | 37 | mg/Kg | 10 | 12/03/22 | CPP | SW6010D |
| Lead | 16.8 | 0.7 | 0.37 | mg/Kg | 1 | 12/03/22 | CPP | SW6010D |
| Magnesium | 7580 | 37 | 37 | mg/Kg | 10 | 12/03/22 | CPP | SW6010D |
| Manganese | 699 | 3.7 | 3.7 | mg/Kg | 10 | 12/09/22 | TH | SW6010D |
| Mercury | 0.05 | 0.03 | 0.02 | mg/Kg | 2 | 12/05/22 | PM | SW7471B |
| Nickel | 24.1 | 0.37 | 0.37 | mg/Kg | 1 | 12/03/22 | CPP | SW6010D |
| Potassium | 1040 | 7 | 2.9 | mg/Kg | 1 | 12/03/22 | CPP | SW6010D |
| Selenium | ND | 1.5 | 1.2 | mg/Kg | 1 | 12/03/22 | CPP | SW6010D |
| Silver | ND | 0.37 | 0.37 | mg/Kg | 1 | 12/03/22 | CPP | SW6010D |
| Sodium | 62 | 7 | 3.1 | mg/Kg | 1 | 12/03/22 | CPP | SW6010D |
| Thallium | ND | 1.5 | 1.5 | mg/Kg | 1 | 12/03/22 | CPP | SW6010D |
| Vanadium | 16.8 | 0.37 | 0.37 | mg/Kg | 1 | 12/03/22 | CPP | SW6010D |
| Zinc | 73.7 | 0.7 | 0.37 | mg/Kg | 1 | 12/03/22 | CPP | SW6010D |
| Percent Solid | 90 | | | % | | 12/01/22 | Q | SW846-%Solid |
| Extraction for SVOA SIM | Completed | | | | | 12/02/22 | O/Y | SW3545A |
| Soil Extraction for PCB | Completed | | | | | 12/01/22 | B/MO | SW3545A |
| Soil Extraction for Pesticide | Completed | | | | | 12/01/22 | B/MO | SW3545A |

**Ver 1**

Project ID: IPARK0118.62-LOT 10 BOUNDARY MODIFICAT. Phoenix I.D.: CM95272
Client ID: SB-5A2 (2-12``)

| Parameter | Result | RL/ PQL | LOD/ MDL | Units | Dilution | Date/Time | By | Reference | |
|---|---|---|---|---|---|---|---|---|---|
| Mercury Digestion | Completed | | | | | 12/02/22 | AB/AB | SW7471B | |
| Soil Extraction for Herbicide | Completed | | | | | 12/07/22 | J/D | SW3546 | |
| Soil Extraction for SVOA | Completed | | | | | 12/03/22 | Y/L | SW3546 | |
| Total Metals Digest | Completed | | | | | 12/01/22 | | SW3050B | |
| PFAS (21) | Completed | | | | | 12/08/22 | *** | EPA 537m | C |
| **PFAS (21)** | | | | | | | | | |
| 1H,1H,2H,2H-Perfluorodecanesulfonic acid | ND | 0.275 | 0.0282 | ng/g | 1 | 12/12/22 | *** | EPA 537m | C |
| 1H,1H,2H,2H-Perfluorooctanesulfonic acid | ND | 0.275 | 0.0727 | ng/g | 1 | 12/12/22 | *** | EPA 537m | C |
| NEtFOSAA | ND | 0.275 | 0.115 | ng/g | 1 | 12/12/22 | *** | EPA 537m | C |
| NMeFOSAA | ND | 0.275 | 0.115 | ng/g | 1 | 12/12/22 | *** | EPA 537m | C |
| Perfluoro-1-decanesulfonic acid (PFDS) | ND | 0.275 | 0.0564 | ng/g | 1 | 12/12/22 | *** | EPA 537m | C |
| Perfluoro-1-heptanesulfonic acid (PFHpS) | ND | 0.275 | 0.0543 | ng/g | 1 | 12/12/22 | *** | EPA 537m | C |
| Perfluoro-1-octanesulfonamide (FOSA) | ND | 0.275 | 0.0514 | ng/g | 1 | 12/12/22 | *** | EPA 537m | C |
| Perfluorobutanesulfonic acid (PFBS) | ND | 0.275 | 0.220 | ng/g | 1 | 12/12/22 | *** | EPA 537m | C |
| Perfluorodecanoic acid (PFDA) | ND | 0.275 | 0.0564 | ng/g | 1 | 12/12/22 | *** | EPA 537m | C |
| Perfluorododecanoic acid (PFDoA) | ND | 0.275 | 0.0826 | ng/g | 1 | 12/12/22 | *** | EPA 537m | C |
| Perfluoroheptanoic acid (PFHpA) | ND | 0.275 | 0.0501 | ng/g | 1 | 12/12/22 | *** | EPA 537m | C |
| Perfluorohexanesulfonic Acid (PFHxS) | ND | 0.275 | 0.0341 | ng/g | 1 | 12/12/22 | *** | EPA 537m | C |
| Perfluorohexanoic acid (PFHxA) | ND | 0.275 | 0.0726 | ng/g | 1 | 12/12/22 | *** | EPA 537m | C |
| Perfluoro-n-butanoic acid (PFBA) | ND | 0.275 | 0.201 | ng/g | 1 | 12/12/22 | *** | EPA 537m | C |
| Perfluorononanoic acid (PFNA) | ND | 0.275 | 0.0659 | ng/g | 1 | 12/12/22 | *** | EPA 537m | C |
| Perfluorooctanesulfonic Acid (PFOS) | ND | 0.275 | 0.0482 | ng/g | 1 | 12/12/22 | *** | EPA 537m | C |
| Perfluorooctanoic acid (PFOA) | ND | 0.275 | 0.0850 | ng/g | 1 | 12/12/22 | *** | EPA 537m | C |
| Perfluoropentanoic acid (PFPeA) | ND | 0.275 | 0.101 | ng/g | 1 | 12/12/22 | *** | EPA 537m | C |
| Perfluorotetradecanoic acid (PFTA) | ND | 0.275 | 0.0823 | ng/g | 1 | 12/12/22 | *** | EPA 537m | C |
| Perfluorotridecanoic acid (PFTrDA) | ND | 0.275 | 0.0479 | ng/g | 1 | 12/12/22 | *** | EPA 537m | C |
| Perfluoroundecanoic acid (PFUnA) | ND | 0.275 | 0.128 | ng/g | 1 | 12/12/22 | *** | EPA 537m | C |
| **QA/QC Surrogates** | | | | | | | | | |
| % d3-N-MeFOSAA | 43.4 | | | % | 1 | 12/12/22 | *** | 25 - 150 % | C |
| % d5-NEtFOSA | 44.1 | | | % | 1 | 12/12/22 | *** | 25 - 150 % | C |
| % M2-6:2FTS | 98.6 | | | % | 1 | 12/12/22 | *** | 25 - 200 % | C |
| % M2-8:2FTS | 75.0 | | | % | 1 | 12/12/22 | *** | 25 - 200 % | C |
| % M2PFTeDA | 22.9 | | | % | 1 | 12/12/22 | *** | 10 - 150 % | C |
| % M3PFBS | 82.3 | | | % | 1 | 12/12/22 | *** | 25 - 150 % | C |
| % M3PFHxS | 98.4 | | | % | 1 | 12/12/22 | *** | 25 - 150 % | C |
| % M4PFHpA | 83.2 | | | % | 1 | 12/12/22 | *** | 25 - 150 % | C |
| % M5PFHxA | 87.4 | | | % | 1 | 12/12/22 | *** | 25 - 150 % | C |
| % M5PFPeA | 94.5 | | | % | 1 | 12/12/22 | *** | 25 - 150 % | C |
| % M6PFDA | 59.0 | | | % | 1 | 12/12/22 | *** | 25 - 150 % | C |
| % M7PFUdA | 42.9 | | | % | 1 | 12/12/22 | *** | 25 - 150 % | C |
| % M8FOSA | 40.1 | | | % | 1 | 12/12/22 | *** | 10 - 150 % | C |
| % M8PFOA | 84.9 | | | % | 1 | 12/12/22 | *** | 25 - 150 % | C |
| % M8PFOS | 62.3 | | | % | 1 | 12/12/22 | *** | 25 - 150 % | C |
| % M9PFNA | 73.3 | | | % | 1 | 12/12/22 | *** | 25 - 150 % | C |
| % MPFBA | 87.7 | | | % | 1 | 12/12/22 | *** | 25 - 150 % | C |
| % MPFDoA | 40.9 | | | % | 1 | 12/12/22 | *** | 25 - 150 % | C |
| **Chlorinated Herbicides** | | | | | | | | | |
| 2,4,5-T | ND | 140 | 140 | ug/Kg | 10 | 12/09/22 | JRB | SW8151A | |

**Ver 1**

| Parameter | Result | RL/ PQL | LOD/ MDL | Units | Dilution | Date/Time | By | Reference |
|---|---|---|---|---|---|---|---|---|
| 2,4,5-TP (Silvex) | ND | 140 | 140 | ug/Kg | 10 | 12/09/22 | JRB | SW8151A |
| 2,4-D | ND | 270 | 270 | ug/Kg | 10 | 12/09/22 | JRB | SW8151A |
| 2,4-DB | ND | 2700 | 2700 | ug/Kg | 10 | 12/09/22 | JRB | SW8151A |
| Dalapon | ND | 140 | 140 | ug/Kg | 10 | 12/09/22 | JRB | SW8151A |
| Dicamba | ND | 140 | 140 | ug/Kg | 10 | 12/09/22 | JRB | SW8151A |
| Dichloroprop | ND | 270 | 270 | ug/Kg | 10 | 12/09/22 | JRB | SW8151A |
| Dinoseb | ND | 270 | 270 | ug/Kg | 10 | 12/09/22 | JRB | SW8151A |
| **QA/QC Surrogates** | | | | | | | | |
| % DCAA | 136 | | | % | 10 | 12/09/22 | JRB | 30 - 150 % |
| % DCAA (Confirmation) | 124 | | | % | 10 | 12/09/22 | JRB | 30 - 150 % |
| **Polychlorinated Biphenyls** | | | | | | | | |
| PCB-1016 | ND | 73 | 73 | ug/Kg | 2 | 12/02/22 | SC | SW8082A |
| PCB-1221 | ND | 73 | 73 | ug/Kg | 2 | 12/02/22 | SC | SW8082A |
| PCB-1232 | ND | 73 | 73 | ug/Kg | 2 | 12/02/22 | SC | SW8082A |
| PCB-1242 | ND | 73 | 73 | ug/Kg | 2 | 12/02/22 | SC | SW8082A |
| PCB-1248 | ND | 73 | 73 | ug/Kg | 2 | 12/02/22 | SC | SW8082A |
| PCB-1254 | ND | 73 | 73 | ug/Kg | 2 | 12/02/22 | SC | SW8082A |
| PCB-1260 | ND | 73 | 73 | ug/Kg | 2 | 12/02/22 | SC | SW8082A |
| PCB-1262 | ND | 73 | 73 | ug/Kg | 2 | 12/02/22 | SC | SW8082A |
| PCB-1268 | ND | 73 | 73 | ug/Kg | 2 | 12/02/22 | SC | SW8082A |
| **QA/QC Surrogates** | | | | | | | | |
| % DCBP | 80 | | | % | 2 | 12/02/22 | SC | 30 - 150 % |
| % DCBP (Confirmation) | 88 | | | % | 2 | 12/02/22 | SC | 30 - 150 % |
| % TCMX | 71 | | | % | 2 | 12/02/22 | SC | 30 - 150 % |
| % TCMX (Confirmation) | 74 | | | % | 2 | 12/02/22 | SC | 30 - 150 % |
| **Pesticides - Soil** | | | | | | | | |
| 4,4' -DDD | ND | 2.2 | 2.2 | ug/Kg | 2 | 12/03/22 | AW | SW8081B |
| 4,4' -DDE | ND | 2.2 | 2.2 | ug/Kg | 2 | 12/03/22 | AW | SW8081B |
| 4,4' -DDT | ND | 2.2 | 2.2 | ug/Kg | 2 | 12/03/22 | AW | SW8081B |
| a-BHC | ND | 7.3 | 7.3 | ug/Kg | 2 | 12/03/22 | AW | SW8081B |
| a-Chlordane | ND | 3.6 | 3.6 | ug/Kg | 2 | 12/03/22 | AW | SW8081B |
| Alachlor | ND | 3.6 | 3.6 | ug/Kg | 2 | 12/03/22 | AW | SW8081B |
| Aldrin | ND | 3.6 | 3.6 | ug/Kg | 2 | 12/03/22 | AW | SW8081B |
| b-BHC | ND | 7.3 | 7.3 | ug/Kg | 2 | 12/03/22 | AW | SW8081B |
| Chlordane | ND | 36 | 36 | ug/Kg | 2 | 12/03/22 | AW | SW8081B |
| d-BHC | ND | 7.3 | 7.3 | ug/Kg | 2 | 12/03/22 | AW | SW8081B |
| Dieldrin | ND | 3.6 | 3.6 | ug/Kg | 2 | 12/03/22 | AW | SW8081B |
| Endosulfan I | ND | 7.3 | 7.3 | ug/Kg | 2 | 12/03/22 | AW | SW8081B |
| Endosulfan II | ND | 7.3 | 7.3 | ug/Kg | 2 | 12/03/22 | AW | SW8081B |
| Endosulfan sulfate | ND | 7.3 | 7.3 | ug/Kg | 2 | 12/03/22 | AW | SW8081B |
| Endrin | ND | 7.3 | 7.3 | ug/Kg | 2 | 12/03/22 | AW | SW8081B |
| Endrin aldehyde | ND | 7.3 | 7.3 | ug/Kg | 2 | 12/03/22 | AW | SW8081B |
| Endrin ketone | ND | 7.3 | 7.3 | ug/Kg | 2 | 12/03/22 | AW | SW8081B |
| g-BHC | ND | 1.5 | 1.5 | ug/Kg | 2 | 12/03/22 | AW | SW8081B |
| g-Chlordane | ND | 3.6 | 3.6 | ug/Kg | 2 | 12/03/22 | AW | SW8081B |
| Heptachlor | ND | 7.3 | 7.3 | ug/Kg | 2 | 12/03/22 | AW | SW8081B |
| Heptachlor epoxide | ND | 7.3 | 7.3 | ug/Kg | 2 | 12/03/22 | AW | SW8081B |
| Methoxychlor | ND | 36 | 36 | ug/Kg | 2 | 12/03/22 | AW | SW8081B |

| Parameter | Result | RL/ PQL | LOD/ MDL | Units | Dilution | Date/Time | By | Reference | |
|---|---|---|---|---|---|---|---|---|---|
| Toxaphene | ND | 150 | 150 | ug/Kg | 2 | 12/03/22 | AW | SW8081B | |
| **QA/QC Surrogates** | | | | | | | | | |
| % DCBP | 75 | | | % | 2 | 12/03/22 | AW | 30 - 150 % | |
| % DCBP (Confirmation) | 45 | | | % | 2 | 12/03/22 | AW | 30 - 150 % | |
| % TCMX | 69 | | | % | 2 | 12/03/22 | AW | 30 - 150 % | |
| % TCMX (Confirmation) | 64 | | | % | 2 | 12/03/22 | AW | 30 - 150 % | |
| **Semivolatiles** | | | | | | | | | |
| 1,2,4,5-Tetrachlorobenzene | ND | 250 | 130 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 1,2,4-Trichlorobenzene | ND | 250 | 110 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 1,2-Dichlorobenzene | ND | 250 | 100 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 1,2-Diphenylhydrazine | ND | 250 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 1,3-Dichlorobenzene | ND | 250 | 110 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 1,4-Dichlorobenzene | ND | 250 | 110 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2,2'-Oxybis(1-Chloropropane) | ND | 250 | 100 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | 1 |
| 2,4,5-Trichlorophenol | ND | 250 | 200 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2,4,6-Trichlorophenol | ND | 180 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2,4-Dichlorophenol | ND | 180 | 130 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2,4-Dimethylphenol | ND | 250 | 90 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2,4-Dinitrophenol | ND | 250 | 250 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2,4-Dinitrotoluene | ND | 180 | 140 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2,6-Dinitrotoluene | ND | 180 | 110 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2-Chloronaphthalene | ND | 250 | 100 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2-Chlorophenol | ND | 250 | 100 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2-Methylnaphthalene | ND | 250 | 110 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2-Methylphenol (o-cresol) | ND | 250 | 170 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2-Nitroaniline | ND | 250 | 250 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2-Nitrophenol | ND | 250 | 230 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 3&4-Methylphenol (m&p-cresol) | ND | 250 | 140 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | 1 |
| 3,3'-Dichlorobenzidine | ND | 180 | 170 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 3-Nitroaniline | ND | 360 | 720 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 4,6-Dinitro-2-methylphenol | ND | 220 | 72 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 4-Bromophenyl phenyl ether | ND | 250 | 110 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 4-Chloro-3-methylphenol | ND | 250 | 130 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 4-Chloroaniline | ND | 290 | 170 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 4-Chlorophenyl phenyl ether | ND | 250 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 4-Nitroaniline | ND | 360 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 4-Nitrophenol | ND | 360 | 160 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Acenaphthene | ND | 250 | 110 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Acenaphthylene | ND | 250 | 100 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Acetophenone | ND | 250 | 110 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Aniline | ND | 290 | 290 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Anthracene | ND | 250 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Benz(a)anthracene | ND | 250 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Benzidine | ND | 360 | 210 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Benzo(a)pyrene | ND | 180 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Benzo(b)fluoranthene | ND | 250 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Benzo(ghi)perylene | ND | 250 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Benzo(k)fluoranthene | ND | 250 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Benzoic acid | ND | 1800 | 720 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |

Project ID: IPARK0118.62-LOT 10 BOUNDARY MODIFICAT. Phoenix I.D.: CM95272
Client ID: SB-5A2 (2-12``)

| Parameter | Result | RL/ PQL | LOD/ MDL | Units | Dilution | Date/Time | By | Reference |
|---|---|---|---|---|---|---|---|---|
| Benzyl butyl phthalate | ND | 250 | 93 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Bis(2-chloroethoxy)methane | ND | 250 | 100 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Bis(2-chloroethyl)ether | ND | 180 | 98 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Bis(2-ethylhexyl)phthalate | ND | 250 | 100 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Carbazole | ND | 180 | 140 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Chrysene | ND | 250 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Dibenz(a,h)anthracene | ND | 180 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Dibenzofuran | ND | 250 | 110 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Diethyl phthalate | ND | 250 | 110 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Dimethylphthalate | ND | 250 | 110 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Di-n-butylphthalate | ND | 250 | 96 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Di-n-octylphthalate | ND | 250 | 93 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Fluoranthene | ND | 250 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Fluorene | ND | 250 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Hexachlorobenzene | ND | 180 | 110 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Hexachlorobutadiene | ND | 250 | 130 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Hexachlorocyclopentadiene | ND | 250 | 110 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Hexachloroethane | ND | 180 | 110 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Indeno(1,2,3-cd)pyrene | ND | 250 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Isophorone | ND | 180 | 100 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Naphthalene | ND | 250 | 100 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Nitrobenzene | ND | 180 | 130 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| N-Nitrosodimethylamine | ND | 250 | 100 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| N-Nitrosodi-n-propylamine | ND | 180 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| N-Nitrosodiphenylamine | ND | 250 | 140 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Pentachloronitrobenzene | ND | 250 | 130 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Pentachlorophenol | ND | 220 | 140 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Phenanthrene | ND | 250 | 100 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Phenol | ND | 250 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Pyrene | ND | 250 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Pyridine | ND | 250 | 89 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| **QA/QC Surrogates** | | | | | | | | |
| % 2,4,6-Tribromophenol | 92 | | | % | 1 | 12/04/22 | WB | 30 - 130 % |
| % 2-Fluorobiphenyl | 77 | | | % | 1 | 12/04/22 | WB | 30 - 130 % |
| % 2-Fluorophenol | 72 | | | % | 1 | 12/04/22 | WB | 30 - 130 % |
| % Nitrobenzene-d5 | 80 | | | % | 1 | 12/04/22 | WB | 30 - 130 % |
| % Phenol-d5 | 86 | | | % | 1 | 12/04/22 | WB | 30 - 130 % |
| % Terphenyl-d14 | 81 | | | % | 1 | 12/04/22 | WB | 30 - 130 % |
| **1,4-Dioxane** | | | | | | | | |
| 1,4-dioxane | ND | 72 | 72 | ug/Kg | 1 | 12/05/22 | WB | SW8270D (SIM) |
| **QA/QC Surrogates** | | | | | | | | |
| % 2-Fluorobiphenyl | 64 | | | % | 1 | 12/05/22 | WB | 30 - 130 % |
| % Nitrobenzene-d5 | 80 | | | % | 1 | 12/05/22 | WB | 30 - 130 % |
| % Terphenyl-d14 | 112 | | | % | 1 | 12/05/22 | WB | 30 - 130 % |

| Parameter | Result | RL/ PQL | LOD/ MDL | Units | Dilution | Date/Time | By | Reference |
|---|---|---|---|---|---|---|---|---|

1 = This parameter is not certified by the primary accrediting authority (NY NELAC) for this matrix. NY NELAC does not offer certification for all parameters at this time.
C = This parameter is subcontracted.

RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected BRL=Below Reporting Level L=Biased Low LOD=Limit of Detection MDL=Method Detection Limit1
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

## Comments:

*See attached

Per 1.4.6 of EPA method 8270D, 1,2-Diphenylhydrazine is unstable and readily converts to Azobenzene. Azobenzene is used for the calibration of 1,2-Diphenylhydrazine.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

PFAS (21) (EPA 537m), PFOA/PFOS - Soil Extraction (EPA 537m) were analyzed by NY certified lab #12058.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200.
The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.

**Phyllis Shiller, Laboratory Director**
**December 20, 2022**
**Reviewed and Released by: Phyllis Shiller, Laboratory Director**

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

# Analysis Report

December 20, 2022

FOR: Attn: Nora Brew
Walden Environmental Engineering PLLC
16 Spring Street
Oyster Bay, NY 11771

| Sample Information | | Custody Information | | Date | Time |
|---|---|---|---|---|---|
| Matrix: | SOIL | Collected by: | | 11/29/22 | 13:15 |
| Location Code: | WALDENE-IPARK | Received by: | CP | 12/01/22 | 17:12 |
| Rush Request: | Standard | Analyzed by: | see "By" below | | |
| P.O.#: | | | | | |

## Laboratory Data

SDG ID: GCM95248
Phoenix ID: CM95273

Project ID: IPARK0118.62-LOT 10 BOUNDARY MODIFICAT.
Client ID: SB-5B (1-2`)

| Parameter | Result | RL/ PQL | LOD/ MDL | Units | Dilution | Date/Time | By | Reference | |
|---|---|---|---|---|---|---|---|---|---|
| Field Extraction | Completed | | | | | 11/29/22 | | SW5035A | 1 |
| **Volatiles** | | | | | | | | | |
| 1,1,1,2-Tetrachloroethane | ND | 5.6 | 1.1 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,1,1-Trichloroethane | ND | 5.6 | 0.56 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,1,2,2-Tetrachloroethane | ND | 5.6 | 1.1 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,1,2-Trichloroethane | ND | 5.6 | 1.1 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,1-Dichloroethane | ND | 5.6 | 1.1 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,1-Dichloroethene | ND | 5.6 | 0.56 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,1-Dichloropropene | ND | 5.6 | 0.56 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,2,3-Trichlorobenzene | ND | 5.6 | 1.1 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,2,3-Trichloropropane | ND | 5.6 | 0.56 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,2,4-Trichlorobenzene | ND | 5.6 | 1.1 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,2,4-Trimethylbenzene | ND | 5.6 | 0.56 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,2-Dibromo-3-chloropropane | ND | 5.6 | 1.1 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,2-Dibromoethane | ND | 5.6 | 0.56 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,2-Dichlorobenzene | ND | 5.6 | 0.56 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,2-Dichloroethane | ND | 5.6 | 0.56 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,2-Dichloropropane | ND | 5.6 | 1.1 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,3,5-Trimethylbenzene | ND | 5.6 | 0.56 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,3-Dichlorobenzene | ND | 5.6 | 0.56 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,3-Dichloropropane | ND | 5.6 | 1.1 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,4-Dichlorobenzene | ND | 5.6 | 0.56 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 2,2-Dichloropropane | ND | 5.6 | 0.56 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 2-Chlorotoluene | ND | 5.6 | 1.1 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 2-Hexanone | ND | 28 | 5.6 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 2-Isopropyltoluene | ND | 5.6 | 0.56 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | 1 |

Project ID: IPARK0118.62-LOT 10 BOUNDARY MODIFICAT. Phoenix I.D.: CM95273

Client ID: SB-5B (1-2`)

| Parameter | Result | | RL/ PQL | LOD/ MDL | Units | Dilution | Date/Time | By | Reference |
|---|---|---|---|---|---|---|---|---|---|
| 4-Chlorotoluene | ND | | 5.6 | 0.56 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| 4-Methyl-2-pentanone | ND | | 28 | 5.6 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| Acetone | 32 | S | 28 | 5.6 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| Acrylonitrile | ND | | 11 | 1.1 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| Benzene | ND | | 5.6 | 0.56 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| Bromobenzene | ND | | 5.6 | 0.56 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| Bromochloromethane | ND | | 5.6 | 0.56 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| Bromodichloromethane | ND | | 5.6 | 1.1 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| Bromoform | ND | | 5.6 | 1.1 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| Bromomethane | ND | | 5.6 | 2.2 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| Carbon Disulfide | ND | | 5.6 | 1.1 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| Carbon tetrachloride | ND | | 5.6 | 1.1 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| Chlorobenzene | ND | | 5.6 | 0.56 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| Chloroethane | ND | | 5.6 | 0.56 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| Chloroform | ND | | 5.6 | 0.56 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| Chloromethane | ND | | 5.6 | 1.1 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| cis-1,2-Dichloroethene | ND | | 5.6 | 0.56 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| cis-1,3-Dichloropropene | ND | | 5.6 | 0.56 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| Dibromochloromethane | ND | | 5.6 | 1.1 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| Dibromomethane | ND | | 5.6 | 1.1 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| Dichlorodifluoromethane | ND | | 5.6 | 0.56 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| Ethylbenzene | ND | | 5.6 | 0.56 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| Hexachlorobutadiene | ND | | 5.6 | 0.56 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| Isopropylbenzene | ND | | 5.6 | 0.56 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| m&p-Xylene | ND | | 5.6 | 1.1 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| Methyl Ethyl Ketone | ND | | 34 | 5.6 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| Methyl t-butyl ether (MTBE) | ND | | 11 | 1.1 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| Methylene chloride | ND | | 5.6 | 5.6 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| Naphthalene | ND | | 5.6 | 1.1 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| n-Butylbenzene | ND | | 5.6 | 0.56 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| n-Propylbenzene | ND | | 5.6 | 1.1 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| o-Xylene | ND | | 5.6 | 1.1 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| p-Isopropyltoluene | ND | | 5.6 | 0.56 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| sec-Butylbenzene | ND | | 5.6 | 0.56 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| Styrene | ND | | 5.6 | 0.56 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| tert-Butylbenzene | ND | | 5.6 | 0.56 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| Tetrachloroethene | ND | | 5.6 | 1.1 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| Tetrahydrofuran (THF) | 6.9 | J | 11 | 2.8 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| Toluene | ND | | 5.6 | 0.56 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| trans-1,2-Dichloroethene | ND | | 5.6 | 0.56 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| trans-1,3-Dichloropropene | ND | | 5.6 | 0.56 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| trans-1,4-dichloro-2-butene | ND | | 11 | 2.8 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| Trichloroethene | ND | | 5.6 | 0.56 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| Trichlorofluoromethane | ND | | 5.6 | 1.1 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| Trichlorotrifluoroethane | ND | | 5.6 | 0.56 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| Vinyl chloride | ND | | 5.6 | 0.56 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| **QA/QC Surrogates** | | | | | | | | | |
| % 1,2-dichlorobenzene-d4 | 98 | | | | % | 1 | 12/06/22 | JLI | 70 - 130 % |
| % Bromofluorobenzene | 99 | | | | % | 1 | 12/06/22 | JLI | 70 - 130 % |

**Ver 1**

Project ID: IPARK0118.62-LOT 10 BOUNDARY MODIFICAT. Phoenix I.D.: CM95273
Client ID: SB-5B (1-2`)

| Parameter | Result | RL/ PQL | LOD/ MDL | Units | Dilution | Date/Time | By | Reference |
|---|---|---|---|---|---|---|---|---|
| % Dibromofluoromethane | 100 | | | % | 1 | 12/06/22 | JLI | 70 - 130 % |
| % Toluene-d8 | 93 | | | % | 1 | 12/06/22 | JLI | 70 - 130 % |

1 = This parameter is not certified by the primary accrediting authority (NY NELAC) for this matrix. NY NELAC does not offer certification for all parameters at this time.

RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected BRL=Below Reporting Level L=Biased Low J=Estimated Below RL LOD=Limit of Detection MDL=Method Detection Limit1
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

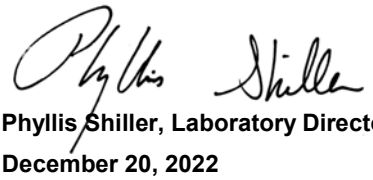
## Comments:

Results are reported on an ``as received`` basis, and are not corrected for dry weight.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

S - Laboratory solvent, contamination is possible.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200.
The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.



**Phyllis Shiller, Laboratory Director**
**December 20, 2022**
**Reviewed and Released by: Phyllis Shiller, Laboratory Director**

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

# Analysis Report

December 20, 2022

FOR: Attn: Nora Brew
Walden Environmental Engineering PLLC
16 Spring Street
Oyster Bay, NY 11771

| Sample Information | | Custody Information | | Date | Time |
|---|---|---|---|---|---|
| Matrix: | SOIL | Collected by: | | 11/29/22 | 13:20 |
| Location Code: | WALDENE-IPARK | Received by: | CP | 12/01/22 | 17:12 |
| Rush Request: | Standard | Analyzed by: | see "By" below | | |
| P.O.#: | | | | | |

## Laboratory Data

SDG ID: GCM95248
Phoenix ID: CM95274

Project ID: IPARK0118.62-LOT 10 BOUNDARY MODIFICAT.
Client ID: SB-5C (6-8`)

| Parameter | Result | RL/ PQL | LOD/ MDL | Units | Dilution | Date/Time | By | Reference |
|---|---|---|---|---|---|---|---|---|
| Aluminum | 16400 | 34 | 6.8 | mg/Kg | 10 | 12/03/22 | CPP | SW6010D |
| Antimony | ND | 3.4 | 3.4 | mg/Kg | 1 | 12/03/22 | CPP | SW6010D |
| Arsenic | 7.72 | 0.68 | 0.68 | mg/Kg | 1 | 12/03/22 | CPP | SW6010D |
| Barium | 71.3 | 0.7 | 0.34 | mg/Kg | 1 | 12/03/22 | TH | SW6010D |
| Beryllium | 0.60 | 0.27 | 0.14 | mg/Kg | 1 | 12/03/22 | CPP | SW6010D |
| Calcium | 759 | 3.4 | 3.1 | mg/Kg | 1 | 12/03/22 | CPP | SW6010D |
| Cadmium | 2.07 | 0.34 | 0.34 | mg/Kg | 1 | 12/03/22 | CPP | SW6010D |
| Chromium | 17.9 | 0.34 | 0.34 | mg/Kg | 1 | 12/03/22 | CPP | SW6010D |
| Cobalt | 13.0 | 0.34 | 0.34 | mg/Kg | 1 | 12/03/22 | CPP | SW6010D |
| Copper | 51.2 | 0.7 | 0.34 | mg/kg | 1 | 12/03/22 | CPP | SW6010D |
| Iron | 33700 | 34 | 34 | mg/Kg | 10 | 12/03/22 | CPP | SW6010D |
| Lead | 43.5 | 0.7 | 0.34 | mg/Kg | 1 | 12/03/22 | CPP | SW6010D |
| Magnesium | 7500 | 34 | 34 | mg/Kg | 10 | 12/03/22 | CPP | SW6010D |
| Manganese | 1770 | 34 | 34 | mg/Kg | 100 | 12/10/22 | CPP | SW6010D |
| Mercury | 0.06 | 0.03 | 0.02 | mg/Kg | 2 | 12/05/22 | PM | SW7471B |
| Nickel | 28.0 | 0.34 | 0.34 | mg/Kg | 1 | 12/03/22 | CPP | SW6010D |
| Potassium | 1430 | 7 | 2.6 | mg/Kg | 1 | 12/03/22 | CPP | SW6010D |
| Selenium | ND | 1.4 | 1.1 | mg/Kg | 1 | 12/03/22 | CPP | SW6010D |
| Silver | ND | 0.34 | 0.34 | mg/Kg | 1 | 12/03/22 | CPP | SW6010D |
| Sodium | 557 | 7 | 2.9 | mg/Kg | 1 | 12/03/22 | CPP | SW6010D |
| Thallium | ND | 1.4 | 1.4 | mg/Kg | 1 | 12/03/22 | CPP | SW6010D |
| Vanadium | 20.0 | 0.34 | 0.34 | mg/Kg | 1 | 12/03/22 | CPP | SW6010D |
| Zinc | 82.6 | 0.7 | 0.34 | mg/Kg | 1 | 12/03/22 | CPP | SW6010D |
| Percent Solid | 87 | | | % | | 12/01/22 | Q | SW846-%Solid |
| Extraction for SVOA SIM | Completed | | | | | 12/02/22 | O/Y | SW3545A |
| Soil Extraction for PCB | Completed | | | | | 12/01/22 | B/MO | SW3545A |
| Soil Extraction for Pesticide | Completed | | | | | 12/01/22 | B/MO | SW3545A |

**Ver 1**

Project ID: IPARK0118.62-LOT 10 BOUNDARY MODIFICAT. Phoenix I.D.: CM95274

Client ID: SB-5C (6-8`)

| Parameter | Result | RL/ PQL | LOD/ MDL | Units | Dilution | Date/Time | By | Reference | |
|---|---|---|---|---|---|---|---|---|---|
| Field Extraction | Completed | | | | | 11/29/22 | | SW5035A | 1 |
| Mercury Digestion | Completed | | | | | 12/02/22 | AB/AB | SW7471B | |
| Soil Extraction for Herbicide | Completed | | | | | 12/07/22 | J/D | SW3546 | |
| Soil Extraction for SVOA | Completed | | | | | 12/03/22 | Y/L | SW3546 | |
| Total Metals Digest | Completed | | | | | 12/01/22 | | SW3050B | |
| PFAS (21) | Completed | | | | | 12/08/22 | *** | EPA 537m | C |

## PFAS (21)

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **1H,1H,2H,2H-Perfluorodecanesulfonic acid** | ND | 0.264 | 0.0270 | ng/g | 1 | 12/13/22 | *** | EPA 537m | C |
| **1H,1H,2H,2H-Perfluorooctanesulfonic acid** | ND | 0.264 | 0.0697 | ng/g | 1 | 12/13/22 | *** | EPA 537m | C |
| NEtFOSAA | ND | 0.264 | 0.110 | ng/g | 1 | 12/13/22 | *** | EPA 537m | C |
| NMeFOSAA | ND | 0.264 | 0.110 | ng/g | 1 | 12/13/22 | *** | EPA 537m | C |
| **Perfluoro-1-decanesulfonic acid (PFDS)** | ND | 0.264 | 0.0541 | ng/g | 1 | 12/13/22 | *** | EPA 537m | C |
| **Perfluoro-1-heptanesulfonic acid (PFHpS)** | ND | 0.264 | 0.0521 | ng/g | 1 | 12/13/22 | *** | EPA 537m | C |
| **Perfluoro-1-octanesulfonamide (FOSA)** | ND | 0.264 | 0.0493 | ng/g | 1 | 12/13/22 | *** | EPA 537m | C |
| Perfluorobutanesulfonic acid (PFBS) | ND | 0.264 | 0.211 | ng/g | 1 | 12/13/22 | *** | EPA 537m | C |
| Perfluorodecanoic acid (PFDA) | ND | 0.264 | 0.0541 | ng/g | 1 | 12/13/22 | *** | EPA 537m | C |
| Perfluorododecanoic acid (PFDoA) | ND | 0.264 | 0.0792 | ng/g | 1 | 12/13/22 | *** | EPA 537m | C |
| Perfluoroheptanoic acid (PFHpA) | ND | 0.264 | 0.0480 | ng/g | 1 | 12/13/22 | *** | EPA 537m | C |
| **Perfluorohexanesulfonic Acid (PFHxS)** | ND | 0.264 | 0.0327 | ng/g | 1 | 12/13/22 | *** | EPA 537m | C |
| Perfluorohexanoic acid (PFHxA) | ND | 0.264 | 0.0696 | ng/g | 1 | 12/13/22 | *** | EPA 537m | C |
| Perfluoro-n-butanoic acid (PFBA) | ND | 0.264 | 0.193 | ng/g | 1 | 12/13/22 | *** | EPA 537m | C |
| Perfluorononanoic acid (PFNA) | ND | 0.264 | 0.0631 | ng/g | 1 | 12/13/22 | *** | EPA 537m | C |
| Perfluorooctanesulfonic Acid (PFOS) | ND | 0.264 | 0.0463 | ng/g | 1 | 12/13/22 | *** | EPA 537m | C |
| Perfluorooctanoic acid (PFOA) | ND | 0.264 | 0.0815 | ng/g | 1 | 12/13/22 | *** | EPA 537m | C |
| Perfluoropentanoic acid (PFPeA) | ND | 0.264 | 0.0970 | ng/g | 1 | 12/13/22 | *** | EPA 537m | C |
| Perfluorotetradecanoic acid (PFTA) | ND | 0.264 | 0.0789 | ng/g | 1 | 12/13/22 | *** | EPA 537m | C |
| Perfluorotridecanoic acid (PFTrDA) | ND | 0.264 | 0.0459 | ng/g | 1 | 12/13/22 | *** | EPA 537m | C |
| Perfluoroundecanoic acid (PFUnA) | ND | 0.264 | 0.123 | ng/g | 1 | 12/13/22 | *** | EPA 537m | C |
| **QA/QC Surrogates** | | | | | | | | | |
| % d3-N-MeFOSAA | 49.1 | | | % | 1 | 12/13/22 | *** | 25 - 150 % | C |
| % d5-NEtFOSA | 46.6 | | | % | 1 | 12/13/22 | *** | 25 - 150 % | C |
| % M2-6:2FTS | 72.9 | | | % | 1 | 12/13/22 | *** | 25 - 200 % | C |
| % M2-8:2FTS | 69.0 | | | % | 1 | 12/13/22 | *** | 25 - 200 % | C |
| % M2PFTeDA | 38.1 | | | % | 1 | 12/13/22 | *** | 10 - 150 % | C |
| % M3PFBS | 74.4 | | | % | 1 | 12/13/22 | *** | 25 - 150 % | C |
| % M3PFHxS | 84.8 | | | % | 1 | 12/13/22 | *** | 25 - 150 % | C |
| % M4PFHpA | 89.3 | | | % | 1 | 12/13/22 | *** | 25 - 150 % | C |
| % M5PFHxA | 85.8 | | | % | 1 | 12/13/22 | *** | 25 - 150 % | C |
| % M5PFPeA | 90.1 | | | % | 1 | 12/13/22 | *** | 25 - 150 % | C |
| % M6PFDA | 60.6 | | | % | 1 | 12/13/22 | *** | 25 - 150 % | C |
| % M7PFUdA | 49.9 | | | % | 1 | 12/13/22 | *** | 25 - 150 % | C |
| % M8FOSA | 46.6 | | | % | 1 | 12/13/22 | *** | 10 - 150 % | C |
| % M8PFOA | 75.6 | | | % | 1 | 12/13/22 | *** | 25 - 150 % | C |
| % M8PFOS | 56.9 | | | % | 1 | 12/13/22 | *** | 25 - 150 % | C |
| % M9PFNA | 65.6 | | | % | 1 | 12/13/22 | *** | 25 - 150 % | C |
| % MPFBA | 82.4 | | | % | 1 | 12/13/22 | *** | 25 - 150 % | C |
| % MPFDoA | 58.2 | | | % | 1 | 12/13/22 | *** | 25 - 150 % | C |

Project ID: IPARK0118.62-LOT 10 BOUNDARY MODIFICAT. Phoenix I.D.: CM95274
Client ID: SB-5C (6-8`)

| Parameter | Result | RL/ PQL | LOD/ MDL | Units | Dilution | Date/Time | By | Reference |
|---|---|---|---|---|---|---|---|---|
| **Chlorinated Herbicides** | | | | | | | | |
| 2,4,5-T | ND | 140 | 140 | ug/Kg | 10 | 12/09/22 | JRB | SW8151A |
| 2,4,5-TP (Silvex) | ND | 140 | 140 | ug/Kg | 10 | 12/09/22 | JRB | SW8151A |
| 2,4-D | ND | 280 | 280 | ug/Kg | 10 | 12/09/22 | JRB | SW8151A |
| 2,4-DB | ND | 2800 | 2800 | ug/Kg | 10 | 12/09/22 | JRB | SW8151A |
| Dalapon | ND | 140 | 140 | ug/Kg | 10 | 12/09/22 | JRB | SW8151A |
| Dicamba | ND | 140 | 140 | ug/Kg | 10 | 12/09/22 | JRB | SW8151A |
| Dichloroprop | ND | 280 | 280 | ug/Kg | 10 | 12/09/22 | JRB | SW8151A |
| Dinoseb | ND | 280 | 280 | ug/Kg | 10 | 12/09/22 | JRB | SW8151A |
| **QA/QC Surrogates** | | | | | | | | |
| % DCAA | 110 | | | % | 10 | 12/09/22 | JRB | 30 - 150 % |
| % DCAA (Confirmation) | 98 | | | % | 10 | 12/09/22 | JRB | 30 - 150 % |
| **Polychlorinated Biphenyls** | | | | | | | | |
| PCB-1016 | ND | 75 | 75 | ug/Kg | 2 | 12/02/22 | SC | SW8082A |
| PCB-1221 | ND | 75 | 75 | ug/Kg | 2 | 12/02/22 | SC | SW8082A |
| PCB-1232 | ND | 75 | 75 | ug/Kg | 2 | 12/02/22 | SC | SW8082A |
| PCB-1242 | ND | 75 | 75 | ug/Kg | 2 | 12/02/22 | SC | SW8082A |
| PCB-1248 | ND | 75 | 75 | ug/Kg | 2 | 12/02/22 | SC | SW8082A |
| PCB-1254 | ND | 75 | 75 | ug/Kg | 2 | 12/02/22 | SC | SW8082A |
| PCB-1260 | ND | 75 | 75 | ug/Kg | 2 | 12/02/22 | SC | SW8082A |
| PCB-1262 | ND | 75 | 75 | ug/Kg | 2 | 12/02/22 | SC | SW8082A |
| PCB-1268 | ND | 75 | 75 | ug/Kg | 2 | 12/02/22 | SC | SW8082A |
| **QA/QC Surrogates** | | | | | | | | |
| % DCBP | 79 | | | % | 2 | 12/02/22 | SC | 30 - 150 % |
| % DCBP (Confirmation) | 86 | | | % | 2 | 12/02/22 | SC | 30 - 150 % |
| % TCMX | 69 | | | % | 2 | 12/02/22 | SC | 30 - 150 % |
| % TCMX (Confirmation) | 68 | | | % | 2 | 12/02/22 | SC | 30 - 150 % |
| **Pesticides - Soil** | | | | | | | | |
| 4,4' -DDD | ND | 2.3 | 2.3 | ug/Kg | 2 | 12/03/22 | AW | SW8081B |
| 4,4' -DDE | ND | 2.3 | 2.3 | ug/Kg | 2 | 12/03/22 | AW | SW8081B |
| 4,4' -DDT | ND | 2.3 | 2.3 | ug/Kg | 2 | 12/03/22 | AW | SW8081B |
| a-BHC | ND | 7.5 | 7.5 | ug/Kg | 2 | 12/03/22 | AW | SW8081B |
| a-Chlordane | ND | 3.8 | 3.8 | ug/Kg | 2 | 12/03/22 | AW | SW8081B |
| Alachlor | ND | 3.8 | 3.8 | ug/Kg | 2 | 12/03/22 | AW | SW8081B |
| Aldrin | ND | 3.8 | 3.8 | ug/Kg | 2 | 12/03/22 | AW | SW8081B |
| b-BHC | ND | 7.5 | 7.5 | ug/Kg | 2 | 12/03/22 | AW | SW8081B |
| Chlordane | ND | 38 | 38 | ug/Kg | 2 | 12/03/22 | AW | SW8081B |
| d-BHC | ND | 7.5 | 7.5 | ug/Kg | 2 | 12/03/22 | AW | SW8081B |
| Dieldrin | ND | 3.8 | 3.8 | ug/Kg | 2 | 12/03/22 | AW | SW8081B |
| Endosulfan I | ND | 7.5 | 7.5 | ug/Kg | 2 | 12/03/22 | AW | SW8081B |
| Endosulfan II | ND | 7.5 | 7.5 | ug/Kg | 2 | 12/03/22 | AW | SW8081B |
| Endosulfan sulfate | ND | 7.5 | 7.5 | ug/Kg | 2 | 12/03/22 | AW | SW8081B |
| Endrin | ND | 7.5 | 7.5 | ug/Kg | 2 | 12/03/22 | AW | SW8081B |
| Endrin aldehyde | ND | 7.5 | 7.5 | ug/Kg | 2 | 12/03/22 | AW | SW8081B |
| Endrin ketone | ND | 7.5 | 7.5 | ug/Kg | 2 | 12/03/22 | AW | SW8081B |
| g-BHC | ND | 1.5 | 1.5 | ug/Kg | 2 | 12/03/22 | AW | SW8081B |
| g-Chlordane | ND | 3.8 | 3.8 | ug/Kg | 2 | 12/03/22 | AW | SW8081B |

Project ID: IPARK0118.62-LOT 10 BOUNDARY MODIFICAT. Phoenix I.D.: CM95274

Client ID: SB-5C (6-8`)

| Parameter | Result | RL/ PQL | LOD/ MDL | Units | Dilution | Date/Time | By | Reference | |
|---|---|---|---|---|---|---|---|---|---|
| Heptachlor | ND | 7.5 | 7.5 | ug/Kg | 2 | 12/03/22 | AW | SW8081B | |
| Heptachlor epoxide | ND | 7.5 | 7.5 | ug/Kg | 2 | 12/03/22 | AW | SW8081B | |
| Methoxychlor | ND | 38 | 38 | ug/Kg | 2 | 12/03/22 | AW | SW8081B | |
| Toxaphene | ND | 150 | 150 | ug/Kg | 2 | 12/03/22 | AW | SW8081B | |
| **QA/QC Surrogates** | | | | | | | | | |
| % DCBP | 78 | | | % | 2 | 12/03/22 | AW | 30 - 150 % | |
| % DCBP (Confirmation) | 56 | | | % | 2 | 12/03/22 | AW | 30 - 150 % | |
| % TCMX | 70 | | | % | 2 | 12/03/22 | AW | 30 - 150 % | |
| % TCMX (Confirmation) | 71 | | | % | 2 | 12/03/22 | AW | 30 - 150 % | |
| **Volatiles** | | | | | | | | | |
| 1,1,1,2-Tetrachloroethane | ND | 4.8 | 0.95 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,1,1-Trichloroethane | ND | 4.8 | 0.48 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,1,2,2-Tetrachloroethane | ND | 4.8 | 0.95 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,1,2-Trichloroethane | ND | 4.8 | 0.95 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,1-Dichloroethane | ND | 4.8 | 0.95 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,1-Dichloroethene | ND | 4.8 | 0.48 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,1-Dichloropropene | ND | 4.8 | 0.48 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,2,3-Trichlorobenzene | ND | 4.8 | 0.95 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,2,3-Trichloropropane | ND | 4.8 | 0.48 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,2,4-Trichlorobenzene | ND | 4.8 | 0.95 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,2,4-Trimethylbenzene | ND | 4.8 | 0.48 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,2-Dibromo-3-chloropropane | ND | 4.8 | 0.95 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,2-Dibromoethane | ND | 4.8 | 0.48 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,2-Dichlorobenzene | ND | 4.8 | 0.48 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,2-Dichloroethane | ND | 4.8 | 0.48 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,2-Dichloropropane | ND | 4.8 | 0.95 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,3,5-Trimethylbenzene | ND | 4.8 | 0.48 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,3-Dichlorobenzene | ND | 4.8 | 0.48 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,3-Dichloropropane | ND | 4.8 | 0.95 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,4-Dichlorobenzene | ND | 4.8 | 0.48 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 2,2-Dichloropropane | ND | 4.8 | 0.48 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 2-Chlorotoluene | ND | 4.8 | 0.95 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 2-Hexanone | ND | 24 | 4.8 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 2-Isopropyltoluene | ND | 4.8 | 0.48 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | 1 |
| 4-Chlorotoluene | ND | 4.8 | 0.48 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 4-Methyl-2-pentanone | ND | 24 | 4.8 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Acetone | ND | 24 | 4.8 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Acrylonitrile | ND | 9.5 | 0.95 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Benzene | ND | 4.8 | 0.48 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Bromobenzene | ND | 4.8 | 0.48 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Bromochloromethane | ND | 4.8 | 0.48 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Bromodichloromethane | ND | 4.8 | 0.95 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Bromoform | ND | 4.8 | 0.95 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Bromomethane | ND | 4.8 | 1.9 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Carbon Disulfide | ND | 4.8 | 0.95 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Carbon tetrachloride | ND | 4.8 | 0.95 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Chlorobenzene | ND | 4.8 | 0.48 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Chloroethane | ND | 4.8 | 0.48 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Chloroform | ND | 4.8 | 0.48 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |

Project ID: IPARK0118.62-LOT 10 BOUNDARY MODIFICAT. Phoenix I.D.: CM95274

Client ID: SB-5C (6-8`)

| Parameter | Result | | RL/ PQL | LOD/ MDL | Units | Dilution | Date/Time | By | Reference | |
|---|---|---|---|---|---|---|---|---|---|---|
| Chloromethane | ND | | 4.8 | 0.95 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| cis-1,2-Dichloroethene | ND | | 4.8 | 0.48 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| cis-1,3-Dichloropropene | ND | | 4.8 | 0.48 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Dibromochloromethane | ND | | 4.8 | 0.95 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Dibromomethane | ND | | 4.8 | 0.95 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Dichlorodifluoromethane | ND | | 4.8 | 0.48 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Ethylbenzene | ND | | 4.8 | 0.48 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Hexachlorobutadiene | ND | | 4.8 | 0.48 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Isopropylbenzene | ND | | 4.8 | 0.48 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| m&p-Xylene | ND | | 4.8 | 0.95 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Methyl Ethyl Ketone | ND | | 29 | 4.8 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Methyl t-butyl ether (MTBE) | ND | | 9.5 | 0.95 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Methylene chloride | ND | | 4.8 | 4.8 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Naphthalene | ND | | 4.8 | 0.95 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| n-Butylbenzene | ND | | 4.8 | 0.48 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| n-Propylbenzene | ND | | 4.8 | 0.95 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| o-Xylene | ND | | 4.8 | 0.95 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| p-Isopropyltoluene | ND | | 4.8 | 0.48 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| sec-Butylbenzene | ND | | 4.8 | 0.48 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Styrene | ND | | 4.8 | 0.48 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| tert-Butylbenzene | ND | | 4.8 | 0.48 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Tetrachloroethene | ND | | 4.8 | 0.95 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Tetrahydrofuran (THF) | 7.8 | J | 9.5 | 2.4 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Toluene | 0.98 | J | 4.8 | 0.48 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| trans-1,2-Dichloroethene | ND | | 4.8 | 0.48 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| trans-1,3-Dichloropropene | ND | | 4.8 | 0.48 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| trans-1,4-dichloro-2-butene | ND | | 9.5 | 2.4 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Trichloroethene | ND | | 4.8 | 0.48 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Trichlorofluoromethane | ND | | 4.8 | 0.95 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Trichlorotrifluoroethane | ND | | 4.8 | 0.48 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Vinyl chloride | ND | | 4.8 | 0.48 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| **QA/QC Surrogates** | | | | | | | | | | |
| % 1,2-dichlorobenzene-d4 | 96 | | | | % | 1 | 12/06/22 | JLI | 70 - 130 % | |
| % Bromofluorobenzene | 99 | | | | % | 1 | 12/06/22 | JLI | 70 - 130 % | |
| % Dibromofluoromethane | 103 | | | | % | 1 | 12/06/22 | JLI | 70 - 130 % | |
| % Toluene-d8 | 94 | | | | % | 1 | 12/06/22 | JLI | 70 - 130 % | |
| **Semivolatiles** | | | | | | | | | | |
| 1,2,4,5-Tetrachlorobenzene | ND | | 260 | 130 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 1,2,4-Trichlorobenzene | ND | | 260 | 110 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 1,2-Dichlorobenzene | ND | | 260 | 100 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 1,2-Diphenylhydrazine | ND | | 260 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 1,3-Dichlorobenzene | ND | | 260 | 110 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 1,4-Dichlorobenzene | ND | | 260 | 110 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2,2'-Oxybis(1-Chloropropane) | ND | | 260 | 100 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | 1 |
| 2,4,5-Trichlorophenol | ND | | 260 | 200 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2,4,6-Trichlorophenol | ND | | 190 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2,4-Dichlorophenol | ND | | 190 | 130 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2,4-Dimethylphenol | ND | | 260 | 92 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2,4-Dinitrophenol | ND | | 260 | 260 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |

Project ID: IPARK0118.62-LOT 10 BOUNDARY MODIFICAT. Phoenix I.D.: CM95274

Client ID: SB-5C (6-8`)

| Parameter | Result | RL/ PQL | LOD/ MDL | Units | Dilution | Date/Time | By | Reference | |
|---|---|---|---|---|---|---|---|---|---|
| 2,4-Dinitrotoluene | ND | 190 | 150 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2,6-Dinitrotoluene | ND | 190 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2-Chloronaphthalene | ND | 260 | 110 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2-Chlorophenol | ND | 260 | 110 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2-Methylnaphthalene | ND | 260 | 110 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2-Methylphenol (o-cresol) | ND | 260 | 170 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2-Nitroaniline | ND | 260 | 260 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2-Nitrophenol | ND | 260 | 240 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 3&4-Methylphenol (m&p-cresol) | ND | 260 | 150 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | 1 |
| 3,3'-Dichlorobenzidine | ND | 190 | 180 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 3-Nitroaniline | ND | 370 | 740 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 4,6-Dinitro-2-methylphenol | ND | 220 | 74 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 4-Bromophenyl phenyl ether | ND | 260 | 110 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 4-Chloro-3-methylphenol | ND | 260 | 130 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 4-Chloroaniline | ND | 300 | 170 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 4-Chlorophenyl phenyl ether | ND | 260 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 4-Nitroaniline | ND | 370 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 4-Nitrophenol | ND | 370 | 170 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Acenaphthene | ND | 260 | 110 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Acenaphthylene | ND | 260 | 100 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Acetophenone | ND | 260 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Aniline | ND | 300 | 300 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Anthracene | ND | 260 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Benz(a)anthracene | ND | 260 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Benzidine | ND | 370 | 220 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Benzo(a)pyrene | ND | 190 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Benzo(b)fluoranthene | ND | 260 | 130 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Benzo(ghi)perylene | ND | 260 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Benzo(k)fluoranthene | ND | 260 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Benzoic acid | ND | 1900 | 740 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Benzyl butyl phthalate | ND | 260 | 96 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Bis(2-chloroethoxy)methane | ND | 260 | 100 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Bis(2-chloroethyl)ether | ND | 190 | 100 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Bis(2-ethylhexyl)phthalate | ND | 260 | 110 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Carbazole | ND | 190 | 150 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Chrysene | ND | 260 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Dibenz(a,h)anthracene | ND | 190 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Dibenzofuran | ND | 260 | 110 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Diethyl phthalate | ND | 260 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Dimethylphthalate | ND | 260 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Di-n-butylphthalate | ND | 260 | 99 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Di-n-octylphthalate | ND | 260 | 96 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Fluoranthene | ND | 260 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Fluorene | ND | 260 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Hexachlorobenzene | ND | 190 | 110 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Hexachlorobutadiene | ND | 260 | 130 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Hexachlorocyclopentadiene | ND | 260 | 110 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Hexachloroethane | ND | 190 | 110 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Indeno(1,2,3-cd)pyrene | ND | 260 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |

Project ID: IPARK0118.62-LOT 10 BOUNDARY MODIFICAT. Phoenix I.D.: CM95274
Client ID: SB-5C (6-8`)

| Parameter | Result | RL/ PQL | LOD/ MDL | Units | Dilution | Date/Time | By | Reference |
|---|---|---|---|---|---|---|---|---|
| Isophorone | ND | 190 | 100 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Naphthalene | ND | 260 | 110 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Nitrobenzene | ND | 190 | 130 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| N-Nitrosodimethylamine | ND | 260 | 100 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| N-Nitrosodi-n-propylamine | ND | 190 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| N-Nitrosodiphenylamine | ND | 260 | 140 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Pentachloronitrobenzene | ND | 260 | 140 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Pentachlorophenol | ND | 220 | 140 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Phenanthrene | ND | 260 | 110 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Phenol | ND | 260 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Pyrene | ND | 260 | 130 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Pyridine | ND | 260 | 91 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| **QA/QC Surrogates** | | | | | | | | |
| % 2,4,6-Tribromophenol | 85 | | | % | 1 | 12/04/22 | WB | 30 - 130 % |
| % 2-Fluorobiphenyl | 79 | | | % | 1 | 12/04/22 | WB | 30 - 130 % |
| % 2-Fluorophenol | 73 | | | % | 1 | 12/04/22 | WB | 30 - 130 % |
| % Nitrobenzene-d5 | 84 | | | % | 1 | 12/04/22 | WB | 30 - 130 % |
| % Phenol-d5 | 90 | | | % | 1 | 12/04/22 | WB | 30 - 130 % |
| % Terphenyl-d14 | 86 | | | % | 1 | 12/04/22 | WB | 30 - 130 % |
| **1,4-Dioxane** | | | | | | | | |
| 1,4-dioxane | ND | 75 | 75 | ug/Kg | 1 | 12/05/22 | WB | SW8270D (SIM) |
| **QA/QC Surrogates** | | | | | | | | |
| % 2-Fluorobiphenyl | 54 | | | % | 1 | 12/05/22 | WB | 30 - 130 % |
| % Nitrobenzene-d5 | 75 | | | % | 1 | 12/05/22 | WB | 30 - 130 % |
| % Terphenyl-d14 | 104 | | | % | 1 | 12/05/22 | WB | 30 - 130 % |

| Parameter | Result | RL/ PQL | LOD/ MDL | Units | Dilution | Date/Time | By | Reference |
|---|---|---|---|---|---|---|---|---|

1 = This parameter is not certified by the primary accrediting authority (NY NELAC) for this matrix. NY NELAC does not offer certification for all parameters at this time.
C = This parameter is subcontracted.

RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected BRL=Below Reporting Level L=Biased Low J=Estimated Below RL LOD=Limit of Detection MDL=Method Detection Limit1
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

## Comments:

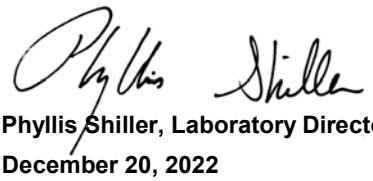
*See attached

Per 1.4.6 of EPA method 8270D, 1,2-Diphenylhydrazine is unstable and readily converts to Azobenzene. Azobenzene is used for the calibration of 1,2-Diphenylhydrazine.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

PFAS (21) (EPA 537m), PFOA/PFOS - Soil Extraction (EPA 537m) were analyzed by NY certified lab #12058.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200.
The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.



**Phyllis Shiller, Laboratory Director**
**December 20, 2022**
**Reviewed and Released by: Phyllis Shiller, Laboratory Director**

PHOENIX
Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

# Analysis Report

December 20, 2022

FOR: Attn: Nora Brew
Walden Environmental Engineering PLLC
16 Spring Street
Oyster Bay, NY 11771

| Sample Information | | Custody Information | | Date | Time |
|---|---|---|---|---|---|
| Matrix: | SOIL | Collected by: | | 11/29/22 | 13:45 |
| Location Code: | WALDENE-IPARK | Received by: | CP | 12/01/22 | 17:12 |
| Rush Request: | Standard | Analyzed by: | see "By" below | | |
| P.O.#: | | | | | |

## Laboratory Data

SDG ID: GCM95248
Phoenix ID: CM95275

Project ID: IPARK0118.62-LOT 10 BOUNDARY MODIFICAT.
Client ID: SB-4A (0-1`)

| Parameter | Result | RL/ PQL | LOD/ MDL | Units | Dilution | Date/Time | By | Reference |
|---|---|---|---|---|---|---|---|---|
| Aluminum | 11900 | 33 | 6.6 | mg/Kg | 10 | 12/03/22 | CPP | SW6010D |
| Antimony | ND | 3.3 | 3.3 | mg/Kg | 1 | 12/03/22 | CPP | SW6010D |
| Arsenic | 3.74 | 0.66 | 0.66 | mg/Kg | 1 | 12/03/22 | CPP | SW6010D |
| Barium | 30.6 | 0.7 | 0.33 | mg/Kg | 1 | 12/03/22 | TH | SW6010D |
| Beryllium | 0.29 | 0.26 | 0.13 | mg/Kg | 1 | 12/03/22 | CPP | SW6010D |
| Calcium | 605 | 3.3 | 3.0 | mg/Kg | 1 | 12/03/22 | CPP | SW6010D |
| Cadmium | 1.56 | 0.33 | 0.33 | mg/Kg | 1 | 12/03/22 | CPP | SW6010D |
| Chromium | 11.0 | 0.33 | 0.33 | mg/Kg | 1 | 12/03/22 | CPP | SW6010D |
| Cobalt | 9.05 | 0.33 | 0.33 | mg/Kg | 1 | 12/03/22 | CPP | SW6010D |
| Copper | 24.7 | 0.7 | 0.33 | mg/kg | 1 | 12/03/22 | CPP | SW6010D |
| Iron | 24700 | 33 | 33 | mg/Kg | 10 | 12/03/22 | CPP | SW6010D |
| Lead | 15.2 | 0.7 | 0.33 | mg/Kg | 1 | 12/03/22 | CPP | SW6010D |
| Magnesium | 5590 | 33 | 33 | mg/Kg | 10 | 12/03/22 | CPP | SW6010D |
| Manganese | 1030 | 3.3 | 3.3 | mg/Kg | 10 | 12/03/22 | TH | SW6010D |
| Mercury | ND | 0.03 | 0.02 | mg/Kg | 2 | 12/05/22 | PM | SW7471B |
| Nickel | 20.6 | 0.33 | 0.33 | mg/Kg | 1 | 12/03/22 | CPP | SW6010D |
| Potassium | 738 | 7 | 2.6 | mg/Kg | 1 | 12/03/22 | CPP | SW6010D |
| Selenium | ND | 1.3 | 1.1 | mg/Kg | 1 | 12/03/22 | CPP | SW6010D |
| Silver | ND | 0.33 | 0.33 | mg/Kg | 1 | 12/03/22 | CPP | SW6010D |
| Sodium | 372 | 7 | 2.8 | mg/Kg | 1 | 12/03/22 | CPP | SW6010D |
| Thallium | ND | 1.3 | 1.3 | mg/Kg | 1 | 12/03/22 | CPP | SW6010D |
| Vanadium | 11.3 | 0.33 | 0.33 | mg/Kg | 1 | 12/03/22 | CPP | SW6010D |
| Zinc | 61.6 | 0.7 | 0.33 | mg/Kg | 1 | 12/03/22 | CPP | SW6010D |
| Percent Solid | 94 | | | % | | 12/01/22 | Q | SW846-%Solid |
| Extraction for SVOA SIM | Completed | | | | | 12/05/22 | B/MO | SW3545A |
| Soil Extraction for PCB | Completed | | | | | 12/02/22 | O/MO | SW3545A |
| Soil Extraction for Pesticide | Completed | | | | | 12/02/22 | O/MO | SW3545A |

**Ver 1**

Project ID: IPARK0118.62-LOT 10 BOUNDARY MODIFICAT. Phoenix I.D.: CM95275
Client ID: SB-4A (0-1`)

| Parameter | Result | RL/ PQL | LOD/ MDL | Units | Dilution | Date/Time | By | Reference | |
|---|---|---|---|---|---|---|---|---|---|
| Mercury Digestion | Completed | | | | | 12/02/22 | AB/AB | SW7471B | |
| Soil Extraction for Herbicide | Completed | | | | | 12/07/22 | J/D | SW3546 | |
| Soil Extraction for SVOA | Completed | | | | | 12/03/22 | Y/L | SW3546 | |
| Total Metals Digest | Completed | | | | | 12/01/22 | | SW3050B | |
| PFAS (21) | Completed | | | | | 12/08/22 | *** | EPA 537m | C |
| **PFAS (21)** | | | | | | | | | |
| 1H,1H,2H,2H-Perfluorodecanesulfonic acid | ND | 0.246 | 0.0252 | ng/g | 1 | 12/13/22 | *** | EPA 537m | C |
| 1H,1H,2H,2H-Perfluorooctanesulfonic acid | ND | 0.246 | 0.0650 | ng/g | 1 | 12/13/22 | *** | EPA 537m | C |
| NEtFOSAA | ND | 0.246 | 0.103 | ng/g | 1 | 12/13/22 | *** | EPA 537m | C |
| NMeFOSAA | ND | 0.246 | 0.103 | ng/g | 1 | 12/13/22 | *** | EPA 537m | C |
| Perfluoro-1-decanesulfonic acid (PFDS) | ND | 0.246 | 0.0504 | ng/g | 1 | 12/13/22 | *** | EPA 537m | C |
| Perfluoro-1-heptanesulfonic acid (PFHpS) | ND | 0.246 | 0.0486 | ng/g | 1 | 12/13/22 | *** | EPA 537m | C |
| Perfluoro-1-octanesulfonamide (FOSA) | ND | 0.246 | 0.0460 | ng/g | 1 | 12/13/22 | *** | EPA 537m | C |
| Perfluorobutanesulfonic acid (PFBS) | ND | 0.246 | 0.197 | ng/g | 1 | 12/13/22 | *** | EPA 537m | C |
| Perfluorodecanoic acid (PFDA) | ND | 0.246 | 0.0504 | ng/g | 1 | 12/13/22 | *** | EPA 537m | C |
| Perfluorododecanoic acid (PFDoA) | ND | 0.246 | 0.0739 | ng/g | 1 | 12/13/22 | *** | EPA 537m | C |
| Perfluoroheptanoic acid (PFHpA) | ND | 0.246 | 0.0448 | ng/g | 1 | 12/13/22 | *** | EPA 537m | C |
| Perfluorohexanesulfonic Acid (PFHxS) | ND | 0.246 | 0.0305 | ng/g | 1 | 12/13/22 | *** | EPA 537m | C |
| Perfluorohexanoic acid (PFHxA) | ND | 0.246 | 0.0649 | ng/g | 1 | 12/13/22 | *** | EPA 537m | C |
| Perfluoro-n-butanoic acid (PFBA) | ND | 0.246 | 0.180 | ng/g | 1 | 12/13/22 | *** | EPA 537m | C |
| Perfluorononanoic acid (PFNA) | ND | 0.246 | 0.0589 | ng/g | 1 | 12/13/22 | *** | EPA 537m | C |
| Perfluorooctanesulfonic Acid (PFOS) | ND | 0.246 | 0.0431 | ng/g | 1 | 12/13/22 | *** | EPA 537m | C |
| Perfluorooctanoic acid (PFOA) | ND | 0.246 | 0.0761 | ng/g | 1 | 12/13/22 | *** | EPA 537m | C |
| Perfluoropentanoic acid (PFPeA) | ND | 0.246 | 0.0905 | ng/g | 1 | 12/13/22 | *** | EPA 537m | C |
| Perfluorotetradecanoic acid (PFTA) | ND | 0.246 | 0.0736 | ng/g | 1 | 12/13/22 | *** | EPA 537m | C |
| Perfluorotridecanoic acid (PFTrDA) | ND | 0.246 | 0.0429 | ng/g | 1 | 12/13/22 | *** | EPA 537m | C |
| Perfluoroundecanoic acid (PFUnA) | ND | 0.246 | 0.115 | ng/g | 1 | 12/13/22 | *** | EPA 537m | C |
| **QA/QC Surrogates** | | | | | | | | | |
| % d3-N-MeFOSAA | 51.3 | | | % | 1 | 12/13/22 | *** | 25 - 150 % | C |
| % d5-NEtFOSA | 55.6 | | | % | 1 | 12/13/22 | *** | 25 - 150 % | C |
| % M2-6:2FTS | 99.8 | | | % | 1 | 12/13/22 | *** | 25 - 200 % | C |
| % M2-8:2FTS | 87.9 | | | % | 1 | 12/13/22 | *** | 25 - 200 % | C |
| % M2PFTeDA | 40.3 | | | % | 1 | 12/13/22 | *** | 10 - 150 % | C |
| % M3PFBS | 88.2 | | | % | 1 | 12/13/22 | *** | 25 - 150 % | C |
| % M3PFHxS | 101 | | | % | 1 | 12/13/22 | *** | 25 - 150 % | C |
| % M4PFHpA | 93.6 | | | % | 1 | 12/13/22 | *** | 25 - 150 % | C |
| % M5PFHxA | 96.5 | | | % | 1 | 12/13/22 | *** | 25 - 150 % | C |
| % M5PFPeA | 103 | | | % | 1 | 12/13/22 | *** | 25 - 150 % | C |
| % M6PFDA | 71.2 | | | % | 1 | 12/13/22 | *** | 25 - 150 % | C |
| % M7PFUdA | 56.0 | | | % | 1 | 12/13/22 | *** | 25 - 150 % | C |
| % M8FOSA | 47.9 | | | % | 1 | 12/13/22 | *** | 10 - 150 % | C |
| % M8PFOA | 87.5 | | | % | 1 | 12/13/22 | *** | 25 - 150 % | C |
| % M8PFOS | 80.0 | | | % | 1 | 12/13/22 | *** | 25 - 150 % | C |
| % M9PFNA | 82.0 | | | % | 1 | 12/13/22 | *** | 25 - 150 % | C |
| % MPFBA | 88.7 | | | % | 1 | 12/13/22 | *** | 25 - 150 % | C |
| % MPFDoA | 49.6 | | | % | 1 | 12/13/22 | *** | 25 - 150 % | C |
| **Chlorinated Herbicides** | | | | | | | | | |
| 2,4,5-T | ND | 130 | 130 | ug/Kg | 10 | 12/09/22 | JRB | SW8151A | |

**Ver 1**

Project ID: IPARK0118.62-LOT 10 BOUNDARY MODIFICAT. Phoenix I.D.: CM95275
Client ID: SB-4A (0-1`)

| Parameter | Result | RL/ PQL | LOD/ MDL | Units | Dilution | Date/Time | By | Reference |
|---|---|---|---|---|---|---|---|---|
| 2,4,5-TP (Silvex) | ND | 130 | 130 | ug/Kg | 10 | 12/09/22 | JRB | SW8151A |
| 2,4-D | ND | 270 | 270 | ug/Kg | 10 | 12/09/22 | JRB | SW8151A |
| 2,4-DB | ND | 2700 | 2700 | ug/Kg | 10 | 12/09/22 | JRB | SW8151A |
| Dalapon | ND | 130 | 130 | ug/Kg | 10 | 12/09/22 | JRB | SW8151A |
| Dicamba | ND | 130 | 130 | ug/Kg | 10 | 12/09/22 | JRB | SW8151A |
| Dichloroprop | ND | 270 | 270 | ug/Kg | 10 | 12/09/22 | JRB | SW8151A |
| Dinoseb | ND | 270 | 270 | ug/Kg | 10 | 12/09/22 | JRB | SW8151A |
| **QA/QC Surrogates** | | | | | | | | |
| % DCAA | 130 | | | % | 10 | 12/09/22 | JRB | 30 - 150 % |
| % DCAA (Confirmation) | 110 | | | % | 10 | 12/09/22 | JRB | 30 - 150 % |
| **Polychlorinated Biphenyls** | | | | | | | | |
| PCB-1016 | ND | 69 | 69 | ug/Kg | 2 | 12/05/22 | SC | SW8082A |
| PCB-1221 | ND | 69 | 69 | ug/Kg | 2 | 12/05/22 | SC | SW8082A |
| PCB-1232 | ND | 69 | 69 | ug/Kg | 2 | 12/05/22 | SC | SW8082A |
| PCB-1242 | ND | 69 | 69 | ug/Kg | 2 | 12/05/22 | SC | SW8082A |
| PCB-1248 | ND | 69 | 69 | ug/Kg | 2 | 12/05/22 | SC | SW8082A |
| PCB-1254 | ND | 69 | 69 | ug/Kg | 2 | 12/05/22 | SC | SW8082A |
| PCB-1260 | ND | 69 | 69 | ug/Kg | 2 | 12/05/22 | SC | SW8082A |
| PCB-1262 | ND | 69 | 69 | ug/Kg | 2 | 12/05/22 | SC | SW8082A |
| PCB-1268 | ND | 69 | 69 | ug/Kg | 2 | 12/05/22 | SC | SW8082A |
| **QA/QC Surrogates** | | | | | | | | |
| % DCBP | 66 | | | % | 2 | 12/05/22 | SC | 30 - 150 % |
| % DCBP (Confirmation) | 74 | | | % | 2 | 12/05/22 | SC | 30 - 150 % |
| % TCMX | 70 | | | % | 2 | 12/05/22 | SC | 30 - 150 % |
| % TCMX (Confirmation) | 68 | | | % | 2 | 12/05/22 | SC | 30 - 150 % |
| **Pesticides - Soil** | | | | | | | | |
| 4,4' -DDD | ND | 2.1 | 2.1 | ug/Kg | 2 | 12/05/22 | AW | SW8081B |
| 4,4' -DDE | ND | 2.1 | 2.1 | ug/Kg | 2 | 12/05/22 | AW | SW8081B |
| 4,4' -DDT | ND | 2.1 | 2.1 | ug/Kg | 2 | 12/05/22 | AW | SW8081B |
| a-BHC | ND | 6.9 | 6.9 | ug/Kg | 2 | 12/05/22 | AW | SW8081B |
| a-Chlordane | ND | 3.4 | 3.4 | ug/Kg | 2 | 12/05/22 | AW | SW8081B |
| Alachlor | ND | 3.4 | 3.4 | ug/Kg | 2 | 12/05/22 | AW | SW8081B |
| Aldrin | ND | 3.4 | 3.4 | ug/Kg | 2 | 12/05/22 | AW | SW8081B |
| b-BHC | ND | 6.9 | 6.9 | ug/Kg | 2 | 12/05/22 | AW | SW8081B |
| Chlordane | ND | 34 | 34 | ug/Kg | 2 | 12/05/22 | AW | SW8081B |
| d-BHC | ND | 6.9 | 6.9 | ug/Kg | 2 | 12/05/22 | AW | SW8081B |
| Dieldrin | ND | 3.4 | 3.4 | ug/Kg | 2 | 12/05/22 | AW | SW8081B |
| Endosulfan I | ND | 6.9 | 6.9 | ug/Kg | 2 | 12/05/22 | AW | SW8081B |
| Endosulfan II | ND | 6.9 | 6.9 | ug/Kg | 2 | 12/05/22 | AW | SW8081B |
| Endosulfan sulfate | ND | 6.9 | 6.9 | ug/Kg | 2 | 12/05/22 | AW | SW8081B |
| Endrin | ND | 6.9 | 6.9 | ug/Kg | 2 | 12/05/22 | AW | SW8081B |
| Endrin aldehyde | ND | 6.9 | 6.9 | ug/Kg | 2 | 12/05/22 | AW | SW8081B |
| Endrin ketone | ND | 6.9 | 6.9 | ug/Kg | 2 | 12/05/22 | AW | SW8081B |
| g-BHC | ND | 1.4 | 1.4 | ug/Kg | 2 | 12/05/22 | AW | SW8081B |
| g-Chlordane | ND | 3.4 | 3.4 | ug/Kg | 2 | 12/05/22 | AW | SW8081B |
| Heptachlor | ND | 6.9 | 6.9 | ug/Kg | 2 | 12/05/22 | AW | SW8081B |
| Heptachlor epoxide | ND | 6.9 | 6.9 | ug/Kg | 2 | 12/05/22 | AW | SW8081B |
| Methoxychlor | ND | 34 | 34 | ug/Kg | 2 | 12/05/22 | AW | SW8081B |

Project ID: IPARK0118.62-LOT 10 BOUNDARY MODIFICAT. Phoenix I.D.: CM95275
Client ID: SB-4A (0-1`)

| Parameter | Result | RL/ PQL | LOD/ MDL | Units | Dilution | Date/Time | By | Reference | |
|---|---|---|---|---|---|---|---|---|---|
| Toxaphene | ND | 140 | 140 | ug/Kg | 2 | 12/05/22 | AW | SW8081B | |
| **QA/QC Surrogates** | | | | | | | | | |
| % DCBP | 76 | | | % | 2 | 12/05/22 | AW | 30 - 150 % | |
| % DCBP (Confirmation) | 83 | | | % | 2 | 12/05/22 | AW | 30 - 150 % | |
| % TCMX | 70 | | | % | 2 | 12/05/22 | AW | 30 - 150 % | |
| % TCMX (Confirmation) | 74 | | | % | 2 | 12/05/22 | AW | 30 - 150 % | |
| **Semivolatiles** | | | | | | | | | |
| 1,2,4,5-Tetrachlorobenzene | ND | 240 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 1,2,4-Trichlorobenzene | ND | 240 | 100 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 1,2-Dichlorobenzene | ND | 240 | 98 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 1,2-Diphenylhydrazine | ND | 240 | 110 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 1,3-Dichlorobenzene | ND | 240 | 100 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 1,4-Dichlorobenzene | ND | 240 | 100 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2,2'-Oxybis(1-Chloropropane) | ND | 240 | 97 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | 1 |
| 2,4,5-Trichlorophenol | ND | 240 | 190 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2,4,6-Trichlorophenol | ND | 170 | 110 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2,4-Dichlorophenol | ND | 170 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2,4-Dimethylphenol | ND | 240 | 86 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2,4-Dinitrophenol | ND | 240 | 240 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2,4-Dinitrotoluene | ND | 170 | 140 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2,6-Dinitrotoluene | ND | 170 | 110 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2-Chloronaphthalene | ND | 240 | 99 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2-Chlorophenol | ND | 240 | 99 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2-Methylnaphthalene | ND | 240 | 100 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2-Methylphenol (o-cresol) | ND | 240 | 160 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2-Nitroaniline | ND | 240 | 240 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2-Nitrophenol | ND | 240 | 220 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 3&4-Methylphenol (m&p-cresol) | ND | 240 | 140 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | 1 |
| 3,3'-Dichlorobenzidine | ND | 170 | 160 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 3-Nitroaniline | ND | 350 | 690 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 4,6-Dinitro-2-methylphenol | ND | 210 | 69 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 4-Bromophenyl phenyl ether | ND | 240 | 100 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 4-Chloro-3-methylphenol | ND | 240 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 4-Chloroaniline | ND | 280 | 160 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 4-Chlorophenyl phenyl ether | ND | 240 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 4-Nitroaniline | ND | 350 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 4-Nitrophenol | ND | 350 | 160 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Acenaphthene | ND | 240 | 110 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Acenaphthylene | ND | 240 | 97 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Acetophenone | ND | 240 | 110 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Aniline | ND | 280 | 280 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Anthracene | ND | 240 | 110 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Benz(a)anthracene | ND | 240 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Benzidine | ND | 350 | 200 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Benzo(a)pyrene | ND | 170 | 110 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Benzo(b)fluoranthene | ND | 240 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Benzo(ghi)perylene | ND | 240 | 110 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Benzo(k)fluoranthene | ND | 240 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Benzoic acid | ND | 1700 | 690 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |

| Parameter | Result | RL/ PQL | LOD/ MDL | Units | Dilution | Date/Time | By | Reference |
|---|---|---|---|---|---|---|---|---|
| Benzyl butyl phthalate | ND | 240 | 90 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Bis(2-chloroethoxy)methane | ND | 240 | 96 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Bis(2-chloroethyl)ether | ND | 170 | 94 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Bis(2-ethylhexyl)phthalate | ND | 240 | 100 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Carbazole | ND | 170 | 140 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Chrysene | ND | 240 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Dibenz(a,h)anthracene | ND | 170 | 110 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Dibenzofuran | ND | 240 | 100 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Diethyl phthalate | ND | 240 | 110 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Dimethylphthalate | ND | 240 | 110 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Di-n-butylphthalate | ND | 240 | 92 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Di-n-octylphthalate | ND | 240 | 90 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Fluoranthene | ND | 240 | 110 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Fluorene | ND | 240 | 110 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Hexachlorobenzene | ND | 170 | 100 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Hexachlorobutadiene | ND | 240 | 130 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Hexachlorocyclopentadiene | ND | 240 | 110 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Hexachloroethane | ND | 170 | 100 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Indeno(1,2,3-cd)pyrene | ND | 240 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Isophorone | ND | 170 | 97 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Naphthalene | ND | 240 | 100 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Nitrobenzene | ND | 170 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| N-Nitrosodimethylamine | ND | 240 | 98 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| N-Nitrosodi-n-propylamine | ND | 170 | 110 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| N-Nitrosodiphenylamine | ND | 240 | 130 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Pentachloronitrobenzene | ND | 240 | 130 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Pentachlorophenol | ND | 210 | 130 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Phenanthrene | ND | 240 | 99 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Phenol | ND | 240 | 110 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Pyrene | ND | 240 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Pyridine | ND | 240 | 85 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| **QA/QC Surrogates** | | | | | | | | |
| % 2,4,6-Tribromophenol | 92 | | | % | 1 | 12/04/22 | WB | 30 - 130 % |
| % 2-Fluorobiphenyl | 75 | | | % | 1 | 12/04/22 | WB | 30 - 130 % |
| % 2-Fluorophenol | 72 | | | % | 1 | 12/04/22 | WB | 30 - 130 % |
| % Nitrobenzene-d5 | 81 | | | % | 1 | 12/04/22 | WB | 30 - 130 % |
| % Phenol-d5 | 88 | | | % | 1 | 12/04/22 | WB | 30 - 130 % |
| % Terphenyl-d14 | 84 | | | % | 1 | 12/04/22 | WB | 30 - 130 % |
| **1,4-Dioxane** | | | | | | | | |
| 1,4-dioxane | ND | 71 | 71 | ug/Kg | 1 | 12/06/22 | WB | SW8270D (SIM) |
| **QA/QC Surrogates** | | | | | | | | |
| % 2-Fluorobiphenyl | 64 | | | % | 1 | 12/06/22 | WB | 30 - 130 % |
| % Nitrobenzene-d5 | 91 | | | % | 1 | 12/06/22 | WB | 30 - 130 % |
| % Terphenyl-d14 | 97 | | | % | 1 | 12/06/22 | WB | 30 - 130 % |

Project ID: IPARK0118.62-LOT 10 BOUNDARY MODIFICAT. Phoenix I.D.: CM95275
Client ID: SB-4A (0-1`)

| Parameter | Result | RL/ PQL | LOD/ MDL | Units | Dilution | Date/Time | By | Reference |
|---|---|---|---|---|---|---|---|---|

1 = This parameter is not certified by the primary accrediting authority (NY NELAC) for this matrix. NY NELAC does not offer certification for all parameters at this time.
C = This parameter is subcontracted.

RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected BRL=Below Reporting Level L=Biased Low LOD=Limit of Detection MDL=Method Detection Limit1
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

## Comments:

*See attached

Per 1.4.6 of EPA method 8270D, 1,2-Diphenylhydrazine is unstable and readily converts to Azobenzene. Azobenzene is used for the calibration of 1,2-Diphenylhydrazine.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

PFAS (21) (EPA 537m), PFOA/PFOS - Soil Extraction (EPA 537m) were analyzed by NY certified lab #12058.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200.
The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.

**Phyllis Shiller, Laboratory Director**
**December 20, 2022**
**Reviewed and Released by: Phyllis Shiller, Laboratory Director**

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

# Analysis Report

December 20, 2022

FOR: Attn: Nora Brew
Walden Environmental Engineering PLLC
16 Spring Street
Oyster Bay, NY 11771

| Sample Information | | Custody Information | | Date | Time |
|---|---|---|---|---|---|
| Matrix: | SOIL | Collected by: | | 11/29/22 | 13:45 |
| Location Code: | WALDENE-IPARK | Received by: | CP | 12/01/22 | 17:12 |
| Rush Request: | Standard | Analyzed by: | see "By" below | | |
| P.O.#: | | | | | |

## Laboratory Data

SDG ID: GCM95248
Phoenix ID: CM95276

Project ID: IPARK0118.62-LOT 10 BOUNDARY MODIFICAT.
Client ID: SB-4B (1-2`)

| Parameter | Result | RL/ PQL | LOD/ MDL | Units | Dilution | Date/Time | By | Reference | |
|---|---|---|---|---|---|---|---|---|---|
| Percent Solid | 75 | | | % | | 12/01/22 | Q | SW846-%Solid | |
| Field Extraction | Completed | | | | | 11/29/22 | | SW5035A | 1 |
| **Volatiles** | | | | | | | | | |
| 1,1,1,2-Tetrachloroethane | ND | 5.1 | 1.0 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,1,1-Trichloroethane | ND | 5.1 | 0.51 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,1,2,2-Tetrachloroethane | ND | 5.1 | 1.0 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,1,2-Trichloroethane | ND | 5.1 | 1.0 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,1-Dichloroethane | ND | 5.1 | 1.0 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,1-Dichloroethene | ND | 5.1 | 0.51 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,1-Dichloropropene | ND | 5.1 | 0.51 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,2,3-Trichlorobenzene | ND | 5.1 | 1.0 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,2,3-Trichloropropane | ND | 5.1 | 0.51 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,2,4-Trichlorobenzene | ND | 5.1 | 1.0 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,2,4-Trimethylbenzene | ND | 5.1 | 0.51 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,2-Dibromo-3-chloropropane | ND | 5.1 | 1.0 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,2-Dibromoethane | ND | 5.1 | 0.51 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,2-Dichlorobenzene | ND | 5.1 | 0.51 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,2-Dichloroethane | ND | 5.1 | 0.51 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,2-Dichloropropane | ND | 5.1 | 1.0 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,3,5-Trimethylbenzene | ND | 5.1 | 0.51 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,3-Dichlorobenzene | ND | 5.1 | 0.51 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,3-Dichloropropane | ND | 5.1 | 1.0 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,4-Dichlorobenzene | ND | 5.1 | 0.51 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 2,2-Dichloropropane | ND | 5.1 | 0.51 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 2-Chlorotoluene | ND | 5.1 | 1.0 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 2-Hexanone | ND | 26 | 5.1 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |

Project ID: IPARK0118.62-LOT 10 BOUNDARY MODIFICAT. Phoenix I.D.: CM95276

Client ID: SB-4B (1-2`)

| Parameter | Result | | RL/ PQL | LOD/ MDL | Units | Dilution | Date/Time | By | Reference | |
|---|---|---|---|---|---|---|---|---|---|---|
| 2-Isopropyltoluene | ND | | 5.1 | 0.51 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | 1 |
| 4-Chlorotoluene | ND | | 5.1 | 0.51 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 4-Methyl-2-pentanone | ND | | 26 | 5.1 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Acetone | 110 | S | 26 | 5.1 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Acrylonitrile | ND | | 10 | 1.0 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Benzene | ND | | 5.1 | 0.51 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Bromobenzene | ND | | 5.1 | 0.51 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Bromochloromethane | ND | | 5.1 | 0.51 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Bromodichloromethane | ND | | 5.1 | 1.0 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Bromoform | ND | | 5.1 | 1.0 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Bromomethane | ND | | 5.1 | 2.1 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Carbon Disulfide | 2.4 | J | 5.1 | 1.0 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Carbon tetrachloride | ND | | 5.1 | 1.0 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Chlorobenzene | ND | | 5.1 | 0.51 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Chloroethane | ND | | 5.1 | 0.51 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Chloroform | ND | | 5.1 | 0.51 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Chloromethane | ND | | 5.1 | 1.0 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| cis-1,2-Dichloroethene | ND | | 5.1 | 0.51 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| cis-1,3-Dichloropropene | ND | | 5.1 | 0.51 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Dibromochloromethane | ND | | 5.1 | 1.0 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Dibromomethane | ND | | 5.1 | 1.0 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Dichlorodifluoromethane | ND | | 5.1 | 0.51 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Ethylbenzene | ND | | 5.1 | 0.51 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Hexachlorobutadiene | ND | | 5.1 | 0.51 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Isopropylbenzene | ND | | 5.1 | 0.51 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| m&p-Xylene | ND | | 5.1 | 1.0 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Methyl Ethyl Ketone | 22 | J | 31 | 5.1 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Methyl t-butyl ether (MTBE) | ND | | 10 | 1.0 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Methylene chloride | ND | | 5.1 | 5.1 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Naphthalene | ND | | 5.1 | 1.0 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| n-Butylbenzene | ND | | 5.1 | 0.51 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| n-Propylbenzene | ND | | 5.1 | 1.0 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| o-Xylene | ND | | 5.1 | 1.0 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| p-Isopropyltoluene | ND | | 5.1 | 0.51 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| sec-Butylbenzene | ND | | 5.1 | 0.51 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Styrene | ND | | 5.1 | 0.51 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| tert-Butylbenzene | ND | | 5.1 | 0.51 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Tetrachloroethene | ND | | 5.1 | 1.0 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Tetrahydrofuran (THF) | 7.4 | J | 10 | 2.6 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Toluene | ND | | 5.1 | 0.51 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| trans-1,2-Dichloroethene | ND | | 5.1 | 0.51 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| trans-1,3-Dichloropropene | ND | | 5.1 | 0.51 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| trans-1,4-dichloro-2-butene | ND | | 10 | 2.6 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Trichloroethene | ND | | 5.1 | 0.51 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Trichlorofluoromethane | ND | | 5.1 | 1.0 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Trichlorotrifluoroethane | ND | | 5.1 | 0.51 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Vinyl chloride | ND | | 5.1 | 0.51 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| **QA/QC Surrogates** | | | | | | | | | | |
| % 1,2-dichlorobenzene-d4 | 96 | | | | % | 1 | 12/06/22 | JLI | 70 - 130 % | |

**Ver 1**

Project ID: IPARK0118.62-LOT 10 BOUNDARY MODIFICAT. Phoenix I.D.: CM95276
Client ID: SB-4B (1-2`)

| Parameter | Result | RL/ PQL | LOD/ MDL | Units | Dilution | Date/Time | By | Reference |
|---|---|---|---|---|---|---|---|---|
| % Bromofluorobenzene | 100 | | | % | 1 | 12/06/22 | JLI | 70 - 130 % |
| % Dibromofluoromethane | 99 | | | % | 1 | 12/06/22 | JLI | 70 - 130 % |
| % Toluene-d8 | 96 | | | % | 1 | 12/06/22 | JLI | 70 - 130 % |

1 = This parameter is not certified by the primary accrediting authority (NY NELAC) for this matrix. NY NELAC does not offer certification for all parameters at this time.

RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected BRL=Below Reporting Level L=Biased Low J=Estimated Below RL LOD=Limit of Detection MDL=Method Detection Limit1
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

## Comments:

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

S - Laboratory solvent, contamination is possible.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200.
The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.

**Phyllis Shiller, Laboratory Director**
**December 20, 2022**
**Reviewed and Released by: Phyllis Shiller, Laboratory Director**

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

# Analysis Report

December 20, 2022

FOR: Attn: Nora Brew
Walden Environmental Engineering PLLC
16 Spring Street
Oyster Bay, NY 11771

| Sample Information | | Custody Information | | Date | Time |
|---|---|---|---|---|---|
| Matrix: | SOIL | Collected by: | | 11/29/22 | 13:45 |
| Location Code: | WALDENE-IPARK | Received by: | CP | 12/01/22 | 17:12 |
| Rush Request: | Standard | Analyzed by: | see "By" below | | |
| P.O.#: | | | | | |

## Laboratory Data

SDG ID: GCM95248
Phoenix ID: CM95277

Project ID: IPARK0118.62-LOT 10 BOUNDARY MODIFICAT.
Client ID: SB-4C (10-12`)

| Parameter | Result | RL/ PQL | LOD/ MDL | Units | Dilution | Date/Time | By | Reference |
|---|---|---|---|---|---|---|---|---|
| Aluminum | 27400 | 440 | 87 | mg/Kg | 100 | 12/09/22 | TH | SW6010D |
| Antimony | ND | 4.4 | 4.4 | mg/Kg | 1 | 12/03/22 | CPP | SW6010D |
| Arsenic | 9.05 | 0.87 | 0.87 | mg/Kg | 1 | 12/03/22 | CPP | SW6010D |
| Barium | 144 | 0.9 | 0.44 | mg/Kg | 1 | 12/03/22 | TH | SW6010D |
| Beryllium | 1.18 | 0.35 | 0.17 | mg/Kg | 1 | 12/03/22 | CPP | SW6010D |
| Calcium | 2580 | 4.4 | 4.0 | mg/Kg | 1 | 12/03/22 | CPP | SW6010D |
| Cadmium | 2.90 | 0.44 | 0.44 | mg/Kg | 1 | 12/03/22 | CPP | SW6010D |
| Chromium | 30.6 | 0.44 | 0.44 | mg/Kg | 1 | 12/03/22 | CPP | SW6010D |
| Cobalt | 23.2 | 0.44 | 0.44 | mg/Kg | 1 | 12/03/22 | CPP | SW6010D |
| Copper | 50.0 | 0.9 | 0.44 | mg/kg | 1 | 12/03/22 | CPP | SW6010D |
| Iron | 47000 | 44 | 44 | mg/Kg | 10 | 12/03/22 | CPP | SW6010D |
| Lead | 25.5 | 0.9 | 0.44 | mg/Kg | 1 | 12/03/22 | CPP | SW6010D |
| Magnesium | 11700 | 44 | 44 | mg/Kg | 10 | 12/03/22 | CPP | SW6010D |
| Manganese | 1020 | 4.4 | 4.4 | mg/Kg | 10 | 12/03/22 | TH | SW6010D |
| Mercury | ND | 0.03 | 0.02 | mg/Kg | 2 | 12/05/22 | PM | SW7471B |
| Nickel | 45.6 | 0.44 | 0.44 | mg/Kg | 1 | 12/03/22 | CPP | SW6010D |
| Potassium | 4180 | 9 | 3.4 | mg/Kg | 1 | 12/03/22 | CPP | SW6010D |
| Selenium | ND | 1.7 | 1.5 | mg/Kg | 1 | 12/03/22 | CPP | SW6010D |
| Silver | ND | 0.44 | 0.44 | mg/Kg | 1 | 12/03/22 | CPP | SW6010D |
| Sodium | 790 | 9 | 3.7 | mg/Kg | 1 | 12/03/22 | CPP | SW6010D |
| Thallium | ND | 1.7 | 1.7 | mg/Kg | 1 | 12/03/22 | CPP | SW6010D |
| Vanadium | 30.6 | 0.44 | 0.44 | mg/Kg | 1 | 12/03/22 | CPP | SW6010D |
| Zinc | 115 | 0.9 | 0.44 | mg/Kg | 1 | 12/03/22 | CPP | SW6010D |
| Percent Solid | 70 | | | % | | 12/01/22 | Q | SW846-%Solid |
| Extraction for SVOA SIM | Completed | | | | | 12/05/22 | B/MO | SW3545A |
| Soil Extraction for PCB | Completed | | | | | 12/02/22 | O/MO | SW3545A |
| Soil Extraction for Pesticide | Completed | | | | | 12/02/22 | O/MO | SW3545A |

**Ver 1**

Project ID: IPARK0118.62-LOT 10 BOUNDARY MODIFICAT. Phoenix I.D.: CM95277
Client ID: SB-4C (10-12`)

| Parameter | Result | RL/ PQL | LOD/ MDL | Units | Dilution | Date/Time | By | Reference | |
|---|---|---|---|---|---|---|---|---|---|
| Field Extraction | Completed | | | | | 11/29/22 | | SW5035A | 1 |
| Mercury Digestion | Completed | | | | | 12/02/22 | AB/AB | SW7471B | |
| Soil Extraction for Herbicide | Completed | | | | | 12/07/22 | J/D | SW3546 | |
| Soil Extraction for SVOA | Completed | | | | | 12/03/22 | Y/L | SW3546 | |
| Total Metals Digest | Completed | | | | | 12/01/22 | | SW3050B | |
| PFAS (21) | Completed | | | | | 12/08/22 | *** | EPA 537m | C |

## PFAS (21)

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **1H,1H,2H,2H-Perfluorodecanesulfonic acid** | ND | 0.319 | 0.0327 | ng/g | 1 | 12/13/22 | *** | EPA 537m | C |
| **1H,1H,2H,2H-Perfluorooctanesulfonic acid** | ND | 0.319 | 0.0843 | ng/g | 1 | 12/13/22 | *** | EPA 537m | C |
| NEtFOSAA | ND | 0.319 | 0.133 | ng/g | 1 | 12/13/22 | *** | EPA 537m | C |
| NMeFOSAA | ND | 0.319 | 0.133 | ng/g | 1 | 12/13/22 | *** | EPA 537m | C |
| **Perfluoro-1-decanesulfonic acid (PFDS)** | ND | 0.319 | 0.0654 | ng/g | 1 | 12/13/22 | *** | EPA 537m | C |
| **Perfluoro-1-heptanesulfonic acid (PFHpS)** | ND | 0.319 | 0.0629 | ng/g | 1 | 12/13/22 | *** | EPA 537m | C |
| **Perfluoro-1-octanesulfonamide (FOSA)** | ND | 0.319 | 0.0596 | ng/g | 1 | 12/13/22 | *** | EPA 537m | C |
| Perfluorobutanesulfonic acid (PFBS) | ND | 0.319 | 0.255 | ng/g | 1 | 12/13/22 | *** | EPA 537m | C |
| Perfluorodecanoic acid (PFDA) | ND | 0.319 | 0.0654 | ng/g | 1 | 12/13/22 | *** | EPA 537m | C |
| Perfluorododecanoic acid (PFDoA) | ND | 0.319 | 0.0958 | ng/g | 1 | 12/13/22 | *** | EPA 537m | C |
| Perfluoroheptanoic acid (PFHpA) | ND | 0.319 | 0.0581 | ng/g | 1 | 12/13/22 | *** | EPA 537m | C |
| **Perfluorohexanesulfonic Acid (PFHxS)** | ND | 0.319 | 0.0396 | ng/g | 1 | 12/13/22 | *** | EPA 537m | C |
| Perfluorohexanoic acid (PFHxA) | ND | 0.319 | 0.0841 | ng/g | 1 | 12/13/22 | *** | EPA 537m | C |
| Perfluoro-n-butanoic acid (PFBA) | ND | 0.319 | 0.233 | ng/g | 1 | 12/13/22 | *** | EPA 537m | C |
| Perfluorononanoic acid (PFNA) | ND | 0.319 | 0.0763 | ng/g | 1 | 12/13/22 | *** | EPA 537m | C |
| Perfluorooctanesulfonic Acid (PFOS) | ND | 0.319 | 0.0559 | ng/g | 1 | 12/13/22 | *** | EPA 537m | C |
| Perfluorooctanoic acid (PFOA) | ND | 0.319 | 0.0986 | ng/g | 1 | 12/13/22 | *** | EPA 537m | C |
| Perfluoropentanoic acid (PFPeA) | ND | 0.319 | 0.117 | ng/g | 1 | 12/13/22 | *** | EPA 537m | C |
| Perfluorotetradecanoic acid (PFTA) | ND | 0.319 | 0.0954 | ng/g | 1 | 12/13/22 | *** | EPA 537m | C |
| Perfluorotridecanoic acid (PFTrDA) | ND | 0.319 | 0.0555 | ng/g | 1 | 12/13/22 | *** | EPA 537m | C |
| Perfluoroundecanoic acid (PFUnA) | ND | 0.319 | 0.148 | ng/g | 1 | 12/13/22 | *** | EPA 537m | C |
| **QA/QC Surrogates** | | | | | | | | | |
| % d3-N-MeFOSAA | 48.6 | | | % | 1 | 12/13/22 | *** | 25 - 150 % | C |
| % d5-NEtFOSA | 44.8 | | | % | 1 | 12/13/22 | *** | 25 - 150 % | C |
| % M2-6:2FTS | 75.8 | | | % | 1 | 12/13/22 | *** | 25 - 200 % | C |
| % M2-8:2FTS | 67.5 | | | % | 1 | 12/13/22 | *** | 25 - 200 % | C |
| % M2PFTeDA | 26.0 | | | % | 1 | 12/13/22 | *** | 10 - 150 % | C |
| % M3PFBS | 71.5 | | | % | 1 | 12/13/22 | *** | 25 - 150 % | C |
| % M3PFHxS | 74.8 | | | % | 1 | 12/13/22 | *** | 25 - 150 % | C |
| % M4PFHpA | 85.7 | | | % | 1 | 12/13/22 | *** | 25 - 150 % | C |
| % M5PFHxA | 86.6 | | | % | 1 | 12/13/22 | *** | 25 - 150 % | C |
| % M5PFPeA | 89.8 | | | % | 1 | 12/13/22 | *** | 25 - 150 % | C |
| % M6PFDA | 66.4 | | | % | 1 | 12/13/22 | *** | 25 - 150 % | C |
| % M7PFUdA | 49.6 | | | % | 1 | 12/13/22 | *** | 25 - 150 % | C |
| % M8FOSA | 43.5 | | | % | 1 | 12/13/22 | *** | 10 - 150 % | C |
| % M8PFOA | 80.7 | | | % | 1 | 12/13/22 | *** | 25 - 150 % | C |
| % M8PFOS | 55.7 | | | % | 1 | 12/13/22 | *** | 25 - 150 % | C |
| % M9PFNA | 74.8 | | | % | 1 | 12/13/22 | *** | 25 - 150 % | C |
| % MPFBA | 86.2 | | | % | 1 | 12/13/22 | *** | 25 - 150 % | C |
| % MPFDoA | 51.3 | | | % | 1 | 12/13/22 | *** | 25 - 150 % | C |

Project ID: IPARK0118.62-LOT 10 BOUNDARY MODIFICAT. Phoenix I.D.: CM95277
Client ID: SB-4C (10-12`)

| Parameter | Result | RL/ PQL | LOD/ MDL | Units | Dilution | Date/Time | By | Reference |
|---|---|---|---|---|---|---|---|---|
| **Chlorinated Herbicides** | | | | | | | | |
| 2,4,5-T | ND | 180 | 180 | ug/Kg | 10 | 12/09/22 | JRB | SW8151A |
| 2,4,5-TP (Silvex) | ND | 180 | 180 | ug/Kg | 10 | 12/09/22 | JRB | SW8151A |
| 2,4-D | ND | 350 | 350 | ug/Kg | 10 | 12/09/22 | JRB | SW8151A |
| 2,4-DB | ND | 3500 | 3500 | ug/Kg | 10 | 12/09/22 | JRB | SW8151A |
| Dalapon | ND | 180 | 180 | ug/Kg | 10 | 12/09/22 | JRB | SW8151A |
| Dicamba | ND | 180 | 180 | ug/Kg | 10 | 12/09/22 | JRB | SW8151A |
| Dichloroprop | ND | 350 | 350 | ug/Kg | 10 | 12/09/22 | JRB | SW8151A |
| Dinoseb | ND | 350 | 350 | ug/Kg | 10 | 12/09/22 | JRB | SW8151A |
| **QA/QC Surrogates** | | | | | | | | |
| % DCAA | 112 | | | % | 10 | 12/09/22 | JRB | 30 - 150 % |
| % DCAA (Confirmation) | 100 | | | % | 10 | 12/09/22 | JRB | 30 - 150 % |
| **Polychlorinated Biphenyls** | | | | | | | | |
| PCB-1016 | ND | 93 | 93 | ug/Kg | 2 | 12/05/22 | SC | SW8082A |
| PCB-1221 | ND | 93 | 93 | ug/Kg | 2 | 12/05/22 | SC | SW8082A |
| PCB-1232 | ND | 93 | 93 | ug/Kg | 2 | 12/05/22 | SC | SW8082A |
| PCB-1242 | ND | 93 | 93 | ug/Kg | 2 | 12/05/22 | SC | SW8082A |
| PCB-1248 | ND | 93 | 93 | ug/Kg | 2 | 12/05/22 | SC | SW8082A |
| PCB-1254 | ND | 93 | 93 | ug/Kg | 2 | 12/05/22 | SC | SW8082A |
| PCB-1260 | ND | 93 | 93 | ug/Kg | 2 | 12/05/22 | SC | SW8082A |
| PCB-1262 | ND | 93 | 93 | ug/Kg | 2 | 12/05/22 | SC | SW8082A |
| PCB-1268 | ND | 93 | 93 | ug/Kg | 2 | 12/05/22 | SC | SW8082A |
| **QA/QC Surrogates** | | | | | | | | |
| % DCBP | 74 | | | % | 2 | 12/05/22 | SC | 30 - 150 % |
| % DCBP (Confirmation) | 83 | | | % | 2 | 12/05/22 | SC | 30 - 150 % |
| % TCMX | 65 | | | % | 2 | 12/05/22 | SC | 30 - 150 % |
| % TCMX (Confirmation) | 63 | | | % | 2 | 12/05/22 | SC | 30 - 150 % |
| **Pesticides - Soil** | | | | | | | | |
| 4,4' -DDD | ND | 2.8 | 2.8 | ug/Kg | 2 | 12/05/22 | AW | SW8081B |
| 4,4' -DDE | ND | 2.8 | 2.8 | ug/Kg | 2 | 12/05/22 | AW | SW8081B |
| 4,4' -DDT | ND | 2.8 | 2.8 | ug/Kg | 2 | 12/05/22 | AW | SW8081B |
| a-BHC | ND | 9.3 | 9.3 | ug/Kg | 2 | 12/05/22 | AW | SW8081B |
| a-Chlordane | ND | 4.7 | 4.7 | ug/Kg | 2 | 12/05/22 | AW | SW8081B |
| Alachlor | ND | 4.7 | 4.7 | ug/Kg | 2 | 12/05/22 | AW | SW8081B |
| Aldrin | ND | 4.7 | 4.7 | ug/Kg | 2 | 12/05/22 | AW | SW8081B |
| b-BHC | ND | 9.3 | 9.3 | ug/Kg | 2 | 12/05/22 | AW | SW8081B |
| Chlordane | ND | 47 | 47 | ug/Kg | 2 | 12/05/22 | AW | SW8081B |
| d-BHC | ND | 9.3 | 9.3 | ug/Kg | 2 | 12/05/22 | AW | SW8081B |
| Dieldrin | ND | 4.7 | 4.7 | ug/Kg | 2 | 12/05/22 | AW | SW8081B |
| Endosulfan I | ND | 9.3 | 9.3 | ug/Kg | 2 | 12/05/22 | AW | SW8081B |
| Endosulfan II | ND | 9.3 | 9.3 | ug/Kg | 2 | 12/05/22 | AW | SW8081B |
| Endosulfan sulfate | ND | 9.3 | 9.3 | ug/Kg | 2 | 12/05/22 | AW | SW8081B |
| Endrin | ND | 9.3 | 9.3 | ug/Kg | 2 | 12/05/22 | AW | SW8081B |
| Endrin aldehyde | ND | 9.3 | 9.3 | ug/Kg | 2 | 12/05/22 | AW | SW8081B |
| Endrin ketone | ND | 9.3 | 9.3 | ug/Kg | 2 | 12/05/22 | AW | SW8081B |
| g-BHC | ND | 1.9 | 1.9 | ug/Kg | 2 | 12/05/22 | AW | SW8081B |
| g-Chlordane | ND | 4.7 | 4.7 | ug/Kg | 2 | 12/05/22 | AW | SW8081B |

Project ID: IPARK0118.62-LOT 10 BOUNDARY MODIFICAT. Phoenix I.D.: CM95277

Client ID: SB-4C (10-12`)

| Parameter | Result | | RL/ PQL | LOD/ MDL | Units | Dilution | Date/Time | By | Reference | |
|---|---|---|---|---|---|---|---|---|---|---|
| Heptachlor | ND | | 9.3 | 9.3 | ug/Kg | 2 | 12/05/22 | AW | SW8081B | |
| Heptachlor epoxide | ND | | 9.3 | 9.3 | ug/Kg | 2 | 12/05/22 | AW | SW8081B | |
| Methoxychlor | ND | | 47 | 47 | ug/Kg | 2 | 12/05/22 | AW | SW8081B | |
| Toxaphene | ND | | 190 | 190 | ug/Kg | 2 | 12/05/22 | AW | SW8081B | |
| **QA/QC Surrogates** | | | | | | | | | | |
| % DCBP | 72 | | | | % | 2 | 12/05/22 | AW | 30 - 150 % | |
| % DCBP (Confirmation) | 78 | | | | % | 2 | 12/05/22 | AW | 30 - 150 % | |
| % TCMX | 61 | | | | % | 2 | 12/05/22 | AW | 30 - 150 % | |
| % TCMX (Confirmation) | 65 | | | | % | 2 | 12/05/22 | AW | 30 - 150 % | |
| **Volatiles** | | | | | | | | | | |
| 1,1,1,2-Tetrachloroethane | ND | | 7.0 | 1.4 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,1,1-Trichloroethane | ND | | 7.0 | 0.70 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,1,2,2-Tetrachloroethane | ND | | 7.0 | 1.4 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,1,2-Trichloroethane | ND | | 7.0 | 1.4 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,1-Dichloroethane | ND | | 7.0 | 1.4 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,1-Dichloroethene | ND | | 7.0 | 0.70 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,1-Dichloropropene | ND | | 7.0 | 0.70 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,2,3-Trichlorobenzene | ND | | 7.0 | 1.4 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,2,3-Trichloropropane | ND | | 7.0 | 0.70 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,2,4-Trichlorobenzene | ND | | 7.0 | 1.4 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,2,4-Trimethylbenzene | ND | | 7.0 | 0.70 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,2-Dibromo-3-chloropropane | ND | | 7.0 | 1.4 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,2-Dibromoethane | ND | | 7.0 | 0.70 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,2-Dichlorobenzene | ND | | 7.0 | 0.70 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,2-Dichloroethane | ND | | 7.0 | 0.70 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,2-Dichloropropane | ND | | 7.0 | 1.4 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,3,5-Trimethylbenzene | ND | | 7.0 | 0.70 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,3-Dichlorobenzene | ND | | 7.0 | 0.70 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,3-Dichloropropane | ND | | 7.0 | 1.4 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,4-Dichlorobenzene | ND | | 7.0 | 0.70 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 2,2-Dichloropropane | ND | | 7.0 | 0.70 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 2-Chlorotoluene | ND | | 7.0 | 1.4 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 2-Hexanone | ND | | 35 | 7.0 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 2-Isopropyltoluene | ND | | 7.0 | 0.70 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | 1 |
| 4-Chlorotoluene | ND | | 7.0 | 0.70 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 4-Methyl-2-pentanone | ND | | 35 | 7.0 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Acetone | 13 | JS | 35 | 7.0 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Acrylonitrile | ND | | 14 | 1.4 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Benzene | ND | | 7.0 | 0.70 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Bromobenzene | ND | | 7.0 | 0.70 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Bromochloromethane | ND | | 7.0 | 0.70 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Bromodichloromethane | ND | | 7.0 | 1.4 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Bromoform | ND | | 7.0 | 1.4 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Bromomethane | ND | | 7.0 | 2.8 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Carbon Disulfide | ND | | 7.0 | 1.4 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Carbon tetrachloride | ND | | 7.0 | 1.4 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Chlorobenzene | ND | | 7.0 | 0.70 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Chloroethane | ND | | 7.0 | 0.70 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Chloroform | ND | | 7.0 | 0.70 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |

**Ver 1**

Project ID: IPARK0118.62-LOT 10 BOUNDARY MODIFICAT. Phoenix I.D.: CM95277
Client ID: SB-4C (10-12`)

| Parameter | Result | | RL/ PQL | LOD/ MDL | Units | Dilution | Date/Time | By | Reference | |
|---|---|---|---|---|---|---|---|---|---|---|
| Chloromethane | ND | | 7.0 | 1.4 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| cis-1,2-Dichloroethene | ND | | 7.0 | 0.70 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| cis-1,3-Dichloropropene | ND | | 7.0 | 0.70 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Dibromochloromethane | ND | | 7.0 | 1.4 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Dibromomethane | ND | | 7.0 | 1.4 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Dichlorodifluoromethane | ND | | 7.0 | 0.70 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Ethylbenzene | ND | | 7.0 | 0.70 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Hexachlorobutadiene | ND | | 7.0 | 0.70 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Isopropylbenzene | ND | | 7.0 | 0.70 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| m&p-Xylene | ND | | 7.0 | 1.4 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Methyl Ethyl Ketone | ND | | 42 | 7.0 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Methyl t-butyl ether (MTBE) | ND | | 14 | 1.4 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Methylene chloride | ND | | 7.0 | 7.0 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Naphthalene | ND | | 7.0 | 1.4 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| n-Butylbenzene | ND | | 7.0 | 0.70 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| n-Propylbenzene | ND | | 7.0 | 1.4 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| o-Xylene | ND | | 7.0 | 1.4 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| p-Isopropyltoluene | ND | | 7.0 | 0.70 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| sec-Butylbenzene | ND | | 7.0 | 0.70 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Styrene | ND | | 7.0 | 0.70 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| tert-Butylbenzene | ND | | 7.0 | 0.70 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Tetrachloroethene | ND | | 7.0 | 1.4 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Tetrahydrofuran (THF) | 8.7 | J | 14 | 3.5 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Toluene | ND | | 7.0 | 0.70 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| trans-1,2-Dichloroethene | ND | | 7.0 | 0.70 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| trans-1,3-Dichloropropene | ND | | 7.0 | 0.70 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| trans-1,4-dichloro-2-butene | ND | | 14 | 3.5 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Trichloroethene | ND | | 7.0 | 0.70 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Trichlorofluoromethane | ND | | 7.0 | 1.4 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Trichlorotrifluoroethane | ND | | 7.0 | 0.70 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Vinyl chloride | ND | | 7.0 | 0.70 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| **QA/QC Surrogates** | | | | | | | | | | |
| % 1,2-dichlorobenzene-d4 | 95 | | | | % | 1 | 12/06/22 | JLI | 70 - 130 % | |
| % Bromofluorobenzene | 101 | | | | % | 1 | 12/06/22 | JLI | 70 - 130 % | |
| % Dibromofluoromethane | 102 | | | | % | 1 | 12/06/22 | JLI | 70 - 130 % | |
| % Toluene-d8 | 95 | | | | % | 1 | 12/06/22 | JLI | 70 - 130 % | |
| **Semivolatiles** | | | | | | | | | | |
| 1,2,4,5-Tetrachlorobenzene | ND | | 330 | 170 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 1,2,4-Trichlorobenzene | ND | | 330 | 140 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 1,2-Dichlorobenzene | ND | | 330 | 130 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 1,2-Diphenylhydrazine | ND | | 330 | 150 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 1,3-Dichlorobenzene | ND | | 330 | 140 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 1,4-Dichlorobenzene | ND | | 330 | 140 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2,2'-Oxybis(1-Chloropropane) | ND | | 330 | 130 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | 1 |
| 2,4,5-Trichlorophenol | ND | | 330 | 260 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2,4,6-Trichlorophenol | ND | | 240 | 150 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2,4-Dichlorophenol | ND | | 240 | 170 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2,4-Dimethylphenol | ND | | 330 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2,4-Dinitrophenol | ND | | 330 | 330 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |

Project ID: IPARK0118.62-LOT 10 BOUNDARY MODIFICAT. Phoenix I.D.: CM95277

Client ID: SB-4C (10-12`)

| Parameter | Result | RL/ PQL | LOD/ MDL | Units | Dilution | Date/Time | By | Reference | |
|---|---|---|---|---|---|---|---|---|---|
| 2,4-Dinitrotoluene | ND | 240 | 190 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2,6-Dinitrotoluene | ND | 240 | 150 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2-Chloronaphthalene | ND | 330 | 130 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2-Chlorophenol | ND | 330 | 130 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2-Methylnaphthalene | ND | 330 | 140 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2-Methylphenol (o-cresol) | ND | 330 | 220 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2-Nitroaniline | ND | 330 | 330 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2-Nitrophenol | ND | 330 | 300 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 3&4-Methylphenol (m&p-cresol) | ND | 330 | 190 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | 1 |
| 3,3'-Dichlorobenzidine | ND | 240 | 220 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 3-Nitroaniline | ND | 470 | 940 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 4,6-Dinitro-2-methylphenol | ND | 280 | 94 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 4-Bromophenyl phenyl ether | ND | 330 | 140 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 4-Chloro-3-methylphenol | ND | 330 | 170 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 4-Chloroaniline | ND | 380 | 220 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 4-Chlorophenyl phenyl ether | ND | 330 | 160 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 4-Nitroaniline | ND | 470 | 160 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 4-Nitrophenol | ND | 470 | 210 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Acenaphthene | ND | 330 | 140 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Acenaphthylene | ND | 330 | 130 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Acetophenone | ND | 330 | 150 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Aniline | ND | 380 | 380 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Anthracene | ND | 330 | 150 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Benz(a)anthracene | ND | 330 | 160 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Benzidine | ND | 470 | 280 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Benzo(a)pyrene | ND | 240 | 150 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Benzo(b)fluoranthene | ND | 330 | 160 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Benzo(ghi)perylene | ND | 330 | 150 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Benzo(k)fluoranthene | ND | 330 | 160 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Benzoic acid | ND | 2400 | 940 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Benzyl butyl phthalate | ND | 330 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Bis(2-chloroethoxy)methane | ND | 330 | 130 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Bis(2-chloroethyl)ether | ND | 240 | 130 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Bis(2-ethylhexyl)phthalate | ND | 330 | 140 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Carbazole | ND | 240 | 190 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Chrysene | ND | 330 | 160 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Dibenz(a,h)anthracene | ND | 240 | 150 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Dibenzofuran | ND | 330 | 140 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Diethyl phthalate | ND | 330 | 150 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Dimethylphthalate | ND | 330 | 150 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Di-n-butylphthalate | ND | 330 | 130 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Di-n-octylphthalate | ND | 330 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Fluoranthene | ND | 330 | 150 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Fluorene | ND | 330 | 160 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Hexachlorobenzene | ND | 240 | 140 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Hexachlorobutadiene | ND | 330 | 170 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Hexachlorocyclopentadiene | ND | 330 | 140 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Hexachloroethane | ND | 240 | 140 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Indeno(1,2,3-cd)pyrene | ND | 330 | 160 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |

Project ID: IPARK0118.62-LOT 10 BOUNDARY MODIFICAT. Phoenix I.D.: CM95277
Client ID: SB-4C (10-12`)

| Parameter | Result | RL/ PQL | LOD/ MDL | Units | Dilution | Date/Time | By | Reference |
|---|---|---|---|---|---|---|---|---|
| Isophorone | ND | 240 | 130 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Naphthalene | ND | 330 | 140 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Nitrobenzene | ND | 240 | 160 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| N-Nitrosodimethylamine | ND | 330 | 130 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| N-Nitrosodi-n-propylamine | ND | 240 | 150 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| N-Nitrosodiphenylamine | ND | 330 | 180 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Pentachloronitrobenzene | ND | 330 | 180 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Pentachlorophenol | ND | 280 | 180 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Phenanthrene | ND | 330 | 130 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Phenol | ND | 330 | 150 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Pyrene | ND | 330 | 160 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Pyridine | ND | 330 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| **QA/QC Surrogates** | | | | | | | | |
| % 2,4,6-Tribromophenol | 94 | | | % | 1 | 12/04/22 | WB | 30 - 130 % |
| % 2-Fluorobiphenyl | 74 | | | % | 1 | 12/04/22 | WB | 30 - 130 % |
| % 2-Fluorophenol | 73 | | | % | 1 | 12/04/22 | WB | 30 - 130 % |
| % Nitrobenzene-d5 | 80 | | | % | 1 | 12/04/22 | WB | 30 - 130 % |
| % Phenol-d5 | 86 | | | % | 1 | 12/04/22 | WB | 30 - 130 % |
| % Terphenyl-d14 | 82 | | | % | 1 | 12/04/22 | WB | 30 - 130 % |
| **1,4-Dioxane** | | | | | | | | |
| 1,4-dioxane | ND | 94 | 94 | ug/Kg | 1 | 12/06/22 | WB | SW8270D (SIM) |
| **QA/QC Surrogates** | | | | | | | | |
| % 2-Fluorobiphenyl | 54 | | | % | 1 | 12/06/22 | WB | 30 - 130 % |
| % Nitrobenzene-d5 | 77 | | | % | 1 | 12/06/22 | WB | 30 - 130 % |
| % Terphenyl-d14 | 90 | | | % | 1 | 12/06/22 | WB | 30 - 130 % |

| Parameter | Result | RL/ PQL | LOD/ MDL | Units | Dilution | Date/Time | By | Reference |
|---|---|---|---|---|---|---|---|---|

1 = This parameter is not certified by the primary accrediting authority (NY NELAC) for this matrix. NY NELAC does not offer certification for all parameters at this time.
C = This parameter is subcontracted.

RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected BRL=Below Reporting Level L=Biased Low J=Estimated Below RL LOD=Limit of Detection MDL=Method Detection Limit1
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

## Comments:

*See attached

Per 1.4.6 of EPA method 8270D, 1,2-Diphenylhydrazine is unstable and readily converts to Azobenzene. Azobenzene is used for the calibration of 1,2-Diphenylhydrazine.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

PFAS (21) (EPA 537m), PFOA/PFOS - Soil Extraction (EPA 537m) were analyzed by NY certified lab #12058.

S - Laboratory solvent, contamination is possible.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200.
The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.

**Phyllis Shiller, Laboratory Director**
**December 20, 2022**
**Reviewed and Released by: Phyllis Shiller, Laboratory Director**

PHOENIX

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ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

# QA/QC Report

December 20, 2022

## QA/QC Data

SDG I.D.: GCM95248

| Parameter | Blank | Blk RL | Sample Result | Dup Result | Dup RPD | LCS % | LCSD % | LCS RPD | MS % | MSD % | MS RPD | % Rec Limits | % RPD Limits | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| QA/QC Batch 654249 (mg/kg), QC Sample No: CM94569 2X (CM95275, CM95277) | | | | | | | | | | | | | | |
| Mercury - Soil | BRL | 0.02 | <0.04 | 0.06 | NC | 113 | 115 | 1.8 | 120 | 121 | 0.8 | 75 - 125 | 30 | |
| QA/QC Batch 654232 (mg/L), QC Sample No: CM94717 (CM95270) | | | | | | | | | | | | | | |
| Mercury - Water | BRL | 0.0002 | <0.0002 | <0.0002 | NC | 107 | | | 104 | | | 75 - 125 | 20 | |
| QA/QC Batch 654243 (mg/kg), QC Sample No: CM95248 2X (CM95248, CM95249, CM95250, CM95251, CM95252, CM95253, CM95255, CM95256, CM95258, CM95259, CM95260, CM95262, CM95263, CM95265, CM95266, CM95268, CM95269, CM95271, CM95272, CM95274) | | | | | | | | | | | | | | |
| Mercury - Soil | BRL | 0.03 | 0.08 | 0.09 | NC | 101 | 106 | 4.8 | 110 | 122 | 10.3 | 75 - 125 | 30 | |
| QA/QC Batch 654344 (mg/L), QC Sample No: CM94033 (CM95270) | | | | | | | | | | | | | | |
| ICP Metals - Aqueous | | | | | | | | | | | | | | |
| Aluminum | BRL | 0.020 | 0.218 | 0.219 | 0.50 | 96.2 | 95.4 | 0.8 | 96.4 | | | 80 - 120 | 20 | |
| Arsenic | BRL | 0.004 | <0.004 | <0.004 | NC | 94.1 | 94.0 | 0.1 | 93.4 | | | 80 - 120 | 20 | |
| Barium | BRL | 0.002 | 0.007 | 0.007 | NC | 98.5 | 99.3 | 0.8 | 98.8 | | | 80 - 120 | 20 | |
| Beryllium | BRL | 0.001 | <0.001 | <0.001 | NC | 101 | 101 | 0.0 | 101 | | | 80 - 120 | 20 | |
| Cadmium | BRL | 0.001 | <0.001 | <0.001 | NC | 98.6 | 100 | 1.4 | 99.6 | | | 80 - 120 | 20 | |
| Calcium | BRL | 0.010 | 2.80 | 2.73 | 2.50 | 102 | 101 | 1.0 | 118 | | | 80 - 120 | 20 | |
| Chromium | BRL | 0.001 | <0.001 | <0.001 | NC | 102 | 101 | 1.0 | 101 | | | 80 - 120 | 20 | |
| Cobalt | BRL | 0.002 | <0.002 | <0.002 | NC | 97.3 | 97.9 | 0.6 | 97.6 | | | 80 - 120 | 20 | |
| Copper | BRL | 0.005 | 0.011 | 0.011 | NC | 96.4 | 95.6 | 0.8 | 96.6 | | | 80 - 120 | 20 | |
| Iron | BRL | 0.010 | 1.18 | 1.16 | 1.70 | 99.3 | 100 | 0.7 | 103 | | | 80 - 120 | 20 | |
| Lead | BRL | 0.001 | 0.006 | 0.004 | NC | 98.4 | 98.4 | 0.0 | 98.3 | | | 80 - 120 | 20 | |
| Magnesium | BRL | 0.010 | 0.550 | 0.538 | 2.20 | 100 | 101 | 1.0 | 99.4 | | | 80 - 120 | 20 | |
| Manganese | BRL | 0.001 | 0.036 | 0.035 | 2.80 | 100 | 101 | 1.0 | 100 | | | 80 - 120 | 20 | |
| Nickel | BRL | 0.001 | 0.003 | 0.002 | NC | 98.4 | 98.5 | 0.1 | 98.2 | | | 80 - 120 | 20 | |
| Potassium | BRL | 0.1 | 0.6 | 0.5 | 18.2 | 101 | 104 | 2.9 | 102 | | | 80 - 120 | 20 | |
| Silver | BRL | 0.001 | <0.001 | <0.001 | NC | 97.1 | 96.3 | 0.8 | 96.6 | | | 70 - 130 | 30 | |
| Sodium | BRL | 0.10 | 6.62 | 6.44 | 2.80 | 95.5 | 97.6 | 2.2 | NC | | | 80 - 120 | 20 | |
| Vanadium | BRL | 0.002 | 0.002 | 0.003 | NC | 101 | 99.7 | 1.3 | 99.4 | | | 80 - 120 | 20 | |
| Zinc | BRL | 0.004 | 0.068 | 0.066 | 3.00 | 97.0 | 97.3 | 0.3 | 96.9 | | | 80 - 120 | 20 | |
| QA/QC Batch 654173 (mg/kg), QC Sample No: CM95252 (CM95248, CM95249, CM95250, CM95251, CM95252, CM95253, CM95255, CM95256, CM95258, CM95259, CM95260, CM95262, CM95263, CM95265, CM95266, CM95268, CM95269, CM95271) | | | | | | | | | | | | | | |
| ICP Metals - Soil | | | | | | | | | | | | | | |
| Aluminum | BRL | 5.0 | 47400 | 43100 | 9.50 | 106 | 100 | 5.8 | NC | | | 80 - 120 | 30 | |
| Antimony | BRL | 3.3 | <10 | <11 | NC | 107 | 102 | 4.8 | 96.0 | | | 70 - 130 | 30 | |
| Arsenic | BRL | 0.67 | 16.1 | 14.7 | 9.10 | 110 | 101 | 8.5 | 99.9 | | | 80 - 120 | 30 | |
| Barium | BRL | 0.33 | 196 | 150 | 26.6 | 110 | 101 | 8.5 | 110 | | | 80 - 120 | 30 | |
| Beryllium | BRL | 0.27 | 1.76 | 1.64 | NC | 109 | 98.4 | 10.2 | 101 | | | 80 - 120 | 30 | |
| Cadmium | BRL | 0.33 | 6.3 | 5.7 | 10.0 | 111 | 99.8 | 10.6 | 105 | | | 80 - 120 | 30 | |
| Calcium | BRL | 5.0 | 5200 | 11100 | 72.4 | 111 | 102 | 8.5 | NC | | | 80 - 120 | 30 | r |
| Chromium | BRL | 0.33 | 85.9 | 80.0 | 7.10 | 111 | 102 | 8.5 | 104 | | | 80 - 120 | 30 | |
| Cobalt | BRL | 0.33 | 31.0 | 28.0 | 10.2 | 109 | 99.3 | 9.3 | 104 | | | 80 - 120 | 30 | |
| Copper | BRL | 0.67 | 91.0 | 82.5 | 9.80 | 108 | 98.3 | 9.4 | 99.3 | | | 80 - 120 | 30 | |

# QA/QC Data

SDG I.D.: GCM95248

| Parameter | Blank | Blk RL | Sample Result | Dup Result | Dup RPD | LCS % | LCSD % | LCS RPD | MS % | MSD % | MS RPD | % Rec Limits | % RPD Limits | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Iron | BRL | 5.0 | 81900 | 75600 | 8.00 | 105 | 104 | 1.0 | NC | | | 80 - 120 | 30 | |
| Lead | BRL | 0.33 | 188 | 176 | 6.60 | 115 | 105 | 9.1 | 103 | | | 80 - 120 | 30 | |
| Magnesium | BRL | 5.0 | 17700 | 20200 | 13.2 | 116 | 107 | 8.1 | NC | | | 80 - 120 | 30 | |
| Manganese | BRL | 0.33 | 2690 | 1820 | 38.6 | 107 | 95.7 | 11.1 | NC | | | 80 - 120 | 30 | r |
| Nickel | BRL | 0.33 | 75.3 | 70.0 | 7.30 | 110 | 100 | 9.5 | 103 | | | 80 - 120 | 30 | |
| Potassium | BRL | 5.0 | 3770 | 3320 | 12.7 | 113 | 105 | 7.3 | >130 | | | 80 - 120 | 30 | m |
| Selenium | BRL | 1.3 | <4.1 | <4.2 | NC | 109 | 101 | 7.6 | 102 | | | 80 - 120 | 30 | |
| Silver | BRL | 0.33 | <1.0 | <1.1 | NC | 108 | 98.2 | 9.5 | 101 | | | 70 - 130 | 30 | |
| Sodium | BRL | 5.0 | 1750 | 1620 | 7.70 | 109 | 102 | 6.6 | 52.8 | | | 80 - 120 | 30 | m |
| Thallium | BRL | 3.0 | <4.1 | <9.5 | NC | 107 | 99.5 | 7.3 | 99.4 | | | 80 - 120 | 30 | |
| Vanadium | BRL | 0.33 | 82.1 | 76.7 | 6.80 | 116 | 110 | 5.3 | 106 | | | 80 - 120 | 30 | |
| Zinc | BRL | 0.67 | 484 | 427 | 12.5 | 112 | 103 | 8.4 | 106 | | | 80 - 120 | 30 | |
| QA/QC Batch 654174 (mg/kg), QC Sample No: CM95272 (CM95272, CM95274, CM95275, CM95277) | | | | | | | | | | | | | | |
| ICP Metals - Soil | | | | | | | | | | | | | | |
| Aluminum | BRL | 5.0 | 15800 | 19100 | 18.9 | 108 | 107 | 0.9 | NC | | | 80 - 120 | 30 | |
| Antimony | BRL | 3.3 | <3.7 | <3.5 | NC | 98.5 | 94.8 | 3.8 | 88.6 | | | 70 - 130 | 30 | |
| Arsenic | BRL | 0.67 | 8.28 | 6.11 | 30.2 | 101 | 98.5 | 2.5 | 93.0 | | | 80 - 120 | 30 | |
| Barium | BRL | 0.33 | 40.2 | 43.0 | 6.70 | 98.6 | 98.0 | 0.6 | >130 | | | 80 - 120 | 30 | m |
| Beryllium | BRL | 0.27 | 0.52 | 0.51 | NC | 97.1 | 95.3 | 1.9 | 92.3 | | | 80 - 120 | 30 | |
| Cadmium | BRL | 0.33 | 1.94 | 2.29 | 16.5 | 96.4 | 95.2 | 1.3 | 94.8 | | | 80 - 120 | 30 | |
| Calcium | BRL | 5.0 | 411 | 482 | 15.9 | 93.0 | 92.3 | 0.8 | 100 | | | 80 - 120 | 30 | |
| Chromium | BRL | 0.33 | 16.9 | 14.8 | 13.2 | 97.6 | 94.8 | 2.9 | 95.1 | | | 80 - 120 | 30 | |
| Cobalt | BRL | 0.33 | 10.6 | 12.0 | 12.4 | 96.6 | 94.4 | 2.3 | 95.6 | | | 80 - 120 | 30 | |
| Copper | BRL | 0.67 | 39.2 | 39.9 | 1.80 | 98.3 | 93.8 | 4.7 | 95.3 | | | 80 - 120 | 30 | |
| Iron | BRL | 5.0 | 31300 | 38600 | 20.9 | 97.2 | 92.5 | 5.0 | NC | | | 80 - 120 | 30 | |
| Lead | BRL | 0.33 | 16.8 | 17.2 | 2.40 | 104 | 101 | 2.9 | 97.7 | | | 80 - 120 | 30 | |
| Magnesium | BRL | 5.0 | 7580 | 8210 | 8.00 | 107 | 105 | 1.9 | NC | | | 80 - 120 | 30 | |
| Manganese | BRL | 0.33 | 699 | 907 | 25.9 | 96.7 | 93.5 | 3.4 | >130 | | | 80 - 120 | 30 | m |
| Nickel | BRL | 0.33 | 24.1 | 29.0 | 18.5 | 94.7 | 92.7 | 2.1 | 93.5 | | | 80 - 120 | 30 | |
| Potassium | BRL | 5.0 | 1040 | 934 | 10.7 | 108 | 105 | 2.8 | >130 | | | 80 - 120 | 30 | m |
| Selenium | BRL | 1.3 | <1.5 | <1.4 | NC | 103 | 99.8 | 3.2 | 96.6 | | | 80 - 120 | 30 | |
| Silver | BRL | 0.33 | <0.37 | <0.35 | NC | 100 | 96.5 | 3.6 | 96.2 | | | 70 - 130 | 30 | |
| Sodium | BRL | 5.0 | 62 | 61.6 | 0.60 | 109 | 105 | 3.7 | 103 | | | 80 - 120 | 30 | |
| Thallium | BRL | 3.0 | <1.5 | <3.1 | NC | 94.4 | 92.2 | 2.4 | 89.7 | | | 80 - 120 | 30 | |
| Vanadium | BRL | 0.33 | 16.8 | 18.0 | 6.90 | 110 | 105 | 4.7 | 97.6 | | | 80 - 120 | 30 | |
| Zinc | BRL | 0.67 | 73.7 | 90.3 | 20.2 | 102 | 98.3 | 3.7 | 98.4 | | | 80 - 120 | 30 | |
| QA/QC Batch 654366 (mg/L), QC Sample No: CM95270 5X (CM95270) | | | | | | | | | | | | | | |
| ICP MS Metals - Aqueous | | | | | | | | | | | | | | |
| Antimony | BRL | 0.0030 | <0.0030 | <0.0030 | NC | 101 | 105 | 3.9 | 105 | | | 80 - 120 | 20 | |
| Selenium | BRL | 0.010 | <0.010 | <0.010 | NC | 107 | 110 | 2.8 | 112 | | | 80 - 120 | 20 | |
| Thallium | BRL | 0.0005 | <0.0005 | <0.0005 | NC | 99.2 | 104 | 4.7 | 105 | | | 80 - 120 | 20 | |

m = This parameter is outside laboratory MS/MSD specified recovery limits.
r = This parameter is outside laboratory RPD specified recovery limits.

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ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

# QA/QC Report

December 20, 2022

## QA/QC Data

SDG I.D.: GCM95248

| Parameter | Blank | Blk RL | LCS % | LCSD % | LCS RPD | MS % | MSD % | MS RPD | % Rec Limits | % RPD Limits |
|---|---|---|---|---|---|---|---|---|---|---|
| QA/QC Batch 655954 (ng/L), QC Sample No: CM95248 (CM95248, CM95249, CM95250, CM95251, CM95252, CM95253) | | | | | | | | | | |
| **PFOA & PFOS** | | | | | | | | | | |
| 1H,1H,2H,2H-Perfluorodecanesulfo | ND | 0.236 | 93.6 | | | 141 | | | 50 - 200 | |
| 1H,1H,2H,2H-Perfluorooctanesulfo | ND | 0.236 | 135 | | | 125 | | | 50 - 200 | |
| NEtFOSAA | ND | 0.236 | 79.9 | | | 95.1 | | | 50 - 130 | |
| NMeFOSAA | ND | 0.236 | 83.7 | | | 114 | | | 50 - 130 | |
| Perfluoro-1-decanesulfonic acid (P | ND | 0.236 | 59.6 | | | 62.0 | | | 50 - 130 | |
| Perfluoro-1-heptanesulfonic acid (P | ND | 0.236 | 102 | | | 105 | | | 50 - 130 | |
| Perfluoro-1-octanesulfonamide (FO | ND | 0.236 | 100 | | | 92.4 | | | 50 - 130 | |
| Perfluorobutanesulfonic Acid (PFB | ND | 0.236 | 106 | | | 122 | | | 50 - 130 | |
| Perfluorodecanoic Acid (PFDA) | ND | 0.236 | 88.2 | | | 105 | | | 50 - 130 | |
| Perfluorododecanoic Acid (PFDoA) | ND | 0.236 | 96.3 | | | 102 | | | 50 - 130 | |
| Perfluoroheptanoic Acid (PFHpA) | ND | 0.236 | 114 | | | 105 | | | 50 - 130 | |
| Perfluorohexanesulfonic Acid (PFH | ND | 0.236 | 78.8 | | | 93.0 | | | 50 - 130 | |
| Perfluorohexanoic Acid (PFHxA) | ND | 0.236 | 106 | | | 109 | | | 50 - 130 | |
| Perfluoro-n-butanoic acid (PFBA) | ND | 0.236 | 97.5 | | | 102 | | | 50 - 130 | |
| Perfluorononanoic Acid (PFNA) | ND | 0.236 | 97.3 | | | 94.3 | | | 50 - 130 | |
| Perfluorooctanesulfonic Acid (PFO | ND | 0.236 | 99.3 | | | 93.0 | | | 50 - 130 | |
| Perfluorooctanoic Acid (PFOA) | ND | 0.236 | 99.7 | | | 105 | | | 50 - 130 | |
| Perfluoropentanoic acid (PFPeA) | ND | 0.236 | 103 | | | 103 | | | 50 - 130 | |
| Perfluorotetradecanoic Acid (PFTA | ND | 0.236 | 103 | | | 108 | | | 50 - 130 | |
| Perfluorotridecanoic Acid (PFTrDA) | ND | 0.236 | 79.5 | | | 88.6 | | | 50 - 130 | |
| Perfluoroundecanoic Acid (PFUnA) | ND | 0.236 | 92.2 | | | 111 | | | 50 - 130 | |
| % d3-N-MeFOSAA | 51.7 | 0.0472 | 51.4 | | | 39.2 | | | 25 - 150 | |
| % d5-NEtFOSA | 47.9 | 0.0472 | 48.1 | | | 42.7 | | | 25 - 150 | |
| % M2-6:2FTS | 93.5 | 0.0472 | 101 | | | 83.2 | | | 25 - 200 | |
| % M2-8:2FTS | 94.7 | 0.0472 | 89.0 | | | 57.1 | | | 25 - 200 | |
| % M2PFTEDA | 38.9 | 0.0472 | 29.1 | | | 32.1 | | | 10 - 150 | |
| % M3PFBS | 83.2 | 0.0472 | 80.9 | | | 62.3 | | | 25 - 150 | |
| % M3PFHxS | 92.6 | 0.0472 | 95.1 | | | 69.4 | | | 25 - 150 | |
| % M4PFHpA | 76.4 | 0.0472 | 75.1 | | | 73.8 | | | 25 - 150 | |
| % M5PFHxA | 78.5 | 0.0472 | 79.5 | | | 76.4 | | | 25 - 150 | |
| % M5PFPEA | 81.5 | 0.0472 | 76.8 | | | 76.7 | | | 25 - 150 | |
| % M6PFDA | 68.6 | 0.0472 | 62.7 | | | 57.6 | | | 25 - 150 | |
| % M7PFUDA | 52.2 | 0.0472 | 41.5 | | | 42.6 | | | 25 - 150 | |
| % M8FOSA | 48.8 | 0.0472 | 39.2 | | | 39.3 | | | 10 - 150 | |
| % M8PFOA | 79.5 | 0.0472 | 73.7 | | | 74.0 | | | 25 - 150 | |
| % M8PFOS | 79.3 | 0.0472 | 70.7 | | | 64.5 | | | 25 - 150 | |
| % M9PFNA | 75.8 | 0.0472 | 63.3 | | | 69.9 | | | 25 - 150 | |
| % MPFBA | 79.5 | 0.0472 | 82.0 | | | 79.7 | | | 25 - 150 | |
| % MPFDOA | 49.0 | 0.0472 | 41.7 | | | 41.2 | | | 25 - 150 | |

Comment:

Sample CM95248 was not used for MS due to insufficient volume.

# QA/QC Data

SDG I.D.: GCM95248

| Parameter | Blank | Blk RL | LCS % | LCSD % | LCS RPD | MS % | MSD % | MS RPD | % Rec Limits | % RPD Limits |
|---|---|---|---|---|---|---|---|---|---|---|
| QA/QC Batch 655953 (ng/L), QC Sample No: CM95275 (CM95255, CM95256, CM95258, CM95259, CM95260, CM95262, CM95263, CM95265, CM95266, CM95269, CM95271, CM95272, CM95274, CM95275, CM95277) | | | | | | | | | | |
| **PFOA & PFOS** | | | | | | | | | | |
| 1H,1H,2H,2H-Perfluorodecanesulfo | ND | 0.239 | 96.6 | | | 102 | | | 50 - 200 | |
| 1H,1H,2H,2H-Perfluorooctanesulfo | ND | 0.239 | 84.7 | | | 72.5 | | | 50 - 200 | |
| NEtFOSAA | ND | 0.239 | 82.0 | | | 74.5 | | | 50 - 130 | |
| NMeFOSAA | ND | 0.239 | 83.2 | | | 84.7 | | | 50 - 130 | |
| Perfluoro-1-decanesulfonic acid (P | ND | 0.239 | 71.7 | | | 58.4 | | | 50 - 130 | |
| Perfluoro-1-heptanesulfonic acid (P | ND | 0.239 | 105 | | | 109 | | | 50 - 130 | |
| Perfluoro-1-octanesulfonamide (FO | ND | 0.239 | 84.6 | | | 94.8 | | | 50 - 130 | |
| Perfluorobutanesulfonic Acid (PFB | ND | 0.239 | 100 | | | 105 | | | 50 - 130 | |
| Perfluorodecanoic Acid (PFDA) | ND | 0.239 | 94.6 | | | 96.5 | | | 50 - 130 | |
| Perfluorododecanoic Acid (PFDoA) | ND | 0.239 | 92.7 | | | 106 | | | 50 - 130 | |
| Perfluoroheptanoic Acid (PFHpA) | ND | 0.239 | 100 | | | 104 | | | 50 - 130 | |
| Perfluorohexanesulfonic Acid (PFH | ND | 0.239 | 89.2 | | | 83.1 | | | 50 - 130 | |
| Perfluorohexanoic Acid (PFHxA) | ND | 0.239 | 95.5 | | | 99.5 | | | 50 - 130 | |
| Perfluoro-n-butanoic acid (PFBA) | ND | 0.239 | 90.2 | | | 90.6 | | | 50 - 130 | |
| Perfluorononanoic Acid (PFNA) | ND | 0.239 | 83.4 | | | 81.0 | | | 50 - 130 | |
| Perfluorooctanesulfonic Acid (PFO | ND | 0.239 | 99.5 | | | 113 | | | 50 - 130 | |
| Perfluorooctanoic Acid (PFOA) | ND | 0.239 | 92.1 | | | 88.9 | | | 50 - 130 | |
| Perfluoropentanoic acid (PFPeA) | ND | 0.239 | 93.7 | | | 95.7 | | | 50 - 130 | |
| Perfluorotetradecanoic Acid (PFTA | ND | 0.239 | 95.4 | | | 97.7 | | | 50 - 130 | |
| Perfluorotridecanoic Acid (PFTrDA) | ND | 0.239 | 93.6 | | | 83.8 | | | 50 - 130 | |
| Perfluoroundecanoic Acid (PFUnA) | ND | 0.239 | 97.3 | | | 101 | | | 50 - 130 | |
| % d3-N-MeFOSAA | 62.4 | 0.0478 | 78.8 | | | 55.2 | | | 25 - 150 | |
| % d5-NEtFOSA | 55.3 | 0.0478 | 74.1 | | | 56.5 | | | 25 - 150 | |
| % M2-6:2FTS | 98.0 | 0.0478 | 136 | | | 121 | | | 25 - 200 | |
| % M2-8:2FTS | 110 | 0.0478 | 131 | | | 92.7 | | | 25 - 200 | |
| % M2PFTEDA | 44.2 | 0.0478 | 52.4 | | | 31.0 | | | 10 - 150 | |
| % M3PFBS | 85.8 | 0.0478 | 101 | | | 81.8 | | | 25 - 150 | |
| % M3PFHxS | 89.6 | 0.0478 | 108 | | | 99.5 | | | 25 - 150 | |
| % M4PFHpA | 90.7 | 0.0478 | 100 | | | 91.7 | | | 25 - 150 | |
| % M5PFHxA | 90.4 | 0.0478 | 105 | | | 93.8 | | | 25 - 150 | |
| % M5PFPEA | 96.6 | 0.0478 | 114 | | | 95.9 | | | 25 - 150 | |
| % M6PFDA | 69.0 | 0.0478 | 92.3 | | | 69.1 | | | 25 - 150 | |
| % M7PFUDA | 61.5 | 0.0478 | 72.4 | | | 50.5 | | | 25 - 150 | |
| % M8FOSA | 49.7 | 0.0478 | 61.5 | | | 44.3 | | | 10 - 150 | |
| % M8PFOA | 86.7 | 0.0478 | 107 | | | 102 | | | 25 - 150 | |
| % M8PFOS | 83.1 | 0.0478 | 86.6 | | | 70.7 | | | 25 - 150 | |
| % M9PFNA | 82.7 | 0.0478 | 97.9 | | | 87.7 | | | 25 - 150 | |
| % MPFBA | 85.2 | 0.0478 | 98.5 | | | 92.8 | | | 25 - 150 | |
| % MPFDOA | 58.8 | 0.0478 | 74.4 | | | 47.0 | | | 25 - 150 | |
| QA/QC Batch 654517 (ug/l), QC Sample No: CM91170 (CM95270) | | | | | | | | | | |
| **1,4dioxane - Water** | | | | | | | | | | |
| 1,4-dioxane | ND | 0.20 | 102 | 125 | 20.3 | 113 | | | 70 - 130 | 20 |
| % 1,4-dioxane-d8 | 85 | % | 82 | 99 | 18.8 | 80 | | | 70 - 130 | 20 |
| QA/QC Batch 654370 (ug/Kg), QC Sample No: CM93451 10X (CM95248, CM95249, CM95250, CM95251) | | | | | | | | | | |
| **Chlorinated Herbicides - Sediment** | | | | | | | | | | |
| 2,4,5-T | ND | 130 | 41 | 43 | 4.8 | 45 | 36 | 22.2 | 40 - 140 | 30 |
| 2,4,5-TP (Silvex) | ND | 130 | 49 | 57 | 15.1 | 52 | 41 | 23.7 | 40 - 140 | 30 |
| 2,4-D | ND | 250 | 45 | 55 | 20.0 | 52 | 40 | 26.1 | 40 - 140 | 30 |

| Parameter | Blank | Blk RL | LCS % | LCSD % | LCS RPD | MS % | MSD % | MS RPD | % Rec Limits | % RPD Limits | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 2,4-DB | ND | 2500 | 34 | 40 | 16.2 | 43 | 34 | 23.4 | 40 - 140 | 30 | I |
| Dalapon | ND | 130 | 56 | 55 | 1.8 | 38 | 39 | 2.6 | 40 - 140 | 30 | |
| Dicamba | ND | 130 | 83 | 88 | 5.8 | 71 | 63 | 11.9 | 40 - 140 | 30 | |
| Dichloroprop | ND | 130 | 59 | 69 | 15.6 | 63 | 50 | 23.0 | 40 - 140 | 30 | |
| Dinoseb | ND | 130 | 79 | 81 | 2.5 | 57 | 46 | 21.4 | 40 - 140 | 30 | |
| % DCAA (Surrogate Rec) | 88 | % | 77 | 92 | 17.8 | 89 | 69 | 25.3 | 30 - 150 | 30 | |
| % DCAA (Surrogate Rec) (Confirm | 87 | % | 70 | 82 | 15.8 | 78 | 63 | 21.3 | 30 - 150 | 30 | |
| QA/QC Batch 655065 (ug/Kg), QC Sample No: CM95266 10X (CM95262, CM95263, CM95265, CM95266, CM95268, CM95269, CM95271, CM95272, CM95274, CM95275, CM95277) | | | | | | | | | | | |
| Chlorinated Herbicides - Soil | | | | | | | | | | | |
| 2,4,5-T | ND | 130 | 45 | 59 | 26.9 | 60 | 52 | 14.3 | 40 - 140 | 30 | |
| 2,4,5-TP (Silvex) | ND | 130 | 56 | 67 | 17.9 | 67 | 62 | 7.8 | 40 - 140 | 30 | |
| 2,4-D | ND | 250 | 53 | 70 | 27.6 | 71 | 62 | 13.5 | 40 - 140 | 30 | |
| 2,4-DB | ND | 2500 | 38 | 54 | 34.8 | 53 | 43 | 20.8 | 40 - 140 | 30 | I,r |
| Dalapon | ND | 130 | 62 | 70 | 12.1 | 35 | 43 | 20.5 | 40 - 140 | 30 | |
| Dicamba | ND | 130 | 86 | 90 | 4.5 | 87 | 94 | 7.7 | 40 - 140 | 30 | |
| Dichloroprop | ND | 130 | 68 | 84 | 21.1 | 77 | 85 | 9.9 | 40 - 140 | 30 | |
| Dinoseb | ND | 130 | 66 | 79 | 17.9 | 66 | 54 | 20.0 | 40 - 140 | 30 | |
| % DCAA (Surrogate Rec) | 110 | % | 96 | 114 | 17.1 | 115 | 109 | 5.4 | 30 - 150 | 30 | |
| % DCAA (Surrogate Rec) (Confirm | 108 | % | 84 | 100 | 17.4 | 102 | 100 | 2.0 | 30 - 150 | 30 | |
| QA/QC Batch 654683 (ug/L), QC Sample No: CM95270 10X (CM95270) | | | | | | | | | | | |
| Chlorinated Herbicides - Water | | | | | | | | | | | |
| 2,4,5-T | ND | 2.5 | 78 | 77 | 1.3 | | | | 40 - 140 | 20 | |
| 2,4,5-TP (Silvex) | ND | 2.5 | 81 | 80 | 1.2 | | | | 40 - 140 | 20 | |
| 2,4-D | ND | 5.0 | 87 | 83 | 4.7 | | | | 40 - 140 | 20 | |
| 2,4-DB | ND | 50 | 41 | 39 | 5.0 | | | | 40 - 140 | 20 | I |
| Dalapon | ND | 2.5 | 76 | 77 | 1.3 | | | | 40 - 140 | 20 | |
| Dicamba | ND | 2.5 | 84 | 78 | 7.4 | | | | 40 - 140 | 20 | |
| Dichloroprop | ND | 5.0 | 95 | 89 | 6.5 | | | | 40 - 140 | 20 | |
| Dinoseb | ND | 5.0 | 77 | 75 | 2.6 | | | | 40 - 140 | 20 | |
| % DCAA (Surrogate Rec) | 116 | % | 121 | 115 | 5.1 | | | | 30 - 150 | 20 | |
| % DCAA (Surrogate Rec) (Confirm | 115 | % | 126 | 117 | 7.4 | | | | 30 - 150 | 20 | |
| QA/QC Batch 654607 (ug/Kg), QC Sample No: CM96409 10X (CM95252, CM95253, CM95255, CM95256) | | | | | | | | | | | |
| Chlorinated Herbicides - Soil | | | | | | | | | | | |
| 2,4,5-T | ND | 130 | 66 | 49 | 29.6 | 51 | 65 | 24.1 | 40 - 140 | 30 | |
| 2,4,5-TP (Silvex) | ND | 130 | 67 | 51 | 27.1 | 53 | 64 | 18.8 | 40 - 140 | 30 | |
| 2,4-D | ND | 250 | 58 | 44 | 27.5 | 58 | 58 | 0.0 | 40 - 140 | 30 | |
| 2,4-DB | ND | 2500 | 59 | 46 | 24.8 | 48 | 60 | 22.2 | 40 - 140 | 30 | |
| Dalapon | ND | 130 | 54 | 42 | 25.0 | 41 | 44 | 7.1 | 40 - 140 | 30 | |
| Dicamba | ND | 130 | 88 | 54 | 47.9 | 68 | 70 | 2.9 | 40 - 140 | 30 | r |
| Dichloroprop | ND | 130 | 76 | 57 | 28.6 | 61 | 74 | 19.3 | 40 - 140 | 30 | |
| Dinoseb | ND | 130 | 68 | 65 | 4.5 | 43 | 49 | 13.0 | 40 - 140 | 30 | |
| % DCAA (Surrogate Rec) | 87 | % | 95 | 72 | 27.5 | 78 | 94 | 18.6 | 30 - 150 | 30 | |
| % DCAA (Surrogate Rec) (Confirm | 84 | % | 91 | 72 | 23.3 | 76 | 93 | 20.1 | 30 - 150 | 30 | |
| QA/QC Batch 654848 (ug/Kg), QC Sample No: CM98265 10X (CM95258) | | | | | | | | | | | |
| Chlorinated Herbicides - Soil | | | | | | | | | | | |
| 2,4,5-T | ND | 130 | 72 | 69 | 4.3 | 58 | 66 | 12.9 | 40 - 140 | 30 | |
| 2,4,5-TP (Silvex) | ND | 130 | 71 | 71 | 0.0 | 54 | 60 | 10.5 | 40 - 140 | 30 | |
| 2,4-D | ND | 250 | 73 | 76 | 4.0 | 58 | 67 | 14.4 | 40 - 140 | 30 | |
| 2,4-DB | ND | 2500 | 73 | 72 | 1.4 | 60 | 65 | 8.0 | 40 - 140 | 30 | |
| Dalapon | ND | 130 | 53 | 57 | 7.3 | 43 | 40 | 7.2 | 40 - 140 | 30 | |

| Parameter | Blank | Blk RL | LCS % | LCSD % | LCS RPD | MS % | MSD % | MS RPD | % Rec Limits | % RPD Limits | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Dicamba | ND | 130 | 69 | 67 | 2.9 | 63 | 70 | 10.5 | 40 - 140 | 30 | |
| Dichloroprop | ND | 130 | 84 | 79 | 6.1 | 68 | 69 | 1.5 | 40 - 140 | 30 | |
| Dinoseb | ND | 130 | 70 | 74 | 5.6 | 54 | 59 | 8.8 | 40 - 140 | 30 | |
| % DCAA (Surrogate Rec) | 74 | % | 88 | 89 | 1.1 | 73 | 79 | 7.9 | 30 - 150 | 30 | |
| % DCAA (Surrogate Rec) (Confirm | 79 | % | 97 | 92 | 5.3 | 72 | 74 | 2.7 | 30 - 150 | 30 | |
| QA/QC Batch 655020 (ug/Kg), QC Sample No: CM99112 10X (CM95259, CM95260) | | | | | | | | | | | |
| Chlorinated Herbicides - Soil | | | | | | | | | | | |
| 2,4,5-T | ND | 130 | 41 | 56 | 30.9 | 52 | 59 | 12.6 | 40 - 140 | 30 | r |
| 2,4,5-TP (Silvex) | ND | 130 | 51 | 63 | 21.1 | 58 | 63 | 8.3 | 40 - 140 | 30 | |
| 2,4-D | ND | 250 | 49 | 65 | 28.1 | 56 | 63 | 11.8 | 40 - 140 | 30 | |
| 2,4-DB | ND | 2500 | 35 | 50 | 35.3 | 45 | 54 | 18.2 | 40 - 140 | 30 | l,r |
| Dalapon | ND | 130 | 52 | 58 | 10.9 | 40 | 42 | 4.9 | 40 - 140 | 30 | |
| Dicamba | ND | 130 | 75 | 80 | 6.5 | 72 | 77 | 6.7 | 40 - 140 | 30 | |
| Dichloroprop | ND | 130 | 63 | 78 | 21.3 | 72 | 77 | 6.7 | 40 - 140 | 30 | |
| Dinoseb | ND | 130 | 62 | 72 | 14.9 | 58 | 67 | 14.4 | 40 - 140 | 30 | |
| % DCAA (Surrogate Rec) | 72 | % | 84 | 104 | 21.3 | 99 | 108 | 8.7 | 30 - 150 | 30 | |
| % DCAA (Surrogate Rec) (Confirm | 74 | % | 74 | 89 | 18.4 | 87 | 92 | 5.6 | 30 - 150 | 30 | |
| QA/QC Batch 654191 (ug/Kg), QC Sample No: CM95263 2X (CM95248, CM95249, CM95250, CM95251, CM95252, CM95253, CM95255, CM95256, CM95258, CM95259, CM95260, CM95262, CM95263, CM95265, CM95266, CM95268, CM95269, CM95271, CM95272, CM95274) | | | | | | | | | | | |
| Polychlorinated Biphenyls - Sediment, Soil | | | | | | | | | | | |
| PCB-1016 | ND | 33 | 81 | 78 | 3.8 | 69 | 65 | 6.0 | 40 - 140 | 30 | |
| PCB-1221 | ND | 33 | | | | | | | 40 - 140 | 30 | |
| PCB-1232 | ND | 33 | | | | | | | 40 - 140 | 30 | |
| PCB-1242 | ND | 33 | | | | | | | 40 - 140 | 30 | |
| PCB-1248 | ND | 33 | | | | | | | 40 - 140 | 30 | |
| PCB-1254 | ND | 33 | | | | | | | 40 - 140 | 30 | |
| PCB-1260 | ND | 33 | 102 | 101 | 1.0 | 87 | 76 | 13.5 | 40 - 140 | 30 | |
| PCB-1262 | ND | 33 | | | | | | | 40 - 140 | 30 | |
| PCB-1268 | ND | 33 | | | | | | | 40 - 140 | 30 | |
| % DCBP (Surrogate Rec) | 104 | % | 105 | 112 | 6.5 | 80 | 73 | 9.2 | 30 - 150 | 30 | |
| % DCBP (Surrogate Rec) (Confirm | 90 | % | 92 | 96 | 4.3 | 68 | 60 | 12.5 | 30 - 150 | 30 | |
| % TCMX (Surrogate Rec) | 81 | % | 84 | 81 | 3.6 | 76 | 69 | 9.7 | 30 - 150 | 30 | |
| % TCMX (Surrogate Rec) (Confirm | 77 | % | 82 | 80 | 2.5 | 73 | 68 | 7.1 | 30 - 150 | 30 | |
| QA/QC Batch 654347 (ug/Kg), QC Sample No: CM95291 2X (CM95275, CM95277) | | | | | | | | | | | |
| Polychlorinated Biphenyls - Soil | | | | | | | | | | | |
| PCB-1016 | ND | 33 | 87 | 86 | 1.2 | 77 | 79 | 2.6 | 40 - 140 | 30 | |
| PCB-1221 | ND | 33 | | | | | | | 40 - 140 | 30 | |
| PCB-1232 | ND | 33 | | | | | | | 40 - 140 | 30 | |
| PCB-1242 | ND | 33 | | | | | | | 40 - 140 | 30 | |
| PCB-1248 | ND | 33 | | | | | | | 40 - 140 | 30 | |
| PCB-1254 | ND | 33 | | | | | | | 40 - 140 | 30 | |
| PCB-1260 | ND | 33 | 103 | 102 | 1.0 | 84 | 89 | 5.8 | 40 - 140 | 30 | |
| PCB-1262 | ND | 33 | | | | | | | 40 - 140 | 30 | |
| PCB-1268 | ND | 33 | | | | | | | 40 - 140 | 30 | |
| % DCBP (Surrogate Rec) | 91 | % | 103 | 99 | 4.0 | 80 | 86 | 7.2 | 30 - 150 | 30 | |
| % DCBP (Surrogate Rec) (Confirm | 85 | % | 95 | 90 | 5.4 | 75 | 76 | 1.3 | 30 - 150 | 30 | |
| % TCMX (Surrogate Rec) | 76 | % | 84 | 86 | 2.4 | 70 | 72 | 2.8 | 30 - 150 | 30 | |
| % TCMX (Surrogate Rec) (Confirm | 74 | % | 84 | 86 | 2.4 | 71 | 73 | 2.8 | 30 - 150 | 30 | |

# QA/QC Data

SDG I.D.: GCM95248

| Parameter | Blank | Blk RL | LCS % | LCSD % | LCS RPD | MS % | MSD % | MS RPD | % Rec Limits | % RPD Limits | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| QA/QC Batch 654192 (ug/Kg), QC Sample No: CM95263 2X (CM95248, CM95249, CM95250, CM95251, CM95252, CM95253, CM95255, CM95256, CM95258, CM95259, CM95260, CM95262, CM95263, CM95265, CM95266, CM95268, CM95269, CM95271, CM95272, CM95274) | | | | | | | | | | | |
| **Pesticides - Sediment, Soil** | | | | | | | | | | | |
| 4,4' -DDD | ND | 1.7 | 112 | 133 | 17.1 | 81 | 68 | 17.4 | 40 - 140 | 30 | |
| 4,4' -DDE | ND | 1.7 | 108 | 111 | 2.7 | 95 | 82 | 14.7 | 40 - 140 | 30 | |
| 4,4' -DDT | ND | 1.7 | 108 | 118 | 8.8 | 90 | 70 | 25.0 | 40 - 140 | 30 | |
| a-BHC | ND | 1.0 | 91 | 91 | 0.0 | 71 | 54 | 27.2 | 40 - 140 | 30 | |
| a-Chlordane | ND | 3.3 | 101 | 100 | 1.0 | 75 | 63 | 17.4 | 40 - 140 | 30 | |
| Alachlor | ND | 3.3 | NA | NA | NC | NA | NA | NC | 40 - 140 | 30 | |
| Aldrin | ND | 1.0 | 93 | 91 | 2.2 | 74 | 58 | 24.2 | 40 - 140 | 30 | |
| b-BHC | ND | 1.0 | 107 | 103 | 3.8 | 81 | 66 | 20.4 | 40 - 140 | 30 | |
| Chlordane | ND | 33 | 97 | 100 | 3.0 | 76 | 63 | 18.7 | 40 - 140 | 30 | |
| d-BHC | ND | 3.3 | 100 | 105 | 4.9 | 89 | 72 | 21.1 | 40 - 140 | 30 | |
| Dieldrin | ND | 1.0 | 94 | 100 | 6.2 | 72 | 61 | 16.5 | 40 - 140 | 30 | |
| Endosulfan I | ND | 3.3 | 99 | 105 | 5.9 | 82 | 67 | 20.1 | 40 - 140 | 30 | |
| Endosulfan II | ND | 3.3 | 99 | 104 | 4.9 | 72 | 56 | 25.0 | 40 - 140 | 30 | |
| Endosulfan sulfate | ND | 3.3 | 106 | 116 | 9.0 | 76 | 62 | 20.3 | 40 - 140 | 30 | |
| Endrin | ND | 3.3 | 108 | 111 | 2.7 | 84 | 67 | 22.5 | 40 - 140 | 30 | |
| Endrin aldehyde | ND | 3.3 | 99 | 97 | 2.0 | 67 | 53 | 23.3 | 40 - 140 | 30 | |
| Endrin ketone | ND | 3.3 | 99 | 97 | 2.0 | 69 | 58 | 17.3 | 40 - 140 | 30 | |
| g-BHC | ND | 1.0 | 86 | 88 | 2.3 | 66 | 53 | 21.8 | 40 - 140 | 30 | |
| g-Chlordane | ND | 3.3 | 97 | 100 | 3.0 | 76 | 63 | 18.7 | 40 - 140 | 30 | |
| Heptachlor | ND | 3.3 | 95 | 106 | 10.9 | 77 | 60 | 24.8 | 40 - 140 | 30 | |
| Heptachlor epoxide | ND | 3.3 | 98 | 102 | 4.0 | 80 | 66 | 19.2 | 40 - 140 | 30 | |
| Methoxychlor | ND | 3.3 | 115 | 124 | 7.5 | 82 | 70 | 15.8 | 40 - 140 | 30 | |
| Toxaphene | ND | 130 | NA | NA | NC | NA | NA | NC | 40 - 140 | 30 | |
| % DCBP | 112 | % | 98 | 135 | 31.8 | 71 | 57 | 21.9 | 30 - 150 | 30 | r |
| % DCBP (Confirmation) | 136 | % | 130 | 184 | 34.4 | 100 | 85 | 16.2 | 30 - 150 | 30 | l,r |
| % TCMX | 89 | % | 85 | 89 | 4.6 | 71 | 58 | 20.2 | 30 - 150 | 30 | |
| % TCMX (Confirmation) | 87 | % | 82 | 91 | 10.4 | 72 | 59 | 19.8 | 30 - 150 | 30 | |
| QA/QC Batch 654349 (ug/Kg), QC Sample No: CM95291 2X (CM95275, CM95277) | | | | | | | | | | | |
| **Pesticides - Soil** | | | | | | | | | | | |
| 4,4' -DDD | ND | 1.7 | 61 | 74 | 19.3 | 100 | 113 | 12.2 | 40 - 140 | 30 | |
| 4,4' -DDE | ND | 1.7 | 52 | 63 | 19.1 | 100 | 117 | 15.7 | 40 - 140 | 30 | |
| 4,4' -DDT | ND | 1.7 | 50 | 58 | 14.8 | 79 | 101 | 24.4 | 40 - 140 | 30 | |
| a-BHC | ND | 1.0 | 56 | 71 | 23.6 | 85 | 93 | 9.0 | 40 - 140 | 30 | |
| a-Chlordane | ND | 3.3 | 57 | 73 | 24.6 | 89 | 98 | 9.6 | 40 - 140 | 30 | |
| Alachlor | ND | 3.3 | NA | NA | NC | NA | NA | NC | 40 - 140 | 30 | |
| Aldrin | ND | 1.0 | 51 | 68 | 28.6 | 90 | 99 | 9.5 | 40 - 140 | 30 | |
| b-BHC | ND | 1.0 | 58 | 74 | 24.2 | 94 | 100 | 6.2 | 40 - 140 | 30 | |
| Chlordane | ND | 33 | 53 | 68 | 24.8 | 84 | 95 | 12.3 | 40 - 140 | 30 | |
| d-BHC | ND | 3.3 | 57 | 69 | 19.0 | 84 | 92 | 9.1 | 40 - 140 | 30 | |
| Dieldrin | ND | 1.0 | 56 | 72 | 25.0 | 91 | 103 | 12.4 | 40 - 140 | 30 | |
| Endosulfan I | ND | 3.3 | 60 | 78 | 26.1 | 96 | 107 | 10.8 | 40 - 140 | 30 | |
| Endosulfan II | ND | 3.3 | 59 | 75 | 23.9 | 96 | 116 | 18.9 | 40 - 140 | 30 | |
| Endosulfan sulfate | ND | 3.3 | 69 | 82 | 17.2 | 93 | 108 | 14.9 | 40 - 140 | 30 | |
| Endrin | ND | 3.3 | 54 | 68 | 23.0 | 89 | 100 | 11.6 | 40 - 140 | 30 | |
| Endrin aldehyde | ND | 3.3 | 61 | 70 | 13.7 | 88 | 93 | 5.5 | 40 - 140 | 30 | |
| Endrin ketone | ND | 3.3 | 64 | 78 | 19.7 | 105 | 109 | 3.7 | 40 - 140 | 30 | |
| g-BHC | ND | 1.0 | 53 | 69 | 26.2 | 95 | 105 | 10.0 | 40 - 140 | 30 | |
| g-Chlordane | ND | 3.3 | 53 | 68 | 24.8 | 84 | 95 | 12.3 | 40 - 140 | 30 | |

| Parameter | Blank | Blk RL | LCS % | LCSD % | LCS RPD | MS % | MSD % | MS RPD | % Rec Limits | % RPD Limits | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Heptachlor | ND | 3.3 | 56 | 71 | 23.6 | 87 | 96 | 9.8 | 40 - 140 | 30 | |
| Heptachlor epoxide | ND | 3.3 | 57 | 74 | 26.0 | 93 | 104 | 11.2 | 40 - 140 | 30 | |
| Methoxychlor | ND | 3.3 | 60 | 67 | 11.0 | 92 | 93 | 1.1 | 40 - 140 | 30 | |
| Toxaphene | ND | 130 | NA | NA | NC | NA | NA | NC | 40 - 140 | 30 | |
| % DCBP | 55 | % | 61 | 57 | 6.8 | 99 | 111 | 11.4 | 30 - 150 | 30 | |
| % DCBP (Confirmation) | 218 | % | 143 | 117 | 20.0 | 57 | 62 | 8.4 | 30 - 150 | 30 | s |
| % TCMX | 75 | % | 60 | 77 | 24.8 | 95 | 102 | 7.1 | 30 - 150 | 30 | |
| % TCMX (Confirmation) | 106 | % | 81 | 102 | 23.0 | 72 | 77 | 6.7 | 30 - 150 | 30 | |

QA/QC Batch 654442 (ug/kg), QC Sample No: CM95131 (CM95248, CM95249, CM95250, CM95251, CM95252, CM95253, CM95255, CM95256, CM95258, CM95259, CM95260, CM95262, CM95263, CM95265)

## Semivolatiles - Sediment, Soil

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1,2,4,5-Tetrachlorobenzene | ND | 230 | 57 | | | 79 | 77 | 2.6 | 30 - 130 | 30 | |
| 1,2,4-Trichlorobenzene | ND | 230 | 50 | | | 76 | 69 | 9.7 | 30 - 130 | 30 | |
| 1,2-Dichlorobenzene | ND | 180 | 40 | | | 64 | 55 | 15.1 | 30 - 130 | 30 | |
| 1,2-Diphenylhydrazine | ND | 230 | 69 | | | 77 | 73 | 5.3 | 30 - 130 | 30 | |
| 1,3-Dichlorobenzene | ND | 230 | 34 | | | 61 | 49 | 21.8 | 30 - 130 | 30 | |
| 1,4-Dichlorobenzene | ND | 230 | 35 | | | 61 | 51 | 17.9 | 30 - 130 | 30 | |
| 2,2'-Oxybis(1-Chloropropane) | ND | 230 | 52 | | | 61 | 62 | 1.6 | 30 - 130 | 30 | |
| 2,4,5-Trichlorophenol | ND | 230 | 90 | | | 104 | 106 | 1.9 | 30 - 130 | 30 | |
| 2,4,6-Trichlorophenol | ND | 130 | 80 | | | 102 | 105 | 2.9 | 30 - 130 | 30 | |
| 2,4-Dichlorophenol | ND | 130 | 89 | | | 100 | 98 | 2.0 | 30 - 130 | 30 | |
| 2,4-Dimethylphenol | ND | 230 | 91 | | | 99 | 97 | 2.0 | 30 - 130 | 30 | |
| 2,4-Dinitrophenol | ND | 230 | <10 | | | 56 | 14 | 120.0 | 30 - 130 | 30 | l,m,r |
| 2,4-Dinitrotoluene | ND | 130 | 91 | | | 89 | 85 | 4.6 | 30 - 130 | 30 | |
| 2,6-Dinitrotoluene | ND | 130 | 85 | | | 85 | 86 | 1.2 | 30 - 130 | 30 | |
| 2-Chloronaphthalene | ND | 230 | 65 | | | 86 | 89 | 3.4 | 30 - 130 | 30 | |
| 2-Chlorophenol | ND | 230 | 78 | | | 84 | 80 | 4.9 | 30 - 130 | 30 | |
| 2-Methylnaphthalene | ND | 230 | 61 | | | 81 | 80 | 1.2 | 30 - 130 | 30 | |
| 2-Methylphenol (o-cresol) | ND | 230 | 81 | | | 91 | 89 | 2.2 | 30 - 130 | 30 | |
| 2-Nitroaniline | ND | 330 | 110 | | | 101 | 105 | 3.9 | 30 - 130 | 30 | |
| 2-Nitrophenol | ND | 230 | 74 | | | 96 | 87 | 9.8 | 30 - 130 | 30 | |
| 3&4-Methylphenol (m&p-cresol) | ND | 230 | 92 | | | 91 | 84 | 8.0 | 30 - 130 | 30 | |
| 3,3'-Dichlorobenzidine | ND | 130 | 84 | | | 25 | 32 | 24.6 | 30 - 130 | 30 | m |
| 3-Nitroaniline | ND | 330 | 101 | | | 80 | 79 | 1.3 | 30 - 130 | 30 | |
| 4,6-Dinitro-2-methylphenol | ND | 230 | 12 | | | 54 | 25 | 73.4 | 30 - 130 | 30 | l,m,r |
| 4-Bromophenyl phenyl ether | ND | 230 | 79 | | | 114 | 98 | 15.1 | 30 - 130 | 30 | |
| 4-Chloro-3-methylphenol | ND | 230 | 97 | | | 100 | 102 | 2.0 | 30 - 130 | 30 | |
| 4-Chloroaniline | ND | 230 | 76 | | | 71 | 75 | 5.5 | 30 - 130 | 30 | |
| 4-Chlorophenyl phenyl ether | ND | 230 | 72 | | | 82 | 78 | 5.0 | 30 - 130 | 30 | |
| 4-Nitroaniline | ND | 230 | 83 | | | 90 | 95 | 5.4 | 30 - 130 | 30 | |
| 4-Nitrophenol | ND | 230 | 66 | | | 85 | 91 | 6.8 | 30 - 130 | 30 | |
| Acenaphthene | ND | 230 | 63 | | | 78 | 78 | 0.0 | 30 - 130 | 30 | |
| Acenaphthylene | ND | 130 | 64 | | | 76 | 77 | 1.3 | 30 - 130 | 30 | |
| Acetophenone | ND | 230 | 73 | | | 82 | 78 | 5.0 | 30 - 130 | 30 | |
| Aniline | ND | 330 | 74 | | | 45 | 117 | 88.9 | 30 - 130 | 30 | r |
| Anthracene | ND | 230 | 76 | | | 79 | 80 | 1.3 | 30 - 130 | 30 | |
| Benz(a)anthracene | ND | 230 | 74 | | | 84 | 79 | 6.1 | 30 - 130 | 30 | |
| Benzidine | ND | 330 | 112 | | | <10 | <10 | NC | 30 - 130 | 30 | m |
| Benzo(a)pyrene | ND | 130 | 87 | | | 92 | 91 | 1.1 | 30 - 130 | 30 | |
| Benzo(b)fluoranthene | ND | 160 | 76 | | | 120 | 104 | 14.3 | 30 - 130 | 30 | |
| Benzo(ghi)perylene | ND | 230 | 87 | | | 66 | 73 | 10.1 | 30 - 130 | 30 | |
| Benzo(k)fluoranthene | ND | 230 | 73 | | | 90 | 85 | 5.7 | 30 - 130 | 30 | |

# QA/QC Data

SDG I.D.: GCM95248

| Parameter | Blank | Blk RL | LCS % | LCSD % | LCS RPD | MS % | MSD % | MS RPD | % Rec Limits | % RPD Limits | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Benzoic Acid | ND | 670 | <10 | | | 53 | 11 | 131.3 | 30 - 130 | 30 | l,m,r |
| Benzyl butyl phthalate | ND | 230 | 89 | | | 102 | 96 | 6.1 | 30 - 130 | 30 | |
| Bis(2-chloroethoxy)methane | ND | 230 | 74 | | | 86 | 85 | 1.2 | 30 - 130 | 30 | |
| Bis(2-chloroethyl)ether | ND | 130 | 58 | | | 69 | 68 | 1.5 | 30 - 130 | 30 | |
| Bis(2-ethylhexyl)phthalate | ND | 230 | 81 | | | 109 | 84 | 25.9 | 30 - 130 | 30 | |
| Carbazole | ND | 230 | 78 | | | 71 | 72 | 1.4 | 30 - 130 | 30 | |
| Chrysene | ND | 230 | 77 | | | 83 | 81 | 2.4 | 30 - 130 | 30 | |
| Dibenz(a,h)anthracene | ND | 130 | 88 | | | 68 | 76 | 11.1 | 30 - 130 | 30 | |
| Dibenzofuran | ND | 230 | 71 | | | 83 | 79 | 4.9 | 30 - 130 | 30 | |
| Diethyl phthalate | ND | 230 | 79 | | | 78 | 72 | 8.0 | 30 - 130 | 30 | |
| Dimethylphthalate | ND | 230 | 84 | | | 81 | 84 | 3.6 | 30 - 130 | 30 | |
| Di-n-butylphthalate | ND | 670 | 78 | | | 92 | 100 | 8.3 | 30 - 130 | 30 | |
| Di-n-octylphthalate | ND | 230 | 78 | | | 98 | 94 | 4.2 | 30 - 130 | 30 | |
| Fluoranthene | ND | 230 | 72 | | | 67 | 67 | 0.0 | 30 - 130 | 30 | |
| Fluorene | ND | 230 | 73 | | | 82 | 80 | 2.5 | 30 - 130 | 30 | |
| Hexachlorobenzene | ND | 130 | 77 | | | 109 | 103 | 5.7 | 30 - 130 | 30 | |
| Hexachlorobutadiene | ND | 230 | 42 | | | 79 | 69 | 13.5 | 30 - 130 | 30 | |
| Hexachlorocyclopentadiene | ND | 230 | 44 | | | <10 | <10 | NC | 30 - 130 | 30 | m |
| Hexachloroethane | ND | 130 | 31 | | | 28 | 11 | 87.2 | 30 - 130 | 30 | m,r |
| Indeno(1,2,3-cd)pyrene | ND | 230 | 94 | | | 78 | 84 | 7.4 | 30 - 130 | 30 | |
| Isophorone | ND | 130 | 67 | | | 71 | 69 | 2.9 | 30 - 130 | 30 | |
| Naphthalene | ND | 230 | 59 | | | 78 | 74 | 5.3 | 30 - 130 | 30 | |
| Nitrobenzene | ND | 130 | 65 | | | 82 | 78 | 5.0 | 30 - 130 | 30 | |
| N-Nitrosodimethylamine | ND | 230 | 55 | | | 48 | 29 | 49.4 | 30 - 130 | 30 | m,r |
| N-Nitrosodi-n-propylamine | ND | 130 | 68 | | | 73 | 73 | 0.0 | 30 - 130 | 30 | |
| N-Nitrosodiphenylamine | ND | 130 | 73 | | | 72 | 65 | 10.2 | 30 - 130 | 30 | |
| Pentachloronitrobenzene | ND | 230 | 81 | | | 97 | 112 | 14.4 | 30 - 130 | 30 | |
| Pentachlorophenol | ND | 230 | 66 | | | 109 | 101 | 7.6 | 30 - 130 | 30 | |
| Phenanthrene | ND | 130 | 75 | | | 87 | 90 | 3.4 | 30 - 130 | 30 | |
| Phenol | ND | 230 | 94 | | | 101 | 96 | 5.1 | 30 - 130 | 30 | |
| Pyrene | ND | 230 | 69 | | | 128 | 135 | 5.3 | 30 - 130 | 30 | |
| Pyridine | ND | 230 | 47 | | | 42 | 22 | 62.5 | 30 - 130 | 30 | m,r |
| % 2,4,6-Tribromophenol | 97 | % | 88 | | | 136 | 139 | 2.2 | 30 - 130 | 30 | m |
| % 2-Fluorobiphenyl | 81 | % | 62 | | | 84 | 88 | 4.7 | 30 - 130 | 30 | |
| % 2-Fluorophenol | 72 | % | 77 | | | 79 | 69 | 13.5 | 30 - 130 | 30 | |
| % Nitrobenzene-d5 | 69 | % | 66 | | | 86 | 80 | 7.2 | 30 - 130 | 30 | |
| % Phenol-d5 | 77 | % | 83 | | | 88 | 86 | 2.3 | 30 - 130 | 30 | |
| % Terphenyl-d14 | 77 | % | 66 | | | 65 | 66 | 1.5 | 30 - 130 | 30 | |

Comment:

This batch consists of a Blank, LCS, MS and MSD.

Additional 8270 criteria: Four of the compounds can be outside of acceptance criteria as long as recovery is at least 10%. (Acid surrogates acceptance range for aqueous samples: 10-110%, for soils 30-130%)

QA/QC Batch 654361 (ug/L), QC Sample No: CM95270 (CM95270)

## Semivolatiles - Water

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1,2,4,5-Tetrachlorobenzene | ND | 3.5 | 83 | 91 | 9.2 | | | | 30 - 130 | 20 | |
| 1,2,4-Trichlorobenzene | ND | 3.5 | 79 | 83 | 4.9 | | | | 30 - 130 | 20 | |
| 1,2-Dichlorobenzene | ND | 1.0 | 78 | 72 | 8.0 | | | | 30 - 130 | 20 | |
| 1,2-Diphenylhydrazine | ND | 1.6 | 89 | 58 | 42.2 | | | | 30 - 130 | 20 | r |
| 1,3-Dichlorobenzene | ND | 1.0 | 77 | 71 | 8.1 | | | | 30 - 130 | 20 | |
| 1,4-Dichlorobenzene | ND | 1.0 | 77 | 71 | 8.1 | | | | 30 - 130 | 20 | |
| 2,2'-Oxybis(1-Chloropropane) | ND | 1.0 | 105 | 99 | 5.9 | | | | 30 - 130 | 20 | |
| 2,4,5-Trichlorophenol | ND | 1.0 | 99 | 100 | 1.0 | | | | 30 - 130 | 20 | |

# QA/QC Data

SDG I.D.: GCM95248

| Parameter | Blank | Blk RL | LCS % | LCSD % | LCS RPD | MS % | MSD % | MS RPD | % Rec Limits | % RPD Limits | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 2,4,6-Trichlorophenol | ND | 1.0 | 100 | 98 | 2.0 | | | | 30 - 130 | 20 | |
| 2,4-Dichlorophenol | ND | 1.0 | 90 | 99 | 9.5 | | | | 30 - 130 | 20 | |
| 2,4-Dimethylphenol | ND | 1.0 | 87 | 101 | 14.9 | | | | 30 - 130 | 20 | |
| 2,4-Dinitrophenol | ND | 1.0 | 125 | 135 | 7.7 | | | | 30 - 130 | 20 | l |
| 2,4-Dinitrotoluene | ND | 3.5 | 116 | 118 | 1.7 | | | | 30 - 130 | 20 | |
| 2,6-Dinitrotoluene | ND | 3.5 | 110 | 110 | 0.0 | | | | 30 - 130 | 20 | |
| 2-Chloronaphthalene | ND | 3.5 | 89 | 89 | 0.0 | | | | 30 - 130 | 20 | |
| 2-Chlorophenol | ND | 1.0 | 88 | 83 | 5.8 | | | | 30 - 130 | 20 | |
| 2-Methylnaphthalene | ND | 3.5 | 87 | 96 | 9.8 | | | | 30 - 130 | 20 | |
| 2-Methylphenol (o-cresol) | ND | 1.0 | 92 | 84 | 9.1 | | | | 30 - 130 | 20 | |
| 2-Nitroaniline | ND | 3.5 | 124 | 116 | 6.7 | | | | 30 - 130 | 20 | |
| 2-Nitrophenol | ND | 1.0 | 91 | 101 | 10.4 | | | | 30 - 130 | 20 | |
| 3&4-Methylphenol (m&p-cresol) | ND | 1.0 | 94 | 90 | 4.3 | | | | 30 - 130 | 20 | |
| 3,3'-Dichlorobenzidine | ND | 5.0 | 75 | 45 | 50.0 | | | | 30 - 130 | 20 | r |
| 3-Nitroaniline | ND | 5.0 | 97 | 82 | 16.8 | | | | 30 - 130 | 20 | |
| 4,6-Dinitro-2-methylphenol | ND | 1.0 | 120 | 123 | 2.5 | | | | 30 - 130 | 20 | |
| 4-Bromophenyl phenyl ether | ND | 3.5 | 97 | 96 | 1.0 | | | | 30 - 130 | 20 | |
| 4-Chloro-3-methylphenol | ND | 1.0 | 99 | 109 | 9.6 | | | | 30 - 130 | 20 | |
| 4-Chloroaniline | ND | 3.5 | 53 | 50 | 5.8 | | | | 30 - 130 | 20 | |
| 4-Chlorophenyl phenyl ether | ND | 1.0 | 92 | 93 | 1.1 | | | | 30 - 130 | 20 | |
| 4-Nitroaniline | ND | 5.0 | 114 | 112 | 1.8 | | | | 30 - 130 | 20 | |
| 4-Nitrophenol | ND | 1.0 | 112 | 115 | 2.6 | | | | 30 - 130 | 20 | |
| Acenaphthene | ND | 1.5 | 85 | 85 | 0.0 | | | | 30 - 130 | 20 | |
| Acetophenone | ND | 3.5 | 91 | 87 | 4.5 | | | | 30 - 130 | 20 | |
| Aniline | ND | 3.5 | 62 | 39 | 45.5 | | | | 30 - 130 | 20 | r |
| Anthracene | ND | 1.5 | 91 | 89 | 2.2 | | | | 30 - 130 | 20 | |
| Benzidine | ND | 4.5 | 59 | <10 | NC | | | | 30 - 130 | 20 | l |
| Benzoic acid | ND | 10 | 75 | 134 | 56.5 | | | | 30 - 130 | 20 | l,r |
| Benzyl butyl phthalate | ND | 1.5 | 117 | 105 | 10.8 | | | | 30 - 130 | 20 | |
| Bis(2-chloroethoxy)methane | ND | 3.5 | 90 | 21 | 124.3 | | | | 30 - 130 | 20 | l,r |
| Bis(2-chloroethyl)ether | ND | 1.0 | 91 | 86 | 5.6 | | | | 30 - 130 | 20 | |
| Bis(2-ethylhexyl)phthalate | ND | 1.5 | 110 | 110 | 0.0 | | | | 30 - 130 | 20 | |
| Carbazole | ND | 5.0 | 96 | 35 | 93.1 | | | | 30 - 130 | 20 | r |
| Dibenzofuran | ND | 3.5 | 90 | 91 | 1.1 | | | | 30 - 130 | 20 | |
| Diethyl phthalate | ND | 1.5 | 93 | 95 | 2.1 | | | | 30 - 130 | 20 | |
| Dimethylphthalate | ND | 1.5 | 92 | 92 | 0.0 | | | | 30 - 130 | 20 | |
| Di-n-butylphthalate | ND | 1.5 | 100 | 100 | 0.0 | | | | 30 - 130 | 20 | |
| Di-n-octylphthalate | ND | 1.5 | 106 | 106 | 0.0 | | | | 30 - 130 | 20 | |
| Fluoranthene | ND | 1.5 | 95 | 96 | 1.0 | | | | 30 - 130 | 20 | |
| Fluorene | ND | 1.5 | 92 | 94 | 2.2 | | | | 30 - 130 | 20 | |
| Hexachloroethane | ND | 3.5 | 79 | 73 | 7.9 | | | | 30 - 130 | 20 | |
| Isophorone | ND | 3.5 | 81 | 88 | 8.3 | | | | 30 - 130 | 20 | |
| Naphthalene | ND | 1.5 | 94 | 102 | 8.2 | | | | 30 - 130 | 20 | |
| N-Nitrosodi-n-propylamine | ND | 3.5 | 94 | 93 | 1.1 | | | | 30 - 130 | 20 | |
| N-Nitrosodiphenylamine | ND | 3.5 | 83 | 70 | 17.0 | | | | 30 - 130 | 20 | |
| Pentachloronitrobenzene | ND | 5.0 | 90 | 90 | 0.0 | | | | 30 - 130 | 20 | |
| Phenol | ND | 1.0 | 92 | 82 | 11.5 | | | | 30 - 130 | 20 | |
| Pyrene | ND | 1.5 | 93 | 91 | 2.2 | | | | 30 - 130 | 20 | |
| Pyridine | ND | 5.0 | 48 | 36 | 28.6 | | | | 30 - 130 | 20 | r |
| % 2,4,6-Tribromophenol | 87 | % | 100 | 104 | 3.9 | | | | 15 - 110 | 20 | |
| % 2-Fluorobiphenyl | 80 | % | 86 | 89 | 3.4 | | | | 30 - 130 | 20 | |
| % 2-Fluorophenol | 70 | % | 70 | 66 | 5.9 | | | | 15 - 110 | 20 | |
| % Nitrobenzene-d5 | 84 | % | 86 | 86 | 0.0 | | | | 30 - 130 | 20 | |

| Parameter | Blank | Blk RL | | LCS % | LCSD % | LCS RPD | MS % | MSD % | MS RPD | % Rec Limits | % RPD Limits | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| % Phenol-d5 | 88 | % | | 86 | 77 | 11.0 | | | | 15 - 110 | 20 | |
| % Terphenyl-d14 | 87 | % | | 93 | 96 | 3.2 | | | | 30 - 130 | 20 | |

Comment:

Additional 8270 criteria: Four of the compounds can be outside of acceptance criteria as long as recovery is at least 10%. (Acid surrogates acceptance range for aqueous samples: 10-110%, for soils 30-130%)

QA/QC Batch 654447 (ug/kg), QC Sample No: CM95292 (CM95266, CM95268, CM95269, CM95271, CM95272, CM95274, CM95275, CM95277)

## Semivolatiles - Soil

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1,2,4,5-Tetrachlorobenzene | ND | 230 | | 74 | 68 | 8.5 | 76 | 70 | 8.2 | 30 - 130 | 30 | |
| 1,2,4-Trichlorobenzene | ND | 230 | | 68 | 60 | 12.5 | 69 | 67 | 2.9 | 30 - 130 | 30 | |
| 1,2-Dichlorobenzene | ND | 180 | | 67 | 55 | 19.7 | 69 | 65 | 6.0 | 30 - 130 | 30 | |
| 1,2-Diphenylhydrazine | ND | 230 | | 81 | 76 | 6.4 | 79 | 81 | 2.5 | 30 - 130 | 30 | |
| 1,3-Dichlorobenzene | ND | 230 | | 66 | 53 | 21.8 | 66 | 64 | 3.1 | 30 - 130 | 30 | |
| 1,4-Dichlorobenzene | ND | 230 | | 66 | 54 | 20.0 | 67 | 64 | 4.6 | 30 - 130 | 30 | |
| 2,2'-Oxybis(1-Chloropropane) | ND | 230 | | 89 | 77 | 14.5 | 92 | 90 | 2.2 | 30 - 130 | 30 | |
| 2,4,5-Trichlorophenol | ND | 230 | | 86 | 79 | 8.5 | 79 | 83 | 4.9 | 30 - 130 | 30 | |
| 2,4,6-Trichlorophenol | ND | 130 | | 88 | 79 | 10.8 | 85 | 84 | 1.2 | 30 - 130 | 30 | |
| 2,4-Dichlorophenol | ND | 130 | | 83 | 76 | 8.8 | 83 | 79 | 4.9 | 30 - 130 | 30 | |
| 2,4-Dimethylphenol | ND | 230 | | 82 | 77 | 6.3 | 76 | 72 | 5.4 | 30 - 130 | 30 | |
| 2,4-Dinitrophenol | ND | 230 | | 26 | 19 | 31.1 | 85 | 69 | 20.8 | 30 - 130 | 30 | l,r |
| 2,4-Dinitrotoluene | ND | 130 | | 106 | 97 | 8.9 | 98 | 99 | 1.0 | 30 - 130 | 30 | |
| 2,6-Dinitrotoluene | ND | 130 | | 99 | 91 | 8.4 | 94 | 94 | 0.0 | 30 - 130 | 30 | |
| 2-Chloronaphthalene | ND | 230 | | 79 | 71 | 10.7 | 76 | 75 | 1.3 | 30 - 130 | 30 | |
| 2-Chlorophenol | ND | 230 | | 82 | 73 | 11.6 | 84 | 78 | 7.4 | 30 - 130 | 30 | |
| 2-Methylnaphthalene | ND | 230 | | 77 | 72 | 6.7 | 80 | 75 | 6.5 | 30 - 130 | 30 | |
| 2-Methylphenol (o-cresol) | ND | 230 | | 84 | 77 | 8.7 | 86 | 80 | 7.2 | 30 - 130 | 30 | |
| 2-Nitroaniline | ND | 330 | | 123 | 115 | 6.7 | 117 | 120 | 2.5 | 30 - 130 | 30 | |
| 2-Nitrophenol | ND | 230 | | 79 | 71 | 10.7 | 79 | 79 | 0.0 | 30 - 130 | 30 | |
| 3&4-Methylphenol (m&p-cresol) | ND | 230 | | 78 | 72 | 8.0 | 88 | 82 | 7.1 | 30 - 130 | 30 | |
| 3,3'-Dichlorobenzidine | ND | 130 | | 104 | 97 | 7.0 | 89 | 88 | 1.1 | 30 - 130 | 30 | |
| 3-Nitroaniline | ND | 330 | | 116 | 107 | 8.1 | 107 | 108 | 0.9 | 30 - 130 | 30 | |
| 4,6-Dinitro-2-methylphenol | ND | 230 | | 41 | 39 | 5.0 | 83 | 70 | 17.0 | 30 - 130 | 30 | |
| 4-Bromophenyl phenyl ether | ND | 230 | | 86 | 81 | 6.0 | 81 | 81 | 0.0 | 30 - 130 | 30 | |
| 4-Chloro-3-methylphenol | ND | 230 | | 89 | 85 | 4.6 | 91 | 86 | 5.6 | 30 - 130 | 30 | |
| 4-Chloroaniline | ND | 230 | | 81 | 76 | 6.4 | 76 | 78 | 2.6 | 30 - 130 | 30 | |
| 4-Chlorophenyl phenyl ether | ND | 230 | | 83 | 77 | 7.5 | 81 | 79 | 2.5 | 30 - 130 | 30 | |
| 4-Nitroaniline | ND | 230 | | 101 | 95 | 6.1 | 99 | 103 | 4.0 | 30 - 130 | 30 | |
| 4-Nitrophenol | ND | 230 | | 109 | 106 | 2.8 | 85 | 93 | 9.0 | 30 - 130 | 30 | |
| Acenaphthene | ND | 230 | | 77 | 71 | 8.1 | 74 | 73 | 1.4 | 30 - 130 | 30 | |
| Acenaphthylene | ND | 130 | | 76 | 70 | 8.2 | 73 | 72 | 1.4 | 30 - 130 | 30 | |
| Acetophenone | ND | 230 | | 76 | 68 | 11.1 | 78 | 74 | 5.3 | 30 - 130 | 30 | |
| Aniline | ND | 330 | | 75 | 69 | 8.3 | 69 | 69 | 0.0 | 30 - 130 | 30 | |
| Anthracene | ND | 230 | | 83 | 77 | 7.5 | 75 | 77 | 2.6 | 30 - 130 | 30 | |
| Benz(a)anthracene | ND | 230 | | 84 | 79 | 6.1 | 86 | 79 | 8.5 | 30 - 130 | 30 | |
| Benzidine | ND | 330 | | 75 | 74 | 1.3 | 33 | 33 | 0.0 | 30 - 130 | 30 | |
| Benzo(a)pyrene | ND | 130 | | 102 | 96 | 6.1 | 94 | 91 | 3.2 | 30 - 130 | 30 | |
| Benzo(b)fluoranthene | ND | 160 | | 91 | 85 | 6.8 | 89 | 85 | 4.6 | 30 - 130 | 30 | |
| Benzo(ghi)perylene | ND | 230 | | 90 | 86 | 4.5 | 78 | 81 | 3.8 | 30 - 130 | 30 | |
| Benzo(k)fluoranthene | ND | 230 | | 87 | 79 | 9.6 | 79 | 77 | 2.6 | 30 - 130 | 30 | |
| Benzoic Acid | ND | 670 | | 12 | <10 | NC | 71 | 72 | 1.4 | 30 - 130 | 30 | l |
| Benzyl butyl phthalate | ND | 230 | | 103 | 97 | 6.0 | 101 | 94 | 7.2 | 30 - 130 | 30 | |
| Bis(2-chloroethoxy)methane | ND | 230 | | 80 | 72 | 10.5 | 77 | 76 | 1.3 | 30 - 130 | 30 | |

# QA/QC Data

SDG I.D.: GCM95248

| Parameter | Blank | Blk RL | LCS % | LCSD % | LCS RPD | MS % | MSD % | MS RPD | % Rec Limits | % RPD Limits | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Bis(2-chloroethyl)ether | ND | 130 | 77 | 68 | 12.4 | 78 | 77 | 1.3 | 30 - 130 | 30 | |
| Bis(2-ethylhexyl)phthalate | ND | 230 | 99 | 92 | 7.3 | 97 | 89 | 8.6 | 30 - 130 | 30 | |
| Carbazole | ND | 230 | 86 | 80 | 7.2 | 79 | 79 | 0.0 | 30 - 130 | 30 | |
| Chrysene | ND | 230 | 86 | 79 | 8.5 | 78 | 76 | 2.6 | 30 - 130 | 30 | |
| Dibenz(a,h)anthracene | ND | 130 | 91 | 86 | 5.6 | 81 | 80 | 1.2 | 30 - 130 | 30 | |
| Dibenzofuran | ND | 230 | 81 | 75 | 7.7 | 78 | 77 | 1.3 | 30 - 130 | 30 | |
| Diethyl phthalate | ND | 230 | 85 | 78 | 8.6 | 81 | 79 | 2.5 | 30 - 130 | 30 | |
| Dimethylphthalate | ND | 230 | 84 | 78 | 7.4 | 79 | 78 | 1.3 | 30 - 130 | 30 | |
| Di-n-butylphthalate | ND | 670 | 92 | 83 | 10.3 | 84 | 82 | 2.4 | 30 - 130 | 30 | |
| Di-n-octylphthalate | ND | 230 | 94 | 90 | 4.3 | 91 | 86 | 5.6 | 30 - 130 | 30 | |
| Fluoranthene | ND | 230 | 86 | 79 | 8.5 | 78 | 75 | 3.9 | 30 - 130 | 30 | |
| Fluorene | ND | 230 | 86 | 79 | 8.5 | 82 | 81 | 1.2 | 30 - 130 | 30 | |
| Hexachlorobenzene | ND | 130 | 76 | 72 | 5.4 | 70 | 74 | 5.6 | 30 - 130 | 30 | |
| Hexachlorobutadiene | ND | 230 | 66 | 56 | 16.4 | 67 | 66 | 1.5 | 30 - 130 | 30 | |
| Hexachlorocyclopentadiene | ND | 230 | 51 | 44 | 14.7 | 37 | 30 | 20.9 | 30 - 130 | 30 | |
| Hexachloroethane | ND | 130 | 66 | 54 | 20.0 | 68 | 66 | 3.0 | 30 - 130 | 30 | |
| Indeno(1,2,3-cd)pyrene | ND | 230 | 100 | 96 | 4.1 | 86 | 89 | 3.4 | 30 - 130 | 30 | |
| Isophorone | ND | 130 | 71 | 66 | 7.3 | 70 | 70 | 0.0 | 30 - 130 | 30 | |
| Naphthalene | ND | 230 | 80 | 70 | 13.3 | 80 | 77 | 3.8 | 30 - 130 | 30 | |
| Nitrobenzene | ND | 130 | 78 | 71 | 9.4 | 83 | 79 | 4.9 | 30 - 130 | 30 | |
| N-Nitrosodimethylamine | ND | 230 | 67 | 60 | 11.0 | 61 | 58 | 5.0 | 30 - 130 | 30 | |
| N-Nitrosodi-n-propylamine | ND | 130 | 81 | 73 | 10.4 | 84 | 81 | 3.6 | 30 - 130 | 30 | |
| N-Nitrosodiphenylamine | ND | 130 | 83 | 76 | 8.8 | 78 | 75 | 3.9 | 30 - 130 | 30 | |
| Pentachloronitrobenzene | ND | 230 | 80 | 76 | 5.1 | 77 | 81 | 5.1 | 30 - 130 | 30 | |
| Pentachlorophenol | ND | 230 | 76 | 60 | 23.5 | 70 | 79 | 12.1 | 30 - 130 | 30 | |
| Phenanthrene | ND | 130 | 82 | 76 | 7.6 | 80 | 77 | 3.8 | 30 - 130 | 30 | |
| Phenol | ND | 230 | 92 | 84 | 9.1 | 95 | 90 | 5.4 | 30 - 130 | 30 | |
| Pyrene | ND | 230 | 84 | 76 | 10.0 | 76 | 74 | 2.7 | 30 - 130 | 30 | |
| Pyridine | ND | 230 | 56 | 48 | 15.4 | 46 | 46 | 0.0 | 30 - 130 | 30 | |
| % 2,4,6-Tribromophenol | 86 | % | 88 | 85 | 3.5 | 87 | 99 | 12.9 | 30 - 130 | 30 | |
| % 2-Fluorobiphenyl | 74 | % | 77 | 70 | 9.5 | 74 | 74 | 0.0 | 30 - 130 | 30 | |
| % 2-Fluorophenol | 72 | % | 76 | 70 | 8.2 | 78 | 71 | 9.4 | 30 - 130 | 30 | |
| % Nitrobenzene-d5 | 69 | % | 73 | 66 | 10.1 | 79 | 74 | 6.5 | 30 - 130 | 30 | |
| % Phenol-d5 | 80 | % | 84 | 77 | 8.7 | 89 | 84 | 5.8 | 30 - 130 | 30 | |
| % Terphenyl-d14 | 83 | % | 85 | 77 | 9.9 | 78 | 74 | 5.3 | 30 - 130 | 30 | |

Comment:

Additional 8270 criteria: Four of the compounds can be outside of acceptance criteria as long as recovery is at least 10%. (Acid surrogates acceptance range for aqueous samples: 10-110%, for soils 30-130%)

QA/QC Batch 654350 (ug/kg), QC Sample No: CM95248 (CM95248, CM95249, CM95250, CM95251, CM95252, CM95253, CM95255, CM95256, CM95258, CM95259, CM95260, CM95262, CM95263, CM95265, CM95266, CM95268, CM95269, CM95271, CM95272, CM95274)

## Polynuclear Aromatic HC - Sediment, Soil

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1,4-dioxane | ND | 67 | 48 | 48 | 0.0 | 48 | 50 | 4.1 | 30 - 130 | 30 | |
| % 2-Fluorobiphenyl | 43 | % | 48 | 48 | 0.0 | 33 | 29 | 12.9 | 30 - 130 | 30 | m |
| % Nitrobenzene-d5 | 53 | % | 69 | 65 | 6.0 | 59 | 50 | 16.5 | 30 - 130 | 30 | |
| % Terphenyl-d14 | 63 | % | 70 | 65 | 7.4 | 74 | 74 | 0.0 | 30 - 130 | 30 | |

QA/QC Batch 654361 (ug/L), QC Sample No: CM95270 (CM95270)

## Semivolatiles (SIM) - Water

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Acenaphthylene | ND | 0.50 | 103 | 74 | 32.8 | | | | 30 - 130 | 20 | r |
| Benz(a)anthracene | ND | 0.50 | 118 | 117 | 0.9 | | | | 30 - 130 | 20 | |
| Benzo(a)pyrene | ND | 0.50 | 148 | 128 | 14.5 | | | | 30 - 130 | 20 | l |
| Benzo(b)fluoranthene | ND | 0.50 | 146 | 152 | 4.0 | | | | 30 - 130 | 20 | l |

| Parameter | Blank | Blk RL | LCS % | LCSD % | LCS RPD | MS % | MSD % | MS RPD | % Rec Limits | % RPD Limits | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Benzo(ghi)perylene | ND | 0.50 | 142 | 127 | 11.2 | | | | 30 - 130 | 20 | l |
| Benzo(k)fluoranthene | ND | 0.50 | 137 | 142 | 3.6 | | | | 30 - 130 | 20 | l |
| Chrysene | ND | 0.50 | 130 | 131 | 0.8 | | | | 30 - 130 | 20 | l |
| Dibenz(a,h)anthracene | ND | 0.50 | 143 | 136 | 5.0 | | | | 30 - 130 | 20 | l |
| Hexachlorobenzene | ND | 0.50 | 121 | 112 | 7.7 | | | | 30 - 130 | 20 | |
| Hexachlorobutadiene | ND | 0.50 | 110 | 121 | 9.5 | | | | 30 - 130 | 20 | |
| Hexachlorocyclopentadiene | ND | 0.50 | 36 | 46 | 24.4 | | | | 30 - 130 | 20 | r |
| Indeno(1,2,3-cd)pyrene | ND | 0.50 | 154 | 143 | 7.4 | | | | 30 - 130 | 20 | l |
| Nitrobenzene | ND | 0.50 | 111 | 128 | 14.2 | | | | 30 - 130 | 20 | |
| N-Nitrosodimethylamine | ND | 0.05 | 112 | 97 | 14.4 | | | | 30 - 130 | 20 | |
| Pentachlorophenol | ND | 0.50 | 143 | 149 | 4.1 | | | | 30 - 130 | 20 | l |
| Phenanthrene | ND | 0.50 | 127 | 122 | 4.0 | | | | 30 - 130 | 20 | |
| % 2,4,6-Tribromophenol | 95 | % | 136 | 136 | 0.0 | | | | 15 - 110 | 20 | l |
| % 2-Fluorobiphenyl | 74 | % | 97 | 95 | 2.1 | | | | 30 - 130 | 20 | |
| % 2-Fluorophenol | 87 | % | 97 | 93 | 4.2 | | | | 15 - 110 | 20 | |
| % Nitrobenzene-d5 | 86 | % | 115 | 117 | 1.7 | | | | 30 - 130 | 20 | |
| % Phenol-d5 | 86 | % | 103 | 99 | 4.0 | | | | 15 - 110 | 20 | |
| % Terphenyl-d14 | 104 | % | 135 | 131 | 3.0 | | | | 30 - 130 | 20 | l |
| QA/QC Batch 654590 (ug/kg), QC Sample No: CM95275 (CM95275, CM95277) | | | | | | | | | | | |
| **Polynuclear Aromatic HC - Soil** | | | | | | | | | | | |
| 1,4-dioxane | ND | 67 | 50 | 52 | 3.9 | 53 | 52 | 1.9 | 30 - 130 | 30 | |
| % 2-Fluorobiphenyl | 59 | % | 53 | 56 | 5.5 | 56 | 63 | 11.8 | 30 - 130 | 30 | |
| % Nitrobenzene-d5 | 77 | % | 82 | 73 | 11.6 | 76 | 91 | 18.0 | 30 - 130 | 30 | |
| % Terphenyl-d14 | 91 | % | 75 | 87 | 14.8 | 87 | 97 | 10.9 | 30 - 130 | 30 | |
| QA/QC Batch 654719 (ug/kg), QC Sample No: CM91626 (CM95261, CM95264, CM95265, CM95268, CM95269, CM95274, CM95276, CM95277) | | | | | | | | | | | |
| **Volatiles - Soil (Low Level)** | | | | | | | | | | | |
| 1,1,1,2-Tetrachloroethane | ND | 5.0 | 109 | 107 | 1.9 | 94 | 91 | 3.2 | 70 - 130 | 30 | |
| 1,1,1-Trichloroethane | ND | 5.0 | 108 | 106 | 1.9 | 87 | 103 | 16.8 | 70 - 130 | 30 | |
| 1,1,2,2-Tetrachloroethane | ND | 3.0 | 97 | 97 | 0.0 | <10 | <10 | NC | 70 - 130 | 30 | m |
| 1,1,2-Trichloroethane | ND | 5.0 | 102 | 99 | 3.0 | 81 | 76 | 6.4 | 70 - 130 | 30 | |
| 1,1-Dichloroethane | ND | 5.0 | 105 | 132 | 22.8 | 97 | 97 | 0.0 | 70 - 130 | 30 | l |
| 1,1-Dichloroethene | ND | 5.0 | 93 | 107 | 14.0 | 125 | 124 | 0.8 | 70 - 130 | 30 | |
| 1,1-Dichloropropene | ND | 5.0 | 110 | 111 | 0.9 | 84 | 106 | 23.2 | 70 - 130 | 30 | |
| 1,2,3-Trichlorobenzene | ND | 5.0 | 97 | 101 | 4.0 | 49 | 42 | 15.4 | 70 - 130 | 30 | m |
| 1,2,3-Trichloropropane | ND | 5.0 | 98 | 97 | 1.0 | 88 | 84 | 4.7 | 70 - 130 | 30 | |
| 1,2,4-Trichlorobenzene | ND | 5.0 | 94 | 98 | 4.2 | 53 | 44 | 18.6 | 70 - 130 | 30 | m |
| 1,2,4-Trimethylbenzene | ND | 1.0 | 101 | 101 | 0.0 | 79 | 75 | 5.2 | 70 - 130 | 30 | |
| 1,2-Dibromo-3-chloropropane | ND | 5.0 | 107 | 111 | 3.7 | 67 | 62 | 7.8 | 70 - 130 | 30 | m |
| 1,2-Dibromoethane | ND | 5.0 | 102 | 101 | 1.0 | 93 | 90 | 3.3 | 70 - 130 | 30 | |
| 1,2-Dichlorobenzene | ND | 5.0 | 98 | 97 | 1.0 | 71 | 65 | 8.8 | 70 - 130 | 30 | m |
| 1,2-Dichloroethane | ND | 5.0 | 102 | 101 | 1.0 | 99 | 98 | 1.0 | 70 - 130 | 30 | |
| 1,2-Dichloropropane | ND | 5.0 | 104 | 102 | 1.9 | 101 | 98 | 3.0 | 70 - 130 | 30 | |
| 1,3,5-Trimethylbenzene | ND | 1.0 | 105 | 103 | 1.9 | 83 | 79 | 4.9 | 70 - 130 | 30 | |
| 1,3-Dichlorobenzene | ND | 5.0 | 98 | 99 | 1.0 | 73 | 69 | 5.6 | 70 - 130 | 30 | m |
| 1,3-Dichloropropane | ND | 5.0 | 100 | 101 | 1.0 | 95 | 93 | 2.1 | 70 - 130 | 30 | |
| 1,4-Dichlorobenzene | ND | 5.0 | 96 | 99 | 3.1 | 70 | 66 | 5.9 | 70 - 130 | 30 | m |
| 2,2-Dichloropropane | ND | 5.0 | 110 | 109 | 0.9 | 86 | 104 | 18.9 | 70 - 130 | 30 | |
| 2-Chlorotoluene | ND | 5.0 | 103 | 104 | 1.0 | 83 | 80 | 3.7 | 70 - 130 | 30 | |
| 2-Hexanone | ND | 25 | 88 | 92 | 4.4 | 85 | 82 | 3.6 | 70 - 130 | 30 | |
| 2-Isopropyltoluene | ND | 5.0 | 105 | 103 | 1.9 | 77 | 74 | 4.0 | 70 - 130 | 30 | |
| 4-Chlorotoluene | ND | 5.0 | 101 | 103 | 2.0 | 80 | 77 | 3.8 | 70 - 130 | 30 | |

# QA/QC Data

SDG I.D.: GCM95248

| Parameter | Blank | Blk RL | LCS % | LCSD % | LCS RPD | MS % | MSD % | MS RPD | % Rec Limits | % RPD Limits | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 4-Methyl-2-pentanone | ND | 25 | 97 | 97 | 0.0 | 96 | 95 | 1.0 | 70 - 130 | 30 | |
| Acetone | ND | 10 | 91 | 94 | 3.2 | 99 | 152 | 42.2 | 70 - 130 | 30 | m,r |
| Acrylonitrile | ND | 5.0 | 91 | 127 | 33.0 | 82 | 91 | 10.4 | 70 - 130 | 30 | r |
| Benzene | ND | 1.0 | 102 | 101 | 1.0 | 94 | 99 | 5.2 | 70 - 130 | 30 | |
| Bromobenzene | ND | 5.0 | 104 | 102 | 1.9 | 86 | 80 | 7.2 | 70 - 130 | 30 | |
| Bromochloromethane | ND | 5.0 | 102 | 99 | 3.0 | 82 | 97 | 16.8 | 70 - 130 | 30 | |
| Bromodichloromethane | ND | 5.0 | 109 | 108 | 0.9 | 97 | 95 | 2.1 | 70 - 130 | 30 | |
| Bromoform | ND | 5.0 | 113 | 112 | 0.9 | 87 | 85 | 2.3 | 70 - 130 | 30 | |
| Bromomethane | ND | 5.0 | 91 | 89 | 2.2 | 94 | 91 | 3.2 | 70 - 130 | 30 | |
| Carbon Disulfide | ND | 5.0 | 96 | 107 | 10.8 | 88 | 96 | 8.7 | 70 - 130 | 30 | |
| Carbon tetrachloride | ND | 5.0 | 115 | 113 | 1.8 | 88 | 104 | 16.7 | 70 - 130 | 30 | |
| Chlorobenzene | ND | 5.0 | 101 | 99 | 2.0 | 88 | 85 | 3.5 | 70 - 130 | 30 | |
| Chloroethane | ND | 5.0 | 107 | 100 | 6.8 | 104 | 104 | 0.0 | 70 - 130 | 30 | |
| Chloroform | ND | 5.0 | 102 | 101 | 1.0 | 84 | 99 | 16.4 | 70 - 130 | 30 | |
| Chloromethane | ND | 5.0 | 95 | 92 | 3.2 | 95 | 93 | 2.1 | 70 - 130 | 30 | |
| cis-1,2-Dichloroethene | ND | 5.0 | 104 | 104 | 0.0 | 80 | 103 | 25.1 | 70 - 130 | 30 | |
| cis-1,3-Dichloropropene | ND | 5.0 | 111 | 108 | 2.7 | 98 | 96 | 2.1 | 70 - 130 | 30 | |
| Dibromochloromethane | ND | 3.0 | 110 | 108 | 1.8 | 93 | 89 | 4.4 | 70 - 130 | 30 | |
| Dibromomethane | ND | 5.0 | 104 | 103 | 1.0 | 98 | 95 | 3.1 | 70 - 130 | 30 | |
| Dichlorodifluoromethane | ND | 5.0 | 87 | 86 | 1.2 | 92 | 90 | 2.2 | 70 - 130 | 30 | |
| Ethylbenzene | ND | 1.0 | 104 | 104 | 0.0 | 92 | 89 | 3.3 | 70 - 130 | 30 | |
| Hexachlorobutadiene | ND | 5.0 | 106 | 107 | 0.9 | 50 | 51 | 2.0 | 70 - 130 | 30 | m |
| Isopropylbenzene | ND | 1.0 | 107 | 106 | 0.9 | 88 | 86 | 2.3 | 70 - 130 | 30 | |
| m&p-Xylene | ND | 2.0 | 101 | 101 | 0.0 | 88 | 86 | 2.3 | 70 - 130 | 30 | |
| Methyl ethyl ketone | ND | 5.0 | 90 | 92 | 2.2 | 74 | 96 | 25.9 | 70 - 130 | 30 | |
| Methyl t-butyl ether (MTBE) | ND | 1.0 | 97 | 106 | 8.9 | 97 | 91 | 6.4 | 70 - 130 | 30 | |
| Methylene chloride | ND | 5.0 | 87 | 83 | 4.7 | 86 | 82 | 4.8 | 70 - 130 | 30 | |
| Naphthalene | ND | 5.0 | 99 | 101 | 2.0 | 36 | 24 | 40.0 | 70 - 130 | 30 | m,r |
| n-Butylbenzene | ND | 1.0 | 105 | 109 | 3.7 | 69 | 68 | 1.5 | 70 - 130 | 30 | m |
| n-Propylbenzene | ND | 1.0 | 104 | 106 | 1.9 | 84 | 82 | 2.4 | 70 - 130 | 30 | |
| o-Xylene | ND | 2.0 | 101 | 101 | 0.0 | 88 | 84 | 4.7 | 70 - 130 | 30 | |
| p-Isopropyltoluene | ND | 1.0 | 105 | 107 | 1.9 | 75 | 73 | 2.7 | 70 - 130 | 30 | |
| sec-Butylbenzene | ND | 1.0 | 106 | 107 | 0.9 | 77 | 76 | 1.3 | 70 - 130 | 30 | |
| Styrene | ND | 5.0 | 103 | 102 | 1.0 | 86 | 81 | 6.0 | 70 - 130 | 30 | |
| tert-Butylbenzene | ND | 1.0 | 106 | 105 | 0.9 | 82 | 81 | 1.2 | 70 - 130 | 30 | |
| Tetrachloroethene | ND | 5.0 | 106 | 107 | 0.9 | 94 | 95 | 1.1 | 70 - 130 | 30 | |
| Tetrahydrofuran (THF) | ND | 5.0 | 92 | 95 | 3.2 | 72 | 93 | 25.5 | 70 - 130 | 30 | |
| Toluene | ND | 1.0 | 105 | 105 | 0.0 | 99 | 97 | 2.0 | 70 - 130 | 30 | |
| trans-1,2-Dichloroethene | ND | 5.0 | 99 | 110 | 10.5 | 94 | 90 | 4.3 | 70 - 130 | 30 | |
| trans-1,3-Dichloropropene | ND | 5.0 | 113 | 110 | 2.7 | 92 | 90 | 2.2 | 70 - 130 | 30 | |
| trans-1,4-dichloro-2-butene | ND | 5.0 | 115 | 114 | 0.9 | 86 | 83 | 3.6 | 70 - 130 | 30 | |
| Trichloroethene | ND | 5.0 | 105 | 107 | 1.9 | 172 | 168 | 2.4 | 70 - 130 | 30 | m |
| Trichlorofluoromethane | ND | 5.0 | 98 | 95 | 3.1 | 108 | 103 | 4.7 | 70 - 130 | 30 | |
| Trichlorotrifluoroethane | ND | 5.0 | 92 | 103 | 11.3 | 96 | 102 | 6.1 | 70 - 130 | 30 | |
| Vinyl chloride | ND | 5.0 | 103 | 101 | 2.0 | 109 | 105 | 3.7 | 70 - 130 | 30 | |
| % 1,2-dichlorobenzene-d4 | 96 | % | 102 | 102 | 0.0 | 101 | 101 | 0.0 | 70 - 130 | 30 | |
| % Bromofluorobenzene | 100 | % | 98 | 100 | 2.0 | 97 | 99 | 2.0 | 70 - 130 | 30 | |
| % Dibromofluoromethane | 103 | % | 97 | 103 | 6.0 | 75 | 91 | 19.3 | 70 - 130 | 30 | |
| % Toluene-d8 | 95 | % | 101 | 102 | 1.0 | 103 | 103 | 0.0 | 70 - 130 | 30 | |

# QA/QC Data

SDG I.D.: GCM95248

| Parameter | Blank | Blk RL | LCS % | LCSD % | LCS RPD | MS % | MSD % | MS RPD | % Rec Limits | % RPD Limits |
|---|---|---|---|---|---|---|---|---|---|---|
| QA/QC Batch 654745 (ug/kg), QC Sample No: CM95106 (CM95248, CM95249, CM95250, CM95251, CM95254, CM95255, CM95257, CM95259) | | | | | | | | | | |
| **Volatiles - Sediment, Soil (Low Level)** | | | | | | | | | | |
| 1,1,1,2-Tetrachloroethane | ND | 5.0 | 93 | 96 | 3.2 | 92 | 94 | 2.2 | 70 - 130 | 30 |
| 1,1,1-Trichloroethane | ND | 5.0 | 88 | 91 | 3.4 | 92 | 93 | 1.1 | 70 - 130 | 30 |
| 1,1,2,2-Tetrachloroethane | ND | 3.0 | 94 | 97 | 3.1 | 90 | 93 | 3.3 | 70 - 130 | 30 |
| 1,1,2-Trichloroethane | ND | 5.0 | 98 | 102 | 4.0 | 97 | 97 | 0.0 | 70 - 130 | 30 |
| 1,1-Dichloroethane | ND | 5.0 | 93 | 96 | 3.2 | 95 | 97 | 2.1 | 70 - 130 | 30 |
| 1,1-Dichloroethene | ND | 5.0 | 104 | 103 | 1.0 | 99 | 100 | 1.0 | 70 - 130 | 30 |
| 1,1-Dichloropropene | ND | 5.0 | 100 | 101 | 1.0 | 100 | 100 | 0.0 | 70 - 130 | 30 |
| 1,2,3-Trichlorobenzene | ND | 5.0 | 104 | 107 | 2.8 | 92 | 90 | 2.2 | 70 - 130 | 30 |
| 1,2,3-Trichloropropane | ND | 5.0 | 92 | 93 | 1.1 | 90 | 92 | 2.2 | 70 - 130 | 30 |
| 1,2,4-Trichlorobenzene | ND | 5.0 | 100 | 103 | 3.0 | 87 | 82 | 5.9 | 70 - 130 | 30 |
| 1,2,4-Trimethylbenzene | ND | 1.0 | 93 | 95 | 2.1 | 90 | 89 | 1.1 | 70 - 130 | 30 |
| 1,2-Dibromo-3-chloropropane | ND | 5.0 | 93 | 94 | 1.1 | 87 | 91 | 4.5 | 70 - 130 | 30 |
| 1,2-Dibromoethane | ND | 5.0 | 100 | 103 | 3.0 | 98 | 99 | 1.0 | 70 - 130 | 30 |
| 1,2-Dichlorobenzene | ND | 5.0 | 100 | 104 | 3.9 | 96 | 96 | 0.0 | 70 - 130 | 30 |
| 1,2-Dichloroethane | ND | 5.0 | 95 | 98 | 3.1 | 95 | 98 | 3.1 | 70 - 130 | 30 |
| 1,2-Dichloropropane | ND | 5.0 | 97 | 99 | 2.0 | 97 | 99 | 2.0 | 70 - 130 | 30 |
| 1,3,5-Trimethylbenzene | ND | 1.0 | 92 | 95 | 3.2 | 92 | 91 | 1.1 | 70 - 130 | 30 |
| 1,3-Dichlorobenzene | ND | 5.0 | 97 | 100 | 3.0 | 92 | 89 | 3.3 | 70 - 130 | 30 |
| 1,3-Dichloropropane | ND | 5.0 | 98 | 101 | 3.0 | 97 | 98 | 1.0 | 70 - 130 | 30 |
| 1,4-Dichlorobenzene | ND | 5.0 | 101 | 103 | 2.0 | 94 | 92 | 2.2 | 70 - 130 | 30 |
| 2,2-Dichloropropane | ND | 5.0 | 79 | 81 | 2.5 | 77 | 78 | 1.3 | 70 - 130 | 30 |
| 2-Chlorotoluene | ND | 5.0 | 100 | 101 | 1.0 | 99 | 97 | 2.0 | 70 - 130 | 30 |
| 2-Hexanone | ND | 25 | 85 | 92 | 7.9 | 94 | 85 | 10.1 | 70 - 130 | 30 |
| 2-Isopropyltoluene | ND | 5.0 | 97 | 99 | 2.0 | 95 | 96 | 1.0 | 70 - 130 | 30 |
| 4-Chlorotoluene | ND | 5.0 | 98 | 101 | 3.0 | 96 | 93 | 3.2 | 70 - 130 | 30 |
| 4-Methyl-2-pentanone | ND | 25 | 95 | 99 | 4.1 | 94 | 94 | 0.0 | 70 - 130 | 30 |
| Acetone | ND | 10 | 82 | 84 | 2.4 | 104 | 102 | 1.9 | 70 - 130 | 30 |
| Acrylonitrile | ND | 5.0 | 90 | 93 | 3.3 | 86 | 88 | 2.3 | 70 - 130 | 30 |
| Benzene | ND | 1.0 | 98 | 101 | 3.0 | 99 | 100 | 1.0 | 70 - 130 | 30 |
| Bromobenzene | ND | 5.0 | 102 | 106 | 3.8 | 101 | 100 | 1.0 | 70 - 130 | 30 |
| Bromochloromethane | ND | 5.0 | 99 | 101 | 2.0 | 97 | 98 | 1.0 | 70 - 130 | 30 |
| Bromodichloromethane | ND | 5.0 | 92 | 95 | 3.2 | 90 | 93 | 3.3 | 70 - 130 | 30 |
| Bromoform | ND | 5.0 | 85 | 87 | 2.3 | 77 | 81 | 5.1 | 70 - 130 | 30 |
| Bromomethane | ND | 5.0 | 94 | 100 | 6.2 | 99 | 94 | 5.2 | 70 - 130 | 30 |
| Carbon Disulfide | ND | 5.0 | 84 | 86 | 2.4 | 77 | 80 | 3.8 | 70 - 130 | 30 |
| Carbon tetrachloride | ND | 5.0 | 87 | 90 | 3.4 | 87 | 89 | 2.3 | 70 - 130 | 30 |
| Chlorobenzene | ND | 5.0 | 99 | 103 | 4.0 | 99 | 100 | 1.0 | 70 - 130 | 30 |
| Chloroethane | ND | 5.0 | 102 | 103 | 1.0 | 100 | 106 | 5.8 | 70 - 130 | 30 |
| Chloroform | ND | 5.0 | 90 | 92 | 2.2 | 91 | 93 | 2.2 | 70 - 130 | 30 |
| Chloromethane | ND | 5.0 | 89 | 92 | 3.3 | 87 | 91 | 4.5 | 70 - 130 | 30 |
| cis-1,2-Dichloroethene | ND | 5.0 | 98 | 100 | 2.0 | 98 | 100 | 2.0 | 70 - 130 | 30 |
| cis-1,3-Dichloropropene | ND | 5.0 | 93 | 96 | 3.2 | 89 | 92 | 3.3 | 70 - 130 | 30 |
| Dibromochloromethane | ND | 3.0 | 95 | 98 | 3.1 | 91 | 94 | 3.2 | 70 - 130 | 30 |
| Dibromomethane | ND | 5.0 | 100 | 105 | 4.9 | 97 | 99 | 2.0 | 70 - 130 | 30 |
| Dichlorodifluoromethane | ND | 5.0 | 82 | 83 | 1.2 | 77 | 76 | 1.3 | 70 - 130 | 30 |
| Ethylbenzene | ND | 1.0 | 99 | 102 | 3.0 | 99 | 100 | 1.0 | 70 - 130 | 30 |
| Hexachlorobutadiene | ND | 5.0 | 98 | 101 | 3.0 | 88 | 85 | 3.5 | 70 - 130 | 30 |
| Isopropylbenzene | ND | 1.0 | 99 | 102 | 3.0 | 100 | 100 | 0.0 | 70 - 130 | 30 |
| m&p-Xylene | ND | 2.0 | 96 | 98 | 2.1 | 95 | 94 | 1.1 | 70 - 130 | 30 |

| Parameter | Blank | Blk RL | LCS % | LCSD % | LCS RPD | MS % | MSD % | MS RPD | % Rec Limits | % RPD Limits |
|---|---|---|---|---|---|---|---|---|---|---|
| Methyl ethyl ketone | ND | 5.0 | 85 | 88 | 3.5 | 87 | 86 | 1.2 | 70 - 130 | 30 |
| Methyl t-butyl ether (MTBE) | ND | 1.0 | 76 | 94 | 21.2 | 90 | 92 | 2.2 | 70 - 130 | 30 |
| Methylene chloride | ND | 5.0 | 91 | 92 | 1.1 | 91 | 92 | 1.1 | 70 - 130 | 30 |
| Naphthalene | ND | 5.0 | 101 | 105 | 3.9 | 94 | 95 | 1.1 | 70 - 130 | 30 |
| n-Butylbenzene | ND | 1.0 | 97 | 100 | 3.0 | 92 | 87 | 5.6 | 70 - 130 | 30 |
| n-Propylbenzene | ND | 1.0 | 100 | 102 | 2.0 | 97 | 96 | 1.0 | 70 - 130 | 30 |
| o-Xylene | ND | 2.0 | 98 | 100 | 2.0 | 97 | 99 | 2.0 | 70 - 130 | 30 |
| p-Isopropyltoluene | ND | 1.0 | 97 | 101 | 4.0 | 95 | 92 | 3.2 | 70 - 130 | 30 |
| sec-Butylbenzene | ND | 1.0 | 96 | 99 | 3.1 | 96 | 95 | 1.0 | 70 - 130 | 30 |
| Styrene | ND | 5.0 | 95 | 98 | 3.1 | 93 | 93 | 0.0 | 70 - 130 | 30 |
| tert-Butylbenzene | ND | 1.0 | 99 | 101 | 2.0 | 99 | 100 | 1.0 | 70 - 130 | 30 |
| Tetrachloroethene | ND | 5.0 | 100 | 104 | 3.9 | 99 | 98 | 1.0 | 70 - 130 | 30 |
| Tetrahydrofuran (THF) | ND | 5.0 | 91 | 96 | 5.3 | 90 | 93 | 3.3 | 70 - 130 | 30 |
| Toluene | ND | 1.0 | 97 | 102 | 5.0 | 99 | 100 | 1.0 | 70 - 130 | 30 |
| trans-1,2-Dichloroethene | ND | 5.0 | 100 | 107 | 6.8 | 99 | 100 | 1.0 | 70 - 130 | 30 |
| trans-1,3-Dichloropropene | ND | 5.0 | 86 | 89 | 3.4 | 81 | 84 | 3.6 | 70 - 130 | 30 |
| trans-1,4-dichloro-2-butene | ND | 5.0 | 80 | 82 | 2.5 | 71 | 72 | 1.4 | 70 - 130 | 30 |
| Trichloroethene | ND | 5.0 | 102 | 105 | 2.9 | 103 | 104 | 1.0 | 70 - 130 | 30 |
| Trichlorofluoromethane | ND | 5.0 | 93 | 96 | 3.2 | 92 | 94 | 2.2 | 70 - 130 | 30 |
| Trichlorotrifluoroethane | ND | 5.0 | 96 | 96 | 0.0 | 89 | 89 | 0.0 | 70 - 130 | 30 |
| Vinyl chloride | ND | 5.0 | 96 | 100 | 4.1 | 100 | 103 | 3.0 | 70 - 130 | 30 |
| % 1,2-dichlorobenzene-d4 | 95 | % | 101 | 101 | 0.0 | 102 | 101 | 1.0 | 70 - 130 | 30 |
| % Bromofluorobenzene | 93 | % | 95 | 97 | 2.1 | 95 | 95 | 0.0 | 70 - 130 | 30 |
| % Dibromofluoromethane | 103 | % | 98 | 100 | 2.0 | 98 | 98 | 0.0 | 70 - 130 | 30 |
| % Toluene-d8 | 94 | % | 102 | 103 | 1.0 | 102 | 102 | 0.0 | 70 - 130 | 30 |
| QA/QC Batch 655014 (ug/kg), QC Sample No: CM95258 (CM95258) | | | | | | | | | | |
| **Volatiles - Soil (Low Level)** | | | | | | | | | | |
| 1,1,1,2-Tetrachloroethane | ND | 5.0 | 95 | 96 | 1.0 | 95 | 95 | 0.0 | 70 - 130 | 30 |
| 1,1,1-Trichloroethane | ND | 5.0 | 93 | 93 | 0.0 | 94 | 93 | 1.1 | 70 - 130 | 30 |
| 1,1,2,2-Tetrachloroethane | ND | 3.0 | 93 | 97 | 4.2 | 89 | 94 | 5.5 | 70 - 130 | 30 |
| 1,1,2-Trichloroethane | ND | 5.0 | 99 | 102 | 3.0 | 96 | 98 | 2.1 | 70 - 130 | 30 |
| 1,1-Dichloroethane | ND | 5.0 | 96 | 97 | 1.0 | 96 | 95 | 1.0 | 70 - 130 | 30 |
| 1,1-Dichloroethene | ND | 5.0 | 105 | 109 | 3.7 | 103 | 101 | 2.0 | 70 - 130 | 30 |
| 1,1-Dichloropropene | ND | 5.0 | 101 | 102 | 1.0 | 102 | 101 | 1.0 | 70 - 130 | 30 |
| 1,2,3-Trichlorobenzene | ND | 5.0 | 99 | 104 | 4.9 | 94 | 91 | 3.2 | 70 - 130 | 30 |
| 1,2,3-Trichloropropane | ND | 5.0 | 94 | 98 | 4.2 | 92 | 94 | 2.2 | 70 - 130 | 30 |
| 1,2,4-Trichlorobenzene | ND | 5.0 | 93 | 97 | 4.2 | 90 | 85 | 5.7 | 70 - 130 | 30 |
| 1,2,4-Trimethylbenzene | ND | 1.0 | 92 | 95 | 3.2 | 94 | 92 | 2.2 | 70 - 130 | 30 |
| 1,2-Dibromo-3-chloropropane | ND | 5.0 | 93 | 100 | 7.3 | 82 | 88 | 7.1 | 70 - 130 | 30 |
| 1,2-Dibromoethane | ND | 5.0 | 100 | 103 | 3.0 | 96 | 99 | 3.1 | 70 - 130 | 30 |
| 1,2-Dichlorobenzene | ND | 5.0 | 100 | 102 | 2.0 | 98 | 98 | 0.0 | 70 - 130 | 30 |
| 1,2-Dichloroethane | ND | 5.0 | 99 | 103 | 4.0 | 96 | 101 | 5.1 | 70 - 130 | 30 |
| 1,2-Dichloropropane | ND | 5.0 | 98 | 100 | 2.0 | 98 | 99 | 1.0 | 70 - 130 | 30 |
| 1,3,5-Trimethylbenzene | ND | 1.0 | 92 | 95 | 3.2 | 95 | 93 | 2.1 | 70 - 130 | 30 |
| 1,3-Dichlorobenzene | ND | 5.0 | 94 | 97 | 3.1 | 93 | 92 | 1.1 | 70 - 130 | 30 |
| 1,3-Dichloropropane | ND | 5.0 | 99 | 103 | 4.0 | 97 | 98 | 1.0 | 70 - 130 | 30 |
| 1,4-Dichlorobenzene | ND | 5.0 | 97 | 101 | 4.0 | 96 | 94 | 2.1 | 70 - 130 | 30 |
| 2,2-Dichloropropane | ND | 5.0 | 79 | 80 | 1.3 | 78 | 76 | 2.6 | 70 - 130 | 30 |
| 2-Chlorotoluene | ND | 5.0 | 99 | 100 | 1.0 | 101 | 100 | 1.0 | 70 - 130 | 30 |
| 2-Hexanone | ND | 25 | 93 | 98 | 5.2 | 82 | 88 | 7.1 | 70 - 130 | 30 |
| 2-Isopropyltoluene | ND | 5.0 | 97 | 99 | 2.0 | 100 | 97 | 3.0 | 70 - 130 | 30 |
| 4-Chlorotoluene | ND | 5.0 | 97 | 99 | 2.0 | 98 | 95 | 3.1 | 70 - 130 | 30 |

# QA/QC Data

SDG I.D.: GCM95248

| Parameter | Blank | Blk RL | LCS % | LCSD % | LCS RPD | MS % | MSD % | MS RPD | % Rec Limits | % RPD Limits | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 4-Methyl-2-pentanone | ND | 25 | 100 | 109 | 8.6 | 92 | 98 | 6.3 | 70 - 130 | 30 | |
| Acetone | ND | 10 | 85 | 95 | 11.1 | 109 | 119 | 8.8 | 70 - 130 | 30 | |
| Acrylonitrile | ND | 5.0 | 94 | 98 | 4.2 | 84 | 88 | 4.7 | 70 - 130 | 30 | |
| Benzene | ND | 1.0 | 99 | 100 | 1.0 | 100 | 100 | 0.0 | 70 - 130 | 30 | |
| Bromobenzene | ND | 5.0 | 101 | 104 | 2.9 | 101 | 100 | 1.0 | 70 - 130 | 30 | |
| Bromochloromethane | ND | 5.0 | 100 | 102 | 2.0 | 96 | 98 | 2.1 | 70 - 130 | 30 | |
| Bromodichloromethane | ND | 5.0 | 93 | 94 | 1.1 | 91 | 95 | 4.3 | 70 - 130 | 30 | |
| Bromoform | ND | 5.0 | 84 | 87 | 3.5 | 77 | 82 | 6.3 | 70 - 130 | 30 | |
| Bromomethane | ND | 5.0 | 99 | 96 | 3.1 | 102 | 100 | 2.0 | 70 - 130 | 30 | |
| Carbon Disulfide | ND | 5.0 | 88 | 91 | 3.4 | 83 | 81 | 2.4 | 70 - 130 | 30 | |
| Carbon tetrachloride | ND | 5.0 | 91 | 91 | 0.0 | 91 | 91 | 0.0 | 70 - 130 | 30 | |
| Chlorobenzene | ND | 5.0 | 101 | 102 | 1.0 | 101 | 99 | 2.0 | 70 - 130 | 30 | |
| Chloroethane | ND | 5.0 | 111 | 109 | 1.8 | 110 | 104 | 5.6 | 70 - 130 | 30 | |
| Chloroform | ND | 5.0 | 93 | 94 | 1.1 | 93 | 93 | 0.0 | 70 - 130 | 30 | |
| Chloromethane | ND | 5.0 | 94 | 94 | 0.0 | 88 | 87 | 1.1 | 70 - 130 | 30 | |
| cis-1,2-Dichloroethene | ND | 5.0 | 99 | 100 | 1.0 | 98 | 98 | 0.0 | 70 - 130 | 30 | |
| cis-1,3-Dichloropropene | ND | 5.0 | 93 | 95 | 2.1 | 89 | 91 | 2.2 | 70 - 130 | 30 | |
| Dibromochloromethane | ND | 3.0 | 95 | 98 | 3.1 | 91 | 94 | 3.2 | 70 - 130 | 30 | |
| Dibromomethane | ND | 5.0 | 101 | 104 | 2.9 | 96 | 101 | 5.1 | 70 - 130 | 30 | |
| Dichlorodifluoromethane | ND | 5.0 | 78 | 76 | 2.6 | 76 | 74 | 2.7 | 70 - 130 | 30 | |
| Ethylbenzene | ND | 1.0 | 100 | 101 | 1.0 | 101 | 101 | 0.0 | 70 - 130 | 30 | |
| Hexachlorobutadiene | ND | 5.0 | 96 | 97 | 1.0 | 94 | 89 | 5.5 | 70 - 130 | 30 | |
| Isopropylbenzene | ND | 1.0 | 99 | 101 | 2.0 | 103 | 101 | 2.0 | 70 - 130 | 30 | |
| m&p-Xylene | ND | 2.0 | 96 | 98 | 2.1 | 98 | 97 | 1.0 | 70 - 130 | 30 | |
| Methyl ethyl ketone | ND | 5.0 | 93 | 100 | 7.3 | 82 | 88 | 7.1 | 70 - 130 | 30 | |
| Methyl t-butyl ether (MTBE) | ND | 1.0 | 93 | 96 | 3.2 | 91 | 94 | 3.2 | 70 - 130 | 30 | |
| Methylene chloride | ND | 5.0 | 92 | 95 | 3.2 | 93 | 91 | 2.2 | 70 - 130 | 30 | |
| Naphthalene | ND | 5.0 | 99 | 104 | 4.9 | 93 | 94 | 1.1 | 70 - 130 | 30 | |
| n-Butylbenzene | ND | 1.0 | 96 | 98 | 2.1 | 96 | 93 | 3.2 | 70 - 130 | 30 | |
| n-Propylbenzene | ND | 1.0 | 98 | 100 | 2.0 | 101 | 98 | 3.0 | 70 - 130 | 30 | |
| o-Xylene | ND | 2.0 | 99 | 100 | 1.0 | 100 | 98 | 2.0 | 70 - 130 | 30 | |
| p-Isopropyltoluene | ND | 1.0 | 96 | 98 | 2.1 | 98 | 96 | 2.1 | 70 - 130 | 30 | |
| sec-Butylbenzene | ND | 1.0 | 97 | 99 | 2.0 | 98 | 97 | 1.0 | 70 - 130 | 30 | |
| Styrene | ND | 5.0 | 96 | 97 | 1.0 | 94 | 93 | 1.1 | 70 - 130 | 30 | |
| tert-Butylbenzene | ND | 1.0 | 99 | 101 | 2.0 | 102 | 101 | 1.0 | 70 - 130 | 30 | |
| Tetrachloroethene | ND | 5.0 | 101 | 102 | 1.0 | 99 | 100 | 1.0 | 70 - 130 | 30 | |
| Tetrahydrofuran (THF) | ND | 5.0 | 99 | 107 | 7.8 | 81 | 93 | 13.8 | 70 - 130 | 30 | |
| Toluene | ND | 1.0 | 99 | 101 | 2.0 | 100 | 101 | 1.0 | 70 - 130 | 30 | |
| trans-1,2-Dichloroethene | ND | 5.0 | 118 | 114 | 3.4 | 105 | 111 | 5.6 | 70 - 130 | 30 | |
| trans-1,3-Dichloropropene | ND | 5.0 | 87 | 90 | 3.4 | 82 | 83 | 1.2 | 70 - 130 | 30 | |
| trans-1,4-dichloro-2-butene | ND | 5.0 | 77 | 83 | 7.5 | 69 | 73 | 5.6 | 70 - 130 | 30 | m |
| Trichloroethene | ND | 5.0 | 103 | 105 | 1.9 | 104 | 105 | 1.0 | 70 - 130 | 30 | |
| Trichlorofluoromethane | ND | 5.0 | 96 | 97 | 1.0 | 97 | 95 | 2.1 | 70 - 130 | 30 | |
| Trichlorotrifluoroethane | ND | 5.0 | 94 | 98 | 4.2 | 95 | 92 | 3.2 | 70 - 130 | 30 | |
| Vinyl chloride | ND | 5.0 | 108 | 108 | 0.0 | 107 | 105 | 1.9 | 70 - 130 | 30 | |
| % 1,2-dichlorobenzene-d4 | 95 | % | 100 | 102 | 2.0 | 101 | 101 | 0.0 | 70 - 130 | 30 | |
| % Bromofluorobenzene | 96 | % | 97 | 97 | 0.0 | 96 | 95 | 1.0 | 70 - 130 | 30 | |
| % Dibromofluoromethane | 103 | % | 99 | 99 | 0.0 | 96 | 96 | 0.0 | 70 - 130 | 30 | |
| % Toluene-d8 | 96 | % | 103 | 103 | 0.0 | 102 | 103 | 1.0 | 70 - 130 | 30 | |

QA/QC Batch 654935 (ug/kg), QC Sample No: CM95262 (CM95262, CM95267, CM95273)

## Volatiles - Soil (Low Level)

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1,1,1,2-Tetrachloroethane | ND | 5.0 | 109 | 111 | 1.8 | 102 | 104 | 1.9 | 70 - 130 | 30 | |

# QA/QC Data

SDG I.D.: GCM95248

| Parameter | Blank | Blk RL | LCS % | LCSD % | LCS RPD | MS % | MSD % | MS RPD | % Rec Limits | % RPD Limits | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1,1,1-Trichloroethane | ND | 5.0 | 104 | 108 | 3.8 | 106 | 105 | 0.9 | 70 - 130 | 30 | |
| 1,1,2,2-Tetrachloroethane | ND | 3.0 | 98 | 101 | 3.0 | 88 | 88 | 0.0 | 70 - 130 | 30 | |
| 1,1,2-Trichloroethane | ND | 5.0 | 101 | 105 | 3.9 | 96 | 97 | 1.0 | 70 - 130 | 30 | |
| 1,1-Dichloroethane | ND | 5.0 | 130 | 137 | 5.2 | 97 | 127 | 26.8 | 70 - 130 | 30 | l |
| 1,1-Dichloroethene | ND | 5.0 | 98 | 99 | 1.0 | 99 | 94 | 5.2 | 70 - 130 | 30 | |
| 1,1-Dichloropropene | ND | 5.0 | 107 | 111 | 3.7 | 98 | 100 | 2.0 | 70 - 130 | 30 | |
| 1,2,3-Trichlorobenzene | ND | 5.0 | 96 | 92 | 4.3 | 70 | 61 | 13.7 | 70 - 130 | 30 | m |
| 1,2,3-Trichloropropane | ND | 5.0 | 100 | 99 | 1.0 | 96 | 95 | 1.0 | 70 - 130 | 30 | |
| 1,2,4-Trichlorobenzene | ND | 5.0 | 101 | 96 | 5.1 | 63 | 60 | 4.9 | 70 - 130 | 30 | m |
| 1,2,4-Trimethylbenzene | ND | 1.0 | 101 | 104 | 2.9 | 89 | 89 | 0.0 | 70 - 130 | 30 | |
| 1,2-Dibromo-3-chloropropane | ND | 5.0 | 105 | 99 | 5.9 | 88 | 87 | 1.1 | 70 - 130 | 30 | |
| 1,2-Dibromoethane | ND | 5.0 | 104 | 104 | 0.0 | 93 | 94 | 1.1 | 70 - 130 | 30 | |
| 1,2-Dichlorobenzene | ND | 5.0 | 99 | 103 | 4.0 | 83 | 83 | 0.0 | 70 - 130 | 30 | |
| 1,2-Dichloroethane | ND | 5.0 | 102 | 106 | 3.8 | 100 | 101 | 1.0 | 70 - 130 | 30 | |
| 1,2-Dichloropropane | ND | 5.0 | 101 | 104 | 2.9 | 99 | 100 | 1.0 | 70 - 130 | 30 | |
| 1,3,5-Trimethylbenzene | ND | 1.0 | 101 | 106 | 4.8 | 94 | 94 | 0.0 | 70 - 130 | 30 | |
| 1,3-Dichlorobenzene | ND | 5.0 | 98 | 101 | 3.0 | 78 | 79 | 1.3 | 70 - 130 | 30 | |
| 1,3-Dichloropropane | ND | 5.0 | 100 | 104 | 3.9 | 97 | 98 | 1.0 | 70 - 130 | 30 | |
| 1,4-Dichlorobenzene | ND | 5.0 | 98 | 102 | 4.0 | 76 | 75 | 1.3 | 70 - 130 | 30 | |
| 2,2-Dichloropropane | ND | 5.0 | 104 | 111 | 6.5 | 101 | 102 | 1.0 | 70 - 130 | 30 | |
| 2-Chlorotoluene | ND | 5.0 | 102 | 109 | 6.6 | 92 | 94 | 2.2 | 70 - 130 | 30 | |
| 2-Hexanone | ND | 25 | 90 | 94 | 4.3 | 85 | 83 | 2.4 | 70 - 130 | 30 | |
| 2-Isopropyltoluene | ND | 5.0 | 101 | 107 | 5.8 | 96 | 97 | 1.0 | 70 - 130 | 30 | |
| 4-Chlorotoluene | ND | 5.0 | 101 | 106 | 4.8 | 85 | 85 | 0.0 | 70 - 130 | 30 | |
| 4-Methyl-2-pentanone | ND | 25 | 97 | 101 | 4.0 | 93 | 93 | 0.0 | 70 - 130 | 30 | |
| Acetone | ND | 10 | 81 | 95 | 15.9 | 101 | 104 | 2.9 | 70 - 130 | 30 | |
| Acrylonitrile | ND | 5.0 | 129 | 129 | 0.0 | 86 | 119 | 32.2 | 70 - 130 | 30 | r |
| Benzene | ND | 1.0 | 100 | 103 | 3.0 | 97 | 98 | 1.0 | 70 - 130 | 30 | |
| Bromobenzene | ND | 5.0 | 104 | 108 | 3.8 | 91 | 91 | 0.0 | 70 - 130 | 30 | |
| Bromochloromethane | ND | 5.0 | 101 | 106 | 4.8 | 100 | 98 | 2.0 | 70 - 130 | 30 | |
| Bromodichloromethane | ND | 5.0 | 106 | 111 | 4.6 | 102 | 102 | 0.0 | 70 - 130 | 30 | |
| Bromoform | ND | 5.0 | 109 | 112 | 2.7 | 94 | 95 | 1.1 | 70 - 130 | 30 | |
| Bromomethane | ND | 5.0 | 86 | 89 | 3.4 | 93 | 88 | 5.5 | 70 - 130 | 30 | |
| Carbon Disulfide | ND | 5.0 | 95 | 99 | 4.1 | 86 | 86 | 0.0 | 70 - 130 | 30 | |
| Carbon tetrachloride | ND | 5.0 | 106 | 114 | 7.3 | 103 | 105 | 1.9 | 70 - 130 | 30 | |
| Chlorobenzene | ND | 5.0 | 100 | 104 | 3.9 | 90 | 91 | 1.1 | 70 - 130 | 30 | |
| Chloroethane | ND | 5.0 | 94 | 100 | 6.2 | 96 | 97 | 1.0 | 70 - 130 | 30 | |
| Chloroform | ND | 5.0 | 100 | 104 | 3.9 | 103 | 102 | 1.0 | 70 - 130 | 30 | |
| Chloromethane | ND | 5.0 | 88 | 90 | 2.2 | 86 | 88 | 2.3 | 70 - 130 | 30 | |
| cis-1,2-Dichloroethene | ND | 5.0 | 102 | 106 | 3.8 | 100 | 99 | 1.0 | 70 - 130 | 30 | |
| cis-1,3-Dichloropropene | ND | 5.0 | 108 | 113 | 4.5 | 96 | 96 | 0.0 | 70 - 130 | 30 | |
| Dibromochloromethane | ND | 3.0 | 110 | 112 | 1.8 | 98 | 102 | 4.0 | 70 - 130 | 30 | |
| Dibromomethane | ND | 5.0 | 105 | 107 | 1.9 | 99 | 99 | 0.0 | 70 - 130 | 30 | |
| Dichlorodifluoromethane | ND | 5.0 | 77 | 79 | 2.6 | 74 | 74 | 0.0 | 70 - 130 | 30 | |
| Ethylbenzene | ND | 1.0 | 102 | 105 | 2.9 | 94 | 95 | 1.1 | 70 - 130 | 30 | |
| Hexachlorobutadiene | ND | 5.0 | 102 | 100 | 2.0 | 89 | 87 | 2.3 | 70 - 130 | 30 | |
| Isopropylbenzene | ND | 1.0 | 103 | 107 | 3.8 | 99 | 99 | 0.0 | 70 - 130 | 30 | |
| m&p-Xylene | ND | 2.0 | 99 | 104 | 4.9 | 91 | 92 | 1.1 | 70 - 130 | 30 | |
| Methyl ethyl ketone | ND | 5.0 | 93 | 94 | 1.1 | 89 | 86 | 3.4 | 70 - 130 | 30 | |
| Methyl t-butyl ether (MTBE) | ND | 1.0 | 94 | 106 | 12.0 | 92 | 104 | 12.2 | 70 - 130 | 30 | |
| Methylene chloride | ND | 5.0 | 78 | 90 | 14.3 | 78 | 82 | 5.0 | 70 - 130 | 30 | |
| Naphthalene | ND | 5.0 | 98 | 96 | 2.1 | 74 | 70 | 5.6 | 70 - 130 | 30 | |
| n-Butylbenzene | ND | 1.0 | 105 | 110 | 4.7 | 83 | 83 | 0.0 | 70 - 130 | 30 | |

| Parameter | Blank | Blk RL | LCS % | LCSD % | LCS RPD | MS % | MSD % | MS RPD | % Rec Limits | % RPD Limits |
|---|---|---|---|---|---|---|---|---|---|---|
| n-Propylbenzene | ND | 1.0 | 103 | 107 | 3.8 | 92 | 92 | 0.0 | 70 - 130 | 30 |
| o-Xylene | ND | 2.0 | 102 | 104 | 1.9 | 94 | 96 | 2.1 | 70 - 130 | 30 |
| p-Isopropyltoluene | ND | 1.0 | 103 | 108 | 4.7 | 93 | 93 | 0.0 | 70 - 130 | 30 |
| sec-Butylbenzene | ND | 1.0 | 102 | 108 | 5.7 | 94 | 95 | 1.1 | 70 - 130 | 30 |
| Styrene | ND | 5.0 | 104 | 106 | 1.9 | 88 | 89 | 1.1 | 70 - 130 | 30 |
| tert-Butylbenzene | ND | 1.0 | 104 | 108 | 3.8 | 101 | 102 | 1.0 | 70 - 130 | 30 |
| Tetrachloroethene | ND | 5.0 | 103 | 108 | 4.7 | 96 | 94 | 2.1 | 70 - 130 | 30 |
| Tetrahydrofuran (THF) | ND | 5.0 | 95 | 98 | 3.1 | 91 | 88 | 3.4 | 70 - 130 | 30 |
| Toluene | ND | 1.0 | 104 | 106 | 1.9 | 100 | 101 | 1.0 | 70 - 130 | 30 |
| trans-1,2-Dichloroethene | ND | 5.0 | 91 | 107 | 16.2 | 79 | 93 | 16.3 | 70 - 130 | 30 |
| trans-1,3-Dichloropropene | ND | 5.0 | 111 | 114 | 2.7 | 92 | 92 | 0.0 | 70 - 130 | 30 |
| trans-1,4-dichloro-2-butene | ND | 5.0 | 112 | 119 | 6.1 | 85 | 85 | 0.0 | 70 - 130 | 30 |
| Trichloroethene | ND | 5.0 | 103 | 105 | 1.9 | 101 | 102 | 1.0 | 70 - 130 | 30 |
| Trichlorofluoromethane | ND | 5.0 | 90 | 104 | 14.4 | 101 | 102 | 1.0 | 70 - 130 | 30 |
| Trichlorotrifluoroethane | ND | 5.0 | 91 | 93 | 2.2 | 98 | 91 | 7.4 | 70 - 130 | 30 |
| Vinyl chloride | ND | 5.0 | 97 | 100 | 3.0 | 97 | 97 | 0.0 | 70 - 130 | 30 |
| % 1,2-dichlorobenzene-d4 | 95 | % | 101 | 102 | 1.0 | 100 | 102 | 2.0 | 70 - 130 | 30 |
| % Bromofluorobenzene | 98 | % | 100 | 99 | 1.0 | 99 | 100 | 1.0 | 70 - 130 | 30 |
| % Dibromofluoromethane | 100 | % | 101 | 102 | 1.0 | 99 | 100 | 1.0 | 70 - 130 | 30 |
| % Toluene-d8 | 94 | % | 103 | 103 | 0.0 | 102 | 102 | 0.0 | 70 - 130 | 30 |
| QA/QC Batch 654555 (ug/L), QC Sample No: CM95480 (CM95270) | | | | | | | | | | |
| **Volatiles - Water** | | | | | | | | | | |
| 1,1,1,2-Tetrachloroethane | ND | 1.0 | 89 | 91 | 2.2 | | | | 70 - 130 | 30 |
| 1,1,1-Trichloroethane | ND | 1.0 | 91 | 91 | 0.0 | | | | 70 - 130 | 30 |
| 1,1,2,2-Tetrachloroethane | ND | 0.50 | 87 | 90 | 3.4 | | | | 70 - 130 | 30 |
| 1,1,2-Trichloroethane | ND | 1.0 | 87 | 91 | 4.5 | | | | 70 - 130 | 30 |
| 1,1-Dichloroethane | ND | 1.0 | 96 | 94 | 2.1 | | | | 70 - 130 | 30 |
| 1,1-Dichloroethene | ND | 1.0 | 94 | 90 | 4.3 | | | | 70 - 130 | 30 |
| 1,1-Dichloropropene | ND | 1.0 | 89 | 95 | 6.5 | | | | 70 - 130 | 30 |
| 1,2,3-Trichlorobenzene | ND | 1.0 | 85 | 88 | 3.5 | | | | 70 - 130 | 30 |
| 1,2,3-Trichloropropane | ND | 1.0 | 90 | 93 | 3.3 | | | | 70 - 130 | 30 |
| 1,2,4-Trichlorobenzene | ND | 1.0 | 90 | 94 | 4.3 | | | | 70 - 130 | 30 |
| 1,2,4-Trimethylbenzene | ND | 1.0 | 92 | 94 | 2.2 | | | | 70 - 130 | 30 |
| 1,2-Dibromo-3-chloropropane | ND | 1.0 | 87 | 86 | 1.2 | | | | 70 - 130 | 30 |
| 1,2-Dibromoethane | ND | 1.0 | 91 | 93 | 2.2 | | | | 70 - 130 | 30 |
| 1,2-Dichlorobenzene | ND | 1.0 | 90 | 93 | 3.3 | | | | 70 - 130 | 30 |
| 1,2-Dichloroethane | ND | 1.0 | 77 | 83 | 7.5 | | | | 70 - 130 | 30 |
| 1,2-Dichloropropane | ND | 1.0 | 84 | 88 | 4.7 | | | | 70 - 130 | 30 |
| 1,3,5-Trimethylbenzene | ND | 1.0 | 93 | 96 | 3.2 | | | | 70 - 130 | 30 |
| 1,3-Dichlorobenzene | ND | 1.0 | 90 | 93 | 3.3 | | | | 70 - 130 | 30 |
| 1,3-Dichloropropane | ND | 1.0 | 91 | 93 | 2.2 | | | | 70 - 130 | 30 |
| 1,4-Dichlorobenzene | ND | 1.0 | 92 | 93 | 1.1 | | | | 70 - 130 | 30 |
| 2,2-Dichloropropane | ND | 1.0 | 96 | 94 | 2.1 | | | | 70 - 130 | 30 |
| 2-Chlorotoluene | ND | 1.0 | 91 | 94 | 3.2 | | | | 70 - 130 | 30 |
| 2-Hexanone | ND | 5.0 | 78 | 81 | 3.8 | | | | 70 - 130 | 30 |
| 2-Isopropyltoluene | ND | 1.0 | 92 | 95 | 3.2 | | | | 70 - 130 | 30 |
| 4-Chlorotoluene | ND | 1.0 | 92 | 95 | 3.2 | | | | 70 - 130 | 30 |
| 4-Methyl-2-pentanone | ND | 5.0 | 79 | 83 | 4.9 | | | | 70 - 130 | 30 |
| Acetone | ND | 5.0 | 89 | 85 | 4.6 | | | | 70 - 130 | 30 |
| Acrolein | ND | 5.0 | 81 | 78 | 3.8 | | | | 70 - 130 | 30 |
| Acrylonitrile | ND | 5.0 | 86 | 81 | 6.0 | | | | 70 - 130 | 30 |
| Benzene | ND | 0.70 | 84 | 93 | 10.2 | | | | 70 - 130 | 30 |

# QA/QC Data

SDG I.D.: GCM95248

| Parameter | Blank | Blk RL | LCS % | LCSD % | LCS RPD | MS % | MSD % | MS RPD | % Rec Limits | % RPD Limits |
|---|---|---|---|---|---|---|---|---|---|---|
| Bromobenzene | ND | 1.0 | 90 | 93 | 3.3 | | | | 70 - 130 | 30 |
| Bromochloromethane | ND | 1.0 | 97 | 98 | 1.0 | | | | 70 - 130 | 30 |
| Bromodichloromethane | ND | 0.50 | 85 | 89 | 4.6 | | | | 70 - 130 | 30 |
| Bromoform | ND | 1.0 | 78 | 82 | 5.0 | | | | 70 - 130 | 30 |
| Bromomethane | ND | 1.0 | 84 | 83 | 1.2 | | | | 70 - 130 | 30 |
| Carbon Disulfide | 0.26 J | 1.0 | 89 | 85 | 4.6 | | | | 70 - 130 | 30 |
| Carbon tetrachloride | ND | 1.0 | 92 | 92 | 0.0 | | | | 70 - 130 | 30 |
| Chlorobenzene | ND | 1.0 | 91 | 94 | 3.2 | | | | 70 - 130 | 30 |
| Chloroethane | ND | 1.0 | 106 | 99 | 6.8 | | | | 70 - 130 | 30 |
| Chloroform | ND | 1.0 | 94 | 95 | 1.1 | | | | 70 - 130 | 30 |
| Chloromethane | ND | 1.0 | 80 | 79 | 1.3 | | | | 70 - 130 | 30 |
| cis-1,2-Dichloroethene | ND | 1.0 | 93 | 91 | 2.2 | | | | 70 - 130 | 30 |
| cis-1,3-Dichloropropene | ND | 0.40 | 83 | 87 | 4.7 | | | | 70 - 130 | 30 |
| Dibromochloromethane | ND | 0.50 | 84 | 87 | 3.5 | | | | 70 - 130 | 30 |
| Dibromomethane | ND | 1.0 | 86 | 90 | 4.5 | | | | 70 - 130 | 30 |
| Dichlorodifluoromethane | ND | 1.0 | 80 | 79 | 1.3 | | | | 70 - 130 | 30 |
| Ethylbenzene | ND | 1.0 | 93 | 97 | 4.2 | | | | 70 - 130 | 30 |
| Hexachlorobutadiene | ND | 0.40 | 94 | 99 | 5.2 | | | | 70 - 130 | 30 |
| Isopropylbenzene | ND | 1.0 | 91 | 94 | 3.2 | | | | 70 - 130 | 30 |
| m&p-Xylene | ND | 1.0 | 93 | 96 | 3.2 | | | | 70 - 130 | 30 |
| Methyl ethyl ketone | ND | 5.0 | 77 | 80 | 3.8 | | | | 70 - 130 | 30 |
| Methyl t-butyl ether (MTBE) | ND | 1.0 | 94 | 92 | 2.2 | | | | 70 - 130 | 30 |
| Methylene chloride | ND | 1.0 | 97 | 93 | 4.2 | | | | 70 - 130 | 30 |
| Naphthalene | ND | 1.0 | 83 | 86 | 3.6 | | | | 70 - 130 | 30 |
| n-Butylbenzene | ND | 1.0 | 95 | 98 | 3.1 | | | | 70 - 130 | 30 |
| n-Propylbenzene | ND | 1.0 | 92 | 95 | 3.2 | | | | 70 - 130 | 30 |
| o-Xylene | ND | 1.0 | 90 | 94 | 4.3 | | | | 70 - 130 | 30 |
| p-Isopropyltoluene | ND | 1.0 | 95 | 98 | 3.1 | | | | 70 - 130 | 30 |
| sec-Butylbenzene | ND | 1.0 | 95 | 98 | 3.1 | | | | 70 - 130 | 30 |
| Styrene | ND | 1.0 | 92 | 95 | 3.2 | | | | 70 - 130 | 30 |
| tert-Butylbenzene | ND | 1.0 | 93 | 96 | 3.2 | | | | 70 - 130 | 30 |
| Tetrachloroethene | ND | 1.0 | 89 | 93 | 4.4 | | | | 70 - 130 | 30 |
| Tetrahydrofuran (THF) | ND | 2.5 | 88 | 87 | 1.1 | | | | 70 - 130 | 30 |
| Toluene | ND | 1.0 | 87 | 93 | 6.7 | | | | 70 - 130 | 30 |
| trans-1,2-Dichloroethene | ND | 1.0 | 98 | 96 | 2.1 | | | | 70 - 130 | 30 |
| trans-1,3-Dichloropropene | ND | 0.40 | 83 | 88 | 5.8 | | | | 70 - 130 | 30 |
| trans-1,4-dichloro-2-butene | ND | 5.0 | 77 | 79 | 2.6 | | | | 70 - 130 | 30 |
| Trichloroethene | ND | 1.0 | 91 | 92 | 1.1 | | | | 70 - 130 | 30 |
| Trichlorofluoromethane | ND | 1.0 | 95 | 91 | 4.3 | | | | 70 - 130 | 30 |
| Trichlorotrifluoroethane | ND | 1.0 | 89 | 86 | 3.4 | | | | 70 - 130 | 30 |
| Vinyl chloride | ND | 1.0 | 86 | 85 | 1.2 | | | | 70 - 130 | 30 |
| % 1,2-dichlorobenzene-d4 | 99 | % | 99 | 100 | 1.0 | | | | 70 - 130 | 30 |
| % Bromofluorobenzene | 97 | % | 99 | 100 | 1.0 | | | | 70 - 130 | 30 |
| % Dibromofluoromethane | 102 | % | 106 | 102 | 3.8 | | | | 70 - 130 | 30 |
| % Toluene-d8 | 90 | % | 95 | 98 | 3.1 | | | | 70 - 130 | 30 |

Comment:

A LCS and LCS Duplicate were performed instead of a matrix spike and matrix spike duplicate.

l = This parameter is outside laboratory LCS/LCSD specified recovery limits.
m = This parameter is outside laboratory MS/MSD specified recovery limits.
r = This parameter is outside laboratory RPD specified recovery limits.
s = This parameter is outside laboratory Blank Surrogate specified recovery limits.

# QA/QC Data

SDG I.D.: GCM95248

| Parameter | Blank | Blk RL | LCS % | LCSD % | LCS RPD | MS % | MSD % | MS RPD | % Rec Limits | % RPD Limits |
|---|---|---|---|---|---|---|---|---|---|---|

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

RPD - Relative Percent Difference
LCS - Laboratory Control Sample
LCSD - Laboratory Control Sample Duplicate
MS - Matrix Spike
MS Dup - Matrix Spike Duplicate
NC - No Criteria
Intf - Interference

Phyllis Shiller, Laboratory Director
December 20, 2022

Tuesday, December 20, 2022

Criteria: None

State: NY

# Sample Criteria Exceedances Report

## GCM95248 - WALDENE-IPARK

| SampNo | Acode | Phoenix Analyte | Criteria | Result | RL | Criteria | RL Criteria | Analysis Units |
|---|---|---|---|---|---|---|---|---|

*** No Data to Display ***

Phoenix Laboratories does not assume responsibility for the data contained in this exceedance report. It is provided as an additional tool to identify requested criteria exceedences. All efforts are made to ensure the accuracy of the data (obtained from appropriate agencies). A lack of exceedence information does not necessarily suggest conformance to the criteria. It is ultimately the site professional's responsibility to determine appropriate compliance.

**Environmental Laboratories, Inc.**
**587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045**
**Tel. (860) 645-1102 Fax (860) 645-0823**

ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

# NY Temperature Narration

**December 20, 2022**

**SDG I.D.: GCM95248**

The samples in this delivery group were received at 2.5°C.
(Note acceptance criteria for relevant matrices is above freezing up to 6°C)

Cooler: Yes ☒ No ☐
Coolant: IPK ☐ ICE ☒ No ☐
Temp: 2.5 °C Pg 1 of 3

# PHOENIX
*Environmental Laboratories, Inc.*

## CT/MA/RI CHAIN OF CUSTODY RECORD

587 East Middle Turnpike, P.O. Box 370, Manchester, CT 06040
Email: makrina@phoenixlabs.com Fax (860) 645-0823
**Client Services (860) 645-1102**

**Data Delivery/Contact Options:**
☐ Fax:
☒ Phone: 516-624-7200
☒ Email: nbrew@walden-associates.com

Customer: iPark East Fishkill c/o Walden Environmental Engineering
Address: 16 Spring Street
Oyster Bay, NY 11771

Project: iPark0118.62-Lot 10 Boundary Modification
Report to: Nora Brew, P.E.
Invoice to: Carl Monheit
Quote # N/A

**Project P.O:**

***This section MUST be completed with Bottle Quantities.***

Sampler's Signature
**Client Sample - Information - Identification** Date: 11/29/22

**Matrix Code:**
**DW**=Drinking Water **GW**=Ground Water **SW**=Surface Water **WW**=Waste Water
**RW**=Raw Water **SE**=Sediment **SL**=Sludge **S**=Soil **SD**=Solid **W**=Wipe **OIL**=Oil
**B**=Bulk **L**=Liquid **X**=_____(Other)

| PHOENIX USE ONLY SAMPLE # | Customer Sample Identification | Sample Matrix | Date Sampled | Time Sampled | *MS/MSD (May be billable at analysis unit rate) | VOCs (8260) | SVOCs (8270) | TAL Metals (6010) | Pesticides (8081 B) | Herbicides (8151A) | PCBs(8082A) | PFAS | 1,4-Dioxane | GL Amber 8 oz. [ ] w/$H_3PO_4$ [ ] $NAHSO_4$ | Soil VOA Vials [1] methanol [2] $H_2O$ | GL Soil container (8) oz | GL Soil container (4) oz | 40 ml VOA Vial [ ] As is [ ] HCl | GL Amber 1000ml [ ] As is [ ] HCl | PL As is [ ] 250ml [X] 500ml [ ] 1000ml | PL $H_2SO_4$ [ ] 250ml [ ] 500ml | PL $HNO_3$ 250ml | PL NaOH 250ml | Bacteria Bottle w/thio | Bacteria Bottle as is |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 95248 | SED-1 (0-2") | SE | 11/29/22 | 0830 | | X | X | X | X | X | X | X | X | | 1 | 1 | 2 | | | 1 | | | | | |
| 95249 | SED-1 (2-12") | SE | | 0830 | | X | X | X | X | X | X | X | X | | 1 | 1 | 2 | | | 1 | | | | | |
| 95250 | SED-2 (0-2") | SE | | 0845 | | X | X | X | X | X | X | X | X | | 1 | 1 | 2 | | | 1 | | | | | |
| 95251 | SED-2 (2-12") | SE | | 0845 | | X | X | X | X | X | X | X | X | | 1 | 1 | 2 | | | 1 | | | | | |
| 95252 | SB-10A1 (0-2") | S | | 1040 | | | X | X | X | X | X | X | X | | | 1 | 1 | | | 1 | | | | | |
| 95253 | SB-10A2 (2-12") | S | | 1045 | | | X | X | X | X | X | X | X | | | 1 | 2 | | | 1 | | | | | |
| 95254 | SB-10B (1-2') | S | | 1050 | | X | | | | | | | | | 1 | | | | | | | | | | |
| 95255 | SB-10C 9-11 | S | | 1030 | | X | X | X | X | X | X | X | X | | 1 | 1 | 2 | | | 1 | | | | | |
| 95256 | SB-9A (0-1') | S | | 1200 | | | X | X | X | X | X | X | X | | | 1 | 2 | | | 1 | | | | | |
| 95257 | SB-9B (1-2') | S | | 1200 | | X | | | | | | | | | 1 | | | | | | | | | | |
| 95258 | SB-9C (6-8) | S | | 1200 | | X | X | X | X | X | X | X | X | | 1 | 1 | 2 | | | 1 | | | | | |
| 95259 | SB-Dup1 | S | | 1200 | | X | X | X | X | X | X | X | X | | 1 | 1 | 2 | | | 1 | | | | | |

| Relinquished by: | Accepted by: | Date: | Time: |
|---|---|---|---|
| | | 12/1/22 | 13:51 |
| | | 12-1-22 | 17:12 |

**Comments, Special Requirements or Regulations:**
A&PB Deliverables

**Turnaround Time:**
☐ 1 Day* ☒ Standard
☐ 2 Days* ☐ Other
☐ 3 Days*
☐ 4 Days*
☐ 5 Days*

**RI**
☐ RES DEC
☐ I/C DEC
☐ GA Leachability
☐ GB Leachability
☐ GA -GW Objectives
☐ GB -GW Objectives
☐ Other

**CT**
☐ RCP Cert
☐ GWPC
☐ SWPC
☐ GA PMC
☐ GB PMC
☐ SWPC
☐ RES DEC
☐ I/C DEC

**MA**
☐ MCP Certification
☐ GW-1 ☐ RCS-1 / RCGW-1
☐ GW-2 ☐ RCS-2 / RCGW-2
☐ GW-3
☐ S-1 ☐ _____
☐ S-2
☐ S-3
☐ SW Protection

**Data Format**
☒ Excel
☒ PDF
☐ GIS/Key
☐ EQuIS
☐ Other

**Data Package**
☐ Tier II Checklist*
☐ Full Data Package*
☐ Phoenix Std
☐ Other

***MS/MSD are considered site samples and will be billed as such in accordance with the prices quoted.**

* SURCHARGES MAY APPLY

**State where samples were collected:** NY

* SURCHARGE APPLIES

Page 211 of 279

Cooler: Yes [X] No [ ]
Coolant: IPK [ ] ICE [X] No [ ]

# PHOENIX Environmental Laboratories, Inc.

## CT/MA/RI CHAIN OF CUSTODY RECORD

Temp 2.5 Pg 2 of 3

587 East Middle Turnpike, P.O. Box 370, Manchester, CT 06040
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Address: 16 Spring Street
Oyster Bay, NY 11771

Project: iPark0118.62-Lot 10 Boundary Modification
Report to: Nora Brew, P.E.
Invoice to: Carl Monheit
Quote # N/A

**Project P.O:**

***This section MUST be completed with Bottle Quantities.***

Sampler's Signature: [signature] Date: 11/29/22

**Client Sample - Information - Identification**

**Matrix Code:**
DW=Drinking Water GW=Ground Water SW=Surface Water WW=Waste Water
RW=Raw Water SE=Sediment SL=Sludge S=Soil SD=Solid W=Wipe OIL=Oil
B=Bulk L=Liquid X = _____(Other)

| PHOENIX USE ONLY SAMPLE # | Customer Sample Identification | Sample Matrix | Date Sampled | Time Sampled | *MS/MSD (May be billable at analysis unit rate) | VOCs (8260) | SVOCs (8270) | TAL Metals (6010) | Pesticides (8081 B) | Herbicides (8151A) | PCBs(8082A) | PFAS | 1,4-Dioxane | | | | GL Amber 8 oz. [X] w/H3PO4 [ ] NaHSO4 | Soil VOA Vials [1] methanol [2] H2O | GL Soil container (8) oz | GL Soil container (4) oz | 40 ml VOA Vial [ ] As is [X] HCl | GL Amber 1000ml [X] As is [ ] H2SO4 | PL As is [ ] 250ml [X] 500ml [ ] 1000ml | PL H2SO4 [ ] 250ml [ ] 500ml | PL HNO3 250ml | PL NaOH 250ml | Bacteria Bottle w/thio | Bacteria Bottle as is |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 95260 | SB-8A (0-1') | S | 11/29/22 | 11:15 | | x | x | x | x | x | x | x | | | | | 1 | 2 | | 1 | | | | | | | | |
| 95261 | SB-8B (1-2') | S | 11/29/22 | 11:20 | x | | | | | | | | | | | | 1 | | | | | | | | | | | |
| 95262 | SB-8C (3-5) | S | 11/29/22 | 11:30 | x | x | x | x | x | x | x | x | | | | | 1 | 1 | 2 | | | 1 | | | | | | |
| 95263 | SB-7A (0-1') | S | 11/29/22 | 1235 | | x | x | x | x | x | x | x | | | | | 1 | 2 | | 1 | | | | | | | | |
| 95264 | SB-7B (1-2') | S | 11/29/22 | 1240 | x | | | | | | | | | | | | 1 | | | | | | | | | | | |
| 95265 | SB-7C (6.5) | S | 11/29/22 | 1245 | x | x | x | x | x | x | x | x | | | | | 1 | 1 | 2 | | | 1 | | | | | | |
| 95266 | SB-6A (0-1') | S | 11/29/22 | 1415 | | x | x | x | x | x | x | x | | | | | | 1 | 2 | | | 1 | | | | | | |
| 95267 | SB-6B (1-2') | S | 11/29/22 | 1415 | x | | | | | | | | | | | | 1 | | | | | | | | | | | |
| 95268 | SB-6C (6.8) | S | 11/29/22 | 1415 | x | x | x | x | x | x | x | x | | | | | 1 | 1 | 2 | | | 1 | | | | | | |
| 95269 | SB-Dup2 | S | 11/29/22 | 1430 | x | x | x | x | x | x | x | x | | | | | 1 | 1 | 2 | | | 1 | | | | | | |
| 95270 | Equipment Blank 11292022 | DW | 11/29/22 | 1335 | x | x | x | x | x | x | x | x | | | | | | | 3 | 2 | | | 1 | | | | | |

| Relinquished by: | Accepted by: | Date: | Time: |
|---|---|---|---|
| [signature] | [signature] | 12/1/22 | 13:51 |
| [signature] | [signature] | 12/1/22 | 1712 |

**Comments, Special Requirements or Regulations:**
ASP B Deliverables

**Turnaround Time:**
[ ] 1 Day* [X] Standard
[ ] 2 Days* [ ] Other
[ ] 3 Days*
[ ] 4 Days*
[ ] 5 Days*

***MS/MSD are considered site samples and will be billed as such in accordance with the prices quoted.***

* SURCHARGES MAY APPLY

**RI**
[ ] RES DEC
[ ] I/C DEC
[ ] GA Leachability
[ ] GB Leachability
[ ] GA -GW Objectives
[ ] GB -GW Objectives
[ ] Other

**CT**
[ ] RCP Cert
[ ] GWPC
[ ] SWPC
[ ] GA PMC
[ ] GB PMC
[ ] SWPC
[ ] RES DEC
[ ] I/C DEC

**MA**
[ ] MCP Certification
[ ] GW-1 [ ] RCS-1 / RCGW-1
[ ] GW-2 [ ] RCS-2 / RCGW-2
[ ] GW-3 [ ] _____
[ ] S-1
[ ] S-2
[ ] S-3
[ ] SW Protection

**State where samples were collected:** NY

**Data Format**
[ ] Excel
[X] PDF
[ ] GIS/Key
[ ] EQuIS
[ ] Other

**Data Package**
[ ] Tier II Checklist*
[ ] Full Data Package*
[ ] Phoenix Std
[ ] Other

* SURCHARGE APPLIES

Cooler: Yes ☑ No ☐
Coolant: IPK ☑ ICE ☐ No ☐

Temp 2.5 Pg 3 of 3

# PHOENIX
*Environmental Laboratories, Inc.*

## CT/MA/RI CHAIN OF CUSTODY RECORD

587 East Middle Turnpike, P.O. Box 370, Manchester, CT 06040
Email: makrina@phoenixlabs.com Fax (860) 645-0823
**Client Services (860) 645-1102**

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☐ Email: nbrew@walden-associates.com

Customer: iPark East Fishkill c/o Walden Environmental Engineering
Address: 16 Spring Street
Oyster Bay, NY 11771

Project: iPark0118.62-Lot 10 Boundary Modification
Report to: Nora Brew, P.E.
Invoice to: Carl Monheit
Quote # N/A

**Project P.O:**

***This section MUST be completed with Bottle Quantities.***

Sampler's Signature: [signature] Date: 11/29/22

**Client Sample - Information - Identification**

**Matrix Code:**
DW=Drinking Water GW=Ground Water SW=Surface Water WW=Waste Water
RW=Raw Water SE=Sediment SL=Sludge S=Soil SD=Solid W=Wipe OIL=Oil
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|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 95271 | SB-5A1 (0-2") | S | 11/29/22 | 1330 | | x | x | x | x | x | x | x | | | 1 | 2 | | | 1 | | | | | | |
| 95272 | SB-5A2 (2-12") | S | | 1330 | | X | X | X | X | X | X | X | | | 1 | 2 | | | 1 | | | | | | |
| 95273 | SB-5B (1-2') | S | | 13:15 | x | | | | | | | | | | 1 | | | | | | | | | | |
| 95274 | SB-5C (0-8) | S | | 13:20 | x | x | x | x | x | x | x | x | | | 1 | 1 | 2 | | 1 | | | | | | |
| 95275 | SB-4A (0-1) | S | | 1345 | | X | X | X | X | X | X | X | | | | 1 | 2 | | 1 | | | | | | |
| 95276 | SB-4B (1-2) | S | | 1345 | X | | | | | | | | | | 1 | | | | | | | | | | |
| 95277 | SB-4C (10-12) | S | | 1345 | X | X | X | X | X | X | X | X | | | 1 | 1 | 2 | | 1 | | | | | | |

| Relinquished by: | Accepted by: | Date: | Time: |
|---|---|---|---|
| [signature] | [signature] | 12/1/22 | 13:51 |
| [signature] | [signature] | 12.1.22 | 17:12 |

**Comments, Special Requirements or Regulations:**
ASP B Deliverables

**Turnaround Time:**
☐ 1 Day* ☒ Standard
☐ 2 Days* ☐ Other
☐ 3 Days*
☐ 4 Days*
☐ 5 Days*

**RI**
☐ RES DEC
☐ I/C DEC
☐ GA Leachability
☐ GB Leachability
☐ GA -GW Objectives
☐ GB -GW Objectives
☐ Other

**CT**
☐ RCP Cert
☐ GWPC
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☐ I/C DEC

**MA**
☐ MCP Certification
☐ GW-1 ☐ RCS-1 / RCGW-1
☐ GW-2 ☐ RCS-2 / RCGW-2
☐ GW-3
☐ S-1
☐ S-2
☐ S-3
☐ SW Protection

**Data Format**
☒ Excel
☒ PDF
☐ GIS/Key
☐ EQuIS
☐ Other

**Data Package**
☐ Tier II Checklist*
☐ Full Data Package*
☐ Phoenix Std
☐ Other

***MS/MSD are considered site samples and will be billed as such in accordance with the prices quoted.**

* SURCHARGES MAY APPLY

**State where samples were collected:** NY

* SURCHARGE APPLIES

## Bobbi Aloisa

| | |
|---|---|
| From: | Bobbi Aloisa |
| Sent: | Tuesday, December 06, 2022 8:58 PM |
| To: | Michael Lapman; Tara Banning; Bobbi Aloisa |
| Subject: | Equipment blank |
| Attachments: | GCM95248-ChainofCustody-1.pdf |

Michael

We can't run all the tests requested on the equipment blank, only 2 ambers were submitted. We started the SVOC and Herbicide. We won't be able to run PCB or Pesticide.

Bobbi

**Bobbi Aloisa**
Vice President | Director of Client Services
**Phoenix Environmental Laboratories, Inc.**
587 East Middle Turnpike | Manchester, CT 06040
Direct Line: (860)-645-8728
www.phoenixlabs.com

Cooler: Yes [X] No [ ]
Coolant: IPK [ ] ICE [X] No [ ]

# PHOENIX
*Environmental Laboratories, Inc.*

## CT/MA/RI CHAIN OF CUSTODY RECORD

Temp 2.2 °C Pg 1 of 3

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Email: makrina@phoenixlabs.com Fax (860) 645-0823
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Sampler's Signature

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|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 95248 | SED-1 (0-2") | SE | 11/29/22 | 0830 | | X | X | X | X | X | X | X | X | | 1 | 1 | 2 | | | 1 | | | | | |
| 95249 | SED-1 (2-12") | SE | | 0830 | | X | X | X | X | X | X | X | X | | 1 | 1 | 2 | | | 1 | | | | | |
| 95250 | SED-2 (0-2") | SE | | 0845 | | X | X | X | X | X | X | X | X | | 1 | 1 | 2 | | | 1 | | | | | |
| 95251 | SED-2 (2-12") | SE | | 0845 | | X | X | X | X | X | X | X | X | | 1 | 1 | 2 | | | 1 | | | | | |
| 95252 | SB-10A1 (0-2") | S | | 1040 | | | X | X | X | X | X | X | X | | | 1 | 1 | | | 1 | | | | | |
| 95253 | SB-10A2 (2-12") | S | | 1045 | | | X | X | X | X | X | X | X | | | 1 | 2 | | | 1 | | | | | |
| 95254 | SB-10B (1-2") | S | | 1050 | | X | | | | | | | | | 1 | | | | | | | | | | |
| 95255 | SB-10C (9-11) | S | | 1030 | | X | X | X | X | X | X | X | X | | 1 | 1 | 2 | | | 1 | | | | | |
| 95256 | SB-9A (0-1') | S | | 1200 | | | X | X | X | X | X | X | X | | | 1 | 2 | | | 1 | | | | | |
| 95257 | SB-9B (1-2') | S | | 1200 | | X | | | | | | | | | 1 | | | | | | | | | | |
| 95258 | SB-9C (6-8) | S | | 1200 | | X | X | X | X | X | X | X | X | | 1 | 1 | 2 | | | 1 | | | | | |
| 95259 | SB-Dup1 | S | | 1200 | | X | X | X | X | X | X | X | X | | 1 | 1 | 2 | | | 1 | | | | | |

| Relinquished by: | Accepted by: | Date: | Time: |
|---|---|---|---|
| | | 12.1.22 | 13:51 |
| | | 12.1.22 | 17:12 |

**Comments, Special Requirements or Regulations:**
ASP B Deliverables

**Turnaround Time:**
[ ] 1 Day* [X] Standard
[ ] 2 Days* [ ] Other
[ ] 3 Days*
[ ] 4 Days*
[ ] 5 Days*

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**RI**
[ ] RES DEC
[ ] I/C DEC
[ ] GA Leachability
[ ] GB Leachability
[ ] GA -GW Objectives
[ ] GB -GW Objectives
[ ] Other

**CT**
[ ] RCP Cert
[ ] GWPC
[ ] SWPC
[ ] GA PMC
[ ] GB PMC
[ ] SWPC
[ ] RES DEC
[ ] I/C DEC

**MA**
[ ] MCP Certification
[ ] GW-1 [ ] RCS-1 / RCGW-1
[ ] GW-2 [ ] RCS-2 / RCGW-2
[ ] GW-3 [ ] _____
[ ] S-1
[ ] S-2
[ ] S-3
[ ] SW Protection

**State where samples were collected:** NY

**Data Format**
[X] Excel
[X] PDF
[ ] GIS/Key
[ ] EQuIS
[ ] Other

**Data Package**
[ ] Tier II Checklist*
[ ] Full Data Package*
[ ] Phoenix Std
[ ] Other

* SURCHARGE APPLIES

Cooler: Yes [X] No [ ]
Coolant: IPK [ ] ICE [✓] No [ ]

# PHOENIX
*Environmental Laboratories, Inc.*

## CT/MA/RI CHAIN OF CUSTODY RECORD

587 East Middle Turnpike, P.O. Box 370, Manchester, CT 06040
Email: makrina@phoenixlabs.com Fax (860) 645-0823
**Client Services (860) 645-1102**

Temp 0.8°C Pg 2 of 3

**Data Delivery/Contact Options:**
[ ] Fax:
[✓] Phone: 516-624-7200
[✓] Email: nbrew@walden-associates.com

Customer: iPark East Fishkill c/o Walden Environmental Engineering
Address: 16 Spring Street
Oyster Bay, NY 11771

Project: iPark0118.62-Lot 10 Boundary Modification
Report to: Nora Brew, P.E.
Invoice to: Carl Monheit
Quote # N/A

**Project P.O:**

***This section MUST be completed with Bottle Quantities.***

Sampler's Signature: EG Date: 11/29/22

**Client Sample - Information - Identification**

**Matrix Code:**
DW=Drinking Water GW=Ground Water SW=Surface Water WW=Waste Water
RW=Raw Water SE=Sediment SL=Sludge S=Soil SD=Solid W=Wipe OIL=Oil
B=Bulk L=Liquid X = ___ (Other)

| PHOENIX USE ONLY SAMPLE # | Customer Sample Identification | Sample Matrix | Date Sampled | Time Sampled | *MS/MSD (May be billable at analysis unit rate) | VOCs (8260) | SVOCs (8270) | TAL Metals (6010) | Pesticides (8081 B) | Herbicides (8151A) | PCBs(8082A) | PFAS | 1,4-Dioxane | GL Amber 8 oz. [✓] w/H3PO4 [ ] NAHSO4 | Soil VOA Vials (1) methanol (2) H2O | GL Soil container (4) oz | GL Soil container (8) oz | 40 ml VOA Vial [ ] As is [✓] HCl | GL Amber 1000ml [✓] As is [ ] H2SO4 | PL As is [ ] 250ml [✓] 500ml [ ] 1000ml | PL H2SO4 [ ] 250ml [ ] 500ml | PL HNO3 250ml | PL NaOH 250ml | Bacteria Bottle w/thio | Bacteria Bottle as is |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 95260 | SB-8A (0-1') | S | 11/29/22 | 11:15 | | | x | x | x | x | x | x | x | | 1 | 2 | | | 1 | | | | | | |
| 95261 | SB-8B (1-2') | S | 11/29/22 | 11:20 | | x | | | | | | | | 1 | | | | | | | | | | | |
| 95262 | SB-8C (3-5) | S | 11/29/22 | 11:30 | | x | x | x | x | x | x | x | x | 1 | 1 | 2 | | | 1 | | | | | | |
| 95263 | SB-7A (0-1') | S | 11/29/22 | 1245 | | | x | x | x | x | x | x | x | | 1 | 2 | | | 1 | | | | | | |
| 95264 | SB-7B (1-2') | S | 11/29/22 | 1240 | | x | | | | | | | | 1 | | | | | | | | | | | |
| 95265 | SB-7C (6-8) | S | 11/29/22 | 1249 | | x | x | x | x | x | x | x | x | 1 | 1 | 2 | | | 1 | | | | | | |
| 95266 | SB-6A (0-1') | S | 11/29/22 | 1415 | | | x | x | x | x | x | x | x | | 1 | 2 | | | 1 | | | | | | |
| 95267 | SB-6B (1-2') | S | 11/29/22 | 1415 | | x | | | | | | | | 1 | | | | | | | | | | | |
| 95268 | SB-6C (6-8) | S | 11/29/22 | 1415 | | x | x | x | x | x | x | x | x | 1 | 1 | 2 | | | 1 | | | | | | |
| 95269 | SB-Dup2 | S | 11/29/22 | 1430 | | x | x | x | x | x | x | x | x | 1 | 1 | 2 | | | 1 | | | | | | |
| 95270 | Equipment Blank 11292022 | DW | 11/29/22 | 1335 | | x | x | x | x | x | x | x | x | | | 3 | 2 | | | 1 | | | | | |

| Relinquished by: | Accepted by: | Date: | Time: |
|---|---|---|---|
| [signature] | [signature] | 12/1/22 | 13:51 |
| BFM | [signature] | 12/1/22 | 17:12 |

**Comments, Special Requirements or Regulations:**
ASP B Deliverables

**Turnaround Time:**
[ ] 1 Day* [ ] 2 Days* [ ] 3 Days* [ ] 4 Days* [ ] 5 Days*
[✓] Standard [ ] Other

**RI**
[ ] RES DEC [ ] I/C DEC [ ] GA Leachability [ ] GB Leachability [ ] GA -GW Objectives [ ] GB -GW Objectives [ ] Other

**CT**
[ ] RCP Cert [ ] GWPC [ ] SWPC [ ] GA PMC [ ] GB PMC [ ] SWPC [ ] RES DEC [ ] I/C DEC

**MA**
[ ] MCP Certification
[ ] GW-1 [ ] GW-2 [ ] GW-3 [ ] S-1 [ ] S-2 [ ] S-3 [ ] SW Protection
[ ] RCS-1 / RCGW-1 [ ] RCS-2 / RCGW-2 [ ] ___

**Data Format**
[✓] Excel [✓] PDF [ ] GIS/Key [ ] EQuIS [ ] Other

**Data Package**
[ ] Tier II Checklist* [ ] Full Data Package* [ ] Phoenix Std [ ] Other

***MS/MSD are considered site samples and will be billed as such in accordance with the prices quoted.**

* SURCHARGES MAY APPLY

**State where samples were collected:** NY

* SURCHARGE APPLIES

Cooler: Yes ☑ No ☐
Coolant: IPK ☐ ICE ☐ No ☐

# PHOENIX
*Environmental Laboratories, Inc.*

## CT/MA/RI CHAIN OF CUSTODY RECORD

Temp 2.5 Pg 3 of 3

587 East Middle Turnpike, P.O. Box 370, Manchester, CT 06040
Email: makrina@phoenixlabs.com Fax (860) 645-0823
**Client Services (860) 645-1102**

**Data Delivery/Contact Options:**
☐ Fax:
☐ Phone: 516-624-7200
☐ Email: nbrew@walden-associates.com

Customer: iPark East Fishkill c/o Walden Environmental Engineering
Address: 16 Spring Street
Oyster Bay, NY 11771

Project: iPark0118.62-Lot 10 Boundary Modification
Report to: Nora Brew, P.E.
Invoice to: Carl Monheit
Quote #: N/A

**Project P.O:**

***This section MUST be completed with Bottle Quantities.***

Sampler's Signature: JWH
**Client Sample - Information - Identification**
Date: 11/29/22

**Matrix Code:**
DW=Drinking Water GW=Ground Water SW=Surface Water WW=Waste Water
RW=Raw Water SE=Sediment SL=Sludge S=Soil SD=Solid W=Wipe OIL=Oil
B=Bulk L=Liquid X = _____(Other)

| PHOENIX USE ONLY SAMPLE # | Customer Sample Identification | Sample Matrix | Date Sampled | Time Sampled | *MS/MSD (May be billable at analysis unit rate) | VOCs (8260) | SVOCs (8270) | TAL Metals (6010) | Pesticides (8081 B) | Herbicides (8151A) | PCBs(8082A) | PFAS | 1,4-Dioxane | GL Amber 8 oz. [ ] w/o $H_3PO_4$ [ ] $NAHSO_4$ | Soil VOA Vials [1] methanol [2] $H_2O$ | GL Soil container (8) oz | GL Soil container (4) oz | 40 ml VOA Vial [ ] As is [ ] HCl | GL Amber 1000ml [ ] As is [ ] $H_2SO_4$ | PL As is [ ] 250ml [3] 500ml [ ] 1000ml | PL $H_2SO_4$ [ ] 250ml [ ] 500ml | PL $HNO_3$ 250ml | PL NaOH 250ml | Bacteria Bottle w/thio | Bacteria Bottle as is |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 95271 | SB-5A1 (0-2") | S | 11/29/22 | 1330 | | | x | x | x | x | x | x | x | | 1 | 2 | | | 1 | | | | | | |
| 95272 | SB-5A2 (2-12") | S | | 1330 | | | X | X | X | X | X | X | X | | 1 | 2 | | | 1 | | | | | | |
| 95273 | SB-5B (1-2') | S | | 13:15 | | x | | | | | | | | | 1 | | | | | | | | | | |
| 95274 | SB-5C (6-8) | S | | 13:20 | | x | x | x | x | x | x | x | x | | 1 | 1 | 2 | | 1 | | | | | | |
| 95275 | SB-4A (0-1) | S | | 1345 | | | X | X | X | X | X | X | X | | | 1 | 2 | | 1 | | | | | | |
| 95276 | SB-4B (1-2) | S | | 1345 | | X | | | | | | | | | 1 | 2 | | | | | | | | | |
| 95277 | SB-4C (10-12) | S | | 1345 | | X | X | X | X | X | X | X | X | | 1 | 1 | 2 | | 1 | | | | | | |

| Relinquished by: | Accepted by: | Date: | Time: |
|---|---|---|---|
| JWH | Bat | 12/1/22 | 13:51 |
| Bat | Kathleen | 12/2/22 | 17:12 |

**Comments, Special Requirements or Regulations:**
ASP B Deliverables

**Turnaround Time:**
☐ 1 Day* ☒ Standard
☐ 2 Days* ☐ Other
☐ 3 Days*
☐ 4 Days*
☐ 5 Days*

**MS/MSD are considered site samples and will be billed as such in accordance with the prices quoted.*

** SURCHARGES MAY APPLY*

**RI**
☐ RES DEC
☐ I/C DEC
☐ GA Leachability
☐ GB Leachability
☐ GA -GW Objectives
☐ GB -GW Objectives
☐ Other

**CT**
☐ RCP Cert
☐ GWPC
☐ SWPC
☐ GA PMC
☐ GB PMC
☐ SWPC
☐ RES DEC
☐ I/C DEC

**MA**
☐ MCP Certification
☐ GW-1 ☐ RCS-1 / RCGW-1
☐ GW-2 ☐ RCS-2 / RCGW-2
☐ GW-3 ☐ _____
☐ S-1
☐ S-2
☐ S-3
☐ SW Protection

**State where samples were collected:** NY

**Data Format**
☒ Excel
☒ PDF
☐ GIS/Key
☐ EQuIS
☐ Other

**Data Package**
☐ Tier II Checklist*
☐ Full Data Package*
☐ Phoenix Std
☐ Other

** SURCHARGE APPLIES*

## Lori Bailey

**From:** Lori Bailey
**Sent:** Friday, December 2, 2022 10:09 AM
**To:** Michael Lapman
**Subject:** IPARK-Walden missing PFA samples
**Attachments:** 20221202100033.pdf

**Importance:** High

Hi Michael,

We cannot run PFA'S on the following samples as we did not get PFA containers:

CM95268 – SB-6C (6-8) (Soil)
CM95270 – Equipment Blank 11292022 (WATER)
CM95288 – Equipment Blank 11302022 (WATER)
CM95289 – SB-11A (0-1) (SOIL)

Can you check to see what is going on. Maybe they do not need those?

I am going to submit what I have here currently.

Thanks, Lori

Lori Bailey
Client Services Representative
Phoenix Environmental Laboratories
587 East Middle Turnpike
Manchester, CT 06040
Ph: 1-860-645-1102
Fx: 1-860-645-0823

THIS MESSAGE IS INTENDED ONLY FOR THE USE OF THE INDIVIDUAL OR ENTITY TO WHICH IT IS ADDRESSED AND MAY CONTAIN INFORMATION THAT IS PRIVILEGED, CONFIDENTIAL, AND EXEMPT FROM DISCLOSURE UNDER APPLICABLE LAW. If the reader of this message is not the intended recipient, or the employee or agent responsible for delivering the message to the intended recipient, you are hereby notified that any dissemination, distribution, forwarding, or copying of this communication is strictly prohibited. If you have received this communication in error, please notify the sender immediately by e-mail or telephone, and delete the original message immediately. Thank you.

# Technical Report
for
# Emerging Contaminants

prepared for:

**Phoenix Environmental Laboratories, Inc.**
P.O. Box 370, 587 East Middle Turnpike
Manchester CT, 06040
**Attention: Helen Geoghegan**

Report Date: 12/13/2022
**Client Project ID: GCM95248**
York Project (SDG) No.: 22L0229

Report Date: 12/13/2022
Client Project ID: GCM95248
York Project (SDG) No.: 22L0229

**Phoenix Environmental Laboratories, Inc.**
P.O. Box 370, 587 East Middle Turnpike
Manchester CT, 06040
Attention: Helen Geoghegan

## Purpose and Results

This report contains the analytical data for the sample(s) identified on the attached chain-of-custody received in our laboratory on December 05, 2022 and listed below. The project was identified as your project: **GCM95248**.

The analyses were conducted utilizing appropriate EPA methods as detailed in the data summary tables.

All samples were received in proper condition meeting the customary acceptance requirements for environmental samples except those indicated under the Sample and Analysis Qualifiers section of this report.

All analyses met the method and laboratory standard operating procedure requirements except as indicated by any data flags, the meaning of which are explained in the Sample and Data Qualifiers Relating to This Work Order section of this report and case narrative if applicable.

Please contact Client Services at 203.325.1371 with any questions regarding this report or e-mail clientservices@yorklab.com.

| York Sample ID | Client Sample ID | Matrix | Date Collected | Date Received |
|---|---|---|---|---|
| 22L0229-01 | SED1- (0-2 in) | Soil | 11/29/2022 | 12/05/2022 |
| 22L0229-02 | SED1- (2-12 in) | Soil | 11/29/2022 | 12/05/2022 |
| 22L0229-03 | SED2- (0-2 in) | Soil | 11/29/2022 | 12/05/2022 |
| 22L0229-04 | SED2- (2-12 in) | Soil | 11/29/2022 | 12/05/2022 |
| 22L0229-05 | SB-10A1 (0-2 in) | Soil | 11/29/2022 | 12/05/2022 |
| 22L0229-06 | SB-10A2 (2-12 in) | Soil | 11/29/2022 | 12/05/2022 |
| 22L0229-07 | SB-10C (9-11 ft) | Soil | 11/29/2022 | 12/05/2022 |
| 22L0229-08 | SB-9A (0-1 ft) | Soil | 11/29/2022 | 12/05/2022 |
| 22L0229-09 | SB-9C (6-8 ft) | Soil | 11/29/2022 | 12/05/2022 |
| 22L0229-10 | SB-DUP1 | Soil | 11/29/2022 | 12/05/2022 |
| 22L0229-11 | SB-8A (0-1 ft) | Soil | 11/29/2022 | 12/05/2022 |
| 22L0229-12 | SB-8C (13-15 ft) | Soil | 11/29/2022 | 12/05/2022 |
| 22L0229-13 | SB-7A (0-1 ft) | Soil | 11/29/2022 | 12/05/2022 |
| 22L0229-14 | SB-7C (6-8 ft) | Soil | 11/29/2022 | 12/05/2022 |
| 22L0229-15 | SB-6A (0-1 ft) | Soil | 11/29/2022 | 12/05/2022 |
| 22L0229-16 | SB-DUP2 | Soil | 11/29/2022 | 12/05/2022 |
| 22L0229-17 | SB-5A1 (0-2 in) | Soil | 11/29/2022 | 12/05/2022 |
| 22L0229-18 | SB-5A2 (2-12 in) | Soil | 11/29/2022 | 12/05/2022 |
| 22L0229-19 | SB-5C (6-8 ft) | Soil | 11/29/2022 | 12/05/2022 |
| 22L0229-20 | SB-4A (0-1 ft) | Soil | 11/29/2022 | 12/05/2022 |
| 22L0229-21 | SB-4C (10-12 ft) | Soil | 11/29/2022 | 12/05/2022 |

## General Notes for York Project (SDG) No.: 22L0229

1. The RLs and MDLs (Reporting Limit and Method Detection Limit respectively) reported are adjusted for any dilution necessary due to the levels of target and/or non-target analytes and matrix interference. The RL(REPORTING LIMIT) is based upon the lowest standard utilized for the calibration where applicable.
2. Samples are retained for a period of thirty days after submittal of report, unless other arrangements are made.
3. York's liability for the above data is limited to the dollar value paid to York for the referenced project.
4. This report shall not be reproduced without the written approval of York Analytical Laboratories, Inc.
5. All analyses conducted met method or Laboratory SOP requirements. See the Sample and Data Qualifiers Section for further information.
6. It is noted that no analyses reported herein were subcontracted to another laboratory, unless noted in the report.
7. This report reflects results that relate only to the samples submitted on the attached chain-of-custody form(s) received by York.
8. Analyses conducted at York Analytical Laboratories, Inc. Stratford, CT are indicated by NY Cert. No. 10854; those conducted at York Analytical Laboratories, Inc., Richmond Hill, NY are indicated by NY Cert. No. 12058.

**Approved By:**

**Date:** 12/13/2022

Cassie L. Mosher
Laboratory Manager

## Sample Information

**Client Sample ID:** SED1- (0-2 in)

**York Sample ID:** 22L0229-01

| York Project (SDG) No. | Client Project ID | Matrix | Collection Date/Time | Date Received |
|---|---|---|---|---|
| 22L0229 | GCM95248 | Soil | November 29, 2022 8:30 am | 12/05/2022 |

**PFAS by EPA 537 m**

**Log-in Notes:**

**Sample Notes:**

Sample Prepared by Method: SPE PFAS Extraction-Soil-EPA 537m

| CAS No. | Parameter | Result | Flag | Maximum Contaminant Level MCL | Units | Reported to LOQ | Reference Method | Date/Time Prep/Anal | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| 375-73-5 | * Perfluorobutanesulfonic acid (PFBS) | ND | | 0 | ug/kg dry | 0.444 | EPA 537m | 12/07/2022 18:11 | ESJ |
| | | | | | Certifications: | | | 12/11/2022 21:07 | |
| 307-24-4 | * Perfluorohexanoic acid (PFHxA) | ND | | 0 | ug/kg dry | 0.444 | EPA 537m | 12/07/2022 18:11 | ESJ |
| | | | | | Certifications: | | | 12/11/2022 21:07 | |
| 375-85-9 | * Perfluoroheptanoic acid (PFHpA) | ND | | 0 | ug/kg dry | 0.444 | EPA 537m | 12/07/2022 18:11 | ESJ |
| | | | | | Certifications: | | | 12/11/2022 21:07 | |
| 355-46-4 | *** Perfluorohexanesulfonic acid (PFHxS)** | **0.795** | | **0** | ug/kg dry | 0.444 | EPA 537m | 12/07/2022 18:11 | ESJ |
| | | | | | Certifications: | | | 12/11/2022 21:07 | |
| 335-67-1 | *** Perfluorooctanoic acid (PFOA)** | **0.728** | | **0** | ug/kg dry | 0.444 | EPA 537m | 12/07/2022 18:11 | ESJ |
| | | | | | Certifications: | | | 12/11/2022 21:07 | |
| 1763-23-1 | *** Perfluorooctanesulfonic acid (PFOS)** | **22.3** | | **0** | ug/kg dry | 0.444 | EPA 537m | 12/07/2022 18:11 | ESJ |
| | | | | | Certifications: | | | 12/11/2022 21:07 | |
| 375-95-1 | * Perfluorononanoic acid (PFNA) | ND | | 0 | ug/kg dry | 0.444 | EPA 537m | 12/07/2022 18:11 | ESJ |
| | | | | | Certifications: | | | 12/11/2022 21:07 | |
| 335-76-2 | * Perfluorodecanoic acid (PFDA) | ND | | 0 | ug/kg dry | 0.444 | EPA 537m | 12/07/2022 18:11 | ESJ |
| | | | | | Certifications: | | | 12/11/2022 21:07 | |
| 2058-94-8 | * Perfluoroundecanoic acid (PFUnA) | ND | | 0 | ug/kg dry | 0.444 | EPA 537m | 12/07/2022 18:11 | ESJ |
| | | | | | Certifications: | | | 12/11/2022 21:07 | |
| 307-55-1 | * Perfluorododecanoic acid (PFDoA) | ND | PF-CCV-L | 0 | ug/kg dry | 0.444 | EPA 537m | 12/07/2022 18:11 | ESJ |
| | | | | | Certifications: | | | 12/11/2022 21:07 | |
| 72629-94-8 | *** Perfluorotridecanoic acid (PFTrDA)** | **0.487** | | **0** | ug/kg dry | 0.444 | EPA 537m | 12/07/2022 18:11 | ESJ |
| | | | | | Certifications: | | | 12/11/2022 21:07 | |
| 376-06-7 | * Perfluorotetradecanoic acid (PFTA) | ND | PF-CCV-L | 0 | ug/kg dry | 0.444 | EPA 537m | 12/07/2022 18:11 | ESJ |
| | | | | | Certifications: | | | 12/11/2022 21:07 | |
| 2355-31-9 | * N-MeFOSAA | ND | PF-CCV-L | 0 | ug/kg dry | 0.444 | EPA 537m | 12/07/2022 18:11 | ESJ |
| | | | | | Certifications: | | | 12/11/2022 21:07 | |
| 2991-50-6 | * N-EtFOSAA | ND | PF-CCV-L | 0 | ug/kg dry | 0.444 | EPA 537m | 12/07/2022 18:11 | ESJ |
| | | | | | Certifications: | | | 12/11/2022 21:07 | |
| 2706-90-3 | * Perfluoropentanoic acid (PFPeA) | ND | | 0 | ug/kg dry | 0.444 | EPA 537m | 12/07/2022 18:11 | ESJ |
| | | | | | Certifications: | | | 12/11/2022 21:07 | |
| 754-91-6 | * Perfluoro-1-octanesulfonamide (FOSA) | ND | PF-CCV-L | 0 | ug/kg dry | 0.444 | EPA 537m | 12/07/2022 18:11 | ESJ |
| | | | | | Certifications: | | | 12/11/2022 21:07 | |
| 375-92-8 | * Perfluoro-1-heptanesulfonic acid (PFHpS) | ND | | 0 | ug/kg dry | 0.444 | EPA 537m | 12/07/2022 18:11 | ESJ |
| | | | | | Certifications: | | | 12/11/2022 21:07 | |
| 335-77-3 | * Perfluoro-1-decanesulfonic acid (PFDS) | ND | PF-CCV-L | 0 | ug/kg dry | 0.444 | EPA 537m | 12/07/2022 18:11 | ESJ |
| | | | | | Certifications: | | | 12/11/2022 21:07 | |
| 27619-97-2 | * 1H,1H,2H,2H-Perfluorooctanesulfonic acid (6:2 FTS) | ND | | 0 | ug/kg dry | 0.444 | EPA 537m | 12/07/2022 18:11 | ESJ |
| | | | | | Certifications: | | | 12/11/2022 21:07 | |
| 39108-34-4 | * 1H,1H,2H,2H-Perfluorodecanesulfonic acid (8:2 FTS) | ND | | 0 | ug/kg dry | 0.444 | EPA 537m | 12/07/2022 18:11 | ESJ |
| | | | | | Certifications: | | | 12/11/2022 21:07 | |

## Sample Information

**Client Sample ID:** SED1- (0-2 in) **York Sample ID:** 22L0229-01

| York Project (SDG) No. | Client Project ID | Matrix | Collection Date/Time | Date Received |
|---|---|---|---|---|
| 22L0229 | GCM95248 | Soil | November 29, 2022 8:30 am | 12/05/2022 |

### PFAS by EPA 537 m

**Log-in Notes:**

**Sample Notes:**

Sample Prepared by Method: SPE PFAS Extraction-Soil-EPA 537m

| CAS No. | Parameter | Result | Flag | Maximum Contaminant Level MCL | Units | Reported to LOQ | Reference Method | Date/Time Prep/Anal | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| 375-22-4 | * Perfluoro-n-butanoic acid (PFBA) | ND | | 0 | ug/kg dry | 0.444 | EPA 537m | 12/07/2022 18:11 | ESJ |
| | | | | | Certifications: | | | 12/11/2022 21:07 | |

| Surrogate Recoveries | Result | Acceptance Range |
|---|---|---|
| *Surrogate: M3PFBS* | *73.9 %* | *25-150* |
| *Surrogate: M5PFHxA* | *61.4 %* | *25-150* |
| *Surrogate: M4PFHpA* | *50.2 %* | *25-150* |
| *Surrogate: M3PFHxS* | *69.5 %* | *25-150* |
| *Surrogate: Perfluoro-n-[13C8]octanoic acid (M8PFOA)* | *59.7 %* | *25-150* |
| *Surrogate: M6PFDA* | *54.8 %* | *25-150* |
| *Surrogate: M7PFUdA* | *41.5 %* | *25-150* |
| *Surrogate: Perfluoro-n-[1,2-13C2]dodecanoic acid (MPFDoA)* | *44.4 %* | *25-150* |
| *Surrogate: M2PFTeDA* | *39.4 %* | *10-150* |
| *Surrogate: Perfluoro-n-[13C4]butanoic acid (MPFBA)* | *80.2 %* | *25-150* |
| *Surrogate: Perfluoro-1-[13C8]octanesulfonic acid (M8PFOS)* | *66.7 %* | *25-150* |
| *Surrogate: Perfluoro-n-[13C5]pentanoic acid (M5PFPeA)* | *65.7 %* | *25-150* |
| *Surrogate: Perfluoro-1-[13C8]octanesulfonamide (M8FOSA)* | *35.0 %* | *10-150* |
| *Surrogate: d3-N-MeFOSAA* | *57.5 %* | *25-150* |
| *Surrogate: d5-N-EtFOSAA* | *53.9 %* | *25-150* |
| *Surrogate: M2-6:2 FTS* | *327 %* | PFSu-H *25-200* |
| *Surrogate: M2-8:2 FTS* | *269 %* | PFSu-H *25-200* |
| *Surrogate: M9PFNA* | *53.4 %* | *25-150* |

### Total Solids

**Log-in Notes:**

**Sample Notes:**

Sample Prepared by Method: % Solids Prep

| CAS No. | Parameter | Result | Flag | Maximum Contaminant Level MCL | Units | Reported to LOQ | Reference Method | Date/Time Prep/Anal | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| solids | *** % Solids** | **54.7** | | **100** | % | 0.100 | SM 2540G | 12/10/2022 10:34 | JTG |
| | | | | | Certifications: | | CTDOH-PH-0723 | 12/10/2022 10:37 | |

## Sample Information

**Client Sample ID:** SED1- (2-12 in) **York Sample ID:** 22L0229-02

| York Project (SDG) No. | Client Project ID | Matrix | Collection Date/Time | Date Received |
|---|---|---|---|---|
| 22L0229 | GCM95248 | Soil | November 29, 2022 8:30 am | 12/05/2022 |

**PFAS by EPA 537 m**

**Log-in Notes:**

**Sample Notes:**

Sample Prepared by Method: SPE PFAS Extraction-Soil-EPA 537m

| CAS No. | Parameter | Result | Flag | Maximum Contaminant Level MCL | Units | Reported to LOQ | Reference Method | Date/Time Prep/Anal | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| 375-73-5 | * Perfluorobutanesulfonic acid (PFBS) | ND | | 0 | ug/kg dry<br>Certifications: | 0.442 | EPA 537m | 12/07/2022 18:11<br>12/11/2022 21:20 | ESJ |
| 307-24-4 | * Perfluorohexanoic acid (PFHxA) | ND | | 0 | ug/kg dry<br>Certifications: | 0.442 | EPA 537m | 12/07/2022 18:11<br>12/11/2022 21:20 | ESJ |
| 375-85-9 | * Perfluoroheptanoic acid (PFHpA) | ND | | 0 | ug/kg dry<br>Certifications: | 0.442 | EPA 537m | 12/07/2022 18:11<br>12/11/2022 21:20 | ESJ |
| 355-46-4 | *** Perfluorohexanesulfonic acid (PFHxS)** | **0.817** | | **0** | ug/kg dry<br>Certifications: | 0.442 | EPA 537m | 12/07/2022 18:11<br>12/11/2022 21:20 | ESJ |
| 335-67-1 | *** Perfluorooctanoic acid (PFOA)** | **0.819** | | **0** | ug/kg dry<br>Certifications: | 0.442 | EPA 537m | 12/07/2022 18:11<br>12/11/2022 21:20 | ESJ |
| 1763-23-1 | *** Perfluorooctanesulfonic acid (PFOS)** | **25.9** | | **0** | ug/kg dry<br>Certifications: | 0.442 | EPA 537m | 12/07/2022 18:11<br>12/11/2022 21:20 | ESJ |
| 375-95-1 | * Perfluorononanoic acid (PFNA) | ND | | 0 | ug/kg dry<br>Certifications: | 0.442 | EPA 537m | 12/07/2022 18:11<br>12/11/2022 21:20 | ESJ |
| 335-76-2 | * Perfluorodecanoic acid (PFDA) | ND | | 0 | ug/kg dry<br>Certifications: | 0.442 | EPA 537m | 12/07/2022 18:11<br>12/11/2022 21:20 | ESJ |
| 2058-94-8 | *** Perfluoroundecanoic acid (PFUnA)** | **0.516** | | **0** | ug/kg dry<br>Certifications: | 0.442 | EPA 537m | 12/07/2022 18:11<br>12/11/2022 21:20 | ESJ |
| 307-55-1 | * Perfluorododecanoic acid (PFDoA) | ND | PF-CCV-L | 0 | ug/kg dry<br>Certifications: | 0.442 | EPA 537m | 12/07/2022 18:11<br>12/11/2022 21:20 | ESJ |
| 72629-94-8 | * Perfluorotridecanoic acid (PFTrDA) | ND | | 0 | ug/kg dry<br>Certifications: | 0.442 | EPA 537m | 12/07/2022 18:11<br>12/11/2022 21:20 | ESJ |
| 376-06-7 | * Perfluorotetradecanoic acid (PFTA) | ND | PF-CCV-L | 0 | ug/kg dry<br>Certifications: | 0.442 | EPA 537m | 12/07/2022 18:11<br>12/11/2022 21:20 | ESJ |
| 2355-31-9 | * N-MeFOSAA | ND | PF-CCV-L | 0 | ug/kg dry<br>Certifications: | 0.442 | EPA 537m | 12/07/2022 18:11<br>12/11/2022 21:20 | ESJ |
| 2991-50-6 | * N-EtFOSAA | ND | PF-CCV-L | 0 | ug/kg dry<br>Certifications: | 0.442 | EPA 537m | 12/07/2022 18:11<br>12/11/2022 21:20 | ESJ |
| 2706-90-3 | * Perfluoropentanoic acid (PFPeA) | ND | | 0 | ug/kg dry<br>Certifications: | 0.442 | EPA 537m | 12/07/2022 18:11<br>12/11/2022 21:20 | ESJ |
| 754-91-6 | * Perfluoro-1-octanesulfonamide (FOSA) | ND | PF-CCV-L | 0 | ug/kg dry<br>Certifications: | 0.442 | EPA 537m | 12/07/2022 18:11<br>12/11/2022 21:20 | ESJ |
| 375-92-8 | * Perfluoro-1-heptanesulfonic acid (PFHpS) | ND | | 0 | ug/kg dry<br>Certifications: | 0.442 | EPA 537m | 12/07/2022 18:11<br>12/11/2022 21:20 | ESJ |
| 335-77-3 | * Perfluoro-1-decanesulfonic acid (PFDS) | ND | PF-CCV-L | 0 | ug/kg dry<br>Certifications: | 0.442 | EPA 537m | 12/07/2022 18:11<br>12/11/2022 21:20 | ESJ |
| 27619-97-2 | * 1H,1H,2H,2H-Perfluorooctanesulfonic acid (6:2 FTS) | ND | | 0 | ug/kg dry<br>Certifications: | 0.442 | EPA 537m | 12/07/2022 18:11<br>12/11/2022 21:20 | ESJ |
| 39108-34-4 | * 1H,1H,2H,2H-Perfluorodecanesulfonic acid (8:2 FTS) | ND | | 0 | ug/kg dry<br>Certifications: | 0.442 | EPA 537m | 12/07/2022 18:11<br>12/11/2022 21:20 | ESJ |
| 375-22-4 | * Perfluoro-n-butanoic acid (PFBA) | ND | | 0 | ug/kg dry<br>Certifications: | 0.442 | EPA 537m | 12/07/2022 18:11<br>12/11/2022 21:20 | ESJ |

## Sample Information

**Client Sample ID:** SED1- (2-12 in) **York Sample ID:** 22L0229-02

| York Project (SDG) No. | Client Project ID | Matrix | Collection Date/Time | Date Received |
|---|---|---|---|---|
| 22L0229 | GCM95248 | Soil | November 29, 2022 8:30 am | 12/05/2022 |

### PFAS by EPA 537 m

**Log-in Notes:**

**Sample Notes:**

Sample Prepared by Method: SPE PFAS Extraction-Soil-EPA 537m

| CAS No. | Parameter | Result | Flag | Maximum Contaminant Level MCL | Units | Reported to LOQ | Reference Method | Date/Time Prep/Anal | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| | **Surrogate Recoveries** | **Result** | | **Acceptance Range** | | | | | |
| | *Surrogate: M3PFBS* | *83.8 %* | | *25-150* | | | | | |
| | *Surrogate: M5PFHxA* | *67.3 %* | | *25-150* | | | | | |
| | *Surrogate: M4PFHpA* | *57.6 %* | | *25-150* | | | | | |
| | *Surrogate: M3PFHxS* | *90.9 %* | | *25-150* | | | | | |
| | *Surrogate: Perfluoro-n-[13C8]octanoic acid (M8PFOA)* | *66.5 %* | | *25-150* | | | | | |
| | *Surrogate: M6PFDA* | *60.7 %* | | *25-150* | | | | | |
| | *Surrogate: M7PFUdA* | *38.5 %* | | *25-150* | | | | | |
| | *Surrogate: Perfluoro-n-[1,2-13C2]dodecanoic acid (MPFDoA)* | *20.1 %* | PFSu-L | *25-150* | | | | | |
| | *Surrogate: M2PFTeDA* | *6.91 %* | PFSu-L | *10-150* | | | | | |
| | *Surrogate: Perfluoro-n-[13C4]butanoic acid (MPFBA)* | *91.2 %* | | *25-150* | | | | | |
| | *Surrogate: Perfluoro-1-[13C8]octanesulfonic acid (M8PFOS)* | *66.7 %* | | *25-150* | | | | | |
| | *Surrogate: Perfluoro-n-[13C5]pentanoic acid (M5PFPeA)* | *75.8 %* | | *25-150* | | | | | |
| | *Surrogate: Perfluoro-1-[13C8]octanesulfonamide (M8FOSA)* | *15.4 %* | | *10-150* | | | | | |
| | *Surrogate: d3-N-MeFOSAA* | *45.5 %* | | *25-150* | | | | | |
| | *Surrogate: d5-N-EtFOSAA* | *37.7 %* | | *25-150* | | | | | |
| | *Surrogate: M2-6:2 FTS* | *379 %* | PFSu-H | *25-200* | | | | | |
| | *Surrogate: M2-8:2 FTS* | *212 %* | PFSu-H | *25-200* | | | | | |
| | *Surrogate: M9PFNA* | *61.2 %* | | *25-150* | | | | | |

### Total Solids

**Log-in Notes:**

**Sample Notes:**

Sample Prepared by Method: % Solids Prep

| CAS No. | Parameter | Result | Flag | Maximum Contaminant Level MCL | Units | Reported to LOQ | Reference Method | Date/Time Prep/Anal | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| solids | *** % Solids** | **55.5** | | **100** | % | 0.100 | SM 2540G | 12/10/2022 10:34 | JTG |
| | | | | | Certifications: | | CTDOH-PH-0723 | 12/10/2022 10:37 | |

## Sample Information

**Client Sample ID:** SED2- (0-2 in) **York Sample ID:** 22L0229-03

| York Project (SDG) No. | Client Project ID | Matrix | Collection Date/Time | Date Received |
|---|---|---|---|---|
| 22L0229 | GCM95248 | Soil | November 29, 2022 8:45 am | 12/05/2022 |

## Sample Information

**Client Sample ID:** SED2- (0-2 in)

**York Sample ID:** 22L0229-03

| York Project (SDG) No. | Client Project ID | Matrix | Collection Date/Time | Date Received |
|---|---|---|---|---|
| 22L0229 | GCM95248 | Soil | November 29, 2022 8:45 am | 12/05/2022 |

### PFAS by EPA 537 m

**Log-in Notes:**

**Sample Notes:**

Sample Prepared by Method: SPE PFAS Extraction-Soil-EPA 537m

| CAS No. | Parameter | Result | Flag | Maximum Contaminant Level MCL | Units | Reported to LOQ | Reference Method | Date/Time Prep/Anal | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| 375-73-5 | * Perfluorobutanesulfonic acid (PFBS) | ND | | 0 | ug/kg dry<br>Certifications: | 0.410 | EPA 537m | 12/07/2022 18:11<br>12/11/2022 21:46 | ESJ |
| 307-24-4 | * Perfluorohexanoic acid (PFHxA) | ND | | 0 | ug/kg dry<br>Certifications: | 0.410 | EPA 537m | 12/07/2022 18:11<br>12/11/2022 21:46 | ESJ |
| 375-85-9 | * Perfluoroheptanoic acid (PFHpA) | ND | | 0 | ug/kg dry<br>Certifications: | 0.410 | EPA 537m | 12/07/2022 18:11<br>12/11/2022 21:46 | ESJ |
| 355-46-4 | *** Perfluorohexanesulfonic acid (PFHxS)** | **1.30** | | **0** | ug/kg dry<br>Certifications: | 0.410 | EPA 537m | 12/07/2022 18:11<br>12/11/2022 21:46 | ESJ |
| 335-67-1 | *** Perfluorooctanoic acid (PFOA)** | **0.723** | | **0** | ug/kg dry<br>Certifications: | 0.410 | EPA 537m | 12/07/2022 18:11<br>12/11/2022 21:46 | ESJ |
| 1763-23-1 | *** Perfluorooctanesulfonic acid (PFOS)** | **22.7** | | **0** | ug/kg dry<br>Certifications: | 0.410 | EPA 537m | 12/07/2022 18:11<br>12/11/2022 21:46 | ESJ |
| 375-95-1 | * Perfluorononanoic acid (PFNA) | ND | | 0 | ug/kg dry<br>Certifications: | 0.410 | EPA 537m | 12/07/2022 18:11<br>12/11/2022 21:46 | ESJ |
| 335-76-2 | * Perfluorodecanoic acid (PFDA) | ND | | 0 | ug/kg dry<br>Certifications: | 0.410 | EPA 537m | 12/07/2022 18:11<br>12/11/2022 21:46 | ESJ |
| 2058-94-8 | * Perfluoroundecanoic acid (PFUnA) | ND | | 0 | ug/kg dry<br>Certifications: | 0.410 | EPA 537m | 12/07/2022 18:11<br>12/11/2022 21:46 | ESJ |
| 307-55-1 | * Perfluorododecanoic acid (PFDoA) | ND | | 0 | ug/kg dry<br>Certifications: | 0.410 | EPA 537m | 12/07/2022 18:11<br>12/11/2022 21:46 | ESJ |
| 72629-94-8 | *** Perfluorotridecanoic acid (PFTrDA)** | **0.823** | | **0** | ug/kg dry<br>Certifications: | 0.410 | EPA 537m | 12/07/2022 18:11<br>12/11/2022 21:46 | ESJ |
| 376-06-7 | * Perfluorotetradecanoic acid (PFTA) | ND | PF-CCV-L | 0 | ug/kg dry<br>Certifications: | 0.410 | EPA 537m | 12/07/2022 18:11<br>12/11/2022 21:46 | ESJ |
| 2355-31-9 | * N-MeFOSAA | ND | PF-CCV-L | 0 | ug/kg dry<br>Certifications: | 0.410 | EPA 537m | 12/07/2022 18:11<br>12/11/2022 21:46 | ESJ |
| 2991-50-6 | * N-EtFOSAA | ND | PF-CCV-L | 0 | ug/kg dry<br>Certifications: | 0.410 | EPA 537m | 12/07/2022 18:11<br>12/11/2022 21:46 | ESJ |
| 2706-90-3 | * Perfluoropentanoic acid (PFPeA) | ND | | 0 | ug/kg dry<br>Certifications: | 0.410 | EPA 537m | 12/07/2022 18:11<br>12/11/2022 21:46 | ESJ |
| 754-91-6 | * Perfluoro-1-octanesulfonamide (FOSA) | ND | PF-CCV-L | 0 | ug/kg dry<br>Certifications: | 0.410 | EPA 537m | 12/07/2022 18:11<br>12/11/2022 21:46 | ESJ |
| 375-92-8 | * Perfluoro-1-heptanesulfonic acid (PFHpS) | ND | | 0 | ug/kg dry<br>Certifications: | 0.410 | EPA 537m | 12/07/2022 18:11<br>12/11/2022 21:46 | ESJ |
| 335-77-3 | * Perfluoro-1-decanesulfonic acid (PFDS) | ND | PF-CCV-L | 0 | ug/kg dry<br>Certifications: | 0.410 | EPA 537m | 12/07/2022 18:11<br>12/11/2022 21:46 | ESJ |
| 27619-97-2 | * 1H,1H,2H,2H-Perfluorooctanesulfonic acid (6:2 FTS) | ND | | 0 | ug/kg dry<br>Certifications: | 0.410 | EPA 537m | 12/07/2022 18:11<br>12/11/2022 21:46 | ESJ |
| 39108-34-4 | * 1H,1H,2H,2H-Perfluorodecanesulfonic acid (8:2 FTS) | ND | | 0 | ug/kg dry<br>Certifications: | 0.410 | EPA 537m | 12/07/2022 18:11<br>12/11/2022 21:46 | ESJ |
| 375-22-4 | * Perfluoro-n-butanoic acid (PFBA) | ND | | 0 | ug/kg dry<br>Certifications: | 0.410 | EPA 537m | 12/07/2022 18:11<br>12/11/2022 21:46 | ESJ |

## Sample Information

**Client Sample ID:** SED2- (0-2 in) **York Sample ID:** 22L0229-03

| York Project (SDG) No. | Client Project ID | Matrix | Collection Date/Time | Date Received |
|---|---|---|---|---|
| 22L0229 | GCM95248 | Soil | November 29, 2022 8:45 am | 12/05/2022 |

### PFAS by EPA 537 m

**Log-in Notes:**

**Sample Notes:**

Sample Prepared by Method: SPE PFAS Extraction-Soil-EPA 537m

| CAS No. | Parameter | Result | Flag | Maximum Contaminant Level MCL | Units | Reported to LOQ | Reference Method | Date/Time Prep/Anal | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| | **Surrogate Recoveries** | **Result** | | **Acceptance Range** | | | | | |
| | *Surrogate: M3PFBS* | *94.4 %* | | *25-150* | | | | | |
| | *Surrogate: M5PFHxA* | *73.0 %* | | *25-150* | | | | | |
| | *Surrogate: M4PFHpA* | *59.2 %* | | *25-150* | | | | | |
| | *Surrogate: M3PFHxS* | *89.4 %* | | *25-150* | | | | | |
| | *Surrogate: Perfluoro-n-[13C8]octanoic acid (M8PFOA)* | *67.3 %* | | *25-150* | | | | | |
| | *Surrogate: M6PFDA* | *66.1 %* | | *25-150* | | | | | |
| | *Surrogate: M7PFUdA* | *38.2 %* | | *25-150* | | | | | |
| | *Surrogate: Perfluoro-n-[1,2-13C2]dodecanoic acid (MPFDoA)* | *24.1 %* | PFSu-L | *25-150* | | | | | |
| | *Surrogate: M2PFTeDA* | *9.58 %* | PFSu-L | *10-150* | | | | | |
| | *Surrogate: Perfluoro-n-[13C4]butanoic acid (MPFBA)* | *93.5 %* | | *25-150* | | | | | |
| | *Surrogate: Perfluoro-1-[13C8]octanesulfonic acid (M8PFOS)* | *71.4 %* | | *25-150* | | | | | |
| | *Surrogate: Perfluoro-n-[13C5]pentanoic acid (M5PFPeA)* | *88.2 %* | | *25-150* | | | | | |
| | *Surrogate: Perfluoro-1-[13C8]octanesulfonamide (M8FOSA)* | *11.7 %* | | *10-150* | | | | | |
| | *Surrogate: d3-N-MeFOSAA* | *56.3 %* | | *25-150* | | | | | |
| | *Surrogate: d5-N-EtFOSAA* | *44.5 %* | | *25-150* | | | | | |
| | *Surrogate: M2-6:2 FTS* | *448 %* | PFSu-H | *25-200* | | | | | |
| | *Surrogate: M2-8:2 FTS* | *262 %* | PFSu-H | *25-200* | | | | | |
| | *Surrogate: M9PFNA* | *64.3 %* | | *25-150* | | | | | |

### Total Solids

**Log-in Notes:**

**Sample Notes:**

Sample Prepared by Method: % Solids Prep

| CAS No. | Parameter | Result | Flag | Maximum Contaminant Level MCL | Units | Reported to LOQ | Reference Method | Date/Time Prep/Anal | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| solids | *** % Solids** | **58.7** | | **100** | % | 0.100 | SM 2540G | 12/10/2022 10:34 | JTG |
| | | | | | Certifications: | | CTDOH-PH-0723 | 12/10/2022 10:37 | |

## Sample Information

**Client Sample ID:** SED2- (2-12 in) **York Sample ID:** 22L0229-04

| York Project (SDG) No. | Client Project ID | Matrix | Collection Date/Time | Date Received |
|---|---|---|---|---|
| 22L0229 | GCM95248 | Soil | November 29, 2022 8:45 am | 12/05/2022 |

## Sample Information

**Client Sample ID:** SED2- (2-12 in) **York Sample ID:** 22L0229-04

| York Project (SDG) No. | Client Project ID | Matrix | Collection Date/Time | Date Received |
|---|---|---|---|---|
| 22L0229 | GCM95248 | Soil | November 29, 2022 8:45 am | 12/05/2022 |

**PFAS by EPA 537 m**

**Log-in Notes:**

**Sample Notes:**

Sample Prepared by Method: SPE PFAS Extraction-Soil-EPA 537m

| CAS No. | Parameter | Result | Flag | Maximum Contaminant Level MCL | Units | Reported to LOQ | Reference Method | Date/Time Prep/Anal | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| 375-73-5 | * Perfluorobutanesulfonic acid (PFBS) | ND | | 0 | ug/kg dry<br>Certifications: | 0.341 | EPA 537m | 12/07/2022 18:11<br>12/11/2022 21:59 | ESJ |
| 307-24-4 | * Perfluorohexanoic acid (PFHxA) | ND | | 0 | ug/kg dry<br>Certifications: | 0.341 | EPA 537m | 12/07/2022 18:11<br>12/11/2022 21:59 | ESJ |
| 375-85-9 | * Perfluoroheptanoic acid (PFHpA) | ND | | 0 | ug/kg dry<br>Certifications: | 0.341 | EPA 537m | 12/07/2022 18:11<br>12/11/2022 21:59 | ESJ |
| 355-46-4 | * Perfluorohexanesulfonic acid (PFHxS) | ND | | 0 | ug/kg dry<br>Certifications: | 0.341 | EPA 537m | 12/07/2022 18:11<br>12/11/2022 21:59 | ESJ |
| 335-67-1 | * Perfluorooctanoic acid (PFOA) | ND | | 0 | ug/kg dry<br>Certifications: | 0.341 | EPA 537m | 12/07/2022 18:11<br>12/11/2022 21:59 | ESJ |
| 1763-23-1 | *** Perfluorooctanesulfonic acid (PFOS)** | **9.39** | | **0** | ug/kg dry<br>Certifications: | 0.341 | EPA 537m | 12/07/2022 18:11<br>12/11/2022 21:59 | ESJ |
| 375-95-1 | * Perfluorononanoic acid (PFNA) | ND | | 0 | ug/kg dry<br>Certifications: | 0.341 | EPA 537m | 12/07/2022 18:11<br>12/11/2022 21:59 | ESJ |
| 335-76-2 | * Perfluorodecanoic acid (PFDA) | ND | | 0 | ug/kg dry<br>Certifications: | 0.341 | EPA 537m | 12/07/2022 18:11<br>12/11/2022 21:59 | ESJ |
| 2058-94-8 | * Perfluoroundecanoic acid (PFUnA) | ND | | 0 | ug/kg dry<br>Certifications: | 0.341 | EPA 537m | 12/07/2022 18:11<br>12/11/2022 21:59 | ESJ |
| 307-55-1 | * Perfluorododecanoic acid (PFDoA) | ND | | 0 | ug/kg dry<br>Certifications: | 0.341 | EPA 537m | 12/07/2022 18:11<br>12/11/2022 21:59 | ESJ |
| 72629-94-8 | * Perfluorotridecanoic acid (PFTrDA) | ND | | 0 | ug/kg dry<br>Certifications: | 0.341 | EPA 537m | 12/07/2022 18:11<br>12/11/2022 21:59 | ESJ |
| 376-06-7 | * Perfluorotetradecanoic acid (PFTA) | ND | PF-CCV-L | 0 | ug/kg dry<br>Certifications: | 0.341 | EPA 537m | 12/07/2022 18:11<br>12/11/2022 21:59 | ESJ |
| 2355-31-9 | * N-MeFOSAA | ND | PF-CCV-L | 0 | ug/kg dry<br>Certifications: | 0.341 | EPA 537m | 12/07/2022 18:11<br>12/11/2022 21:59 | ESJ |
| 2991-50-6 | * N-EtFOSAA | ND | PF-CCV-L | 0 | ug/kg dry<br>Certifications: | 0.341 | EPA 537m | 12/07/2022 18:11<br>12/11/2022 21:59 | ESJ |
| 2706-90-3 | * Perfluoropentanoic acid (PFPeA) | ND | | 0 | ug/kg dry<br>Certifications: | 0.341 | EPA 537m | 12/07/2022 18:11<br>12/11/2022 21:59 | ESJ |
| 754-91-6 | * Perfluoro-1-octanesulfonamide (FOSA) | ND | PF-CCV-L | 0 | ug/kg dry<br>Certifications: | 0.341 | EPA 537m | 12/07/2022 18:11<br>12/11/2022 21:59 | ESJ |
| 375-92-8 | * Perfluoro-1-heptanesulfonic acid (PFHpS) | ND | | 0 | ug/kg dry<br>Certifications: | 0.341 | EPA 537m | 12/07/2022 18:11<br>12/11/2022 21:59 | ESJ |
| 335-77-3 | * Perfluoro-1-decanesulfonic acid (PFDS) | ND | PF-CCV-L | 0 | ug/kg dry<br>Certifications: | 0.341 | EPA 537m | 12/07/2022 18:11<br>12/11/2022 21:59 | ESJ |
| 27619-97-2 | * 1H,1H,2H,2H-Perfluorooctanesulfonic acid (6:2 FTS) | ND | | 0 | ug/kg dry<br>Certifications: | 0.341 | EPA 537m | 12/07/2022 18:11<br>12/11/2022 21:59 | ESJ |
| 39108-34-4 | * 1H,1H,2H,2H-Perfluorodecanesulfonic acid (8:2 FTS) | ND | | 0 | ug/kg dry<br>Certifications: | 0.341 | EPA 537m | 12/07/2022 18:11<br>12/11/2022 21:59 | ESJ |
| 375-22-4 | * Perfluoro-n-butanoic acid (PFBA) | ND | | 0 | ug/kg dry<br>Certifications: | 0.341 | EPA 537m | 12/07/2022 18:11<br>12/11/2022 21:59 | ESJ |

## Sample Information

**Client Sample ID:** SED2- (2-12 in) **York Sample ID:** 22L0229-04

| York Project (SDG) No. | Client Project ID | Matrix | Collection Date/Time | Date Received |
|---|---|---|---|---|
| 22L0229 | GCM95248 | Soil | November 29, 2022 8:45 am | 12/05/2022 |

### PFAS by EPA 537 m

**Log-in Notes:**

**Sample Notes:**

Sample Prepared by Method: SPE PFAS Extraction-Soil-EPA 537m

| CAS No. | Parameter | Result | Flag | Maximum Contaminant Level MCL | Units | Reported to LOQ | Reference Method | Date/Time Prep/Anal | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| | **Surrogate Recoveries** | **Result** | | **Acceptance Range** | | | | | |
| | *Surrogate: M3PFBS* | *75.2 %* | | *25-150* | | | | | |
| | *Surrogate: M5PFHxA* | *68.7 %* | | *25-150* | | | | | |
| | *Surrogate: M4PFHpA* | *63.3 %* | | *25-150* | | | | | |
| | *Surrogate: M3PFHxS* | *84.2 %* | | *25-150* | | | | | |
| | *Surrogate: Perfluoro-n-[13C8]octanoic acid (M8PFOA)* | *74.7 %* | | *25-150* | | | | | |
| | *Surrogate: M6PFDA* | *58.2 %* | | *25-150* | | | | | |
| | *Surrogate: M7PFUdA* | *36.7 %* | | *25-150* | | | | | |
| | *Surrogate: Perfluoro-n-[1,2-13C2]dodecanoic acid (MPFDoA)* | *48.5 %* | | *25-150* | | | | | |
| | *Surrogate: M2PFTeDA* | *46.4 %* | | *10-150* | | | | | |
| | *Surrogate: Perfluoro-n-[13C4]butanoic acid (MPFBA)* | *72.8 %* | | *25-150* | | | | | |
| | *Surrogate: Perfluoro-1-[13C8]octanesulfonic acid (M8PFOS)* | *69.9 %* | | *25-150* | | | | | |
| | *Surrogate: Perfluoro-n-[13C5]pentanoic acid (M5PFPeA)* | *68.8 %* | | *25-150* | | | | | |
| | *Surrogate: Perfluoro-1-[13C8]octanesulfonamide (M8FOSA)* | *39.9 %* | | *10-150* | | | | | |
| | *Surrogate: d3-N-MeFOSAA* | *52.3 %* | | *25-150* | | | | | |
| | *Surrogate: d5-N-EtFOSAA* | *62.1 %* | | *25-150* | | | | | |
| | *Surrogate: M2-6:2 FTS* | *203 %* | PFSu-H | *25-200* | | | | | |
| | *Surrogate: M2-8:2 FTS* | *153 %* | | *25-200* | | | | | |
| | *Surrogate: M9PFNA* | *64.3 %* | | *25-150* | | | | | |

### Total Solids

**Log-in Notes:**

**Sample Notes:**

Sample Prepared by Method: % Solids Prep

| CAS No. | Parameter | Result | Flag | Maximum Contaminant Level MCL | Units | Reported to LOQ | Reference Method | Date/Time Prep/Anal | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| solids | *** % Solids** | **69.5** | | **100** | % | 0.100 | SM 2540G | 12/10/2022 10:34 | JTG |
| | | | | | Certifications: | | CTDOH-PH-0723 | 12/10/2022 10:37 | |

## Sample Information

**Client Sample ID:** SB-10A1 (0-2 in) **York Sample ID:** 22L0229-05

| York Project (SDG) No. | Client Project ID | Matrix | Collection Date/Time | Date Received |
|---|---|---|---|---|
| 22L0229 | GCM95248 | Soil | November 29, 2022 10:40 am | 12/05/2022 |

## Sample Information

**Client Sample ID:** SB-10A1 (0-2 in) **York Sample ID:** 22L0229-05

| York Project (SDG) No. | Client Project ID | Matrix | Collection Date/Time | Date Received |
|---|---|---|---|---|
| 22L0229 | GCM95248 | Soil | November 29, 2022 10:40 am | 12/05/2022 |

### PFAS by EPA 537 m

**Log-in Notes:**

**Sample Notes:**

Sample Prepared by Method: SPE PFAS Extraction-Soil-EPA 537m

| CAS No. | Parameter | Result | Flag | Maximum Contaminant Level MCL | Units | Reported to LOQ | Reference Method | Date/Time Prep/Anal | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| 375-73-5 | * Perfluorobutanesulfonic acid (PFBS) | ND | | 0 | ug/kg dry<br>Certifications: | 0.321 | EPA 537m | 12/07/2022 18:11<br>12/11/2022 22:12 | ESJ |
| 307-24-4 | * Perfluorohexanoic acid (PFHxA) | ND | | 0 | ug/kg dry<br>Certifications: | 0.321 | EPA 537m | 12/07/2022 18:11<br>12/11/2022 22:12 | ESJ |
| 375-85-9 | * Perfluoroheptanoic acid (PFHpA) | ND | | 0 | ug/kg dry<br>Certifications: | 0.321 | EPA 537m | 12/07/2022 18:11<br>12/11/2022 22:12 | ESJ |
| 355-46-4 | * Perfluorohexanesulfonic acid (PFHxS) | ND | | 0 | ug/kg dry<br>Certifications: | 0.321 | EPA 537m | 12/07/2022 18:11<br>12/11/2022 22:12 | ESJ |
| 335-67-1 | *** Perfluorooctanoic acid (PFOA)** | **0.402** | | **0** | ug/kg dry<br>Certifications: | 0.321 | EPA 537m | 12/07/2022 18:11<br>12/11/2022 22:12 | ESJ |
| 1763-23-1 | *** Perfluorooctanesulfonic acid (PFOS)** | **2.55** | | **0** | ug/kg dry<br>Certifications: | 0.321 | EPA 537m | 12/07/2022 18:11<br>12/11/2022 22:12 | ESJ |
| 375-95-1 | * Perfluorononanoic acid (PFNA) | ND | | 0 | ug/kg dry<br>Certifications: | 0.321 | EPA 537m | 12/07/2022 18:11<br>12/11/2022 22:12 | ESJ |
| 335-76-2 | * Perfluorodecanoic acid (PFDA) | ND | | 0 | ug/kg dry<br>Certifications: | 0.321 | EPA 537m | 12/07/2022 18:11<br>12/11/2022 22:12 | ESJ |
| 2058-94-8 | * Perfluoroundecanoic acid (PFUnA) | ND | | 0 | ug/kg dry<br>Certifications: | 0.321 | EPA 537m | 12/07/2022 18:11<br>12/11/2022 22:12 | ESJ |
| 307-55-1 | * Perfluorododecanoic acid (PFDoA) | ND | | 0 | ug/kg dry<br>Certifications: | 0.321 | EPA 537m | 12/07/2022 18:11<br>12/11/2022 22:12 | ESJ |
| 72629-94-8 | *** Perfluorotridecanoic acid (PFTrDA)** | **0.361** | | **0** | ug/kg dry<br>Certifications: | 0.321 | EPA 537m | 12/07/2022 18:11<br>12/11/2022 22:12 | ESJ |
| 376-06-7 | * Perfluorotetradecanoic acid (PFTA) | ND | PF-CCV-L | 0 | ug/kg dry<br>Certifications: | 0.321 | EPA 537m | 12/07/2022 18:11<br>12/11/2022 22:12 | ESJ |
| 2355-31-9 | * N-MeFOSAA | ND | PF-CCV-L | 0 | ug/kg dry<br>Certifications: | 0.321 | EPA 537m | 12/07/2022 18:11<br>12/11/2022 22:12 | ESJ |
| 2991-50-6 | * N-EtFOSAA | ND | PF-CCV-L | 0 | ug/kg dry<br>Certifications: | 0.321 | EPA 537m | 12/07/2022 18:11<br>12/11/2022 22:12 | ESJ |
| 2706-90-3 | * Perfluoropentanoic acid (PFPeA) | ND | | 0 | ug/kg dry<br>Certifications: | 0.321 | EPA 537m | 12/07/2022 18:11<br>12/11/2022 22:12 | ESJ |
| 754-91-6 | * Perfluoro-1-octanesulfonamide (FOSA) | ND | PF-CCV-L | 0 | ug/kg dry<br>Certifications: | 0.321 | EPA 537m | 12/07/2022 18:11<br>12/11/2022 22:12 | ESJ |
| 375-92-8 | * Perfluoro-1-heptanesulfonic acid (PFHpS) | ND | | 0 | ug/kg dry<br>Certifications: | 0.321 | EPA 537m | 12/07/2022 18:11<br>12/11/2022 22:12 | ESJ |
| 335-77-3 | * Perfluoro-1-decanesulfonic acid (PFDS) | ND | PF-CCV-L | 0 | ug/kg dry<br>Certifications: | 0.321 | EPA 537m | 12/07/2022 18:11<br>12/11/2022 22:12 | ESJ |
| 27619-97-2 | * 1H,1H,2H,2H-Perfluorooctanesulfonic acid (6:2 FTS) | ND | | 0 | ug/kg dry<br>Certifications: | 0.321 | EPA 537m | 12/07/2022 18:11<br>12/11/2022 22:12 | ESJ |
| 39108-34-4 | * 1H,1H,2H,2H-Perfluorodecanesulfonic acid (8:2 FTS) | ND | | 0 | ug/kg dry<br>Certifications: | 0.321 | EPA 537m | 12/07/2022 18:11<br>12/11/2022 22:12 | ESJ |
| 375-22-4 | * Perfluoro-n-butanoic acid (PFBA) | ND | | 0 | ug/kg dry<br>Certifications: | 0.321 | EPA 537m | 12/07/2022 18:11<br>12/11/2022 22:12 | ESJ |

## Sample Information

**Client Sample ID:** SB-10A1 (0-2 in) **York Sample ID:** 22L0229-05

| York Project (SDG) No. | Client Project ID | Matrix | Collection Date/Time | Date Received |
|---|---|---|---|---|
| 22L0229 | GCM95248 | Soil | November 29, 2022 10:40 am | 12/05/2022 |

### PFAS by EPA 537 m

**Log-in Notes:**

**Sample Notes:**

Sample Prepared by Method: SPE PFAS Extraction-Soil-EPA 537m

| CAS No. | Parameter | Result | Flag | Maximum Contaminant Level MCL | Units | Reported to LOQ | Reference Method | Date/Time Prep/Anal | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| | **Surrogate Recoveries** | **Result** | | **Acceptance Range** | | | | | |
| | *Surrogate: M3PFBS* | *66.0 %* | | *25-150* | | | | | |
| | *Surrogate: M5PFHxA* | *64.0 %* | | *25-150* | | | | | |
| | *Surrogate: M4PFHpA* | *55.7 %* | | *25-150* | | | | | |
| | *Surrogate: M3PFHxS* | *74.0 %* | | *25-150* | | | | | |
| | *Surrogate: Perfluoro-n-[13C8]octanoic acid (M8PFOA)* | *61.7 %* | | *25-150* | | | | | |
| | *Surrogate: M6PFDA* | *49.1 %* | | *25-150* | | | | | |
| | *Surrogate: M7PFUdA* | *40.5 %* | | *25-150* | | | | | |
| | *Surrogate: Perfluoro-n-[1,2-13C2]dodecanoic acid (MPFDoA)* | *43.3 %* | | *25-150* | | | | | |
| | *Surrogate: M2PFTeDA* | *37.9 %* | | *10-150* | | | | | |
| | *Surrogate: Perfluoro-n-[13C4]butanoic acid (MPFBA)* | *71.9 %* | | *25-150* | | | | | |
| | *Surrogate: Perfluoro-1-[13C8]octanesulfonic acid (M8PFOS)* | *63.9 %* | | *25-150* | | | | | |
| | *Surrogate: Perfluoro-n-[13C5]pentanoic acid (M5PFPeA)* | *65.8 %* | | *25-150* | | | | | |
| | *Surrogate: Perfluoro-1-[13C8]octanesulfonamide (M8FOSA)* | *43.1 %* | | *10-150* | | | | | |
| | *Surrogate: d3-N-MeFOSAA* | *59.8 %* | | *25-150* | | | | | |
| | *Surrogate: d5-N-EtFOSAA* | *62.4 %* | | *25-150* | | | | | |
| | *Surrogate: M2-6:2 FTS* | *306 %* | PFSu-H | *25-200* | | | | | |
| | *Surrogate: M2-8:2 FTS* | *199 %* | | *25-200* | | | | | |
| | *Surrogate: M9PFNA* | *51.7 %* | | *25-150* | | | | | |

### Total Solids

**Log-in Notes:**

**Sample Notes:**

Sample Prepared by Method: % Solids Prep

| CAS No. | Parameter | Result | Flag | Maximum Contaminant Level MCL | Units | Reported to LOQ | Reference Method | Date/Time Prep/Anal | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| solids | *** % Solids** | **76.6** | | **100** | % | 0.100 | SM 2540G | 12/10/2022 10:34 | JTG |
| | | | | | Certifications: | | CTDOH-PH-0723 | 12/10/2022 10:37 | |

## Sample Information

**Client Sample ID:** SB-10A2 (2-12 in) **York Sample ID:** 22L0229-06

| York Project (SDG) No. | Client Project ID | Matrix | Collection Date/Time | Date Received |
|---|---|---|---|---|
| 22L0229 | GCM95248 | Soil | November 29, 2022 10:45 am | 12/05/2022 |

## Sample Information

**Client Sample ID:** SB-10A2 (2-12 in) **York Sample ID:** 22L0229-06

| York Project (SDG) No. | Client Project ID | Matrix | Collection Date/Time | Date Received |
|---|---|---|---|---|
| 22L0229 | GCM95248 | Soil | November 29, 2022 10:45 am | 12/05/2022 |

### PFAS by EPA 537 m

**Log-in Notes:**

**Sample Notes:**

Sample Prepared by Method: SPE PFAS Extraction-Soil-EPA 537m

| CAS No. | Parameter | Result | Flag | Maximum Contaminant Level MCL | Units | Reported to LOQ | Reference Method | Date/Time Prep/Anal | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| 375-73-5 | * Perfluorobutanesulfonic acid (PFBS) | ND | | 0 | ug/kg dry<br>Certifications: | 0.301 | EPA 537m | 12/07/2022 18:11<br>12/11/2022 22:25 | ESJ |
| 307-24-4 | * Perfluorohexanoic acid (PFHxA) | ND | | 0 | ug/kg dry<br>Certifications: | 0.301 | EPA 537m | 12/07/2022 18:11<br>12/11/2022 22:25 | ESJ |
| 375-85-9 | * Perfluoroheptanoic acid (PFHpA) | ND | | 0 | ug/kg dry<br>Certifications: | 0.301 | EPA 537m | 12/07/2022 18:11<br>12/11/2022 22:25 | ESJ |
| 355-46-4 | * Perfluorohexanesulfonic acid (PFHxS) | ND | | 0 | ug/kg dry<br>Certifications: | 0.301 | EPA 537m | 12/07/2022 18:11<br>12/11/2022 22:25 | ESJ |
| 335-67-1 | *** Perfluorooctanoic acid (PFOA)** | **0.332** | | **0** | ug/kg dry<br>Certifications: | 0.301 | EPA 537m | 12/07/2022 18:11<br>12/11/2022 22:25 | ESJ |
| 1763-23-1 | *** Perfluorooctanesulfonic acid (PFOS)** | **2.70** | | **0** | ug/kg dry<br>Certifications: | 0.301 | EPA 537m | 12/07/2022 18:11<br>12/11/2022 22:25 | ESJ |
| 375-95-1 | * Perfluorononanoic acid (PFNA) | ND | | 0 | ug/kg dry<br>Certifications: | 0.301 | EPA 537m | 12/07/2022 18:11<br>12/11/2022 22:25 | ESJ |
| 335-76-2 | * Perfluorodecanoic acid (PFDA) | ND | | 0 | ug/kg dry<br>Certifications: | 0.301 | EPA 537m | 12/07/2022 18:11<br>12/11/2022 22:25 | ESJ |
| 2058-94-8 | *** Perfluoroundecanoic acid (PFUnA)** | **0.464** | | **0** | ug/kg dry<br>Certifications: | 0.301 | EPA 537m | 12/07/2022 18:11<br>12/11/2022 22:25 | ESJ |
| 307-55-1 | * Perfluorododecanoic acid (PFDoA) | ND | | 0 | ug/kg dry<br>Certifications: | 0.301 | EPA 537m | 12/07/2022 18:11<br>12/11/2022 22:25 | ESJ |
| 72629-94-8 | *** Perfluorotridecanoic acid (PFTrDA)** | **0.377** | | **0** | ug/kg dry<br>Certifications: | 0.301 | EPA 537m | 12/07/2022 18:11<br>12/11/2022 22:25 | ESJ |
| 376-06-7 | * Perfluorotetradecanoic acid (PFTA) | ND | PF-CCV-L | 0 | ug/kg dry<br>Certifications: | 0.301 | EPA 537m | 12/07/2022 18:11<br>12/11/2022 22:25 | ESJ |
| 2355-31-9 | * N-MeFOSAA | ND | PF-CCV-L | 0 | ug/kg dry<br>Certifications: | 0.301 | EPA 537m | 12/07/2022 18:11<br>12/11/2022 22:25 | ESJ |
| 2991-50-6 | * N-EtFOSAA | ND | PF-CCV-L | 0 | ug/kg dry<br>Certifications: | 0.301 | EPA 537m | 12/07/2022 18:11<br>12/11/2022 22:25 | ESJ |
| 2706-90-3 | * Perfluoropentanoic acid (PFPeA) | ND | | 0 | ug/kg dry<br>Certifications: | 0.301 | EPA 537m | 12/07/2022 18:11<br>12/11/2022 22:25 | ESJ |
| 754-91-6 | * Perfluoro-1-octanesulfonamide (FOSA) | ND | PF-CCV-L | 0 | ug/kg dry<br>Certifications: | 0.301 | EPA 537m | 12/07/2022 18:11<br>12/11/2022 22:25 | ESJ |
| 375-92-8 | * Perfluoro-1-heptanesulfonic acid (PFHpS) | ND | | 0 | ug/kg dry<br>Certifications: | 0.301 | EPA 537m | 12/07/2022 18:11<br>12/11/2022 22:25 | ESJ |
| 335-77-3 | * Perfluoro-1-decanesulfonic acid (PFDS) | ND | PF-CCV-L | 0 | ug/kg dry<br>Certifications: | 0.301 | EPA 537m | 12/07/2022 18:11<br>12/11/2022 22:25 | ESJ |
| 27619-97-2 | * 1H,1H,2H,2H-Perfluorooctanesulfonic acid (6:2 FTS) | ND | | 0 | ug/kg dry<br>Certifications: | 0.301 | EPA 537m | 12/07/2022 18:11<br>12/11/2022 22:25 | ESJ |
| 39108-34-4 | * 1H,1H,2H,2H-Perfluorodecanesulfonic acid (8:2 FTS) | ND | | 0 | ug/kg dry<br>Certifications: | 0.301 | EPA 537m | 12/07/2022 18:11<br>12/11/2022 22:25 | ESJ |
| 375-22-4 | * Perfluoro-n-butanoic acid (PFBA) | ND | | 0 | ug/kg dry<br>Certifications: | 0.301 | EPA 537m | 12/07/2022 18:11<br>12/11/2022 22:25 | ESJ |

## Sample Information

**Client Sample ID:** SB-10A2 (2-12 in) **York Sample ID:** 22L0229-06

| York Project (SDG) No. | Client Project ID | Matrix | Collection Date/Time | Date Received |
|---|---|---|---|---|
| 22L0229 | GCM95248 | Soil | November 29, 2022 10:45 am | 12/05/2022 |

### PFAS by EPA 537 m

**Log-in Notes:**

**Sample Notes:**

Sample Prepared by Method: SPE PFAS Extraction-Soil-EPA 537m

| CAS No. | Parameter | Result | Flag | Maximum Contaminant Level MCL | Units | Reported to LOQ | Reference Method | Date/Time Prep/Anal | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| | **Surrogate Recoveries** | **Result** | | **Acceptance Range** | | | | | |
| | *Surrogate: M3PFBS* | *75.9 %* | | *25-150* | | | | | |
| | *Surrogate: M5PFHxA* | *70.0 %* | | *25-150* | | | | | |
| | *Surrogate: M4PFHpA* | *57.5 %* | | *25-150* | | | | | |
| | *Surrogate: M3PFHxS* | *82.4 %* | | *25-150* | | | | | |
| | *Surrogate: Perfluoro-n-[13C8]octanoic acid (M8PFOA)* | *63.4 %* | | *25-150* | | | | | |
| | *Surrogate: M6PFDA* | *49.6 %* | | *25-150* | | | | | |
| | *Surrogate: M7PFUdA* | *42.0 %* | | *25-150* | | | | | |
| | *Surrogate: Perfluoro-n-[1,2-13C2]dodecanoic acid (MPFDoA)* | *46.6 %* | | *25-150* | | | | | |
| | *Surrogate: M2PFTeDA* | *36.0 %* | | *10-150* | | | | | |
| | *Surrogate: Perfluoro-n-[13C4]butanoic acid (MPFBA)* | *78.1 %* | | *25-150* | | | | | |
| | *Surrogate: Perfluoro-1-[13C8]octanesulfonic acid (M8PFOS)* | *64.4 %* | | *25-150* | | | | | |
| | *Surrogate: Perfluoro-n-[13C5]pentanoic acid (M5PFPeA)* | *73.0 %* | | *25-150* | | | | | |
| | *Surrogate: Perfluoro-1-[13C8]octanesulfonamide (M8FOSA)* | *45.7 %* | | *10-150* | | | | | |
| | *Surrogate: d3-N-MeFOSAA* | *63.0 %* | | *25-150* | | | | | |
| | *Surrogate: d5-N-EtFOSAA* | *66.9 %* | | *25-150* | | | | | |
| | *Surrogate: M2-6:2 FTS* | *335 %* | PFSu-H | *25-200* | | | | | |
| | *Surrogate: M2-8:2 FTS* | *200 %* | | *25-200* | | | | | |
| | *Surrogate: M9PFNA* | *61.3 %* | | *25-150* | | | | | |

### Total Solids

**Log-in Notes:**

**Sample Notes:**

Sample Prepared by Method: % Solids Prep

| CAS No. | Parameter | Result | Flag | Maximum Contaminant Level MCL | Units | Reported to LOQ | Reference Method | Date/Time Prep/Anal | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| solids | *** % Solids** | **79.5** | | **100** | % | 0.100 | SM 2540G | 12/10/2022 10:34 | JTG |
| | | | | | Certifications: | | CTDOH-PH-0723 | 12/10/2022 10:37 | |

## Sample Information

**Client Sample ID:** SB-10C (9-11 ft) **York Sample ID:** 22L0229-07

| York Project (SDG) No. | Client Project ID | Matrix | Collection Date/Time | Date Received |
|---|---|---|---|---|
| 22L0229 | GCM95248 | Soil | November 29, 2022 10:30 am | 12/05/2022 |

## Sample Information

**Client Sample ID:** SB-10C (9-11 ft) **York Sample ID:** 22L0229-07

| York Project (SDG) No. | Client Project ID | Matrix | Collection Date/Time | Date Received |
|---|---|---|---|---|
| 22L0229 | GCM95248 | Soil | November 29, 2022 10:30 am | 12/05/2022 |

**PFAS by EPA 537 m**

**Log-in Notes:**

**Sample Notes:**

Sample Prepared by Method: SPE PFAS Extraction-Soil-EPA 537m

| CAS No. | Parameter | Result | Flag | Maximum Contaminant Level MCL | Units | Reported to LOQ | Reference Method | Date/Time Prep/Anal | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| 375-73-5 | * Perfluorobutanesulfonic acid (PFBS) | ND | | 0 | ug/kg dry<br>Certifications: | 0.277 | EPA 537m | 12/08/2022 14:46<br>12/12/2022 21:12 | ESJ |
| 307-24-4 | * Perfluorohexanoic acid (PFHxA) | ND | | 0 | ug/kg dry<br>Certifications: | 0.277 | EPA 537m | 12/08/2022 14:46<br>12/12/2022 21:12 | ESJ |
| 375-85-9 | * Perfluoroheptanoic acid (PFHpA) | ND | | 0 | ug/kg dry<br>Certifications: | 0.277 | EPA 537m | 12/08/2022 14:46<br>12/12/2022 21:12 | ESJ |
| 355-46-4 | * Perfluorohexanesulfonic acid (PFHxS) | ND | | 0 | ug/kg dry<br>Certifications: | 0.277 | EPA 537m | 12/08/2022 14:46<br>12/12/2022 21:12 | ESJ |
| 335-67-1 | * Perfluorooctanoic acid (PFOA) | ND | | 0 | ug/kg dry<br>Certifications: | 0.277 | EPA 537m | 12/08/2022 14:46<br>12/12/2022 21:12 | ESJ |
| 1763-23-1 | * Perfluorooctanesulfonic acid (PFOS) | ND | | 0 | ug/kg dry<br>Certifications: | 0.277 | EPA 537m | 12/08/2022 14:46<br>12/12/2022 21:12 | ESJ |
| 375-95-1 | * Perfluorononanoic acid (PFNA) | ND | | 0 | ug/kg dry<br>Certifications: | 0.277 | EPA 537m | 12/08/2022 14:46<br>12/12/2022 21:12 | ESJ |
| 335-76-2 | * Perfluorodecanoic acid (PFDA) | ND | | 0 | ug/kg dry<br>Certifications: | 0.277 | EPA 537m | 12/08/2022 14:46<br>12/12/2022 21:12 | ESJ |
| 2058-94-8 | * Perfluoroundecanoic acid (PFUnA) | ND | | 0 | ug/kg dry<br>Certifications: | 0.277 | EPA 537m | 12/08/2022 14:46<br>12/12/2022 21:12 | ESJ |
| 307-55-1 | * Perfluorododecanoic acid (PFDoA) | ND | PF-CCV-L | 0 | ug/kg dry<br>Certifications: | 0.277 | EPA 537m | 12/08/2022 14:46<br>12/12/2022 21:12 | ESJ |
| 72629-94-8 | * Perfluorotridecanoic acid (PFTrDA) | ND | PF-CCV-L | 0 | ug/kg dry<br>Certifications: | 0.277 | EPA 537m | 12/08/2022 14:46<br>12/12/2022 21:12 | ESJ |
| 376-06-7 | * Perfluorotetradecanoic acid (PFTA) | ND | PF-CCV-L | 0 | ug/kg dry<br>Certifications: | 0.277 | EPA 537m | 12/08/2022 14:46<br>12/12/2022 21:12 | ESJ |
| 2355-31-9 | * N-MeFOSAA | ND | PF-CCV-L | 0 | ug/kg dry<br>Certifications: | 0.277 | EPA 537m | 12/08/2022 14:46<br>12/12/2022 21:12 | ESJ |
| 2991-50-6 | * N-EtFOSAA | ND | PF-CCV-L | 0 | ug/kg dry<br>Certifications: | 0.277 | EPA 537m | 12/08/2022 14:46<br>12/12/2022 21:12 | ESJ |
| 2706-90-3 | * Perfluoropentanoic acid (PFPeA) | ND | | 0 | ug/kg dry<br>Certifications: | 0.277 | EPA 537m | 12/08/2022 14:46<br>12/12/2022 21:12 | ESJ |
| 754-91-6 | * Perfluoro-1-octanesulfonamide (FOSA) | ND | PF-CCV-L | 0 | ug/kg dry<br>Certifications: | 0.277 | EPA 537m | 12/08/2022 14:46<br>12/12/2022 21:12 | ESJ |
| 375-92-8 | * Perfluoro-1-heptanesulfonic acid (PFHpS) | ND | | 0 | ug/kg dry<br>Certifications: | 0.277 | EPA 537m | 12/08/2022 14:46<br>12/12/2022 21:12 | ESJ |
| 335-77-3 | * Perfluoro-1-decanesulfonic acid (PFDS) | ND | PF-CCV-L | 0 | ug/kg dry<br>Certifications: | 0.277 | EPA 537m | 12/08/2022 14:46<br>12/12/2022 21:12 | ESJ |
| 27619-97-2 | * **1H,1H,2H,2H-Perfluorooctanesulfonic acid (6:2 FTS)** | **0.353** | **PF-CCV-H** | **0** | ug/kg dry<br>Certifications: | 0.277 | EPA 537m | 12/08/2022 14:46<br>12/12/2022 21:12 | ESJ |
| 39108-34-4 | * **1H,1H,2H,2H-Perfluorodecanesulfonic acid (8:2 FTS)** | **0.467** | | **0** | ug/kg dry<br>Certifications: | 0.277 | EPA 537m | 12/08/2022 14:46<br>12/12/2022 21:12 | ESJ |
| 375-22-4 | * Perfluoro-n-butanoic acid (PFBA) | ND | | 0 | ug/kg dry<br>Certifications: | 0.277 | EPA 537m | 12/08/2022 14:46<br>12/12/2022 21:12 | ESJ |

## Sample Information

**Client Sample ID:** SB-10C (9-11 ft) **York Sample ID:** 22L0229-07

| York Project (SDG) No. | Client Project ID | Matrix | Collection Date/Time | Date Received |
|---|---|---|---|---|
| 22L0229 | GCM95248 | Soil | November 29, 2022 10:30 am | 12/05/2022 |

### PFAS by EPA 537 m

**Log-in Notes:**

**Sample Notes:**

Sample Prepared by Method: SPE PFAS Extraction-Soil-EPA 537m

| CAS No. | Parameter | Result | Flag | Maximum Contaminant Level MCL | Units | Reported to LOQ | Reference Method | Date/Time Prep/Anal | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| | **Surrogate Recoveries** | **Result** | | **Acceptance Range** | | | | | |
| | *Surrogate: M3PFBS* | *87.4 %* | | *25-150* | | | | | |
| | *Surrogate: M5PFHxA* | *99.3 %* | | *25-150* | | | | | |
| | *Surrogate: M4PFHpA* | *97.0 %* | | *25-150* | | | | | |
| | *Surrogate: M3PFHxS* | *86.0 %* | | *25-150* | | | | | |
| | *Surrogate: Perfluoro-n-[13C8]octanoic acid (M8PFOA)* | *105 %* | | *25-150* | | | | | |
| | *Surrogate: M6PFDA* | *75.5 %* | | *25-150* | | | | | |
| | *Surrogate: M7PFUdA* | *55.6 %* | | *25-150* | | | | | |
| | *Surrogate: Perfluoro-n-[1,2-13C2]dodecanoic acid (MPFDoA)* | *56.0 %* | | *25-150* | | | | | |
| | *Surrogate: M2PFTeDA* | *38.0 %* | | *10-150* | | | | | |
| | *Surrogate: Perfluoro-n-[13C4]butanoic acid (MPFBA)* | *93.8 %* | | *25-150* | | | | | |
| | *Surrogate: Perfluoro-1-[13C8]octanesulfonic acid (M8PFOS)* | *72.8 %* | | *25-150* | | | | | |
| | *Surrogate: Perfluoro-n-[13C5]pentanoic acid (M5PFPeA)* | *107 %* | | *25-150* | | | | | |
| | *Surrogate: Perfluoro-1-[13C8]octanesulfonamide (M8FOSA)* | *56.2 %* | | *10-150* | | | | | |
| | *Surrogate: d3-N-MeFOSAA* | *61.6 %* | | *25-150* | | | | | |
| | *Surrogate: d5-N-EtFOSAA* | *60.7 %* | | *25-150* | | | | | |
| | *Surrogate: M2-6:2 FTS* | *93.3 %* | | *25-200* | | | | | |
| | *Surrogate: M2-8:2 FTS* | *98.8 %* | | *25-200* | | | | | |
| | *Surrogate: M9PFNA* | *86.7 %* | | *25-150* | | | | | |

### Total Solids

**Log-in Notes:**

**Sample Notes:**

Sample Prepared by Method: % Solids Prep

| CAS No. | Parameter | Result | Flag | Maximum Contaminant Level MCL | Units | Reported to LOQ | Reference Method | Date/Time Prep/Anal | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| solids | *** % Solids** | **88.8** | | **100** | % | 0.100 | SM 2540G | 12/10/2022 10:34 | JTG |
| | | | | | Certifications: | | CTDOH-PH-0723 | 12/10/2022 10:37 | |

## Sample Information

**Client Sample ID:** SB-9A (0-1 ft) **York Sample ID:** 22L0229-08

| York Project (SDG) No. | Client Project ID | Matrix | Collection Date/Time | Date Received |
|---|---|---|---|---|
| 22L0229 | GCM95248 | Soil | November 29, 2022 12:00 pm | 12/05/2022 |

## Sample Information

**Client Sample ID:** SB-9A (0-1 ft) **York Sample ID:** 22L0229-08

| York Project (SDG) No. | Client Project ID | Matrix | Collection Date/Time | Date Received |
|---|---|---|---|---|
| 22L0229 | GCM95248 | Soil | November 29, 2022 12:00 pm | 12/05/2022 |

**PFAS by EPA 537 m**

**Log-in Notes:**

**Sample Notes:**

Sample Prepared by Method: SPE PFAS Extraction-Soil-EPA 537m

| CAS No. | Parameter | Result | Flag | Maximum Contaminant Level MCL | Units | Reported to LOQ | Reference Method | Date/Time Prep/Anal | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| 375-73-5 | * Perfluorobutanesulfonic acid (PFBS) | ND | | 0 | ug/kg dry<br>Certifications: | 0.256 | EPA 537m | 12/08/2022 14:46<br>12/12/2022 21:25 | ESJ |
| 307-24-4 | * Perfluorohexanoic acid (PFHxA) | ND | | 0 | ug/kg dry<br>Certifications: | 0.256 | EPA 537m | 12/08/2022 14:46<br>12/12/2022 21:25 | ESJ |
| 375-85-9 | * Perfluoroheptanoic acid (PFHpA) | ND | | 0 | ug/kg dry<br>Certifications: | 0.256 | EPA 537m | 12/08/2022 14:46<br>12/12/2022 21:25 | ESJ |
| 355-46-4 | * Perfluorohexanesulfonic acid (PFHxS) | ND | | 0 | ug/kg dry<br>Certifications: | 0.256 | EPA 537m | 12/08/2022 14:46<br>12/12/2022 21:25 | ESJ |
| 335-67-1 | * Perfluorooctanoic acid (PFOA) | ND | | 0 | ug/kg dry<br>Certifications: | 0.256 | EPA 537m | 12/08/2022 14:46<br>12/12/2022 21:25 | ESJ |
| 1763-23-1 | * Perfluorooctanesulfonic acid (PFOS) | ND | | 0 | ug/kg dry<br>Certifications: | 0.256 | EPA 537m | 12/08/2022 14:46<br>12/12/2022 21:25 | ESJ |
| 375-95-1 | * Perfluorononanoic acid (PFNA) | ND | | 0 | ug/kg dry<br>Certifications: | 0.256 | EPA 537m | 12/08/2022 14:46<br>12/12/2022 21:25 | ESJ |
| 335-76-2 | * Perfluorodecanoic acid (PFDA) | ND | | 0 | ug/kg dry<br>Certifications: | 0.256 | EPA 537m | 12/08/2022 14:46<br>12/12/2022 21:25 | ESJ |
| 2058-94-8 | * Perfluoroundecanoic acid (PFUnA) | ND | | 0 | ug/kg dry<br>Certifications: | 0.256 | EPA 537m | 12/08/2022 14:46<br>12/12/2022 21:25 | ESJ |
| 307-55-1 | * Perfluorododecanoic acid (PFDoA) | ND | PF-CCV-L | 0 | ug/kg dry<br>Certifications: | 0.256 | EPA 537m | 12/08/2022 14:46<br>12/12/2022 21:25 | ESJ |
| 72629-94-8 | * Perfluorotridecanoic acid (PFTrDA) | ND | PF-CCV-L | 0 | ug/kg dry<br>Certifications: | 0.256 | EPA 537m | 12/08/2022 14:46<br>12/12/2022 21:25 | ESJ |
| 376-06-7 | * Perfluorotetradecanoic acid (PFTA) | ND | PF-CCV-L | 0 | ug/kg dry<br>Certifications: | 0.256 | EPA 537m | 12/08/2022 14:46<br>12/12/2022 21:25 | ESJ |
| 2355-31-9 | * N-MeFOSAA | ND | PF-CCV-L | 0 | ug/kg dry<br>Certifications: | 0.256 | EPA 537m | 12/08/2022 14:46<br>12/12/2022 21:25 | ESJ |
| 2991-50-6 | * N-EtFOSAA | ND | PF-CCV-L | 0 | ug/kg dry<br>Certifications: | 0.256 | EPA 537m | 12/08/2022 14:46<br>12/12/2022 21:25 | ESJ |
| 2706-90-3 | * Perfluoropentanoic acid (PFPeA) | ND | | 0 | ug/kg dry<br>Certifications: | 0.256 | EPA 537m | 12/08/2022 14:46<br>12/12/2022 21:25 | ESJ |
| 754-91-6 | * Perfluoro-1-octanesulfonamide (FOSA) | ND | PF-CCV-L | 0 | ug/kg dry<br>Certifications: | 0.256 | EPA 537m | 12/08/2022 14:46<br>12/12/2022 21:25 | ESJ |
| 375-92-8 | * Perfluoro-1-heptanesulfonic acid (PFHpS) | ND | | 0 | ug/kg dry<br>Certifications: | 0.256 | EPA 537m | 12/08/2022 14:46<br>12/12/2022 21:25 | ESJ |
| 335-77-3 | * Perfluoro-1-decanesulfonic acid (PFDS) | ND | PF-CCV-L | 0 | ug/kg dry<br>Certifications: | 0.256 | EPA 537m | 12/08/2022 14:46<br>12/12/2022 21:25 | ESJ |
| 27619-97-2 | * 1H,1H,2H,2H-Perfluorooctanesulfonic acid (6:2 FTS) | ND | | 0 | ug/kg dry<br>Certifications: | 0.256 | EPA 537m | 12/08/2022 14:46<br>12/12/2022 21:25 | ESJ |
| 39108-34-4 | * 1H,1H,2H,2H-Perfluorodecanesulfonic acid (8:2 FTS) | ND | | 0 | ug/kg dry<br>Certifications: | 0.256 | EPA 537m | 12/08/2022 14:46<br>12/12/2022 21:25 | ESJ |
| 375-22-4 | * Perfluoro-n-butanoic acid (PFBA) | ND | | 0 | ug/kg dry<br>Certifications: | 0.256 | EPA 537m | 12/08/2022 14:46<br>12/12/2022 21:25 | ESJ |

## Sample Information

**Client Sample ID:** SB-9A (0-1 ft) **York Sample ID:** 22L0229-08

| York Project (SDG) No. | Client Project ID | Matrix | Collection Date/Time | Date Received |
|---|---|---|---|---|
| 22L0229 | GCM95248 | Soil | November 29, 2022 12:00 pm | 12/05/2022 |

### PFAS by EPA 537 m

**Log-in Notes:**

**Sample Notes:**

Sample Prepared by Method: SPE PFAS Extraction-Soil-EPA 537m

| CAS No. | Parameter | Result | Flag | Maximum Contaminant Level MCL | Units | Reported to LOQ | Reference Method | Date/Time Prep/Anal | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| | **Surrogate Recoveries** | **Result** | | **Acceptance Range** | | | | | |
| | *Surrogate: M3PFBS* | *94.1 %* | | *25-150* | | | | | |
| | *Surrogate: M5PFHxA* | *97.7 %* | | *25-150* | | | | | |
| | *Surrogate: M4PFHpA* | *95.0 %* | | *25-150* | | | | | |
| | *Surrogate: M3PFHxS* | *108 %* | | *25-150* | | | | | |
| | *Surrogate: Perfluoro-n-[13C8]octanoic acid (M8PFOA)* | *103 %* | | *25-150* | | | | | |
| | *Surrogate: M6PFDA* | *68.3 %* | | *25-150* | | | | | |
| | *Surrogate: M7PFUdA* | *59.6 %* | | *25-150* | | | | | |
| | *Surrogate: Perfluoro-n-[1,2-13C2]dodecanoic acid (MPFDoA)* | *64.8 %* | | *25-150* | | | | | |
| | *Surrogate: M2PFTeDA* | *47.0 %* | | *10-150* | | | | | |
| | *Surrogate: Perfluoro-n-[13C4]butanoic acid (MPFBA)* | *88.7 %* | | *25-150* | | | | | |
| | *Surrogate: Perfluoro-1-[13C8]octanesulfonic acid (M8PFOS)* | *85.1 %* | | *25-150* | | | | | |
| | *Surrogate: Perfluoro-n-[13C5]pentanoic acid (M5PFPeA)* | *98.9 %* | | *25-150* | | | | | |
| | *Surrogate: Perfluoro-1-[13C8]octanesulfonamide (M8FOSA)* | *51.6 %* | | *10-150* | | | | | |
| | *Surrogate: d3-N-MeFOSAA* | *71.9 %* | | *25-150* | | | | | |
| | *Surrogate: d5-N-EtFOSAA* | *74.2 %* | | *25-150* | | | | | |
| | *Surrogate: M2-6:2 FTS* | *168 %* | | *25-200* | | | | | |
| | *Surrogate: M2-8:2 FTS* | *160 %* | | *25-200* | | | | | |
| | *Surrogate: M9PFNA* | *78.6 %* | | *25-150* | | | | | |

### Total Solids

**Log-in Notes:**

**Sample Notes:**

Sample Prepared by Method: % Solids Prep

| CAS No. | Parameter | Result | Flag | Maximum Contaminant Level MCL | Units | Reported to LOQ | Reference Method | Date/Time Prep/Anal | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| solids | *** % Solids** | **88.9** | | **100** | % | 0.100 | SM 2540G | 12/10/2022 10:34 | JTG |
| | | | | | Certifications: | | CTDOH-PH-0723 | 12/10/2022 10:37 | |

## Sample Information

**Client Sample ID:** SB-9C (6-8 ft) **York Sample ID:** 22L0229-09

| York Project (SDG) No. | Client Project ID | Matrix | Collection Date/Time | Date Received |
|---|---|---|---|---|
| 22L0229 | GCM95248 | Soil | November 29, 2022 12:00 pm | 12/05/2022 |

## Sample Information

**Client Sample ID:** SB-9C (6-8 ft) **York Sample ID:** 22L0229-09

| York Project (SDG) No. | Client Project ID | Matrix | Collection Date/Time | Date Received |
|---|---|---|---|---|
| 22L0229 | GCM95248 | Soil | November 29, 2022 12:00 pm | 12/05/2022 |

**PFAS by EPA 537 m**

**Log-in Notes:**

**Sample Notes:**

Sample Prepared by Method: SPE PFAS Extraction-Soil-EPA 537m

| CAS No. | Parameter | Result | Flag | Maximum Contaminant Level MCL | Units | Reported to LOQ | Reference Method | Date/Time Prep/Anal | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| 375-73-5 | * Perfluorobutanesulfonic acid (PFBS) | ND | | 0 | ug/kg dry<br>Certifications: | 0.285 | EPA 537m | 12/08/2022 14:46<br>12/12/2022 21:38 | ESJ |
| 307-24-4 | * Perfluorohexanoic acid (PFHxA) | ND | | 0 | ug/kg dry<br>Certifications: | 0.285 | EPA 537m | 12/08/2022 14:46<br>12/12/2022 21:38 | ESJ |
| 375-85-9 | * Perfluoroheptanoic acid (PFHpA) | ND | | 0 | ug/kg dry<br>Certifications: | 0.285 | EPA 537m | 12/08/2022 14:46<br>12/12/2022 21:38 | ESJ |
| 355-46-4 | * Perfluorohexanesulfonic acid (PFHxS) | ND | | 0 | ug/kg dry<br>Certifications: | 0.285 | EPA 537m | 12/08/2022 14:46<br>12/12/2022 21:38 | ESJ |
| 335-67-1 | * Perfluorooctanoic acid (PFOA) | ND | | 0 | ug/kg dry<br>Certifications: | 0.285 | EPA 537m | 12/08/2022 14:46<br>12/12/2022 21:38 | ESJ |
| 1763-23-1 | * Perfluorooctanesulfonic acid (PFOS) | ND | | 0 | ug/kg dry<br>Certifications: | 0.285 | EPA 537m | 12/08/2022 14:46<br>12/12/2022 21:38 | ESJ |
| 375-95-1 | * Perfluorononanoic acid (PFNA) | ND | | 0 | ug/kg dry<br>Certifications: | 0.285 | EPA 537m | 12/08/2022 14:46<br>12/12/2022 21:38 | ESJ |
| 335-76-2 | * Perfluorodecanoic acid (PFDA) | ND | | 0 | ug/kg dry<br>Certifications: | 0.285 | EPA 537m | 12/08/2022 14:46<br>12/12/2022 21:38 | ESJ |
| 2058-94-8 | * Perfluoroundecanoic acid (PFUnA) | ND | | 0 | ug/kg dry<br>Certifications: | 0.285 | EPA 537m | 12/08/2022 14:46<br>12/12/2022 21:38 | ESJ |
| 307-55-1 | * Perfluorododecanoic acid (PFDoA) | ND | PF-CCV-L | 0 | ug/kg dry<br>Certifications: | 0.285 | EPA 537m | 12/08/2022 14:46<br>12/12/2022 21:38 | ESJ |
| 72629-94-8 | * Perfluorotridecanoic acid (PFTrDA) | ND | PF-CCV-L | 0 | ug/kg dry<br>Certifications: | 0.285 | EPA 537m | 12/08/2022 14:46<br>12/12/2022 21:38 | ESJ |
| 376-06-7 | * Perfluorotetradecanoic acid (PFTA) | ND | PF-CCV-L | 0 | ug/kg dry<br>Certifications: | 0.285 | EPA 537m | 12/08/2022 14:46<br>12/12/2022 21:38 | ESJ |
| 2355-31-9 | * N-MeFOSAA | ND | PF-CCV-L | 0 | ug/kg dry<br>Certifications: | 0.285 | EPA 537m | 12/08/2022 14:46<br>12/12/2022 21:38 | ESJ |
| 2991-50-6 | * N-EtFOSAA | ND | PF-CCV-L | 0 | ug/kg dry<br>Certifications: | 0.285 | EPA 537m | 12/08/2022 14:46<br>12/12/2022 21:38 | ESJ |
| 2706-90-3 | * Perfluoropentanoic acid (PFPeA) | ND | | 0 | ug/kg dry<br>Certifications: | 0.285 | EPA 537m | 12/08/2022 14:46<br>12/12/2022 21:38 | ESJ |
| 754-91-6 | * Perfluoro-1-octanesulfonamide (FOSA) | ND | PF-CCV-L | 0 | ug/kg dry<br>Certifications: | 0.285 | EPA 537m | 12/08/2022 14:46<br>12/12/2022 21:38 | ESJ |
| 375-92-8 | * Perfluoro-1-heptanesulfonic acid (PFHpS) | ND | | 0 | ug/kg dry<br>Certifications: | 0.285 | EPA 537m | 12/08/2022 14:46<br>12/12/2022 21:38 | ESJ |
| 335-77-3 | * Perfluoro-1-decanesulfonic acid (PFDS) | ND | PF-CCV-L | 0 | ug/kg dry<br>Certifications: | 0.285 | EPA 537m | 12/08/2022 14:46<br>12/12/2022 21:38 | ESJ |
| 27619-97-2 | * 1H,1H,2H,2H-Perfluorooctanesulfonic acid (6:2 FTS) | ND | | 0 | ug/kg dry<br>Certifications: | 0.285 | EPA 537m | 12/08/2022 14:46<br>12/12/2022 21:38 | ESJ |
| 39108-34-4 | * 1H,1H,2H,2H-Perfluorodecanesulfonic acid (8:2 FTS) | ND | | 0 | ug/kg dry<br>Certifications: | 0.285 | EPA 537m | 12/08/2022 14:46<br>12/12/2022 21:38 | ESJ |
| 375-22-4 | * Perfluoro-n-butanoic acid (PFBA) | ND | | 0 | ug/kg dry<br>Certifications: | 0.285 | EPA 537m | 12/08/2022 14:46<br>12/12/2022 21:38 | ESJ |

## Sample Information

**Client Sample ID:** SB-9C (6-8 ft) **York Sample ID:** 22L0229-09

| York Project (SDG) No. | Client Project ID | Matrix | Collection Date/Time | Date Received |
|---|---|---|---|---|
| 22L0229 | GCM95248 | Soil | November 29, 2022 12:00 pm | 12/05/2022 |

### PFAS by EPA 537 m

**Log-in Notes:**

**Sample Notes:**

Sample Prepared by Method: SPE PFAS Extraction-Soil-EPA 537m

| CAS No. | Parameter | Result | Flag | Maximum Contaminant Level MCL | Units | Reported to LOQ | Reference Method | Date/Time Prep/Anal | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| | **Surrogate Recoveries** | **Result** | | **Acceptance Range** | | | | | |
| | *Surrogate: M3PFBS* | *88.8 %* | | *25-150* | | | | | |
| | *Surrogate: M5PFHxA* | *104 %* | | *25-150* | | | | | |
| | *Surrogate: M4PFHpA* | *100 %* | | *25-150* | | | | | |
| | *Surrogate: M3PFHxS* | *104 %* | | *25-150* | | | | | |
| | *Surrogate: Perfluoro-n-[13C8]octanoic acid (M8PFOA)* | *102 %* | | *25-150* | | | | | |
| | *Surrogate: M6PFDA* | *81.6 %* | | *25-150* | | | | | |
| | *Surrogate: M7PFUdA* | *64.0 %* | | *25-150* | | | | | |
| | *Surrogate: Perfluoro-n-[1,2-13C2]dodecanoic acid (MPFDoA)* | *59.0 %* | | *25-150* | | | | | |
| | *Surrogate: M2PFTeDA* | *36.2 %* | | *10-150* | | | | | |
| | *Surrogate: Perfluoro-n-[13C4]butanoic acid (MPFBA)* | *95.1 %* | | *25-150* | | | | | |
| | *Surrogate: Perfluoro-1-[13C8]octanesulfonic acid (M8PFOS)* | *79.3 %* | | *25-150* | | | | | |
| | *Surrogate: Perfluoro-n-[13C5]pentanoic acid (M5PFPeA)* | *109 %* | | *25-150* | | | | | |
| | *Surrogate: Perfluoro-1-[13C8]octanesulfonamide (M8FOSA)* | *57.8 %* | | *10-150* | | | | | |
| | *Surrogate: d3-N-MeFOSAA* | *67.1 %* | | *25-150* | | | | | |
| | *Surrogate: d5-N-EtFOSAA* | *68.3 %* | | *25-150* | | | | | |
| | *Surrogate: M2-6:2 FTS* | *104 %* | | *25-200* | | | | | |
| | *Surrogate: M2-8:2 FTS* | *85.0 %* | | *25-200* | | | | | |
| | *Surrogate: M9PFNA* | *92.0 %* | | *25-150* | | | | | |

### Total Solids

**Log-in Notes:**

**Sample Notes:**

Sample Prepared by Method: % Solids Prep

| CAS No. | Parameter | Result | Flag | Maximum Contaminant Level MCL | Units | Reported to LOQ | Reference Method | Date/Time Prep/Anal | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| solids | *** % Solids** | **86.2** | | **100** | % | 0.100 | SM 2540G | 12/10/2022 10:34 | JTG |
| | | | | | Certifications: | | CTDOH-PH-0723 | 12/10/2022 10:37 | |

## Sample Information

**Client Sample ID:** SB-DUP1 **York Sample ID:** 22L0229-10

| York Project (SDG) No. | Client Project ID | Matrix | Collection Date/Time | Date Received |
|---|---|---|---|---|
| 22L0229 | GCM95248 | Soil | November 29, 2022 12:00 pm | 12/05/2022 |

## Sample Information

**Client Sample ID:** SB-DUP1 **York Sample ID:** 22L0229-10

| York Project (SDG) No. | Client Project ID | Matrix | Collection Date/Time | Date Received |
|---|---|---|---|---|
| 22L0229 | GCM95248 | Soil | November 29, 2022 12:00 pm | 12/05/2022 |

**PFAS by EPA 537 m**

**Log-in Notes:**

**Sample Notes:**

Sample Prepared by Method: SPE PFAS Extraction-Soil-EPA 537m

| CAS No. | Parameter | Result | Flag | Maximum Contaminant Level MCL | Units | Reported to LOQ | Reference Method | Date/Time Prep/Anal | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| 375-73-5 | * Perfluorobutanesulfonic acid (PFBS) | ND | | 0 | ug/kg dry<br>Certifications: | 0.292 | EPA 537m | 12/08/2022 14:46<br>12/12/2022 22:04 | ESJ |
| 307-24-4 | * Perfluorohexanoic acid (PFHxA) | ND | | 0 | ug/kg dry<br>Certifications: | 0.292 | EPA 537m | 12/08/2022 14:46<br>12/12/2022 22:04 | ESJ |
| 375-85-9 | * Perfluoroheptanoic acid (PFHpA) | ND | | 0 | ug/kg dry<br>Certifications: | 0.292 | EPA 537m | 12/08/2022 14:46<br>12/12/2022 22:04 | ESJ |
| 355-46-4 | * Perfluorohexanesulfonic acid (PFHxS) | ND | | 0 | ug/kg dry<br>Certifications: | 0.292 | EPA 537m | 12/08/2022 14:46<br>12/12/2022 22:04 | ESJ |
| 335-67-1 | * Perfluorooctanoic acid (PFOA) | ND | | 0 | ug/kg dry<br>Certifications: | 0.292 | EPA 537m | 12/08/2022 14:46<br>12/12/2022 22:04 | ESJ |
| 1763-23-1 | * Perfluorooctanesulfonic acid (PFOS) | ND | | 0 | ug/kg dry<br>Certifications: | 0.292 | EPA 537m | 12/08/2022 14:46<br>12/12/2022 22:04 | ESJ |
| 375-95-1 | * Perfluorononanoic acid (PFNA) | ND | | 0 | ug/kg dry<br>Certifications: | 0.292 | EPA 537m | 12/08/2022 14:46<br>12/12/2022 22:04 | ESJ |
| 335-76-2 | * Perfluorodecanoic acid (PFDA) | ND | | 0 | ug/kg dry<br>Certifications: | 0.292 | EPA 537m | 12/08/2022 14:46<br>12/12/2022 22:04 | ESJ |
| 2058-94-8 | * Perfluoroundecanoic acid (PFUnA) | ND | | 0 | ug/kg dry<br>Certifications: | 0.292 | EPA 537m | 12/08/2022 14:46<br>12/12/2022 22:04 | ESJ |
| 307-55-1 | * Perfluorododecanoic acid (PFDoA) | ND | | 0 | ug/kg dry<br>Certifications: | 0.292 | EPA 537m | 12/08/2022 14:46<br>12/12/2022 22:04 | ESJ |
| 72629-94-8 | * Perfluorotridecanoic acid (PFTrDA) | ND | PF-CCV-L | 0 | ug/kg dry<br>Certifications: | 0.292 | EPA 537m | 12/08/2022 14:46<br>12/12/2022 22:04 | ESJ |
| 376-06-7 | * Perfluorotetradecanoic acid (PFTA) | ND | PF-CCV-L | 0 | ug/kg dry<br>Certifications: | 0.292 | EPA 537m | 12/08/2022 14:46<br>12/12/2022 22:04 | ESJ |
| 2355-31-9 | * N-MeFOSAA | ND | PF-CCV-L | 0 | ug/kg dry<br>Certifications: | 0.292 | EPA 537m | 12/08/2022 14:46<br>12/12/2022 22:04 | ESJ |
| 2991-50-6 | * N-EtFOSAA | ND | PF-CCV-L | 0 | ug/kg dry<br>Certifications: | 0.292 | EPA 537m | 12/08/2022 14:46<br>12/12/2022 22:04 | ESJ |
| 2706-90-3 | * Perfluoropentanoic acid (PFPeA) | ND | | 0 | ug/kg dry<br>Certifications: | 0.292 | EPA 537m | 12/08/2022 14:46<br>12/12/2022 22:04 | ESJ |
| 754-91-6 | * Perfluoro-1-octanesulfonamide (FOSA) | ND | PF-CCV-L | 0 | ug/kg dry<br>Certifications: | 0.292 | EPA 537m | 12/08/2022 14:46<br>12/12/2022 22:04 | ESJ |
| 375-92-8 | * Perfluoro-1-heptanesulfonic acid (PFHpS) | ND | | 0 | ug/kg dry<br>Certifications: | 0.292 | EPA 537m | 12/08/2022 14:46<br>12/12/2022 22:04 | ESJ |
| 335-77-3 | * Perfluoro-1-decanesulfonic acid (PFDS) | ND | PF-CCV-L | 0 | ug/kg dry<br>Certifications: | 0.292 | EPA 537m | 12/08/2022 14:46<br>12/12/2022 22:04 | ESJ |
| 27619-97-2 | * 1H,1H,2H,2H-Perfluorooctanesulfonic acid (6:2 FTS) | ND | | 0 | ug/kg dry<br>Certifications: | 0.292 | EPA 537m | 12/08/2022 14:46<br>12/12/2022 22:04 | ESJ |
| 39108-34-4 | * 1H,1H,2H,2H-Perfluorodecanesulfonic acid (8:2 FTS) | ND | | 0 | ug/kg dry<br>Certifications: | 0.292 | EPA 537m | 12/08/2022 14:46<br>12/12/2022 22:04 | ESJ |
| 375-22-4 | * Perfluoro-n-butanoic acid (PFBA) | ND | | 0 | ug/kg dry<br>Certifications: | 0.292 | EPA 537m | 12/08/2022 14:46<br>12/12/2022 22:04 | ESJ |

## Sample Information

**Client Sample ID:** SB-DUP1 **York Sample ID:** 22L0229-10

| York Project (SDG) No. | Client Project ID | Matrix | Collection Date/Time | Date Received |
|---|---|---|---|---|
| 22L0229 | GCM95248 | Soil | November 29, 2022 12:00 pm | 12/05/2022 |

### PFAS by EPA 537 m

**Log-in Notes:**

**Sample Notes:**

Sample Prepared by Method: SPE PFAS Extraction-Soil-EPA 537m

| CAS No. | Parameter | Result | Flag | Maximum Contaminant Level MCL | Units | Reported to LOQ | Reference Method | Date/Time Prep/Anal | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| | **Surrogate Recoveries** | **Result** | | **Acceptance Range** | | | | | |
| | *Surrogate: M3PFBS* | *71.8 %* | | *25-150* | | | | | |
| | *Surrogate: M5PFHxA* | *83.3 %* | | *25-150* | | | | | |
| | *Surrogate: M4PFHpA* | *85.8 %* | | *25-150* | | | | | |
| | *Surrogate: M3PFHxS* | *83.5 %* | | *25-150* | | | | | |
| | *Surrogate: Perfluoro-n-[13C8]octanoic acid (M8PFOA)* | *88.2 %* | | *25-150* | | | | | |
| | *Surrogate: M6PFDA* | *63.9 %* | | *25-150* | | | | | |
| | *Surrogate: M7PFUdA* | *53.1 %* | | *25-150* | | | | | |
| | *Surrogate: Perfluoro-n-[1,2-13C2]dodecanoic acid (MPFDoA)* | *53.5 %* | | *25-150* | | | | | |
| | *Surrogate: M2PFTeDA* | *27.9 %* | | *10-150* | | | | | |
| | *Surrogate: Perfluoro-n-[13C4]butanoic acid (MPFBA)* | *81.6 %* | | *25-150* | | | | | |
| | *Surrogate: Perfluoro-1-[13C8]octanesulfonic acid (M8PFOS)* | *64.4 %* | | *25-150* | | | | | |
| | *Surrogate: Perfluoro-n-[13C5]pentanoic acid (M5PFPeA)* | *96.6 %* | | *25-150* | | | | | |
| | *Surrogate: Perfluoro-1-[13C8]octanesulfonamide (M8FOSA)* | *47.7 %* | | *10-150* | | | | | |
| | *Surrogate: d3-N-MeFOSAA* | *51.6 %* | | *25-150* | | | | | |
| | *Surrogate: d5-N-EtFOSAA* | *52.5 %* | | *25-150* | | | | | |
| | *Surrogate: M2-6:2 FTS* | *104 %* | | *25-200* | | | | | |
| | *Surrogate: M2-8:2 FTS* | *79.5 %* | | *25-200* | | | | | |
| | *Surrogate: M9PFNA* | *73.5 %* | | *25-150* | | | | | |

### Total Solids

**Log-in Notes:**

**Sample Notes:**

Sample Prepared by Method: % Solids Prep

| CAS No. | Parameter | Result | Flag | Maximum Contaminant Level MCL | Units | Reported to LOQ | Reference Method | Date/Time Prep/Anal | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| solids | *** % Solids** | **81.8** | | **100** | % | 0.100 | SM 2540G | 12/10/2022 10:34 | JTG |
| | | | | | Certifications: | | CTDOH-PH-0723 | 12/10/2022 10:37 | |

## Sample Information

**Client Sample ID:** SB-8A (0-1 ft) **York Sample ID:** 22L0229-11

| York Project (SDG) No. | Client Project ID | Matrix | Collection Date/Time | Date Received |
|---|---|---|---|---|
| 22L0229 | GCM95248 | Soil | November 29, 2022 11:15 am | 12/05/2022 |

## Sample Information

**Client Sample ID:** SB-8A (0-1 ft) **York Sample ID:** 22L0229-11

| York Project (SDG) No. | Client Project ID | Matrix | Collection Date/Time | Date Received |
|---|---|---|---|---|
| 22L0229 | GCM95248 | Soil | November 29, 2022 11:15 am | 12/05/2022 |

**PFAS by EPA 537 m**

**Log-in Notes:**

**Sample Notes:**

Sample Prepared by Method: SPE PFAS Extraction-Soil-EPA 537m

| CAS No. | Parameter | Result | Flag | Maximum Contaminant Level MCL | Units | Reported to LOQ | Reference Method | Date/Time Prep/Anal | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| 375-73-5 | * Perfluorobutanesulfonic acid (PFBS) | ND | | 0 | ug/kg dry<br>Certifications: | 0.270 | EPA 537m | 12/08/2022 14:46<br>12/12/2022 22:17 | ESJ |
| 307-24-4 | * Perfluorohexanoic acid (PFHxA) | ND | | 0 | ug/kg dry<br>Certifications: | 0.270 | EPA 537m | 12/08/2022 14:46<br>12/12/2022 22:17 | ESJ |
| 375-85-9 | * Perfluoroheptanoic acid (PFHpA) | ND | | 0 | ug/kg dry<br>Certifications: | 0.270 | EPA 537m | 12/08/2022 14:46<br>12/12/2022 22:17 | ESJ |
| 355-46-4 | * Perfluorohexanesulfonic acid (PFHxS) | ND | | 0 | ug/kg dry<br>Certifications: | 0.270 | EPA 537m | 12/08/2022 14:46<br>12/12/2022 22:17 | ESJ |
| 335-67-1 | * Perfluorooctanoic acid (PFOA) | ND | | 0 | ug/kg dry<br>Certifications: | 0.270 | EPA 537m | 12/08/2022 14:46<br>12/12/2022 22:17 | ESJ |
| 1763-23-1 | * Perfluorooctanesulfonic acid (PFOS) | ND | | 0 | ug/kg dry<br>Certifications: | 0.270 | EPA 537m | 12/08/2022 14:46<br>12/12/2022 22:17 | ESJ |
| 375-95-1 | * Perfluorononanoic acid (PFNA) | ND | | 0 | ug/kg dry<br>Certifications: | 0.270 | EPA 537m | 12/08/2022 14:46<br>12/12/2022 22:17 | ESJ |
| 335-76-2 | * Perfluorodecanoic acid (PFDA) | ND | | 0 | ug/kg dry<br>Certifications: | 0.270 | EPA 537m | 12/08/2022 14:46<br>12/12/2022 22:17 | ESJ |
| 2058-94-8 | * Perfluoroundecanoic acid (PFUnA) | ND | | 0 | ug/kg dry<br>Certifications: | 0.270 | EPA 537m | 12/08/2022 14:46<br>12/12/2022 22:17 | ESJ |
| 307-55-1 | * Perfluorododecanoic acid (PFDoA) | ND | | 0 | ug/kg dry<br>Certifications: | 0.270 | EPA 537m | 12/08/2022 14:46<br>12/12/2022 22:17 | ESJ |
| 72629-94-8 | * Perfluorotridecanoic acid (PFTrDA) | ND | PF-CCV-L | 0 | ug/kg dry<br>Certifications: | 0.270 | EPA 537m | 12/08/2022 14:46<br>12/12/2022 22:17 | ESJ |
| 376-06-7 | * Perfluorotetradecanoic acid (PFTA) | ND | PF-CCV-L | 0 | ug/kg dry<br>Certifications: | 0.270 | EPA 537m | 12/08/2022 14:46<br>12/12/2022 22:17 | ESJ |
| 2355-31-9 | * N-MeFOSAA | ND | PF-CCV-L | 0 | ug/kg dry<br>Certifications: | 0.270 | EPA 537m | 12/08/2022 14:46<br>12/12/2022 22:17 | ESJ |
| 2991-50-6 | * N-EtFOSAA | ND | PF-CCV-L | 0 | ug/kg dry<br>Certifications: | 0.270 | EPA 537m | 12/08/2022 14:46<br>12/12/2022 22:17 | ESJ |
| 2706-90-3 | * Perfluoropentanoic acid (PFPeA) | ND | | 0 | ug/kg dry<br>Certifications: | 0.270 | EPA 537m | 12/08/2022 14:46<br>12/12/2022 22:17 | ESJ |
| 754-91-6 | * Perfluoro-1-octanesulfonamide (FOSA) | ND | PF-CCV-L | 0 | ug/kg dry<br>Certifications: | 0.270 | EPA 537m | 12/08/2022 14:46<br>12/12/2022 22:17 | ESJ |
| 375-92-8 | * Perfluoro-1-heptanesulfonic acid (PFHpS) | ND | | 0 | ug/kg dry<br>Certifications: | 0.270 | EPA 537m | 12/08/2022 14:46<br>12/12/2022 22:17 | ESJ |
| 335-77-3 | * Perfluoro-1-decanesulfonic acid (PFDS) | ND | PF-CCV-L | 0 | ug/kg dry<br>Certifications: | 0.270 | EPA 537m | 12/08/2022 14:46<br>12/12/2022 22:17 | ESJ |
| 27619-97-2 | * 1H,1H,2H,2H-Perfluorooctanesulfonic acid (6:2 FTS) | ND | | 0 | ug/kg dry<br>Certifications: | 0.270 | EPA 537m | 12/08/2022 14:46<br>12/12/2022 22:17 | ESJ |
| 39108-34-4 | * 1H,1H,2H,2H-Perfluorodecanesulfonic acid (8:2 FTS) | ND | | 0 | ug/kg dry<br>Certifications: | 0.270 | EPA 537m | 12/08/2022 14:46<br>12/12/2022 22:17 | ESJ |
| 375-22-4 | * Perfluoro-n-butanoic acid (PFBA) | ND | | 0 | ug/kg dry<br>Certifications: | 0.270 | EPA 537m | 12/08/2022 14:46<br>12/12/2022 22:17 | ESJ |

## Sample Information

**Client Sample ID:** SB-8A (0-1 ft) **York Sample ID:** 22L0229-11

| York Project (SDG) No. | Client Project ID | Matrix | Collection Date/Time | Date Received |
|---|---|---|---|---|
| 22L0229 | GCM95248 | Soil | November 29, 2022 11:15 am | 12/05/2022 |

### PFAS by EPA 537 m

**Log-in Notes:**

**Sample Notes:**

Sample Prepared by Method: SPE PFAS Extraction-Soil-EPA 537m

| CAS No. | Parameter | Result | Flag | Maximum Contaminant Level MCL | Units | Reported to LOQ | Reference Method | Date/Time Prep/Anal | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| | **Surrogate Recoveries** | **Result** | | **Acceptance Range** | | | | | |
| | *Surrogate: M3PFBS* | *102 %* | | *25-150* | | | | | |
| | *Surrogate: M5PFHxA* | *109 %* | | *25-150* | | | | | |
| | *Surrogate: M4PFHpA* | *108 %* | | *25-150* | | | | | |
| | *Surrogate: M3PFHxS* | *127 %* | | *25-150* | | | | | |
| | *Surrogate: Perfluoro-n-[13C8]octanoic acid (M8PFOA)* | *118 %* | | *25-150* | | | | | |
| | *Surrogate: M6PFDA* | *80.3 %* | | *25-150* | | | | | |
| | *Surrogate: M7PFUdA* | *64.8 %* | | *25-150* | | | | | |
| | *Surrogate: Perfluoro-n-[1,2-13C2]dodecanoic acid (MPFDoA)* | *65.3 %* | | *25-150* | | | | | |
| | *Surrogate: M2PFTeDA* | *48.3 %* | | *10-150* | | | | | |
| | *Surrogate: Perfluoro-n-[13C4]butanoic acid (MPFBA)* | *102 %* | | *25-150* | | | | | |
| | *Surrogate: Perfluoro-1-[13C8]octanesulfonic acid (M8PFOS)* | *91.7 %* | | *25-150* | | | | | |
| | *Surrogate: Perfluoro-n-[13C5]pentanoic acid (M5PFPeA)* | *113 %* | | *25-150* | | | | | |
| | *Surrogate: Perfluoro-1-[13C8]octanesulfonamide (M8FOSA)* | *52.7 %* | | *10-150* | | | | | |
| | *Surrogate: d3-N-MeFOSAA* | *62.4 %* | | *25-150* | | | | | |
| | *Surrogate: d5-N-EtFOSAA* | *59.5 %* | | *25-150* | | | | | |
| | *Surrogate: M2-6:2 FTS* | *140 %* | | *25-200* | | | | | |
| | *Surrogate: M2-8:2 FTS* | *136 %* | | *25-200* | | | | | |
| | *Surrogate: M9PFNA* | *93.9 %* | | *25-150* | | | | | |

### Total Solids

**Log-in Notes:**

**Sample Notes:**

Sample Prepared by Method: % Solids Prep

| CAS No. | Parameter | Result | Flag | Maximum Contaminant Level MCL | Units | Reported to LOQ | Reference Method | Date/Time Prep/Anal | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| solids | *** % Solids** | **91.2** | | **100** | % | 0.100 | SM 2540G | 12/10/2022 10:34 | JTG |
| | | | | | Certifications: | | CTDOH-PH-0723 | 12/10/2022 10:37 | |

## Sample Information

**Client Sample ID:** SB-8C (13-15 ft) **York Sample ID:** 22L0229-12

| York Project (SDG) No. | Client Project ID | Matrix | Collection Date/Time | Date Received |
|---|---|---|---|---|
| 22L0229 | GCM95248 | Soil | November 29, 2022 11:30 am | 12/05/2022 |

## Sample Information

**Client Sample ID:** SB-8C (13-15 ft) **York Sample ID:** 22L0229-12

| York Project (SDG) No. | Client Project ID | Matrix | Collection Date/Time | Date Received |
|---|---|---|---|---|
| 22L0229 | GCM95248 | Soil | November 29, 2022 11:30 am | 12/05/2022 |

**PFAS by EPA 537 m**

**Log-in Notes:**

**Sample Notes:**

Sample Prepared by Method: SPE PFAS Extraction-Soil-EPA 537m

| CAS No. | Parameter | Result | Flag | Maximum Contaminant Level MCL | Units | Reported to LOQ | Reference Method | Date/Time Prep/Anal | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| 375-73-5 | * Perfluorobutanesulfonic acid (PFBS) | ND | | 0 | ug/kg dry<br>Certifications: | 0.258 | EPA 537m | 12/08/2022 14:46<br>12/12/2022 22:30 | ESJ |
| 307-24-4 | * Perfluorohexanoic acid (PFHxA) | ND | | 0 | ug/kg dry<br>Certifications: | 0.258 | EPA 537m | 12/08/2022 14:46<br>12/12/2022 22:30 | ESJ |
| 375-85-9 | * Perfluoroheptanoic acid (PFHpA) | ND | | 0 | ug/kg dry<br>Certifications: | 0.258 | EPA 537m | 12/08/2022 14:46<br>12/12/2022 22:30 | ESJ |
| 355-46-4 | * Perfluorohexanesulfonic acid (PFHxS) | ND | | 0 | ug/kg dry<br>Certifications: | 0.258 | EPA 537m | 12/08/2022 14:46<br>12/12/2022 22:30 | ESJ |
| 335-67-1 | * Perfluorooctanoic acid (PFOA) | ND | | 0 | ug/kg dry<br>Certifications: | 0.258 | EPA 537m | 12/08/2022 14:46<br>12/12/2022 22:30 | ESJ |
| 1763-23-1 | * Perfluorooctanesulfonic acid (PFOS) | ND | | 0 | ug/kg dry<br>Certifications: | 0.258 | EPA 537m | 12/08/2022 14:46<br>12/12/2022 22:30 | ESJ |
| 375-95-1 | * Perfluorononanoic acid (PFNA) | ND | | 0 | ug/kg dry<br>Certifications: | 0.258 | EPA 537m | 12/08/2022 14:46<br>12/12/2022 22:30 | ESJ |
| 335-76-2 | * Perfluorodecanoic acid (PFDA) | ND | | 0 | ug/kg dry<br>Certifications: | 0.258 | EPA 537m | 12/08/2022 14:46<br>12/12/2022 22:30 | ESJ |
| 2058-94-8 | * Perfluoroundecanoic acid (PFUnA) | ND | | 0 | ug/kg dry<br>Certifications: | 0.258 | EPA 537m | 12/08/2022 14:46<br>12/12/2022 22:30 | ESJ |
| 307-55-1 | * Perfluorododecanoic acid (PFDoA) | ND | | 0 | ug/kg dry<br>Certifications: | 0.258 | EPA 537m | 12/08/2022 14:46<br>12/12/2022 22:30 | ESJ |
| 72629-94-8 | * Perfluorotridecanoic acid (PFTrDA) | ND | PF-CCV-L | 0 | ug/kg dry<br>Certifications: | 0.258 | EPA 537m | 12/08/2022 14:46<br>12/12/2022 22:30 | ESJ |
| 376-06-7 | * Perfluorotetradecanoic acid (PFTA) | ND | PF-CCV-L | 0 | ug/kg dry<br>Certifications: | 0.258 | EPA 537m | 12/08/2022 14:46<br>12/12/2022 22:30 | ESJ |
| 2355-31-9 | * N-MeFOSAA | ND | PF-CCV-L | 0 | ug/kg dry<br>Certifications: | 0.258 | EPA 537m | 12/08/2022 14:46<br>12/12/2022 22:30 | ESJ |
| 2991-50-6 | * N-EtFOSAA | ND | PF-CCV-L | 0 | ug/kg dry<br>Certifications: | 0.258 | EPA 537m | 12/08/2022 14:46<br>12/12/2022 22:30 | ESJ |
| 2706-90-3 | * Perfluoropentanoic acid (PFPeA) | ND | | 0 | ug/kg dry<br>Certifications: | 0.258 | EPA 537m | 12/08/2022 14:46<br>12/12/2022 22:30 | ESJ |
| 754-91-6 | * Perfluoro-1-octanesulfonamide (FOSA) | ND | PF-CCV-L | 0 | ug/kg dry<br>Certifications: | 0.258 | EPA 537m | 12/08/2022 14:46<br>12/12/2022 22:30 | ESJ |
| 375-92-8 | * Perfluoro-1-heptanesulfonic acid (PFHpS) | ND | | 0 | ug/kg dry<br>Certifications: | 0.258 | EPA 537m | 12/08/2022 14:46<br>12/12/2022 22:30 | ESJ |
| 335-77-3 | * Perfluoro-1-decanesulfonic acid (PFDS) | ND | PF-CCV-L | 0 | ug/kg dry<br>Certifications: | 0.258 | EPA 537m | 12/08/2022 14:46<br>12/12/2022 22:30 | ESJ |
| 27619-97-2 | * 1H,1H,2H,2H-Perfluorooctanesulfonic acid (6:2 FTS) | ND | | 0 | ug/kg dry<br>Certifications: | 0.258 | EPA 537m | 12/08/2022 14:46<br>12/12/2022 22:30 | ESJ |
| 39108-34-4 | * 1H,1H,2H,2H-Perfluorodecanesulfonic acid (8:2 FTS) | ND | | 0 | ug/kg dry<br>Certifications: | 0.258 | EPA 537m | 12/08/2022 14:46<br>12/12/2022 22:30 | ESJ |
| 375-22-4 | * Perfluoro-n-butanoic acid (PFBA) | ND | | 0 | ug/kg dry<br>Certifications: | 0.258 | EPA 537m | 12/08/2022 14:46<br>12/12/2022 22:30 | ESJ |

## Sample Information

**Client Sample ID:** SB-8C (13-15 ft) **York Sample ID:** 22L0229-12

| York Project (SDG) No. | Client Project ID | Matrix | Collection Date/Time | Date Received |
|---|---|---|---|---|
| 22L0229 | GCM95248 | Soil | November 29, 2022 11:30 am | 12/05/2022 |

### PFAS by EPA 537 m

**Log-in Notes:**

**Sample Notes:**

Sample Prepared by Method: SPE PFAS Extraction-Soil-EPA 537m

| CAS No. | Parameter | Result | Flag | Maximum Contaminant Level MCL | Units | Reported to LOQ | Reference Method | Date/Time Prep/Anal | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| | **Surrogate Recoveries** | **Result** | | **Acceptance Range** | | | | | |
| | *Surrogate: M3PFBS* | *75.9 %* | | *25-150* | | | | | |
| | *Surrogate: M5PFHxA* | *84.6 %* | | *25-150* | | | | | |
| | *Surrogate: M4PFHpA* | *83.7 %* | | *25-150* | | | | | |
| | *Surrogate: M3PFHxS* | *84.8 %* | | *25-150* | | | | | |
| | *Surrogate: Perfluoro-n-[13C8]octanoic acid (M8PFOA)* | *83.2 %* | | *25-150* | | | | | |
| | *Surrogate: M6PFDA* | *62.2 %* | | *25-150* | | | | | |
| | *Surrogate: M7PFUdA* | *49.2 %* | | *25-150* | | | | | |
| | *Surrogate: Perfluoro-n-[1,2-13C2]dodecanoic acid (MPFDoA)* | *49.0 %* | | *25-150* | | | | | |
| | *Surrogate: M2PFTeDA* | *27.8 %* | | *10-150* | | | | | |
| | *Surrogate: Perfluoro-n-[13C4]butanoic acid (MPFBA)* | *83.9 %* | | *25-150* | | | | | |
| | *Surrogate: Perfluoro-1-[13C8]octanesulfonic acid (M8PFOS)* | *64.7 %* | | *25-150* | | | | | |
| | *Surrogate: Perfluoro-n-[13C5]pentanoic acid (M5PFPeA)* | *89.2 %* | | *25-150* | | | | | |
| | *Surrogate: Perfluoro-1-[13C8]octanesulfonamide (M8FOSA)* | *43.9 %* | | *10-150* | | | | | |
| | *Surrogate: d3-N-MeFOSAA* | *44.8 %* | | *25-150* | | | | | |
| | *Surrogate: d5-N-EtFOSAA* | *48.0 %* | | *25-150* | | | | | |
| | *Surrogate: M2-6:2 FTS* | *83.7 %* | | *25-200* | | | | | |
| | *Surrogate: M2-8:2 FTS* | *89.9 %* | | *25-200* | | | | | |
| | *Surrogate: M9PFNA* | *72.3 %* | | *25-150* | | | | | |

### Total Solids

**Log-in Notes:**

**Sample Notes:**

Sample Prepared by Method: % Solids Prep

| CAS No. | Parameter | Result | Flag | Maximum Contaminant Level MCL | Units | Reported to LOQ | Reference Method | Date/Time Prep/Anal | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| solids | *** % Solids** | **89.0** | | **100** | % | 0.100 | SM 2540G | 12/10/2022 10:34 | JTG |
| | | | | | Certifications: | | CTDOH-PH-0723 | 12/10/2022 10:37 | |

## Sample Information

**Client Sample ID:** SB-7A (0-1 ft) **York Sample ID:** 22L0229-13

| York Project (SDG) No. | Client Project ID | Matrix | Collection Date/Time | Date Received |
|---|---|---|---|---|
| 22L0229 | GCM95248 | Soil | November 29, 2022 12:45 pm | 12/05/2022 |

## Sample Information

**Client Sample ID:** SB-7A (0-1 ft) **York Sample ID:** 22L0229-13

| York Project (SDG) No. | Client Project ID | Matrix | Collection Date/Time | Date Received |
|---|---|---|---|---|
| 22L0229 | GCM95248 | Soil | November 29, 2022 12:45 pm | 12/05/2022 |

**PFAS by EPA 537 m**

**Log-in Notes:**

**Sample Notes:**

Sample Prepared by Method: SPE PFAS Extraction-Soil-EPA 537m

| CAS No. | Parameter | Result | Flag | Maximum Contaminant Level MCL | Units | Reported to LOQ | Reference Method | Date/Time Prep/Anal | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| 375-73-5 | * Perfluorobutanesulfonic acid (PFBS) | ND | | 0 | ug/kg dry | 0.300 | EPA 537m | 12/08/2022 14:46 | ESJ |
| | | | | | Certifications: | | | 12/12/2022 22:43 | |
| 307-24-4 | *** Perfluorohexanoic acid (PFHxA)** | **0.514** | | **0** | ug/kg dry | 0.300 | EPA 537m | 12/08/2022 14:46 | ESJ |
| | | | | | Certifications: | | | 12/12/2022 22:43 | |
| 375-85-9 | *** Perfluoroheptanoic acid (PFHpA)** | **0.702** | | **0** | ug/kg dry | 0.300 | EPA 537m | 12/08/2022 14:46 | ESJ |
| | | | | | Certifications: | | | 12/12/2022 22:43 | |
| 355-46-4 | * Perfluorohexanesulfonic acid (PFHxS) | ND | | 0 | ug/kg dry | 0.300 | EPA 537m | 12/08/2022 14:46 | ESJ |
| | | | | | Certifications: | | | 12/12/2022 22:43 | |
| 335-67-1 | *** Perfluorooctanoic acid (PFOA)** | **4.56** | | **0** | ug/kg dry | 0.300 | EPA 537m | 12/08/2022 14:46 | ESJ |
| | | | | | Certifications: | | | 12/12/2022 22:43 | |
| 1763-23-1 | *** Perfluorooctanesulfonic acid (PFOS)** | **1.00** | | **0** | ug/kg dry | 0.300 | EPA 537m | 12/08/2022 14:46 | ESJ |
| | | | | | Certifications: | | | 12/12/2022 22:43 | |
| 375-95-1 | * Perfluorononanoic acid (PFNA) | ND | | 0 | ug/kg dry | 0.300 | EPA 537m | 12/08/2022 14:46 | ESJ |
| | | | | | Certifications: | | | 12/12/2022 22:43 | |
| 335-76-2 | * Perfluorodecanoic acid (PFDA) | ND | | 0 | ug/kg dry | 0.300 | EPA 537m | 12/08/2022 14:46 | ESJ |
| | | | | | Certifications: | | | 12/12/2022 22:43 | |
| 2058-94-8 | * Perfluoroundecanoic acid (PFUnA) | ND | | 0 | ug/kg dry | 0.300 | EPA 537m | 12/08/2022 14:46 | ESJ |
| | | | | | Certifications: | | | 12/12/2022 22:43 | |
| 307-55-1 | * Perfluorododecanoic acid (PFDoA) | ND | | 0 | ug/kg dry | 0.300 | EPA 537m | 12/08/2022 14:46 | ESJ |
| | | | | | Certifications: | | | 12/12/2022 22:43 | |
| 72629-94-8 | * Perfluorotridecanoic acid (PFTrDA) | ND | PF-CCV-L | 0 | ug/kg dry | 0.300 | EPA 537m | 12/08/2022 14:46 | ESJ |
| | | | | | Certifications: | | | 12/12/2022 22:43 | |
| 376-06-7 | * Perfluorotetradecanoic acid (PFTA) | ND | PF-CCV-L | 0 | ug/kg dry | 0.300 | EPA 537m | 12/08/2022 14:46 | ESJ |
| | | | | | Certifications: | | | 12/12/2022 22:43 | |
| 2355-31-9 | * N-MeFOSAA | ND | PF-CCV-L | 0 | ug/kg dry | 0.300 | EPA 537m | 12/08/2022 14:46 | ESJ |
| | | | | | Certifications: | | | 12/12/2022 22:43 | |
| 2991-50-6 | * N-EtFOSAA | ND | PF-CCV-L | 0 | ug/kg dry | 0.300 | EPA 537m | 12/08/2022 14:46 | ESJ |
| | | | | | Certifications: | | | 12/12/2022 22:43 | |
| 2706-90-3 | *** Perfluoropentanoic acid (PFPeA)** | **0.484** | | **0** | ug/kg dry | 0.300 | EPA 537m | 12/08/2022 14:46 | ESJ |
| | | | | | Certifications: | | | 12/12/2022 22:43 | |
| 754-91-6 | * Perfluoro-1-octanesulfonamide (FOSA) | ND | PF-CCV-L | 0 | ug/kg dry | 0.300 | EPA 537m | 12/08/2022 14:46 | ESJ |
| | | | | | Certifications: | | | 12/12/2022 22:43 | |
| 375-92-8 | * Perfluoro-1-heptanesulfonic acid (PFHpS) | ND | | 0 | ug/kg dry | 0.300 | EPA 537m | 12/08/2022 14:46 | ESJ |
| | | | | | Certifications: | | | 12/12/2022 22:43 | |
| 335-77-3 | * Perfluoro-1-decanesulfonic acid (PFDS) | ND | PF-CCV-L | 0 | ug/kg dry | 0.300 | EPA 537m | 12/08/2022 14:46 | ESJ |
| | | | | | Certifications: | | | 12/12/2022 22:43 | |
| 27619-97-2 | * 1H,1H,2H,2H-Perfluorooctanesulfonic acid (6:2 FTS) | ND | | 0 | ug/kg dry | 0.300 | EPA 537m | 12/08/2022 14:46 | ESJ |
| | | | | | Certifications: | | | 12/12/2022 22:43 | |
| 39108-34-4 | * 1H,1H,2H,2H-Perfluorodecanesulfonic acid (8:2 FTS) | ND | | 0 | ug/kg dry | 0.300 | EPA 537m | 12/08/2022 14:46 | ESJ |
| | | | | | Certifications: | | | 12/12/2022 22:43 | |

## Sample Information

**Client Sample ID:** SB-7A (0-1 ft) **York Sample ID:** 22L0229-13

| York Project (SDG) No. | Client Project ID | Matrix | Collection Date/Time | Date Received |
|---|---|---|---|---|
| 22L0229 | GCM95248 | Soil | November 29, 2022 12:45 pm | 12/05/2022 |

### PFAS by EPA 537 m

**Log-in Notes:**

**Sample Notes:**

Sample Prepared by Method: SPE PFAS Extraction-Soil-EPA 537m

| CAS No. | Parameter | Result | Flag | Maximum Contaminant Level MCL | Units | Reported to LOQ | Reference Method | Date/Time Prep/Anal | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| 375-22-4 | * Perfluoro-n-butanoic acid (PFBA) | 0.859 | | 0 | ug/kg dry | 0.300 | EPA 537m | 12/08/2022 14:46 | ESJ |
| | | | | | Certifications: | | | 12/12/2022 22:43 | |

| Surrogate Recoveries | Result | Acceptance Range |
|---|---|---|
| *Surrogate: M3PFBS* | *95.4 %* | *25-150* |
| *Surrogate: M5PFHxA* | *98.5 %* | *25-150* |
| *Surrogate: M4PFHpA* | *93.3 %* | *25-150* |
| *Surrogate: M3PFHxS* | *106 %* | *25-150* |
| *Surrogate: Perfluoro-n-[13C8]octanoic acid (M8PFOA)* | *99.2 %* | *25-150* |
| *Surrogate: M6PFDA* | *82.4 %* | *25-150* |
| *Surrogate: M7PFUdA* | *67.9 %* | *25-150* |
| *Surrogate: Perfluoro-n-[1,2-13C2]dodecanoic acid (MPFDoA)* | *70.9 %* | *25-150* |
| *Surrogate: M2PFTeDA* | *56.3 %* | *10-150* |
| *Surrogate: Perfluoro-n-[13C4]butanoic acid (MPFBA)* | *95.4 %* | *25-150* |
| *Surrogate: Perfluoro-1-[13C8]octanesulfonic acid (M8PFOS)* | *90.6 %* | *25-150* |
| *Surrogate: Perfluoro-n-[13C5]pentanoic acid (M5PFPeA)* | *106 %* | *25-150* |
| *Surrogate: Perfluoro-1-[13C8]octanesulfonamide (M8FOSA)* | *63.0 %* | *10-150* |
| *Surrogate: d3-N-MeFOSAA* | *83.8 %* | *25-150* |
| *Surrogate: d5-N-EtFOSAA* | *97.3 %* | *25-150* |
| *Surrogate: M2-6:2 FTS* | *295 %* | PFSu-H *25-200* |
| *Surrogate: M2-8:2 FTS* | *249 %* | PFSu-H *25-200* |
| *Surrogate: M9PFNA* | *95.3 %* | *25-150* |

### Total Solids

**Log-in Notes:**

**Sample Notes:**

Sample Prepared by Method: % Solids Prep

| CAS No. | Parameter | Result | Flag | Maximum Contaminant Level MCL | Units | Reported to LOQ | Reference Method | Date/Time Prep/Anal | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| solids | * % Solids | 80.7 | | 100 | % | 0.100 | SM 2540G | 12/10/2022 10:34 | JTG |
| | | | | | Certifications: | | CTDOH-PH-0723 | 12/10/2022 10:37 | |

## Sample Information

**Client Sample ID:** SB-7C (6-8 ft) **York Sample ID:** 22L0229-14

| York Project (SDG) No. | Client Project ID | Matrix | Collection Date/Time | Date Received |
|---|---|---|---|---|
| 22L0229 | GCM95248 | Soil | November 29, 2022 12:45 pm | 12/05/2022 |

**PFAS by EPA 537 m**

**Log-in Notes:**

**Sample Notes:**

Sample Prepared by Method: SPE PFAS Extraction-Soil-EPA 537m

| CAS No. | Parameter | Result | Flag | Maximum Contaminant Level MCL | Units | Reported to LOQ | Reference Method | Date/Time Prep/Anal | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| 375-73-5 | * Perfluorobutanesulfonic acid (PFBS) | ND | | 0 | ug/kg dry<br>Certifications: | 0.275 | EPA 537m | 12/08/2022 14:46<br>12/12/2022 22:56 | ESJ |
| 307-24-4 | * Perfluorohexanoic acid (PFHxA) | ND | | 0 | ug/kg dry<br>Certifications: | 0.275 | EPA 537m | 12/08/2022 14:46<br>12/12/2022 22:56 | ESJ |
| 375-85-9 | * Perfluoroheptanoic acid (PFHpA) | ND | | 0 | ug/kg dry<br>Certifications: | 0.275 | EPA 537m | 12/08/2022 14:46<br>12/12/2022 22:56 | ESJ |
| 355-46-4 | * Perfluorohexanesulfonic acid (PFHxS) | ND | | 0 | ug/kg dry<br>Certifications: | 0.275 | EPA 537m | 12/08/2022 14:46<br>12/12/2022 22:56 | ESJ |
| 335-67-1 | * Perfluorooctanoic acid (PFOA) | ND | | 0 | ug/kg dry<br>Certifications: | 0.275 | EPA 537m | 12/08/2022 14:46<br>12/12/2022 22:56 | ESJ |
| 1763-23-1 | *** Perfluorooctanesulfonic acid (PFOS)** | **2.12** | | **0** | ug/kg dry<br>Certifications: | 0.275 | EPA 537m | 12/08/2022 14:46<br>12/12/2022 22:56 | ESJ |
| 375-95-1 | * Perfluorononanoic acid (PFNA) | ND | | 0 | ug/kg dry<br>Certifications: | 0.275 | EPA 537m | 12/08/2022 14:46<br>12/12/2022 22:56 | ESJ |
| 335-76-2 | * Perfluorodecanoic acid (PFDA) | ND | | 0 | ug/kg dry<br>Certifications: | 0.275 | EPA 537m | 12/08/2022 14:46<br>12/12/2022 22:56 | ESJ |
| 2058-94-8 | * Perfluoroundecanoic acid (PFUnA) | ND | | 0 | ug/kg dry<br>Certifications: | 0.275 | EPA 537m | 12/08/2022 14:46<br>12/12/2022 22:56 | ESJ |
| 307-55-1 | * Perfluorododecanoic acid (PFDoA) | ND | | 0 | ug/kg dry<br>Certifications: | 0.275 | EPA 537m | 12/08/2022 14:46<br>12/12/2022 22:56 | ESJ |
| 72629-94-8 | * Perfluorotridecanoic acid (PFTrDA) | ND | PF-CCV-L | 0 | ug/kg dry<br>Certifications: | 0.275 | EPA 537m | 12/08/2022 14:46<br>12/12/2022 22:56 | ESJ |
| 376-06-7 | * Perfluorotetradecanoic acid (PFTA) | ND | PF-CCV-L | 0 | ug/kg dry<br>Certifications: | 0.275 | EPA 537m | 12/08/2022 14:46<br>12/12/2022 22:56 | ESJ |
| 2355-31-9 | * N-MeFOSAA | ND | PF-CCV-L | 0 | ug/kg dry<br>Certifications: | 0.275 | EPA 537m | 12/08/2022 14:46<br>12/12/2022 22:56 | ESJ |
| 2991-50-6 | * N-EtFOSAA | ND | PF-CCV-L | 0 | ug/kg dry<br>Certifications: | 0.275 | EPA 537m | 12/08/2022 14:46<br>12/12/2022 22:56 | ESJ |
| 2706-90-3 | * Perfluoropentanoic acid (PFPeA) | ND | | 0 | ug/kg dry<br>Certifications: | 0.275 | EPA 537m | 12/08/2022 14:46<br>12/12/2022 22:56 | ESJ |
| 754-91-6 | * Perfluoro-1-octanesulfonamide (FOSA) | ND | PF-CCV-L | 0 | ug/kg dry<br>Certifications: | 0.275 | EPA 537m | 12/08/2022 14:46<br>12/12/2022 22:56 | ESJ |
| 375-92-8 | * Perfluoro-1-heptanesulfonic acid (PFHpS) | ND | | 0 | ug/kg dry<br>Certifications: | 0.275 | EPA 537m | 12/08/2022 14:46<br>12/12/2022 22:56 | ESJ |
| 335-77-3 | * Perfluoro-1-decanesulfonic acid (PFDS) | ND | PF-CCV-L | 0 | ug/kg dry<br>Certifications: | 0.275 | EPA 537m | 12/08/2022 14:46<br>12/12/2022 22:56 | ESJ |
| 27619-97-2 | * 1H,1H,2H,2H-Perfluorooctanesulfonic acid (6:2 FTS) | ND | | 0 | ug/kg dry<br>Certifications: | 0.275 | EPA 537m | 12/08/2022 14:46<br>12/12/2022 22:56 | ESJ |
| 39108-34-4 | * 1H,1H,2H,2H-Perfluorodecanesulfonic acid (8:2 FTS) | ND | | 0 | ug/kg dry<br>Certifications: | 0.275 | EPA 537m | 12/08/2022 14:46<br>12/12/2022 22:56 | ESJ |
| 375-22-4 | * Perfluoro-n-butanoic acid (PFBA) | ND | | 0 | ug/kg dry<br>Certifications: | 0.275 | EPA 537m | 12/08/2022 14:46<br>12/12/2022 22:56 | ESJ |

## Sample Information

**Client Sample ID:** SB-7C (6-8 ft) **York Sample ID:** 22L0229-14

| York Project (SDG) No. | Client Project ID | Matrix | Collection Date/Time | Date Received |
|---|---|---|---|---|
| 22L0229 | GCM95248 | Soil | November 29, 2022 12:45 pm | 12/05/2022 |

### PFAS by EPA 537 m

**Log-in Notes:**

**Sample Notes:**

Sample Prepared by Method: SPE PFAS Extraction-Soil-EPA 537m

| CAS No. | Parameter | Result | Flag | Maximum Contaminant Level MCL | Units | Reported to LOQ | Reference Method | Date/Time Prep/Anal | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| | **Surrogate Recoveries** | **Result** | | **Acceptance Range** | | | | | |
| | *Surrogate: M3PFBS* | *82.1 %* | | *25-150* | | | | | |
| | *Surrogate: M5PFHxA* | *94.1 %* | | *25-150* | | | | | |
| | *Surrogate: M4PFHpA* | *90.5 %* | | *25-150* | | | | | |
| | *Surrogate: M3PFHxS* | *87.2 %* | | *25-150* | | | | | |
| | *Surrogate: Perfluoro-n-[13C8]octanoic acid (M8PFOA)* | *85.9 %* | | *25-150* | | | | | |
| | *Surrogate: M6PFDA* | *74.0 %* | | *25-150* | | | | | |
| | *Surrogate: M7PFUdA* | *55.1 %* | | *25-150* | | | | | |
| | *Surrogate: Perfluoro-n-[1,2-13C2]dodecanoic acid (MPFDoA)* | *57.6 %* | | *25-150* | | | | | |
| | *Surrogate: M2PFTeDA* | *38.9 %* | | *10-150* | | | | | |
| | *Surrogate: Perfluoro-n-[13C4]butanoic acid (MPFBA)* | *87.8 %* | | *25-150* | | | | | |
| | *Surrogate: Perfluoro-1-[13C8]octanesulfonic acid (M8PFOS)* | *70.4 %* | | *25-150* | | | | | |
| | *Surrogate: Perfluoro-n-[13C5]pentanoic acid (M5PFPeA)* | *97.9 %* | | *25-150* | | | | | |
| | *Surrogate: Perfluoro-1-[13C8]octanesulfonamide (M8FOSA)* | *54.0 %* | | *10-150* | | | | | |
| | *Surrogate: d3-N-MeFOSAA* | *55.8 %* | | *25-150* | | | | | |
| | *Surrogate: d5-N-EtFOSAA* | *57.8 %* | | *25-150* | | | | | |
| | *Surrogate: M2-6:2 FTS* | *115 %* | | *25-200* | | | | | |
| | *Surrogate: M2-8:2 FTS* | *115 %* | | *25-200* | | | | | |
| | *Surrogate: M9PFNA* | *80.0 %* | | *25-150* | | | | | |

### Total Solids

**Log-in Notes:**

**Sample Notes:**

Sample Prepared by Method: % Solids Prep

| CAS No. | Parameter | Result | Flag | Maximum Contaminant Level MCL | Units | Reported to LOQ | Reference Method | Date/Time Prep/Anal | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| solids | *** % Solids** | **86.4** | | **100** | % | 0.100 | SM 2540G | 12/10/2022 10:34 | JTG |
| | | | | | Certifications: | | CTDOH-PH-0723 | 12/10/2022 10:37 | |

## Sample Information

**Client Sample ID:** SB-6A (0-1 ft) **York Sample ID:** 22L0229-15

| York Project (SDG) No. | Client Project ID | Matrix | Collection Date/Time | Date Received |
|---|---|---|---|---|
| 22L0229 | GCM95248 | Soil | November 29, 2022 2:15 pm | 12/05/2022 |

## Sample Information

**Client Sample ID:** SB-6A (0-1 ft) **York Sample ID:** 22L0229-15

| York Project (SDG) No. | Client Project ID | Matrix | Collection Date/Time | Date Received |
|---|---|---|---|---|
| 22L0229 | GCM95248 | Soil | November 29, 2022 2:15 pm | 12/05/2022 |

**PFAS by EPA 537 m**

**Log-in Notes:**

**Sample Notes:**

Sample Prepared by Method: SPE PFAS Extraction-Soil-EPA 537m

| CAS No. | Parameter | Result | Flag | Maximum Contaminant Level MCL | Units | Reported to LOQ | Reference Method | Date/Time Prep/Anal | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| 375-73-5 | * Perfluorobutanesulfonic acid (PFBS) | ND | | 0 | ug/kg dry<br>Certifications: | 0.257 | EPA 537m | 12/08/2022 14:46<br>12/12/2022 23:09 | ESJ |
| 307-24-4 | * Perfluorohexanoic acid (PFHxA) | ND | | 0 | ug/kg dry<br>Certifications: | 0.257 | EPA 537m | 12/08/2022 14:46<br>12/12/2022 23:09 | ESJ |
| 375-85-9 | * Perfluoroheptanoic acid (PFHpA) | ND | | 0 | ug/kg dry<br>Certifications: | 0.257 | EPA 537m | 12/08/2022 14:46<br>12/12/2022 23:09 | ESJ |
| 355-46-4 | * Perfluorohexanesulfonic acid (PFHxS) | ND | | 0 | ug/kg dry<br>Certifications: | 0.257 | EPA 537m | 12/08/2022 14:46<br>12/12/2022 23:09 | ESJ |
| 335-67-1 | * Perfluorooctanoic acid (PFOA) | ND | | 0 | ug/kg dry<br>Certifications: | 0.257 | EPA 537m | 12/08/2022 14:46<br>12/12/2022 23:09 | ESJ |
| 1763-23-1 | * Perfluorooctanesulfonic acid (PFOS) | ND | | 0 | ug/kg dry<br>Certifications: | 0.257 | EPA 537m | 12/08/2022 14:46<br>12/12/2022 23:09 | ESJ |
| 375-95-1 | * Perfluorononanoic acid (PFNA) | ND | | 0 | ug/kg dry<br>Certifications: | 0.257 | EPA 537m | 12/08/2022 14:46<br>12/12/2022 23:09 | ESJ |
| 335-76-2 | * Perfluorodecanoic acid (PFDA) | ND | | 0 | ug/kg dry<br>Certifications: | 0.257 | EPA 537m | 12/08/2022 14:46<br>12/12/2022 23:09 | ESJ |
| 2058-94-8 | * Perfluoroundecanoic acid (PFUnA) | ND | | 0 | ug/kg dry<br>Certifications: | 0.257 | EPA 537m | 12/08/2022 14:46<br>12/12/2022 23:09 | ESJ |
| 307-55-1 | * Perfluorododecanoic acid (PFDoA) | ND | | 0 | ug/kg dry<br>Certifications: | 0.257 | EPA 537m | 12/08/2022 14:46<br>12/12/2022 23:09 | ESJ |
| 72629-94-8 | * Perfluorotridecanoic acid (PFTrDA) | ND | PF-CCV-L | 0 | ug/kg dry<br>Certifications: | 0.257 | EPA 537m | 12/08/2022 14:46<br>12/12/2022 23:09 | ESJ |
| 376-06-7 | * Perfluorotetradecanoic acid (PFTA) | ND | PF-CCV-L | 0 | ug/kg dry<br>Certifications: | 0.257 | EPA 537m | 12/08/2022 14:46<br>12/12/2022 23:09 | ESJ |
| 2355-31-9 | * N-MeFOSAA | ND | PF-CCV-L | 0 | ug/kg dry<br>Certifications: | 0.257 | EPA 537m | 12/08/2022 14:46<br>12/12/2022 23:09 | ESJ |
| 2991-50-6 | * N-EtFOSAA | ND | PF-CCV-L | 0 | ug/kg dry<br>Certifications: | 0.257 | EPA 537m | 12/08/2022 14:46<br>12/12/2022 23:09 | ESJ |
| 2706-90-3 | * Perfluoropentanoic acid (PFPeA) | ND | | 0 | ug/kg dry<br>Certifications: | 0.257 | EPA 537m | 12/08/2022 14:46<br>12/12/2022 23:09 | ESJ |
| 754-91-6 | * Perfluoro-1-octanesulfonamide (FOSA) | ND | PF-CCV-L | 0 | ug/kg dry<br>Certifications: | 0.257 | EPA 537m | 12/08/2022 14:46<br>12/12/2022 23:09 | ESJ |
| 375-92-8 | * Perfluoro-1-heptanesulfonic acid (PFHpS) | ND | | 0 | ug/kg dry<br>Certifications: | 0.257 | EPA 537m | 12/08/2022 14:46<br>12/12/2022 23:09 | ESJ |
| 335-77-3 | * Perfluoro-1-decanesulfonic acid (PFDS) | ND | PF-CCV-L | 0 | ug/kg dry<br>Certifications: | 0.257 | EPA 537m | 12/08/2022 14:46<br>12/12/2022 23:09 | ESJ |
| 27619-97-2 | * 1H,1H,2H,2H-Perfluorooctanesulfonic acid (6:2 FTS) | ND | | 0 | ug/kg dry<br>Certifications: | 0.257 | EPA 537m | 12/08/2022 14:46<br>12/12/2022 23:09 | ESJ |
| 39108-34-4 | * 1H,1H,2H,2H-Perfluorodecanesulfonic acid (8:2 FTS) | ND | | 0 | ug/kg dry<br>Certifications: | 0.257 | EPA 537m | 12/08/2022 14:46<br>12/12/2022 23:09 | ESJ |
| 375-22-4 | * Perfluoro-n-butanoic acid (PFBA) | ND | | 0 | ug/kg dry<br>Certifications: | 0.257 | EPA 537m | 12/08/2022 14:46<br>12/12/2022 23:09 | ESJ |

## Sample Information

**Client Sample ID:** SB-6A (0-1 ft) **York Sample ID:** 22L0229-15

| York Project (SDG) No. | Client Project ID | Matrix | Collection Date/Time | Date Received |
|---|---|---|---|---|
| 22L0229 | GCM95248 | Soil | November 29, 2022 2:15 pm | 12/05/2022 |

### PFAS by EPA 537 m

**Log-in Notes:**

**Sample Notes:**

Sample Prepared by Method: SPE PFAS Extraction-Soil-EPA 537m

| CAS No. | Parameter | Result | Flag | Maximum Contaminant Level MCL | Units | Reported to LOQ | Reference Method | Date/Time Prep/Anal | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| | **Surrogate Recoveries** | **Result** | | **Acceptance Range** | | | | | |
| | *Surrogate: M3PFBS* | *68.8 %* | | *25-150* | | | | | |
| | *Surrogate: M5PFHxA* | *77.3 %* | | *25-150* | | | | | |
| | *Surrogate: M4PFHpA* | *79.4 %* | | *25-150* | | | | | |
| | *Surrogate: M3PFHxS* | *83.9 %* | | *25-150* | | | | | |
| | *Surrogate: Perfluoro-n-[13C8]octanoic acid (M8PFOA)* | *76.0 %* | | *25-150* | | | | | |
| | *Surrogate: M6PFDA* | *54.6 %* | | *25-150* | | | | | |
| | *Surrogate: M7PFUdA* | *37.5 %* | | *25-150* | | | | | |
| | *Surrogate: Perfluoro-n-[1,2-13C2]dodecanoic acid (MPFDoA)* | *39.9 %* | | *25-150* | | | | | |
| | *Surrogate: M2PFTeDA* | *27.3 %* | | *10-150* | | | | | |
| | *Surrogate: Perfluoro-n-[13C4]butanoic acid (MPFBA)* | *76.8 %* | | *25-150* | | | | | |
| | *Surrogate: Perfluoro-1-[13C8]octanesulfonic acid (M8PFOS)* | *59.3 %* | | *25-150* | | | | | |
| | *Surrogate: Perfluoro-n-[13C5]pentanoic acid (M5PFPeA)* | *80.0 %* | | *25-150* | | | | | |
| | *Surrogate: Perfluoro-1-[13C8]octanesulfonamide (M8FOSA)* | *34.5 %* | | *10-150* | | | | | |
| | *Surrogate: d3-N-MeFOSAA* | *38.5 %* | | *25-150* | | | | | |
| | *Surrogate: d5-N-EtFOSAA* | *39.2 %* | | *25-150* | | | | | |
| | *Surrogate: M2-6:2 FTS* | *81.5 %* | | *25-200* | | | | | |
| | *Surrogate: M2-8:2 FTS* | *70.7 %* | | *25-200* | | | | | |
| | *Surrogate: M9PFNA* | *61.8 %* | | *25-150* | | | | | |

### Total Solids

**Log-in Notes:**

**Sample Notes:**

Sample Prepared by Method: % Solids Prep

| CAS No. | Parameter | Result | Flag | Maximum Contaminant Level MCL | Units | Reported to LOQ | Reference Method | Date/Time Prep/Anal | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| solids | *** % Solids** | **88.5** | | **100** | % | 0.100 | SM 2540G | 12/10/2022 10:34 | JTG |
| | | | | | Certifications: | | CTDOH-PH-0723 | 12/10/2022 10:37 | |

## Sample Information

**Client Sample ID:** SB-DUP2 **York Sample ID:** 22L0229-16

| York Project (SDG) No. | Client Project ID | Matrix | Collection Date/Time | Date Received |
|---|---|---|---|---|
| 22L0229 | GCM95248 | Soil | November 29, 2022 2:30 pm | 12/05/2022 |

## Sample Information

**Client Sample ID:** SB-DUP2 **York Sample ID:** 22L0229-16

| York Project (SDG) No. | Client Project ID | Matrix | Collection Date/Time | Date Received |
|---|---|---|---|---|
| 22L0229 | GCM95248 | Soil | November 29, 2022 2:30 pm | 12/05/2022 |

**PFAS by EPA 537 m**

**Log-in Notes:**

**Sample Notes:**

Sample Prepared by Method: SPE PFAS Extraction-Soil-EPA 537m

| CAS No. | Parameter | Result | Flag | Maximum Contaminant Level MCL | Units | Reported to LOQ | Reference Method | Date/Time Prep/Anal | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| 375-73-5 | * Perfluorobutanesulfonic acid (PFBS) | ND | | 0 | ug/kg dry<br>Certifications: | 0.288 | EPA 537m | 12/08/2022 14:46<br>12/12/2022 23:21 | ESJ |
| 307-24-4 | * Perfluorohexanoic acid (PFHxA) | ND | | 0 | ug/kg dry<br>Certifications: | 0.288 | EPA 537m | 12/08/2022 14:46<br>12/12/2022 23:21 | ESJ |
| 375-85-9 | * Perfluoroheptanoic acid (PFHpA) | ND | | 0 | ug/kg dry<br>Certifications: | 0.288 | EPA 537m | 12/08/2022 14:46<br>12/12/2022 23:21 | ESJ |
| 355-46-4 | * Perfluorohexanesulfonic acid (PFHxS) | ND | | 0 | ug/kg dry<br>Certifications: | 0.288 | EPA 537m | 12/08/2022 14:46<br>12/12/2022 23:21 | ESJ |
| 335-67-1 | * Perfluorooctanoic acid (PFOA) | ND | | 0 | ug/kg dry<br>Certifications: | 0.288 | EPA 537m | 12/08/2022 14:46<br>12/12/2022 23:21 | ESJ |
| 1763-23-1 | * Perfluorooctanesulfonic acid (PFOS) | ND | | 0 | ug/kg dry<br>Certifications: | 0.288 | EPA 537m | 12/08/2022 14:46<br>12/12/2022 23:21 | ESJ |
| 375-95-1 | * Perfluorononanoic acid (PFNA) | ND | | 0 | ug/kg dry<br>Certifications: | 0.288 | EPA 537m | 12/08/2022 14:46<br>12/12/2022 23:21 | ESJ |
| 335-76-2 | * Perfluorodecanoic acid (PFDA) | ND | | 0 | ug/kg dry<br>Certifications: | 0.288 | EPA 537m | 12/08/2022 14:46<br>12/12/2022 23:21 | ESJ |
| 2058-94-8 | * Perfluoroundecanoic acid (PFUnA) | ND | | 0 | ug/kg dry<br>Certifications: | 0.288 | EPA 537m | 12/08/2022 14:46<br>12/12/2022 23:21 | ESJ |
| 307-55-1 | * Perfluorododecanoic acid (PFDoA) | ND | | 0 | ug/kg dry<br>Certifications: | 0.288 | EPA 537m | 12/08/2022 14:46<br>12/12/2022 23:21 | ESJ |
| 72629-94-8 | * Perfluorotridecanoic acid (PFTrDA) | ND | PF-CCV-L | 0 | ug/kg dry<br>Certifications: | 0.288 | EPA 537m | 12/08/2022 14:46<br>12/12/2022 23:21 | ESJ |
| 376-06-7 | * Perfluorotetradecanoic acid (PFTA) | ND | PF-CCV-L | 0 | ug/kg dry<br>Certifications: | 0.288 | EPA 537m | 12/08/2022 14:46<br>12/12/2022 23:21 | ESJ |
| 2355-31-9 | * N-MeFOSAA | ND | PF-CCV-L | 0 | ug/kg dry<br>Certifications: | 0.288 | EPA 537m | 12/08/2022 14:46<br>12/12/2022 23:21 | ESJ |
| 2991-50-6 | * N-EtFOSAA | ND | PF-CCV-L | 0 | ug/kg dry<br>Certifications: | 0.288 | EPA 537m | 12/08/2022 14:46<br>12/12/2022 23:21 | ESJ |
| 2706-90-3 | * Perfluoropentanoic acid (PFPeA) | ND | | 0 | ug/kg dry<br>Certifications: | 0.288 | EPA 537m | 12/08/2022 14:46<br>12/12/2022 23:21 | ESJ |
| 754-91-6 | * Perfluoro-1-octanesulfonamide (FOSA) | ND | PF-CCV-L | 0 | ug/kg dry<br>Certifications: | 0.288 | EPA 537m | 12/08/2022 14:46<br>12/12/2022 23:21 | ESJ |
| 375-92-8 | * Perfluoro-1-heptanesulfonic acid (PFHpS) | ND | | 0 | ug/kg dry<br>Certifications: | 0.288 | EPA 537m | 12/08/2022 14:46<br>12/12/2022 23:21 | ESJ |
| 335-77-3 | * Perfluoro-1-decanesulfonic acid (PFDS) | ND | PF-CCV-L | 0 | ug/kg dry<br>Certifications: | 0.288 | EPA 537m | 12/08/2022 14:46<br>12/12/2022 23:21 | ESJ |
| 27619-97-2 | * 1H,1H,2H,2H-Perfluorooctanesulfonic acid (6:2 FTS) | ND | | 0 | ug/kg dry<br>Certifications: | 0.288 | EPA 537m | 12/08/2022 14:46<br>12/12/2022 23:21 | ESJ |
| 39108-34-4 | * 1H,1H,2H,2H-Perfluorodecanesulfonic acid (8:2 FTS) | ND | | 0 | ug/kg dry<br>Certifications: | 0.288 | EPA 537m | 12/08/2022 14:46<br>12/12/2022 23:21 | ESJ |
| 375-22-4 | * Perfluoro-n-butanoic acid (PFBA) | ND | | 0 | ug/kg dry<br>Certifications: | 0.288 | EPA 537m | 12/08/2022 14:46<br>12/12/2022 23:21 | ESJ |

## Sample Information

**Client Sample ID:** SB-DUP2 **York Sample ID:** 22L0229-16

| York Project (SDG) No. | Client Project ID | Matrix | Collection Date/Time | Date Received |
|---|---|---|---|---|
| 22L0229 | GCM95248 | Soil | November 29, 2022 2:30 pm | 12/05/2022 |

### PFAS by EPA 537 m

**Log-in Notes:**

**Sample Notes:**

Sample Prepared by Method: SPE PFAS Extraction-Soil-EPA 537m

| CAS No. | Parameter | Result | Flag | Maximum Contaminant Level MCL | Units | Reported to LOQ | Reference Method | Date/Time Prep/Anal | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| | **Surrogate Recoveries** | **Result** | | **Acceptance Range** | | | | | |
| | *Surrogate: M3PFBS* | *67.8 %* | | *25-150* | | | | | |
| | *Surrogate: M5PFHxA* | *77.4 %* | | *25-150* | | | | | |
| | *Surrogate: M4PFHpA* | *81.2 %* | | *25-150* | | | | | |
| | *Surrogate: M3PFHxS* | *77.2 %* | | *25-150* | | | | | |
| | *Surrogate: Perfluoro-n-[13C8]octanoic acid (M8PFOA)* | *81.1 %* | | *25-150* | | | | | |
| | *Surrogate: M6PFDA* | *67.7 %* | | *25-150* | | | | | |
| | *Surrogate: M7PFUdA* | *49.8 %* | | *25-150* | | | | | |
| | *Surrogate: Perfluoro-n-[1,2-13C2]dodecanoic acid (MPFDoA)* | *42.0 %* | | *25-150* | | | | | |
| | *Surrogate: M2PFTeDA* | *32.0 %* | | *10-150* | | | | | |
| | *Surrogate: Perfluoro-n-[13C4]butanoic acid (MPFBA)* | *79.1 %* | | *25-150* | | | | | |
| | *Surrogate: Perfluoro-1-[13C8]octanesulfonic acid (M8PFOS)* | *59.1 %* | | *25-150* | | | | | |
| | *Surrogate: Perfluoro-n-[13C5]pentanoic acid (M5PFPeA)* | *82.7 %* | | *25-150* | | | | | |
| | *Surrogate: Perfluoro-1-[13C8]octanesulfonamide (M8FOSA)* | *44.8 %* | | *10-150* | | | | | |
| | *Surrogate: d3-N-MeFOSAA* | *47.4 %* | | *25-150* | | | | | |
| | *Surrogate: d5-N-EtFOSAA* | *50.5 %* | | *25-150* | | | | | |
| | *Surrogate: M2-6:2 FTS* | *90.0 %* | | *25-200* | | | | | |
| | *Surrogate: M2-8:2 FTS* | *79.0 %* | | *25-200* | | | | | |
| | *Surrogate: M9PFNA* | *71.6 %* | | *25-150* | | | | | |

### Total Solids

**Log-in Notes:**

**Sample Notes:**

Sample Prepared by Method: % Solids Prep

| CAS No. | Parameter | Result | Flag | Maximum Contaminant Level MCL | Units | Reported to LOQ | Reference Method | Date/Time Prep/Anal | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| solids | *** % Solids** | **81.2** | | **100** | % | 0.100 | SM 2540G | 12/10/2022 10:34 | JTG |
| | | | | | Certifications: | | CTDOH-PH-0723 | 12/10/2022 10:37 | |

## Sample Information

**Client Sample ID:** SB-5A1 (0-2 in) **York Sample ID:** 22L0229-17

| York Project (SDG) No. | Client Project ID | Matrix | Collection Date/Time | Date Received |
|---|---|---|---|---|
| 22L0229 | GCM95248 | Soil | November 29, 2022 1:30 pm | 12/05/2022 |

## Sample Information

**Client Sample ID:** SB-5A1 (0-2 in) **York Sample ID:** 22L0229-17

| York Project (SDG) No. | Client Project ID | Matrix | Collection Date/Time | Date Received |
|---|---|---|---|---|
| 22L0229 | GCM95248 | Soil | November 29, 2022 1:30 pm | 12/05/2022 |

**PFAS by EPA 537 m**

**Log-in Notes:**

**Sample Notes:**

Sample Prepared by Method: SPE PFAS Extraction-Soil-EPA 537m

| CAS No. | Parameter | Result | Flag | Maximum Contaminant Level MCL | Units | Reported to LOQ | Reference Method | Date/Time Prep/Anal | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| 375-73-5 | * Perfluorobutanesulfonic acid (PFBS) | ND | | 0 | ug/kg dry<br>Certifications: | 0.268 | EPA 537m | 12/08/2022 14:46<br>12/12/2022 23:34 | ESJ |
| 307-24-4 | * Perfluorohexanoic acid (PFHxA) | ND | | 0 | ug/kg dry<br>Certifications: | 0.268 | EPA 537m | 12/08/2022 14:46<br>12/12/2022 23:34 | ESJ |
| 375-85-9 | * Perfluoroheptanoic acid (PFHpA) | ND | | 0 | ug/kg dry<br>Certifications: | 0.268 | EPA 537m | 12/08/2022 14:46<br>12/12/2022 23:34 | ESJ |
| 355-46-4 | * Perfluorohexanesulfonic acid (PFHxS) | ND | | 0 | ug/kg dry<br>Certifications: | 0.268 | EPA 537m | 12/08/2022 14:46<br>12/12/2022 23:34 | ESJ |
| 335-67-1 | * Perfluorooctanoic acid (PFOA) | ND | | 0 | ug/kg dry<br>Certifications: | 0.268 | EPA 537m | 12/08/2022 14:46<br>12/12/2022 23:34 | ESJ |
| 1763-23-1 | * Perfluorooctanesulfonic acid (PFOS) | ND | | 0 | ug/kg dry<br>Certifications: | 0.268 | EPA 537m | 12/08/2022 14:46<br>12/12/2022 23:34 | ESJ |
| 375-95-1 | * Perfluorononanoic acid (PFNA) | ND | | 0 | ug/kg dry<br>Certifications: | 0.268 | EPA 537m | 12/08/2022 14:46<br>12/12/2022 23:34 | ESJ |
| 335-76-2 | * Perfluorodecanoic acid (PFDA) | ND | | 0 | ug/kg dry<br>Certifications: | 0.268 | EPA 537m | 12/08/2022 14:46<br>12/12/2022 23:34 | ESJ |
| 2058-94-8 | * Perfluoroundecanoic acid (PFUnA) | ND | | 0 | ug/kg dry<br>Certifications: | 0.268 | EPA 537m | 12/08/2022 14:46<br>12/12/2022 23:34 | ESJ |
| 307-55-1 | * Perfluorododecanoic acid (PFDoA) | ND | | 0 | ug/kg dry<br>Certifications: | 0.268 | EPA 537m | 12/08/2022 14:46<br>12/12/2022 23:34 | ESJ |
| 72629-94-8 | * Perfluorotridecanoic acid (PFTrDA) | ND | PF-CCV-L | 0 | ug/kg dry<br>Certifications: | 0.268 | EPA 537m | 12/08/2022 14:46<br>12/12/2022 23:34 | ESJ |
| 376-06-7 | * Perfluorotetradecanoic acid (PFTA) | ND | PF-CCV-L | 0 | ug/kg dry<br>Certifications: | 0.268 | EPA 537m | 12/08/2022 14:46<br>12/12/2022 23:34 | ESJ |
| 2355-31-9 | * N-MeFOSAA | ND | PF-CCV-L | 0 | ug/kg dry<br>Certifications: | 0.268 | EPA 537m | 12/08/2022 14:46<br>12/12/2022 23:34 | ESJ |
| 2991-50-6 | * N-EtFOSAA | ND | PF-CCV-L | 0 | ug/kg dry<br>Certifications: | 0.268 | EPA 537m | 12/08/2022 14:46<br>12/12/2022 23:34 | ESJ |
| 2706-90-3 | * Perfluoropentanoic acid (PFPeA) | ND | | 0 | ug/kg dry<br>Certifications: | 0.268 | EPA 537m | 12/08/2022 14:46<br>12/12/2022 23:34 | ESJ |
| 754-91-6 | * Perfluoro-1-octanesulfonamide (FOSA) | ND | PF-CCV-L | 0 | ug/kg dry<br>Certifications: | 0.268 | EPA 537m | 12/08/2022 14:46<br>12/12/2022 23:34 | ESJ |
| 375-92-8 | * Perfluoro-1-heptanesulfonic acid (PFHpS) | ND | | 0 | ug/kg dry<br>Certifications: | 0.268 | EPA 537m | 12/08/2022 14:46<br>12/12/2022 23:34 | ESJ |
| 335-77-3 | * Perfluoro-1-decanesulfonic acid (PFDS) | ND | PF-CCV-L | 0 | ug/kg dry<br>Certifications: | 0.268 | EPA 537m | 12/08/2022 14:46<br>12/12/2022 23:34 | ESJ |
| 27619-97-2 | * 1H,1H,2H,2H-Perfluorooctanesulfonic acid (6:2 FTS) | ND | | 0 | ug/kg dry<br>Certifications: | 0.268 | EPA 537m | 12/08/2022 14:46<br>12/12/2022 23:34 | ESJ |
| 39108-34-4 | * 1H,1H,2H,2H-Perfluorodecanesulfonic acid (8:2 FTS) | ND | | 0 | ug/kg dry<br>Certifications: | 0.268 | EPA 537m | 12/08/2022 14:46<br>12/12/2022 23:34 | ESJ |
| 375-22-4 | * Perfluoro-n-butanoic acid (PFBA) | ND | | 0 | ug/kg dry<br>Certifications: | 0.268 | EPA 537m | 12/08/2022 14:46<br>12/12/2022 23:34 | ESJ |

## Sample Information

**Client Sample ID:** SB-5A1 (0-2 in) **York Sample ID:** 22L0229-17

| York Project (SDG) No. | Client Project ID | Matrix | Collection Date/Time | Date Received |
|---|---|---|---|---|
| 22L0229 | GCM95248 | Soil | November 29, 2022 1:30 pm | 12/05/2022 |

### PFAS by EPA 537 m

**Log-in Notes:**

**Sample Notes:**

Sample Prepared by Method: SPE PFAS Extraction-Soil-EPA 537m

| CAS No. | Parameter | Result | Flag | Maximum Contaminant Level MCL | Units | Reported to LOQ | Reference Method | Date/Time Prep/Anal | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| | **Surrogate Recoveries** | **Result** | | **Acceptance Range** | | | | | |
| | *Surrogate: M3PFBS* | *68.8 %* | | *25-150* | | | | | |
| | *Surrogate: M5PFHxA* | *77.9 %* | | *25-150* | | | | | |
| | *Surrogate: M4PFHpA* | *78.5 %* | | *25-150* | | | | | |
| | *Surrogate: M3PFHxS* | *75.7 %* | | *25-150* | | | | | |
| | *Surrogate: Perfluoro-n-[13C8]octanoic acid (M8PFOA)* | *74.4 %* | | *25-150* | | | | | |
| | *Surrogate: M6PFDA* | *54.1 %* | | *25-150* | | | | | |
| | *Surrogate: M7PFUdA* | *42.3 %* | | *25-150* | | | | | |
| | *Surrogate: Perfluoro-n-[1,2-13C2]dodecanoic acid (MPFDoA)* | *44.9 %* | | *25-150* | | | | | |
| | *Surrogate: M2PFTeDA* | *35.5 %* | | *10-150* | | | | | |
| | *Surrogate: Perfluoro-n-[13C4]butanoic acid (MPFBA)* | *77.2 %* | | *25-150* | | | | | |
| | *Surrogate: Perfluoro-1-[13C8]octanesulfonic acid (M8PFOS)* | *55.5 %* | | *25-150* | | | | | |
| | *Surrogate: Perfluoro-n-[13C5]pentanoic acid (M5PFPeA)* | *81.4 %* | | *25-150* | | | | | |
| | *Surrogate: Perfluoro-1-[13C8]octanesulfonamide (M8FOSA)* | *36.9 %* | | *10-150* | | | | | |
| | *Surrogate: d3-N-MeFOSAA* | *41.2 %* | | *25-150* | | | | | |
| | *Surrogate: d5-N-EtFOSAA* | *46.5 %* | | *25-150* | | | | | |
| | *Surrogate: M2-6:2 FTS* | *79.1 %* | | *25-200* | | | | | |
| | *Surrogate: M2-8:2 FTS* | *85.4 %* | | *25-200* | | | | | |
| | *Surrogate: M9PFNA* | *61.9 %* | | *25-150* | | | | | |

### Total Solids

**Log-in Notes:**

**Sample Notes:**

Sample Prepared by Method: % Solids Prep

| CAS No. | Parameter | Result | Flag | Maximum Contaminant Level MCL | Units | Reported to LOQ | Reference Method | Date/Time Prep/Anal | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| solids | *** % Solids** | **90.4** | | **100** | % | 0.100 | SM 2540G | 12/10/2022 10:34 | JTG |
| | | | | | Certifications: | | CTDOH-PH-0723 | 12/10/2022 10:37 | |

## Sample Information

**Client Sample ID:** SB-5A2 (2-12 in) **York Sample ID:** 22L0229-18

| York Project (SDG) No. | Client Project ID | Matrix | Collection Date/Time | Date Received |
|---|---|---|---|---|
| 22L0229 | GCM95248 | Soil | November 29, 2022 1:30 pm | 12/05/2022 |

## Sample Information

**Client Sample ID:** SB-5A2 (2-12 in) **York Sample ID:** 22L0229-18

| York Project (SDG) No. | Client Project ID | Matrix | Collection Date/Time | Date Received |
|---|---|---|---|---|
| 22L0229 | GCM95248 | Soil | November 29, 2022 1:30 pm | 12/05/2022 |

**PFAS by EPA 537 m**

**Log-in Notes:**

**Sample Notes:**

Sample Prepared by Method: SPE PFAS Extraction-Soil-EPA 537m

| CAS No. | Parameter | Result | Flag | Maximum Contaminant Level MCL | Units | Reported to LOQ | Reference Method | Date/Time Prep/Anal | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| 375-73-5 | * Perfluorobutanesulfonic acid (PFBS) | ND | | 0 | ug/kg dry<br>Certifications: | 0.275 | EPA 537m | 12/08/2022 14:46<br>12/12/2022 23:47 | ESJ |
| 307-24-4 | * Perfluorohexanoic acid (PFHxA) | ND | | 0 | ug/kg dry<br>Certifications: | 0.275 | EPA 537m | 12/08/2022 14:46<br>12/12/2022 23:47 | ESJ |
| 375-85-9 | * Perfluoroheptanoic acid (PFHpA) | ND | | 0 | ug/kg dry<br>Certifications: | 0.275 | EPA 537m | 12/08/2022 14:46<br>12/12/2022 23:47 | ESJ |
| 355-46-4 | * Perfluorohexanesulfonic acid (PFHxS) | ND | | 0 | ug/kg dry<br>Certifications: | 0.275 | EPA 537m | 12/08/2022 14:46<br>12/12/2022 23:47 | ESJ |
| 335-67-1 | * Perfluorooctanoic acid (PFOA) | ND | | 0 | ug/kg dry<br>Certifications: | 0.275 | EPA 537m | 12/08/2022 14:46<br>12/12/2022 23:47 | ESJ |
| 1763-23-1 | * Perfluorooctanesulfonic acid (PFOS) | ND | | 0 | ug/kg dry<br>Certifications: | 0.275 | EPA 537m | 12/08/2022 14:46<br>12/12/2022 23:47 | ESJ |
| 375-95-1 | * Perfluorononanoic acid (PFNA) | ND | | 0 | ug/kg dry<br>Certifications: | 0.275 | EPA 537m | 12/08/2022 14:46<br>12/12/2022 23:47 | ESJ |
| 335-76-2 | * Perfluorodecanoic acid (PFDA) | ND | | 0 | ug/kg dry<br>Certifications: | 0.275 | EPA 537m | 12/08/2022 14:46<br>12/12/2022 23:47 | ESJ |
| 2058-94-8 | * Perfluoroundecanoic acid (PFUnA) | ND | | 0 | ug/kg dry<br>Certifications: | 0.275 | EPA 537m | 12/08/2022 14:46<br>12/12/2022 23:47 | ESJ |
| 307-55-1 | * Perfluorododecanoic acid (PFDoA) | ND | | 0 | ug/kg dry<br>Certifications: | 0.275 | EPA 537m | 12/08/2022 14:46<br>12/12/2022 23:47 | ESJ |
| 72629-94-8 | * Perfluorotridecanoic acid (PFTrDA) | ND | PF-CCV-L | 0 | ug/kg dry<br>Certifications: | 0.275 | EPA 537m | 12/08/2022 14:46<br>12/12/2022 23:47 | ESJ |
| 376-06-7 | * Perfluorotetradecanoic acid (PFTA) | ND | PF-CCV-L | 0 | ug/kg dry<br>Certifications: | 0.275 | EPA 537m | 12/08/2022 14:46<br>12/12/2022 23:47 | ESJ |
| 2355-31-9 | * N-MeFOSAA | ND | PF-CCV-L | 0 | ug/kg dry<br>Certifications: | 0.275 | EPA 537m | 12/08/2022 14:46<br>12/12/2022 23:47 | ESJ |
| 2991-50-6 | * N-EtFOSAA | ND | PF-CCV-L | 0 | ug/kg dry<br>Certifications: | 0.275 | EPA 537m | 12/08/2022 14:46<br>12/12/2022 23:47 | ESJ |
| 2706-90-3 | * Perfluoropentanoic acid (PFPeA) | ND | | 0 | ug/kg dry<br>Certifications: | 0.275 | EPA 537m | 12/08/2022 14:46<br>12/12/2022 23:47 | ESJ |
| 754-91-6 | * Perfluoro-1-octanesulfonamide (FOSA) | ND | PF-CCV-L | 0 | ug/kg dry<br>Certifications: | 0.275 | EPA 537m | 12/08/2022 14:46<br>12/12/2022 23:47 | ESJ |
| 375-92-8 | * Perfluoro-1-heptanesulfonic acid (PFHpS) | ND | | 0 | ug/kg dry<br>Certifications: | 0.275 | EPA 537m | 12/08/2022 14:46<br>12/12/2022 23:47 | ESJ |
| 335-77-3 | * Perfluoro-1-decanesulfonic acid (PFDS) | ND | PF-CCV-L | 0 | ug/kg dry<br>Certifications: | 0.275 | EPA 537m | 12/08/2022 14:46<br>12/12/2022 23:47 | ESJ |
| 27619-97-2 | * 1H,1H,2H,2H-Perfluorooctanesulfonic acid (6:2 FTS) | ND | | 0 | ug/kg dry<br>Certifications: | 0.275 | EPA 537m | 12/08/2022 14:46<br>12/12/2022 23:47 | ESJ |
| 39108-34-4 | * 1H,1H,2H,2H-Perfluorodecanesulfonic acid (8:2 FTS) | ND | | 0 | ug/kg dry<br>Certifications: | 0.275 | EPA 537m | 12/08/2022 14:46<br>12/12/2022 23:47 | ESJ |
| 375-22-4 | * Perfluoro-n-butanoic acid (PFBA) | ND | | 0 | ug/kg dry<br>Certifications: | 0.275 | EPA 537m | 12/08/2022 14:46<br>12/12/2022 23:47 | ESJ |

## Sample Information

**Client Sample ID:** SB-5A2 (2-12 in) **York Sample ID:** 22L0229-18

| York Project (SDG) No. | Client Project ID | Matrix | Collection Date/Time | Date Received |
|---|---|---|---|---|
| 22L0229 | GCM95248 | Soil | November 29, 2022 1:30 pm | 12/05/2022 |

### PFAS by EPA 537 m

**Log-in Notes:**

**Sample Notes:**

Sample Prepared by Method: SPE PFAS Extraction-Soil-EPA 537m

| CAS No. | Parameter | Result | Flag | Maximum Contaminant Level MCL | Units | Reported to LOQ | Reference Method | Date/Time Prep/Anal | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| | **Surrogate Recoveries** | **Result** | | **Acceptance Range** | | | | | |
| | *Surrogate: M3PFBS* | *82.3 %* | | *25-150* | | | | | |
| | *Surrogate: M5PFHxA* | *87.4 %* | | *25-150* | | | | | |
| | *Surrogate: M4PFHpA* | *83.2 %* | | *25-150* | | | | | |
| | *Surrogate: M3PFHxS* | *98.4 %* | | *25-150* | | | | | |
| | *Surrogate: Perfluoro-n-[13C8]octanoic acid (M8PFOA)* | *84.9 %* | | *25-150* | | | | | |
| | *Surrogate: M6PFDA* | *59.0 %* | | *25-150* | | | | | |
| | *Surrogate: M7PFUdA* | *42.9 %* | | *25-150* | | | | | |
| | *Surrogate: Perfluoro-n-[1,2-13C2]dodecanoic acid (MPFDoA)* | *40.9 %* | | *25-150* | | | | | |
| | *Surrogate: M2PFTeDA* | *22.9 %* | | *10-150* | | | | | |
| | *Surrogate: Perfluoro-n-[13C4]butanoic acid (MPFBA)* | *87.7 %* | | *25-150* | | | | | |
| | *Surrogate: Perfluoro-1-[13C8]octanesulfonic acid (M8PFOS)* | *62.3 %* | | *25-150* | | | | | |
| | *Surrogate: Perfluoro-n-[13C5]pentanoic acid (M5PFPeA)* | *94.5 %* | | *25-150* | | | | | |
| | *Surrogate: Perfluoro-1-[13C8]octanesulfonamide (M8FOSA)* | *40.1 %* | | *10-150* | | | | | |
| | *Surrogate: d3-N-MeFOSAA* | *43.4 %* | | *25-150* | | | | | |
| | *Surrogate: d5-N-EtFOSAA* | *44.1 %* | | *25-150* | | | | | |
| | *Surrogate: M2-6:2 FTS* | *98.6 %* | | *25-200* | | | | | |
| | *Surrogate: M2-8:2 FTS* | *75.0 %* | | *25-200* | | | | | |
| | *Surrogate: M9PFNA* | *73.3 %* | | *25-150* | | | | | |

### Total Solids

**Log-in Notes:**

**Sample Notes:**

Sample Prepared by Method: % Solids Prep

| CAS No. | Parameter | Result | Flag | Maximum Contaminant Level MCL | Units | Reported to LOQ | Reference Method | Date/Time Prep/Anal | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| solids | *** % Solids** | **89.4** | | **100** | % | 0.100 | SM 2540G | 12/10/2022 10:34 | JTG |
| | | | | | Certifications: | | CTDOH-PH-0723 | 12/10/2022 10:37 | |

## Sample Information

**Client Sample ID:** SB-5C (6-8 ft) **York Sample ID:** 22L0229-19

| York Project (SDG) No. | Client Project ID | Matrix | Collection Date/Time | Date Received |
|---|---|---|---|---|
| 22L0229 | GCM95248 | Soil | November 29, 2022 1:20 pm | 12/05/2022 |

## Sample Information

**Client Sample ID:** SB-5C (6-8 ft) **York Sample ID:** 22L0229-19

| York Project (SDG) No. | Client Project ID | Matrix | Collection Date/Time | Date Received |
|---|---|---|---|---|
| 22L0229 | GCM95248 | Soil | November 29, 2022 1:20 pm | 12/05/2022 |

**PFAS by EPA 537 m**

**Log-in Notes:**

**Sample Notes:**

Sample Prepared by Method: SPE PFAS Extraction-Soil-EPA 537m

| CAS No. | Parameter | Result | Flag | Maximum Contaminant Level MCL | Units | Reported to LOQ | Reference Method | Date/Time Prep/Anal | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| 375-73-5 | * Perfluorobutanesulfonic acid (PFBS) | ND | | 0 | ug/kg dry<br>Certifications: | 0.264 | EPA 537m | 12/08/2022 14:46<br>12/13/2022 00:00 | ESJ |
| 307-24-4 | * Perfluorohexanoic acid (PFHxA) | ND | | 0 | ug/kg dry<br>Certifications: | 0.264 | EPA 537m | 12/08/2022 14:46<br>12/13/2022 00:00 | ESJ |
| 375-85-9 | * Perfluoroheptanoic acid (PFHpA) | ND | | 0 | ug/kg dry<br>Certifications: | 0.264 | EPA 537m | 12/08/2022 14:46<br>12/13/2022 00:00 | ESJ |
| 355-46-4 | * Perfluorohexanesulfonic acid (PFHxS) | ND | | 0 | ug/kg dry<br>Certifications: | 0.264 | EPA 537m | 12/08/2022 14:46<br>12/13/2022 00:00 | ESJ |
| 335-67-1 | * Perfluorooctanoic acid (PFOA) | ND | | 0 | ug/kg dry<br>Certifications: | 0.264 | EPA 537m | 12/08/2022 14:46<br>12/13/2022 00:00 | ESJ |
| 1763-23-1 | * Perfluorooctanesulfonic acid (PFOS) | ND | | 0 | ug/kg dry<br>Certifications: | 0.264 | EPA 537m | 12/08/2022 14:46<br>12/13/2022 00:00 | ESJ |
| 375-95-1 | * Perfluorononanoic acid (PFNA) | ND | | 0 | ug/kg dry<br>Certifications: | 0.264 | EPA 537m | 12/08/2022 14:46<br>12/13/2022 00:00 | ESJ |
| 335-76-2 | * Perfluorodecanoic acid (PFDA) | ND | | 0 | ug/kg dry<br>Certifications: | 0.264 | EPA 537m | 12/08/2022 14:46<br>12/13/2022 00:00 | ESJ |
| 2058-94-8 | * Perfluoroundecanoic acid (PFUnA) | ND | | 0 | ug/kg dry<br>Certifications: | 0.264 | EPA 537m | 12/08/2022 14:46<br>12/13/2022 00:00 | ESJ |
| 307-55-1 | * Perfluorododecanoic acid (PFDoA) | ND | | 0 | ug/kg dry<br>Certifications: | 0.264 | EPA 537m | 12/08/2022 14:46<br>12/13/2022 00:00 | ESJ |
| 72629-94-8 | * Perfluorotridecanoic acid (PFTrDA) | ND | PF-CCV-L | 0 | ug/kg dry<br>Certifications: | 0.264 | EPA 537m | 12/08/2022 14:46<br>12/13/2022 00:00 | ESJ |
| 376-06-7 | * Perfluorotetradecanoic acid (PFTA) | ND | PF-CCV-L | 0 | ug/kg dry<br>Certifications: | 0.264 | EPA 537m | 12/08/2022 14:46<br>12/13/2022 00:00 | ESJ |
| 2355-31-9 | * N-MeFOSAA | ND | PF-CCV-L | 0 | ug/kg dry<br>Certifications: | 0.264 | EPA 537m | 12/08/2022 14:46<br>12/13/2022 00:00 | ESJ |
| 2991-50-6 | * N-EtFOSAA | ND | PF-CCV-L | 0 | ug/kg dry<br>Certifications: | 0.264 | EPA 537m | 12/08/2022 14:46<br>12/13/2022 00:00 | ESJ |
| 2706-90-3 | * Perfluoropentanoic acid (PFPeA) | ND | | 0 | ug/kg dry<br>Certifications: | 0.264 | EPA 537m | 12/08/2022 14:46<br>12/13/2022 00:00 | ESJ |
| 754-91-6 | * Perfluoro-1-octanesulfonamide (FOSA) | ND | PF-CCV-L | 0 | ug/kg dry<br>Certifications: | 0.264 | EPA 537m | 12/08/2022 14:46<br>12/13/2022 00:00 | ESJ |
| 375-92-8 | * Perfluoro-1-heptanesulfonic acid (PFHpS) | ND | | 0 | ug/kg dry<br>Certifications: | 0.264 | EPA 537m | 12/08/2022 14:46<br>12/13/2022 00:00 | ESJ |
| 335-77-3 | * Perfluoro-1-decanesulfonic acid (PFDS) | ND | PF-CCV-L | 0 | ug/kg dry<br>Certifications: | 0.264 | EPA 537m | 12/08/2022 14:46<br>12/13/2022 00:00 | ESJ |
| 27619-97-2 | * 1H,1H,2H,2H-Perfluorooctanesulfonic acid (6:2 FTS) | ND | | 0 | ug/kg dry<br>Certifications: | 0.264 | EPA 537m | 12/08/2022 14:46<br>12/13/2022 00:00 | ESJ |
| 39108-34-4 | * 1H,1H,2H,2H-Perfluorodecanesulfonic acid (8:2 FTS) | ND | | 0 | ug/kg dry<br>Certifications: | 0.264 | EPA 537m | 12/08/2022 14:46<br>12/13/2022 00:00 | ESJ |
| 375-22-4 | * Perfluoro-n-butanoic acid (PFBA) | ND | | 0 | ug/kg dry<br>Certifications: | 0.264 | EPA 537m | 12/08/2022 14:46<br>12/13/2022 00:00 | ESJ |

## Sample Information

**Client Sample ID:** SB-5C (6-8 ft) **York Sample ID:** 22L0229-19

| York Project (SDG) No. | Client Project ID | Matrix | Collection Date/Time | Date Received |
|---|---|---|---|---|
| 22L0229 | GCM95248 | Soil | November 29, 2022 1:20 pm | 12/05/2022 |

### PFAS by EPA 537 m

**Log-in Notes:**

**Sample Notes:**

Sample Prepared by Method: SPE PFAS Extraction-Soil-EPA 537m

| CAS No. | Parameter | Result | Flag | Maximum Contaminant Level MCL | Units | Reported to LOQ | Reference Method | Date/Time Prep/Anal | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| | **Surrogate Recoveries** | **Result** | | **Acceptance Range** | | | | | |
| | *Surrogate: M3PFBS* | *74.4 %* | | *25-150* | | | | | |
| | *Surrogate: M5PFHxA* | *85.8 %* | | *25-150* | | | | | |
| | *Surrogate: M4PFHpA* | *89.3 %* | | *25-150* | | | | | |
| | *Surrogate: M3PFHxS* | *84.8 %* | | *25-150* | | | | | |
| | *Surrogate: Perfluoro-n-[13C8]octanoic acid (M8PFOA)* | *75.6 %* | | *25-150* | | | | | |
| | *Surrogate: M6PFDA* | *60.6 %* | | *25-150* | | | | | |
| | *Surrogate: M7PFUdA* | *49.9 %* | | *25-150* | | | | | |
| | *Surrogate: Perfluoro-n-[1,2-13C2]dodecanoic acid (MPFDoA)* | *58.2 %* | | *25-150* | | | | | |
| | *Surrogate: M2PFTeDA* | *38.1 %* | | *10-150* | | | | | |
| | *Surrogate: Perfluoro-n-[13C4]butanoic acid (MPFBA)* | *82.4 %* | | *25-150* | | | | | |
| | *Surrogate: Perfluoro-1-[13C8]octanesulfonic acid (M8PFOS)* | *56.9 %* | | *25-150* | | | | | |
| | *Surrogate: Perfluoro-n-[13C5]pentanoic acid (M5PFPeA)* | *90.1 %* | | *25-150* | | | | | |
| | *Surrogate: Perfluoro-1-[13C8]octanesulfonamide (M8FOSA)* | *46.6 %* | | *10-150* | | | | | |
| | *Surrogate: d3-N-MeFOSAA* | *49.1 %* | | *25-150* | | | | | |
| | *Surrogate: d5-N-EtFOSAA* | *46.6 %* | | *25-150* | | | | | |
| | *Surrogate: M2-6:2 FTS* | *72.9 %* | | *25-200* | | | | | |
| | *Surrogate: M2-8:2 FTS* | *69.0 %* | | *25-200* | | | | | |
| | *Surrogate: M9PFNA* | *65.6 %* | | *25-150* | | | | | |

### Total Solids

**Log-in Notes:**

**Sample Notes:**

Sample Prepared by Method: % Solids Prep

| CAS No. | Parameter | Result | Flag | Maximum Contaminant Level MCL | Units | Reported to LOQ | Reference Method | Date/Time Prep/Anal | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| solids | *** % Solids** | **86.1** | | **100** | % | 0.100 | SM 2540G | 12/10/2022 10:34 | JTG |
| | | | | | Certifications: | | CTDOH-PH-0723 | 12/10/2022 10:37 | |

## Sample Information

**Client Sample ID:** SB-4A (0-1 ft) **York Sample ID:** 22L0229-20

| York Project (SDG) No. | Client Project ID | Matrix | Collection Date/Time | Date Received |
|---|---|---|---|---|
| 22L0229 | GCM95248 | Soil | November 29, 2022 1:45 pm | 12/05/2022 |

## Sample Information

**Client Sample ID:** SB-4A (0-1 ft) **York Sample ID:** 22L0229-20

| York Project (SDG) No. | Client Project ID | Matrix | Collection Date/Time | Date Received |
|---|---|---|---|---|
| 22L0229 | GCM95248 | Soil | November 29, 2022 1:45 pm | 12/05/2022 |

**PFAS by EPA 537 m**

**Log-in Notes:**

**Sample Notes:**

Sample Prepared by Method: SPE PFAS Extraction-Soil-EPA 537m

| CAS No. | Parameter | Result | Flag | Maximum Contaminant Level MCL | Units | Reported to LOQ | Reference Method | Date/Time Prep/Anal | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| 375-73-5 | * Perfluorobutanesulfonic acid (PFBS) | ND | | 0 | ug/kg dry<br>Certifications: | 0.246 | EPA 537m | 12/08/2022 14:46<br>12/13/2022 00:26 | ESJ |
| 307-24-4 | * Perfluorohexanoic acid (PFHxA) | ND | | 0 | ug/kg dry<br>Certifications: | 0.246 | EPA 537m | 12/08/2022 14:46<br>12/13/2022 00:26 | ESJ |
| 375-85-9 | * Perfluoroheptanoic acid (PFHpA) | ND | | 0 | ug/kg dry<br>Certifications: | 0.246 | EPA 537m | 12/08/2022 14:46<br>12/13/2022 00:26 | ESJ |
| 355-46-4 | * Perfluorohexanesulfonic acid (PFHxS) | ND | | 0 | ug/kg dry<br>Certifications: | 0.246 | EPA 537m | 12/08/2022 14:46<br>12/13/2022 00:26 | ESJ |
| 335-67-1 | * Perfluorooctanoic acid (PFOA) | ND | | 0 | ug/kg dry<br>Certifications: | 0.246 | EPA 537m | 12/08/2022 14:46<br>12/13/2022 00:26 | ESJ |
| 1763-23-1 | * Perfluorooctanesulfonic acid (PFOS) | ND | | 0 | ug/kg dry<br>Certifications: | 0.246 | EPA 537m | 12/08/2022 14:46<br>12/13/2022 00:26 | ESJ |
| 375-95-1 | * Perfluorononanoic acid (PFNA) | ND | | 0 | ug/kg dry<br>Certifications: | 0.246 | EPA 537m | 12/08/2022 14:46<br>12/13/2022 00:26 | ESJ |
| 335-76-2 | * Perfluorodecanoic acid (PFDA) | ND | | 0 | ug/kg dry<br>Certifications: | 0.246 | EPA 537m | 12/08/2022 14:46<br>12/13/2022 00:26 | ESJ |
| 2058-94-8 | * Perfluoroundecanoic acid (PFUnA) | ND | | 0 | ug/kg dry<br>Certifications: | 0.246 | EPA 537m | 12/08/2022 14:46<br>12/13/2022 00:26 | ESJ |
| 307-55-1 | * Perfluorododecanoic acid (PFDoA) | ND | | 0 | ug/kg dry<br>Certifications: | 0.246 | EPA 537m | 12/08/2022 14:46<br>12/13/2022 00:26 | ESJ |
| 72629-94-8 | * Perfluorotridecanoic acid (PFTrDA) | ND | PF-CCV-L | 0 | ug/kg dry<br>Certifications: | 0.246 | EPA 537m | 12/08/2022 14:46<br>12/13/2022 00:26 | ESJ |
| 376-06-7 | * Perfluorotetradecanoic acid (PFTA) | ND | PF-CCV-L | 0 | ug/kg dry<br>Certifications: | 0.246 | EPA 537m | 12/08/2022 14:46<br>12/13/2022 00:26 | ESJ |
| 2355-31-9 | * N-MeFOSAA | ND | PF-CCV-L | 0 | ug/kg dry<br>Certifications: | 0.246 | EPA 537m | 12/08/2022 14:46<br>12/13/2022 00:26 | ESJ |
| 2991-50-6 | * N-EtFOSAA | ND | PF-CCV-L | 0 | ug/kg dry<br>Certifications: | 0.246 | EPA 537m | 12/08/2022 14:46<br>12/13/2022 00:26 | ESJ |
| 2706-90-3 | * Perfluoropentanoic acid (PFPeA) | ND | | 0 | ug/kg dry<br>Certifications: | 0.246 | EPA 537m | 12/08/2022 14:46<br>12/13/2022 00:26 | ESJ |
| 754-91-6 | * Perfluoro-1-octanesulfonamide (FOSA) | ND | PF-CCV-L | 0 | ug/kg dry<br>Certifications: | 0.246 | EPA 537m | 12/08/2022 14:46<br>12/13/2022 00:26 | ESJ |
| 375-92-8 | * Perfluoro-1-heptanesulfonic acid (PFHpS) | ND | | 0 | ug/kg dry<br>Certifications: | 0.246 | EPA 537m | 12/08/2022 14:46<br>12/13/2022 00:26 | ESJ |
| 335-77-3 | * Perfluoro-1-decanesulfonic acid (PFDS) | ND | PF-CCV-L | 0 | ug/kg dry<br>Certifications: | 0.246 | EPA 537m | 12/08/2022 14:46<br>12/13/2022 00:26 | ESJ |
| 27619-97-2 | * 1H,1H,2H,2H-Perfluorooctanesulfonic acid (6:2 FTS) | ND | | 0 | ug/kg dry<br>Certifications: | 0.246 | EPA 537m | 12/08/2022 14:46<br>12/13/2022 00:26 | ESJ |
| 39108-34-4 | * 1H,1H,2H,2H-Perfluorodecanesulfonic acid (8:2 FTS) | ND | | 0 | ug/kg dry<br>Certifications: | 0.246 | EPA 537m | 12/08/2022 14:46<br>12/13/2022 00:26 | ESJ |
| 375-22-4 | * Perfluoro-n-butanoic acid (PFBA) | ND | | 0 | ug/kg dry<br>Certifications: | 0.246 | EPA 537m | 12/08/2022 14:46<br>12/13/2022 00:26 | ESJ |

## Sample Information

**Client Sample ID:** SB-4A (0-1 ft) **York Sample ID:** 22L0229-20

| York Project (SDG) No. | Client Project ID | Matrix | Collection Date/Time | Date Received |
|---|---|---|---|---|
| 22L0229 | GCM95248 | Soil | November 29, 2022 1:45 pm | 12/05/2022 |

### PFAS by EPA 537 m

**Log-in Notes:**

**Sample Notes:**

Sample Prepared by Method: SPE PFAS Extraction-Soil-EPA 537m

| CAS No. | Parameter | Result | Flag | Maximum Contaminant Level MCL | Units | Reported to LOQ | Reference Method | Date/Time Prep/Anal | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| | **Surrogate Recoveries** | **Result** | | **Acceptance Range** | | | | | |
| | *Surrogate: M3PFBS* | *88.2 %* | | *25-150* | | | | | |
| | *Surrogate: M5PFHxA* | *96.5 %* | | *25-150* | | | | | |
| | *Surrogate: M4PFHpA* | *93.6 %* | | *25-150* | | | | | |
| | *Surrogate: M3PFHxS* | *101 %* | | *25-150* | | | | | |
| | *Surrogate: Perfluoro-n-[13C8]octanoic acid (M8PFOA)* | *87.5 %* | | *25-150* | | | | | |
| | *Surrogate: M6PFDA* | *71.2 %* | | *25-150* | | | | | |
| | *Surrogate: M7PFUdA* | *56.0 %* | | *25-150* | | | | | |
| | *Surrogate: Perfluoro-n-[1,2-13C2]dodecanoic acid (MPFDoA)* | *49.6 %* | | *25-150* | | | | | |
| | *Surrogate: M2PFTeDA* | *40.3 %* | | *10-150* | | | | | |
| | *Surrogate: Perfluoro-n-[13C4]butanoic acid (MPFBA)* | *88.7 %* | | *25-150* | | | | | |
| | *Surrogate: Perfluoro-1-[13C8]octanesulfonic acid (M8PFOS)* | *80.0 %* | | *25-150* | | | | | |
| | *Surrogate: Perfluoro-n-[13C5]pentanoic acid (M5PFPeA)* | *103 %* | | *25-150* | | | | | |
| | *Surrogate: Perfluoro-1-[13C8]octanesulfonamide (M8FOSA)* | *47.9 %* | | *10-150* | | | | | |
| | *Surrogate: d3-N-MeFOSAA* | *51.3 %* | | *25-150* | | | | | |
| | *Surrogate: d5-N-EtFOSAA* | *55.6 %* | | *25-150* | | | | | |
| | *Surrogate: M2-6:2 FTS* | *99.8 %* | | *25-200* | | | | | |
| | *Surrogate: M2-8:2 FTS* | *87.9 %* | | *25-200* | | | | | |
| | *Surrogate: M9PFNA* | *82.0 %* | | *25-150* | | | | | |

### Total Solids

**Log-in Notes:**

**Sample Notes:**

Sample Prepared by Method: % Solids Prep

| CAS No. | Parameter | Result | Flag | Maximum Contaminant Level MCL | Units | Reported to LOQ | Reference Method | Date/Time Prep/Anal | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| solids | *** % Solids** | **92.2** | | **100** | % | 0.100 | SM 2540G | 12/10/2022 10:34 | JTG |
| | | | | | Certifications: | | CTDOH-PH-0723 | 12/10/2022 10:37 | |

## Sample Information

**Client Sample ID:** SB-4C (10-12 ft) **York Sample ID:** 22L0229-21

| York Project (SDG) No. | Client Project ID | Matrix | Collection Date/Time | Date Received |
|---|---|---|---|---|
| 22L0229 | GCM95248 | Soil | November 29, 2022 1:45 pm | 12/05/2022 |

## Sample Information

**Client Sample ID:** SB-4C (10-12 ft) **York Sample ID:** 22L0229-21

| York Project (SDG) No. | Client Project ID | Matrix | Collection Date/Time | Date Received |
|---|---|---|---|---|
| 22L0229 | GCM95248 | Soil | November 29, 2022 1:45 pm | 12/05/2022 |

**PFAS by EPA 537 m**

**Log-in Notes:**

**Sample Notes:**

Sample Prepared by Method: SPE PFAS Extraction-Soil-EPA 537m

| CAS No. | Parameter | Result | Flag | Maximum Contaminant Level MCL | Units | Reported to LOQ | Reference Method | Date/Time Prep/Anal | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| 375-73-5 | * Perfluorobutanesulfonic acid (PFBS) | ND | | 0 | ug/kg dry<br>Certifications: | 0.319 | EPA 537m | 12/08/2022 14:46<br>12/13/2022 01:05 | ESJ |
| 307-24-4 | * Perfluorohexanoic acid (PFHxA) | ND | | 0 | ug/kg dry<br>Certifications: | 0.319 | EPA 537m | 12/08/2022 14:46<br>12/13/2022 01:05 | ESJ |
| 375-85-9 | * Perfluoroheptanoic acid (PFHpA) | ND | | 0 | ug/kg dry<br>Certifications: | 0.319 | EPA 537m | 12/08/2022 14:46<br>12/13/2022 01:05 | ESJ |
| 355-46-4 | * Perfluorohexanesulfonic acid (PFHxS) | ND | | 0 | ug/kg dry<br>Certifications: | 0.319 | EPA 537m | 12/08/2022 14:46<br>12/13/2022 01:05 | ESJ |
| 335-67-1 | * Perfluorooctanoic acid (PFOA) | ND | | 0 | ug/kg dry<br>Certifications: | 0.319 | EPA 537m | 12/08/2022 14:46<br>12/13/2022 01:05 | ESJ |
| 1763-23-1 | * Perfluorooctanesulfonic acid (PFOS) | ND | | 0 | ug/kg dry<br>Certifications: | 0.319 | EPA 537m | 12/08/2022 14:46<br>12/13/2022 01:05 | ESJ |
| 375-95-1 | * Perfluorononanoic acid (PFNA) | ND | | 0 | ug/kg dry<br>Certifications: | 0.319 | EPA 537m | 12/08/2022 14:46<br>12/13/2022 01:05 | ESJ |
| 335-76-2 | * Perfluorodecanoic acid (PFDA) | ND | | 0 | ug/kg dry<br>Certifications: | 0.319 | EPA 537m | 12/08/2022 14:46<br>12/13/2022 01:05 | ESJ |
| 2058-94-8 | * Perfluoroundecanoic acid (PFUnA) | ND | | 0 | ug/kg dry<br>Certifications: | 0.319 | EPA 537m | 12/08/2022 14:46<br>12/13/2022 01:05 | ESJ |
| 307-55-1 | * Perfluorododecanoic acid (PFDoA) | ND | | 0 | ug/kg dry<br>Certifications: | 0.319 | EPA 537m | 12/08/2022 14:46<br>12/13/2022 01:05 | ESJ |
| 72629-94-8 | * Perfluorotridecanoic acid (PFTrDA) | ND | PF-CCV-L | 0 | ug/kg dry<br>Certifications: | 0.319 | EPA 537m | 12/08/2022 14:46<br>12/13/2022 01:05 | ESJ |
| 376-06-7 | * Perfluorotetradecanoic acid (PFTA) | ND | PF-CCV-L | 0 | ug/kg dry<br>Certifications: | 0.319 | EPA 537m | 12/08/2022 14:46<br>12/13/2022 01:05 | ESJ |
| 2355-31-9 | * N-MeFOSAA | ND | PF-CCV-L | 0 | ug/kg dry<br>Certifications: | 0.319 | EPA 537m | 12/08/2022 14:46<br>12/13/2022 01:05 | ESJ |
| 2991-50-6 | * N-EtFOSAA | ND | PF-CCV-L | 0 | ug/kg dry<br>Certifications: | 0.319 | EPA 537m | 12/08/2022 14:46<br>12/13/2022 01:05 | ESJ |
| 2706-90-3 | * Perfluoropentanoic acid (PFPeA) | ND | | 0 | ug/kg dry<br>Certifications: | 0.319 | EPA 537m | 12/08/2022 14:46<br>12/13/2022 01:05 | ESJ |
| 754-91-6 | * Perfluoro-1-octanesulfonamide (FOSA) | ND | PF-CCV-L | 0 | ug/kg dry<br>Certifications: | 0.319 | EPA 537m | 12/08/2022 14:46<br>12/13/2022 01:05 | ESJ |
| 375-92-8 | * Perfluoro-1-heptanesulfonic acid (PFHpS) | ND | | 0 | ug/kg dry<br>Certifications: | 0.319 | EPA 537m | 12/08/2022 14:46<br>12/13/2022 01:05 | ESJ |
| 335-77-3 | * Perfluoro-1-decanesulfonic acid (PFDS) | ND | PF-CCV-L | 0 | ug/kg dry<br>Certifications: | 0.319 | EPA 537m | 12/08/2022 14:46<br>12/13/2022 01:05 | ESJ |
| 27619-97-2 | * 1H,1H,2H,2H-Perfluorooctanesulfonic acid (6:2 FTS) | ND | | 0 | ug/kg dry<br>Certifications: | 0.319 | EPA 537m | 12/08/2022 14:46<br>12/13/2022 01:05 | ESJ |
| 39108-34-4 | * 1H,1H,2H,2H-Perfluorodecanesulfonic acid (8:2 FTS) | ND | | 0 | ug/kg dry<br>Certifications: | 0.319 | EPA 537m | 12/08/2022 14:46<br>12/13/2022 01:05 | ESJ |
| 375-22-4 | * Perfluoro-n-butanoic acid (PFBA) | ND | | 0 | ug/kg dry<br>Certifications: | 0.319 | EPA 537m | 12/08/2022 14:46<br>12/13/2022 01:05 | ESJ |

## Sample Information

**Client Sample ID:** SB-4C (10-12 ft) **York Sample ID:** 22L0229-21

| York Project (SDG) No. | Client Project ID | Matrix | Collection Date/Time | Date Received |
|---|---|---|---|---|
| 22L0229 | GCM95248 | Soil | November 29, 2022 1:45 pm | 12/05/2022 |

### PFAS by EPA 537 m

**Log-in Notes:**

**Sample Notes:**

Sample Prepared by Method: SPE PFAS Extraction-Soil-EPA 537m

| CAS No. | Parameter | Result | Flag | Maximum Contaminant Level MCL | Units | Reported to LOQ | Reference Method | Date/Time Prep/Anal | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| | **Surrogate Recoveries** | **Result** | | **Acceptance Range** | | | | | |
| | *Surrogate: M3PFBS* | *71.5 %* | | *25-150* | | | | | |
| | *Surrogate: M5PFHxA* | *86.6 %* | | *25-150* | | | | | |
| | *Surrogate: M4PFHpA* | *85.7 %* | | *25-150* | | | | | |
| | *Surrogate: M3PFHxS* | *74.8 %* | | *25-150* | | | | | |
| | *Surrogate: Perfluoro-n-[13C8]octanoic acid (M8PFOA)* | *80.7 %* | | *25-150* | | | | | |
| | *Surrogate: M6PFDA* | *66.4 %* | | *25-150* | | | | | |
| | *Surrogate: M7PFUdA* | *49.6 %* | | *25-150* | | | | | |
| | *Surrogate: Perfluoro-n-[1,2-13C2]dodecanoic acid (MPFDoA)* | *51.3 %* | | *25-150* | | | | | |
| | *Surrogate: M2PFTeDA* | *26.0 %* | | *10-150* | | | | | |
| | *Surrogate: Perfluoro-n-[13C4]butanoic acid (MPFBA)* | *86.2 %* | | *25-150* | | | | | |
| | *Surrogate: Perfluoro-1-[13C8]octanesulfonic acid (M8PFOS)* | *55.7 %* | | *25-150* | | | | | |
| | *Surrogate: Perfluoro-n-[13C5]pentanoic acid (M5PFPeA)* | *89.8 %* | | *25-150* | | | | | |
| | *Surrogate: Perfluoro-1-[13C8]octanesulfonamide (M8FOSA)* | *43.5 %* | | *10-150* | | | | | |
| | *Surrogate: d3-N-MeFOSAA* | *48.6 %* | | *25-150* | | | | | |
| | *Surrogate: d5-N-EtFOSAA* | *44.8 %* | | *25-150* | | | | | |
| | *Surrogate: M2-6:2 FTS* | *75.8 %* | | *25-200* | | | | | |
| | *Surrogate: M2-8:2 FTS* | *67.5 %* | | *25-200* | | | | | |
| | *Surrogate: M9PFNA* | *74.8 %* | | *25-150* | | | | | |

### Total Solids

**Log-in Notes:**

**Sample Notes:**

Sample Prepared by Method: % Solids Prep

| CAS No. | Parameter | Result | Flag | Maximum Contaminant Level MCL | Units | Reported to LOQ | Reference Method | Date/Time Prep/Anal | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| solids | *** % Solids** | **72.3** | | **100** | % | 0.100 | SM 2540G | 12/10/2022 10:34 | JTG |
| | | | | | Certifications: | | CTDOH-PH-0723 | 12/10/2022 10:37 | |

# Analytical Batch Summary

**Batch ID:** BL20428 **Preparation Method:** SPE PFAS Extraction-Soil-EPA 537m **Prepared By:** BAMW

| YORK Sample ID | Client Sample ID | Preparation Date |
|---|---|---|
| 22L0229-01 | SED1- (0-2 in) | 12/07/22 |
| 22L0229-02 | SED1- (2-12 in) | 12/07/22 |
| 22L0229-03 | SED2- (0-2 in) | 12/07/22 |
| 22L0229-04 | SED2- (2-12 in) | 12/07/22 |
| 22L0229-05 | SB-10A1 (0-2 in) | 12/07/22 |
| 22L0229-06 | SB-10A2 (2-12 in) | 12/07/22 |
| BL20428-BLK1 | Blank | 12/07/22 |
| BL20428-BS1 | LCS | 12/07/22 |
| BL20428-MS1 | Matrix Spike | 12/07/22 |
| BL20428-MSD1 | Matrix Spike Dup | 12/07/22 |

**Batch ID:** BL20503 **Preparation Method:** SPE PFAS Extraction-Soil-EPA 537m **Prepared By:** ER

| YORK Sample ID | Client Sample ID | Preparation Date |
|---|---|---|
| 22L0229-07 | SB-10C (9-11 ft) | 12/08/22 |
| 22L0229-08 | SB-9A (0-1 ft) | 12/08/22 |
| 22L0229-09 | SB-9C (6-8 ft) | 12/08/22 |
| 22L0229-10 | SB-DUP1 | 12/08/22 |
| 22L0229-11 | SB-8A (0-1 ft) | 12/08/22 |
| 22L0229-12 | SB-8C (13-15 ft) | 12/08/22 |
| 22L0229-13 | SB-7A (0-1 ft) | 12/08/22 |
| 22L0229-14 | SB-7C (6-8 ft) | 12/08/22 |
| 22L0229-15 | SB-6A (0-1 ft) | 12/08/22 |
| 22L0229-16 | SB-DUP2 | 12/08/22 |
| 22L0229-17 | SB-5A1 (0-2 in) | 12/08/22 |
| 22L0229-18 | SB-5A2 (2-12 in) | 12/08/22 |
| 22L0229-19 | SB-5C (6-8 ft) | 12/08/22 |
| 22L0229-20 | SB-4A (0-1 ft) | 12/08/22 |
| 22L0229-21 | SB-4C (10-12 ft) | 12/08/22 |
| BL20503-BLK1 | Blank | 12/08/22 |
| BL20503-BS1 | LCS | 12/08/22 |
| BL20503-MS1 | Matrix Spike | 12/08/22 |
| BL20503-MSD1 | Matrix Spike Dup | 12/08/22 |

**Batch ID:** BL20599 **Preparation Method:** % Solids Prep **Prepared By:** JTG

| YORK Sample ID | Client Sample ID | Preparation Date |
|---|---|---|
| 22L0229-01 | SED1- (0-2 in) | 12/10/22 |
| 22L0229-02 | SED1- (2-12 in) | 12/10/22 |
| 22L0229-03 | SED2- (0-2 in) | 12/10/22 |
| 22L0229-04 | SED2- (2-12 in) | 12/10/22 |
| 22L0229-05 | SB-10A1 (0-2 in) | 12/10/22 |
| 22L0229-06 | SB-10A2 (2-12 in) | 12/10/22 |
| 22L0229-07 | SB-10C (9-11 ft) | 12/10/22 |
| 22L0229-08 | SB-9A (0-1 ft) | 12/10/22 |

| | | |
|---|---|---|
| 22L0229-09 | SB-9C (6-8 ft) | 12/10/22 |
| 22L0229-10 | SB-DUP1 | 12/10/22 |
| 22L0229-11 | SB-8A (0-1 ft) | 12/10/22 |
| 22L0229-12 | SB-8C (13-15 ft) | 12/10/22 |
| 22L0229-13 | SB-7A (0-1 ft) | 12/10/22 |
| 22L0229-14 | SB-7C (6-8 ft) | 12/10/22 |
| 22L0229-15 | SB-6A (0-1 ft) | 12/10/22 |
| 22L0229-16 | SB-DUP2 | 12/10/22 |
| 22L0229-17 | SB-5A1 (0-2 in) | 12/10/22 |
| 22L0229-18 | SB-5A2 (2-12 in) | 12/10/22 |
| 22L0229-19 | SB-5C (6-8 ft) | 12/10/22 |
| 22L0229-20 | SB-4A (0-1 ft) | 12/10/22 |
| 22L0229-21 | SB-4C (10-12 ft) | 12/10/22 |
| BL20599-DUP1 | Duplicate | 12/10/22 |
| BL20599-DUP2 | Duplicate | 12/10/22 |

## PFAS Target compounds by LC/MS-MS - Quality Control Data

## York Analytical Laboratories, Inc. - Stratford

| Analyte | Result | Reporting Limit | Units | Spike Level | Source* Result | %REC | %REC Limits | Flag | RPD | RPD Limit | Flag |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Batch BL20428 - SPE PFAS Extraction-Soil-EPA 537m** | | | | | | | | | | | |
| **Blank (BL20428-BLK1)** | | | | | | | | | Prepared: 12/07/2022 Analyzed: 12/11/2022 | | |
| Perfluorobutanesulfonic acid (PFBS) | ND | 0.236 | ug/kg wet | | | | | | | | |
| Perfluorohexanoic acid (PFHxA) | ND | 0.236 | " | | | | | | | | |
| Perfluoroheptanoic acid (PFHpA) | ND | 0.236 | " | | | | | | | | |
| Perfluorohexanesulfonic acid (PFHxS) | ND | 0.236 | " | | | | | | | | |
| Perfluorooctanoic acid (PFOA) | ND | 0.236 | " | | | | | | | | |
| Perfluorooctanesulfonic acid (PFOS) | ND | 0.236 | " | | | | | | | | |
| Perfluorononanoic acid (PFNA) | ND | 0.236 | " | | | | | | | | |
| Perfluorodecanoic acid (PFDA) | ND | 0.236 | " | | | | | | | | |
| Perfluoroundecanoic acid (PFUnA) | ND | 0.236 | " | | | | | | | | |
| Perfluorododecanoic acid (PFDoA) | ND | 0.236 | " | | | | | | | | |
| Perfluorotridecanoic acid (PFTrDA) | ND | 0.236 | " | | | | | | | | |
| Perfluorotetradecanoic acid (PFTA) | ND | 0.236 | " | | | | | | | | |
| N-MeFOSAA | ND | 0.236 | " | | | | | | | | |
| N-EtFOSAA | ND | 0.236 | " | | | | | | | | |
| Perfluoropentanoic acid (PFPeA) | ND | 0.236 | " | | | | | | | | |
| Perfluoro-1-octanesulfonamide (FOSA) | ND | 0.236 | " | | | | | | | | |
| Perfluoro-1-heptanesulfonic acid (PFHpS) | ND | 0.236 | " | | | | | | | | |
| Perfluoro-1-decanesulfonic acid (PFDS) | ND | 0.236 | " | | | | | | | | |
| 1H,1H,2H,2H-Perfluorooctanesulfonic acid (6:2 FTS) | ND | 0.236 | " | | | | | | | | |
| 1H,1H,2H,2H-Perfluorodecanesulfonic acid (8:2 FTS) | ND | 0.236 | " | | | | | | | | |
| Perfluoro-n-butanoic acid (PFBA) | ND | 0.236 | " | | | | | | | | |
| *Surrogate: M3PFBS* | *3.65* | | " | *4.38* | | *83.2* | *25-150* | | | | |
| *Surrogate: M5PFHxA* | *3.70* | | " | *4.72* | | *78.5* | *25-150* | | | | |
| *Surrogate: M4PFHpA* | *3.60* | | " | *4.72* | | *76.4* | *25-150* | | | | |
| *Surrogate: M3PFHxS* | *4.13* | | " | *4.46* | | *92.6* | *25-150* | | | | |
| *Surrogate: Perfluoro-n-[13C8]octanoic acid (M8PFOA)* | *3.75* | | " | *4.72* | | *79.5* | *25-150* | | | | |
| *Surrogate: M6PFDA* | *3.24* | | " | *4.72* | | *68.6* | *25-150* | | | | |
| *Surrogate: M7PFUdA* | *2.46* | | " | *4.72* | | *52.2* | *25-150* | | | | |
| *Surrogate: Perfluoro-n-[1,2-13C2]dodecanoic acid (MPFDoA)* | *2.31* | | " | *4.72* | | *49.0* | *25-150* | | | | |
| *Surrogate: M2PFTeDA* | *1.84* | | " | *4.72* | | *38.9* | *10-150* | | | | |
| *Surrogate: Perfluoro-n-[13C4]butanoic acid (MPFBA)* | *3.75* | | " | *4.72* | | *79.5* | *25-150* | | | | |
| *Surrogate: Perfluoro-1-[13C8]octanesulfonic acid (M8PFOS)* | *3.58* | | " | *4.51* | | *79.3* | *25-150* | | | | |
| *Surrogate: Perfluoro-n-[13C5]pentanoic acid (M5PFPeA)* | *3.84* | | " | *4.72* | | *81.5* | *25-150* | | | | |
| *Surrogate: Perfluoro-1-[13C8]octanesulfonamide (M8FOSA)* | *2.30* | | " | *4.72* | | *48.8* | *10-150* | | | | |
| *Surrogate: d3-N-MeFOSAA* | *2.44* | | " | *4.72* | | *51.7* | *25-150* | | | | |
| *Surrogate: d5-N-EtFOSAA* | *2.26* | | " | *4.72* | | *47.9* | *25-150* | | | | |
| *Surrogate: M2-6:2 FTS* | *4.19* | | " | *4.48* | | *93.5* | *25-200* | | | | |
| *Surrogate: M2-8:2 FTS* | *4.28* | | " | *4.52* | | *94.7* | *25-200* | | | | |
| *Surrogate: M9PFNA* | *3.58* | | " | *4.72* | | *75.8* | *25-150* | | | | |

## PFAS Target compounds by LC/MS-MS - Quality Control Data

## York Analytical Laboratories, Inc. - Stratford

| Analyte | Result | Reporting Limit | Units | Spike Level | Source* Result | %REC | %REC Limits | Flag | RPD | RPD Limit | Flag |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Batch BL20428 - SPE PFAS Extraction-Soil-EPA 537m** | | | | | | | | | | | |
| **LCS (BL20428-BS1)** | | | | | | | | Prepared: 12/07/2022 Analyzed: 12/11/2022 | | | |
| Perfluorobutanesulfonic acid (PFBS) | 4.35 | 0.231 | ug/kg wet | 4.10 | | 106 | 50-130 | | | | |
| Perfluorohexanoic acid (PFHxA) | 4.88 | 0.231 | " | 4.63 | | 106 | 50-130 | | | | |
| Perfluoroheptanoic acid (PFHpA) | 5.25 | 0.231 | " | 4.63 | | 114 | 50-130 | | | | |
| Perfluorohexanesulfonic acid (PFHxS) | 3.32 | 0.231 | " | 4.21 | | 78.8 | 50-130 | | | | |
| Perfluorooctanoic acid (PFOA) | 4.62 | 0.231 | " | 4.63 | | 99.7 | 50-130 | | | | |
| Perfluorooctanesulfonic acid (PFOS) | 4.25 | 0.231 | " | 4.28 | | 99.3 | 50-130 | | | | |
| Perfluorononanoic acid (PFNA) | 4.51 | 0.231 | " | 4.63 | | 97.3 | 50-130 | | | | |
| Perfluorodecanoic acid (PFDA) | 4.08 | 0.231 | " | 4.63 | | 88.2 | 50-130 | | | | |
| Perfluoroundecanoic acid (PFUnA) | 4.27 | 0.231 | " | 4.63 | | 92.2 | 50-130 | | | | |
| Perfluorododecanoic acid (PFDoA) | 4.46 | 0.231 | " | 4.63 | | 96.3 | 50-130 | | | | |
| Perfluorotridecanoic acid (PFTrDA) | 3.68 | 0.231 | " | 4.63 | | 79.5 | 50-130 | | | | |
| Perfluorotetradecanoic acid (PFTA) | 4.79 | 0.231 | " | 4.63 | | 103 | 50-130 | | | | |
| N-MeFOSAA | 3.88 | 0.231 | " | 4.63 | | 83.7 | 50-130 | | | | |
| N-EtFOSAA | 3.70 | 0.231 | " | 4.63 | | 79.9 | 50-130 | | | | |
| Perfluoropentanoic acid (PFPeA) | 4.76 | 0.231 | " | 4.63 | | 103 | 50-130 | | | | |
| Perfluoro-1-octanesulfonamide (FOSA) | 4.65 | 0.231 | " | 4.63 | | 100 | 50-130 | | | | |
| Perfluoro-1-heptanesulfonic acid (PFHpS) | 4.52 | 0.231 | " | 4.42 | | 102 | 50-130 | | | | |
| Perfluoro-1-decanesulfonic acid (PFDS) | 2.66 | 0.231 | " | 4.47 | | 59.6 | 50-130 | | | | |
| 1H,1H,2H,2H-Perfluorooctanesulfonic acid (6:2 FTS) | 5.92 | 0.231 | " | 4.40 | | 135 | 50-200 | | | | |
| 1H,1H,2H,2H-Perfluorodecanesulfonic acid (8:2 FTS) | 4.16 | 0.231 | " | 4.44 | | 93.6 | 50-200 | | | | |
| Perfluoro-n-butanoic acid (PFBA) | 4.52 | 0.231 | " | 4.63 | | 97.5 | 50-130 | | | | |
| *Surrogate: M3PFBS* | *3.48* | | *"* | *4.30* | | *80.9* | *25-150* | | | | |
| *Surrogate: M5PFHxA* | *3.68* | | *"* | *4.63* | | *79.5* | *25-150* | | | | |
| *Surrogate: M4PFHpA* | *3.48* | | *"* | *4.63* | | *75.1* | *25-150* | | | | |
| *Surrogate: M3PFHxS* | *4.17* | | *"* | *4.38* | | *95.1* | *25-150* | | | | |
| *Surrogate: Perfluoro-n-[13C8]octanoic acid (M8PFOA)* | *3.41* | | *"* | *4.63* | | *73.7* | *25-150* | | | | |
| *Surrogate: M6PFDA* | *2.90* | | *"* | *4.63* | | *62.7* | *25-150* | | | | |
| *Surrogate: M7PFUdA* | *1.92* | | *"* | *4.63* | | *41.5* | *25-150* | | | | |
| *Surrogate: Perfluoro-n-[1,2-13C2]dodecanoic acid (MPFDoA)* | *1.93* | | *"* | *4.63* | | *41.7* | *25-150* | | | | |
| *Surrogate: M2PFTeDA* | *1.35* | | *"* | *4.63* | | *29.1* | *10-150* | | | | |
| *Surrogate: Perfluoro-n-[13C4]butanoic acid (MPFBA)* | *3.80* | | *"* | *4.63* | | *82.0* | *25-150* | | | | |
| *Surrogate: Perfluoro-1-[13C8]octanesulfonic acid (M8PFOS)* | *3.13* | | *"* | *4.43* | | *70.7* | *25-150* | | | | |
| *Surrogate: Perfluoro-n-[13C5]pentanoic acid (M5PFPeA)* | *3.56* | | *"* | *4.63* | | *76.8* | *25-150* | | | | |
| *Surrogate: Perfluoro-1-[13C8]octanesulfonamide (M8FOSA)* | *1.82* | | *"* | *4.63* | | *39.2* | *10-150* | | | | |
| *Surrogate: d3-N-MeFOSAA* | *2.38* | | *"* | *4.63* | | *51.4* | *25-150* | | | | |
| *Surrogate: d5-N-EtFOSAA* | *2.23* | | *"* | *4.63* | | *48.1* | *25-150* | | | | |
| *Surrogate: M2-6:2 FTS* | *4.46* | | *"* | *4.39* | | *101* | *25-200* | | | | |
| *Surrogate: M2-8:2 FTS* | *3.95* | | *"* | *4.44* | | *89.0* | *25-200* | | | | |
| *Surrogate: M9PFNA* | *2.93* | | *"* | *4.63* | | *63.3* | *25-150* | | | | |

## PFAS Target compounds by LC/MS-MS - Quality Control Data

## York Analytical Laboratories, Inc. - Stratford

| Analyte | Result | Reporting Limit | Units | Spike Level | Source* Result | %REC | %REC Limits | Flag | RPD | RPD Limit | Flag |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Batch BL20428 - SPE PFAS Extraction-Soil-EPA 537m** | | | | | | | | | | | |
| **Matrix Spike (BL20428-MS1)** | *Source sample: 22L0208-04 (Matrix Spike) | | | | | | | Prepared: 12/07/2022 Analyzed: 12/11/2022 | | | |
| Perfluorobutanesulfonic acid (PFBS) | 7.03 | 0.326 | ug/kg dry | 5.77 | ND | 122 | 25-150 | | | | |
| Perfluorohexanoic acid (PFHxA) | 7.12 | 0.326 | " | 6.52 | ND | 109 | 25-150 | | | | |
| Perfluoroheptanoic acid (PFHpA) | 6.87 | 0.326 | " | 6.52 | ND | 105 | 25-150 | | | | |
| Perfluorohexanesulfonic acid (PFHxS) | 5.51 | 0.326 | " | 5.93 | ND | 93.0 | 25-150 | | | | |
| Perfluorooctanoic acid (PFOA) | 6.86 | 0.326 | " | 6.52 | ND | 105 | 25-150 | | | | |
| Perfluorooctanesulfonic acid (PFOS) | 5.61 | 0.326 | " | 6.03 | ND | 93.0 | 25-150 | | | | |
| Perfluorononanoic acid (PFNA) | 6.15 | 0.326 | " | 6.52 | ND | 94.3 | 25-150 | | | | |
| Perfluorodecanoic acid (PFDA) | 6.82 | 0.326 | " | 6.52 | ND | 105 | 25-150 | | | | |
| Perfluoroundecanoic acid (PFUnA) | 7.22 | 0.326 | " | 6.52 | ND | 111 | 25-150 | | | | |
| Perfluorododecanoic acid (PFDoA) | 6.63 | 0.326 | " | 6.52 | ND | 102 | 25-150 | | | | |
| Perfluorotridecanoic acid (PFTrDA) | 5.93 | 0.326 | " | 6.52 | 0.152 | 88.6 | 25-150 | | | | |
| Perfluorotetradecanoic acid (PFTA) | 7.02 | 0.326 | " | 6.52 | ND | 108 | 25-150 | | | | |
| N-MeFOSAA | 7.45 | 0.326 | " | 6.52 | ND | 114 | 25-150 | | | | |
| N-EtFOSAA | 6.20 | 0.326 | " | 6.52 | ND | 95.1 | 25-150 | | | | |
| Perfluoropentanoic acid (PFPeA) | 6.70 | 0.326 | " | 6.52 | ND | 103 | 25-150 | | | | |
| Perfluoro-1-octanesulfonamide (FOSA) | 6.02 | 0.326 | " | 6.52 | ND | 92.4 | 25-150 | | | | |
| Perfluoro-1-heptanesulfonic acid (PFHpS) | 6.52 | 0.326 | " | 6.22 | ND | 105 | 25-150 | | | | |
| Perfluoro-1-decanesulfonic acid (PFDS) | 3.90 | 0.326 | " | 6.29 | ND | 62.0 | 25-150 | | | | |
| 1H,1H,2H,2H-Perfluorooctanesulfonic acid (6:2 FTS) | 7.71 | 0.326 | " | 6.19 | ND | 125 | 25-200 | | | | |
| 1H,1H,2H,2H-Perfluorodecanesulfonic acid (8:2 FTS) | 8.85 | 0.326 | " | 6.26 | ND | 141 | 25-200 | | | | |
| Perfluoro-n-butanoic acid (PFBA) | 6.65 | 0.326 | " | 6.52 | ND | 102 | 25-150 | | | | |
| *Surrogate: M3PFBS* | *3.78* | | *"* | *6.06* | | *62.3* | *25-150* | | | | |
| *Surrogate: M5PFHxA* | *4.98* | | *"* | *6.52* | | *76.4* | *25-150* | | | | |
| *Surrogate: M4PFHpA* | *4.81* | | *"* | *6.52* | | *73.8* | *25-150* | | | | |
| *Surrogate: M3PFHxS* | *4.28* | | *"* | *6.17* | | *69.4* | *25-150* | | | | |
| *Surrogate: Perfluoro-n-[13C8]octanoic acid (M8PFOA)* | *4.82* | | *"* | *6.52* | | *74.0* | *25-150* | | | | |
| *Surrogate: M6PFDA* | *3.75* | | *"* | *6.52* | | *57.6* | *25-150* | | | | |
| *Surrogate: M7PFUdA* | *2.77* | | *"* | *6.52* | | *42.6* | *25-150* | | | | |
| *Surrogate: Perfluoro-n-[1,2-13C2]dodecanoic acid (MPFDoA)* | *2.69* | | *"* | *6.52* | | *41.2* | *25-150* | | | | |
| *Surrogate: M2PFTeDA* | *2.10* | | *"* | *6.52* | | *32.1* | *10-150* | | | | |
| *Surrogate: Perfluoro-n-[13C4]butanoic acid (MPFBA)* | *5.19* | | *"* | *6.52* | | *79.7* | *25-150* | | | | |
| *Surrogate: Perfluoro-1-[13C8]octanesulfonic acid (M8PFOS)* | *4.02* | | *"* | *6.24* | | *64.5* | *25-150* | | | | |
| *Surrogate: Perfluoro-n-[13C5]pentanoic acid (M5PFPeA)* | *5.00* | | *"* | *6.52* | | *76.7* | *25-150* | | | | |
| *Surrogate: Perfluoro-1-[13C8]octanesulfonamide (M8FOSA)* | *2.56* | | *"* | *6.52* | | *39.3* | *10-150* | | | | |
| *Surrogate: d3-N-MeFOSAA* | *2.56* | | *"* | *6.52* | | *39.2* | *25-150* | | | | |
| *Surrogate: d5-N-EtFOSAA* | *2.78* | | *"* | *6.52* | | *42.7* | *25-150* | | | | |
| *Surrogate: M2-6:2 FTS* | *5.14* | | *"* | *6.19* | | *83.2* | *25-200* | | | | |
| *Surrogate: M2-8:2 FTS* | *3.56* | | *"* | *6.24* | | *57.1* | *25-200* | | | | |
| *Surrogate: M9PFNA* | *4.56* | | *"* | *6.52* | | *69.9* | *25-150* | | | | |

## PFAS Target compounds by LC/MS-MS - Quality Control Data

## York Analytical Laboratories, Inc. - Stratford

| Analyte | Result | Reporting Limit | Units | Spike Level | Source* Result | %REC | %REC Limits | Flag | RPD | RPD Limit | Flag |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Batch BL20428 - SPE PFAS Extraction-Soil-EPA 537m** | | | | | | | | | | | |
| **Matrix Spike Dup (BL20428-MSD1)** | *Source sample: 22L0208-04 (Matrix Spike Dup) | | | | | | | | Prepared: 12/07/2022 Analyzed: 12/11/2022 | | |
| Perfluorobutanesulfonic acid (PFBS) | 6.25 | 0.317 | ug/kg dry | 5.61 | ND | 111 | 25-150 | | 11.8 | 35 | |
| Perfluorohexanoic acid (PFHxA) | 6.67 | 0.317 | " | 6.34 | ND | 105 | 25-150 | | 6.51 | 35 | |
| Perfluoroheptanoic acid (PFHpA) | 7.55 | 0.317 | " | 6.34 | ND | 119 | 25-150 | | 9.45 | 35 | |
| Perfluorohexanesulfonic acid (PFHxS) | 6.05 | 0.317 | " | 5.77 | ND | 105 | 25-150 | | 9.22 | 35 | |
| Perfluorooctanoic acid (PFOA) | 6.56 | 0.317 | " | 6.34 | ND | 104 | 25-150 | | 4.54 | 35 | |
| Perfluorooctanesulfonic acid (PFOS) | 6.42 | 0.317 | " | 5.86 | ND | 110 | 25-150 | | 13.5 | 35 | |
| Perfluorononanoic acid (PFNA) | 6.34 | 0.317 | " | 6.34 | ND | 100 | 25-150 | | 3.07 | 35 | |
| Perfluorodecanoic acid (PFDA) | 6.30 | 0.317 | " | 6.34 | ND | 99.5 | 25-150 | | 7.98 | 35 | |
| Perfluoroundecanoic acid (PFUnA) | 6.90 | 0.317 | " | 6.34 | ND | 109 | 25-150 | | 4.62 | 35 | |
| Perfluorododecanoic acid (PFDoA) | 6.45 | 0.317 | " | 6.34 | ND | 102 | 25-150 | | 2.86 | 35 | |
| Perfluorotridecanoic acid (PFTrDA) | 5.79 | 0.317 | " | 6.34 | 0.152 | 89.0 | 25-150 | | 2.38 | 35 | |
| Perfluorotetradecanoic acid (PFTA) | 6.52 | 0.317 | " | 6.34 | ND | 103 | 25-150 | | 7.36 | 35 | |
| N-MeFOSAA | 5.83 | 0.317 | " | 6.34 | ND | 92.0 | 25-150 | | 24.4 | 35 | |
| N-EtFOSAA | 6.26 | 0.317 | " | 6.34 | ND | 98.8 | 25-150 | | 1.01 | 35 | |
| Perfluoropentanoic acid (PFPeA) | 6.60 | 0.317 | " | 6.34 | ND | 104 | 25-150 | | 1.54 | 35 | |
| Perfluoro-1-octanesulfonamide (FOSA) | 6.45 | 0.317 | " | 6.34 | ND | 102 | 25-150 | | 6.88 | 35 | |
| Perfluoro-1-heptanesulfonic acid (PFHpS) | 6.54 | 0.317 | " | 6.05 | ND | 108 | 25-150 | | 0.415 | 35 | |
| Perfluoro-1-decanesulfonic acid (PFDS) | 3.16 | 0.317 | " | 6.11 | ND | 51.7 | 25-150 | | 21.0 | 35 | |
| 1H,1H,2H,2H-Perfluorooctanesulfonic acid (6:2 FTS) | 6.99 | 0.317 | " | 6.02 | ND | 116 | 25-200 | | 9.81 | 35 | |
| 1H,1H,2H,2H-Perfluorodecanesulfonic acid (8:2 FTS) | 5.61 | 0.317 | " | 6.08 | ND | 92.3 | 25-200 | | 44.8 | 35 | Non-dir. |
| Perfluoro-n-butanoic acid (PFBA) | 6.36 | 0.317 | " | 6.34 | ND | 100 | 25-150 | | 4.51 | 35 | |
| *Surrogate: M3PFBS* | *3.88* | | " | *5.89* | | *65.9* | *25-150* | | | | |
| *Surrogate: M5PFHxA* | *5.06* | | " | *6.34* | | *79.8* | *25-150* | | | | |
| *Surrogate: M4PFHpA* | *4.45* | | " | *6.34* | | *70.3* | *25-150* | | | | |
| *Surrogate: M3PFHxS* | *4.55* | | " | *5.99* | | *76.0* | *25-150* | | | | |
| *Surrogate: Perfluoro-n-[13C8]octanoic acid (M8PFOA)* | *4.78* | | " | *6.34* | | *75.5* | *25-150* | | | | |
| *Surrogate: M6PFDA* | *3.88* | | " | *6.34* | | *61.3* | *25-150* | | | | |
| *Surrogate: M7PFUdA* | *2.54* | | " | *6.34* | | *40.0* | *25-150* | | | | |
| *Surrogate: Perfluoro-n-[1,2-13C2]dodecanoic acid (MPFDoA)* | *2.49* | | " | *6.34* | | *39.3* | *25-150* | | | | |
| *Surrogate: M2PFTeDA* | *1.79* | | " | *6.34* | | *28.2* | *10-150* | | | | |
| *Surrogate: Perfluoro-n-[13C4]butanoic acid (MPFBA)* | *5.09* | | " | *6.34* | | *80.4* | *25-150* | | | | |
| *Surrogate: Perfluoro-1-[13C8]octanesulfonic acid (M8PFOS)* | *4.21* | | " | *6.06* | | *69.4* | *25-150* | | | | |
| *Surrogate: Perfluoro-n-[13C5]pentanoic acid (M5PFPeA)* | *5.03* | | " | *6.34* | | *79.4* | *25-150* | | | | |
| *Surrogate: Perfluoro-1-[13C8]octanesulfonamide (M8FOSA)* | *2.42* | | " | *6.34* | | *38.1* | *10-150* | | | | |
| *Surrogate: d3-N-MeFOSAA* | *3.08* | | " | *6.34* | | *48.6* | *25-150* | | | | |
| *Surrogate: d5-N-EtFOSAA* | *2.51* | | " | *6.34* | | *39.5* | *25-150* | | | | |
| *Surrogate: M2-6:2 FTS* | *5.18* | | " | *6.01* | | *86.1* | *25-200* | | | | |
| *Surrogate: M2-8:2 FTS* | *4.66* | | " | *6.07* | | *76.7* | *25-200* | | | | |
| *Surrogate: M9PFNA* | *4.42* | | " | *6.34* | | *69.8* | *25-150* | | | | |

## PFAS Target compounds by LC/MS-MS - Quality Control Data

## York Analytical Laboratories, Inc. - Stratford

| Analyte | Result | Reporting Limit | Units | Spike Level | Source* Result | %REC | %REC Limits | Flag | RPD | RPD Limit | Flag |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Batch BL20503 - SPE PFAS Extraction-Soil-EPA 537m** | | | | | | | | | | | |
| **Blank (BL20503-BLK1)** | | | | | | | | | Prepared: 12/08/2022 Analyzed: 12/12/2022 | | |
| Perfluorobutanesulfonic acid (PFBS) | ND | 0.239 | ug/kg wet | | | | | | | | |
| Perfluorohexanoic acid (PFHxA) | ND | 0.239 | " | | | | | | | | |
| Perfluoroheptanoic acid (PFHpA) | ND | 0.239 | " | | | | | | | | |
| Perfluorohexanesulfonic acid (PFHxS) | ND | 0.239 | " | | | | | | | | |
| Perfluorooctanoic acid (PFOA) | ND | 0.239 | " | | | | | | | | |
| Perfluorooctanesulfonic acid (PFOS) | ND | 0.239 | " | | | | | | | | |
| Perfluorononanoic acid (PFNA) | ND | 0.239 | " | | | | | | | | |
| Perfluorodecanoic acid (PFDA) | ND | 0.239 | " | | | | | | | | |
| Perfluoroundecanoic acid (PFUnA) | ND | 0.239 | " | | | | | | | | |
| Perfluorododecanoic acid (PFDoA) | ND | 0.239 | " | | | | | | | | |
| Perfluorotridecanoic acid (PFTrDA) | ND | 0.239 | " | | | | | | | | |
| Perfluorotetradecanoic acid (PFTA) | ND | 0.239 | " | | | | | | | | |
| N-MeFOSAA | ND | 0.239 | " | | | | | | | | |
| N-EtFOSAA | ND | 0.239 | " | | | | | | | | |
| Perfluoropentanoic acid (PFPeA) | ND | 0.239 | " | | | | | | | | |
| Perfluoro-1-octanesulfonamide (FOSA) | ND | 0.239 | " | | | | | | | | |
| Perfluoro-1-heptanesulfonic acid (PFHpS) | ND | 0.239 | " | | | | | | | | |
| Perfluoro-1-decanesulfonic acid (PFDS) | ND | 0.239 | " | | | | | | | | |
| 1H,1H,2H,2H-Perfluorooctanesulfonic acid (6:2 FTS) | ND | 0.239 | " | | | | | | | | |
| 1H,1H,2H,2H-Perfluorodecanesulfonic acid (8:2 FTS) | ND | 0.239 | " | | | | | | | | |
| Perfluoro-n-butanoic acid (PFBA) | ND | 0.239 | " | | | | | | | | |
| *Surrogate: M3PFBS* | *3.81* | | " | *4.44* | | *85.8* | *25-150* | | | | |
| *Surrogate: M5PFHxA* | *4.32* | | " | *4.78* | | *90.4* | *25-150* | | | | |
| *Surrogate: M4PFHpA* | *4.34* | | " | *4.78* | | *90.7* | *25-150* | | | | |
| *Surrogate: M3PFHxS* | *4.05* | | " | *4.52* | | *89.6* | *25-150* | | | | |
| *Surrogate: Perfluoro-n-[13C8]octanoic acid (M8PFOA)* | *4.14* | | " | *4.78* | | *86.7* | *25-150* | | | | |
| *Surrogate: M6PFDA* | *3.30* | | " | *4.78* | | *69.0* | *25-150* | | | | |
| *Surrogate: M7PFUdA* | *2.94* | | " | *4.78* | | *61.5* | *25-150* | | | | |
| *Surrogate: Perfluoro-n-[1,2-13C2]dodecanoic acid (MPFDoA)* | *2.81* | | " | *4.78* | | *58.8* | *25-150* | | | | |
| *Surrogate: M2PFTeDA* | *2.11* | | " | *4.78* | | *44.2* | *10-150* | | | | |
| *Surrogate: Perfluoro-n-[13C4]butanoic acid (MPFBA)* | *4.08* | | " | *4.78* | | *85.2* | *25-150* | | | | |
| *Surrogate: Perfluoro-1-[13C8]octanesulfonic acid (M8PFOS)* | *3.80* | | " | *4.58* | | *83.1* | *25-150* | | | | |
| *Surrogate: Perfluoro-n-[13C5]pentanoic acid (M5PFPeA)* | *4.62* | | " | *4.78* | | *96.6* | *25-150* | | | | |
| *Surrogate: Perfluoro-1-[13C8]octanesulfonamide (M8FOSA)* | *2.37* | | " | *4.78* | | *49.7* | *10-150* | | | | |
| *Surrogate: d3-N-MeFOSAA* | *2.98* | | " | *4.78* | | *62.4* | *25-150* | | | | |
| *Surrogate: d5-N-EtFOSAA* | *2.64* | | " | *4.78* | | *55.3* | *25-150* | | | | |
| *Surrogate: M2-6:2 FTS* | *4.45* | | " | *4.54* | | *98.0* | *25-200* | | | | |
| *Surrogate: M2-8:2 FTS* | *5.05* | | " | *4.58* | | *110* | *25-200* | | | | |
| *Surrogate: M9PFNA* | *3.96* | | " | *4.78* | | *82.7* | *25-150* | | | | |

## PFAS Target compounds by LC/MS-MS - Quality Control Data

## York Analytical Laboratories, Inc. - Stratford

| Analyte | Result | Reporting Limit | Units | Spike Level | Source* Result | %REC | %REC Limits | Flag | RPD | RPD Limit | Flag |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Batch BL20503 - SPE PFAS Extraction-Soil-EPA 537m** | | | | | | | | | | | |
| **LCS (BL20503-BS1)** | | | | | | | | Prepared: 12/08/2022 Analyzed: 12/12/2022 | | | |
| Perfluorobutanesulfonic acid (PFBS) | 4.04 | 0.227 | ug/kg wet | 4.02 | | 100 | 50-130 | | | | |
| Perfluorohexanoic acid (PFHxA) | 4.34 | 0.227 | " | 4.54 | | 95.5 | 50-130 | | | | |
| Perfluoroheptanoic acid (PFHpA) | 4.55 | 0.227 | " | 4.54 | | 100 | 50-130 | | | | |
| Perfluorohexanesulfonic acid (PFHxS) | 3.69 | 0.227 | " | 4.13 | | 89.2 | 50-130 | | | | |
| Perfluorooctanoic acid (PFOA) | 4.18 | 0.227 | " | 4.54 | | 92.1 | 50-130 | | | | |
| Perfluorooctanesulfonic acid (PFOS) | 4.18 | 0.227 | " | 4.20 | | 99.5 | 50-130 | | | | |
| Perfluorononanoic acid (PFNA) | 3.79 | 0.227 | " | 4.54 | | 83.4 | 50-130 | | | | |
| Perfluorodecanoic acid (PFDA) | 4.30 | 0.227 | " | 4.54 | | 94.6 | 50-130 | | | | |
| Perfluoroundecanoic acid (PFUnA) | 4.42 | 0.227 | " | 4.54 | | 97.3 | 50-130 | | | | |
| Perfluorododecanoic acid (PFDoA) | 4.21 | 0.227 | " | 4.54 | | 92.7 | 50-130 | | | | |
| Perfluorotridecanoic acid (PFTrDA) | 4.25 | 0.227 | " | 4.54 | | 93.6 | 50-130 | | | | |
| Perfluorotetradecanoic acid (PFTA) | 4.33 | 0.227 | " | 4.54 | | 95.4 | 50-130 | | | | |
| N-MeFOSAA | 3.78 | 0.227 | " | 4.54 | | 83.2 | 50-130 | | | | |
| N-EtFOSAA | 3.72 | 0.227 | " | 4.54 | | 82.0 | 50-130 | | | | |
| Perfluoropentanoic acid (PFPeA) | 4.26 | 0.227 | " | 4.54 | | 93.7 | 50-130 | | | | |
| Perfluoro-1-octanesulfonamide (FOSA) | 3.84 | 0.227 | " | 4.54 | | 84.6 | 50-130 | | | | |
| Perfluoro-1-heptanesulfonic acid (PFHpS) | 4.55 | 0.227 | " | 4.34 | | 105 | 50-130 | | | | |
| Perfluoro-1-decanesulfonic acid (PFDS) | 3.14 | 0.227 | " | 4.38 | | 71.7 | 50-130 | | | | |
| 1H,1H,2H,2H-Perfluorooctanesulfonic acid (6:2 FTS) | 3.65 | 0.227 | " | 4.31 | | 84.7 | 50-200 | | | | |
| 1H,1H,2H,2H-Perfluorodecanesulfonic acid (8:2 FTS) | 4.21 | 0.227 | " | 4.36 | | 96.6 | 50-200 | | | | |
| Perfluoro-n-butanoic acid (PFBA) | 4.09 | 0.227 | " | 4.54 | | 90.2 | 50-130 | | | | |
| *Surrogate: M3PFBS* | *4.26* | | " | *4.22* | | *101* | *25-150* | | | | |
| *Surrogate: M5PFHxA* | *4.79* | | " | *4.54* | | *105* | *25-150* | | | | |
| *Surrogate: M4PFHpA* | *4.55* | | " | *4.54* | | *100* | *25-150* | | | | |
| *Surrogate: M3PFHxS* | *4.64* | | " | *4.29* | | *108* | *25-150* | | | | |
| *Surrogate: Perfluoro-n-[13C8]octanoic acid (M8PFOA)* | *4.84* | | " | *4.54* | | *107* | *25-150* | | | | |
| *Surrogate: M6PFDA* | *4.19* | | " | *4.54* | | *92.3* | *25-150* | | | | |
| *Surrogate: M7PFUdA* | *3.29* | | " | *4.54* | | *72.4* | *25-150* | | | | |
| *Surrogate: Perfluoro-n-[1,2-13C2]dodecanoic acid (MPFDoA)* | *3.38* | | " | *4.54* | | *74.4* | *25-150* | | | | |
| *Surrogate: M2PFTeDA* | *2.38* | | " | *4.54* | | *52.4* | *10-150* | | | | |
| *Surrogate: Perfluoro-n-[13C4]butanoic acid (MPFBA)* | *4.47* | | " | *4.54* | | *98.5* | *25-150* | | | | |
| *Surrogate: Perfluoro-1-[13C8]octanesulfonic acid (M8PFOS)* | *3.76* | | " | *4.34* | | *86.6* | *25-150* | | | | |
| *Surrogate: Perfluoro-n-[13C5]pentanoic acid (M5PFPeA)* | *5.19* | | " | *4.54* | | *114* | *25-150* | | | | |
| *Surrogate: Perfluoro-1-[13C8]octanesulfonamide (M8FOSA)* | *2.79* | | " | *4.54* | | *61.5* | *10-150* | | | | |
| *Surrogate: d3-N-MeFOSAA* | *3.58* | | " | *4.54* | | *78.8* | *25-150* | | | | |
| *Surrogate: d5-N-EtFOSAA* | *3.36* | | " | *4.54* | | *74.1* | *25-150* | | | | |
| *Surrogate: M2-6:2 FTS* | *5.84* | | " | *4.31* | | *136* | *25-200* | | | | |
| *Surrogate: M2-8:2 FTS* | *5.72* | | " | *4.35* | | *131* | *25-200* | | | | |
| *Surrogate: M9PFNA* | *4.44* | | " | *4.54* | | *97.9* | *25-150* | | | | |

## PFAS Target compounds by LC/MS-MS - Quality Control Data

## York Analytical Laboratories, Inc. - Stratford

| Analyte | Result | Reporting Limit | Units | Spike Level | Source* Result | %REC | %REC Limits | Flag | RPD | RPD Limit | Flag |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Batch BL20503 - SPE PFAS Extraction-Soil-EPA 537m** | | | | | | | | | | | |
| **Matrix Spike (BL20503-MS1)** | *Source sample: 22L0229-20 (SB-4A (0-1 ft)) | | | | | | | Prepared: 12/08/2022 Analyzed: 12/13/2022 | | | |
| Perfluorobutanesulfonic acid (PFBS) | 4.58 | 0.246 | ug/kg dry | 4.36 | ND | 105 | 25-150 | | | | |
| Perfluorohexanoic acid (PFHxA) | 4.90 | 0.246 | " | 4.92 | ND | 99.5 | 25-150 | | | | |
| Perfluoroheptanoic acid (PFHpA) | 5.13 | 0.246 | " | 4.92 | ND | 104 | 25-150 | | | | |
| Perfluorohexanesulfonic acid (PFHxS) | 3.72 | 0.246 | " | 4.48 | ND | 83.1 | 25-150 | | | | |
| Perfluorooctanoic acid (PFOA) | 4.38 | 0.246 | " | 4.92 | ND | 88.9 | 25-150 | | | | |
| Perfluorooctanesulfonic acid (PFOS) | 5.21 | 0.246 | " | 4.55 | 0.0705 | 113 | 25-150 | | | | |
| Perfluorononanoic acid (PFNA) | 3.99 | 0.246 | " | 4.92 | ND | 81.0 | 25-150 | | | | |
| Perfluorodecanoic acid (PFDA) | 4.75 | 0.246 | " | 4.92 | ND | 96.5 | 25-150 | | | | |
| Perfluoroundecanoic acid (PFUnA) | 4.95 | 0.246 | " | 4.92 | ND | 101 | 25-150 | | | | |
| Perfluorododecanoic acid (PFDoA) | 5.20 | 0.246 | " | 4.92 | ND | 106 | 25-150 | | | | |
| Perfluorotridecanoic acid (PFTrDA) | 4.13 | 0.246 | " | 4.92 | ND | 83.8 | 25-150 | | | | |
| Perfluorotetradecanoic acid (PFTA) | 4.81 | 0.246 | " | 4.92 | ND | 97.7 | 25-150 | | | | |
| N-MeFOSAA | 4.17 | 0.246 | " | 4.92 | ND | 84.7 | 25-150 | | | | |
| N-EtFOSAA | 3.67 | 0.246 | " | 4.92 | ND | 74.5 | 25-150 | | | | |
| Perfluoropentanoic acid (PFPeA) | 4.71 | 0.246 | " | 4.92 | ND | 95.7 | 25-150 | | | | |
| Perfluoro-1-octanesulfonamide (FOSA) | 4.67 | 0.246 | " | 4.92 | ND | 94.8 | 25-150 | | | | |
| Perfluoro-1-heptanesulfonic acid (PFHpS) | 5.14 | 0.246 | " | 4.70 | ND | 109 | 25-150 | | | | |
| Perfluoro-1-decanesulfonic acid (PFDS) | 2.78 | 0.246 | " | 4.75 | ND | 58.4 | 25-150 | | | | |
| 1H,1H,2H,2H-Perfluorooctanesulfonic acid (6:2 FTS) | 3.39 | 0.246 | " | 4.68 | ND | 72.5 | 25-200 | | | | |
| 1H,1H,2H,2H-Perfluorodecanesulfonic acid (8:2 FTS) | 4.82 | 0.246 | " | 4.73 | ND | 102 | 25-200 | | | | |
| Perfluoro-n-butanoic acid (PFBA) | 4.46 | 0.246 | " | 4.92 | ND | 90.6 | 25-150 | | | | |
| *Surrogate: M3PFBS* | *3.74* | | *"* | *4.57* | | *81.8* | *25-150* | | | | |
| *Surrogate: M5PFHxA* | *4.62* | | *"* | *4.92* | | *93.8* | *25-150* | | | | |
| *Surrogate: M4PFHpA* | *4.51* | | *"* | *4.92* | | *91.7* | *25-150* | | | | |
| *Surrogate: M3PFHxS* | *4.64* | | *"* | *4.66* | | *99.5* | *25-150* | | | | |
| *Surrogate: Perfluoro-n-[13C8]octanoic acid (M8PFOA)* | *5.03* | | *"* | *4.92* | | *102* | *25-150* | | | | |
| *Surrogate: M6PFDA* | *3.40* | | *"* | *4.92* | | *69.1* | *25-150* | | | | |
| *Surrogate: M7PFUdA* | *2.49* | | *"* | *4.92* | | *50.5* | *25-150* | | | | |
| *Surrogate: Perfluoro-n-[1,2-13C2]dodecanoic acid (MPFDoA)* | *2.32* | | *"* | *4.92* | | *47.0* | *25-150* | | | | |
| *Surrogate: M2PFTeDA* | *1.53* | | *"* | *4.92* | | *31.0* | *10-150* | | | | |
| *Surrogate: Perfluoro-n-[13C4]butanoic acid (MPFBA)* | *4.57* | | *"* | *4.92* | | *92.8* | *25-150* | | | | |
| *Surrogate: Perfluoro-1-[13C8]octanesulfonic acid (M8PFOS)* | *3.33* | | *"* | *4.71* | | *70.7* | *25-150* | | | | |
| *Surrogate: Perfluoro-n-[13C5]pentanoic acid (M5PFPeA)* | *4.72* | | *"* | *4.92* | | *95.9* | *25-150* | | | | |
| *Surrogate: Perfluoro-1-[13C8]octanesulfonamide (M8FOSA)* | *2.18* | | *"* | *4.92* | | *44.3* | *10-150* | | | | |
| *Surrogate: d3-N-MeFOSAA* | *2.72* | | *"* | *4.92* | | *55.2* | *25-150* | | | | |
| *Surrogate: d5-N-EtFOSAA* | *2.78* | | *"* | *4.92* | | *56.5* | *25-150* | | | | |
| *Surrogate: M2-6:2 FTS* | *5.67* | | *"* | *4.67* | | *121* | *25-200* | | | | |
| *Surrogate: M2-8:2 FTS* | *4.37* | | *"* | *4.72* | | *92.7* | *25-200* | | | | |
| *Surrogate: M9PFNA* | *4.32* | | *"* | *4.92* | | *87.7* | *25-150* | | | | |

## PFAS Target compounds by LC/MS-MS - Quality Control Data

## York Analytical Laboratories, Inc. - Stratford

| Analyte | Result | Reporting Limit | Units | Spike Level | Source* Result | %REC | %REC Limits | Flag | RPD | RPD Limit | Flag |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Batch BL20503 - SPE PFAS Extraction-Soil-EPA 537m** | | | | | | | | | | | |
| **Matrix Spike Dup (BL20503-MSD1)** | *Source sample: 22L0229-20 (SB-4A (0-1 ft)) | | | | | | | | Prepared: 12/08/2022 Analyzed: 12/13/2022 | | |
| Perfluorobutanesulfonic acid (PFBS) | 4.39 | 0.253 | ug/kg dry | 4.47 | ND | 98.2 | 25-150 | | 4.25 | 35 | |
| Perfluorohexanoic acid (PFHxA) | 4.79 | 0.253 | " | 5.05 | ND | 94.8 | 25-150 | | 2.28 | 35 | |
| Perfluoroheptanoic acid (PFHpA) | 5.05 | 0.253 | " | 5.05 | ND | 99.9 | 25-150 | | 1.67 | 35 | |
| Perfluorohexanesulfonic acid (PFHxS) | 3.80 | 0.253 | " | 4.60 | ND | 82.6 | 25-150 | | 1.99 | 35 | |
| Perfluorooctanoic acid (PFOA) | 4.48 | 0.253 | " | 5.05 | ND | 88.7 | 25-150 | | 2.44 | 35 | |
| Perfluorooctanesulfonic acid (PFOS) | 4.55 | 0.253 | " | 4.67 | 0.0705 | 95.8 | 25-150 | | 13.5 | 35 | |
| Perfluorononanoic acid (PFNA) | 4.28 | 0.253 | " | 5.05 | ND | 84.8 | 25-150 | | 7.10 | 35 | |
| Perfluorodecanoic acid (PFDA) | 4.45 | 0.253 | " | 5.05 | ND | 88.1 | 25-150 | | 6.47 | 35 | |
| Perfluoroundecanoic acid (PFUnA) | 4.77 | 0.253 | " | 5.05 | ND | 94.4 | 25-150 | | 3.63 | 35 | |
| Perfluorododecanoic acid (PFDoA) | 4.92 | 0.253 | " | 5.05 | ND | 97.4 | 25-150 | | 5.56 | 35 | |
| Perfluorotridecanoic acid (PFTrDA) | 4.62 | 0.253 | " | 5.05 | ND | 91.3 | 25-150 | | 11.2 | 35 | |
| Perfluorotetradecanoic acid (PFTA) | 4.54 | 0.253 | " | 5.05 | ND | 89.8 | 25-150 | | 5.87 | 35 | |
| N-MeFOSAA | 4.31 | 0.253 | " | 5.05 | ND | 85.4 | 25-150 | | 3.38 | 35 | |
| N-EtFOSAA | 3.43 | 0.253 | " | 5.05 | ND | 67.8 | 25-150 | | 6.78 | 35 | |
| Perfluoropentanoic acid (PFPeA) | 4.55 | 0.253 | " | 5.05 | ND | 90.1 | 25-150 | | 3.41 | 35 | |
| Perfluoro-1-octanesulfonamide (FOSA) | 3.56 | 0.253 | " | 5.05 | ND | 70.4 | 25-150 | | 27.0 | 35 | |
| Perfluoro-1-heptanesulfonic acid (PFHpS) | 4.79 | 0.253 | " | 4.83 | ND | 99.3 | 25-150 | | 7.05 | 35 | |
| Perfluoro-1-decanesulfonic acid (PFDS) | 2.99 | 0.253 | " | 4.88 | ND | 61.2 | 25-150 | | 7.23 | 35 | |
| 1H,1H,2H,2H-Perfluorooctanesulfonic acid (6:2 FTS) | 4.14 | 0.253 | " | 4.80 | ND | 86.1 | 25-200 | | 19.7 | 35 | |
| 1H,1H,2H,2H-Perfluorodecanesulfonic acid (8:2 FTS) | 5.04 | 0.253 | " | 4.85 | ND | 104 | 25-200 | | 4.52 | 35 | |
| Perfluoro-n-butanoic acid (PFBA) | 4.46 | 0.253 | " | 5.05 | ND | 88.3 | 25-150 | | 0.0751 | 35 | |
| *Surrogate: M3PFBS* | *3.85* | | *"* | *4.69* | | *82.1* | *25-150* | | | | |
| *Surrogate: M5PFHxA* | *4.79* | | *"* | *5.05* | | *94.8* | *25-150* | | | | |
| *Surrogate: M4PFHpA* | *4.68* | | *"* | *5.05* | | *92.7* | *25-150* | | | | |
| *Surrogate: M3PFHxS* | *4.77* | | *"* | *4.78* | | *99.7* | *25-150* | | | | |
| *Surrogate: Perfluoro-n-[13C8]octanoic acid (M8PFOA)* | *4.79* | | *"* | *5.05* | | *94.7* | *25-150* | | | | |
| *Surrogate: M6PFDA* | *3.42* | | *"* | *5.05* | | *67.8* | *25-150* | | | | |
| *Surrogate: M7PFUdA* | *2.33* | | *"* | *5.05* | | *46.2* | *25-150* | | | | |
| *Surrogate: Perfluoro-n-[1,2-13C2]dodecanoic acid (MPFDoA)* | *2.32* | | *"* | *5.05* | | *45.8* | *25-150* | | | | |
| *Surrogate: M2PFTeDA* | *1.90* | | *"* | *5.05* | | *37.7* | *10-150* | | | | |
| *Surrogate: Perfluoro-n-[13C4]butanoic acid (MPFBA)* | *4.65* | | *"* | *5.05* | | *92.1* | *25-150* | | | | |
| *Surrogate: Perfluoro-1-[13C8]octanesulfonic acid (M8PFOS)* | *3.16* | | *"* | *4.84* | | *65.3* | *25-150* | | | | |
| *Surrogate: Perfluoro-n-[13C5]pentanoic acid (M5PFPeA)* | *5.00* | | *"* | *5.05* | | *98.9* | *25-150* | | | | |
| *Surrogate: Perfluoro-1-[13C8]octanesulfonamide (M8FOSA)* | *2.12* | | *"* | *5.05* | | *41.9* | *10-150* | | | | |
| *Surrogate: d3-N-MeFOSAA* | *2.51* | | *"* | *5.05* | | *49.7* | *25-150* | | | | |
| *Surrogate: d5-N-EtFOSAA* | *2.53* | | *"* | *5.05* | | *50.1* | *25-150* | | | | |
| *Surrogate: M2-6:2 FTS* | *5.17* | | *"* | *4.80* | | *108* | *25-200* | | | | |
| *Surrogate: M2-8:2 FTS* | *4.38* | | *"* | *4.84* | | *90.4* | *25-200* | | | | |
| *Surrogate: M9PFNA* | *3.96* | | *"* | *5.05* | | *78.3* | *25-150* | | | | |

## Miscellaneous Physical Parameters - Quality Control Data

## York Analytical Laboratories, Inc. - Stratford

| Analyte | Result | Reporting Limit | Units | Spike Level | Source* Result | %REC | %REC Limits | Flag | RPD | RPD Limit | Flag |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Batch BL20599 - % Solids Prep** | | | | | | | | | | | |
| **Duplicate (BL20599-DUP1)** | *Source sample: 22L0154-05 (Duplicate) | | | | | | | Prepared & Analyzed: 12/10/2022 | | | |
| % Solids | 96.5 | 0.100 | % | | 96.2 | | | | 0.368 | 20 | |
| **Duplicate (BL20599-DUP2)** | *Source sample: 22L0229-03 (SED2- (0-2 in)) | | | | | | | Prepared & Analyzed: 12/10/2022 | | | |
| % Solids | 56.7 | 0.100 | % | | 58.7 | | | | 3.54 | 20 | |

YORK
ANALYTICAL LABORATORIES INC

## Sample and Data Qualifiers Relating to This Work Order

| | |
|---|---|
| PFSu-L | The isotopically labeled surrogate recovered below lab control limits due to a matrix effect. Isotope Dilution was applied. |
| PFSu-H | The isotopically labeled surrogate recovered above lab control limits due to a matrix effect. Isotope Dilution was applied. |
| PF-CCV-L | The CCV recovery was slightly below acceptable limits for the qualified compound. However, sample results are not biased low because results are corrected for isotope recovery. |
| PF-CCV-H | The CCV recovery was slightly above acceptable limits for the qualified compound. However, sample results are not biased high because results are corrected for isotope recovery. |

## Definitions and Other Explanations

| | |
|---|---|
| * | Analyte is not certified or the state of the samples origination does not offer certification for the Analyte. |
| ND | NOT DETECTED - the analyte is not detected at the Reported to level (LOQ/RL or LOD/MDL) |
| RL | REPORTING LIMIT - the minimum reportable value based upon the lowest point in the analyte calibration curve. |
| LOQ | LIMIT OF QUANTITATION - the minimum concentration of a target analyte that can be reported within a specified degree of confidence. This is the lowest point in an analyte calibration curve that has been subjected to all steps of the processing/analysis and verified to meet defined criteria. This is based upon NELAC 2009 Standards and applies to all analyses. |
| LOD | LIMIT OF DETECTION - a verified estimate of the minimum concentration of a substance in a given matrix that an analytical process can reliably detect. This is based upon NELAC 2009 Standards and applies to all analyses conducted under the auspices of EPA SW-846. |
| MDL | METHOD DETECTION LIMIT - a statistically derived estimate of the minimum amount of a substance an analytical system can reliably detect with a 99% confidence that the concentration of the substance is greater than zero. This is based upon 40 CFR Part 136 Appendix B and applies only to EPA 600 and 200 series methods. |
| Reported to | This indicates that the data for a particular analysis is reported to either the LOD/MDL, or the LOQ/RL. In cases where the "Reported to" is located above the LOD/MDL, any value between this and the LOQ represents an estimated value which is "J" flagged accordingly. This applies to volatile and semi-volatile target compounds only. |
| NR | Not reported |
| RPD | Relative Percent Difference |
| Wet | The data has been reported on an as-received (wet weight) basis |
| Low Bias | Low Bias flag indicates that the recovery of the flagged analyte is below the laboratory or regulatory lower control limit. The data user should take note that this analyte may be biased low but should evaluate multiple lines of evidence including the LCS and site-specific MS/MSD data to draw bias conclusions. In cases where no site-specific MS/MSD was requested, only the LCS data can be used to evaluate such bias. |
| High Bias | High Bias flag indicates that the recovery of the flagged analyte is above the laboratory or regulatory upper control limit. The data user should take note that this analyte may be biased high but should evaluate multiple lines of evidence including the LCS and site-specific MS/MSD data to draw bias conclusions. In cases where no site-specific MS/MSD was requested, only the LCS data can be used to evaluate such bias. |
| Non-Dir. | Non-dir. flag (Non-Directional Bias ) indicates that the Relative Percent Difference (RPD) (a measure of precision) among the MS and MSD data is outside the laboratory or regulatory control limit. This alerts the data user where the MS and MSD are from site-specific samples that the RPD is high due to either non-homogeneous distribution of target analyte between the MS/MSD or indicates poor reproducibility for other reasons. |
| MCL | This is the Maximum Contaminant Level in ng/L (ppt) established by the NYSDOH for these compounds where an MCL is reported. Exceedences are flagged accordingly. |

Cooler: Yes [X] No [ ]
Coolant: IPK [ ] ICE [X] No [ ]

# PHOENIX
Environmental Laboratories, Inc.

## CHAIN OF CUSTODY RECORD

22L0229 Temp 1.7° C Pg 1 of 2

Page 1 of 2
587 East Middle Turnpike, P.O. Box 370, Manchester, CT 06040
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Customer: York Analytical Laboratories
Address: 120 Research Drive
Stratford, CT
(203) 325-1371

Project #: GCM95248
Report to: HelenG@PhoenixLabs.com / Helen Geoghegan
Invoice to: AccountsPayable@PhoenixLabs.com
Quote# :

Project P.O: GCM95248

***This section MUST be completed with Bottle Quantities.***

**Client Sample - Information - Identification**

Sampler's Signature _____ Date: _____

**Matrix Code:**
**DW**=Drinking Water **GW**=Ground Water **SW**=Surface Water **WW**=Waste Water
**RW**=Raw Water **SE**=Sediment **SL**=Sludge **S**=Soil **SD**=Solid **W**=Wipe
**OIL**=Oil **B**=Bulk **L**=Liquid

Analysis Request

| | Phoenix Sample ID | Sample Matrix | Date Sampled | Time Sampled | PFAS (21) E537 modified | 8oz HDPE Plastic As Is |
|---|---|---|---|---|---|---|
| | SED-1 (0-2``) | SED | 11/29/2022 | 8:30 AM | x | 1 |
| | SED-1 (2-12``) | SED | 11/29/2022 | 8:30 AM | x | 1 |
| | SED-2 (0-2``) | SED | 11/29/2022 | 8:45 AM | x | 1 |
| | SED-2 (2-12``) | SED | 11/29/2022 | 8:45 AM | x | 1 |
| | SB-10A1 (0-2``) | SOIL | 11/29/2022 | 10:40 AM | x | 1 |
| | SB-10A2 (2-12``) | SOIL | 11/29/2022 | 10:45 AM | x | 1 |
| | SB-10C (9-11`) | SOIL | 11/29/2022 | 10:30 AM | x | 1 |
| | SB-9A (0-1`) | SOIL | 11/29/2022 | 12:00 PM | x | 1 |
| | SB-9C (6-8`) | SOIL | 11/29/2022 | 12:00 PM | x | 1 |
| | SB-DUP1 | SOIL | 11/29/2022 | 12:00 PM | x | 1 |
| | SB-8A (0-1`) | SOIL | 11/29/2022 | 11:15 AM | x | 1 |

| Relinquished by: | Accepted by: | Date: | Time: |
|---|---|---|---|
| John Bailey | Ryan Cumm | 12-5-22 | 0705 |
| Ryan Cumm | TB Yale | 12/5/22 | 0925 |
| | | | |

**Comments, Special Requirements or Regulations:**

*Please send notice as soon as possible not exceeding 24 hours of obtaining valid data, of the results of all drinking water samples that exceed any EPA or Department-established maximum contaminant level, maximum residual disinfectant level or reportable concentration.*

*Please notify Phoenix Environmental Laboratories, Inc. immediately and prior to conducting analysis if certification is not held for the analyses requested.*

**Turnaround:**
[ ] 1 Day
[ ] 2 Days
[ ] 3 Days
[ ] 5 Days
[ ] 10 Days
[X] Standard
[ ] Other_____

**Report Type:**
[X] Standard PDF
[ ] Full Data Package
[ ] NJ Reduced Deliverable
[ ] NJ Full Deliverable
[X] NY ASP B

**What State were samples collected?**
NY

**EDD Format:**
[ ] Excel
[ ] GIS/Key
[ ] EQuIS
[ ] NJ Hazsite EDD
[ ] NY EZ EDD (ASP)
[ ] Other:_____

**State Criteria:**

Cooler: Yes [X] No [ ]
Coolant: IPK [ ] ICE [X] No [ ]

# CHAIN OF CUSTODY RECORD

22L0229 Temp 1.7° C Pg 2 of 2


PHOENIX Environmental Laboratories, Inc.

Page 2 of 2
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Customer: York Analytical Laboratories
Address: 120 Research Drive
Stratford, CT
(203) 325-1371

Project #: GCM95248
Report to: HelenG@PhoenixLabs.com / Helen Geoghegan
Invoice to: AccountsPayable@PhoenixLabs.com
Quote# :

Project P.O: GCM95248

***This section MUST be completed with Bottle Quantities.***

**Client Sample - Information - Identification**

Sampler's Signature _____ Date: _____

**Matrix Code:**
**DW**=Drinking Water **GW**=Ground Water **SW**=Surface Water **WW**=Waste Water
**RW**=Raw Water **SE**=Sediment **SL**=Sludge **S**=Soil **SD**=Solid **W**=Wipe
**OIL**=Oil **B**=Bulk **L**=Liquid

Analysis Request

| Phoenix Sample ID | Sample Matrix | Date Sampled | Time Sampled | PFAS (21) E537 modified | 8oz HDPE Plastic As Is |
|---|---|---|---|---|---|
| SB-8C (13-15`) | SOIL | 11/29/2022 | 11:30 AM | x | 1 |
| SB-7A (0-1`) | SOIL | 11/29/2022 | 12:45 PM | x | 1 |
| SB-7C (6-8`) | SOIL | 11/29/2022 | 12:45 PM | x | 1 |
| SB-6A (0-1`) | SOIL | 11/29/2022 | 2:15 PM | x | 1 |
| SB-DUP2 | SOIL | 11/29/2022 | 2:30 PM | x | 1 |
| SB-5A1 (0-2``) | SOIL | 11/29/2022 | 1:30 PM | x | 1 |
| SB-5A2 (2-12``) | SOIL | 11/29/2022 | 1:30 PM | x | 1 |
| SB-5C (6-8`) | SOIL | 11/29/2022 | 1:20 PM | x | 1 |
| SB-4A (0-1`) | SOIL | 11/29/2022 | 1:45 PM | x | 1 |
| SB-4C (10-12`) | SOIL | 11/29/2022 | 1:45 PM | x | 1 |
| | | | | | 1 |

| Relinquished by: | Accepted by: | Date: | Time: |
|---|---|---|---|
| [signature] | [signature] | 12-5-22 | 0705 |
| [signature] | [signature] | 12/5/22 | 0925 |
| | | | |

**Turnaround:**
[ ] 1 Day
[ ] 2 Days
[ ] 3 Days
[ ] 5 Days
[ ] 10 Days
[X] Standard
[ ] Other_____

**Report Type:**
[X] Standard PDF
[ ] Full Data Package
[ ] NJ Reduced Deliverable
[ ] NJ Full Deliverable
[X] NY ASP B

**EDD Format:**
[ ] Excel
[ ] GIS/Key
[ ] EQuIS
[ ] NJ Hazsite EDD
[ ] NY EZ EDD (ASP)
[ ] Other:_____

**State Criteria:**

**What State were samples collected?**
NY

**Comments, Special Requirements or Regulations:**

*Please send notice as soon as possible not exceeding 24 hours of obtaining valid data, of the results of all drinking water samples that exceed any EPA or Department-established maximum contaminant level, maximum residual disinfectant level or reportable concentration.*
*Please notify Phoenix Environmental Laboratories, Inc. immediately and prior to conducting analysis if certification is not held for the analyses requested.*

PHOENIX
Environmental Laboratories, Inc.

**Friday, December 16, 2022**

**Attn: Nora Brew**
**Walden Environmental Engineering PLLC**
**16 Spring Street**
**Oyster Bay, NY 11771**

**Project ID:** IPARK0118.62-LOT 10 BOUNDARY MODIFICAT.
**SDG ID:** GCM95278
**Sample ID#s:** CM95278 - CM95299

**This laboratory is in compliance with the NELAC requirements of procedures used except where indicated.**

**This report contains results for the parameters tested, under the sampling conditions described on the Chain Of Custody, as received by the laboratory. This report is incomplete unless all pages indicated in the pagination at the bottom of the page are included.**

**All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.**

**A scanned version of the COC form accompanies the analytical report and is an exact duplicate of the original.**

**If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200. The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.**

**Sincerely yours,**

**Phyllis Shiller**
**Laboratory Director**

**NELAC - #NY11301**
**CT Lab Registration #PH-0618**
**MA Lab Registration #M-CT007**
**ME Lab Registration #CT-007**
**NH Lab Registration #213693-A,B**
**NJ Lab Registration #CT-003**
**NY Lab Registration #11301**
**PA Lab Registration #68-03530**
**RI Lab Registration #63**
**VT Lab Registration #VT11301**

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

NY # 11301

# SDG Comments

December 16, 2022

SDG I.D.: GCM95278

Any compound that is not detected above the MDL/LOD is reported as ND on the report and is reported in the electronic deliverables (EDD) as <RL or U at the RL per state and EPA guidance.

Version 1: Analysis results minus raw data.

Version 2: Complete report with raw data.

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

# Sample Id Cross Reference

December 16, 2022

SDG I.D.: GCM95278

Project ID: IPARK0118.62-LOT 10 BOUNDARY MODIFICAT.

| Client Id | Lab Id | Matrix |
|---|---|---|
| SB-1A (0-1`) | CM95278 | SOIL |
| SB-1B (1-2`) | CM95279 | SOIL |
| SB-1C (5.5-6.5`) | CM95280 | SOIL |
| SB-3A (0-1`) | CM95281 | SOIL |
| SB-3B (1-2`) | CM95282 | SOIL |
| SB-3C (8-9`) | CM95283 | SOIL |
| SB-2A (0-1`) | CM95284 | SOIL |
| SB-2B (1-2`) | CM95285 | SOIL |
| SB-2C (11-12`) | CM95286 | SOIL |
| SB-DUP3 | CM95287 | SOIL |
| EQUIPMENT BLANK 11302022 | CM95288 | WATER |
| SB-11A (0-1`) | CM95289 | SOIL |
| SB-11B (1-2`) | CM95290 | SOIL |
| SB-11C (3-4`) | CM95291 | SOIL |
| SB-12A1 (0-2``) | CM95292 | SOIL |
| SB-12A2 (2-12``) | CM95293 | SOIL |
| SB-12B (1-2`) | CM95294 | SOIL |
| SB-12C (13-14`) | CM95295 | SOIL |
| SB-13A (0-1`) | CM95296 | SOIL |
| SB-13B (1-2`) | CM95297 | SOIL |
| SB-13C (13-14`) | CM95298 | SOIL |
| SB-DUP4 | CM95299 | SOIL |

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Tel. (860) 645-1102 Fax (860) 645-0823

ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

# Analysis Report

December 16, 2022

FOR: Attn: Nora Brew
Walden Environmental Engineering PLLC
16 Spring Street
Oyster Bay, NY 11771

| Sample Information | | Custody Information | | Date | Time |
|---|---|---|---|---|---|
| Matrix: | SOIL | Collected by: | | 11/30/22 | 9:00 |
| Location Code: | WALDENE-IPARK | Received by: | CP | 12/01/22 | 17:12 |
| Rush Request: | Standard | Analyzed by: | see "By" below | | |
| P.O.#: | IPARK 0118.62 | | | | |

## Laboratory Data

SDG ID: GCM95278
Phoenix ID: CM95278

Project ID: IPARK0118.62-LOT 10 BOUNDARY MODIFICAT.
Client ID: SB-1A (0-1`)

| Parameter | Result | RL/ PQL | LOD/ MDL | Units | Dilution | Date/Time | By | Reference | |
|---|---|---|---|---|---|---|---|---|---|
| Aluminum | 9370 | 35 | 7.0 | mg/Kg | 10 | 12/03/22 | CPP | SW6010D | B |
| Antimony | ND | 3.5 | 3.5 | mg/Kg | 1 | 12/04/22 | CPP | SW6010D | |
| Arsenic | 4.35 | 0.70 | 0.70 | mg/Kg | 1 | 12/04/22 | CPP | SW6010D | |
| Barium | 51.9 | 0.7 | 0.35 | mg/Kg | 1 | 12/04/22 | TH | SW6010D | |
| Beryllium | 0.41 | 0.28 | 0.14 | mg/Kg | 1 | 12/04/22 | CPP | SW6010D | |
| Calcium | 53800 | 35 | 32 | mg/Kg | 10 | 12/03/22 | CPP | SW6010D | |
| Cadmium | 1.31 | 0.35 | 0.35 | mg/Kg | 1 | 12/04/22 | CPP | SW6010D | |
| Chromium | 11.4 | 0.35 | 0.35 | mg/Kg | 1 | 12/04/22 | CPP | SW6010D | |
| Cobalt | 8.59 | 0.35 | 0.35 | mg/Kg | 1 | 12/04/22 | CPP | SW6010D | |
| Copper | 22.1 | 0.7 | 0.35 | mg/kg | 1 | 12/04/22 | CPP | SW6010D | |
| Iron | 20600 | 35 | 35 | mg/Kg | 10 | 12/03/22 | CPP | SW6010D | |
| Lead | 13.8 | 0.7 | 0.35 | mg/Kg | 1 | 12/04/22 | CPP | SW6010D | |
| Magnesium | 31600 | 35 | 35 | mg/Kg | 10 | 12/03/22 | CPP | SW6010D | |
| Manganese | 602 | 3.5 | 3.5 | mg/Kg | 10 | 12/03/22 | TH | SW6010D | |
| Mercury | ND | 0.03 | 0.02 | mg/Kg | 2 | 12/05/22 | PM | SW7471B | |
| Nickel | 16.7 | 0.35 | 0.35 | mg/Kg | 1 | 12/04/22 | CPP | SW6010D | |
| Potassium | 1430 | 7 | 2.7 | mg/Kg | 1 | 12/04/22 | CPP | SW6010D | |
| Selenium | ND | 1.4 | 1.2 | mg/Kg | 1 | 12/04/22 | CPP | SW6010D | |
| Silver | ND | 0.35 | 0.35 | mg/Kg | 1 | 12/04/22 | CPP | SW6010D | |
| Sodium | 159 | 7 | 3.0 | mg/Kg | 1 | 12/04/22 | CPP | SW6010D | |
| Thallium | ND | 1.4 | 1.4 | mg/Kg | 1 | 12/04/22 | CPP | SW6010D | |
| Vanadium | 12.6 | 0.35 | 0.35 | mg/Kg | 1 | 12/04/22 | CPP | SW6010D | |
| Zinc | 50.9 | 0.7 | 0.35 | mg/Kg | 1 | 12/04/22 | CPP | SW6010D | |
| Percent Solid | 90 | | | % | | 12/01/22 | Q | SW846-%Solid | |
| Extraction for SVOA SIM | Completed | | | | | 12/05/22 | B/MO | SW3545A | |
| Soil Extraction for PCB | Completed | | | | | 12/02/22 | O/MO | SW3545A | |
| Soil Extraction for Pesticide | Completed | | | | | 12/02/22 | O/MO | SW3545A | |

**Ver 1**

Project ID: IPARK0118.62-LOT 10 BOUNDARY MODIFICAT. Phoenix I.D.: CM95278
Client ID: SB-1A (0-1`)

| Parameter | Result | RL/ PQL | LOD/ MDL | Units | Dilution | Date/Time | By | Reference | |
|---|---|---|---|---|---|---|---|---|---|
| Mercury Digestion | Completed | | | | | 12/02/22 | AB/AB | SW7471B | |
| Soil Extraction for Herbicide | Completed | | | | | 12/07/22 | J/D | SW3546 | |
| Soil Extraction for SVOA | Completed | | | | | 12/03/22 | Y/L | SW3546 | |
| Total Metals Digest | Completed | | | | | 12/01/22 | | SW3050B | |
| PFAS (21) | Completed | | | | | 12/07/22 | *** | EPA 537m | C |
| **PFAS (21)** | | | | | | | | | |
| 1H,1H,2H,2H-Perfluorodecanesulfonic acid | ND | 0.299 | 0.0307 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| 1H,1H,2H,2H-Perfluorooctanesulfonic acid | ND | 0.299 | 0.0790 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| NEtFOSAA | ND | 0.299 | 0.125 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| NMeFOSAA | ND | 0.299 | 0.125 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| Perfluoro-1-decanesulfonic acid (PFDS) | ND | 0.299 | 0.0613 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| Perfluoro-1-heptanesulfonic acid (PFHpS) | ND | 0.299 | 0.0590 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| Perfluoro-1-octanesulfonamide (FOSA) | 0.693 | 0.299 | 0.0559 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| Perfluorobutanesulfonic acid (PFBS) | ND | 0.299 | 0.239 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| Perfluorodecanoic acid (PFDA) | ND | 0.299 | 0.0613 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| Perfluorododecanoic acid (PFDoA) | ND | 0.299 | 0.0898 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| Perfluoroheptanoic acid (PFHpA) | ND | 0.299 | 0.0545 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| Perfluorohexanesulfonic Acid (PFHxS) | ND | 0.299 | 0.0371 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| Perfluorohexanoic acid (PFHxA) | ND | 0.299 | 0.0789 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| Perfluoro-n-butanoic acid (PFBA) | ND | 0.299 | 0.219 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| Perfluorononanoic acid (PFNA) | ND | 0.299 | 0.0716 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| Perfluorooctanesulfonic Acid (PFOS) | ND | 0.299 | 0.0524 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| Perfluorooctanoic acid (PFOA) | ND | 0.299 | 0.0924 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| Perfluoropentanoic acid (PFPeA) | ND | 0.299 | 0.110 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| Perfluorotetradecanoic acid (PFTA) | ND | 0.299 | 0.0894 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| Perfluorotridecanoic acid (PFTrDA) | 1.79 | 0.299 | 0.0521 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| Perfluoroundecanoic acid (PFUnA) | ND | 0.299 | 0.139 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| **QA/QC Surrogates** | | | | | | | | | |
| % d3-N-MeFOSAA | 8.41 | | | % | 1 | 12/11/22 | *** | 25 - 150 % | C,3 |
| % d5-NEtFOSA | 5.90 | | | % | 1 | 12/11/22 | *** | 25 - 150 % | C,3 |
| % M2-6:2FTS | 71.9 | | | % | 1 | 12/11/22 | *** | 25 - 200 % | C |
| % M2-8:2FTS | 31.6 | | | % | 1 | 12/11/22 | *** | 25 - 200 % | C |
| % M2PFTeDA | 0.283 | | | % | 1 | 12/11/22 | *** | 10 - 150 % | C,3 |
| % M3PFBS | 56.2 | | | % | 1 | 12/11/22 | *** | 25 - 150 % | C |
| % M3PFHxS | 58.4 | | | % | 1 | 12/11/22 | *** | 25 - 150 % | C |
| % M4PFHpA | 55.0 | | | % | 1 | 12/11/22 | *** | 25 - 150 % | C |
| % M5PFHxA | 54.6 | | | % | 1 | 12/11/22 | *** | 25 - 150 % | C |
| % M5PFPeA | 56.7 | | | % | 1 | 12/11/22 | *** | 25 - 150 % | C |
| % M6PFDA | 24.4 | | | % | 1 | 12/11/22 | *** | 25 - 150 % | C,3 |
| % M7PFUdA | 7.97 | | | % | 1 | 12/11/22 | *** | 25 - 150 % | C,3 |
| % M8FOSA | 0.439 | | | % | 1 | 12/11/22 | *** | 10 - 150 % | C,3 |
| % M8PFOA | 50.6 | | | % | 1 | 12/11/22 | *** | 25 - 150 % | C |
| % M8PFOS | 30.6 | | | % | 1 | 12/11/22 | *** | 25 - 150 % | C |
| % M9PFNA | 44.0 | | | % | 1 | 12/11/22 | *** | 25 - 150 % | C |
| % MPFBA | 60.0 | | | % | 1 | 12/11/22 | *** | 25 - 150 % | C |
| % MPFDoA | 1.73 | | | % | 1 | 12/11/22 | *** | 25 - 150 % | C,3 |
| **Chlorinated Herbicides** | | | | | | | | | |
| 2,4,5-T | ND | 140 | 140 | ug/Kg | 10 | 12/09/22 | JRB | SW8151A | |

**Ver 1**

Project ID: IPARK0118.62-LOT 10 BOUNDARY MODIFICAT. Phoenix I.D.: CM95278
Client ID: SB-1A (0-1`)

| Parameter | Result | RL/ PQL | LOD/ MDL | Units | Dilution | Date/Time | By | Reference |
|---|---|---|---|---|---|---|---|---|
| 2,4,5-TP (Silvex) | ND | 140 | 140 | ug/Kg | 10 | 12/09/22 | JRB | SW8151A |
| 2,4-D | ND | 270 | 270 | ug/Kg | 10 | 12/09/22 | JRB | SW8151A |
| 2,4-DB | ND | 2700 | 2700 | ug/Kg | 10 | 12/09/22 | JRB | SW8151A |
| Dalapon | ND | 140 | 140 | ug/Kg | 10 | 12/09/22 | JRB | SW8151A |
| Dicamba | ND | 140 | 140 | ug/Kg | 10 | 12/09/22 | JRB | SW8151A |
| Dichloroprop | ND | 270 | 270 | ug/Kg | 10 | 12/09/22 | JRB | SW8151A |
| Dinoseb | ND | 270 | 270 | ug/Kg | 10 | 12/09/22 | JRB | SW8151A |
| **QA/QC Surrogates** | | | | | | | | |
| % DCAA | 102 | | | % | 10 | 12/09/22 | JRB | 30 - 150 % |
| % DCAA (Confirmation) | 99 | | | % | 10 | 12/09/22 | JRB | 30 - 150 % |
| **Polychlorinated Biphenyls** | | | | | | | | |
| PCB-1016 | ND | 74 | 74 | ug/Kg | 2 | 12/05/22 | SC | SW8082A |
| PCB-1221 | ND | 74 | 74 | ug/Kg | 2 | 12/05/22 | SC | SW8082A |
| PCB-1232 | ND | 74 | 74 | ug/Kg | 2 | 12/05/22 | SC | SW8082A |
| PCB-1242 | ND | 74 | 74 | ug/Kg | 2 | 12/05/22 | SC | SW8082A |
| PCB-1248 | ND | 74 | 74 | ug/Kg | 2 | 12/05/22 | SC | SW8082A |
| PCB-1254 | ND | 74 | 74 | ug/Kg | 2 | 12/05/22 | SC | SW8082A |
| PCB-1260 | ND | 74 | 74 | ug/Kg | 2 | 12/05/22 | SC | SW8082A |
| PCB-1262 | ND | 74 | 74 | ug/Kg | 2 | 12/05/22 | SC | SW8082A |
| PCB-1268 | ND | 74 | 74 | ug/Kg | 2 | 12/05/22 | SC | SW8082A |
| **QA/QC Surrogates** | | | | | | | | |
| % DCBP | 63 | | | % | 2 | 12/05/22 | SC | 30 - 150 % |
| % DCBP (Confirmation) | 72 | | | % | 2 | 12/05/22 | SC | 30 - 150 % |
| % TCMX | 66 | | | % | 2 | 12/05/22 | SC | 30 - 150 % |
| % TCMX (Confirmation) | 65 | | | % | 2 | 12/05/22 | SC | 30 - 150 % |
| **Pesticides - Soil** | | | | | | | | |
| 4,4' -DDD | ND | 2.2 | 2.2 | ug/Kg | 2 | 12/05/22 | AW | SW8081B |
| 4,4' -DDE | ND | 2.2 | 2.2 | ug/Kg | 2 | 12/05/22 | AW | SW8081B |
| 4,4' -DDT | ND | 2.2 | 2.2 | ug/Kg | 2 | 12/05/22 | AW | SW8081B |
| a-BHC | ND | 7.4 | 7.4 | ug/Kg | 2 | 12/05/22 | AW | SW8081B |
| a-Chlordane | ND | 3.7 | 3.7 | ug/Kg | 2 | 12/05/22 | AW | SW8081B |
| Alachlor | ND | 3.7 | 3.7 | ug/Kg | 2 | 12/05/22 | AW | SW8081B |
| Aldrin | ND | 3.7 | 3.7 | ug/Kg | 2 | 12/05/22 | AW | SW8081B |
| b-BHC | ND | 7.4 | 7.4 | ug/Kg | 2 | 12/05/22 | AW | SW8081B |
| Chlordane | ND | 37 | 37 | ug/Kg | 2 | 12/05/22 | AW | SW8081B |
| d-BHC | ND | 7.4 | 7.4 | ug/Kg | 2 | 12/05/22 | AW | SW8081B |
| Dieldrin | ND | 3.7 | 3.7 | ug/Kg | 2 | 12/05/22 | AW | SW8081B |
| Endosulfan I | ND | 7.4 | 7.4 | ug/Kg | 2 | 12/05/22 | AW | SW8081B |
| Endosulfan II | ND | 7.4 | 7.4 | ug/Kg | 2 | 12/05/22 | AW | SW8081B |
| Endosulfan sulfate | ND | 7.4 | 7.4 | ug/Kg | 2 | 12/05/22 | AW | SW8081B |
| Endrin | ND | 7.4 | 7.4 | ug/Kg | 2 | 12/05/22 | AW | SW8081B |
| Endrin aldehyde | ND | 7.4 | 7.4 | ug/Kg | 2 | 12/05/22 | AW | SW8081B |
| Endrin ketone | ND | 7.4 | 7.4 | ug/Kg | 2 | 12/05/22 | AW | SW8081B |
| g-BHC | ND | 1.5 | 1.5 | ug/Kg | 2 | 12/05/22 | AW | SW8081B |
| g-Chlordane | ND | 3.7 | 3.7 | ug/Kg | 2 | 12/05/22 | AW | SW8081B |
| Heptachlor | ND | 7.4 | 7.4 | ug/Kg | 2 | 12/05/22 | AW | SW8081B |
| Heptachlor epoxide | ND | 7.4 | 7.4 | ug/Kg | 2 | 12/05/22 | AW | SW8081B |
| Methoxychlor | ND | 37 | 37 | ug/Kg | 2 | 12/05/22 | AW | SW8081B |

Project ID: IPARK0118.62-LOT 10 BOUNDARY MODIFICAT. Phoenix I.D.: CM95278
Client ID: SB-1A (0-1`)

| Parameter | Result | RL/ PQL | LOD/ MDL | Units | Dilution | Date/Time | By | Reference | |
|---|---|---|---|---|---|---|---|---|---|
| Toxaphene | ND | 150 | 150 | ug/Kg | 2 | 12/05/22 | AW | SW8081B | |
| **QA/QC Surrogates** | | | | | | | | | |
| % DCBP | 68 | | | % | 2 | 12/05/22 | AW | 30 - 150 % | |
| % DCBP (Confirmation) | 74 | | | % | 2 | 12/05/22 | AW | 30 - 150 % | |
| % TCMX | 63 | | | % | 2 | 12/05/22 | AW | 30 - 150 % | |
| % TCMX (Confirmation) | 67 | | | % | 2 | 12/05/22 | AW | 30 - 150 % | |
| **Semivolatiles** | | | | | | | | | |
| 1,2,4,5-Tetrachlorobenzene | ND | 250 | 130 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 1,2,4-Trichlorobenzene | ND | 250 | 110 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 1,2-Dichlorobenzene | ND | 250 | 100 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 1,2-Diphenylhydrazine | ND | 250 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 1,3-Dichlorobenzene | ND | 250 | 110 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 1,4-Dichlorobenzene | ND | 250 | 110 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2,2'-Oxybis(1-Chloropropane) | ND | 250 | 100 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | 1 |
| 2,4,5-Trichlorophenol | ND | 250 | 200 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2,4,6-Trichlorophenol | ND | 180 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2,4-Dichlorophenol | ND | 180 | 130 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2,4-Dimethylphenol | ND | 250 | 90 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2,4-Dinitrophenol | ND | 250 | 250 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2,4-Dinitrotoluene | ND | 180 | 140 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2,6-Dinitrotoluene | ND | 180 | 110 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2-Chloronaphthalene | ND | 250 | 100 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2-Chlorophenol | ND | 250 | 100 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2-Methylnaphthalene | ND | 250 | 110 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2-Methylphenol (o-cresol) | ND | 250 | 170 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2-Nitroaniline | ND | 250 | 250 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2-Nitrophenol | ND | 250 | 230 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 3&4-Methylphenol (m&p-cresol) | ND | 250 | 140 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | 1 |
| 3,3'-Dichlorobenzidine | ND | 180 | 170 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 3-Nitroaniline | ND | 360 | 730 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 4,6-Dinitro-2-methylphenol | ND | 220 | 73 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 4-Bromophenyl phenyl ether | ND | 250 | 110 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 4-Chloro-3-methylphenol | ND | 250 | 130 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 4-Chloroaniline | ND | 290 | 170 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 4-Chlorophenyl phenyl ether | ND | 250 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 4-Nitroaniline | ND | 360 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 4-Nitrophenol | ND | 360 | 160 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Acenaphthene | ND | 250 | 110 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Acenaphthylene | ND | 250 | 100 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Acetophenone | ND | 250 | 110 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Aniline | ND | 290 | 290 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Anthracene | ND | 250 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Benz(a)anthracene | ND | 250 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Benzidine | ND | 360 | 210 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Benzo(a)pyrene | ND | 180 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Benzo(b)fluoranthene | ND | 250 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Benzo(ghi)perylene | ND | 250 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Benzo(k)fluoranthene | ND | 250 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Benzoic acid | ND | 1800 | 730 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |

| Parameter | Result | RL/ PQL | LOD/ MDL | Units | Dilution | Date/Time | By | Reference |
|---|---|---|---|---|---|---|---|---|
| Benzyl butyl phthalate | ND | 250 | 94 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Bis(2-chloroethoxy)methane | ND | 250 | 100 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Bis(2-chloroethyl)ether | ND | 180 | 98 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Bis(2-ethylhexyl)phthalate | ND | 250 | 100 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Carbazole | ND | 180 | 150 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Chrysene | ND | 250 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Dibenz(a,h)anthracene | ND | 180 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Dibenzofuran | ND | 250 | 110 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Diethyl phthalate | ND | 250 | 110 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Dimethylphthalate | ND | 250 | 110 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Di-n-butylphthalate | ND | 250 | 97 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Di-n-octylphthalate | ND | 250 | 94 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Fluoranthene | ND | 250 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Fluorene | ND | 250 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Hexachlorobenzene | ND | 180 | 110 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Hexachlorobutadiene | ND | 250 | 130 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Hexachlorocyclopentadiene | ND | 250 | 110 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Hexachloroethane | ND | 180 | 110 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Indeno(1,2,3-cd)pyrene | ND | 250 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Isophorone | ND | 180 | 100 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Naphthalene | ND | 250 | 100 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Nitrobenzene | ND | 180 | 130 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| N-Nitrosodimethylamine | ND | 250 | 100 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| N-Nitrosodi-n-propylamine | ND | 180 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| N-Nitrosodiphenylamine | ND | 250 | 140 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Pentachloronitrobenzene | ND | 250 | 140 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Pentachlorophenol | ND | 220 | 140 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Phenanthrene | ND | 250 | 100 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Phenol | ND | 250 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Pyrene | ND | 250 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Pyridine | ND | 250 | 89 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| **QA/QC Surrogates** | | | | | | | | |
| % 2,4,6-Tribromophenol | 92 | | | % | 1 | 12/04/22 | WB | 30 - 130 % |
| % 2-Fluorobiphenyl | 72 | | | % | 1 | 12/04/22 | WB | 30 - 130 % |
| % 2-Fluorophenol | 70 | | | % | 1 | 12/04/22 | WB | 30 - 130 % |
| % Nitrobenzene-d5 | 75 | | | % | 1 | 12/04/22 | WB | 30 - 130 % |
| % Phenol-d5 | 81 | | | % | 1 | 12/04/22 | WB | 30 - 130 % |
| % Terphenyl-d14 | 81 | | | % | 1 | 12/04/22 | WB | 30 - 130 % |
| **1,4-Dioxane** | | | | | | | | |
| 1,4-dioxane | ND | 73 | 73 | ug/Kg | 1 | 12/06/22 | WB | SW8270D (SIM) |
| **QA/QC Surrogates** | | | | | | | | |
| % 2-Fluorobiphenyl | 48 | | | % | 1 | 12/06/22 | WB | 30 - 130 % |
| % Nitrobenzene-d5 | 62 | | | % | 1 | 12/06/22 | WB | 30 - 130 % |
| % Terphenyl-d14 | 87 | | | % | 1 | 12/06/22 | WB | 30 - 130 % |

Project ID: IPARK0118.62-LOT 10 BOUNDARY MODIFICAT. Phoenix I.D.: CM95278
Client ID: SB-1A (0-1`)

| Parameter | Result | RL/ PQL | LOD/ MDL | Units | Dilution | Date/Time | By | Reference |
|---|---|---|---|---|---|---|---|---|

1 = This parameter is not certified by the primary accrediting authority (NY NELAC) for this matrix. NY NELAC does not offer certification for all parameters at this time.
3 = This parameter exceeds laboratory specified limits.
C = This parameter is subcontracted.
B = Present in blank, no bias suspected.

RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected BRL=Below Reporting Level L=Biased Low LOD=Limit of Detection MDL=Method Detection Limit1
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

## Comments:

*See attached

Per 1.4.6 of EPA method 8270D, 1,2-Diphenylhydrazine is unstable and readily converts to Azobenzene. Azobenzene is used for the calibration of 1,2-Diphenylhydrazine.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

PFAS (21) (EPA 537m), PFOA/PFOS - Soil Extraction (EPA 537m) were analyzed by NY certified lab #12058.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200.
The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.

**Phyllis Shiller, Laboratory Director**
**December 16, 2022**
**Reviewed and Released by: Greg Lawrence, Assistant Lab Director**

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

# Analysis Report

December 16, 2022

FOR: Attn: Nora Brew
Walden Environmental Engineering PLLC
16 Spring Street
Oyster Bay, NY 11771

| Sample Information | | Custody Information | | Date | Time |
|---|---|---|---|---|---|
| Matrix: | SOIL | Collected by: | | 11/30/22 | 9:00 |
| Location Code: | WALDENE-IPARK | Received by: | CP | 12/01/22 | 17:12 |
| Rush Request: | Standard | Analyzed by: | see "By" below | | |
| P.O.#: | IPARK 0118.62 | | | | |

## Laboratory Data

SDG ID: GCM95278
Phoenix ID: CM95279

Project ID: IPARK0118.62-LOT 10 BOUNDARY MODIFICAT.
Client ID: SB-1B (1-2`)

| Parameter | Result | RL/ PQL | LOD/ MDL | Units | Dilution | Date/Time | By | Reference | |
|---|---|---|---|---|---|---|---|---|---|
| Field Extraction | Completed | | | | | 11/30/22 | | SW5035A | 1 |
| **Volatiles** | | | | | | | | | |
| 1,1,1,2-Tetrachloroethane | ND | 4.2 | 0.84 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,1,1-Trichloroethane | ND | 4.2 | 0.42 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,1,2,2-Tetrachloroethane | ND | 4.2 | 0.84 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,1,2-Trichloroethane | ND | 4.2 | 0.84 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,1-Dichloroethane | ND | 4.2 | 0.84 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,1-Dichloroethene | ND | 4.2 | 0.42 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,1-Dichloropropene | ND | 4.2 | 0.42 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,2,3-Trichlorobenzene | ND | 4.2 | 0.84 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,2,3-Trichloropropane | ND | 4.2 | 0.42 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,2,4-Trichlorobenzene | ND | 4.2 | 0.84 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,2,4-Trimethylbenzene | ND | 4.2 | 0.42 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,2-Dibromo-3-chloropropane | ND | 4.2 | 0.84 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,2-Dibromoethane | ND | 4.2 | 0.42 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,2-Dichlorobenzene | ND | 4.2 | 0.42 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,2-Dichloroethane | ND | 4.2 | 0.42 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,2-Dichloropropane | ND | 4.2 | 0.84 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,3,5-Trimethylbenzene | ND | 4.2 | 0.42 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,3-Dichlorobenzene | ND | 4.2 | 0.42 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,3-Dichloropropane | ND | 4.2 | 0.84 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,4-Dichlorobenzene | ND | 4.2 | 0.42 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 2,2-Dichloropropane | ND | 4.2 | 0.42 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 2-Chlorotoluene | ND | 4.2 | 0.84 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 2-Hexanone | ND | 21 | 4.2 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 2-Isopropyltoluene | ND | 4.2 | 0.42 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | 1 |

Project ID: IPARK0118.62-LOT 10 BOUNDARY MODIFICAT. Phoenix I.D.: CM95279

Client ID: SB-1B (1-2`)

| Parameter | Result | | RL/ PQL | LOD/ MDL | Units | Dilution | Date/Time | By | Reference |
|---|---|---|---|---|---|---|---|---|---|
| 4-Chlorotoluene | ND | | 4.2 | 0.42 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| 4-Methyl-2-pentanone | ND | | 21 | 4.2 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| Acetone | 5.6 | JS | 21 | 4.2 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| Acrylonitrile | ND | | 8.4 | 0.84 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| Benzene | ND | | 4.2 | 0.42 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| Bromobenzene | ND | | 4.2 | 0.42 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| Bromochloromethane | ND | | 4.2 | 0.42 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| Bromodichloromethane | ND | | 4.2 | 0.84 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| Bromoform | ND | | 4.2 | 0.84 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| Bromomethane | ND | | 4.2 | 1.7 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| Carbon Disulfide | ND | | 4.2 | 0.84 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| Carbon tetrachloride | ND | | 4.2 | 0.84 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| Chlorobenzene | ND | | 4.2 | 0.42 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| Chloroethane | ND | | 4.2 | 0.42 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| Chloroform | ND | | 4.2 | 0.42 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| Chloromethane | ND | | 4.2 | 0.84 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| cis-1,2-Dichloroethene | ND | | 4.2 | 0.42 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| cis-1,3-Dichloropropene | ND | | 4.2 | 0.42 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| Dibromochloromethane | ND | | 4.2 | 0.84 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| Dibromomethane | ND | | 4.2 | 0.84 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| Dichlorodifluoromethane | ND | | 4.2 | 0.42 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| Ethylbenzene | ND | | 4.2 | 0.42 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| Hexachlorobutadiene | ND | | 4.2 | 0.42 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| Isopropylbenzene | ND | | 4.2 | 0.42 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| m&p-Xylene | ND | | 4.2 | 0.84 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| Methyl Ethyl Ketone | ND | | 25 | 4.2 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| Methyl t-butyl ether (MTBE) | ND | | 8.4 | 0.84 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| Methylene chloride | ND | | 4.2 | 4.2 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| Naphthalene | ND | | 4.2 | 0.84 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| n-Butylbenzene | ND | | 4.2 | 0.42 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| n-Propylbenzene | ND | | 4.2 | 0.84 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| o-Xylene | ND | | 4.2 | 0.84 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| p-Isopropyltoluene | ND | | 4.2 | 0.42 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| sec-Butylbenzene | ND | | 4.2 | 0.42 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| Styrene | ND | | 4.2 | 0.42 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| tert-Butylbenzene | ND | | 4.2 | 0.42 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| Tetrachloroethene | ND | | 4.2 | 0.84 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| Tetrahydrofuran (THF) | 6.4 | J | 8.4 | 2.1 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| Toluene | ND | | 4.2 | 0.42 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| trans-1,2-Dichloroethene | ND | | 4.2 | 0.42 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| trans-1,3-Dichloropropene | ND | | 4.2 | 0.42 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| trans-1,4-dichloro-2-butene | ND | | 8.4 | 2.1 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| Trichloroethene | ND | | 4.2 | 0.42 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| Trichlorofluoromethane | ND | | 4.2 | 0.84 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| Trichlorotrifluoroethane | ND | | 4.2 | 0.42 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| Vinyl chloride | ND | | 4.2 | 0.42 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| **QA/QC Surrogates** | | | | | | | | | |
| % 1,2-dichlorobenzene-d4 | 96 | | | | % | 1 | 12/06/22 | JLI | 70 - 130 % |
| % Bromofluorobenzene | 99 | | | | % | 1 | 12/06/22 | JLI | 70 - 130 % |

**Ver 1**

Project ID: IPARK0118.62-LOT 10 BOUNDARY MODIFICAT. Phoenix I.D.: CM95279
Client ID: SB-1B (1-2`)

| Parameter | Result | RL/ PQL | LOD/ MDL | Units | Dilution | Date/Time | By | Reference |
|---|---|---|---|---|---|---|---|---|
| % Dibromofluoromethane | 100 | | | % | 1 | 12/06/22 | JLI | 70 - 130 % |
| % Toluene-d8 | 94 | | | % | 1 | 12/06/22 | JLI | 70 - 130 % |

1 = This parameter is not certified by the primary accrediting authority (NY NELAC) for this matrix. NY NELAC does not offer certification for all parameters at this time.

RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected BRL=Below Reporting Level L=Biased Low J=Estimated Below RL LOD=Limit of Detection MDL=Method Detection Limit1
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

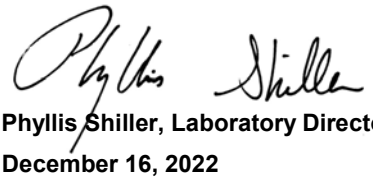
## Comments:

Results are reported on an ``as received`` basis, and are not corrected for dry weight.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

S - Laboratory solvent, contamination is possible.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200.
The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.



**Phyllis Shiller, Laboratory Director**
**December 16, 2022**
**Reviewed and Released by: Greg Lawrence, Assistant Lab Director**

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

# Analysis Report

December 16, 2022

FOR: Attn: Nora Brew
Walden Environmental Engineering PLLC
16 Spring Street
Oyster Bay, NY 11771

| Sample Information | | Custody Information | | Date | Time |
|---|---|---|---|---|---|
| Matrix: | SOIL | Collected by: | | 11/30/22 | 9:00 |
| Location Code: | WALDENE-IPARK | Received by: | CP | 12/01/22 | 17:12 |
| Rush Request: | Standard | Analyzed by: | see "By" below | | |
| P.O.#: | IPARK 0118.62 | | | | |

## Laboratory Data

SDG ID: GCM95278
Phoenix ID: CM95280

Project ID: IPARK0118.62-LOT 10 BOUNDARY MODIFICAT.
Client ID: SB-1C (5.5-6.5`)

| Parameter | Result | RL/ PQL | LOD/ MDL | Units | Dilution | Date/Time | By | Reference | |
|---|---|---|---|---|---|---|---|---|---|
| Aluminum | 16700 | 38 | 7.5 | mg/Kg | 10 | 12/03/22 | CPP | SW6010D | B |
| Antimony | ND | 3.8 | 3.8 | mg/Kg | 1 | 12/04/22 | CPP | SW6010D | |
| Arsenic | 6.74 | 0.75 | 0.75 | mg/Kg | 1 | 12/04/22 | CPP | SW6010D | |
| Barium | 67.3 | 0.8 | 0.38 | mg/Kg | 1 | 12/04/22 | TH | SW6010D | |
| Beryllium | 0.59 | 0.30 | 0.15 | mg/Kg | 1 | 12/04/22 | CPP | SW6010D | |
| Calcium | 12500 | 38 | 35 | mg/Kg | 10 | 12/03/22 | CPP | SW6010D | |
| Cadmium | 2.06 | 0.38 | 0.38 | mg/Kg | 1 | 12/04/22 | CPP | SW6010D | |
| Chromium | 18.6 | 0.38 | 0.38 | mg/Kg | 1 | 12/04/22 | CPP | SW6010D | |
| Cobalt | 13.0 | 0.38 | 0.38 | mg/Kg | 1 | 12/04/22 | CPP | SW6010D | |
| Copper | 33.1 | 0.8 | 0.38 | mg/kg | 1 | 12/04/22 | CPP | SW6010D | |
| Iron | 32800 | 38 | 38 | mg/Kg | 10 | 12/03/22 | CPP | SW6010D | |
| Lead | 16.7 | 0.8 | 0.38 | mg/Kg | 1 | 12/04/22 | CPP | SW6010D | |
| Magnesium | 12400 | 38 | 38 | mg/Kg | 10 | 12/03/22 | CPP | SW6010D | |
| Manganese | 765 | 3.8 | 3.8 | mg/Kg | 10 | 12/03/22 | TH | SW6010D | |
| Mercury | ND | 0.03 | 0.02 | mg/Kg | 2 | 12/05/22 | PM | SW7471B | |
| Nickel | 29.3 | 0.38 | 0.38 | mg/Kg | 1 | 12/04/22 | CPP | SW6010D | |
| Potassium | 2270 | 8 | 2.9 | mg/Kg | 1 | 12/04/22 | CPP | SW6010D | |
| Selenium | ND | 1.5 | 1.3 | mg/Kg | 1 | 12/04/22 | CPP | SW6010D | |
| Silver | ND | 0.38 | 0.38 | mg/Kg | 1 | 12/04/22 | CPP | SW6010D | |
| Sodium | 513 | 8 | 3.2 | mg/Kg | 1 | 12/04/22 | CPP | SW6010D | |
| Thallium | ND | 1.5 | 1.5 | mg/Kg | 1 | 12/04/22 | CPP | SW6010D | |
| Vanadium | 19.1 | 0.38 | 0.38 | mg/Kg | 1 | 12/04/22 | CPP | SW6010D | |
| Zinc | 79.7 | 0.8 | 0.38 | mg/Kg | 1 | 12/04/22 | CPP | SW6010D | |
| Percent Solid | 83 | | | % | | 12/01/22 | Q | SW846-%Solid | |
| Extraction for SVOA SIM | Completed | | | | | 12/05/22 | B/MO | SW3545A | |
| Soil Extraction for PCB | Completed | | | | | 12/02/22 | O/MO | SW3545A | |
| Soil Extraction for Pesticide | Completed | | | | | 12/02/22 | O | SW3545A | |

**Ver 1**

Project ID: IPARK0118.62-LOT 10 BOUNDARY MODIFICAT. Phoenix I.D.: CM95280

Client ID: SB-1C (5.5-6.5`)

| Parameter | Result | RL/ PQL | LOD/ MDL | Units | Dilution | Date/Time | By | Reference | |
|---|---|---|---|---|---|---|---|---|---|
| Field Extraction | Completed | | | | | 11/30/22 | | SW5035A | 1 |
| Mercury Digestion | Completed | | | | | 12/02/22 | AB/AB | SW7471B | |
| Soil Extraction for Herbicide | Completed | | | | | 12/07/22 | J/D | SW3546 | |
| Soil Extraction for SVOA | Completed | | | | | 12/03/22 | Y/L | SW3546 | |
| Total Metals Digest | Completed | | | | | 12/01/22 | | SW3050B | |
| PFAS (21) | Completed | | | | | 12/07/22 | *** | EPA 537m | C |

## PFAS (21)

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **1H,1H,2H,2H-Perfluorodecanesulfonic acid** | ND | 0.242 | 0.0248 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| **1H,1H,2H,2H-Perfluorooctanesulfonic acid** | ND | 0.242 | 0.0640 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| NEtFOSAA | ND | 0.242 | 0.101 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| NMeFOSAA | ND | 0.242 | 0.101 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| **Perfluoro-1-decanesulfonic acid (PFDS)** | ND | 0.242 | 0.0496 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| **Perfluoro-1-heptanesulfonic acid (PFHpS)** | ND | 0.242 | 0.0478 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| **Perfluoro-1-octanesulfonamide (FOSA)** | ND | 0.242 | 0.0453 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| Perfluorobutanesulfonic acid (PFBS) | ND | 0.242 | 0.194 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| Perfluorodecanoic acid (PFDA) | ND | 0.242 | 0.0496 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| Perfluorododecanoic acid (PFDoA) | ND | 0.242 | 0.0727 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| Perfluoroheptanoic acid (PFHpA) | ND | 0.242 | 0.0441 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| **Perfluorohexanesulfonic Acid (PFHxS)** | ND | 0.242 | 0.0301 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| Perfluorohexanoic acid (PFHxA) | ND | 0.242 | 0.0639 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| Perfluoro-n-butanoic acid (PFBA) | ND | 0.242 | 0.177 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| Perfluorononanoic acid (PFNA) | ND | 0.242 | 0.0580 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| Perfluorooctanesulfonic Acid (PFOS) | ND | 0.242 | 0.0425 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| Perfluorooctanoic acid (PFOA) | ND | 0.242 | 0.0748 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| Perfluoropentanoic acid (PFPeA) | ND | 0.242 | 0.0891 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| Perfluorotetradecanoic acid (PFTA) | ND | 0.242 | 0.0724 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| Perfluorotridecanoic acid (PFTrDA) | ND | 0.242 | 0.0422 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| Perfluoroundecanoic acid (PFUnA) | ND | 0.242 | 0.113 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| **QA/QC Surrogates** | | | | | | | | | |
| % d3-N-MeFOSAA | 52.8 | | | % | 1 | 12/11/22 | *** | 25 - 150 % | C |
| % d5-NEtFOSA | 56.2 | | | % | 1 | 12/11/22 | *** | 25 - 150 % | C |
| % M2-6:2FTS | 95.5 | | | % | 1 | 12/11/22 | *** | 25 - 200 % | C |
| % M2-8:2FTS | 88.5 | | | % | 1 | 12/11/22 | *** | 25 - 200 % | C |
| % M2PFTeDA | 27.0 | | | % | 1 | 12/11/22 | *** | 10 - 150 % | C |
| % M3PFBS | 69.4 | | | % | 1 | 12/11/22 | *** | 25 - 150 % | C |
| % M3PFHxS | 77.6 | | | % | 1 | 12/11/22 | *** | 25 - 150 % | C |
| % M4PFHpA | 67.1 | | | % | 1 | 12/11/22 | *** | 25 - 150 % | C |
| % M5PFHxA | 74.7 | | | % | 1 | 12/11/22 | *** | 25 - 150 % | C |
| % M5PFPeA | 72.6 | | | % | 1 | 12/11/22 | *** | 25 - 150 % | C |
| % M6PFDA | 64.3 | | | % | 1 | 12/11/22 | *** | 25 - 150 % | C |
| % M7PFUdA | 50.0 | | | % | 1 | 12/11/22 | *** | 25 - 150 % | C |
| % M8FOSA | 47.8 | | | % | 1 | 12/11/22 | *** | 10 - 150 % | C |
| % M8PFOA | 76.2 | | | % | 1 | 12/11/22 | *** | 25 - 150 % | C |
| % M8PFOS | 66.9 | | | % | 1 | 12/11/22 | *** | 25 - 150 % | C |
| % M9PFNA | 67.2 | | | % | 1 | 12/11/22 | *** | 25 - 150 % | C |
| % MPFBA | 79.4 | | | % | 1 | 12/11/22 | *** | 25 - 150 % | C |
| % MPFDoA | 46.0 | | | % | 1 | 12/11/22 | *** | 25 - 150 % | C |

Project ID: IPARK0118.62-LOT 10 BOUNDARY MODIFICAT. Phoenix I.D.: CM95280
Client ID: SB-1C (5.5-6.5`)

| Parameter | Result | RL/ PQL | LOD/ MDL | Units | Dilution | Date/Time | By | Reference |
|---|---|---|---|---|---|---|---|---|
| **Chlorinated Herbicides** | | | | | | | | |
| 2,4,5-T | ND | 150 | 150 | ug/Kg | 10 | 12/09/22 | JRB | SW8151A |
| 2,4,5-TP (Silvex) | ND | 150 | 150 | ug/Kg | 10 | 12/09/22 | JRB | SW8151A |
| 2,4-D | ND | 300 | 300 | ug/Kg | 10 | 12/09/22 | JRB | SW8151A |
| 2,4-DB | ND | 3000 | 3000 | ug/Kg | 10 | 12/09/22 | JRB | SW8151A |
| Dalapon | ND | 150 | 150 | ug/Kg | 10 | 12/09/22 | JRB | SW8151A |
| Dicamba | ND | 150 | 150 | ug/Kg | 10 | 12/09/22 | JRB | SW8151A |
| Dichloroprop | ND | 300 | 300 | ug/Kg | 10 | 12/09/22 | JRB | SW8151A |
| Dinoseb | ND | 300 | 300 | ug/Kg | 10 | 12/09/22 | JRB | SW8151A |
| **QA/QC Surrogates** | | | | | | | | |
| % DCAA | 81 | | | % | 10 | 12/09/22 | JRB | 30 - 150 % |
| % DCAA (Confirmation) | 78 | | | % | 10 | 12/09/22 | JRB | 30 - 150 % |
| **Polychlorinated Biphenyls** | | | | | | | | |
| PCB-1016 | ND | 78 | 78 | ug/Kg | 2 | 12/06/22 | SC | SW8082A |
| PCB-1221 | ND | 78 | 78 | ug/Kg | 2 | 12/06/22 | SC | SW8082A |
| PCB-1232 | ND | 78 | 78 | ug/Kg | 2 | 12/06/22 | SC | SW8082A |
| PCB-1242 | ND | 78 | 78 | ug/Kg | 2 | 12/06/22 | SC | SW8082A |
| PCB-1248 | ND | 78 | 78 | ug/Kg | 2 | 12/06/22 | SC | SW8082A |
| PCB-1254 | ND | 78 | 78 | ug/Kg | 2 | 12/06/22 | SC | SW8082A |
| PCB-1260 | ND | 78 | 78 | ug/Kg | 2 | 12/06/22 | SC | SW8082A |
| PCB-1262 | ND | 78 | 78 | ug/Kg | 2 | 12/06/22 | SC | SW8082A |
| PCB-1268 | ND | 78 | 78 | ug/Kg | 2 | 12/06/22 | SC | SW8082A |
| **QA/QC Surrogates** | | | | | | | | |
| % DCBP | 83 | | | % | 2 | 12/06/22 | SC | 30 - 150 % |
| % DCBP (Confirmation) | 81 | | | % | 2 | 12/06/22 | SC | 30 - 150 % |
| % TCMX | 68 | | | % | 2 | 12/06/22 | SC | 30 - 150 % |
| % TCMX (Confirmation) | 66 | | | % | 2 | 12/06/22 | SC | 30 - 150 % |
| **Pesticides - Soil** | | | | | | | | |
| 4,4' -DDD | ND | 2.3 | 2.3 | ug/Kg | 2 | 12/05/22 | AW | SW8081B |
| 4,4' -DDE | ND | 2.3 | 2.3 | ug/Kg | 2 | 12/05/22 | AW | SW8081B |
| 4,4' -DDT | ND | 2.3 | 2.3 | ug/Kg | 2 | 12/05/22 | AW | SW8081B |
| a-BHC | ND | 7.8 | 7.8 | ug/Kg | 2 | 12/05/22 | AW | SW8081B |
| a-Chlordane | ND | 3.9 | 3.9 | ug/Kg | 2 | 12/05/22 | AW | SW8081B |
| Alachlor | ND | 3.9 | 3.9 | ug/Kg | 2 | 12/05/22 | AW | SW8081B |
| Aldrin | ND | 3.9 | 3.9 | ug/Kg | 2 | 12/05/22 | AW | SW8081B |
| b-BHC | ND | 7.8 | 7.8 | ug/Kg | 2 | 12/05/22 | AW | SW8081B |
| Chlordane | ND | 39 | 39 | ug/Kg | 2 | 12/05/22 | AW | SW8081B |
| d-BHC | ND | 7.8 | 7.8 | ug/Kg | 2 | 12/05/22 | AW | SW8081B |
| Dieldrin | ND | 3.9 | 3.9 | ug/Kg | 2 | 12/05/22 | AW | SW8081B |
| Endosulfan I | ND | 7.8 | 7.8 | ug/Kg | 2 | 12/05/22 | AW | SW8081B |
| Endosulfan II | ND | 7.8 | 7.8 | ug/Kg | 2 | 12/05/22 | AW | SW8081B |
| Endosulfan sulfate | ND | 7.8 | 7.8 | ug/Kg | 2 | 12/05/22 | AW | SW8081B |
| Endrin | ND | 7.8 | 7.8 | ug/Kg | 2 | 12/05/22 | AW | SW8081B |
| Endrin aldehyde | ND | 7.8 | 7.8 | ug/Kg | 2 | 12/05/22 | AW | SW8081B |
| Endrin ketone | ND | 7.8 | 7.8 | ug/Kg | 2 | 12/05/22 | AW | SW8081B |
| g-BHC | ND | 1.6 | 1.6 | ug/Kg | 2 | 12/05/22 | AW | SW8081B |
| g-Chlordane | ND | 3.9 | 3.9 | ug/Kg | 2 | 12/05/22 | AW | SW8081B |

Project ID: IPARK0118.62-LOT 10 BOUNDARY MODIFICAT. Phoenix I.D.: CM95280

Client ID: SB-1C (5.5-6.5`)

| Parameter | Result | RL/ PQL | LOD/ MDL | Units | Dilution | Date/Time | By | Reference | |
|---|---|---|---|---|---|---|---|---|---|
| Heptachlor | ND | 7.8 | 7.8 | ug/Kg | 2 | 12/05/22 | AW | SW8081B | |
| Heptachlor epoxide | ND | 7.8 | 7.8 | ug/Kg | 2 | 12/05/22 | AW | SW8081B | |
| Methoxychlor | ND | 39 | 39 | ug/Kg | 2 | 12/05/22 | AW | SW8081B | |
| Toxaphene | ND | 160 | 160 | ug/Kg | 2 | 12/05/22 | AW | SW8081B | |
| **QA/QC Surrogates** | | | | | | | | | |
| % DCBP | 76 | | | % | 2 | 12/05/22 | AW | 30 - 150 % | |
| % DCBP (Confirmation) | 106 | | | % | 2 | 12/05/22 | AW | 30 - 150 % | |
| % TCMX | 50 | | | % | 2 | 12/05/22 | AW | 30 - 150 % | |
| % TCMX (Confirmation) | 74 | | | % | 2 | 12/05/22 | AW | 30 - 150 % | |
| **Volatiles** | | | | | | | | | |
| 1,1,1,2-Tetrachloroethane | ND | 5.0 | 1.0 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,1,1-Trichloroethane | ND | 5.0 | 0.50 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,1,2,2-Tetrachloroethane | ND | 5.0 | 1.0 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,1,2-Trichloroethane | ND | 5.0 | 1.0 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,1-Dichloroethane | ND | 5.0 | 1.0 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,1-Dichloroethene | ND | 5.0 | 0.50 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,1-Dichloropropene | ND | 5.0 | 0.50 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,2,3-Trichlorobenzene | ND | 5.0 | 1.0 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,2,3-Trichloropropane | ND | 5.0 | 0.50 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,2,4-Trichlorobenzene | ND | 5.0 | 1.0 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,2,4-Trimethylbenzene | ND | 5.0 | 0.50 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,2-Dibromo-3-chloropropane | ND | 5.0 | 1.0 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,2-Dibromoethane | ND | 5.0 | 0.50 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,2-Dichlorobenzene | ND | 5.0 | 0.50 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,2-Dichloroethane | ND | 5.0 | 0.50 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,2-Dichloropropane | ND | 5.0 | 1.0 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,3,5-Trimethylbenzene | ND | 5.0 | 0.50 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,3-Dichlorobenzene | ND | 5.0 | 0.50 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,3-Dichloropropane | ND | 5.0 | 1.0 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,4-Dichlorobenzene | ND | 5.0 | 0.50 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 2,2-Dichloropropane | ND | 5.0 | 0.50 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 2-Chlorotoluene | ND | 5.0 | 1.0 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 2-Hexanone | ND | 25 | 5.0 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 2-Isopropyltoluene | ND | 5.0 | 0.50 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | 1 |
| 4-Chlorotoluene | ND | 5.0 | 0.50 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 4-Methyl-2-pentanone | ND | 25 | 5.0 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Acetone | ND | 25 | 5.0 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Acrylonitrile | ND | 10 | 1.0 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Benzene | ND | 5.0 | 0.50 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Bromobenzene | ND | 5.0 | 0.50 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Bromochloromethane | ND | 5.0 | 0.50 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Bromodichloromethane | ND | 5.0 | 1.0 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Bromoform | ND | 5.0 | 1.0 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Bromomethane | ND | 5.0 | 2.0 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Carbon Disulfide | ND | 5.0 | 1.0 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Carbon tetrachloride | ND | 5.0 | 1.0 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Chlorobenzene | ND | 5.0 | 0.50 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Chloroethane | ND | 5.0 | 0.50 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Chloroform | ND | 5.0 | 0.50 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |

**Ver 1**

Project ID: IPARK0118.62-LOT 10 BOUNDARY MODIFICAT. Phoenix I.D.: CM95280

Client ID: SB-1C (5.5-6.5`)

| Parameter | Result | | RL/ PQL | LOD/ MDL | Units | Dilution | Date/Time | By | Reference | |
|---|---|---|---|---|---|---|---|---|---|---|
| Chloromethane | ND | | 5.0 | 1.0 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| cis-1,2-Dichloroethene | ND | | 5.0 | 0.50 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| cis-1,3-Dichloropropene | ND | | 5.0 | 0.50 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Dibromochloromethane | ND | | 5.0 | 1.0 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Dibromomethane | ND | | 5.0 | 1.0 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Dichlorodifluoromethane | ND | | 5.0 | 0.50 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Ethylbenzene | ND | | 5.0 | 0.50 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Hexachlorobutadiene | ND | | 5.0 | 0.50 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Isopropylbenzene | ND | | 5.0 | 0.50 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| m&p-Xylene | ND | | 5.0 | 1.0 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Methyl Ethyl Ketone | ND | | 30 | 5.0 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Methyl t-butyl ether (MTBE) | ND | | 10 | 1.0 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Methylene chloride | ND | | 5.0 | 5.0 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Naphthalene | ND | | 5.0 | 1.0 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| n-Butylbenzene | ND | | 5.0 | 0.50 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| n-Propylbenzene | ND | | 5.0 | 1.0 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| o-Xylene | ND | | 5.0 | 1.0 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| p-Isopropyltoluene | ND | | 5.0 | 0.50 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| sec-Butylbenzene | ND | | 5.0 | 0.50 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Styrene | ND | | 5.0 | 0.50 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| tert-Butylbenzene | ND | | 5.0 | 0.50 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Tetrachloroethene | ND | | 5.0 | 1.0 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Tetrahydrofuran (THF) | 7.8 | J | 10 | 2.5 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Toluene | ND | | 5.0 | 0.50 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| trans-1,2-Dichloroethene | ND | | 5.0 | 0.50 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| trans-1,3-Dichloropropene | ND | | 5.0 | 0.50 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| trans-1,4-dichloro-2-butene | ND | | 10 | 2.5 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Trichloroethene | ND | | 5.0 | 0.50 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Trichlorofluoromethane | ND | | 5.0 | 1.0 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Trichlorotrifluoroethane | ND | | 5.0 | 0.50 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Vinyl chloride | ND | | 5.0 | 0.50 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| **QA/QC Surrogates** | | | | | | | | | | |
| % 1,2-dichlorobenzene-d4 | 97 | | | | % | 1 | 12/06/22 | JLI | 70 - 130 % | |
| % Bromofluorobenzene | 100 | | | | % | 1 | 12/06/22 | JLI | 70 - 130 % | |
| % Dibromofluoromethane | 106 | | | | % | 1 | 12/06/22 | JLI | 70 - 130 % | |
| % Toluene-d8 | 94 | | | | % | 1 | 12/06/22 | JLI | 70 - 130 % | |
| **Semivolatiles** | | | | | | | | | | |
| 1,2,4,5-Tetrachlorobenzene | ND | | 270 | 140 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 1,2,4-Trichlorobenzene | ND | | 270 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 1,2-Dichlorobenzene | ND | | 270 | 110 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 1,2-Diphenylhydrazine | ND | | 270 | 130 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 1,3-Dichlorobenzene | ND | | 270 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 1,4-Dichlorobenzene | ND | | 270 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2,2'-Oxybis(1-Chloropropane) | ND | | 270 | 110 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | 1 |
| 2,4,5-Trichlorophenol | ND | | 270 | 210 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2,4,6-Trichlorophenol | ND | | 190 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2,4-Dichlorophenol | ND | | 190 | 140 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2,4-Dimethylphenol | ND | | 270 | 97 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2,4-Dinitrophenol | ND | | 270 | 270 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |

Project ID: IPARK0118.62-LOT 10 BOUNDARY MODIFICAT. Phoenix I.D.: CM95280

Client ID: SB-1C (5.5-6.5`)

| Parameter | Result | RL/ PQL | LOD/ MDL | Units | Dilution | Date/Time | By | Reference | |
|---|---|---|---|---|---|---|---|---|---|
| 2,4-Dinitrotoluene | ND | 190 | 150 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2,6-Dinitrotoluene | ND | 190 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2-Chloronaphthalene | ND | 270 | 110 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2-Chlorophenol | ND | 270 | 110 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2-Methylnaphthalene | ND | 270 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2-Methylphenol (o-cresol) | ND | 270 | 180 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2-Nitroaniline | ND | 270 | 270 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2-Nitrophenol | ND | 270 | 250 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 3&4-Methylphenol (m&p-cresol) | ND | 270 | 150 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | 1 |
| 3,3'-Dichlorobenzidine | ND | 190 | 180 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 3-Nitroaniline | ND | 390 | 780 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 4,6-Dinitro-2-methylphenol | ND | 230 | 78 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 4-Bromophenyl phenyl ether | ND | 270 | 110 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 4-Chloro-3-methylphenol | ND | 270 | 140 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 4-Chloroaniline | ND | 310 | 180 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 4-Chlorophenyl phenyl ether | ND | 270 | 130 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 4-Nitroaniline | ND | 390 | 130 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 4-Nitrophenol | ND | 390 | 180 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Acenaphthene | ND | 270 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Acenaphthylene | ND | 270 | 110 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Acetophenone | ND | 270 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Aniline | ND | 310 | 310 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Anthracene | ND | 270 | 130 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Benz(a)anthracene | ND | 270 | 130 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Benzidine | ND | 390 | 230 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Benzo(a)pyrene | ND | 190 | 130 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Benzo(b)fluoranthene | ND | 270 | 130 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Benzo(ghi)perylene | ND | 270 | 130 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Benzo(k)fluoranthene | ND | 270 | 130 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Benzoic acid | ND | 1900 | 780 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Benzyl butyl phthalate | ND | 270 | 100 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Bis(2-chloroethoxy)methane | ND | 270 | 110 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Bis(2-chloroethyl)ether | ND | 190 | 110 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Bis(2-ethylhexyl)phthalate | ND | 270 | 110 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Carbazole | ND | 190 | 160 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Chrysene | ND | 270 | 130 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Dibenz(a,h)anthracene | ND | 190 | 130 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Dibenzofuran | ND | 270 | 110 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Diethyl phthalate | ND | 270 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Dimethylphthalate | ND | 270 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Di-n-butylphthalate | ND | 270 | 100 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Di-n-octylphthalate | ND | 270 | 100 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Fluoranthene | ND | 270 | 130 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Fluorene | ND | 270 | 130 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Hexachlorobenzene | ND | 190 | 110 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Hexachlorobutadiene | ND | 270 | 140 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Hexachlorocyclopentadiene | ND | 270 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Hexachloroethane | ND | 190 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Indeno(1,2,3-cd)pyrene | ND | 270 | 130 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |

Project ID: IPARK0118.62-LOT 10 BOUNDARY MODIFICAT. Phoenix I.D.: CM95280
Client ID: SB-1C (5.5-6.5`)

| Parameter | Result | RL/ PQL | LOD/ MDL | Units | Dilution | Date/Time | By | Reference |
|---|---|---|---|---|---|---|---|---|
| Isophorone | ND | 190 | 110 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Naphthalene | ND | 270 | 110 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Nitrobenzene | ND | 190 | 140 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| N-Nitrosodimethylamine | ND | 270 | 110 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| N-Nitrosodi-n-propylamine | ND | 190 | 130 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| N-Nitrosodiphenylamine | ND | 270 | 150 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Pentachloronitrobenzene | ND | 270 | 140 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Pentachlorophenol | ND | 230 | 150 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Phenanthrene | ND | 270 | 110 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Phenol | ND | 270 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Pyrene | ND | 270 | 130 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Pyridine | ND | 270 | 96 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| **QA/QC Surrogates** | | | | | | | | |
| % 2,4,6-Tribromophenol | 93 | | | % | 1 | 12/04/22 | WB | 30 - 130 % |
| % 2-Fluorobiphenyl | 79 | | | % | 1 | 12/04/22 | WB | 30 - 130 % |
| % 2-Fluorophenol | 75 | | | % | 1 | 12/04/22 | WB | 30 - 130 % |
| % Nitrobenzene-d5 | 82 | | | % | 1 | 12/04/22 | WB | 30 - 130 % |
| % Phenol-d5 | 89 | | | % | 1 | 12/04/22 | WB | 30 - 130 % |
| % Terphenyl-d14 | 84 | | | % | 1 | 12/04/22 | WB | 30 - 130 % |
| **1,4-Dioxane** | | | | | | | | |
| 1,4-dioxane | ND | 80 | 80 | ug/Kg | 1 | 12/06/22 | WB | SW8270D (SIM) |
| **QA/QC Surrogates** | | | | | | | | |
| % 2-Fluorobiphenyl | 53 | | | % | 1 | 12/06/22 | WB | 30 - 130 % |
| % Nitrobenzene-d5 | 71 | | | % | 1 | 12/06/22 | WB | 30 - 130 % |
| % Terphenyl-d14 | 86 | | | % | 1 | 12/06/22 | WB | 30 - 130 % |

| Parameter | Result | RL/ PQL | LOD/ MDL | Units | Dilution | Date/Time | By | Reference |
|---|---|---|---|---|---|---|---|---|

1 = This parameter is not certified by the primary accrediting authority (NY NELAC) for this matrix. NY NELAC does not offer certification for all parameters at this time.
C = This parameter is subcontracted.
B = Present in blank, no bias suspected.

RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected BRL=Below Reporting Level L=Biased Low J=Estimated Below RL LOD=Limit of Detection MDL=Method Detection Limit1
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

## Comments:

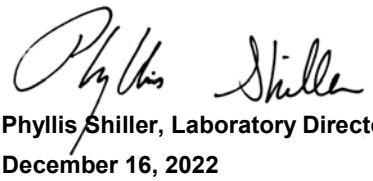
*See attached

Per 1.4.6 of EPA method 8270D, 1,2-Diphenylhydrazine is unstable and readily converts to Azobenzene. Azobenzene is used for the calibration of 1,2-Diphenylhydrazine.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

PFAS (21) (EPA 537m), PFOA/PFOS - Soil Extraction (EPA 537m) were analyzed by NY certified lab #12058.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200.
The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.



**Phyllis Shiller, Laboratory Director**
**December 16, 2022**
**Reviewed and Released by: Greg Lawrence, Assistant Lab Director**

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

# Analysis Report

December 16, 2022

FOR: Attn: Nora Brew
Walden Environmental Engineering PLLC
16 Spring Street
Oyster Bay, NY 11771

| Sample Information | | Custody Information | | Date | Time |
|---|---|---|---|---|---|
| Matrix: | SOIL | Collected by: | | 11/30/22 | 8:45 |
| Location Code: | WALDENE-IPARK | Received by: | CP | 12/01/22 | 17:12 |
| Rush Request: | Standard | Analyzed by: | see "By" below | | |
| P.O.#: | IPARK 0118.62 | | | | |

## Laboratory Data

SDG ID: GCM95278
Phoenix ID: CM95281

Project ID: IPARK0118.62-LOT 10 BOUNDARY MODIFICAT.
Client ID: SB-3A (0-1`)

| Parameter | Result | RL/ PQL | LOD/ MDL | Units | Dilution | Date/Time | By | Reference | |
|---|---|---|---|---|---|---|---|---|---|
| Aluminum | 21700 | 38 | 7.5 | mg/Kg | 10 | 12/03/22 | CPP | SW6010D | B |
| Antimony | ND | 3.8 | 3.8 | mg/Kg | 1 | 12/04/22 | CPP | SW6010D | |
| Arsenic | 5.46 | 0.75 | 0.75 | mg/Kg | 1 | 12/04/22 | CPP | SW6010D | |
| Barium | 91.9 | 0.8 | 0.38 | mg/Kg | 1 | 12/04/22 | TH | SW6010D | |
| Beryllium | 0.72 | 0.30 | 0.15 | mg/Kg | 1 | 12/04/22 | CPP | SW6010D | |
| Calcium | 14400 | 38 | 35 | mg/Kg | 10 | 12/03/22 | CPP | SW6010D | |
| Cadmium | 2.34 | 0.38 | 0.38 | mg/Kg | 1 | 12/04/22 | CPP | SW6010D | |
| Chromium | 26.9 | 0.38 | 0.38 | mg/Kg | 1 | 12/04/22 | CPP | SW6010D | |
| Cobalt | 13.7 | 0.38 | 0.38 | mg/Kg | 1 | 12/04/22 | CPP | SW6010D | |
| Copper | 35.5 | 0.8 | 0.38 | mg/kg | 1 | 12/04/22 | CPP | SW6010D | |
| Iron | 38500 | 38 | 38 | mg/Kg | 10 | 12/03/22 | CPP | SW6010D | |
| Lead | 13.6 | 0.8 | 0.38 | mg/Kg | 1 | 12/04/22 | CPP | SW6010D | |
| Magnesium | 15100 | 38 | 38 | mg/Kg | 10 | 12/03/22 | CPP | SW6010D | |
| Manganese | 474 | 3.8 | 3.8 | mg/Kg | 10 | 12/03/22 | TH | SW6010D | |
| Mercury | ND | 0.03 | 0.02 | mg/Kg | 2 | 12/05/22 | PM | SW7471B | |
| Nickel | 35.2 | 0.38 | 0.38 | mg/Kg | 1 | 12/04/22 | CPP | SW6010D | |
| Potassium | 2250 | 8 | 2.9 | mg/Kg | 1 | 12/04/22 | CPP | SW6010D | |
| Selenium | ND | 1.5 | 1.3 | mg/Kg | 1 | 12/04/22 | CPP | SW6010D | |
| Silver | ND | 0.38 | 0.38 | mg/Kg | 1 | 12/04/22 | CPP | SW6010D | |
| Sodium | 511 | 8 | 3.2 | mg/Kg | 1 | 12/04/22 | CPP | SW6010D | |
| Thallium | ND | 1.5 | 1.5 | mg/Kg | 1 | 12/04/22 | CPP | SW6010D | |
| Vanadium | 23.3 | 0.38 | 0.38 | mg/Kg | 1 | 12/04/22 | CPP | SW6010D | |
| Zinc | 93.7 | 0.8 | 0.38 | mg/Kg | 1 | 12/04/22 | CPP | SW6010D | |
| Percent Solid | 81 | | | % | | 12/01/22 | Q | SW846-%Solid | |
| Extraction for SVOA SIM | Completed | | | | | 12/05/22 | B/MO | SW3545A | |
| Soil Extraction for PCB | Completed | | | | | 12/02/22 | O/Y | SW3545A | |
| Soil Extraction for Pesticide | Completed | | | | | 12/02/22 | O | SW3545A | |

**Ver 1**

Project ID: IPARK0118.62-LOT 10 BOUNDARY MODIFICAT. Phoenix I.D.: CM95281
Client ID: SB-3A (0-1`)

| Parameter | Result | RL/ PQL | LOD/ MDL | Units | Dilution | Date/Time | By | Reference | |
|---|---|---|---|---|---|---|---|---|---|
| Mercury Digestion | Completed | | | | | 12/02/22 | AB/AB | SW7471B | |
| Soil Extraction for Herbicide | Completed | | | | | 12/07/22 | J/D | SW3546 | |
| Soil Extraction for SVOA | Completed | | | | | 12/03/22 | Y/L | SW3546 | |
| Total Metals Digest | Completed | | | | | 12/01/22 | | SW3050B | |
| PFAS (21) | Completed | | | | | 12/07/22 | *** | EPA 537m | C |
| **PFAS (21)** | | | | | | | | | |
| **1H,1H,2H,2H-Perfluorodecanesulfonic acid** | ND | 0.290 | 0.0297 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| **1H,1H,2H,2H-Perfluorooctanesulfonic acid** | ND | 0.290 | 0.0767 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| NEtFOSAA | ND | 0.290 | 0.121 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| NMeFOSAA | ND | 0.290 | 0.121 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| **Perfluoro-1-decanesulfonic acid (PFDS)** | ND | 0.290 | 0.0595 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| **Perfluoro-1-heptanesulfonic acid (PFHpS)** | ND | 0.290 | 0.0573 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| **Perfluoro-1-octanesulfonamide (FOSA)** | ND | 0.290 | 0.0543 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| Perfluorobutanesulfonic acid (PFBS) | ND | 0.290 | 0.232 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| Perfluorodecanoic acid (PFDA) | ND | 0.290 | 0.0595 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| Perfluorododecanoic acid (PFDoA) | ND | 0.290 | 0.0871 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| Perfluoroheptanoic acid (PFHpA) | ND | 0.290 | 0.0529 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| **Perfluorohexanesulfonic Acid (PFHxS)** | ND | 0.290 | 0.0360 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| Perfluorohexanoic acid (PFHxA) | ND | 0.290 | 0.0766 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| Perfluoro-n-butanoic acid (PFBA) | ND | 0.290 | 0.212 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| Perfluorononanoic acid (PFNA) | ND | 0.290 | 0.0695 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| Perfluorooctanesulfonic Acid (PFOS) | ND | 0.290 | 0.0509 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| Perfluorooctanoic acid (PFOA) | ND | 0.290 | 0.0897 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| Perfluoropentanoic acid (PFPeA) | ND | 0.290 | 0.107 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| Perfluorotetradecanoic acid (PFTA) | ND | 0.290 | 0.0868 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| Perfluorotridecanoic acid (PFTrDA) | ND | 0.290 | 0.0505 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| Perfluoroundecanoic acid (PFUnA) | ND | 0.290 | 0.135 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| **QA/QC Surrogates** | | | | | | | | | |
| % d3-N-MeFOSAA | 40.8 | | | % | 1 | 12/11/22 | *** | 25 - 150 % | C |
| % d5-NEtFOSA | 39.5 | | | % | 1 | 12/11/22 | *** | 25 - 150 % | C |
| % M2-6:2FTS | 85.3 | | | % | 1 | 12/11/22 | *** | 25 - 200 % | C |
| % M2-8:2FTS | 76.5 | | | % | 1 | 12/11/22 | *** | 25 - 200 % | C |
| % M2PFTeDA | 17.8 | | | % | 1 | 12/11/22 | *** | 10 - 150 % | C |
| % M3PFBS | 64.7 | | | % | 1 | 12/11/22 | *** | 25 - 150 % | C |
| % M3PFHxS | 66.1 | | | % | 1 | 12/11/22 | *** | 25 - 150 % | C |
| % M4PFHpA | 66.7 | | | % | 1 | 12/11/22 | *** | 25 - 150 % | C |
| % M5PFHxA | 72.3 | | | % | 1 | 12/11/22 | *** | 25 - 150 % | C |
| % M5PFPeA | 67.0 | | | % | 1 | 12/11/22 | *** | 25 - 150 % | C |
| % M6PFDA | 49.2 | | | % | 1 | 12/11/22 | *** | 25 - 150 % | C |
| % M7PFUdA | 39.1 | | | % | 1 | 12/11/22 | *** | 25 - 150 % | C |
| % M8FOSA | 37.1 | | | % | 1 | 12/11/22 | *** | 10 - 150 % | C |
| % M8PFOA | 69.0 | | | % | 1 | 12/11/22 | *** | 25 - 150 % | C |
| % M8PFOS | 61.4 | | | % | 1 | 12/11/22 | *** | 25 - 150 % | C |
| % M9PFNA | 63.0 | | | % | 1 | 12/11/22 | *** | 25 - 150 % | C |
| % MPFBA | 78.3 | | | % | 1 | 12/11/22 | *** | 25 - 150 % | C |
| % MPFDoA | 35.1 | | | % | 1 | 12/11/22 | *** | 25 - 150 % | C |
| **Chlorinated Herbicides** | | | | | | | | | |
| 2,4,5-T | ND | 150 | 150 | ug/Kg | 10 | 12/09/22 | JRB | SW8151A | |

**Ver 1**

Project ID: IPARK0118.62-LOT 10 BOUNDARY MODIFICAT. Phoenix I.D.: CM95281
Client ID: SB-3A (0-1`)

| Parameter | Result | RL/ PQL | LOD/ MDL | Units | Dilution | Date/Time | By | Reference |
|---|---|---|---|---|---|---|---|---|
| 2,4,5-TP (Silvex) | ND | 150 | 150 | ug/Kg | 10 | 12/09/22 | JRB | SW8151A |
| 2,4-D | ND | 300 | 300 | ug/Kg | 10 | 12/09/22 | JRB | SW8151A |
| 2,4-DB | ND | 3000 | 3000 | ug/Kg | 10 | 12/09/22 | JRB | SW8151A |
| Dalapon | ND | 150 | 150 | ug/Kg | 10 | 12/09/22 | JRB | SW8151A |
| Dicamba | ND | 150 | 150 | ug/Kg | 10 | 12/09/22 | JRB | SW8151A |
| Dichloroprop | ND | 300 | 300 | ug/Kg | 10 | 12/09/22 | JRB | SW8151A |
| Dinoseb | ND | 300 | 300 | ug/Kg | 10 | 12/09/22 | JRB | SW8151A |
| **QA/QC Surrogates** | | | | | | | | |
| % DCAA | 102 | | | % | 10 | 12/09/22 | JRB | 30 - 150 % |
| % DCAA (Confirmation) | 97 | | | % | 10 | 12/09/22 | JRB | 30 - 150 % |
| **Polychlorinated Biphenyls** | | | | | | | | |
| PCB-1016 | ND | 82 | 82 | ug/Kg | 2 | 12/05/22 | SC | SW8082A |
| PCB-1221 | ND | 82 | 82 | ug/Kg | 2 | 12/05/22 | SC | SW8082A |
| PCB-1232 | ND | 82 | 82 | ug/Kg | 2 | 12/05/22 | SC | SW8082A |
| PCB-1242 | ND | 82 | 82 | ug/Kg | 2 | 12/05/22 | SC | SW8082A |
| PCB-1248 | ND | 82 | 82 | ug/Kg | 2 | 12/05/22 | SC | SW8082A |
| PCB-1254 | ND | 82 | 82 | ug/Kg | 2 | 12/05/22 | SC | SW8082A |
| PCB-1260 | ND | 82 | 82 | ug/Kg | 2 | 12/05/22 | SC | SW8082A |
| PCB-1262 | ND | 82 | 82 | ug/Kg | 2 | 12/05/22 | SC | SW8082A |
| PCB-1268 | ND | 82 | 82 | ug/Kg | 2 | 12/05/22 | SC | SW8082A |
| **QA/QC Surrogates** | | | | | | | | |
| % DCBP | 70 | | | % | 2 | 12/05/22 | SC | 30 - 150 % |
| % DCBP (Confirmation) | 69 | | | % | 2 | 12/05/22 | SC | 30 - 150 % |
| % TCMX | 53 | | | % | 2 | 12/05/22 | SC | 30 - 150 % |
| % TCMX (Confirmation) | 52 | | | % | 2 | 12/05/22 | SC | 30 - 150 % |
| **Pesticides - Soil** | | | | | | | | |
| 4,4' -DDD | ND | 2.5 | 2.5 | ug/Kg | 2 | 12/05/22 | AW | SW8081B |
| 4,4' -DDE | ND | 2.5 | 2.5 | ug/Kg | 2 | 12/05/22 | AW | SW8081B |
| 4,4' -DDT | ND | 2.5 | 2.5 | ug/Kg | 2 | 12/05/22 | AW | SW8081B |
| a-BHC | ND | 8.2 | 8.2 | ug/Kg | 2 | 12/05/22 | AW | SW8081B |
| a-Chlordane | ND | 4.1 | 4.1 | ug/Kg | 2 | 12/05/22 | AW | SW8081B |
| Alachlor | ND | 4.1 | 4.1 | ug/Kg | 2 | 12/05/22 | AW | SW8081B |
| Aldrin | ND | 4.1 | 4.1 | ug/Kg | 2 | 12/05/22 | AW | SW8081B |
| b-BHC | ND | 8.2 | 8.2 | ug/Kg | 2 | 12/05/22 | AW | SW8081B |
| Chlordane | ND | 41 | 41 | ug/Kg | 2 | 12/05/22 | AW | SW8081B |
| d-BHC | ND | 8.2 | 8.2 | ug/Kg | 2 | 12/05/22 | AW | SW8081B |
| Dieldrin | ND | 4.1 | 4.1 | ug/Kg | 2 | 12/05/22 | AW | SW8081B |
| Endosulfan I | ND | 8.2 | 8.2 | ug/Kg | 2 | 12/05/22 | AW | SW8081B |
| Endosulfan II | ND | 8.2 | 8.2 | ug/Kg | 2 | 12/05/22 | AW | SW8081B |
| Endosulfan sulfate | ND | 8.2 | 8.2 | ug/Kg | 2 | 12/05/22 | AW | SW8081B |
| Endrin | ND | 8.2 | 8.2 | ug/Kg | 2 | 12/05/22 | AW | SW8081B |
| Endrin aldehyde | ND | 8.2 | 8.2 | ug/Kg | 2 | 12/05/22 | AW | SW8081B |
| Endrin ketone | ND | 8.2 | 8.2 | ug/Kg | 2 | 12/05/22 | AW | SW8081B |
| g-BHC | ND | 1.6 | 1.6 | ug/Kg | 2 | 12/05/22 | AW | SW8081B |
| g-Chlordane | ND | 4.1 | 4.1 | ug/Kg | 2 | 12/05/22 | AW | SW8081B |
| Heptachlor | ND | 8.2 | 8.2 | ug/Kg | 2 | 12/05/22 | AW | SW8081B |
| Heptachlor epoxide | ND | 8.2 | 8.2 | ug/Kg | 2 | 12/05/22 | AW | SW8081B |
| Methoxychlor | ND | 41 | 41 | ug/Kg | 2 | 12/05/22 | AW | SW8081B |

Project ID: IPARK0118.62-LOT 10 BOUNDARY MODIFICAT. Phoenix I.D.: CM95281
Client ID: SB-3A (0-1`)

| Parameter | Result | RL/ PQL | LOD/ MDL | Units | Dilution | Date/Time | By | Reference | |
|---|---|---|---|---|---|---|---|---|---|
| Toxaphene | ND | 160 | 160 | ug/Kg | 2 | 12/05/22 | AW | SW8081B | |
| **QA/QC Surrogates** | | | | | | | | | |
| % DCBP | 88 | | | % | 2 | 12/05/22 | AW | 30 - 150 % | |
| % DCBP (Confirmation) | 54 | | | % | 2 | 12/05/22 | AW | 30 - 150 % | |
| % TCMX | 69 | | | % | 2 | 12/05/22 | AW | 30 - 150 % | |
| % TCMX (Confirmation) | 56 | | | % | 2 | 12/05/22 | AW | 30 - 150 % | |
| **Semivolatiles** | | | | | | | | | |
| 1,2,4,5-Tetrachlorobenzene | ND | 280 | 140 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 1,2,4-Trichlorobenzene | ND | 280 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 1,2-Dichlorobenzene | ND | 280 | 110 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 1,2-Diphenylhydrazine | ND | 280 | 130 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 1,3-Dichlorobenzene | ND | 280 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 1,4-Dichlorobenzene | ND | 280 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2,2'-Oxybis(1-Chloropropane) | ND | 280 | 110 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | 1 |
| 2,4,5-Trichlorophenol | ND | 280 | 220 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2,4,6-Trichlorophenol | ND | 200 | 130 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2,4-Dichlorophenol | ND | 200 | 140 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2,4-Dimethylphenol | ND | 280 | 100 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2,4-Dinitrophenol | ND | 280 | 280 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2,4-Dinitrotoluene | ND | 200 | 160 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2,6-Dinitrotoluene | ND | 200 | 130 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2-Chloronaphthalene | ND | 280 | 110 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2-Chlorophenol | ND | 280 | 110 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2-Methylnaphthalene | ND | 280 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2-Methylphenol (o-cresol) | ND | 280 | 190 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2-Nitroaniline | ND | 280 | 280 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2-Nitrophenol | ND | 280 | 250 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 3&4-Methylphenol (m&p-cresol) | ND | 280 | 160 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | 1 |
| 3,3'-Dichlorobenzidine | ND | 200 | 190 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 3-Nitroaniline | ND | 400 | 800 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 4,6-Dinitro-2-methylphenol | ND | 240 | 80 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 4-Bromophenyl phenyl ether | ND | 280 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 4-Chloro-3-methylphenol | ND | 280 | 140 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 4-Chloroaniline | ND | 320 | 190 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 4-Chlorophenyl phenyl ether | ND | 280 | 130 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 4-Nitroaniline | ND | 400 | 130 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 4-Nitrophenol | ND | 400 | 180 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Acenaphthene | ND | 280 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Acenaphthylene | ND | 280 | 110 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Acetophenone | ND | 280 | 130 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Aniline | ND | 320 | 320 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Anthracene | ND | 280 | 130 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Benz(a)anthracene | ND | 280 | 130 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Benzidine | ND | 400 | 240 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Benzo(a)pyrene | ND | 200 | 130 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Benzo(b)fluoranthene | ND | 280 | 140 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Benzo(ghi)perylene | ND | 280 | 130 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Benzo(k)fluoranthene | ND | 280 | 130 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Benzoic acid | ND | 2000 | 800 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |

Project ID: IPARK0118.62-LOT 10 BOUNDARY MODIFICAT. Phoenix I.D.: CM95281
Client ID: SB-3A (0-1`)

| Parameter | Result | RL/ PQL | LOD/ MDL | Units | Dilution | Date/Time | By | Reference |
|---|---|---|---|---|---|---|---|---|
| Benzyl butyl phthalate | ND | 280 | 100 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Bis(2-chloroethoxy)methane | ND | 280 | 110 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Bis(2-chloroethyl)ether | ND | 200 | 110 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Bis(2-ethylhexyl)phthalate | ND | 280 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Carbazole | ND | 200 | 160 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Chrysene | ND | 280 | 130 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Dibenz(a,h)anthracene | ND | 200 | 130 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Dibenzofuran | ND | 280 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Diethyl phthalate | ND | 280 | 130 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Dimethylphthalate | ND | 280 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Di-n-butylphthalate | ND | 280 | 110 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Di-n-octylphthalate | ND | 280 | 100 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Fluoranthene | ND | 280 | 130 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Fluorene | ND | 280 | 130 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Hexachlorobenzene | ND | 200 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Hexachlorobutadiene | ND | 280 | 150 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Hexachlorocyclopentadiene | ND | 280 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Hexachloroethane | ND | 200 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Indeno(1,2,3-cd)pyrene | ND | 280 | 130 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Isophorone | ND | 200 | 110 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Naphthalene | ND | 280 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Nitrobenzene | ND | 200 | 140 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| N-Nitrosodimethylamine | ND | 280 | 110 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| N-Nitrosodi-n-propylamine | ND | 200 | 130 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| N-Nitrosodiphenylamine | ND | 280 | 150 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Pentachloronitrobenzene | ND | 280 | 150 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Pentachlorophenol | ND | 240 | 150 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Phenanthrene | ND | 280 | 110 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Phenol | ND | 280 | 130 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Pyrene | ND | 280 | 140 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Pyridine | ND | 280 | 99 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| **QA/QC Surrogates** | | | | | | | | |
| % 2,4,6-Tribromophenol | 89 | | | % | 1 | 12/04/22 | WB | 30 - 130 % |
| % 2-Fluorobiphenyl | 76 | | | % | 1 | 12/04/22 | WB | 30 - 130 % |
| % 2-Fluorophenol | 70 | | | % | 1 | 12/04/22 | WB | 30 - 130 % |
| % Nitrobenzene-d5 | 75 | | | % | 1 | 12/04/22 | WB | 30 - 130 % |
| % Phenol-d5 | 82 | | | % | 1 | 12/04/22 | WB | 30 - 130 % |
| % Terphenyl-d14 | 79 | | | % | 1 | 12/04/22 | WB | 30 - 130 % |
| **1,4-Dioxane** | | | | | | | | |
| 1,4-dioxane | ND | 82 | 82 | ug/Kg | 1 | 12/06/22 | WB | SW8270D (SIM) |
| **QA/QC Surrogates** | | | | | | | | |
| % 2-Fluorobiphenyl | 63 | | | % | 1 | 12/06/22 | WB | 30 - 130 % |
| % Nitrobenzene-d5 | 92 | | | % | 1 | 12/06/22 | WB | 30 - 130 % |
| % Terphenyl-d14 | 99 | | | % | 1 | 12/06/22 | WB | 30 - 130 % |

| Parameter | Result | RL/ PQL | LOD/ MDL | Units | Dilution | Date/Time | By | Reference |
|---|---|---|---|---|---|---|---|---|

1 = This parameter is not certified by the primary accrediting authority (NY NELAC) for this matrix. NY NELAC does not offer certification for all parameters at this time.
C = This parameter is subcontracted.
B = Present in blank, no bias suspected.

RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected BRL=Below Reporting Level L=Biased Low LOD=Limit of Detection MDL=Method Detection Limit1
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

## Comments:

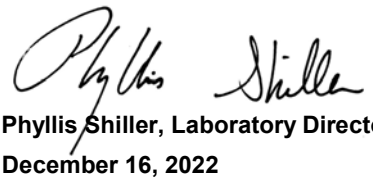
*See attached

Per 1.4.6 of EPA method 8270D, 1,2-Diphenylhydrazine is unstable and readily converts to Azobenzene. Azobenzene is used for the calibration of 1,2-Diphenylhydrazine.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

PFAS (21) (EPA 537m), PFOA/PFOS - Soil Extraction (EPA 537m) were analyzed by NY certified lab #12058.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200.
The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.



**Phyllis Shiller, Laboratory Director**
**December 16, 2022**
**Reviewed and Released by: Greg Lawrence, Assistant Lab Director**

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

# Analysis Report

December 16, 2022

FOR: Attn: Nora Brew
Walden Environmental Engineering PLLC
16 Spring Street
Oyster Bay, NY 11771

| Sample Information | | Custody Information | | Date | Time |
|---|---|---|---|---|---|
| Matrix: | SOIL | Collected by: | | 11/30/22 | 8:45 |
| Location Code: | WALDENE-IPARK | Received by: | CP | 12/01/22 | 17:12 |
| Rush Request: | Standard | Analyzed by: | see "By" below | | |
| P.O.#: | IPARK 0118.62 | | | | |

## Laboratory Data

SDG ID: GCM95278
Phoenix ID: CM95282

Project ID: IPARK0118.62-LOT 10 BOUNDARY MODIFICAT.
Client ID: SB-3B (1-2`)

| Parameter | Result | RL/ PQL | LOD/ MDL | Units | Dilution | Date/Time | By | Reference | |
|---|---|---|---|---|---|---|---|---|---|
| Field Extraction | Completed | | | | | 11/30/22 | | SW5035A | 1 |
| **Volatiles** | | | | | | | | | |
| 1,1,1,2-Tetrachloroethane | ND | 4.1 | 0.82 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,1,1-Trichloroethane | ND | 4.1 | 0.41 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,1,2,2-Tetrachloroethane | ND | 4.1 | 0.82 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,1,2-Trichloroethane | ND | 4.1 | 0.82 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,1-Dichloroethane | ND | 4.1 | 0.82 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,1-Dichloroethene | ND | 4.1 | 0.41 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,1-Dichloropropene | ND | 4.1 | 0.41 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,2,3-Trichlorobenzene | ND | 4.1 | 0.82 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,2,3-Trichloropropane | ND | 4.1 | 0.41 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,2,4-Trichlorobenzene | ND | 4.1 | 0.82 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,2,4-Trimethylbenzene | ND | 4.1 | 0.41 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,2-Dibromo-3-chloropropane | ND | 4.1 | 0.82 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,2-Dibromoethane | ND | 4.1 | 0.41 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,2-Dichlorobenzene | ND | 4.1 | 0.41 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,2-Dichloroethane | ND | 4.1 | 0.41 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,2-Dichloropropane | ND | 4.1 | 0.82 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,3,5-Trimethylbenzene | ND | 4.1 | 0.41 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,3-Dichlorobenzene | ND | 4.1 | 0.41 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,3-Dichloropropane | ND | 4.1 | 0.82 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,4-Dichlorobenzene | ND | 4.1 | 0.41 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 2,2-Dichloropropane | ND | 4.1 | 0.41 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 2-Chlorotoluene | ND | 4.1 | 0.82 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 2-Hexanone | ND | 21 | 4.1 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 2-Isopropyltoluene | ND | 4.1 | 0.41 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | 1 |

Project ID: IPARK0118.62-LOT 10 BOUNDARY MODIFICAT. Phoenix I.D.: CM95282

Client ID: SB-3B (1-2`)

| Parameter | Result | | RL/ PQL | LOD/ MDL | Units | Dilution | Date/Time | By | Reference |
|---|---|---|---|---|---|---|---|---|---|
| 4-Chlorotoluene | ND | | 4.1 | 0.41 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| 4-Methyl-2-pentanone | ND | | 21 | 4.1 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| Acetone | ND | | 21 | 4.1 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| Acrylonitrile | ND | | 8.2 | 0.82 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| Benzene | ND | | 4.1 | 0.41 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| Bromobenzene | ND | | 4.1 | 0.41 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| Bromochloromethane | ND | | 4.1 | 0.41 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| Bromodichloromethane | ND | | 4.1 | 0.82 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| Bromoform | ND | | 4.1 | 0.82 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| Bromomethane | ND | | 4.1 | 1.6 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| Carbon Disulfide | ND | | 4.1 | 0.82 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| Carbon tetrachloride | ND | | 4.1 | 0.82 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| Chlorobenzene | ND | | 4.1 | 0.41 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| Chloroethane | ND | | 4.1 | 0.41 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| Chloroform | ND | | 4.1 | 0.41 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| Chloromethane | ND | | 4.1 | 0.82 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| cis-1,2-Dichloroethene | ND | | 4.1 | 0.41 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| cis-1,3-Dichloropropene | ND | | 4.1 | 0.41 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| Dibromochloromethane | ND | | 4.1 | 0.82 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| Dibromomethane | ND | | 4.1 | 0.82 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| Dichlorodifluoromethane | ND | | 4.1 | 0.41 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| Ethylbenzene | ND | | 4.1 | 0.41 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| Hexachlorobutadiene | ND | | 4.1 | 0.41 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| Isopropylbenzene | ND | | 4.1 | 0.41 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| m&p-Xylene | ND | | 4.1 | 0.82 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| Methyl Ethyl Ketone | ND | | 25 | 4.1 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| Methyl t-butyl ether (MTBE) | ND | | 8.2 | 0.82 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| Methylene chloride | ND | | 4.1 | 4.1 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| Naphthalene | ND | | 4.1 | 0.82 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| n-Butylbenzene | ND | | 4.1 | 0.41 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| n-Propylbenzene | ND | | 4.1 | 0.82 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| o-Xylene | ND | | 4.1 | 0.82 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| p-Isopropyltoluene | ND | | 4.1 | 0.41 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| sec-Butylbenzene | ND | | 4.1 | 0.41 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| Styrene | ND | | 4.1 | 0.41 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| tert-Butylbenzene | ND | | 4.1 | 0.41 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| Tetrachloroethene | ND | | 4.1 | 0.82 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| Tetrahydrofuran (THF) | 6.5 | J | 8.2 | 2.1 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| Toluene | ND | | 4.1 | 0.41 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| trans-1,2-Dichloroethene | ND | | 4.1 | 0.41 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| trans-1,3-Dichloropropene | ND | | 4.1 | 0.41 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| trans-1,4-dichloro-2-butene | ND | | 8.2 | 2.1 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| Trichloroethene | ND | | 4.1 | 0.41 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| Trichlorofluoromethane | ND | | 4.1 | 0.82 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| Trichlorotrifluoroethane | ND | | 4.1 | 0.41 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| Vinyl chloride | ND | | 4.1 | 0.41 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| **QA/QC Surrogates** | | | | | | | | | |
| % 1,2-dichlorobenzene-d4 | 96 | | | | % | 1 | 12/06/22 | JLI | 70 - 130 % |
| % Bromofluorobenzene | 99 | | | | % | 1 | 12/06/22 | JLI | 70 - 130 % |

Project ID: IPARK0118.62-LOT 10 BOUNDARY MODIFICAT. Phoenix I.D.: CM95282
Client ID: SB-3B (1-2`)

| Parameter | Result | RL/ PQL | LOD/ MDL | Units | Dilution | Date/Time | By | Reference |
|---|---|---|---|---|---|---|---|---|
| % Dibromofluoromethane | 106 | | | % | 1 | 12/06/22 | JLI | 70 - 130 % |
| % Toluene-d8 | 94 | | | % | 1 | 12/06/22 | JLI | 70 - 130 % |

1 = This parameter is not certified by the primary accrediting authority (NY NELAC) for this matrix. NY NELAC does not offer certification for all parameters at this time.

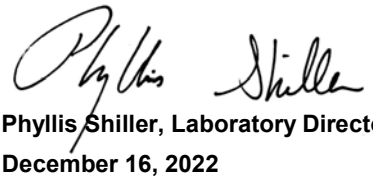
RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected BRL=Below Reporting Level L=Biased Low J=Estimated Below RL LOD=Limit of Detection MDL=Method Detection Limit1
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

## Comments:

Results are reported on an ``as received`` basis, and are not corrected for dry weight.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200.
The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.



**Phyllis Shiller, Laboratory Director**
**December 16, 2022**
**Reviewed and Released by: Greg Lawrence, Assistant Lab Director**

PHOENIX
Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

# Analysis Report

December 16, 2022

FOR: Attn: Nora Brew
Walden Environmental Engineering PLLC
16 Spring Street
Oyster Bay, NY 11771

| Sample Information | | Custody Information | | Date | Time |
|---|---|---|---|---|---|
| Matrix: | SOIL | Collected by: | | 11/30/22 | 8:45 |
| Location Code: | WALDENE-IPARK | Received by: | CP | 12/01/22 | 17:12 |
| Rush Request: | Standard | Analyzed by: | see "By" below | | |
| P.O.#: | IPARK 0118.62 | | | | |

## Laboratory Data

SDG ID: GCM95278
Phoenix ID: CM95283

Project ID: IPARK0118.62-LOT 10 BOUNDARY MODIFICAT.
Client ID: SB-3C (8-9`)

| Parameter | Result | RL/ PQL | LOD/ MDL | Units | Dilution | Date/Time | By | Reference | |
|---|---|---|---|---|---|---|---|---|---|
| Aluminum | 23900 | 42 | 8.3 | mg/Kg | 10 | 12/03/22 | CPP | SW6010D | B |
| Antimony | ND | 4.2 | 4.2 | mg/Kg | 1 | 12/04/22 | CPP | SW6010D | |
| Arsenic | 7.91 | 0.83 | 0.83 | mg/Kg | 1 | 12/04/22 | CPP | SW6010D | |
| Barium | 103 | 0.8 | 0.42 | mg/Kg | 1 | 12/04/22 | TH | SW6010D | |
| Beryllium | 0.80 | 0.33 | 0.17 | mg/Kg | 1 | 12/04/22 | CPP | SW6010D | |
| Calcium | 8860 | 4.2 | 3.8 | mg/Kg | 1 | 12/04/22 | CPP | SW6010D | |
| Cadmium | 2.72 | 0.42 | 0.42 | mg/Kg | 1 | 12/04/22 | CPP | SW6010D | |
| Chromium | 26.6 | 0.42 | 0.42 | mg/Kg | 1 | 12/04/22 | CPP | SW6010D | |
| Cobalt | 18.8 | 0.42 | 0.42 | mg/Kg | 1 | 12/04/22 | CPP | SW6010D | |
| Copper | 41.5 | 0.8 | 0.42 | mg/kg | 1 | 12/04/22 | CPP | SW6010D | |
| Iron | 44600 | 42 | 42 | mg/Kg | 10 | 12/03/22 | CPP | SW6010D | |
| Lead | 20.6 | 0.8 | 0.42 | mg/Kg | 1 | 12/04/22 | CPP | SW6010D | |
| Magnesium | 13400 | 42 | 42 | mg/Kg | 10 | 12/03/22 | CPP | SW6010D | |
| Manganese | 1200 | 4.2 | 4.2 | mg/Kg | 10 | 12/03/22 | TH | SW6010D | |
| Mercury | ND | 0.03 | 0.02 | mg/Kg | 2 | 12/05/22 | PM | SW7471B | |
| Nickel | 39.3 | 0.42 | 0.42 | mg/Kg | 1 | 12/04/22 | CPP | SW6010D | |
| Potassium | 3020 | 8 | 3.2 | mg/Kg | 1 | 12/04/22 | CPP | SW6010D | |
| Selenium | ND | 1.7 | 1.4 | mg/Kg | 1 | 12/04/22 | CPP | SW6010D | |
| Silver | ND | 0.42 | 0.42 | mg/Kg | 1 | 12/04/22 | CPP | SW6010D | |
| Sodium | 771 | 8 | 3.6 | mg/Kg | 1 | 12/04/22 | CPP | SW6010D | |
| Thallium | ND | 1.7 | 1.7 | mg/Kg | 1 | 12/04/22 | CPP | SW6010D | |
| Vanadium | 25.7 | 0.42 | 0.42 | mg/Kg | 1 | 12/04/22 | CPP | SW6010D | |
| Zinc | 104 | 0.8 | 0.42 | mg/Kg | 1 | 12/04/22 | CPP | SW6010D | |
| Percent Solid | 76 | | | % | | 12/01/22 | Q | SW846-%Solid | |
| Extraction for SVOA SIM | Completed | | | | | 12/05/22 | B/MO | SW3545A | |
| Soil Extraction for PCB | Completed | | | | | 12/02/22 | O/Y | SW3545A | |
| Soil Extraction for Pesticide | Completed | | | | | 12/02/22 | O | SW3545A | |

**Ver 1**

Project ID: IPARK0118.62-LOT 10 BOUNDARY MODIFICAT. Phoenix I.D.: CM95283
Client ID: SB-3C (8-9`)

| Parameter | Result | RL/ PQL | LOD/ MDL | Units | Dilution | Date/Time | By | Reference | |
|---|---|---|---|---|---|---|---|---|---|
| Field Extraction | Completed | | | | | 11/30/22 | | SW5035A | 1 |
| Mercury Digestion | Completed | | | | | 12/02/22 | AB/AB | SW7471B | |
| Soil Extraction for Herbicide | Completed | | | | | 12/07/22 | J/D | SW3546 | |
| Soil Extraction for SVOA | Completed | | | | | 12/03/22 | Y/L | SW3546 | |
| Total Metals Digest | Completed | | | | | 12/01/22 | | SW3050B | |
| PFAS (21) | Completed | | | | | 12/07/22 | *** | EPA 537m | C |

## PFAS (21)

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **1H,1H,2H,2H-Perfluorodecanesulfonic acid** | ND | 0.332 | 0.0340 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| **1H,1H,2H,2H-Perfluorooctanesulfonic acid** | ND | 0.332 | 0.0877 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| NEtFOSAA | ND | 0.332 | 0.138 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| NMeFOSAA | ND | 0.332 | 0.139 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| **Perfluoro-1-decanesulfonic acid (PFDS)** | ND | 0.332 | 0.0681 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| **Perfluoro-1-heptanesulfonic acid (PFHpS)** | ND | 0.332 | 0.0655 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| **Perfluoro-1-octanesulfonamide (FOSA)** | ND | 0.332 | 0.0621 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| Perfluorobutanesulfonic acid (PFBS) | ND | 0.332 | 0.266 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| Perfluorodecanoic acid (PFDA) | ND | 0.332 | 0.0681 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| Perfluorododecanoic acid (PFDoA) | ND | 0.332 | 0.0997 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| Perfluoroheptanoic acid (PFHpA) | ND | 0.332 | 0.0605 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| **Perfluorohexanesulfonic Acid (PFHxS)** | ND | 0.332 | 0.0412 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| Perfluorohexanoic acid (PFHxA) | ND | 0.332 | 0.0876 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| Perfluoro-n-butanoic acid (PFBA) | ND | 0.332 | 0.243 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| Perfluorononanoic acid (PFNA) | ND | 0.332 | 0.0795 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| Perfluorooctanesulfonic Acid (PFOS) | ND | 0.332 | 0.0582 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| Perfluorooctanoic acid (PFOA) | ND | 0.332 | 0.103 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| Perfluoropentanoic acid (PFPeA) | ND | 0.332 | 0.122 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| Perfluorotetradecanoic acid (PFTA) | ND | 0.332 | 0.0993 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| Perfluorotridecanoic acid (PFTrDA) | ND | 0.332 | 0.0578 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| Perfluoroundecanoic acid (PFUnA) | ND | 0.332 | 0.155 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| **QA/QC Surrogates** | | | | | | | | | |
| % d3-N-MeFOSAA | 50.9 | | | % | 1 | 12/11/22 | *** | 25 - 150 % | C |
| % d5-NEtFOSA | 41.4 | | | % | 1 | 12/11/22 | *** | 25 - 150 % | C |
| % M2-6:2FTS | 80.8 | | | % | 1 | 12/11/22 | *** | 25 - 200 % | C |
| % M2-8:2FTS | 87.7 | | | % | 1 | 12/11/22 | *** | 25 - 200 % | C |
| % M2PFTeDA | 26.1 | | | % | 1 | 12/11/22 | *** | 10 - 150 % | C |
| % M3PFBS | 61.5 | | | % | 1 | 12/11/22 | *** | 25 - 150 % | C |
| % M3PFHxS | 76.3 | | | % | 1 | 12/11/22 | *** | 25 - 150 % | C |
| % M4PFHpA | 64.0 | | | % | 1 | 12/11/22 | *** | 25 - 150 % | C |
| % M5PFHxA | 65.9 | | | % | 1 | 12/11/22 | *** | 25 - 150 % | C |
| % M5PFPeA | 66.6 | | | % | 1 | 12/11/22 | *** | 25 - 150 % | C |
| % M6PFDA | 53.3 | | | % | 1 | 12/11/22 | *** | 25 - 150 % | C |
| % M7PFUdA | 39.8 | | | % | 1 | 12/11/22 | *** | 25 - 150 % | C |
| % M8FOSA | 43.2 | | | % | 1 | 12/11/22 | *** | 10 - 150 % | C |
| % M8PFOA | 69.8 | | | % | 1 | 12/11/22 | *** | 25 - 150 % | C |
| % M8PFOS | 54.5 | | | % | 1 | 12/11/22 | *** | 25 - 150 % | C |
| % M9PFNA | 69.9 | | | % | 1 | 12/11/22 | *** | 25 - 150 % | C |
| % MPFBA | 70.9 | | | % | 1 | 12/11/22 | *** | 25 - 150 % | C |
| % MPFDoA | 40.7 | | | % | 1 | 12/11/22 | *** | 25 - 150 % | C |

Project ID: IPARK0118.62-LOT 10 BOUNDARY MODIFICAT. Phoenix I.D.: CM95283
Client ID: SB-3C (8-9`)

| Parameter | Result | RL/ PQL | LOD/ MDL | Units | Dilution | Date/Time | By | Reference |
|---|---|---|---|---|---|---|---|---|
| **Chlorinated Herbicides** | | | | | | | | |
| 2,4,5-T | ND | 160 | 160 | ug/Kg | 10 | 12/09/22 | JRB | SW8151A |
| 2,4,5-TP (Silvex) | ND | 160 | 160 | ug/Kg | 10 | 12/09/22 | JRB | SW8151A |
| 2,4-D | ND | 330 | 330 | ug/Kg | 10 | 12/09/22 | JRB | SW8151A |
| 2,4-DB | ND | 3300 | 3300 | ug/Kg | 10 | 12/09/22 | JRB | SW8151A |
| Dalapon | ND | 160 | 160 | ug/Kg | 10 | 12/09/22 | JRB | SW8151A |
| Dicamba | ND | 160 | 160 | ug/Kg | 10 | 12/09/22 | JRB | SW8151A |
| Dichloroprop | ND | 330 | 330 | ug/Kg | 10 | 12/09/22 | JRB | SW8151A |
| Dinoseb | ND | 330 | 330 | ug/Kg | 10 | 12/09/22 | JRB | SW8151A |
| **QA/QC Surrogates** | | | | | | | | |
| % DCAA | 80 | | | % | 10 | 12/09/22 | JRB | 30 - 150 % |
| % DCAA (Confirmation) | 79 | | | % | 10 | 12/09/22 | JRB | 30 - 150 % |
| **Polychlorinated Biphenyls** | | | | | | | | |
| PCB-1016 | ND | 86 | 86 | ug/Kg | 2 | 12/05/22 | SC | SW8082A |
| PCB-1221 | ND | 86 | 86 | ug/Kg | 2 | 12/05/22 | SC | SW8082A |
| PCB-1232 | ND | 86 | 86 | ug/Kg | 2 | 12/05/22 | SC | SW8082A |
| PCB-1242 | ND | 86 | 86 | ug/Kg | 2 | 12/05/22 | SC | SW8082A |
| PCB-1248 | ND | 86 | 86 | ug/Kg | 2 | 12/05/22 | SC | SW8082A |
| PCB-1254 | ND | 86 | 86 | ug/Kg | 2 | 12/05/22 | SC | SW8082A |
| PCB-1260 | ND | 86 | 86 | ug/Kg | 2 | 12/05/22 | SC | SW8082A |
| PCB-1262 | ND | 86 | 86 | ug/Kg | 2 | 12/05/22 | SC | SW8082A |
| PCB-1268 | ND | 86 | 86 | ug/Kg | 2 | 12/05/22 | SC | SW8082A |
| **QA/QC Surrogates** | | | | | | | | |
| % DCBP | 58 | | | % | 2 | 12/05/22 | SC | 30 - 150 % |
| % DCBP (Confirmation) | 66 | | | % | 2 | 12/05/22 | SC | 30 - 150 % |
| % TCMX | 51 | | | % | 2 | 12/05/22 | SC | 30 - 150 % |
| % TCMX (Confirmation) | 50 | | | % | 2 | 12/05/22 | SC | 30 - 150 % |
| **Pesticides - Soil** | | | | | | | | |
| 4,4' -DDD | ND | 2.6 | 2.6 | ug/Kg | 2 | 12/05/22 | AW | SW8081B |
| 4,4' -DDE | ND | 2.6 | 2.6 | ug/Kg | 2 | 12/05/22 | AW | SW8081B |
| 4,4' -DDT | ND | 2.6 | 2.6 | ug/Kg | 2 | 12/05/22 | AW | SW8081B |
| a-BHC | ND | 8.6 | 8.6 | ug/Kg | 2 | 12/05/22 | AW | SW8081B |
| a-Chlordane | ND | 4.3 | 4.3 | ug/Kg | 2 | 12/05/22 | AW | SW8081B |
| Alachlor | ND | 4.3 | 4.3 | ug/Kg | 2 | 12/05/22 | AW | SW8081B |
| Aldrin | ND | 4.3 | 4.3 | ug/Kg | 2 | 12/05/22 | AW | SW8081B |
| b-BHC | ND | 8.6 | 8.6 | ug/Kg | 2 | 12/05/22 | AW | SW8081B |
| Chlordane | ND | 43 | 43 | ug/Kg | 2 | 12/05/22 | AW | SW8081B |
| d-BHC | ND | 8.6 | 8.6 | ug/Kg | 2 | 12/05/22 | AW | SW8081B |
| Dieldrin | ND | 4.3 | 4.3 | ug/Kg | 2 | 12/05/22 | AW | SW8081B |
| Endosulfan I | ND | 8.6 | 8.6 | ug/Kg | 2 | 12/05/22 | AW | SW8081B |
| Endosulfan II | ND | 8.6 | 8.6 | ug/Kg | 2 | 12/05/22 | AW | SW8081B |
| Endosulfan sulfate | ND | 8.6 | 8.6 | ug/Kg | 2 | 12/05/22 | AW | SW8081B |
| Endrin | ND | 8.6 | 8.6 | ug/Kg | 2 | 12/05/22 | AW | SW8081B |
| Endrin aldehyde | ND | 8.6 | 8.6 | ug/Kg | 2 | 12/05/22 | AW | SW8081B |
| Endrin ketone | ND | 8.6 | 8.6 | ug/Kg | 2 | 12/05/22 | AW | SW8081B |
| g-BHC | ND | 1.7 | 1.7 | ug/Kg | 2 | 12/05/22 | AW | SW8081B |
| g-Chlordane | ND | 4.3 | 4.3 | ug/Kg | 2 | 12/05/22 | AW | SW8081B |

| Parameter | Result | RL/ PQL | LOD/ MDL | Units | Dilution | Date/Time | By | Reference | |
|---|---|---|---|---|---|---|---|---|---|
| Heptachlor | ND | 8.6 | 8.6 | ug/Kg | 2 | 12/05/22 | AW | SW8081B | |
| Heptachlor epoxide | ND | 8.6 | 8.6 | ug/Kg | 2 | 12/05/22 | AW | SW8081B | |
| Methoxychlor | ND | 43 | 43 | ug/Kg | 2 | 12/05/22 | AW | SW8081B | |
| Toxaphene | ND | 170 | 170 | ug/Kg | 2 | 12/05/22 | AW | SW8081B | |
| **QA/QC Surrogates** | | | | | | | | | |
| % DCBP | 67 | | | % | 2 | 12/05/22 | AW | 30 - 150 % | |
| % DCBP (Confirmation) | 73 | | | % | 2 | 12/05/22 | AW | 30 - 150 % | |
| % TCMX | 53 | | | % | 2 | 12/05/22 | AW | 30 - 150 % | |
| % TCMX (Confirmation) | 55 | | | % | 2 | 12/05/22 | AW | 30 - 150 % | |
| **Volatiles** | | | | | | | | | |
| 1,1,1,2-Tetrachloroethane | ND | 5.9 | 1.2 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,1,1-Trichloroethane | ND | 5.9 | 0.59 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,1,2,2-Tetrachloroethane | ND | 5.9 | 1.2 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,1,2-Trichloroethane | ND | 5.9 | 1.2 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,1-Dichloroethane | ND | 5.9 | 1.2 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,1-Dichloroethene | ND | 5.9 | 0.59 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,1-Dichloropropene | ND | 5.9 | 0.59 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,2,3-Trichlorobenzene | ND | 5.9 | 1.2 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,2,3-Trichloropropane | ND | 5.9 | 0.59 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,2,4-Trichlorobenzene | ND | 5.9 | 1.2 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,2,4-Trimethylbenzene | ND | 5.9 | 0.59 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,2-Dibromo-3-chloropropane | ND | 5.9 | 1.2 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,2-Dibromoethane | ND | 5.9 | 0.59 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,2-Dichlorobenzene | ND | 5.9 | 0.59 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,2-Dichloroethane | ND | 5.9 | 0.59 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,2-Dichloropropane | ND | 5.9 | 1.2 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,3,5-Trimethylbenzene | ND | 5.9 | 0.59 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,3-Dichlorobenzene | ND | 5.9 | 0.59 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,3-Dichloropropane | ND | 5.9 | 1.2 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,4-Dichlorobenzene | ND | 5.9 | 0.59 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 2,2-Dichloropropane | ND | 5.9 | 0.59 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 2-Chlorotoluene | ND | 5.9 | 1.2 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 2-Hexanone | ND | 29 | 5.9 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 2-Isopropyltoluene | ND | 5.9 | 0.59 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | 1 |
| 4-Chlorotoluene | ND | 5.9 | 0.59 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 4-Methyl-2-pentanone | ND | 29 | 5.9 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Acetone | ND | 29 | 5.9 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Acrylonitrile | ND | 12 | 1.2 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Benzene | ND | 5.9 | 0.59 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Bromobenzene | ND | 5.9 | 0.59 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Bromochloromethane | ND | 5.9 | 0.59 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Bromodichloromethane | ND | 5.9 | 1.2 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Bromoform | ND | 5.9 | 1.2 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Bromomethane | ND | 5.9 | 2.3 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Carbon Disulfide | ND | 5.9 | 1.2 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Carbon tetrachloride | ND | 5.9 | 1.2 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Chlorobenzene | ND | 5.9 | 0.59 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Chloroethane | ND | 5.9 | 0.59 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Chloroform | ND | 5.9 | 0.59 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |

Project ID: IPARK0118.62-LOT 10 BOUNDARY MODIFICAT. Phoenix I.D.: CM95283

Client ID: SB-3C (8-9`)

| Parameter | Result | | RL/ PQL | LOD/ MDL | Units | Dilution | Date/Time | By | Reference | |
|---|---|---|---|---|---|---|---|---|---|---|
| Chloromethane | ND | | 5.9 | 1.2 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| cis-1,2-Dichloroethene | ND | | 5.9 | 0.59 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| cis-1,3-Dichloropropene | ND | | 5.9 | 0.59 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Dibromochloromethane | ND | | 5.9 | 1.2 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Dibromomethane | ND | | 5.9 | 1.2 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Dichlorodifluoromethane | ND | | 5.9 | 0.59 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Ethylbenzene | ND | | 5.9 | 0.59 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Hexachlorobutadiene | ND | | 5.9 | 0.59 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Isopropylbenzene | ND | | 5.9 | 0.59 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| m&p-Xylene | ND | | 5.9 | 1.2 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Methyl Ethyl Ketone | ND | | 35 | 5.9 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Methyl t-butyl ether (MTBE) | ND | | 12 | 1.2 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Methylene chloride | ND | | 5.9 | 5.9 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Naphthalene | ND | | 5.9 | 1.2 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| n-Butylbenzene | ND | | 5.9 | 0.59 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| n-Propylbenzene | ND | | 5.9 | 1.2 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| o-Xylene | ND | | 5.9 | 1.2 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| p-Isopropyltoluene | ND | | 5.9 | 0.59 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| sec-Butylbenzene | ND | | 5.9 | 0.59 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Styrene | ND | | 5.9 | 0.59 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| tert-Butylbenzene | ND | | 5.9 | 0.59 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Tetrachloroethene | ND | | 5.9 | 1.2 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Tetrahydrofuran (THF) | 8.8 | J | 12 | 2.9 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Toluene | ND | | 5.9 | 0.59 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| trans-1,2-Dichloroethene | ND | | 5.9 | 0.59 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| trans-1,3-Dichloropropene | ND | | 5.9 | 0.59 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| trans-1,4-dichloro-2-butene | ND | | 12 | 2.9 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Trichloroethene | ND | | 5.9 | 0.59 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Trichlorofluoromethane | ND | | 5.9 | 1.2 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Trichlorotrifluoroethane | ND | | 5.9 | 0.59 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Vinyl chloride | ND | | 5.9 | 0.59 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| **QA/QC Surrogates** | | | | | | | | | | |
| % 1,2-dichlorobenzene-d4 | 96 | | | | % | 1 | 12/06/22 | JLI | 70 - 130 % | |
| % Bromofluorobenzene | 100 | | | | % | 1 | 12/06/22 | JLI | 70 - 130 % | |
| % Dibromofluoromethane | 100 | | | | % | 1 | 12/06/22 | JLI | 70 - 130 % | |
| % Toluene-d8 | 94 | | | | % | 1 | 12/06/22 | JLI | 70 - 130 % | |
| **Semivolatiles** | | | | | | | | | | |
| 1,2,4,5-Tetrachlorobenzene | ND | | 300 | 150 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 1,2,4-Trichlorobenzene | ND | | 300 | 130 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 1,2-Dichlorobenzene | ND | | 300 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 1,2-Diphenylhydrazine | ND | | 300 | 140 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 1,3-Dichlorobenzene | ND | | 300 | 130 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 1,4-Dichlorobenzene | ND | | 300 | 130 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2,2'-Oxybis(1-Chloropropane) | ND | | 300 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | 1 |
| 2,4,5-Trichlorophenol | ND | | 300 | 230 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2,4,6-Trichlorophenol | ND | | 210 | 140 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2,4-Dichlorophenol | ND | | 210 | 150 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2,4-Dimethylphenol | ND | | 300 | 110 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2,4-Dinitrophenol | ND | | 300 | 300 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |

Project ID: IPARK0118.62-LOT 10 BOUNDARY MODIFICAT. Phoenix I.D.: CM95283

Client ID: SB-3C (8-9`)

| Parameter | Result | RL/ PQL | LOD/ MDL | Units | Dilution | Date/Time | By | Reference | |
|---|---|---|---|---|---|---|---|---|---|
| 2,4-Dinitrotoluene | ND | 210 | 170 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2,6-Dinitrotoluene | ND | 210 | 130 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2-Chloronaphthalene | ND | 300 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2-Chlorophenol | ND | 300 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2-Methylnaphthalene | ND | 300 | 130 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2-Methylphenol (o-cresol) | ND | 300 | 200 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2-Nitroaniline | ND | 300 | 300 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2-Nitrophenol | ND | 300 | 270 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 3&4-Methylphenol (m&p-cresol) | ND | 300 | 170 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | 1 |
| 3,3'-Dichlorobenzidine | ND | 210 | 200 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 3-Nitroaniline | ND | 430 | 850 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 4,6-Dinitro-2-methylphenol | ND | 260 | 85 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 4-Bromophenyl phenyl ether | ND | 300 | 130 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 4-Chloro-3-methylphenol | ND | 300 | 150 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 4-Chloroaniline | ND | 340 | 200 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 4-Chlorophenyl phenyl ether | ND | 300 | 140 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 4-Nitroaniline | ND | 430 | 140 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 4-Nitrophenol | ND | 430 | 190 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Acenaphthene | ND | 300 | 130 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Acenaphthylene | ND | 300 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Acetophenone | ND | 300 | 130 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Aniline | ND | 340 | 340 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Anthracene | ND | 300 | 140 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Benz(a)anthracene | ND | 300 | 140 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Benzidine | ND | 430 | 250 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Benzo(a)pyrene | ND | 210 | 140 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Benzo(b)fluoranthene | ND | 300 | 150 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Benzo(ghi)perylene | ND | 300 | 140 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Benzo(k)fluoranthene | ND | 300 | 140 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Benzoic acid | ND | 2100 | 850 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Benzyl butyl phthalate | ND | 300 | 110 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Bis(2-chloroethoxy)methane | ND | 300 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Bis(2-chloroethyl)ether | ND | 210 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Bis(2-ethylhexyl)phthalate | ND | 300 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Carbazole | ND | 210 | 170 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Chrysene | ND | 300 | 140 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Dibenz(a,h)anthracene | ND | 210 | 140 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Dibenzofuran | ND | 300 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Diethyl phthalate | ND | 300 | 130 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Dimethylphthalate | ND | 300 | 130 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Di-n-butylphthalate | ND | 300 | 110 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Di-n-octylphthalate | ND | 300 | 110 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Fluoranthene | ND | 300 | 140 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Fluorene | ND | 300 | 140 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Hexachlorobenzene | ND | 210 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Hexachlorobutadiene | ND | 300 | 150 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Hexachlorocyclopentadiene | ND | 300 | 130 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Hexachloroethane | ND | 210 | 130 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Indeno(1,2,3-cd)pyrene | ND | 300 | 140 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |

| Parameter | Result | RL/ PQL | LOD/ MDL | Units | Dilution | Date/Time | By | Reference |
|---|---|---|---|---|---|---|---|---|
| Isophorone | ND | 210 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Naphthalene | ND | 300 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Nitrobenzene | ND | 210 | 150 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| N-Nitrosodimethylamine | ND | 300 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| N-Nitrosodi-n-propylamine | ND | 210 | 140 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| N-Nitrosodiphenylamine | ND | 300 | 160 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Pentachloronitrobenzene | ND | 300 | 160 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Pentachlorophenol | ND | 260 | 160 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Phenanthrene | ND | 300 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Phenol | ND | 300 | 140 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Pyrene | ND | 300 | 150 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Pyridine | ND | 300 | 110 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| **QA/QC Surrogates** | | | | | | | | |
| % 2,4,6-Tribromophenol | 90 | | | % | 1 | 12/04/22 | WB | 30 - 130 % |
| % 2-Fluorobiphenyl | 82 | | | % | 1 | 12/04/22 | WB | 30 - 130 % |
| % 2-Fluorophenol | 79 | | | % | 1 | 12/04/22 | WB | 30 - 130 % |
| % Nitrobenzene-d5 | 80 | | | % | 1 | 12/04/22 | WB | 30 - 130 % |
| % Phenol-d5 | 89 | | | % | 1 | 12/04/22 | WB | 30 - 130 % |
| % Terphenyl-d14 | 80 | | | % | 1 | 12/04/22 | WB | 30 - 130 % |
| **1,4-Dioxane** | | | | | | | | |
| 1,4-dioxane | ND | 88 | 88 | ug/Kg | 1 | 12/06/22 | WB | SW8270D (SIM) |
| **QA/QC Surrogates** | | | | | | | | |
| % 2-Fluorobiphenyl | 60 | | | % | 1 | 12/06/22 | WB | 30 - 130 % |
| % Nitrobenzene-d5 | 86 | | | % | 1 | 12/06/22 | WB | 30 - 130 % |
| % Terphenyl-d14 | 93 | | | % | 1 | 12/06/22 | WB | 30 - 130 % |

| Parameter | Result | RL/ PQL | LOD/ MDL | Units | Dilution | Date/Time | By | Reference |
|---|---|---|---|---|---|---|---|---|

1 = This parameter is not certified by the primary accrediting authority (NY NELAC) for this matrix. NY NELAC does not offer certification for all parameters at this time.
C = This parameter is subcontracted.
B = Present in blank, no bias suspected.

RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected BRL=Below Reporting Level L=Biased Low J=Estimated Below RL LOD=Limit of Detection MDL=Method Detection Limit1
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

## Comments:

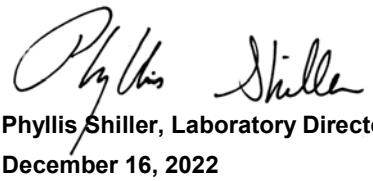
*See attached

Per 1.4.6 of EPA method 8270D, 1,2-Diphenylhydrazine is unstable and readily converts to Azobenzene. Azobenzene is used for the calibration of 1,2-Diphenylhydrazine.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

PFAS (21) (EPA 537m), PFOA/PFOS - Soil Extraction (EPA 537m) were analyzed by NY certified lab #12058.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200.
The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.



**Phyllis Shiller, Laboratory Director**
**December 16, 2022**
**Reviewed and Released by: Greg Lawrence, Assistant Lab Director**

PHOENIX
Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

# Analysis Report

December 16, 2022

FOR: Attn: Nora Brew
Walden Environmental Engineering PLLC
16 Spring Street
Oyster Bay, NY 11771

| Sample Information | | Custody Information | | Date | Time |
|---|---|---|---|---|---|
| Matrix: | SOIL | Collected by: | | 11/30/22 | 9:30 |
| Location Code: | WALDENE-IPARK | Received by: | CP | 12/01/22 | 17:12 |
| Rush Request: | Standard | Analyzed by: | see "By" below | | |
| P.O.#: | IPARK 0118.62 | | | | |

## Laboratory Data

SDG ID: GCM95278
Phoenix ID: CM95284

Project ID: IPARK0118.62-LOT 10 BOUNDARY MODIFICAT.
Client ID: SB-2A (0-1`)

| Parameter | Result | RL/ PQL | LOD/ MDL | Units | Dilution | Date/Time | By | Reference | |
|---|---|---|---|---|---|---|---|---|---|
| Aluminum | 17500 | 46 | 9.3 | mg/Kg | 10 | 12/03/22 | CPP | SW6010D | B |
| Antimony | ND | 4.6 | 4.6 | mg/Kg | 1 | 12/04/22 | CPP | SW6010D | |
| Arsenic | 5.86 | 0.93 | 0.93 | mg/Kg | 1 | 12/04/22 | CPP | SW6010D | |
| Barium | 63.5 | 0.9 | 0.46 | mg/Kg | 1 | 12/04/22 | TH | SW6010D | |
| Beryllium | 0.62 | 0.37 | 0.19 | mg/Kg | 1 | 12/04/22 | CPP | SW6010D | |
| Calcium | 17000 | 46 | 43 | mg/Kg | 10 | 12/03/22 | CPP | SW6010D | |
| Cadmium | 2.10 | 0.46 | 0.46 | mg/Kg | 1 | 12/04/22 | CPP | SW6010D | |
| Chromium | 19.0 | 0.46 | 0.46 | mg/Kg | 1 | 12/04/22 | CPP | SW6010D | |
| Cobalt | 13.6 | 0.46 | 0.46 | mg/Kg | 1 | 12/04/22 | CPP | SW6010D | |
| Copper | 27.7 | 0.9 | 0.46 | mg/kg | 1 | 12/04/22 | CPP | SW6010D | |
| Iron | 33200 | 46 | 46 | mg/Kg | 10 | 12/03/22 | CPP | SW6010D | |
| Lead | 15.6 | 0.9 | 0.46 | mg/Kg | 1 | 12/04/22 | CPP | SW6010D | |
| Magnesium | 17200 | 46 | 46 | mg/Kg | 10 | 12/03/22 | CPP | SW6010D | |
| Manganese | 967 | 4.6 | 4.6 | mg/Kg | 10 | 12/03/22 | TH | SW6010D | |
| Mercury | ND | 0.03 | 0.02 | mg/Kg | 2 | 12/05/22 | PM | SW7471B | |
| Nickel | 28.3 | 0.46 | 0.46 | mg/Kg | 1 | 12/04/22 | CPP | SW6010D | |
| Potassium | 1600 | 9 | 3.6 | mg/Kg | 1 | 12/04/22 | CPP | SW6010D | |
| Selenium | ND | 1.9 | 1.6 | mg/Kg | 1 | 12/04/22 | CPP | SW6010D | |
| Silver | ND | 0.46 | 0.46 | mg/Kg | 1 | 12/04/22 | CPP | SW6010D | |
| Sodium | 616 | 9 | 4.0 | mg/Kg | 1 | 12/04/22 | CPP | SW6010D | |
| Thallium | ND | 1.9 | 1.9 | mg/Kg | 1 | 12/04/22 | CPP | SW6010D | |
| Vanadium | 21.7 | 0.46 | 0.46 | mg/Kg | 1 | 12/04/22 | CPP | SW6010D | |
| Zinc | 73.5 | 0.9 | 0.46 | mg/Kg | 1 | 12/04/22 | CPP | SW6010D | |
| Percent Solid | 75 | | | % | | 12/01/22 | Q | SW846-%Solid | |
| Extraction for SVOA SIM | Completed | | | | | 12/05/22 | B/MO | SW3545A | |
| Soil Extraction for PCB | Completed | | | | | 12/02/22 | O/Y | SW3545A | |
| Soil Extraction for Pesticide | Completed | | | | | 12/02/22 | O | SW3545A | |

**Ver 1**

Project ID: IPARK0118.62-LOT 10 BOUNDARY MODIFICAT. Phoenix I.D.: CM95284
Client ID: SB-2A (0-1`)

| Parameter | Result | RL/ PQL | LOD/ MDL | Units | Dilution | Date/Time | By | Reference | |
|---|---|---|---|---|---|---|---|---|---|
| Mercury Digestion | Completed | | | | | 12/02/22 | AB/AB | SW7471B | |
| Soil Extraction for Herbicide | Completed | | | | | 12/07/22 | J/D | SW3546 | |
| Soil Extraction for SVOA | Completed | | | | | 12/03/22 | Y/L | SW3546 | |
| Total Metals Digest | Completed | | | | | 12/01/22 | | SW3050B | |
| PFAS (21) | Completed | | | | | 12/07/22 | *** | EPA 537m | C |
| **PFAS (21)** | | | | | | | | | |
| 1H,1H,2H,2H-Perfluorodecanesulfonic acid | ND | 0.271 | 0.0277 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| 1H,1H,2H,2H-Perfluorooctanesulfonic acid | ND | 0.271 | 0.0714 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| NEtFOSAA | ND | 0.271 | 0.113 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| NMeFOSAA | ND | 0.271 | 0.113 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| Perfluoro-1-decanesulfonic acid (PFDS) | ND | 0.271 | 0.0554 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| Perfluoro-1-heptanesulfonic acid (PFHpS) | ND | 0.271 | 0.0533 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| Perfluoro-1-octanesulfonamide (FOSA) | ND | 0.271 | 0.0505 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| Perfluorobutanesulfonic acid (PFBS) | ND | 0.271 | 0.216 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| Perfluorodecanoic acid (PFDA) | ND | 0.271 | 0.0554 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| Perfluorododecanoic acid (PFDoA) | ND | 0.271 | 0.0812 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| Perfluoroheptanoic acid (PFHpA) | ND | 0.271 | 0.0492 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| Perfluorohexanesulfonic Acid (PFHxS) | ND | 0.271 | 0.0335 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| Perfluorohexanoic acid (PFHxA) | ND | 0.271 | 0.0713 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| Perfluoro-n-butanoic acid (PFBA) | ND | 0.271 | 0.198 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| Perfluorononanoic acid (PFNA) | ND | 0.271 | 0.0647 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| Perfluorooctanesulfonic Acid (PFOS) | ND | 0.271 | 0.0474 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| Perfluorooctanoic acid (PFOA) | ND | 0.271 | 0.0835 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| Perfluoropentanoic acid (PFPeA) | ND | 0.271 | 0.0994 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| Perfluorotetradecanoic acid (PFTA) | ND | 0.271 | 0.0808 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| Perfluorotridecanoic acid (PFTrDA) | ND | 0.271 | 0.0471 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| Perfluoroundecanoic acid (PFUnA) | ND | 0.271 | 0.126 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| **QA/QC Surrogates** | | | | | | | | | |
| % d3-N-MeFOSAA | 61.6 | | | % | 1 | 12/11/22 | *** | 25 - 150 % | C |
| % d5-NEtFOSA | 59.0 | | | % | 1 | 12/11/22 | *** | 25 - 150 % | C |
| % M2-6:2FTS | 207 | | | % | 1 | 12/11/22 | *** | 25 - 200 % | C,3 |
| % M2-8:2FTS | 175 | | | % | 1 | 12/11/22 | *** | 25 - 200 % | C |
| % M2PFTeDA | 35.3 | | | % | 1 | 12/11/22 | *** | 10 - 150 % | C |
| % M3PFBS | 71.4 | | | % | 1 | 12/11/22 | *** | 25 - 150 % | C |
| % M3PFHxS | 77.4 | | | % | 1 | 12/11/22 | *** | 25 - 150 % | C |
| % M4PFHpA | 63.7 | | | % | 1 | 12/11/22 | *** | 25 - 150 % | C |
| % M5PFHxA | 69.8 | | | % | 1 | 12/11/22 | *** | 25 - 150 % | C |
| % M5PFPeA | 71.1 | | | % | 1 | 12/11/22 | *** | 25 - 150 % | C |
| % M6PFDA | 52.6 | | | % | 1 | 12/11/22 | *** | 25 - 150 % | C |
| % M7PFUdA | 44.7 | | | % | 1 | 12/11/22 | *** | 25 - 150 % | C |
| % M8FOSA | 43.5 | | | % | 1 | 12/11/22 | *** | 10 - 150 % | C |
| % M8PFOA | 68.3 | | | % | 1 | 12/11/22 | *** | 25 - 150 % | C |
| % M8PFOS | 62.8 | | | % | 1 | 12/11/22 | *** | 25 - 150 % | C |
| % M9PFNA | 51.7 | | | % | 1 | 12/11/22 | *** | 25 - 150 % | C |
| % MPFBA | 77.7 | | | % | 1 | 12/11/22 | *** | 25 - 150 % | C |
| % MPFDoA | 45.3 | | | % | 1 | 12/11/22 | *** | 25 - 150 % | C |
| **Chlorinated Herbicides** | | | | | | | | | |
| 2,4,5-T | ND | 160 | 160 | ug/Kg | 10 | 12/09/22 | JRB | SW8151A | |

**Ver 1**

Project ID: IPARK0118.62-LOT 10 BOUNDARY MODIFICAT. Phoenix I.D.: CM95284
Client ID: SB-2A (0-1`)

| Parameter | Result | RL/ PQL | LOD/ MDL | Units | Dilution | Date/Time | By | Reference |
|---|---|---|---|---|---|---|---|---|
| 2,4,5-TP (Silvex) | ND | 160 | 160 | ug/Kg | 10 | 12/09/22 | JRB | SW8151A |
| 2,4-D | ND | 330 | 330 | ug/Kg | 10 | 12/09/22 | JRB | SW8151A |
| 2,4-DB | ND | 3300 | 3300 | ug/Kg | 10 | 12/09/22 | JRB | SW8151A |
| Dalapon | ND | 160 | 160 | ug/Kg | 10 | 12/09/22 | JRB | SW8151A |
| Dicamba | ND | 160 | 160 | ug/Kg | 10 | 12/09/22 | JRB | SW8151A |
| Dichloroprop | ND | 330 | 330 | ug/Kg | 10 | 12/09/22 | JRB | SW8151A |
| Dinoseb | ND | 330 | 330 | ug/Kg | 10 | 12/09/22 | JRB | SW8151A |
| **QA/QC Surrogates** | | | | | | | | |
| % DCAA | 131 | | | % | 10 | 12/09/22 | JRB | 30 - 150 % |
| % DCAA (Confirmation) | 119 | | | % | 10 | 12/09/22 | JRB | 30 - 150 % |
| **Polychlorinated Biphenyls** | | | | | | | | |
| PCB-1016 | ND | 86 | 86 | ug/Kg | 2 | 12/05/22 | SC | SW8082A |
| PCB-1221 | ND | 86 | 86 | ug/Kg | 2 | 12/05/22 | SC | SW8082A |
| PCB-1232 | ND | 86 | 86 | ug/Kg | 2 | 12/05/22 | SC | SW8082A |
| PCB-1242 | ND | 86 | 86 | ug/Kg | 2 | 12/05/22 | SC | SW8082A |
| PCB-1248 | ND | 86 | 86 | ug/Kg | 2 | 12/05/22 | SC | SW8082A |
| PCB-1254 | ND | 86 | 86 | ug/Kg | 2 | 12/05/22 | SC | SW8082A |
| PCB-1260 | ND | 86 | 86 | ug/Kg | 2 | 12/05/22 | SC | SW8082A |
| PCB-1262 | ND | 86 | 86 | ug/Kg | 2 | 12/05/22 | SC | SW8082A |
| PCB-1268 | ND | 86 | 86 | ug/Kg | 2 | 12/05/22 | SC | SW8082A |
| **QA/QC Surrogates** | | | | | | | | |
| % DCBP | 71 | | | % | 2 | 12/05/22 | SC | 30 - 150 % |
| % DCBP (Confirmation) | 68 | | | % | 2 | 12/05/22 | SC | 30 - 150 % |
| % TCMX | 57 | | | % | 2 | 12/05/22 | SC | 30 - 150 % |
| % TCMX (Confirmation) | 56 | | | % | 2 | 12/05/22 | SC | 30 - 150 % |
| **Pesticides - Soil** | | | | | | | | |
| 4,4' -DDD | ND | 2.6 | 2.6 | ug/Kg | 2 | 12/05/22 | AW | SW8081B |
| 4,4' -DDE | 6.0 | 2.6 | 2.6 | ug/Kg | 2 | 12/05/22 | AW | SW8081B |
| 4,4' -DDT | ND | 2.6 | 2.6 | ug/Kg | 2 | 12/05/22 | AW | SW8081B |
| a-BHC | ND | 8.6 | 8.6 | ug/Kg | 2 | 12/05/22 | AW | SW8081B |
| a-Chlordane | ND | 4.3 | 4.3 | ug/Kg | 2 | 12/05/22 | AW | SW8081B |
| Alachlor | ND | 4.3 | 4.3 | ug/Kg | 2 | 12/05/22 | AW | SW8081B |
| Aldrin | ND | 4.3 | 4.3 | ug/Kg | 2 | 12/05/22 | AW | SW8081B |
| b-BHC | ND | 8.6 | 8.6 | ug/Kg | 2 | 12/05/22 | AW | SW8081B |
| Chlordane | ND | 43 | 43 | ug/Kg | 2 | 12/05/22 | AW | SW8081B |
| d-BHC | ND | 8.6 | 8.6 | ug/Kg | 2 | 12/05/22 | AW | SW8081B |
| Dieldrin | ND | 4.3 | 4.3 | ug/Kg | 2 | 12/05/22 | AW | SW8081B |
| Endosulfan I | ND | 8.6 | 8.6 | ug/Kg | 2 | 12/05/22 | AW | SW8081B |
| Endosulfan II | ND | 8.6 | 8.6 | ug/Kg | 2 | 12/05/22 | AW | SW8081B |
| Endosulfan sulfate | ND | 8.6 | 8.6 | ug/Kg | 2 | 12/05/22 | AW | SW8081B |
| Endrin | ND | 8.6 | 8.6 | ug/Kg | 2 | 12/05/22 | AW | SW8081B |
| Endrin aldehyde | ND | 8.6 | 8.6 | ug/Kg | 2 | 12/05/22 | AW | SW8081B |
| Endrin ketone | ND | 8.6 | 8.6 | ug/Kg | 2 | 12/05/22 | AW | SW8081B |
| g-BHC | ND | 1.7 | 1.7 | ug/Kg | 2 | 12/05/22 | AW | SW8081B |
| g-Chlordane | ND | 4.3 | 4.3 | ug/Kg | 2 | 12/05/22 | AW | SW8081B |
| Heptachlor | ND | 8.6 | 8.6 | ug/Kg | 2 | 12/05/22 | AW | SW8081B |
| Heptachlor epoxide | ND | 8.6 | 8.6 | ug/Kg | 2 | 12/05/22 | AW | SW8081B |
| Methoxychlor | ND | 43 | 43 | ug/Kg | 2 | 12/05/22 | AW | SW8081B |

Project ID: IPARK0118.62-LOT 10 BOUNDARY MODIFICAT. Phoenix I.D.: CM95284
Client ID: SB-2A (0-1`)

| Parameter | Result | RL/ PQL | LOD/ MDL | Units | Dilution | Date/Time | By | Reference | |
|---|---|---|---|---|---|---|---|---|---|
| Toxaphene | ND | 170 | 170 | ug/Kg | 2 | 12/05/22 | AW | SW8081B | |
| **QA/QC Surrogates** | | | | | | | | | |
| % DCBP | 71 | | | % | 2 | 12/05/22 | AW | 30 - 150 % | |
| % DCBP (Confirmation) | 99 | | | % | 2 | 12/05/22 | AW | 30 - 150 % | |
| % TCMX | 57 | | | % | 2 | 12/05/22 | AW | 30 - 150 % | |
| % TCMX (Confirmation) | 65 | | | % | 2 | 12/05/22 | AW | 30 - 150 % | |
| **Semivolatiles** | | | | | | | | | |
| 1,2,4,5-Tetrachlorobenzene | ND | 310 | 150 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 1,2,4-Trichlorobenzene | ND | 310 | 130 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 1,2-Dichlorobenzene | ND | 310 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 1,2-Diphenylhydrazine | ND | 310 | 140 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 1,3-Dichlorobenzene | ND | 310 | 130 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 1,4-Dichlorobenzene | ND | 310 | 130 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2,2'-Oxybis(1-Chloropropane) | ND | 310 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | 1 |
| 2,4,5-Trichlorophenol | ND | 310 | 240 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2,4,6-Trichlorophenol | ND | 220 | 140 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2,4-Dichlorophenol | ND | 220 | 150 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2,4-Dimethylphenol | ND | 310 | 110 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2,4-Dinitrophenol | ND | 310 | 310 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2,4-Dinitrotoluene | ND | 220 | 170 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2,6-Dinitrotoluene | ND | 220 | 140 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2-Chloronaphthalene | ND | 310 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2-Chlorophenol | ND | 310 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2-Methylnaphthalene | ND | 310 | 130 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2-Methylphenol (o-cresol) | ND | 310 | 210 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2-Nitroaniline | ND | 310 | 310 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2-Nitrophenol | ND | 310 | 280 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 3&4-Methylphenol (m&p-cresol) | ND | 310 | 170 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | 1 |
| 3,3'-Dichlorobenzidine | ND | 220 | 210 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 3-Nitroaniline | ND | 440 | 880 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 4,6-Dinitro-2-methylphenol | ND | 260 | 88 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 4-Bromophenyl phenyl ether | ND | 310 | 130 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 4-Chloro-3-methylphenol | ND | 310 | 150 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 4-Chloroaniline | ND | 350 | 200 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 4-Chlorophenyl phenyl ether | ND | 310 | 150 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 4-Nitroaniline | ND | 440 | 150 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 4-Nitrophenol | ND | 440 | 200 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Acenaphthene | ND | 310 | 130 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Acenaphthylene | ND | 310 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Acetophenone | ND | 310 | 140 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Aniline | ND | 350 | 350 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Anthracene | ND | 310 | 140 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Benz(a)anthracene | ND | 310 | 150 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Benzidine | ND | 440 | 260 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Benzo(a)pyrene | ND | 220 | 140 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Benzo(b)fluoranthene | ND | 310 | 150 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Benzo(ghi)perylene | ND | 310 | 140 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Benzo(k)fluoranthene | ND | 310 | 150 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Benzoic acid | ND | 2200 | 880 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |

Project ID: IPARK0118.62-LOT 10 BOUNDARY MODIFICAT. Phoenix I.D.: CM95284
Client ID: SB-2A (0-1`)

| Parameter | Result | RL/ PQL | LOD/ MDL | Units | Dilution | Date/Time | By | Reference |
|---|---|---|---|---|---|---|---|---|
| Benzyl butyl phthalate | ND | 310 | 110 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Bis(2-chloroethoxy)methane | ND | 310 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Bis(2-chloroethyl)ether | ND | 220 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Bis(2-ethylhexyl)phthalate | ND | 310 | 130 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Carbazole | ND | 220 | 180 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Chrysene | ND | 310 | 150 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Dibenz(a,h)anthracene | ND | 220 | 140 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Dibenzofuran | ND | 310 | 130 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Diethyl phthalate | ND | 310 | 140 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Dimethylphthalate | ND | 310 | 140 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Di-n-butylphthalate | ND | 310 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Di-n-octylphthalate | ND | 310 | 110 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Fluoranthene | ND | 310 | 140 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Fluorene | ND | 310 | 140 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Hexachlorobenzene | ND | 220 | 130 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Hexachlorobutadiene | ND | 310 | 160 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Hexachlorocyclopentadiene | ND | 310 | 130 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Hexachloroethane | ND | 220 | 130 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Indeno(1,2,3-cd)pyrene | ND | 310 | 150 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Isophorone | ND | 220 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Naphthalene | ND | 310 | 130 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Nitrobenzene | ND | 220 | 150 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| N-Nitrosodimethylamine | ND | 310 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| N-Nitrosodi-n-propylamine | ND | 220 | 140 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| N-Nitrosodiphenylamine | ND | 310 | 170 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Pentachloronitrobenzene | ND | 310 | 160 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Pentachlorophenol | ND | 260 | 170 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Phenanthrene | ND | 310 | 130 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Phenol | ND | 310 | 140 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Pyrene | ND | 310 | 150 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Pyridine | ND | 310 | 110 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| **QA/QC Surrogates** | | | | | | | | |
| % 2,4,6-Tribromophenol | 97 | | | % | 1 | 12/04/22 | WB | 30 - 130 % |
| % 2-Fluorobiphenyl | 80 | | | % | 1 | 12/04/22 | WB | 30 - 130 % |
| % 2-Fluorophenol | 75 | | | % | 1 | 12/04/22 | WB | 30 - 130 % |
| % Nitrobenzene-d5 | 80 | | | % | 1 | 12/04/22 | WB | 30 - 130 % |
| % Phenol-d5 | 88 | | | % | 1 | 12/04/22 | WB | 30 - 130 % |
| % Terphenyl-d14 | 84 | | | % | 1 | 12/04/22 | WB | 30 - 130 % |
| **1,4-Dioxane** | | | | | | | | |
| 1,4-dioxane | ND | 89 | 89 | ug/Kg | 1 | 12/06/22 | WB | SW8270D (SIM) |
| **QA/QC Surrogates** | | | | | | | | |
| % 2-Fluorobiphenyl | 59 | | | % | 1 | 12/06/22 | WB | 30 - 130 % |
| % Nitrobenzene-d5 | 81 | | | % | 1 | 12/06/22 | WB | 30 - 130 % |
| % Terphenyl-d14 | 92 | | | % | 1 | 12/06/22 | WB | 30 - 130 % |

Project ID: IPARK0118.62-LOT 10 BOUNDARY MODIFICAT. Phoenix I.D.: CM95284
Client ID: SB-2A (0-1`)

| Parameter | Result | RL/ PQL | LOD/ MDL | Units | Dilution | Date/Time | By | Reference |
|---|---|---|---|---|---|---|---|---|

1 = This parameter is not certified by the primary accrediting authority (NY NELAC) for this matrix. NY NELAC does not offer certification for all parameters at this time.
3 = This parameter exceeds laboratory specified limits.
C = This parameter is subcontracted.
B = Present in blank, no bias suspected.

RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected BRL=Below Reporting Level L=Biased Low LOD=Limit of Detection MDL=Method Detection Limit1
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

## Comments:

*See attached

Per 1.4.6 of EPA method 8270D, 1,2-Diphenylhydrazine is unstable and readily converts to Azobenzene. Azobenzene is used for the calibration of 1,2-Diphenylhydrazine.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

PFAS (21) (EPA 537m), PFOA/PFOS - Soil Extraction (EPA 537m) were analyzed by NY certified lab #12058.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200.
The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.

**Phyllis Shiller, Laboratory Director**
**December 16, 2022**
**Reviewed and Released by: Greg Lawrence, Assistant Lab Director**

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

# Analysis Report

December 16, 2022

FOR: Attn: Nora Brew
Walden Environmental Engineering PLLC
16 Spring Street
Oyster Bay, NY 11771

| Sample Information | | Custody Information | | Date | Time |
|---|---|---|---|---|---|
| Matrix: | SOIL | Collected by: | | 11/30/22 | 9:30 |
| Location Code: | WALDENE-IPARK | Received by: | CP | 12/01/22 | 17:12 |
| Rush Request: | Standard | Analyzed by: | see "By" below | | |
| P.O.#: | IPARK 0118.62 | | | | |

## Laboratory Data

SDG ID: GCM95278
Phoenix ID: CM95285

Project ID: IPARK0118.62-LOT 10 BOUNDARY MODIFICAT.
Client ID: SB-2B (1-2`)

| Parameter | Result | RL/ PQL | LOD/ MDL | Units | Dilution | Date/Time | By | Reference | |
|---|---|---|---|---|---|---|---|---|---|
| Field Extraction | Completed | | | | | 11/30/22 | | SW5035A | 1 |
| **Volatiles** | | | | | | | | | |
| 1,1,1,2-Tetrachloroethane | ND | 3.8 | 0.76 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,1,1-Trichloroethane | ND | 3.8 | 0.38 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,1,2,2-Tetrachloroethane | ND | 3.8 | 0.76 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,1,2-Trichloroethane | ND | 3.8 | 0.76 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,1-Dichloroethane | ND | 3.8 | 0.76 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,1-Dichloroethene | ND | 3.8 | 0.38 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,1-Dichloropropene | ND | 3.8 | 0.38 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,2,3-Trichlorobenzene | ND | 3.8 | 0.76 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,2,3-Trichloropropane | ND | 3.8 | 0.38 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,2,4-Trichlorobenzene | ND | 3.8 | 0.76 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,2,4-Trimethylbenzene | ND | 3.8 | 0.38 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,2-Dibromo-3-chloropropane | ND | 3.8 | 0.76 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,2-Dibromoethane | ND | 3.8 | 0.38 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,2-Dichlorobenzene | ND | 3.8 | 0.38 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,2-Dichloroethane | ND | 3.8 | 0.38 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,2-Dichloropropane | ND | 3.8 | 0.76 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,3,5-Trimethylbenzene | ND | 3.8 | 0.38 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,3-Dichlorobenzene | ND | 3.8 | 0.38 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,3-Dichloropropane | ND | 3.8 | 0.76 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,4-Dichlorobenzene | ND | 3.8 | 0.38 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 2,2-Dichloropropane | ND | 3.8 | 0.38 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 2-Chlorotoluene | ND | 3.8 | 0.76 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 2-Hexanone | ND | 19 | 3.8 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 2-Isopropyltoluene | ND | 3.8 | 0.38 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | 1 |

Project ID: IPARK0118.62-LOT 10 BOUNDARY MODIFICAT. Phoenix I.D.: CM95285

Client ID: SB-2B (1-2`)

| Parameter | Result | | RL/ PQL | LOD/ MDL | Units | Dilution | Date/Time | By | Reference |
|---|---|---|---|---|---|---|---|---|---|
| 4-Chlorotoluene | ND | | 3.8 | 0.38 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| 4-Methyl-2-pentanone | ND | | 19 | 3.8 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| Acetone | ND | | 19 | 3.8 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| Acrylonitrile | ND | | 7.6 | 0.76 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| Benzene | ND | | 3.8 | 0.38 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| Bromobenzene | ND | | 3.8 | 0.38 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| Bromochloromethane | ND | | 3.8 | 0.38 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| Bromodichloromethane | ND | | 3.8 | 0.76 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| Bromoform | ND | | 3.8 | 0.76 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| Bromomethane | ND | | 3.8 | 1.5 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| Carbon Disulfide | ND | | 3.8 | 0.76 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| Carbon tetrachloride | ND | | 3.8 | 0.76 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| Chlorobenzene | ND | | 3.8 | 0.38 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| Chloroethane | ND | | 3.8 | 0.38 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| Chloroform | ND | | 3.8 | 0.38 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| Chloromethane | ND | | 3.8 | 0.76 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| cis-1,2-Dichloroethene | ND | | 3.8 | 0.38 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| cis-1,3-Dichloropropene | ND | | 3.8 | 0.38 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| Dibromochloromethane | ND | | 3.8 | 0.76 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| Dibromomethane | ND | | 3.8 | 0.76 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| Dichlorodifluoromethane | ND | | 3.8 | 0.38 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| Ethylbenzene | ND | | 3.8 | 0.38 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| Hexachlorobutadiene | ND | | 3.8 | 0.38 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| Isopropylbenzene | ND | | 3.8 | 0.38 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| m&p-Xylene | ND | | 3.8 | 0.76 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| Methyl Ethyl Ketone | ND | | 23 | 3.8 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| Methyl t-butyl ether (MTBE) | ND | | 7.6 | 0.76 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| Methylene chloride | ND | | 3.8 | 3.8 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| Naphthalene | ND | | 3.8 | 0.76 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| n-Butylbenzene | ND | | 3.8 | 0.38 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| n-Propylbenzene | ND | | 3.8 | 0.76 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| o-Xylene | ND | | 3.8 | 0.76 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| p-Isopropyltoluene | ND | | 3.8 | 0.38 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| sec-Butylbenzene | ND | | 3.8 | 0.38 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| Styrene | ND | | 3.8 | 0.38 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| tert-Butylbenzene | ND | | 3.8 | 0.38 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| Tetrachloroethene | ND | | 3.8 | 0.76 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| Tetrahydrofuran (THF) | 6.2 | J | 7.6 | 1.9 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| Toluene | ND | | 3.8 | 0.38 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| trans-1,2-Dichloroethene | ND | | 3.8 | 0.38 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| trans-1,3-Dichloropropene | ND | | 3.8 | 0.38 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| trans-1,4-dichloro-2-butene | ND | | 7.6 | 1.9 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| Trichloroethene | ND | | 3.8 | 0.38 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| Trichlorofluoromethane | ND | | 3.8 | 0.76 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| Trichlorotrifluoroethane | ND | | 3.8 | 0.38 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| Vinyl chloride | ND | | 3.8 | 0.38 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| **QA/QC Surrogates** | | | | | | | | | |
| % 1,2-dichlorobenzene-d4 | 96 | | | | % | 1 | 12/06/22 | JLI | 70 - 130 % |
| % Bromofluorobenzene | 99 | | | | % | 1 | 12/06/22 | JLI | 70 - 130 % |

Project ID: IPARK0118.62-LOT 10 BOUNDARY MODIFICAT. Phoenix I.D.: CM95285
Client ID: SB-2B (1-2`)

| Parameter | Result | RL/ PQL | LOD/ MDL | Units | Dilution | Date/Time | By | Reference |
|---|---|---|---|---|---|---|---|---|
| % Dibromofluoromethane | 101 | | | % | 1 | 12/06/22 | JLI | 70 - 130 % |
| % Toluene-d8 | 94 | | | % | 1 | 12/06/22 | JLI | 70 - 130 % |

1 = This parameter is not certified by the primary accrediting authority (NY NELAC) for this matrix. NY NELAC does not offer certification for all parameters at this time.

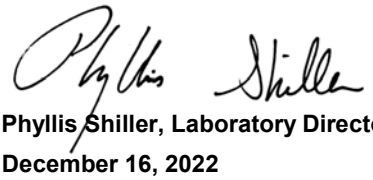
RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected BRL=Below Reporting Level L=Biased Low J=Estimated Below RL LOD=Limit of Detection MDL=Method Detection Limit1
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

## Comments:

Results are reported on an ``as received`` basis, and are not corrected for dry weight.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200.
The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.



**Phyllis Shiller, Laboratory Director**
**December 16, 2022**
**Reviewed and Released by: Greg Lawrence, Assistant Lab Director**

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

# Analysis Report

December 16, 2022

FOR: Attn: Nora Brew
Walden Environmental Engineering PLLC
16 Spring Street
Oyster Bay, NY 11771

| Sample Information | | Custody Information | | Date | Time |
|---|---|---|---|---|---|
| Matrix: | SOIL | Collected by: | | 11/30/22 | 9:30 |
| Location Code: | WALDENE-IPARK | Received by: | CP | 12/01/22 | 17:12 |
| Rush Request: | Standard | Analyzed by: | see "By" below | | |
| P.O.#: | IPARK 0118.62 | | | | |

## Laboratory Data

SDG ID: GCM95278
Phoenix ID: CM95286

Project ID: IPARK0118.62-LOT 10 BOUNDARY MODIFICAT.
Client ID: SB-2C (11-12`)

| Parameter | Result | RL/ PQL | LOD/ MDL | Units | Dilution | Date/Time | By | Reference | |
|---|---|---|---|---|---|---|---|---|---|
| Aluminum | 10900 | 42 | 8.3 | mg/Kg | 10 | 12/03/22 | CPP | SW6010D | B |
| Antimony | ND | 4.2 | 4.2 | mg/Kg | 1 | 12/04/22 | CPP | SW6010D | |
| Arsenic | 4.49 | 0.83 | 0.83 | mg/Kg | 1 | 12/04/22 | CPP | SW6010D | |
| Barium | 41.2 | 0.8 | 0.42 | mg/Kg | 1 | 12/04/22 | TH | SW6010D | |
| Beryllium | 0.48 | 0.33 | 0.17 | mg/Kg | 1 | 12/04/22 | CPP | SW6010D | |
| Calcium | 43500 | 42 | 38 | mg/Kg | 10 | 12/03/22 | CPP | SW6010D | |
| Cadmium | 1.67 | 0.42 | 0.42 | mg/Kg | 1 | 12/04/22 | CPP | SW6010D | |
| Chromium | 12.4 | 0.42 | 0.42 | mg/Kg | 1 | 12/04/22 | CPP | SW6010D | |
| Cobalt | 8.83 | 0.42 | 0.42 | mg/Kg | 1 | 12/04/22 | CPP | SW6010D | |
| Copper | 24.2 | 0.8 | 0.42 | mg/kg | 1 | 12/04/22 | CPP | SW6010D | |
| Iron | 26200 | 42 | 42 | mg/Kg | 10 | 12/03/22 | CPP | SW6010D | |
| Lead | 15.6 | 0.8 | 0.42 | mg/Kg | 1 | 12/04/22 | CPP | SW6010D | |
| Magnesium | 22300 | 42 | 42 | mg/Kg | 10 | 12/03/22 | CPP | SW6010D | |
| Manganese | 852 | 4.2 | 4.2 | mg/Kg | 10 | 12/03/22 | TH | SW6010D | |
| Mercury | ND | 0.03 | 0.02 | mg/Kg | 2 | 12/05/22 | PM | SW7471B | |
| Nickel | 20.0 | 0.42 | 0.42 | mg/Kg | 1 | 12/04/22 | CPP | SW6010D | |
| Potassium | 1360 | 8 | 3.3 | mg/Kg | 1 | 12/04/22 | CPP | SW6010D | |
| Selenium | ND | 1.7 | 1.4 | mg/Kg | 1 | 12/04/22 | CPP | SW6010D | |
| Silver | ND | 0.42 | 0.42 | mg/Kg | 1 | 12/04/22 | CPP | SW6010D | |
| Sodium | 365 | 8 | 3.6 | mg/Kg | 1 | 12/04/22 | CPP | SW6010D | |
| Thallium | ND | 1.7 | 1.7 | mg/Kg | 1 | 12/04/22 | CPP | SW6010D | |
| Vanadium | 13.3 | 0.42 | 0.42 | mg/Kg | 1 | 12/04/22 | CPP | SW6010D | |
| Zinc | 58.5 | 0.8 | 0.42 | mg/Kg | 1 | 12/04/22 | CPP | SW6010D | |
| Percent Solid | 74 | | | % | | 12/01/22 | Q | SW846-%Solid | |
| Extraction for SVOA SIM | Completed | | | | | 12/05/22 | B/MO | SW3545A | |
| Soil Extraction for PCB | Completed | | | | | 12/02/22 | O/Y | SW3545A | |
| Soil Extraction for Pesticide | Completed | | | | | 12/02/22 | O | SW3545A | |

**Ver 1**

Project ID: IPARK0118.62-LOT 10 BOUNDARY MODIFICAT. Phoenix I.D.: CM95286
Client ID: SB-2C (11-12`)

| Parameter | Result | RL/ PQL | LOD/ MDL | Units | Dilution | Date/Time | By | Reference | |
|---|---|---|---|---|---|---|---|---|---|
| Field Extraction | Completed | | | | | 11/30/22 | | SW5035A | 1 |
| Mercury Digestion | Completed | | | | | 12/02/22 | AB/AB | SW7471B | |
| Soil Extraction for Herbicide | Completed | | | | | 12/07/22 | J/D | SW3546 | |
| Soil Extraction for SVOA | Completed | | | | | 12/03/22 | Y/L | SW3546 | |
| Total Metals Digest | Completed | | | | | 12/01/22 | | SW3050B | |
| PFAS (21) | Completed | | | | | 12/07/22 | *** | EPA 537m | C |

## PFAS (21)

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **1H,1H,2H,2H-Perfluorodecanesulfonic acid** | ND | 0.261 | 0.0268 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| **1H,1H,2H,2H-Perfluorooctanesulfonic acid** | ND | 0.261 | 0.0690 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| NEtFOSAA | ND | 0.261 | 0.109 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| NMeFOSAA | ND | 0.261 | 0.109 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| **Perfluoro-1-decanesulfonic acid (PFDS)** | ND | 0.261 | 0.0535 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| **Perfluoro-1-heptanesulfonic acid (PFHpS)** | ND | 0.261 | 0.0515 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| **Perfluoro-1-octanesulfonamide (FOSA)** | ND | 0.261 | 0.0488 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| Perfluorobutanesulfonic acid (PFBS) | ND | 0.261 | 0.209 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| Perfluorodecanoic acid (PFDA) | ND | 0.261 | 0.0535 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| Perfluorododecanoic acid (PFDoA) | ND | 0.261 | 0.0784 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| Perfluoroheptanoic acid (PFHpA) | ND | 0.261 | 0.0475 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| **Perfluorohexanesulfonic Acid (PFHxS)** | ND | 0.261 | 0.0324 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| Perfluorohexanoic acid (PFHxA) | ND | 0.261 | 0.0689 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| Perfluoro-n-butanoic acid (PFBA) | ND | 0.261 | 0.191 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| Perfluorononanoic acid (PFNA) | ND | 0.261 | 0.0625 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| Perfluorooctanesulfonic Acid (PFOS) | ND | 0.261 | 0.0458 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| Perfluorooctanoic acid (PFOA) | ND | 0.261 | 0.0807 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| Perfluoropentanoic acid (PFPeA) | ND | 0.261 | 0.0960 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| Perfluorotetradecanoic acid (PFTA) | ND | 0.261 | 0.0781 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| Perfluorotridecanoic acid (PFTrDA) | ND | 0.261 | 0.0455 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| Perfluoroundecanoic acid (PFUnA) | ND | 0.261 | 0.122 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| **QA/QC Surrogates** | | | | | | | | | |
| % d3-N-MeFOSAA | 51.8 | | | % | 1 | 12/11/22 | *** | 25 - 150 % | C |
| % d5-NEtFOSA | 48.2 | | | % | 1 | 12/11/22 | *** | 25 - 150 % | C |
| % M2-6:2FTS | 93.0 | | | % | 1 | 12/11/22 | *** | 25 - 200 % | C |
| % M2-8:2FTS | 95.9 | | | % | 1 | 12/11/22 | *** | 25 - 200 % | C |
| % M2PFTeDA | 19.1 | | | % | 1 | 12/11/22 | *** | 10 - 150 % | C |
| % M3PFBS | 66.0 | | | % | 1 | 12/11/22 | *** | 25 - 150 % | C |
| % M3PFHxS | 75.0 | | | % | 1 | 12/11/22 | *** | 25 - 150 % | C |
| % M4PFHpA | 71.4 | | | % | 1 | 12/11/22 | *** | 25 - 150 % | C |
| % M5PFHxA | 72.7 | | | % | 1 | 12/11/22 | *** | 25 - 150 % | C |
| % M5PFPeA | 73.0 | | | % | 1 | 12/11/22 | *** | 25 - 150 % | C |
| % M6PFDA | 55.2 | | | % | 1 | 12/11/22 | *** | 25 - 150 % | C |
| % M7PFUdA | 41.0 | | | % | 1 | 12/11/22 | *** | 25 - 150 % | C |
| % M8FOSA | 38.3 | | | % | 1 | 12/11/22 | *** | 10 - 150 % | C |
| % M8PFOA | 74.4 | | | % | 1 | 12/11/22 | *** | 25 - 150 % | C |
| % M8PFOS | 62.6 | | | % | 1 | 12/11/22 | *** | 25 - 150 % | C |
| % M9PFNA | 62.1 | | | % | 1 | 12/11/22 | *** | 25 - 150 % | C |
| % MPFBA | 72.3 | | | % | 1 | 12/11/22 | *** | 25 - 150 % | C |
| % MPFDoA | 39.2 | | | % | 1 | 12/11/22 | *** | 25 - 150 % | C |

Project ID: IPARK0118.62-LOT 10 BOUNDARY MODIFICAT. Phoenix I.D.: CM95286
Client ID: SB-2C (11-12`)

| Parameter | Result | RL/ PQL | LOD/ MDL | Units | Dilution | Date/Time | By | Reference |
|---|---|---|---|---|---|---|---|---|
| **Chlorinated Herbicides** | | | | | | | | |
| 2,4,5-T | ND | 160 | 160 | ug/Kg | 10 | 12/09/22 | JRB | SW8151A |
| 2,4,5-TP (Silvex) | ND | 160 | 160 | ug/Kg | 10 | 12/09/22 | JRB | SW8151A |
| 2,4-D | ND | 330 | 330 | ug/Kg | 10 | 12/09/22 | JRB | SW8151A |
| 2,4-DB | ND | 3300 | 3300 | ug/Kg | 10 | 12/09/22 | JRB | SW8151A |
| Dalapon | ND | 160 | 160 | ug/Kg | 10 | 12/09/22 | JRB | SW8151A |
| Dicamba | ND | 160 | 160 | ug/Kg | 10 | 12/09/22 | JRB | SW8151A |
| Dichloroprop | ND | 330 | 330 | ug/Kg | 10 | 12/09/22 | JRB | SW8151A |
| Dinoseb | ND | 330 | 330 | ug/Kg | 10 | 12/09/22 | JRB | SW8151A |
| **QA/QC Surrogates** | | | | | | | | |
| % DCAA | 108 | | | % | 10 | 12/09/22 | JRB | 30 - 150 % |
| % DCAA (Confirmation) | 96 | | | % | 10 | 12/09/22 | JRB | 30 - 150 % |
| **Polychlorinated Biphenyls** | | | | | | | | |
| PCB-1016 | ND | 88 | 88 | ug/Kg | 2 | 12/06/22 | SC | SW8082A |
| PCB-1221 | ND | 88 | 88 | ug/Kg | 2 | 12/06/22 | SC | SW8082A |
| PCB-1232 | ND | 88 | 88 | ug/Kg | 2 | 12/06/22 | SC | SW8082A |
| PCB-1242 | ND | 88 | 88 | ug/Kg | 2 | 12/06/22 | SC | SW8082A |
| PCB-1248 | ND | 88 | 88 | ug/Kg | 2 | 12/06/22 | SC | SW8082A |
| PCB-1254 | ND | 88 | 88 | ug/Kg | 2 | 12/06/22 | SC | SW8082A |
| PCB-1260 | ND | 88 | 88 | ug/Kg | 2 | 12/06/22 | SC | SW8082A |
| PCB-1262 | ND | 88 | 88 | ug/Kg | 2 | 12/06/22 | SC | SW8082A |
| PCB-1268 | ND | 88 | 88 | ug/Kg | 2 | 12/06/22 | SC | SW8082A |
| **QA/QC Surrogates** | | | | | | | | |
| % DCBP | 66 | | | % | 2 | 12/06/22 | SC | 30 - 150 % |
| % DCBP (Confirmation) | 62 | | | % | 2 | 12/06/22 | SC | 30 - 150 % |
| % TCMX | 48 | | | % | 2 | 12/06/22 | SC | 30 - 150 % |
| % TCMX (Confirmation) | 48 | | | % | 2 | 12/06/22 | SC | 30 - 150 % |
| **Pesticides - Soil** | | | | | | | | |
| 4,4' -DDD | ND | 2.7 | 2.7 | ug/Kg | 2 | 12/06/22 | AW | SW8081B |
| 4,4' -DDE | ND | 2.7 | 2.7 | ug/Kg | 2 | 12/06/22 | AW | SW8081B |
| 4,4' -DDT | ND | 2.7 | 2.7 | ug/Kg | 2 | 12/06/22 | AW | SW8081B |
| a-BHC | ND | 8.8 | 8.8 | ug/Kg | 2 | 12/06/22 | AW | SW8081B |
| a-Chlordane | ND | 4.4 | 4.4 | ug/Kg | 2 | 12/06/22 | AW | SW8081B |
| Alachlor | ND | 4.4 | 4.4 | ug/Kg | 2 | 12/06/22 | AW | SW8081B |
| Aldrin | ND | 4.4 | 4.4 | ug/Kg | 2 | 12/06/22 | AW | SW8081B |
| b-BHC | ND | 8.8 | 8.8 | ug/Kg | 2 | 12/06/22 | AW | SW8081B |
| Chlordane | ND | 44 | 44 | ug/Kg | 2 | 12/06/22 | AW | SW8081B |
| d-BHC | ND | 8.8 | 8.8 | ug/Kg | 2 | 12/06/22 | AW | SW8081B |
| Dieldrin | ND | 4.4 | 4.4 | ug/Kg | 2 | 12/06/22 | AW | SW8081B |
| Endosulfan I | ND | 8.8 | 8.8 | ug/Kg | 2 | 12/06/22 | AW | SW8081B |
| Endosulfan II | ND | 8.8 | 8.8 | ug/Kg | 2 | 12/06/22 | AW | SW8081B |
| Endosulfan sulfate | ND | 8.8 | 8.8 | ug/Kg | 2 | 12/06/22 | AW | SW8081B |
| Endrin | ND | 8.8 | 8.8 | ug/Kg | 2 | 12/06/22 | AW | SW8081B |
| Endrin aldehyde | ND | 8.8 | 8.8 | ug/Kg | 2 | 12/06/22 | AW | SW8081B |
| Endrin ketone | ND | 8.8 | 8.8 | ug/Kg | 2 | 12/06/22 | AW | SW8081B |
| g-BHC | ND | 1.8 | 1.8 | ug/Kg | 2 | 12/06/22 | AW | SW8081B |
| g-Chlordane | ND | 4.4 | 4.4 | ug/Kg | 2 | 12/06/22 | AW | SW8081B |

| Parameter | Result | | RL/ PQL | LOD/ MDL | Units | Dilution | Date/Time | By | Reference | |
|---|---|---|---|---|---|---|---|---|---|---|
| Heptachlor | ND | | 8.8 | 8.8 | ug/Kg | 2 | 12/06/22 | AW | SW8081B | |
| Heptachlor epoxide | ND | | 8.8 | 8.8 | ug/Kg | 2 | 12/06/22 | AW | SW8081B | |
| Methoxychlor | ND | | 44 | 44 | ug/Kg | 2 | 12/06/22 | AW | SW8081B | |
| Toxaphene | ND | | 180 | 180 | ug/Kg | 2 | 12/06/22 | AW | SW8081B | |
| **QA/QC Surrogates** | | | | | | | | | | |
| % DCBP | 60 | | | | % | 2 | 12/06/22 | AW | 30 - 150 % | |
| % DCBP (Confirmation) | 64 | | | | % | 2 | 12/06/22 | AW | 30 - 150 % | |
| % TCMX | 49 | | | | % | 2 | 12/06/22 | AW | 30 - 150 % | |
| % TCMX (Confirmation) | 51 | | | | % | 2 | 12/06/22 | AW | 30 - 150 % | |
| **Volatiles** | | | | | | | | | | |
| 1,1,1,2-Tetrachloroethane | ND | | 5.5 | 1.1 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,1,1-Trichloroethane | ND | | 5.5 | 0.55 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,1,2,2-Tetrachloroethane | ND | | 5.5 | 1.1 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,1,2-Trichloroethane | ND | | 5.5 | 1.1 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,1-Dichloroethane | ND | | 5.5 | 1.1 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,1-Dichloroethene | ND | | 5.5 | 0.55 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,1-Dichloropropene | ND | | 5.5 | 0.55 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,2,3-Trichlorobenzene | ND | | 5.5 | 1.1 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,2,3-Trichloropropane | ND | | 5.5 | 0.55 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,2,4-Trichlorobenzene | ND | | 5.5 | 1.1 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,2,4-Trimethylbenzene | ND | | 5.5 | 0.55 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,2-Dibromo-3-chloropropane | ND | | 5.5 | 1.1 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,2-Dibromoethane | ND | | 5.5 | 0.55 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,2-Dichlorobenzene | ND | | 5.5 | 0.55 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,2-Dichloroethane | ND | | 5.5 | 0.55 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,2-Dichloropropane | ND | | 5.5 | 1.1 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,3,5-Trimethylbenzene | ND | | 5.5 | 0.55 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,3-Dichlorobenzene | ND | | 5.5 | 0.55 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,3-Dichloropropane | ND | | 5.5 | 1.1 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,4-Dichlorobenzene | ND | | 5.5 | 0.55 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 2,2-Dichloropropane | ND | | 5.5 | 0.55 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 2-Chlorotoluene | ND | | 5.5 | 1.1 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 2-Hexanone | ND | | 27 | 5.5 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 2-Isopropyltoluene | ND | | 5.5 | 0.55 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | 1 |
| 4-Chlorotoluene | ND | | 5.5 | 0.55 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 4-Methyl-2-pentanone | ND | | 27 | 5.5 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Acetone | 6.0 | JS | 27 | 5.5 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Acrylonitrile | ND | | 11 | 1.1 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Benzene | ND | | 5.5 | 0.55 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Bromobenzene | ND | | 5.5 | 0.55 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Bromochloromethane | ND | | 5.5 | 0.55 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Bromodichloromethane | ND | | 5.5 | 1.1 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Bromoform | ND | | 5.5 | 1.1 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Bromomethane | ND | | 5.5 | 2.2 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Carbon Disulfide | ND | | 5.5 | 1.1 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Carbon tetrachloride | ND | | 5.5 | 1.1 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Chlorobenzene | ND | | 5.5 | 0.55 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Chloroethane | ND | | 5.5 | 0.55 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Chloroform | ND | | 5.5 | 0.55 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |

Project ID: IPARK0118.62-LOT 10 BOUNDARY MODIFICAT. Phoenix I.D.: CM95286
Client ID: SB-2C (11-12`)

| Parameter | Result | | RL/ PQL | LOD/ MDL | Units | Dilution | Date/Time | By | Reference | |
|---|---|---|---|---|---|---|---|---|---|---|
| Chloromethane | ND | | 5.5 | 1.1 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| cis-1,2-Dichloroethene | ND | | 5.5 | 0.55 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| cis-1,3-Dichloropropene | ND | | 5.5 | 0.55 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Dibromochloromethane | ND | | 5.5 | 1.1 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Dibromomethane | ND | | 5.5 | 1.1 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Dichlorodifluoromethane | ND | | 5.5 | 0.55 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Ethylbenzene | ND | | 5.5 | 0.55 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Hexachlorobutadiene | ND | | 5.5 | 0.55 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Isopropylbenzene | ND | | 5.5 | 0.55 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| m&p-Xylene | ND | | 5.5 | 1.1 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Methyl Ethyl Ketone | ND | | 33 | 5.5 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Methyl t-butyl ether (MTBE) | ND | | 11 | 1.1 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Methylene chloride | ND | | 5.5 | 5.5 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Naphthalene | ND | | 5.5 | 1.1 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| n-Butylbenzene | ND | | 5.5 | 0.55 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| n-Propylbenzene | ND | | 5.5 | 1.1 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| o-Xylene | ND | | 5.5 | 1.1 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| p-Isopropyltoluene | ND | | 5.5 | 0.55 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| sec-Butylbenzene | ND | | 5.5 | 0.55 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Styrene | ND | | 5.5 | 0.55 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| tert-Butylbenzene | ND | | 5.5 | 0.55 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Tetrachloroethene | ND | | 5.5 | 1.1 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Tetrahydrofuran (THF) | 8.6 | J | 11 | 2.7 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Toluene | ND | | 5.5 | 0.55 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| trans-1,2-Dichloroethene | ND | | 5.5 | 0.55 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| trans-1,3-Dichloropropene | ND | | 5.5 | 0.55 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| trans-1,4-dichloro-2-butene | ND | | 11 | 2.7 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Trichloroethene | ND | | 5.5 | 0.55 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Trichlorofluoromethane | ND | | 5.5 | 1.1 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Trichlorotrifluoroethane | ND | | 5.5 | 0.55 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Vinyl chloride | ND | | 5.5 | 0.55 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| **QA/QC Surrogates** | | | | | | | | | | |
| % 1,2-dichlorobenzene-d4 | 97 | | | | % | 1 | 12/06/22 | JLI | 70 - 130 % | |
| % Bromofluorobenzene | 99 | | | | % | 1 | 12/06/22 | JLI | 70 - 130 % | |
| % Dibromofluoromethane | 100 | | | | % | 1 | 12/06/22 | JLI | 70 - 130 % | |
| % Toluene-d8 | 94 | | | | % | 1 | 12/06/22 | JLI | 70 - 130 % | |
| **Semivolatiles** | | | | | | | | | | |
| 1,2,4,5-Tetrachlorobenzene | ND | | 310 | 160 | ug/Kg | 1 | 12/05/22 | WB | SW8270D | |
| 1,2,4-Trichlorobenzene | ND | | 310 | 140 | ug/Kg | 1 | 12/05/22 | WB | SW8270D | |
| 1,2-Dichlorobenzene | ND | | 310 | 130 | ug/Kg | 1 | 12/05/22 | WB | SW8270D | |
| 1,2-Diphenylhydrazine | ND | | 310 | 150 | ug/Kg | 1 | 12/05/22 | WB | SW8270D | |
| 1,3-Dichlorobenzene | ND | | 310 | 130 | ug/Kg | 1 | 12/05/22 | WB | SW8270D | |
| 1,4-Dichlorobenzene | ND | | 310 | 130 | ug/Kg | 1 | 12/05/22 | WB | SW8270D | |
| 2,2'-Oxybis(1-Chloropropane) | ND | | 310 | 130 | ug/Kg | 1 | 12/05/22 | WB | SW8270D | 1 |
| 2,4,5-Trichlorophenol | ND | | 310 | 250 | ug/Kg | 1 | 12/05/22 | WB | SW8270D | |
| 2,4,6-Trichlorophenol | ND | | 220 | 140 | ug/Kg | 1 | 12/05/22 | WB | SW8270D | |
| 2,4-Dichlorophenol | ND | | 220 | 160 | ug/Kg | 1 | 12/05/22 | WB | SW8270D | |
| 2,4-Dimethylphenol | ND | | 310 | 110 | ug/Kg | 1 | 12/05/22 | WB | SW8270D | |
| 2,4-Dinitrophenol | ND | | 310 | 310 | ug/Kg | 1 | 12/05/22 | WB | SW8270D | |

Project ID: IPARK0118.62-LOT 10 BOUNDARY MODIFICAT. Phoenix I.D.: CM95286

Client ID: SB-2C (11-12`)

| Parameter | Result | RL/ PQL | LOD/ MDL | Units | Dilution | Date/Time | By | Reference | |
|---|---|---|---|---|---|---|---|---|---|
| 2,4-Dinitrotoluene | ND | 220 | 180 | ug/Kg | 1 | 12/05/22 | WB | SW8270D | |
| 2,6-Dinitrotoluene | ND | 220 | 140 | ug/Kg | 1 | 12/05/22 | WB | SW8270D | |
| 2-Chloronaphthalene | ND | 310 | 130 | ug/Kg | 1 | 12/05/22 | WB | SW8270D | |
| 2-Chlorophenol | ND | 310 | 130 | ug/Kg | 1 | 12/05/22 | WB | SW8270D | |
| 2-Methylnaphthalene | ND | 310 | 130 | ug/Kg | 1 | 12/05/22 | WB | SW8270D | |
| 2-Methylphenol (o-cresol) | ND | 310 | 210 | ug/Kg | 1 | 12/05/22 | WB | SW8270D | |
| 2-Nitroaniline | ND | 310 | 310 | ug/Kg | 1 | 12/05/22 | WB | SW8270D | |
| 2-Nitrophenol | ND | 310 | 290 | ug/Kg | 1 | 12/05/22 | WB | SW8270D | |
| 3&4-Methylphenol (m&p-cresol) | ND | 310 | 180 | ug/Kg | 1 | 12/05/22 | WB | SW8270D | 1 |
| 3,3'-Dichlorobenzidine | ND | 220 | 210 | ug/Kg | 1 | 12/05/22 | WB | SW8270D | |
| 3-Nitroaniline | ND | 450 | 900 | ug/Kg | 1 | 12/05/22 | WB | SW8270D | |
| 4,6-Dinitro-2-methylphenol | ND | 270 | 90 | ug/Kg | 1 | 12/05/22 | WB | SW8270D | |
| 4-Bromophenyl phenyl ether | ND | 310 | 130 | ug/Kg | 1 | 12/05/22 | WB | SW8270D | |
| 4-Chloro-3-methylphenol | ND | 310 | 160 | ug/Kg | 1 | 12/05/22 | WB | SW8270D | |
| 4-Chloroaniline | ND | 360 | 210 | ug/Kg | 1 | 12/05/22 | WB | SW8270D | |
| 4-Chlorophenyl phenyl ether | ND | 310 | 150 | ug/Kg | 1 | 12/05/22 | WB | SW8270D | |
| 4-Nitroaniline | ND | 450 | 150 | ug/Kg | 1 | 12/05/22 | WB | SW8270D | |
| 4-Nitrophenol | ND | 450 | 200 | ug/Kg | 1 | 12/05/22 | WB | SW8270D | |
| Acenaphthene | ND | 310 | 140 | ug/Kg | 1 | 12/05/22 | WB | SW8270D | |
| Acenaphthylene | ND | 310 | 130 | ug/Kg | 1 | 12/05/22 | WB | SW8270D | |
| Acetophenone | ND | 310 | 140 | ug/Kg | 1 | 12/05/22 | WB | SW8270D | |
| Aniline | ND | 360 | 360 | ug/Kg | 1 | 12/05/22 | WB | SW8270D | |
| Anthracene | ND | 310 | 150 | ug/Kg | 1 | 12/05/22 | WB | SW8270D | |
| Benz(a)anthracene | ND | 310 | 150 | ug/Kg | 1 | 12/05/22 | WB | SW8270D | |
| Benzidine | ND | 450 | 260 | ug/Kg | 1 | 12/05/22 | WB | SW8270D | |
| Benzo(a)pyrene | ND | 220 | 150 | ug/Kg | 1 | 12/05/22 | WB | SW8270D | |
| Benzo(b)fluoranthene | ND | 310 | 150 | ug/Kg | 1 | 12/05/22 | WB | SW8270D | |
| Benzo(ghi)perylene | ND | 310 | 150 | ug/Kg | 1 | 12/05/22 | WB | SW8270D | |
| Benzo(k)fluoranthene | ND | 310 | 150 | ug/Kg | 1 | 12/05/22 | WB | SW8270D | |
| Benzoic acid | ND | 2200 | 900 | ug/Kg | 1 | 12/05/22 | WB | SW8270D | |
| Benzyl butyl phthalate | ND | 310 | 120 | ug/Kg | 1 | 12/05/22 | WB | SW8270D | |
| Bis(2-chloroethoxy)methane | ND | 310 | 120 | ug/Kg | 1 | 12/05/22 | WB | SW8270D | |
| Bis(2-chloroethyl)ether | ND | 220 | 120 | ug/Kg | 1 | 12/05/22 | WB | SW8270D | |
| Bis(2-ethylhexyl)phthalate | ND | 310 | 130 | ug/Kg | 1 | 12/05/22 | WB | SW8270D | |
| Carbazole | ND | 220 | 180 | ug/Kg | 1 | 12/05/22 | WB | SW8270D | |
| Chrysene | ND | 310 | 150 | ug/Kg | 1 | 12/05/22 | WB | SW8270D | |
| Dibenz(a,h)anthracene | ND | 220 | 150 | ug/Kg | 1 | 12/05/22 | WB | SW8270D | |
| Dibenzofuran | ND | 310 | 130 | ug/Kg | 1 | 12/05/22 | WB | SW8270D | |
| Diethyl phthalate | ND | 310 | 140 | ug/Kg | 1 | 12/05/22 | WB | SW8270D | |
| Dimethylphthalate | ND | 310 | 140 | ug/Kg | 1 | 12/05/22 | WB | SW8270D | |
| Di-n-butylphthalate | ND | 310 | 120 | ug/Kg | 1 | 12/05/22 | WB | SW8270D | |
| Di-n-octylphthalate | ND | 310 | 120 | ug/Kg | 1 | 12/05/22 | WB | SW8270D | |
| Fluoranthene | ND | 310 | 150 | ug/Kg | 1 | 12/05/22 | WB | SW8270D | |
| Fluorene | ND | 310 | 150 | ug/Kg | 1 | 12/05/22 | WB | SW8270D | |
| Hexachlorobenzene | ND | 220 | 130 | ug/Kg | 1 | 12/05/22 | WB | SW8270D | |
| Hexachlorobutadiene | ND | 310 | 160 | ug/Kg | 1 | 12/05/22 | WB | SW8270D | |
| Hexachlorocyclopentadiene | ND | 310 | 140 | ug/Kg | 1 | 12/05/22 | WB | SW8270D | |
| Hexachloroethane | ND | 220 | 130 | ug/Kg | 1 | 12/05/22 | WB | SW8270D | |
| Indeno(1,2,3-cd)pyrene | ND | 310 | 150 | ug/Kg | 1 | 12/05/22 | WB | SW8270D | |

| Parameter | Result | RL/ PQL | LOD/ MDL | Units | Dilution | Date/Time | By | Reference |
|---|---|---|---|---|---|---|---|---|
| Isophorone | ND | 220 | 130 | ug/Kg | 1 | 12/05/22 | WB | SW8270D |
| Naphthalene | ND | 310 | 130 | ug/Kg | 1 | 12/05/22 | WB | SW8270D |
| Nitrobenzene | ND | 220 | 160 | ug/Kg | 1 | 12/05/22 | WB | SW8270D |
| N-Nitrosodimethylamine | ND | 310 | 130 | ug/Kg | 1 | 12/05/22 | WB | SW8270D |
| N-Nitrosodi-n-propylamine | ND | 220 | 150 | ug/Kg | 1 | 12/05/22 | WB | SW8270D |
| N-Nitrosodiphenylamine | ND | 310 | 170 | ug/Kg | 1 | 12/05/22 | WB | SW8270D |
| Pentachloronitrobenzene | ND | 310 | 170 | ug/Kg | 1 | 12/05/22 | WB | SW8270D |
| Pentachlorophenol | ND | 270 | 170 | ug/Kg | 1 | 12/05/22 | WB | SW8270D |
| Phenanthrene | ND | 310 | 130 | ug/Kg | 1 | 12/05/22 | WB | SW8270D |
| Phenol | ND | 310 | 140 | ug/Kg | 1 | 12/05/22 | WB | SW8270D |
| Pyrene | ND | 310 | 150 | ug/Kg | 1 | 12/05/22 | WB | SW8270D |
| Pyridine | ND | 310 | 110 | ug/Kg | 1 | 12/05/22 | WB | SW8270D |
| **QA/QC Surrogates** | | | | | | | | |
| % 2,4,6-Tribromophenol | 95 | | | % | 1 | 12/05/22 | WB | 30 - 130 % |
| % 2-Fluorobiphenyl | 79 | | | % | 1 | 12/05/22 | WB | 30 - 130 % |
| % 2-Fluorophenol | 78 | | | % | 1 | 12/05/22 | WB | 30 - 130 % |
| % Nitrobenzene-d5 | 80 | | | % | 1 | 12/05/22 | WB | 30 - 130 % |
| % Phenol-d5 | 88 | | | % | 1 | 12/05/22 | WB | 30 - 130 % |
| % Terphenyl-d14 | 85 | | | % | 1 | 12/05/22 | WB | 30 - 130 % |
| **1,4-Dioxane** | | | | | | | | |
| 1,4-dioxane | ND | 89 | 89 | ug/Kg | 1 | 12/06/22 | WB | SW8270D (SIM) |
| **QA/QC Surrogates** | | | | | | | | |
| % 2-Fluorobiphenyl | 65 | | | % | 1 | 12/06/22 | WB | 30 - 130 % |
| % Nitrobenzene-d5 | 88 | | | % | 1 | 12/06/22 | WB | 30 - 130 % |
| % Terphenyl-d14 | 96 | | | % | 1 | 12/06/22 | WB | 30 - 130 % |

| Parameter | Result | RL/ PQL | LOD/ MDL | Units | Dilution | Date/Time | By | Reference |
|---|---|---|---|---|---|---|---|---|

1 = This parameter is not certified by the primary accrediting authority (NY NELAC) for this matrix. NY NELAC does not offer certification for all parameters at this time.
C = This parameter is subcontracted.
B = Present in blank, no bias suspected.

RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected BRL=Below Reporting Level L=Biased Low J=Estimated Below RL LOD=Limit of Detection MDL=Method Detection Limit1
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

## Comments:

*See attached

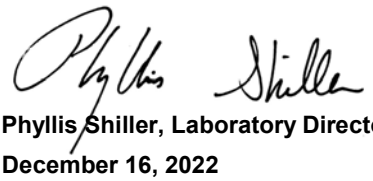
Per 1.4.6 of EPA method 8270D, 1,2-Diphenylhydrazine is unstable and readily converts to Azobenzene. Azobenzene is used for the calibration of 1,2-Diphenylhydrazine.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

PFAS (21) (EPA 537m), PFOA/PFOS - Soil Extraction (EPA 537m) were analyzed by NY certified lab #12058.

S - Laboratory solvent, contamination is possible.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200.
The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.



**Phyllis Shiller, Laboratory Director**
**December 16, 2022**
**Reviewed and Released by: Greg Lawrence, Assistant Lab Director**

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

# Analysis Report

December 16, 2022

FOR: Attn: Nora Brew
Walden Environmental Engineering PLLC
16 Spring Street
Oyster Bay, NY 11771

| Sample Information | | Custody Information | | Date | Time |
|---|---|---|---|---|---|
| Matrix: | SOIL | Collected by: | | 11/30/22 | 9:40 |
| Location Code: | WALDENE-IPARK | Received by: | CP | 12/01/22 | 17:12 |
| Rush Request: | Standard | Analyzed by: | see "By" below | | |
| P.O.#: | IPARK 0118.62 | | | | |

## Laboratory Data

SDG ID: GCM95278
Phoenix ID: CM95287

Project ID: IPARK0118.62-LOT 10 BOUNDARY MODIFICAT.
Client ID: SB-DUP3

| Parameter | Result | RL/ PQL | LOD/ MDL | Units | Dilution | Date/Time | By | Reference | |
|---|---|---|---|---|---|---|---|---|---|
| Aluminum | 29000 | 430 | 87 | mg/Kg | 100 | 12/09/22 | TH | SW6010D | B |
| Antimony | ND | 4.3 | 4.3 | mg/Kg | 1 | 12/04/22 | CPP | SW6010D | |
| Arsenic | 9.05 | 0.87 | 0.87 | mg/Kg | 1 | 12/04/22 | CPP | SW6010D | |
| Barium | 130 | 0.9 | 0.43 | mg/Kg | 1 | 12/04/22 | TH | SW6010D | |
| Beryllium | 1.00 | 0.35 | 0.17 | mg/Kg | 1 | 12/04/22 | CPP | SW6010D | |
| Calcium | 1520 | 4.3 | 4.0 | mg/Kg | 1 | 12/04/22 | CPP | SW6010D | |
| Cadmium | 3.07 | 0.43 | 0.43 | mg/Kg | 1 | 12/04/22 | CPP | SW6010D | |
| Chromium | 32.0 | 0.43 | 0.43 | mg/Kg | 1 | 12/04/22 | CPP | SW6010D | |
| Cobalt | 22.2 | 0.43 | 0.43 | mg/Kg | 1 | 12/04/22 | CPP | SW6010D | |
| Copper | 48.4 | 0.9 | 0.43 | mg/kg | 1 | 12/04/22 | CPP | SW6010D | |
| Iron | 52000 | 43 | 43 | mg/Kg | 10 | 12/03/22 | CPP | SW6010D | |
| Lead | 25.3 | 0.9 | 0.43 | mg/Kg | 1 | 12/04/22 | CPP | SW6010D | |
| Magnesium | 13000 | 43 | 43 | mg/Kg | 10 | 12/03/22 | CPP | SW6010D | |
| Manganese | 1210 | 4.3 | 4.3 | mg/Kg | 10 | 12/03/22 | TH | SW6010D | |
| Mercury | ND | 0.03 | 0.02 | mg/Kg | 2 | 12/05/22 | PM | SW7471B | |
| Nickel | 48.1 | 0.43 | 0.43 | mg/Kg | 1 | 12/04/22 | CPP | SW6010D | |
| Potassium | 3970 | 9 | 3.4 | mg/Kg | 1 | 12/04/22 | CPP | SW6010D | |
| Selenium | ND | 1.7 | 1.5 | mg/Kg | 1 | 12/04/22 | CPP | SW6010D | |
| Silver | ND | 0.43 | 0.43 | mg/Kg | 1 | 12/04/22 | CPP | SW6010D | |
| Sodium | 1070 | 9 | 3.7 | mg/Kg | 1 | 12/04/22 | CPP | SW6010D | |
| Thallium | ND | 1.7 | 1.7 | mg/Kg | 1 | 12/04/22 | CPP | SW6010D | |
| Vanadium | 30.4 | 0.43 | 0.43 | mg/Kg | 1 | 12/04/22 | CPP | SW6010D | |
| Zinc | 124 | 0.9 | 0.43 | mg/Kg | 1 | 12/04/22 | CPP | SW6010D | |
| Percent Solid | 77 | | | % | | 12/01/22 | Q | SW846-%Solid | |
| Extraction for SVOA SIM | Completed | | | | | 12/05/22 | B/MO | SW3545A | |
| Soil Extraction for PCB | Completed | | | | | 12/02/22 | O/Y | SW3545A | |
| Soil Extraction for Pesticide | Completed | | | | | 12/02/22 | O | SW3545A | |

**Ver 1**

Project ID: IPARK0118.62-LOT 10 BOUNDARY MODIFICAT. Phoenix I.D.: CM95287

Client ID: SB-DUP3

| Parameter | Result | RL/ PQL | LOD/ MDL | Units | Dilution | Date/Time | By | Reference | |
|---|---|---|---|---|---|---|---|---|---|
| Field Extraction | Completed | | | | | 11/30/22 | | SW5035A | 1 |
| Mercury Digestion | Completed | | | | | 12/02/22 | AB/AB | SW7471B | |
| Soil Extraction for Herbicide | Completed | | | | | 12/07/22 | J/D | SW3546 | |
| Soil Extraction for SVOA | Completed | | | | | 12/03/22 | Y/L | SW3546 | |
| Total Metals Digest | Completed | | | | | 12/01/22 | | SW3050B | |
| PFAS (21) | Completed | | | | | 12/07/22 | *** | EPA 537m | C |

## PFAS (21)

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **1H,1H,2H,2H-Perfluorodecanesulfonic acid** | ND | 0.248 | 0.0254 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| **1H,1H,2H,2H-Perfluorooctanesulfonic acid** | ND | 0.248 | 0.0654 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| NEtFOSAA | ND | 0.248 | 0.103 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| NMeFOSAA | ND | 0.248 | 0.103 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| **Perfluoro-1-decanesulfonic acid (PFDS)** | ND | 0.248 | 0.0508 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| **Perfluoro-1-heptanesulfonic acid (PFHpS)** | ND | 0.248 | 0.0489 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| **Perfluoro-1-octanesulfonamide (FOSA)** | ND | 0.248 | 0.0463 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| Perfluorobutanesulfonic acid (PFBS) | ND | 0.248 | 0.198 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| Perfluorodecanoic acid (PFDA) | ND | 0.248 | 0.0508 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| Perfluorododecanoic acid (PFDoA) | ND | 0.248 | 0.0743 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| Perfluoroheptanoic acid (PFHpA) | ND | 0.248 | 0.0451 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| **Perfluorohexanesulfonic Acid (PFHxS)** | ND | 0.248 | 0.0307 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| Perfluorohexanoic acid (PFHxA) | ND | 0.248 | 0.0653 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| Perfluoro-n-butanoic acid (PFBA) | ND | 0.248 | 0.181 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| Perfluorononanoic acid (PFNA) | ND | 0.248 | 0.0593 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| Perfluorooctanesulfonic Acid (PFOS) | ND | 0.248 | 0.0434 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| Perfluorooctanoic acid (PFOA) | ND | 0.248 | 0.0765 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| Perfluoropentanoic acid (PFPeA) | ND | 0.248 | 0.0911 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| Perfluorotetradecanoic acid (PFTA) | ND | 0.248 | 0.0740 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| Perfluorotridecanoic acid (PFTrDA) | ND | 0.248 | 0.0431 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| Perfluoroundecanoic acid (PFUnA) | ND | 0.248 | 0.115 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| **QA/QC Surrogates** | | | | | | | | | |
| % d3-N-MeFOSAA | 53.3 | | | % | 1 | 12/11/22 | *** | 25 - 150 % | C |
| % d5-NEtFOSA | 52.1 | | | % | 1 | 12/11/22 | *** | 25 - 150 % | C |
| % M2-6:2FTS | 108 | | | % | 1 | 12/11/22 | *** | 25 - 200 % | C |
| % M2-8:2FTS | 91.3 | | | % | 1 | 12/11/22 | *** | 25 - 200 % | C |
| % M2PFTeDA | 25.6 | | | % | 1 | 12/11/22 | *** | 10 - 150 % | C |
| % M3PFBS | 78.4 | | | % | 1 | 12/11/22 | *** | 25 - 150 % | C |
| % M3PFHxS | 91.4 | | | % | 1 | 12/11/22 | *** | 25 - 150 % | C |
| % M4PFHpA | 72.9 | | | % | 1 | 12/11/22 | *** | 25 - 150 % | C |
| % M5PFHxA | 79.7 | | | % | 1 | 12/11/22 | *** | 25 - 150 % | C |
| % M5PFPeA | 81.7 | | | % | 1 | 12/11/22 | *** | 25 - 150 % | C |
| % M6PFDA | 65.6 | | | % | 1 | 12/11/22 | *** | 25 - 150 % | C |
| % M7PFUdA | 51.6 | | | % | 1 | 12/11/22 | *** | 25 - 150 % | C |
| % M8FOSA | 46.7 | | | % | 1 | 12/11/22 | *** | 10 - 150 % | C |
| % M8PFOA | 81.5 | | | % | 1 | 12/11/22 | *** | 25 - 150 % | C |
| % M8PFOS | 70.1 | | | % | 1 | 12/11/22 | *** | 25 - 150 % | C |
| % M9PFNA | 75.8 | | | % | 1 | 12/11/22 | *** | 25 - 150 % | C |
| % MPFBA | 83.8 | | | % | 1 | 12/11/22 | *** | 25 - 150 % | C |
| % MPFDoA | 49.5 | | | % | 1 | 12/11/22 | *** | 25 - 150 % | C |

Project ID: IPARK0118.62-LOT 10 BOUNDARY MODIFICAT. Phoenix I.D.: CM95287
Client ID: SB-DUP3

| Parameter | Result | RL/ PQL | LOD/ MDL | Units | Dilution | Date/Time | By | Reference |
|---|---|---|---|---|---|---|---|---|
| **Chlorinated Herbicides** | | | | | | | | |
| 2,4,5-T | ND | 160 | 160 | ug/Kg | 10 | 12/09/22 | JRB | SW8151A |
| 2,4,5-TP (Silvex) | ND | 160 | 160 | ug/Kg | 10 | 12/09/22 | JRB | SW8151A |
| 2,4-D | ND | 320 | 320 | ug/Kg | 10 | 12/09/22 | JRB | SW8151A |
| 2,4-DB | ND | 3200 | 3200 | ug/Kg | 10 | 12/09/22 | JRB | SW8151A |
| Dalapon | ND | 160 | 160 | ug/Kg | 10 | 12/09/22 | JRB | SW8151A |
| Dicamba | ND | 160 | 160 | ug/Kg | 10 | 12/09/22 | JRB | SW8151A |
| Dichloroprop | ND | 320 | 320 | ug/Kg | 10 | 12/09/22 | JRB | SW8151A |
| Dinoseb | ND | 320 | 320 | ug/Kg | 10 | 12/09/22 | JRB | SW8151A |
| **QA/QC Surrogates** | | | | | | | | |
| % DCAA | 103 | | | % | 10 | 12/09/22 | JRB | 30 - 150 % |
| % DCAA (Confirmation) | 92 | | | % | 10 | 12/09/22 | JRB | 30 - 150 % |
| **Polychlorinated Biphenyls** | | | | | | | | |
| PCB-1016 | ND | 85 | 85 | ug/Kg | 2 | 12/06/22 | SC | SW8082A |
| PCB-1221 | ND | 85 | 85 | ug/Kg | 2 | 12/06/22 | SC | SW8082A |
| PCB-1232 | ND | 85 | 85 | ug/Kg | 2 | 12/06/22 | SC | SW8082A |
| PCB-1242 | ND | 85 | 85 | ug/Kg | 2 | 12/06/22 | SC | SW8082A |
| PCB-1248 | ND | 85 | 85 | ug/Kg | 2 | 12/06/22 | SC | SW8082A |
| PCB-1254 | ND | 85 | 85 | ug/Kg | 2 | 12/06/22 | SC | SW8082A |
| PCB-1260 | ND | 85 | 85 | ug/Kg | 2 | 12/06/22 | SC | SW8082A |
| PCB-1262 | ND | 85 | 85 | ug/Kg | 2 | 12/06/22 | SC | SW8082A |
| PCB-1268 | ND | 85 | 85 | ug/Kg | 2 | 12/06/22 | SC | SW8082A |
| **QA/QC Surrogates** | | | | | | | | |
| % DCBP | 65 | | | % | 2 | 12/06/22 | SC | 30 - 150 % |
| % DCBP (Confirmation) | 62 | | | % | 2 | 12/06/22 | SC | 30 - 150 % |
| % TCMX | 45 | | | % | 2 | 12/06/22 | SC | 30 - 150 % |
| % TCMX (Confirmation) | 45 | | | % | 2 | 12/06/22 | SC | 30 - 150 % |
| **Pesticides - Soil** | | | | | | | | |
| 4,4' -DDD | ND | 2.6 | 2.6 | ug/Kg | 2 | 12/05/22 | AW | SW8081B |
| 4,4' -DDE | ND | 2.6 | 2.6 | ug/Kg | 2 | 12/05/22 | AW | SW8081B |
| 4,4' -DDT | ND | 2.6 | 2.6 | ug/Kg | 2 | 12/05/22 | AW | SW8081B |
| a-BHC | ND | 8.5 | 8.5 | ug/Kg | 2 | 12/05/22 | AW | SW8081B |
| a-Chlordane | ND | 4.3 | 4.3 | ug/Kg | 2 | 12/05/22 | AW | SW8081B |
| Alachlor | ND | 4.3 | 4.3 | ug/Kg | 2 | 12/05/22 | AW | SW8081B |
| Aldrin | ND | 4.3 | 4.3 | ug/Kg | 2 | 12/05/22 | AW | SW8081B |
| b-BHC | ND | 8.5 | 8.5 | ug/Kg | 2 | 12/05/22 | AW | SW8081B |
| Chlordane | ND | 43 | 43 | ug/Kg | 2 | 12/05/22 | AW | SW8081B |
| d-BHC | ND | 8.5 | 8.5 | ug/Kg | 2 | 12/05/22 | AW | SW8081B |
| Dieldrin | ND | 4.3 | 4.3 | ug/Kg | 2 | 12/05/22 | AW | SW8081B |
| Endosulfan I | ND | 8.5 | 8.5 | ug/Kg | 2 | 12/05/22 | AW | SW8081B |
| Endosulfan II | ND | 8.5 | 8.5 | ug/Kg | 2 | 12/05/22 | AW | SW8081B |
| Endosulfan sulfate | ND | 8.5 | 8.5 | ug/Kg | 2 | 12/05/22 | AW | SW8081B |
| Endrin | ND | 8.5 | 8.5 | ug/Kg | 2 | 12/05/22 | AW | SW8081B |
| Endrin aldehyde | ND | 8.5 | 8.5 | ug/Kg | 2 | 12/05/22 | AW | SW8081B |
| Endrin ketone | ND | 8.5 | 8.5 | ug/Kg | 2 | 12/05/22 | AW | SW8081B |
| g-BHC | ND | 1.7 | 1.7 | ug/Kg | 2 | 12/05/22 | AW | SW8081B |
| g-Chlordane | ND | 4.3 | 4.3 | ug/Kg | 2 | 12/05/22 | AW | SW8081B |

Project ID: IPARK0118.62-LOT 10 BOUNDARY MODIFICAT. Phoenix I.D.: CM95287
Client ID: SB-DUP3

| Parameter | Result | | RL/ PQL | LOD/ MDL | Units | Dilution | Date/Time | By | Reference | |
|---|---|---|---|---|---|---|---|---|---|---|
| Heptachlor | ND | | 8.5 | 8.5 | ug/Kg | 2 | 12/05/22 | AW | SW8081B | |
| Heptachlor epoxide | ND | | 8.5 | 8.5 | ug/Kg | 2 | 12/05/22 | AW | SW8081B | |
| Methoxychlor | ND | | 43 | 43 | ug/Kg | 2 | 12/05/22 | AW | SW8081B | |
| Toxaphene | ND | | 170 | 170 | ug/Kg | 2 | 12/05/22 | AW | SW8081B | |
| **QA/QC Surrogates** | | | | | | | | | | |
| % DCBP | 59 | | | | % | 2 | 12/05/22 | AW | 30 - 150 % | |
| % DCBP (Confirmation) | 68 | | | | % | 2 | 12/05/22 | AW | 30 - 150 % | |
| % TCMX | 46 | | | | % | 2 | 12/05/22 | AW | 30 - 150 % | |
| % TCMX (Confirmation) | 48 | | | | % | 2 | 12/05/22 | AW | 30 - 150 % | |
| **Volatiles** | | | | | | | | | | |
| 1,1,1,2-Tetrachloroethane | ND | | 5.8 | 1.2 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,1,1-Trichloroethane | ND | | 5.8 | 0.58 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,1,2,2-Tetrachloroethane | ND | | 5.8 | 1.2 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,1,2-Trichloroethane | ND | | 5.8 | 1.2 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,1-Dichloroethane | ND | | 5.8 | 1.2 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,1-Dichloroethene | ND | | 5.8 | 0.58 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,1-Dichloropropene | ND | | 5.8 | 0.58 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,2,3-Trichlorobenzene | ND | | 5.8 | 1.2 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,2,3-Trichloropropane | ND | | 5.8 | 0.58 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,2,4-Trichlorobenzene | ND | | 5.8 | 1.2 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,2,4-Trimethylbenzene | ND | | 5.8 | 0.58 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,2-Dibromo-3-chloropropane | ND | | 5.8 | 1.2 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,2-Dibromoethane | ND | | 5.8 | 0.58 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,2-Dichlorobenzene | ND | | 5.8 | 0.58 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,2-Dichloroethane | ND | | 5.8 | 0.58 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,2-Dichloropropane | ND | | 5.8 | 1.2 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,3,5-Trimethylbenzene | ND | | 5.8 | 0.58 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,3-Dichlorobenzene | ND | | 5.8 | 0.58 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,3-Dichloropropane | ND | | 5.8 | 1.2 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,4-Dichlorobenzene | ND | | 5.8 | 0.58 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 2,2-Dichloropropane | ND | | 5.8 | 0.58 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 2-Chlorotoluene | ND | | 5.8 | 1.2 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 2-Hexanone | ND | | 29 | 5.8 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 2-Isopropyltoluene | ND | | 5.8 | 0.58 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | 1 |
| 4-Chlorotoluene | ND | | 5.8 | 0.58 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 4-Methyl-2-pentanone | ND | | 29 | 5.8 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Acetone | 7.9 | JS | 29 | 5.8 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Acrylonitrile | ND | | 12 | 1.2 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Benzene | ND | | 5.8 | 0.58 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Bromobenzene | ND | | 5.8 | 0.58 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Bromochloromethane | ND | | 5.8 | 0.58 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Bromodichloromethane | ND | | 5.8 | 1.2 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Bromoform | ND | | 5.8 | 1.2 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Bromomethane | ND | | 5.8 | 2.3 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Carbon Disulfide | ND | | 5.8 | 1.2 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Carbon tetrachloride | ND | | 5.8 | 1.2 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Chlorobenzene | ND | | 5.8 | 0.58 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Chloroethane | ND | | 5.8 | 0.58 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Chloroform | ND | | 5.8 | 0.58 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |

Project ID: IPARK0118.62-LOT 10 BOUNDARY MODIFICAT. Phoenix I.D.: CM95287

Client ID: SB-DUP3

| Parameter | Result | | RL/ PQL | LOD/ MDL | Units | Dilution | Date/Time | By | Reference | |
|---|---|---|---|---|---|---|---|---|---|---|
| Chloromethane | ND | | 5.8 | 1.2 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| cis-1,2-Dichloroethene | ND | | 5.8 | 0.58 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| cis-1,3-Dichloropropene | ND | | 5.8 | 0.58 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Dibromochloromethane | ND | | 5.8 | 1.2 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Dibromomethane | ND | | 5.8 | 1.2 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Dichlorodifluoromethane | ND | | 5.8 | 0.58 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Ethylbenzene | ND | | 5.8 | 0.58 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Hexachlorobutadiene | ND | | 5.8 | 0.58 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Isopropylbenzene | ND | | 5.8 | 0.58 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| m&p-Xylene | ND | | 5.8 | 1.2 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Methyl Ethyl Ketone | ND | | 35 | 5.8 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Methyl t-butyl ether (MTBE) | ND | | 12 | 1.2 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Methylene chloride | ND | | 5.8 | 5.8 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Naphthalene | ND | | 5.8 | 1.2 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| n-Butylbenzene | ND | | 5.8 | 0.58 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| n-Propylbenzene | ND | | 5.8 | 1.2 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| o-Xylene | ND | | 5.8 | 1.2 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| p-Isopropyltoluene | ND | | 5.8 | 0.58 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| sec-Butylbenzene | ND | | 5.8 | 0.58 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Styrene | ND | | 5.8 | 0.58 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| tert-Butylbenzene | ND | | 5.8 | 0.58 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Tetrachloroethene | ND | | 5.8 | 1.2 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Tetrahydrofuran (THF) | 6.8 | J | 12 | 2.9 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Toluene | ND | | 5.8 | 0.58 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| trans-1,2-Dichloroethene | ND | | 5.8 | 0.58 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| trans-1,3-Dichloropropene | ND | | 5.8 | 0.58 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| trans-1,4-dichloro-2-butene | ND | | 12 | 2.9 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Trichloroethene | ND | | 5.8 | 0.58 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Trichlorofluoromethane | ND | | 5.8 | 1.2 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Trichlorotrifluoroethane | ND | | 5.8 | 0.58 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Vinyl chloride | ND | | 5.8 | 0.58 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| **QA/QC Surrogates** | | | | | | | | | | |
| % 1,2-dichlorobenzene-d4 | 107 | | | | % | 1 | 12/06/22 | JLI | 70 - 130 % | |
| % Bromofluorobenzene | 95 | | | | % | 1 | 12/06/22 | JLI | 70 - 130 % | |
| % Dibromofluoromethane | 106 | | | | % | 1 | 12/06/22 | JLI | 70 - 130 % | |
| % Toluene-d8 | 94 | | | | % | 1 | 12/06/22 | JLI | 70 - 130 % | |
| **Semivolatiles** | | | | | | | | | | |
| 1,2,4,5-Tetrachlorobenzene | ND | | 300 | 150 | ug/Kg | 1 | 12/05/22 | WB | SW8270D | |
| 1,2,4-Trichlorobenzene | ND | | 300 | 130 | ug/Kg | 1 | 12/05/22 | WB | SW8270D | |
| 1,2-Dichlorobenzene | ND | | 300 | 120 | ug/Kg | 1 | 12/05/22 | WB | SW8270D | |
| 1,2-Diphenylhydrazine | ND | | 300 | 140 | ug/Kg | 1 | 12/05/22 | WB | SW8270D | |
| 1,3-Dichlorobenzene | ND | | 300 | 130 | ug/Kg | 1 | 12/05/22 | WB | SW8270D | |
| 1,4-Dichlorobenzene | ND | | 300 | 130 | ug/Kg | 1 | 12/05/22 | WB | SW8270D | |
| 2,2'-Oxybis(1-Chloropropane) | ND | | 300 | 120 | ug/Kg | 1 | 12/05/22 | WB | SW8270D | 1 |
| 2,4,5-Trichlorophenol | ND | | 300 | 230 | ug/Kg | 1 | 12/05/22 | WB | SW8270D | |
| 2,4,6-Trichlorophenol | ND | | 210 | 140 | ug/Kg | 1 | 12/05/22 | WB | SW8270D | |
| 2,4-Dichlorophenol | ND | | 210 | 150 | ug/Kg | 1 | 12/05/22 | WB | SW8270D | |
| 2,4-Dimethylphenol | ND | | 300 | 110 | ug/Kg | 1 | 12/05/22 | WB | SW8270D | |
| 2,4-Dinitrophenol | ND | | 300 | 300 | ug/Kg | 1 | 12/05/22 | WB | SW8270D | |

Project ID: IPARK0118.62-LOT 10 BOUNDARY MODIFICAT. Phoenix I.D.: CM95287

Client ID: SB-DUP3

| Parameter | Result | RL/ PQL | LOD/ MDL | Units | Dilution | Date/Time | By | Reference | |
|---|---|---|---|---|---|---|---|---|---|
| 2,4-Dinitrotoluene | ND | 210 | 170 | ug/Kg | 1 | 12/05/22 | WB | SW8270D | |
| 2,6-Dinitrotoluene | ND | 210 | 130 | ug/Kg | 1 | 12/05/22 | WB | SW8270D | |
| 2-Chloronaphthalene | ND | 300 | 120 | ug/Kg | 1 | 12/05/22 | WB | SW8270D | |
| 2-Chlorophenol | ND | 300 | 120 | ug/Kg | 1 | 12/05/22 | WB | SW8270D | |
| 2-Methylnaphthalene | ND | 300 | 130 | ug/Kg | 1 | 12/05/22 | WB | SW8270D | |
| 2-Methylphenol (o-cresol) | ND | 300 | 200 | ug/Kg | 1 | 12/05/22 | WB | SW8270D | |
| 2-Nitroaniline | ND | 300 | 300 | ug/Kg | 1 | 12/05/22 | WB | SW8270D | |
| 2-Nitrophenol | ND | 300 | 270 | ug/Kg | 1 | 12/05/22 | WB | SW8270D | |
| 3&4-Methylphenol (m&p-cresol) | ND | 300 | 170 | ug/Kg | 1 | 12/05/22 | WB | SW8270D | 1 |
| 3,3'-Dichlorobenzidine | ND | 210 | 200 | ug/Kg | 1 | 12/05/22 | WB | SW8270D | |
| 3-Nitroaniline | ND | 430 | 850 | ug/Kg | 1 | 12/05/22 | WB | SW8270D | |
| 4,6-Dinitro-2-methylphenol | ND | 260 | 85 | ug/Kg | 1 | 12/05/22 | WB | SW8270D | |
| 4-Bromophenyl phenyl ether | ND | 300 | 130 | ug/Kg | 1 | 12/05/22 | WB | SW8270D | |
| 4-Chloro-3-methylphenol | ND | 300 | 150 | ug/Kg | 1 | 12/05/22 | WB | SW8270D | |
| 4-Chloroaniline | ND | 340 | 200 | ug/Kg | 1 | 12/05/22 | WB | SW8270D | |
| 4-Chlorophenyl phenyl ether | ND | 300 | 140 | ug/Kg | 1 | 12/05/22 | WB | SW8270D | |
| 4-Nitroaniline | ND | 430 | 140 | ug/Kg | 1 | 12/05/22 | WB | SW8270D | |
| 4-Nitrophenol | ND | 430 | 190 | ug/Kg | 1 | 12/05/22 | WB | SW8270D | |
| Acenaphthene | ND | 300 | 130 | ug/Kg | 1 | 12/05/22 | WB | SW8270D | |
| Acenaphthylene | ND | 300 | 120 | ug/Kg | 1 | 12/05/22 | WB | SW8270D | |
| Acetophenone | ND | 300 | 130 | ug/Kg | 1 | 12/05/22 | WB | SW8270D | |
| Aniline | ND | 340 | 340 | ug/Kg | 1 | 12/05/22 | WB | SW8270D | |
| Anthracene | ND | 300 | 140 | ug/Kg | 1 | 12/05/22 | WB | SW8270D | |
| Benz(a)anthracene | ND | 300 | 140 | ug/Kg | 1 | 12/05/22 | WB | SW8270D | |
| Benzidine | ND | 430 | 250 | ug/Kg | 1 | 12/05/22 | WB | SW8270D | |
| Benzo(a)pyrene | ND | 210 | 140 | ug/Kg | 1 | 12/05/22 | WB | SW8270D | |
| Benzo(b)fluoranthene | ND | 300 | 150 | ug/Kg | 1 | 12/05/22 | WB | SW8270D | |
| Benzo(ghi)perylene | ND | 300 | 140 | ug/Kg | 1 | 12/05/22 | WB | SW8270D | |
| Benzo(k)fluoranthene | ND | 300 | 140 | ug/Kg | 1 | 12/05/22 | WB | SW8270D | |
| Benzoic acid | ND | 2100 | 850 | ug/Kg | 1 | 12/05/22 | WB | SW8270D | |
| Benzyl butyl phthalate | ND | 300 | 110 | ug/Kg | 1 | 12/05/22 | WB | SW8270D | |
| Bis(2-chloroethoxy)methane | ND | 300 | 120 | ug/Kg | 1 | 12/05/22 | WB | SW8270D | |
| Bis(2-chloroethyl)ether | ND | 210 | 120 | ug/Kg | 1 | 12/05/22 | WB | SW8270D | |
| Bis(2-ethylhexyl)phthalate | ND | 300 | 120 | ug/Kg | 1 | 12/05/22 | WB | SW8270D | |
| Carbazole | ND | 210 | 170 | ug/Kg | 1 | 12/05/22 | WB | SW8270D | |
| Chrysene | ND | 300 | 140 | ug/Kg | 1 | 12/05/22 | WB | SW8270D | |
| Dibenz(a,h)anthracene | ND | 210 | 140 | ug/Kg | 1 | 12/05/22 | WB | SW8270D | |
| Dibenzofuran | ND | 300 | 120 | ug/Kg | 1 | 12/05/22 | WB | SW8270D | |
| Diethyl phthalate | ND | 300 | 130 | ug/Kg | 1 | 12/05/22 | WB | SW8270D | |
| Dimethylphthalate | ND | 300 | 130 | ug/Kg | 1 | 12/05/22 | WB | SW8270D | |
| Di-n-butylphthalate | ND | 300 | 110 | ug/Kg | 1 | 12/05/22 | WB | SW8270D | |
| Di-n-octylphthalate | ND | 300 | 110 | ug/Kg | 1 | 12/05/22 | WB | SW8270D | |
| Fluoranthene | ND | 300 | 140 | ug/Kg | 1 | 12/05/22 | WB | SW8270D | |
| Fluorene | ND | 300 | 140 | ug/Kg | 1 | 12/05/22 | WB | SW8270D | |
| Hexachlorobenzene | ND | 210 | 120 | ug/Kg | 1 | 12/05/22 | WB | SW8270D | |
| Hexachlorobutadiene | ND | 300 | 150 | ug/Kg | 1 | 12/05/22 | WB | SW8270D | |
| Hexachlorocyclopentadiene | ND | 300 | 130 | ug/Kg | 1 | 12/05/22 | WB | SW8270D | |
| Hexachloroethane | ND | 210 | 130 | ug/Kg | 1 | 12/05/22 | WB | SW8270D | |
| Indeno(1,2,3-cd)pyrene | ND | 300 | 140 | ug/Kg | 1 | 12/05/22 | WB | SW8270D | |

Project ID: IPARK0118.62-LOT 10 BOUNDARY MODIFICAT. Phoenix I.D.: CM95287
Client ID: SB-DUP3

| Parameter | Result | RL/ PQL | LOD/ MDL | Units | Dilution | Date/Time | By | Reference |
|---|---|---|---|---|---|---|---|---|
| Isophorone | ND | 210 | 120 | ug/Kg | 1 | 12/05/22 | WB | SW8270D |
| Naphthalene | ND | 300 | 120 | ug/Kg | 1 | 12/05/22 | WB | SW8270D |
| Nitrobenzene | ND | 210 | 150 | ug/Kg | 1 | 12/05/22 | WB | SW8270D |
| N-Nitrosodimethylamine | ND | 300 | 120 | ug/Kg | 1 | 12/05/22 | WB | SW8270D |
| N-Nitrosodi-n-propylamine | ND | 210 | 140 | ug/Kg | 1 | 12/05/22 | WB | SW8270D |
| N-Nitrosodiphenylamine | ND | 300 | 160 | ug/Kg | 1 | 12/05/22 | WB | SW8270D |
| Pentachloronitrobenzene | ND | 300 | 160 | ug/Kg | 1 | 12/05/22 | WB | SW8270D |
| Pentachlorophenol | ND | 260 | 160 | ug/Kg | 1 | 12/05/22 | WB | SW8270D |
| Phenanthrene | ND | 300 | 120 | ug/Kg | 1 | 12/05/22 | WB | SW8270D |
| Phenol | ND | 300 | 140 | ug/Kg | 1 | 12/05/22 | WB | SW8270D |
| Pyrene | ND | 300 | 150 | ug/Kg | 1 | 12/05/22 | WB | SW8270D |
| Pyridine | ND | 300 | 100 | ug/Kg | 1 | 12/05/22 | WB | SW8270D |
| **QA/QC Surrogates** | | | | | | | | |
| % 2,4,6-Tribromophenol | 94 | | | % | 1 | 12/05/22 | WB | 30 - 130 % |
| % 2-Fluorobiphenyl | 80 | | | % | 1 | 12/05/22 | WB | 30 - 130 % |
| % 2-Fluorophenol | 75 | | | % | 1 | 12/05/22 | WB | 30 - 130 % |
| % Nitrobenzene-d5 | 79 | | | % | 1 | 12/05/22 | WB | 30 - 130 % |
| % Phenol-d5 | 86 | | | % | 1 | 12/05/22 | WB | 30 - 130 % |
| % Terphenyl-d14 | 81 | | | % | 1 | 12/05/22 | WB | 30 - 130 % |
| **1,4-Dioxane** | | | | | | | | |
| 1,4-dioxane | ND | 86 | 86 | ug/Kg | 1 | 12/06/22 | WB | SW8270D (SIM) |
| **QA/QC Surrogates** | | | | | | | | |
| % 2-Fluorobiphenyl | 58 | | | % | 1 | 12/06/22 | WB | 30 - 130 % |
| % Nitrobenzene-d5 | 85 | | | % | 1 | 12/06/22 | WB | 30 - 130 % |
| % Terphenyl-d14 | 100 | | | % | 1 | 12/06/22 | WB | 30 - 130 % |

| Parameter | Result | RL/ PQL | LOD/ MDL | Units | Dilution | Date/Time | By | Reference |
|---|---|---|---|---|---|---|---|---|

1 = This parameter is not certified by the primary accrediting authority (NY NELAC) for this matrix. NY NELAC does not offer certification for all parameters at this time.
C = This parameter is subcontracted.
B = Present in blank, no bias suspected.

RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected BRL=Below Reporting Level L=Biased Low J=Estimated Below RL LOD=Limit of Detection MDL=Method Detection Limit1
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

## Comments:

*See attached

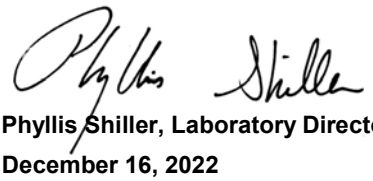
Per 1.4.6 of EPA method 8270D, 1,2-Diphenylhydrazine is unstable and readily converts to Azobenzene. Azobenzene is used for the calibration of 1,2-Diphenylhydrazine.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

PFAS (21) (EPA 537m), PFOA/PFOS - Soil Extraction (EPA 537m) were analyzed by NY certified lab #12058.

S - Laboratory solvent, contamination is possible.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200.
The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.



**Phyllis Shiller, Laboratory Director**
**December 16, 2022**
**Reviewed and Released by: Greg Lawrence, Assistant Lab Director**

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

# Analysis Report

December 16, 2022

FOR: Attn: Nora Brew
Walden Environmental Engineering PLLC
16 Spring Street
Oyster Bay, NY 11771

| Sample Information | | Custody Information | | Date | Time |
|---|---|---|---|---|---|
| Matrix: | WATER | Collected by: | | 11/30/22 | 13:00 |
| Location Code: | WALDENE-IPARK | Received by: | CP | 12/01/22 | 17:12 |
| Rush Request: | Standard | Analyzed by: | see "By" below | | |
| P.O.#: | IPARK 0118.62 | | | | |

## Laboratory Data

SDG ID: GCM95278
Phoenix ID: CM95288

Project ID: IPARK0118.62-LOT 10 BOUNDARY MODIFICAT.
Client ID: EQUIPMENT BLANK 11302022

| Parameter | Result | | RL/ PQL | LOD/ MDL | Units | Dilution | Date/Time | By | Reference |
|---|---|---|---|---|---|---|---|---|---|
| Aluminum | 0.006 | J | 0.020 | 0.0024 | mg/L | 1 | 12/03/22 | CPP | SW6010D/E200.7 |
| Antimony | ND | | 0.0030 | 0.0005 | mg/L | 5 | 12/07/22 | CPP | SW6020B/E200.8 |
| Arsenic - LDL | ND | | 0.004 | 0.001 | mg/L | 1 | 12/03/22 | CPP | SW6010D/E200.7 |
| Barium | ND | | 0.010 | 0.001 | mg/L | 1 | 12/03/22 | CPP | SW6010D/E200.7 |
| Beryllium | ND | | 0.001 | 0.001 | mg/L | 1 | 12/03/22 | CPP | SW6010D/E200.7 |
| Calcium | 0.083 | | 0.010 | 0.003 | mg/L | 1 | 12/03/22 | CPP | SW6010D/E200.7 |
| Cadmium | ND | | 0.004 | 0.0005 | mg/L | 1 | 12/03/22 | CPP | SW6010D/E200.7 |
| Chromium | ND | | 0.001 | 0.001 | mg/L | 1 | 12/03/22 | CPP | SW6010D/E200.7 |
| Cobalt | ND | | 0.005 | 0.001 | mg/L | 1 | 12/03/22 | CPP | SW6010D/E200.7 |
| Copper | 0.001 | J | 0.005 | 0.001 | mg/L | 1 | 12/03/22 | CPP | SW6010D/E200.7 |
| Iron | 0.02 | | 0.01 | 0.01 | mg/L | 1 | 12/03/22 | CPP | SW6010D/E200.7 |
| Lead | ND | | 0.001 | 0.001 | mg/L | 1 | 12/03/22 | CPP | SW6010D/E200.7 |
| Magnesium | 0.018 | | 0.010 | 0.01 | mg/L | 1 | 12/03/22 | CPP | SW6010D/E200.7 |
| Manganese | ND | | 0.005 | 0.001 | mg/L | 1 | 12/03/22 | CPP | SW6010D/E200.7 |
| Mercury | ND | | 0.0002 | 0.00015 | mg/L | 1 | 12/02/22 | IE | SW7470/E245.1 |
| Nickel | ND | | 0.004 | 0.001 | mg/L | 1 | 12/03/22 | CPP | SW6010D/E200.7 |
| Potassium | ND | | 0.1 | 0.1 | mg/L | 1 | 12/03/22 | CPP | SW6010D/E200.7 |
| Selenium | ND | | 0.010 | 0.0005 | mg/L | 5 | 12/07/22 | CPP | SW6020B/E200.8 |
| Silver | ND | | 0.005 | 0.001 | mg/L | 1 | 12/03/22 | CPP | SW6010D/E200.7 |
| Sodium | ND | | 0.10 | 0.1 | mg/L | 1 | 12/03/22 | CPP | SW6010D/E200.7 |
| Thallium | ND | | 0.0005 | 0.0005 | mg/L | 5 | 12/07/22 | CPP | SW6020B/E200.8 |
| Vanadium | 0.002 | J | 0.010 | 0.001 | mg/L | 1 | 12/03/22 | CPP | SW6010D/E200.7 |
| Zinc | 0.002 | J | 0.010 | 0.002 | mg/L | 1 | 12/03/22 | CPP | SW6010D/E200.7 |
| Mercury Digestion | Completed | | | | | | 12/02/22 | KL/KL | SW7470/245.1 |
| PCB Extraction (LDL) | Completed | | | | | | 12/06/22 | P | SW3510C |
| Extraction for Pest (LDL) | Completed | | | | | | 12/06/22 | P | SW3510C |
| Semi-Volatile Extraction | Completed | | | | | | 12/02/22 | X/K | SW3520C |

**Ver 1**

Project ID: IPARK0118.62-LOT 10 BOUNDARY MODIFICAT. Phoenix I.D.: CM95288
Client ID: EQUIPMENT BLANK 11302022

| Parameter | Result | RL/ PQL | LOD/ MDL | Units | Dilution | Date/Time | By | Reference | |
|---|---|---|---|---|---|---|---|---|---|
| Total Metals Digestion | Completed | | | | | 12/02/22 | AG | | |
| Total Metals Digestion MS | Completed | | | | | 12/02/22 | AG | | |
| **Pesticides** | | | | | | | | | |
| 4,4' -DDD | ND | 0.007 | 0.007 | ug/L | 1 | 12/07/22 | AW | SW8081B | |
| 4,4' -DDE | ND | 0.007 | 0.007 | ug/L | 1 | 12/07/22 | AW | SW8081B | |
| 4,4' -DDT | ND | 0.007 | 0.007 | ug/L | 1 | 12/07/22 | AW | SW8081B | |
| a-BHC | ND | 0.007 | 0.007 | ug/L | 1 | 12/07/22 | AW | SW8081B | |
| a-chlordane | ND | 0.014 | 0.014 | ug/L | 1 | 12/07/22 | AW | SW8081B | |
| Alachlor | ND | 0.10 | 0.10 | ug/L | 1 | 12/07/22 | AW | SW8081B | 1 |
| Aldrin | ND | 0.002 | 0.002 | ug/L | 1 | 12/07/22 | AW | SW8081B | |
| b-BHC | ND | 0.007 | 0.007 | ug/L | 1 | 12/07/22 | AW | SW8081B | |
| Chlordane | ND | 0.068 | 0.068 | ug/L | 1 | 12/07/22 | AW | SW8081B | |
| d-BHC | ND | 0.007 | 0.007 | ug/L | 1 | 12/07/22 | AW | SW8081B | |
| Dieldrin | ND | 0.002 | 0.002 | ug/L | 1 | 12/07/22 | AW | SW8081B | |
| Endosulfan I | ND | 0.014 | 0.014 | ug/L | 1 | 12/07/22 | AW | SW8081B | |
| Endosulfan II | ND | 0.014 | 0.014 | ug/L | 1 | 12/07/22 | AW | SW8081B | |
| Endosulfan Sulfate | ND | 0.014 | 0.014 | ug/L | 1 | 12/07/22 | AW | SW8081B | |
| Endrin | ND | 0.014 | 0.014 | ug/L | 1 | 12/07/22 | AW | SW8081B | |
| Endrin Aldehyde | ND | 0.014 | 0.014 | ug/L | 1 | 12/07/22 | AW | SW8081B | |
| Endrin ketone | ND | 0.014 | 0.014 | ug/L | 1 | 12/07/22 | AW | SW8081B | |
| g-BHC (Lindane) | ND | 0.007 | 0.007 | ug/L | 1 | 12/07/22 | AW | SW8081B | |
| g-chlordane | ND | 0.014 | 0.014 | ug/L | 1 | 12/07/22 | AW | SW8081B | |
| Heptachlor | ND | 0.014 | 0.014 | ug/L | 1 | 12/07/22 | AW | SW8081B | |
| Heptachlor epoxide | ND | 0.014 | 0.014 | ug/L | 1 | 12/07/22 | AW | SW8081B | |
| Methoxychlor | ND | 0.14 | 0.14 | ug/L | 1 | 12/07/22 | AW | SW8081B | |
| Toxaphene | ND | 0.27 | 0.27 | ug/L | 1 | 12/07/22 | AW | SW8081B | |
| **QA/QC Surrogates** | | | | | | | | | |
| %DCBP (Surrogate Rec) | 20 | | | % | 1 | 12/07/22 | AW | 30 - 150 % | 3 |
| **%DCBP (Surrogate Rec) (Confirmation)** | 23 | | | % | 1 | 12/07/22 | AW | 30 - 150 % | 3 |
| %TCMX (Surrogate Rec) | 69 | | | % | 1 | 12/07/22 | AW | 30 - 150 % | |
| **%TCMX (Surrogate Rec) (Confirmation)** | 68 | | | % | 1 | 12/07/22 | AW | 30 - 150 % | |
| **Polychlorinated Biphenyls** | | | | | | | | | |
| PCB-1016 | ND | 0.068 | 0.068 | ug/L | 1 | 12/07/22 | SC | SW8082A | |
| PCB-1221 | ND | 0.068 | 0.068 | ug/L | 1 | 12/07/22 | SC | SW8082A | |
| PCB-1232 | ND | 0.068 | 0.068 | ug/L | 1 | 12/07/22 | SC | SW8082A | |
| PCB-1242 | ND | 0.068 | 0.068 | ug/L | 1 | 12/07/22 | SC | SW8082A | |
| PCB-1248 | ND | 0.068 | 0.068 | ug/L | 1 | 12/07/22 | SC | SW8082A | |
| PCB-1254 | ND | 0.068 | 0.068 | ug/L | 1 | 12/07/22 | SC | SW8082A | |
| PCB-1260 | ND | 0.068 | 0.068 | ug/L | 1 | 12/07/22 | SC | SW8082A | |
| PCB-1262 | ND | 0.068 | 0.068 | ug/L | 1 | 12/07/22 | SC | SW8082A | |
| PCB-1268 | ND | 0.068 | 0.068 | ug/L | 1 | 12/07/22 | SC | SW8082A | |
| **QA/QC Surrogates** | | | | | | | | | |
| % DCBP | 15 | | | % | 1 | 12/07/22 | SC | 30 - 150 % | 3 |
| % DCBP (Confirmation) | 16 | | | % | 1 | 12/07/22 | SC | 30 - 150 % | 3 |
| % TCMX | 60 | | | % | 1 | 12/07/22 | SC | 30 - 150 % | |
| % TCMX (Confirmation) | 57 | | | % | 1 | 12/07/22 | SC | 30 - 150 % | |

Project ID: IPARK0118.62-LOT 10 BOUNDARY MODIFICAT. Phoenix I.D.: CM95288

Client ID: EQUIPMENT BLANK 11302022

| Parameter | Result | RL/ PQL | LOD/ MDL | Units | Dilution | Date/Time | By | Reference | |
|---|---|---|---|---|---|---|---|---|---|
| **Volatiles** | | | | | | | | | |
| 1,1,1,2-Tetrachloroethane | ND | 1.0 | 0.25 | ug/L | 1 | 12/02/22 | MH | SW8260C | |
| 1,1,1-Trichloroethane | ND | 5.0 | 0.25 | ug/L | 1 | 12/02/22 | MH | SW8260C | |
| 1,1,2,2-Tetrachloroethane | ND | 1.0 | 0.25 | ug/L | 1 | 12/02/22 | MH | SW8260C | |
| 1,1,2-Trichloroethane | ND | 1.0 | 0.25 | ug/L | 1 | 12/02/22 | MH | SW8260C | |
| 1,1-Dichloroethane | ND | 5.0 | 0.25 | ug/L | 1 | 12/02/22 | MH | SW8260C | |
| 1,1-Dichloroethene | ND | 1.0 | 0.25 | ug/L | 1 | 12/02/22 | MH | SW8260C | |
| 1,1-Dichloropropene | ND | 1.0 | 0.25 | ug/L | 1 | 12/02/22 | MH | SW8260C | |
| 1,2,3-Trichlorobenzene | ND | 1.0 | 0.25 | ug/L | 1 | 12/02/22 | MH | SW8260C | |
| 1,2,3-Trichloropropane | ND | 1.0 | 0.25 | ug/L | 1 | 12/02/22 | MH | SW8260C | |
| 1,2,4-Trichlorobenzene | ND | 1.0 | 0.25 | ug/L | 1 | 12/02/22 | MH | SW8260C | |
| 1,2,4-Trimethylbenzene | ND | 1.0 | 0.25 | ug/L | 1 | 12/02/22 | MH | SW8260C | |
| 1,2-Dibromo-3-chloropropane | ND | 1.0 | 0.50 | ug/L | 1 | 12/02/22 | MH | SW8260C | |
| 1,2-Dibromoethane | ND | 1.0 | 0.25 | ug/L | 1 | 12/02/22 | MH | SW8260C | |
| 1,2-Dichlorobenzene | ND | 1.0 | 0.25 | ug/L | 1 | 12/02/22 | MH | SW8260C | |
| 1,2-Dichloroethane | ND | 0.60 | 0.50 | ug/L | 1 | 12/02/22 | MH | SW8260C | |
| 1,2-Dichloropropane | ND | 1.0 | 0.25 | ug/L | 1 | 12/02/22 | MH | SW8260C | |
| 1,3,5-Trimethylbenzene | ND | 1.0 | 0.25 | ug/L | 1 | 12/02/22 | MH | SW8260C | |
| 1,3-Dichlorobenzene | ND | 1.0 | 0.25 | ug/L | 1 | 12/02/22 | MH | SW8260C | |
| 1,3-Dichloropropane | ND | 1.0 | 0.25 | ug/L | 1 | 12/02/22 | MH | SW8260C | |
| 1,4-Dichlorobenzene | ND | 1.0 | 0.25 | ug/L | 1 | 12/02/22 | MH | SW8260C | |
| 2,2-Dichloropropane | ND | 1.0 | 0.25 | ug/L | 1 | 12/02/22 | MH | SW8260C | |
| 2-Chlorotoluene | ND | 1.0 | 0.25 | ug/L | 1 | 12/02/22 | MH | SW8260C | |
| 2-Hexanone | ND | 2.5 | 2.5 | ug/L | 1 | 12/02/22 | MH | SW8260C | |
| 2-Isopropyltoluene | ND | 1.0 | 0.25 | ug/L | 1 | 12/02/22 | MH | SW8260C | 1 |
| 4-Chlorotoluene | ND | 1.0 | 0.25 | ug/L | 1 | 12/02/22 | MH | SW8260C | |
| 4-Methyl-2-pentanone | ND | 2.5 | 2.5 | ug/L | 1 | 12/02/22 | MH | SW8260C | |
| Acetone | ND | 5.0 | 2.5 | ug/L | 1 | 12/02/22 | MH | SW8260C | |
| Acrolein | ND | 5.0 | 2.5 | ug/L | 1 | 12/02/22 | MH | SW8260C | |
| Acrylonitrile | ND | 5.0 | 2.5 | ug/L | 1 | 12/02/22 | MH | SW8260C | |
| Benzene | ND | 0.70 | 0.25 | ug/L | 1 | 12/02/22 | MH | SW8260C | |
| Bromobenzene | ND | 1.0 | 0.25 | ug/L | 1 | 12/02/22 | MH | SW8260C | |
| Bromochloromethane | ND | 1.0 | 0.25 | ug/L | 1 | 12/02/22 | MH | SW8260C | |
| Bromodichloromethane | ND | 1.0 | 0.25 | ug/L | 1 | 12/02/22 | MH | SW8260C | |
| Bromoform | ND | 5.0 | 0.25 | ug/L | 1 | 12/02/22 | MH | SW8260C | |
| Bromomethane | ND | 5.0 | 0.25 | ug/L | 1 | 12/02/22 | MH | SW8260C | |
| Carbon Disulfide | ND | 1.0 | 0.25 | ug/L | 1 | 12/02/22 | MH | SW8260C | B |
| Carbon tetrachloride | ND | 1.0 | 0.25 | ug/L | 1 | 12/02/22 | MH | SW8260C | |
| Chlorobenzene | ND | 5.0 | 0.25 | ug/L | 1 | 12/02/22 | MH | SW8260C | |
| Chloroethane | ND | 5.0 | 0.25 | ug/L | 1 | 12/02/22 | MH | SW8260C | |
| Chloroform | ND | 5.0 | 0.25 | ug/L | 1 | 12/02/22 | MH | SW8260C | |
| Chloromethane | ND | 5.0 | 0.25 | ug/L | 1 | 12/02/22 | MH | SW8260C | |
| cis-1,2-Dichloroethene | ND | 1.0 | 0.25 | ug/L | 1 | 12/02/22 | MH | SW8260C | |
| cis-1,3-Dichloropropene | ND | 0.40 | 0.25 | ug/L | 1 | 12/02/22 | MH | SW8260C | |
| Dibromochloromethane | ND | 1.0 | 0.25 | ug/L | 1 | 12/02/22 | MH | SW8260C | |
| Dibromomethane | ND | 1.0 | 0.25 | ug/L | 1 | 12/02/22 | MH | SW8260C | |
| Dichlorodifluoromethane | ND | 1.0 | 0.25 | ug/L | 1 | 12/02/22 | MH | SW8260C | |
| Ethylbenzene | ND | 1.0 | 0.25 | ug/L | 1 | 12/02/22 | MH | SW8260C | |
| Hexachlorobutadiene | ND | 0.50 | 0.20 | ug/L | 1 | 12/02/22 | MH | SW8260C | |

Project ID: IPARK0118.62-LOT 10 BOUNDARY MODIFICAT. Phoenix I.D.: CM95288
Client ID: EQUIPMENT BLANK 11302022

| Parameter | Result | RL/ PQL | LOD/ MDL | Units | Dilution | Date/Time | By | Reference | |
|---|---|---|---|---|---|---|---|---|---|
| Isopropylbenzene | ND | 1.0 | 0.25 | ug/L | 1 | 12/02/22 | MH | SW8260C | |
| m&p-Xylene | ND | 1.0 | 0.25 | ug/L | 1 | 12/02/22 | MH | SW8260C | |
| Methyl ethyl ketone | ND | 2.5 | 2.5 | ug/L | 1 | 12/02/22 | MH | SW8260C | |
| Methyl t-butyl ether (MTBE) | ND | 1.0 | 0.25 | ug/L | 1 | 12/02/22 | MH | SW8260C | |
| Methylene chloride | ND | 3.0 | 1.0 | ug/L | 1 | 12/02/22 | MH | SW8260C | |
| Naphthalene | ND | 1.0 | 1.0 | ug/L | 1 | 12/02/22 | MH | SW8260C | |
| n-Butylbenzene | ND | 1.0 | 0.25 | ug/L | 1 | 12/02/22 | MH | SW8260C | |
| n-Propylbenzene | ND | 1.0 | 0.25 | ug/L | 1 | 12/02/22 | MH | SW8260C | |
| o-Xylene | ND | 1.0 | 0.25 | ug/L | 1 | 12/02/22 | MH | SW8260C | |
| p-Isopropyltoluene | ND | 1.0 | 0.25 | ug/L | 1 | 12/02/22 | MH | SW8260C | |
| sec-Butylbenzene | ND | 1.0 | 0.25 | ug/L | 1 | 12/02/22 | MH | SW8260C | |
| Styrene | ND | 1.0 | 0.25 | ug/L | 1 | 12/02/22 | MH | SW8260C | |
| tert-Butylbenzene | ND | 1.0 | 0.25 | ug/L | 1 | 12/02/22 | MH | SW8260C | |
| Tetrachloroethene | ND | 1.0 | 0.25 | ug/L | 1 | 12/02/22 | MH | SW8260C | |
| Tetrahydrofuran (THF) | ND | 5.0 | 2.5 | ug/L | 1 | 12/02/22 | MH | SW8260C | 1 |
| Toluene | ND | 1.0 | 0.25 | ug/L | 1 | 12/02/22 | MH | SW8260C | |
| trans-1,2-Dichloroethene | ND | 5.0 | 0.25 | ug/L | 1 | 12/02/22 | MH | SW8260C | |
| trans-1,3-Dichloropropene | ND | 0.40 | 0.25 | ug/L | 1 | 12/02/22 | MH | SW8260C | |
| trans-1,4-dichloro-2-butene | ND | 2.5 | 2.5 | ug/L | 1 | 12/02/22 | MH | SW8260C | |
| Trichloroethene | ND | 1.0 | 0.25 | ug/L | 1 | 12/02/22 | MH | SW8260C | |
| Trichlorofluoromethane | ND | 1.0 | 0.25 | ug/L | 1 | 12/02/22 | MH | SW8260C | |
| Trichlorotrifluoroethane | ND | 1.0 | 0.25 | ug/L | 1 | 12/02/22 | MH | SW8260C | |
| Vinyl chloride | ND | 1.0 | 0.25 | ug/L | 1 | 12/02/22 | MH | SW8260C | |
| **QA/QC Surrogates** | | | | | | | | | |
| % 1,2-dichlorobenzene-d4 | 100 | | | % | 1 | 12/02/22 | MH | 70 - 130 % | |
| % Bromofluorobenzene | 98 | | | % | 1 | 12/02/22 | MH | 70 - 130 % | |
| % Dibromofluoromethane | 102 | | | % | 1 | 12/02/22 | MH | 70 - 130 % | |
| % Toluene-d8 | 97 | | | % | 1 | 12/02/22 | MH | 70 - 130 % | |
| **1,4-dioxane** | | | | | | | | | |
| 1,4-dioxane | ND | 0.20 | 0.20 | ug/l | 1 | 12/05/22 | AW | SW8270DSIM | 1 |
| **QA/QC Surrogates** | | | | | | | | | |
| % 1,4-dioxane-d8 | 84 | | | % | 1 | 12/05/22 | AW | 70 - 130 % | |
| **Semivolatiles** | | | | | | | | | |
| 1,2,4,5-Tetrachlorobenzene | ND | 3.3 | 3.3 | ug/L | 1 | 12/05/22 | WB | SW8270D | |
| 1,2,4-Trichlorobenzene | ND | 4.8 | 1.4 | ug/L | 1 | 12/05/22 | WB | SW8270D | |
| 1,2-Dichlorobenzene | ND | 0.95 | 0.95 | ug/L | 1 | 12/05/22 | WB | SW8270D | |
| 1,2-Diphenylhydrazine | ND | 4.8 | 1.5 | ug/L | 1 | 12/05/22 | WB | SW8270D | |
| 1,3-Dichlorobenzene | ND | 0.95 | 0.95 | ug/L | 1 | 12/05/22 | WB | SW8270D | |
| 1,4-Dichlorobenzene | ND | 0.95 | 0.95 | ug/L | 1 | 12/05/22 | WB | SW8270D | |
| 2,2'-Oxybis(1-Chloropropane) | ND | 4.8 | 1.3 | ug/L | 1 | 12/05/22 | WB | SW8270D | 1 |
| 2,4,5-Trichlorophenol | ND | 0.95 | 0.95 | ug/L | 1 | 12/05/22 | WB | SW8270D | |
| 2,4,6-Trichlorophenol | ND | 0.95 | 0.95 | ug/L | 1 | 12/05/22 | WB | SW8270D | |
| 2,4-Dichlorophenol | ND | 0.95 | 0.95 | ug/L | 1 | 12/05/22 | WB | SW8270D | |
| 2,4-Dimethylphenol | ND | 0.95 | 0.95 | ug/L | 1 | 12/05/22 | WB | SW8270D | |
| 2,4-Dinitrophenol | ND | 0.95 | 0.95 | ug/L | 1 | 12/05/22 | WB | SW8270D | |
| 2,4-Dinitrotoluene | ND | 4.8 | 1.9 | ug/L | 1 | 12/05/22 | WB | SW8270D | |
| 2,6-Dinitrotoluene | ND | 4.8 | 1.5 | ug/L | 1 | 12/05/22 | WB | SW8270D | |
| 2-Chloronaphthalene | ND | 4.8 | 1.3 | ug/L | 1 | 12/05/22 | WB | SW8270D | |

Project ID: IPARK0118.62-LOT 10 BOUNDARY MODIFICAT. Phoenix I.D.: CM95288

Client ID: EQUIPMENT BLANK 11302022

| Parameter | Result | RL/ PQL | LOD/ MDL | Units | Dilution | Date/Time | By | Reference |
|---|---|---|---|---|---|---|---|---|
| 2-Chlorophenol | ND | 0.95 | 0.95 | ug/L | 1 | 12/05/22 | WB | SW8270D |
| 2-Methylnaphthalene | ND | 4.8 | 1.4 | ug/L | 1 | 12/05/22 | WB | SW8270D |
| 2-Methylphenol (o-cresol) | ND | 0.95 | 0.95 | ug/L | 1 | 12/05/22 | WB | SW8270D |
| 2-Nitroaniline | ND | 4.8 | 1.9 | ug/L | 1 | 12/05/22 | WB | SW8270D |
| 2-Nitrophenol | ND | 0.95 | 0.95 | ug/L | 1 | 12/05/22 | WB | SW8270D |
| 3&4-Methylphenol (m&p-cresol) | ND | 0.95 | 0.95 | ug/L | 1 | 12/05/22 | WB | SW8270D |
| 3,3'-Dichlorobenzidine | ND | 4.8 | 2.2 | ug/L | 1 | 12/05/22 | WB | SW8270D |
| 3-Nitroaniline | ND | 4.8 | 1.9 | ug/L | 1 | 12/05/22 | WB | SW8270D |
| 4,6-Dinitro-2-methylphenol | ND | 0.95 | 0.95 | ug/L | 1 | 12/05/22 | WB | SW8270D |
| 4-Bromophenyl phenyl ether | ND | 4.8 | 1.4 | ug/L | 1 | 12/05/22 | WB | SW8270D |
| 4-Chloro-3-methylphenol | ND | 0.95 | 0.95 | ug/L | 1 | 12/05/22 | WB | SW8270D |
| 4-Chloroaniline | ND | 3.3 | 2.2 | ug/L | 1 | 12/05/22 | WB | SW8270D |
| 4-Chlorophenyl phenyl ether | ND | 4.8 | 1.6 | ug/L | 1 | 12/05/22 | WB | SW8270D |
| 4-Nitroaniline | ND | 4.8 | 1.6 | ug/L | 1 | 12/05/22 | WB | SW8270D |
| 4-Nitrophenol | ND | 0.95 | 0.95 | ug/L | 1 | 12/05/22 | WB | SW8270D |
| Acenaphthene | ND | 4.8 | 1.4 | ug/L | 1 | 12/05/22 | WB | SW8270D |
| Acetophenone | ND | 4.8 | 1.5 | ug/L | 1 | 12/05/22 | WB | SW8270D |
| Aniline | ND | 3.3 | 3.3 | ug/L | 1 | 12/05/22 | WB | SW8270D |
| Anthracene | ND | 4.8 | 1.6 | ug/L | 1 | 12/05/22 | WB | SW8270D |
| Benzidine | ND | 4.3 | 2.8 | ug/L | 1 | 12/05/22 | WB | SW8270D |
| Benzoic acid | ND | 24 | 9.5 | ug/L | 1 | 12/05/22 | WB | SW8270D |
| Benzyl butyl phthalate | ND | 4.8 | 1.2 | ug/L | 1 | 12/05/22 | WB | SW8270D |
| Bis(2-chloroethoxy)methane | ND | 4.8 | 1.3 | ug/L | 1 | 12/05/22 | WB | SW8270D |
| Bis(2-chloroethyl)ether | ND | 0.95 | 0.95 | ug/L | 1 | 12/05/22 | WB | SW8270D |
| Bis(2-ethylhexyl)phthalate | ND | 0.95 | 0.95 | ug/L | 1 | 12/05/22 | WB | SW8270D |
| Carbazole | ND | 4.8 | 3.6 | ug/L | 1 | 12/05/22 | WB | SW8270D |
| Dibenzofuran | ND | 4.8 | 1.4 | ug/L | 1 | 12/05/22 | WB | SW8270D |
| Diethyl phthalate | ND | 4.8 | 1.5 | ug/L | 1 | 12/05/22 | WB | SW8270D |
| Dimethylphthalate | ND | 4.8 | 1.5 | ug/L | 1 | 12/05/22 | WB | SW8270D |
| Di-n-butylphthalate | ND | 4.8 | 1.3 | ug/L | 1 | 12/05/22 | WB | SW8270D |
| Di-n-octylphthalate | ND | 4.8 | 1.2 | ug/L | 1 | 12/05/22 | WB | SW8270D |
| Fluoranthene | ND | 4.8 | 1.5 | ug/L | 1 | 12/05/22 | WB | SW8270D |
| Fluorene | ND | 4.8 | 1.6 | ug/L | 1 | 12/05/22 | WB | SW8270D |
| Hexachloroethane | ND | 0.95 | 0.95 | ug/L | 1 | 12/05/22 | WB | SW8270D |
| Isophorone | ND | 4.8 | 1.3 | ug/L | 1 | 12/05/22 | WB | SW8270D |
| Naphthalene | ND | 4.8 | 1.4 | ug/L | 1 | 12/05/22 | WB | SW8270D |
| N-Nitrosodi-n-propylamine | ND | 4.8 | 1.5 | ug/L | 1 | 12/05/22 | WB | SW8270D |
| N-Nitrosodiphenylamine | ND | 4.8 | 1.8 | ug/L | 1 | 12/05/22 | WB | SW8270D |
| Pentachloronitrobenzene | ND | 2.4 | 2.4 | ug/L | 1 | 12/05/22 | WB | SW8270D |
| Phenol | ND | 0.95 | 0.95 | ug/L | 1 | 12/05/22 | WB | SW8270D |
| Pyrene | ND | 4.8 | 1.6 | ug/L | 1 | 12/05/22 | WB | SW8270D |
| Pyridine | ND | 9.5 | 1.2 | ug/L | 1 | 12/05/22 | WB | SW8270D |
| **QA/QC Surrogates** | | | | | | | | |
| % 2,4,6-Tribromophenol | 87 | | | % | 1 | 12/05/22 | WB | 15 - 110 % |
| % 2-Fluorobiphenyl | 80 | | | % | 1 | 12/05/22 | WB | 30 - 130 % |
| % 2-Fluorophenol | 69 | | | % | 1 | 12/05/22 | WB | 15 - 110 % |
| % Nitrobenzene-d5 | 81 | | | % | 1 | 12/05/22 | WB | 30 - 130 % |
| % Phenol-d5 | 78 | | | % | 1 | 12/05/22 | WB | 15 - 110 % |
| % Terphenyl-d14 | 81 | | | % | 1 | 12/05/22 | WB | 30 - 130 % |

Project ID: IPARK0118.62-LOT 10 BOUNDARY MODIFICAT. Phoenix I.D.: CM95288
Client ID: EQUIPMENT BLANK 11302022

| Parameter | Result | RL/ PQL | LOD/ MDL | Units | Dilution | Date/Time | By | Reference |
|---|---|---|---|---|---|---|---|---|
| **Semivolatiles** | | | | | | | | |
| Acenaphthylene | ND | 0.48 | 0.48 | ug/L | 1 | 12/05/22 | WB | SW8270D (SIM) |
| Benz(a)anthracene | ND | 0.02 | 0.02 | ug/L | 1 | 12/05/22 | WB | SW8270D (SIM) |
| Benzo(a)pyrene | ND | 0.02 | 0.02 | ug/L | 1 | 12/05/22 | WB | SW8270D (SIM) |
| Benzo(b)fluoranthene | ND | 0.02 | 0.02 | ug/L | 1 | 12/05/22 | WB | SW8270D (SIM) |
| Benzo(ghi)perylene | ND | 0.48 | 0.48 | ug/L | 1 | 12/05/22 | WB | SW8270D (SIM) |
| Benzo(k)fluoranthene | ND | 0.02 | 0.02 | ug/L | 1 | 12/05/22 | WB | SW8270D (SIM) |
| Chrysene | ND | 0.02 | 0.02 | ug/L | 1 | 12/05/22 | WB | SW8270D (SIM) |
| Dibenz(a,h)anthracene | ND | 0.48 | 0.48 | ug/L | 1 | 12/05/22 | WB | SW8270D (SIM) |
| Hexachlorobenzene | ND | 0.04 | 0.04 | ug/L | 1 | 12/05/22 | WB | SW8270D (SIM) |
| Hexachlorobutadiene | ND | 0.48 | 0.48 | ug/L | 1 | 12/05/22 | WB | SW8270D (SIM) |
| Hexachlorocyclopentadiene | ND | 0.48 | 0.48 | ug/L | 1 | 12/05/22 | WB | SW8270D (SIM) |
| Indeno(1,2,3-cd)pyrene | ND | 0.02 | 0.02 | ug/L | 1 | 12/05/22 | WB | SW8270D (SIM) |
| Nitrobenzene | ND | 0.38 | 0.38 | ug/L | 1 | 12/05/22 | WB | SW8270D (SIM) |
| N-Nitrosodimethylamine | ND | 0.10 | 0.10 | ug/L | 1 | 12/05/22 | WB | SW8270D (SIM) |
| Pentachlorophenol | ND | 0.48 | 0.48 | ug/L | 1 | 12/05/22 | WB | SW8270D (SIM) |
| Phenanthrene | ND | 0.48 | 0.48 | ug/L | 1 | 12/05/22 | WB | SW8270D (SIM) |
| **QA/QC Surrogates** | | | | | | | | |
| % 2,4,6-Tribromophenol | 101 | | | % | 1 | 12/05/22 | WB | 15 - 110 % |
| % 2-Fluorobiphenyl | 74 | | | % | 1 | 12/05/22 | WB | 30 - 130 % |
| % 2-Fluorophenol | 81 | | | % | 1 | 12/05/22 | WB | 15 - 110 % |
| % Nitrobenzene-d5 | 87 | | | % | 1 | 12/05/22 | WB | 30 - 130 % |
| % Phenol-d5 | 81 | | | % | 1 | 12/05/22 | WB | 15 - 110 % |
| % Terphenyl-d14 | 99 | | | % | 1 | 12/05/22 | WB | 30 - 130 % |
| Extraction for 1,4-Dioxane | Completed | | | | | 12/05/22 | G/G | |

| Parameter | Result | RL/ PQL | LOD/ MDL | Units | Dilution | Date/Time | By | Reference |
|---|---|---|---|---|---|---|---|---|

1 = This parameter is not certified by the primary accrediting authority (NY NELAC) for this matrix. NY NELAC does not offer certification for all parameters at this time.
3 = This parameter exceeds laboratory specified limits.
B = Present in blank, no bias suspected.

RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected BRL=Below Reporting Level L=Biased Low J=Estimated Below RL LOD=Limit of Detection MDL=Method Detection Limit1
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

## Comments:

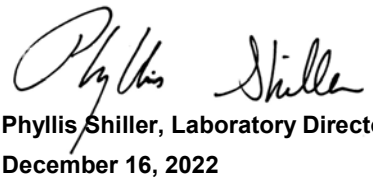
*See attached

Per 1.4.6 of EPA method 8270D, 1,2-Diphenylhydrazine is unstable and readily converts to Azobenzene. Azobenzene is used for the calibration of 1,2-Diphenylhydrazine.

Pesticide Comment:
Poor surrogate recovery was observed. Insufficient sample for re-extraction.

PCB Comment:
Poor surrogate recovery was observed for PCBs. Insufficient sample for re-extraction.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200.
The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.



**Phyllis Shiller, Laboratory Director**
**December 16, 2022**
**Reviewed and Released by: Greg Lawrence, Assistant Lab Director**

PHOENIX
Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

# Analysis Report

December 16, 2022

FOR: Attn: Nora Brew
Walden Environmental Engineering PLLC
16 Spring Street
Oyster Bay, NY 11771

| Sample Information | | Custody Information | | Date | Time |
|---|---|---|---|---|---|
| Matrix: | SOIL | Collected by: | | 11/30/22 | 10:30 |
| Location Code: | WALDENE-IPARK | Received by: | CP | 12/01/22 | 17:12 |
| Rush Request: | Standard | Analyzed by: | see "By" below | | |
| P.O.#: | IPARK 0118.62 | | | | |

## Laboratory Data

SDG ID: GCM95278
Phoenix ID: CM95289

Project ID: IPARK0118.62-LOT 10 BOUNDARY MODIFICAT.
Client ID: SB-11A (0-1`)

| Parameter | Result | RL/ PQL | LOD/ MDL | Units | Dilution | Date/Time | By | Reference | |
|---|---|---|---|---|---|---|---|---|---|
| Aluminum | 17100 | 38 | 7.6 | mg/Kg | 10 | 12/03/22 | CPP | SW6010D | B |
| Antimony | ND | 3.8 | 3.8 | mg/Kg | 1 | 12/04/22 | CPP | SW6010D | |
| Arsenic | 7.32 | 0.76 | 0.76 | mg/Kg | 1 | 12/04/22 | CPP | SW6010D | |
| Barium | 64.7 | 0.8 | 0.38 | mg/Kg | 1 | 12/04/22 | TH | SW6010D | |
| Beryllium | 0.62 | 0.30 | 0.15 | mg/Kg | 1 | 12/04/22 | CPP | SW6010D | |
| Calcium | 18500 | 38 | 35 | mg/Kg | 10 | 12/03/22 | CPP | SW6010D | |
| Cadmium | 2.05 | 0.38 | 0.38 | mg/Kg | 1 | 12/04/22 | CPP | SW6010D | |
| Chromium | 21.6 | 0.38 | 0.38 | mg/Kg | 1 | 12/04/22 | CPP | SW6010D | |
| Cobalt | 12.9 | 0.38 | 0.38 | mg/Kg | 1 | 12/04/22 | CPP | SW6010D | |
| Copper | 73.9 | 0.8 | 0.38 | mg/kg | 1 | 12/04/22 | CPP | SW6010D | |
| Iron | 32000 | 38 | 38 | mg/Kg | 10 | 12/03/22 | CPP | SW6010D | |
| Lead | 37.5 | 0.8 | 0.38 | mg/Kg | 1 | 12/04/22 | CPP | SW6010D | |
| Magnesium | 12300 | 38 | 38 | mg/Kg | 10 | 12/03/22 | CPP | SW6010D | |
| Manganese | 1100 | 3.8 | 3.8 | mg/Kg | 10 | 12/03/22 | TH | SW6010D | |
| Mercury | ND | 0.03 | 0.02 | mg/Kg | 2 | 12/05/22 | PM | SW7471B | |
| Nickel | 32.2 | 0.38 | 0.38 | mg/Kg | 1 | 12/04/22 | CPP | SW6010D | |
| Potassium | 1770 | 8 | 3.0 | mg/Kg | 1 | 12/04/22 | CPP | SW6010D | |
| Selenium | ND | 1.5 | 1.3 | mg/Kg | 1 | 12/04/22 | CPP | SW6010D | |
| Silver | ND | 0.38 | 0.38 | mg/Kg | 1 | 12/04/22 | CPP | SW6010D | |
| Sodium | 619 | 8 | 3.3 | mg/Kg | 1 | 12/04/22 | CPP | SW6010D | |
| Thallium | ND | 1.5 | 1.5 | mg/Kg | 1 | 12/04/22 | CPP | SW6010D | |
| Vanadium | 29.1 | 0.38 | 0.38 | mg/Kg | 1 | 12/04/22 | CPP | SW6010D | |
| Zinc | 148 | 0.8 | 0.38 | mg/Kg | 1 | 12/04/22 | CPP | SW6010D | |
| Percent Solid | 93 | | | % | | 12/01/22 | Q | SW846-%Solid | |
| Extraction for SVOA SIM | Completed | | | | | 12/05/22 | B/MO | SW3545A | |
| Soil Extraction for PCB | Completed | | | | | 12/02/22 | O/Y | SW3545A | |
| Soil Extraction for Pesticide | Completed | | | | | 12/02/22 | O | SW3545A | |

**Ver 1**

Project ID: IPARK0118.62-LOT 10 BOUNDARY MODIFICAT. Phoenix I.D.: CM95289
Client ID: SB-11A (0-1`)

| Parameter | Result | RL/ PQL | LOD/ MDL | Units | Dilution | Date/Time | By | Reference |
|---|---|---|---|---|---|---|---|---|
| Mercury Digestion | Completed | | | | | 12/02/22 | AB/AB | SW7471B |
| Soil Extraction for Herbicide | Completed | | | | | 12/08/22 | J/D | SW3546 |
| Soil Extraction for SVOA | Completed | | | | | 12/03/22 | Y/L | SW3546 |
| Total Metals Digest | Completed | | | | | 12/01/22 | | SW3050B |
| **Chlorinated Herbicides** | | | | | | | | |
| 2,4,5-T | ND | 130 | 130 | ug/Kg | 10 | 12/09/22 | JRB | SW8151A |
| 2,4,5-TP (Silvex) | ND | 130 | 130 | ug/Kg | 10 | 12/09/22 | JRB | SW8151A |
| 2,4-D | ND | 270 | 270 | ug/Kg | 10 | 12/09/22 | JRB | SW8151A |
| 2,4-DB | ND | 2700 | 2700 | ug/Kg | 10 | 12/09/22 | JRB | SW8151A |
| Dalapon | ND | 130 | 130 | ug/Kg | 10 | 12/09/22 | JRB | SW8151A |
| Dicamba | ND | 130 | 130 | ug/Kg | 10 | 12/09/22 | JRB | SW8151A |
| Dichloroprop | ND | 270 | 270 | ug/Kg | 10 | 12/09/22 | JRB | SW8151A |
| Dinoseb | ND | 270 | 270 | ug/Kg | 10 | 12/09/22 | JRB | SW8151A |
| **QA/QC Surrogates** | | | | | | | | |
| % DCAA | 95 | | | % | 10 | 12/09/22 | JRB | 30 - 150 % |
| % DCAA (Confirmation) | 92 | | | % | 10 | 12/09/22 | JRB | 30 - 150 % |
| **Polychlorinated Biphenyls** | | | | | | | | |
| PCB-1016 | ND | 71 | 71 | ug/Kg | 2 | 12/05/22 | SC | SW8082A |
| PCB-1221 | ND | 71 | 71 | ug/Kg | 2 | 12/05/22 | SC | SW8082A |
| PCB-1232 | ND | 71 | 71 | ug/Kg | 2 | 12/05/22 | SC | SW8082A |
| PCB-1242 | ND | 71 | 71 | ug/Kg | 2 | 12/05/22 | SC | SW8082A |
| PCB-1248 | ND | 71 | 71 | ug/Kg | 2 | 12/05/22 | SC | SW8082A |
| PCB-1254 | ND | 71 | 71 | ug/Kg | 2 | 12/05/22 | SC | SW8082A |
| PCB-1260 | ND | 71 | 71 | ug/Kg | 2 | 12/05/22 | SC | SW8082A |
| PCB-1262 | ND | 71 | 71 | ug/Kg | 2 | 12/05/22 | SC | SW8082A |
| PCB-1268 | ND | 71 | 71 | ug/Kg | 2 | 12/05/22 | SC | SW8082A |
| **QA/QC Surrogates** | | | | | | | | |
| % DCBP | 63 | | | % | 2 | 12/05/22 | SC | 30 - 150 % |
| % DCBP (Confirmation) | 71 | | | % | 2 | 12/05/22 | SC | 30 - 150 % |
| % TCMX | 67 | | | % | 2 | 12/05/22 | SC | 30 - 150 % |
| % TCMX (Confirmation) | 65 | | | % | 2 | 12/05/22 | SC | 30 - 150 % |
| **Pesticides - Soil** | | | | | | | | |
| 4,4' -DDD | ND | 2.1 | 2.1 | ug/Kg | 2 | 12/06/22 | AW | SW8081B |
| 4,4' -DDE | ND | 2.1 | 2.1 | ug/Kg | 2 | 12/06/22 | AW | SW8081B |
| 4,4' -DDT | ND | 2.1 | 2.1 | ug/Kg | 2 | 12/06/22 | AW | SW8081B |
| a-BHC | ND | 7.1 | 7.1 | ug/Kg | 2 | 12/06/22 | AW | SW8081B |
| a-Chlordane | ND | 3.6 | 3.6 | ug/Kg | 2 | 12/06/22 | AW | SW8081B |
| Alachlor | ND | 3.6 | 3.6 | ug/Kg | 2 | 12/06/22 | AW | SW8081B |
| Aldrin | ND | 3.6 | 3.6 | ug/Kg | 2 | 12/06/22 | AW | SW8081B |
| b-BHC | ND | 7.1 | 7.1 | ug/Kg | 2 | 12/06/22 | AW | SW8081B |
| Chlordane | ND | 36 | 36 | ug/Kg | 2 | 12/06/22 | AW | SW8081B |
| d-BHC | ND | 7.1 | 7.1 | ug/Kg | 2 | 12/06/22 | AW | SW8081B |
| Dieldrin | ND | 3.6 | 3.6 | ug/Kg | 2 | 12/06/22 | AW | SW8081B |
| Endosulfan I | ND | 7.1 | 7.1 | ug/Kg | 2 | 12/06/22 | AW | SW8081B |
| Endosulfan II | ND | 7.1 | 7.1 | ug/Kg | 2 | 12/06/22 | AW | SW8081B |
| Endosulfan sulfate | ND | 7.1 | 7.1 | ug/Kg | 2 | 12/06/22 | AW | SW8081B |
| Endrin | ND | 7.1 | 7.1 | ug/Kg | 2 | 12/06/22 | AW | SW8081B |

| Parameter | Result | RL/ PQL | LOD/ MDL | Units | Dilution | Date/Time | By | Reference | |
|---|---|---|---|---|---|---|---|---|---|
| Endrin aldehyde | ND | 7.1 | 7.1 | ug/Kg | 2 | 12/06/22 | AW | SW8081B | |
| Endrin ketone | ND | 7.1 | 7.1 | ug/Kg | 2 | 12/06/22 | AW | SW8081B | |
| g-BHC | ND | 1.4 | 1.4 | ug/Kg | 2 | 12/06/22 | AW | SW8081B | |
| g-Chlordane | ND | 3.6 | 3.6 | ug/Kg | 2 | 12/06/22 | AW | SW8081B | |
| Heptachlor | ND | 7.1 | 7.1 | ug/Kg | 2 | 12/06/22 | AW | SW8081B | |
| Heptachlor epoxide | ND | 7.1 | 7.1 | ug/Kg | 2 | 12/06/22 | AW | SW8081B | |
| Methoxychlor | ND | 36 | 36 | ug/Kg | 2 | 12/06/22 | AW | SW8081B | |
| Toxaphene | ND | 140 | 140 | ug/Kg | 2 | 12/06/22 | AW | SW8081B | |
| **QA/QC Surrogates** | | | | | | | | | |
| % DCBP | 65 | | | % | 2 | 12/06/22 | AW | 30 - 150 % | |
| % DCBP (Confirmation) | 89 | | | % | 2 | 12/06/22 | AW | 30 - 150 % | |
| % TCMX | 62 | | | % | 2 | 12/06/22 | AW | 30 - 150 % | |
| % TCMX (Confirmation) | 74 | | | % | 2 | 12/06/22 | AW | 30 - 150 % | |
| **Semivolatiles** | | | | | | | | | |
| 1,2,4,5-Tetrachlorobenzene | ND | 250 | 120 | ug/Kg | 1 | 12/05/22 | WB | SW8270D | |
| 1,2,4-Trichlorobenzene | ND | 250 | 110 | ug/Kg | 1 | 12/05/22 | WB | SW8270D | |
| 1,2-Dichlorobenzene | ND | 250 | 99 | ug/Kg | 1 | 12/05/22 | WB | SW8270D | |
| 1,2-Diphenylhydrazine | ND | 250 | 110 | ug/Kg | 1 | 12/05/22 | WB | SW8270D | |
| 1,3-Dichlorobenzene | ND | 250 | 100 | ug/Kg | 1 | 12/05/22 | WB | SW8270D | |
| 1,4-Dichlorobenzene | ND | 250 | 100 | ug/Kg | 1 | 12/05/22 | WB | SW8270D | |
| 2,2'-Oxybis(1-Chloropropane) | ND | 250 | 97 | ug/Kg | 1 | 12/05/22 | WB | SW8270D | 1 |
| 2,4,5-Trichlorophenol | ND | 250 | 190 | ug/Kg | 1 | 12/05/22 | WB | SW8270D | |
| 2,4,6-Trichlorophenol | ND | 180 | 110 | ug/Kg | 1 | 12/05/22 | WB | SW8270D | |
| 2,4-Dichlorophenol | ND | 180 | 120 | ug/Kg | 1 | 12/05/22 | WB | SW8270D | |
| 2,4-Dimethylphenol | ND | 250 | 87 | ug/Kg | 1 | 12/05/22 | WB | SW8270D | |
| 2,4-Dinitrophenol | ND | 250 | 250 | ug/Kg | 1 | 12/05/22 | WB | SW8270D | |
| 2,4-Dinitrotoluene | ND | 180 | 140 | ug/Kg | 1 | 12/05/22 | WB | SW8270D | |
| 2,6-Dinitrotoluene | ND | 180 | 110 | ug/Kg | 1 | 12/05/22 | WB | SW8270D | |
| 2-Chloronaphthalene | ND | 250 | 99 | ug/Kg | 1 | 12/05/22 | WB | SW8270D | |
| 2-Chlorophenol | ND | 250 | 99 | ug/Kg | 1 | 12/05/22 | WB | SW8270D | |
| 2-Methylnaphthalene | ND | 250 | 100 | ug/Kg | 1 | 12/05/22 | WB | SW8270D | |
| 2-Methylphenol (o-cresol) | ND | 250 | 160 | ug/Kg | 1 | 12/05/22 | WB | SW8270D | |
| 2-Nitroaniline | ND | 250 | 250 | ug/Kg | 1 | 12/05/22 | WB | SW8270D | |
| 2-Nitrophenol | ND | 250 | 220 | ug/Kg | 1 | 12/05/22 | WB | SW8270D | |
| 3&4-Methylphenol (m&p-cresol) | ND | 250 | 140 | ug/Kg | 1 | 12/05/22 | WB | SW8270D | 1 |
| 3,3'-Dichlorobenzidine | ND | 180 | 170 | ug/Kg | 1 | 12/05/22 | WB | SW8270D | |
| 3-Nitroaniline | ND | 350 | 700 | ug/Kg | 1 | 12/05/22 | WB | SW8270D | |
| 4,6-Dinitro-2-methylphenol | ND | 210 | 70 | ug/Kg | 1 | 12/05/22 | WB | SW8270D | |
| 4-Bromophenyl phenyl ether | ND | 250 | 100 | ug/Kg | 1 | 12/05/22 | WB | SW8270D | |
| 4-Chloro-3-methylphenol | ND | 250 | 120 | ug/Kg | 1 | 12/05/22 | WB | SW8270D | |
| 4-Chloroaniline | ND | 280 | 160 | ug/Kg | 1 | 12/05/22 | WB | SW8270D | |
| 4-Chlorophenyl phenyl ether | ND | 250 | 120 | ug/Kg | 1 | 12/05/22 | WB | SW8270D | |
| 4-Nitroaniline | ND | 350 | 120 | ug/Kg | 1 | 12/05/22 | WB | SW8270D | |
| 4-Nitrophenol | ND | 350 | 160 | ug/Kg | 1 | 12/05/22 | WB | SW8270D | |
| Acenaphthene | ND | 250 | 110 | ug/Kg | 1 | 12/05/22 | WB | SW8270D | |
| Acenaphthylene | ND | 250 | 98 | ug/Kg | 1 | 12/05/22 | WB | SW8270D | |
| Acetophenone | ND | 250 | 110 | ug/Kg | 1 | 12/05/22 | WB | SW8270D | |
| Aniline | ND | 280 | 280 | ug/Kg | 1 | 12/05/22 | WB | SW8270D | |
| Anthracene | ND | 250 | 110 | ug/Kg | 1 | 12/05/22 | WB | SW8270D | |

Project ID: IPARK0118.62-LOT 10 BOUNDARY MODIFICAT. Phoenix I.D.: CM95289

Client ID: SB-11A (0-1`)

| Parameter | Result | | RL/ PQL | LOD/ MDL | Units | Dilution | Date/Time | By | Reference |
|---|---|---|---|---|---|---|---|---|---|
| Benz(a)anthracene | 200 | J | 250 | 120 | ug/Kg | 1 | 12/05/22 | WB | SW8270D |
| Benzidine | ND | | 350 | 210 | ug/Kg | 1 | 12/05/22 | WB | SW8270D |
| Benzo(a)pyrene | 200 | | 180 | 110 | ug/Kg | 1 | 12/05/22 | WB | SW8270D |
| Benzo(b)fluoranthene | 240 | J | 250 | 120 | ug/Kg | 1 | 12/05/22 | WB | SW8270D |
| Benzo(ghi)perylene | ND | | 250 | 110 | ug/Kg | 1 | 12/05/22 | WB | SW8270D |
| Benzo(k)fluoranthene | ND | | 250 | 120 | ug/Kg | 1 | 12/05/22 | WB | SW8270D |
| Benzoic acid | ND | | 1800 | 700 | ug/Kg | 1 | 12/05/22 | WB | SW8270D |
| Benzyl butyl phthalate | ND | | 250 | 90 | ug/Kg | 1 | 12/05/22 | WB | SW8270D |
| Bis(2-chloroethoxy)methane | ND | | 250 | 97 | ug/Kg | 1 | 12/05/22 | WB | SW8270D |
| Bis(2-chloroethyl)ether | ND | | 180 | 95 | ug/Kg | 1 | 12/05/22 | WB | SW8270D |
| Bis(2-ethylhexyl)phthalate | ND | | 250 | 100 | ug/Kg | 1 | 12/05/22 | WB | SW8270D |
| Carbazole | ND | | 180 | 140 | ug/Kg | 1 | 12/05/22 | WB | SW8270D |
| Chrysene | 190 | J | 250 | 120 | ug/Kg | 1 | 12/05/22 | WB | SW8270D |
| Dibenz(a,h)anthracene | ND | | 180 | 110 | ug/Kg | 1 | 12/05/22 | WB | SW8270D |
| Dibenzofuran | ND | | 250 | 100 | ug/Kg | 1 | 12/05/22 | WB | SW8270D |
| Diethyl phthalate | ND | | 250 | 110 | ug/Kg | 1 | 12/05/22 | WB | SW8270D |
| Dimethylphthalate | ND | | 250 | 110 | ug/Kg | 1 | 12/05/22 | WB | SW8270D |
| Di-n-butylphthalate | ND | | 250 | 93 | ug/Kg | 1 | 12/05/22 | WB | SW8270D |
| Di-n-octylphthalate | ND | | 250 | 90 | ug/Kg | 1 | 12/05/22 | WB | SW8270D |
| Fluoranthene | 410 | | 250 | 110 | ug/Kg | 1 | 12/05/22 | WB | SW8270D |
| Fluorene | ND | | 250 | 120 | ug/Kg | 1 | 12/05/22 | WB | SW8270D |
| Hexachlorobenzene | ND | | 180 | 100 | ug/Kg | 1 | 12/05/22 | WB | SW8270D |
| Hexachlorobutadiene | ND | | 250 | 130 | ug/Kg | 1 | 12/05/22 | WB | SW8270D |
| Hexachlorocyclopentadiene | ND | | 250 | 110 | ug/Kg | 1 | 12/05/22 | WB | SW8270D |
| Hexachloroethane | ND | | 180 | 110 | ug/Kg | 1 | 12/05/22 | WB | SW8270D |
| Indeno(1,2,3-cd)pyrene | 120 | J | 250 | 120 | ug/Kg | 1 | 12/05/22 | WB | SW8270D |
| Isophorone | ND | | 180 | 98 | ug/Kg | 1 | 12/05/22 | WB | SW8270D |
| Naphthalene | ND | | 250 | 100 | ug/Kg | 1 | 12/05/22 | WB | SW8270D |
| Nitrobenzene | ND | | 180 | 120 | ug/Kg | 1 | 12/05/22 | WB | SW8270D |
| N-Nitrosodimethylamine | ND | | 250 | 99 | ug/Kg | 1 | 12/05/22 | WB | SW8270D |
| N-Nitrosodi-n-propylamine | ND | | 180 | 110 | ug/Kg | 1 | 12/05/22 | WB | SW8270D |
| N-Nitrosodiphenylamine | ND | | 250 | 130 | ug/Kg | 1 | 12/05/22 | WB | SW8270D |
| Pentachloronitrobenzene | ND | | 250 | 130 | ug/Kg | 1 | 12/05/22 | WB | SW8270D |
| Pentachlorophenol | ND | | 210 | 130 | ug/Kg | 1 | 12/05/22 | WB | SW8270D |
| Phenanthrene | 310 | | 250 | 100 | ug/Kg | 1 | 12/05/22 | WB | SW8270D |
| Phenol | ND | | 250 | 110 | ug/Kg | 1 | 12/05/22 | WB | SW8270D |
| Pyrene | 310 | | 250 | 120 | ug/Kg | 1 | 12/05/22 | WB | SW8270D |
| Pyridine | ND | | 250 | 86 | ug/Kg | 1 | 12/05/22 | WB | SW8270D |
| **QA/QC Surrogates** | | | | | | | | | |
| % 2,4,6-Tribromophenol | 87 | | | | % | 1 | 12/05/22 | WB | 30 - 130 % |
| % 2-Fluorobiphenyl | 78 | | | | % | 1 | 12/05/22 | WB | 30 - 130 % |
| % 2-Fluorophenol | 74 | | | | % | 1 | 12/05/22 | WB | 30 - 130 % |
| % Nitrobenzene-d5 | 79 | | | | % | 1 | 12/05/22 | WB | 30 - 130 % |
| % Phenol-d5 | 85 | | | | % | 1 | 12/05/22 | WB | 30 - 130 % |
| % Terphenyl-d14 | 82 | | | | % | 1 | 12/05/22 | WB | 30 - 130 % |
| **1,4-Dioxane** | | | | | | | | | |
| 1,4-dioxane | ND | | 71 | 71 | ug/Kg | 1 | 12/06/22 | WB | SW8270D (SIM) |
| **QA/QC Surrogates** | | | | | | | | | |
| % 2-Fluorobiphenyl | 64 | | | | % | 1 | 12/06/22 | WB | 30 - 130 % |

**Ver 1**

Project ID: IPARK0118.62-LOT 10 BOUNDARY MODIFICAT. Phoenix I.D.: CM95289
Client ID: SB-11A (0-1`)

| Parameter | Result | RL/ PQL | LOD/ MDL | Units | Dilution | Date/Time | By | Reference |
|---|---|---|---|---|---|---|---|---|
| % Nitrobenzene-d5 | 91 | | | % | 1 | 12/06/22 | WB | 30 - 130 % |
| % Terphenyl-d14 | 95 | | | % | 1 | 12/06/22 | WB | 30 - 130 % |

1 = This parameter is not certified by the primary accrediting authority (NY NELAC) for this matrix. NY NELAC does not offer certification for all parameters at this time.
B = Present in blank, no bias suspected.

RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected BRL=Below Reporting Level L=Biased Low J=Estimated Below RL LOD=Limit of Detection MDL=Method Detection Limit1
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

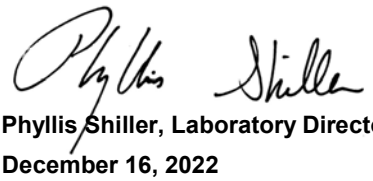
## Comments:

*See attached

Per 1.4.6 of EPA method 8270D, 1,2-Diphenylhydrazine is unstable and readily converts to Azobenzene. Azobenzene is used for the calibration of 1,2-Diphenylhydrazine.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200.
The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.



**Phyllis Shiller, Laboratory Director**
**December 16, 2022**
**Reviewed and Released by: Greg Lawrence, Assistant Lab Director**

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

# Analysis Report

December 16, 2022

FOR: Attn: Nora Brew
Walden Environmental Engineering PLLC
16 Spring Street
Oyster Bay, NY 11771

| Sample Information | | Custody Information | | Date | Time |
|---|---|---|---|---|---|
| Matrix: | SOIL | Collected by: | | 11/30/22 | 10:30 |
| Location Code: | WALDENE-IPARK | Received by: | CP | 12/01/22 | 17:12 |
| Rush Request: | Standard | Analyzed by: | see "By" below | | |
| P.O.#: | IPARK 0118.62 | | | | |

## Laboratory Data

SDG ID: GCM95278
Phoenix ID: CM95290

Project ID: IPARK0118.62-LOT 10 BOUNDARY MODIFICAT.
Client ID: SB-11B (1-2`)

| Parameter | Result | RL/ PQL | LOD/ MDL | Units | Dilution | Date/Time | By | Reference | |
|---|---|---|---|---|---|---|---|---|---|
| Field Extraction | Completed | | | | | 11/30/22 | | SW5035A | 1 |
| **Volatiles** | | | | | | | | | |
| 1,1,1,2-Tetrachloroethane | ND | 4.3 | 0.86 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,1,1-Trichloroethane | ND | 4.3 | 0.43 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,1,2,2-Tetrachloroethane | ND | 4.3 | 0.86 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,1,2-Trichloroethane | ND | 4.3 | 0.86 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,1-Dichloroethane | ND | 4.3 | 0.86 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,1-Dichloroethene | ND | 4.3 | 0.43 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,1-Dichloropropene | ND | 4.3 | 0.43 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,2,3-Trichlorobenzene | ND | 4.3 | 0.86 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,2,3-Trichloropropane | ND | 4.3 | 0.43 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,2,4-Trichlorobenzene | ND | 4.3 | 0.86 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,2,4-Trimethylbenzene | ND | 4.3 | 0.43 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,2-Dibromo-3-chloropropane | ND | 4.3 | 0.86 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,2-Dibromoethane | ND | 4.3 | 0.43 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,2-Dichlorobenzene | ND | 4.3 | 0.43 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,2-Dichloroethane | ND | 4.3 | 0.43 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,2-Dichloropropane | ND | 4.3 | 0.86 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,3,5-Trimethylbenzene | ND | 4.3 | 0.43 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,3-Dichlorobenzene | ND | 4.3 | 0.43 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,3-Dichloropropane | ND | 4.3 | 0.86 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,4-Dichlorobenzene | ND | 4.3 | 0.43 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 2,2-Dichloropropane | ND | 4.3 | 0.43 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 2-Chlorotoluene | ND | 4.3 | 0.86 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 2-Hexanone | ND | 22 | 4.3 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 2-Isopropyltoluene | ND | 4.3 | 0.43 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | 1 |

Project ID: IPARK0118.62-LOT 10 BOUNDARY MODIFICAT. Phoenix I.D.: CM95290

Client ID: SB-11B (1-2`)

| Parameter | Result | | RL/ PQL | LOD/ MDL | Units | Dilution | Date/Time | By | Reference |
|---|---|---|---|---|---|---|---|---|---|
| 4-Chlorotoluene | ND | | 4.3 | 0.43 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| 4-Methyl-2-pentanone | ND | | 22 | 4.3 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| Acetone | ND | | 22 | 4.3 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| Acrylonitrile | ND | | 8.6 | 0.86 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| Benzene | ND | | 4.3 | 0.43 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| Bromobenzene | ND | | 4.3 | 0.43 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| Bromochloromethane | ND | | 4.3 | 0.43 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| Bromodichloromethane | ND | | 4.3 | 0.86 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| Bromoform | ND | | 4.3 | 0.86 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| Bromomethane | ND | | 4.3 | 1.7 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| Carbon Disulfide | ND | | 4.3 | 0.86 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| Carbon tetrachloride | ND | | 4.3 | 0.86 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| Chlorobenzene | ND | | 4.3 | 0.43 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| Chloroethane | ND | | 4.3 | 0.43 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| Chloroform | ND | | 4.3 | 0.43 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| Chloromethane | ND | | 4.3 | 0.86 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| cis-1,2-Dichloroethene | ND | | 4.3 | 0.43 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| cis-1,3-Dichloropropene | ND | | 4.3 | 0.43 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| Dibromochloromethane | ND | | 4.3 | 0.86 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| Dibromomethane | ND | | 4.3 | 0.86 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| Dichlorodifluoromethane | ND | | 4.3 | 0.43 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| Ethylbenzene | ND | | 4.3 | 0.43 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| Hexachlorobutadiene | ND | | 4.3 | 0.43 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| Isopropylbenzene | ND | | 4.3 | 0.43 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| m&p-Xylene | ND | | 4.3 | 0.86 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| Methyl Ethyl Ketone | ND | | 26 | 4.3 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| Methyl t-butyl ether (MTBE) | ND | | 8.6 | 0.86 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| Methylene chloride | ND | | 4.3 | 4.3 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| Naphthalene | ND | | 4.3 | 0.86 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| n-Butylbenzene | ND | | 4.3 | 0.43 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| n-Propylbenzene | ND | | 4.3 | 0.86 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| o-Xylene | ND | | 4.3 | 0.86 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| p-Isopropyltoluene | ND | | 4.3 | 0.43 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| sec-Butylbenzene | ND | | 4.3 | 0.43 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| Styrene | ND | | 4.3 | 0.43 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| tert-Butylbenzene | ND | | 4.3 | 0.43 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| Tetrachloroethene | ND | | 4.3 | 0.86 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| Tetrahydrofuran (THF) | 7.5 | J | 8.6 | 2.2 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| Toluene | ND | | 4.3 | 0.43 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| trans-1,2-Dichloroethene | ND | | 4.3 | 0.43 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| trans-1,3-Dichloropropene | ND | | 4.3 | 0.43 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| trans-1,4-dichloro-2-butene | ND | | 8.6 | 2.2 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| Trichloroethene | ND | | 4.3 | 0.43 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| Trichlorofluoromethane | ND | | 4.3 | 0.86 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| Trichlorotrifluoroethane | ND | | 4.3 | 0.43 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| Vinyl chloride | ND | | 4.3 | 0.43 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| **QA/QC Surrogates** | | | | | | | | | |
| % 1,2-dichlorobenzene-d4 | 95 | | | | % | 1 | 12/06/22 | JLI | 70 - 130 % |
| % Bromofluorobenzene | 94 | | | | % | 1 | 12/06/22 | JLI | 70 - 130 % |

**Ver 1**

Project ID: IPARK0118.62-LOT 10 BOUNDARY MODIFICAT. Phoenix I.D.: CM95290
Client ID: SB-11B (1-2`)

| Parameter | Result | RL/ PQL | LOD/ MDL | Units | Dilution | Date/Time | By | Reference |
|---|---|---|---|---|---|---|---|---|
| % Dibromofluoromethane | 98 | | | % | 1 | 12/06/22 | JLI | 70 - 130 % |
| % Toluene-d8 | 95 | | | % | 1 | 12/06/22 | JLI | 70 - 130 % |

1 = This parameter is not certified by the primary accrediting authority (NY NELAC) for this matrix. NY NELAC does not offer certification for all parameters at this time.

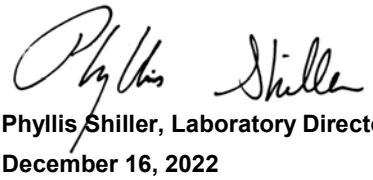
RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected BRL=Below Reporting Level L=Biased Low J=Estimated Below RL LOD=Limit of Detection MDL=Method Detection Limit1
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

## Comments:

Results are reported on an ``as received`` basis, and are not corrected for dry weight.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200.
The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.



**Phyllis Shiller, Laboratory Director**
**December 16, 2022**
**Reviewed and Released by: Greg Lawrence, Assistant Lab Director**

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

# Analysis Report

December 16, 2022

FOR: Attn: Nora Brew
Walden Environmental Engineering PLLC
16 Spring Street
Oyster Bay, NY 11771

| Sample Information | | Custody Information | | Date | Time |
|---|---|---|---|---|---|
| Matrix: | SOIL | Collected by: | | 11/30/22 | 10:30 |
| Location Code: | WALDENE-IPARK | Received by: | CP | 12/01/22 | 17:12 |
| Rush Request: | Standard | Analyzed by: | see "By" below | | |
| P.O.#: | IPARK 0118.62 | | | | |

## Laboratory Data

SDG ID: GCM95278
Phoenix ID: CM95291

Project ID: IPARK0118.62-LOT 10 BOUNDARY MODIFICAT.
Client ID: SB-11C (3-4`)

| Parameter | Result | RL/ PQL | LOD/ MDL | Units | Dilution | Date/Time | By | Reference | |
|---|---|---|---|---|---|---|---|---|---|
| Aluminum | 16700 | 36 | 7.1 | mg/Kg | 10 | 12/03/22 | CPP | SW6010D | B |
| Antimony | ND | 3.6 | 3.6 | mg/Kg | 1 | 12/04/22 | CPP | SW6010D | |
| Arsenic | 6.93 | 0.71 | 0.71 | mg/Kg | 1 | 12/04/22 | CPP | SW6010D | |
| Barium | 81.3 | 0.7 | 0.36 | mg/Kg | 1 | 12/04/22 | TH | SW6010D | |
| Beryllium | 0.66 | 0.28 | 0.14 | mg/Kg | 1 | 12/04/22 | CPP | SW6010D | |
| Calcium | 11500 | 3.6 | 3.3 | mg/Kg | 1 | 12/04/22 | CPP | SW6010D | |
| Cadmium | 2.10 | 0.36 | 0.36 | mg/Kg | 1 | 12/04/22 | CPP | SW6010D | |
| Chromium | 18.8 | 0.36 | 0.36 | mg/Kg | 1 | 12/04/22 | CPP | SW6010D | |
| Cobalt | 13.9 | 0.36 | 0.36 | mg/Kg | 1 | 12/04/22 | CPP | SW6010D | |
| Copper | 33.0 | 0.7 | 0.36 | mg/kg | 1 | 12/04/22 | CPP | SW6010D | |
| Iron | 33500 | 36 | 36 | mg/Kg | 10 | 12/03/22 | CPP | SW6010D | |
| Lead | 17.3 | 0.7 | 0.36 | mg/Kg | 1 | 12/04/22 | CPP | SW6010D | |
| Magnesium | 10100 | 36 | 36 | mg/Kg | 10 | 12/03/22 | CPP | SW6010D | |
| Manganese | 1040 | 3.6 | 3.6 | mg/Kg | 10 | 12/03/22 | TH | SW6010D | |
| Mercury | ND | 0.03 | 0.02 | mg/Kg | 2 | 12/05/22 | PM | SW7471B | |
| Nickel | 29.1 | 0.36 | 0.36 | mg/Kg | 1 | 12/04/22 | CPP | SW6010D | |
| Potassium | 1550 | 7 | 2.8 | mg/Kg | 1 | 12/04/22 | CPP | SW6010D | |
| Selenium | ND | 1.4 | 1.2 | mg/Kg | 1 | 12/04/22 | CPP | SW6010D | |
| Silver | ND | 0.36 | 0.36 | mg/Kg | 1 | 12/04/22 | CPP | SW6010D | |
| Sodium | 592 | 7 | 3.1 | mg/Kg | 1 | 12/04/22 | CPP | SW6010D | |
| Thallium | ND | 1.4 | 1.4 | mg/Kg | 1 | 12/04/22 | CPP | SW6010D | |
| Vanadium | 22.8 | 0.36 | 0.36 | mg/Kg | 1 | 12/04/22 | CPP | SW6010D | |
| Zinc | 75.8 | 0.7 | 0.36 | mg/Kg | 1 | 12/04/22 | CPP | SW6010D | |
| Percent Solid | 89 | | | % | | 12/01/22 | Q | SW846-%Solid | |
| Extraction for SVOA SIM | Completed | | | | | 12/05/22 | B/MO | SW3545A | |
| Soil Extraction for PCB | Completed | | | | | 12/02/22 | O/Y | SW3545A | |
| Soil Extraction for Pesticide | Completed | | | | | 12/02/22 | O/Y | SW3545A | |

**Ver 1**

Project ID: IPARK0118.62-LOT 10 BOUNDARY MODIFICAT. Phoenix I.D.: CM95291

Client ID: SB-11C (3-4`)

| Parameter | Result | RL/ PQL | LOD/ MDL | Units | Dilution | Date/Time | By | Reference | |
|---|---|---|---|---|---|---|---|---|---|
| Field Extraction | Completed | | | | | 11/30/22 | | SW5035A | 1 |
| Mercury Digestion | Completed | | | | | 12/02/22 | AB/AB | SW7471B | |
| Soil Extraction for Herbicide | Completed | | | | | 12/08/22 | J/D | SW3546 | |
| Soil Extraction for SVOA | Completed | | | | | 12/03/22 | Y/L | SW3546 | |
| Total Metals Digest | Completed | | | | | 12/01/22 | | SW3050B | |
| PFAS (21) | Completed | | | | | 12/07/22 | *** | EPA 537m | C |

## PFAS (21)

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **1H,1H,2H,2H-Perfluorodecanesulfonic acid** | ND | 0.291 | 0.0298 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| **1H,1H,2H,2H-Perfluorooctanesulfonic acid** | ND | 0.291 | 0.0768 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| NEtFOSAA | ND | 0.291 | 0.121 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| NMeFOSAA | ND | 0.291 | 0.121 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| **Perfluoro-1-decanesulfonic acid (PFDS)** | ND | 0.291 | 0.0596 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| **Perfluoro-1-heptanesulfonic acid (PFHpS)** | ND | 0.291 | 0.0573 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| **Perfluoro-1-octanesulfonamide (FOSA)** | ND | 0.291 | 0.0543 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| Perfluorobutanesulfonic acid (PFBS) | ND | 0.291 | 0.233 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| Perfluorodecanoic acid (PFDA) | ND | 0.291 | 0.0596 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| Perfluorododecanoic acid (PFDoA) | ND | 0.291 | 0.0872 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| Perfluoroheptanoic acid (PFHpA) | ND | 0.291 | 0.0529 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| **Perfluorohexanesulfonic Acid (PFHxS)** | ND | 0.291 | 0.0361 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| Perfluorohexanoic acid (PFHxA) | ND | 0.291 | 0.0767 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| Perfluoro-n-butanoic acid (PFBA) | ND | 0.291 | 0.213 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| Perfluorononanoic acid (PFNA) | ND | 0.291 | 0.0696 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| Perfluorooctanesulfonic Acid (PFOS) | ND | 0.291 | 0.0510 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| Perfluorooctanoic acid (PFOA) | ND | 0.291 | 0.0898 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| Perfluoropentanoic acid (PFPeA) | ND | 0.291 | 0.107 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| Perfluorotetradecanoic acid (PFTA) | ND | 0.291 | 0.0869 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| Perfluorotridecanoic acid (PFTrDA) | ND | 0.291 | 0.0506 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| Perfluoroundecanoic acid (PFUnA) | ND | 0.291 | 0.135 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| **QA/QC Surrogates** | | | | | | | | | |
| % d3-N-MeFOSAA | 43.9 | | | % | 1 | 12/11/22 | *** | 25 - 150 % | C |
| % d5-NEtFOSA | 35.7 | | | % | 1 | 12/11/22 | *** | 25 - 150 % | C |
| % M2-6:2FTS | 80.6 | | | % | 1 | 12/11/22 | *** | 25 - 200 % | C |
| % M2-8:2FTS | 51.9 | | | % | 1 | 12/11/22 | *** | 25 - 200 % | C |
| % M2PFTeDA | 18.1 | | | % | 1 | 12/11/22 | *** | 10 - 150 % | C |
| % M3PFBS | 57.4 | | | % | 1 | 12/11/22 | *** | 25 - 150 % | C |
| % M3PFHxS | 67.6 | | | % | 1 | 12/11/22 | *** | 25 - 150 % | C |
| % M4PFHpA | 64.5 | | | % | 1 | 12/11/22 | *** | 25 - 150 % | C |
| % M5PFHxA | 71.2 | | | % | 1 | 12/11/22 | *** | 25 - 150 % | C |
| % M5PFPeA | 70.8 | | | % | 1 | 12/11/22 | *** | 25 - 150 % | C |
| % M6PFDA | 58.1 | | | % | 1 | 12/11/22 | *** | 25 - 150 % | C |
| % M7PFUdA | 37.0 | | | % | 1 | 12/11/22 | *** | 25 - 150 % | C |
| % M8FOSA | 35.9 | | | % | 1 | 12/11/22 | *** | 10 - 150 % | C |
| % M8PFOA | 70.1 | | | % | 1 | 12/11/22 | *** | 25 - 150 % | C |
| % M8PFOS | 49.1 | | | % | 1 | 12/11/22 | *** | 25 - 150 % | C |
| % M9PFNA | 61.2 | | | % | 1 | 12/11/22 | *** | 25 - 150 % | C |
| % MPFBA | 71.1 | | | % | 1 | 12/11/22 | *** | 25 - 150 % | C |
| % MPFDoA | 34.2 | | | % | 1 | 12/11/22 | *** | 25 - 150 % | C |

Project ID: IPARK0118.62-LOT 10 BOUNDARY MODIFICAT. Phoenix I.D.: CM95291
Client ID: SB-11C (3-4`)

| Parameter | Result | RL/ PQL | LOD/ MDL | Units | Dilution | Date/Time | By | Reference |
|---|---|---|---|---|---|---|---|---|
| **Chlorinated Herbicides** | | | | | | | | |
| 2,4,5-T | ND | 140 | 140 | ug/Kg | 10 | 12/09/22 | JRB | SW8151A |
| 2,4,5-TP (Silvex) | ND | 140 | 140 | ug/Kg | 10 | 12/09/22 | JRB | SW8151A |
| 2,4-D | ND | 280 | 280 | ug/Kg | 10 | 12/09/22 | JRB | SW8151A |
| 2,4-DB | ND | 2800 | 2800 | ug/Kg | 10 | 12/09/22 | JRB | SW8151A |
| Dalapon | ND | 140 | 140 | ug/Kg | 10 | 12/09/22 | JRB | SW8151A |
| Dicamba | ND | 140 | 140 | ug/Kg | 10 | 12/09/22 | JRB | SW8151A |
| Dichloroprop | ND | 280 | 280 | ug/Kg | 10 | 12/09/22 | JRB | SW8151A |
| Dinoseb | ND | 280 | 280 | ug/Kg | 10 | 12/09/22 | JRB | SW8151A |
| **QA/QC Surrogates** | | | | | | | | |
| % DCAA | 93 | | | % | 10 | 12/09/22 | JRB | 30 - 150 % |
| % DCAA (Confirmation) | 90 | | | % | 10 | 12/09/22 | JRB | 30 - 150 % |
| **Polychlorinated Biphenyls** | | | | | | | | |
| PCB-1016 | ND | 73 | 73 | ug/Kg | 2 | 12/05/22 | SC | SW8082A |
| PCB-1221 | ND | 73 | 73 | ug/Kg | 2 | 12/05/22 | SC | SW8082A |
| PCB-1232 | ND | 73 | 73 | ug/Kg | 2 | 12/05/22 | SC | SW8082A |
| PCB-1242 | ND | 73 | 73 | ug/Kg | 2 | 12/05/22 | SC | SW8082A |
| PCB-1248 | ND | 73 | 73 | ug/Kg | 2 | 12/05/22 | SC | SW8082A |
| PCB-1254 | ND | 73 | 73 | ug/Kg | 2 | 12/05/22 | SC | SW8082A |
| PCB-1260 | ND | 73 | 73 | ug/Kg | 2 | 12/05/22 | SC | SW8082A |
| PCB-1262 | ND | 73 | 73 | ug/Kg | 2 | 12/05/22 | SC | SW8082A |
| PCB-1268 | ND | 73 | 73 | ug/Kg | 2 | 12/05/22 | SC | SW8082A |
| **QA/QC Surrogates** | | | | | | | | |
| % DCBP | 79 | | | % | 2 | 12/05/22 | SC | 30 - 150 % |
| % DCBP (Confirmation) | 76 | | | % | 2 | 12/05/22 | SC | 30 - 150 % |
| % TCMX | 71 | | | % | 2 | 12/05/22 | SC | 30 - 150 % |
| % TCMX (Confirmation) | 72 | | | % | 2 | 12/05/22 | SC | 30 - 150 % |
| **Pesticides - Soil** | | | | | | | | |
| 4,4' -DDD | ND | 2.2 | 2.2 | ug/Kg | 2 | 12/05/22 | AW | SW8081B |
| 4,4' -DDE | ND | 2.2 | 2.2 | ug/Kg | 2 | 12/05/22 | AW | SW8081B |
| 4,4' -DDT | ND | 2.2 | 2.2 | ug/Kg | 2 | 12/05/22 | AW | SW8081B |
| a-BHC | ND | 7.3 | 7.3 | ug/Kg | 2 | 12/05/22 | AW | SW8081B |
| a-Chlordane | ND | 3.7 | 3.7 | ug/Kg | 2 | 12/05/22 | AW | SW8081B |
| Alachlor | ND | 3.7 | 3.7 | ug/Kg | 2 | 12/05/22 | AW | SW8081B |
| Aldrin | ND | 3.7 | 3.7 | ug/Kg | 2 | 12/05/22 | AW | SW8081B |
| b-BHC | ND | 7.3 | 7.3 | ug/Kg | 2 | 12/05/22 | AW | SW8081B |
| Chlordane | ND | 37 | 37 | ug/Kg | 2 | 12/05/22 | AW | SW8081B |
| d-BHC | ND | 7.3 | 7.3 | ug/Kg | 2 | 12/05/22 | AW | SW8081B |
| Dieldrin | ND | 3.7 | 3.7 | ug/Kg | 2 | 12/05/22 | AW | SW8081B |
| Endosulfan I | ND | 7.3 | 7.3 | ug/Kg | 2 | 12/05/22 | AW | SW8081B |
| Endosulfan II | ND | 7.3 | 7.3 | ug/Kg | 2 | 12/05/22 | AW | SW8081B |
| Endosulfan sulfate | ND | 7.3 | 7.3 | ug/Kg | 2 | 12/05/22 | AW | SW8081B |
| Endrin | ND | 7.3 | 7.3 | ug/Kg | 2 | 12/05/22 | AW | SW8081B |
| Endrin aldehyde | ND | 7.3 | 7.3 | ug/Kg | 2 | 12/05/22 | AW | SW8081B |
| Endrin ketone | ND | 7.3 | 7.3 | ug/Kg | 2 | 12/05/22 | AW | SW8081B |
| g-BHC | ND | 1.5 | 1.5 | ug/Kg | 2 | 12/05/22 | AW | SW8081B |
| g-Chlordane | ND | 3.7 | 3.7 | ug/Kg | 2 | 12/05/22 | AW | SW8081B |

Project ID: IPARK0118.62-LOT 10 BOUNDARY MODIFICAT. Phoenix I.D.: CM95291
Client ID: SB-11C (3-4`)

| Parameter | Result | | RL/ PQL | LOD/ MDL | Units | Dilution | Date/Time | By | Reference | |
|---|---|---|---|---|---|---|---|---|---|---|
| Heptachlor | ND | | 7.3 | 7.3 | ug/Kg | 2 | 12/05/22 | AW | SW8081B | |
| Heptachlor epoxide | ND | | 7.3 | 7.3 | ug/Kg | 2 | 12/05/22 | AW | SW8081B | |
| Methoxychlor | ND | | 37 | 37 | ug/Kg | 2 | 12/05/22 | AW | SW8081B | |
| Toxaphene | ND | | 150 | 150 | ug/Kg | 2 | 12/05/22 | AW | SW8081B | |
| **QA/QC Surrogates** | | | | | | | | | | |
| % DCBP | 95 | | | | % | 2 | 12/05/22 | AW | 30 - 150 % | |
| % DCBP (Confirmation) | 52 | | | | % | 2 | 12/05/22 | AW | 30 - 150 % | |
| % TCMX | 83 | | | | % | 2 | 12/05/22 | AW | 30 - 150 % | |
| % TCMX (Confirmation) | 69 | | | | % | 2 | 12/05/22 | AW | 30 - 150 % | |
| **Volatiles** | | | | | | | | | | |
| 1,1,1,2-Tetrachloroethane | ND | | 7.9 | 1.6 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,1,1-Trichloroethane | ND | | 7.9 | 0.79 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,1,2,2-Tetrachloroethane | ND | | 7.9 | 1.6 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,1,2-Trichloroethane | ND | | 7.9 | 1.6 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,1-Dichloroethane | ND | | 7.9 | 1.6 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,1-Dichloroethene | ND | | 7.9 | 0.79 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,1-Dichloropropene | ND | | 7.9 | 0.79 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,2,3-Trichlorobenzene | ND | | 7.9 | 1.6 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,2,3-Trichloropropane | ND | | 7.9 | 0.79 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,2,4-Trichlorobenzene | ND | | 7.9 | 1.6 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,2,4-Trimethylbenzene | ND | | 7.9 | 0.79 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,2-Dibromo-3-chloropropane | ND | | 7.9 | 1.6 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,2-Dibromoethane | ND | | 7.9 | 0.79 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,2-Dichlorobenzene | ND | | 7.9 | 0.79 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,2-Dichloroethane | ND | | 7.9 | 0.79 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,2-Dichloropropane | ND | | 7.9 | 1.6 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,3,5-Trimethylbenzene | ND | | 7.9 | 0.79 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,3-Dichlorobenzene | ND | | 7.9 | 0.79 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,3-Dichloropropane | ND | | 7.9 | 1.6 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,4-Dichlorobenzene | ND | | 7.9 | 0.79 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 2,2-Dichloropropane | ND | | 7.9 | 0.79 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 2-Chlorotoluene | ND | | 7.9 | 1.6 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 2-Hexanone | ND | | 39 | 7.9 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 2-Isopropyltoluene | ND | | 7.9 | 0.79 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | 1 |
| 4-Chlorotoluene | ND | | 7.9 | 0.79 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 4-Methyl-2-pentanone | ND | | 39 | 7.9 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Acetone | 14 | JS | 39 | 7.9 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Acrylonitrile | ND | | 16 | 1.6 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Benzene | ND | | 7.9 | 0.79 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Bromobenzene | ND | | 7.9 | 0.79 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Bromochloromethane | ND | | 7.9 | 0.79 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Bromodichloromethane | ND | | 7.9 | 1.6 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Bromoform | ND | | 7.9 | 1.6 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Bromomethane | ND | | 7.9 | 3.1 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Carbon Disulfide | ND | | 7.9 | 1.6 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Carbon tetrachloride | ND | | 7.9 | 1.6 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Chlorobenzene | ND | | 7.9 | 0.79 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Chloroethane | ND | | 7.9 | 0.79 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Chloroform | ND | | 7.9 | 0.79 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |

Project ID: IPARK0118.62-LOT 10 BOUNDARY MODIFICAT. Phoenix I.D.: CM95291

Client ID: SB-11C (3-4`)

| Parameter | Result | | RL/ PQL | LOD/ MDL | Units | Dilution | Date/Time | By | Reference | |
|---|---|---|---|---|---|---|---|---|---|---|
| Chloromethane | ND | | 7.9 | 1.6 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| cis-1,2-Dichloroethene | ND | | 7.9 | 0.79 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| cis-1,3-Dichloropropene | ND | | 7.9 | 0.79 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Dibromochloromethane | ND | | 7.9 | 1.6 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Dibromomethane | ND | | 7.9 | 1.6 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Dichlorodifluoromethane | ND | | 7.9 | 0.79 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Ethylbenzene | ND | | 7.9 | 0.79 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Hexachlorobutadiene | ND | | 7.9 | 0.79 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Isopropylbenzene | ND | | 7.9 | 0.79 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| m&p-Xylene | ND | | 7.9 | 1.6 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Methyl Ethyl Ketone | ND | | 47 | 7.9 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Methyl t-butyl ether (MTBE) | ND | | 16 | 1.6 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Methylene chloride | ND | | 7.9 | 7.9 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Naphthalene | ND | | 7.9 | 1.6 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| n-Butylbenzene | ND | | 7.9 | 0.79 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| n-Propylbenzene | ND | | 7.9 | 1.6 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| o-Xylene | ND | | 7.9 | 1.6 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| p-Isopropyltoluene | ND | | 7.9 | 0.79 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| sec-Butylbenzene | ND | | 7.9 | 0.79 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Styrene | ND | | 7.9 | 0.79 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| tert-Butylbenzene | ND | | 7.9 | 0.79 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Tetrachloroethene | ND | | 7.9 | 1.6 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Tetrahydrofuran (THF) | 14 | J | 16 | 3.9 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Toluene | ND | | 7.9 | 0.79 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| trans-1,2-Dichloroethene | ND | | 7.9 | 0.79 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| trans-1,3-Dichloropropene | ND | | 7.9 | 0.79 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| trans-1,4-dichloro-2-butene | ND | | 16 | 3.9 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Trichloroethene | ND | | 7.9 | 0.79 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Trichlorofluoromethane | ND | | 7.9 | 1.6 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Trichlorotrifluoroethane | ND | | 7.9 | 0.79 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Vinyl chloride | ND | | 7.9 | 0.79 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| **QA/QC Surrogates** | | | | | | | | | | |
| % 1,2-dichlorobenzene-d4 | 95 | | | | % | 1 | 12/06/22 | JLI | 70 - 130 % | |
| % Bromofluorobenzene | 95 | | | | % | 1 | 12/06/22 | JLI | 70 - 130 % | |
| % Dibromofluoromethane | 99 | | | | % | 1 | 12/06/22 | JLI | 70 - 130 % | |
| % Toluene-d8 | 95 | | | | % | 1 | 12/06/22 | JLI | 70 - 130 % | |
| **Semivolatiles** | | | | | | | | | | |
| 1,2,4,5-Tetrachlorobenzene | ND | | 260 | 130 | ug/Kg | 1 | 12/05/22 | WB | SW8270D | |
| 1,2,4-Trichlorobenzene | ND | | 260 | 110 | ug/Kg | 1 | 12/05/22 | WB | SW8270D | |
| 1,2-Dichlorobenzene | ND | | 260 | 100 | ug/Kg | 1 | 12/05/22 | WB | SW8270D | |
| 1,2-Diphenylhydrazine | ND | | 260 | 120 | ug/Kg | 1 | 12/05/22 | WB | SW8270D | |
| 1,3-Dichlorobenzene | ND | | 260 | 110 | ug/Kg | 1 | 12/05/22 | WB | SW8270D | |
| 1,4-Dichlorobenzene | ND | | 260 | 110 | ug/Kg | 1 | 12/05/22 | WB | SW8270D | |
| 2,2'-Oxybis(1-Chloropropane) | ND | | 260 | 100 | ug/Kg | 1 | 12/05/22 | WB | SW8270D | 1 |
| 2,4,5-Trichlorophenol | ND | | 260 | 200 | ug/Kg | 1 | 12/05/22 | WB | SW8270D | |
| 2,4,6-Trichlorophenol | ND | | 180 | 120 | ug/Kg | 1 | 12/05/22 | WB | SW8270D | |
| 2,4-Dichlorophenol | ND | | 180 | 130 | ug/Kg | 1 | 12/05/22 | WB | SW8270D | |
| 2,4-Dimethylphenol | ND | | 260 | 90 | ug/Kg | 1 | 12/05/22 | WB | SW8270D | |
| 2,4-Dinitrophenol | ND | | 260 | 260 | ug/Kg | 1 | 12/05/22 | WB | SW8270D | |

Project ID: IPARK0118.62-LOT 10 BOUNDARY MODIFICAT. Phoenix I.D.: CM95291

Client ID: SB-11C (3-4`)

| Parameter | Result | RL/ PQL | LOD/ MDL | Units | Dilution | Date/Time | By | Reference | |
|---|---|---|---|---|---|---|---|---|---|
| 2,4-Dinitrotoluene | ND | 180 | 140 | ug/Kg | 1 | 12/05/22 | WB | SW8270D | |
| 2,6-Dinitrotoluene | ND | 180 | 120 | ug/Kg | 1 | 12/05/22 | WB | SW8270D | |
| 2-Chloronaphthalene | ND | 260 | 100 | ug/Kg | 1 | 12/05/22 | WB | SW8270D | |
| 2-Chlorophenol | ND | 260 | 100 | ug/Kg | 1 | 12/05/22 | WB | SW8270D | |
| 2-Methylnaphthalene | ND | 260 | 110 | ug/Kg | 1 | 12/05/22 | WB | SW8270D | |
| 2-Methylphenol (o-cresol) | ND | 260 | 170 | ug/Kg | 1 | 12/05/22 | WB | SW8270D | |
| 2-Nitroaniline | ND | 260 | 260 | ug/Kg | 1 | 12/05/22 | WB | SW8270D | |
| 2-Nitrophenol | ND | 260 | 230 | ug/Kg | 1 | 12/05/22 | WB | SW8270D | |
| 3&4-Methylphenol (m&p-cresol) | ND | 260 | 140 | ug/Kg | 1 | 12/05/22 | WB | SW8270D | 1 |
| 3,3'-Dichlorobenzidine | ND | 180 | 170 | ug/Kg | 1 | 12/05/22 | WB | SW8270D | |
| 3-Nitroaniline | ND | 360 | 730 | ug/Kg | 1 | 12/05/22 | WB | SW8270D | |
| 4,6-Dinitro-2-methylphenol | ND | 220 | 73 | ug/Kg | 1 | 12/05/22 | WB | SW8270D | |
| 4-Bromophenyl phenyl ether | ND | 260 | 110 | ug/Kg | 1 | 12/05/22 | WB | SW8270D | |
| 4-Chloro-3-methylphenol | ND | 260 | 130 | ug/Kg | 1 | 12/05/22 | WB | SW8270D | |
| 4-Chloroaniline | ND | 290 | 170 | ug/Kg | 1 | 12/05/22 | WB | SW8270D | |
| 4-Chlorophenyl phenyl ether | ND | 260 | 120 | ug/Kg | 1 | 12/05/22 | WB | SW8270D | |
| 4-Nitroaniline | ND | 360 | 120 | ug/Kg | 1 | 12/05/22 | WB | SW8270D | |
| 4-Nitrophenol | ND | 360 | 160 | ug/Kg | 1 | 12/05/22 | WB | SW8270D | |
| Acenaphthene | ND | 260 | 110 | ug/Kg | 1 | 12/05/22 | WB | SW8270D | |
| Acenaphthylene | ND | 260 | 100 | ug/Kg | 1 | 12/05/22 | WB | SW8270D | |
| Acetophenone | ND | 260 | 110 | ug/Kg | 1 | 12/05/22 | WB | SW8270D | |
| Aniline | ND | 290 | 290 | ug/Kg | 1 | 12/05/22 | WB | SW8270D | |
| Anthracene | ND | 260 | 120 | ug/Kg | 1 | 12/05/22 | WB | SW8270D | |
| Benz(a)anthracene | ND | 260 | 120 | ug/Kg | 1 | 12/05/22 | WB | SW8270D | |
| Benzidine | ND | 360 | 210 | ug/Kg | 1 | 12/05/22 | WB | SW8270D | |
| Benzo(a)pyrene | ND | 180 | 120 | ug/Kg | 1 | 12/05/22 | WB | SW8270D | |
| Benzo(b)fluoranthene | ND | 260 | 120 | ug/Kg | 1 | 12/05/22 | WB | SW8270D | |
| Benzo(ghi)perylene | ND | 260 | 120 | ug/Kg | 1 | 12/05/22 | WB | SW8270D | |
| Benzo(k)fluoranthene | ND | 260 | 120 | ug/Kg | 1 | 12/05/22 | WB | SW8270D | |
| Benzoic acid | ND | 1800 | 730 | ug/Kg | 1 | 12/05/22 | WB | SW8270D | |
| Benzyl butyl phthalate | ND | 260 | 94 | ug/Kg | 1 | 12/05/22 | WB | SW8270D | |
| Bis(2-chloroethoxy)methane | ND | 260 | 100 | ug/Kg | 1 | 12/05/22 | WB | SW8270D | |
| Bis(2-chloroethyl)ether | ND | 180 | 98 | ug/Kg | 1 | 12/05/22 | WB | SW8270D | |
| Bis(2-ethylhexyl)phthalate | ND | 260 | 100 | ug/Kg | 1 | 12/05/22 | WB | SW8270D | |
| Carbazole | ND | 180 | 150 | ug/Kg | 1 | 12/05/22 | WB | SW8270D | |
| Chrysene | ND | 260 | 120 | ug/Kg | 1 | 12/05/22 | WB | SW8270D | |
| Dibenz(a,h)anthracene | ND | 180 | 120 | ug/Kg | 1 | 12/05/22 | WB | SW8270D | |
| Dibenzofuran | ND | 260 | 110 | ug/Kg | 1 | 12/05/22 | WB | SW8270D | |
| Diethyl phthalate | ND | 260 | 120 | ug/Kg | 1 | 12/05/22 | WB | SW8270D | |
| Dimethylphthalate | ND | 260 | 110 | ug/Kg | 1 | 12/05/22 | WB | SW8270D | |
| Di-n-butylphthalate | ND | 260 | 97 | ug/Kg | 1 | 12/05/22 | WB | SW8270D | |
| Di-n-octylphthalate | ND | 260 | 94 | ug/Kg | 1 | 12/05/22 | WB | SW8270D | |
| Fluoranthene | ND | 260 | 120 | ug/Kg | 1 | 12/05/22 | WB | SW8270D | |
| Fluorene | ND | 260 | 120 | ug/Kg | 1 | 12/05/22 | WB | SW8270D | |
| Hexachlorobenzene | ND | 180 | 110 | ug/Kg | 1 | 12/05/22 | WB | SW8270D | |
| Hexachlorobutadiene | ND | 260 | 130 | ug/Kg | 1 | 12/05/22 | WB | SW8270D | |
| Hexachlorocyclopentadiene | ND | 260 | 110 | ug/Kg | 1 | 12/05/22 | WB | SW8270D | |
| Hexachloroethane | ND | 180 | 110 | ug/Kg | 1 | 12/05/22 | WB | SW8270D | |
| Indeno(1,2,3-cd)pyrene | ND | 260 | 120 | ug/Kg | 1 | 12/05/22 | WB | SW8270D | |

| Parameter | Result | RL/ PQL | LOD/ MDL | Units | Dilution | Date/Time | By | Reference |
|---|---|---|---|---|---|---|---|---|
| Isophorone | ND | 180 | 100 | ug/Kg | 1 | 12/05/22 | WB | SW8270D |
| Naphthalene | ND | 260 | 100 | ug/Kg | 1 | 12/05/22 | WB | SW8270D |
| Nitrobenzene | ND | 180 | 130 | ug/Kg | 1 | 12/05/22 | WB | SW8270D |
| N-Nitrosodimethylamine | ND | 260 | 100 | ug/Kg | 1 | 12/05/22 | WB | SW8270D |
| N-Nitrosodi-n-propylamine | ND | 180 | 120 | ug/Kg | 1 | 12/05/22 | WB | SW8270D |
| N-Nitrosodiphenylamine | ND | 260 | 140 | ug/Kg | 1 | 12/05/22 | WB | SW8270D |
| Pentachloronitrobenzene | ND | 260 | 140 | ug/Kg | 1 | 12/05/22 | WB | SW8270D |
| Pentachlorophenol | ND | 220 | 140 | ug/Kg | 1 | 12/05/22 | WB | SW8270D |
| Phenanthrene | ND | 260 | 100 | ug/Kg | 1 | 12/05/22 | WB | SW8270D |
| Phenol | ND | 260 | 120 | ug/Kg | 1 | 12/05/22 | WB | SW8270D |
| Pyrene | ND | 260 | 130 | ug/Kg | 1 | 12/05/22 | WB | SW8270D |
| Pyridine | ND | 260 | 90 | ug/Kg | 1 | 12/05/22 | WB | SW8270D |
| **QA/QC Surrogates** | | | | | | | | |
| % 2,4,6-Tribromophenol | 106 | | | % | 1 | 12/05/22 | WB | 30 - 130 % |
| % 2-Fluorobiphenyl | 81 | | | % | 1 | 12/05/22 | WB | 30 - 130 % |
| % 2-Fluorophenol | 76 | | | % | 1 | 12/05/22 | WB | 30 - 130 % |
| % Nitrobenzene-d5 | 80 | | | % | 1 | 12/05/22 | WB | 30 - 130 % |
| % Phenol-d5 | 88 | | | % | 1 | 12/05/22 | WB | 30 - 130 % |
| % Terphenyl-d14 | 81 | | | % | 1 | 12/05/22 | WB | 30 - 130 % |
| **1,4-Dioxane** | | | | | | | | |
| 1,4-dioxane | ND | 74 | 74 | ug/Kg | 1 | 12/06/22 | WB | SW8270D (SIM) |
| **QA/QC Surrogates** | | | | | | | | |
| % 2-Fluorobiphenyl | 56 | | | % | 1 | 12/06/22 | WB | 30 - 130 % |
| % Nitrobenzene-d5 | 74 | | | % | 1 | 12/06/22 | WB | 30 - 130 % |
| % Terphenyl-d14 | 89 | | | % | 1 | 12/06/22 | WB | 30 - 130 % |

| Parameter | Result | RL/ PQL | LOD/ MDL | Units | Dilution | Date/Time | By | Reference |
|---|---|---|---|---|---|---|---|---|

1 = This parameter is not certified by the primary accrediting authority (NY NELAC) for this matrix. NY NELAC does not offer certification for all parameters at this time.
C = This parameter is subcontracted.
B = Present in blank, no bias suspected.

RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected BRL=Below Reporting Level L=Biased Low J=Estimated Below RL LOD=Limit of Detection MDL=Method Detection Limit1
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

## Comments:

*See attached

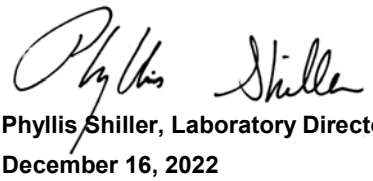
Per 1.4.6 of EPA method 8270D, 1,2-Diphenylhydrazine is unstable and readily converts to Azobenzene. Azobenzene is used for the calibration of 1,2-Diphenylhydrazine.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

PFAS (21) (EPA 537m), PFOA/PFOS - Soil Extraction (EPA 537m) were analyzed by NY certified lab #12058.

S - Laboratory solvent, contamination is possible.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200.
The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.



**Phyllis Shiller, Laboratory Director**
**December 16, 2022**
**Reviewed and Released by: Greg Lawrence, Assistant Lab Director**

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

# Analysis Report

December 16, 2022

FOR: Attn: Nora Brew
Walden Environmental Engineering PLLC
16 Spring Street
Oyster Bay, NY 11771

| Sample Information | | Custody Information | | Date | Time |
|---|---|---|---|---|---|
| Matrix: | SOIL | Collected by: | | 11/30/22 | 10:40 |
| Location Code: | WALDENE-IPARK | Received by: | CP | 12/01/22 | 17:12 |
| Rush Request: | Standard | Analyzed by: | see "By" below | | |
| P.O.#: | IPARK 0118.62 | | | | |

## Laboratory Data

SDG ID: GCM95278
Phoenix ID: CM95292

Project ID: IPARK0118.62-LOT 10 BOUNDARY MODIFICAT.
Client ID: SB-12A1 (0-2``)

| Parameter | Result | RL/ PQL | LOD/ MDL | Units | Dilution | Date/Time | By | Reference | |
|---|---|---|---|---|---|---|---|---|---|
| Aluminum | 11800 | 36 | 7.1 | mg/Kg | 10 | 12/03/22 | CPP | SW6010D | B |
| Antimony | ND | 3.6 | 3.6 | mg/Kg | 1 | 12/04/22 | CPP | SW6010D | |
| Arsenic | 4.76 | 0.71 | 0.71 | mg/Kg | 1 | 12/04/22 | CPP | SW6010D | |
| Barium | 42.8 | 0.7 | 0.36 | mg/Kg | 1 | 12/04/22 | TH | SW6010D | |
| Beryllium | 0.41 | 0.29 | 0.14 | mg/Kg | 1 | 12/04/22 | CPP | SW6010D | |
| Calcium | 14300 | 36 | 33 | mg/Kg | 10 | 12/03/22 | CPP | SW6010D | |
| Cadmium | 1.50 | 0.36 | 0.36 | mg/Kg | 1 | 12/04/22 | CPP | SW6010D | |
| Chromium | 12.6 | 0.36 | 0.36 | mg/Kg | 1 | 12/04/22 | CPP | SW6010D | |
| Cobalt | 9.49 | 0.36 | 0.36 | mg/Kg | 1 | 12/04/22 | CPP | SW6010D | |
| Copper | 26.1 | 0.7 | 0.36 | mg/kg | 1 | 12/04/22 | CPP | SW6010D | |
| Iron | 24400 | 36 | 36 | mg/Kg | 10 | 12/03/22 | CPP | SW6010D | |
| Lead | 14.5 | 0.7 | 0.36 | mg/Kg | 1 | 12/04/22 | CPP | SW6010D | |
| Magnesium | 11400 | 36 | 36 | mg/Kg | 10 | 12/03/22 | CPP | SW6010D | |
| Manganese | 705 | 3.6 | 3.6 | mg/Kg | 10 | 12/03/22 | TH | SW6010D | |
| Mercury | ND | 0.03 | 0.02 | mg/Kg | 2 | 12/05/22 | PM | SW7471B | |
| Nickel | 20.2 | 0.36 | 0.36 | mg/Kg | 1 | 12/04/22 | CPP | SW6010D | |
| Potassium | 1270 | 7 | 2.8 | mg/Kg | 1 | 12/04/22 | CPP | SW6010D | |
| Selenium | ND | 1.4 | 1.2 | mg/Kg | 1 | 12/04/22 | CPP | SW6010D | |
| Silver | ND | 0.36 | 0.36 | mg/Kg | 1 | 12/04/22 | CPP | SW6010D | |
| Sodium | 690 | 7 | 3.1 | mg/Kg | 1 | 12/04/22 | CPP | SW6010D | |
| Thallium | ND | 1.4 | 1.4 | mg/Kg | 1 | 12/04/22 | CPP | SW6010D | |
| Vanadium | 14.4 | 0.36 | 0.36 | mg/Kg | 1 | 12/04/22 | CPP | SW6010D | |
| Zinc | 59.6 | 0.7 | 0.36 | mg/Kg | 1 | 12/04/22 | CPP | SW6010D | |
| Percent Solid | 91 | | | % | | 12/01/22 | Q | SW846-%Solid | |
| Extraction for SVOA SIM | Completed | | | | | 12/05/22 | B/MO | SW3545A | |
| Soil Extraction for PCB | Completed | | | | | 12/02/22 | O/Y | SW3545A | |
| Soil Extraction for Pesticide | Completed | | | | | 12/02/22 | O/Y | SW3545A | |

**Ver 1**

Project ID: IPARK0118.62-LOT 10 BOUNDARY MODIFICAT. Phoenix I.D.: CM95292
Client ID: SB-12A1 (0-2``)

| Parameter | Result | RL/ PQL | LOD/ MDL | Units | Dilution | Date/Time | By | Reference | |
|---|---|---|---|---|---|---|---|---|---|
| Mercury Digestion | Completed | | | | | 12/02/22 | AB/AB | SW7471B | |
| Soil Extraction for Herbicide | Completed | | | | | 12/08/22 | J/D | SW3546 | |
| Soil Extraction for SVOA | Completed | | | | | 12/03/22 | Y/L | SW3546 | |
| Total Metals Digest | Completed | | | | | 12/01/22 | | SW3050B | |
| PFAS (21) | Completed | | | | | 12/07/22 | *** | EPA 537m | C |
| **PFAS (21)** | | | | | | | | | |
| 1H,1H,2H,2H-Perfluorodecanesulfonic acid | ND | 0.259 | 0.0265 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| 1H,1H,2H,2H-Perfluorooctanesulfonic acid | ND | 0.259 | 0.0683 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| NEtFOSAA | ND | 0.259 | 0.108 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| NMeFOSAA | ND | 0.259 | 0.108 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| Perfluoro-1-decanesulfonic acid (PFDS) | ND | 0.259 | 0.0530 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| Perfluoro-1-heptanesulfonic acid (PFHpS) | ND | 0.259 | 0.0510 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| Perfluoro-1-octanesulfonamide (FOSA) | ND | 0.259 | 0.0484 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| Perfluorobutanesulfonic acid (PFBS) | ND | 0.259 | 0.207 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| Perfluorodecanoic acid (PFDA) | ND | 0.259 | 0.0530 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| Perfluorododecanoic acid (PFDoA) | ND | 0.259 | 0.0777 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| Perfluoroheptanoic acid (PFHpA) | ND | 0.259 | 0.0471 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| Perfluorohexanesulfonic Acid (PFHxS) | ND | 0.259 | 0.0321 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| Perfluorohexanoic acid (PFHxA) | ND | 0.259 | 0.0682 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| Perfluoro-n-butanoic acid (PFBA) | ND | 0.259 | 0.189 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| Perfluorononanoic acid (PFNA) | ND | 0.259 | 0.0619 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| Perfluorooctanesulfonic Acid (PFOS) | ND | 0.259 | 0.0454 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| Perfluorooctanoic acid (PFOA) | ND | 0.259 | 0.0799 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| Perfluoropentanoic acid (PFPeA) | ND | 0.259 | 0.0952 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| Perfluorotetradecanoic acid (PFTA) | ND | 0.259 | 0.0773 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| Perfluorotridecanoic acid (PFTrDA) | ND | 0.259 | 0.0450 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| Perfluoroundecanoic acid (PFUnA) | ND | 0.259 | 0.120 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| **QA/QC Surrogates** | | | | | | | | | |
| % d3-N-MeFOSAA | 55.7 | | | % | 1 | 12/11/22 | *** | 25 - 150 % | C |
| % d5-NEtFOSA | 56.8 | | | % | 1 | 12/11/22 | *** | 25 - 150 % | C |
| % M2-6:2FTS | 179 | | | % | 1 | 12/11/22 | *** | 25 - 200 % | C |
| % M2-8:2FTS | 122 | | | % | 1 | 12/11/22 | *** | 25 - 200 % | C |
| % M2PFTeDA | 37.6 | | | % | 1 | 12/11/22 | *** | 10 - 150 % | C |
| % M3PFBS | 72.3 | | | % | 1 | 12/11/22 | *** | 25 - 150 % | C |
| % M3PFHxS | 89.1 | | | % | 1 | 12/11/22 | *** | 25 - 150 % | C |
| % M4PFHpA | 64.6 | | | % | 1 | 12/11/22 | *** | 25 - 150 % | C |
| % M5PFHxA | 70.9 | | | % | 1 | 12/11/22 | *** | 25 - 150 % | C |
| % M5PFPeA | 71.8 | | | % | 1 | 12/11/22 | *** | 25 - 150 % | C |
| % M6PFDA | 52.4 | | | % | 1 | 12/11/22 | *** | 25 - 150 % | C |
| % M7PFUdA | 43.3 | | | % | 1 | 12/11/22 | *** | 25 - 150 % | C |
| % M8FOSA | 38.9 | | | % | 1 | 12/11/22 | *** | 10 - 150 % | C |
| % M8PFOA | 70.8 | | | % | 1 | 12/11/22 | *** | 25 - 150 % | C |
| % M8PFOS | 56.9 | | | % | 1 | 12/11/22 | *** | 25 - 150 % | C |
| % M9PFNA | 60.3 | | | % | 1 | 12/11/22 | *** | 25 - 150 % | C |
| % MPFBA | 72.0 | | | % | 1 | 12/11/22 | *** | 25 - 150 % | C |
| % MPFDoA | 44.5 | | | % | 1 | 12/11/22 | *** | 25 - 150 % | C |
| **Chlorinated Herbicides** | | | | | | | | | |
| 2,4,5-T | ND | 140 | 140 | ug/Kg | 10 | 12/09/22 | JRB | SW8151A | |

**Ver 1**

Project ID: IPARK0118.62-LOT 10 BOUNDARY MODIFICAT. Phoenix I.D.: CM95292
Client ID: SB-12A1 (0-2``)

| Parameter | Result | RL/ PQL | LOD/ MDL | Units | Dilution | Date/Time | By | Reference |
|---|---|---|---|---|---|---|---|---|
| 2,4,5-TP (Silvex) | ND | 140 | 140 | ug/Kg | 10 | 12/09/22 | JRB | SW8151A |
| 2,4-D | ND | 270 | 270 | ug/Kg | 10 | 12/09/22 | JRB | SW8151A |
| 2,4-DB | ND | 2700 | 2700 | ug/Kg | 10 | 12/09/22 | JRB | SW8151A |
| Dalapon | ND | 140 | 140 | ug/Kg | 10 | 12/09/22 | JRB | SW8151A |
| Dicamba | ND | 140 | 140 | ug/Kg | 10 | 12/09/22 | JRB | SW8151A |
| Dichloroprop | ND | 270 | 270 | ug/Kg | 10 | 12/09/22 | JRB | SW8151A |
| Dinoseb | ND | 270 | 270 | ug/Kg | 10 | 12/09/22 | JRB | SW8151A |
| **QA/QC Surrogates** | | | | | | | | |
| % DCAA | 101 | | | % | 10 | 12/09/22 | JRB | 30 - 150 % |
| % DCAA (Confirmation) | 94 | | | % | 10 | 12/09/22 | JRB | 30 - 150 % |
| **Polychlorinated Biphenyls** | | | | | | | | |
| PCB-1016 | ND | 72 | 72 | ug/Kg | 2 | 12/05/22 | SC | SW8082A |
| PCB-1221 | ND | 72 | 72 | ug/Kg | 2 | 12/05/22 | SC | SW8082A |
| PCB-1232 | ND | 72 | 72 | ug/Kg | 2 | 12/05/22 | SC | SW8082A |
| PCB-1242 | ND | 72 | 72 | ug/Kg | 2 | 12/05/22 | SC | SW8082A |
| PCB-1248 | ND | 72 | 72 | ug/Kg | 2 | 12/05/22 | SC | SW8082A |
| PCB-1254 | ND | 72 | 72 | ug/Kg | 2 | 12/05/22 | SC | SW8082A |
| PCB-1260 | ND | 72 | 72 | ug/Kg | 2 | 12/05/22 | SC | SW8082A |
| PCB-1262 | ND | 72 | 72 | ug/Kg | 2 | 12/05/22 | SC | SW8082A |
| PCB-1268 | ND | 72 | 72 | ug/Kg | 2 | 12/05/22 | SC | SW8082A |
| **QA/QC Surrogates** | | | | | | | | |
| % DCBP | 71 | | | % | 2 | 12/05/22 | SC | 30 - 150 % |
| % DCBP (Confirmation) | 74 | | | % | 2 | 12/05/22 | SC | 30 - 150 % |
| % TCMX | 72 | | | % | 2 | 12/05/22 | SC | 30 - 150 % |
| % TCMX (Confirmation) | 73 | | | % | 2 | 12/05/22 | SC | 30 - 150 % |
| **Pesticides - Soil** | | | | | | | | |
| 4,4' -DDD | ND | 2.2 | 2.2 | ug/Kg | 2 | 12/05/22 | AW | SW8081B |
| 4,4' -DDE | ND | 2.2 | 2.2 | ug/Kg | 2 | 12/05/22 | AW | SW8081B |
| 4,4' -DDT | ND | 2.2 | 2.2 | ug/Kg | 2 | 12/05/22 | AW | SW8081B |
| a-BHC | ND | 7.2 | 7.2 | ug/Kg | 2 | 12/05/22 | AW | SW8081B |
| a-Chlordane | ND | 3.6 | 3.6 | ug/Kg | 2 | 12/05/22 | AW | SW8081B |
| Alachlor | ND | 3.6 | 3.6 | ug/Kg | 2 | 12/05/22 | AW | SW8081B |
| Aldrin | ND | 3.6 | 3.6 | ug/Kg | 2 | 12/05/22 | AW | SW8081B |
| b-BHC | ND | 7.2 | 7.2 | ug/Kg | 2 | 12/05/22 | AW | SW8081B |
| Chlordane | ND | 36 | 36 | ug/Kg | 2 | 12/05/22 | AW | SW8081B |
| d-BHC | ND | 7.2 | 7.2 | ug/Kg | 2 | 12/05/22 | AW | SW8081B |
| Dieldrin | ND | 3.6 | 3.6 | ug/Kg | 2 | 12/05/22 | AW | SW8081B |
| Endosulfan I | ND | 7.2 | 7.2 | ug/Kg | 2 | 12/05/22 | AW | SW8081B |
| Endosulfan II | ND | 7.2 | 7.2 | ug/Kg | 2 | 12/05/22 | AW | SW8081B |
| Endosulfan sulfate | ND | 7.2 | 7.2 | ug/Kg | 2 | 12/05/22 | AW | SW8081B |
| Endrin | ND | 7.2 | 7.2 | ug/Kg | 2 | 12/05/22 | AW | SW8081B |
| Endrin aldehyde | ND | 7.2 | 7.2 | ug/Kg | 2 | 12/05/22 | AW | SW8081B |
| Endrin ketone | ND | 7.2 | 7.2 | ug/Kg | 2 | 12/05/22 | AW | SW8081B |
| g-BHC | ND | 1.4 | 1.4 | ug/Kg | 2 | 12/05/22 | AW | SW8081B |
| g-Chlordane | ND | 3.6 | 3.6 | ug/Kg | 2 | 12/05/22 | AW | SW8081B |
| Heptachlor | ND | 7.2 | 7.2 | ug/Kg | 2 | 12/05/22 | AW | SW8081B |
| Heptachlor epoxide | ND | 7.2 | 7.2 | ug/Kg | 2 | 12/05/22 | AW | SW8081B |
| Methoxychlor | ND | 36 | 36 | ug/Kg | 2 | 12/05/22 | AW | SW8081B |

Project ID: IPARK0118.62-LOT 10 BOUNDARY MODIFICAT. Phoenix I.D.: CM95292
Client ID: SB-12A1 (0-2``)

| Parameter | Result | RL/ PQL | LOD/ MDL | Units | Dilution | Date/Time | By | Reference | |
|---|---|---|---|---|---|---|---|---|---|
| Toxaphene | ND | 140 | 140 | ug/Kg | 2 | 12/05/22 | AW | SW8081B | |
| **QA/QC Surrogates** | | | | | | | | | |
| % DCBP | 72 | | | % | 2 | 12/05/22 | AW | 30 - 150 % | |
| % DCBP (Confirmation) | 76 | | | % | 2 | 12/05/22 | AW | 30 - 150 % | |
| % TCMX | 72 | | | % | 2 | 12/05/22 | AW | 30 - 150 % | |
| % TCMX (Confirmation) | 75 | | | % | 2 | 12/05/22 | AW | 30 - 150 % | |
| **Semivolatiles** | | | | | | | | | |
| 1,2,4,5-Tetrachlorobenzene | ND | 250 | 130 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 1,2,4-Trichlorobenzene | ND | 250 | 110 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 1,2-Dichlorobenzene | ND | 250 | 100 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 1,2-Diphenylhydrazine | ND | 250 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 1,3-Dichlorobenzene | ND | 250 | 110 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 1,4-Dichlorobenzene | ND | 250 | 110 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2,2'-Oxybis(1-Chloropropane) | ND | 250 | 99 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | 1 |
| 2,4,5-Trichlorophenol | ND | 250 | 200 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2,4,6-Trichlorophenol | ND | 180 | 110 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2,4-Dichlorophenol | ND | 180 | 130 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2,4-Dimethylphenol | ND | 250 | 88 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2,4-Dinitrophenol | ND | 250 | 250 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2,4-Dinitrotoluene | ND | 180 | 140 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2,6-Dinitrotoluene | ND | 180 | 110 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2-Chloronaphthalene | ND | 250 | 100 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2-Chlorophenol | ND | 250 | 100 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2-Methylnaphthalene | ND | 250 | 110 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2-Methylphenol (o-cresol) | ND | 250 | 170 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2-Nitroaniline | ND | 250 | 250 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 2-Nitrophenol | ND | 250 | 230 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 3&4-Methylphenol (m&p-cresol) | ND | 250 | 140 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | 1 |
| 3,3'-Dichlorobenzidine | ND | 180 | 170 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 3-Nitroaniline | ND | 360 | 710 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 4,6-Dinitro-2-methylphenol | ND | 210 | 71 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 4-Bromophenyl phenyl ether | ND | 250 | 100 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 4-Chloro-3-methylphenol | ND | 250 | 130 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 4-Chloroaniline | ND | 280 | 170 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 4-Chlorophenyl phenyl ether | ND | 250 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 4-Nitroaniline | ND | 360 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| 4-Nitrophenol | ND | 360 | 160 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Acenaphthene | ND | 250 | 110 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Acenaphthylene | ND | 250 | 100 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Acetophenone | ND | 250 | 110 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Aniline | ND | 280 | 280 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Anthracene | ND | 250 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Benz(a)anthracene | ND | 250 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Benzidine | ND | 360 | 210 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Benzo(a)pyrene | ND | 180 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Benzo(b)fluoranthene | ND | 250 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Benzo(ghi)perylene | ND | 250 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Benzo(k)fluoranthene | ND | 250 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |
| Benzoic acid | ND | 1800 | 710 | ug/Kg | 1 | 12/04/22 | WB | SW8270D | |

| Parameter | Result | RL/ PQL | LOD/ MDL | Units | Dilution | Date/Time | By | Reference |
|---|---|---|---|---|---|---|---|---|
| Benzyl butyl phthalate | ND | 250 | 92 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Bis(2-chloroethoxy)methane | ND | 250 | 98 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Bis(2-chloroethyl)ether | ND | 180 | 96 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Bis(2-ethylhexyl)phthalate | ND | 250 | 100 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Carbazole | ND | 180 | 140 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Chrysene | ND | 250 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Dibenz(a,h)anthracene | ND | 180 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Dibenzofuran | ND | 250 | 100 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Diethyl phthalate | ND | 250 | 110 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Dimethylphthalate | ND | 250 | 110 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Di-n-butylphthalate | ND | 250 | 95 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Di-n-octylphthalate | ND | 250 | 92 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Fluoranthene | ND | 250 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Fluorene | ND | 250 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Hexachlorobenzene | ND | 180 | 100 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Hexachlorobutadiene | ND | 250 | 130 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Hexachlorocyclopentadiene | ND | 250 | 110 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Hexachloroethane | ND | 180 | 110 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Indeno(1,2,3-cd)pyrene | ND | 250 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Isophorone | ND | 180 | 100 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Naphthalene | ND | 250 | 100 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Nitrobenzene | ND | 180 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| N-Nitrosodimethylamine | ND | 250 | 100 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| N-Nitrosodi-n-propylamine | ND | 180 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| N-Nitrosodiphenylamine | ND | 250 | 140 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Pentachloronitrobenzene | ND | 250 | 130 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Pentachlorophenol | ND | 210 | 130 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Phenanthrene | ND | 250 | 100 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Phenol | ND | 250 | 110 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Pyrene | ND | 250 | 120 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| Pyridine | ND | 250 | 88 | ug/Kg | 1 | 12/04/22 | WB | SW8270D |
| **QA/QC Surrogates** | | | | | | | | |
| % 2,4,6-Tribromophenol | 105 | | | % | 1 | 12/04/22 | WB | 30 - 130 % |
| % 2-Fluorobiphenyl | 78 | | | % | 1 | 12/04/22 | WB | 30 - 130 % |
| % 2-Fluorophenol | 75 | | | % | 1 | 12/04/22 | WB | 30 - 130 % |
| % Nitrobenzene-d5 | 85 | | | % | 1 | 12/04/22 | WB | 30 - 130 % |
| % Phenol-d5 | 92 | | | % | 1 | 12/04/22 | WB | 30 - 130 % |
| % Terphenyl-d14 | 85 | | | % | 1 | 12/04/22 | WB | 30 - 130 % |
| **1,4-Dioxane** | | | | | | | | |
| 1,4-dioxane | ND | 72 | 72 | ug/Kg | 1 | 12/06/22 | WB | SW8270D (SIM) |
| **QA/QC Surrogates** | | | | | | | | |
| % 2-Fluorobiphenyl | 67 | | | % | 1 | 12/06/22 | WB | 30 - 130 % |
| % Nitrobenzene-d5 | 98 | | | % | 1 | 12/06/22 | WB | 30 - 130 % |
| % Terphenyl-d14 | 90 | | | % | 1 | 12/06/22 | WB | 30 - 130 % |

| Parameter | Result | RL/ PQL | LOD/ MDL | Units | Dilution | Date/Time | By | Reference |
|---|---|---|---|---|---|---|---|---|

1 = This parameter is not certified by the primary accrediting authority (NY NELAC) for this matrix. NY NELAC does not offer certification for all parameters at this time.
C = This parameter is subcontracted.
B = Present in blank, no bias suspected.

RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected BRL=Below Reporting Level L=Biased Low LOD=Limit of Detection MDL=Method Detection Limit1
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

## Comments:

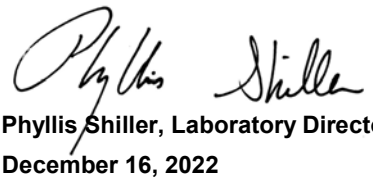
*See attached

Per 1.4.6 of EPA method 8270D, 1,2-Diphenylhydrazine is unstable and readily converts to Azobenzene. Azobenzene is used for the calibration of 1,2-Diphenylhydrazine.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

PFAS (21) (EPA 537m), PFOA/PFOS - Soil Extraction (EPA 537m) were analyzed by NY certified lab #12058.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200.
The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.



**Phyllis Shiller, Laboratory Director**
**December 16, 2022**
**Reviewed and Released by: Greg Lawrence, Assistant Lab Director**

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

# Analysis Report

December 16, 2022

FOR: Attn: Nora Brew
Walden Environmental Engineering PLLC
16 Spring Street
Oyster Bay, NY 11771

| Sample Information | | Custody Information | | Date | Time |
|---|---|---|---|---|---|
| Matrix: | SOIL | Collected by: | | 11/30/22 | 10:40 |
| Location Code: | WALDENE-IPARK | Received by: | CP | 12/01/22 | 17:12 |
| Rush Request: | Standard | Analyzed by: | see "By" below | | |
| P.O.#: | IPARK 0118.62 | | | | |

## Laboratory Data

SDG ID: GCM95278
Phoenix ID: CM95293

Project ID: IPARK0118.62-LOT 10 BOUNDARY MODIFICAT.
Client ID: SB-12A2 (2-12``)

| Parameter | Result | RL/ PQL | LOD/ MDL | Units | Dilution | Date/Time | By | Reference | |
|---|---|---|---|---|---|---|---|---|---|
| Aluminum | 24200 | 43 | 8.6 | mg/Kg | 10 | 12/03/22 | CPP | SW6010D | B |
| Antimony | ND | 4.3 | 4.3 | mg/Kg | 1 | 12/04/22 | CPP | SW6010D | |
| Arsenic | 8.01 | 0.86 | 0.86 | mg/Kg | 1 | 12/04/22 | CPP | SW6010D | |
| Barium | 184 | 0.9 | 0.43 | mg/Kg | 1 | 12/04/22 | TH | SW6010D | |
| Beryllium | 0.93 | 0.34 | 0.17 | mg/Kg | 1 | 12/04/22 | CPP | SW6010D | |
| Calcium | 11700 | 4.3 | 3.9 | mg/Kg | 1 | 12/04/22 | CPP | SW6010D | |
| Cadmium | 2.88 | 0.43 | 0.43 | mg/Kg | 1 | 12/04/22 | CPP | SW6010D | |
| Chromium | 25.9 | 0.43 | 0.43 | mg/Kg | 1 | 12/04/22 | CPP | SW6010D | |
| Cobalt | 22.3 | 0.43 | 0.43 | mg/Kg | 1 | 12/04/22 | CPP | SW6010D | |
| Copper | 48.1 | 0.9 | 0.43 | mg/kg | 1 | 12/04/22 | CPP | SW6010D | |
| Iron | 44300 | 43 | 43 | mg/Kg | 10 | 12/03/22 | CPP | SW6010D | |
| Lead | 23.1 | 0.9 | 0.43 | mg/Kg | 1 | 12/04/22 | CPP | SW6010D | |
| Magnesium | 16500 | 43 | 43 | mg/Kg | 10 | 12/03/22 | CPP | SW6010D | |
| Manganese | 3210 | 43 | 43 | mg/Kg | 100 | 12/10/22 | CPP | SW6010D | |
| Mercury | ND | 0.03 | 0.02 | mg/Kg | 2 | 12/05/22 | PM | SW7471B | |
| Nickel | 42.4 | 0.43 | 0.43 | mg/Kg | 1 | 12/04/22 | CPP | SW6010D | |
| Potassium | 3330 | 9 | 3.3 | mg/Kg | 1 | 12/04/22 | CPP | SW6010D | |
| Selenium | ND | 1.7 | 1.5 | mg/Kg | 1 | 12/04/22 | CPP | SW6010D | |
| Silver | ND | 0.43 | 0.43 | mg/Kg | 1 | 12/04/22 | CPP | SW6010D | |
| Sodium | 1040 | 9 | 3.7 | mg/Kg | 1 | 12/04/22 | CPP | SW6010D | |
| Thallium | ND | 1.7 | 1.7 | mg/Kg | 1 | 12/04/22 | CPP | SW6010D | |
| Vanadium | 25.5 | 0.43 | 0.43 | mg/Kg | 1 | 12/04/22 | CPP | SW6010D | |
| Zinc | 113 | 0.9 | 0.43 | mg/Kg | 1 | 12/04/22 | CPP | SW6010D | |
| Percent Solid | 81 | | | % | | 12/01/22 | Q | SW846-%Solid | |
| Extraction for SVOA SIM | Completed | | | | | 12/05/22 | B/MO | SW3545A | |
| Soil Extraction for PCB | Completed | | | | | 12/02/22 | O/Y | SW3545A | |
| Soil Extraction for Pesticide | Completed | | | | | 12/02/22 | O/Y | SW3545A | |

**Ver 1**

Project ID: IPARK0118.62-LOT 10 BOUNDARY MODIFICAT. Phoenix I.D.: CM95293
Client ID: SB-12A2 (2-12``)

| Parameter | Result | RL/ PQL | LOD/ MDL | Units | Dilution | Date/Time | By | Reference | |
|---|---|---|---|---|---|---|---|---|---|
| Mercury Digestion | Completed | | | | | 12/02/22 | AB/AB | SW7471B | |
| Soil Extraction for Herbicide | Completed | | | | | 12/08/22 | J/D | SW3546 | |
| Soil Extraction for SVOA | Completed | | | | | 12/04/22 | R/U | SW3546 | |
| Total Metals Digest | Completed | | | | | 12/01/22 | | SW3050B | |
| PFAS (21) | Completed | | | | | 12/07/22 | *** | EPA 537m | C |
| **PFAS (21)** | | | | | | | | | |
| 1H,1H,2H,2H-Perfluorodecanesulfonic acid | ND | 0.301 | 0.0308 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| 1H,1H,2H,2H-Perfluorooctanesulfonic acid | ND | 0.301 | 0.0794 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| NEtFOSAA | ND | 0.301 | 0.125 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| NMeFOSAA | ND | 0.301 | 0.126 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| Perfluoro-1-decanesulfonic acid (PFDS) | ND | 0.301 | 0.0616 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| Perfluoro-1-heptanesulfonic acid (PFHpS) | ND | 0.301 | 0.0593 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| Perfluoro-1-octanesulfonamide (FOSA) | ND | 0.301 | 0.0562 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| Perfluorobutanesulfonic acid (PFBS) | ND | 0.301 | 0.241 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| Perfluorodecanoic acid (PFDA) | ND | 0.301 | 0.0616 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| Perfluorododecanoic acid (PFDoA) | ND | 0.301 | 0.0903 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| Perfluoroheptanoic acid (PFHpA) | ND | 0.301 | 0.0548 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| Perfluorohexanesulfonic Acid (PFHxS) | ND | 0.301 | 0.0373 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| Perfluorohexanoic acid (PFHxA) | ND | 0.301 | 0.0793 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| Perfluoro-n-butanoic acid (PFBA) | ND | 0.301 | 0.220 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| Perfluorononanoic acid (PFNA) | ND | 0.301 | 0.0720 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| Perfluorooctanesulfonic Acid (PFOS) | ND | 0.301 | 0.0527 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| Perfluorooctanoic acid (PFOA) | ND | 0.301 | 0.0929 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| Perfluoropentanoic acid (PFPeA) | ND | 0.301 | 0.111 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| Perfluorotetradecanoic acid (PFTA) | ND | 0.301 | 0.0899 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| Perfluorotridecanoic acid (PFTrDA) | ND | 0.301 | 0.0524 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| Perfluoroundecanoic acid (PFUnA) | ND | 0.301 | 0.140 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| **QA/QC Surrogates** | | | | | | | | | |
| % d3-N-MeFOSAA | 42.0 | | | % | 1 | 12/11/22 | *** | 25 - 150 % | C |
| % d5-NEtFOSA | 37.0 | | | % | 1 | 12/11/22 | *** | 25 - 150 % | C |
| % M2-6:2FTS | 72.8 | | | % | 1 | 12/11/22 | *** | 25 - 200 % | C |
| % M2-8:2FTS | 49.4 | | | % | 1 | 12/11/22 | *** | 25 - 200 % | C |
| % M2PFTeDA | 31.5 | | | % | 1 | 12/11/22 | *** | 10 - 150 % | C |
| % M3PFBS | 60.5 | | | % | 1 | 12/11/22 | *** | 25 - 150 % | C |
| % M3PFHxS | 66.8 | | | % | 1 | 12/11/22 | *** | 25 - 150 % | C |
| % M4PFHpA | 70.8 | | | % | 1 | 12/11/22 | *** | 25 - 150 % | C |
| % M5PFHxA | 72.0 | | | % | 1 | 12/11/22 | *** | 25 - 150 % | C |
| % M5PFPeA | 72.0 | | | % | 1 | 12/11/22 | *** | 25 - 150 % | C |
| % M6PFDA | 52.0 | | | % | 1 | 12/11/22 | *** | 25 - 150 % | C |
| % M7PFUdA | 37.8 | | | % | 1 | 12/11/22 | *** | 25 - 150 % | C |
| % M8FOSA | 32.1 | | | % | 1 | 12/11/22 | *** | 10 - 150 % | C |
| % M8PFOA | 66.0 | | | % | 1 | 12/11/22 | *** | 25 - 150 % | C |
| % M8PFOS | 52.3 | | | % | 1 | 12/11/22 | *** | 25 - 150 % | C |
| % M9PFNA | 64.7 | | | % | 1 | 12/11/22 | *** | 25 - 150 % | C |
| % MPFBA | 67.1 | | | % | 1 | 12/11/22 | *** | 25 - 150 % | C |
| % MPFDoA | 36.6 | | | % | 1 | 12/11/22 | *** | 25 - 150 % | C |
| **Chlorinated Herbicides** | | | | | | | | | |
| 2,4,5-T | ND | 150 | 150 | ug/Kg | 10 | 12/09/22 | JRB | SW8151A | |

**Ver 1**

Project ID: IPARK0118.62-LOT 10 BOUNDARY MODIFICAT. Phoenix I.D.: CM95293
Client ID: SB-12A2 (2-12``)

| Parameter | Result | RL/ PQL | LOD/ MDL | Units | Dilution | Date/Time | By | Reference |
|---|---|---|---|---|---|---|---|---|
| 2,4,5-TP (Silvex) | ND | 150 | 150 | ug/Kg | 10 | 12/09/22 | JRB | SW8151A |
| 2,4-D | ND | 300 | 300 | ug/Kg | 10 | 12/09/22 | JRB | SW8151A |
| 2,4-DB | ND | 3000 | 3000 | ug/Kg | 10 | 12/09/22 | JRB | SW8151A |
| Dalapon | ND | 150 | 150 | ug/Kg | 10 | 12/09/22 | JRB | SW8151A |
| Dicamba | ND | 150 | 150 | ug/Kg | 10 | 12/09/22 | JRB | SW8151A |
| Dichloroprop | ND | 300 | 300 | ug/Kg | 10 | 12/09/22 | JRB | SW8151A |
| Dinoseb | ND | 300 | 300 | ug/Kg | 10 | 12/09/22 | JRB | SW8151A |
| **QA/QC Surrogates** | | | | | | | | |
| % DCAA | 82 | | | % | 10 | 12/09/22 | JRB | 30 - 150 % |
| % DCAA (Confirmation) | 76 | | | % | 10 | 12/09/22 | JRB | 30 - 150 % |
| **Polychlorinated Biphenyls** | | | | | | | | |
| PCB-1016 | ND | 81 | 81 | ug/Kg | 2 | 12/05/22 | SC | SW8082A |
| PCB-1221 | ND | 81 | 81 | ug/Kg | 2 | 12/05/22 | SC | SW8082A |
| PCB-1232 | ND | 81 | 81 | ug/Kg | 2 | 12/05/22 | SC | SW8082A |
| PCB-1242 | ND | 81 | 81 | ug/Kg | 2 | 12/05/22 | SC | SW8082A |
| PCB-1248 | ND | 81 | 81 | ug/Kg | 2 | 12/05/22 | SC | SW8082A |
| PCB-1254 | ND | 81 | 81 | ug/Kg | 2 | 12/05/22 | SC | SW8082A |
| PCB-1260 | ND | 81 | 81 | ug/Kg | 2 | 12/05/22 | SC | SW8082A |
| PCB-1262 | ND | 81 | 81 | ug/Kg | 2 | 12/05/22 | SC | SW8082A |
| PCB-1268 | ND | 81 | 81 | ug/Kg | 2 | 12/05/22 | SC | SW8082A |
| **QA/QC Surrogates** | | | | | | | | |
| % DCBP | 70 | | | % | 2 | 12/05/22 | SC | 30 - 150 % |
| % DCBP (Confirmation) | 67 | | | % | 2 | 12/05/22 | SC | 30 - 150 % |
| % TCMX | 60 | | | % | 2 | 12/05/22 | SC | 30 - 150 % |
| % TCMX (Confirmation) | 61 | | | % | 2 | 12/05/22 | SC | 30 - 150 % |
| **Pesticides - Soil** | | | | | | | | |
| 4,4' -DDD | ND | 2.4 | 2.4 | ug/Kg | 2 | 12/05/22 | AW | SW8081B |
| 4,4' -DDE | ND | 2.4 | 2.4 | ug/Kg | 2 | 12/05/22 | AW | SW8081B |
| 4,4' -DDT | ND | 2.4 | 2.4 | ug/Kg | 2 | 12/05/22 | AW | SW8081B |
| a-BHC | ND | 8.1 | 8.1 | ug/Kg | 2 | 12/05/22 | AW | SW8081B |
| a-Chlordane | ND | 4.1 | 4.1 | ug/Kg | 2 | 12/05/22 | AW | SW8081B |
| Alachlor | ND | 4.1 | 4.1 | ug/Kg | 2 | 12/05/22 | AW | SW8081B |
| Aldrin | ND | 4.1 | 4.1 | ug/Kg | 2 | 12/05/22 | AW | SW8081B |
| b-BHC | ND | 8.1 | 8.1 | ug/Kg | 2 | 12/05/22 | AW | SW8081B |
| Chlordane | ND | 41 | 41 | ug/Kg | 2 | 12/05/22 | AW | SW8081B |
| d-BHC | ND | 8.1 | 8.1 | ug/Kg | 2 | 12/05/22 | AW | SW8081B |
| Dieldrin | ND | 4.1 | 4.1 | ug/Kg | 2 | 12/05/22 | AW | SW8081B |
| Endosulfan I | ND | 8.1 | 8.1 | ug/Kg | 2 | 12/05/22 | AW | SW8081B |
| Endosulfan II | ND | 8.1 | 8.1 | ug/Kg | 2 | 12/05/22 | AW | SW8081B |
| Endosulfan sulfate | ND | 8.1 | 8.1 | ug/Kg | 2 | 12/05/22 | AW | SW8081B |
| Endrin | ND | 8.1 | 8.1 | ug/Kg | 2 | 12/05/22 | AW | SW8081B |
| Endrin aldehyde | ND | 8.1 | 8.1 | ug/Kg | 2 | 12/05/22 | AW | SW8081B |
| Endrin ketone | ND | 8.1 | 8.1 | ug/Kg | 2 | 12/05/22 | AW | SW8081B |
| g-BHC | ND | 1.6 | 1.6 | ug/Kg | 2 | 12/05/22 | AW | SW8081B |
| g-Chlordane | ND | 4.1 | 4.1 | ug/Kg | 2 | 12/05/22 | AW | SW8081B |
| Heptachlor | ND | 8.1 | 8.1 | ug/Kg | 2 | 12/05/22 | AW | SW8081B |
| Heptachlor epoxide | ND | 8.1 | 8.1 | ug/Kg | 2 | 12/05/22 | AW | SW8081B |
| Methoxychlor | ND | 41 | 41 | ug/Kg | 2 | 12/05/22 | AW | SW8081B |

| Parameter | Result | RL/ PQL | LOD/ MDL | Units | Dilution | Date/Time | By | Reference | |
|---|---|---|---|---|---|---|---|---|---|
| Toxaphene | ND | 160 | 160 | ug/Kg | 2 | 12/05/22 | AW | SW8081B | |
| **QA/QC Surrogates** | | | | | | | | | |
| % DCBP | 70 | | | % | 2 | 12/05/22 | AW | 30 - 150 % | |
| % DCBP (Confirmation) | 97 | | | % | 2 | 12/05/22 | AW | 30 - 150 % | |
| % TCMX | 58 | | | % | 2 | 12/05/22 | AW | 30 - 150 % | |
| % TCMX (Confirmation) | 67 | | | % | 2 | 12/05/22 | AW | 30 - 150 % | |
| **Semivolatiles** | | | | | | | | | |
| 1,2,4,5-Tetrachlorobenzene | ND | 280 | 140 | ug/Kg | 1 | 12/04/22 | AW | SW8270D | |
| 1,2,4-Trichlorobenzene | ND | 280 | 120 | ug/Kg | 1 | 12/04/22 | AW | SW8270D | |
| 1,2-Dichlorobenzene | ND | 280 | 110 | ug/Kg | 1 | 12/04/22 | AW | SW8270D | |
| 1,2-Diphenylhydrazine | ND | 280 | 130 | ug/Kg | 1 | 12/04/22 | AW | SW8270D | |
| 1,3-Dichlorobenzene | ND | 280 | 120 | ug/Kg | 1 | 12/04/22 | AW | SW8270D | |
| 1,4-Dichlorobenzene | ND | 280 | 120 | ug/Kg | 1 | 12/04/22 | AW | SW8270D | |
| 2,2'-Oxybis(1-Chloropropane) | ND | 280 | 110 | ug/Kg | 1 | 12/04/22 | AW | SW8270D | 1 |
| 2,4,5-Trichlorophenol | ND | 280 | 220 | ug/Kg | 1 | 12/04/22 | AW | SW8270D | |
| 2,4,6-Trichlorophenol | ND | 200 | 130 | ug/Kg | 1 | 12/04/22 | AW | SW8270D | |
| 2,4-Dichlorophenol | ND | 200 | 140 | ug/Kg | 1 | 12/04/22 | AW | SW8270D | |
| 2,4-Dimethylphenol | ND | 280 | 100 | ug/Kg | 1 | 12/04/22 | AW | SW8270D | |
| 2,4-Dinitrophenol | ND | 280 | 280 | ug/Kg | 1 | 12/04/22 | AW | SW8270D | |
| 2,4-Dinitrotoluene | ND | 200 | 160 | ug/Kg | 1 | 12/04/22 | AW | SW8270D | |
| 2,6-Dinitrotoluene | ND | 200 | 130 | ug/Kg | 1 | 12/04/22 | AW | SW8270D | |
| 2-Chloronaphthalene | ND | 280 | 110 | ug/Kg | 1 | 12/04/22 | AW | SW8270D | |
| 2-Chlorophenol | ND | 280 | 110 | ug/Kg | 1 | 12/04/22 | AW | SW8270D | |
| 2-Methylnaphthalene | ND | 280 | 120 | ug/Kg | 1 | 12/04/22 | AW | SW8270D | |
| 2-Methylphenol (o-cresol) | ND | 280 | 190 | ug/Kg | 1 | 12/04/22 | AW | SW8270D | |
| 2-Nitroaniline | ND | 280 | 280 | ug/Kg | 1 | 12/04/22 | AW | SW8270D | |
| 2-Nitrophenol | ND | 280 | 260 | ug/Kg | 1 | 12/04/22 | AW | SW8270D | |
| 3&4-Methylphenol (m&p-cresol) | ND | 280 | 160 | ug/Kg | 1 | 12/04/22 | AW | SW8270D | 1 |
| 3,3'-Dichlorobenzidine | ND | 200 | 190 | ug/Kg | 1 | 12/04/22 | AW | SW8270D | |
| 3-Nitroaniline | ND | 400 | 810 | ug/Kg | 1 | 12/04/22 | AW | SW8270D | |
| 4,6-Dinitro-2-methylphenol | ND | 240 | 81 | ug/Kg | 1 | 12/04/22 | AW | SW8270D | |
| 4-Bromophenyl phenyl ether | ND | 280 | 120 | ug/Kg | 1 | 12/04/22 | AW | SW8270D | |
| 4-Chloro-3-methylphenol | ND | 280 | 140 | ug/Kg | 1 | 12/04/22 | AW | SW8270D | |
| 4-Chloroaniline | ND | 320 | 190 | ug/Kg | 1 | 12/04/22 | AW | SW8270D | |
| 4-Chlorophenyl phenyl ether | ND | 280 | 140 | ug/Kg | 1 | 12/04/22 | AW | SW8270D | |
| 4-Nitroaniline | ND | 400 | 130 | ug/Kg | 1 | 12/04/22 | AW | SW8270D | |
| 4-Nitrophenol | ND | 400 | 180 | ug/Kg | 1 | 12/04/22 | AW | SW8270D | |
| Acenaphthene | ND | 280 | 120 | ug/Kg | 1 | 12/04/22 | AW | SW8270D | |
| Acenaphthylene | ND | 280 | 110 | ug/Kg | 1 | 12/04/22 | AW | SW8270D | |
| Acetophenone | ND | 280 | 130 | ug/Kg | 1 | 12/04/22 | AW | SW8270D | |
| Aniline | ND | 320 | 320 | ug/Kg | 1 | 12/04/22 | AW | SW8270D | |
| Anthracene | ND | 280 | 130 | ug/Kg | 1 | 12/04/22 | AW | SW8270D | |
| Benz(a)anthracene | ND | 280 | 140 | ug/Kg | 1 | 12/04/22 | AW | SW8270D | |
| Benzidine | ND | 400 | 240 | ug/Kg | 1 | 12/04/22 | AW | SW8270D | |
| Benzo(a)pyrene | ND | 200 | 130 | ug/Kg | 1 | 12/04/22 | AW | SW8270D | |
| Benzo(b)fluoranthene | ND | 280 | 140 | ug/Kg | 1 | 12/04/22 | AW | SW8270D | |
| Benzo(ghi)perylene | ND | 280 | 130 | ug/Kg | 1 | 12/04/22 | AW | SW8270D | |
| Benzo(k)fluoranthene | ND | 280 | 130 | ug/Kg | 1 | 12/04/22 | AW | SW8270D | |
| Benzoic acid | ND | 2000 | 810 | ug/Kg | 1 | 12/04/22 | AW | SW8270D | |

| Parameter | Result | RL/ PQL | LOD/ MDL | Units | Dilution | Date/Time | By | Reference |
|---|---|---|---|---|---|---|---|---|
| Benzyl butyl phthalate | ND | 280 | 100 | ug/Kg | 1 | 12/04/22 | AW | SW8270D |
| Bis(2-chloroethoxy)methane | ND | 280 | 110 | ug/Kg | 1 | 12/04/22 | AW | SW8270D |
| Bis(2-chloroethyl)ether | ND | 200 | 110 | ug/Kg | 1 | 12/04/22 | AW | SW8270D |
| Bis(2-ethylhexyl)phthalate | ND | 280 | 120 | ug/Kg | 1 | 12/04/22 | AW | SW8270D |
| Carbazole | ND | 200 | 160 | ug/Kg | 1 | 12/04/22 | AW | SW8270D |
| Chrysene | ND | 280 | 140 | ug/Kg | 1 | 12/04/22 | AW | SW8270D |
| Dibenz(a,h)anthracene | ND | 200 | 130 | ug/Kg | 1 | 12/04/22 | AW | SW8270D |
| Dibenzofuran | ND | 280 | 120 | ug/Kg | 1 | 12/04/22 | AW | SW8270D |
| Diethyl phthalate | ND | 280 | 130 | ug/Kg | 1 | 12/04/22 | AW | SW8270D |
| Dimethylphthalate | ND | 280 | 130 | ug/Kg | 1 | 12/04/22 | AW | SW8270D |
| Di-n-butylphthalate | ND | 280 | 110 | ug/Kg | 1 | 12/04/22 | AW | SW8270D |
| Di-n-octylphthalate | ND | 280 | 100 | ug/Kg | 1 | 12/04/22 | AW | SW8270D |
| Fluoranthene | ND | 280 | 130 | ug/Kg | 1 | 12/04/22 | AW | SW8270D |
| Fluorene | ND | 280 | 130 | ug/Kg | 1 | 12/04/22 | AW | SW8270D |
| Hexachlorobenzene | ND | 200 | 120 | ug/Kg | 1 | 12/04/22 | AW | SW8270D |
| Hexachlorobutadiene | ND | 280 | 150 | ug/Kg | 1 | 12/04/22 | AW | SW8270D |
| Hexachlorocyclopentadiene | ND | 280 | 120 | ug/Kg | 1 | 12/04/22 | AW | SW8270D |
| Hexachloroethane | ND | 200 | 120 | ug/Kg | 1 | 12/04/22 | AW | SW8270D |
| Indeno(1,2,3-cd)pyrene | ND | 280 | 130 | ug/Kg | 1 | 12/04/22 | AW | SW8270D |
| Isophorone | ND | 200 | 110 | ug/Kg | 1 | 12/04/22 | AW | SW8270D |
| Naphthalene | ND | 280 | 120 | ug/Kg | 1 | 12/04/22 | AW | SW8270D |
| Nitrobenzene | ND | 200 | 140 | ug/Kg | 1 | 12/04/22 | AW | SW8270D |
| N-Nitrosodimethylamine | ND | 280 | 110 | ug/Kg | 1 | 12/04/22 | AW | SW8270D |
| N-Nitrosodi-n-propylamine | ND | 200 | 130 | ug/Kg | 1 | 12/04/22 | AW | SW8270D |
| N-Nitrosodiphenylamine | ND | 280 | 150 | ug/Kg | 1 | 12/04/22 | AW | SW8270D |
| Pentachloronitrobenzene | ND | 280 | 150 | ug/Kg | 1 | 12/04/22 | AW | SW8270D |
| Pentachlorophenol | ND | 240 | 150 | ug/Kg | 1 | 12/04/22 | AW | SW8270D |
| Phenanthrene | ND | 280 | 120 | ug/Kg | 1 | 12/04/22 | AW | SW8270D |
| Phenol | ND | 280 | 130 | ug/Kg | 1 | 12/04/22 | AW | SW8270D |
| Pyrene | ND | 280 | 140 | ug/Kg | 1 | 12/04/22 | AW | SW8270D |
| Pyridine | ND | 280 | 99 | ug/Kg | 1 | 12/04/22 | AW | SW8270D |
| **QA/QC Surrogates** | | | | | | | | |
| % 2,4,6-Tribromophenol | 79 | | | % | 1 | 12/04/22 | AW | 30 - 130 % |
| % 2-Fluorobiphenyl | 79 | | | % | 1 | 12/04/22 | AW | 30 - 130 % |
| % 2-Fluorophenol | 61 | | | % | 1 | 12/04/22 | AW | 30 - 130 % |
| % Nitrobenzene-d5 | 71 | | | % | 1 | 12/04/22 | AW | 30 - 130 % |
| % Phenol-d5 | 69 | | | % | 1 | 12/04/22 | AW | 30 - 130 % |
| % Terphenyl-d14 | 68 | | | % | 1 | 12/04/22 | AW | 30 - 130 % |
| **1,4-Dioxane** | | | | | | | | |
| 1,4-dioxane | ND | 79 | 79 | ug/Kg | 1 | 12/06/22 | WB | SW8270D (SIM) |
| **QA/QC Surrogates** | | | | | | | | |
| % 2-Fluorobiphenyl | 58 | | | % | 1 | 12/06/22 | WB | 30 - 130 % |
| % Nitrobenzene-d5 | 78 | | | % | 1 | 12/06/22 | WB | 30 - 130 % |
| % Terphenyl-d14 | 93 | | | % | 1 | 12/06/22 | WB | 30 - 130 % |

Project ID: IPARK0118.62-LOT 10 BOUNDARY MODIFICAT. Phoenix I.D.: CM95293
Client ID: SB-12A2 (2-12``)

| Parameter | Result | RL/ PQL | LOD/ MDL | Units | Dilution | Date/Time | By | Reference |
|---|---|---|---|---|---|---|---|---|

1 = This parameter is not certified by the primary accrediting authority (NY NELAC) for this matrix. NY NELAC does not offer certification for all parameters at this time.
C = This parameter is subcontracted.
B = Present in blank, no bias suspected.

RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected BRL=Below Reporting Level L=Biased Low LOD=Limit of Detection MDL=Method Detection Limit1
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

## Comments:

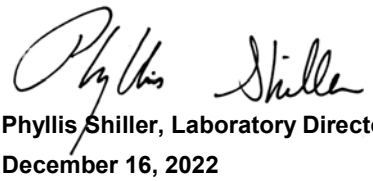
*See attached

Per 1.4.6 of EPA method 8270D, 1,2-Diphenylhydrazine is unstable and readily converts to Azobenzene. Azobenzene is used for the calibration of 1,2-Diphenylhydrazine.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

PFAS (21) (EPA 537m), PFOA/PFOS - Soil Extraction (EPA 537m) were analyzed by NY certified lab #12058.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200.
The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.



**Phyllis Shiller, Laboratory Director**
**December 16, 2022**
**Reviewed and Released by: Greg Lawrence, Assistant Lab Director**

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

# Analysis Report

December 16, 2022

FOR: Attn: Nora Brew
Walden Environmental Engineering PLLC
16 Spring Street
Oyster Bay, NY 11771

| Sample Information | | Custody Information | | Date | Time |
|---|---|---|---|---|---|
| Matrix: | SOIL | Collected by: | | 11/30/22 | 10:40 |
| Location Code: | WALDENE-IPARK | Received by: | CP | 12/01/22 | 17:12 |
| Rush Request: | Standard | Analyzed by: | see "By" below | | |
| P.O.#: | IPARK 0118.62 | | | | |

## Laboratory Data

SDG ID: GCM95278
Phoenix ID: CM95294

Project ID: IPARK0118.62-LOT 10 BOUNDARY MODIFICAT.
Client ID: SB-12B (1-2`)

| Parameter | Result | RL/ PQL | LOD/ MDL | Units | Dilution | Date/Time | By | Reference | |
|---|---|---|---|---|---|---|---|---|---|
| Field Extraction | Completed | | | | | 11/30/22 | | SW5035A | 1 |
| **Volatiles** | | | | | | | | | |
| 1,1,1,2-Tetrachloroethane | ND | 4.7 | 0.93 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,1,1-Trichloroethane | ND | 4.7 | 0.47 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,1,2,2-Tetrachloroethane | ND | 4.7 | 0.93 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,1,2-Trichloroethane | ND | 4.7 | 0.93 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,1-Dichloroethane | ND | 4.7 | 0.93 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,1-Dichloroethene | ND | 4.7 | 0.47 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,1-Dichloropropene | ND | 4.7 | 0.47 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,2,3-Trichlorobenzene | ND | 4.7 | 0.93 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,2,3-Trichloropropane | ND | 4.7 | 0.47 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,2,4-Trichlorobenzene | ND | 4.7 | 0.93 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,2,4-Trimethylbenzene | ND | 4.7 | 0.47 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,2-Dibromo-3-chloropropane | ND | 4.7 | 0.93 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,2-Dibromoethane | ND | 4.7 | 0.47 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,2-Dichlorobenzene | ND | 4.7 | 0.47 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,2-Dichloroethane | ND | 4.7 | 0.47 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,2-Dichloropropane | ND | 4.7 | 0.93 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,3,5-Trimethylbenzene | ND | 4.7 | 0.47 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,3-Dichlorobenzene | ND | 4.7 | 0.47 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,3-Dichloropropane | ND | 4.7 | 0.93 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,4-Dichlorobenzene | ND | 4.7 | 0.47 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 2,2-Dichloropropane | ND | 4.7 | 0.47 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 2-Chlorotoluene | ND | 4.7 | 0.93 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 2-Hexanone | ND | 23 | 4.7 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 2-Isopropyltoluene | ND | 4.7 | 0.47 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | 1 |

Project ID: IPARK0118.62-LOT 10 BOUNDARY MODIFICAT. Phoenix I.D.: CM95294

Client ID: SB-12B (1-2`)

| Parameter | Result | | RL/ PQL | LOD/ MDL | Units | Dilution | Date/Time | By | Reference |
|---|---|---|---|---|---|---|---|---|---|
| 4-Chlorotoluene | ND | | 4.7 | 0.47 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| 4-Methyl-2-pentanone | ND | | 23 | 4.7 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| Acetone | ND | | 23 | 4.7 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| Acrylonitrile | ND | | 9.3 | 0.93 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| Benzene | ND | | 4.7 | 0.47 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| Bromobenzene | ND | | 4.7 | 0.47 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| Bromochloromethane | ND | | 4.7 | 0.47 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| Bromodichloromethane | ND | | 4.7 | 0.93 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| Bromoform | ND | | 4.7 | 0.93 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| Bromomethane | ND | | 4.7 | 1.9 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| Carbon Disulfide | ND | | 4.7 | 0.93 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| Carbon tetrachloride | ND | | 4.7 | 0.93 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| Chlorobenzene | ND | | 4.7 | 0.47 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| Chloroethane | ND | | 4.7 | 0.47 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| Chloroform | ND | | 4.7 | 0.47 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| Chloromethane | ND | | 4.7 | 0.93 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| cis-1,2-Dichloroethene | ND | | 4.7 | 0.47 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| cis-1,3-Dichloropropene | ND | | 4.7 | 0.47 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| Dibromochloromethane | ND | | 4.7 | 0.93 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| Dibromomethane | ND | | 4.7 | 0.93 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| Dichlorodifluoromethane | ND | | 4.7 | 0.47 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| Ethylbenzene | ND | | 4.7 | 0.47 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| Hexachlorobutadiene | ND | | 4.7 | 0.47 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| Isopropylbenzene | ND | | 4.7 | 0.47 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| m&p-Xylene | ND | | 4.7 | 0.93 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| Methyl Ethyl Ketone | ND | | 28 | 4.7 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| Methyl t-butyl ether (MTBE) | ND | | 9.3 | 0.93 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| Methylene chloride | ND | | 4.7 | 4.7 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| Naphthalene | ND | | 4.7 | 0.93 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| n-Butylbenzene | ND | | 4.7 | 0.47 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| n-Propylbenzene | ND | | 4.7 | 0.93 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| o-Xylene | ND | | 4.7 | 0.93 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| p-Isopropyltoluene | ND | | 4.7 | 0.47 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| sec-Butylbenzene | ND | | 4.7 | 0.47 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| Styrene | ND | | 4.7 | 0.47 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| tert-Butylbenzene | ND | | 4.7 | 0.47 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| Tetrachloroethene | ND | | 4.7 | 0.93 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| Tetrahydrofuran (THF) | 8.6 | J | 9.3 | 2.3 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| Toluene | ND | | 4.7 | 0.47 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| trans-1,2-Dichloroethene | ND | | 4.7 | 0.47 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| trans-1,3-Dichloropropene | ND | | 4.7 | 0.47 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| trans-1,4-dichloro-2-butene | ND | | 9.3 | 2.3 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| Trichloroethene | ND | | 4.7 | 0.47 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| Trichlorofluoromethane | ND | | 4.7 | 0.93 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| Trichlorotrifluoroethane | ND | | 4.7 | 0.47 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| Vinyl chloride | ND | | 4.7 | 0.47 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| **QA/QC Surrogates** | | | | | | | | | |
| % 1,2-dichlorobenzene-d4 | 95 | | | | % | 1 | 12/06/22 | JLI | 70 - 130 % |
| % Bromofluorobenzene | 95 | | | | % | 1 | 12/06/22 | JLI | 70 - 130 % |

**Ver 1**

Project ID: IPARK0118.62-LOT 10 BOUNDARY MODIFICAT. Phoenix I.D.: CM95294
Client ID: SB-12B (1-2`)

| Parameter | Result | RL/ PQL | LOD/ MDL | Units | Dilution | Date/Time | By | Reference |
|---|---|---|---|---|---|---|---|---|
| % Dibromofluoromethane | 98 | | | % | 1 | 12/06/22 | JLI | 70 - 130 % |
| % Toluene-d8 | 94 | | | % | 1 | 12/06/22 | JLI | 70 - 130 % |

1 = This parameter is not certified by the primary accrediting authority (NY NELAC) for this matrix. NY NELAC does not offer certification for all parameters at this time.

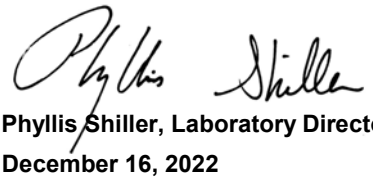
RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected BRL=Below Reporting Level L=Biased Low J=Estimated Below RL LOD=Limit of Detection MDL=Method Detection Limit1
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

## Comments:

Results are reported on an ``as received`` basis, and are not corrected for dry weight.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200.
The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.



**Phyllis Shiller, Laboratory Director**
**December 16, 2022**
**Reviewed and Released by: Greg Lawrence, Assistant Lab Director**

PHOENIX
Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

# Analysis Report

December 16, 2022

FOR: Attn: Nora Brew
Walden Environmental Engineering PLLC
16 Spring Street
Oyster Bay, NY 11771

| Sample Information | | Custody Information | | Date | Time |
|---|---|---|---|---|---|
| Matrix: | SOIL | Collected by: | | 11/30/22 | 10:40 |
| Location Code: | WALDENE-IPARK | Received by: | CP | 12/01/22 | 17:12 |
| Rush Request: | Standard | Analyzed by: | see "By" below | | |
| P.O.#: | IPARK 0118.62 | | | | |

## Laboratory Data

SDG ID: GCM95278
Phoenix ID: CM95295

Project ID: IPARK0118.62-LOT 10 BOUNDARY MODIFICAT.
Client ID: SB-12C (13-14`)

| Parameter | Result | RL/ PQL | LOD/ MDL | Units | Dilution | Date/Time | By | Reference | |
|---|---|---|---|---|---|---|---|---|---|
| Aluminum | 23500 | 40 | 8.0 | mg/Kg | 10 | 12/03/22 | CPP | SW6010D | B |
| Antimony | ND | 4.0 | 4.0 | mg/Kg | 1 | 12/04/22 | CPP | SW6010D | |
| Arsenic | 7.19 | 0.80 | 0.80 | mg/Kg | 1 | 12/04/22 | CPP | SW6010D | |
| Barium | 94.0 | 0.8 | 0.40 | mg/Kg | 1 | 12/04/22 | TH | SW6010D | |
| Beryllium | 0.78 | 0.32 | 0.16 | mg/Kg | 1 | 12/04/22 | CPP | SW6010D | |
| Calcium | 4900 | 4.0 | 3.7 | mg/Kg | 1 | 12/04/22 | CPP | SW6010D | |
| Cadmium | 2.57 | 0.40 | 0.40 | mg/Kg | 1 | 12/04/22 | CPP | SW6010D | |
| Chromium | 25.2 | 0.40 | 0.40 | mg/Kg | 1 | 12/04/22 | CPP | SW6010D | |
| Cobalt | 17.7 | 0.40 | 0.40 | mg/Kg | 1 | 12/04/22 | CPP | SW6010D | |
| Copper | 39.2 | 0.8 | 0.40 | mg/kg | 1 | 12/04/22 | CPP | SW6010D | |
| Iron | 41600 | 40 | 40 | mg/Kg | 10 | 12/03/22 | CPP | SW6010D | |
| Lead | 19.2 | 0.8 | 0.40 | mg/Kg | 1 | 12/04/22 | CPP | SW6010D | |
| Magnesium | 11800 | 40 | 40 | mg/Kg | 10 | 12/03/22 | CPP | SW6010D | |
| Manganese | 710 | 4.0 | 4.0 | mg/Kg | 10 | 12/03/22 | TH | SW6010D | |
| Mercury | ND | 0.03 | 0.02 | mg/Kg | 2 | 12/05/22 | PM | SW7471B | |
| Nickel | 38.8 | 0.40 | 0.40 | mg/Kg | 1 | 12/04/22 | CPP | SW6010D | |
| Potassium | 3010 | 8 | 3.1 | mg/Kg | 1 | 12/04/22 | CPP | SW6010D | |
| Selenium | ND | 1.6 | 1.4 | mg/Kg | 1 | 12/04/22 | CPP | SW6010D | |
| Silver | ND | 0.40 | 0.40 | mg/Kg | 1 | 12/04/22 | CPP | SW6010D | |
| Sodium | 883 | 8 | 3.4 | mg/Kg | 1 | 12/04/22 | CPP | SW6010D | |
| Thallium | ND | 1.6 | 1.6 | mg/Kg | 1 | 12/04/22 | CPP | SW6010D | |
| Vanadium | 24.2 | 0.40 | 0.40 | mg/Kg | 1 | 12/04/22 | CPP | SW6010D | |
| Zinc | 99.9 | 0.8 | 0.40 | mg/Kg | 1 | 12/04/22 | CPP | SW6010D | |
| Percent Solid | 87 | | | % | | 12/01/22 | Q | SW846-%Solid | |
| Extraction for SVOA SIM | Completed | | | | | 12/05/22 | B/MO | SW3545A | |
| Soil Extraction for PCB | Completed | | | | | 12/02/22 | O/MO | SW3545A | |
| Soil Extraction for Pesticide | Completed | | | | | 12/02/22 | O/MO | SW3545A | |

**Ver 1**

Project ID: IPARK0118.62-LOT 10 BOUNDARY MODIFICAT. Phoenix I.D.: CM95295

Client ID: SB-12C (13-14`)

| Parameter | Result | RL/ PQL | LOD/ MDL | Units | Dilution | Date/Time | By | Reference | |
|---|---|---|---|---|---|---|---|---|---|
| Field Extraction | Completed | | | | | 11/30/22 | | SW5035A | 1 |
| Mercury Digestion | Completed | | | | | 12/02/22 | AB/AB | SW7471B | |
| Soil Extraction for Herbicide | Completed | | | | | 12/08/22 | J/D | SW3546 | |
| Soil Extraction for SVOA | Completed | | | | | 12/04/22 | R/U | SW3546 | |
| Total Metals Digest | Completed | | | | | 12/01/22 | | SW3050B | |
| PFAS (21) | Completed | | | | | 12/07/22 | *** | EPA 537m | C |

## PFAS (21)

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **1H,1H,2H,2H-Perfluorodecanesulfonic acid** | ND | 0.292 | 0.0299 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| **1H,1H,2H,2H-Perfluorooctanesulfonic acid** | ND | 0.292 | 0.0771 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| NEtFOSAA | ND | 0.292 | 0.122 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| NMeFOSAA | ND | 0.292 | 0.122 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| **Perfluoro-1-decanesulfonic acid (PFDS)** | ND | 0.292 | 0.0598 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| **Perfluoro-1-heptanesulfonic acid (PFHpS)** | ND | 0.292 | 0.0576 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| **Perfluoro-1-octanesulfonamide (FOSA)** | ND | 0.292 | 0.0545 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| Perfluorobutanesulfonic acid (PFBS) | ND | 0.292 | 0.234 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| Perfluorodecanoic acid (PFDA) | ND | 0.292 | 0.0598 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| Perfluorododecanoic acid (PFDoA) | ND | 0.292 | 0.0876 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| Perfluoroheptanoic acid (PFHpA) | ND | 0.292 | 0.0531 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| **Perfluorohexanesulfonic Acid (PFHxS)** | ND | 0.292 | 0.0362 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| Perfluorohexanoic acid (PFHxA) | ND | 0.292 | 0.0770 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| Perfluoro-n-butanoic acid (PFBA) | ND | 0.292 | 0.213 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| Perfluorononanoic acid (PFNA) | ND | 0.292 | 0.0698 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| Perfluorooctanesulfonic Acid (PFOS) | ND | 0.292 | 0.0511 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| Perfluorooctanoic acid (PFOA) | ND | 0.292 | 0.0901 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| Perfluoropentanoic acid (PFPeA) | ND | 0.292 | 0.107 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| Perfluorotetradecanoic acid (PFTA) | ND | 0.292 | 0.0872 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| Perfluorotridecanoic acid (PFTrDA) | ND | 0.292 | 0.0508 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| Perfluoroundecanoic acid (PFUnA) | ND | 0.292 | 0.136 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| **QA/QC Surrogates** | | | | | | | | | |
| % d3-N-MeFOSAA | 47.5 | | | % | 1 | 12/11/22 | *** | 25 - 150 % | C |
| % d5-NEtFOSA | 42.7 | | | % | 1 | 12/11/22 | *** | 25 - 150 % | C |
| % M2-6:2FTS | 72.1 | | | % | 1 | 12/11/22 | *** | 25 - 200 % | C |
| % M2-8:2FTS | 60.8 | | | % | 1 | 12/11/22 | *** | 25 - 200 % | C |
| % M2PFTeDA | 41.1 | | | % | 1 | 12/11/22 | *** | 10 - 150 % | C |
| % M3PFBS | 64.8 | | | % | 1 | 12/11/22 | *** | 25 - 150 % | C |
| % M3PFHxS | 67.7 | | | % | 1 | 12/11/22 | *** | 25 - 150 % | C |
| % M4PFHpA | 70.2 | | | % | 1 | 12/11/22 | *** | 25 - 150 % | C |
| % M5PFHxA | 72.2 | | | % | 1 | 12/11/22 | *** | 25 - 150 % | C |
| % M5PFPeA | 75.1 | | | % | 1 | 12/11/22 | *** | 25 - 150 % | C |
| % M6PFDA | 53.0 | | | % | 1 | 12/11/22 | *** | 25 - 150 % | C |
| % M7PFUdA | 39.2 | | | % | 1 | 12/11/22 | *** | 25 - 150 % | C |
| % M8FOSA | 37.1 | | | % | 1 | 12/11/22 | *** | 10 - 150 % | C |
| % M8PFOA | 67.1 | | | % | 1 | 12/11/22 | *** | 25 - 150 % | C |
| % M8PFOS | 46.8 | | | % | 1 | 12/11/22 | *** | 25 - 150 % | C |
| % M9PFNA | 65.4 | | | % | 1 | 12/11/22 | *** | 25 - 150 % | C |
| % MPFBA | 73.9 | | | % | 1 | 12/11/22 | *** | 25 - 150 % | C |
| % MPFDoA | 41.6 | | | % | 1 | 12/11/22 | *** | 25 - 150 % | C |

Project ID: IPARK0118.62-LOT 10 BOUNDARY MODIFICAT. Phoenix I.D.: CM95295
Client ID: SB-12C (13-14`)

| Parameter | Result | RL/ PQL | LOD/ MDL | Units | Dilution | Date/Time | By | Reference |
|---|---|---|---|---|---|---|---|---|
| **Chlorinated Herbicides** | | | | | | | | |
| 2,4,5-T | ND | 140 | 140 | ug/Kg | 10 | 12/09/22 | JRB | SW8151A |
| 2,4,5-TP (Silvex) | ND | 140 | 140 | ug/Kg | 10 | 12/09/22 | JRB | SW8151A |
| 2,4-D | ND | 280 | 280 | ug/Kg | 10 | 12/09/22 | JRB | SW8151A |
| 2,4-DB | ND | 2800 | 2800 | ug/Kg | 10 | 12/09/22 | JRB | SW8151A |
| Dalapon | ND | 140 | 140 | ug/Kg | 10 | 12/09/22 | JRB | SW8151A |
| Dicamba | ND | 140 | 140 | ug/Kg | 10 | 12/09/22 | JRB | SW8151A |
| Dichloroprop | ND | 280 | 280 | ug/Kg | 10 | 12/09/22 | JRB | SW8151A |
| Dinoseb | ND | 280 | 280 | ug/Kg | 10 | 12/09/22 | JRB | SW8151A |
| **QA/QC Surrogates** | | | | | | | | |
| % DCAA | 97 | | | % | 10 | 12/09/22 | JRB | 30 - 150 % |
| % DCAA (Confirmation) | 94 | | | % | 10 | 12/09/22 | JRB | 30 - 150 % |
| **Polychlorinated Biphenyls** | | | | | | | | |
| PCB-1016 | ND | 76 | 76 | ug/Kg | 2 | 12/06/22 | SC | SW8082A |
| PCB-1221 | ND | 76 | 76 | ug/Kg | 2 | 12/06/22 | SC | SW8082A |
| PCB-1232 | ND | 76 | 76 | ug/Kg | 2 | 12/06/22 | SC | SW8082A |
| PCB-1242 | ND | 76 | 76 | ug/Kg | 2 | 12/06/22 | SC | SW8082A |
| PCB-1248 | ND | 76 | 76 | ug/Kg | 2 | 12/06/22 | SC | SW8082A |
| PCB-1254 | ND | 76 | 76 | ug/Kg | 2 | 12/06/22 | SC | SW8082A |
| PCB-1260 | ND | 76 | 76 | ug/Kg | 2 | 12/06/22 | SC | SW8082A |
| PCB-1262 | ND | 76 | 76 | ug/Kg | 2 | 12/06/22 | SC | SW8082A |
| PCB-1268 | ND | 76 | 76 | ug/Kg | 2 | 12/06/22 | SC | SW8082A |
| **QA/QC Surrogates** | | | | | | | | |
| % DCBP | 81 | | | % | 2 | 12/06/22 | SC | 30 - 150 % |
| % DCBP (Confirmation) | 77 | | | % | 2 | 12/06/22 | SC | 30 - 150 % |
| % TCMX | 72 | | | % | 2 | 12/06/22 | SC | 30 - 150 % |
| % TCMX (Confirmation) | 71 | | | % | 2 | 12/06/22 | SC | 30 - 150 % |
| **Pesticides - Soil** | | | | | | | | |
| 4,4' -DDD | ND | 2.3 | 2.3 | ug/Kg | 2 | 12/05/22 | AW | SW8081B |
| 4,4' -DDE | ND | 2.3 | 2.3 | ug/Kg | 2 | 12/05/22 | AW | SW8081B |
| 4,4' -DDT | ND | 2.3 | 2.3 | ug/Kg | 2 | 12/05/22 | AW | SW8081B |
| a-BHC | ND | 7.6 | 7.6 | ug/Kg | 2 | 12/05/22 | AW | SW8081B |
| a-Chlordane | ND | 3.8 | 3.8 | ug/Kg | 2 | 12/05/22 | AW | SW8081B |
| Alachlor | ND | 3.8 | 3.8 | ug/Kg | 2 | 12/05/22 | AW | SW8081B |
| Aldrin | ND | 3.8 | 3.8 | ug/Kg | 2 | 12/05/22 | AW | SW8081B |
| b-BHC | ND | 7.6 | 7.6 | ug/Kg | 2 | 12/05/22 | AW | SW8081B |
| Chlordane | ND | 38 | 38 | ug/Kg | 2 | 12/05/22 | AW | SW8081B |
| d-BHC | ND | 7.6 | 7.6 | ug/Kg | 2 | 12/05/22 | AW | SW8081B |
| Dieldrin | ND | 3.8 | 3.8 | ug/Kg | 2 | 12/05/22 | AW | SW8081B |
| Endosulfan I | ND | 7.6 | 7.6 | ug/Kg | 2 | 12/05/22 | AW | SW8081B |
| Endosulfan II | ND | 7.6 | 7.6 | ug/Kg | 2 | 12/05/22 | AW | SW8081B |
| Endosulfan sulfate | ND | 7.6 | 7.6 | ug/Kg | 2 | 12/05/22 | AW | SW8081B |
| Endrin | ND | 7.6 | 7.6 | ug/Kg | 2 | 12/05/22 | AW | SW8081B |
| Endrin aldehyde | ND | 7.6 | 7.6 | ug/Kg | 2 | 12/05/22 | AW | SW8081B |
| Endrin ketone | ND | 7.6 | 7.6 | ug/Kg | 2 | 12/05/22 | AW | SW8081B |
| g-BHC | ND | 1.5 | 1.5 | ug/Kg | 2 | 12/05/22 | AW | SW8081B |
| g-Chlordane | ND | 3.8 | 3.8 | ug/Kg | 2 | 12/05/22 | AW | SW8081B |

| Parameter | Result | RL/ PQL | LOD/ MDL | Units | Dilution | Date/Time | By | Reference | |
|---|---|---|---|---|---|---|---|---|---|
| Heptachlor | ND | 7.6 | 7.6 | ug/Kg | 2 | 12/05/22 | AW | SW8081B | |
| Heptachlor epoxide | ND | 7.6 | 7.6 | ug/Kg | 2 | 12/05/22 | AW | SW8081B | |
| Methoxychlor | ND | 38 | 38 | ug/Kg | 2 | 12/05/22 | AW | SW8081B | |
| Toxaphene | ND | 150 | 150 | ug/Kg | 2 | 12/05/22 | AW | SW8081B | |
| **QA/QC Surrogates** | | | | | | | | | |
| % DCBP | 76 | | | % | 2 | 12/05/22 | AW | 30 - 150 % | |
| % DCBP (Confirmation) | 108 | | | % | 2 | 12/05/22 | AW | 30 - 150 % | |
| % TCMX | 65 | | | % | 2 | 12/05/22 | AW | 30 - 150 % | |
| % TCMX (Confirmation) | 83 | | | % | 2 | 12/05/22 | AW | 30 - 150 % | |
| **Volatiles** | | | | | | | | | |
| 1,1,1,2-Tetrachloroethane | ND | 5.1 | 1.0 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,1,1-Trichloroethane | ND | 5.1 | 0.51 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,1,2,2-Tetrachloroethane | ND | 5.1 | 1.0 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,1,2-Trichloroethane | ND | 5.1 | 1.0 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,1-Dichloroethane | ND | 5.1 | 1.0 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,1-Dichloroethene | ND | 5.1 | 0.51 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,1-Dichloropropene | ND | 5.1 | 0.51 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,2,3-Trichlorobenzene | ND | 5.1 | 1.0 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,2,3-Trichloropropane | ND | 5.1 | 0.51 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,2,4-Trichlorobenzene | ND | 5.1 | 1.0 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,2,4-Trimethylbenzene | ND | 5.1 | 0.51 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,2-Dibromo-3-chloropropane | ND | 5.1 | 1.0 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,2-Dibromoethane | ND | 5.1 | 0.51 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,2-Dichlorobenzene | ND | 5.1 | 0.51 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,2-Dichloroethane | ND | 5.1 | 0.51 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,2-Dichloropropane | ND | 5.1 | 1.0 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,3,5-Trimethylbenzene | ND | 5.1 | 0.51 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,3-Dichlorobenzene | ND | 5.1 | 0.51 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,3-Dichloropropane | ND | 5.1 | 1.0 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,4-Dichlorobenzene | ND | 5.1 | 0.51 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 2,2-Dichloropropane | ND | 5.1 | 0.51 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 2-Chlorotoluene | ND | 5.1 | 1.0 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 2-Hexanone | ND | 25 | 5.1 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 2-Isopropyltoluene | ND | 5.1 | 0.51 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | 1 |
| 4-Chlorotoluene | ND | 5.1 | 0.51 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 4-Methyl-2-pentanone | ND | 25 | 5.1 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Acetone | ND | 25 | 5.1 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Acrylonitrile | ND | 10 | 1.0 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Benzene | ND | 5.1 | 0.51 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Bromobenzene | ND | 5.1 | 0.51 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Bromochloromethane | ND | 5.1 | 0.51 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Bromodichloromethane | ND | 5.1 | 1.0 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Bromoform | ND | 5.1 | 1.0 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Bromomethane | ND | 5.1 | 2.0 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Carbon Disulfide | ND | 5.1 | 1.0 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Carbon tetrachloride | ND | 5.1 | 1.0 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Chlorobenzene | ND | 5.1 | 0.51 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Chloroethane | ND | 5.1 | 0.51 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Chloroform | ND | 5.1 | 0.51 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |

Project ID: IPARK0118.62-LOT 10 BOUNDARY MODIFICAT. Phoenix I.D.: CM95295

Client ID: SB-12C (13-14`)

| Parameter | Result | | RL/ PQL | LOD/ MDL | Units | Dilution | Date/Time | By | Reference | |
|---|---|---|---|---|---|---|---|---|---|---|
| Chloromethane | ND | | 5.1 | 1.0 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| cis-1,2-Dichloroethene | ND | | 5.1 | 0.51 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| cis-1,3-Dichloropropene | ND | | 5.1 | 0.51 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Dibromochloromethane | ND | | 5.1 | 1.0 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Dibromomethane | ND | | 5.1 | 1.0 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Dichlorodifluoromethane | ND | | 5.1 | 0.51 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Ethylbenzene | ND | | 5.1 | 0.51 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Hexachlorobutadiene | ND | | 5.1 | 0.51 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Isopropylbenzene | ND | | 5.1 | 0.51 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| m&p-Xylene | ND | | 5.1 | 1.0 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Methyl Ethyl Ketone | ND | | 30 | 5.1 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Methyl t-butyl ether (MTBE) | ND | | 10 | 1.0 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Methylene chloride | ND | | 5.1 | 5.1 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Naphthalene | ND | | 5.1 | 1.0 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| n-Butylbenzene | ND | | 5.1 | 0.51 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| n-Propylbenzene | ND | | 5.1 | 1.0 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| o-Xylene | ND | | 5.1 | 1.0 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| p-Isopropyltoluene | ND | | 5.1 | 0.51 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| sec-Butylbenzene | ND | | 5.1 | 0.51 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Styrene | ND | | 5.1 | 0.51 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| tert-Butylbenzene | ND | | 5.1 | 0.51 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Tetrachloroethene | ND | | 5.1 | 1.0 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Tetrahydrofuran (THF) | 9.0 | J | 10 | 2.5 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Toluene | ND | | 5.1 | 0.51 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| trans-1,2-Dichloroethene | ND | | 5.1 | 0.51 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| trans-1,3-Dichloropropene | ND | | 5.1 | 0.51 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| trans-1,4-dichloro-2-butene | ND | | 10 | 2.5 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Trichloroethene | ND | | 5.1 | 0.51 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Trichlorofluoromethane | ND | | 5.1 | 1.0 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Trichlorotrifluoroethane | ND | | 5.1 | 0.51 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Vinyl chloride | ND | | 5.1 | 0.51 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| **QA/QC Surrogates** | | | | | | | | | | |
| % 1,2-dichlorobenzene-d4 | 95 | | | | % | 1 | 12/06/22 | JLI | 70 - 130 % | |
| % Bromofluorobenzene | 96 | | | | % | 1 | 12/06/22 | JLI | 70 - 130 % | |
| % Dibromofluoromethane | 102 | | | | % | 1 | 12/06/22 | JLI | 70 - 130 % | |
| % Toluene-d8 | 95 | | | | % | 1 | 12/06/22 | JLI | 70 - 130 % | |
| **Semivolatiles** | | | | | | | | | | |
| 1,2,4,5-Tetrachlorobenzene | ND | | 260 | 130 | ug/Kg | 1 | 12/04/22 | AW | SW8270D | |
| 1,2,4-Trichlorobenzene | ND | | 260 | 110 | ug/Kg | 1 | 12/04/22 | AW | SW8270D | |
| 1,2-Dichlorobenzene | ND | | 260 | 110 | ug/Kg | 1 | 12/04/22 | AW | SW8270D | |
| 1,2-Diphenylhydrazine | ND | | 260 | 120 | ug/Kg | 1 | 12/04/22 | AW | SW8270D | |
| 1,3-Dichlorobenzene | ND | | 260 | 110 | ug/Kg | 1 | 12/04/22 | AW | SW8270D | |
| 1,4-Dichlorobenzene | ND | | 260 | 110 | ug/Kg | 1 | 12/04/22 | AW | SW8270D | |
| 2,2'-Oxybis(1-Chloropropane) | ND | | 260 | 100 | ug/Kg | 1 | 12/04/22 | AW | SW8270D | 1 |
| 2,4,5-Trichlorophenol | ND | | 260 | 210 | ug/Kg | 1 | 12/04/22 | AW | SW8270D | |
| 2,4,6-Trichlorophenol | ND | | 190 | 120 | ug/Kg | 1 | 12/04/22 | AW | SW8270D | |
| 2,4-Dichlorophenol | ND | | 190 | 130 | ug/Kg | 1 | 12/04/22 | AW | SW8270D | |
| 2,4-Dimethylphenol | ND | | 260 | 93 | ug/Kg | 1 | 12/04/22 | AW | SW8270D | |
| 2,4-Dinitrophenol | ND | | 260 | 260 | ug/Kg | 1 | 12/04/22 | AW | SW8270D | |

Project ID: IPARK0118.62-LOT 10 BOUNDARY MODIFICAT. Phoenix I.D.: CM95295

Client ID: SB-12C (13-14`)

| Parameter | Result | RL/ PQL | LOD/ MDL | Units | Dilution | Date/Time | By | Reference | |
|---|---|---|---|---|---|---|---|---|---|
| 2,4-Dinitrotoluene | ND | 190 | 150 | ug/Kg | 1 | 12/04/22 | AW | SW8270D | |
| 2,6-Dinitrotoluene | ND | 190 | 120 | ug/Kg | 1 | 12/04/22 | AW | SW8270D | |
| 2-Chloronaphthalene | ND | 260 | 110 | ug/Kg | 1 | 12/04/22 | AW | SW8270D | |
| 2-Chlorophenol | ND | 260 | 110 | ug/Kg | 1 | 12/04/22 | AW | SW8270D | |
| 2-Methylnaphthalene | ND | 260 | 110 | ug/Kg | 1 | 12/04/22 | AW | SW8270D | |
| 2-Methylphenol (o-cresol) | ND | 260 | 180 | ug/Kg | 1 | 12/04/22 | AW | SW8270D | |
| 2-Nitroaniline | ND | 260 | 260 | ug/Kg | 1 | 12/04/22 | AW | SW8270D | |
| 2-Nitrophenol | ND | 260 | 240 | ug/Kg | 1 | 12/04/22 | AW | SW8270D | |
| 3&4-Methylphenol (m&p-cresol) | ND | 260 | 150 | ug/Kg | 1 | 12/04/22 | AW | SW8270D | 1 |
| 3,3'-Dichlorobenzidine | ND | 190 | 180 | ug/Kg | 1 | 12/04/22 | AW | SW8270D | |
| 3-Nitroaniline | ND | 380 | 750 | ug/Kg | 1 | 12/04/22 | AW | SW8270D | |
| 4,6-Dinitro-2-methylphenol | ND | 230 | 75 | ug/Kg | 1 | 12/04/22 | AW | SW8270D | |
| 4-Bromophenyl phenyl ether | ND | 260 | 110 | ug/Kg | 1 | 12/04/22 | AW | SW8270D | |
| 4-Chloro-3-methylphenol | ND | 260 | 130 | ug/Kg | 1 | 12/04/22 | AW | SW8270D | |
| 4-Chloroaniline | ND | 300 | 180 | ug/Kg | 1 | 12/04/22 | AW | SW8270D | |
| 4-Chlorophenyl phenyl ether | ND | 260 | 130 | ug/Kg | 1 | 12/04/22 | AW | SW8270D | |
| 4-Nitroaniline | ND | 380 | 130 | ug/Kg | 1 | 12/04/22 | AW | SW8270D | |
| 4-Nitrophenol | ND | 380 | 170 | ug/Kg | 1 | 12/04/22 | AW | SW8270D | |
| Acenaphthene | ND | 260 | 110 | ug/Kg | 1 | 12/04/22 | AW | SW8270D | |
| Acenaphthylene | ND | 260 | 110 | ug/Kg | 1 | 12/04/22 | AW | SW8270D | |
| Acetophenone | ND | 260 | 120 | ug/Kg | 1 | 12/04/22 | AW | SW8270D | |
| Aniline | ND | 300 | 300 | ug/Kg | 1 | 12/04/22 | AW | SW8270D | |
| Anthracene | ND | 260 | 120 | ug/Kg | 1 | 12/04/22 | AW | SW8270D | |
| Benz(a)anthracene | ND | 260 | 130 | ug/Kg | 1 | 12/04/22 | AW | SW8270D | |
| Benzidine | ND | 380 | 220 | ug/Kg | 1 | 12/04/22 | AW | SW8270D | |
| Benzo(a)pyrene | ND | 190 | 120 | ug/Kg | 1 | 12/04/22 | AW | SW8270D | |
| Benzo(b)fluoranthene | ND | 260 | 130 | ug/Kg | 1 | 12/04/22 | AW | SW8270D | |
| Benzo(ghi)perylene | ND | 260 | 120 | ug/Kg | 1 | 12/04/22 | AW | SW8270D | |
| Benzo(k)fluoranthene | ND | 260 | 120 | ug/Kg | 1 | 12/04/22 | AW | SW8270D | |
| Benzoic acid | ND | 1900 | 750 | ug/Kg | 1 | 12/04/22 | AW | SW8270D | |
| Benzyl butyl phthalate | ND | 260 | 97 | ug/Kg | 1 | 12/04/22 | AW | SW8270D | |
| Bis(2-chloroethoxy)methane | ND | 260 | 100 | ug/Kg | 1 | 12/04/22 | AW | SW8270D | |
| Bis(2-chloroethyl)ether | ND | 190 | 100 | ug/Kg | 1 | 12/04/22 | AW | SW8270D | |
| Bis(2-ethylhexyl)phthalate | ND | 260 | 110 | ug/Kg | 1 | 12/04/22 | AW | SW8270D | |
| Carbazole | ND | 190 | 150 | ug/Kg | 1 | 12/04/22 | AW | SW8270D | |
| Chrysene | ND | 260 | 130 | ug/Kg | 1 | 12/04/22 | AW | SW8270D | |
| Dibenz(a,h)anthracene | ND | 190 | 120 | ug/Kg | 1 | 12/04/22 | AW | SW8270D | |
| Dibenzofuran | ND | 260 | 110 | ug/Kg | 1 | 12/04/22 | AW | SW8270D | |
| Diethyl phthalate | ND | 260 | 120 | ug/Kg | 1 | 12/04/22 | AW | SW8270D | |
| Dimethylphthalate | ND | 260 | 120 | ug/Kg | 1 | 12/04/22 | AW | SW8270D | |
| Di-n-butylphthalate | ND | 260 | 100 | ug/Kg | 1 | 12/04/22 | AW | SW8270D | |
| Di-n-octylphthalate | ND | 260 | 97 | ug/Kg | 1 | 12/04/22 | AW | SW8270D | |
| Fluoranthene | ND | 260 | 120 | ug/Kg | 1 | 12/04/22 | AW | SW8270D | |
| Fluorene | ND | 260 | 120 | ug/Kg | 1 | 12/04/22 | AW | SW8270D | |
| Hexachlorobenzene | ND | 190 | 110 | ug/Kg | 1 | 12/04/22 | AW | SW8270D | |
| Hexachlorobutadiene | ND | 260 | 140 | ug/Kg | 1 | 12/04/22 | AW | SW8270D | |
| Hexachlorocyclopentadiene | ND | 260 | 120 | ug/Kg | 1 | 12/04/22 | AW | SW8270D | |
| Hexachloroethane | ND | 190 | 110 | ug/Kg | 1 | 12/04/22 | AW | SW8270D | |
| Indeno(1,2,3-cd)pyrene | ND | 260 | 120 | ug/Kg | 1 | 12/04/22 | AW | SW8270D | |

Project ID: IPARK0118.62-LOT 10 BOUNDARY MODIFICAT. Phoenix I.D.: CM95295
Client ID: SB-12C (13-14`)

| Parameter | Result | RL/ PQL | LOD/ MDL | Units | Dilution | Date/Time | By | Reference |
|---|---|---|---|---|---|---|---|---|
| Isophorone | ND | 190 | 110 | ug/Kg | 1 | 12/04/22 | AW | SW8270D |
| Naphthalene | ND | 260 | 110 | ug/Kg | 1 | 12/04/22 | AW | SW8270D |
| Nitrobenzene | ND | 190 | 130 | ug/Kg | 1 | 12/04/22 | AW | SW8270D |
| N-Nitrosodimethylamine | ND | 260 | 110 | ug/Kg | 1 | 12/04/22 | AW | SW8270D |
| N-Nitrosodi-n-propylamine | ND | 190 | 120 | ug/Kg | 1 | 12/04/22 | AW | SW8270D |
| N-Nitrosodiphenylamine | ND | 260 | 140 | ug/Kg | 1 | 12/04/22 | AW | SW8270D |
| Pentachloronitrobenzene | ND | 260 | 140 | ug/Kg | 1 | 12/04/22 | AW | SW8270D |
| Pentachlorophenol | ND | 230 | 140 | ug/Kg | 1 | 12/04/22 | AW | SW8270D |
| Phenanthrene | ND | 260 | 110 | ug/Kg | 1 | 12/04/22 | AW | SW8270D |
| Phenol | ND | 260 | 120 | ug/Kg | 1 | 12/04/22 | AW | SW8270D |
| Pyrene | ND | 260 | 130 | ug/Kg | 1 | 12/04/22 | AW | SW8270D |
| Pyridine | ND | 260 | 92 | ug/Kg | 1 | 12/04/22 | AW | SW8270D |
| **QA/QC Surrogates** | | | | | | | | |
| % 2,4,6-Tribromophenol | 83 | | | % | 1 | 12/04/22 | AW | 30 - 130 % |
| % 2-Fluorobiphenyl | 85 | | | % | 1 | 12/04/22 | AW | 30 - 130 % |
| % 2-Fluorophenol | 65 | | | % | 1 | 12/04/22 | AW | 30 - 130 % |
| % Nitrobenzene-d5 | 76 | | | % | 1 | 12/04/22 | AW | 30 - 130 % |
| % Phenol-d5 | 78 | | | % | 1 | 12/04/22 | AW | 30 - 130 % |
| % Terphenyl-d14 | 79 | | | % | 1 | 12/04/22 | AW | 30 - 130 % |
| **1,4-Dioxane** | | | | | | | | |
| 1,4-dioxane | ND | 75 | 75 | ug/Kg | 1 | 12/06/22 | WB | SW8270D (SIM) |
| **QA/QC Surrogates** | | | | | | | | |
| % 2-Fluorobiphenyl | 54 | | | % | 1 | 12/06/22 | WB | 30 - 130 % |
| % Nitrobenzene-d5 | 73 | | | % | 1 | 12/06/22 | WB | 30 - 130 % |
| % Terphenyl-d14 | 91 | | | % | 1 | 12/06/22 | WB | 30 - 130 % |

| Parameter | Result | RL/ PQL | LOD/ MDL | Units | Dilution | Date/Time | By | Reference |
|---|---|---|---|---|---|---|---|---|

1 = This parameter is not certified by the primary accrediting authority (NY NELAC) for this matrix. NY NELAC does not offer certification for all parameters at this time.
C = This parameter is subcontracted.
B = Present in blank, no bias suspected.

RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected BRL=Below Reporting Level L=Biased Low J=Estimated Below RL LOD=Limit of Detection MDL=Method Detection Limit1
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

## Comments:

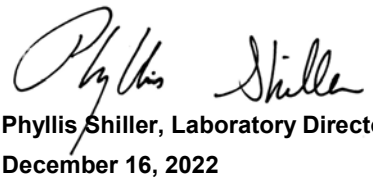
*See attached

Per 1.4.6 of EPA method 8270D, 1,2-Diphenylhydrazine is unstable and readily converts to Azobenzene. Azobenzene is used for the calibration of 1,2-Diphenylhydrazine.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

PFAS (21) (EPA 537m), PFOA/PFOS - Soil Extraction (EPA 537m) were analyzed by NY certified lab #12058.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200.
The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.



**Phyllis Shiller, Laboratory Director**
**December 16, 2022**
**Reviewed and Released by: Greg Lawrence, Assistant Lab Director**

PHOENIX
Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

# Analysis Report

December 16, 2022

FOR: Attn: Nora Brew
Walden Environmental Engineering PLLC
16 Spring Street
Oyster Bay, NY 11771

| Sample Information | | Custody Information | | Date | Time |
|---|---|---|---|---|---|
| Matrix: | SOIL | Collected by: | | 11/30/22 | 10:00 |
| Location Code: | WALDENE-IPARK | Received by: | CP | 12/01/22 | 17:12 |
| Rush Request: | Standard | Analyzed by: | see "By" below | | |
| P.O.#: | IPARK 0118.62 | | | | |

## Laboratory Data

SDG ID: GCM95278
Phoenix ID: CM95296

Project ID: IPARK0118.62-LOT 10 BOUNDARY MODIFICAT.
Client ID: SB-13A (0-1`)

| Parameter | Result | RL/ PQL | LOD/ MDL | Units | Dilution | Date/Time | By | Reference | |
|---|---|---|---|---|---|---|---|---|---|
| Aluminum | 18100 | 39 | 7.8 | mg/Kg | 10 | 12/03/22 | CPP | SW6010D | B |
| Antimony | ND | 3.9 | 3.9 | mg/Kg | 1 | 12/04/22 | CPP | SW6010D | |
| Arsenic | 5.21 | 0.78 | 0.78 | mg/Kg | 1 | 12/04/22 | CPP | SW6010D | |
| Barium | 59.8 | 0.8 | 0.39 | mg/Kg | 1 | 12/04/22 | TH | SW6010D | |
| Beryllium | 0.49 | 0.31 | 0.16 | mg/Kg | 1 | 12/04/22 | CPP | SW6010D | |
| Calcium | 769 | 3.9 | 3.6 | mg/Kg | 1 | 12/04/22 | CPP | SW6010D | |
| Cadmium | 1.97 | 0.39 | 0.39 | mg/Kg | 1 | 12/04/22 | CPP | SW6010D | |
| Chromium | 19.2 | 0.39 | 0.39 | mg/Kg | 1 | 12/04/22 | CPP | SW6010D | |
| Cobalt | 12.1 | 0.39 | 0.39 | mg/Kg | 1 | 12/04/22 | CPP | SW6010D | |
| Copper | 23.3 | 0.8 | 0.39 | mg/kg | 1 | 12/04/22 | CPP | SW6010D | |
| Iron | 31100 | 39 | 39 | mg/Kg | 10 | 12/03/22 | CPP | SW6010D | |
| Lead | 14.5 | 0.8 | 0.39 | mg/Kg | 1 | 12/04/22 | CPP | SW6010D | |
| Magnesium | 6730 | 39 | 39 | mg/Kg | 10 | 12/03/22 | CPP | SW6010D | |
| Manganese | 1080 | 3.9 | 3.9 | mg/Kg | 10 | 12/03/22 | TH | SW6010D | |
| Mercury | ND | 0.03 | 0.02 | mg/Kg | 2 | 12/05/22 | PM | SW7471B | |
| Nickel | 24.5 | 0.39 | 0.39 | mg/Kg | 1 | 12/04/22 | CPP | SW6010D | |
| Potassium | 1440 | 8 | 3.0 | mg/Kg | 1 | 12/04/22 | CPP | SW6010D | |
| Selenium | ND | 1.6 | 1.3 | mg/Kg | 1 | 12/04/22 | CPP | SW6010D | |
| Silver | ND | 0.39 | 0.39 | mg/Kg | 1 | 12/04/22 | CPP | SW6010D | |
| Sodium | 534 | 8 | 3.3 | mg/Kg | 1 | 12/04/22 | CPP | SW6010D | |
| Thallium | ND | 1.6 | 1.6 | mg/Kg | 1 | 12/04/22 | CPP | SW6010D | |
| Vanadium | 20.6 | 0.39 | 0.39 | mg/Kg | 1 | 12/04/22 | CPP | SW6010D | |
| Zinc | 64.7 | 0.8 | 0.39 | mg/Kg | 1 | 12/04/22 | CPP | SW6010D | |
| Percent Solid | 86 | | | % | | 12/01/22 | Q | SW846-%Solid | |
| Extraction for SVOA SIM | Completed | | | | | 12/05/22 | B/MO | SW3545A | |
| Soil Extraction for PCB | Completed | | | | | 12/02/22 | O/MO | SW3545A | |
| Soil Extraction for Pesticide | Completed | | | | | 12/02/22 | O/MO | SW3545A | |

**Ver 1**

Project ID: IPARK0118.62-LOT 10 BOUNDARY MODIFICAT. Phoenix I.D.: CM95296
Client ID: SB-13A (0-1`)

| Parameter | Result | RL/ PQL | LOD/ MDL | Units | Dilution | Date/Time | By | Reference | |
|---|---|---|---|---|---|---|---|---|---|
| Mercury Digestion | Completed | | | | | 12/02/22 | AB/AB | SW7471B | |
| Soil Extraction for Herbicide | Completed | | | | | 12/08/22 | J/D | SW3546 | |
| Soil Extraction for SVOA | Completed | | | | | 12/04/22 | R/U | SW3546 | |
| Total Metals Digest | Completed | | | | | 12/01/22 | | SW3050B | |
| PFAS (21) | Completed | | | | | 12/07/22 | *** | EPA 537m | C |
| **PFAS (21)** | | | | | | | | | |
| 1H,1H,2H,2H-Perfluorodecanesulfonic acid | ND | 0.309 | 0.0316 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| 1H,1H,2H,2H-Perfluorooctanesulfonic acid | ND | 0.309 | 0.0815 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| NEtFOSAA | ND | 0.309 | 0.129 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| NMeFOSAA | ND | 0.309 | 0.129 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| Perfluoro-1-decanesulfonic acid (PFDS) | ND | 0.309 | 0.0632 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| Perfluoro-1-heptanesulfonic acid (PFHpS) | ND | 0.309 | 0.0608 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| Perfluoro-1-octanesulfonamide (FOSA) | ND | 0.309 | 0.0576 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| Perfluorobutanesulfonic acid (PFBS) | ND | 0.309 | 0.247 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| Perfluorodecanoic acid (PFDA) | ND | 0.309 | 0.0632 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| Perfluorododecanoic acid (PFDoA) | ND | 0.309 | 0.0926 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| Perfluoroheptanoic acid (PFHpA) | ND | 0.309 | 0.0562 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| Perfluorohexanesulfonic Acid (PFHxS) | ND | 0.309 | 0.0383 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| Perfluorohexanoic acid (PFHxA) | ND | 0.309 | 0.0813 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| Perfluoro-n-butanoic acid (PFBA) | ND | 0.309 | 0.225 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| Perfluorononanoic acid (PFNA) | ND | 0.309 | 0.0738 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| Perfluorooctanesulfonic Acid (PFOS) | 0.403 | 0.309 | 0.0541 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| Perfluorooctanoic acid (PFOA) | ND | 0.309 | 0.0953 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| Perfluoropentanoic acid (PFPeA) | ND | 0.309 | 0.113 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| Perfluorotetradecanoic acid (PFTA) | ND | 0.309 | 0.0922 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| Perfluorotridecanoic acid (PFTrDA) | ND | 0.309 | 0.0537 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| Perfluoroundecanoic acid (PFUnA) | ND | 0.309 | 0.144 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| **QA/QC Surrogates** | | | | | | | | | |
| % d3-N-MeFOSAA | 39.1 | | | % | 1 | 12/11/22 | *** | 25 - 150 % | C |
| % d5-NEtFOSA | 42.5 | | | % | 1 | 12/11/22 | *** | 25 - 150 % | C |
| % M2-6:2FTS | 108 | | | % | 1 | 12/11/22 | *** | 25 - 200 % | C |
| % M2-8:2FTS | 87.0 | | | % | 1 | 12/11/22 | *** | 25 - 200 % | C |
| % M2PFTeDA | 21.7 | | | % | 1 | 12/11/22 | *** | 10 - 150 % | C |
| % M3PFBS | 60.6 | | | % | 1 | 12/11/22 | *** | 25 - 150 % | C |
| % M3PFHxS | 72.2 | | | % | 1 | 12/11/22 | *** | 25 - 150 % | C |
| % M4PFHpA | 57.8 | | | % | 1 | 12/11/22 | *** | 25 - 150 % | C |
| % M5PFHxA | 63.8 | | | % | 1 | 12/11/22 | *** | 25 - 150 % | C |
| % M5PFPeA | 62.1 | | | % | 1 | 12/11/22 | *** | 25 - 150 % | C |
| % M6PFDA | 45.3 | | | % | 1 | 12/11/22 | *** | 25 - 150 % | C |
| % M7PFUdA | 32.6 | | | % | 1 | 12/11/22 | *** | 25 - 150 % | C |
| % M8FOSA | 31.9 | | | % | 1 | 12/11/22 | *** | 10 - 150 % | C |
| % M8PFOA | 68.6 | | | % | 1 | 12/11/22 | *** | 25 - 150 % | C |
| % M8PFOS | 51.1 | | | % | 1 | 12/11/22 | *** | 25 - 150 % | C |
| % M9PFNA | 48.5 | | | % | 1 | 12/11/22 | *** | 25 - 150 % | C |
| % MPFBA | 64.2 | | | % | 1 | 12/11/22 | *** | 25 - 150 % | C |
| % MPFDoA | 35.3 | | | % | 1 | 12/11/22 | *** | 25 - 150 % | C |
| **Chlorinated Herbicides** | | | | | | | | | |
| 2,4,5-T | ND | 140 | 140 | ug/Kg | 10 | 12/09/22 | JRB | SW8151A | |

**Ver 1**

Project ID: IPARK0118.62-LOT 10 BOUNDARY MODIFICAT. Phoenix I.D.: CM95296
Client ID: SB-13A (0-1`)

| Parameter | Result | RL/ PQL | LOD/ MDL | Units | Dilution | Date/Time | By | Reference |
|---|---|---|---|---|---|---|---|---|
| 2,4,5-TP (Silvex) | ND | 140 | 140 | ug/Kg | 10 | 12/09/22 | JRB | SW8151A |
| 2,4-D | ND | 290 | 290 | ug/Kg | 10 | 12/09/22 | JRB | SW8151A |
| 2,4-DB | ND | 2900 | 2900 | ug/Kg | 10 | 12/09/22 | JRB | SW8151A |
| Dalapon | ND | 140 | 140 | ug/Kg | 10 | 12/09/22 | JRB | SW8151A |
| Dicamba | ND | 140 | 140 | ug/Kg | 10 | 12/09/22 | JRB | SW8151A |
| Dichloroprop | ND | 290 | 290 | ug/Kg | 10 | 12/09/22 | JRB | SW8151A |
| Dinoseb | ND | 290 | 290 | ug/Kg | 10 | 12/09/22 | JRB | SW8151A |
| **QA/QC Surrogates** | | | | | | | | |
| % DCAA | 90 | | | % | 10 | 12/09/22 | JRB | 30 - 150 % |
| % DCAA (Confirmation) | 94 | | | % | 10 | 12/09/22 | JRB | 30 - 150 % |
| **Polychlorinated Biphenyls** | | | | | | | | |
| PCB-1016 | ND | 75 | 75 | ug/Kg | 2 | 12/05/22 | SC | SW8082A |
| PCB-1221 | ND | 75 | 75 | ug/Kg | 2 | 12/05/22 | SC | SW8082A |
| PCB-1232 | ND | 75 | 75 | ug/Kg | 2 | 12/05/22 | SC | SW8082A |
| PCB-1242 | ND | 75 | 75 | ug/Kg | 2 | 12/05/22 | SC | SW8082A |
| PCB-1248 | ND | 75 | 75 | ug/Kg | 2 | 12/05/22 | SC | SW8082A |
| PCB-1254 | ND | 75 | 75 | ug/Kg | 2 | 12/05/22 | SC | SW8082A |
| PCB-1260 | ND | 75 | 75 | ug/Kg | 2 | 12/05/22 | SC | SW8082A |
| PCB-1262 | ND | 75 | 75 | ug/Kg | 2 | 12/05/22 | SC | SW8082A |
| PCB-1268 | ND | 75 | 75 | ug/Kg | 2 | 12/05/22 | SC | SW8082A |
| **QA/QC Surrogates** | | | | | | | | |
| % DCBP | 68 | | | % | 2 | 12/05/22 | SC | 30 - 150 % |
| % DCBP (Confirmation) | 60 | | | % | 2 | 12/05/22 | SC | 30 - 150 % |
| % TCMX | 60 | | | % | 2 | 12/05/22 | SC | 30 - 150 % |
| % TCMX (Confirmation) | 58 | | | % | 2 | 12/05/22 | SC | 30 - 150 % |
| **Pesticides - Soil** | | | | | | | | |
| 4,4' -DDD | ND | 2.3 | 2.3 | ug/Kg | 2 | 12/05/22 | AW | SW8081B |
| 4,4' -DDE | ND | 2.3 | 2.3 | ug/Kg | 2 | 12/05/22 | AW | SW8081B |
| 4,4' -DDT | ND | 2.3 | 2.3 | ug/Kg | 2 | 12/05/22 | AW | SW8081B |
| a-BHC | ND | 7.5 | 7.5 | ug/Kg | 2 | 12/05/22 | AW | SW8081B |
| a-Chlordane | ND | 3.8 | 3.8 | ug/Kg | 2 | 12/05/22 | AW | SW8081B |
| Alachlor | ND | 3.8 | 3.8 | ug/Kg | 2 | 12/05/22 | AW | SW8081B |
| Aldrin | ND | 3.8 | 3.8 | ug/Kg | 2 | 12/05/22 | AW | SW8081B |
| b-BHC | ND | 7.5 | 7.5 | ug/Kg | 2 | 12/05/22 | AW | SW8081B |
| Chlordane | ND | 38 | 38 | ug/Kg | 2 | 12/05/22 | AW | SW8081B |
| d-BHC | ND | 7.5 | 7.5 | ug/Kg | 2 | 12/05/22 | AW | SW8081B |
| Dieldrin | ND | 3.8 | 3.8 | ug/Kg | 2 | 12/05/22 | AW | SW8081B |
| Endosulfan I | ND | 7.5 | 7.5 | ug/Kg | 2 | 12/05/22 | AW | SW8081B |
| Endosulfan II | ND | 7.5 | 7.5 | ug/Kg | 2 | 12/05/22 | AW | SW8081B |
| Endosulfan sulfate | ND | 7.5 | 7.5 | ug/Kg | 2 | 12/05/22 | AW | SW8081B |
| Endrin | ND | 7.5 | 7.5 | ug/Kg | 2 | 12/05/22 | AW | SW8081B |
| Endrin aldehyde | ND | 7.5 | 7.5 | ug/Kg | 2 | 12/05/22 | AW | SW8081B |
| Endrin ketone | ND | 7.5 | 7.5 | ug/Kg | 2 | 12/05/22 | AW | SW8081B |
| g-BHC | ND | 1.5 | 1.5 | ug/Kg | 2 | 12/05/22 | AW | SW8081B |
| g-Chlordane | ND | 3.8 | 3.8 | ug/Kg | 2 | 12/05/22 | AW | SW8081B |
| Heptachlor | ND | 7.5 | 7.5 | ug/Kg | 2 | 12/05/22 | AW | SW8081B |
| Heptachlor epoxide | ND | 7.5 | 7.5 | ug/Kg | 2 | 12/05/22 | AW | SW8081B |
| Methoxychlor | ND | 38 | 38 | ug/Kg | 2 | 12/05/22 | AW | SW8081B |

| Parameter | Result | RL/ PQL | LOD/ MDL | Units | Dilution | Date/Time | By | Reference | |
|---|---|---|---|---|---|---|---|---|---|
| Toxaphene | ND | 150 | 150 | ug/Kg | 2 | 12/05/22 | AW | SW8081B | |
| **QA/QC Surrogates** | | | | | | | | | |
| % DCBP | 65 | | | % | 2 | 12/05/22 | AW | 30 - 150 % | |
| % DCBP (Confirmation) | 69 | | | % | 2 | 12/05/22 | AW | 30 - 150 % | |
| % TCMX | 63 | | | % | 2 | 12/05/22 | AW | 30 - 150 % | |
| % TCMX (Confirmation) | 67 | | | % | 2 | 12/05/22 | AW | 30 - 150 % | |
| **Semivolatiles** | | | | | | | | | |
| 1,2,4,5-Tetrachlorobenzene | ND | 270 | 140 | ug/Kg | 1 | 12/04/22 | AW | SW8270D | |
| 1,2,4-Trichlorobenzene | ND | 270 | 120 | ug/Kg | 1 | 12/04/22 | AW | SW8270D | |
| 1,2-Dichlorobenzene | ND | 270 | 110 | ug/Kg | 1 | 12/04/22 | AW | SW8270D | |
| 1,2-Diphenylhydrazine | ND | 270 | 130 | ug/Kg | 1 | 12/04/22 | AW | SW8270D | |
| 1,3-Dichlorobenzene | ND | 270 | 110 | ug/Kg | 1 | 12/04/22 | AW | SW8270D | |
| 1,4-Dichlorobenzene | ND | 270 | 110 | ug/Kg | 1 | 12/04/22 | AW | SW8270D | |
| 2,2'-Oxybis(1-Chloropropane) | ND | 270 | 110 | ug/Kg | 1 | 12/04/22 | AW | SW8270D | 1 |
| 2,4,5-Trichlorophenol | ND | 270 | 210 | ug/Kg | 1 | 12/04/22 | AW | SW8270D | |
| 2,4,6-Trichlorophenol | ND | 190 | 120 | ug/Kg | 1 | 12/04/22 | AW | SW8270D | |
| 2,4-Dichlorophenol | ND | 190 | 140 | ug/Kg | 1 | 12/04/22 | AW | SW8270D | |
| 2,4-Dimethylphenol | ND | 270 | 95 | ug/Kg | 1 | 12/04/22 | AW | SW8270D | |
| 2,4-Dinitrophenol | ND | 270 | 270 | ug/Kg | 1 | 12/04/22 | AW | SW8270D | |
| 2,4-Dinitrotoluene | ND | 190 | 150 | ug/Kg | 1 | 12/04/22 | AW | SW8270D | |
| 2,6-Dinitrotoluene | ND | 190 | 120 | ug/Kg | 1 | 12/04/22 | AW | SW8270D | |
| 2-Chloronaphthalene | ND | 270 | 110 | ug/Kg | 1 | 12/04/22 | AW | SW8270D | |
| 2-Chlorophenol | ND | 270 | 110 | ug/Kg | 1 | 12/04/22 | AW | SW8270D | |
| 2-Methylnaphthalene | ND | 270 | 110 | ug/Kg | 1 | 12/04/22 | AW | SW8270D | |
| 2-Methylphenol (o-cresol) | ND | 270 | 180 | ug/Kg | 1 | 12/04/22 | AW | SW8270D | |
| 2-Nitroaniline | ND | 270 | 270 | ug/Kg | 1 | 12/04/22 | AW | SW8270D | |
| 2-Nitrophenol | ND | 270 | 240 | ug/Kg | 1 | 12/04/22 | AW | SW8270D | |
| 3&4-Methylphenol (m&p-cresol) | ND | 270 | 150 | ug/Kg | 1 | 12/04/22 | AW | SW8270D | 1 |
| 3,3'-Dichlorobenzidine | ND | 190 | 180 | ug/Kg | 1 | 12/04/22 | AW | SW8270D | |
| 3-Nitroaniline | ND | 380 | 770 | ug/Kg | 1 | 12/04/22 | AW | SW8270D | |
| 4,6-Dinitro-2-methylphenol | ND | 230 | 77 | ug/Kg | 1 | 12/04/22 | AW | SW8270D | |
| 4-Bromophenyl phenyl ether | ND | 270 | 110 | ug/Kg | 1 | 12/04/22 | AW | SW8270D | |
| 4-Chloro-3-methylphenol | ND | 270 | 140 | ug/Kg | 1 | 12/04/22 | AW | SW8270D | |
| 4-Chloroaniline | ND | 310 | 180 | ug/Kg | 1 | 12/04/22 | AW | SW8270D | |
| 4-Chlorophenyl phenyl ether | ND | 270 | 130 | ug/Kg | 1 | 12/04/22 | AW | SW8270D | |
| 4-Nitroaniline | ND | 380 | 130 | ug/Kg | 1 | 12/04/22 | AW | SW8270D | |
| 4-Nitrophenol | ND | 380 | 170 | ug/Kg | 1 | 12/04/22 | AW | SW8270D | |
| Acenaphthene | ND | 270 | 120 | ug/Kg | 1 | 12/04/22 | AW | SW8270D | |
| Acenaphthylene | ND | 270 | 110 | ug/Kg | 1 | 12/04/22 | AW | SW8270D | |
| Acetophenone | ND | 270 | 120 | ug/Kg | 1 | 12/04/22 | AW | SW8270D | |
| Aniline | ND | 310 | 310 | ug/Kg | 1 | 12/04/22 | AW | SW8270D | |
| Anthracene | ND | 270 | 130 | ug/Kg | 1 | 12/04/22 | AW | SW8270D | |
| Benz(a)anthracene | ND | 270 | 130 | ug/Kg | 1 | 12/04/22 | AW | SW8270D | |
| Benzidine | ND | 380 | 230 | ug/Kg | 1 | 12/04/22 | AW | SW8270D | |
| Benzo(a)pyrene | ND | 190 | 130 | ug/Kg | 1 | 12/04/22 | AW | SW8270D | |
| Benzo(b)fluoranthene | ND | 270 | 130 | ug/Kg | 1 | 12/04/22 | AW | SW8270D | |
| Benzo(ghi)perylene | ND | 270 | 120 | ug/Kg | 1 | 12/04/22 | AW | SW8270D | |
| Benzo(k)fluoranthene | ND | 270 | 130 | ug/Kg | 1 | 12/04/22 | AW | SW8270D | |
| Benzoic acid | ND | 1900 | 770 | ug/Kg | 1 | 12/04/22 | AW | SW8270D | |

Project ID: IPARK0118.62-LOT 10 BOUNDARY MODIFICAT. Phoenix I.D.: CM95296
Client ID: SB-13A (0-1`)

| Parameter | Result | RL/ PQL | LOD/ MDL | Units | Dilution | Date/Time | By | Reference |
|---|---|---|---|---|---|---|---|---|
| Benzyl butyl phthalate | ND | 270 | 99 | ug/Kg | 1 | 12/04/22 | AW | SW8270D |
| Bis(2-chloroethoxy)methane | ND | 270 | 110 | ug/Kg | 1 | 12/04/22 | AW | SW8270D |
| Bis(2-chloroethyl)ether | ND | 190 | 100 | ug/Kg | 1 | 12/04/22 | AW | SW8270D |
| Bis(2-ethylhexyl)phthalate | ND | 270 | 110 | ug/Kg | 1 | 12/04/22 | AW | SW8270D |
| Carbazole | ND | 190 | 150 | ug/Kg | 1 | 12/04/22 | AW | SW8270D |
| Chrysene | ND | 270 | 130 | ug/Kg | 1 | 12/04/22 | AW | SW8270D |
| Dibenz(a,h)anthracene | ND | 190 | 120 | ug/Kg | 1 | 12/04/22 | AW | SW8270D |
| Dibenzofuran | ND | 270 | 110 | ug/Kg | 1 | 12/04/22 | AW | SW8270D |
| Diethyl phthalate | ND | 270 | 120 | ug/Kg | 1 | 12/04/22 | AW | SW8270D |
| Dimethylphthalate | ND | 270 | 120 | ug/Kg | 1 | 12/04/22 | AW | SW8270D |
| Di-n-butylphthalate | ND | 270 | 100 | ug/Kg | 1 | 12/04/22 | AW | SW8270D |
| Di-n-octylphthalate | ND | 270 | 99 | ug/Kg | 1 | 12/04/22 | AW | SW8270D |
| Fluoranthene | ND | 270 | 120 | ug/Kg | 1 | 12/04/22 | AW | SW8270D |
| Fluorene | ND | 270 | 130 | ug/Kg | 1 | 12/04/22 | AW | SW8270D |
| Hexachlorobenzene | ND | 190 | 110 | ug/Kg | 1 | 12/04/22 | AW | SW8270D |
| Hexachlorobutadiene | ND | 270 | 140 | ug/Kg | 1 | 12/04/22 | AW | SW8270D |
| Hexachlorocyclopentadiene | ND | 270 | 120 | ug/Kg | 1 | 12/04/22 | AW | SW8270D |
| Hexachloroethane | ND | 190 | 120 | ug/Kg | 1 | 12/04/22 | AW | SW8270D |
| Indeno(1,2,3-cd)pyrene | ND | 270 | 130 | ug/Kg | 1 | 12/04/22 | AW | SW8270D |
| Isophorone | ND | 190 | 110 | ug/Kg | 1 | 12/04/22 | AW | SW8270D |
| Naphthalene | ND | 270 | 110 | ug/Kg | 1 | 12/04/22 | AW | SW8270D |
| Nitrobenzene | ND | 190 | 130 | ug/Kg | 1 | 12/04/22 | AW | SW8270D |
| N-Nitrosodimethylamine | ND | 270 | 110 | ug/Kg | 1 | 12/04/22 | AW | SW8270D |
| N-Nitrosodi-n-propylamine | ND | 190 | 120 | ug/Kg | 1 | 12/04/22 | AW | SW8270D |
| N-Nitrosodiphenylamine | ND | 270 | 150 | ug/Kg | 1 | 12/04/22 | AW | SW8270D |
| Pentachloronitrobenzene | ND | 270 | 140 | ug/Kg | 1 | 12/04/22 | AW | SW8270D |
| Pentachlorophenol | ND | 230 | 150 | ug/Kg | 1 | 12/04/22 | AW | SW8270D |
| Phenanthrene | ND | 270 | 110 | ug/Kg | 1 | 12/04/22 | AW | SW8270D |
| Phenol | ND | 270 | 120 | ug/Kg | 1 | 12/04/22 | AW | SW8270D |
| Pyrene | ND | 270 | 130 | ug/Kg | 1 | 12/04/22 | AW | SW8270D |
| Pyridine | ND | 270 | 95 | ug/Kg | 1 | 12/04/22 | AW | SW8270D |
| **QA/QC Surrogates** | | | | | | | | |
| % 2,4,6-Tribromophenol | 89 | | | % | 1 | 12/04/22 | AW | 30 - 130 % |
| % 2-Fluorobiphenyl | 86 | | | % | 1 | 12/04/22 | AW | 30 - 130 % |
| % 2-Fluorophenol | 72 | | | % | 1 | 12/04/22 | AW | 30 - 130 % |
| % Nitrobenzene-d5 | 79 | | | % | 1 | 12/04/22 | AW | 30 - 130 % |
| % Phenol-d5 | 79 | | | % | 1 | 12/04/22 | AW | 30 - 130 % |
| % Terphenyl-d14 | 82 | | | % | 1 | 12/04/22 | AW | 30 - 130 % |
| **1,4-Dioxane** | | | | | | | | |
| 1,4-dioxane | ND | 76 | 76 | ug/Kg | 1 | 12/06/22 | WB | SW8270D (SIM) |
| **QA/QC Surrogates** | | | | | | | | |
| % 2-Fluorobiphenyl | 60 | | | % | 1 | 12/06/22 | WB | 30 - 130 % |
| % Nitrobenzene-d5 | 88 | | | % | 1 | 12/06/22 | WB | 30 - 130 % |
| % Terphenyl-d14 | 105 | | | % | 1 | 12/06/22 | WB | 30 - 130 % |

| Parameter | Result | RL/ PQL | LOD/ MDL | Units | Dilution | Date/Time | By | Reference |
|---|---|---|---|---|---|---|---|---|

1 = This parameter is not certified by the primary accrediting authority (NY NELAC) for this matrix. NY NELAC does not offer certification for all parameters at this time.
C = This parameter is subcontracted.
B = Present in blank, no bias suspected.

RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected BRL=Below Reporting Level L=Biased Low LOD=Limit of Detection MDL=Method Detection Limit1
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

## Comments:

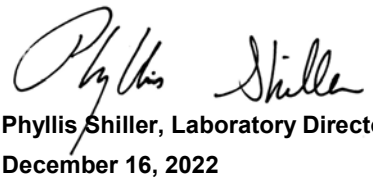
*See attached

Per 1.4.6 of EPA method 8270D, 1,2-Diphenylhydrazine is unstable and readily converts to Azobenzene. Azobenzene is used for the calibration of 1,2-Diphenylhydrazine.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

PFAS (21) (EPA 537m), PFOA/PFOS - Soil Extraction (EPA 537m) were analyzed by NY certified lab #12058.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200.
The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.



**Phyllis Shiller, Laboratory Director**
**December 16, 2022**
**Reviewed and Released by: Greg Lawrence, Assistant Lab Director**

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

# Analysis Report

December 16, 2022

FOR: Attn: Nora Brew
Walden Environmental Engineering PLLC
16 Spring Street
Oyster Bay, NY 11771

| Sample Information | | Custody Information | | Date | Time |
|---|---|---|---|---|---|
| Matrix: | SOIL | Collected by: | | 11/30/22 | 10:00 |
| Location Code: | WALDENE-IPARK | Received by: | CP | 12/01/22 | 17:12 |
| Rush Request: | Standard | Analyzed by: | see "By" below | | |
| P.O.#: | IPARK 0118.62 | | | | |

## Laboratory Data

SDG ID: GCM95278
Phoenix ID: CM95297

Project ID: IPARK0118.62-LOT 10 BOUNDARY MODIFICAT.
Client ID: SB-13B (1-2`)

| Parameter | Result | RL/ PQL | LOD/ MDL | Units | Dilution | Date/Time | By | Reference | |
|---|---|---|---|---|---|---|---|---|---|
| Field Extraction | Completed | | | | | 11/30/22 | | SW5035A | 1 |
| **Volatiles** | | | | | | | | | |
| 1,1,1,2-Tetrachloroethane | ND | 4.2 | 0.84 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,1,1-Trichloroethane | ND | 4.2 | 0.42 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,1,2,2-Tetrachloroethane | ND | 4.2 | 0.84 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,1,2-Trichloroethane | ND | 4.2 | 0.84 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,1-Dichloroethane | ND | 4.2 | 0.84 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,1-Dichloroethene | ND | 4.2 | 0.42 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,1-Dichloropropene | ND | 4.2 | 0.42 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,2,3-Trichlorobenzene | ND | 4.2 | 0.84 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,2,3-Trichloropropane | ND | 4.2 | 0.42 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,2,4-Trichlorobenzene | ND | 4.2 | 0.84 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,2,4-Trimethylbenzene | ND | 4.2 | 0.42 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,2-Dibromo-3-chloropropane | ND | 4.2 | 0.84 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,2-Dibromoethane | ND | 4.2 | 0.42 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,2-Dichlorobenzene | ND | 4.2 | 0.42 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,2-Dichloroethane | ND | 4.2 | 0.42 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,2-Dichloropropane | ND | 4.2 | 0.84 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,3,5-Trimethylbenzene | ND | 4.2 | 0.42 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,3-Dichlorobenzene | ND | 4.2 | 0.42 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,3-Dichloropropane | ND | 4.2 | 0.84 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,4-Dichlorobenzene | ND | 4.2 | 0.42 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 2,2-Dichloropropane | ND | 4.2 | 0.42 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 2-Chlorotoluene | ND | 4.2 | 0.84 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 2-Hexanone | ND | 21 | 4.2 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 2-Isopropyltoluene | ND | 4.2 | 0.42 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | 1 |

Project ID: IPARK0118.62-LOT 10 BOUNDARY MODIFICAT. Phoenix I.D.: CM95297

Client ID: SB-13B (1-2`)

| Parameter | Result | | RL/ PQL | LOD/ MDL | Units | Dilution | Date/Time | By | Reference |
|---|---|---|---|---|---|---|---|---|---|
| 4-Chlorotoluene | ND | | 4.2 | 0.42 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| 4-Methyl-2-pentanone | ND | | 21 | 4.2 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| Acetone | ND | | 21 | 4.2 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| Acrylonitrile | ND | | 8.4 | 0.84 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| Benzene | ND | | 4.2 | 0.42 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| Bromobenzene | ND | | 4.2 | 0.42 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| Bromochloromethane | ND | | 4.2 | 0.42 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| Bromodichloromethane | ND | | 4.2 | 0.84 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| Bromoform | ND | | 4.2 | 0.84 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| Bromomethane | ND | | 4.2 | 1.7 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| Carbon Disulfide | ND | | 4.2 | 0.84 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| Carbon tetrachloride | ND | | 4.2 | 0.84 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| Chlorobenzene | ND | | 4.2 | 0.42 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| Chloroethane | ND | | 4.2 | 0.42 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| Chloroform | ND | | 4.2 | 0.42 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| Chloromethane | ND | | 4.2 | 0.84 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| cis-1,2-Dichloroethene | ND | | 4.2 | 0.42 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| cis-1,3-Dichloropropene | ND | | 4.2 | 0.42 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| Dibromochloromethane | ND | | 4.2 | 0.84 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| Dibromomethane | ND | | 4.2 | 0.84 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| Dichlorodifluoromethane | ND | | 4.2 | 0.42 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| Ethylbenzene | ND | | 4.2 | 0.42 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| Hexachlorobutadiene | ND | | 4.2 | 0.42 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| Isopropylbenzene | ND | | 4.2 | 0.42 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| m&p-Xylene | ND | | 4.2 | 0.84 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| Methyl Ethyl Ketone | ND | | 25 | 4.2 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| Methyl t-butyl ether (MTBE) | ND | | 8.4 | 0.84 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| Methylene chloride | ND | | 4.2 | 4.2 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| Naphthalene | ND | | 4.2 | 0.84 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| n-Butylbenzene | ND | | 4.2 | 0.42 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| n-Propylbenzene | ND | | 4.2 | 0.84 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| o-Xylene | ND | | 4.2 | 0.84 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| p-Isopropyltoluene | ND | | 4.2 | 0.42 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| sec-Butylbenzene | ND | | 4.2 | 0.42 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| Styrene | ND | | 4.2 | 0.42 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| tert-Butylbenzene | ND | | 4.2 | 0.42 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| Tetrachloroethene | ND | | 4.2 | 0.84 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| Tetrahydrofuran (THF) | 7.7 | J | 8.4 | 2.1 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| Toluene | ND | | 4.2 | 0.42 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| trans-1,2-Dichloroethene | ND | | 4.2 | 0.42 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| trans-1,3-Dichloropropene | ND | | 4.2 | 0.42 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| trans-1,4-dichloro-2-butene | ND | | 8.4 | 2.1 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| Trichloroethene | ND | | 4.2 | 0.42 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| Trichlorofluoromethane | ND | | 4.2 | 0.84 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| Trichlorotrifluoroethane | ND | | 4.2 | 0.42 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| Vinyl chloride | ND | | 4.2 | 0.42 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C |
| **QA/QC Surrogates** | | | | | | | | | |
| % 1,2-dichlorobenzene-d4 | 94 | | | | % | 1 | 12/06/22 | JLI | 70 - 130 % |
| % Bromofluorobenzene | 95 | | | | % | 1 | 12/06/22 | JLI | 70 - 130 % |

Project ID: IPARK0118.62-LOT 10 BOUNDARY MODIFICAT. Phoenix I.D.: CM95297
Client ID: SB-13B (1-2`)

| Parameter | Result | RL/ PQL | LOD/ MDL | Units | Dilution | Date/Time | By | Reference |
|---|---|---|---|---|---|---|---|---|
| % Dibromofluoromethane | 99 | | | % | 1 | 12/06/22 | JLI | 70 - 130 % |
| % Toluene-d8 | 95 | | | % | 1 | 12/06/22 | JLI | 70 - 130 % |

1 = This parameter is not certified by the primary accrediting authority (NY NELAC) for this matrix. NY NELAC does not offer certification for all parameters at this time.

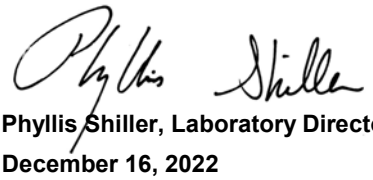
RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected BRL=Below Reporting Level L=Biased Low J=Estimated Below RL LOD=Limit of Detection MDL=Method Detection Limit1
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

## Comments:

Results are reported on an ``as received`` basis, and are not corrected for dry weight.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200.
The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.



**Phyllis Shiller, Laboratory Director**
**December 16, 2022**
**Reviewed and Released by: Greg Lawrence, Assistant Lab Director**

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

# Analysis Report

December 16, 2022

FOR: Attn: Nora Brew
Walden Environmental Engineering PLLC
16 Spring Street
Oyster Bay, NY 11771

| Sample Information | | Custody Information | | Date | Time |
|---|---|---|---|---|---|
| Matrix: | SOIL | Collected by: | | 11/30/22 | 10:00 |
| Location Code: | WALDENE-IPARK | Received by: | CP | 12/01/22 | 17:12 |
| Rush Request: | Standard | Analyzed by: | see "By" below | | |
| P.O.#: | IPARK 0118.62 | | | | |

## Laboratory Data

SDG ID: GCM95278
Phoenix ID: CM95298

Project ID: IPARK0118.62-LOT 10 BOUNDARY MODIFICAT.
Client ID: SB-13C (13-14`)

| Parameter | Result | RL/ PQL | LOD/ MDL | Units | Dilution | Date/Time | By | Reference | |
|---|---|---|---|---|---|---|---|---|---|
| Aluminum | 21200 | 40 | 8.1 | mg/Kg | 10 | 12/03/22 | CPP | SW6010D | B |
| Antimony | ND | 4.0 | 4.0 | mg/Kg | 1 | 12/04/22 | CPP | SW6010D | |
| Arsenic | 8.69 | 0.81 | 0.81 | mg/Kg | 1 | 12/04/22 | CPP | SW6010D | |
| Barium | 93.1 | 0.8 | 0.40 | mg/Kg | 1 | 12/04/22 | TH | SW6010D | |
| Beryllium | 0.75 | 0.32 | 0.16 | mg/Kg | 1 | 12/04/22 | CPP | SW6010D | |
| Calcium | 12600 | 4.0 | 3.7 | mg/Kg | 1 | 12/04/22 | CPP | SW6010D | |
| Cadmium | 2.36 | 0.40 | 0.40 | mg/Kg | 1 | 12/04/22 | CPP | SW6010D | |
| Chromium | 24.5 | 0.40 | 0.40 | mg/Kg | 1 | 12/04/22 | CPP | SW6010D | |
| Cobalt | 15.8 | 0.40 | 0.40 | mg/Kg | 1 | 12/04/22 | CPP | SW6010D | |
| Copper | 38.1 | 0.8 | 0.40 | mg/kg | 1 | 12/04/22 | CPP | SW6010D | |
| Iron | 37800 | 40 | 40 | mg/Kg | 10 | 12/03/22 | CPP | SW6010D | |
| Lead | 17.7 | 0.8 | 0.40 | mg/Kg | 1 | 12/04/22 | CPP | SW6010D | |
| Magnesium | 14600 | 40 | 40 | mg/Kg | 10 | 12/03/22 | CPP | SW6010D | |
| Manganese | 1090 | 4.0 | 4.0 | mg/Kg | 10 | 12/03/22 | TH | SW6010D | |
| Mercury | ND | 0.03 | 0.02 | mg/Kg | 2 | 12/05/22 | PM | SW7471B | |
| Nickel | 34.5 | 0.40 | 0.40 | mg/Kg | 1 | 12/04/22 | CPP | SW6010D | |
| Potassium | 3020 | 8 | 3.1 | mg/Kg | 1 | 12/04/22 | CPP | SW6010D | |
| Selenium | ND | 1.6 | 1.4 | mg/Kg | 1 | 12/04/22 | CPP | SW6010D | |
| Silver | ND | 0.40 | 0.40 | mg/Kg | 1 | 12/04/22 | CPP | SW6010D | |
| Sodium | 593 | 8 | 3.5 | mg/Kg | 1 | 12/04/22 | CPP | SW6010D | |
| Thallium | ND | 1.6 | 1.6 | mg/Kg | 1 | 12/04/22 | CPP | SW6010D | |
| Vanadium | 24.9 | 0.40 | 0.40 | mg/Kg | 1 | 12/04/22 | CPP | SW6010D | |
| Zinc | 88.3 | 0.8 | 0.40 | mg/Kg | 1 | 12/04/22 | CPP | SW6010D | |
| Percent Solid | 73 | | | % | | 12/01/22 | Q | SW846-%Solid | |
| Extraction for SVOA SIM | Completed | | | | | 12/05/22 | B/MO | SW3545A | |
| Soil Extraction for PCB | Completed | | | | | 12/02/22 | O/MO | SW3545A | |
| Soil Extraction for Pesticide | Completed | | | | | 12/02/22 | O/MO | SW3545A | |

**Ver 1**

Project ID: IPARK0118.62-LOT 10 BOUNDARY MODIFICAT. Phoenix I.D.: CM95298
Client ID: SB-13C (13-14`)

| Parameter | Result | RL/ PQL | LOD/ MDL | Units | Dilution | Date/Time | By | Reference | |
|---|---|---|---|---|---|---|---|---|---|
| Field Extraction | Completed | | | | | 11/30/22 | | SW5035A | 1 |
| Mercury Digestion | Completed | | | | | 12/02/22 | AB/AB | SW7471B | |
| Soil Extraction for Herbicide | Completed | | | | | 12/08/22 | J/D | SW3546 | |
| Soil Extraction for SVOA | Completed | | | | | 12/04/22 | R/U | SW3546 | |
| Total Metals Digest | Completed | | | | | 12/01/22 | | SW3050B | |
| PFAS (21) | Completed | | | | | 12/07/22 | *** | EPA 537m | C |

## PFAS (21)

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **1H,1H,2H,2H-Perfluorodecanesulfonic acid** | ND | 0.319 | 0.0327 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| **1H,1H,2H,2H-Perfluorooctanesulfonic acid** | ND | 0.319 | 0.0842 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| NEtFOSAA | ND | 0.319 | 0.133 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| NMeFOSAA | ND | 0.319 | 0.133 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| **Perfluoro-1-decanesulfonic acid (PFDS)** | ND | 0.319 | 0.0653 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| **Perfluoro-1-heptanesulfonic acid (PFHpS)** | ND | 0.319 | 0.0629 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| **Perfluoro-1-octanesulfonamide (FOSA)** | ND | 0.319 | 0.0596 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| Perfluorobutanesulfonic acid (PFBS) | ND | 0.319 | 0.255 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| Perfluorodecanoic acid (PFDA) | ND | 0.319 | 0.0653 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| Perfluorododecanoic acid (PFDoA) | ND | 0.319 | 0.0957 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| Perfluoroheptanoic acid (PFHpA) | ND | 0.319 | 0.0581 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| **Perfluorohexanesulfonic Acid (PFHxS)** | ND | 0.319 | 0.0396 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| Perfluorohexanoic acid (PFHxA) | ND | 0.319 | 0.0841 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| Perfluoro-n-butanoic acid (PFBA) | ND | 0.319 | 0.233 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| Perfluorononanoic acid (PFNA) | ND | 0.319 | 0.0763 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| Perfluorooctanesulfonic Acid (PFOS) | ND | 0.319 | 0.0559 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| Perfluorooctanoic acid (PFOA) | ND | 0.319 | 0.0985 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| Perfluoropentanoic acid (PFPeA) | ND | 0.319 | 0.117 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| Perfluorotetradecanoic acid (PFTA) | ND | 0.319 | 0.0953 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| Perfluorotridecanoic acid (PFTrDA) | ND | 0.319 | 0.0555 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| Perfluoroundecanoic acid (PFUnA) | ND | 0.319 | 0.148 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| **QA/QC Surrogates** | | | | | | | | | |
| % d3-N-MeFOSAA | 51.4 | | | % | 1 | 12/11/22 | *** | 25 - 150 % | C |
| % d5-NEtFOSA | 44.2 | | | % | 1 | 12/11/22 | *** | 25 - 150 % | C |
| % M2-6:2FTS | 73.7 | | | % | 1 | 12/11/22 | *** | 25 - 200 % | C |
| % M2-8:2FTS | 98.8 | | | % | 1 | 12/11/22 | *** | 25 - 200 % | C |
| % M2PFTeDA | 30.9 | | | % | 1 | 12/11/22 | *** | 10 - 150 % | C |
| % M3PFBS | 66.2 | | | % | 1 | 12/11/22 | *** | 25 - 150 % | C |
| % M3PFHxS | 69.2 | | | % | 1 | 12/11/22 | *** | 25 - 150 % | C |
| % M4PFHpA | 72.4 | | | % | 1 | 12/11/22 | *** | 25 - 150 % | C |
| % M5PFHxA | 76.0 | | | % | 1 | 12/11/22 | *** | 25 - 150 % | C |
| % M5PFPeA | 76.1 | | | % | 1 | 12/11/22 | *** | 25 - 150 % | C |
| % M6PFDA | 65.5 | | | % | 1 | 12/11/22 | *** | 25 - 150 % | C |
| % M7PFUdA | 44.0 | | | % | 1 | 12/11/22 | *** | 25 - 150 % | C |
| % M8FOSA | 38.4 | | | % | 1 | 12/11/22 | *** | 10 - 150 % | C |
| % M8PFOA | 76.5 | | | % | 1 | 12/11/22 | *** | 25 - 150 % | C |
| % M8PFOS | 63.2 | | | % | 1 | 12/11/22 | *** | 25 - 150 % | C |
| % M9PFNA | 70.7 | | | % | 1 | 12/11/22 | *** | 25 - 150 % | C |
| % MPFBA | 74.8 | | | % | 1 | 12/11/22 | *** | 25 - 150 % | C |
| % MPFDoA | 34.8 | | | % | 1 | 12/11/22 | *** | 25 - 150 % | C |

Project ID: IPARK0118.62-LOT 10 BOUNDARY MODIFICAT. Phoenix I.D.: CM95298
Client ID: SB-13C (13-14`)

| Parameter | Result | RL/ PQL | LOD/ MDL | Units | Dilution | Date/Time | By | Reference |
|---|---|---|---|---|---|---|---|---|
| **Chlorinated Herbicides** | | | | | | | | |
| 2,4,5-T | ND | 170 | 170 | ug/Kg | 10 | 12/09/22 | JRB | SW8151A |
| 2,4,5-TP (Silvex) | ND | 170 | 170 | ug/Kg | 10 | 12/09/22 | JRB | SW8151A |
| 2,4-D | ND | 340 | 340 | ug/Kg | 10 | 12/09/22 | JRB | SW8151A |
| 2,4-DB | ND | 3400 | 3400 | ug/Kg | 10 | 12/09/22 | JRB | SW8151A |
| Dalapon | ND | 170 | 170 | ug/Kg | 10 | 12/09/22 | JRB | SW8151A |
| Dicamba | ND | 170 | 170 | ug/Kg | 10 | 12/09/22 | JRB | SW8151A |
| Dichloroprop | ND | 340 | 340 | ug/Kg | 10 | 12/09/22 | JRB | SW8151A |
| Dinoseb | ND | 340 | 340 | ug/Kg | 10 | 12/09/22 | JRB | SW8151A |
| **QA/QC Surrogates** | | | | | | | | |
| % DCAA | 98 | | | % | 10 | 12/09/22 | JRB | 30 - 150 % |
| % DCAA (Confirmation) | 87 | | | % | 10 | 12/09/22 | JRB | 30 - 150 % |
| **Polychlorinated Biphenyls** | | | | | | | | |
| PCB-1016 | ND | 90 | 90 | ug/Kg | 2 | 12/05/22 | SC | SW8082A |
| PCB-1221 | ND | 90 | 90 | ug/Kg | 2 | 12/05/22 | SC | SW8082A |
| PCB-1232 | ND | 90 | 90 | ug/Kg | 2 | 12/05/22 | SC | SW8082A |
| PCB-1242 | ND | 90 | 90 | ug/Kg | 2 | 12/05/22 | SC | SW8082A |
| PCB-1248 | ND | 90 | 90 | ug/Kg | 2 | 12/05/22 | SC | SW8082A |
| PCB-1254 | ND | 90 | 90 | ug/Kg | 2 | 12/05/22 | SC | SW8082A |
| PCB-1260 | ND | 90 | 90 | ug/Kg | 2 | 12/05/22 | SC | SW8082A |
| PCB-1262 | ND | 90 | 90 | ug/Kg | 2 | 12/05/22 | SC | SW8082A |
| PCB-1268 | ND | 90 | 90 | ug/Kg | 2 | 12/05/22 | SC | SW8082A |
| **QA/QC Surrogates** | | | | | | | | |
| % DCBP | 82 | | | % | 2 | 12/05/22 | SC | 30 - 150 % |
| % DCBP (Confirmation) | 80 | | | % | 2 | 12/05/22 | SC | 30 - 150 % |
| % TCMX | 72 | | | % | 2 | 12/05/22 | SC | 30 - 150 % |
| % TCMX (Confirmation) | 73 | | | % | 2 | 12/05/22 | SC | 30 - 150 % |
| **Pesticides - Soil** | | | | | | | | |
| 4,4' -DDD | ND | 2.7 | 2.7 | ug/Kg | 2 | 12/05/22 | AW | SW8081B |
| 4,4' -DDE | ND | 2.7 | 2.7 | ug/Kg | 2 | 12/05/22 | AW | SW8081B |
| 4,4' -DDT | ND | 2.7 | 2.7 | ug/Kg | 2 | 12/05/22 | AW | SW8081B |
| a-BHC | ND | 9.0 | 9.0 | ug/Kg | 2 | 12/05/22 | AW | SW8081B |
| a-Chlordane | ND | 4.5 | 4.5 | ug/Kg | 2 | 12/05/22 | AW | SW8081B |
| Alachlor | ND | 4.5 | 4.5 | ug/Kg | 2 | 12/05/22 | AW | SW8081B |
| Aldrin | ND | 4.5 | 4.5 | ug/Kg | 2 | 12/05/22 | AW | SW8081B |
| b-BHC | ND | 9.0 | 9.0 | ug/Kg | 2 | 12/05/22 | AW | SW8081B |
| Chlordane | ND | 45 | 45 | ug/Kg | 2 | 12/05/22 | AW | SW8081B |
| d-BHC | ND | 9.0 | 9.0 | ug/Kg | 2 | 12/05/22 | AW | SW8081B |
| Dieldrin | ND | 4.5 | 4.5 | ug/Kg | 2 | 12/05/22 | AW | SW8081B |
| Endosulfan I | ND | 9.0 | 9.0 | ug/Kg | 2 | 12/05/22 | AW | SW8081B |
| Endosulfan II | ND | 9.0 | 9.0 | ug/Kg | 2 | 12/05/22 | AW | SW8081B |
| Endosulfan sulfate | ND | 9.0 | 9.0 | ug/Kg | 2 | 12/05/22 | AW | SW8081B |
| Endrin | ND | 9.0 | 9.0 | ug/Kg | 2 | 12/05/22 | AW | SW8081B |
| Endrin aldehyde | ND | 9.0 | 9.0 | ug/Kg | 2 | 12/05/22 | AW | SW8081B |
| Endrin ketone | ND | 9.0 | 9.0 | ug/Kg | 2 | 12/05/22 | AW | SW8081B |
| g-BHC | ND | 1.8 | 1.8 | ug/Kg | 2 | 12/05/22 | AW | SW8081B |
| g-Chlordane | ND | 4.5 | 4.5 | ug/Kg | 2 | 12/05/22 | AW | SW8081B |

Project ID: IPARK0118.62-LOT 10 BOUNDARY MODIFICAT. Phoenix I.D.: CM95298
Client ID: SB-13C (13-14`)

| Parameter | Result | | RL/ PQL | LOD/ MDL | Units | Dilution | Date/Time | By | Reference | |
|---|---|---|---|---|---|---|---|---|---|---|
| Heptachlor | ND | | 9.0 | 9.0 | ug/Kg | 2 | 12/05/22 | AW | SW8081B | |
| Heptachlor epoxide | ND | | 9.0 | 9.0 | ug/Kg | 2 | 12/05/22 | AW | SW8081B | |
| Methoxychlor | ND | | 45 | 45 | ug/Kg | 2 | 12/05/22 | AW | SW8081B | |
| Toxaphene | ND | | 180 | 180 | ug/Kg | 2 | 12/05/22 | AW | SW8081B | |
| **QA/QC Surrogates** | | | | | | | | | | |
| % DCBP | 80 | | | | % | 2 | 12/05/22 | AW | 30 - 150 % | |
| % DCBP (Confirmation) | 111 | | | | % | 2 | 12/05/22 | AW | 30 - 150 % | |
| % TCMX | 75 | | | | % | 2 | 12/05/22 | AW | 30 - 150 % | |
| % TCMX (Confirmation) | 79 | | | | % | 2 | 12/05/22 | AW | 30 - 150 % | |
| **Volatiles** | | | | | | | | | | |
| 1,1,1,2-Tetrachloroethane | ND | | 6.7 | 1.3 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,1,1-Trichloroethane | ND | | 6.7 | 0.67 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,1,2,2-Tetrachloroethane | ND | | 6.7 | 1.3 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,1,2-Trichloroethane | ND | | 6.7 | 1.3 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,1-Dichloroethane | ND | | 6.7 | 1.3 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,1-Dichloroethene | ND | | 6.7 | 0.67 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,1-Dichloropropene | ND | | 6.7 | 0.67 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,2,3-Trichlorobenzene | ND | | 6.7 | 1.3 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,2,3-Trichloropropane | ND | | 6.7 | 0.67 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,2,4-Trichlorobenzene | ND | | 6.7 | 1.3 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,2,4-Trimethylbenzene | ND | | 6.7 | 0.67 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,2-Dibromo-3-chloropropane | ND | | 6.7 | 1.3 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,2-Dibromoethane | ND | | 6.7 | 0.67 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,2-Dichlorobenzene | ND | | 6.7 | 0.67 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,2-Dichloroethane | ND | | 6.7 | 0.67 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,2-Dichloropropane | ND | | 6.7 | 1.3 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,3,5-Trimethylbenzene | ND | | 6.7 | 0.67 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,3-Dichlorobenzene | ND | | 6.7 | 0.67 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,3-Dichloropropane | ND | | 6.7 | 1.3 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,4-Dichlorobenzene | ND | | 6.7 | 0.67 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 2,2-Dichloropropane | ND | | 6.7 | 0.67 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 2-Chlorotoluene | ND | | 6.7 | 1.3 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 2-Hexanone | ND | | 34 | 6.7 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 2-Isopropyltoluene | ND | | 6.7 | 0.67 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | 1 |
| 4-Chlorotoluene | ND | | 6.7 | 0.67 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 4-Methyl-2-pentanone | ND | | 34 | 6.7 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Acetone | 8.9 | JS | 34 | 6.7 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Acrylonitrile | ND | | 13 | 1.3 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Benzene | ND | | 6.7 | 0.67 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Bromobenzene | ND | | 6.7 | 0.67 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Bromochloromethane | ND | | 6.7 | 0.67 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Bromodichloromethane | ND | | 6.7 | 1.3 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Bromoform | ND | | 6.7 | 1.3 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Bromomethane | ND | | 6.7 | 2.7 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Carbon Disulfide | ND | | 6.7 | 1.3 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Carbon tetrachloride | ND | | 6.7 | 1.3 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Chlorobenzene | ND | | 6.7 | 0.67 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Chloroethane | ND | | 6.7 | 0.67 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Chloroform | ND | | 6.7 | 0.67 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |

Project ID: IPARK0118.62-LOT 10 BOUNDARY MODIFICAT. Phoenix I.D.: CM95298
Client ID: SB-13C (13-14`)

| Parameter | Result | | RL/ PQL | LOD/ MDL | Units | Dilution | Date/Time | By | Reference | |
|---|---|---|---|---|---|---|---|---|---|---|
| Chloromethane | ND | | 6.7 | 1.3 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| cis-1,2-Dichloroethene | ND | | 6.7 | 0.67 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| cis-1,3-Dichloropropene | ND | | 6.7 | 0.67 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Dibromochloromethane | ND | | 6.7 | 1.3 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Dibromomethane | ND | | 6.7 | 1.3 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Dichlorodifluoromethane | ND | | 6.7 | 0.67 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Ethylbenzene | ND | | 6.7 | 0.67 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Hexachlorobutadiene | ND | | 6.7 | 0.67 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Isopropylbenzene | ND | | 6.7 | 0.67 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| m&p-Xylene | ND | | 6.7 | 1.3 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Methyl Ethyl Ketone | ND | | 40 | 6.7 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Methyl t-butyl ether (MTBE) | ND | | 13 | 1.3 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Methylene chloride | ND | | 6.7 | 6.7 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Naphthalene | ND | | 6.7 | 1.3 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| n-Butylbenzene | ND | | 6.7 | 0.67 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| n-Propylbenzene | ND | | 6.7 | 1.3 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| o-Xylene | ND | | 6.7 | 1.3 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| p-Isopropyltoluene | ND | | 6.7 | 0.67 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| sec-Butylbenzene | ND | | 6.7 | 0.67 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Styrene | ND | | 6.7 | 0.67 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| tert-Butylbenzene | ND | | 6.7 | 0.67 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Tetrachloroethene | ND | | 6.7 | 1.3 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Tetrahydrofuran (THF) | 11 | J | 13 | 3.4 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Toluene | ND | | 6.7 | 0.67 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| trans-1,2-Dichloroethene | ND | | 6.7 | 0.67 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| trans-1,3-Dichloropropene | ND | | 6.7 | 0.67 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| trans-1,4-dichloro-2-butene | ND | | 13 | 3.4 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Trichloroethene | ND | | 6.7 | 0.67 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Trichlorofluoromethane | ND | | 6.7 | 1.3 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Trichlorotrifluoroethane | ND | | 6.7 | 0.67 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Vinyl chloride | ND | | 6.7 | 0.67 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| **QA/QC Surrogates** | | | | | | | | | | |
| % 1,2-dichlorobenzene-d4 | 94 | | | | % | 1 | 12/06/22 | JLI | 70 - 130 % | |
| % Bromofluorobenzene | 94 | | | | % | 1 | 12/06/22 | JLI | 70 - 130 % | |
| % Dibromofluoromethane | 98 | | | | % | 1 | 12/06/22 | JLI | 70 - 130 % | |
| % Toluene-d8 | 95 | | | | % | 1 | 12/06/22 | JLI | 70 - 130 % | |
| **Semivolatiles** | | | | | | | | | | |
| 1,2,4,5-Tetrachlorobenzene | ND | | 310 | 160 | ug/Kg | 1 | 12/04/22 | AW | SW8270D | |
| 1,2,4-Trichlorobenzene | ND | | 310 | 130 | ug/Kg | 1 | 12/04/22 | AW | SW8270D | |
| 1,2-Dichlorobenzene | ND | | 310 | 130 | ug/Kg | 1 | 12/04/22 | AW | SW8270D | |
| 1,2-Diphenylhydrazine | ND | | 310 | 140 | ug/Kg | 1 | 12/04/22 | AW | SW8270D | |
| 1,3-Dichlorobenzene | ND | | 310 | 130 | ug/Kg | 1 | 12/04/22 | AW | SW8270D | |
| 1,4-Dichlorobenzene | ND | | 310 | 130 | ug/Kg | 1 | 12/04/22 | AW | SW8270D | |
| 2,2'-Oxybis(1-Chloropropane) | ND | | 310 | 120 | ug/Kg | 1 | 12/04/22 | AW | SW8270D | 1 |
| 2,4,5-Trichlorophenol | ND | | 310 | 240 | ug/Kg | 1 | 12/04/22 | AW | SW8270D | |
| 2,4,6-Trichlorophenol | ND | | 220 | 140 | ug/Kg | 1 | 12/04/22 | AW | SW8270D | |
| 2,4-Dichlorophenol | ND | | 220 | 160 | ug/Kg | 1 | 12/04/22 | AW | SW8270D | |
| 2,4-Dimethylphenol | ND | | 310 | 110 | ug/Kg | 1 | 12/04/22 | AW | SW8270D | |
| 2,4-Dinitrophenol | ND | | 310 | 310 | ug/Kg | 1 | 12/04/22 | AW | SW8270D | |

Project ID: IPARK0118.62-LOT 10 BOUNDARY MODIFICAT. Phoenix I.D.: CM95298

Client ID: SB-13C (13-14`)

| Parameter | Result | RL/ PQL | LOD/ MDL | Units | Dilution | Date/Time | By | Reference | |
|---|---|---|---|---|---|---|---|---|---|
| 2,4-Dinitrotoluene | ND | 220 | 180 | ug/Kg | 1 | 12/04/22 | AW | SW8270D | |
| 2,6-Dinitrotoluene | ND | 220 | 140 | ug/Kg | 1 | 12/04/22 | AW | SW8270D | |
| 2-Chloronaphthalene | ND | 310 | 130 | ug/Kg | 1 | 12/04/22 | AW | SW8270D | |
| 2-Chlorophenol | ND | 310 | 130 | ug/Kg | 1 | 12/04/22 | AW | SW8270D | |
| 2-Methylnaphthalene | ND | 310 | 130 | ug/Kg | 1 | 12/04/22 | AW | SW8270D | |
| 2-Methylphenol (o-cresol) | ND | 310 | 210 | ug/Kg | 1 | 12/04/22 | AW | SW8270D | |
| 2-Nitroaniline | ND | 310 | 310 | ug/Kg | 1 | 12/04/22 | AW | SW8270D | |
| 2-Nitrophenol | ND | 310 | 280 | ug/Kg | 1 | 12/04/22 | AW | SW8270D | |
| 3&4-Methylphenol (m&p-cresol) | ND | 310 | 180 | ug/Kg | 1 | 12/04/22 | AW | SW8270D | 1 |
| 3,3'-Dichlorobenzidine | ND | 220 | 210 | ug/Kg | 1 | 12/04/22 | AW | SW8270D | |
| 3-Nitroaniline | ND | 440 | 890 | ug/Kg | 1 | 12/04/22 | AW | SW8270D | |
| 4,6-Dinitro-2-methylphenol | ND | 270 | 89 | ug/Kg | 1 | 12/04/22 | AW | SW8270D | |
| 4-Bromophenyl phenyl ether | ND | 310 | 130 | ug/Kg | 1 | 12/04/22 | AW | SW8270D | |
| 4-Chloro-3-methylphenol | ND | 310 | 160 | ug/Kg | 1 | 12/04/22 | AW | SW8270D | |
| 4-Chloroaniline | ND | 360 | 210 | ug/Kg | 1 | 12/04/22 | AW | SW8270D | |
| 4-Chlorophenyl phenyl ether | ND | 310 | 150 | ug/Kg | 1 | 12/04/22 | AW | SW8270D | |
| 4-Nitroaniline | ND | 440 | 150 | ug/Kg | 1 | 12/04/22 | AW | SW8270D | |
| 4-Nitrophenol | ND | 440 | 200 | ug/Kg | 1 | 12/04/22 | AW | SW8270D | |
| Acenaphthene | ND | 310 | 140 | ug/Kg | 1 | 12/04/22 | AW | SW8270D | |
| Acenaphthylene | ND | 310 | 120 | ug/Kg | 1 | 12/04/22 | AW | SW8270D | |
| Acetophenone | ND | 310 | 140 | ug/Kg | 1 | 12/04/22 | AW | SW8270D | |
| Aniline | ND | 360 | 360 | ug/Kg | 1 | 12/04/22 | AW | SW8270D | |
| Anthracene | ND | 310 | 150 | ug/Kg | 1 | 12/04/22 | AW | SW8270D | |
| Benz(a)anthracene | ND | 310 | 150 | ug/Kg | 1 | 12/04/22 | AW | SW8270D | |
| Benzidine | ND | 440 | 260 | ug/Kg | 1 | 12/04/22 | AW | SW8270D | |
| Benzo(a)pyrene | ND | 220 | 140 | ug/Kg | 1 | 12/04/22 | AW | SW8270D | |
| Benzo(b)fluoranthene | ND | 310 | 150 | ug/Kg | 1 | 12/04/22 | AW | SW8270D | |
| Benzo(ghi)perylene | ND | 310 | 140 | ug/Kg | 1 | 12/04/22 | AW | SW8270D | |
| Benzo(k)fluoranthene | ND | 310 | 150 | ug/Kg | 1 | 12/04/22 | AW | SW8270D | |
| Benzoic acid | ND | 2200 | 890 | ug/Kg | 1 | 12/04/22 | AW | SW8270D | |
| Benzyl butyl phthalate | ND | 310 | 110 | ug/Kg | 1 | 12/04/22 | AW | SW8270D | |
| Bis(2-chloroethoxy)methane | ND | 310 | 120 | ug/Kg | 1 | 12/04/22 | AW | SW8270D | |
| Bis(2-chloroethyl)ether | ND | 220 | 120 | ug/Kg | 1 | 12/04/22 | AW | SW8270D | |
| Bis(2-ethylhexyl)phthalate | ND | 310 | 130 | ug/Kg | 1 | 12/04/22 | AW | SW8270D | |
| Carbazole | ND | 220 | 180 | ug/Kg | 1 | 12/04/22 | AW | SW8270D | |
| Chrysene | ND | 310 | 150 | ug/Kg | 1 | 12/04/22 | AW | SW8270D | |
| Dibenz(a,h)anthracene | ND | 220 | 140 | ug/Kg | 1 | 12/04/22 | AW | SW8270D | |
| Dibenzofuran | ND | 310 | 130 | ug/Kg | 1 | 12/04/22 | AW | SW8270D | |
| Diethyl phthalate | ND | 310 | 140 | ug/Kg | 1 | 12/04/22 | AW | SW8270D | |
| Dimethylphthalate | ND | 310 | 140 | ug/Kg | 1 | 12/04/22 | AW | SW8270D | |
| Di-n-butylphthalate | ND | 310 | 120 | ug/Kg | 1 | 12/04/22 | AW | SW8270D | |
| Di-n-octylphthalate | ND | 310 | 110 | ug/Kg | 1 | 12/04/22 | AW | SW8270D | |
| Fluoranthene | ND | 310 | 140 | ug/Kg | 1 | 12/04/22 | AW | SW8270D | |
| Fluorene | ND | 310 | 150 | ug/Kg | 1 | 12/04/22 | AW | SW8270D | |
| Hexachlorobenzene | ND | 220 | 130 | ug/Kg | 1 | 12/04/22 | AW | SW8270D | |
| Hexachlorobutadiene | ND | 310 | 160 | ug/Kg | 1 | 12/04/22 | AW | SW8270D | |
| Hexachlorocyclopentadiene | ND | 310 | 140 | ug/Kg | 1 | 12/04/22 | AW | SW8270D | |
| Hexachloroethane | ND | 220 | 130 | ug/Kg | 1 | 12/04/22 | AW | SW8270D | |
| Indeno(1,2,3-cd)pyrene | ND | 310 | 150 | ug/Kg | 1 | 12/04/22 | AW | SW8270D | |

| Parameter | Result | RL/ PQL | LOD/ MDL | Units | Dilution | Date/Time | By | Reference |
|---|---|---|---|---|---|---|---|---|
| Isophorone | ND | 220 | 120 | ug/Kg | 1 | 12/04/22 | AW | SW8270D |
| Naphthalene | ND | 310 | 130 | ug/Kg | 1 | 12/04/22 | AW | SW8270D |
| Nitrobenzene | ND | 220 | 160 | ug/Kg | 1 | 12/04/22 | AW | SW8270D |
| N-Nitrosodimethylamine | ND | 310 | 130 | ug/Kg | 1 | 12/04/22 | AW | SW8270D |
| N-Nitrosodi-n-propylamine | ND | 220 | 140 | ug/Kg | 1 | 12/04/22 | AW | SW8270D |
| N-Nitrosodiphenylamine | ND | 310 | 170 | ug/Kg | 1 | 12/04/22 | AW | SW8270D |
| Pentachloronitrobenzene | ND | 310 | 170 | ug/Kg | 1 | 12/04/22 | AW | SW8270D |
| Pentachlorophenol | ND | 270 | 170 | ug/Kg | 1 | 12/04/22 | AW | SW8270D |
| Phenanthrene | ND | 310 | 130 | ug/Kg | 1 | 12/04/22 | AW | SW8270D |
| Phenol | ND | 310 | 140 | ug/Kg | 1 | 12/04/22 | AW | SW8270D |
| Pyrene | ND | 310 | 150 | ug/Kg | 1 | 12/04/22 | AW | SW8270D |
| Pyridine | ND | 310 | 110 | ug/Kg | 1 | 12/04/22 | AW | SW8270D |
| **QA/QC Surrogates** | | | | | | | | |
| % 2,4,6-Tribromophenol | 80 | | | % | 1 | 12/04/22 | AW | 30 - 130 % |
| % 2-Fluorobiphenyl | 72 | | | % | 1 | 12/04/22 | AW | 30 - 130 % |
| % 2-Fluorophenol | 44 | | | % | 1 | 12/04/22 | AW | 30 - 130 % |
| % Nitrobenzene-d5 | 44 | | | % | 1 | 12/04/22 | AW | 30 - 130 % |
| % Phenol-d5 | 62 | | | % | 1 | 12/04/22 | AW | 30 - 130 % |
| % Terphenyl-d14 | 83 | | | % | 1 | 12/04/22 | AW | 30 - 130 % |
| **1,4-Dioxane** | | | | | | | | |
| 1,4-dioxane | ND | 91 | 91 | ug/Kg | 1 | 12/06/22 | WB | SW8270D (SIM) |
| **QA/QC Surrogates** | | | | | | | | |
| % 2-Fluorobiphenyl | 63 | | | % | 1 | 12/06/22 | WB | 30 - 130 % |
| % Nitrobenzene-d5 | 79 | | | % | 1 | 12/06/22 | WB | 30 - 130 % |
| % Terphenyl-d14 | 100 | | | % | 1 | 12/06/22 | WB | 30 - 130 % |

| Parameter | Result | RL/ PQL | LOD/ MDL | Units | Dilution | Date/Time | By | Reference |
|---|---|---|---|---|---|---|---|---|

1 = This parameter is not certified by the primary accrediting authority (NY NELAC) for this matrix. NY NELAC does not offer certification for all parameters at this time.
C = This parameter is subcontracted.
B = Present in blank, no bias suspected.

RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected BRL=Below Reporting Level L=Biased Low J=Estimated Below RL LOD=Limit of Detection MDL=Method Detection Limit1
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

## Comments:

*See attached

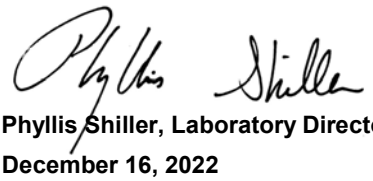
Per 1.4.6 of EPA method 8270D, 1,2-Diphenylhydrazine is unstable and readily converts to Azobenzene. Azobenzene is used for the calibration of 1,2-Diphenylhydrazine.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

PFAS (21) (EPA 537m), PFOA/PFOS - Soil Extraction (EPA 537m) were analyzed by NY certified lab #12058.

S - Laboratory solvent, contamination is possible.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200.
The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.



**Phyllis Shiller, Laboratory Director**
**December 16, 2022**
**Reviewed and Released by: Greg Lawrence, Assistant Lab Director**

PHOENIX
Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

# Analysis Report

December 16, 2022

FOR: Attn: Nora Brew
Walden Environmental Engineering PLLC
16 Spring Street
Oyster Bay, NY 11771

| Sample Information | | Custody Information | | Date | Time |
|---|---|---|---|---|---|
| Matrix: | SOIL | Collected by: | | 11/30/22 | 11:00 |
| Location Code: | WALDENE-IPARK | Received by: | CP | 12/01/22 | 17:12 |
| Rush Request: | Standard | Analyzed by: | see "By" below | | |
| P.O.#: | IPARK 0118.62 | | | | |

## Laboratory Data

SDG ID: GCM95278
Phoenix ID: CM95299

Project ID: IPARK0118.62-LOT 10 BOUNDARY MODIFICAT.
Client ID: SB-DUP4

| Parameter | Result | RL/ PQL | LOD/ MDL | Units | Dilution | Date/Time | By | Reference | |
|---|---|---|---|---|---|---|---|---|---|
| Aluminum | 24800 | 47 | 9.4 | mg/Kg | 10 | 12/03/22 | CPP | SW6010D | B |
| Antimony | ND | 4.7 | 4.7 | mg/Kg | 1 | 12/04/22 | CPP | SW6010D | |
| Arsenic | 8.31 | 0.94 | 0.94 | mg/Kg | 1 | 12/04/22 | CPP | SW6010D | |
| Barium | 104 | 0.9 | 0.47 | mg/Kg | 1 | 12/04/22 | TH | SW6010D | |
| Beryllium | 0.87 | 0.38 | 0.19 | mg/Kg | 1 | 12/04/22 | CPP | SW6010D | |
| Calcium | 2900 | 4.7 | 4.3 | mg/Kg | 1 | 12/04/22 | CPP | SW6010D | |
| Cadmium | 2.81 | 0.47 | 0.47 | mg/Kg | 1 | 12/04/22 | CPP | SW6010D | |
| Chromium | 26.6 | 0.47 | 0.47 | mg/Kg | 1 | 12/04/22 | CPP | SW6010D | |
| Cobalt | 18.8 | 0.47 | 0.47 | mg/Kg | 1 | 12/04/22 | CPP | SW6010D | |
| Copper | 42.5 | 0.9 | 0.47 | mg/kg | 1 | 12/04/22 | CPP | SW6010D | |
| Iron | 44900 | 47 | 47 | mg/Kg | 10 | 12/03/22 | CPP | SW6010D | |
| Lead | 21.3 | 0.9 | 0.47 | mg/Kg | 1 | 12/04/22 | CPP | SW6010D | |
| Magnesium | 11500 | 47 | 47 | mg/Kg | 10 | 12/03/22 | CPP | SW6010D | |
| Manganese | 1140 | 4.7 | 4.7 | mg/Kg | 10 | 12/03/22 | TH | SW6010D | |
| Mercury | ND | 0.03 | 0.02 | mg/Kg | 2 | 12/05/22 | PM | SW7471B | |
| Nickel | 41.0 | 0.47 | 0.47 | mg/Kg | 1 | 12/04/22 | CPP | SW6010D | |
| Potassium | 3260 | 9 | 3.7 | mg/Kg | 1 | 12/04/22 | CPP | SW6010D | |
| Selenium | ND | 1.9 | 1.6 | mg/Kg | 1 | 12/04/22 | CPP | SW6010D | |
| Silver | ND | 0.47 | 0.47 | mg/Kg | 1 | 12/04/22 | CPP | SW6010D | |
| Sodium | 728 | 9 | 4.0 | mg/Kg | 1 | 12/04/22 | CPP | SW6010D | |
| Thallium | ND | 1.9 | 1.9 | mg/Kg | 1 | 12/04/22 | CPP | SW6010D | |
| Vanadium | 27.0 | 0.47 | 0.47 | mg/Kg | 1 | 12/04/22 | CPP | SW6010D | |
| Zinc | 106 | 0.9 | 0.47 | mg/Kg | 1 | 12/04/22 | CPP | SW6010D | |
| Percent Solid | 75 | | | % | | 12/01/22 | Q | SW846-%Solid | |
| Extraction for SVOA SIM | Completed | | | | | 12/05/22 | B/MO | SW3545A | |
| Soil Extraction for PCB | Completed | | | | | 12/02/22 | O/MO | SW3545A | |
| Soil Extraction for Pesticide | Completed | | | | | 12/02/22 | O/MO | SW3545A | |

**Ver 1**

Project ID: IPARK0118.62-LOT 10 BOUNDARY MODIFICAT. Phoenix I.D.: CM95299

Client ID: SB-DUP4

| Parameter | Result | RL/ PQL | LOD/ MDL | Units | Dilution | Date/Time | By | Reference | |
|---|---|---|---|---|---|---|---|---|---|
| Field Extraction | Completed | | | | | 11/30/22 | | SW5035A | 1 |
| Mercury Digestion | Completed | | | | | 12/02/22 | AB/AB | SW7471B | |
| Soil Extraction for Herbicide | Completed | | | | | 12/08/22 | J/D | SW3546 | |
| Soil Extraction for SVOA | Completed | | | | | 12/04/22 | R/U | SW3546 | |
| Total Metals Digest | Completed | | | | | 12/01/22 | | SW3050B | |
| PFAS (21) | Completed | | | | | 12/07/22 | *** | EPA 537m | C |
| **PFAS (21)** | | | | | | | | | |
| **1H,1H,2H,2H-Perfluorodecanesulfonic acid** | ND | 0.302 | 0.0309 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| **1H,1H,2H,2H-Perfluorooctanesulfonic acid** | ND | 0.302 | 0.0798 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| NEtFOSAA | ND | 0.302 | 0.126 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| NMeFOSAA | ND | 0.302 | 0.126 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| **Perfluoro-1-decanesulfonic acid (PFDS)** | ND | 0.302 | 0.0619 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| **Perfluoro-1-heptanesulfonic acid (PFHpS)** | ND | 0.302 | 0.0596 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| **Perfluoro-1-octanesulfonamide (FOSA)** | ND | 0.302 | 0.0564 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| Perfluorobutanesulfonic acid (PFBS) | ND | 0.302 | 0.242 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| Perfluorodecanoic acid (PFDA) | ND | 0.302 | 0.0619 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| Perfluorododecanoic acid (PFDoA) | ND | 0.302 | 0.0907 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| Perfluoroheptanoic acid (PFHpA) | ND | 0.302 | 0.0550 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| **Perfluorohexanesulfonic Acid (PFHxS)** | ND | 0.302 | 0.0375 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| Perfluorohexanoic acid (PFHxA) | ND | 0.302 | 0.0797 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| Perfluoro-n-butanoic acid (PFBA) | ND | 0.302 | 0.221 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| Perfluorononanoic acid (PFNA) | ND | 0.302 | 0.0723 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| Perfluorooctanesulfonic Acid (PFOS) | ND | 0.302 | 0.0529 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| Perfluorooctanoic acid (PFOA) | ND | 0.302 | 0.0933 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| Perfluoropentanoic acid (PFPeA) | ND | 0.302 | 0.111 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| Perfluorotetradecanoic acid (PFTA) | ND | 0.302 | 0.0903 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| Perfluorotridecanoic acid (PFTrDA) | ND | 0.302 | 0.0526 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| Perfluoroundecanoic acid (PFUnA) | ND | 0.302 | 0.141 | ng/g | 1 | 12/11/22 | *** | EPA 537m | C |
| **QA/QC Surrogates** | | | | | | | | | |
| % d3-N-MeFOSAA | 38.4 | | | % | 1 | 12/11/22 | *** | 25 - 150 % | C |
| % d5-NEtFOSA | 37.2 | | | % | 1 | 12/11/22 | *** | 25 - 150 % | C |
| % M2-6:2FTS | 78.3 | | | % | 1 | 12/11/22 | *** | 25 - 200 % | C |
| % M2-8:2FTS | 71.0 | | | % | 1 | 12/11/22 | *** | 25 - 200 % | C |
| % M2PFTeDA | 20.7 | | | % | 1 | 12/11/22 | *** | 10 - 150 % | C |
| % M3PFBS | 46.6 | | | % | 1 | 12/11/22 | *** | 25 - 150 % | C |
| % M3PFHxS | 59.9 | | | % | 1 | 12/11/22 | *** | 25 - 150 % | C |
| % M4PFHpA | 50.2 | | | % | 1 | 12/11/22 | *** | 25 - 150 % | C |
| % M5PFHxA | 53.4 | | | % | 1 | 12/11/22 | *** | 25 - 150 % | C |
| % M5PFPeA | 50.8 | | | % | 1 | 12/11/22 | *** | 25 - 150 % | C |
| % M6PFDA | 47.5 | | | % | 1 | 12/11/22 | *** | 25 - 150 % | C |
| % M7PFUdA | 33.2 | | | % | 1 | 12/11/22 | *** | 25 - 150 % | C |
| % M8FOSA | 31.2 | | | % | 1 | 12/11/22 | *** | 10 - 150 % | C |
| % M8PFOA | 56.3 | | | % | 1 | 12/11/22 | *** | 25 - 150 % | C |
| % M8PFOS | 48.5 | | | % | 1 | 12/11/22 | *** | 25 - 150 % | C |
| % M9PFNA | 49.6 | | | % | 1 | 12/11/22 | *** | 25 - 150 % | C |
| % MPFBA | 53.8 | | | % | 1 | 12/11/22 | *** | 25 - 150 % | C |
| % MPFDoA | 29.7 | | | % | 1 | 12/11/22 | *** | 25 - 150 % | C |

Project ID: IPARK0118.62-LOT 10 BOUNDARY MODIFICAT. Phoenix I.D.: CM95299
Client ID: SB-DUP4

| Parameter | Result | RL/ PQL | LOD/ MDL | Units | Dilution | Date/Time | By | Reference |
|---|---|---|---|---|---|---|---|---|
| **Chlorinated Herbicides** | | | | | | | | |
| 2,4,5-T | ND | 170 | 170 | ug/Kg | 10 | 12/09/22 | JRB | SW8151A |
| 2,4,5-TP (Silvex) | ND | 170 | 170 | ug/Kg | 10 | 12/09/22 | JRB | SW8151A |
| 2,4-D | ND | 330 | 330 | ug/Kg | 10 | 12/09/22 | JRB | SW8151A |
| 2,4-DB | ND | 3300 | 3300 | ug/Kg | 10 | 12/09/22 | JRB | SW8151A |
| Dalapon | ND | 170 | 170 | ug/Kg | 10 | 12/09/22 | JRB | SW8151A |
| Dicamba | ND | 170 | 170 | ug/Kg | 10 | 12/09/22 | JRB | SW8151A |
| Dichloroprop | ND | 330 | 330 | ug/Kg | 10 | 12/09/22 | JRB | SW8151A |
| Dinoseb | ND | 330 | 330 | ug/Kg | 10 | 12/09/22 | JRB | SW8151A |
| **QA/QC Surrogates** | | | | | | | | |
| % DCAA | 99 | | | % | 10 | 12/09/22 | JRB | 30 - 150 % |
| % DCAA (Confirmation) | 100 | | | % | 10 | 12/09/22 | JRB | 30 - 150 % |
| **Polychlorinated Biphenyls** | | | | | | | | |
| PCB-1016 | ND | 88 | 88 | ug/Kg | 2 | 12/05/22 | SC | SW8082A |
| PCB-1221 | ND | 88 | 88 | ug/Kg | 2 | 12/05/22 | SC | SW8082A |
| PCB-1232 | ND | 88 | 88 | ug/Kg | 2 | 12/05/22 | SC | SW8082A |
| PCB-1242 | ND | 88 | 88 | ug/Kg | 2 | 12/05/22 | SC | SW8082A |
| PCB-1248 | ND | 88 | 88 | ug/Kg | 2 | 12/05/22 | SC | SW8082A |
| PCB-1254 | ND | 88 | 88 | ug/Kg | 2 | 12/05/22 | SC | SW8082A |
| PCB-1260 | ND | 88 | 88 | ug/Kg | 2 | 12/05/22 | SC | SW8082A |
| PCB-1262 | ND | 88 | 88 | ug/Kg | 2 | 12/05/22 | SC | SW8082A |
| PCB-1268 | ND | 88 | 88 | ug/Kg | 2 | 12/05/22 | SC | SW8082A |
| **QA/QC Surrogates** | | | | | | | | |
| % DCBP | 73 | | | % | 2 | 12/05/22 | SC | 30 - 150 % |
| % DCBP (Confirmation) | 74 | | | % | 2 | 12/05/22 | SC | 30 - 150 % |
| % TCMX | 71 | | | % | 2 | 12/05/22 | SC | 30 - 150 % |
| % TCMX (Confirmation) | 69 | | | % | 2 | 12/05/22 | SC | 30 - 150 % |
| **Pesticides - Soil** | | | | | | | | |
| 4,4' -DDD | ND | 2.6 | 2.6 | ug/Kg | 2 | 12/05/22 | AW | SW8081B |
| 4,4' -DDE | ND | 2.6 | 2.6 | ug/Kg | 2 | 12/05/22 | AW | SW8081B |
| 4,4' -DDT | ND | 2.6 | 2.6 | ug/Kg | 2 | 12/05/22 | AW | SW8081B |
| a-BHC | ND | 8.8 | 8.8 | ug/Kg | 2 | 12/05/22 | AW | SW8081B |
| a-Chlordane | ND | 4.4 | 4.4 | ug/Kg | 2 | 12/05/22 | AW | SW8081B |
| Alachlor | ND | 4.4 | 4.4 | ug/Kg | 2 | 12/05/22 | AW | SW8081B |
| Aldrin | ND | 4.4 | 4.4 | ug/Kg | 2 | 12/05/22 | AW | SW8081B |
| b-BHC | ND | 8.8 | 8.8 | ug/Kg | 2 | 12/05/22 | AW | SW8081B |
| Chlordane | ND | 44 | 44 | ug/Kg | 2 | 12/05/22 | AW | SW8081B |
| d-BHC | ND | 8.8 | 8.8 | ug/Kg | 2 | 12/05/22 | AW | SW8081B |
| Dieldrin | ND | 4.4 | 4.4 | ug/Kg | 2 | 12/05/22 | AW | SW8081B |
| Endosulfan I | ND | 8.8 | 8.8 | ug/Kg | 2 | 12/05/22 | AW | SW8081B |
| Endosulfan II | ND | 8.8 | 8.8 | ug/Kg | 2 | 12/05/22 | AW | SW8081B |
| Endosulfan sulfate | ND | 8.8 | 8.8 | ug/Kg | 2 | 12/05/22 | AW | SW8081B |
| Endrin | ND | 8.8 | 8.8 | ug/Kg | 2 | 12/05/22 | AW | SW8081B |
| Endrin aldehyde | ND | 8.8 | 8.8 | ug/Kg | 2 | 12/05/22 | AW | SW8081B |
| Endrin ketone | ND | 8.8 | 8.8 | ug/Kg | 2 | 12/05/22 | AW | SW8081B |
| g-BHC | ND | 1.8 | 1.8 | ug/Kg | 2 | 12/05/22 | AW | SW8081B |
| g-Chlordane | ND | 4.4 | 4.4 | ug/Kg | 2 | 12/05/22 | AW | SW8081B |

Project ID: IPARK0118.62-LOT 10 BOUNDARY MODIFICAT. Phoenix I.D.: CM95299
Client ID: SB-DUP4

| Parameter | Result | RL/ PQL | LOD/ MDL | Units | Dilution | Date/Time | By | Reference | |
|---|---|---|---|---|---|---|---|---|---|
| Heptachlor | ND | 8.8 | 8.8 | ug/Kg | 2 | 12/05/22 | AW | SW8081B | |
| Heptachlor epoxide | ND | 8.8 | 8.8 | ug/Kg | 2 | 12/05/22 | AW | SW8081B | |
| Methoxychlor | ND | 44 | 44 | ug/Kg | 2 | 12/05/22 | AW | SW8081B | |
| Toxaphene | ND | 180 | 180 | ug/Kg | 2 | 12/05/22 | AW | SW8081B | |
| **QA/QC Surrogates** | | | | | | | | | |
| % DCBP | 71 | | | % | 2 | 12/05/22 | AW | 30 - 150 % | |
| % DCBP (Confirmation) | 79 | | | % | 2 | 12/05/22 | AW | 30 - 150 % | |
| % TCMX | 70 | | | % | 2 | 12/05/22 | AW | 30 - 150 % | |
| % TCMX (Confirmation) | 74 | | | % | 2 | 12/05/22 | AW | 30 - 150 % | |
| **Volatiles** | | | | | | | | | |
| 1,1,1,2-Tetrachloroethane | ND | 7.5 | 1.5 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,1,1-Trichloroethane | ND | 7.5 | 0.75 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,1,2,2-Tetrachloroethane | ND | 7.5 | 1.5 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,1,2-Trichloroethane | ND | 7.5 | 1.5 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,1-Dichloroethane | ND | 7.5 | 1.5 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,1-Dichloroethene | ND | 7.5 | 0.75 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,1-Dichloropropene | ND | 7.5 | 0.75 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,2,3-Trichlorobenzene | ND | 7.5 | 1.5 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,2,3-Trichloropropane | ND | 7.5 | 0.75 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,2,4-Trichlorobenzene | ND | 7.5 | 1.5 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,2,4-Trimethylbenzene | ND | 7.5 | 0.75 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,2-Dibromo-3-chloropropane | ND | 7.5 | 1.5 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,2-Dibromoethane | ND | 7.5 | 0.75 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,2-Dichlorobenzene | ND | 7.5 | 0.75 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,2-Dichloroethane | ND | 7.5 | 0.75 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,2-Dichloropropane | ND | 7.5 | 1.5 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,3,5-Trimethylbenzene | ND | 7.5 | 0.75 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,3-Dichlorobenzene | ND | 7.5 | 0.75 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,3-Dichloropropane | ND | 7.5 | 1.5 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 1,4-Dichlorobenzene | ND | 7.5 | 0.75 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 2,2-Dichloropropane | ND | 7.5 | 0.75 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 2-Chlorotoluene | ND | 7.5 | 1.5 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 2-Hexanone | ND | 37 | 7.5 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 2-Isopropyltoluene | ND | 7.5 | 0.75 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | 1 |
| 4-Chlorotoluene | ND | 7.5 | 0.75 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| 4-Methyl-2-pentanone | ND | 37 | 7.5 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Acetone | ND | 37 | 7.5 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Acrylonitrile | ND | 15 | 1.5 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Benzene | ND | 7.5 | 0.75 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Bromobenzene | ND | 7.5 | 0.75 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Bromochloromethane | ND | 7.5 | 0.75 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Bromodichloromethane | ND | 7.5 | 1.5 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Bromoform | ND | 7.5 | 1.5 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Bromomethane | ND | 7.5 | 3.0 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Carbon Disulfide | ND | 7.5 | 1.5 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Carbon tetrachloride | ND | 7.5 | 1.5 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Chlorobenzene | ND | 7.5 | 0.75 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Chloroethane | ND | 7.5 | 0.75 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Chloroform | ND | 7.5 | 0.75 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |

Project ID: IPARK0118.62-LOT 10 BOUNDARY MODIFICAT. Phoenix I.D.: CM95299

Client ID: SB-DUP4

| Parameter | Result | | RL/ PQL | LOD/ MDL | Units | Dilution | Date/Time | By | Reference | |
|---|---|---|---|---|---|---|---|---|---|---|
| Chloromethane | ND | | 7.5 | 1.5 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| cis-1,2-Dichloroethene | ND | | 7.5 | 0.75 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| cis-1,3-Dichloropropene | ND | | 7.5 | 0.75 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Dibromochloromethane | ND | | 7.5 | 1.5 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Dibromomethane | ND | | 7.5 | 1.5 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Dichlorodifluoromethane | ND | | 7.5 | 0.75 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Ethylbenzene | ND | | 7.5 | 0.75 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Hexachlorobutadiene | ND | | 7.5 | 0.75 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Isopropylbenzene | ND | | 7.5 | 0.75 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| m&p-Xylene | ND | | 7.5 | 1.5 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Methyl Ethyl Ketone | ND | | 45 | 7.5 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Methyl t-butyl ether (MTBE) | ND | | 15 | 1.5 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Methylene chloride | ND | | 7.5 | 7.5 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Naphthalene | ND | | 7.5 | 1.5 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| n-Butylbenzene | ND | | 7.5 | 0.75 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| n-Propylbenzene | ND | | 7.5 | 1.5 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| o-Xylene | ND | | 7.5 | 1.5 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| p-Isopropyltoluene | ND | | 7.5 | 0.75 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| sec-Butylbenzene | ND | | 7.5 | 0.75 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Styrene | ND | | 7.5 | 0.75 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| tert-Butylbenzene | ND | | 7.5 | 0.75 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Tetrachloroethene | ND | | 7.5 | 1.5 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Tetrahydrofuran (THF) | 13 | J | 15 | 3.7 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Toluene | ND | | 7.5 | 0.75 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| trans-1,2-Dichloroethene | ND | | 7.5 | 0.75 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| trans-1,3-Dichloropropene | ND | | 7.5 | 0.75 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| trans-1,4-dichloro-2-butene | ND | | 15 | 3.7 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Trichloroethene | ND | | 7.5 | 0.75 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Trichlorofluoromethane | ND | | 7.5 | 1.5 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Trichlorotrifluoroethane | ND | | 7.5 | 0.75 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| Vinyl chloride | ND | | 7.5 | 0.75 | ug/Kg | 1 | 12/06/22 | JLI | SW8260C | |
| **QA/QC Surrogates** | | | | | | | | | | |
| % 1,2-dichlorobenzene-d4 | 94 | | | | % | 1 | 12/06/22 | JLI | 70 - 130 % | |
| % Bromofluorobenzene | 95 | | | | % | 1 | 12/06/22 | JLI | 70 - 130 % | |
| % Dibromofluoromethane | 100 | | | | % | 1 | 12/06/22 | JLI | 70 - 130 % | |
| % Toluene-d8 | 95 | | | | % | 1 | 12/06/22 | JLI | 70 - 130 % | |
| **Semivolatiles** | | | | | | | | | | |
| 1,2,4,5-Tetrachlorobenzene | ND | | 300 | 150 | ug/Kg | 1 | 12/04/22 | AW | SW8270D | |
| 1,2,4-Trichlorobenzene | ND | | 300 | 130 | ug/Kg | 1 | 12/04/22 | AW | SW8270D | |
| 1,2-Dichlorobenzene | ND | | 300 | 120 | ug/Kg | 1 | 12/04/22 | AW | SW8270D | |
| 1,2-Diphenylhydrazine | ND | | 300 | 140 | ug/Kg | 1 | 12/04/22 | AW | SW8270D | |
| 1,3-Dichlorobenzene | ND | | 300 | 130 | ug/Kg | 1 | 12/04/22 | AW | SW8270D | |
| 1,4-Dichlorobenzene | ND | | 300 | 130 | ug/Kg | 1 | 12/04/22 | AW | SW8270D | |
| 2,2'-Oxybis(1-Chloropropane) | ND | | 300 | 120 | ug/Kg | 1 | 12/04/22 | AW | SW8270D | 1 |
| 2,4,5-Trichlorophenol | ND | | 300 | 240 | ug/Kg | 1 | 12/04/22 | AW | SW8270D | |
| 2,4,6-Trichlorophenol | ND | | 220 | 140 | ug/Kg | 1 | 12/04/22 | AW | SW8270D | |
| 2,4-Dichlorophenol | ND | | 220 | 150 | ug/Kg | 1 | 12/04/22 | AW | SW8270D | |
| 2,4-Dimethylphenol | ND | | 300 | 110 | ug/Kg | 1 | 12/04/22 | AW | SW8270D | |
| 2,4-Dinitrophenol | ND | | 300 | 300 | ug/Kg | 1 | 12/04/22 | AW | SW8270D | |

Project ID: IPARK0118.62-LOT 10 BOUNDARY MODIFICAT. Phoenix I.D.: CM95299

Client ID: SB-DUP4

| Parameter | Result | RL/ PQL | LOD/ MDL | Units | Dilution | Date/Time | By | Reference | |
|---|---|---|---|---|---|---|---|---|---|
| 2,4-Dinitrotoluene | ND | 220 | 170 | ug/Kg | 1 | 12/04/22 | AW | SW8270D | |
| 2,6-Dinitrotoluene | ND | 220 | 140 | ug/Kg | 1 | 12/04/22 | AW | SW8270D | |
| 2-Chloronaphthalene | ND | 300 | 120 | ug/Kg | 1 | 12/04/22 | AW | SW8270D | |
| 2-Chlorophenol | ND | 300 | 120 | ug/Kg | 1 | 12/04/22 | AW | SW8270D | |
| 2-Methylnaphthalene | ND | 300 | 130 | ug/Kg | 1 | 12/04/22 | AW | SW8270D | |
| 2-Methylphenol (o-cresol) | ND | 300 | 200 | ug/Kg | 1 | 12/04/22 | AW | SW8270D | |
| 2-Nitroaniline | ND | 300 | 300 | ug/Kg | 1 | 12/04/22 | AW | SW8270D | |
| 2-Nitrophenol | ND | 300 | 280 | ug/Kg | 1 | 12/04/22 | AW | SW8270D | |
| 3&4-Methylphenol (m&p-cresol) | ND | 300 | 170 | ug/Kg | 1 | 12/04/22 | AW | SW8270D | 1 |
| 3,3'-Dichlorobenzidine | ND | 220 | 200 | ug/Kg | 1 | 12/04/22 | AW | SW8270D | |
| 3-Nitroaniline | ND | 430 | 870 | ug/Kg | 1 | 12/04/22 | AW | SW8270D | |
| 4,6-Dinitro-2-methylphenol | ND | 260 | 87 | ug/Kg | 1 | 12/04/22 | AW | SW8270D | |
| 4-Bromophenyl phenyl ether | ND | 300 | 130 | ug/Kg | 1 | 12/04/22 | AW | SW8270D | |
| 4-Chloro-3-methylphenol | ND | 300 | 150 | ug/Kg | 1 | 12/04/22 | AW | SW8270D | |
| 4-Chloroaniline | ND | 350 | 200 | ug/Kg | 1 | 12/04/22 | AW | SW8270D | |
| 4-Chlorophenyl phenyl ether | ND | 300 | 150 | ug/Kg | 1 | 12/04/22 | AW | SW8270D | |
| 4-Nitroaniline | ND | 430 | 140 | ug/Kg | 1 | 12/04/22 | AW | SW8270D | |
| 4-Nitrophenol | ND | 430 | 200 | ug/Kg | 1 | 12/04/22 | AW | SW8270D | |
| Acenaphthene | ND | 300 | 130 | ug/Kg | 1 | 12/04/22 | AW | SW8270D | |
| Acenaphthylene | ND | 300 | 120 | ug/Kg | 1 | 12/04/22 | AW | SW8270D | |
| Acetophenone | ND | 300 | 140 | ug/Kg | 1 | 12/04/22 | AW | SW8270D | |
| Aniline | ND | 350 | 350 | ug/Kg | 1 | 12/04/22 | AW | SW8270D | |
| Anthracene | ND | 300 | 140 | ug/Kg | 1 | 12/04/22 | AW | SW8270D | |
| Benz(a)anthracene | ND | 300 | 150 | ug/Kg | 1 | 12/04/22 | AW | SW8270D | |
| Benzidine | ND | 430 | 260 | ug/Kg | 1 | 12/04/22 | AW | SW8270D | |
| Benzo(a)pyrene | ND | 220 | 140 | ug/Kg | 1 | 12/04/22 | AW | SW8270D | |
| Benzo(b)fluoranthene | ND | 300 | 150 | ug/Kg | 1 | 12/04/22 | AW | SW8270D | |
| Benzo(ghi)perylene | ND | 300 | 140 | ug/Kg | 1 | 12/04/22 | AW | SW8270D | |
| Benzo(k)fluoranthene | ND | 300 | 140 | ug/Kg | 1 | 12/04/22 | AW | SW8270D | |
| Benzoic acid | ND | 2200 | 870 | ug/Kg | 1 | 12/04/22 | AW | SW8270D | |
| Benzyl butyl phthalate | ND | 300 | 110 | ug/Kg | 1 | 12/04/22 | AW | SW8270D | |
| Bis(2-chloroethoxy)methane | ND | 300 | 120 | ug/Kg | 1 | 12/04/22 | AW | SW8270D | |
| Bis(2-chloroethyl)ether | ND | 220 | 120 | ug/Kg | 1 | 12/04/22 | AW | SW8270D | |
| Bis(2-ethylhexyl)phthalate | ND | 300 | 130 | ug/Kg | 1 | 12/04/22 | AW | SW8270D | |
| Carbazole | ND | 220 | 170 | ug/Kg | 1 | 12/04/22 | AW | SW8270D | |
| Chrysene | ND | 300 | 150 | ug/Kg | 1 | 12/04/22 | AW | SW8270D | |
| Dibenz(a,h)anthracene | ND | 220 | 140 | ug/Kg | 1 | 12/04/22 | AW | SW8270D | |
| Dibenzofuran | ND | 300 | 130 | ug/Kg | 1 | 12/04/22 | AW | SW8270D | |
| Diethyl phthalate | ND | 300 | 140 | ug/Kg | 1 | 12/04/22 | AW | SW8270D | |
| Dimethylphthalate | ND | 300 | 130 | ug/Kg | 1 | 12/04/22 | AW | SW8270D | |
| Di-n-butylphthalate | ND | 300 | 120 | ug/Kg | 1 | 12/04/22 | AW | SW8270D | |
| Di-n-octylphthalate | ND | 300 | 110 | ug/Kg | 1 | 12/04/22 | AW | SW8270D | |
| Fluoranthene | ND | 300 | 140 | ug/Kg | 1 | 12/04/22 | AW | SW8270D | |
| Fluorene | ND | 300 | 140 | ug/Kg | 1 | 12/04/22 | AW | SW8270D | |
| Hexachlorobenzene | ND | 220 | 130 | ug/Kg | 1 | 12/04/22 | AW | SW8270D | |
| Hexachlorobutadiene | ND | 300 | 160 | ug/Kg | 1 | 12/04/22 | AW | SW8270D | |
| Hexachlorocyclopentadiene | ND | 300 | 130 | ug/Kg | 1 | 12/04/22 | AW | SW8270D | |
| Hexachloroethane | ND | 220 | 130 | ug/Kg | 1 | 12/04/22 | AW | SW8270D | |
| Indeno(1,2,3-cd)pyrene | ND | 300 | 140 | ug/Kg | 1 | 12/04/22 | AW | SW8270D | |

Project ID: IPARK0118.62-LOT 10 BOUNDARY MODIFICAT. Phoenix I.D.: CM95299
Client ID: SB-DUP4

| Parameter | Result | RL/ PQL | LOD/ MDL | Units | Dilution | Date/Time | By | Reference |
|---|---|---|---|---|---|---|---|---|
| Isophorone | ND | 220 | 120 | ug/Kg | 1 | 12/04/22 | AW | SW8270D |
| Naphthalene | ND | 300 | 130 | ug/Kg | 1 | 12/04/22 | AW | SW8270D |
| Nitrobenzene | ND | 220 | 150 | ug/Kg | 1 | 12/04/22 | AW | SW8270D |
| N-Nitrosodimethylamine | ND | 300 | 120 | ug/Kg | 1 | 12/04/22 | AW | SW8270D |
| N-Nitrosodi-n-propylamine | ND | 220 | 140 | ug/Kg | 1 | 12/04/22 | AW | SW8270D |
| N-Nitrosodiphenylamine | ND | 300 | 170 | ug/Kg | 1 | 12/04/22 | AW | SW8270D |
| Pentachloronitrobenzene | ND | 300 | 160 | ug/Kg | 1 | 12/04/22 | AW | SW8270D |
| Pentachlorophenol | ND | 260 | 160 | ug/Kg | 1 | 12/04/22 | AW | SW8270D |
| Phenanthrene | ND | 300 | 120 | ug/Kg | 1 | 12/04/22 | AW | SW8270D |
| Phenol | ND | 300 | 140 | ug/Kg | 1 | 12/04/22 | AW | SW8270D |
| Pyrene | ND | 300 | 150 | ug/Kg | 1 | 12/04/22 | AW | SW8270D |
| Pyridine | ND | 300 | 110 | ug/Kg | 1 | 12/04/22 | AW | SW8270D |
| **QA/QC Surrogates** | | | | | | | | |
| % 2,4,6-Tribromophenol | 90 | | | % | 1 | 12/04/22 | AW | 30 - 130 % |
| % 2-Fluorobiphenyl | 81 | | | % | 1 | 12/04/22 | AW | 30 - 130 % |
| % 2-Fluorophenol | 64 | | | % | 1 | 12/04/22 | AW | 30 - 130 % |
| % Nitrobenzene-d5 | 74 | | | % | 1 | 12/04/22 | AW | 30 - 130 % |
| % Phenol-d5 | 72 | | | % | 1 | 12/04/22 | AW | 30 - 130 % |
| % Terphenyl-d14 | 81 | | | % | 1 | 12/04/22 | AW | 30 - 130 % |
| **1,4-Dioxane** | | | | | | | | |
| 1,4-dioxane | ND | 86 | 86 | ug/Kg | 1 | 12/06/22 | WB | SW8270D (SIM) |
| **QA/QC Surrogates** | | | | | | | | |
| % 2-Fluorobiphenyl | 48 | | | % | 1 | 12/06/22 | WB | 30 - 130 % |
| % Nitrobenzene-d5 | 70 | | | % | 1 | 12/06/22 | WB | 30 - 130 % |
| % Terphenyl-d14 | 101 | | | % | 1 | 12/06/22 | WB | 30 - 130 % |

Project ID: IPARK0118.62-LOT 10 BOUNDARY MODIFICAT. Phoenix I.D.: CM95299
Client ID: SB-DUP4

| Parameter | Result | RL/ PQL | LOD/ MDL | Units | Dilution | Date/Time | By | Reference |
|---|---|---|---|---|---|---|---|---|

1 = This parameter is not certified by the primary accrediting authority (NY NELAC) for this matrix. NY NELAC does not offer certification for all parameters at this time.
C = This parameter is subcontracted.
B = Present in blank, no bias suspected.

RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected BRL=Below Reporting Level L=Biased Low J=Estimated Below RL LOD=Limit of Detection MDL=Method Detection Limit1
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

## Comments:

*See attached

Per 1.4.6 of EPA method 8270D, 1,2-Diphenylhydrazine is unstable and readily converts to Azobenzene. Azobenzene is used for the calibration of 1,2-Diphenylhydrazine.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

PFAS (21) (EPA 537m), PFOA/PFOS - Soil Extraction (EPA 537m) were analyzed by NY certified lab #12058.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200.
The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.

**Phyllis Shiller, Laboratory Director**
**December 16, 2022**
**Reviewed and Released by: Greg Lawrence, Assistant Lab Director**

Friday, December 16, 2022

Criteria: None

State: NY

# Sample Criteria Exceedances Report

## GCM95278 - WALDENE-IPARK

| SampNo | Acode | Phoenix Analyte | Criteria | Result | RL | Criteria | RL Criteria | Analysis Units |
|---|---|---|---|---|---|---|---|---|

*** No Data to Display ***

Phoenix Laboratories does not assume responsibility for the data contained in this exceedance report. It is provided as an additional tool to identify requested criteria exceedences. All efforts are made to ensure the accuracy of the data (obtained from appropriate agencies). A lack of exceedence information does not necessarily suggest conformance to the criteria. It is ultimately the site professional's responsibility to determine appropriate compliance.

**Environmental Laboratories, Inc.**
**587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045**
**Tel. (860) 645-1102 Fax (860) 645-0823**

ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

# NY Temperature Narration

**December 16, 2022**

**SDG I.D.: GCM95278**

The samples in this delivery group were received at 2.5°C.
(Note acceptance criteria for relevant matrices is above freezing up to 6°C)

Cooler: Yes ☑ No ☐
Coolant: IPK ☐ ICE ☑ No ☐

# PHOENIX Environmental Laboratories, Inc.

## CT/MA/RI CHAIN OF CUSTODY RECORD

Temp 0.6 Pg 1 of 2

587 East Middle Turnpike, P.O. Box 370, Manchester, CT 06040
Email: makrina@phoenixlabs.com Fax (860) 645-0823
**Client Services (860) 645-1102**

**Data Delivery/Contact Options:**
☐ Fax:
☑ Phone: 516-624-7200
☑ Email: nbrew@walden-associates.com

Customer: iPark East Fishkill c/o Walden Environmental Engineering
Address: 16 Spring Street
Oyster Bay, NY 11771

Project: iPark0118.62-Lot 10 Boundary Modification
Report to: Nora Brew, P.E.
Invoice to: Carl Monheit
Quote # N/A

Project P.O: iPark-0118.62

***This section MUST be completed with Bottle Quantities.***

Sampler's Signature: Date: 11/30/22

**Client Sample - Information - Identification**

**Matrix Code:**
**DW**=Drinking Water **GW**=Ground Water **SW**=Surface Water **WW**=Waste Water
**RW**=Raw Water **SE**=Sediment **SL**=Sludge **S**=Soil **SD**=Solid **W**=Wipe **OIL**=Oil
**B**=Bulk **L**=Liquid **X** = _____(Other)

| PHOENIX USE ONLY SAMPLE # | Customer Sample Identification | Sample Matrix | Date Sampled | Time Sampled | *MS/MSD (May be billable at analysis unit rate) | VOCs (8260) | SVOCs (8270) | TAL Metals (6010) | Pesticides (8081 B) | Herbicides (8151A) | PCBs(8082A) | PFAS | 1,4-Dioxane | GL Amber 8 oz. [ ] w/$H_3PO_4$ [ ] $NAHSO_4$ | Soil VOA Vials [1] methanol [2] $H_2O$ | GL Soil container (8) oz | GL Soil container (4) oz | 40 ml VOA Vial [ ] As is [X] HCl | GL Amber 1000ml [X] As is [ ] $H_2SO_4$ | PL As is [ ] 250ml [X] 500ml [ ] 1000ml | PL $H_2SO_4$ [ ] 250ml [ ] 500ml | PL $HNO_3$ 250ml | PL NaOH 250ml | Bacteria Bottle w/thio (125 mL) | Bacteria Bottle as is |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 95278 | SB-1A (0-1') | S | 11/30/2022 | 0900 | | | x | x | x | x | x | x | x | | | 1 | 2 | | | 1 | | | | | | |
| 95279 | SB-1B (1-2') | S | 11/30/2022 | 0900 | | x | | | | | | | | | 1 | | | | | | | | | | | |
| 95280 | SB-1C (5.5-6.5') | S | 11/30/2022 | 0900 | | x | x | x | x | x | x | x | x | | 1 | 1 | 2 | | | 1 | | | | | | |
| 95281 | SB-3A (0-1') | S | 11/30/2022 | 0845 | | | x | x | x | x | x | x | x | | | 1 | 2 | | | 1 | | | | | | |
| 95282 | SB-3B (1-2') | S | 11/30/2022 | 0845 | | x | | | | | | | | | 1 | | | | | | | | | | | |
| 95283 | SB-3C (8'-9') | S | 11/30/2022 | 0845 | | x | x | x | x | x | x | x | x | | 1 | 1 | 2 | | | 1 | | | | | | |
| 95284 | SB-2A (0-1') | S | 11/30/2022 | 0930 | | | x | x | x | x | x | x | x | | | 1 | 2 | | | 1 | | | | | | |
| 95285 | SB-2B (1-2') | S | 11/30/2022 | 0930 | | x | | | | | | | | | 1 | | | | | | | | | | | |
| 95286 | SB-2C (11-12') | S | 11/30/2022 | 0930 | | x | x | x | x | x | x | x | x | | 1 | 1 | 2 | | | 1 | | | | | | |
| 95287 | SB-Dup3 | S | 11/30/2022 | 0940 | | x | x | x | x | x | x | x | x | | 1 | 1 | 2 | | | 1 | | | | | | |
| 95288 | Equipment Blank 11302022 | DW | 11/30/2022 | 1300 | | x | x | x | x | x | x | x | x | | | | | 3 | 2 | | | 1 | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | |

| Relinquished by: | Accepted by: | Date: | Time: |
|---|---|---|---|
| | | 12/1/22 | 13:51 |
| | | 12.1.22 | 17:12 |

**Comments, Special Requirements or Regulations:**
ASPB Deliverables

**Turnaround Time:**
☐ 1 Day* ☐ 2 Days* ☐ 3 Days* ☐ 4 Days* ☐ 5 Days*
☑ Standard ☐ Other _____

*MS/MSD are considered site samples and will be billed as such in accordance with the prices quoted.

* SURCHARGES MAY APPLY

**RI**
☐ RES DEC ☐ I/C DEC ☐ GA Leachability ☐ GB Leachability ☐ GA -GW Objectives ☐ GB -GW Objectives ☐ Other

**CT**
☐ RCP Cert ☐ GWPC ☐ SWPC ☐ GA PMC ☐ GB PMC ☐ SWPC ☐ RES DEC ☐ I/C DEC

**MA**
☐ MCP Certification
☐ GW-1 ☐ GW-2 ☐ GW-3 ☐ S-1 ☐ S-2 ☐ S-3 ☐ SW Protection
☐ RCS-1 / RCGW-1 ☐ RCS-2 / RCGW-2 ☐ _____

**State where samples were collected:** NY

**Data Format**
☑ Excel ☑ PDF ☐ GIS/Key ☐ EQuIS ☐ Other

**Data Package**
☐ Tier II Checklist* ☐ Full Data Package* ☐ Phoenix Std ☐ Other

* SURCHARGE APPLIES

Cooler: Yes ☑ No ☐
Coolant: IPK ☐ ICE ☑ No ☐
Temp 2.5°C Pg 2 of 2

# PHOENIX
*Environmental Laboratories, Inc.*

## CT/MA/RI CHAIN OF CUSTODY RECORD

587 East Middle Turnpike, P.O. Box 370, Manchester, CT 06040
Email: makrina@phoenixlabs.com Fax (860) 645-0823
**Client Services (860) 645-1102**

**Data Delivery/Contact Options:**
☐ Fax:
☑ Phone: 516-624-7200
☑ Email: nbrew@walden-associates.com

Customer: iPark East Fishkill c/o Walden Environmental Engineering
Address: 16 Spring Street
Oyster Bay, NY 11771

Project: iPark0118.62-Lot 10 Boundary Modification
Report to: Nora Brew, P.E.
Invoice to: Carl Monheit
Quote # N/A

Project P.O: iPark0118.62

***This section MUST be completed with Bottle Quantities.***

Sampler's Signature: [signature] Date: 11/30/22

**Client Sample - Information - Identification**

**Matrix Code:**
**DW**=Drinking Water **GW**=Ground Water **SW**=Surface Water **WW**=Waste Water
**RW**=Raw Water **SE**=Sediment **SL**=Sludge **S**=Soil **SD**=Solid **W**=Wipe **OIL**=Oil
**B**=Bulk **L**=Liquid **X** = _____(Other)

| PHOENIX USE ONLY SAMPLE # | Customer Sample Identification | Sample Matrix | Date Sampled | Time Sampled | *MS/MSD (May be billable at analysis unit rate) | VOCs (8260) | SVOCs (8270) | TAL Metals (6010) | Pesticides (8081 B) | Herbicides (8151A) | PCBs(8082A) | PFAS | 1,4-Dioxane | GL Amber 8 oz- [ ] w/$H_3PO_4$ [ ] $NAHSO_4$ | Soil VOA Vials [1] methanol [2] $H_2O$ | GL Soil container [8] oz | GL Soil container [4] oz | 40 ml VOA Vial [ ] As is [ ] HCl | GL Amber 1000ml [ ] As is [ ] $H_2SO_4$ | PL As is [ ] 250ml [ ] 500ml [ ] $H_2SO_4$ | PL $H_2SO_4$ [ ] 250ml [ ] 500ml [ ] 1000ml | PL $HNO_3$ 250ml | PL NaOH 250ml | Bacteria Bottle w/thio | Bacteria Bottle as is |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 95286-1 | SB-11A (0-1') | S | 11/30/22 | 1030 | | | x | x | x | x | x | x | x | | 1 | 2 | | | 1 | | | | | | |
| 95290 | SB-11B (1-2') | S | 11/30/22 | 1030 | | x | | | | | | | | 1 | | | | | | | | | | | |
| 95291 | SB-11C (3-4') | S | 11/30/22 | 1030 | | x | x | x | x | x | x | x | x | 1 | 1 | 2 | | | 1 | | | | | | |
| 95292 | SB-12A1 (0-2") | S | 11/30/22 | 1040 | | | x | x | x | x | x | x | x | | 1 | 2 | | | 1 | | | | | | |
| 95293 | SB-12A2 (2-12") | S | 11/30/22 | 1040 | | | x | x | x | x | x | x | x | | 2 | | | | 1 | | | | | | |
| 95294 | SB-12B (1-2') | S | 11/30/22 | 1040 | | x | | | | | | | | 1 | | | | | | | | | | | |
| 95295 | SB-12C (13-14') | S | 11/30/22 | 1040 | | x | x | x | x | x | x | x | x | 1 | 1 | 2 | | | 1 | | | | | | |
| 95296 | SB-13A (0-1') | S | 11/30/22 | 1000 | | | x | x | x | x | x | x | x | | 1 | 2 | | | 1 | | | | | | |
| 95297 | SB-13B (1-2') | S | 11/30/22 | 1000 | | x | | | | | | | | 1 | | | | | | | | | | | |
| 95298 | SB-13C (13-14') | S | 11/30/22 | 1000 | | x | x | x | x | x | x | x | x | 1 | 1 | 2 | | | 1 | | | | | | |
| 95299 | SB-Dup4 | S | 11/30/22 | 1100 | | x | x | x | x | x | x | x | x | 1 | 1 | 2 | | | 1 | | | | | | |

| Relinquished by: | Accepted by: | Date: | Time: |
|---|---|---|---|
| [signature] | [signature] | 12/1/22 | 13:51 |
| BDM | [signature] | 12.1.22 | 17:12 |

**Comments, Special Requirements or Regulations:**
ASP B Deliverables

**Turnaround Time:**
☐ 1 Day* ☑ Standard
☐ 2 Days* ☐ Other
☐ 3 Days*
☐ 4 Days*
☐ 5 Days*

**MS/MSD are considered site samples and will be billed as such in accordance with the prices quoted.*

** SURCHARGES MAY APPLY*

**RI**
☐ RES DEC
☐ I/C DEC
☐ GA Leachability
☐ GB Leachability
☐ GA -GW Objectives
☐ GB -GW Objectives
☐ Other

**CT**
☐ RCP Cert
☐ GWPC
☐ SWPC
☐ GA PMC
☐ GB PMC
☐ SWPC
☐ RES DEC
☐ I/C DEC

**MA**
☐ MCP Certification
☐ GW-1 ☐ RCS-1 / RCGW-1
☐ GW-2 ☐ RCS-2 / RCGW-2
☐ GW-3 ☐ _____
☐ S-1
☐ S-2
☐ S-3
☐ SW Protection

**State where samples were collected:** NY

**Data Format**
☑ Excel
☑ PDF
☐ GIS/Key
☐ EQuIS
☐ Other

**Data Package**
☐ Tier II Checklist*
☐ Full Data Package*
☐ Phoenix Std
☐ Other

** SURCHARGE APPLIES*

**From:** Greg Lawrence
**To:** nbrew@walden-associates.com
**Subject:** Equipment Blank
**Date:** Thursday, December 15, 2022 1:35:00 PM
**Attachments:** GCM95278-ChainofCustody-1.pdf
**Importance:** High

---

Good afternoon,

Sorry for the late notification. Sample ID Equipment Blank 11302022, Phoenix Lab ID CM95288 could not be analyzed for herbicides because we received two 1000 ml bottles that we used for PCBs and pesticides. No results for herbicides can be reported on this sample.

**Gregory Lawrence**
Assistant Laboratory Director
**Phoenix Environmental Laboratories, Inc.**
587 East Middle Turnpike | Manchester, CT 06040
Direct Line: (860)-812-0812
www.phoenixlabs.com

# Technical Report
for
# Emerging Contaminants

prepared for:

**Phoenix Environmental Laboratories, Inc.**
P.O. Box 370, 587 East Middle Turnpike
Manchester CT, 06040
**Attention: Helen Geoghegan**

Report Date: 12/13/2022
**Client Project ID: GCM95278**
York Project (SDG) No.: 22L0208

Report Date: 12/13/2022
Client Project ID: GCM95278
York Project (SDG) No.: 22L0208

**Phoenix Environmental Laboratories, Inc.**
P.O. Box 370, 587 East Middle Turnpike
Manchester CT, 06040
Attention: Helen Geoghegan

## Purpose and Results

This report contains the analytical data for the sample(s) identified on the attached chain-of-custody received in our laboratory on December 05, 2022 and listed below. The project was identified as your project: **GCM95278**.

The analyses were conducted utilizing appropriate EPA methods as detailed in the data summary tables.

All samples were received in proper condition meeting the customary acceptance requirements for environmental samples except those indicated under the Sample and Analysis Qualifiers section of this report.

All analyses met the method and laboratory standard operating procedure requirements except as indicated by any data flags, the meaning of which are explained in the Sample and Data Qualifiers Relating to This Work Order section of this report and case narrative if applicable.

Please contact Client Services at 203.325.1371 with any questions regarding this report or e-mail clientservices@yorklab.com.

| York Sample ID | Client Sample ID | Matrix | Date Collected | Date Received |
|---|---|---|---|---|
| 22L0208-01 | SB-1A (0-1 ft) | Soil | 11/30/2022 | 12/05/2022 |
| 22L0208-02 | SB-1C (5.5-6.5 ft) | Soil | 11/30/2022 | 12/05/2022 |
| 22L0208-03 | SB-3A (0-1 ft) | Soil | 11/30/2022 | 12/05/2022 |
| 22L0208-04 | SB-3C (8-9 ft) | Soil | 11/30/2022 | 12/05/2022 |
| 22L0208-05 | SB-2A (0-1 ft) | Soil | 11/30/2022 | 12/05/2022 |
| 22L0208-06 | SB-2C (11-12 ft) | Soil | 11/30/2022 | 12/05/2022 |
| 22L0208-07 | SB-DUP3 | Soil | 11/30/2022 | 12/05/2022 |
| 22L0208-08 | SB-11C (3-4 ft) | Soil | 11/30/2022 | 12/05/2022 |
| 22L0208-09 | SB-12A1 (0-2 ft) | Soil | 11/30/2022 | 12/05/2022 |
| 22L0208-10 | SB-12A2 (2-12 ft) | Soil | 11/30/2022 | 12/05/2022 |
| 22L0208-11 | SB-12C (13-14 ft) | Soil | 11/30/2022 | 12/05/2022 |
| 22L0208-12 | SB-13A (0-1 ft) | Soil | 11/30/2022 | 12/05/2022 |
| 22L0208-13 | SB-13C (13-14 ft) | Soil | 11/30/2022 | 12/05/2022 |
| 22L0208-14 | SB-DUP4 | Soil | 11/30/2022 | 12/05/2022 |

## General Notes for York Project (SDG) No.: 22L0208

1. The RLs and MDLs (Reporting Limit and Method Detection Limit respectively) reported are adjusted for any dilution necessary due to the levels of target and/or non-target analytes and matrix interference. The RL(REPORTING LIMIT) is based upon the lowest standard utilized for the calibration where applicable.
2. Samples are retained for a period of thirty days after submittal of report, unless other arrangements are made.
3. York's liability for the above data is limited to the dollar value paid to York for the referenced project.
4. This report shall not be reproduced without the written approval of York Analytical Laboratories, Inc.
5. All analyses conducted met method or Laboratory SOP requirements. See the Sample and Data Qualifiers Section for further information.
6. It is noted that no analyses reported herein were subcontracted to another laboratory, unless noted in the report.
7. This report reflects results that relate only to the samples submitted on the attached chain-of-custody form(s) received by York.
8. Analyses conducted at York Analytical Laboratories, Inc. Stratford, CT are indicated by NY Cert. No. 10854; those conducted at York Analytical Laboratories, Inc., Richmond Hill, NY are indicated by NY Cert. No. 12058.

**Approved By:**

**Date:** 12/13/2022

Cassie L. Mosher
Laboratory Manager

## Sample Information

**Client Sample ID:** SB-1A (0-1 ft) **York Sample ID:** 22L0208-01

| York Project (SDG) No. | Client Project ID | Matrix | Collection Date/Time | Date Received |
|---|---|---|---|---|
| 22L0208 | GCM95278 | Soil | November 30, 2022 9:00 am | 12/05/2022 |

**PFAS by EPA 537 m** **Log-in Notes:** **Sample Notes:**

Sample Prepared by Method: SPE PFAS Extraction-Soil-EPA 537m

| CAS No. | Parameter | Result | Flag | Maximum Contaminant Level MCL | Units | Reported to LOQ | Reference Method | Date/Time Prep/Anal | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| 375-73-5 | * Perfluorobutanesulfonic acid (PFBS) | ND | | 0 | ug/kg dry | 0.299 | EPA 537m | 12/07/2022 18:11 | ESJ |
| | | | | | Certifications: | | | 12/11/2022 17:28 | |
| 307-24-4 | * Perfluorohexanoic acid (PFHxA) | ND | | 0 | ug/kg dry | 0.299 | EPA 537m | 12/07/2022 18:11 | ESJ |
| | | | | | Certifications: | | | 12/11/2022 17:28 | |
| 375-85-9 | * Perfluoroheptanoic acid (PFHpA) | ND | | 0 | ug/kg dry | 0.299 | EPA 537m | 12/07/2022 18:11 | ESJ |
| | | | | | Certifications: | | | 12/11/2022 17:28 | |
| 355-46-4 | * Perfluorohexanesulfonic acid (PFHxS) | ND | | 0 | ug/kg dry | 0.299 | EPA 537m | 12/07/2022 18:11 | ESJ |
| | | | | | Certifications: | | | 12/11/2022 17:28 | |
| 335-67-1 | * Perfluorooctanoic acid (PFOA) | ND | | 0 | ug/kg dry | 0.299 | EPA 537m | 12/07/2022 18:11 | ESJ |
| | | | | | Certifications: | | | 12/11/2022 17:28 | |
| 1763-23-1 | * Perfluorooctanesulfonic acid (PFOS) | ND | | 0 | ug/kg dry | 0.299 | EPA 537m | 12/07/2022 18:11 | ESJ |
| | | | | | Certifications: | | | 12/11/2022 17:28 | |
| 375-95-1 | * Perfluorononanoic acid (PFNA) | ND | | 0 | ug/kg dry | 0.299 | EPA 537m | 12/07/2022 18:11 | ESJ |
| | | | | | Certifications: | | | 12/11/2022 17:28 | |
| 335-76-2 | * Perfluorodecanoic acid (PFDA) | ND | | 0 | ug/kg dry | 0.299 | EPA 537m | 12/07/2022 18:11 | ESJ |
| | | | | | Certifications: | | | 12/11/2022 17:28 | |
| 2058-94-8 | * Perfluoroundecanoic acid (PFUnA) | ND | | 0 | ug/kg dry | 0.299 | EPA 537m | 12/07/2022 18:11 | ESJ |
| | | | | | Certifications: | | | 12/11/2022 17:28 | |
| 307-55-1 | * Perfluorododecanoic acid (PFDoA) | ND | PF-CCV-L | 0 | ug/kg dry | 0.299 | EPA 537m | 12/07/2022 18:11 | ESJ |
| | | | | | Certifications: | | | 12/11/2022 17:28 | |
| 72629-94-8 | *** Perfluorotridecanoic acid (PFTrDA)** | **1.79** | | **0** | ug/kg dry | 0.299 | EPA 537m | 12/07/2022 18:11 | ESJ |
| | | | | | Certifications: | | | 12/11/2022 17:28 | |
| 376-06-7 | * Perfluorotetradecanoic acid (PFTA) | ND | PF-CCV-L | 0 | ug/kg dry | 0.299 | EPA 537m | 12/07/2022 18:11 | ESJ |
| | | | | | Certifications: | | | 12/11/2022 17:28 | |
| 2355-31-9 | * N-MeFOSAA | ND | | 0 | ug/kg dry | 0.299 | EPA 537m | 12/07/2022 18:11 | ESJ |
| | | | | | Certifications: | | | 12/11/2022 17:28 | |
| 2991-50-6 | * N-EtFOSAA | ND | PF-CCV-L | 0 | ug/kg dry | 0.299 | EPA 537m | 12/07/2022 18:11 | ESJ |
| | | | | | Certifications: | | | 12/11/2022 17:28 | |
| 2706-90-3 | * Perfluoropentanoic acid (PFPeA) | ND | | 0 | ug/kg dry | 0.299 | EPA 537m | 12/07/2022 18:11 | ESJ |
| | | | | | Certifications: | | | 12/11/2022 17:28 | |
| 754-91-6 | *** Perfluoro-1-octanesulfonamide (FOSA)** | **0.693** | **PF-CCV-L** | **0** | ug/kg dry | 0.299 | EPA 537m | 12/07/2022 18:11 | ESJ |
| | | | | | Certifications: | | | 12/11/2022 17:28 | |
| 375-92-8 | * Perfluoro-1-heptanesulfonic acid (PFHpS) | ND | | 0 | ug/kg dry | 0.299 | EPA 537m | 12/07/2022 18:11 | ESJ |
| | | | | | Certifications: | | | 12/11/2022 17:28 | |
| 335-77-3 | * Perfluoro-1-decanesulfonic acid (PFDS) | ND | PF-CCV-L | 0 | ug/kg dry | 0.299 | EPA 537m | 12/07/2022 18:11 | ESJ |
| | | | | | Certifications: | | | 12/11/2022 17:28 | |
| 27619-97-2 | * 1H,1H,2H,2H-Perfluorooctanesulfonic acid (6:2 FTS) | ND | | 0 | ug/kg dry | 0.299 | EPA 537m | 12/07/2022 18:11 | ESJ |
| | | | | | Certifications: | | | 12/11/2022 17:28 | |
| 39108-34-4 | * 1H,1H,2H,2H-Perfluorodecanesulfonic acid (8:2 FTS) | ND | | 0 | ug/kg dry | 0.299 | EPA 537m | 12/07/2022 18:11 | ESJ |
| | | | | | Certifications: | | | 12/11/2022 17:28 | |
| 375-22-4 | * Perfluoro-n-butanoic acid (PFBA) | ND | | 0 | ug/kg dry | 0.299 | EPA 537m | 12/07/2022 18:11 | ESJ |
| | | | | | Certifications: | | | 12/11/2022 17:28 | |

## Sample Information

**Client Sample ID:** SB-1A (0-1 ft) **York Sample ID:** 22L0208-01

| York Project (SDG) No. | Client Project ID | Matrix | Collection Date/Time | Date Received |
|---|---|---|---|---|
| 22L0208 | GCM95278 | Soil | November 30, 2022 9:00 am | 12/05/2022 |

### PFAS by EPA 537 m

**Log-in Notes:**

**Sample Notes:**

Sample Prepared by Method: SPE PFAS Extraction-Soil-EPA 537m

| CAS No. | Parameter | Result | Flag | Maximum Contaminant Level MCL | Units | Reported to LOQ | Reference Method | Date/Time Prep/Anal | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| | **Surrogate Recoveries** | **Result** | | **Acceptance Range** | | | | | |
| | *Surrogate: M3PFBS* | *56.2 %* | | *25-150* | | | | | |
| | *Surrogate: M5PFHxA* | *54.6 %* | | *25-150* | | | | | |
| | *Surrogate: M4PFHpA* | *55.0 %* | | *25-150* | | | | | |
| | *Surrogate: M3PFHxS* | *58.4 %* | | *25-150* | | | | | |
| | *Surrogate: Perfluoro-n-[13C8]octanoic acid (M8PFOA)* | *50.6 %* | | *25-150* | | | | | |
| | *Surrogate: M6PFDA* | *24.4 %* | PFSu-L | *25-150* | | | | | |
| | *Surrogate: M7PFUdA* | *7.97 %* | PFSu-L | *25-150* | | | | | |
| | *Surrogate: Perfluoro-n-[1,2-13C2]dodecanoic acid (MPFDoA)* | *1.73 %* | PFSu-L | *25-150* | | | | | |
| | *Surrogate: M2PFTeDA* | *0.283 %* | PFSu-L | *10-150* | | | | | |
| | *Surrogate: Perfluoro-n-[13C4]butanoic acid (MPFBA)* | *60.0 %* | | *25-150* | | | | | |
| | *Surrogate: Perfluoro-1-[13C8]octanesulfonic acid (M8PFOS)* | *30.6 %* | | *25-150* | | | | | |
| | *Surrogate: Perfluoro-n-[13C5]pentanoic acid (M5PFPeA)* | *56.7 %* | | *25-150* | | | | | |
| | *Surrogate: Perfluoro-1-[13C8]octanesulfonamide (M8FOSA)* | *0.439 %* | PFSu-L | *10-150* | | | | | |
| | *Surrogate: d3-N-MeFOSAA* | *8.41 %* | PFSu-L | *25-150* | | | | | |
| | *Surrogate: d5-N-EtFOSAA* | *5.90 %* | PFSu-L | *25-150* | | | | | |
| | *Surrogate: M2-6:2 FTS* | *71.9 %* | | *25-200* | | | | | |
| | *Surrogate: M2-8:2 FTS* | *31.6 %* | | *25-200* | | | | | |
| | *Surrogate: M9PFNA* | *44.0 %* | | *25-150* | | | | | |

### Total Solids

**Log-in Notes:**

**Sample Notes:**

Sample Prepared by Method: % Solids Prep

| CAS No. | Parameter | Result | Flag | Maximum Contaminant Level MCL | Units | Reported to LOQ | Reference Method | Date/Time Prep/Anal | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| solids | *** % Solids** | **79.5** | | **100** | % | 0.100 | SM 2540G | 12/08/2022 12:48 | YR |
| | | | | | Certifications: | | CTDOH-PH-0723 | 12/09/2022 09:51 | |

## Sample Information

**Client Sample ID:** SB-1C (5.5-6.5 ft) **York Sample ID:** 22L0208-02

| York Project (SDG) No. | Client Project ID | Matrix | Collection Date/Time | Date Received |
|---|---|---|---|---|
| 22L0208 | GCM95278 | Soil | November 30, 2022 9:00 am | 12/05/2022 |

## Sample Information

**Client Sample ID:** SB-1C (5.5-6.5 ft) **York Sample ID:** 22L0208-02

| York Project (SDG) No. | Client Project ID | Matrix | Collection Date/Time | Date Received |
|---|---|---|---|---|
| 22L0208 | GCM95278 | Soil | November 30, 2022 9:00 am | 12/05/2022 |

**PFAS by EPA 537 m**

**Log-in Notes:**

**Sample Notes:**

Sample Prepared by Method: SPE PFAS Extraction-Soil-EPA 537m

| CAS No. | Parameter | Result | Flag | Maximum Contaminant Level MCL | Units | Reported to LOQ | Reference Method | Date/Time Prep/Anal | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| 375-73-5 | * Perfluorobutanesulfonic acid (PFBS) | ND | | 0 | ug/kg dry | 0.242 | EPA 537m | 12/07/2022 18:11 | ESJ |
| | | | | | Certifications: | | | 12/11/2022 17:41 | |
| 307-24-4 | * Perfluorohexanoic acid (PFHxA) | ND | | 0 | ug/kg dry | 0.242 | EPA 537m | 12/07/2022 18:11 | ESJ |
| | | | | | Certifications: | | | 12/11/2022 17:41 | |
| 375-85-9 | * Perfluoroheptanoic acid (PFHpA) | ND | | 0 | ug/kg dry | 0.242 | EPA 537m | 12/07/2022 18:11 | ESJ |
| | | | | | Certifications: | | | 12/11/2022 17:41 | |
| 355-46-4 | * Perfluorohexanesulfonic acid (PFHxS) | ND | | 0 | ug/kg dry | 0.242 | EPA 537m | 12/07/2022 18:11 | ESJ |
| | | | | | Certifications: | | | 12/11/2022 17:41 | |
| 335-67-1 | * Perfluorooctanoic acid (PFOA) | ND | | 0 | ug/kg dry | 0.242 | EPA 537m | 12/07/2022 18:11 | ESJ |
| | | | | | Certifications: | | | 12/11/2022 17:41 | |
| 1763-23-1 | * Perfluorooctanesulfonic acid (PFOS) | ND | | 0 | ug/kg dry | 0.242 | EPA 537m | 12/07/2022 18:11 | ESJ |
| | | | | | Certifications: | | | 12/11/2022 17:41 | |
| 375-95-1 | * Perfluorononanoic acid (PFNA) | ND | | 0 | ug/kg dry | 0.242 | EPA 537m | 12/07/2022 18:11 | ESJ |
| | | | | | Certifications: | | | 12/11/2022 17:41 | |
| 335-76-2 | * Perfluorodecanoic acid (PFDA) | ND | | 0 | ug/kg dry | 0.242 | EPA 537m | 12/07/2022 18:11 | ESJ |
| | | | | | Certifications: | | | 12/11/2022 17:41 | |
| 2058-94-8 | * Perfluoroundecanoic acid (PFUnA) | ND | | 0 | ug/kg dry | 0.242 | EPA 537m | 12/07/2022 18:11 | ESJ |
| | | | | | Certifications: | | | 12/11/2022 17:41 | |
| 307-55-1 | * Perfluorododecanoic acid (PFDoA) | ND | PF-CCV-L | 0 | ug/kg dry | 0.242 | EPA 537m | 12/07/2022 18:11 | ESJ |
| | | | | | Certifications: | | | 12/11/2022 17:41 | |
| 72629-94-8 | * Perfluorotridecanoic acid (PFTrDA) | ND | | 0 | ug/kg dry | 0.242 | EPA 537m | 12/07/2022 18:11 | ESJ |
| | | | | | Certifications: | | | 12/11/2022 17:41 | |
| 376-06-7 | * Perfluorotetradecanoic acid (PFTA) | ND | PF-CCV-L | 0 | ug/kg dry | 0.242 | EPA 537m | 12/07/2022 18:11 | ESJ |
| | | | | | Certifications: | | | 12/11/2022 17:41 | |
| 2355-31-9 | * N-MeFOSAA | ND | | 0 | ug/kg dry | 0.242 | EPA 537m | 12/07/2022 18:11 | ESJ |
| | | | | | Certifications: | | | 12/11/2022 17:41 | |
| 2991-50-6 | * N-EtFOSAA | ND | PF-CCV-L | 0 | ug/kg dry | 0.242 | EPA 537m | 12/07/2022 18:11 | ESJ |
| | | | | | Certifications: | | | 12/11/2022 17:41 | |
| 2706-90-3 | * Perfluoropentanoic acid (PFPeA) | ND | | 0 | ug/kg dry | 0.242 | EPA 537m | 12/07/2022 18:11 | ESJ |
| | | | | | Certifications: | | | 12/11/2022 17:41 | |
| 754-91-6 | * Perfluoro-1-octanesulfonamide (FOSA) | ND | PF-CCV-L | 0 | ug/kg dry | 0.242 | EPA 537m | 12/07/2022 18:11 | ESJ |
| | | | | | Certifications: | | | 12/11/2022 17:41 | |
| 375-92-8 | * Perfluoro-1-heptanesulfonic acid (PFHpS) | ND | | 0 | ug/kg dry | 0.242 | EPA 537m | 12/07/2022 18:11 | ESJ |
| | | | | | Certifications: | | | 12/11/2022 17:41 | |
| 335-77-3 | * Perfluoro-1-decanesulfonic acid (PFDS) | ND | PF-CCV-L | 0 | ug/kg dry | 0.242 | EPA 537m | 12/07/2022 18:11 | ESJ |
| | | | | | Certifications: | | | 12/11/2022 17:41 | |
| 27619-97-2 | * 1H,1H,2H,2H-Perfluorooctanesulfonic acid (6:2 FTS) | ND | | 0 | ug/kg dry | 0.242 | EPA 537m | 12/07/2022 18:11 | ESJ |
| | | | | | Certifications: | | | 12/11/2022 17:41 | |
| 39108-34-4 | * 1H,1H,2H,2H-Perfluorodecanesulfonic acid (8:2 FTS) | ND | | 0 | ug/kg dry | 0.242 | EPA 537m | 12/07/2022 18:11 | ESJ |
| | | | | | Certifications: | | | 12/11/2022 17:41 | |
| 375-22-4 | * Perfluoro-n-butanoic acid (PFBA) | ND | | 0 | ug/kg dry | 0.242 | EPA 537m | 12/07/2022 18:11 | ESJ |
| | | | | | Certifications: | | | 12/11/2022 17:41 | |

## Sample Information

**Client Sample ID:** SB-1C (5.5-6.5 ft) **York Sample ID:** 22L0208-02

| York Project (SDG) No. | Client Project ID | Matrix | Collection Date/Time | Date Received |
|---|---|---|---|---|
| 22L0208 | GCM95278 | Soil | November 30, 2022 9:00 am | 12/05/2022 |

### PFAS by EPA 537 m

**Log-in Notes:**

**Sample Notes:**

Sample Prepared by Method: SPE PFAS Extraction-Soil-EPA 537m

| CAS No. | Parameter | Result | Flag | Maximum Contaminant Level MCL | Units | Reported to LOQ | Reference Method | Date/Time Prep/Anal | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| | **Surrogate Recoveries** | **Result** | | **Acceptance Range** | | | | | |
| | *Surrogate: M3PFBS* | *69.4 %* | | *25-150* | | | | | |
| | *Surrogate: M5PFHxA* | *74.7 %* | | *25-150* | | | | | |
| | *Surrogate: M4PFHpA* | *67.1 %* | | *25-150* | | | | | |
| | *Surrogate: M3PFHxS* | *77.6 %* | | *25-150* | | | | | |
| | *Surrogate: Perfluoro-n-[13C8]octanoic acid (M8PFOA)* | *76.2 %* | | *25-150* | | | | | |
| | *Surrogate: M6PFDA* | *64.3 %* | | *25-150* | | | | | |
| | *Surrogate: M7PFUdA* | *50.0 %* | | *25-150* | | | | | |
| | *Surrogate: Perfluoro-n-[1,2-13C2]dodecanoic acid (MPFDoA)* | *46.0 %* | | *25-150* | | | | | |
| | *Surrogate: M2PFTeDA* | *27.0 %* | | *10-150* | | | | | |
| | *Surrogate: Perfluoro-n-[13C4]butanoic acid (MPFBA)* | *79.4 %* | | *25-150* | | | | | |
| | *Surrogate: Perfluoro-1-[13C8]octanesulfonic acid (M8PFOS)* | *66.9 %* | | *25-150* | | | | | |
| | *Surrogate: Perfluoro-n-[13C5]pentanoic acid (M5PFPeA)* | *72.6 %* | | *25-150* | | | | | |
| | *Surrogate: Perfluoro-1-[13C8]octanesulfonamide (M8FOSA)* | *47.8 %* | | *10-150* | | | | | |
| | *Surrogate: d3-N-MeFOSAA* | *52.8 %* | | *25-150* | | | | | |
| | *Surrogate: d5-N-EtFOSAA* | *56.2 %* | | *25-150* | | | | | |
| | *Surrogate: M2-6:2 FTS* | *95.5 %* | | *25-200* | | | | | |
| | *Surrogate: M2-8:2 FTS* | *88.5 %* | | *25-200* | | | | | |
| | *Surrogate: M9PFNA* | *67.2 %* | | *25-150* | | | | | |

### Total Solids

**Log-in Notes:**

**Sample Notes:**

Sample Prepared by Method: % Solids Prep

| CAS No. | Parameter | Result | Flag | Maximum Contaminant Level MCL | Units | Reported to LOQ | Reference Method | Date/Time Prep/Anal | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| solids | *** % Solids** | **97.3** | | **100** | % | 0.100 | SM 2540G | 12/08/2022 12:48 | YR |
| | | | | | Certifications: | | CTDOH-PH-0723 | 12/09/2022 09:51 | |

## Sample Information

**Client Sample ID:** SB-3A (0-1 ft) **York Sample ID:** 22L0208-03

| York Project (SDG) No. | Client Project ID | Matrix | Collection Date/Time | Date Received |
|---|---|---|---|---|
| 22L0208 | GCM95278 | Soil | November 30, 2022 8:45 am | 12/05/2022 |

## Sample Information

**Client Sample ID:** SB-3A (0-1 ft) **York Sample ID:** 22L0208-03

| York Project (SDG) No. | Client Project ID | Matrix | Collection Date/Time | Date Received |
|---|---|---|---|---|
| 22L0208 | GCM95278 | Soil | November 30, 2022 8:45 am | 12/05/2022 |

**PFAS by EPA 537 m**

**Log-in Notes:**

**Sample Notes:**

Sample Prepared by Method: SPE PFAS Extraction-Soil-EPA 537m

| CAS No. | Parameter | Result | Flag | Maximum Contaminant Level MCL | Units | Reported to LOQ | Reference Method | Date/Time Prep/Anal | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| 375-73-5 | * Perfluorobutanesulfonic acid (PFBS) | ND | | 0 | ug/kg dry | 0.290 | EPA 537m | 12/07/2022 18:11 | ESJ |
| | | | | | Certifications: | | | 12/11/2022 17:53 | |
| 307-24-4 | * Perfluorohexanoic acid (PFHxA) | ND | | 0 | ug/kg dry | 0.290 | EPA 537m | 12/07/2022 18:11 | ESJ |
| | | | | | Certifications: | | | 12/11/2022 17:53 | |
| 375-85-9 | * Perfluoroheptanoic acid (PFHpA) | ND | | 0 | ug/kg dry | 0.290 | EPA 537m | 12/07/2022 18:11 | ESJ |
| | | | | | Certifications: | | | 12/11/2022 17:53 | |
| 355-46-4 | * Perfluorohexanesulfonic acid (PFHxS) | ND | | 0 | ug/kg dry | 0.290 | EPA 537m | 12/07/2022 18:11 | ESJ |
| | | | | | Certifications: | | | 12/11/2022 17:53 | |
| 335-67-1 | * Perfluorooctanoic acid (PFOA) | ND | | 0 | ug/kg dry | 0.290 | EPA 537m | 12/07/2022 18:11 | ESJ |
| | | | | | Certifications: | | | 12/11/2022 17:53 | |
| 1763-23-1 | * Perfluorooctanesulfonic acid (PFOS) | ND | | 0 | ug/kg dry | 0.290 | EPA 537m | 12/07/2022 18:11 | ESJ |
| | | | | | Certifications: | | | 12/11/2022 17:53 | |
| 375-95-1 | * Perfluorononanoic acid (PFNA) | ND | | 0 | ug/kg dry | 0.290 | EPA 537m | 12/07/2022 18:11 | ESJ |
| | | | | | Certifications: | | | 12/11/2022 17:53 | |
| 335-76-2 | * Perfluorodecanoic acid (PFDA) | ND | | 0 | ug/kg dry | 0.290 | EPA 537m | 12/07/2022 18:11 | ESJ |
| | | | | | Certifications: | | | 12/11/2022 17:53 | |
| 2058-94-8 | * Perfluoroundecanoic acid (PFUnA) | ND | | 0 | ug/kg dry | 0.290 | EPA 537m | 12/07/2022 18:11 | ESJ |
| | | | | | Certifications: | | | 12/11/2022 17:53 | |
| 307-55-1 | * Perfluorododecanoic acid (PFDoA) | ND | PF-CCV-L | 0 | ug/kg dry | 0.290 | EPA 537m | 12/07/2022 18:11 | ESJ |
| | | | | | Certifications: | | | 12/11/2022 17:53 | |
| 72629-94-8 | * Perfluorotridecanoic acid (PFTrDA) | ND | | 0 | ug/kg dry | 0.290 | EPA 537m | 12/07/2022 18:11 | ESJ |
| | | | | | Certifications: | | | 12/11/2022 17:53 | |
| 376-06-7 | * Perfluorotetradecanoic acid (PFTA) | ND | PF-CCV-L | 0 | ug/kg dry | 0.290 | EPA 537m | 12/07/2022 18:11 | ESJ |
| | | | | | Certifications: | | | 12/11/2022 17:53 | |
| 2355-31-9 | * N-MeFOSAA | ND | | 0 | ug/kg dry | 0.290 | EPA 537m | 12/07/2022 18:11 | ESJ |
| | | | | | Certifications: | | | 12/11/2022 17:53 | |
| 2991-50-6 | * N-EtFOSAA | ND | PF-CCV-L | 0 | ug/kg dry | 0.290 | EPA 537m | 12/07/2022 18:11 | ESJ |
| | | | | | Certifications: | | | 12/11/2022 17:53 | |
| 2706-90-3 | * Perfluoropentanoic acid (PFPeA) | ND | | 0 | ug/kg dry | 0.290 | EPA 537m | 12/07/2022 18:11 | ESJ |
| | | | | | Certifications: | | | 12/11/2022 17:53 | |
| 754-91-6 | * Perfluoro-1-octanesulfonamide (FOSA) | ND | PF-CCV-L | 0 | ug/kg dry | 0.290 | EPA 537m | 12/07/2022 18:11 | ESJ |
| | | | | | Certifications: | | | 12/11/2022 17:53 | |
| 375-92-8 | * Perfluoro-1-heptanesulfonic acid (PFHpS) | ND | | 0 | ug/kg dry | 0.290 | EPA 537m | 12/07/2022 18:11 | ESJ |
| | | | | | Certifications: | | | 12/11/2022 17:53 | |
| 335-77-3 | * Perfluoro-1-decanesulfonic acid (PFDS) | ND | PF-CCV-L | 0 | ug/kg dry | 0.290 | EPA 537m | 12/07/2022 18:11 | ESJ |
| | | | | | Certifications: | | | 12/11/2022 17:53 | |
| 27619-97-2 | * 1H,1H,2H,2H-Perfluorooctanesulfonic acid (6:2 FTS) | ND | | 0 | ug/kg dry | 0.290 | EPA 537m | 12/07/2022 18:11 | ESJ |
| | | | | | Certifications: | | | 12/11/2022 17:53 | |
| 39108-34-4 | * 1H,1H,2H,2H-Perfluorodecanesulfonic acid (8:2 FTS) | ND | | 0 | ug/kg dry | 0.290 | EPA 537m | 12/07/2022 18:11 | ESJ |
| | | | | | Certifications: | | | 12/11/2022 17:53 | |
| 375-22-4 | * Perfluoro-n-butanoic acid (PFBA) | ND | | 0 | ug/kg dry | 0.290 | EPA 537m | 12/07/2022 18:11 | ESJ |
| | | | | | Certifications: | | | 12/11/2022 17:53 | |

## Sample Information

**Client Sample ID:** SB-3A (0-1 ft) **York Sample ID:** 22L0208-03

| York Project (SDG) No. | Client Project ID | Matrix | Collection Date/Time | Date Received |
|---|---|---|---|---|
| 22L0208 | GCM95278 | Soil | November 30, 2022 8:45 am | 12/05/2022 |

### PFAS by EPA 537 m

**Log-in Notes:**

**Sample Notes:**

Sample Prepared by Method: SPE PFAS Extraction-Soil-EPA 537m

| CAS No. | Parameter | Result | Flag | Maximum Contaminant Level MCL | Units | Reported to LOQ | Reference Method | Date/Time Prep/Anal | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| | **Surrogate Recoveries** | **Result** | | **Acceptance Range** | | | | | |
| | *Surrogate: M3PFBS* | *64.7 %* | | *25-150* | | | | | |
| | *Surrogate: M5PFHxA* | *72.3 %* | | *25-150* | | | | | |
| | *Surrogate: M4PFHpA* | *66.7 %* | | *25-150* | | | | | |
| | *Surrogate: M3PFHxS* | *66.1 %* | | *25-150* | | | | | |
| | *Surrogate: Perfluoro-n-[13C8]octanoic acid (M8PFOA)* | *69.0 %* | | *25-150* | | | | | |
| | *Surrogate: M6PFDA* | *49.2 %* | | *25-150* | | | | | |
| | *Surrogate: M7PFUdA* | *39.1 %* | | *25-150* | | | | | |
| | *Surrogate: Perfluoro-n-[1,2-13C2]dodecanoic acid (MPFDoA)* | *35.1 %* | | *25-150* | | | | | |
| | *Surrogate: M2PFTeDA* | *17.8 %* | | *10-150* | | | | | |
| | *Surrogate: Perfluoro-n-[13C4]butanoic acid (MPFBA)* | *78.3 %* | | *25-150* | | | | | |
| | *Surrogate: Perfluoro-1-[13C8]octanesulfonic acid (M8PFOS)* | *61.4 %* | | *25-150* | | | | | |
| | *Surrogate: Perfluoro-n-[13C5]pentanoic acid (M5PFPeA)* | *67.0 %* | | *25-150* | | | | | |
| | *Surrogate: Perfluoro-1-[13C8]octanesulfonamide (M8FOSA)* | *37.1 %* | | *10-150* | | | | | |
| | *Surrogate: d3-N-MeFOSAA* | *40.8 %* | | *25-150* | | | | | |
| | *Surrogate: d5-N-EtFOSAA* | *39.5 %* | | *25-150* | | | | | |
| | *Surrogate: M2-6:2 FTS* | *85.3 %* | | *25-200* | | | | | |
| | *Surrogate: M2-8:2 FTS* | *76.5 %* | | *25-200* | | | | | |
| | *Surrogate: M9PFNA* | *63.0 %* | | *25-150* | | | | | |

### Total Solids

**Log-in Notes:**

**Sample Notes:**

Sample Prepared by Method: % Solids Prep

| CAS No. | Parameter | Result | Flag | Maximum Contaminant Level MCL | Units | Reported to LOQ | Reference Method | Date/Time Prep/Anal | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| solids | *** % Solids** | **82.4** | | **100** | % | 0.100 | SM 2540G | 12/08/2022 12:48 | YR |
| | | | | | Certifications: | | CTDOH-PH-0723 | 12/09/2022 09:51 | |

## Sample Information

**Client Sample ID:** SB-3C (8-9 ft) **York Sample ID:** 22L0208-04

| York Project (SDG) No. | Client Project ID | Matrix | Collection Date/Time | Date Received |
|---|---|---|---|---|
| 22L0208 | GCM95278 | Soil | November 30, 2022 8:45 am | 12/05/2022 |

## Sample Information

**Client Sample ID:** SB-3C (8-9 ft) **York Sample ID:** 22L0208-04

| York Project (SDG) No. | Client Project ID | Matrix | Collection Date/Time | Date Received |
|---|---|---|---|---|
| 22L0208 | GCM95278 | Soil | November 30, 2022 8:45 am | 12/05/2022 |

**PFAS by EPA 537 m**

**Log-in Notes:**

**Sample Notes:**

Sample Prepared by Method: SPE PFAS Extraction-Soil-EPA 537m

| CAS No. | Parameter | Result | Flag | Maximum Contaminant Level MCL | Units | Reported to LOQ | Reference Method | Date/Time Prep/Anal | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| 375-73-5 | * Perfluorobutanesulfonic acid (PFBS) | ND | | 0 | ug/kg dry | 0.332 | EPA 537m | 12/07/2022 18:11 | ESJ |
| | | | | | Certifications: | | | 12/11/2022 18:06 | |
| 307-24-4 | * Perfluorohexanoic acid (PFHxA) | ND | | 0 | ug/kg dry | 0.332 | EPA 537m | 12/07/2022 18:11 | ESJ |
| | | | | | Certifications: | | | 12/11/2022 18:06 | |
| 375-85-9 | * Perfluoroheptanoic acid (PFHpA) | ND | | 0 | ug/kg dry | 0.332 | EPA 537m | 12/07/2022 18:11 | ESJ |
| | | | | | Certifications: | | | 12/11/2022 18:06 | |
| 355-46-4 | * Perfluorohexanesulfonic acid (PFHxS) | ND | | 0 | ug/kg dry | 0.332 | EPA 537m | 12/07/2022 18:11 | ESJ |
| | | | | | Certifications: | | | 12/11/2022 18:06 | |
| 335-67-1 | * Perfluorooctanoic acid (PFOA) | ND | | 0 | ug/kg dry | 0.332 | EPA 537m | 12/07/2022 18:11 | ESJ |
| | | | | | Certifications: | | | 12/11/2022 18:06 | |
| 1763-23-1 | * Perfluorooctanesulfonic acid (PFOS) | ND | | 0 | ug/kg dry | 0.332 | EPA 537m | 12/07/2022 18:11 | ESJ |
| | | | | | Certifications: | | | 12/11/2022 18:06 | |
| 375-95-1 | * Perfluorononanoic acid (PFNA) | ND | | 0 | ug/kg dry | 0.332 | EPA 537m | 12/07/2022 18:11 | ESJ |
| | | | | | Certifications: | | | 12/11/2022 18:06 | |
| 335-76-2 | * Perfluorodecanoic acid (PFDA) | ND | | 0 | ug/kg dry | 0.332 | EPA 537m | 12/07/2022 18:11 | ESJ |
| | | | | | Certifications: | | | 12/11/2022 18:06 | |
| 2058-94-8 | * Perfluoroundecanoic acid (PFUnA) | ND | | 0 | ug/kg dry | 0.332 | EPA 537m | 12/07/2022 18:11 | ESJ |
| | | | | | Certifications: | | | 12/11/2022 18:06 | |
| 307-55-1 | * Perfluorododecanoic acid (PFDoA) | ND | PF-CCV-L | 0 | ug/kg dry | 0.332 | EPA 537m | 12/07/2022 18:11 | ESJ |
| | | | | | Certifications: | | | 12/11/2022 18:06 | |
| 72629-94-8 | * Perfluorotridecanoic acid (PFTrDA) | ND | | 0 | ug/kg dry | 0.332 | EPA 537m | 12/07/2022 18:11 | ESJ |
| | | | | | Certifications: | | | 12/11/2022 18:06 | |
| 376-06-7 | * Perfluorotetradecanoic acid (PFTA) | ND | PF-CCV-L | 0 | ug/kg dry | 0.332 | EPA 537m | 12/07/2022 18:11 | ESJ |
| | | | | | Certifications: | | | 12/11/2022 18:06 | |
| 2355-31-9 | * N-MeFOSAA | ND | | 0 | ug/kg dry | 0.332 | EPA 537m | 12/07/2022 18:11 | ESJ |
| | | | | | Certifications: | | | 12/11/2022 18:06 | |
| 2991-50-6 | * N-EtFOSAA | ND | PF-CCV-L | 0 | ug/kg dry | 0.332 | EPA 537m | 12/07/2022 18:11 | ESJ |
| | | | | | Certifications: | | | 12/11/2022 18:06 | |
| 2706-90-3 | * Perfluoropentanoic acid (PFPeA) | ND | | 0 | ug/kg dry | 0.332 | EPA 537m | 12/07/2022 18:11 | ESJ |
| | | | | | Certifications: | | | 12/11/2022 18:06 | |
| 754-91-6 | * Perfluoro-1-octanesulfonamide (FOSA) | ND | PF-CCV-L | 0 | ug/kg dry | 0.332 | EPA 537m | 12/07/2022 18:11 | ESJ |
| | | | | | Certifications: | | | 12/11/2022 18:06 | |
| 375-92-8 | * Perfluoro-1-heptanesulfonic acid (PFHpS) | ND | | 0 | ug/kg dry | 0.332 | EPA 537m | 12/07/2022 18:11 | ESJ |
| | | | | | Certifications: | | | 12/11/2022 18:06 | |
| 335-77-3 | * Perfluoro-1-decanesulfonic acid (PFDS) | ND | PF-CCV-L | 0 | ug/kg dry | 0.332 | EPA 537m | 12/07/2022 18:11 | ESJ |
| | | | | | Certifications: | | | 12/11/2022 18:06 | |
| 27619-97-2 | * 1H,1H,2H,2H-Perfluorooctanesulfonic acid (6:2 FTS) | ND | | 0 | ug/kg dry | 0.332 | EPA 537m | 12/07/2022 18:11 | ESJ |
| | | | | | Certifications: | | | 12/11/2022 18:06 | |
| 39108-34-4 | * 1H,1H,2H,2H-Perfluorodecanesulfonic acid (8:2 FTS) | ND | | 0 | ug/kg dry | 0.332 | EPA 537m | 12/07/2022 18:11 | ESJ |
| | | | | | Certifications: | | | 12/11/2022 18:06 | |
| 375-22-4 | * Perfluoro-n-butanoic acid (PFBA) | ND | | 0 | ug/kg dry | 0.332 | EPA 537m | 12/07/2022 18:11 | ESJ |
| | | | | | Certifications: | | | 12/11/2022 18:06 | |

## Sample Information

**Client Sample ID:** SB-3C (8-9 ft) **York Sample ID:** 22L0208-04

| York Project (SDG) No. | Client Project ID | Matrix | Collection Date/Time | Date Received |
|---|---|---|---|---|
| 22L0208 | GCM95278 | Soil | November 30, 2022 8:45 am | 12/05/2022 |

### PFAS by EPA 537 m

**Log-in Notes:**

**Sample Notes:**

Sample Prepared by Method: SPE PFAS Extraction-Soil-EPA 537m

| CAS No. | Parameter | Result | Flag | Maximum Contaminant Level MCL | Units | Reported to LOQ | Reference Method | Date/Time Prep/Anal | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| | **Surrogate Recoveries** | **Result** | | **Acceptance Range** | | | | | |
| | *Surrogate: M3PFBS* | *61.5 %* | | *25-150* | | | | | |
| | *Surrogate: M5PFHxA* | *65.9 %* | | *25-150* | | | | | |
| | *Surrogate: M4PFHpA* | *64.0 %* | | *25-150* | | | | | |
| | *Surrogate: M3PFHxS* | *76.3 %* | | *25-150* | | | | | |
| | *Surrogate: Perfluoro-n-[13C8]octanoic acid (M8PFOA)* | *69.8 %* | | *25-150* | | | | | |
| | *Surrogate: M6PFDA* | *53.3 %* | | *25-150* | | | | | |
| | *Surrogate: M7PFUdA* | *39.8 %* | | *25-150* | | | | | |
| | *Surrogate: Perfluoro-n-[1,2-13C2]dodecanoic acid (MPFDoA)* | *40.7 %* | | *25-150* | | | | | |
| | *Surrogate: M2PFTeDA* | *26.1 %* | | *10-150* | | | | | |
| | *Surrogate: Perfluoro-n-[13C4]butanoic acid (MPFBA)* | *70.9 %* | | *25-150* | | | | | |
| | *Surrogate: Perfluoro-1-[13C8]octanesulfonic acid (M8PFOS)* | *54.5 %* | | *25-150* | | | | | |
| | *Surrogate: Perfluoro-n-[13C5]pentanoic acid (M5PFPeA)* | *66.6 %* | | *25-150* | | | | | |
| | *Surrogate: Perfluoro-1-[13C8]octanesulfonamide (M8FOSA)* | *43.2 %* | | *10-150* | | | | | |
| | *Surrogate: d3-N-MeFOSAA* | *50.9 %* | | *25-150* | | | | | |
| | *Surrogate: d5-N-EtFOSAA* | *41.4 %* | | *25-150* | | | | | |
| | *Surrogate: M2-6:2 FTS* | *80.8 %* | | *25-200* | | | | | |
| | *Surrogate: M2-8:2 FTS* | *87.7 %* | | *25-200* | | | | | |
| | *Surrogate: M9PFNA* | *69.9 %* | | *25-150* | | | | | |

### Total Solids

**Log-in Notes:**

**Sample Notes:**

Sample Prepared by Method: % Solids Prep

| CAS No. | Parameter | Result | Flag | Maximum Contaminant Level MCL | Units | Reported to LOQ | Reference Method | Date/Time Prep/Anal | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| solids | *** % Solids** | **73.8** | | **100** | % | 0.100 | SM 2540G | 12/08/2022 12:48 | YR |
| | | | | | Certifications: | | CTDOH-PH-0723 | 12/09/2022 09:51 | |

## Sample Information

**Client Sample ID:** SB-2A (0-1 ft) **York Sample ID:** 22L0208-05

| York Project (SDG) No. | Client Project ID | Matrix | Collection Date/Time | Date Received |
|---|---|---|---|---|
| 22L0208 | GCM95278 | Soil | November 30, 2022 9:30 am | 12/05/2022 |

## Sample Information

**Client Sample ID:** SB-2A (0-1 ft) **York Sample ID:** 22L0208-05

| York Project (SDG) No. | Client Project ID | Matrix | Collection Date/Time | Date Received |
|---|---|---|---|---|
| 22L0208 | GCM95278 | Soil | November 30, 2022 9:30 am | 12/05/2022 |

**PFAS by EPA 537 m**

**Log-in Notes:**

**Sample Notes:**

Sample Prepared by Method: SPE PFAS Extraction-Soil-EPA 537m

| CAS No. | Parameter | Result | Flag | Maximum Contaminant Level MCL | Units | Reported to LOQ | Reference Method | Date/Time Prep/Anal | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| 375-73-5 | * Perfluorobutanesulfonic acid (PFBS) | ND | | 0 | ug/kg dry<br>Certifications: | 0.271 | EPA 537m | 12/07/2022 18:11<br>12/11/2022 18:45 | ESJ |
| 307-24-4 | * Perfluorohexanoic acid (PFHxA) | ND | | 0 | ug/kg dry<br>Certifications: | 0.271 | EPA 537m | 12/07/2022 18:11<br>12/11/2022 18:45 | ESJ |
| 375-85-9 | * Perfluoroheptanoic acid (PFHpA) | ND | | 0 | ug/kg dry<br>Certifications: | 0.271 | EPA 537m | 12/07/2022 18:11<br>12/11/2022 18:45 | ESJ |
| 355-46-4 | * Perfluorohexanesulfonic acid (PFHxS) | ND | | 0 | ug/kg dry<br>Certifications: | 0.271 | EPA 537m | 12/07/2022 18:11<br>12/11/2022 18:45 | ESJ |
| 335-67-1 | * Perfluorooctanoic acid (PFOA) | ND | | 0 | ug/kg dry<br>Certifications: | 0.271 | EPA 537m | 12/07/2022 18:11<br>12/11/2022 18:45 | ESJ |
| 1763-23-1 | * Perfluorooctanesulfonic acid (PFOS) | ND | | 0 | ug/kg dry<br>Certifications: | 0.271 | EPA 537m | 12/07/2022 18:11<br>12/11/2022 18:45 | ESJ |
| 375-95-1 | * Perfluorononanoic acid (PFNA) | ND | | 0 | ug/kg dry<br>Certifications: | 0.271 | EPA 537m | 12/07/2022 18:11<br>12/11/2022 18:45 | ESJ |
| 335-76-2 | * Perfluorodecanoic acid (PFDA) | ND | | 0 | ug/kg dry<br>Certifications: | 0.271 | EPA 537m | 12/07/2022 18:11<br>12/11/2022 18:45 | ESJ |
| 2058-94-8 | * Perfluoroundecanoic acid (PFUnA) | ND | | 0 | ug/kg dry<br>Certifications: | 0.271 | EPA 537m | 12/07/2022 18:11<br>12/11/2022 18:45 | ESJ |
| 307-55-1 | * Perfluorododecanoic acid (PFDoA) | ND | PF-CCV-L | 0 | ug/kg dry<br>Certifications: | 0.271 | EPA 537m | 12/07/2022 18:11<br>12/11/2022 18:45 | ESJ |
| 72629-94-8 | * Perfluorotridecanoic acid (PFTrDA) | ND | | 0 | ug/kg dry<br>Certifications: | 0.271 | EPA 537m | 12/07/2022 18:11<br>12/11/2022 18:45 | ESJ |
| 376-06-7 | * Perfluorotetradecanoic acid (PFTA) | ND | PF-CCV-L | 0 | ug/kg dry<br>Certifications: | 0.271 | EPA 537m | 12/07/2022 18:11<br>12/11/2022 18:45 | ESJ |
| 2355-31-9 | * N-MeFOSAA | ND | | 0 | ug/kg dry<br>Certifications: | 0.271 | EPA 537m | 12/07/2022 18:11<br>12/11/2022 18:45 | ESJ |
| 2991-50-6 | * N-EtFOSAA | ND | PF-CCV-L | 0 | ug/kg dry<br>Certifications: | 0.271 | EPA 537m | 12/07/2022 18:11<br>12/11/2022 18:45 | ESJ |
| 2706-90-3 | * Perfluoropentanoic acid (PFPeA) | ND | | 0 | ug/kg dry<br>Certifications: | 0.271 | EPA 537m | 12/07/2022 18:11<br>12/11/2022 18:45 | ESJ |
| 754-91-6 | * Perfluoro-1-octanesulfonamide (FOSA) | ND | PF-CCV-L | 0 | ug/kg dry<br>Certifications: | 0.271 | EPA 537m | 12/07/2022 18:11<br>12/11/2022 18:45 | ESJ |
| 375-92-8 | * Perfluoro-1-heptanesulfonic acid (PFHpS) | ND | | 0 | ug/kg dry<br>Certifications: | 0.271 | EPA 537m | 12/07/2022 18:11<br>12/11/2022 18:45 | ESJ |
| 335-77-3 | * Perfluoro-1-decanesulfonic acid (PFDS) | ND | PF-CCV-L | 0 | ug/kg dry<br>Certifications: | 0.271 | EPA 537m | 12/07/2022 18:11<br>12/11/2022 18:45 | ESJ |
| 27619-97-2 | * 1H,1H,2H,2H-Perfluorooctanesulfonic acid (6:2 FTS) | ND | | 0 | ug/kg dry<br>Certifications: | 0.271 | EPA 537m | 12/07/2022 18:11<br>12/11/2022 18:45 | ESJ |
| 39108-34-4 | * 1H,1H,2H,2H-Perfluorodecanesulfonic acid (8:2 FTS) | ND | | 0 | ug/kg dry<br>Certifications: | 0.271 | EPA 537m | 12/07/2022 18:11<br>12/11/2022 18:45 | ESJ |
| 375-22-4 | * Perfluoro-n-butanoic acid (PFBA) | ND | | 0 | ug/kg dry<br>Certifications: | 0.271 | EPA 537m | 12/07/2022 18:11<br>12/11/2022 18:45 | ESJ |

## Sample Information

**Client Sample ID:** SB-2A (0-1 ft) **York Sample ID:** 22L0208-05

| York Project (SDG) No. | Client Project ID | Matrix | Collection Date/Time | Date Received |
|---|---|---|---|---|
| 22L0208 | GCM95278 | Soil | November 30, 2022 9:30 am | 12/05/2022 |

### PFAS by EPA 537 m

**Log-in Notes:**

**Sample Notes:**

Sample Prepared by Method: SPE PFAS Extraction-Soil-EPA 537m

| CAS No. | Parameter | Result | Flag | Maximum Contaminant Level MCL | Units | Reported to LOQ | Reference Method | Date/Time Prep/Anal | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| | **Surrogate Recoveries** | **Result** | | **Acceptance Range** | | | | | |
| | *Surrogate: M3PFBS* | *71.4 %* | | *25-150* | | | | | |
| | *Surrogate: M5PFHxA* | *69.8 %* | | *25-150* | | | | | |
| | *Surrogate: M4PFHpA* | *63.7 %* | | *25-150* | | | | | |
| | *Surrogate: M3PFHxS* | *77.4 %* | | *25-150* | | | | | |
| | *Surrogate: Perfluoro-n-[13C8]octanoic acid (M8PFOA)* | *68.3 %* | | *25-150* | | | | | |
| | *Surrogate: M6PFDA* | *52.6 %* | | *25-150* | | | | | |
| | *Surrogate: M7PFUdA* | *44.7 %* | | *25-150* | | | | | |
| | *Surrogate: Perfluoro-n-[1,2-13C2]dodecanoic acid (MPFDoA)* | *45.3 %* | | *25-150* | | | | | |
| | *Surrogate: M2PFTeDA* | *35.3 %* | | *10-150* | | | | | |
| | *Surrogate: Perfluoro-n-[13C4]butanoic acid (MPFBA)* | *77.7 %* | | *25-150* | | | | | |
| | *Surrogate: Perfluoro-1-[13C8]octanesulfonic acid (M8PFOS)* | *62.8 %* | | *25-150* | | | | | |
| | *Surrogate: Perfluoro-n-[13C5]pentanoic acid (M5PFPeA)* | *71.1 %* | | *25-150* | | | | | |
| | *Surrogate: Perfluoro-1-[13C8]octanesulfonamide (M8FOSA)* | *43.5 %* | | *10-150* | | | | | |
| | *Surrogate: d3-N-MeFOSAA* | *61.6 %* | | *25-150* | | | | | |
| | *Surrogate: d5-N-EtFOSAA* | *59.0 %* | | *25-150* | | | | | |
| | *Surrogate: M2-6:2 FTS* | *207 %* | PFSu-H | *25-200* | | | | | |
| | *Surrogate: M2-8:2 FTS* | *175 %* | | *25-200* | | | | | |
| | *Surrogate: M9PFNA* | *51.7 %* | | *25-150* | | | | | |

### Total Solids

**Log-in Notes:**

**Sample Notes:**

Sample Prepared by Method: % Solids Prep

| CAS No. | Parameter | Result | Flag | Maximum Contaminant Level MCL | Units | Reported to LOQ | Reference Method | Date/Time Prep/Anal | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| solids | *** % Solids** | **88.9** | | **100** | % | 0.100 | SM 2540G | 12/08/2022 12:48 | YR |
| | | | | | Certifications: | | CTDOH-PH-0723 | 12/09/2022 09:51 | |

## Sample Information

**Client Sample ID:** SB-2C (11-12 ft) **York Sample ID:** 22L0208-06

| York Project (SDG) No. | Client Project ID | Matrix | Collection Date/Time | Date Received |
|---|---|---|---|---|
| 22L0208 | GCM95278 | Soil | November 30, 2022 9:30 am | 12/05/2022 |

## Sample Information

**Client Sample ID:** SB-2C (11-12 ft) **York Sample ID:** 22L0208-06

| York Project (SDG) No. | Client Project ID | Matrix | Collection Date/Time | Date Received |
|---|---|---|---|---|
| 22L0208 | GCM95278 | Soil | November 30, 2022 9:30 am | 12/05/2022 |

**PFAS by EPA 537 m**

**Log-in Notes:**

**Sample Notes:**

Sample Prepared by Method: SPE PFAS Extraction-Soil-EPA 537m

| CAS No. | Parameter | Result | Flag | Maximum Contaminant Level MCL | Units | Reported to LOQ | Reference Method | Date/Time Prep/Anal | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| 375-73-5 | * Perfluorobutanesulfonic acid (PFBS) | ND | | 0 | ug/kg dry<br>Certifications: | 0.261 | EPA 537m | 12/07/2022 18:11<br>12/11/2022 18:58 | ESJ |
| 307-24-4 | * Perfluorohexanoic acid (PFHxA) | ND | | 0 | ug/kg dry<br>Certifications: | 0.261 | EPA 537m | 12/07/2022 18:11<br>12/11/2022 18:58 | ESJ |
| 375-85-9 | * Perfluoroheptanoic acid (PFHpA) | ND | | 0 | ug/kg dry<br>Certifications: | 0.261 | EPA 537m | 12/07/2022 18:11<br>12/11/2022 18:58 | ESJ |
| 355-46-4 | * Perfluorohexanesulfonic acid (PFHxS) | ND | | 0 | ug/kg dry<br>Certifications: | 0.261 | EPA 537m | 12/07/2022 18:11<br>12/11/2022 18:58 | ESJ |
| 335-67-1 | * Perfluorooctanoic acid (PFOA) | ND | | 0 | ug/kg dry<br>Certifications: | 0.261 | EPA 537m | 12/07/2022 18:11<br>12/11/2022 18:58 | ESJ |
| 1763-23-1 | * Perfluorooctanesulfonic acid (PFOS) | ND | | 0 | ug/kg dry<br>Certifications: | 0.261 | EPA 537m | 12/07/2022 18:11<br>12/11/2022 18:58 | ESJ |
| 375-95-1 | * Perfluorononanoic acid (PFNA) | ND | | 0 | ug/kg dry<br>Certifications: | 0.261 | EPA 537m | 12/07/2022 18:11<br>12/11/2022 18:58 | ESJ |
| 335-76-2 | * Perfluorodecanoic acid (PFDA) | ND | | 0 | ug/kg dry<br>Certifications: | 0.261 | EPA 537m | 12/07/2022 18:11<br>12/11/2022 18:58 | ESJ |
| 2058-94-8 | * Perfluoroundecanoic acid (PFUnA) | ND | | 0 | ug/kg dry<br>Certifications: | 0.261 | EPA 537m | 12/07/2022 18:11<br>12/11/2022 18:58 | ESJ |
| 307-55-1 | * Perfluorododecanoic acid (PFDoA) | ND | PF-CCV-L | 0 | ug/kg dry<br>Certifications: | 0.261 | EPA 537m | 12/07/2022 18:11<br>12/11/2022 18:58 | ESJ |
| 72629-94-8 | * Perfluorotridecanoic acid (PFTrDA) | ND | | 0 | ug/kg dry<br>Certifications: | 0.261 | EPA 537m | 12/07/2022 18:11<br>12/11/2022 18:58 | ESJ |
| 376-06-7 | * Perfluorotetradecanoic acid (PFTA) | ND | PF-CCV-L | 0 | ug/kg dry<br>Certifications: | 0.261 | EPA 537m | 12/07/2022 18:11<br>12/11/2022 18:58 | ESJ |
| 2355-31-9 | * N-MeFOSAA | ND | | 0 | ug/kg dry<br>Certifications: | 0.261 | EPA 537m | 12/07/2022 18:11<br>12/11/2022 18:58 | ESJ |
| 2991-50-6 | * N-EtFOSAA | ND | PF-CCV-L | 0 | ug/kg dry<br>Certifications: | 0.261 | EPA 537m | 12/07/2022 18:11<br>12/11/2022 18:58 | ESJ |
| 2706-90-3 | * Perfluoropentanoic acid (PFPeA) | ND | | 0 | ug/kg dry<br>Certifications: | 0.261 | EPA 537m | 12/07/2022 18:11<br>12/11/2022 18:58 | ESJ |
| 754-91-6 | * Perfluoro-1-octanesulfonamide (FOSA) | ND | PF-CCV-L | 0 | ug/kg dry<br>Certifications: | 0.261 | EPA 537m | 12/07/2022 18:11<br>12/11/2022 18:58 | ESJ |
| 375-92-8 | * Perfluoro-1-heptanesulfonic acid (PFHpS) | ND | | 0 | ug/kg dry<br>Certifications: | 0.261 | EPA 537m | 12/07/2022 18:11<br>12/11/2022 18:58 | ESJ |
| 335-77-3 | * Perfluoro-1-decanesulfonic acid (PFDS) | ND | PF-CCV-L | 0 | ug/kg dry<br>Certifications: | 0.261 | EPA 537m | 12/07/2022 18:11<br>12/11/2022 18:58 | ESJ |
| 27619-97-2 | * 1H,1H,2H,2H-Perfluorooctanesulfonic acid (6:2 FTS) | ND | | 0 | ug/kg dry<br>Certifications: | 0.261 | EPA 537m | 12/07/2022 18:11<br>12/11/2022 18:58 | ESJ |
| 39108-34-4 | * 1H,1H,2H,2H-Perfluorodecanesulfonic acid (8:2 FTS) | ND | | 0 | ug/kg dry<br>Certifications: | 0.261 | EPA 537m | 12/07/2022 18:11<br>12/11/2022 18:58 | ESJ |
| 375-22-4 | * Perfluoro-n-butanoic acid (PFBA) | ND | | 0 | ug/kg dry<br>Certifications: | 0.261 | EPA 537m | 12/07/2022 18:11<br>12/11/2022 18:58 | ESJ |

## Sample Information

**Client Sample ID:** SB-2C (11-12 ft) **York Sample ID:** 22L0208-06

| York Project (SDG) No. | Client Project ID | Matrix | Collection Date/Time | Date Received |
|---|---|---|---|---|
| 22L0208 | GCM95278 | Soil | November 30, 2022 9:30 am | 12/05/2022 |

### PFAS by EPA 537 m

**Log-in Notes:**

**Sample Notes:**

Sample Prepared by Method: SPE PFAS Extraction-Soil-EPA 537m

| CAS No. | Parameter | Result | Flag | Maximum Contaminant Level MCL | Units | Reported to LOQ | Reference Method | Date/Time Prep/Anal | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| | **Surrogate Recoveries** | **Result** | | **Acceptance Range** | | | | | |
| | *Surrogate: M3PFBS* | *66.0 %* | | *25-150* | | | | | |
| | *Surrogate: M5PFHxA* | *72.7 %* | | *25-150* | | | | | |
| | *Surrogate: M4PFHpA* | *71.4 %* | | *25-150* | | | | | |
| | *Surrogate: M3PFHxS* | *75.0 %* | | *25-150* | | | | | |
| | *Surrogate: Perfluoro-n-[13C8]octanoic acid (M8PFOA)* | *74.4 %* | | *25-150* | | | | | |
| | *Surrogate: M6PFDA* | *55.2 %* | | *25-150* | | | | | |
| | *Surrogate: M7PFUdA* | *41.0 %* | | *25-150* | | | | | |
| | *Surrogate: Perfluoro-n-[1,2-13C2]dodecanoic acid (MPFDoA)* | *39.2 %* | | *25-150* | | | | | |
| | *Surrogate: M2PFTeDA* | *19.1 %* | | *10-150* | | | | | |
| | *Surrogate: Perfluoro-n-[13C4]butanoic acid (MPFBA)* | *72.3 %* | | *25-150* | | | | | |
| | *Surrogate: Perfluoro-1-[13C8]octanesulfonic acid (M8PFOS)* | *62.6 %* | | *25-150* | | | | | |
| | *Surrogate: Perfluoro-n-[13C5]pentanoic acid (M5PFPeA)* | *73.0 %* | | *25-150* | | | | | |
| | *Surrogate: Perfluoro-1-[13C8]octanesulfonamide (M8FOSA)* | *38.3 %* | | *10-150* | | | | | |
| | *Surrogate: d3-N-MeFOSAA* | *51.8 %* | | *25-150* | | | | | |
| | *Surrogate: d5-N-EtFOSAA* | *48.2 %* | | *25-150* | | | | | |
| | *Surrogate: M2-6:2 FTS* | *93.0 %* | | *25-200* | | | | | |
| | *Surrogate: M2-8:2 FTS* | *95.9 %* | | *25-200* | | | | | |
| | *Surrogate: M9PFNA* | *62.1 %* | | *25-150* | | | | | |

### Total Solids

**Log-in Notes:**

**Sample Notes:**

Sample Prepared by Method: % Solids Prep

| CAS No. | Parameter | Result | Flag | Maximum Contaminant Level MCL | Units | Reported to LOQ | Reference Method | Date/Time Prep/Anal | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| solids | *** % Solids** | **92.5** | | **100** | % | 0.100 | SM 2540G | 12/08/2022 12:48 | YR |
| | | | | | Certifications: | | CTDOH-PH-0723 | 12/09/2022 09:51 | |

## Sample Information

**Client Sample ID:** SB-DUP3 **York Sample ID:** 22L0208-07

| York Project (SDG) No. | Client Project ID | Matrix | Collection Date/Time | Date Received |
|---|---|---|---|---|
| 22L0208 | GCM95278 | Soil | November 30, 2022 9:40 am | 12/05/2022 |

## Sample Information

**Client Sample ID:** SB-DUP3 **York Sample ID:** 22L0208-07

| York Project (SDG) No. | Client Project ID | Matrix | Collection Date/Time | Date Received |
|---|---|---|---|---|
| 22L0208 | GCM95278 | Soil | November 30, 2022 9:40 am | 12/05/2022 |

**PFAS by EPA 537 m**

**Log-in Notes:**

**Sample Notes:**

Sample Prepared by Method: SPE PFAS Extraction-Soil-EPA 537m

| CAS No. | Parameter | Result | Flag | Maximum Contaminant Level MCL | Units | Reported to LOQ | Reference Method | Date/Time Prep/Anal | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| 375-73-5 | * Perfluorobutanesulfonic acid (PFBS) | ND | | 0 | ug/kg dry | 0.248 | EPA 537m | 12/07/2022 18:11 | ESJ |
| | | | | | Certifications: | | | 12/11/2022 19:24 | |
| 307-24-4 | * Perfluorohexanoic acid (PFHxA) | ND | | 0 | ug/kg dry | 0.248 | EPA 537m | 12/07/2022 18:11 | ESJ |
| | | | | | Certifications: | | | 12/11/2022 19:24 | |
| 375-85-9 | * Perfluoroheptanoic acid (PFHpA) | ND | | 0 | ug/kg dry | 0.248 | EPA 537m | 12/07/2022 18:11 | ESJ |
| | | | | | Certifications: | | | 12/11/2022 19:24 | |
| 355-46-4 | * Perfluorohexanesulfonic acid (PFHxS) | ND | | 0 | ug/kg dry | 0.248 | EPA 537m | 12/07/2022 18:11 | ESJ |
| | | | | | Certifications: | | | 12/11/2022 19:24 | |
| 335-67-1 | * Perfluorooctanoic acid (PFOA) | ND | | 0 | ug/kg dry | 0.248 | EPA 537m | 12/07/2022 18:11 | ESJ |
| | | | | | Certifications: | | | 12/11/2022 19:24 | |
| 1763-23-1 | * Perfluorooctanesulfonic acid (PFOS) | ND | | 0 | ug/kg dry | 0.248 | EPA 537m | 12/07/2022 18:11 | ESJ |
| | | | | | Certifications: | | | 12/11/2022 19:24 | |
| 375-95-1 | * Perfluorononanoic acid (PFNA) | ND | | 0 | ug/kg dry | 0.248 | EPA 537m | 12/07/2022 18:11 | ESJ |
| | | | | | Certifications: | | | 12/11/2022 19:24 | |
| 335-76-2 | * Perfluorodecanoic acid (PFDA) | ND | | 0 | ug/kg dry | 0.248 | EPA 537m | 12/07/2022 18:11 | ESJ |
| | | | | | Certifications: | | | 12/11/2022 19:24 | |
| 2058-94-8 | * Perfluoroundecanoic acid (PFUnA) | ND | | 0 | ug/kg dry | 0.248 | EPA 537m | 12/07/2022 18:11 | ESJ |
| | | | | | Certifications: | | | 12/11/2022 19:24 | |
| 307-55-1 | * Perfluorododecanoic acid (PFDoA) | ND | PF-CCV-L | 0 | ug/kg dry | 0.248 | EPA 537m | 12/07/2022 18:11 | ESJ |
| | | | | | Certifications: | | | 12/11/2022 19:24 | |
| 72629-94-8 | * Perfluorotridecanoic acid (PFTrDA) | ND | | 0 | ug/kg dry | 0.248 | EPA 537m | 12/07/2022 18:11 | ESJ |
| | | | | | Certifications: | | | 12/11/2022 19:24 | |
| 376-06-7 | * Perfluorotetradecanoic acid (PFTA) | ND | PF-CCV-L | 0 | ug/kg dry | 0.248 | EPA 537m | 12/07/2022 18:11 | ESJ |
| | | | | | Certifications: | | | 12/11/2022 19:24 | |
| 2355-31-9 | * N-MeFOSAA | ND | PF-CCV-L | 0 | ug/kg dry | 0.248 | EPA 537m | 12/07/2022 18:11 | ESJ |
| | | | | | Certifications: | | | 12/11/2022 19:24 | |
| 2991-50-6 | * N-EtFOSAA | ND | PF-CCV-L | 0 | ug/kg dry | 0.248 | EPA 537m | 12/07/2022 18:11 | ESJ |
| | | | | | Certifications: | | | 12/11/2022 19:24 | |
| 2706-90-3 | * Perfluoropentanoic acid (PFPeA) | ND | | 0 | ug/kg dry | 0.248 | EPA 537m | 12/07/2022 18:11 | ESJ |
| | | | | | Certifications: | | | 12/11/2022 19:24 | |
| 754-91-6 | * Perfluoro-1-octanesulfonamide (FOSA) | ND | PF-CCV-L | 0 | ug/kg dry | 0.248 | EPA 537m | 12/07/2022 18:11 | ESJ |
| | | | | | Certifications: | | | 12/11/2022 19:24 | |
| 375-92-8 | * Perfluoro-1-heptanesulfonic acid (PFHpS) | ND | | 0 | ug/kg dry | 0.248 | EPA 537m | 12/07/2022 18:11 | ESJ |
| | | | | | Certifications: | | | 12/11/2022 19:24 | |
| 335-77-3 | * Perfluoro-1-decanesulfonic acid (PFDS) | ND | PF-CCV-L | 0 | ug/kg dry | 0.248 | EPA 537m | 12/07/2022 18:11 | ESJ |
| | | | | | Certifications: | | | 12/11/2022 19:24 | |
| 27619-97-2 | * 1H,1H,2H,2H-Perfluorooctanesulfonic acid (6:2 FTS) | ND | | 0 | ug/kg dry | 0.248 | EPA 537m | 12/07/2022 18:11 | ESJ |
| | | | | | Certifications: | | | 12/11/2022 19:24 | |
| 39108-34-4 | * 1H,1H,2H,2H-Perfluorodecanesulfonic acid (8:2 FTS) | ND | | 0 | ug/kg dry | 0.248 | EPA 537m | 12/07/2022 18:11 | ESJ |
| | | | | | Certifications: | | | 12/11/2022 19:24 | |
| 375-22-4 | * Perfluoro-n-butanoic acid (PFBA) | ND | | 0 | ug/kg dry | 0.248 | EPA 537m | 12/07/2022 18:11 | ESJ |
| | | | | | Certifications: | | | 12/11/2022 19:24 | |

## Sample Information

**Client Sample ID:** SB-DUP3 **York Sample ID:** 22L0208-07

| York Project (SDG) No. | Client Project ID | Matrix | Collection Date/Time | Date Received |
|---|---|---|---|---|
| 22L0208 | GCM95278 | Soil | November 30, 2022 9:40 am | 12/05/2022 |

### PFAS by EPA 537 m

**Log-in Notes:**

**Sample Notes:**

Sample Prepared by Method: SPE PFAS Extraction-Soil-EPA 537m

| CAS No. | Parameter | Result | Flag | Maximum Contaminant Level MCL | Units | Reported to LOQ | Reference Method | Date/Time Prep/Anal | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| | **Surrogate Recoveries** | **Result** | | **Acceptance Range** | | | | | |
| | *Surrogate: M3PFBS* | *78.4 %* | | *25-150* | | | | | |
| | *Surrogate: M5PFHxA* | *79.7 %* | | *25-150* | | | | | |
| | *Surrogate: M4PFHpA* | *72.9 %* | | *25-150* | | | | | |
| | *Surrogate: M3PFHxS* | *91.4 %* | | *25-150* | | | | | |
| | *Surrogate: Perfluoro-n-[13C8]octanoic acid (M8PFOA)* | *81.5 %* | | *25-150* | | | | | |
| | *Surrogate: M6PFDA* | *65.6 %* | | *25-150* | | | | | |
| | *Surrogate: M7PFUdA* | *51.6 %* | | *25-150* | | | | | |
| | *Surrogate: Perfluoro-n-[1,2-13C2]dodecanoic acid (MPFDoA)* | *49.5 %* | | *25-150* | | | | | |
| | *Surrogate: M2PFTeDA* | *25.6 %* | | *10-150* | | | | | |
| | *Surrogate: Perfluoro-n-[13C4]butanoic acid (MPFBA)* | *83.8 %* | | *25-150* | | | | | |
| | *Surrogate: Perfluoro-1-[13C8]octanesulfonic acid (M8PFOS)* | *70.1 %* | | *25-150* | | | | | |
| | *Surrogate: Perfluoro-n-[13C5]pentanoic acid (M5PFPeA)* | *81.7 %* | | *25-150* | | | | | |
| | *Surrogate: Perfluoro-1-[13C8]octanesulfonamide (M8FOSA)* | *46.7 %* | | *10-150* | | | | | |
| | *Surrogate: d3-N-MeFOSAA* | *53.3 %* | | *25-150* | | | | | |
| | *Surrogate: d5-N-EtFOSAA* | *52.1 %* | | *25-150* | | | | | |
| | *Surrogate: M2-6:2 FTS* | *108 %* | | *25-200* | | | | | |
| | *Surrogate: M2-8:2 FTS* | *91.3 %* | | *25-200* | | | | | |
| | *Surrogate: M9PFNA* | *75.8 %* | | *25-150* | | | | | |

### Total Solids

**Log-in Notes:**

**Sample Notes:**

Sample Prepared by Method: % Solids Prep

| CAS No. | Parameter | Result | Flag | Maximum Contaminant Level MCL | Units | Reported to LOQ | Reference Method | Date/Time Prep/Anal | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| solids | *** % Solids** | **92.1** | | **100** | % | 0.100 | SM 2540G | 12/08/2022 12:48 | YR |
| | | | | | Certifications: | | CTDOH-PH-0723 | 12/09/2022 09:51 | |

## Sample Information

**Client Sample ID:** SB-11C (3-4 ft) **York Sample ID:** 22L0208-08

| York Project (SDG) No. | Client Project ID | Matrix | Collection Date/Time | Date Received |
|---|---|---|---|---|
| 22L0208 | GCM95278 | Soil | November 30, 2022 10:30 am | 12/05/2022 |

## Sample Information

**Client Sample ID:** SB-11C (3-4 ft) **York Sample ID:** 22L0208-08

| York Project (SDG) No. | Client Project ID | Matrix | Collection Date/Time | Date Received |
|---|---|---|---|---|
| 22L0208 | GCM95278 | Soil | November 30, 2022 10:30 am | 12/05/2022 |

**PFAS by EPA 537 m**

**Log-in Notes:**

**Sample Notes:**

Sample Prepared by Method: SPE PFAS Extraction-Soil-EPA 537m

| CAS No. | Parameter | Result | Flag | Maximum Contaminant Level MCL | Units | Reported to LOQ | Reference Method | Date/Time Prep/Anal | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| 375-73-5 | * Perfluorobutanesulfonic acid (PFBS) | ND | | 0 | ug/kg dry<br>Certifications: | 0.291 | EPA 537m | 12/07/2022 18:11<br>12/11/2022 19:37 | ESJ |
| 307-24-4 | * Perfluorohexanoic acid (PFHxA) | ND | | 0 | ug/kg dry<br>Certifications: | 0.291 | EPA 537m | 12/07/2022 18:11<br>12/11/2022 19:37 | ESJ |
| 375-85-9 | * Perfluoroheptanoic acid (PFHpA) | ND | | 0 | ug/kg dry<br>Certifications: | 0.291 | EPA 537m | 12/07/2022 18:11<br>12/11/2022 19:37 | ESJ |
| 355-46-4 | * Perfluorohexanesulfonic acid (PFHxS) | ND | | 0 | ug/kg dry<br>Certifications: | 0.291 | EPA 537m | 12/07/2022 18:11<br>12/11/2022 19:37 | ESJ |
| 335-67-1 | * Perfluorooctanoic acid (PFOA) | ND | | 0 | ug/kg dry<br>Certifications: | 0.291 | EPA 537m | 12/07/2022 18:11<br>12/11/2022 19:37 | ESJ |
| 1763-23-1 | * Perfluorooctanesulfonic acid (PFOS) | ND | | 0 | ug/kg dry<br>Certifications: | 0.291 | EPA 537m | 12/07/2022 18:11<br>12/11/2022 19:37 | ESJ |
| 375-95-1 | * Perfluorononanoic acid (PFNA) | ND | | 0 | ug/kg dry<br>Certifications: | 0.291 | EPA 537m | 12/07/2022 18:11<br>12/11/2022 19:37 | ESJ |
| 335-76-2 | * Perfluorodecanoic acid (PFDA) | ND | | 0 | ug/kg dry<br>Certifications: | 0.291 | EPA 537m | 12/07/2022 18:11<br>12/11/2022 19:37 | ESJ |
| 2058-94-8 | * Perfluoroundecanoic acid (PFUnA) | ND | | 0 | ug/kg dry<br>Certifications: | 0.291 | EPA 537m | 12/07/2022 18:11<br>12/11/2022 19:37 | ESJ |
| 307-55-1 | * Perfluorododecanoic acid (PFDoA) | ND | PF-CCV-L | 0 | ug/kg dry<br>Certifications: | 0.291 | EPA 537m | 12/07/2022 18:11<br>12/11/2022 19:37 | ESJ |
| 72629-94-8 | * Perfluorotridecanoic acid (PFTrDA) | ND | | 0 | ug/kg dry<br>Certifications: | 0.291 | EPA 537m | 12/07/2022 18:11<br>12/11/2022 19:37 | ESJ |
| 376-06-7 | * Perfluorotetradecanoic acid (PFTA) | ND | PF-CCV-L | 0 | ug/kg dry<br>Certifications: | 0.291 | EPA 537m | 12/07/2022 18:11<br>12/11/2022 19:37 | ESJ |
| 2355-31-9 | * N-MeFOSAA | ND | PF-CCV-L | 0 | ug/kg dry<br>Certifications: | 0.291 | EPA 537m | 12/07/2022 18:11<br>12/11/2022 19:37 | ESJ |
| 2991-50-6 | * N-EtFOSAA | ND | PF-CCV-L | 0 | ug/kg dry<br>Certifications: | 0.291 | EPA 537m | 12/07/2022 18:11<br>12/11/2022 19:37 | ESJ |
| 2706-90-3 | * Perfluoropentanoic acid (PFPeA) | ND | | 0 | ug/kg dry<br>Certifications: | 0.291 | EPA 537m | 12/07/2022 18:11<br>12/11/2022 19:37 | ESJ |
| 754-91-6 | * Perfluoro-1-octanesulfonamide (FOSA) | ND | PF-CCV-L | 0 | ug/kg dry<br>Certifications: | 0.291 | EPA 537m | 12/07/2022 18:11<br>12/11/2022 19:37 | ESJ |
| 375-92-8 | * Perfluoro-1-heptanesulfonic acid (PFHpS) | ND | | 0 | ug/kg dry<br>Certifications: | 0.291 | EPA 537m | 12/07/2022 18:11<br>12/11/2022 19:37 | ESJ |
| 335-77-3 | * Perfluoro-1-decanesulfonic acid (PFDS) | ND | PF-CCV-L | 0 | ug/kg dry<br>Certifications: | 0.291 | EPA 537m | 12/07/2022 18:11<br>12/11/2022 19:37 | ESJ |
| 27619-97-2 | * 1H,1H,2H,2H-Perfluorooctanesulfonic acid (6:2 FTS) | ND | | 0 | ug/kg dry<br>Certifications: | 0.291 | EPA 537m | 12/07/2022 18:11<br>12/11/2022 19:37 | ESJ |
| 39108-34-4 | * 1H,1H,2H,2H-Perfluorodecanesulfonic acid (8:2 FTS) | ND | | 0 | ug/kg dry<br>Certifications: | 0.291 | EPA 537m | 12/07/2022 18:11<br>12/11/2022 19:37 | ESJ |
| 375-22-4 | * Perfluoro-n-butanoic acid (PFBA) | ND | | 0 | ug/kg dry<br>Certifications: | 0.291 | EPA 537m | 12/07/2022 18:11<br>12/11/2022 19:37 | ESJ |

## Sample Information

**Client Sample ID:** SB-11C (3-4 ft) **York Sample ID:** 22L0208-08

| York Project (SDG) No. | Client Project ID | Matrix | Collection Date/Time | Date Received |
|---|---|---|---|---|
| 22L0208 | GCM95278 | Soil | November 30, 2022 10:30 am | 12/05/2022 |

### PFAS by EPA 537 m

**Log-in Notes:**

**Sample Notes:**

Sample Prepared by Method: SPE PFAS Extraction-Soil-EPA 537m

| CAS No. | Parameter | Result | Flag | Maximum Contaminant Level MCL | Units | Reported to LOQ | Reference Method | Date/Time Prep/Anal | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| | **Surrogate Recoveries** | **Result** | | **Acceptance Range** | | | | | |
| | *Surrogate: M3PFBS* | *57.4 %* | | *25-150* | | | | | |
| | *Surrogate: M5PFHxA* | *71.2 %* | | *25-150* | | | | | |
| | *Surrogate: M4PFHpA* | *64.5 %* | | *25-150* | | | | | |
| | *Surrogate: M3PFHxS* | *67.6 %* | | *25-150* | | | | | |
| | *Surrogate: Perfluoro-n-[13C8]octanoic acid (M8PFOA)* | *70.1 %* | | *25-150* | | | | | |
| | *Surrogate: M6PFDA* | *58.1 %* | | *25-150* | | | | | |
| | *Surrogate: M7PFUdA* | *37.0 %* | | *25-150* | | | | | |
| | *Surrogate: Perfluoro-n-[1,2-13C2]dodecanoic acid (MPFDoA)* | *34.2 %* | | *25-150* | | | | | |
| | *Surrogate: M2PFTeDA* | *18.1 %* | | *10-150* | | | | | |
| | *Surrogate: Perfluoro-n-[13C4]butanoic acid (MPFBA)* | *71.1 %* | | *25-150* | | | | | |
| | *Surrogate: Perfluoro-1-[13C8]octanesulfonic acid (M8PFOS)* | *49.1 %* | | *25-150* | | | | | |
| | *Surrogate: Perfluoro-n-[13C5]pentanoic acid (M5PFPeA)* | *70.8 %* | | *25-150* | | | | | |
| | *Surrogate: Perfluoro-1-[13C8]octanesulfonamide (M8FOSA)* | *35.9 %* | | *10-150* | | | | | |
| | *Surrogate: d3-N-MeFOSAA* | *43.9 %* | | *25-150* | | | | | |
| | *Surrogate: d5-N-EtFOSAA* | *35.7 %* | | *25-150* | | | | | |
| | *Surrogate: M2-6:2 FTS* | *80.6 %* | | *25-200* | | | | | |
| | *Surrogate: M2-8:2 FTS* | *51.9 %* | | *25-200* | | | | | |
| | *Surrogate: M9PFNA* | *61.2 %* | | *25-150* | | | | | |

### Total Solids

**Log-in Notes:**

**Sample Notes:**

Sample Prepared by Method: % Solids Prep

| CAS No. | Parameter | Result | Flag | Maximum Contaminant Level MCL | Units | Reported to LOQ | Reference Method | Date/Time Prep/Anal | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| solids | *** % Solids** | **84.7** | | **100** | % | 0.100 | SM 2540G | 12/08/2022 12:48 | YR |
| | | | | | Certifications: | | CTDOH-PH-0723 | 12/09/2022 09:51 | |

## Sample Information

**Client Sample ID:** SB-12A1 (0-2 ft) **York Sample ID:** 22L0208-09

| York Project (SDG) No. | Client Project ID | Matrix | Collection Date/Time | Date Received |
|---|---|---|---|---|
| 22L0208 | GCM95278 | Soil | November 30, 2022 10:40 am | 12/05/2022 |

## Sample Information

**Client Sample ID:** SB-12A1 (0-2 ft) **York Sample ID:** 22L0208-09

| York Project (SDG) No. | Client Project ID | Matrix | Collection Date/Time | Date Received |
|---|---|---|---|---|
| 22L0208 | GCM95278 | Soil | November 30, 2022 10:40 am | 12/05/2022 |

**PFAS by EPA 537 m**

**Log-in Notes:**

**Sample Notes:**

Sample Prepared by Method: SPE PFAS Extraction-Soil-EPA 537m

| CAS No. | Parameter | Result | Flag | Maximum Contaminant Level MCL | Units | Reported to LOQ | Reference Method | Date/Time Prep/Anal | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| 375-73-5 | * Perfluorobutanesulfonic acid (PFBS) | ND | | 0 | ug/kg dry<br>Certifications: | 0.259 | EPA 537m | 12/07/2022 18:11<br>12/11/2022 19:50 | ESJ |
| 307-24-4 | * Perfluorohexanoic acid (PFHxA) | ND | | 0 | ug/kg dry<br>Certifications: | 0.259 | EPA 537m | 12/07/2022 18:11<br>12/11/2022 19:50 | ESJ |
| 375-85-9 | * Perfluoroheptanoic acid (PFHpA) | ND | | 0 | ug/kg dry<br>Certifications: | 0.259 | EPA 537m | 12/07/2022 18:11<br>12/11/2022 19:50 | ESJ |
| 355-46-4 | * Perfluorohexanesulfonic acid (PFHxS) | ND | | 0 | ug/kg dry<br>Certifications: | 0.259 | EPA 537m | 12/07/2022 18:11<br>12/11/2022 19:50 | ESJ |
| 335-67-1 | * Perfluorooctanoic acid (PFOA) | ND | | 0 | ug/kg dry<br>Certifications: | 0.259 | EPA 537m | 12/07/2022 18:11<br>12/11/2022 19:50 | ESJ |
| 1763-23-1 | * Perfluorooctanesulfonic acid (PFOS) | ND | | 0 | ug/kg dry<br>Certifications: | 0.259 | EPA 537m | 12/07/2022 18:11<br>12/11/2022 19:50 | ESJ |
| 375-95-1 | * Perfluorononanoic acid (PFNA) | ND | | 0 | ug/kg dry<br>Certifications: | 0.259 | EPA 537m | 12/07/2022 18:11<br>12/11/2022 19:50 | ESJ |
| 335-76-2 | * Perfluorodecanoic acid (PFDA) | ND | | 0 | ug/kg dry<br>Certifications: | 0.259 | EPA 537m | 12/07/2022 18:11<br>12/11/2022 19:50 | ESJ |
| 2058-94-8 | * Perfluoroundecanoic acid (PFUnA) | ND | | 0 | ug/kg dry<br>Certifications: | 0.259 | EPA 537m | 12/07/2022 18:11<br>12/11/2022 19:50 | ESJ |
| 307-55-1 | * Perfluorododecanoic acid (PFDoA) | ND | PF-CCV-L | 0 | ug/kg dry<br>Certifications: | 0.259 | EPA 537m | 12/07/2022 18:11<br>12/11/2022 19:50 | ESJ |
| 72629-94-8 | * Perfluorotridecanoic acid (PFTrDA) | ND | | 0 | ug/kg dry<br>Certifications: | 0.259 | EPA 537m | 12/07/2022 18:11<br>12/11/2022 19:50 | ESJ |
| 376-06-7 | * Perfluorotetradecanoic acid (PFTA) | ND | PF-CCV-L | 0 | ug/kg dry<br>Certifications: | 0.259 | EPA 537m | 12/07/2022 18:11<br>12/11/2022 19:50 | ESJ |
| 2355-31-9 | * N-MeFOSAA | ND | PF-CCV-L | 0 | ug/kg dry<br>Certifications: | 0.259 | EPA 537m | 12/07/2022 18:11<br>12/11/2022 19:50 | ESJ |
| 2991-50-6 | * N-EtFOSAA | ND | PF-CCV-L | 0 | ug/kg dry<br>Certifications: | 0.259 | EPA 537m | 12/07/2022 18:11<br>12/11/2022 19:50 | ESJ |
| 2706-90-3 | * Perfluoropentanoic acid (PFPeA) | ND | | 0 | ug/kg dry<br>Certifications: | 0.259 | EPA 537m | 12/07/2022 18:11<br>12/11/2022 19:50 | ESJ |
| 754-91-6 | * Perfluoro-1-octanesulfonamide (FOSA) | ND | PF-CCV-L | 0 | ug/kg dry<br>Certifications: | 0.259 | EPA 537m | 12/07/2022 18:11<br>12/11/2022 19:50 | ESJ |
| 375-92-8 | * Perfluoro-1-heptanesulfonic acid (PFHpS) | ND | | 0 | ug/kg dry<br>Certifications: | 0.259 | EPA 537m | 12/07/2022 18:11<br>12/11/2022 19:50 | ESJ |
| 335-77-3 | * Perfluoro-1-decanesulfonic acid (PFDS) | ND | PF-CCV-L | 0 | ug/kg dry<br>Certifications: | 0.259 | EPA 537m | 12/07/2022 18:11<br>12/11/2022 19:50 | ESJ |
| 27619-97-2 | * 1H,1H,2H,2H-Perfluorooctanesulfonic acid (6:2 FTS) | ND | | 0 | ug/kg dry<br>Certifications: | 0.259 | EPA 537m | 12/07/2022 18:11<br>12/11/2022 19:50 | ESJ |
| 39108-34-4 | * 1H,1H,2H,2H-Perfluorodecanesulfonic acid (8:2 FTS) | ND | | 0 | ug/kg dry<br>Certifications: | 0.259 | EPA 537m | 12/07/2022 18:11<br>12/11/2022 19:50 | ESJ |
| 375-22-4 | * Perfluoro-n-butanoic acid (PFBA) | ND | | 0 | ug/kg dry<br>Certifications: | 0.259 | EPA 537m | 12/07/2022 18:11<br>12/11/2022 19:50 | ESJ |

## Sample Information

**Client Sample ID:** SB-12A1 (0-2 ft) **York Sample ID:** 22L0208-09

| York Project (SDG) No. | Client Project ID | Matrix | Collection Date/Time | Date Received |
|---|---|---|---|---|
| 22L0208 | GCM95278 | Soil | November 30, 2022 10:40 am | 12/05/2022 |

### PFAS by EPA 537 m

**Log-in Notes:**

**Sample Notes:**

Sample Prepared by Method: SPE PFAS Extraction-Soil-EPA 537m

| CAS No. | Parameter | Result | Flag | Maximum Contaminant Level MCL | Units | Reported to LOQ | Reference Method | Date/Time Prep/Anal | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| | **Surrogate Recoveries** | **Result** | | **Acceptance Range** | | | | | |
| | *Surrogate: M3PFBS* | *72.3 %* | | *25-150* | | | | | |
| | *Surrogate: M5PFHxA* | *70.9 %* | | *25-150* | | | | | |
| | *Surrogate: M4PFHpA* | *64.6 %* | | *25-150* | | | | | |
| | *Surrogate: M3PFHxS* | *89.1 %* | | *25-150* | | | | | |
| | *Surrogate: Perfluoro-n-[13C8]octanoic acid (M8PFOA)* | *70.8 %* | | *25-150* | | | | | |
| | *Surrogate: M6PFDA* | *52.4 %* | | *25-150* | | | | | |
| | *Surrogate: M7PFUdA* | *43.3 %* | | *25-150* | | | | | |
| | *Surrogate: Perfluoro-n-[1,2-13C2]dodecanoic acid (MPFDoA)* | *44.5 %* | | *25-150* | | | | | |
| | *Surrogate: M2PFTeDA* | *37.6 %* | | *10-150* | | | | | |
| | *Surrogate: Perfluoro-n-[13C4]butanoic acid (MPFBA)* | *72.0 %* | | *25-150* | | | | | |
| | *Surrogate: Perfluoro-1-[13C8]octanesulfonic acid (M8PFOS)* | *56.9 %* | | *25-150* | | | | | |
| | *Surrogate: Perfluoro-n-[13C5]pentanoic acid (M5PFPeA)* | *71.8 %* | | *25-150* | | | | | |
| | *Surrogate: Perfluoro-1-[13C8]octanesulfonamide (M8FOSA)* | *38.9 %* | | *10-150* | | | | | |
| | *Surrogate: d3-N-MeFOSAA* | *55.7 %* | | *25-150* | | | | | |
| | *Surrogate: d5-N-EtFOSAA* | *56.8 %* | | *25-150* | | | | | |
| | *Surrogate: M2-6:2 FTS* | *179 %* | | *25-200* | | | | | |
| | *Surrogate: M2-8:2 FTS* | *122 %* | | *25-200* | | | | | |
| | *Surrogate: M9PFNA* | *60.3 %* | | *25-150* | | | | | |

### Total Solids

**Log-in Notes:**

**Sample Notes:**

Sample Prepared by Method: % Solids Prep

| CAS No. | Parameter | Result | Flag | Maximum Contaminant Level MCL | Units | Reported to LOQ | Reference Method | Date/Time Prep/Anal | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| solids | *** % Solids** | **90.7** | | **100** | % | 0.100 | SM 2540G | 12/08/2022 12:48 | YR |
| | | | | | Certifications: | | CTDOH-PH-0723 | 12/09/2022 09:51 | |

## Sample Information

**Client Sample ID:** SB-12A2 (2-12 ft) **York Sample ID:** 22L0208-10

| York Project (SDG) No. | Client Project ID | Matrix | Collection Date/Time | Date Received |
|---|---|---|---|---|
| 22L0208 | GCM95278 | Soil | November 30, 2022 10:40 am | 12/05/2022 |

## Sample Information

**Client Sample ID:** SB-12A2 (2-12 ft) **York Sample ID:** 22L0208-10

| York Project (SDG) No. | Client Project ID | Matrix | Collection Date/Time | Date Received |
|---|---|---|---|---|
| 22L0208 | GCM95278 | Soil | November 30, 2022 10:40 am | 12/05/2022 |

**PFAS by EPA 537 m**

**Log-in Notes:**

**Sample Notes:**

Sample Prepared by Method: SPE PFAS Extraction-Soil-EPA 537m

| CAS No. | Parameter | Result | Flag | Maximum Contaminant Level MCL | Units | Reported to LOQ | Reference Method | Date/Time Prep/Anal | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| 375-73-5 | * Perfluorobutanesulfonic acid (PFBS) | ND | | 0 | ug/kg dry<br>Certifications: | 0.301 | EPA 537m | 12/07/2022 18:11<br>12/11/2022 20:03 | ESJ |
| 307-24-4 | * Perfluorohexanoic acid (PFHxA) | ND | | 0 | ug/kg dry<br>Certifications: | 0.301 | EPA 537m | 12/07/2022 18:11<br>12/11/2022 20:03 | ESJ |
| 375-85-9 | * Perfluoroheptanoic acid (PFHpA) | ND | | 0 | ug/kg dry<br>Certifications: | 0.301 | EPA 537m | 12/07/2022 18:11<br>12/11/2022 20:03 | ESJ |
| 355-46-4 | * Perfluorohexanesulfonic acid (PFHxS) | ND | | 0 | ug/kg dry<br>Certifications: | 0.301 | EPA 537m | 12/07/2022 18:11<br>12/11/2022 20:03 | ESJ |
| 335-67-1 | * Perfluorooctanoic acid (PFOA) | ND | | 0 | ug/kg dry<br>Certifications: | 0.301 | EPA 537m | 12/07/2022 18:11<br>12/11/2022 20:03 | ESJ |
| 1763-23-1 | * Perfluorooctanesulfonic acid (PFOS) | ND | | 0 | ug/kg dry<br>Certifications: | 0.301 | EPA 537m | 12/07/2022 18:11<br>12/11/2022 20:03 | ESJ |
| 375-95-1 | * Perfluorononanoic acid (PFNA) | ND | | 0 | ug/kg dry<br>Certifications: | 0.301 | EPA 537m | 12/07/2022 18:11<br>12/11/2022 20:03 | ESJ |
| 335-76-2 | * Perfluorodecanoic acid (PFDA) | ND | | 0 | ug/kg dry<br>Certifications: | 0.301 | EPA 537m | 12/07/2022 18:11<br>12/11/2022 20:03 | ESJ |
| 2058-94-8 | * Perfluoroundecanoic acid (PFUnA) | ND | | 0 | ug/kg dry<br>Certifications: | 0.301 | EPA 537m | 12/07/2022 18:11<br>12/11/2022 20:03 | ESJ |
| 307-55-1 | * Perfluorododecanoic acid (PFDoA) | ND | PF-CCV-L | 0 | ug/kg dry<br>Certifications: | 0.301 | EPA 537m | 12/07/2022 18:11<br>12/11/2022 20:03 | ESJ |
| 72629-94-8 | * Perfluorotridecanoic acid (PFTrDA) | ND | | 0 | ug/kg dry<br>Certifications: | 0.301 | EPA 537m | 12/07/2022 18:11<br>12/11/2022 20:03 | ESJ |
| 376-06-7 | * Perfluorotetradecanoic acid (PFTA) | ND | PF-CCV-L | 0 | ug/kg dry<br>Certifications: | 0.301 | EPA 537m | 12/07/2022 18:11<br>12/11/2022 20:03 | ESJ |
| 2355-31-9 | * N-MeFOSAA | ND | PF-CCV-L | 0 | ug/kg dry<br>Certifications: | 0.301 | EPA 537m | 12/07/2022 18:11<br>12/11/2022 20:03 | ESJ |
| 2991-50-6 | * N-EtFOSAA | ND | PF-CCV-L | 0 | ug/kg dry<br>Certifications: | 0.301 | EPA 537m | 12/07/2022 18:11<br>12/11/2022 20:03 | ESJ |
| 2706-90-3 | * Perfluoropentanoic acid (PFPeA) | ND | | 0 | ug/kg dry<br>Certifications: | 0.301 | EPA 537m | 12/07/2022 18:11<br>12/11/2022 20:03 | ESJ |
| 754-91-6 | * Perfluoro-1-octanesulfonamide (FOSA) | ND | PF-CCV-L | 0 | ug/kg dry<br>Certifications: | 0.301 | EPA 537m | 12/07/2022 18:11<br>12/11/2022 20:03 | ESJ |
| 375-92-8 | * Perfluoro-1-heptanesulfonic acid (PFHpS) | ND | | 0 | ug/kg dry<br>Certifications: | 0.301 | EPA 537m | 12/07/2022 18:11<br>12/11/2022 20:03 | ESJ |
| 335-77-3 | * Perfluoro-1-decanesulfonic acid (PFDS) | ND | PF-CCV-L | 0 | ug/kg dry<br>Certifications: | 0.301 | EPA 537m | 12/07/2022 18:11<br>12/11/2022 20:03 | ESJ |
| 27619-97-2 | * 1H,1H,2H,2H-Perfluorooctanesulfonic acid (6:2 FTS) | ND | | 0 | ug/kg dry<br>Certifications: | 0.301 | EPA 537m | 12/07/2022 18:11<br>12/11/2022 20:03 | ESJ |
| 39108-34-4 | * 1H,1H,2H,2H-Perfluorodecanesulfonic acid (8:2 FTS) | ND | | 0 | ug/kg dry<br>Certifications: | 0.301 | EPA 537m | 12/07/2022 18:11<br>12/11/2022 20:03 | ESJ |
| 375-22-4 | * Perfluoro-n-butanoic acid (PFBA) | ND | | 0 | ug/kg dry<br>Certifications: | 0.301 | EPA 537m | 12/07/2022 18:11<br>12/11/2022 20:03 | ESJ |

## Sample Information

**Client Sample ID:** SB-12A2 (2-12 ft) **York Sample ID:** 22L0208-10

| York Project (SDG) No. | Client Project ID | Matrix | Collection Date/Time | Date Received |
|---|---|---|---|---|
| 22L0208 | GCM95278 | Soil | November 30, 2022 10:40 am | 12/05/2022 |

### PFAS by EPA 537 m

**Log-in Notes:**

**Sample Notes:**

Sample Prepared by Method: SPE PFAS Extraction-Soil-EPA 537m

| CAS No. | Parameter | Result | Flag | Maximum Contaminant Level MCL | Units | Reported to LOQ | Reference Method | Date/Time Prep/Anal | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| | **Surrogate Recoveries** | **Result** | | **Acceptance Range** | | | | | |
| | *Surrogate: M3PFBS* | *60.5 %* | | *25-150* | | | | | |
| | *Surrogate: M5PFHxA* | *72.0 %* | | *25-150* | | | | | |
| | *Surrogate: M4PFHpA* | *70.8 %* | | *25-150* | | | | | |
| | *Surrogate: M3PFHxS* | *66.8 %* | | *25-150* | | | | | |
| | *Surrogate: Perfluoro-n-[13C8]octanoic acid (M8PFOA)* | *66.0 %* | | *25-150* | | | | | |
| | *Surrogate: M6PFDA* | *52.0 %* | | *25-150* | | | | | |
| | *Surrogate: M7PFUdA* | *37.8 %* | | *25-150* | | | | | |
| | *Surrogate: Perfluoro-n-[1,2-13C2]dodecanoic acid (MPFDoA)* | *36.6 %* | | *25-150* | | | | | |
| | *Surrogate: M2PFTeDA* | *31.5 %* | | *10-150* | | | | | |
| | *Surrogate: Perfluoro-n-[13C4]butanoic acid (MPFBA)* | *67.1 %* | | *25-150* | | | | | |
| | *Surrogate: Perfluoro-1-[13C8]octanesulfonic acid (M8PFOS)* | *52.3 %* | | *25-150* | | | | | |
| | *Surrogate: Perfluoro-n-[13C5]pentanoic acid (M5PFPeA)* | *72.0 %* | | *25-150* | | | | | |
| | *Surrogate: Perfluoro-1-[13C8]octanesulfonamide (M8FOSA)* | *32.1 %* | | *10-150* | | | | | |
| | *Surrogate: d3-N-MeFOSAA* | *42.0 %* | | *25-150* | | | | | |
| | *Surrogate: d5-N-EtFOSAA* | *37.0 %* | | *25-150* | | | | | |
| | *Surrogate: M2-6:2 FTS* | *72.8 %* | | *25-200* | | | | | |
| | *Surrogate: M2-8:2 FTS* | *49.4 %* | | *25-200* | | | | | |
| | *Surrogate: M9PFNA* | *64.7 %* | | *25-150* | | | | | |

### Total Solids

**Log-in Notes:**

**Sample Notes:**

Sample Prepared by Method: % Solids Prep

| CAS No. | Parameter | Result | Flag | Maximum Contaminant Level MCL | Units | Reported to LOQ | Reference Method | Date/Time Prep/Anal | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| solids | *** % Solids** | **79.5** | | **100** | % | 0.100 | SM 2540G | 12/08/2022 12:48 | YR |
| | | | | | Certifications: | | CTDOH-PH-0723 | 12/09/2022 09:51 | |

## Sample Information

**Client Sample ID:** SB-12C (13-14 ft) **York Sample ID:** 22L0208-11

| York Project (SDG) No. | Client Project ID | Matrix | Collection Date/Time | Date Received |
|---|---|---|---|---|
| 22L0208 | GCM95278 | Soil | November 30, 2022 10:40 am | 12/05/2022 |

## Sample Information

**Client Sample ID:** SB-12C (13-14 ft) **York Sample ID:** 22L0208-11

| York Project (SDG) No. | Client Project ID | Matrix | Collection Date/Time | Date Received |
|---|---|---|---|---|
| 22L0208 | GCM95278 | Soil | November 30, 2022 10:40 am | 12/05/2022 |

**PFAS by EPA 537 m**

**Log-in Notes:**

**Sample Notes:**

Sample Prepared by Method: SPE PFAS Extraction-Soil-EPA 537m

| CAS No. | Parameter | Result | Flag | Maximum Contaminant Level MCL | Units | Reported to LOQ | Reference Method | Date/Time Prep/Anal | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| 375-73-5 | * Perfluorobutanesulfonic acid (PFBS) | ND | | 0 | ug/kg dry<br>Certifications: | 0.292 | EPA 537m | 12/07/2022 18:11<br>12/11/2022 20:16 | ESJ |
| 307-24-4 | * Perfluorohexanoic acid (PFHxA) | ND | | 0 | ug/kg dry<br>Certifications: | 0.292 | EPA 537m | 12/07/2022 18:11<br>12/11/2022 20:16 | ESJ |
| 375-85-9 | * Perfluoroheptanoic acid (PFHpA) | ND | | 0 | ug/kg dry<br>Certifications: | 0.292 | EPA 537m | 12/07/2022 18:11<br>12/11/2022 20:16 | ESJ |
| 355-46-4 | * Perfluorohexanesulfonic acid (PFHxS) | ND | | 0 | ug/kg dry<br>Certifications: | 0.292 | EPA 537m | 12/07/2022 18:11<br>12/11/2022 20:16 | ESJ |
| 335-67-1 | * Perfluorooctanoic acid (PFOA) | ND | | 0 | ug/kg dry<br>Certifications: | 0.292 | EPA 537m | 12/07/2022 18:11<br>12/11/2022 20:16 | ESJ |
| 1763-23-1 | * Perfluorooctanesulfonic acid (PFOS) | ND | | 0 | ug/kg dry<br>Certifications: | 0.292 | EPA 537m | 12/07/2022 18:11<br>12/11/2022 20:16 | ESJ |
| 375-95-1 | * Perfluorononanoic acid (PFNA) | ND | | 0 | ug/kg dry<br>Certifications: | 0.292 | EPA 537m | 12/07/2022 18:11<br>12/11/2022 20:16 | ESJ |
| 335-76-2 | * Perfluorodecanoic acid (PFDA) | ND | | 0 | ug/kg dry<br>Certifications: | 0.292 | EPA 537m | 12/07/2022 18:11<br>12/11/2022 20:16 | ESJ |
| 2058-94-8 | * Perfluoroundecanoic acid (PFUnA) | ND | | 0 | ug/kg dry<br>Certifications: | 0.292 | EPA 537m | 12/07/2022 18:11<br>12/11/2022 20:16 | ESJ |
| 307-55-1 | * Perfluorododecanoic acid (PFDoA) | ND | PF-CCV-L | 0 | ug/kg dry<br>Certifications: | 0.292 | EPA 537m | 12/07/2022 18:11<br>12/11/2022 20:16 | ESJ |
| 72629-94-8 | * Perfluorotridecanoic acid (PFTrDA) | ND | | 0 | ug/kg dry<br>Certifications: | 0.292 | EPA 537m | 12/07/2022 18:11<br>12/11/2022 20:16 | ESJ |
| 376-06-7 | * Perfluorotetradecanoic acid (PFTA) | ND | PF-CCV-L | 0 | ug/kg dry<br>Certifications: | 0.292 | EPA 537m | 12/07/2022 18:11<br>12/11/2022 20:16 | ESJ |
| 2355-31-9 | * N-MeFOSAA | ND | PF-CCV-L | 0 | ug/kg dry<br>Certifications: | 0.292 | EPA 537m | 12/07/2022 18:11<br>12/11/2022 20:16 | ESJ |
| 2991-50-6 | * N-EtFOSAA | ND | PF-CCV-L | 0 | ug/kg dry<br>Certifications: | 0.292 | EPA 537m | 12/07/2022 18:11<br>12/11/2022 20:16 | ESJ |
| 2706-90-3 | * Perfluoropentanoic acid (PFPeA) | ND | | 0 | ug/kg dry<br>Certifications: | 0.292 | EPA 537m | 12/07/2022 18:11<br>12/11/2022 20:16 | ESJ |
| 754-91-6 | * Perfluoro-1-octanesulfonamide (FOSA) | ND | PF-CCV-L | 0 | ug/kg dry<br>Certifications: | 0.292 | EPA 537m | 12/07/2022 18:11<br>12/11/2022 20:16 | ESJ |
| 375-92-8 | * Perfluoro-1-heptanesulfonic acid (PFHpS) | ND | | 0 | ug/kg dry<br>Certifications: | 0.292 | EPA 537m | 12/07/2022 18:11<br>12/11/2022 20:16 | ESJ |
| 335-77-3 | * Perfluoro-1-decanesulfonic acid (PFDS) | ND | PF-CCV-L | 0 | ug/kg dry<br>Certifications: | 0.292 | EPA 537m | 12/07/2022 18:11<br>12/11/2022 20:16 | ESJ |
| 27619-97-2 | * 1H,1H,2H,2H-Perfluorooctanesulfonic acid (6:2 FTS) | ND | | 0 | ug/kg dry<br>Certifications: | 0.292 | EPA 537m | 12/07/2022 18:11<br>12/11/2022 20:16 | ESJ |
| 39108-34-4 | * 1H,1H,2H,2H-Perfluorodecanesulfonic acid (8:2 FTS) | ND | | 0 | ug/kg dry<br>Certifications: | 0.292 | EPA 537m | 12/07/2022 18:11<br>12/11/2022 20:16 | ESJ |
| 375-22-4 | * Perfluoro-n-butanoic acid (PFBA) | ND | | 0 | ug/kg dry<br>Certifications: | 0.292 | EPA 537m | 12/07/2022 18:11<br>12/11/2022 20:16 | ESJ |

## Sample Information

**Client Sample ID:** SB-12C (13-14 ft) **York Sample ID:** 22L0208-11

| York Project (SDG) No. | Client Project ID | Matrix | Collection Date/Time | Date Received |
|---|---|---|---|---|
| 22L0208 | GCM95278 | Soil | November 30, 2022 10:40 am | 12/05/2022 |

### PFAS by EPA 537 m

**Log-in Notes:**

**Sample Notes:**

Sample Prepared by Method: SPE PFAS Extraction-Soil-EPA 537m

| CAS No. | Parameter | Result | Flag | Maximum Contaminant Level MCL | Units | Reported to LOQ | Reference Method | Date/Time Prep/Anal | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| | **Surrogate Recoveries** | **Result** | | **Acceptance Range** | | | | | |
| | *Surrogate: M3PFBS* | *64.8 %* | | *25-150* | | | | | |
| | *Surrogate: M5PFHxA* | *72.2 %* | | *25-150* | | | | | |
| | *Surrogate: M4PFHpA* | *70.2 %* | | *25-150* | | | | | |
| | *Surrogate: M3PFHxS* | *67.7 %* | | *25-150* | | | | | |
| | *Surrogate: Perfluoro-n-[13C8]octanoic acid (M8PFOA)* | *67.1 %* | | *25-150* | | | | | |
| | *Surrogate: M6PFDA* | *53.0 %* | | *25-150* | | | | | |
| | *Surrogate: M7PFUdA* | *39.2 %* | | *25-150* | | | | | |
| | *Surrogate: Perfluoro-n-[1,2-13C2]dodecanoic acid (MPFDoA)* | *41.6 %* | | *25-150* | | | | | |
| | *Surrogate: M2PFTeDA* | *41.1 %* | | *10-150* | | | | | |
| | *Surrogate: Perfluoro-n-[13C4]butanoic acid (MPFBA)* | *73.9 %* | | *25-150* | | | | | |
| | *Surrogate: Perfluoro-1-[13C8]octanesulfonic acid (M8PFOS)* | *46.8 %* | | *25-150* | | | | | |
| | *Surrogate: Perfluoro-n-[13C5]pentanoic acid (M5PFPeA)* | *75.1 %* | | *25-150* | | | | | |
| | *Surrogate: Perfluoro-1-[13C8]octanesulfonamide (M8FOSA)* | *37.1 %* | | *10-150* | | | | | |
| | *Surrogate: d3-N-MeFOSAA* | *47.5 %* | | *25-150* | | | | | |
| | *Surrogate: d5-N-EtFOSAA* | *42.7 %* | | *25-150* | | | | | |
| | *Surrogate: M2-6:2 FTS* | *72.1 %* | | *25-200* | | | | | |
| | *Surrogate: M2-8:2 FTS* | *60.8 %* | | *25-200* | | | | | |
| | *Surrogate: M9PFNA* | *65.4 %* | | *25-150* | | | | | |

### Total Solids

**Log-in Notes:**

**Sample Notes:**

Sample Prepared by Method: % Solids Prep

| CAS No. | Parameter | Result | Flag | Maximum Contaminant Level MCL | Units | Reported to LOQ | Reference Method | Date/Time Prep/Anal | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| solids | *** % Solids** | **82.3** | | **100** | % | 0.100 | SM 2540G | 12/08/2022 12:48 | YR |
| | | | | | Certifications: | | CTDOH-PH-0723 | 12/09/2022 09:51 | |

## Sample Information

**Client Sample ID:** SB-13A (0-1 ft) **York Sample ID:** 22L0208-12

| York Project (SDG) No. | Client Project ID | Matrix | Collection Date/Time | Date Received |
|---|---|---|---|---|
| 22L0208 | GCM95278 | Soil | November 30, 2022 10:00 am | 12/05/2022 |

## Sample Information

**Client Sample ID:** SB-13A (0-1 ft) **York Sample ID:** 22L0208-12

| York Project (SDG) No. | Client Project ID | Matrix | Collection Date/Time | Date Received |
|---|---|---|---|---|
| 22L0208 | GCM95278 | Soil | November 30, 2022 10:00 am | 12/05/2022 |

**PFAS by EPA 537 m**

**Log-in Notes:**

**Sample Notes:**

Sample Prepared by Method: SPE PFAS Extraction-Soil-EPA 537m

| CAS No. | Parameter | Result | Flag | Maximum Contaminant Level MCL | Units | Reported to LOQ | Reference Method | Date/Time Prep/Anal | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| 375-73-5 | * Perfluorobutanesulfonic acid (PFBS) | ND | | 0 | ug/kg dry<br>Certifications: | 0.309 | EPA 537m | 12/07/2022 18:11<br>12/11/2022 20:28 | ESJ |
| 307-24-4 | * Perfluorohexanoic acid (PFHxA) | ND | | 0 | ug/kg dry<br>Certifications: | 0.309 | EPA 537m | 12/07/2022 18:11<br>12/11/2022 20:28 | ESJ |
| 375-85-9 | * Perfluoroheptanoic acid (PFHpA) | ND | | 0 | ug/kg dry<br>Certifications: | 0.309 | EPA 537m | 12/07/2022 18:11<br>12/11/2022 20:28 | ESJ |
| 355-46-4 | * Perfluorohexanesulfonic acid (PFHxS) | ND | | 0 | ug/kg dry<br>Certifications: | 0.309 | EPA 537m | 12/07/2022 18:11<br>12/11/2022 20:28 | ESJ |
| 335-67-1 | * Perfluorooctanoic acid (PFOA) | ND | | 0 | ug/kg dry<br>Certifications: | 0.309 | EPA 537m | 12/07/2022 18:11<br>12/11/2022 20:28 | ESJ |
| 1763-23-1 | *** Perfluorooctanesulfonic acid (PFOS)** | **0.403** | | **0** | ug/kg dry<br>Certifications: | 0.309 | EPA 537m | 12/07/2022 18:11<br>12/11/2022 20:28 | ESJ |
| 375-95-1 | * Perfluorononanoic acid (PFNA) | ND | | 0 | ug/kg dry<br>Certifications: | 0.309 | EPA 537m | 12/07/2022 18:11<br>12/11/2022 20:28 | ESJ |
| 335-76-2 | * Perfluorodecanoic acid (PFDA) | ND | | 0 | ug/kg dry<br>Certifications: | 0.309 | EPA 537m | 12/07/2022 18:11<br>12/11/2022 20:28 | ESJ |
| 2058-94-8 | * Perfluoroundecanoic acid (PFUnA) | ND | | 0 | ug/kg dry<br>Certifications: | 0.309 | EPA 537m | 12/07/2022 18:11<br>12/11/2022 20:28 | ESJ |
| 307-55-1 | * Perfluorododecanoic acid (PFDoA) | ND | PF-CCV-L | 0 | ug/kg dry<br>Certifications: | 0.309 | EPA 537m | 12/07/2022 18:11<br>12/11/2022 20:28 | ESJ |
| 72629-94-8 | * Perfluorotridecanoic acid (PFTrDA) | ND | | 0 | ug/kg dry<br>Certifications: | 0.309 | EPA 537m | 12/07/2022 18:11<br>12/11/2022 20:28 | ESJ |
| 376-06-7 | * Perfluorotetradecanoic acid (PFTA) | ND | PF-CCV-L | 0 | ug/kg dry<br>Certifications: | 0.309 | EPA 537m | 12/07/2022 18:11<br>12/11/2022 20:28 | ESJ |
| 2355-31-9 | * N-MeFOSAA | ND | PF-CCV-L | 0 | ug/kg dry<br>Certifications: | 0.309 | EPA 537m | 12/07/2022 18:11<br>12/11/2022 20:28 | ESJ |
| 2991-50-6 | * N-EtFOSAA | ND | PF-CCV-L | 0 | ug/kg dry<br>Certifications: | 0.309 | EPA 537m | 12/07/2022 18:11<br>12/11/2022 20:28 | ESJ |
| 2706-90-3 | * Perfluoropentanoic acid (PFPeA) | ND | | 0 | ug/kg dry<br>Certifications: | 0.309 | EPA 537m | 12/07/2022 18:11<br>12/11/2022 20:28 | ESJ |
| 754-91-6 | * Perfluoro-1-octanesulfonamide (FOSA) | ND | PF-CCV-L | 0 | ug/kg dry<br>Certifications: | 0.309 | EPA 537m | 12/07/2022 18:11<br>12/11/2022 20:28 | ESJ |
| 375-92-8 | * Perfluoro-1-heptanesulfonic acid (PFHpS) | ND | | 0 | ug/kg dry<br>Certifications: | 0.309 | EPA 537m | 12/07/2022 18:11<br>12/11/2022 20:28 | ESJ |
| 335-77-3 | * Perfluoro-1-decanesulfonic acid (PFDS) | ND | PF-CCV-L | 0 | ug/kg dry<br>Certifications: | 0.309 | EPA 537m | 12/07/2022 18:11<br>12/11/2022 20:28 | ESJ |
| 27619-97-2 | * 1H,1H,2H,2H-Perfluorooctanesulfonic acid (6:2 FTS) | ND | | 0 | ug/kg dry<br>Certifications: | 0.309 | EPA 537m | 12/07/2022 18:11<br>12/11/2022 20:28 | ESJ |
| 39108-34-4 | * 1H,1H,2H,2H-Perfluorodecanesulfonic acid (8:2 FTS) | ND | | 0 | ug/kg dry<br>Certifications: | 0.309 | EPA 537m | 12/07/2022 18:11<br>12/11/2022 20:28 | ESJ |
| 375-22-4 | * Perfluoro-n-butanoic acid (PFBA) | ND | | 0 | ug/kg dry<br>Certifications: | 0.309 | EPA 537m | 12/07/2022 18:11<br>12/11/2022 20:28 | ESJ |

## Sample Information

**Client Sample ID:** SB-13A (0-1 ft) **York Sample ID:** 22L0208-12

| York Project (SDG) No. | Client Project ID | Matrix | Collection Date/Time | Date Received |
|---|---|---|---|---|
| 22L0208 | GCM95278 | Soil | November 30, 2022 10:00 am | 12/05/2022 |

### PFAS by EPA 537 m

**Log-in Notes:**

**Sample Notes:**

Sample Prepared by Method: SPE PFAS Extraction-Soil-EPA 537m

| CAS No. | Parameter | Result | Flag | Maximum Contaminant Level MCL | Units | Reported to LOQ | Reference Method | Date/Time Prep/Anal | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| | **Surrogate Recoveries** | **Result** | | **Acceptance Range** | | | | | |
| | *Surrogate: M3PFBS* | *60.6 %* | | *25-150* | | | | | |
| | *Surrogate: M5PFHxA* | *63.8 %* | | *25-150* | | | | | |
| | *Surrogate: M4PFHpA* | *57.8 %* | | *25-150* | | | | | |
| | *Surrogate: M3PFHxS* | *72.2 %* | | *25-150* | | | | | |
| | *Surrogate: Perfluoro-n-[13C8]octanoic acid (M8PFOA)* | *68.6 %* | | *25-150* | | | | | |
| | *Surrogate: M6PFDA* | *45.3 %* | | *25-150* | | | | | |
| | *Surrogate: M7PFUdA* | *32.6 %* | | *25-150* | | | | | |
| | *Surrogate: Perfluoro-n-[1,2-13C2]dodecanoic acid (MPFDoA)* | *35.3 %* | | *25-150* | | | | | |
| | *Surrogate: M2PFTeDA* | *21.7 %* | | *10-150* | | | | | |
| | *Surrogate: Perfluoro-n-[13C4]butanoic acid (MPFBA)* | *64.2 %* | | *25-150* | | | | | |
| | *Surrogate: Perfluoro-1-[13C8]octanesulfonic acid (M8PFOS)* | *51.1 %* | | *25-150* | | | | | |
| | *Surrogate: Perfluoro-n-[13C5]pentanoic acid (M5PFPeA)* | *62.1 %* | | *25-150* | | | | | |
| | *Surrogate: Perfluoro-1-[13C8]octanesulfonamide (M8FOSA)* | *31.9 %* | | *10-150* | | | | | |
| | *Surrogate: d3-N-MeFOSAA* | *39.1 %* | | *25-150* | | | | | |
| | *Surrogate: d5-N-EtFOSAA* | *42.5 %* | | *25-150* | | | | | |
| | *Surrogate: M2-6:2 FTS* | *108 %* | | *25-200* | | | | | |
| | *Surrogate: M2-8:2 FTS* | *87.0 %* | | *25-200* | | | | | |
| | *Surrogate: M9PFNA* | *48.5 %* | | *25-150* | | | | | |

### Total Solids

**Log-in Notes:**

**Sample Notes:**

Sample Prepared by Method: % Solids Prep

| CAS No. | Parameter | Result | Flag | Maximum Contaminant Level MCL | Units | Reported to LOQ | Reference Method | Date/Time Prep/Anal | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| solids | *** % Solids** | **79.0** | | **100** | % | 0.100 | SM 2540G | 12/08/2022 12:48 | YR |
| | | | | | Certifications: | | CTDOH-PH-0723 | 12/09/2022 09:51 | |

## Sample Information

**Client Sample ID:** SB-13C (13-14 ft) **York Sample ID:** 22L0208-13

| York Project (SDG) No. | Client Project ID | Matrix | Collection Date/Time | Date Received |
|---|---|---|---|---|
| 22L0208 | GCM95278 | Soil | November 30, 2022 10:00 am | 12/05/2022 |

## Sample Information

**Client Sample ID:** SB-13C (13-14 ft) **York Sample ID:** 22L0208-13

| York Project (SDG) No. | Client Project ID | Matrix | Collection Date/Time | Date Received |
|---|---|---|---|---|
| 22L0208 | GCM95278 | Soil | November 30, 2022 10:00 am | 12/05/2022 |

**PFAS by EPA 537 m**

**Log-in Notes:**

**Sample Notes:**

Sample Prepared by Method: SPE PFAS Extraction-Soil-EPA 537m

| CAS No. | Parameter | Result | Flag | Maximum Contaminant Level MCL | Units | Reported to LOQ | Reference Method | Date/Time Prep/Anal | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| 375-73-5 | * Perfluorobutanesulfonic acid (PFBS) | ND | | 0 | ug/kg dry<br>Certifications: | 0.319 | EPA 537m | 12/07/2022 18:11<br>12/11/2022 20:41 | ESJ |
| 307-24-4 | * Perfluorohexanoic acid (PFHxA) | ND | | 0 | ug/kg dry<br>Certifications: | 0.319 | EPA 537m | 12/07/2022 18:11<br>12/11/2022 20:41 | ESJ |
| 375-85-9 | * Perfluoroheptanoic acid (PFHpA) | ND | | 0 | ug/kg dry<br>Certifications: | 0.319 | EPA 537m | 12/07/2022 18:11<br>12/11/2022 20:41 | ESJ |
| 355-46-4 | * Perfluorohexanesulfonic acid (PFHxS) | ND | | 0 | ug/kg dry<br>Certifications: | 0.319 | EPA 537m | 12/07/2022 18:11<br>12/11/2022 20:41 | ESJ |
| 335-67-1 | * Perfluorooctanoic acid (PFOA) | ND | | 0 | ug/kg dry<br>Certifications: | 0.319 | EPA 537m | 12/07/2022 18:11<br>12/11/2022 20:41 | ESJ |
| 1763-23-1 | * Perfluorooctanesulfonic acid (PFOS) | ND | | 0 | ug/kg dry<br>Certifications: | 0.319 | EPA 537m | 12/07/2022 18:11<br>12/11/2022 20:41 | ESJ |
| 375-95-1 | * Perfluorononanoic acid (PFNA) | ND | | 0 | ug/kg dry<br>Certifications: | 0.319 | EPA 537m | 12/07/2022 18:11<br>12/11/2022 20:41 | ESJ |
| 335-76-2 | * Perfluorodecanoic acid (PFDA) | ND | | 0 | ug/kg dry<br>Certifications: | 0.319 | EPA 537m | 12/07/2022 18:11<br>12/11/2022 20:41 | ESJ |
| 2058-94-8 | * Perfluoroundecanoic acid (PFUnA) | ND | | 0 | ug/kg dry<br>Certifications: | 0.319 | EPA 537m | 12/07/2022 18:11<br>12/11/2022 20:41 | ESJ |
| 307-55-1 | * Perfluorododecanoic acid (PFDoA) | ND | PF-CCV-L | 0 | ug/kg dry<br>Certifications: | 0.319 | EPA 537m | 12/07/2022 18:11<br>12/11/2022 20:41 | ESJ |
| 72629-94-8 | * Perfluorotridecanoic acid (PFTrDA) | ND | | 0 | ug/kg dry<br>Certifications: | 0.319 | EPA 537m | 12/07/2022 18:11<br>12/11/2022 20:41 | ESJ |
| 376-06-7 | * Perfluorotetradecanoic acid (PFTA) | ND | PF-CCV-L | 0 | ug/kg dry<br>Certifications: | 0.319 | EPA 537m | 12/07/2022 18:11<br>12/11/2022 20:41 | ESJ |
| 2355-31-9 | * N-MeFOSAA | ND | PF-CCV-L | 0 | ug/kg dry<br>Certifications: | 0.319 | EPA 537m | 12/07/2022 18:11<br>12/11/2022 20:41 | ESJ |
| 2991-50-6 | * N-EtFOSAA | ND | PF-CCV-L | 0 | ug/kg dry<br>Certifications: | 0.319 | EPA 537m | 12/07/2022 18:11<br>12/11/2022 20:41 | ESJ |
| 2706-90-3 | * Perfluoropentanoic acid (PFPeA) | ND | | 0 | ug/kg dry<br>Certifications: | 0.319 | EPA 537m | 12/07/2022 18:11<br>12/11/2022 20:41 | ESJ |
| 754-91-6 | * Perfluoro-1-octanesulfonamide (FOSA) | ND | PF-CCV-L | 0 | ug/kg dry<br>Certifications: | 0.319 | EPA 537m | 12/07/2022 18:11<br>12/11/2022 20:41 | ESJ |
| 375-92-8 | * Perfluoro-1-heptanesulfonic acid (PFHpS) | ND | | 0 | ug/kg dry<br>Certifications: | 0.319 | EPA 537m | 12/07/2022 18:11<br>12/11/2022 20:41 | ESJ |
| 335-77-3 | * Perfluoro-1-decanesulfonic acid (PFDS) | ND | PF-CCV-L | 0 | ug/kg dry<br>Certifications: | 0.319 | EPA 537m | 12/07/2022 18:11<br>12/11/2022 20:41 | ESJ |
| 27619-97-2 | * 1H,1H,2H,2H-Perfluorooctanesulfonic acid (6:2 FTS) | ND | | 0 | ug/kg dry<br>Certifications: | 0.319 | EPA 537m | 12/07/2022 18:11<br>12/11/2022 20:41 | ESJ |
| 39108-34-4 | * 1H,1H,2H,2H-Perfluorodecanesulfonic acid (8:2 FTS) | ND | | 0 | ug/kg dry<br>Certifications: | 0.319 | EPA 537m | 12/07/2022 18:11<br>12/11/2022 20:41 | ESJ |
| 375-22-4 | * Perfluoro-n-butanoic acid (PFBA) | ND | | 0 | ug/kg dry<br>Certifications: | 0.319 | EPA 537m | 12/07/2022 18:11<br>12/11/2022 20:41 | ESJ |

## Sample Information

**Client Sample ID:** SB-13C (13-14 ft) **York Sample ID:** 22L0208-13

| York Project (SDG) No. | Client Project ID | Matrix | Collection Date/Time | Date Received |
|---|---|---|---|---|
| 22L0208 | GCM95278 | Soil | November 30, 2022 10:00 am | 12/05/2022 |

### PFAS by EPA 537 m

**Log-in Notes:**

**Sample Notes:**

Sample Prepared by Method: SPE PFAS Extraction-Soil-EPA 537m

| CAS No. | Parameter | Result | Flag | Maximum Contaminant Level MCL | Units | Reported to LOQ | Reference Method | Date/Time Prep/Anal | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| | **Surrogate Recoveries** | **Result** | | **Acceptance Range** | | | | | |
| | *Surrogate: M3PFBS* | *66.2 %* | | *25-150* | | | | | |
| | *Surrogate: M5PFHxA* | *76.0 %* | | *25-150* | | | | | |
| | *Surrogate: M4PFHpA* | *72.4 %* | | *25-150* | | | | | |
| | *Surrogate: M3PFHxS* | *69.2 %* | | *25-150* | | | | | |
| | *Surrogate: Perfluoro-n-[13C8]octanoic acid (M8PFOA)* | *76.5 %* | | *25-150* | | | | | |
| | *Surrogate: M6PFDA* | *65.5 %* | | *25-150* | | | | | |
| | *Surrogate: M7PFUdA* | *44.0 %* | | *25-150* | | | | | |
| | *Surrogate: Perfluoro-n-[1,2-13C2]dodecanoic acid (MPFDoA)* | *34.8 %* | | *25-150* | | | | | |
| | *Surrogate: M2PFTeDA* | *30.9 %* | | *10-150* | | | | | |
| | *Surrogate: Perfluoro-n-[13C4]butanoic acid (MPFBA)* | *74.8 %* | | *25-150* | | | | | |
| | *Surrogate: Perfluoro-1-[13C8]octanesulfonic acid (M8PFOS)* | *63.2 %* | | *25-150* | | | | | |
| | *Surrogate: Perfluoro-n-[13C5]pentanoic acid (M5PFPeA)* | *76.1 %* | | *25-150* | | | | | |
| | *Surrogate: Perfluoro-1-[13C8]octanesulfonamide (M8FOSA)* | *38.4 %* | | *10-150* | | | | | |
| | *Surrogate: d3-N-MeFOSAA* | *51.4 %* | | *25-150* | | | | | |
| | *Surrogate: d5-N-EtFOSAA* | *44.2 %* | | *25-150* | | | | | |
| | *Surrogate: M2-6:2 FTS* | *73.7 %* | | *25-200* | | | | | |
| | *Surrogate: M2-8:2 FTS* | *98.8 %* | | *25-200* | | | | | |
| | *Surrogate: M9PFNA* | *70.7 %* | | *25-150* | | | | | |

### Total Solids

**Log-in Notes:**

**Sample Notes:**

Sample Prepared by Method: % Solids Prep

| CAS No. | Parameter | Result | Flag | Maximum Contaminant Level MCL | Units | Reported to LOQ | Reference Method | Date/Time Prep/Anal | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| solids | *** % Solids** | **76.8** | | **100** | % | 0.100 | SM 2540G | 12/08/2022 12:48 | YR |
| | | | | | Certifications: | | CTDOH-PH-0723 | 12/09/2022 09:51 | |

## Sample Information

**Client Sample ID:** SB-DUP4 **York Sample ID:** 22L0208-14

| York Project (SDG) No. | Client Project ID | Matrix | Collection Date/Time | Date Received |
|---|---|---|---|---|
| 22L0208 | GCM95278 | Soil | November 30, 2022 11:00 am | 12/05/2022 |

## Sample Information

**Client Sample ID:** SB-DUP4 **York Sample ID:** 22L0208-14

| York Project (SDG) No. | Client Project ID | Matrix | Collection Date/Time | Date Received |
|---|---|---|---|---|
| 22L0208 | GCM95278 | Soil | November 30, 2022 11:00 am | 12/05/2022 |

**PFAS by EPA 537 m**

**Log-in Notes:**

**Sample Notes:**

Sample Prepared by Method: SPE PFAS Extraction-Soil-EPA 537m

| CAS No. | Parameter | Result | Flag | Maximum Contaminant Level MCL | Units | Reported to LOQ | Reference Method | Date/Time Prep/Anal | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| 375-73-5 | * Perfluorobutanesulfonic acid (PFBS) | ND | | 0 | ug/kg dry | 0.302 | EPA 537m | 12/07/2022 18:11 | ESJ |
| | | | | | Certifications: | | | 12/11/2022 20:54 | |
| 307-24-4 | * Perfluorohexanoic acid (PFHxA) | ND | | 0 | ug/kg dry | 0.302 | EPA 537m | 12/07/2022 18:11 | ESJ |
| | | | | | Certifications: | | | 12/11/2022 20:54 | |
| 375-85-9 | * Perfluoroheptanoic acid (PFHpA) | ND | | 0 | ug/kg dry | 0.302 | EPA 537m | 12/07/2022 18:11 | ESJ |
| | | | | | Certifications: | | | 12/11/2022 20:54 | |
| 355-46-4 | * Perfluorohexanesulfonic acid (PFHxS) | ND | | 0 | ug/kg dry | 0.302 | EPA 537m | 12/07/2022 18:11 | ESJ |
| | | | | | Certifications: | | | 12/11/2022 20:54 | |
| 335-67-1 | * Perfluorooctanoic acid (PFOA) | ND | | 0 | ug/kg dry | 0.302 | EPA 537m | 12/07/2022 18:11 | ESJ |
| | | | | | Certifications: | | | 12/11/2022 20:54 | |
| 1763-23-1 | * Perfluorooctanesulfonic acid (PFOS) | ND | | 0 | ug/kg dry | 0.302 | EPA 537m | 12/07/2022 18:11 | ESJ |
| | | | | | Certifications: | | | 12/11/2022 20:54 | |
| 375-95-1 | * Perfluorononanoic acid (PFNA) | ND | | 0 | ug/kg dry | 0.302 | EPA 537m | 12/07/2022 18:11 | ESJ |
| | | | | | Certifications: | | | 12/11/2022 20:54 | |
| 335-76-2 | * Perfluorodecanoic acid (PFDA) | ND | | 0 | ug/kg dry | 0.302 | EPA 537m | 12/07/2022 18:11 | ESJ |
| | | | | | Certifications: | | | 12/11/2022 20:54 | |
| 2058-94-8 | * Perfluoroundecanoic acid (PFUnA) | ND | | 0 | ug/kg dry | 0.302 | EPA 537m | 12/07/2022 18:11 | ESJ |
| | | | | | Certifications: | | | 12/11/2022 20:54 | |
| 307-55-1 | * Perfluorododecanoic acid (PFDoA) | ND | PF-CCV-L | 0 | ug/kg dry | 0.302 | EPA 537m | 12/07/2022 18:11 | ESJ |
| | | | | | Certifications: | | | 12/11/2022 20:54 | |
| 72629-94-8 | * Perfluorotridecanoic acid (PFTrDA) | ND | | 0 | ug/kg dry | 0.302 | EPA 537m | 12/07/2022 18:11 | ESJ |
| | | | | | Certifications: | | | 12/11/2022 20:54 | |
| 376-06-7 | * Perfluorotetradecanoic acid (PFTA) | ND | PF-CCV-L | 0 | ug/kg dry | 0.302 | EPA 537m | 12/07/2022 18:11 | ESJ |
| | | | | | Certifications: | | | 12/11/2022 20:54 | |
| 2355-31-9 | * N-MeFOSAA | ND | PF-CCV-L | 0 | ug/kg dry | 0.302 | EPA 537m | 12/07/2022 18:11 | ESJ |
| | | | | | Certifications: | | | 12/11/2022 20:54 | |
| 2991-50-6 | * N-EtFOSAA | ND | PF-CCV-L | 0 | ug/kg dry | 0.302 | EPA 537m | 12/07/2022 18:11 | ESJ |
| | | | | | Certifications: | | | 12/11/2022 20:54 | |
| 2706-90-3 | * Perfluoropentanoic acid (PFPeA) | ND | | 0 | ug/kg dry | 0.302 | EPA 537m | 12/07/2022 18:11 | ESJ |
| | | | | | Certifications: | | | 12/11/2022 20:54 | |
| 754-91-6 | * Perfluoro-1-octanesulfonamide (FOSA) | ND | PF-CCV-L | 0 | ug/kg dry | 0.302 | EPA 537m | 12/07/2022 18:11 | ESJ |
| | | | | | Certifications: | | | 12/11/2022 20:54 | |
| 375-92-8 | * Perfluoro-1-heptanesulfonic acid (PFHpS) | ND | | 0 | ug/kg dry | 0.302 | EPA 537m | 12/07/2022 18:11 | ESJ |
| | | | | | Certifications: | | | 12/11/2022 20:54 | |
| 335-77-3 | * Perfluoro-1-decanesulfonic acid (PFDS) | ND | PF-CCV-L | 0 | ug/kg dry | 0.302 | EPA 537m | 12/07/2022 18:11 | ESJ |
| | | | | | Certifications: | | | 12/11/2022 20:54 | |
| 27619-97-2 | * 1H,1H,2H,2H-Perfluorooctanesulfonic acid (6:2 FTS) | ND | | 0 | ug/kg dry | 0.302 | EPA 537m | 12/07/2022 18:11 | ESJ |
| | | | | | Certifications: | | | 12/11/2022 20:54 | |
| 39108-34-4 | * 1H,1H,2H,2H-Perfluorodecanesulfonic acid (8:2 FTS) | ND | | 0 | ug/kg dry | 0.302 | EPA 537m | 12/07/2022 18:11 | ESJ |
| | | | | | Certifications: | | | 12/11/2022 20:54 | |
| 375-22-4 | * Perfluoro-n-butanoic acid (PFBA) | ND | | 0 | ug/kg dry | 0.302 | EPA 537m | 12/07/2022 18:11 | ESJ |
| | | | | | Certifications: | | | 12/11/2022 20:54 | |

## Sample Information

**Client Sample ID:** SB-DUP4 **York Sample ID:** 22L0208-14

| York Project (SDG) No. | Client Project ID | Matrix | Collection Date/Time | Date Received |
|---|---|---|---|---|
| 22L0208 | GCM95278 | Soil | November 30, 2022 11:00 am | 12/05/2022 |

### PFAS by EPA 537 m

**Log-in Notes:**

**Sample Notes:**

Sample Prepared by Method: SPE PFAS Extraction-Soil-EPA 537m

| CAS No. | Parameter | Result | Flag | Maximum Contaminant Level MCL | Units | Reported to LOQ | Reference Method | Date/Time Prep/Anal | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| | **Surrogate Recoveries** | **Result** | | **Acceptance Range** | | | | | |
| | *Surrogate: M3PFBS* | *46.6 %* | | *25-150* | | | | | |
| | *Surrogate: M5PFHxA* | *53.4 %* | | *25-150* | | | | | |
| | *Surrogate: M4PFHpA* | *50.2 %* | | *25-150* | | | | | |
| | *Surrogate: M3PFHxS* | *59.9 %* | | *25-150* | | | | | |
| | *Surrogate: Perfluoro-n-[13C8]octanoic acid (M8PFOA)* | *56.3 %* | | *25-150* | | | | | |
| | *Surrogate: M6PFDA* | *47.5 %* | | *25-150* | | | | | |
| | *Surrogate: M7PFUdA* | *33.2 %* | | *25-150* | | | | | |
| | *Surrogate: Perfluoro-n-[1,2-13C2]dodecanoic acid (MPFDoA)* | *29.7 %* | | *25-150* | | | | | |
| | *Surrogate: M2PFTeDA* | *20.7 %* | | *10-150* | | | | | |
| | *Surrogate: Perfluoro-n-[13C4]butanoic acid (MPFBA)* | *53.8 %* | | *25-150* | | | | | |
| | *Surrogate: Perfluoro-1-[13C8]octanesulfonic acid (M8PFOS)* | *48.5 %* | | *25-150* | | | | | |
| | *Surrogate: Perfluoro-n-[13C5]pentanoic acid (M5PFPeA)* | *50.8 %* | | *25-150* | | | | | |
| | *Surrogate: Perfluoro-1-[13C8]octanesulfonamide (M8FOSA)* | *31.2 %* | | *10-150* | | | | | |
| | *Surrogate: d3-N-MeFOSAA* | *38.4 %* | | *25-150* | | | | | |
| | *Surrogate: d5-N-EtFOSAA* | *37.2 %* | | *25-150* | | | | | |
| | *Surrogate: M2-6:2 FTS* | *78.3 %* | | *25-200* | | | | | |
| | *Surrogate: M2-8:2 FTS* | *71.0 %* | | *25-200* | | | | | |
| | *Surrogate: M9PFNA* | *49.6 %* | | *25-150* | | | | | |

### Total Solids

**Log-in Notes:**

**Sample Notes:**

Sample Prepared by Method: % Solids Prep

| CAS No. | Parameter | Result | Flag | Maximum Contaminant Level MCL | Units | Reported to LOQ | Reference Method | Date/Time Prep/Anal | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| solids | *** % Solids** | **78.4** | | **100** | % | 0.100 | SM 2540G | 12/08/2022 12:48 | YR |
| | | | | | Certifications: | | CTDOH-PH-0723 | 12/09/2022 09:51 | |

# Analytical Batch Summary

**Batch ID:** BL20428 **Preparation Method:** SPE PFAS Extraction-Soil-EPA 537m **Prepared By:** BAMW

| YORK Sample ID | Client Sample ID | Preparation Date |
|---|---|---|
| 22L0208-01 | SB-1A (0-1 ft) | 12/07/22 |
| 22L0208-02 | SB-1C (5.5-6.5 ft) | 12/07/22 |
| 22L0208-03 | SB-3A (0-1 ft) | 12/07/22 |
| 22L0208-04 | SB-3C (8-9 ft) | 12/07/22 |
| 22L0208-05 | SB-2A (0-1 ft) | 12/07/22 |
| 22L0208-06 | SB-2C (11-12 ft) | 12/07/22 |
| 22L0208-07 | SB-DUP3 | 12/07/22 |
| 22L0208-08 | SB-11C (3-4 ft) | 12/07/22 |
| 22L0208-09 | SB-12A1 (0-2 ft) | 12/07/22 |
| 22L0208-10 | SB-12A2 (2-12 ft) | 12/07/22 |
| 22L0208-11 | SB-12C (13-14 ft) | 12/07/22 |
| 22L0208-12 | SB-13A (0-1 ft) | 12/07/22 |
| 22L0208-13 | SB-13C (13-14 ft) | 12/07/22 |
| 22L0208-14 | SB-DUP4 | 12/07/22 |
| BL20428-BLK1 | Blank | 12/07/22 |
| BL20428-BS1 | LCS | 12/07/22 |
| BL20428-MS1 | Matrix Spike | 12/07/22 |
| BL20428-MSD1 | Matrix Spike Dup | 12/07/22 |

**Batch ID:** BL20553 **Preparation Method:** % Solids Prep **Prepared By:** YR

| YORK Sample ID | Client Sample ID | Preparation Date |
|---|---|---|
| 22L0208-01 | SB-1A (0-1 ft) | 12/08/22 |
| 22L0208-02 | SB-1C (5.5-6.5 ft) | 12/08/22 |
| 22L0208-03 | SB-3A (0-1 ft) | 12/08/22 |
| 22L0208-04 | SB-3C (8-9 ft) | 12/08/22 |
| 22L0208-05 | SB-2A (0-1 ft) | 12/08/22 |
| 22L0208-06 | SB-2C (11-12 ft) | 12/08/22 |
| 22L0208-07 | SB-DUP3 | 12/08/22 |
| 22L0208-08 | SB-11C (3-4 ft) | 12/08/22 |
| 22L0208-09 | SB-12A1 (0-2 ft) | 12/08/22 |
| 22L0208-10 | SB-12A2 (2-12 ft) | 12/08/22 |
| 22L0208-11 | SB-12C (13-14 ft) | 12/08/22 |
| 22L0208-12 | SB-13A (0-1 ft) | 12/08/22 |
| 22L0208-13 | SB-13C (13-14 ft) | 12/08/22 |
| 22L0208-14 | SB-DUP4 | 12/08/22 |
| BL20553-DUP1 | Duplicate | 12/09/22 |
| BL20553-DUP2 | Duplicate | 12/09/22 |

## PFAS Target compounds by LC/MS-MS - Quality Control Data

## York Analytical Laboratories, Inc. - Stratford

| Analyte | Result | Reporting Limit | Units | Spike Level | Source* Result | %REC | %REC Limits | Flag | RPD | RPD Limit | Flag |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Batch BL20428 - SPE PFAS Extraction-Soil-EPA 537m** | | | | | | | | | | | |
| **Blank (BL20428-BLK1)** | | | | | | | | | Prepared: 12/07/2022 Analyzed: 12/11/2022 | | |
| Perfluorobutanesulfonic acid (PFBS) | ND | 0.236 | ug/kg wet | | | | | | | | |
| Perfluorohexanoic acid (PFHxA) | ND | 0.236 | " | | | | | | | | |
| Perfluoroheptanoic acid (PFHpA) | ND | 0.236 | " | | | | | | | | |
| Perfluorohexanesulfonic acid (PFHxS) | ND | 0.236 | " | | | | | | | | |
| Perfluorooctanoic acid (PFOA) | ND | 0.236 | " | | | | | | | | |
| Perfluorooctanesulfonic acid (PFOS) | ND | 0.236 | " | | | | | | | | |
| Perfluorononanoic acid (PFNA) | ND | 0.236 | " | | | | | | | | |
| Perfluorodecanoic acid (PFDA) | ND | 0.236 | " | | | | | | | | |
| Perfluoroundecanoic acid (PFUnA) | ND | 0.236 | " | | | | | | | | |
| Perfluorododecanoic acid (PFDoA) | ND | 0.236 | " | | | | | | | | |
| Perfluorotridecanoic acid (PFTrDA) | ND | 0.236 | " | | | | | | | | |
| Perfluorotetradecanoic acid (PFTA) | ND | 0.236 | " | | | | | | | | |
| N-MeFOSAA | ND | 0.236 | " | | | | | | | | |
| N-EtFOSAA | ND | 0.236 | " | | | | | | | | |
| Perfluoropentanoic acid (PFPeA) | ND | 0.236 | " | | | | | | | | |
| Perfluoro-1-octanesulfonamide (FOSA) | ND | 0.236 | " | | | | | | | | |
| Perfluoro-1-heptanesulfonic acid (PFHpS) | ND | 0.236 | " | | | | | | | | |
| Perfluoro-1-decanesulfonic acid (PFDS) | ND | 0.236 | " | | | | | | | | |
| 1H,1H,2H,2H-Perfluorooctanesulfonic acid (6:2 FTS) | ND | 0.236 | " | | | | | | | | |
| 1H,1H,2H,2H-Perfluorodecanesulfonic acid (8:2 FTS) | ND | 0.236 | " | | | | | | | | |
| Perfluoro-n-butanoic acid (PFBA) | ND | 0.236 | " | | | | | | | | |
| *Surrogate: M3PFBS* | *3.65* | | " | *4.38* | | *83.2* | *25-150* | | | | |
| *Surrogate: M5PFHxA* | *3.70* | | " | *4.72* | | *78.5* | *25-150* | | | | |
| *Surrogate: M4PFHpA* | *3.60* | | " | *4.72* | | *76.4* | *25-150* | | | | |
| *Surrogate: M3PFHxS* | *4.13* | | " | *4.46* | | *92.6* | *25-150* | | | | |
| *Surrogate: Perfluoro-n-[13C8]octanoic acid (M8PFOA)* | *3.75* | | " | *4.72* | | *79.5* | *25-150* | | | | |
| *Surrogate: M6PFDA* | *3.24* | | " | *4.72* | | *68.6* | *25-150* | | | | |
| *Surrogate: M7PFUdA* | *2.46* | | " | *4.72* | | *52.2* | *25-150* | | | | |
| *Surrogate: Perfluoro-n-[1,2-13C2]dodecanoic acid (MPFDoA)* | *2.31* | | " | *4.72* | | *49.0* | *25-150* | | | | |
| *Surrogate: M2PFTeDA* | *1.84* | | " | *4.72* | | *38.9* | *10-150* | | | | |
| *Surrogate: Perfluoro-n-[13C4]butanoic acid (MPFBA)* | *3.75* | | " | *4.72* | | *79.5* | *25-150* | | | | |
| *Surrogate: Perfluoro-1-[13C8]octanesulfonic acid (M8PFOS)* | *3.58* | | " | *4.51* | | *79.3* | *25-150* | | | | |
| *Surrogate: Perfluoro-n-[13C5]pentanoic acid (M5PFPeA)* | *3.84* | | " | *4.72* | | *81.5* | *25-150* | | | | |
| *Surrogate: Perfluoro-1-[13C8]octanesulfonamide (M8FOSA)* | *2.30* | | " | *4.72* | | *48.8* | *10-150* | | | | |
| *Surrogate: d3-N-MeFOSAA* | *2.44* | | " | *4.72* | | *51.7* | *25-150* | | | | |
| *Surrogate: d5-N-EtFOSAA* | *2.26* | | " | *4.72* | | *47.9* | *25-150* | | | | |
| *Surrogate: M2-6:2 FTS* | *4.19* | | " | *4.48* | | *93.5* | *25-200* | | | | |
| *Surrogate: M2-8:2 FTS* | *4.28* | | " | *4.52* | | *94.7* | *25-200* | | | | |
| *Surrogate: M9PFNA* | *3.58* | | " | *4.72* | | *75.8* | *25-150* | | | | |

## PFAS Target compounds by LC/MS-MS - Quality Control Data

## York Analytical Laboratories, Inc. - Stratford

| Analyte | Result | Reporting Limit | Units | Spike Level | Source* Result | %REC | %REC Limits | Flag | RPD | RPD Limit | Flag |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Batch BL20428 - SPE PFAS Extraction-Soil-EPA 537m** | | | | | | | | | | | |
| **LCS (BL20428-BS1)** | | | | | | | | Prepared: 12/07/2022 Analyzed: 12/11/2022 | | | |
| Perfluorobutanesulfonic acid (PFBS) | 4.35 | 0.231 | ug/kg wet | 4.10 | | 106 | 50-130 | | | | |
| Perfluorohexanoic acid (PFHxA) | 4.88 | 0.231 | " | 4.63 | | 106 | 50-130 | | | | |
| Perfluoroheptanoic acid (PFHpA) | 5.25 | 0.231 | " | 4.63 | | 114 | 50-130 | | | | |
| Perfluorohexanesulfonic acid (PFHxS) | 3.32 | 0.231 | " | 4.21 | | 78.8 | 50-130 | | | | |
| Perfluorooctanoic acid (PFOA) | 4.62 | 0.231 | " | 4.63 | | 99.7 | 50-130 | | | | |
| Perfluorooctanesulfonic acid (PFOS) | 4.25 | 0.231 | " | 4.28 | | 99.3 | 50-130 | | | | |
| Perfluorononanoic acid (PFNA) | 4.51 | 0.231 | " | 4.63 | | 97.3 | 50-130 | | | | |
| Perfluorodecanoic acid (PFDA) | 4.08 | 0.231 | " | 4.63 | | 88.2 | 50-130 | | | | |
| Perfluoroundecanoic acid (PFUnA) | 4.27 | 0.231 | " | 4.63 | | 92.2 | 50-130 | | | | |
| Perfluorododecanoic acid (PFDoA) | 4.46 | 0.231 | " | 4.63 | | 96.3 | 50-130 | | | | |
| Perfluorotridecanoic acid (PFTrDA) | 3.68 | 0.231 | " | 4.63 | | 79.5 | 50-130 | | | | |
| Perfluorotetradecanoic acid (PFTA) | 4.79 | 0.231 | " | 4.63 | | 103 | 50-130 | | | | |
| N-MeFOSAA | 3.88 | 0.231 | " | 4.63 | | 83.7 | 50-130 | | | | |
| N-EtFOSAA | 3.70 | 0.231 | " | 4.63 | | 79.9 | 50-130 | | | | |
| Perfluoropentanoic acid (PFPeA) | 4.76 | 0.231 | " | 4.63 | | 103 | 50-130 | | | | |
| Perfluoro-1-octanesulfonamide (FOSA) | 4.65 | 0.231 | " | 4.63 | | 100 | 50-130 | | | | |
| Perfluoro-1-heptanesulfonic acid (PFHpS) | 4.52 | 0.231 | " | 4.42 | | 102 | 50-130 | | | | |
| Perfluoro-1-decanesulfonic acid (PFDS) | 2.66 | 0.231 | " | 4.47 | | 59.6 | 50-130 | | | | |
| 1H,1H,2H,2H-Perfluorooctanesulfonic acid (6:2 FTS) | 5.92 | 0.231 | " | 4.40 | | 135 | 50-200 | | | | |
| 1H,1H,2H,2H-Perfluorodecanesulfonic acid (8:2 FTS) | 4.16 | 0.231 | " | 4.44 | | 93.6 | 50-200 | | | | |
| Perfluoro-n-butanoic acid (PFBA) | 4.52 | 0.231 | " | 4.63 | | 97.5 | 50-130 | | | | |
| *Surrogate: M3PFBS* | *3.48* | | *"* | *4.30* | | *80.9* | *25-150* | | | | |
| *Surrogate: M5PFHxA* | *3.68* | | *"* | *4.63* | | *79.5* | *25-150* | | | | |
| *Surrogate: M4PFHpA* | *3.48* | | *"* | *4.63* | | *75.1* | *25-150* | | | | |
| *Surrogate: M3PFHxS* | *4.17* | | *"* | *4.38* | | *95.1* | *25-150* | | | | |
| *Surrogate: Perfluoro-n-[13C8]octanoic acid (M8PFOA)* | *3.41* | | *"* | *4.63* | | *73.7* | *25-150* | | | | |
| *Surrogate: M6PFDA* | *2.90* | | *"* | *4.63* | | *62.7* | *25-150* | | | | |
| *Surrogate: M7PFUdA* | *1.92* | | *"* | *4.63* | | *41.5* | *25-150* | | | | |
| *Surrogate: Perfluoro-n-[1,2-13C2]dodecanoic acid (MPFDoA)* | *1.93* | | *"* | *4.63* | | *41.7* | *25-150* | | | | |
| *Surrogate: M2PFTeDA* | *1.35* | | *"* | *4.63* | | *29.1* | *10-150* | | | | |
| *Surrogate: Perfluoro-n-[13C4]butanoic acid (MPFBA)* | *3.80* | | *"* | *4.63* | | *82.0* | *25-150* | | | | |
| *Surrogate: Perfluoro-1-[13C8]octanesulfonic acid (M8PFOS)* | *3.13* | | *"* | *4.43* | | *70.7* | *25-150* | | | | |
| *Surrogate: Perfluoro-n-[13C5]pentanoic acid (M5PFPeA)* | *3.56* | | *"* | *4.63* | | *76.8* | *25-150* | | | | |
| *Surrogate: Perfluoro-1-[13C8]octanesulfonamide (M8FOSA)* | *1.82* | | *"* | *4.63* | | *39.2* | *10-150* | | | | |
| *Surrogate: d3-N-MeFOSAA* | *2.38* | | *"* | *4.63* | | *51.4* | *25-150* | | | | |
| *Surrogate: d5-N-EtFOSAA* | *2.23* | | *"* | *4.63* | | *48.1* | *25-150* | | | | |
| *Surrogate: M2-6:2 FTS* | *4.46* | | *"* | *4.39* | | *101* | *25-200* | | | | |
| *Surrogate: M2-8:2 FTS* | *3.95* | | *"* | *4.44* | | *89.0* | *25-200* | | | | |
| *Surrogate: M9PFNA* | *2.93* | | *"* | *4.63* | | *63.3* | *25-150* | | | | |

## PFAS Target compounds by LC/MS-MS - Quality Control Data

## York Analytical Laboratories, Inc. - Stratford

| Analyte | Result | Reporting Limit | Units | Spike Level | Source* Result | %REC | %REC Limits | Flag | RPD | RPD Limit | Flag |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Batch BL20428 - SPE PFAS Extraction-Soil-EPA 537m** | | | | | | | | | | | |
| **Matrix Spike (BL20428-MS1)** | *Source sample: 22L0208-04 (SB-3C (8-9 ft)) | | | | | | | Prepared: 12/07/2022 Analyzed: 12/11/2022 | | | |
| Perfluorobutanesulfonic acid (PFBS) | 7.03 | 0.326 | ug/kg dry | 5.77 | ND | 122 | 25-150 | | | | |
| Perfluorohexanoic acid (PFHxA) | 7.12 | 0.326 | " | 6.52 | ND | 109 | 25-150 | | | | |
| Perfluoroheptanoic acid (PFHpA) | 6.87 | 0.326 | " | 6.52 | ND | 105 | 25-150 | | | | |
| Perfluorohexanesulfonic acid (PFHxS) | 5.51 | 0.326 | " | 5.93 | ND | 93.0 | 25-150 | | | | |
| Perfluorooctanoic acid (PFOA) | 6.86 | 0.326 | " | 6.52 | ND | 105 | 25-150 | | | | |
| Perfluorooctanesulfonic acid (PFOS) | 5.61 | 0.326 | " | 6.03 | ND | 93.0 | 25-150 | | | | |
| Perfluorononanoic acid (PFNA) | 6.15 | 0.326 | " | 6.52 | ND | 94.3 | 25-150 | | | | |
| Perfluorodecanoic acid (PFDA) | 6.82 | 0.326 | " | 6.52 | ND | 105 | 25-150 | | | | |
| Perfluoroundecanoic acid (PFUnA) | 7.22 | 0.326 | " | 6.52 | ND | 111 | 25-150 | | | | |
| Perfluorododecanoic acid (PFDoA) | 6.63 | 0.326 | " | 6.52 | ND | 102 | 25-150 | | | | |
| Perfluorotridecanoic acid (PFTrDA) | 5.93 | 0.326 | " | 6.52 | 0.152 | 88.6 | 25-150 | | | | |
| Perfluorotetradecanoic acid (PFTA) | 7.02 | 0.326 | " | 6.52 | ND | 108 | 25-150 | | | | |
| N-MeFOSAA | 7.45 | 0.326 | " | 6.52 | ND | 114 | 25-150 | | | | |
| N-EtFOSAA | 6.20 | 0.326 | " | 6.52 | ND | 95.1 | 25-150 | | | | |
| Perfluoropentanoic acid (PFPeA) | 6.70 | 0.326 | " | 6.52 | ND | 103 | 25-150 | | | | |
| Perfluoro-1-octanesulfonamide (FOSA) | 6.02 | 0.326 | " | 6.52 | ND | 92.4 | 25-150 | | | | |
| Perfluoro-1-heptanesulfonic acid (PFHpS) | 6.52 | 0.326 | " | 6.22 | ND | 105 | 25-150 | | | | |
| Perfluoro-1-decanesulfonic acid (PFDS) | 3.90 | 0.326 | " | 6.29 | ND | 62.0 | 25-150 | | | | |
| 1H,1H,2H,2H-Perfluorooctanesulfonic acid (6:2 FTS) | 7.71 | 0.326 | " | 6.19 | ND | 125 | 25-200 | | | | |
| 1H,1H,2H,2H-Perfluorodecanesulfonic acid (8:2 FTS) | 8.85 | 0.326 | " | 6.26 | ND | 141 | 25-200 | | | | |
| Perfluoro-n-butanoic acid (PFBA) | 6.65 | 0.326 | " | 6.52 | ND | 102 | 25-150 | | | | |
| *Surrogate: M3PFBS* | *3.78* | | *"* | *6.06* | | *62.3* | *25-150* | | | | |
| *Surrogate: M5PFHxA* | *4.98* | | *"* | *6.52* | | *76.4* | *25-150* | | | | |
| *Surrogate: M4PFHpA* | *4.81* | | *"* | *6.52* | | *73.8* | *25-150* | | | | |
| *Surrogate: M3PFHxS* | *4.28* | | *"* | *6.17* | | *69.4* | *25-150* | | | | |
| *Surrogate: Perfluoro-n-[13C8]octanoic acid (M8PFOA)* | *4.82* | | *"* | *6.52* | | *74.0* | *25-150* | | | | |
| *Surrogate: M6PFDA* | *3.75* | | *"* | *6.52* | | *57.6* | *25-150* | | | | |
| *Surrogate: M7PFUdA* | *2.77* | | *"* | *6.52* | | *42.6* | *25-150* | | | | |
| *Surrogate: Perfluoro-n-[1,2-13C2]dodecanoic acid (MPFDoA)* | *2.69* | | *"* | *6.52* | | *41.2* | *25-150* | | | | |
| *Surrogate: M2PFTeDA* | *2.10* | | *"* | *6.52* | | *32.1* | *10-150* | | | | |
| *Surrogate: Perfluoro-n-[13C4]butanoic acid (MPFBA)* | *5.19* | | *"* | *6.52* | | *79.7* | *25-150* | | | | |
| *Surrogate: Perfluoro-1-[13C8]octanesulfonic acid (M8PFOS)* | *4.02* | | *"* | *6.24* | | *64.5* | *25-150* | | | | |
| *Surrogate: Perfluoro-n-[13C5]pentanoic acid (M5PFPeA)* | *5.00* | | *"* | *6.52* | | *76.7* | *25-150* | | | | |
| *Surrogate: Perfluoro-1-[13C8]octanesulfonamide (M8FOSA)* | *2.56* | | *"* | *6.52* | | *39.3* | *10-150* | | | | |
| *Surrogate: d3-N-MeFOSAA* | *2.56* | | *"* | *6.52* | | *39.2* | *25-150* | | | | |
| *Surrogate: d5-N-EtFOSAA* | *2.78* | | *"* | *6.52* | | *42.7* | *25-150* | | | | |
| *Surrogate: M2-6:2 FTS* | *5.14* | | *"* | *6.19* | | *83.2* | *25-200* | | | | |
| *Surrogate: M2-8:2 FTS* | *3.56* | | *"* | *6.24* | | *57.1* | *25-200* | | | | |
| *Surrogate: M9PFNA* | *4.56* | | *"* | *6.52* | | *69.9* | *25-150* | | | | |

## PFAS Target compounds by LC/MS-MS - Quality Control Data

## York Analytical Laboratories, Inc. - Stratford

| Analyte | Result | Reporting Limit | Units | Spike Level | Source* Result | %REC | %REC Limits | Flag | RPD | RPD Limit | Flag |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Batch BL20428 - SPE PFAS Extraction-Soil-EPA 537m** | | | | | | | | | | | |
| **Matrix Spike Dup (BL20428-MSD1)** | *Source sample: 22L0208-04 (SB-3C (8-9 ft)) | | | | | | | | Prepared: 12/07/2022 Analyzed: 12/11/2022 | | |
| Perfluorobutanesulfonic acid (PFBS) | 6.25 | 0.317 | ug/kg dry | 5.61 | ND | 111 | 25-150 | | 11.8 | 35 | |
| Perfluorohexanoic acid (PFHxA) | 6.67 | 0.317 | " | 6.34 | ND | 105 | 25-150 | | 6.51 | 35 | |
| Perfluoroheptanoic acid (PFHpA) | 7.55 | 0.317 | " | 6.34 | ND | 119 | 25-150 | | 9.45 | 35 | |
| Perfluorohexanesulfonic acid (PFHxS) | 6.05 | 0.317 | " | 5.77 | ND | 105 | 25-150 | | 9.22 | 35 | |
| Perfluorooctanoic acid (PFOA) | 6.56 | 0.317 | " | 6.34 | ND | 104 | 25-150 | | 4.54 | 35 | |
| Perfluorooctanesulfonic acid (PFOS) | 6.42 | 0.317 | " | 5.86 | ND | 110 | 25-150 | | 13.5 | 35 | |
| Perfluorononanoic acid (PFNA) | 6.34 | 0.317 | " | 6.34 | ND | 100 | 25-150 | | 3.07 | 35 | |
| Perfluorodecanoic acid (PFDA) | 6.30 | 0.317 | " | 6.34 | ND | 99.5 | 25-150 | | 7.98 | 35 | |
| Perfluoroundecanoic acid (PFUnA) | 6.90 | 0.317 | " | 6.34 | ND | 109 | 25-150 | | 4.62 | 35 | |
| Perfluorododecanoic acid (PFDoA) | 6.45 | 0.317 | " | 6.34 | ND | 102 | 25-150 | | 2.86 | 35 | |
| Perfluorotridecanoic acid (PFTrDA) | 5.79 | 0.317 | " | 6.34 | 0.152 | 89.0 | 25-150 | | 2.38 | 35 | |
| Perfluorotetradecanoic acid (PFTA) | 6.52 | 0.317 | " | 6.34 | ND | 103 | 25-150 | | 7.36 | 35 | |
| N-MeFOSAA | 5.83 | 0.317 | " | 6.34 | ND | 92.0 | 25-150 | | 24.4 | 35 | |
| N-EtFOSAA | 6.26 | 0.317 | " | 6.34 | ND | 98.8 | 25-150 | | 1.01 | 35 | |
| Perfluoropentanoic acid (PFPeA) | 6.60 | 0.317 | " | 6.34 | ND | 104 | 25-150 | | 1.54 | 35 | |
| Perfluoro-1-octanesulfonamide (FOSA) | 6.45 | 0.317 | " | 6.34 | ND | 102 | 25-150 | | 6.88 | 35 | |
| Perfluoro-1-heptanesulfonic acid (PFHpS) | 6.54 | 0.317 | " | 6.05 | ND | 108 | 25-150 | | 0.415 | 35 | |
| Perfluoro-1-decanesulfonic acid (PFDS) | 3.16 | 0.317 | " | 6.11 | ND | 51.7 | 25-150 | | 21.0 | 35 | |
| 1H,1H,2H,2H-Perfluorooctanesulfonic acid (6:2 FTS) | 6.99 | 0.317 | " | 6.02 | ND | 116 | 25-200 | | 9.81 | 35 | |
| 1H,1H,2H,2H-Perfluorodecanesulfonic acid (8:2 FTS) | 5.61 | 0.317 | " | 6.08 | ND | 92.3 | 25-200 | | 44.8 | 35 | Non-dir. |
| Perfluoro-n-butanoic acid (PFBA) | 6.36 | 0.317 | " | 6.34 | ND | 100 | 25-150 | | 4.51 | 35 | |
| *Surrogate: M3PFBS* | *3.88* | | " | *5.89* | | *65.9* | *25-150* | | | | |
| *Surrogate: M5PFHxA* | *5.06* | | " | *6.34* | | *79.8* | *25-150* | | | | |
| *Surrogate: M4PFHpA* | *4.45* | | " | *6.34* | | *70.3* | *25-150* | | | | |
| *Surrogate: M3PFHxS* | *4.55* | | " | *5.99* | | *76.0* | *25-150* | | | | |
| *Surrogate: Perfluoro-n-[13C8]octanoic acid (M8PFOA)* | *4.78* | | " | *6.34* | | *75.5* | *25-150* | | | | |
| *Surrogate: M6PFDA* | *3.88* | | " | *6.34* | | *61.3* | *25-150* | | | | |
| *Surrogate: M7PFUdA* | *2.54* | | " | *6.34* | | *40.0* | *25-150* | | | | |
| *Surrogate: Perfluoro-n-[1,2-13C2]dodecanoic acid (MPFDoA)* | *2.49* | | " | *6.34* | | *39.3* | *25-150* | | | | |
| *Surrogate: M2PFTeDA* | *1.79* | | " | *6.34* | | *28.2* | *10-150* | | | | |
| *Surrogate: Perfluoro-n-[13C4]butanoic acid (MPFBA)* | *5.09* | | " | *6.34* | | *80.4* | *25-150* | | | | |
| *Surrogate: Perfluoro-1-[13C8]octanesulfonic acid (M8PFOS)* | *4.21* | | " | *6.06* | | *69.4* | *25-150* | | | | |
| *Surrogate: Perfluoro-n-[13C5]pentanoic acid (M5PFPeA)* | *5.03* | | " | *6.34* | | *79.4* | *25-150* | | | | |
| *Surrogate: Perfluoro-1-[13C8]octanesulfonamide (M8FOSA)* | *2.42* | | " | *6.34* | | *38.1* | *10-150* | | | | |
| *Surrogate: d3-N-MeFOSAA* | *3.08* | | " | *6.34* | | *48.6* | *25-150* | | | | |
| *Surrogate: d5-N-EtFOSAA* | *2.51* | | " | *6.34* | | *39.5* | *25-150* | | | | |
| *Surrogate: M2-6:2 FTS* | *5.18* | | " | *6.01* | | *86.1* | *25-200* | | | | |
| *Surrogate: M2-8:2 FTS* | *4.66* | | " | *6.07* | | *76.7* | *25-200* | | | | |
| *Surrogate: M9PFNA* | *4.42* | | " | *6.34* | | *69.8* | *25-150* | | | | |

## Miscellaneous Physical Parameters - Quality Control Data

## York Analytical Laboratories, Inc. - Stratford

| Analyte | Result | Reporting Limit | Units | Spike Level | Source* Result | %REC | %REC Limits | Flag | RPD | RPD Limit | Flag |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Batch BL20553 - % Solids Prep** | | | | | | | | | | | |
| **Duplicate (BL20553-DUP1)** | *Source sample: 22L0208-02 (SB-1C (5.5-6.5 ft)) | | | | | | | Prepared & Analyzed: 12/09/2022 | | | |
| % Solids | 85.1 | 0.100 | % | | 97.3 | | | | 13.4 | 20 | |
| **Duplicate (BL20553-DUP2)** | *Source sample: 22L0208-03 (SB-3A (0-1 ft)) | | | | | | | Prepared & Analyzed: 12/09/2022 | | | |
| % Solids | 83.9 | 0.100 | % | | 82.4 | | | | 1.84 | 20 | |

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ANALYTICAL LABORATORIES INC

## Sample and Data Qualifiers Relating to This Work Order

| | |
|---|---|
| PFSu-L | The isotopically labeled surrogate recovered below lab control limits due to a matrix effect. Isotope Dilution was applied. |
| PFSu-H | The isotopically labeled surrogate recovered above lab control limits due to a matrix effect. Isotope Dilution was applied. |
| PF-CCV-L | The CCV recovery was slightly below acceptable limits for the qualified compound. However, sample results are not biased low because results are corrected for isotope recovery. |

## Definitions and Other Explanations

| | |
|---|---|
| * | Analyte is not certified or the state of the samples origination does not offer certification for the Analyte. |
| ND | NOT DETECTED - the analyte is not detected at the Reported to level (LOQ/RL or LOD/MDL) |
| RL | REPORTING LIMIT - the minimum reportable value based upon the lowest point in the analyte calibration curve. |
| LOQ | LIMIT OF QUANTITATION - the minimum concentration of a target analyte that can be reported within a specified degree of confidence. This is the lowest point in an analyte calibration curve that has been subjected to all steps of the processing/analysis and verified to meet defined criteria. This is based upon NELAC 2009 Standards and applies to all analyses. |
| LOD | LIMIT OF DETECTION - a verified estimate of the minimum concentration of a substance in a given matrix that an analytical process can reliably detect. This is based upon NELAC 2009 Standards and applies to all analyses conducted under the auspices of EPA SW-846. |
| MDL | METHOD DETECTION LIMIT - a statistically derived estimate of the minimum amount of a substance an analytical system can reliably detect with a 99% confidence that the concentration of the substance is greater than zero. This is based upon 40 CFR Part 136 Appendix B and applies only to EPA 600 and 200 series methods. |
| Reported to | This indicates that the data for a particular analysis is reported to either the LOD/MDL, or the LOQ/RL. In cases where the "Reported to" is located above the LOD/MDL, any value between this and the LOQ represents an estimated value which is "J" flagged accordingly. This applies to volatile and semi-volatile target compounds only. |
| NR | Not reported |
| RPD | Relative Percent Difference |
| Wet | The data has been reported on an as-received (wet weight) basis |
| Low Bias | Low Bias flag indicates that the recovery of the flagged analyte is below the laboratory or regulatory lower control limit. The data user should take note that this analyte may be biased low but should evaluate multiple lines of evidence including the LCS and site-specific MS/MSD data to draw bias conclusions. In cases where no site-specific MS/MSD was requested, only the LCS data can be used to evaluate such bias. |
| High Bias | High Bias flag indicates that the recovery of the flagged analyte is above the laboratory or regulatory upper control limit. The data user should take note that this analyte may be biased high but should evaluate multiple lines of evidence including the LCS and site-specific MS/MSD data to draw bias conclusions. In cases where no site-specific MS/MSD was requested, only the LCS data can be used to evaluate such bias. |
| Non-Dir. | Non-dir. flag (Non-Directional Bias ) indicates that the Relative Percent Difference (RPD) (a measure of precision) among the MS and MSD data is outside the laboratory or regulatory control limit. This alerts the data user where the MS and MSD are from site-specific samples that the RPD is high due to either non-homogeneous distribution of target analyte between the MS/MSD or indicates poor reproducibility for other reasons. |
| MCL | This is the Maximum Contaminant Level in ng/L (ppt) established by the NYSDOH for these compounds where an MCL is reported. Exceedences are flagged accordingly. |

Cooler: Yes ☑ No ☐
Coolant: IPK ☐ ICE ☑ No ☐

# CHAIN OF CUSTODY RECORD

22L0208 Temp 1.7 °C Pg 1 of 2


PHOENIX Environmental Laboratories, Inc.

Page 1 of 2
587 East Middle Turnpike, P.O. Box 370, Manchester, CT 06040
Email: info@phoenixlabs.com Fax (860) 645-0823
**Client Services (860) 645-8726**


**Contact Options:**
☐ Fax: 860-645-0823
☐ Phone: 800-827-5426
☐ Email: HelenG@PhoenixLabs.com

Customer: York Analytical Laboratories
Address: 120 Research Drive
Stratford, CT
(203) 325-1371

Project #: GCM95278
Report to: HelenG@PhoenixLabs.com / Helen Geoghegan
Invoice to: AccountsPayable@PhoenixLabs.com
Quote# :

Project P.O: GCM95278

***This section MUST be completed with Bottle Quantities.***

**Client Sample - Information - Identification**

Sampler's Signature _____ Date: _____

**Matrix Code:**
**DW**=Drinking Water **GW**=Ground Water **SW**=Surface Water **WW**=Waste Water
**RW**=Raw Water **SE**=Sediment **SL**=Sludge **S**=Soil **SD**=Solid **W**=Wipe
**OIL**=Oil **B**=Bulk **L**=Liquid

Analysis Request

| Phoenix Sample ID | Sample Matrix | Date Sampled | Time Sampled | PFAS (21) E537 modified | 8oz HDPE Plastic As Is |
|---|---|---|---|---|---|
| SB-1A (0-1`) | SOIL | 11/30/2022 | 9:00 AM | x | 1 |
| SB-1C (5.5-6.5`) | SOIL | 11/30/2022 | 9:00 AM | x | 1 |
| SB-3A (0-1`) | SOIL | 11/30/2022 | 8:45 AM | x | 1 |
| SB-3C (8-9`) | SOIL | 11/30/2022 | 8:45 AM | x | 1 |
| SB-2A (0-1`) | SOIL | 11/30/2022 | 9:30 AM | x | 1 |
| SB-2C (11-12`) | SOIL | 11/30/2022 | 9:30 AM | x | 1 |
| SB-DUP3 | SOIL | 11/30/2022 | 9:40 AM | x | 1 |
| SB-11C (3-4`) | SOIL | 11/30/2022 | 10:30 AM | x | 1 |
| SB-12A1 (0-2``) | SOIL | 11/30/2022 | 10:40 AM | x | 1 |
| SB-12A2 (2-12``) | SOIL | 11/30/2022 | 10:40 AM | x | 1 |
| SB-12C (13-14`) | SOIL | 11/30/2022 | 10:40 AM | x | 1 |

| Relinquished by: | Accepted by: | Date: | Time: |
|---|---|---|---|
| [signature] | [signature] | 12-5-22 | 0705 |
| [signature] | [signature] | 12/5/22 | 0925 |
| | | | |

**Turnaround:**
☐ 1 Day
☐ 2 Days
☐ 3 Days
☐ 5 Days
☐ 10 Days
☒ Standard
☐ Other_____

**Report Type:**
☒ Standard PDF
☐ Full Data Package
☐ NJ Reduced Deliverable
☐ NJ Full Deliverable
☒ NY ASP B

**EDD Format:**
☐ Excel
☐ GIS/Key
☐ EQuIS
☐ NJ Hazsite EDD
☐ NY EZ EDD (ASP)
☐ Other:_____

**State Criteria:**

**What State were samples collected?**
NY

**Comments, Special Requirements or Regulations:**

*Please send notice as soon as possible not exceeding 24 hours of obtaining valid data, of the results of all drinking water samples that exceed any EPA or Department-established maximum contaminant level, maximum residual disinfectant level or reportable concentration.*
*Please notify Phoenix Environmental Laboratories, Inc. immediately and prior to conducting analysis if certification is not held for the analyses requested.*

Cooler: Yes [X] No [ ]
Coolant: IPK [ ] ICE [X] No [ ]

# CHAIN OF CUSTODY RECORD

22L0208 Temp 1.7° C Pg 2 of 2

PHOENIX Environmental Laboratories, Inc.

Page 2 of 2
587 East Middle Turnpike, P.O. Box 370, Manchester, CT 06040
Email: info@phoenixlabs.com Fax (860) 645-0823
**Client Services (860) 645-8726**

**Contact Options:**
[ ] Fax: 860-645-0823
[ ] Phone: 800-827-5426
[ ] Email: HelenG@PhoenixLabs.com

Customer: York Analytical Laboratories
Address: 120 Research Drive
Stratford, CT
(203) 325-1371

Project #: GCM95278
Report to: HelenG@PhoenixLabs.com / Helen Geoghegan
Invoice to: AccountsPayable@PhoenixLabs.com
Quote# :

Project P.O: GCM95278

***This section MUST be completed with Bottle Quantities.***

**Client Sample - Information - Identification**

Sampler's Signature _____ Date: _____

**Matrix Code:**
**DW**=Drinking Water **GW**=Ground Water **SW**=Surface Water **WW**=Waste Water
**RW**=Raw Water **SE**=Sediment **SL**=Sludge **S**=Soil **SD**=Solid **W**=Wipe
**OIL**=Oil **B**=Bulk **L**=Liquid

Analysis Request

| | Phoenix Sample ID | Sample Matrix | Date Sampled | Time Sampled | PFAS (21) E537 modified | 8oz HDPE Plastic As Is |
|---|---|---|---|---|---|---|
| | SB-13A (0-1`) | SOIL | 11/30/2022 | 10:00 AM | x | 1 |
| | SB-13C (13-14`) | SOIL | 11/30/2022 | 10:00 AM | x | 1 |
| | SB-DUP4 | SOIL | 11/30/2022 | 11:00 AM | x | 1 |
| | | | | | | 1 |
| | | | | | | 1 |
| | | | | | | 1 |
| | | | | | | 1 |
| | | | | | | 1 |
| | | | | | | 1 |
| | | | | | | 1 |
| | | | | | | 1 |
| | | | | | | 1 |

| Relinquished by: | Accepted by: | Date: | Time: |
|---|---|---|---|
| [signature] | [signature] | 12-5-22 | 0705 |
| [signature] | [signature] | 12/5/22 | 0925 |
| | | | |

**Turnaround:**
[ ] 1 Day
[ ] 2 Days
[ ] 3 Days
[ ] 5 Days
[ ] 10 Days
[X] Standard
[ ] Other_____

**Report Type:**
[X] Standard PDF
[ ] Full Data Package
[ ] NJ Reduced Deliverable
[ ] NJ Full Deliverable
[X] NY ASP B

**EDD Format:**
[ ] Excel
[ ] GIS/Key
[ ] EQuIS
[ ] NJ Hazsite EDD
[ ] NY EZ EDD (ASP)
[ ] Other:_____

**State Criteria:**

**What State were samples collected?**
NY

**Comments, Special Requirements or Regulations:**

*Please send notice as soon as possible not exceeding 24 hours of obtaining valid data, of the results of all drinking water samples that exceed any EPA or Department-established maximum contaminant level, maximum residual disinfectant level or reportable concentration.*
*Please notify Phoenix Environmental Laboratories, Inc. immediately and prior to conducting analysis if certification is not held for the analyses requested.*

# APPENDIX E

## DATA USABILITY SUMMARY REPORT

# Lot 10 Boundary Modification
# Field Investigation
# Data Usability Summary Report

at

## iPark 84
## Former IBM East Fishkill Facility

April 2024

Prepared for:

Emily Barry
New York State Dept. of Environmental Conservation
Dept. of Environmental Remediation
21 South Putt Corners Road
New Paltz, New York 12561

WALDEN ENVIRONMENTAL ENGINEERING, PLLC
Industry Leader in Environmental Engineering Consulting
PROACTIVE SOLUTIONS SINCE 1995

# Data Usability Summary Report

Lot 10 Boundary Modification Field Investigation
iPark 84
2070 Route 52, Hopewell Junction, NY 12533

This Data Usability Summary Report (DUSR) has been prepared to validate the results of the subsurface testing conducted on the Lot 10 parcel at the iPark 84 Facility (former IBM East Fishkill Facility) in accordance with the "iPark Lot 10 Boundary Modification Field Investigation Work Plan" ("Work Plan", Walden, October 2022) which was approved by the New York State Department of Environmental Conservation (NYSDEC).

This DUSR has been prepared in accordance with NYSDEC Draft DER-10, Appendix 2B – "Guidance for Data Deliverables and the Development of Data Usability Summary Reports". The DUSR provides a thorough evaluation of analytical data without using the services of an independent third-party data validator. The primary objective of the DUSR is to determine whether or not the data presented meets project-specific criteria for data quality and use.

The analytical data were evaluated by Larry Zeman of Walden Environmental Engineering PLLC, whose experience and qualifications to prepare the DUSR for this project are presented in the attached resume. Soil and sediment samples collected on November 29 – 30, 2022 for laboratory analysis were submitted to Phoenix Environmental Laboratories, Inc. (Phoenix) of Manchester, Connecticut, a New York State Department of Health (NYSDOH) Environmental Laboratory Approval Program (ELAP) certified laboratory (NY Lab Registration #11301). All soil and sediment samples were analyzed for New York Code of Rules and Regulations (NYCRR) Part 375-6.8 VOCs, SVOCs, pesticides, herbicides, PCBs and TAL metals, via USEPA Methods 8260C, 8270D, 8081B, 8151A, 8082A and 6010D, respectively. Additionally, samples were analyzed for the full list of PFAS and 1,4-dioxane in accordance with NYSDEC's "Sampling, Analysis and Assessment of Per-and Polyfluoroalkyl Substances (PFAS) under NYSDEC's Part 375 Remedial Programs" (June 2021). Note that Phoenix Laboratories contracted an outside laboratory with the required PFAS certification (York Analytical Laboratories of Stratford, CT, NYSDOH ELAP #10854 and #12058) to perform the PFAS analyses.

The DUSR process consisted of evaluating the analytical data packages produced by Phoenix and answering the following questions.

1. **Were there any components of the sampling protocol which deviated from established sampling procedures?**
   Soil and sediment sampling was conducted in general accordance with the NYSDEC Division of Environmental Resources (DER) Technical Guidance for Site Investigation and Remediation (DER-10). The sampling followed the established sampling procedures in the NYSDEC-approved Work Plan for the Site. Samples were collected in sample bottles provided by the laboratory and appropriate for the analysis being performed (VOCs, SVOCs, PFAS, metals, pesticides, herbicides and PCBs), were labeled in the field, placed into a sampling cooler and kept on ice for subsequent delivery to the laboratory. All samples were sent following chain-of-custody protocols.

2. **Is the data package complete as defined under the requirements for the NYSDEC ASP Category B or USEPA CLP deliverables?**
   The sampling and analytical program outlined in the Work Plan was designed to conform to the NYSDEC ASP Category B and USEPA CLP deliverables criteria. Both field sampling and laboratory analytical activities were performed with built-in QA/QC programs. Duplicate samples were collected at a minimum of one (1) sample per ten (10) samples collected. The analytical laboratory included method blanks and batch QA/QC samples as part of their standard QA/QC program. Additionally, the samples were handled in compliance with the holding time allowances.

3. **Have all holding times been met?**
   Times of sample receipt, extraction and analysis have been evaluated to determine whether the holding time specifications have been met. All of the samples were analyzed within the specified holding times.

4. **Do all QC data (blanks, instrument tunings, calibration standards, calibration verifications, surrogate recoveries, spike recoveries, replicate analyses, laboratory controls, and sample data) fall within the protocol-required limits and specifications?**
   All the primary samples and QC data were reviewed. Duplicate sample analysis demonstrated a reasonable level of accuracy in the analytical results, and all of the QA/QC data met the protocol-required criteria with the exception of several varying QA/QC categories.

   In summary, although there were quality control outliers for some of the acceptance criteria, all other QA/QC acceptance criteria was met and the reliability of the laboratory results should not be affected.

5. **Have all the data been generated using established and agreed upon analytical protocols?**
   Laboratory analytical protocols have been developed by the USEPA and are published in SW-846 Method SW5035 for soil sample extraction, SW-846 Method SW8260C for volatile organic compounds (VOC) analysis, SW-846 Method 8270D for semi-volatile organic compounds

(SVOC) analysis, SW-846 Method 7471 B for mercury analysis, SW-846 Method 6010D for metals analysis, SW-846 Method SW8270-MOD (SIM) for 1,4-Dioxane analysis, SW-846 Method 8151A for chlorinated herbicides analysis, SW-846 Method 8081B for pesticides analysis, SW-846 Method 8082A for polychlorinated biphenyls analysis, and modified Method 537 for PFAS substances analysis. The review of the laboratory deliverables indicated that the analytical data for this project were generated following these standard protocols.

6. **Does an evaluation of the raw data confirm the results provided in the data summary sheets and quality control verification forms?**
   An evaluation of the raw data confirmed the accuracy of results provided in the data summary sheets and the quality control verification forms included in the analytical data packages prepared by the laboratory.

7. **Have the correct data qualifiers been used?**
   The laboratory provided a list of qualifiers used in their data reporting. QC failures such as potential sample contamination by laboratory solvents or estimation of sample result values due to analyte concentrations detected above calibration ranges were checked back to the reported data to determine whether the qualifiers were properly used. The evaluation indicated that the laboratory flagged the data using the correct data qualifiers when necessary. The data qualifiers comply with the NYSDEC Analytical Services Protocol (ASP) 95 revised guidelines.

8. **Have the minimum detection limits been met?**
   The applicable minimum detection limits derived from 6 NYCRR Part 375-6.8(b) restricted use Soil Cleanup Objectives (SCOs) were met for all the referenced samples.

**Summary**

In summary, the analytical data package review conducted while preparing this DUSR found that no significant data deficiencies, analytical protocol deviations, or quality control problems impacted the quality of the data. No significant QA/QC exceedances that would affect the validity of the analytical report were identified and it was determined that the data should not be rejected.

Prepared by:

Larry Zeman

## Attachment A

**Resume of Environmental Professional**

# Lawrence F. Zeman

## Project Scientist III

Lawrence has 20 years of environmental and lab consulting experience, taking on difficult laboratory issues and QA/QC. He is very well versed in areas as diverse as regulatory compliance, test protocol development and implementation, management of instrument repair and maintenance, field inspections and on-site audits, correlation studies of various analyses and engineering/technical reporting.

### EDUCATION

*B.A. Biology, Minor in Chemistry* Queens College

### LICENSES/ CERTIFICATIONS

New York State ELAP Laboratory Director

New York State ELAP Laboratory Microbiology Assistant Director

New York Department of Health Laboratory Technologist

OSHA HAZWOPER 40-hour & OSHA 10-hour Certified

### SELECTED RELEVANT EXPERIENCE

**Various Clients, New York**

- Performed sample collection of various sample types at industrial facilities and construction & remediation project sites;
  Conducted soil sample collection, field activities oversight and continuous air monitoring for Community Air Monitoring Program (CAMP) in accordance with DER-10 as follows:
  - Elmhurst Tank Park & Playground, Queens, NY (2009 – 2011);
  - Calvert Vaux Park and Athletic Fields, Brooklyn, NY (2009 – 2011), as an Independent Environmental Monitor (IEM) on-site technician;
  - Harlem Rive Greenway, Bronx, NY (2011 – 2012);
  - Beach Channel H.S. Athletic Fields (2016);
  - P.S. 63M William McKinley School, Manhattan, NY (2016);
  - P.S. 131 Abigail Adams Public School, Queens, NY (2017);
  - Forest Hills High School, Queens, NY (2017)
- Developed and implemented new testing protocols and test procedures;
- Conducted instrumentation repair and scheduled maintenance;
- Conducted correlation studies of various analytic procedures;
- Verified laboratory Quality Assurance and Quality Control procedures and data;
- Responsible for regulatory compliance and quality control;
- Prepared and submitted facilities' annual Zoning Performance Standards Compliance Reports, including noise, vibration, odor and opacity testing for DSNY permit renewal;
- Provided environmental services to ensure compliance for facility's NYS DEC Title V Air Facility Permit. Completed monthly, semi-annual and annual compliance reports;
- Conducted field Inspections and on-site audits;
- Preformed field measurements and recording of Noise and Vibration;
- Prepared Engineering & Technical Reports;
- Prepared New York City Community Right-To-Know Law and SARA reports for Industrial facilities

# APPENDIX F

## GROUNDWATER MONITORING INFORMATION

LEGEND

- Former IBM East Fishkill Facility Property Line
- Former Structure
- GMP Soil Monitoring Well
- GMP Soil/Bedrock Monitoring Well
- Bedrock Extraction Well
- Inactive Bedrock Extraction Well
- Shallow Extraction Well
- Inactive Shallow Extraction Well
- OU - Operable Unit
- PCE - Tetrachloroethene
- 5 - PCE Concentration Contour (ug/l)
- 1.4 - PCE Concentration (ug/l; April 7- May 11, 2022)
- ND@"X" - Not Detected at Laboratory Detection Limit "X"
- **Extent of Clay Mapping**
- **Extent of Glaciolacustrine Clay** (East Complex only) (Approximate)
- Inferred Areas of No Saturated Soil
- GW-720 sampled 6/1/2022.

Note: contouring beneath B335 (iPark 720) and north of GW-181 based on monitoring wells that are not routinely sampled as part of the GMP.

AREA A (OU 5)
AREA B (OU 3)
AREA C (LANDFILL) (OU 6)
AREA D (OU 4)
B/322 (OU 7)
B/330 (OU 8)
SOUTHEAST QUADRANT (OU 9)

FORMER WEST COMPLEX
FORMER IBM RECREATION CENTER
JOHN JAY HIGH SCHOOL
INTERSTATE 84

Plate 5-1

*Former IBM East Fishkill Facility*

Isoconcentration Contour Map
Soil PCE
April-May 2022

| | | |
|---|---|---|
| DRAWN BY: KA/DB | DATE: 5/23/2023 | DRAWING NO. 95007_PCE_2Q2022_soil |
| CHECKED & APPROVED BY: CES | | |

GROUNDWATER SCIENCES CORPORATION

Scale 0 200' 400'

LEGEND

- Former IBM East Fishkill Facility Property Line
- Former Structure
- GMP Soil Monitoring Well
- GMP Soil/Bedrock Monitoring Well
- Bedrock Extraction Well
- Inactive Bedrock Extraction Well
- Shallow Extraction Well
- Inactive Shallow Extraction Well
- OU - Operable Unit
- TCE - Trichloroethene
- 5 - TCE Concentration Contour (ug/l)
- *37* - TCE Concentration (ug/l; April 7-May 11, 2022)
- *ND@"X"* - Not Detected at Laboratory Detection Limit "X"
- **Extent of Clay Mapping**
- **Extent of Glaciolacustrine Clay** (East Complex only) (Approximate)
- Inferred Areas of No Saturated Soil
- GW-720 sampled 6/1/2022.

Note: contouring beneath B335 (iPark 720) and north of GW-181 based on monitoring wells that are not routinely sampled as part of the GMP.

AREA A (OU 5)
AREA B (OU 3)
AREA C (LANDFILL) (OU 6)
AREA D (OU 4)
B 3 2 2 (OU 7)
B 3 3 0 (OU 8)
SOUTHEAST QUADRANT (OU 9)

FORMER WEST COMPLEX
FORMER IBM RECREATION CENTER
JOHN JAY HIGH SCHOOL
INTERSTATE 84
ROUTE 52
NORTH DRIVE
SOUTH DRIVE
WEST DRIVE
EAST DRIVE
SERVICE ROAD
CHASE STREET
STRUCTURE DRIVE
Visitors Center
Amazon Distribution Warehouse

Plate 5-2

*Former IBM East Fishkill Facility*

Isoconcentration Contour Map
Soil TCE
April-May 2022

| DRAWN BY: DB/KA | DATE: 5/23/2023 | DRAWING NO. |
|---|---|---|
| CHECKED & APPROVED BY: CES | | 95007_TCE_2Q2022_soil |

GROUNDWATER SCIENCES CORPORATION

Scale
0 200' 400'

LEGEND

- Former IBM East Fishkill Facility Property Line
- Former Structure
- GMP Soil Monitoring Well
- GMP Soil/Bedrock Monitoring Well
- Bedrock Extraction Well
- Inactive Bedrock Extraction Well
- Shallow Extraction Well
- Inactive Shallow Extraction Well
- OU - Operable Unit
- cis-1,2-DCE - cis-1,2-Dichloroethene
- 5 - cis-1,2-DCE Concentration Contour (ug/l)
- 24 - cis-1,2-DCE Concentration (ug/l; April 7-May 11, 2022)
- ND@X - Not Detected at Detection Limit "X"
- **Extent of Clay Mapping**
- **Extent of Glaciolacustrine Clay** (East Complex only) (Approximate)
- Inferred Areas of No Saturated Soil
- GW-720 sampled 6/1/2022.

Note: contouring beneath B335 (iPark 720) and north of GW-181 based on monitoring wells that are not routinely sampled as part of the GMP.

AREA A (OU 5)
AREA B (OU 3)
AREA C (LANDFILL) (OU 6)
AREA D (OU 4)
B/322 (OU 7)
B/330 (OU 8)
SOUTHEAST QUADRANT (OU 9)

FORMER WEST COMPLEX
FORMER IBM RECREATION CENTER
JOHN JAY HIGH SCHOOL
INTERSTATE 84
ROUTE 52
NEW HAMPTON RD
SOUTH DRIVE
SERVICE ROAD
CHASE STREET
STRUCTURES DRIVE
Former B600
Former B640
Former B650
Former B660
Amazon Distribution Warehouse

B303, B304, B308, B309, B310 iPark 220, B310A iPark 215, B320B iPark 200, B321, B322 (DEMOLISHED STRUCTURE), B323, B324 iPark 145, B330, B330C iPark 155, B330D iPark 700, B330E iPark 710, B330F iPark 740, B334, B335 iPark 720, B338 iPark 730, B396, B316, B317, B315, B604, B605, B606, B607, B608, B609, B610, B611, B612, B613, B614, B615, B616, B617, B618, B619, B620, B621, B622, B623, B624, B625, B626, B627, B628, B629, B630, B631, B632, B633, B634, B635, B636, B637, B638, B639, B640, B641, B642, B643,

LEGEND

- Former IBM East Fishkill Facility Property Line
- Former Structure
- GMP Soil Monitoring Well
- GMP Soil/Bedrock Monitoring Well
- Bedrock Extraction Well
- Inactive Bedrock Extraction Well
- Shallow Extraction Well
- Inactive Shallow Extraction Well
- OU - Operable Unit
- VC - Vinyl Chloride
- VC Concentration Contour (ug/l)
- 58 - VC Concentration (ug/l; April 7 - May 11, 2022)
- ND@'X' - Not Detected at Laboratory Detection Limit "X"
- Extent of Clay Mapping
- Extent of Glaciolacustrine Clay (East Complex only) (Approximate)
- Inferred Areas of No Saturated Soil
- GW-720 sampled 6/1/2022.

Note: contouring beneath B335 (iPark 720) and north of GW-181 based on monitoring wells that are not routinely sampled as part of the GMP.

AREA A (OU 5)

AREA B (OU 3)

AREA C (LANDFILL) (OU 6)

AREA D (OU 4)

B/322 (OU 7)

B/330 (OU 8)

SOUTHEAST QUADRANT (OU 9)

FORMER WEST COMPLEX

FORMER IBM RECREATION CENTER

JOHN JAY HIGH SCHOOL

INTERSTATE 84

Plate 5-4

*Former IBM East Fishkill Facility*

Isoconcentration Contour Map
Soil VC
April-May 2022

| | | |
|---|---|---|
| DRAWN BY: KA | DATE: 5/23/2023 | DRAWING NO. 95007_VC_2Q2022_soil |
| CHECKED & APPROVED BY: CES | | |

GROUNDWATER SCIENCES CORPORATION

Scale 0 200' 400'

LEGEND

- Former IBM East Fishkill Facility Property Line
- Former Structure
- GMP Soil Monitoring Well
- GMP Soil/Bedrock Monitoring Well
- Bedrock Extraction Well
- Inactive Bedrock Extraction Well
- Shallow Bedrock Extraction Well
- Inactive Shallow Extraction Well
- OU - Operable Unit
- Freon® TF Concentration Contour (ug/l)
- Freon® TF Concentration (ug/l; April 7- May 11, 2022)
- ND@"X" - Not Detected at Laboratory Detection Limit "X"
- **Extent of Glaciolacustrine Clay** (East Complex only)
- Inferred Areas of No Saturated Soil (Approximate)
- GW-720 sampled 6/1/2022.

Note: contouring beneath B335 (iPark 720) and north of GW-181 based on monitoring wells that are not routinely sampled as part of the GMP.

AREA A (OU5)
AREA B (OU3)
AREA C (LANDFILL) (OU6)
AREA D (OU4)
B/322 (OU7)
B/330 (OU8)
SOUTHEAST QUADRANT (OU9)
FORMER WEST COMPLEX
FORMER IBM RECREATION CENTER
JOHN JAY HIGH SCHOOL
INTERSTATE 84
ROUTE 52
NORTH DRIVE
SOUTH DRIVE
WEST DRIVE
EAST DRIVE
SERVICE ROAD
CROSS STREET
HOLIDAY DRIVE
TRAVIS RIDGE
B303
B304
B306
B308
B309
B310 iPark 220
B316
B317
B321
B322
B323
B324
B330
B334
B334C iPark 745
B334F
B335 iPark 720
B338 iPark 730
B339D iPark 700
iPark 710
iPark 740
B386
B394 Sump
PW-1
PW-2
PW-2R
PW-3
PW-4
PW-5
PW-5A
PW-6
PW-7
PW-8
PW-23
PW-25
PW-25 GTF
PW-1 GTF
PW-2 GTF
Visitors Center

Scale
0 200' 400'

Plate 5-5

*Former IBM East Fishkill Facility*

Isoconcentration Contour Map
Soil Freon® TF
April-May 2022

| DRAWN BY: KA | DATE: 5/23/2023 | DRAWING NO. |
|---|---|---|
| CHECKED & APPROVED BY: CES | | 95007_FTF_2Q2022_soil |

GROUNDWATER SCIENCES CORPORATION

LEGEND

- Former IBM East Fishkill Facility Property Line
- Former Structure
- GMP Bedrock Monitoring Well
- GMP Soil/Bedrock Monitoring Well
- Bedrock Extraction Well
- Inactive Bedrock Extraction Well
- Inactive Shallow Bedrock Extraction Well

OU - Operable Unit

PCE - Tetrachloroethene

5 - PCE Concentration Contour (ug/l)

21 - PCE Concentration (ug/l; April 7-May 11, 2022 unless otherwise noted)

ND@"X" - Not Detected at Laboratory Detection Limit "X"

* - GW-559 sampled 6/1/2022, GW-779 sampled 6/14/2022.

N

AREA A (OU5)

AREA B (OU3)

AREA C (LANDFILL) (OU6)

AREA D (OU4)

B/322 (OU7)

B/330 (OU8)

SOUTHEAST QUADRANT (OU9)

FORMER WEST COMPLEX

FORMER IBM RECREATION CENTER

JOHN JAY HIGH SCHOOL

INTERSTATE 84

ROUTE 52

NORTH DRIVE

WEST DRIVE

EAST DRIVE

SOUTH DRIVE

SERVICE ROAD

CHAMBERS STREET

DEVELOPMENT DRIVE

FACILITY DRIVE

NEW HACKENSACK ROAD

Scale 0 200' 400'

Plate 5-6

**Former IBM East Fishkill Facility**

Isoconcentration Contour Map
Bedrock PCE
April-May 2022

| DRAWN BY: KA | DATE: 5/23/2023 | DRAWING NO. |
|---|---|---|
| CHECKED & APPROVED BY: CES | | 95007_PCE_2Q2022_BR |

GROUNDWATER SCIENCES CORPORATION

LEGEND

- Former IBM East Fishkill Facility Property Line
- Former Structure
- GMP Bedrock Monitoring Well
- GMP Soil/Bedrock Monitoring Well
- Bedrock Extraction Well
- Inactive Bedrock Extraction Well
- Inactive Shallow Bedrock Extraction Well

OU - Operable Unit

TCE - Trichloroethene

5 - TCE Concentration Contour (ug/l)

4.7 - TCE Concentration (ug/l; April 7-May 11, 2022 unless otherwise noted)

ND@"X" - Not Detected at Laboratory Detection Limit "X"

* - GW-559 sampled 6/1/2022, GW-779 sampled 6/14/2022.

N

AREA A (OU5)

AREA B (OU3)

AREA C (LANDFILL) (OU6)

AREA D (OU4)

B/322 (OU7)

B/330 (OU8)

SOUTHEAST QUADRANT (OU9)

FORMER WEST COMPLEX

FORMER IBM RECREATION CENTER

JOHN JAY HIGH SCHOOL

INTERSTATE 84

Scale 0 200' 400'

Plate 5-7

*Former IBM East Fishkill Facility*

Isoconcentration Contour Map
Bedrock TCE
April-May 2022

| | | |
|---|---|---|
| DRAWN BY: KA | DATE:5/23/2023 | DRAWING NO. 95007_TCE_2Q2022_BR |
| CHECKED & APPROVED BY: CES | | |

GROUNDWATER SCIENCES CORPORATION

LEGEND

- Former IBM East Fishkill Facility Property Line
- Former Structure
- GMP Bedrock Monitoring Well
- GMP Soil/Bedrock Monitoring Well
- Bedrock Extraction Well
- Inactive Bedrock Extraction Well
- Inactive Shallow Bedrock Extraction Well

OU - Operable Unit

cis-1,2-DCE - cis-1,2-Dichloroethene

5 - cis-1,2-DCE Concentration Contour (ug/l)

*140* - cis-1,2-DCE Concentration (ug/l; April 7-May 11, 2022 unless otherwise noted)

*ND@"X"* - Not Detected at Laboratory Detection Limit "X"

* - GW-559 sampled 6/1/2022, GW-779 sampled 6/14/2022

N

AREA A (OU5)

AREA B (OU3)

AREA C (LANDFILL) (OU6)

AREA D (OU4)

B/322 (OU7)

B/330 (OU8)

SOUTHEAST QUADRANT (OU9)

FORMER WEST COMPLEX

FORMER IBM RECREATION CENTER

JOHN JAY HIGH SCHOOL

INTERSTATE 84

Scale 0 200' 400'

Plate 5-8

*Former IBM East Fishkill Facility*

Isoconcentration Contour Map
Bedrock cis-1,2-DCE
April-May 2022

| DRAWN BY: KA/DB | DATE: 5/23/2023 | DRAWING NO. |
|---|---|---|
| CHECKED & APPROVED BY: CES | | 95007_cis12DCE_2Q2022_BR |

GROUNDWATER SCIENCES CORPORATION

LEGEND

- Former IBM East Fishkill Facility Property Line
- Former Structure
- GMP Bedrock Monitoring Well
- GMP Soil/Bedrock Monitoring Well
- Bedrock Extraction Well
- Inactive Bedrock Extraction Well
- Inactive Shallow Bedrock Extraction Well

OU - Operable Unit

VC - Vinyl Chloride

2 - VC Concentration Contour (ug/l)

130 - VC Concentration (ug/l; April 7-May 11, 2022 unless otherwise noted)

ND@"X" - Not Detected at Laboratory Detection Limit "X"

* - GW-559 sampled 6/1/2022, GW-779 sampled 6/14/2022.

AREA A (OU5)

AREA B (OU3)

AREA C (LANDFILL) (OU6)

AREA D (OU4)

B/322 (OU7)

B/330 (OU8)

SOUTHEAST QUADRANT (OU9)

B303 B304 B308 B309 B310 iPark 220 B310A iPark 200 B320B B321 B322 B323 B324 iPark 145 B330 B330C iPark 165 B330F B331 B338 iPark 730 B315 B316 B317 B386 B300 iPark 700 B234 B625 B626 B627 B628 B629 B630 B640 B650 B660 B680 B690

PW-1 PW-1 OTF PW-2R PW-3 PW-4 PW-5 PW-6 PW-7 PW-8 PW-23 PW-25 PW-25 GTF

FORMER WEST COMPLEX

FORMER IBM RECREATION CENTER

JOHN JAY HIGH SCHOOL

Amazon Distribution Warehouse

ROUTE 52 NORTH DRIVE WEST DRIVE EAST DRIVE SOUTH DRIVE SERVICE ROAD CENTER STREET STRUCTURE ROAD CONSTRUCTION GROUP ROAD MAIN ENTRANCE ROAD NEW HACKENSACK ROAD SCHOOL DRIVE INTERSTATE 84

Plate 5-9

*Former IBM East Fishkill Facility*

Isoconcentration Contour Map
Bedrock VC
April-May 2022

| DRAWN BY: KA | DATE: 5/23/2023 | DRAWING NO. |
|---|---|---|
| CHECKED & APPROVED BY: CES | | 95007_VC_2Q2022_BR |

GROUNDWATER SCIENCES CORPORATION

Scale 0 200' 400'

LEGEND

- Former IBM East Fishkill Facility Property Line
- Former Structure
- GMP Bedrock Monitoring Well
- GMP Soil/Bedrock Monitoring Well
- Bedrock Extraction Well
- Inactive Bedrock Extraction Well
- Inactive Shallow Bedrock Extraction Well

OU - Operable Unit

5 - Freon® TF Concentration Contour (ug/l)

160 - Freon® TF Concentration (ug/l; April 7-May 11, 2022 unless otherwise noted)

ND@X - Not Detected at Laboratory Detection Limit "X"

- GW-559 sampled 6/1/2022, GW-779 sampled 6/14/2022.

N

AREA A (OU5)

AREA B (OU3)

AREA C (LANDFILL) (OU6)

AREA D (OU4)

B/322 (OU7)

B/330 (OU8)

SOUTHEAST QUADRANT (OU9)

FORMER WEST COMPLEX

FORMER IBM RECREATION CENTER

JOHN JAY HIGH SCHOOL

INTERSTATE 84

Plate 5-10

**Former IBM East Fishkill Facility**

Isoconcentration Contour Map
Bedrock Freon® TF
April-May 2022

| | | |
|---|---|---|
| DRAWN BY: KA | DATE: 5/23/2023 | DRAWING NO. |
| CHECKED & APPROVED BY: CES | | 95007_FTF_2Q2022_BR |

GROUNDWATER SCIENCES CORPORATION

Scale 0 200' 400'

# ATTACHMENT A

# LOT 10 BOUNDARY MODIFICATION FIELD INVESTIGATION WORK PLAN

**NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION**

**Division of Environmental Remediation, Remedial Bureau D**
625 Broadway, 12th Floor, Albany, NY 12233-7013
P: (518) 402-9676 I F: (518) 402-9773
www.dec.ny.gov

December 2, 2022

Joseph Cotter
iPark 84
200 North Drive
Hopewell Junction, NY 12533

Re: Lot 10 (Furniture Warehouse Parcel)
Boundary Modification Field Investigation Work Plan
Former IBM East Fishkill Facility
Hopewell Junction, NY
NYSDEC Site #314054

Dear Mr. Cotter:

The Department of Environmental Conservation and the Department of Health ("Departments") have reviewed the revised *Lot 10 Boundary Modification Field Investigation Work Plan* ("Lot 10 WP"), dated October 31, 2022. The Lot 10 area consists of the majority of the parking area west of Building 330D. The above-referenced work plan has addressed the Departments previous comments, dated October 5, 2022, and is approved.

As always, if you have any questions, please call me at (518) 402-9821.

Sincerely,

Jessica La Clair

Jess LaClair, P.E.
Project Manager
Bureau D, Section A

ec: C. Monheit, iPark
D. Vitija, iPark
D. Pennessi, National Resources
L. Ward, National Resources
A. Rettmann, GlobalFoundries
E. Lutz, GlobalFoundries
D. Chartrand, Groundwater Science Corp.
D. Bergmann, Groundwater Science Corp.
L. Daubert, IBM
Z. Mintz, IBM
N. Ward-Willis, Frito-Lay
N. Brew, Walden
J. Armitage, DEC
D. Harrington, DEC
J. Stenerson, DEC
D. Tromp, DEC
D. Bendell, DEC
D. Pollack, DEC
J. Kenney, DOH
M. Doroski, DOH

# Lot 10 (Furniture Warehouse Parcel) Boundary Modification Field Investigation Work Plan

at

## iPark 84
## Former IBM East Fishkill Facility

July 2022 (Revised October 2022)

Prepared for:

Jessica LaClair
New York State Dept. of Environmental Conservation
Dept. of Environmental Remediation
625 Broadway
Albany, New York 12233-7013

**WALDEN ENVIRONMENTAL ENGINEERING, PLLC**

**Industry Leader in Environmental Engineering Consulting**

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WALDEN

Sent via email to jess.laclair@dec.ny.gov

July 13, 2022 ***(revised October 31, 2022)***
iPark0118.62

Jessica LaClair
Environmental Engineer
Division of Environmental Remediation
New York State Department of Environmental Conservation
625 Broadway
Albany, NY 12233-7013

Re: iPark 84
Former IBM East Fishkill Facility
Lot 10 (Furniture Warehouse Parcel)
Boundary Modification
Field Investigation Work Plan

Dear Ms. LaClair:

Walden Environmental Engineering, PLLC ("Walden") is submitting this *Lot 10 (Furniture Warehouse Parcel) Field Investigation Work Plan* (herein referred to as "*Work Plan"*) on behalf of iPark East Fishkill, LLC ("iPark"), the owner of this property at the iPark 84 Facility (former IBM East Fishkill Facility, the "Facility") located in Hopewell Junction, New York. The property designated as Lot 10 encompasses approximately 13.23 acres of land within the parcel currently identified as part of Parcel 6355-00-958962 on the Dutchess County Tax Map (Hopewell Condo II Unit #4). Lot 10 consists of the majority of the parking area located west of Building 33D/700 ("B330D/700"); the site location map is presented as **Figure 1.**

***Note that this Work Plan (originally submitted on July 13, 2022) has been updated based on NYSDEC's October 5, 2022 comment letter (revisions indicated in bold italics). Copies of NYSDEC's comment letter is provided in Attachment A.***

The Facility is being remediated in accordance with the site's 6 NYCRR Part 373 Permit, EPA ID NYD000707901 ("RCRA Permit"). The Interim Site Management Plan ("ISMP", December 2015) sets forth the procedures that govern the operation/implementation of remedial engineering and institutional controls and manage future redevelopment activities at the Facility. This *Work Plan* has been prepared to detail the sampling proposed to collect data to characterize

existing soil ***and sediment*** conditions at Lot 10 in support of iPark's planned petition for a boundary modification that would be reflected in subsequent modifications to the RCRA Permit and the Site Management Plan for the iPark 84 Facility. iPark is negotiating an agreement to sell the Lot 10 parcel to a third party who plans to construct and operate a furniture warehouse distribution center at this location. The warehouse use would be industrial and limited to distribution operations; it would not be open to the public.

Note that IBM has been implementing a comprehensive groundwater monitoring program at the Facility since 1988, and regularly reports the data to the New York State Department of Environmental Conservation ("NYSDEC") in accordance with the RCRA permit requirements. IBM's long-term water quality monitoring program consists of routine sampling from the extensive monitoring well network at the Facility. The most recent groundwater monitoring data will be requested from IBM for the monitoring wells located in and around Lot 10. This data will be evaluated to characterize groundwater conditions in this area ***in support of the boundary modification petition***. If the groundwater data evaluation indicates that additional groundwater monitoring is needed to supplement the data, limited groundwater sampling will be proposed.

The sampling proposed in this *Work Plan* is the first step in petitioning for a boundary modification for Lot 10. Note that boundary modification petitions are also planned for Lot 6, Lot 8, Lot 9, and South Drive at the Facility. Once the State approves this *Work Plan* for Lot 10, the field sampling detailed herein will be completed and the results will be summarized and submitted to NYSDEC and the New York State Department of Health ("NYSDOH"). iPark understands that the Departments may request additional ***soil, sediment, and/or groundwater*** sampling based on the findings of the sampling proposed in this *Work Plan* and the evaluation of IBM's groundwater monitoring data. After the Departments determine that the sampling results are sufficient to characterize environmental conditions in the proposed boundary modification area, NYSDEC will begin the remaining steps in the process, which include public notice of the proposed boundary modification, modification to the RCRA permit, issuing an environmental easement, and submitting a change of use notification. When formally approved by NYSDEC, the boundary modification would define the areas of the site (Lot 10, Lot 6, Lot 8, Lot 9, and/or South Drive) that would be separated from the rest of the Facility, thereby removing the constraints imposed by the RCRA permit. ***Additionally, the deed restrictions that currently apply to these areas will be modified as agreed upon between iPark and IBM and/or Global Foundries as applicable.***

It is understood that areas outside the permitted facility boundary, as modified, would not be subject to Part 373 permit conditions and the boundary modification would not affect the deed restriction. NYSDEC and NYSDOH will require (i) an Environmental Easement to ensure certain controls on Lot 10, including use restrictions, (ii) an excavation work plan, and (iii) a

passive vapor system for any new construction that includes follow up indoor air sampling to determine if additional actions are necessary.

This *Work Plan* outlines the soil sampling to be conducted in general accordance with the NYSDEC Division of Environmental Resources *Technical Guidance for Site Investigation and Remediation* ("DER-10"). The soil characterization results will be presented in a summary report along with an analysis of long-term groundwater monitoring data to support the boundary modification petition.

**Lot 10 History/Existing Conditions**

The former IBM Fishkill Facility encompasses approximately 464 acres; the limits of the Facility are Roethal Drive to the south, Route 52 to the north, John Jay Senior High School and wooded areas to the east, and Lime Kiln Road and wooded areas to the west. **Figure 1** illustrates the layout of the site. The approximate boundaries of Lot 10 are shown on **Figure 2;** this area is generally bounded by the west side of On Demand Drive to the east, by a new parcel line to be established across the parking lot on the north side, by the east side of West Drive to the west, and by the north side of South Drive to the south. In order to maintain traffic flow and access to B330D/700, On Demand Drive and the northernmost portion of the parking lot will remain under iPark's ownership.

As shown on **Figure 2**, the majority of Lot 10 is located within the Perimeter Area of the Facility, while the section closest to B330D/700 lies within the Core Area (Area of Concern, Operable Unit 8, AOC OU8). Approximately three-quarters of Lot 10 (except for the southern portion of the lot) is within the GlobalFoundries U.S. 2 LLC air permit restrictive use area. The Perimeter Area consists of the portions of the site that are primarily outside the central portion of the Facility and are not associated with manufacturing activities. The B330 AOC (OU8) is located beneath and adjacent to B330C and B330D. IBM continues to operate groundwater extraction systems to remediate VOC plumes attributable to former solvent storage and distribution systems in this area. Site use and construction activities in the B330 AOC (OU8) are subject to the restrictions set forth in IBM's June 17, 2015 Declaration of Restrictions, Easements and Covenants. The sampling proposed within the B330 AOC (OU8) will be performed in accordance with the ISMP and Intrusive Activities Work Plan. Site use within the air permit restrictive use area is subject to the restrictions set forth in GlobalFoundries' August 31, 2017 Declaration of Restrictions and Covenants (Dutchess County deed document #02-2017-8358 recorded November 8, 2017).

Currently, the surface of Lot 10 is covered by asphalt pavement and landscaped areas within the parking lot. A stream flows through the southwest corner of Lot 10 as shown on **Figure 2**; this stream drains to Gildersleeve Brook. In addition, the southwest corner of Lot 10 includes a small

wetland area; the blue hatching shown on **Figure 2** corresponds to NYSDEC's mapping of State Regulated Freshwater Wetland HJ-66. Stormwater flow from Lot 10 discharges to four (4) outfalls (#029, 032, 032 and 033) which are located north of Lot 10 along another stream that drains to Gildersleeve Brook. The stormwater outfall locations are identified on **Figure 2**.

The surface elevation at Lot 10 is approximately 250 feet, and the bedrock surface elevation varies from approximately 170 to 210 feet based on boring/monitoring well logs presented in ISMP Appendix H (Groundwater Monitoring Plan) and ISMP Figure 2-7 (Bedrock Surface Elevation Contour Map). The depth to bedrock is approximately 82 feet below grade (bg) at bedrock monitoring well 143. Refer to **Figure 2** for the locations of groundwater monitoring wells at and in the vicinity of Lot 10.

A review of available historical records indicates that the majority of the Lot 10 area has been open land or used as a parking lot. The only development on Lot 10 was Former Building 333 (B333) which was formerly located in the vicinity of the northwest corner of B330D/700 as shown in **Figure 2**. Available aerial photos indicate that B333 was removed between 1985 and 1995. A review of IBM's Solid Waste Management Unit ("SMWU") summaries and other historic documentation indicates that B333 was not used for manufacturing, waste treatment, or any chemically intensive activities. An industrial wastewater pump station well is listed as being associated with B333. This pump station well is an 800-gallon concrete manhole (measuring 4 feet in diameter and 8.5 feet deep) located outside Lot 10, approximately 50 feet northwest of the former B333 footprint. The pump station well was started up in 1969 and is identified as Tank 253 (SWMU #69). Tank 253 is listed as an active SMWU on the most recent SWMU inventory update (May 21, 2022). ***Attachment B provides information on SWMU #69 which has been extracted from IBM's September 1989 SWMU Questionnaire (Volume 2) and July 1991 RCRA Facility Assessment Preliminary Review Report. No further details on this SWMU are available in the historic project files reviewed by Walden.***

According to the ISMP, during the mid-1980s PCE, breakdown products, and Freon® TF were detected as groundwater contamination and labeled as primary contaminants of concern for the Facility. PCE has been detected at concentrations up to approximately 150,000 ppb in the upper aquifer, where dense non-aqueous phase liquid ("DNAPL") has also been found. Contamination within the B330 AOC (OU8) includes soil VOC plumes that primarily consist of PCE series compounds. Several other plumes in the underlying deep bedrock have been sourced from the soil groundwater plumes. Groundwater is pumped from the deep bedrock extraction well PW-25 located west of B334 and northeast of B330D to contain the B330 AOC plume near the source. Two sub-slab depressurization systems (VE-1 and VE-10) are currently operated by IBM to extract vapor from beneath the northern and southern portions of B330D and prevent soil vapor intrusion impacts to indoor air quality.

As mentioned above, groundwater sampling results from IBM's on-going site-wide monitoring program will be used to support the Lot 10 boundary modification petition. ***The Departments may request additional groundwater sampling based on the evaluation of IBM's groundwater monitoring data.***

**Field Investigation**

The ISMP describes the cover system at the site, which consists of a minimum of three (3) feet of surface soil that meets the Part 375 Soil Cleanup Objectives (SCOs) for industrial use, asphalt pavement, and concrete sidewalks and building slabs.

The scope of work proposed below details sampling to characterize the current subsurface soil conditions in the Lot 10 area to support the boundary modification petition. A maximum sampling depth of fifteen (15) feet is proposed to document the nature of soils that would remain in place beneath any structures or backfill placed during future construction in this area; the maximum depth of any future excavation is anticipated to be less than five (5) feet. Should future site development require excavation deeper than five (5) feet, additional soil sampling would be performed in step with construction if required by NYSDEC.

***Soil Sampling***

Soil samples will be collected at ***thirteen (13) locations (SB-1 through SB-13)*** throughout the Lot 10 area. The approximate soil boring locations are depicted on **Figure 2** and were selected randomly to achieve representative coverage of the area. Certain locations were chosen based on available information which suggests the potential for contamination may exist (for example, ***three of the borings (SB-11 through SB-13) are located within the footprint of Former B333***). Sediment samples will be collected along the stream and in the State Regulated Freshwater Wetland HJ-66 area in the southwest corner of Lot 10 as discussed under "Sediment Sampling". The actual soil sampling locations will be adjusted as needed based on field conditions.

Soil sampling will be conducted in general accordance with the NYSDEC Division of Environmental Resources (DER) Technical Guidance for Site Investigation and Remediation (DER-10), *NYSDEC's Sampling, Analysis and Assessment of Per- and Polyfluoroalkyl Substances (PFAS) Under NYSDEC's Part 375 Remedial Programs* (June 2021); Appendix C [Intrusive Activities Work Plan (IAWP)] of the ISMP, and 29 CFR 1910.120. Note that the sampling locations will be modified in the field, as needed, to avoid interference with underground utilities and structures which will be marked out prior to the investigation. All sampling locations will be cleared by ground-penetrating radar before drilling commences. Should grossly contaminated media be encountered

during the investigation, all work activities will be suspended and the NYSDEC will be notified.

Soil samples will be collected utilizing a direct-push (e.g., Geoprobe®) drill rig with five (5)-foot long Macro-Cores® or similar, beginning at grade and continuing to a maximum depth of fifteen (15) feet below grade (bg). Groundwater is not anticipated to be encountered during drilling. If bedrock is encountered at any of the proposed locations at depths shallower than 15 feet bg, drilling will cease and the soil core will be retrieved from this depth. Should any core not contain enough material for sufficient screening, a second core shall be collected immediately adjacent to the first. If refusal occurs at depths shallower than five (5) feet bg due to bedrock in the unsaturated zone, the subsurface material in that location will be noted and the Geoprobe® will be moved to attempt successful soil coring at a nearby location.

Each soil core will be visually inspected and field screened for the presence of organic vapors within the 0-15 ft bg core depth using a photoionization detector (PID) that has been properly calibrated according to manufacturer's instructions each day prior to sampling. The soil cores will be visually observed and screened using a PID at the following depth intervals: 0-1 ft bg, 1-2 ft bg, and two-foot intervals from 2 ft bg to the bottom of the core. ***Twenty percent (20%) of the soil boring locations (3 out of the 13 proposed borings) will be sampled and screened in intervals of 0-2 inches, 2-12 inches and 1-2 feet below grade, with the remainder of the core on two-foot intervals for characterization. The three (3) locations selected for the more discrete sampling in the 0-1 foot interval are SB-5 (in the middle section of Lot 10), SB-10 (near the swale in the grassed area at the southwest corner of Lot 10), and SB-12 (within the footprint of Former B333).*** For cores in paved areas, the sampling depths will be measured from the bottom of the pavement layer.

All observations and screening readings will be logged in the field book by field personnel. Excess soils removed from each sampling location shall be placed back into the respective holes before moving on to the next sampling location. If gross contamination is observed in any samples as indicated by the presence of non-aqueous phase liquids or PID screening concentrations greater than 50 ppm calibration gas equivalents, the soils from that boring will be segregated (drummed or stockpiled on plastic) for appropriate disposal based on the sampling results and NYSDEC/NYSDOH will be notified.

A total of three (3) soil samples will be collected for laboratory analysis from each of the ***13*** proposed sampling locations as follows:

- "A" Sample from the 0-1 ft bg interval
  - To be analyzed for semi-volatile organic compounds (SVOCs) [including the full list of Per- and Polyfluoroalkyl Substances (PFAS) and 1,4-dioxane], target analyte list (TAL) metals, pesticides, herbicides and polychlorinated biphenyls (PCBs)
  - ***In addition, at 20% of the locations (SB-5, SB-10, and SB-12), more discrete sampling will be performed as follows.***
    - ***"A1" Sample from the 0-2 in bg interval***
    - ***"A2" Sample from 2-12 in bg interval***
      - ***"A1" & "A2" samples to be analyzed for SVOCs (including the full list of PFAS and 1,4 dioxane), TAL metals, pesticides, herbicides and PCBs***
- "B" Sample from the 1-2 ft bg interval
  - To be analyzed for volatile organic compounds (VOCs) only
- "C" Sample from the two (2)-foot soil depth interval (from 2 ft bg to the bottom of the core) exhibiting the greatest visual or olfactory evidence of contamination (odors/staining) and/or the highest PID reading. If screening and observations show no evidence of contamination from within interval from 2 ft bg to the bottom of the core, the sample from the deepest unsaturated 2-foot soil interval will be collected.
  - To be analyzed for VOCs, SVOCs (including PFAS and 1,4-dioxane), TAL metals, pesticides, herbicides and PCBs

Grab samples from each boring will be collected for VOC analysis from the "B" and "C" intervals described above. Composite samples will be collected from the ***"A" (including the "A1" 0-2 inch samples and "A2" 2-12 inch samples at 20% of the soil boring locations) and "C"*** intervals for laboratory analysis of SVOCs (including PFAS and 1,4-dioxane), TAL metals, pesticides, herbicides and PCBs. A total of ***45*** soil samples will be secured for laboratory analysis.

Note that the scope of the sampling may be modified in the field as needed to collect additional site characterization information based on observations and conditions encountered during the investigation. Field adjustments may include installing additional soil cores or extending coring depths, depending on site conditions. All modifications to the sampling scope will be documented in the field book. Any additional samples shall be screened, logged and handled in the same manner as the other soil samples, as described herein.

Field personnel will don the appropriate health and safety equipment, as outlined in the Health and Safety Plan (HASP) prepared for the Lot 10 sampling activities, provided as **Attachment *C***.

The sampling and recordkeeping procedures are detailed in the attached Quality Assurance Project Plan (QAPP) for the Lot 10 field investigation presented in **Attachment *D***. A project logbook/field notebook will be maintained to record all field activities and observations during the sampling, and soil boring logs will be prepared as described in the QAPP. ***PFAS sampling will be conducted in accordance with the procedures detailed in NYSDEC's Sampling, Analysis and Assessment of Per- and Polyfluoroalkyl Substances (PFAS) Under NYSDEC's Part 375 Remedial Programs* (June 2021).**

The Community Air Monitoring Plan (CAMP) presented in **Attachment *E*** will be implemented during all ground intrusive activities as part of the Lot 10 investigation. ***The proposed CAMP air monitoring locations are shown on Figure 1. Note that the CAMP stations may be adjusted in the field based on the work area locations and wind direction.*** The CAMP reports will be submitted to NYSDEC and NYSDOH weekly during the investigation. NYSDEC and NYSDOH will be notified of any exceedances that stop work as soon as possible.

Sample bottles, provided by the laboratory and appropriate for the analysis being performed (VOCs, semi-volatile organic compounds [SVOCs], metals, pesticides, herbicides and polychlorinated biphenyls [PCBs]), will be labeled in the field, placed into a sampling cooler and kept on ice for subsequent delivery to the laboratory. Each of the samples shall be sent under chain-of-custody protocol to a laboratory certified by the New York State Department of Health (NYSDOH) Environmental Laboratory Accreditation Program (ELAP) for analysis. Field duplicates will be collected at a rate of five percent (5%) (one field duplicate for every 20 samples) and one (1) equipment blank will be collected per day throughout the soil sampling event.

***Sediment Sampling***

Sediment samples will be collected in the wetland area (sample SED-1) and along the bank of the stream (sample SED-2) at the southwest corner of Lot 10 at the approximate locations shown on **Figure 2**, adjusted in the field based on site conditions at the time of sampling.

The sediment samples at each location will be collected from the 0 to 2-inch and 2 to 12-inch depth intervals following the removal of the vegetative cover, if present. The

sediment samples will be analyzed for VOCs, SVOCs ***(including PFAS and 1,4-dioxane)***, TAL metals, pesticides, herbicides, and PCBs. ***The HASP, QAPP, and CAMP will be implemented during sediment sampling.***

***Decontamination Procedures***

Non-disposable sampling equipment will be decontaminated between sampling intervals and locations using the following procedures:

- Remove any large debris, such as clumps of soil, from the equipment by hand;
- Wash and scrub the equipment with a detergent solution, such as Alconox or equivalent, and potable water; and
- Rinse the equipment with potable water.

***Waste Handling***

Disposable sampling supplies will be bagged/containerized and properly disposed of as solid waste. Decontamination fluids will be containerized and discharged to the on-site industrial waste drainage system.

**Laboratory Analysis**

Information on the soil samples laboratory analysis and data quality review is presented below.

***Soil Samples***

Soil samples will be sent under chain-of-custody protocol and on ice via overnight courier or hand delivery to Phoenix Environmental Laboratories, Inc., an ELAP certified laboratory (NYSDOH ELAP #11301) located in Manchester, CT. All analyses will be conducted on a standard turn-around time basis unless iPark calls for expedited analysis. The laboratory results will be provided with NYSDEC Analytical Services Protocol (ASP) Category B deliverable packages.

All soil samples will be analyzed for New York Code of Rules and Regulations (NYCRR) Part 375-6.8 VOCs, SVOCs, pesticides, herbicides, PCBs and TAL metals, via USEPA Methods 8260, 8270, 8081B, 8151A, 8082A and 6010, respectively. In addition, the soil samples will be analyzed for the full list of PFAS and 1,4-dioxane in accordance with *NYSDEC's Sampling, Analysis and Assessment of Per- and Polyfluoroalkyl Substances (PFAS) Under NYSDEC's Part 375 Remedial Programs (June 2021).* Note that the PFAS analysis will be performed by an outside laboratory (with the required PFAS certification) contracted by Phoenix Laboratories.

***Sediment Samples***

Sediment samples will be sent under chain-of-custody protocol and on ice via overnight courier or hand delivery to Phoenix Environmental Laboratories, Inc., an ELAP certified laboratory (NYSDOH ELAP #11301) located in Manchester, CT. All analyses will be conducted on a standard turn-around time basis unless iPark calls for expedited analysis. The laboratory results will be provided with NYSDEC Analytical Services Protocol (ASP) Category B deliverable packages.

All sediment samples will be analyzed for NYCRR Part 375-6.8 VOCs, SVOCs, pesticides, herbicides, PCBs and TAL metals, via USEPA Methods 8260, 8270, 8081B, 8151A, 8082A and 6010, respectively. ***In addition, the sediment samples will be analyzed for the full list of PFAS and 1,4-dioxane in accordance with NYSDEC's Sampling, Analysis and Assessment of Per- and Polyfluoroalkyl Substances (PFAS) Under NYSDEC's Part 375 Remedial Programs (June 2021). As previously stated, the PFAS analysis will be performed by an outside laboratory (with the required PFAS certification) contracted by Phoenix Laboratories.***

***Data Review***

The data will be reviewed in order to define and document analytical data quality in accordance with NYSDEC requirements that project data must be of known and acceptable quality and as discussed in the QAPP, provided as **Attachment *D***. The laboratory data reports will be evaluated and a Data Usability Summary Report (DUSR) will be prepared in accordance with the NYSDEC DER-10 Appendix 2B Guidance for the Development of Data Usability Summary Reports.

**Reporting**

Upon completion of the Lot 10 soil characterization activities and acceptance of final analytical results, a report of findings will be prepared to document all of the fieldwork described herein, including tables of analytical results, field logs, figures and recommendations. The laboratory analytical data for the soil samples will be compared to the NYCRR Part 375-6.8(b) restricted use Soil Cleanup Objectives (SCOs) for various categories ranging from unrestricted residential to industrial use. In addition, the summary report will discuss the IBM groundwater data for the monitoring wells located in and around the Lot 10 area to characterize groundwater conditions in this area and evaluate groundwater trends over the last five (5) years for the monitoring wells located in the Lot 10 area. iPark understands that additional groundwater monitoring wells may be needed to determine the extent of contamination for a specific location and to provide additional data where a data gap may currently exist.

The analytical results from the Lot 10 sampling will be submitted to NYSDEC in the Electronic Data deliverable (EDD) format pursuant to 6 NYCRR 375-1.11(a).

If you have any questions or require any additional information, please call (516) 624-7200.

Very truly yours,
Walden Environmental Engineering, PLLC

Nora M. Brew, P.E.
VP/Senior Project Manager

cc: J. Kenney, NYSDOH
C. Monheit, iPark East Fishkill, LLC
V. Tancora, iPark East Fishkill, LLC

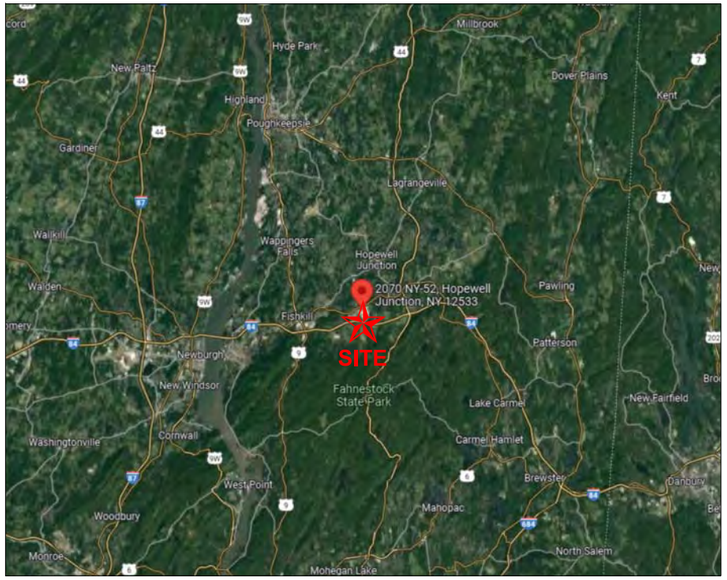
Figure 1 – Site Plan
Figure 2 – Lot 10 Area Proposed Sampling Locations

***Attachment A – NYSDEC's October 5, 2022 Comment Letter***
***Attachment B – Tank 253 (SWMU #69) Historic Documentation***
Attachment ***C*** – Health and Safety Plan
Attachment ***D*** – Quality Assurance Project Plan
Attachment ***E*** – Community Air Monitoring Plan

Z:\iPark0118\iPark0118.62 - Furniture Warehouse\Boundary Modification Sampling Plan\iPark Lot 10 Furniture Warehouse Sampling Work Plan Updated 10.31.2022.doc

**Figure 1**

**Site Plan**




SOURCE: GOOGLE MAPS

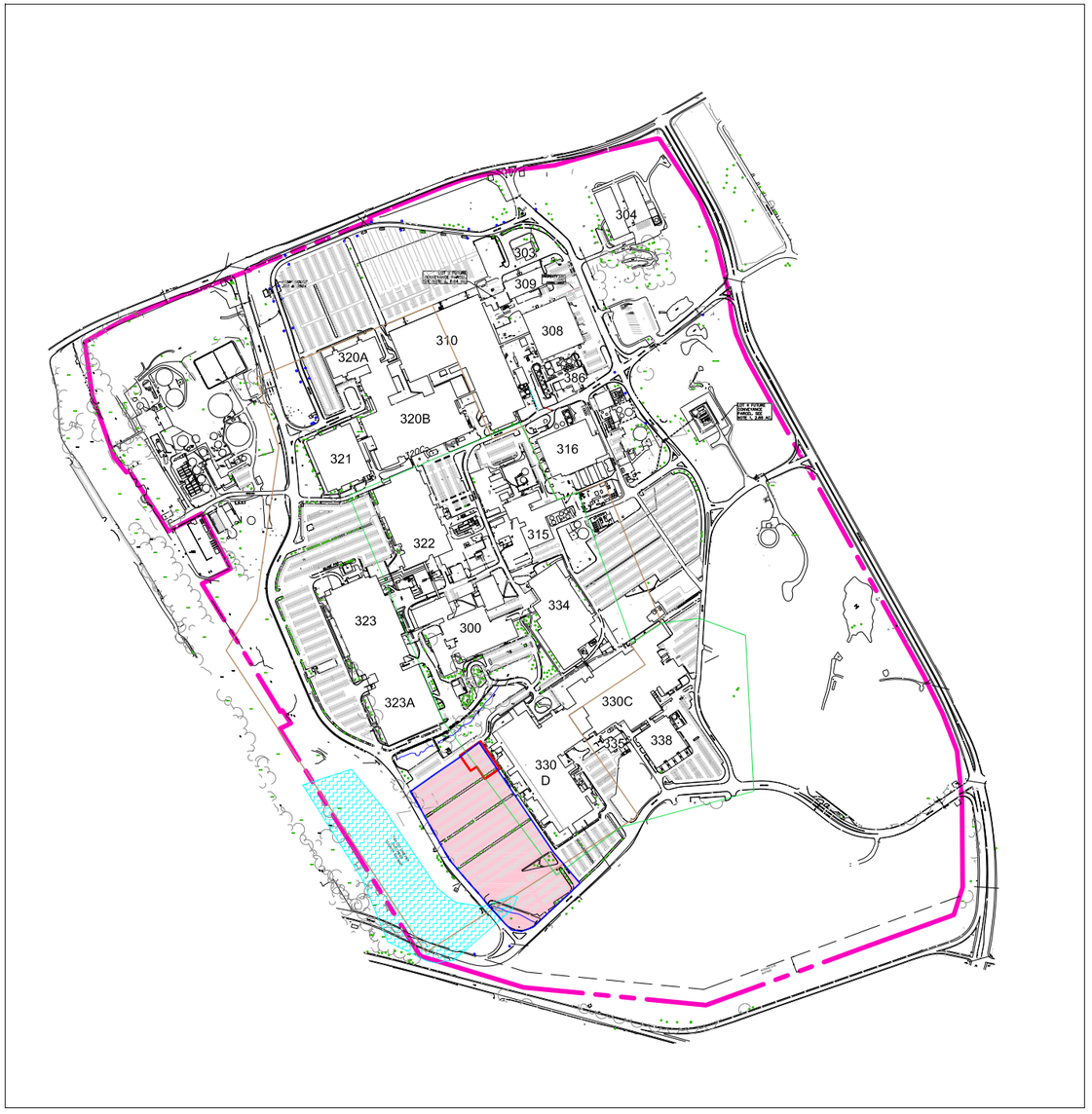
## SITE LOCATION MAP

N.T.S.

SOURCE: GOOGLE MAPS

## SITE MAP

N.T.S.




0 500 1000 2000 3000

SCALE: 1"=1000'

## SITE PLAN

SCALE: 1" =1000'-0"

## LEGEND

PROPERTY LINE (FORMER IBM EAST FISHKILL FACILITY)

LOT 10 PROPERTY


Walden Environmental Engineering

WALDEN ENVIRONMENTAL ENGINEERING, PLLC
16 SPRING STREET
OYSTER BAY, NEW YORK 11771
P: (516) 624-7200 F: (516) 624-3219
WWW.WALDENENVIRONMENTALENGINEERING.COM

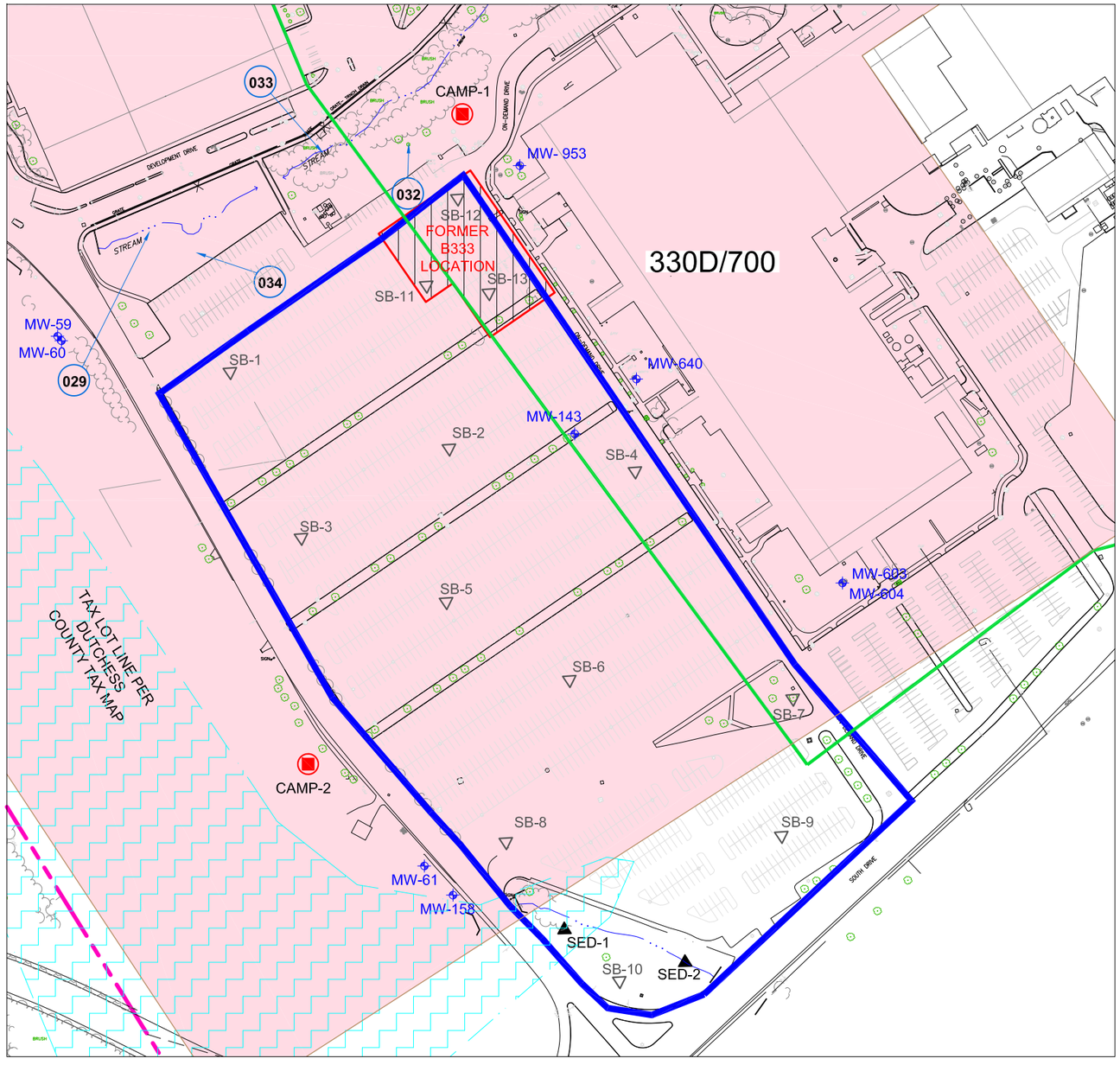

| | | | | | | |
|---|---|---|---|---|---|---|
| FOR: LOT 10 FURNITURE WAREHOUSE PARCEL IPARK 84 HOPEWELL JUNCTION, NEW YORK | | | DRAWING TITLE: SITE PLAN LOT 10 FURNITURE WAREHOUSE PARCEL BOUNDARY MODIFICATION INVESTIGATION WORK PLAN | | | FIGURE NO: 1 / ISSUED XXXX |
| DESIGNED BY: NMB/EL | DRAWN BY: LS | CHECKED BY: NMB | JOB NO: iPARK0118.62 | DATE: 7/14/22 | 11x17 | SHEET NO: 1 of 2 / REVISION NO: 0 |
| APPROVED BY: NMB | SCALE: AS NOTED | | CAD FILE NAME: Z:\iPark0118\iPark0118.62 - Furniture Warehouse\Sampling Plan\iPark0118.62_ | | | |

**Figure 2**

**Proposed Sampling Locations**

## LEGEND

- PROPERTY LINE (FORMER IBM EAST FISHKILL FACILITY)
- LOT 10 PARCEL BOUNDARY LINE
- #00 STORMWATER OUTFALL
- SB-# PROPOSED SOIL BORING SAMPLING LOCATION
- SED-# PROPOSED SEDIMENT SAMPLING LOCATION
- ACTIVE IBM MONITORING WELLS (MW-#)
- STREAM
- RESTRICTIVE USE (CORE AREA)
- NY STATE REGULATED FRESHWATER WETLANDS BOUNDARY
- RESTRICTIVE USE AREA (GLOBALFOUNDRIES AIR PERMIT)
- PROPOSED CAMP AIR MONITORING LOCATION (CAMP STATION MAY BE ADJUSTED IN THE FIELD BACED ON C=SAMPLING LOCATIONS AND WIND DIRECTION)




## PROPOSED SAMPLING LOCATIONS

SCALE: 1" = 200'-0"

0 100 200 400 600

SCALE: 1"=200'

SITE BASEMAP: CHAZEN ENGINEERING, LAND SURVEYING & LANDSCAPE ARCHITECTURE CO. D.P.C. POUGHKEEPSIE, NY (XBASE-SVY_51421-00.DWG 8/10/15); PARCELS: XSUBD_51539-00.DWG.
OFFSITE BASEMAP: "GROUNDWATER MONITORING BASEMAP", IBM EAST FISHKILL FACILITY (9718NEW.DWG, ORIGINAL DATE 12/21/98).
TOPOGRAPHY: PHOTOGRAMMETRY BY GOLDEN AERIAL SURVEYS, INC., NEWTON, CT (3/3/1997).
CONTOUR INTERVAL: 1 FOOT (HORIZONTAL DATUM BASED UPON IBM EAST FISHKILL COORDINATE SYSTEM; VERTICAL DATUM BASED UPON NATIONAL GEODETIC VERTICAL DATUM OF 1929).
HORIZONTAL ACCURACY: 90% OF ALL DETAIL, FIELD CHECKED, WILL BE WITHIN +/- 1.0 FOOT, THE REMAINING 10% OF DETAIL, WILL BE WITHIN +/- 2.0 FEET OF ITS TRUE POSITION.
VERTICAL ACCURACY: 90% OF ALL CONTOURS, FIELD CHECKED, WILL BE WITHIN +/- 0.5 FOOT. THE REMAINING 10% OF CONTOURS, FIELD CHECKED, WILL BE WITHIN +/- 1.0 FEET.


Walden Environmental Engineering

WALDEN ENVIRONMENTAL ENGINEERING, PLLC
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WWW.WALDENENVIRONMENTALENGINEERING.COM


| | | | | | | |
|---|---|---|---|---|---|---|
| FOR: LOT 10 FURNITURE WAREHOUSE PARCEL IPARK 84 HOPEWELL JUNCTION, NEW YORK | | | DRAWING TITLE: FIGURE 2 PROPOSED SAMPLING LOCATIONS | | FIGURE NO: 2 | ISSUED XXXX |
| DESIGNED BY: NMB/EL | DRAWN BY: LS | CHECKED BY: NMB | JOB NO: iPARK0118.62 | DATE: 10/31/22 | 11x17 | SHEET NO: 2 of 2 |
| APPROVED BY: NMB | SCALE: AS NOTED | | CAD FILE NAME: Z:\iPark0118\iPark0118.62 - Furniture Warehouse\Sampling Plan\iPark0118.62_ Figure 1 and 2 (10-31-22) | | | REVISION NO: 0 |

***ATTACHMENT A***
***NYSDEC'S OCTOBER 5, 2022 COMMENT LETTER***

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

**Division of Environmental Remediation, Remedial Bureau D**
625 Broadway, 12th Floor, Albany, NY 12233-7013
P: (518) 402-9676 I F: (518) 402-9773
www.dec.ny.gov

October 5, 2022

Joseph Cotter
iPark 84
200 North Drive
Hopewell Junction, NY 12533

Re: Lot 10 Boundary Modification
Field Investigation Work Plan
Furniture Warehouse Parcel
Former IBM East Fishkill Facility
EPA ID No. NYD000707901, NYSDEC Site No. 314054

Dear Mr. Cotter:

The New York State Department of Environmental Conservation and Department of Health ("Departments") have reviewed the *Lot 10 Boundary Modification Field Investigation Work Plan* ("Lot 10 WP"), dated July 13, 2022. Lot 10 is approximately 13.23 acres and consists of the majority of the parking area located west of Building 330D (B700). The Lot 10 WP was prepared to detail the sampling proposed in support of iPark's planned petition for a boundary modification.

The Departments have the following comments and/or clarifications:

1. The Departments understand that this workplan is only for soil characterization but would like to clarify that the soil data alone will not be sufficient to fully characterize the area and support the planned petition to remove Lot 10 from the site boundary. The Departments will need to evaluate the groundwater data in the area and determine if additional groundwater data is needed.
2. PDF Page 2, 2nd paragraph, last sentence – The Departments are not a party to the deed restrictions placed on the site. Changes to the deed restrictions must be between iPark and GlobalFoundries or IBM.
3. PDF Page 5, 2nd paragraph – Please provide any records or maps indicating piping associated with Tank 253 (SWMU #69) to the former Building 333 ("B333") never existed or has been closed?
4. Sediment Sampling – Samples must also be collected and analyzed for PFAS.
5. Figure 2 – The Department requests additional soil samples be collected within the Lot 10 area, with at least two sample locations within the former B333 footprint.
6. The Departments request 20% of the soil boring locations to be sampled in intervals of 0-2 inches, 2-12 inches, and 1-2 feet below grade with the remainder of the core on two-foot intervals for characterization.
7. Attachments A and B – Please include any specific precautions that will be made regarding the collection of samples for PFAS.

8. Attachment C – Community Air Monitoring Plan – Please provide a map indicating possible locations for air monitoring.

Please revise the Lot 10 WP and resubmit for the Departments' review. If you have any questions, please call me at (518) 402-9821.

Sincerely,

Jessica La Clair

Jess LaClair
Project Manager

ec: C. Monheit, iPark
V. Tancora, iPark
D. Pennessi, National Resources
L. Ward, National Resources
A. Rettmann, GlobalFoundries
E. Lutz, GlobalFoundries
L. Daubert, IBM
D. Chartrand, GS
D. Patel, Frito-Lay
D. Harrington, DEC
J. Armitage, DEC
J. Stenerson, DEC
D. Tromp, DEC
L. Winterberger, DEC
J. Kenney, DOH
J. Deming, DOH
N. Brew, Walden

***ATTACHMENT B***
***TANK 253 (SWMU #69) HISTORIC DOCUMENTATION***

INTERNATIONAL BUSINESS MACHINES CORPORATION

EAST FISHKILL FACILITY

DUTCHESS COUNTY, NEW YORK

RECEIVED

SEP 20 1989

Bureau of Hazardous Waste
Facility Permitting
Division of Hazardous
Substances Regulation

# 6NYCRR PART 373

# SOLID WASTE

# MANAGEMENT UNIT QUESTIONNAIRE

# ADDENDUM

VOLUME 2

SEPTEMBER 1989

CORDDRY CARPENTER DIETZ AND ZACK

ENGINEERS AND PLANNERS

HARRISBURG PENNSYLVANIA

## 3-4 STORAGE/TREATMENT TANKS
[EXCLUSIVE OF 3-3]

NOTE: COMPLETE 3-4.1 THROUGH 3-4.3 FOR EACH INDIVIDUAL STORAGE TREATMENT TANK SWMU WHICH EITHER IS CURRENTLY OR HAS PREVIOUSLY BEEN OPERATED ON YOUR SITE.

BELOW GROUND TANK IS DEFINED AS ANY ONE OR COMBINATION OF TANKS, INCLUDING UNDERGROUND CONNECTING PIPES, WHERE 10% OR MORE OF THE VOLUME IS BENEATH THE SURFACE OF THE GROUND.

### 3-4.1 WASTE CHARACTERISTICS

Provide the following information regarding the wastes that are/have been stored in each storage tank on your site. Identify the unit according to your map identifier code and provide the appropriate EPA process code.[2] Indicate the operational status of the unit, identifying the first year of operation for active units or the inclusive dates of operation [from-to] for units presently inactive. Include the hazardous waste code from 6NYCRR371.4 for each listed hazardous waste handled at each unit. If you handle/handled hazardous wastes which are not cited in Part 371.4, [2] enter the code(s) from 6NYCRR371.3 that describe(s) the characteristics and/or the toxic constituents of those hazardous wastes.[2] For any wastes which do not have a corresponding DEC hazardous waste number, please determine, as best you can, if the particular waste would be considered a hazardous waste or to contain hazardous waste constituent(s) under Part 371 and provide waste descriptions.[2] For each waste, indicate the quantity that was/is handled on an ANNUAL basis. Provide the appropriate unit of measure (e.g., tons, cubic yards, drums or gallons). Please indicate (x) in last column if any prior or current release of hazardous waste or hazardous waste constituents was/is associated with the unit identified.

| SWMU TYPE/ UNIT IDENTIFIER[1] | SIZE | OPERATIONAL STATUS | EPA PROCESS CODE | DEC HAZARDOUS WASTE NO. OR WASTE DESCRIPTION[2] | ESTIMATED ANNUAL QUANTITY (SPECIFY UNITS) | ASSOCIATED RELEASE? |
|---|---|---|---|---|---|---|
| 253 | 800 gal. | ACTIVE X<br>YEAR START: 1969 | S02 | Industrial Waste | NOT KNOWN | X |
| | | | | D002 | | |
| | | INACTIVE<br>INCLUSIVE YEARS: ____ - ____ | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | May Containe: | | |
| | | | | Arsenic & Compounds | Trace | |
| | | | | Phenols | Trace | |
| | | | | Methyl Ethyl Ketone | Trace | |
| | | | | Trichloroethylene | Trace | |
| | | | | Chromium & Compounds | Trace | |
| | | | | Formaldehyde | Trace | |
| | | | | Fluorides | Trace | |
| | | | | | | |
| | | | | | | |
| | | | | | | |

NOTE: Tank designated as I.W. Pump Station wet well.

1 UNIT ID as coded on your facility site map.

2 EPA Process Codes, DEC Hazardous Waste Codes and criteria constituting wastes are defined in Part 1 DEFINITIONS of this questionnaire.

## 3-4 STORAGE/TREATMENT TANKS

### 3-4.2 WASTE MANAGEMENT PRACTICES

Please answer the following questions concerning waste management practices associated with the SWMU identified on the preceding page.

1. Was/is the tank above or below ground? Please describe basic design parameters and materials of construction.

| Above Ground | Below Ground | NK | Description/COMMENT |
|---|---|---|---|
| | X | | B/333 NW, Vertical, Typical Concrete Manhole, 4' Diam. x 8'6" Ht. |
| | | | This unit is equipped with a level control system and a high level alarm. |
| | | | This tank is a coated, inground unit. |

Is/was the unit covered or uncovered? If covered, briefly describe.

| Covered | Uncovered | NK | Description/COMMENT |
|---|---|---|---|
| | X | | This unit is a typical manhole with a vented cover. |

2. Describe inspection procedures for tanks and ancillary equipment (e.g., ultrasound, tank tightness tests, etc) and provide date of latest inspection.

| Date of Latest Inspection | NK | Inspection Procedures/COMMENT |
|---|---|---|
| Daily | | A visual inspection of the tank system is performed daily. |

3. If the tank is/was uncovered, are/were procedures in place to maintain at least 2 feet (60 cm) freeboard? Describe the procedures.

| Yes | No. | NK | NA | Description/COMMENT |
|---|---|---|---|---|
| X | | | | Manual |
| | | | | Automatic X |
| | | | | The liquid level is maintained within the tank by a mechanical float which controls the pumps. |

1 UNIT ID as coded on your facility site map.

## 3-4 STORAGE/TREATMENT TANKS

3-4.2 (Cont'd)

4. If the tank is/was uncovered, are/were devices or procedures in place to monitor releases to the atmosphere? Describe.

| Yes | No | NK | NA | Monitoring Description/COMMENT |
|---|---|---|---|---|
| | X | | | |

If the tank is/was uncovered, are/were devices or procedures in place to control releases to the atmosphere? Describe.

| Yes | No | NK | NA | Control Description/COMMENT |
|---|---|---|---|---|
| | X | | | |

5. Was/is the tank equipped with a secondary containment structure (e.g., dike or trench)? Please describe.

| Yes | No | NK | Description/COMMENT |
|---|---|---|---|
| | X | | |

6. Was/is the tank equipped with a drainage control system or a diversion structure (e.g., standby tank)? Describe.

| Yes | No | NK | Description/COMMENT |
|---|---|---|---|
| | X | | |

7. If hazardous waste was/is continuously fed into the tank, was/is the tank equipped with a means to stop inflow (e.g., waste cutoff or by-pass to a standby tank)? Please specify.

| Yes | No | NK | NA | COMMENT |
|---|---|---|---|---|
| | X | | | |

1 UNIT ID as coded on your facility map.

## 3-4 STORAGE/TREATMENT TANKS

3-4.2 (Cont'd)

8. Was/is there evidence of external corrosion? If yes, briefly describe the extent of the problem. If no, describe corrosion protection provided (e.g., corrosion resistant coatings or liners, or cathodic protection systems).

| Yes | No | NK | Description/COMMENT |
|---|---|---|---|
| | X | | This tank is constructed of concrete with a corrosion resistant coating. |

9. If the tank was/is used for waste treatment, briefly describe the treatment process.

| NA (no treatment) | NK | Process Description/COMMENT |
|---|---|---|
| X | | This unit is not used for waste treatment. |

10. If the tank was/is used for storage of hazardous waste, what was/is average residence time?

| NA (no storage) | NK (Residence Time Unknown) | Residence Time (units) | COMMENT |
|---|---|---|---|
| | | Less than 1 hour. | |

1 UNIT ID as coded on your facility map.

3-4 STORAGE/TREATMENT TANKS

3-4.3 EVIDENCE OF RELEASE/REMEDIATION

Please provide the following information on any prior or current release of hazardous waste or hazardous waste constituents associated with the SWMU described in the preceding pages.

Evidence of Release

| None | Indirect* | Positive Proof from Direct Observation | Positive Proof from Laboratory Analyses | COMMENT |
|---|---|---|---|---|
| | | X | | On 2/20/84, a high level alarm was activated when Industrial Waste was overflowing from manholes. |

*e.g., discoloration of surrounding soil, dead vegetation

Characteristics of Release

| DEC Hazardous Waste # [2] or Waste Descritpion | Estimated Quantity or Volume released (Units) | Date(s) of Release | Nature of Release |
|---|---|---|---|
| Industrial Waste | Several thousand gal. | 2/20/84 | Industrial Waste overflowed manholes. |

NOTE: IBM Spill Control No. 84-017.

1 UNIT ID as coded on your facility site map.

2 EPA Process Codes, DEC Hazardous Waste Codes and criteria constituting wastes are defined in Part 1 DEFINITIONS of this questionnaire.

3-4 STORAGE/TREATMENT TANKS

3-4.3 (Cont'd)

For the SWMU described above, please provide any analytical data that may be available which would describe the nature and/or extent of environmental contamination that exists as a result of release. Any information on the concentration of hazardous waste or hazardous waste constituents in contaminated soil, groundwater (GW), surface water (SW) or air should be attached. Include any information/data (including groundwater monitoring data) submitted to EPA and the State under any other regulatory programs (e.g., Superfund) that concerns prior or continuing releases as described above. If any analytical data are attached for the unit, please indicate below:

| GW Monitoring Data Attached | SW Analytical Data Attached | Soil Analytical Data Attached | Air Monitoring Data Attached |
|---|---|---|---|
| | X | | |

For the prior/current release documented above please describe relevant remediation implemented or planned.

| Previously Implemented Yes | NO | NK | Inclusive Dates | Description/COMMENT |
|---|---|---|---|---|
| | | | | Discharge was stopped by pumping flow from wet well to a sanitary drain. |

| Currently Implemented Yes | No | NK | Start Date | Description/COMMENT |
|---|---|---|---|---|
| X | | | 4/81 | IBM is currently implementing the Remedial Action Plans as established with the NYSDEC in April 1981, which include both groundwater monitoring and groundwater treatment. |

| Planned to be Implemented Yes | No | NK | Start Date | Description/COMMENT |
|---|---|---|---|---|
| X | | | 4/81 | IBM will continue to implement the Remedial Action Plans as established with the NYSDEC in April 1981. |

1 UNIT ID as coded on your facility map.

# UPSETS - LOG

GRAB SAMPLES: IW B/330 LIFT STATION OVERFLOW

DATE: 2/20/84

| WASTE-WATER # | Time: | Sample Point Description | $Cr^{+6}$ | Ph | FE |
|---|---|---|---|---|---|
| SW0020 | 9:30AM | B/330 LIFT STATION AT DISCHARGE TO STREAM | <0.005 | 7.2 | 0.05 |
| SW0021 | " | STREAM- 40' FROM DISCHARGE | " | 7.2 | <0.04 |
| W0022 | " | STREAM- 100' FROM DISCHARGE | " | 7.2 | 0.06 |
| SW0023 | " | WEST DR/ DEV. DR BRIDGE | " | 7.3 | 0.06 |
| W0024 | " | UPSTREAM | " | 7.2 | <0.04 |
| SW0025 | " | DOWNSTREAM | " | 7.3 | 0.14 |
| W0030 | 9:30AM | MANHOLE 114 LIFT STA. DISCHARGE | " | 7.0 | 0.10 |
| W0031 | " | STREAM AT DISCHARGE | " | 7.3 | 0.08 |
| SW0032 | " | STREAM AT WEST DR. | " | 7.4 | 0.09 |
| W0033 | " | DNST | " | 7.4 | 0.26 |
| SW0034 | " | UPST | " | 7.2 | <0.04 |
| W0035 | " | MANHOLE 116 ACROSS LIFT STN | " | 6.1 | 0.20 |
| W0037 | 2:00PM | MANHOLE 114 AT DISCHARGE | " | 7.5 | 0.14 |
| SW0038 | " | STREAM AT DISCHARGE | " | 7.4 | 0.14 |
| W0039 | " | WEST DR. STREAM | " | 7.4 | 0.14 |
| SW0040 | " | DNST | " | 7.4 | 0.28 |
| W0041 | " | UPST | " | 7.4 | 0.12 |
| W0042 | 3:00PM | B/300-330 BRIDGE UPST. FROM DISCHARGE | " | 7.7 | 0.05 |
| SW0043 | " | MANHOLE 114 AT DISCHARGE | " | 7.5 | 0.45 |
| W0044 | " | STREAM AT DISCHARGE | " | 7.6 | 0.06 |
| SW0045 | " | WEST DR. STREAM | " | 6.8 | 0.06 |
| SW0046 | " | DNST | " | 7.8 | <0.22 |
| W0047 | " | UPST | " | 8.0 | <0.04 |

## 3-4 STORAGE/TREATMENT TANKS

### 3-4.3 EVIDENCE OF RELEASE/REMEDIATION

Please provide the following information on any prior or current release of hazardous waste or hazardous waste constituents associated with the SWMU described in the preceeding pages.

Evidence of Release

| None | Indirect* | Positive Proof from Direct Observation | Positive Proof from Laboratory Analyses | COMMENT |
|---|---|---|---|---|
| | | X | | During construction activities in B/330, an I.W. drain was broken by the contractor and wastewater spilled into the excavation. |

*e.g., discoloration of surrounding soil, dead vegetation

Characteristics of Release

| DEC Hazardous Waste # or Waste Descritpion [2] | Estimated Quantity or Volume released (Units) | Date(s) of Release | Nature of Release |
|---|---|---|---|
| Industrial Wastewater | 1500 gal. | 5/12/84 | A break occurred in an underground Industrial Waste Line. |

NOTE: IBM Spill Control No. 84-048.

1 UNIT ID as coded on your facility site map.

2 EPA Process Codes, DEC Hazardous Waste Codes and criteria constituting wastes are defined in Part 1 DEFINITIONS of this questionnaire.

3-4 STORAGE/TREATMENT TANKS

3-4.3 (Cont'd)

For the SWMU described above, please provide any analytical data that may be available which would describe the nature and/or extent of environmental contamination that exists as a result of release. Any information on the concentration of hazardous waste or hazardous waste constituents in contaminated soil, groundwater (GW), surface water (SW) or air should be attached. Include any information/data (including groundwater monitoring data) submitted to EPA and the State under any other regulatory programs (e.g., Superfund) that concerns prior or continuing releases as described above. If any analytical data are attached for the unit, please indicate below:

| GW Monitoring Data Attached | SW Analytical Data Attached | Soil Analytical Data Attached | Air Monitoring Data Attached |
|---|---|---|---|
| | X | | |

For the prior/current release documented above please describe relevant remediation implemented or planned.

| Previously Implemented Yes | NO | NK | Inclusive Dates | Description/COMMENT |
|---|---|---|---|---|
| X | | | 5/12/84 | The pipeline was plugged upstream of the break and liquid in the excavation was pumped to tankers and taken to an I.W. Plant. |

| Currently Implemented Yes | No | NK | Start Date | Description/COMMENT |
|---|---|---|---|---|
| X | | | 4/81 | IBM is currently implementing the Remedial Action Plans as established with the NYSDEC in April 1981, which include both groundwater monitoring and groundwater treatment. |

| Planned to be Implemented Yes | No | NK | Start Date | Description/COMMENT |
|---|---|---|---|---|
| X | | | 4/81 | IBM will continue to implement the Remedial Action Plans as established with the NYSDEC in April 1981. |

1 UNIT ID as coded on your facility map.

IBM

84-048

Pg 712a

# Request for Laboratory Work

| WORK REQUESTED OF | TITLE OF LABORATORY | DEPT. NO. |
|---|---|---|
| Environmental Lab | | [redacted] 76B |
| REQUESTING EMPLOYEE'S JOB OR REFERENCE NO. | | DATE 5/16 |

| | |
|---|---|
| PART NAME | PART NUMBER |
| VENDOR NAME | PURCHASE ORDER NO. |
| QUANTITY | ENG. CHANGE |
| UNIT | MACHINES AFFECTED |

DESCRIPTION OF PART & REASON FOR WORK: (PLEASE PRINT)

Sample of liquid in excavation in front of B/330 lobby on 5/12/84 Due to I.W. line Break.

Sample contained $F^- = <0.1 mg/L$

$Cr^{+6} =$ None Detected

$pH = 7.0$

DISPOSITION OF PARTS UPON COMPLETION OF WORK: ☐ RETURN ☐ DISCARD ☐ SALVAGE

WRITTEN REPORT TO BE FORWARDED: ☐ YES ☐ NO TO _____

| ENCLOSURES: | | | |
|---|---|---|---|
| REQUESTED BY: S Donskin | DEPT. 92D | EXT. 9815 | DATE SUBMITTED |
| APPROVED BY: | DATE | | PRIORITY |

(FOR LABORATORY USE ONLY)

| LABORATORY PROJECT NO. NR 2210 | ESTIMATED DATE OF COMPLETION | |
|---|---|---|
| ASSIGNED TO: AH | APPROVED BY: | DATE |

| REMARKS: | ORDER-REF. | ACCOUNT | JOB | DEPT. CHG. |
|---|---|---|---|---|
| | | | | |

| ESTIMATES: | |
|---|---|
| MATERIAL COST | |
| LABOR COST | |
| BURDEN | |
| TOTAL HOURS | DATE COMPLETED |

923-6574-7
MRO. CAT. NO. 780600785

LAB TESTER'S COPY

## 3-4 STORAGE/TREATMENT TANKS

### 3-4.3 EVIDENCE OF RELEASE/REMEDIATION

Please provide the following information on any prior or current release of hazardous waste or hazardous waste constituents associated with the SWMU described in the preceeding pages.

Evidence of Release

| None | Indirect* | Positive Proof from Direct Observation | Positive Proof from Laboratory Analyses | COMMENT |
|---|---|---|---|---|
| | | X | | The Industrial Waste Lift Station at B/330 overflowed as a result of a malfunction in the liquid level sensing device. |

*e.g., discoloration of surrounding soil, dead vegetation

Characteristics of Release

| DEC Hazardous Waste # [2] or Waste Descritpion | Estimated Quantity or Volume released (Units) | Date(s) of Release | Nature of Release |
|---|---|---|---|
| Industrial Wastewater | Several thousand gal. | 7/16/85 | A level sensor failure resulted in an overflow. |

NOTE: IBM Spill Control No. 85-090.

1 UNIT ID as coded on your facility site map.

2 EPA Process Codes, DEC Hazardous Waste Codes and criteria constituting wastes are defined in Part 1 DEFINITIONS of this questionnaire.

3-4 STORAGE/TREATMENT TANKS

3-4.3 (Cont'd)

For the SWMU described above, please provide any analytical data that may be available which would describe the nature and/or extent of environmental contamination that exists as a result of release. Any information on the concentration of hazardous waste or hazardous waste constituents in contaminated soil, groundwater (GW), surface water (SW) or air should be attached. Include any information/data (including groundwater monitoring data) submitted to EPA and the State under any other regulatory programs (e.g., Superfund) that concerns prior or continuing releases as described above. If any analytical data are attached for the unit, please indicate below:

| GW Monitoring Data Attached | SW Analytical Data Attached | Soil Analytical Data Attached | Air Monitoring Data Attached |
|---|---|---|---|
| | X | | |

For the prior/current release documented above please describe relevant remediation implemented or planned.

| Previously Implemented Yes | NO | NK | Inclusive Dates | Description/COMMENT |
|---|---|---|---|---|
| X | | | 7/16/85 | Flow and liquid in the lift station was removed using portable pumps. The pump station was repaired; contaminated soil was drummed and disposed of offsite; liquid was collected in a tanker and was taken to an on-site I.W. Plant. |

| Currently Implemented Yes | No | NK | Start Date | Description/COMMENT |
|---|---|---|---|---|
| X | | | 4/81 | IBM is currently implementing the Remedial Action Plans as established with the NYSDEC in April 1981, which include both groundwater monitoring and groundwater treatment. |

| Planned to be Implemented Yes | No | NK | Start Date | Description/COMMENT |
|---|---|---|---|---|
| X | | | 4/81 | IBM will continue to implement the Remedial Action Plans as established with the NYSDEC in April 1981. |

1 UNIT ID as coded on your facility map.

Pg 714a
86-096

DATE: 86/10/27 RCRA ANALYTICAL REPORT IBM INTERNAL USE ONLY
PAGE: 1

SAMPLE ID: NR861303 SAMPLE DATE: 86-10-27
LOCATION: 323 B TYPE: LIQUID- ONE PHASE
GRID: REQUESTER: R. GUNN
MANIFEST NO:
ENG#(OP23-1): SPILL FACILITIES PRJ NO:
DESCRIPTION: SAMPLE FROM CONTAINMENT AREA IN BASEMENT OF B/323. TANK FARM IN MIDDLE OF BUILDING

ADDITIONAL DATA

| | QUANTITY | METHOD DETECT LIMIT | TOTAL OR LEACHATE | UNITS |
|---|---|---|---|---|
| HEXAVALENT CHROME | 0.02 | 0.005 | TOTAL | MG/L |
| FREE FLUORIDE | 35.6 | | TOTAL | MG/L |
| PH | 7.3 | | TOTAL | S.U. |

COMMENTS: PH TAKEN AT TANK WITH PH PAPER SHOWED NUETRAL. PH TAKEN IN LAB WITH METER REPORTED ABOVE.
R. GUNN IN EMERGENCY CONTROL CONTACTED AND ADVISED OF ANALYSIS AT APPROX: 0520 CC: EMERGENCY CONTROL

(SIGNATURE) HBS

END OF REPORT

IBM-EF- 88

IBM-EF- 88

# PRELIMINARY REVIEW

IBM CORPORATION
East Fishkill Facility
Hopewell Junction, New York

EPA I.D. NO. NYD000707901

Prepared for:

Mr. Ben Singh
U.S. Environmental Protection Agency
Region II
26 Federal Plaza, Room 907
New York, New York 10278

Prepared by:

Kearney/Centaur Division
A. T. Kearney, Inc.
One Wall Street Court
New York, New York 10005

EPA Contract No. 68-W9-0040
Work Assignment No. R02-16-08

July 1991

Building 333 at the IBM East Fishkill Facility is a general facility building with one potential SWMU associated with its operations. The SWMU associated with this building is:

69 Tank 253

**Unit Number(s):** 69

**Unit Name:** Tank 253

**Location:** Building 333, Northwest Exterior

**Description:** This unit, designated by IBM as the I.W. Pump Station Well, is a vertical 800-gallon concrete manhole, measuring 4' in diameter and 8'6" deep. The tank is a coated inground unit. Other information regarding waste management practices, source and disposition of the wastes, and function of the unit, could not be found from review of available file materials.

**Date of Start-up:** 1969

**Date of Closure:** This unit is currently active.

**Waste Managed:** This unit manages industrial wastewater. EPA waste codes include D002. The wastes may also contain traces of arsenic and compounds, phenols, methyl ethyl ketone, trichloroethylene, chromium and compounds, formaldehyde and fluorides. See Section III.D for a discussion of the industrial wastewater system at this facility.

**Release Controls:** This unit is provided with a vented cover, and tank level is maintained through the use of a mechanical float which controls the pumps. The interior of the tank is reportedly coated with a corrosion resistant coating.

**History of Releases:** Several thousand gallons of industrial wastewater reportedly overflowed from the manhole on February 20, 1984. The overflow was stepped by pumping the spilled wastes from the wet well to Sanitary Wastewater Treatment Plant (SWMUs 364-412). Sample analysis of the discharged liquid showed less than 1 ppm of free fluorides.

On May 12, 1984, a break in an underground industrial waste line resulted in a spill of 1,500 gallons of this waste. The incident reportedly occurred during construction activities in Building 330 when an I.W. drain was broken by a contractor. The pipeline was reportedly plugged upstream of the break, and the liquid which had flowed into the excavation was removed from the spill area by pumping into a tanker and treating it at the "I.W. Plant." The building (Building 316 or Building 312) which houses the "I.W. Plant" could not be determined from review of available file materials. Sample analysis of the liquid showed less than 1 ppm of free fluorides.

**Unit Number(s):** 69 (cont'd)

**Unit Name:** Tank 253

**History of Releases:** (cont'd)
Another incident at this unit occurred on August 16, 1985 when a level sensor failure at the unit resulted in an overflow of several thousand gallons of the industrial wastewater. Flow from the life station was reportedly removed using portable pumps, and the pump station repaired. Contaminated soils at the spill area was reportedly excavated, drummed and disposed of off-site, while the liquid was pumped into a tanker and taken to the on-site "I.W. Plant" presumably.

No other information, such as post-excavation sampling showing the effectiveness of the clean-up action, was found pertaining to these releases. This unit may be located in an area currently undergoing remedial action per an April 1981 Consent Agreement with NYSDEC.

**Informational Needs:**

- Source and destination of wastes
- Unit function
- Waste management practices
- Annual quantity of wastes managed
- Information regarding effectiveness of clean-up effort

**References:** 87, 126

ATTACHMENT ***C***
HEALTH AND SAFETY PLAN

# Health and Safety Plan

# At

# iPark 84
# Former IBM East Fishkill Facility

## July 2022

**Prepared for:**

iPark East Fishkill, LLC
200 North Drive
Hopewell Junction, New York 12533

**Prepared by:**

Walden Environmental Engineering
200 North Drive
Hopewell Junction, New York 12533

**TABLE OF CONTENTS**


**1.0 INTRODUCTION ..... 1**

**2.0 SCOPE ..... 3**

2.1 Generic Scope ..... 3

2.2 Project-Specific Scope of Work ..... 4

2.3 Equipment ..... 4

2.4 Site Access ..... 4

2.5 Controlled Work Areas ..... 5

*2.5.1 Exclusion Zone ..... 5*

*2.5.2 Contaminant Reduction Zone ..... 5*

*2.5.3 Support Zone ..... 5*

**3.0 ORGANIZATIONAL STRUCTURE ..... 6**

3.1 Project Manager ..... 6

3.2 Site Safety Officer ..... 6

3.3 Employees ..... 7

3.4 Subcontractors ..... 7

3.5 Visitors ..... 8

**4.0 EMERGENCY RESPONSE ..... 9**

4.1 Emergency Facilities and Telephone Numbers ..... 9

4.2 Response Procedures ..... 10

4.3 First Aid Kit and Medical Emergencies ..... 10

*4.3.1 Burns ..... 11*

*4.3.2 Eye Wounds ..... 12*

4.4 Fire: Hazards, Prevention, Protection and Extinguishers ..... 12

*4.4.1 Fire Prevention ..... 13*

*4.4.2 Fire Protection ..... 14*

4.5 Evacuation Procedures ..... 14

4.6 Spill Containment ..... 15

4.7 Incident Reporting ..... 15

**5.0 GENERAL HEALTH AND SAFETY REQUIREMENTS ..... 17**

5.1 Qualifications and Training ..... 17

*5.1.1 Hazardous Communication Training (29 CFR 1910.1200) ..... 18*

*5.1.2 Visitor Training* ..... *18*
5.2 General Safety ..... 18
*5.2.1 Tailgate Safety Meetings* ..... *19*
*5.2.2 Housekeeping* ..... *19*
*5.2.3 Hazardous, Solid or Municipal Waste* ..... *20*
*5.2.4 Smoking, Eating and Drinking* ..... *20*
*5.2.5 Personal Hygiene* ..... *20*
*5.2.6 Stop Work Authority* ..... *21*
*5.2.7 Severe Weather* ..... *21*
5.3 Communication Procedures ..... 21
5.4 Hazard Communication ..... 22
5.5 Medical Monitoring ..... 22
5.6 Logs, Reports and Record Keeping ..... 23
**6.0 HAZARD ASSESSMENT ..... 24**
6.1 Physical Hazards ..... 24
*6.1.1 Site Mobilization/Demobilization* ..... *24*
*6.1.2 General Work Activities* ..... *24*
6.2 Chemical Hazards ..... 28
6.3 Biological Hazards ..... 29
*6.3.1 Plants* ..... *29*
*6.3.2 Animals* ..... *29*
*6.3.3 Insects* ..... *29*
*6.3.4 Blood-borne Pathogens* ..... *30*
**7.0 EXPOSURE MONITORING ..... 31**
7.1 Noise ..... 31
*7.1.1 Hearing Conservation Program* ..... *32*
7.2 Chemical Contaminants ..... 32
*7.2.1 Air Monitoring* ..... *32*
7.3 Calibration ..... 35
**8.0 PERSONAL PROTECTIVE EQUIPMENT ..... 36**
8.1 Head Protection ..... 36
8.2 Foot Protection ..... 36
8.3 Hand Protection ..... 36
8.4 Eye Protection ..... 37

8.5 Hearing Protection ..... 37
8.6 Respiratory Protection ..... 37
8.7 PPE Program ..... 38
*8.7.1 Inspections ..... 38*
*8.7.2 Donning/Doffing of Personal Protective Equipment ..... 38*
**9.0 RECORD OF HASP ACKNOWLEDGEMENT ..... 40**

**Attachments**

Attachment A: iPark 84 Facility Site Map
Attachment B: Emergency Room Directions
Attachment C: Safety Data Sheets
Attachment D: Heat Stress
Attachment E: Cold Stress

## 1.0 INTRODUCTION

Walden Environmental Engineering, PLLC (Walden) employees may be exposed to risks from site-related hazardous conditions while performing field activities at the iPark 84 Site owned by iPark East Fishkill, LLC (iPark) (the Former IBM East Fishkill Facility, the "Site" or "Facility") located in Hopewell Junction, New York (refer to **Attachment A**). Walden's policy is to minimize the possibility of work-related injury through aware and qualified supervision, health and safety training, medical monitoring and the use of appropriate personal protective equipment (PPE). Walden has established a guidance program to implement this corporate policy in a manner that protects personnel to the maximum reasonable extent.

This Health and Safety Plan (HASP) applies to all Walden personnel, iPark representatives, subcontractors, the New York State Department of Environmental Conservation (NYSDEC), the New York State Department of Health (NYSDOH), and any other individuals on the jobsite where operations involve actual or potential physical and chemical hazards that have been identified by Walden or others during activities including but not limited to the following:

- Shallow soil sampling;
- Sediment sampling;
- Groundwater sampling;
- Construction or demolition work that disturbs surface or subsurface soils, groundwater, sediment, etc. at the Facility; and
- Construction or demolition work involving equipment, piping, etc. currently or formerly containing hazardous materials or wastes at the Facility.

This HASP is also intended to inform and guide all personnel (Walden employees and/or owner representatives, subcontractors or State/local regulatory agency representatives) entering the exclusion zone, ensuring that each person sign and acknowledge the Site hazards on the Acknowledgement Form provided in Section 9.0. Walden and/or the owner's subcontractors are retained as independent contractors and, as such, are responsible for ensuring the safety of their employees.

Walden may require that its personnel take certain precautions in accordance with this HASP, and Walden requests that others protect their personnel in a manner that they deem necessary or sufficient.

This HASP is based on the best available information to date. Should a conflict occur between this document and any other related Health and Safety Plans, Operating Procedures, regulations,

etc., workers shall follow the most stringent/protective requirements. HASP Supplements will be generated, as necessary, to address any new information, change in conditions, or activities. While it is not possible to discover, evaluate, and protect in advance against all possible hazards which may be encountered throughout the course of this project, adherence to the requirements of this HASP will significantly reduce the potential for occupational injury.

## 2.0 SCOPE

### 2.1 Generic Scope

This HASP is intended to be utilized during intrusive work performed at the Facility, including but not limited to the following:

- Collection of soil samples via hand auger or similar methods;
- Installation of soil borings;
- Collection of groundwater samples;
- Collection of soil gas and sub-slab vapor samples;
- Collection of air samples;
- Non-hazardous and hazardous soil/solids management;
- Non-hazardous and hazardous liquid management;
- Real-time air monitoring using instrumentation;
- Cutting and handling of concrete slabs;
- Construction, installation and maintenance of engineering controls to reduce chemical exposure;
- Excavation;
- Stockpiling;
- Grading;
- Trenching;
- Removal/installation/modification of piping and drainage structures;
- Interior building renovations;
- Installation of pavement and concrete; and
- General site construction and building activities.

Previous site investigations have identified soil, soil vapor and groundwater contamination at various locations at the Facility associated with historic site activities. Contaminants associated with the site include volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs) and inorganics. Therefore, precautions shall be taken to prevent exposure to contaminants and ensure that appropriate and safe procedures are followed when potentially contaminated media and hazardous materials and wastes may be encountered and handled during the work. Work at the Facility shall be performed by employees who are properly trained and experienced in dealing with the hazards which may arise from these types of tasks, which are defined as toxic effects, including threshold limit values (TLVs), immediately dangerous to life

and health (IDLH), reactivity, stability, flammability, and operational hazards with sampling, decontaminating, etc.

## 2.2 Project-Specific Scope of Work

This HASP is intended to be utilized during intrusive soil***/sediment*** investigation work in the Lot 10 area at the Facility, including collection of soil samples via Geoprobe®. Groundwater is not anticipated to be encountered during these activities***; however, groundwater sampling may be required by the Departments***. Specific details of the investigation work to be performed at the site are provided in the *Lot 10 Boundary Modification Field Investigation Work Plan* (Walden, ***revised October*** 2022).

## 2.3 Equipment

The following equipment may be utilized for this task:

1. Geoprobe®
2. Hand auger;
3. Scrub brush;
4. Photoionization detector (PID);
5. MultiRAE multi-gas meter;
6. 55-gallon drums, both metal and plastic;
7. Excavation machinery (e.g. mini-excavator);
8. Hand shovels;
9. Plastic sheeting;
10. Soil/solids sampling containers;
11. Chemical-resistant, leather, and/or cut-resistant gloves; and
12. Miscellaneous hand tools (screwdriver, socket driver).

## 2.4 Site Access

The topography in the area of Lot 10 is relatively flat and mostly covered by asphalt parking areas. In the event of an emergency, personnel and subcontractors should assemble at a predetermined assembly area, designated by the Site Safety Officer (SSO) for the task.

Access to work areas will be denied to the general public via the SSO or designated personnel, thus establishing the perimeter of controlled work areas, minimizing potential exposure to unauthorized individuals, protecting the public from hazards and preventing vandalism. All equipment and materials will be secured during non-work hours. Continuous communication (via

portable radios, hand signals, telephones, etc.) shall be maintained between the SSO and key personnel associated with this project at all times during field operations.

## 2.5 Controlled Work Areas

Controlled work areas will be established prior to and for each work area, depending on the task, and shall float (move around) depending on the tasks being performed on any given day. Each controlled work area will consist of three (3) zones: the exclusion zone, the contaminant reduction zone and the support zone, based on the degree of danger present. To the extent possible, the support and contaminant reduction zones will be established outside of the exclusion zone.

### *2.5.1 Exclusion Zone*

The exclusion zone consists of the primary activity area, as defined by the SSO. Only personnel directly involved with performance of a job task within that area and meeting the required qualifications (40 Hour HAZWOPER trained) may be allowed entry. Before entering the exclusion zone, all personnel must be familiar with emergency response procedures, Site safety locations, first aid and communication equipment, and the locations of the map to the hospital and the list of emergency telephone numbers. Attempts will be made so that equipment and Site activities taking place in the exclusion zone are situated so that personnel are upwind of potential contaminant sources.

### *2.5.2 Contaminant Reduction Zone*

The contaminant reduction zone shall be located between the exclusion zone and the support zone. In this area authorized personnel (those with 40 Hour HAZWOPER training) will don protective equipment, as needed in the exclusion zone. When exiting the restricted area, personnel will remove contaminated PPE.

### *2.5.3 Support Zone*

The support zone shall extend beyond the exclusion and contaminant reduction zones, where other support activities shall occur, such as first aid, equipment supply, etc., and where vendors, subcontractors and inspectors, and the like, shall be allowed. The support zone shall be established prior to commencement of activities and shall serve as the entry point for controlling access.

Trespassers shall be immediately escorted outside of these established areas and all work within these areas shall halt until the trespasser has been removed.

## 3.0 ORGANIZATIONAL STRUCTURE

The following Walden personnel are the main parties involved with the project at hand.

| POSITION/TITLE | NAME/AFFILIATION | PHONE NUMBER/PAGER |
|---|---|---|
| Project Manager(s) | Joseph M. Heaney III, P.E. | 516-624-7200 (Office) |
| | Nora M. Brew, P.E. | 516-732-5378 (Mobile) |
| Site Safety Officer(s) | Erica Johnston | 631-521-1266 (Mobile) |
| | Louis Goldstein | 845-406-8242 (Mobile) |
| | Joseph Burden | 516-368-1663 (Mobile) |

### 3.1 Project Manager

The Project Manager has the responsibility and authority to direct all operations related to this project. The Project Manager is responsible to observe and provide guidance to employees, subcontractors and visitors with regard to safe work behavior and safety training, discuss deviations from the work plan and any safety issues that arise, assist the SSO with the development and implementation of corrective actions for Site safety deficiencies, the implementation of this HASP, and ensuring compliance.

### 3.2 Site Safety Officer

A qualified SSO will be continuously on the jobsite during the period of work and will have the authority to receive and execute any directions given by the owner representative in the absence of the Project Manager. The SSO will establish the necessary controlled work areas. The SSO will ensure that task areas are kept in a clean condition, free of rubbish and all undue accumulations and surplus materials while the work progresses. The SSO and/or Project Manager shall guarantee that all employees are fit for duty and that material and equipment is protected to prevent damage to employees and visitors, as well as, at the end of each work day, all rubbish and unused materials are removed and any damage done is repaired. These individuals will enforce this HASP, ensuring required safety equipment is on-site, clean and operable.

The SSO will coordinate all relevant health and safety issues, and may conduct specialized training and compliance inspections, as required. It will be the duty of the SSO to provide emergency training to associated personnel and, in the event of an emergency situation, to inform the local authorities as to the nature of the incident. In case of an emergency incident, the SSO

will be contacted immediately. The SSO is to work with the Project Manager to develop and implement any corrective actions that may be necessary.

The Project Manager and the SSO are responsible for periodically reviewing the HASP and its Attachments and any Supplements and, as necessary, amending them to keep current with new or changing conditions.

### 3.3 Employees

Employees are responsible for understanding and abiding by the policies and procedures specified in this HASP and other applicable safety policies, and clarifying those areas where understanding is incomplete; providing feedback to health and safety management relating to omissions and modifications in the HASP or other safety policies; and, notifying the SSO, in writing, of unsafe conditions and acts. Each employee shall sign this HASP (Section 9.0) in acknowledgement of such.

The health and safety authority of each employee assigned to the Facility includes the right to refuse to work and/or stop work authority when the employee feels that the work is unsafe (including subcontractors), or where specified safety precautions are not adequate or fully understood; the right to refuse to work on any task where the safety procedures specified in this HASP or other safety policies are not being followed; the right to contact the SSO at any time to discuss potential concerns; the right and duty to stop work when conditions are unsafe, and to assist in correcting these conditions.

### 3.4 Subcontractors

Subcontractors shall submit to the SSO a copy of their own health and safety plan or shall review and sign this document acknowledging acceptance and understanding of the information contained herein. Subcontractors are responsible for assigning specific work tasks to their employees. Subcontractors shall provide qualified employees equipped with the necessary PPE and training required for the task. Each subcontractor is responsible for compliance with the regulatory requirements that pertain to those services. Each subcontractor is expected to perform operations in accordance with their own unique safety policies and procedures, or those documented herein, in order to ensure that hazards associated with the performance of the work activities are properly controlled. Copies of any required safety documentation/certification for a subcontractor's work activities will be provided to Walden for review prior to the start of on-site activities, if required. Hazards not listed herein but known to any subcontractor must be identified to Walden prior to commencing any on-site activity. The Project Manager and SSO have the authority to halt any subcontractor operations, and to remove any subcontractor or

subcontractor employee for failure to comply with established health and safety procedures or for operating in an unsafe manner.

### 3.5 Visitors

Authorized visitors requiring entry to any work location on-site shall be briefed by the SSO on the hazards present prior to entry and acknowledge receipt of this briefing by signing this HASP. Visitors shall be escorted at all times within the controlled zones and shall be responsible for compliance with all health and safety policies. All visitors shall hold the appropriate qualifications, training and PPE which are required for entry to any controlled work area. Should a visitor requiring entry to an exclusion zone fail to meet the qualifications for that zone, all work activities within the exclusion zone shall halt while the visitor is within the controlled zone.

## 4.0 EMERGENCY RESPONSE

Site personnel must be prepared in the event of an emergency. Emergencies can take many forms including: illnesses, injuries, chemical exposure, fires, spills, leaks, releases of harmful contaminants, or sudden changes in the weather. Walden employees shall not participate in any emergency response where there are potential safety or health hazards (i.e., fire, explosion or chemical exposure); their actions will thus be limited to evacuation. Predetermined safe areas shall be determined and relayed by the SSO to all on-site personnel at the start of each shift and will be based on prevailing wind direction. Evacuation routes established by work area locations will be highlighted on a Site map and periodically reviewed. As the work areas change, the evacuation route and map will be altered accordingly, and the new route will be reviewed.

Emergency telephone numbers and a map to the nearest hospital shall be on-hand at the Facility. The hospital with an emergency room closest to the Facility is St. Luke's Cornwall Hospital at 70 Dubois Street, Newburgh, New York 12550. A map of the route to St. Luke's Cornwall Hospital is provided herein as **Attachment B**. Personnel shall be familiar with the emergency procedures, and the locations of safety, first aid and communication equipment.

### 4.1 Emergency Facilities and Telephone Numbers

| COMPANY | NAME | PHONE # |
|---|---|---|
| Walden Project Manager(s) | Joseph M. Heaney III, P.E. | 516-624-7200 (Office) |
| | Nora M. Brew, P.E. | 516-732-5378 (Mobile) |
| Walden Site Safety Officer(s) | Erica Johnston | 631-521-1266 (Mobile) |
| | Louis Goldstein | 845-406-8242 (Mobile) |
| | Joseph Burden | 516-368-1663 (Mobile) |
| iPark | Vinny Tancora | 203-948-3320 (Mobile) |
| Emergency Response | Police/Fire/Medical | 911 |
| | iPark Campus Emergency # | 845-894-3333 |
| St. Luke's Cornwall Hospital | | 845-568-2305 |
| NYSDEC Spill Hotline | | 518-457-7362 |
| American Association of Poison Control Centers | | 800-222-1222 |

First Aid Kit Locations: Within work vehicles on-site; Walden office on Facility grounds.

Fire Extinguishers: Walden office on Facility grounds and various locations throughout the Facility; the fire extinguisher location nearest to the work area will be identified before work commences.

### 4.2 Response Procedures

A communication network shall be established prior to commencement of any on-site tasks. At least one (1) on-site person shall have a phone accessible and in good working order at all times. Hand signals shall be used in instances when verbal communication is not feasible. The Project Manager, followed by the SSO, will immediately coordinate any and all emergency situations with the proper local medical/emergency organizations and personnel at the Facility. In the event of a fire, use of fire-fighting equipment available on-site may be administered, if appropriate; removing or isolating flammable or other hazardous materials that may contribute to the fire will be performed. The personnel on-site will coordinate evacuation procedures (if necessary) and remain a safe distance away from the area of health and safety concern. Personnel on-site may need to perform basic first aid as warranted by the emergency situation. Personnel with suspected neck or back injuries must not be moved. A detailed written report of the emergency situation will be provided within 24 hours to Walden by the Project Manager or SSO. Site security and control will be enforced by the SSO with consent for undertaken measures from the Project Manager. The SSO is responsible for pre-emergency planning, as well as emergency recognition and prevention.

### 4.3 First Aid Kit and Medical Emergencies

A basic first aid kit will be maintained and readily available (never locked up) at the Facility and within easy access to work areas (in personnel vehicles on-site). At a minimum, the first aid kit will include the following, as per ANSI Z308.1-1978: aspirin, bandage compresses, adhesive/triangular bandages (to keep wounds clean), medical tape, gauze, scissors, tweezers, sterilization lotion/cream, eye dressing, and antibacterial lotion/soap or pads. Items are to be replaced as they are used. Sterile items must be wrapped, sealed and used only once. Reusable items, such as scissors and tape, shall be kept clean. Should plentiful amounts of clean water not be available, eye flush shall be utilized. The number of first aid kits on-site shall be:

| Number of Persons Assigned to the Facility | Minimum First Aid Supplies |
|---|---|
| 1-5 | 10 Package Kit |
| 6-15 | 16 Package Kit |
| 16-30+ | 24 Package Kit |

Professional medical assistance is to be called in the event of a medical emergency. In the event of a medical emergency:

- Stay calm and seek help, do not delay in calling for more assistance;
- Do not provide medical assistance unless you are trained to do so;
- Do not move the injured party unnecessarily;
- Do not attempt to remove any object that may have impaled the victim;
- Check to ensure the victim has an open airway, is breathing and has a heartbeat (if not, immediate action is required prior to taking care of any additional injuries);
- Promptly control any bleeding;
- Treat the injured party gently and keep them calm and quiet, reassuring them that additional help is on the way;
- Do not administer any food or drink and never provide the injured party with alcohol;
- Gather as much information as you can about the accident/injury and the victim's condition and be prepared to report that to first responders, as well as any medical actions already taken; and
- Let emergency responders do their job and aid them in keeping others out of their way.

### *4.3.1 Burns*

For minor burns (redness or blisters over a small area), flush the wound with cold water and apply a sterile dressing; do not use butter or similar substance on any burn and do not break open blisters.

For major burns (white or charred skin; redness or blisters over a large area; burns on face, hands or genital area), cover the wound with sterile dressing and seek immediate emergency medical attention.

In the event of a chemical burn (spilled liquid or dry chemical on skin), promptly seek medical attention. For a liquid chemical burn, flush the wound with large amounts of water immediately and keep the water at a gentle flow. For dry chemical burns, brush off as much as possible before flushing with water. In both instances, flush the wound for at least five (5) minutes before covering with sterile dressing. Never use anything but water on a burned area and do not break open blisters.

### *4.3.2 Eye Wounds*

Should an individual find/feel they have a foreign object in their eye, do not rub the eye; have them pull their upper eyelid over their lower eyelid or run plain water over the eye. If the object persists, cover both eyes with a gauze dressing and aid them in seeking immediate emergency medical attention.

If the eye is wounded (eyelid or eyeball; pain; history of blow to eye area; discoloration), seek immediate emergency medical attention and apply loose sterile dressing over both eyes. For bruising, a cold compress or ice pack should be used to relieve pain and reduce swelling. Do not try to remove any imbedded object or apply any pressure to an injured eye.

If the eye has sustained a chemical burn, seek immediate emergency medical attention. Flush the open eye (it may be necessary to hold the patient's eyelid open) immediately with water for at least ten (10) minutes, twenty (20) minutes if the substance was alkali. Cover both eyes with sterile dressing. Never put anything but water in the eye.

## 4.4 Fire: Hazards, Prevention, Protection and Extinguishers

Many potential ignition hazards may exist on-site, including internal combustion engines, combustible materials and smoking. Combustible materials shall be kept well away from the exhaust of any internal combustion engine powered equipment. Smoking is prohibited except in designated areas, as determined by the SSO. Operations which constitute a fire hazard shall be identified as such, with signs conspicuously posted, stating: "No Smoking or Open Flame". Flammable gases and liquids shall be stored and handled in approved containers, places and as per the requirements described on the applicable Safety Data Sheet (SDS).

All employees who will use a fire extinguisher shall be trained on the use and hazards involved with firefighting initially and annually thereafter. All fire extinguishers shall be visually inspected monthly for general condition and adequate charge and serviced, tested, and certified by qualified personnel at least annually. Fire extinguisher inspection and maintenance are the responsibility of the Facility owner. Records of the annual maintenance check must be maintained. Only those employees designated as capable of using fire extinguishers shall be allowed to do so. Extinguishers shall be located and identified for easy accessibility.

It is imperative to use the proper extinguisher for a fire, as using the wrong one can spread the fire. Portable extinguishers shall be suitable for ABC class fires. The following table provides further information on types of fire extinguishers and their use:

| Class | Distribution | Notes |
|---|---|---|
| A ("A" on a green triangle) | 75’ or less travel distance between the employee and the extinguisher | Use on wood, paper, trash |
| B ("B" on a red square) | 50’ or less travel distance between hazard area and the employee | Use on flammable liquid, gas |
| C ("C" on a blue circle) | Based on the appropriate pattern for the existing Class A or Class B hazards | Use on electrical fires |
| D ("D" on a yellow star) | 75’ or less travel distance between the combustible metal working area and the extinguisher or other containers of Class D extinguishing agent | Use on combustible metals |

### *4.4.1 Fire Prevention*

The best method of protection against fire is prevention. The following rules are to be adhered to in an effort to prevent fire:

- Smoking is prohibited except in designated areas, as determined by the SSO. All smoking materials are to be totally extinguished and placed in appropriate receptacles;
- SDS’s shall be referred and adhered to prior to the moving, handling and storage of any chemical product;
- In order to prevent accidental ignition of combustible materials, heat producing equipment is to be properly maintained and operated as per the manufacturer’s instructions;
- All chemicals and combustibles must be stored in approved containers;
- Materials that severely react or combust when mixed must not be stored near each other;
- Chemical spills must immediately be cleaned, particularly in the case of spilled combustible or reactive materials. Damaged containers and cleaning materials must be properly disposed;
- Combustible materials and refuse must be segregated and kept from sources of ignition;

- All employees shall be made aware of the locations of fire extinguishers and hydrants and access to those resources shall be kept clear;
- The SSO shall notify all employees of any unusual fire hazard condition; and
- Good housekeeping practices are to be followed.

#### *4.4.2 Fire Protection*

All personnel shall be notified if a fire occurs; the local fire department shall also be notified. When notifying the local fire department: remain calm and speak clearly and slowly; give the exact location of the fire and describe the situation; give a phone number for the location you are calling from; and, do not hang up until you are told to do so.

### 4.5 Evacuation Procedures

In the event of an emergency which necessitates evacuation of the work area, personnel will notify other personnel verbally or otherwise. All personnel will immediately evacuate the work area, keeping upwind of smoke, vapors or spill location, to a predetermined safe area, without regard for equipment. The predetermined safe area will be specified to all personnel by the SSO prior to the start of field work. Personnel will not re-enter the area until all health and safety issues return to a satisfactory level. The SSO is responsible for selecting the most effective evacuation route, as well as designating safe distances and places of refuge. The SSO shall conduct a roll call to ensure that all personnel have been evacuated safely.

Evacuation procedures in case of personal injury of personnel will be conducted as follows:

- Another team member (buddy) should signal the SSO that the injury has occurred;
- A field team member trained in first aid can administer treatment to an injured worker;
- The victim should then be transported to the nearest emergency room (see **Attachment B**). If necessary, an ambulance should be called to transport the victim; and
- The SSO is responsible for making certain that an Accident Report Form is completed. This form is to be submitted to the Project Manager. Follow-up action should be taken to correct the situation that caused the accident.

If a member of the field crew demonstrates symptoms of chemical exposure, the procedures outlined below shall be followed:

- Another team member (buddy) is to remove the individual from the immediate area of contamination if it is safe for them to do so. The buddy shall communicate to the SSO

(via voice/hand signals) about the chemical exposure. The SSO will then contact the appropriate emergency response agency;
- Precautions must be taken to avoid exposure of other individuals to the chemical;
- If the chemical is on the individual's clothing, the chemical shall be neutralized or removed if it is safe to do so;
- If the chemical has contacted the skin, the skin shall be washed with copious amounts of water; and
- In case of eye contact, an emergency eye wash is to be used. Eyes should be washed for at least fifteen (15) minutes.

All chemical exposure incidents must be reported in writing to the Project Manager. The SSO is responsible for completing the accident report.

### 4.6 Spill Containment

In an effort to prevent spills, all hazardous material will be stored in appropriate containers and the tops/lids will be placed back on the containers after use. Hazardous materials brought on-site shall come with the appropriate SDS (the SDS sheets for chemicals that are most likely to be encountered on-site are attached to this HASP in **Attachment C**), will be stored appropriately, with labels, and away from moving equipment. Containers will be lifted/moved utilizing equipment appropriate for the task and secured and handled in a manner which minimizes spillage and reduces the risk of personal injury. At least one (1) spill response kit shall be available at the Facility.

All environmental spills or releases of hazardous materials are to be immediately reported to the SSO and dealt with according to the chemical manufacturers recommended procedures, which can be found on the SDS. The SDS for chemicals/contaminants identified during historic Site investigations and known to be associated with the Facility are provided in **Attachment C**. If any materials brought on-site during the work come with an SDS, that SDS will be added to **Attachment C**.

### 4.7 Incident Reporting

If an accident, fire, or release of toxic materials occurs during the course of work, the Project Manager shall be telephoned immediately and receive written notification within 24 hours. That notification shall include the following information:

- Name, organization, telephone number, and location of the Contractor;
- Name and title of the person(s) reporting;
- Date and time of the accident/incident;

- Location of the accident/incident (i.e. site location, facility name);
- Brief summary of the accident/incident giving pertinent details including type of operation ongoing at the time of the accident/incident;
- Cause of the accident/incident, if known;
- Casualties (fatalities, disabling injuries);
- Details of any existing chemical hazard or contamination;
- Estimated property damage and effect on contract schedule;
- Action taken by Contractor to ensure safety and security; and
- Other damage or injuries sustained, public, or private.

If any employee of a subcontractor is injured, documentation of the incident will be recorded in accordance with the subcontractor's procedures; however, copies of all documentation (which at a minimum must include the OSHA Form 301 or equivalent) must be provided to the SSO within 24 hours after the accident has occurred. All accidents/incidents will be investigated. Copies of all subcontractor accident investigations will be provided to the SSO within five (5) days of the accident/incident.

## 5.0 GENERAL HEALTH AND SAFETY REQUIREMENTS

All Site personnel shall conduct themselves in a safe manner and maintain a working environment that is free of additional hazards.

### 5.1 Qualifications and Training

All personnel performing work at the Facility must be qualified for their assigned project task, as determined by the Project Manager. They must meet the training and medical monitoring requirements necessary for the task and as described herein. If possible exposure above an OSHA permissible exposure limit (PEL) has or is expected to occur, employees must be required to receive supplemental medical testing to document any symptoms that may be specific to the particular materials present.

Training programs instruct employees on the intent of the OSHA standards, health and safety principles and procedures, proper operation of monitoring instruments, use of personal protective equipment, decontamination, and specific emergency plans. All personnel are required to remain current in all of their required training and evaluate their need for additional training when there is a change in work. In addition to the general health and safety training programs, personnel will be required to complete any supplemental task specific training (e.g. OSHA 40 Hour HAZWOPER training) developed for the tasks to be performed. Administration and compliance with the requirements for additional task-specific training will be the responsibility of the Project Manager. Any additional required training that is completed will be documented and tracked in the project files. Additional training will be provided to any employees responsible for responding to emergencies.

A copy of this HASP will also be made available to all personnel for review. All employees on-site will sign the Record of HASP Acknowledgement form (refer to Section 9.0) to verify they have reviewed this Plan. Any subcontractors involved in implementing the work plan will be required to acknowledge that their employees have received adequate training.

All on-site personnel involved with the project will attend a pre-entry briefing on the contents of this HASP, including chemical and physical hazards associated with the Facility. The initial health and safety briefing will consist of the following information:

- Names of personnel and alternates responsible for worker safety and health;
- Injury, illness, and other potential project hazards;
- Safe use of engineering controls and equipment on-site;

- Work practices by which the employee can minimize risks from hazards;
- Selection, use, care, and maintenance of PPE; and
- Standard operation safety procedures.

Documentation of all training, testing and medical monitoring certificates (if applicable) will be maintained by Walden.

### *5.1.1 Hazardous Communication Training (29 CFR 1910.1200)*

Hazardous materials that may be encountered as existing on-site environmental or physical/health contaminants during the work activities are addressed in this HASP and their properties, hazards and associated required controls will be communicated to all affected employees and subcontractors, as per OSHA's Hazard Communication Standard. All personnel shall be briefed on the hazards of any chemical product they use and shall be aware of and have access to all SDS; these employees must be 40 Hour HAZWOPER trained.

All containers on-site shall be properly labeled in compliance with the Globally Harmonized System to indicate their contents. Labeling on any containers not intended for single day, individual use shall contain additional information indicating potential health and safety hazards (flammability, reactivity, etc.). SDS for chemicals/contaminants known to be associated with the Facility are provided in **Attachment C**. If any materials brought on-site during the work come with an SDS, that SDS will be added to **Attachment C**.

### *5.1.2 Visitor Training*

All visitors to work areas will be informed of the hazards and necessary personal protective equipment associated with those areas, should they require entry to controlled work areas. Visitors shall also be briefed on emergency procedures.

## 5.2 General Safety

The SSO shall inspect work areas prior to commencement of daily activities. The SSO will take all corrective measures necessary to perform safe work at the Facility. All inspections and corrective measures will be documented and communicated to Site workers at the initial safety meeting and subsequent safety meetings.

Employees will practice contamination avoidance to include not walking through puddles or mud unnecessarily, avoiding kneeling on the ground or leaning on equipment whenever possible, or setting equipment on the ground. Weather conditions that may escalate potential hazards such as lightning, rain or extreme temperatures, will be recorded in the project files.

Employees will use extreme caution in inclined areas. Ground surfaces may be wet and slippery and may have hazardous objects protruding from the surface.

Dependent on the season in which the work will be performed, employees should exercise caution when encountering animals (e.g. snakes, spiders, bees, wasps, ticks, mosquitoes, ants, etc.) at the Facility. Employees who are known to be highly sensitive to insect stings should carry a "sting kit" and notify the SSO. All employees are encouraged to use permethrin (0.5%) clothing repellent and DEET (30%) skin repellent for protection against ticks and mosquitoes.

Hearing protection devices will be available to be worn by all field personnel in work areas where noise levels are at or above 85 decibels (dBA). The use of hearing protection devices when the noise levels exceed 85 dBA on an 8-hour average is a condition of employment.

### *5.2.1 Tailgate Safety Meetings*

The SSO will conduct an informational safety meeting at the start of each workday to ensure that all on-site personnel (those entering the exclusion, contaminant reduction and support zones) understand changing conditions and daily operating procedures, and to address safety questions and concerns; these topics shall typically require ten (10) minutes to discuss and shall be recorded in the field notebook. Additional meetings may be conducted, as required. Attendance is mandatory and an attendance record shall be kept by the SSO. Any person who observes safety concerns or potential hazards that have not been addressed in the daily safety meeting should immediately report observations/concerns to the SSO. Meetings will include pertinent information regarding the day's work and include, but will not be limited to, the following:

- The whereabouts of any hazardous chemicals near specific work areas;
- Methods used to detect the presence or release of hazardous chemicals;
- The physical and chemical health hazards of the Facility;
- Protective measures such as safe work practices, emergency procedures, and PPE;
- Details regarding the proper use of protective measures and SDS's;
- Target activities for the day's work;
- Changes in observed exposure levels; and
- Staff changes (e.g., due to vacations, reassignments, etc.) and responsibilities.

### *5.2.2 Housekeeping*

During project activities, work areas will be continuously policed for identification of excess trash and unnecessary debris. Excess trash and debris will be collected and stored in an

appropriate container (e.g., plastic trash bags, garbage can, roll-off bin) prior to disposal. All electrical equipment must be grounded.

### *5.2.3 Hazardous, Solid or Municipal Waste*

If hazardous, solid, and/or municipal wastes are generated, the waste shall be accumulated, labeled, and disposed of in accordance with all applicable Federal, State and/or local regulations. If equipment or materials that will be used (i.e., calibration gases, lithium batteries, etc.) need to be shipped but fall under criteria that define them as hazardous materials under Department of Transportation (DOT) regulations 49 Code of Federal Regulations (CFR) Parts 171-177, then they must be shipped in accordance with those regulations by an individual who is certified as having been "function-specific" trained, as required under the DOT regulations.

### *5.2.4 Smoking, Eating and Drinking*

Eating, drinking, or smoking is permitted only in designated areas in the support zone. An exception is made for the replacement of fluids as a preventive measure for heat stress. Workers will first wash hands and face immediately after leaving controlled work areas (and always prior to eating or drinking).

### *5.2.5 Personal Hygiene*

The following personal hygiene requirements will be observed:

- No contact lenses shall be worn in the exclusion zone without the use of additional eye protection;
- If work is to be performed outdoors on a building perimeter, protective clothing that is loose fitting and covers arms and legs to protect against sunlight during times of high levels of ultraviolet exposure (May through September) shall be worn; hats, sunscreen that provides UVA and UVB protection and sunglasses shall also be donned, as appropriate;
- A water supply meeting the following requirements will be utilized:
    - *Potable Water* - An adequate supply of potable water will be available for personnel consumption. Potable water can be provided in the form of water bottles, canteens, water coolers, or drinking fountains. Where drinking fountains are not available, individual-use cups will be provided as well as adequate disposal containers. Potable water containers will be properly identified in order to distinguish them from non-potable water sources; and
    - *Non-Potable Water* - Non-potable water may be used for job tasks and cleaning activities only. Non-potable water will not be used for drinking purposes or for

hand washing. All containers of non-potable water will be marked with a label stating: "***Non-Potable Water - Not Intended for Drinking Water Consumption"***.

- Access to nearby toilet facilities shall be maintained; and
- Employees will be provided washing facilities (e.g., buckets with water and soap). The use of water and hand soap (or similar substance) will be required by all employees following exit from the exclusion zone, prior to breaks, and at the end of daily work activities.

#### *5.2.6 Stop Work Authority*

All employees have the right and duty to stop work when conditions are unsafe and to assist in correcting these conditions. Whenever the SSO determines that workplace conditions present an uncontrolled risk of injury or illness to employees, immediate resolution shall be sought. Stop work shall be immediately binding on all affected employees and subcontractors. Upon issuing the stop work order, the SSO shall implement corrective actions so that operations may be safely resumed. Resumption of safe operations is the primary objective; however, operations shall not resume until the SSO and Project Manager concur that workplace conditions meet acceptable safety standards.

#### *5.2.7 Severe Weather*

Severe weather can occur with little warning. Employees will be vigilant for the potentials for storms, lightning, high winds, and flash flood events. The SSO will be attentive to daily weather forecasts for the project area each morning. For activities occurring outdoors, the following conditions will be observed:

- Condition #1 – Storm threat within 24 hours: stow non-essential gear indoors and maintain a six (6) hour weather watch; and
- Condition #2 – Storm threat within 12 hours: securely lash down all moveable gear, drums, pipes, tools, etc. and maintain a three (3) hour weather watch.

### 5.3 Communication Procedures

Personnel will be informed of all known Facility hazards during an initial safety meeting and will be kept informed of hazards discovered during work activities.

- Personnel within the exclusion zone will remain in constant communication or within sight of other personnel. Failure of communication requires evacuation of the exclusion zone until communication is reestablished;

- The emergency signal will be one of the following:
    - Any blast from a pressurized air horn or vehicle horn; and
    - Verbal notification.
- The following standard hand signals will be used:
    - Hand gripping throat -- Out of air and cannot breathe;
    - Grip buddy's wrist -- Leave area immediately;
    - Both hands on buddy's waist -- Leave area immediately;
    - Hands on top of head -- Need assistance;
    - Thumb down -- No/negative; and
    - Thumb up -- Yes/I am OK/I am alright.

### 5.4 Hazard Communication

SDSs, along with a list of those materials covered by the SDSs, will be available to all personnel (including subcontractors) for all hazardous substances brought on-site. SDS for chemicals/ contaminants known to be associated with the Facility are provided in **Attachment C**. SDS's for materials later brought on-site shall come with an SDS, which is to be included in **Attachment C**. Any employee or subcontractor intending to bring a hazardous material onto the jobsite must first provide a copy of the SDS to the SSO for review and filing. Should an SDS be necessary but not available for the material in question, the material may not be brought onto the Facility.

All containers on-site shall be properly labeled to indicate their contents. Labeling on any containers not intended for single-day, individual use shall contain additional information indicating potential health and safety hazards (flammability, reactivity, etc.). Prior to starting work, personnel, including any subcontractors, will be briefed by the SSO regarding hazardous chemicals and their properties, hazards and associated required controls present at the work-site that personnel could use or be exposed to.

### 5.5 Medical Monitoring

OSHA has established requirements for a medical surveillance program designed to monitor and reduce health risks for employees who may potentially be exposed to hazardous materials. The medical surveillance program has been designed to provide baseline medical data for each employee involved in hazardous material operations. Each employee must undergo testing and training, and a determination of his/her ability to wear PPE and carry out certain tasks. Medical examinations must be administered during pre-employment, on an annual basis, upon employment termination, and as warranted for potential chemical exposure. These examinations shall be provided by employers without cost or loss of pay to the employee. In accordance with 29 CFR 1910.1020, medical surveillance records should be maintained for thirty (30) years past employment and shall be available to the employee, owner, or regulatory agencies, as required.

Due to potential exposure to hazardous materials, all contractors, employees, subcontractors and other prime contractors involved in Facility activities within the exclusion zone will be informed about the medical monitoring program meeting specifications of 29 CFR Part 1926.1153. Each contractor shall assume the responsibility of maintaining a medical surveillance program (if needed) as well as maintaining personnel medical records, as regulated by 29 CFR 1910.1020, for all personnel, including subcontractors, who will be on-site. Subcontractors working on the job must provide the SSO with documentation on their medical monitoring programs.

## 5.6 Logs, Reports and Record Keeping

Walden shall keep a permanently bound logbook containing as a minimum the following information:

- Agency property number, facility name, address, location and project duration;
- Contractor name, address, phone number;
- A list of Contractor personnel assigned to the project; and
- A day-to-day record of personnel entering the work area, short description of the day's work, and a record of any significant or unusual events occurring during the course of work, including but not limited to inspections, observations, unusual incidents, (e.g. damage, unexpected visitors, etc.). The project narrative is to be kept by the Project Manager.

The SSO and Project Manager will ensure that all records are kept up to date and maintained in accordance with applicable regulations. The following items will be recorded in the daily field log in waterproof, permanent ink:

- Daily list of field personnel;
- Record of all visitors;
- Training logs;
- Levels of PPE worn by workers and, as appropriate, visitors;
- Exposure work-hours and a log of occupational injuries and illnesses;
- Accident investigations;
- Daily record of all first aid treatments not otherwise reportable; and
- Daily health and safety inspection report.

## 6.0 HAZARD ASSESSMENT

This section identifies the general and activity-specific hazards associated with Facility operations and what should be implemented to reduce the hazards; identifies general physical hazards that can be expected; and presents a summary of documented or potential chemical hazards that may be encountered during the soil investigation work, as well as biological hazards. Every effort must be made to reduce or eliminate these hazards. Those which cannot be eliminated must be guarded against by using engineering controls and/or personal protective equipment.

### 6.1 Physical Hazards

The following physical hazards may be associated with the project at hand:

#### *6.1.1 Site Mobilization/Demobilization*

Mobilization and demobilization activities may cause health injuries during traffic accidents. Manual materials handling and manual site preparation may cause blisters, sore muscles and joints, and skeletal injuries. It may also present the potential for eye hazards, contusions and lacerations. Slippery work surfaces can increase the likelihood of back injuries, overexertion injuries, slips and falls.

Underground utilities must be identified before commencing any subsurface work.

#### *6.1.2 General Work Activities*

Tasks required for this project may involve exposure to slipping/tripping/falling, manual lifting, noise, heat/cold stress, electrical, hand and power tools, operation of motorized vehicles, and other physical hazards associated with soil investigation activities. All work at this Facility will be conducted during daylight hours.

*Slipping/Falling*: Slips, trips and falls are the most common workplace incidents and can result in serious injuries, even death. General housekeeping of the Site, PPE, attention to your surroundings, minimizing distractions and warding off fatigue can all help to minimize risk of slips, trips and falls. Work areas shall be kept free of any materials, obstructions and substances that could cause a hazardous situation. Workers shall ensure clear footing and avoid obstructions, holes, protruding objects or other tripping hazards and look out for uneven, unstable and slippery terrain. Designated routes shall be taken, not shortcuts, and makeshift substitutes of equipment must not be used. Workers are prohibited from horse-play and shall ensure a clear path prior to carrying/moving equipment.

*Manual Lifting*: Lifting/carrying of equipment and materials may cause strains, particularly back injuries, fatigue and over-exertion. Proper lifting techniques should be exercised; bend at the knees, let your legs do the lifting, do not twist while lifting, bring the load as close to you as possible prior to lifting, be sure there is a clear walking path, use mechanical devices for heavier objects, team lift.

*Noise*: The operation of certain equipment (e.g., generator, nearby construction work, etc.) may result in momentary high noise levels which could result in temporary to permanent hearing loss and interference in communication. Hearing protection (e.g. ear plugs, ear muffs) will be used as necessary; as a rule of thumb, if it becomes necessary to shout at someone three (3) feet away, hearing protection should be worn.

*Eye Protection*: All Facility-related operations involving possible eye injury (chemical splash, etc.), must have approved eye wash units readily available. Protective eyewear shall be donned in Level D, when directed by the SSO.

*Heat Stress*: Monitoring of personnel wearing personal protective clothing should commence when the ambient temperature is 72°F or above. Monitoring frequency should increase as ambient temperature increases or as slow recovery rates are observed. Heat stress monitoring should be performed by the SSO, who shall be able to recognize symptoms of heat stress; refer to **Attachment D**.

Proper training and preventive measures will aid in averting loss of worker productivity and serious illness. Heat stress prevention is particularly important because once a person suffers from heat stroke or heat exhaustion, that person may be predisposed to additional heat-related illness. To avoid heat stress, the following steps should be taken:

- Adjust work schedules;
- Mandate work slowdowns as needed;
- Perform work during cooler hours of the day if possible or at night if adequate lighting can be provided;
- Provide shelter (air conditioned, if possible) or shaded areas to protect personnel during rest periods; and
- Maintain workers' body fluids at normal levels. This is necessary to ensure that the cardiovascular system functions adequately. Daily fluid intake must approximately equal the amount of water lost in sweat, i.e. eight (8) fluid ounces (0.23 liters) of water must be ingested for approximately every eight (8) ounces (0.23 kg) of weight lost. When heavy

sweating occurs, encourage workers to drink more. The following strategies may be useful:

- Maintain water temperature between 50° and 60°F (10° to 16.6°C);
- Provide small disposal cups that hold about four ounces (0.1 liter);
- Have workers drink sixteen (16) ounces (0.5 liter) of fluid (preferably water or dilute drinks) before beginning work;
- Urge workers to drink one (1) or two (2) cups every 15 to 20 minutes, or at each monitoring break. A total of 1 to 1.6 gallons (4 to 6 liters) of fluid per day are recommended, but more may be necessary to maintain body weight; and
- Train workers to recognize the symptoms of heat-related illness.

Should an employee display signs of heat exhaustion (fatigue, weakness, profuse sweating, normal temperature, pale clammy skin, headache, cramps, vomiting, fainting), they are to be immediately removed from the hot area and lay down with their feet raised. Their clothing should be loosened or removed and cool, wet clothes applied. If the victim is not vomiting, they should be encouraged to take small sips of water.

Should an employee display signs of heat stroke (dizziness, nausea, severe headache, hot and dry skin, confusion, collapse, delirium, coma and death), seek immediate emergency medical attention. Remove the victim from the hot area and remove clothing, lay them down and cool their body (shower, cool wet clothes); do not give stimulants to the victim. Refer to **Attachment D** for further instruction.

*Cold Stress*: Cold stress is a result of cold, wetness, and wind. A worker's susceptibility to cold stress can vary according to their physical fitness, degree of acclimatization to cold weather, age, and diet. If work on this project occurs during winter months, thermal injury due to cold exposure can become a problem for on-site personnel. A cold-stress monitoring program shall be implemented, as appropriate. Workers should be aware of the local cold exposure hazard (frostbite) and the overall cold exposure hazard (hypothermia). Refer to **Attachment E** for further information on Cold Stress.

To prevent cold-related illness:

- Educate workers to recognize the symptoms of frostbite and hypothermia;
- Identify and limit known risk factors;
- Assure the availability of enclosed, heated environments on or adjacent to the Site;
- Assure the availability of dry changes of clothing;
- Assure the availability of warm drinks; and

- Start oral temperature recording at the Site:
  - At the SSO or Project Manager's discretion when changes in a worker's performance or mental status are suspected;
  - At a worker's request;
  - As a screening measure, two (2) times per shift, under unusually hazardous conditions (e.g. wind chill less than 20°F or wind chill less than 30°F with precipitation); and
  - As a screening measure whenever any worker at the Facility develops hypothermia.

*Electrical*: Hazards associated with electricity include shock, electrocution, burns, fires and explosions, as well as trip and fall hazards from power cords, and including electrical hazards and exposure to carbon monoxide from the use of portable generators. No work is to be performed on electrical equipment or near any part of an electrical circuit unless the worker is protected against shock by guarding or de-energizing and grounding the circuit. Ground Fault Circuit Interrupters (GFCIs) are required for portable tools. Extension cords shall be rated for hard or extra hard use and must be capable of grounding. All cords shall be inspected prior to use for wear and exposed wiring, strain, rips, tears, cuts or burns; defective cords shall be taken out of commission. Generators shall be fueled only after being shut down and allowed to cool, in addition, portable generators shall not be utilized indoors; the exhaust is to pointed downwind from workers.

*Hand and Power Tools*: The use of hand and power tools can present a variety of hazards, including physical harm from being struck by flying objects, being cut or struck by the tool, sparks, fire, abrasions, contusions and electrocution, or being exposed to harmful dusts, fumes, mists, vapors or gases. Ground Fault Circuit Interrupters are required for portable tools. Workers shall confirm that all tools are in proper operating condition and that they are used in accordance with applicable manufacturers' recommendations. All appropriate PPE must be provided and utilized throughout the duration of applicable tasks.

*Operation of Motorized Vehicles*: Moving vehicles can be a danger whether one is within or outside of a vehicle. Distracted drivers, drivers under the influence of drugs/alcohol, tired drivers can all lead to injury, damage or death. Only authorized workers may operate motorized vehicles. Site conditions may include off-road surfaces and operation should be performed according to ground conditions. Authorized drivers must comply with all applicable state laws while operating the vehicle and possess the appropriate qualifications. Loads shall be secured and within the appropriate weight limit for the vehicle (including the number of passengers). Vehicles shall be inspected prior to use and taken out of commission if deemed unsafe. The vehicles shall be properly maintained. Operators are not to be distracted, should wear seatbelts anytime a vehicle is in motion and headlights shall be used during operation. Operation by an

employee who has recently partaken in consumption of alcoholic beverages and/or illegal drugs is prohibited.

## 6.2 Chemical Hazards

Previously identified chemicals used at various locations throughout the Facility, thus potentially contained in soil and groundwater, include:

| Chemical | OSHA Permissible Exposure Limit (PEL), 8-Hour Time-Weighted Average (TWA) | OSHA Short-term Exposure Limit (STEL) |
|---|---|---|
| Tetrachloroethylene | 25 ppm* | 100 ppm |
| Trichloroethylene | 25 ppm | 100 ppm |
| 1,2-Dichloroethene | 200 ppm | n/a |
| Vinyl Chloride | 1 ppm | n/a |
| Freon-113 | 500 ppm | n/a |

*ppm = parts per million

The major route of exposure to these contaminants will be respiratory in nature, however dermal exposure is also possible. Inhalation of vapors and contaminated dusts would provide the mechanism for respiratory exposure. Skin contact with soils and groundwater would result in dermal exposure. Facility-related work will use engineering controls, work practices, air monitoring and personnel protective equipment to reduce the amount of potential exposure. Restricting access to controlled work areas, staying upwind of potential sources, adhering to personal hygiene practices and wearing proper safety equipment will reduce risk of injuries.

During construction, excavation, sampling and soil management activities, air monitoring shall be performed with a PID and/or multi-gas meter to determine if workers are at risk for chemical exposure. Air monitoring equipment shall be calibrated daily and noted in a log book. Air monitoring shall be performed by trained Walden individuals, only. If concentrations exceed time-weighted average (TWA), the SSO shall immediately instruct the workers to stop work. Once everyone is removed from the work area, the SSO shall consider the following measures, listed in order from most desirable to least desirable:

- Installation of engineering controls (e.g. ventilation, containment of source);
- Administrative controls; and
- Donning of PPE; upgrading PPE.

The SSO shall decide which of the above options are feasible and make a rational decision based on available resources. Workers shall not be allowed back into the work zone until the chemical hazard is properly mitigated, with no exceptions. Refer to Section 7.2 below for further information.

## 6.3 Biological Hazards

Potential biological hazards include illnesses and/or injuries transmitted by plants, insects, animals, and pathogenic agents.

### *6.3.1 Plants*

Contact with poisonous plants, such as ivy, oak and sumac, can cause skin irritation referred to as contact dermatitis, which may appear as a red, itchy rash consisting of small bumps, blisters or swelling, caused by the urushiol on the leaves, stems, roots and vines. These vines/shrubs/ground cover grow in woods and fields alike, as well as in both wet and dry areas. Workers will avoid contact with these plants. If work is to take place in a field or wooded area where poisonous plants may exist, precautions shall be implemented to avoid contact including wearing protective clothing, using Tyvek™ coveralls and nitrile gloves, or using a barrier cream. If contact is suspected, workers will immediately wash all exposed skin/materials with a strong soap and water to remove the oil. Personnel that believe they may have been in contact with such plants during work at the Facility should notify the SSO or Project Manager of such an incident immediately.

### *6.3.2 Animals*

During operations at the Facility, animals such as dogs, pigeons, sea gulls, mice, and rats may be encountered. Contact with such animals can cause rabies (dog's or squirrel's bite); Hantavirus (rat and mice droppings); psittacosis, crytococcosis, and histoplasmosis (dried bird droppings). Workers will use discretion and avoid all contact with animals.

### *6.3.3 Insects*

Bees, wasps, hornets, mosquitoes, ticks and spiders may be present at the Facility. Some individuals may have severe allergic reactions to an insect bite or sting that can result in a life-threatening condition. In addition, mosquito bites may lead to St. Louis encephalitis or West Nile encephalitis. Personnel that have been bitten or stung by an insect during work at the Facility should notify the SSO or Project Manager of such an incident immediately. Workers will wear protective clothing and footwear, apply insect repellent prior to work, and avoid contact with bushes, tall grass, or brush to the extent possible. Field personnel who may have

insect allergies should provide this information to the SSO or Project Manager in advance and will have allergy medication on-hand.

### *6.3.4 Blood-borne Pathogens*

Blood-borne pathogens (BBPs) include diseases that can be transmitted by contact with blood or other bodily fluids as well as contaminated items which may be encountered (e.g., used syringes, medical pads, etc.). Universal precautions shall be used when administering first aid. Good hygiene practices and proper decontamination of non-disposable PPE will minimize potential for transmission of BBPs.

## 7.0 EXPOSURE MONITORING

The following is a discussion of the hazards presented to worker personnel during work at this Facility from on-site physical and chemical hazards known, suspected or anticipated to be present on-site at the time this HASP was prepared.

### 7.1 Noise

Noise levels are measured in units of dBA, which matches the response of the human ear, and are measured on the A-scale of a standard sound level meter at slow response. Normal conversation produces a noise level of 60 dBA, while power tools often produce levels between 90-110 dBA. If two people standing an arm's length apart must raise their voices to talk, the noise level is over 85 dBA. Noise levels above 140 dBA cause pain immediately and produce hearing damage. Decibels are a logarithmic scale, meaning that 100 dBA is ten (10) times as loud as 90 dBA, 100 times as loud as 80 dBA, and 1,000 times as loud as 70 dBA.

Hearing protection (disposable or reusable type) will be utilized by any on-site personnel potentially exposed to either continuous or impact noise levels exceeding 90 dBA (slow response) for an 8-hour work shift. Should employees be exposed to such sound levels, all feasible administrative and engineering controls shall be utilized. If such controls fail to reduce sound levels within the specified sound levels provided in the table below, PPE shall be provided and used to reduce sound levels within the levels provided in the table. A sound is considered if the variations in noise level involve maxima intervals of one (1) second or less. Exposure to impulsive or impact noise should not exceed 140 dB peak sound pressure level.

**Permissible Noise Exposure Table**

| Duration Per Day (Hours) | Sound Level (dBA) |
|---|---|
| 8 | 90 |
| 6 | 92 |
| 4 | 95 |
| 3 | 97 |
| 2 | 100 |
| 1.5 | 102 |
| 1 | 105 |
| 0.5 | 110 |
| 0.25 | 115 |

### *7.1.1 Hearing Conservation Program*

In all cases where the sound levels exceed the values shown in the table above, a continuing, effective hearing conservation program shall be administered. The program shall equip employees with the knowledge and hearing protection devices necessary to safeguard themselves from occupational hearing loss. The program shall consist of the following elements:

- Monitoring of employee noise exposures;
- The institution of engineering, work practice, and administrative controls for excessive noise;
- The provision of each overexposed employee with an individually fitted hearing protector with an adequate noise reduction rating;
- Employee training and education regarding noise hazards and protection measures;
- Baseline and annual audiometry;
- Procedures for preventing further occupational hearing loss by an employee whenever such an event has been identified; and
- Record keeping.

## 7.2 Chemical Contaminants

OSHA Permissible Exposure Limits (PEL) and American Conference of Governmental Industrial Hygienists (ACGIH) Threshold Limit Values (TLV) may be exceeded during soil and groundwater investigative activities or when contaminated media are exposed or disturbed during construction or other activities. These activities will be closely monitored and evaluated to determine potential for exceeding standards and the need to implement control measures to protect personnel and the environment.

### *7.2.1 Air Monitoring*

Direct reading instruments will be used in active work areas in order to enable rapid field decisions regarding levels of respiratory protection, as well as indicate the need for increased monitoring frequency at the edge of the exclusion zone. Walden staff will conduct air monitoring during all intrusive activities.

A MiniRAE or equivalent PID, which is calibrated daily and adjusted to give maximum sensitivity to the contaminants of concern will be used to monitor the air on a continuous basis while intrusive activities are performed. Should the meter read 0.5 parts per million (ppm) or greater above background in the breathing zone for more than one (1) minute and the source of the reading is unknown, work will be stopped until PPE is upgraded; the same holds true if the

meter reads greater than five (5) ppm above background levels in the breathing zone for more than thirty (30) continuous seconds.

PPE requirements and upgrade thresholds are summarized in the tables presented below:

**Personal Protective Equipment Requirements Table**

| Location | Level of Protection/Tasks | Description |
|---|---|---|
| Support Zone | D | Steel toe boots and work clothes |
| Exclusion Zone and Contaminant Reduction Zone | To be determined by the site safety officer based on contamination present | |
| | D (modified) | Steel toe boots, nitrile or latex gloves, hard hat, safety glasses |
| | C | Full face respirator fitted with organic vapor cartridge and Level D PPE. |
| | B | Positive pressure, pressure demand self-contained breathing apparatus or positive pressure, pressure demand supplied air and Level C PPE. |

## Air Monitoring Action Levels Table

| Instrument | Hazard Monitored | Instrument Reading | Action Required |
|---|---|---|---|
| PID | Organic Vapors | 0.5 ppm or greater above background in the breathing zone for 1 minute and the source of the reading is unknown.<br><br>5 ppm or greater above background in the breathing zone for 30 continuous seconds | PPE will be upgraded to Level C.<br><br>Stop work. Evaluate the source and upgrade Level C to Level B. |
| Combustible Gas Indicator | Explosive Vapors | >10% LEL | Explosion hazard! Withdraw from the area immediately until LEL <10%. |
| Oxygen Meter | Oxygen | <19.5% $O_2$ | Stop work and withdraw from area until oxygen levels increase. |

The following are examples of actions that can be implemented in addition to PPE upgrades to reduce the potential for contaminant release and exposure:

- Cover areas of exposed soils;
- Increase ventilation; and
- Install measures to contain areas of contaminant release.

## 7.3 Calibration

Any exposure monitoring instruments used will be calibrated at the beginning of each work shift, in accordance with the manufacturer's recommendations. If the owner's manual is not available, the personnel operating the equipment will contact the applicable office representative, rental agency or manufacturer for technical guidance for proper calibration. If equipment cannot be pre-calibrated to specifications, operations requiring monitoring for worker exposure will be postponed or temporarily ceased until this requirement is completed.

## 8.0 PERSONAL PROTECTIVE EQUIPMENT

The purpose of PPE is to provide a barrier, which will shield or isolate individuals from the chemical and/or physical hazards that may be encountered during work activities. The level of worker protection can be increased or reduced if determined by an employee exposure assessment. Until an employee exposure assessment is complete, the following procedures and PPE shall be made available:

- Head protection;
- Foot protection;
- Hand protection;
- Eye protection;
- Hearing protection; and
- Respiratory protection.

By signing this HASP (Section 9.0) the employee agrees to having been trained in the use, limitations, care and maintenance of the PPE to be used by the employee at this project. If training has not been provided, request same of the SSO for the proper training before signing.

### 8.1 Head Protection

Workers and individuals within work areas where overhead work is being performed must wear protective helmets. The protective helmets will reduce the potential for permanent injury to the head from falling and/or sharp edged objects. The head protection shall comply with the ANSI and the International Safety Equipment Association (ISEA) latest standard ANSI/ISEA Z89.1-2014, "Industrial Head Protection".

### 8.2 Foot Protection

All personnel and individuals in the work areas will wear steel-toed or equivalent protective footwear to help prevent foot injuries from falling or rolling objects, objects piercing the footwear sole, and/or exposure to electrical hazards. The footwear will be properly secured to the feet at all times. Protective footwear will comply with the American National Standard for Safety-Toe Footwear, Z41.1-1967.

### 8.3 Hand Protection

All workers entering the work areas will use hand protection to prevent injuries caused from exposure, abrasions, lacerations, and burns of any type. The performance characteristics of the

hand protection will reflect the task(s) of the individual worker. If worn, protective disposable clothing will cover the hand protection as much as possible.

### 8.4 Eye Protection

All workers and individuals within the work areas will use appropriate eye protection to reduce the potential of damage caused by splashing, falling or flying objects/materials. The eye protection should fit securely on the face so the objects/materials will not enter from any side of the protection (goggles that seal to the face using an elastic headband are recommended). Eye protection will comply with ANSI/ISEA Z87.1-2015 Standards.

### 8.5 Hearing Protection

All workers and individuals within the work areas will use appropriate hearing protection if operations produce noise levels that exceed levels given in the permissible noise exposure table provided in Section 7.1. Exposure to impulsive or impact noise should not exceed 140 dBA peak sound pressure level. Hearing protection will be recommended if either continuous or impact noise levels exceed 90 dBA (slow response) for an 8-hour work shift. If unable to carry out conversation at an arm length or at three (3) feet distance, hearing protection such as ear plugs or muffs will be used. Hearing protection selected must control employee exposures to comply with OSHA permissible noise standards if noise levels exceed OSHA permissible noise levels. Where disposable earplugs are selected, sufficient supplies will be maintained on-site to allow for multiple changeovers per day, per worker. A non-"roll-down" type earplug, such as the E-A-R Pod Plug, should be considered to reduce the potential for ear canal contamination.

### 8.6 Respiratory Protection

All personnel and individuals in the work areas will wear respiratory protective equipment when needed, to help prevent exposure to any fumes, vapors, dust, and other respiratory hazards that may be encountered during on-site activities. The respirators (if needed) will be properly fitted and employees who wear or may wear respiratory protection will undergo fit-testing. Respiratory protection will comply with applicable National Institute for Occupational Safety and Health (NIOSH) and American Society for Testing and Materials (ASTM) International Standards depending on the type of PPE to be worn.

During work activities including, but not limited to, saw-cutting of concrete and the operation of power tools such as jackhammers, grinders or drills on concrete or cement (none presently anticipated for the work covered under this HASP), personnel will wear protective equipment to prevent the inhalation of dust and silica particles.

## 8.7 PPE Program

PPE will be required when work activities generate and/or involve known or suspected atmospheric vapors, gases, liquids, or particulates at or above satisfactory health and safety levels or regulatory action limits. Protective equipment shall be ANSI/ISEA/NIOSH-approved.

For the work covered under this HASP, PPE should typically comprise Level D protection. Should air monitoring indicate that Level D fails to meet protection requirements, work shall be stopped and PPE shall be upgraded to Level C. Level D PPE consists of:

- Standard work uniform with coveralls or tyvek, as needed;
- Steel-toe and steel shank work boots;
- Hard hat;
- Gloves, as needed;
- Safety glasses; and
- Hearing protection, as needed.

Level C PPE consists of:

- Full face respirator fitted with appropriate organic vapor cartridge and Level D PPE.

### *8.7.1 Inspections*

Before use of protective clothing, all personnel shall determine that the clothing material is correct for the specified task at hand. The clothing is to be visually inspected for imperfect seams, non-uniform coatings, tears and malfunctioning closures.

Before using gloves, they are to be checked for pinhole leaks. It is imperative that any equipment found to be defective be replaced immediately.

### *8.7.2 Donning/Doffing of Personal Protective Equipment*

The following information is to provide on-site personnel with helpful hints that, when applied, make donning and doffing of PPE a more safe and manageable task:

- Have a "buddy" check your ensemble to ensure proper donning before entering controlled work areas. Without mirrors, the most obvious discrepancies can go unnoticed and may result in a potential exposure situation;
- Never perform personal decontamination with a pressure washer;
- Decontamination of equipment with water and a detergent shall be performed while PPE is still worn; and

- PPE will be removed and personnel will thoroughly wash their hands prior to leaving the Facility.

All PPE is to be bagged and contained in the proper receptacle prior to proper off-site disposal.

## 9.0 RECORD OF HASP ACKNOWLEDGEMENT

I certify that I have thoroughly read and fully understand the information in this HASP for intrusive activities performed at the iPark 84 Facility. I understand the associated potential health and safety hazards and issues.

I certify that I have been trained in the use, care, and limitations of the PPE that could be used.

My signature below is official record that I comply with provisions of the HASP and federal, state, and local health and safety regulations and guidelines.

| Printed Name | Signature | Representing | Date |
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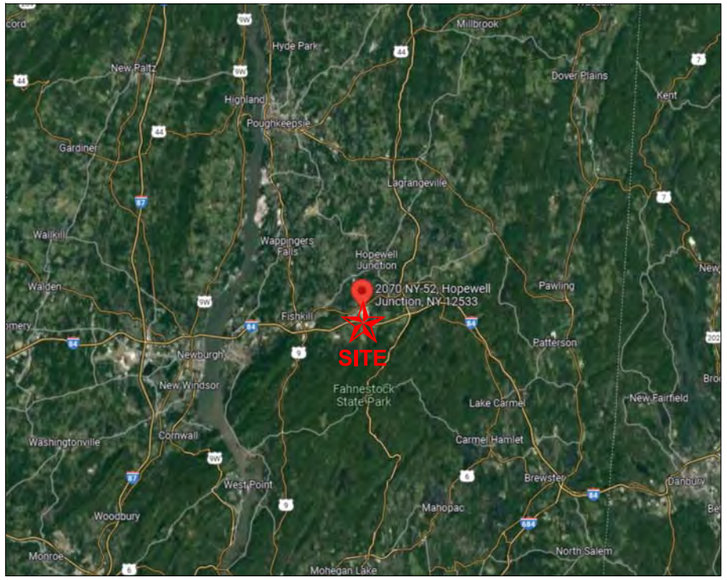
ATTACHMENT A

iPARK 84 FACILITY SITE MAP




SOURCE: GOOGLE MAPS

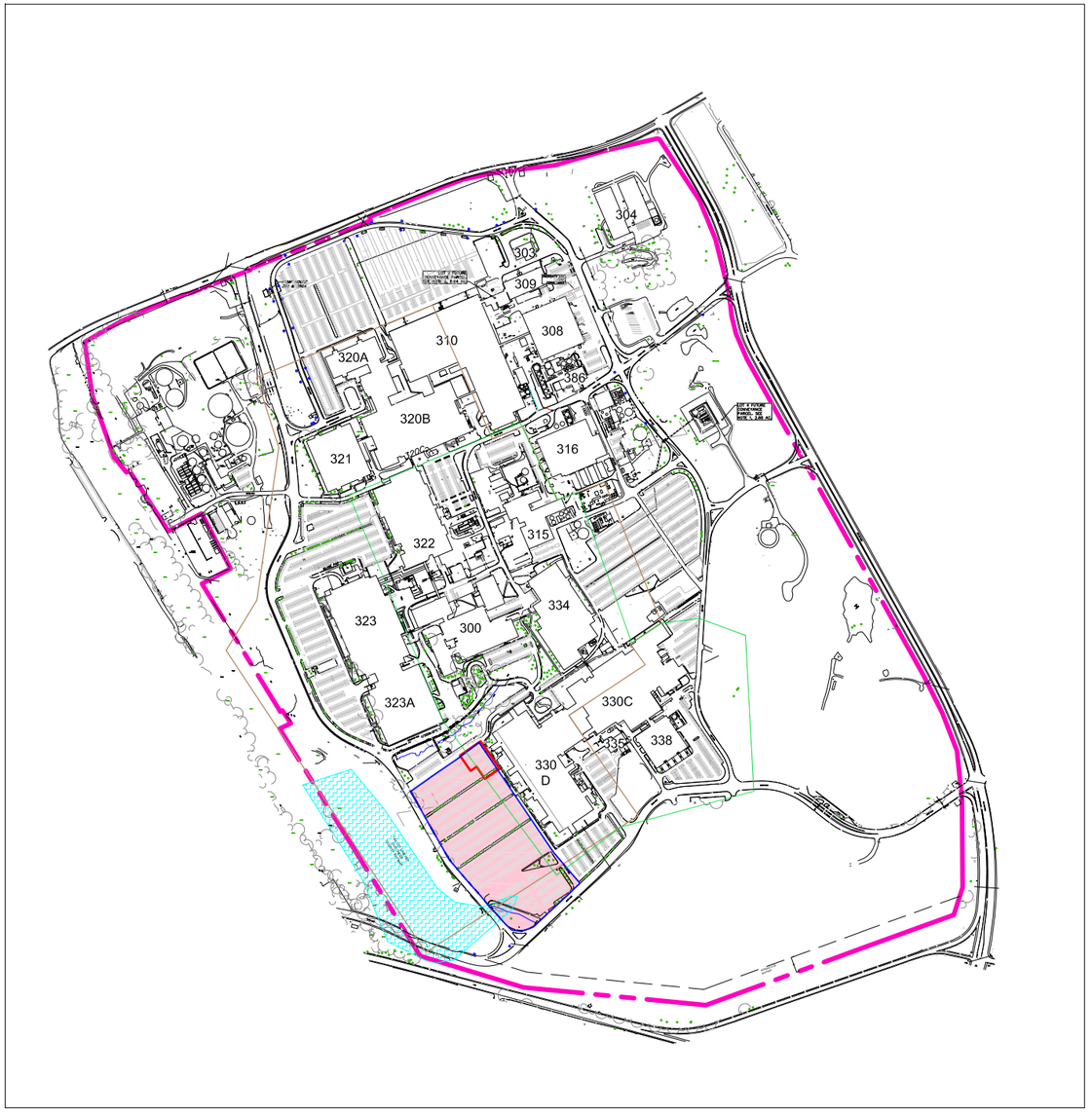
## SITE LOCATION MAP

N.T.S.

SOURCE: GOOGLE MAPS

## SITE MAP

N.T.S.




0 500 1000 2000 3000

SCALE: 1"=1000'

## SITE PLAN

SCALE: 1" =1000'-0"

## LEGEND

PROPERTY LINE (FORMER IBM EAST FISHKILL FACILITY)

LOT 10 PROPERTY


Walden Environmental Engineering

WALDEN ENVIRONMENTAL ENGINEERING, PLLC
16 SPRING STREET
OYSTER BAY, NEW YORK 11771
P: (516) 624-7200 F: (516) 624-3219
WWW.WALDENENVIRONMENTALENGINEERING.COM


| | | | | | | |
|---|---|---|---|---|---|---|
| FOR: LOT 10 FURNITURE WAREHOUSE PARCEL IPARK 84 HOPEWELL JUNCTION, NEW YORK | | | DRAWING TITLE: SITE PLAN LOT 10 FURNITURE WAREHOUSE PARCEL BOUNDARY MODIFICATION INVESTIGATION WORK PLAN | | | FIGURE NO: 1 / ISSUED XXXX |
| DESIGNED BY: NMB/EL | DRAWN BY: LS | CHECKED BY: NMB | JOB NO: iPARK0118.62 | DATE: 7/14/22 | 11x17 | SHEET NO: 1 of 2 / REVISION NO: 0 |
| APPROVED BY: NMB | SCALE: AS NOTED | | CAD FILE NAME: Z:\iPark0118\iPark0118.62 - Furniture Warehouse\Sampling Plan\iPark0118.62_ | | | |

ATTACHMENT B
EMERGENCY ROOM DIRECTIONS

Google Maps

# 2070 NY-52, Hopewell Junction, NY 12533 to St Luke's Cornwall Hospital

Drive 15.4 miles, 22 min

Map data ©2018 Google 2 mi

## 2070 NY-52

Hopewell Junction, NY 12533

### Get on I-84 from NY-52 E and Lime Kiln Rd

5 min (2.4 mi)

1. Head southeast toward North Dr
   ⚠ Restricted usage road

443 ft

2. Slight left onto North Dr
   ⚠ Restricted usage road

52 ft

3. Turn right onto West Dr
   ⚠ Restricted usage road

0.2 mi

4. Turn right onto NY-52 E

0.5 mi

5. Turn right onto Lime Kiln Rd

1.1 mi

6. Use the right 2 lanes to take the I-84 W ramp

0.5 mi

### Follow I-84 to NY-32 S/N Plank Rd in Balmville. Take exit 10S from I-84

11 min (11.3 mi)

7. Merge onto I-84

11.1 mi

8. Take exit 10S for NY-32 toward US-9W S/Newburgh

0.2 mi

**Take Robinson Ave and Dubois St to your destination in Newburgh**

6 min (1.7 mi)

9. Turn right onto NY-32 S/N Plank Rd (signs for Route 9w S)

0.2 mi

10. Use the right 2 lanes to turn right onto Robinson Ave

0.9 mi

11. Turn left onto South St

0.3 mi

12. Turn right onto Dubois St

0.3 mi

13. Turn left

246 ft

14. Turn left

Destination will be on the left

125 ft

## St Luke's Cornwall Hospital

70 Dubois St, Newburgh, NY 12550

These directions are for planning purposes only. You may find that construction projects, traffic, weather, or other events may cause conditions to differ from the map results, and you should plan your route accordingly. You must obey all signs or notices regarding your route.

ATTACHMENT C
SAFETY DATA SHEETS

# SAFETY DATA SHEET

**Creation Date** 22-Sep-2009 **Revision Date** 23-Jan-2018 **Revision Number** 3

## 1. Identification

**Product Name** **cis-1,2-Dichloroethylene**

**Cat No. :** **AC113380000; AC113380025; AC113380100; AC113380500**

**Synonyms** cis-Acetylene dichloride.

**Recommended Use** Laboratory chemicals.
**Uses advised against** Not for food, drug, pesticide or biocidal product use

**Details of the supplier of the safety data sheet**

**Company**
Fisher Scientific
One Reagent Lane
Fair Lawn, NJ 07410
Tel: (201) 796-7100

Acros Organics
One Reagent Lane
Fair Lawn, NJ 07410

**Emergency Telephone Number**
For information **US** call: 001-800-ACROS-01 / **Europe** call: +32 14 57 52 11
Emergency Number **US:**001-201-796-7100 / **Europe:** +32 14 57 52 99
**CHEMTREC** Tel. No.**US:**001-800-424-9300 / **Europe:**001-703-527-3887

## 2. Hazard(s) identification

**Classification**
This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

| | |
|---|---|
| Flammable liquids | Category 2 |
| Acute oral toxicity | Category 4 |
| Acute Inhalation Toxicity - Vapors | Category 4 |
| Skin Corrosion/irritation | Category 2 |
| Serious Eye Damage/Eye Irritation | Category 2 |
| Specific target organ toxicity (single exposure) | Category 3 |
| Target Organs - Respiratory system. | |

**Label Elements**

**Signal Word**
Danger

**Hazard Statements**
Highly flammable liquid and vapor
Harmful if swallowed
Harmful if inhaled
Causes serious eye irritation
Causes skin irritation
May cause respiratory irritation

**Precautionary Statements**
**Prevention**
Wear protective gloves/protective clothing/eye protection/face protection
Use only outdoors or in a well-ventilated area
Avoid breathing dust/fume/gas/mist/vapors/spray
Keep away from heat/sparks/open flames/hot surfaces. - No smoking
Keep container tightly closed
Ground/bond container and receiving equipment
Take precautionary measures against static discharge
Do not eat, drink or smoke when using this product
**Response**
Call a POISON CENTER or doctor/physician if you feel unwell
**Inhalation**
IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
Call a POISON CENTER or doctor/physician if you feel unwell
**Skin**
IF ON SKIN: Wash with plenty of soap and water
Take off contaminated clothing and wash before reuse
If skin irritation occurs: Get medical advice/attention
**Eyes**
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
If eye irritation persists: Get medical advice/attention
**Ingestion**
Rinse mouth
IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell
**Fire**
Explosion risk in case of fire
Fight fire with normal precautions from a reasonable distance
Evacuate area
**Storage**
Store in a well-ventilated place. Keep cool
Store in a closed container
Store locked up
**Disposal**
Dispose of contents/container to an approved waste disposal plant
**Hazards not otherwise classified (HNOC)**
None identified

## 3. Composition/Information on Ingredients

| Component | CAS-No | Weight % |
|---|---|---|
| cis-1,2-Dichloroethylene | 156-59-2 | 97 |

## 4. First-aid measures

**Eye Contact** Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Get medical attention.

**Skin Contact** Wash off immediately with plenty of water for at least 15 minutes. Obtain medical attention.

**Inhalation** Move to fresh air. Obtain medical attention. If not breathing, give artificial respiration.

**Ingestion** Do not induce vomiting. Obtain medical attention.

**Most important symptoms and effects** Breathing difficulties. Inhalation of high vapor concentrations may cause symptoms like headache, dizziness, tiredness, nausea and vomiting

**Notes to Physician** Treat symptomatically

## 5. Fire-fighting measures

**Suitable Extinguishing Media** Water spray. Carbon dioxide ($CO_2$). Dry chemical. Use water spray to cool unopened containers. Chemical foam. Cool closed containers exposed to fire with water spray.

**Unsuitable Extinguishing Media** No information available

**Flash Point** 6 °C / 42.8 °F

**Method -** No information available

**Autoignition Temperature** 440 °C / 824 °F

**Explosion Limits**

**Upper** 12.80%

**Lower** 9.70%

**Sensitivity to Mechanical Impact** No information available

**Sensitivity to Static Discharge** No information available

**Specific Hazards Arising from the Chemical**

Flammable. Vapors may travel to source of ignition and flash back. Containers may explode when heated. Vapors may form explosive mixtures with air.

**Hazardous Combustion Products**

Hydrogen chloride gas Carbon monoxide (CO) Carbon dioxide ($CO_2$)

**Protective Equipment and Precautions for Firefighters**

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

**NFPA**

| Health | Flammability | Instability | Physical hazards |
|---|---|---|---|
| 2 | 3 | 0 | N/A |

## 6. Accidental release measures

**Personal Precautions** Ensure adequate ventilation. Use personal protective equipment. Remove all sources of ignition. Take precautionary measures against static discharges. Avoid contact with skin, eyes and clothing.

**Environmental Precautions** See Section 12 for additional ecological information. Do not flush into surface water or sanitary sewer system.

**Methods for Containment and Clean Up** Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Keep in suitable, closed containers for disposal. Remove all sources of ignition. Use spark-proof tools and explosion-proof equipment.

## 7. Handling and storage

**Handling** Ensure adequate ventilation. Wear personal protective equipment. Use explosion-proof equipment. Use only non-sparking tools. Avoid contact with skin, eyes and clothing. Avoid breathing dust/fume/gas/mist/vapors/spray. Avoid ingestion and inhalation. Keep away from open flames, hot surfaces and sources of ignition. Take precautionary measures against static discharges. To avoid ignition of vapors by static electricity discharge, all metal parts of the equipment must be grounded.

**Storage** Keep in a dry, cool and well-ventilated place. Keep container tightly closed. Keep away from heat and sources of ignition. Flammables area. Keep container tightly closed in a dry and well-ventilated place.

## 8. Exposure controls / personal protection

**Exposure Guidelines**

| Component | ACGIH TLV | OSHA PEL | NIOSH IDLH | Mexico OEL (TWA) |
|---|---|---|---|---|
| cis-1,2-Dichloroethylene | TWA: 200 ppm | | | |

*Legend*

*ACGIH - American Conference of Governmental Industrial Hygienists*

**Engineering Measures** Ensure adequate ventilation, especially in confined areas. Use explosion-proof electrical/ventilating/lighting/equipment. Ensure that eyewash stations and safety showers are close to the workstation location.

**Personal Protective Equipment**

**Eye/face Protection** Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

**Skin and body protection** Wear appropriate protective gloves and clothing to prevent skin exposure.

**Respiratory Protection** No protective equipment is needed under normal use conditions.

**Hygiene Measures** Handle in accordance with good industrial hygiene and safety practice.

## 9. Physical and chemical properties

| | |
|---|---|
| **Physical State** | Liquid |
| **Appearance** | Colorless |
| **Odor** | aromatic |
| **Odor Threshold** | No information available |
| **pH** | No information available |
| **Melting Point/Range** | -80 °C / -112 °F |
| **Boiling Point/Range** | 60 °C / 140 °F @ 760 mmHg |
| **Flash Point** | 6 °C / 42.8 °F |
| **Evaporation Rate** | No information available |
| **Flammability (solid,gas)** | Not applicable |
| **Flammability or explosive limits** | |
| **Upper** | 12.80% |
| **Lower** | 9.70% |
| **Vapor Pressure** | 201 mmHg @ 25 °C |
| **Vapor Density** | 3.34 (Air = 1.0) |
| **Specific Gravity** | 1.280 |
| **Solubility** | No information available |
| **Partition coefficient; n-octanol/water** | No data available |
| **Autoignition Temperature** | 440 °C / 824 °F |
| **Decomposition Temperature** | No information available |
| **Viscosity** | No information available |
| **Molecular Formula** | C2 H2 Cl2 |
| **Molecular Weight** | 96.94 |

## 10. Stability and reactivity

**Reactive Hazard** None known, based on information available

**Stability** Stable under normal conditions.

**Conditions to Avoid** Keep away from open flames, hot surfaces and sources of ignition. Exposure to air. Exposure to light. Incompatible products. Exposure to moist air or water.

**Incompatible Materials** Bases

**Hazardous Decomposition Products** Hydrogen chloride gas, Carbon monoxide (CO), Carbon dioxide ($CO_2$)

**Hazardous Polymerization** Hazardous polymerization does not occur.

**Hazardous Reactions** None under normal processing.

## 11. Toxicological information

**Acute Toxicity**

**Product Information**
**Component Information**
**Toxicologically Synergistic Products** No information available

**Delayed and immediate effects as well as chronic effects from short and long-term exposure**

**Irritation** Irritating to eyes, respiratory system and skin

**Sensitization** No information available

**Carcinogenicity** The table below indicates whether each agency has listed any ingredient as a carcinogen.

| Component | CAS-No | IARC | NTP | ACGIH | OSHA | Mexico |
|---|---|---|---|---|---|---|
| cis-1,2-Dichloroethylene | 156-59-2 | Not listed | Not listed | Not listed | Not listed | Not listed |

**Mutagenic Effects** No information available

**Reproductive Effects** No information available.

**Developmental Effects** No information available.

**Teratogenicity** No information available.

**STOT - single exposure** Respiratory system
**STOT - repeated exposure** None known

**Aspiration hazard** No information available

**Symptoms / effects,both acute and delayed** Inhalation of high vapor concentrations may cause symptoms like headache, dizziness, tiredness, nausea and vomiting

**Endocrine Disruptor Information** No information available

**Other Adverse Effects** The toxicological properties have not been fully investigated.

## 12. Ecological information

**Ecotoxicity**

Do not empty into drains. Do not flush into surface water or sanitary sewer system. Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment. The product contains following substances which are hazardous for the environment.

| Component | Freshwater Algae | Freshwater Fish | Microtox | Water Flea |
|---|---|---|---|---|

| | | | | |
|---|---|---|---|---|
| cis-1,2-Dichloroethylene | Not listed | Not listed | EC50 = 721 mg/L 5 min<br>EC50 = 905 mg/L 30 min | Not listed |

**Persistence and Degradability** Persistence is unlikely based on information available.

**Bioaccumulation/ Accumulation** No information available.

**Mobility** Will likely be mobile in the environment due to its volatility.

## 13. Disposal considerations

**Waste Disposal Methods** Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Chemical waste generators must also consult local, regional, and national hazardous waste regulations to ensure complete and accurate classification.

## 14. Transport information

**DOT**

| | |
|---|---|
| **UN-No** | UN1150 |
| **Proper Shipping Name** | 1,2-DICHLOROETHYLENE |
| **Hazard Class** | 3 |
| **Packing Group** | II |

**TDG**

| | |
|---|---|
| **UN-No** | UN1150 |
| **Proper Shipping Name** | 1,2-DICHLOROETHYLENE |
| **Hazard Class** | 3 |
| **Packing Group** | II |

**IATA**

| | |
|---|---|
| **UN-No** | 1150 |
| **Proper Shipping Name** | 1,2-DICHLOROETHYLENE |
| **Hazard Class** | 3 |
| **Packing Group** | II |

**IMDG/IMO**

| | |
|---|---|
| **UN-No** | 1150 |
| **Proper Shipping Name** | 1,2-DICHLOROETHYLENE |
| **Hazard Class** | 3 |
| **Packing Group** | II |

## 15. Regulatory information

**International Inventories**

| Component | TSCA | DSL | NDSL | EINECS | ELINCS | NLP | PICCS | ENCS | AICS | IECSC | KECL |
|---|---|---|---|---|---|---|---|---|---|---|---|
| cis-1,2-Dichloroethylene | X | - | X | 205-859-7 | - | | - | X | X | X | X |

**Legend:**
**X - Listed**
**E - Indicates a substance that is the subject of a Section 5(e) Consent order under TSCA.**
**F - Indicates a substance that is the subject of a Section 5(f) Rule under TSCA.**
**N - Indicates a polymeric substance containing no free-radical initiator in its inventory name but is considered to cover the designated polymer made with any free-radical initiator regardless of the amount used.**
**P - Indicates a commenced PMN substance**
**R - Indicates a substance that is the subject of a Section 6 risk management rule under TSCA.**
**S - Indicates a substance that is identified in a proposed or final Significant New Use Rule**
**T - Indicates a substance that is the subject of a Section 4 test rule under TSCA.**
**XU - Indicates a substance exempt from reporting under the Inventory Update Rule, i.e. Partial Updating of the TSCA Inventory Data Base Production and Site Reports (40 CFR 710(B).**
**Y1 - Indicates an exempt polymer that has a number-average molecular weight of 1,000 or greater.**
**Y2 - Indicates an exempt polymer that is a polyester and is made only from reactants included in a specified list of low concern reactants that comprises one of the eligibility criteria for the exemption rule.**

**U.S. Federal Regulations**

**TSCA 12(b)** Not applicable

**SARA 313** Not applicable

**SARA 311/312 Hazard Categories** See section 2 for more information

**CWA (Clean Water Act)** Not applicable

**Clean Air Act** Not applicable

**OSHA** Occupational Safety and Health Administration
Not applicable

**CERCLA**

**California Proposition 65** This product does not contain any Proposition 65 chemicals

**U.S. State Right-to-Know Regulations**

| Component | Massachusetts | New Jersey | Pennsylvania | Illinois | Rhode Island |
|---|---|---|---|---|---|
| cis-1,2-Dichloroethylene | X | - | X | - | - |

**U.S. Department of Transportation**

Reportable Quantity (RQ): N
DOT Marine Pollutant N
DOT Severe Marine Pollutant N

**U.S. Department of Homeland Security**
This product does not contain any DHS chemicals.

**Other International Regulations**

**Mexico - Grade** No information available

## 16. Other information

**Prepared By** Regulatory Affairs
Thermo Fisher Scientific
Email: EMSDS.RA@thermofisher.com

**Creation Date** 22-Sep-2009
**Revision Date** 23-Jan-2018
**Print Date** 23-Jan-2018
**Revision Summary** This document has been updated to comply with the US OSHA HazCom 2012 Standard replacing the current legislation under 29 CFR 1910.1200 to align with the Globally Harmonized System of Classification and Labeling of Chemicals (GHS).

**Disclaimer**
**The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text**

**End of SDS**

# SAFETY DATA SHEET

**Revision Date** 17-Jan-2018 **Revision Number** 3

## 1. Identification

**Product Name** **1,1,2-Trichloro-1,2,2-trifluoroethane**

**Cat No. :** **T178-1; T178-4**

**Synonyms** Fluorocarbon 113; Freon 113; 1,1,2-Trichlorotrifluoroethane

**Recommended Use** Laboratory chemicals.
**Uses advised against** Not for food, drug, pesticide or biocidal product use

**Details of the supplier of the safety data sheet**

**Company**
Fisher Scientific
One Reagent Lane
Fair Lawn, NJ 07410
Tel: (201) 796-7100

**Emergency Telephone Number**
CHEMTREC®, Inside the USA: 800-424-9300
CHEMTREC®, Outside the USA: 001-703-527-3887

## 2. Hazard(s) identification

**Classification**
Classification under 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Based on available data, the classification criteria are not met

**Label Elements**
None required

**Hazards not otherwise classified (HNOC)**
None identified

## 3. Composition/Information on Ingredients

| Component | CAS-No | Weight % |
|---|---|---|
| 1,1,2-Trichloro-1,2,2-trifluoroethane | 76-13-1 | 99 |

## 4. First-aid measures

**Eye Contact** Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes.

**Skin Contact** Wash off immediately with plenty of water for at least 15 minutes.

| | |
|---|---|
| **Inhalation** | Move to fresh air. |
| **Ingestion** | Do not induce vomiting. |
| **Most important symptoms and effects** | No information available. |
| **Notes to Physician** | Treat symptomatically |

## 5. Fire-fighting measures

| | |
|---|---|
| **Unsuitable Extinguishing Media** | No information available |
| **Flash Point** | No information available |
| **Method -** | No information available |
| **Autoignition Temperature** | 770 °C |
| **Explosion Limits** | |
| **Upper** | No data available |
| **Lower** | No data available |
| **Sensitivity to Mechanical Impact** | No information available |
| **Sensitivity to Static Discharge** | No information available |

**Specific Hazards Arising from the Chemical**
Keep product and empty container away from heat and sources of ignition.

**Hazardous Combustion Products**
No information available
**Protective Equipment and Precautions for Firefighters**
As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

**NFPA**

| Health | Flammability | Instability | Physical hazards |
|---|---|---|---|
| 1 | 0 | 0 | N/A |

## 6. Accidental release measures

| | |
|---|---|
| **Personal Precautions** | Ensure adequate ventilation. Use personal protective equipment. |
| **Environmental Precautions** | See Section 12 for additional ecological information. |
| **Methods for Containment and Clean Up** | No information available. |

## 7. Handling and storage

| | |
|---|---|
| **Handling** | Ensure adequate ventilation. |
| **Storage** | Keep containers tightly closed in a dry, cool and well-ventilated place. |

## 8. Exposure controls / personal protection

| | |
|---|---|
| **Exposure Guidelines** | This product does not contain any hazardous materials with occupational exposure limitsestablished by the region specific regulatory bodies. |

| Component | ACGIH TLV | OSHA PEL | NIOSH IDLH | Mexico OEL (TWA) |
|---|---|---|---|---|
| 1,1,2-Trichloro-1,2,2-trifluoroethane | TWA: 1000 ppm<br>STEL: 1250 ppm | (Vacated) TWA: 1000 ppm<br>(Vacated) TWA: 7600 mg/m³<br>(Vacated) STEL: 1250 ppm<br>(Vacated) STEL: 9500 mg/m³<br>TWA: 1000 ppm<br>TWA: 7600 mg/m³ | IDLH: 2000 ppm<br>TWA: 1000 ppm<br>TWA: 7600 mg/m³<br>STEL: 1250 ppm<br>STEL: 9500 mg/m³ | TWA: 1000 ppm<br>TWA: 1600 mg/m³<br>STEL: 1250 ppm<br>STEL: 9500 mg/m³ |

*Legend*

*ACGIH - American Conference of Governmental Industrial Hygienists*
*OSHA - Occupational Safety and Health Administration*
*NIOSH IDLH: The National Institute for Occupational Safety and Health Immediately Dangerous to Life or Health*

**Engineering Measures** Ensure adequate ventilation, especially in confined areas.

**Personal Protective Equipment**

**Eye/face Protection** Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

**Skin and body protection** Wear appropriate protective gloves and clothing to prevent skin exposure.

**Respiratory Protection** Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

**Hygiene Measures** Handle in accordance with good industrial hygiene and safety practice.

## 9. Physical and chemical properties

| | |
|---|---|
| **Physical State** | Liquid |
| **Appearance** | Clear |
| **Odor** | aromatic |
| **Odor Threshold** | No information available |
| **pH** | No information available |
| **Melting Point/Range** | -36 °C |
| **Boiling Point/Range** | 48 °C |
| **Flash Point** | No information available |
| **Evaporation Rate** | > 1.0 (Ether = 1.0) |
| **Flammability (solid,gas)** | No information available |
| **Flammability or explosive limits** | |
| **Upper** | No data available |
| **Lower** | No data available |
| **Vapor Pressure** | 363 hPa @ 20 °C |
| **Vapor Density** | 6.5 (Air = 1.0) |
| **Specific Gravity** | 1.47 @ 21°C |
| **Solubility** | Insoluble in water |
| **Partition coefficient; n-octanol/water** | No data available |
| **Autoignition Temperature** | 770 °C |
| **Decomposition Temperature** | No information available |
| **Viscosity** | No information available |
| **Molecular Formula** | C2Cl3F3 |
| **Molecular Weight** | 187.38 |

## 10. Stability and reactivity

**Reactive Hazard** None known, based on information available

**Stability** Stable under normal conditions.

**Conditions to Avoid** Incompatible products.

**Incompatible Materials** Strong acids, Powdered metals

**Hazardous Decomposition Products** No information available

**Hazardous Polymerization** Hazardous polymerization does not occur.

**Hazardous Reactions** None under normal processing.

## 11. Toxicological information

**Acute Toxicity**

**Component Information**

| Component | LD50 Oral | LD50 Dermal | LC50 Inhalation |
|---|---|---|---|
| 1,1,2-Trichloro-1,2,2-trifluoroethane | LD50 = 43 g/kg ( Rat ) | Not listed | LC50 = 38000 ppm ( Rat ) 4 h<br>LC50 = 38500 mg/kg ( Rat ) 4 h |

**Toxicologically Synergistic Products** No information available

**Delayed and immediate effects as well as chronic effects from short and long-term exposure**

**Irritation** No information available

**Sensitization** No information available

**Carcinogenicity** The table below indicates whether each agency has listed any ingredient as a carcinogen.

| Component | CAS-No | IARC | NTP | ACGIH | OSHA | Mexico |
|---|---|---|---|---|---|---|
| 1,1,2-Trichloro-1,2,2-trifluoroethane | 76-13-1 | Not listed | Not listed | Not listed | Not listed | Not listed |

**Mutagenic Effects** No information available

**Reproductive Effects** No information available.

**Developmental Effects** No information available.

**Teratogenicity** No information available.

**STOT - single exposure** None known

**STOT - repeated exposure** None known

**Aspiration hazard** No information available

**Symptoms / effects,both acute and delayed** No information available

**Endocrine Disruptor Information** No information available

**Other Adverse Effects** The toxicological properties have not been fully investigated.

## 12. Ecological information

**Ecotoxicity**

Do not empty into drains. Chlorotrifluoromethane (CFC-13) is a Class I ozone-depleting chlorofluorocarbon. It is stable in the atmosphere. The half-life for degradation by reaction with photochemically-produced hydroxyl radicals is about 62 years. Following gradual diffusion into the stratosphere above the ozone layer, it slowly degrades (est. half-life of 180-450 years) due to direct photolysis and contributes to the catalytic removal of atmosphere ozone.

| Component | Freshwater Algae | Freshwater Fish | Microtox | Water Flea |
|---|---|---|---|---|
| 1,1,2-Trichloro-1,2,2-trifluoro ethane | Not listed | LC50: 7 - 14 mg/L, 96h static (Brachydanio rerio) LC50: = 1250 mg/L, 96h (Pimephales promelas) LC50: = 6240 mg/L, 96h (Oryzias latipes) | Not listed | EC50: = 71 mg/L, 48h (Daphnia magna) |

**Persistence and Degradability** No information available

**Bioaccumulation/ Accumulation** No information available.

**Mobility** No information available.

## 13. Disposal considerations

**Waste Disposal Methods** Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Chemical waste generators must also consult local, regional, and national hazardous waste regulations to ensure complete and accurate classification.

## 14. Transport information

**DOT** Not regulated
**TDG** Not regulated
**IATA** Not regulated
**IMDG/IMO** Not regulated

## 15. Regulatory information

**International Inventories**

| Component | TSCA | DSL | NDSL | EINECS | ELINCS | NLP | PICCS | ENCS | AICS | IECSC | KECL |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1,1,2-Trichloro-1,2,2-trifluoro ethane | X | X | - | 200-936-1 | - | | X | X | X | X | X |

**Legend:**
**X - Listed**
**E - Indicates a substance that is the subject of a Section 5(e) Consent order under TSCA.**
**F - Indicates a substance that is the subject of a Section 5(f) Rule under TSCA.**
**N - Indicates a polymeric substance containing no free-radical initiator in its inventory name but is considered to cover the designated polymer made with any free-radical initiator regardless of the amount used.**
**P - Indicates a commenced PMN substance**
**R - Indicates a substance that is the subject of a Section 6 risk management rule under TSCA.**
**S - Indicates a substance that is identified in a proposed or final Significant New Use Rule**
**T - Indicates a substance that is the subject of a Section 4 test rule under TSCA.**
**XU - Indicates a substance exempt from reporting under the Inventory Update Rule, i.e. Partial Updating of the TSCA Inventory Data Base Production and Site Reports (40 CFR 710(B).**
**Y1 - Indicates an exempt polymer that has a number-average molecular weight of 1,000 or greater.**
**Y2 - Indicates an exempt polymer that is a polyester and is made only from reactants included in a specified list of low concern reactants that comprises one of the eligibility criteria for the exemption rule.**

**U.S. Federal Regulations**

**TSCA 12(b)** Not applicable

**SARA 313** Not applicable

| Component | CAS-No | Weight % | SARA 313 - Threshold Values % |
|---|---|---|---|
| 1,1,2-Trichloro-1,2,2-trifluoroethane | 76-13-1 | 99 | 1.0 |

**SARA 311/312 Hazard Categories** See section 2 for more information

**CWA (Clean Water Act)** Not applicable

**Clean Air Act** Not applicable

| Component | HAPS Data | Class 1 Ozone Depletors | Class 2 Ozone Depletors |
|---|---|---|---|
| 1,1,2-Trichloro-1,2,2-trifluoroethane | - | X | - |

**OSHA** Occupational Safety and Health Administration
Not applicable

**CERCLA** Not applicable

| Component | Hazardous Substances RQs | CERCLA EHS RQs |
|---|---|---|
| 1,1,2-Trichloro-1,2,2-trifluoroethane | 5000 lb | - |

**California Proposition 65** This product does not contain any Proposition 65 chemicals

**U.S. State Right-to-Know Regulations** Not applicable

| Component | Massachusetts | New Jersey | Pennsylvania | Illinois | Rhode Island |
|---|---|---|---|---|---|
| 1,1,2-Trichloro-1,2,2-trifluoroethane | X | X | X | - | X |

**U.S. Department of Transportation**

Reportable Quantity (RQ): N
DOT Marine Pollutant N
DOT Severe Marine Pollutant N

**U.S. Department of Homeland Security**
This product does not contain any DHS chemicals.

**Other International Regulations**

**Mexico - Grade** No information available

## 16. Other information

**Prepared By**
Regulatory Affairs
Thermo Fisher Scientific
Email: EMSDS.RA@thermofisher.com

**Revision Date** 17-Jan-2018
**Print Date** 17-Jan-2018
**Revision Summary** This document has been updated to comply with the US OSHA HazCom 2012 Standard replacing the current legislation under 29 CFR 1910.1200 to align with the Globally Harmonized System of Classification and Labeling of Chemicals (GHS).

**Disclaimer**
**The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text**

**End of SDS**

# SAFETY DATA SHEET

**Creation Date** 10-Dec-2009 **Revision Date** 23-Jan-2018 **Revision Number** 5

## 1. Identification

**Product Name** **Tetrachloroethylene**

**Cat No. :** **AC445690000; ACR445690010; AC445690025; AC445691000**

**CAS-No** 127-18-4
**Synonyms** Perchloroethylene

**Recommended Use** Laboratory chemicals.
**Uses advised against** Not for food, drug, pesticide or biocidal product use

**Details of the supplier of the safety data sheet**

**Company**
Fisher Scientific
One Reagent Lane
Fair Lawn, NJ 07410
Tel: (201) 796-7100

Acros Organics
One Reagent Lane
Fair Lawn, NJ 07410

**Emergency Telephone Number**
For information **US** call: 001-800-ACROS-01 / **Europe** call: +32 14 57 52 11
Emergency Number **US:**001-201-796-7100 / **Europe:** +32 14 57 52 99
**CHEMTREC** Tel. No.**US:**001-800-424-9300 / **Europe:**001-703-527-3887

## 2. Hazard(s) identification

**Classification**
This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

| | |
|---|---|
| Skin Corrosion/irritation | Category 2 |
| Serious Eye Damage/Eye Irritation | Category 2 |
| Skin Sensitization | Category 1 |
| Carcinogenicity | Category 1B |
| Specific target organ toxicity (single exposure) | Category 3 |
| Target Organs - Central nervous system (CNS). | |
| Specific target organ toxicity - (repeated exposure) | Category 2 |
| Target Organs - Kidney, Liver, Blood. | |

**Label Elements**

**Signal Word**
Danger

**Hazard Statements**
Causes skin irritation
Causes serious eye irritation
May cause an allergic skin reaction
May cause drowsiness or dizziness
May cause cancer
May cause damage to organs through prolonged or repeated exposure

**Precautionary Statements**
**Prevention**
Obtain special instructions before use
Do not handle until all safety precautions have been read and understood
Use personal protective equipment as required
Wash face, hands and any exposed skin thoroughly after handling
Contaminated work clothing should not be allowed out of the workplace
Do not breathe dust/fume/gas/mist/vapors/spray
Use only outdoors or in a well-ventilated area
Wear protective gloves/protective clothing/eye protection/face protection
**Response**
IF exposed or concerned: Get medical attention/advice
**Inhalation**
IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
**Skin**
IF ON SKIN: Wash with plenty of soap and water
Take off contaminated clothing and wash before reuse
If skin irritation or rash occurs: Get medical advice/attention
**Eyes**
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
If eye irritation persists: Get medical advice/attention
**Storage**
Store locked up
Store in a well-ventilated place. Keep container tightly closed
**Disposal**
Dispose of contents/container to an approved waste disposal plant
**Hazards not otherwise classified (HNOC)**
Toxic to aquatic life with long lasting effects
**WARNING.** Cancer - https://www.p65warnings.ca.gov/.

## 3. Composition/Information on Ingredients

| Component | CAS-No | Weight % |
|---|---|---|
| Tetrachloroethylene | 127-18-4 | >95 |

## 4. First-aid measures

**General Advice** If symptoms persist, call a physician.

**Eye Contact** Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Get medical attention.

**Skin Contact** Wash off immediately with plenty of water for at least 15 minutes. If skin irritation persists, call a physician.

**Inhalation** Move to fresh air. If not breathing, give artificial respiration. Get medical attention if symptoms occur.

**Ingestion** Clean mouth with water and drink afterwards plenty of water.

| | |
|---|---|
| **Most important symptoms and effects** | None reasonably foreseeable. May cause allergic skin reaction. Inhalation of high vapor concentrations may cause symptoms like headache, dizziness, tiredness, nausea and vomiting: Symptoms of allergic reaction may include rash, itching, swelling, trouble breathing, tingling of the hands and feet, dizziness, lightheadedness, chest pain, muscle pain or flushing |
| **Notes to Physician** | Treat symptomatically |

## 5. Fire-fighting measures

| | |
|---|---|
| **Suitable Extinguishing Media** | Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide. |
| **Unsuitable Extinguishing Media** | No information available |
| **Flash Point** | No information available |
| **Method -** | No information available |
| **Autoignition Temperature** | No information available |
| **Explosion Limits** | |
| **Upper** | No data available |
| **Lower** | No data available |
| **Sensitivity to Mechanical Impact** | No information available |
| **Sensitivity to Static Discharge** | No information available |

**Specific Hazards Arising from the Chemical**
Thermal decomposition can lead to release of irritating gases and vapors. Containers may explode when heated.

**Hazardous Combustion Products**
Chlorine Hydrogen chloride gas Phosgene
**Protective Equipment and Precautions for Firefighters**
As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

**NFPA**

| Health | Flammability | Instability | Physical hazards |
|---|---|---|---|
| 2 | 0 | 0 | N/A |

## 6. Accidental release measures

| | |
|---|---|
| **Personal Precautions** | Use personal protective equipment. Ensure adequate ventilation. |
| **Environmental Precautions** | Do not flush into surface water or sanitary sewer system. |
| **Methods for Containment and Clean Up** | Soak up with inert absorbent material. Keep in suitable, closed containers for disposal. |

## 7. Handling and storage

| | |
|---|---|
| **Handling** | Wear personal protective equipment. Do not get in eyes, on skin, or on clothing. Ensure adequate ventilation. Avoid ingestion and inhalation. |
| **Storage** | Keep containers tightly closed in a dry, cool and well-ventilated place. Protect from sunlight. |

## 8. Exposure controls / personal protection

**Exposure Guidelines**

| Component | ACGIH TLV | OSHA PEL | NIOSH IDLH | Mexico OEL (TWA) |
|---|---|---|---|---|
| Tetrachloroethylene | TWA: 25 ppm<br>STEL: 100 ppm | (Vacated) TWA: 25 ppm<br>(Vacated) TWA: 170 mg/m$^3$<br>Ceiling: 200 ppm<br>TWA: 100 ppm | IDLH: 150 ppm | TWA: 100 ppm<br>TWA: 670 mg/m$^3$<br>TWA: 200 ppm<br>TWA: 1250 mg/m$^3$<br>STEL: 200 ppm<br>STEL: 1340 mg/m$^3$ |

*Legend*

*ACGIH - American Conference of Governmental Industrial Hygienists*
*OSHA - Occupational Safety and Health Administration*
*NIOSH IDLH: The National Institute for Occupational Safety and Health Immediately Dangerous to Life or Health*

**Engineering Measures** Use only under a chemical fume hood. Ensure adequate ventilation, especially in confined areas. Ensure that eyewash stations and safety showers are close to the workstation location.

**Personal Protective Equipment**

**Eye/face Protection** Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

**Skin and body protection** Long sleeved clothing.

**Respiratory Protection** Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

**Hygiene Measures** Handle in accordance with good industrial hygiene and safety practice.

## 9. Physical and chemical properties

| | |
|---|---|
| **Physical State** | Liquid |
| **Appearance** | Colorless |
| **Odor** | Characteristic, sweet |
| **Odor Threshold** | No information available |
| **pH** | No information available |
| **Melting Point/Range** | -22 °C / -7.6 °F |
| **Boiling Point/Range** | 120 - 122 °C / 248 - 251.6 °F @ 760 mmHg |
| **Flash Point** | No information available |
| **Evaporation Rate** | 6.0 (Ether = 1.0) |
| **Flammability (solid,gas)** | Not applicable |
| **Flammability or explosive limits** | |
| **Upper** | No data available |
| **Lower** | No data available |
| **Vapor Pressure** | 18 mbar @ 20 °C |
| **Vapor Density** | No information available |
| **Density** | 1.619 |
| **Specific Gravity** | 1.625 |
| **Solubility** | 0.15 g/L water (20°C) |
| **Partition coefficient; n-octanol/water** | No data available |
| **Autoignition Temperature** | No information available |
| **Decomposition Temperature** | > 150°C |
| **Viscosity** | 0.89 mPa s at 20 °C |
| **Molecular Formula** | C2 Cl4 |
| **Molecular Weight** | 165.83 |

## 10. Stability and reactivity

**Reactive Hazard** None known, based on information available

**Stability** Stable under normal conditions.

**Conditions to Avoid** Incompatible products. Excess heat. Exposure to moist air or water.

**Incompatible Materials** Strong acids, Strong oxidizing agents, Strong bases, Metals, Zinc, Amines, Aluminium

**Hazardous Decomposition Products** Chlorine, Hydrogen chloride gas, Phosgene

**Hazardous Polymerization** Hazardous polymerization does not occur.

**Hazardous Reactions** None under normal processing.

## 11. Toxicological information

**Acute Toxicity**

**Product Information**

**Component Information**

| Component | LD50 Oral | LD50 Dermal | LC50 Inhalation |
|---|---|---|---|
| Tetrachloroethylene | LD50 = 2629 mg/kg ( Rat ) | LD50 > 10000 mg/kg (Rat) | LC50 = 27.8 mg/L ( Rat ) 4 h |

**Toxicologically Synergistic Products** No information available

**Delayed and immediate effects as well as chronic effects from short and long-term exposure**

**Irritation** Irritating to eyes and skin

**Sensitization** No information available

**Carcinogenicity** The table below indicates whether each agency has listed any ingredient as a carcinogen.

| Component | CAS-No | IARC | NTP | ACGIH | OSHA | Mexico |
|---|---|---|---|---|---|---|
| Tetrachloroethylene | 127-18-4 | Group 2A | Reasonably Anticipated | A3 | X | A3 |

*IARC: (International Agency for Research on Cancer)*

*NTP: (National Toxicity Program)*

*ACGIH: (American Conference of Governmental Industrial Hygienists)*

*Mexico - Occupational Exposure Limits - Carcinogens*

*IARC: (International Agency for Research on Cancer)*
*Group 1 - Carcinogenic to Humans*
*Group 2A - Probably Carcinogenic to Humans*
*Group 2B - Possibly Carcinogenic to Humans*
*NTP: (National Toxicity Program)*
*Known - Known Carcinogen*
*Reasonably Anticipated - Reasonably Anticipated to be a Human Carcinogen*
*ACGIH: (American Conference of Governmental Industrial Hygienists)*
*A1 - Known Human Carcinogen*
*A2 - Suspected Human Carcinogen*
*A3 - Animal Carcinogen*
*Mexico - Occupational Exposure Limits - Carcinogens*
*A1 - Confirmed Human Carcinogen*
*A2 - Suspected Human Carcinogen*
*A3 - Confirmed Animal Carcinogen*
*A4 - Not Classifiable as a Human Carcinogen*
*A5 - Not Suspected as a Human Carcinogen*

**Mutagenic Effects** No information available

**Reproductive Effects** No information available.

**Developmental Effects** No information available.

**Teratogenicity** No information available.

**STOT - single exposure** Central nervous system (CNS)

**STOT - repeated exposure** Kidney Liver Blood

**Aspiration hazard** No information available

**Symptoms / effects,both acute and delayed** Inhalation of high vapor concentrations may cause symptoms like headache, dizziness, tiredness, nausea and vomiting: Symptoms of allergic reaction may include rash, itching, swelling, trouble breathing, tingling of the hands and feet, dizziness, lightheadedness, chest pain, muscle pain or flushing

**Endocrine Disruptor Information**

| Component | EU - Endocrine Disrupters Candidate List | EU - Endocrine Disruptors - Evaluated Substances | Japan - Endocrine Disruptor Information |
|---|---|---|---|
| Tetrachloroethylene | Group II Chemical | Not applicable | Not applicable |

**Other Adverse Effects** Tumorigenic effects have been reported in experimental animals.

## 12. Ecological information

**Ecotoxicity**

Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment. The product contains following substances which are hazardous for the environment.

| Component | Freshwater Algae | Freshwater Fish | Microtox | Water Flea |
|---|---|---|---|---|
| Tetrachloroethylene | EC50: > 500 mg/L, 96h (Pseudokirchneriella subcapitata) | LC50: 4.73 - 5.27 mg/L, 96h flow-through (Oncorhynchus mykiss)<br>LC50: 11.0 - 15.0 mg/L, 96h static (Lepomis macrochirus)<br>LC50: 8.6 - 13.5 mg/L, 96h static (Pimephales promelas)<br>LC50: 12.4 - 14.4 mg/L, 96h flow-through (Pimephales promelas) | EC50 = 100 mg/L 24 h<br>EC50 = 112 mg/L 24 h<br>EC50 = 120.0 mg/L 30 min | EC50: 6.1 - 9.0 mg/L, 48h Static (Daphnia magna) |

**Persistence and Degradability** Insoluble in water Persistence is unlikely based on information available.

**Bioaccumulation/ Accumulation** No information available.

**Mobility** . Is not likely mobile in the environment due its low water solubility. Will likely be mobile in the environment due to its volatility.

| Component | log Pow |
|---|---|
| Tetrachloroethylene | 2.53 - 2.88 |

## 13. Disposal considerations

**Waste Disposal Methods** Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Chemical waste generators must also consult local, regional, and national hazardous waste regulations to ensure complete and accurate classification.

| Component | RCRA - U Series Wastes | RCRA - P Series Wastes |
|---|---|---|
| Tetrachloroethylene - 127-18-4 | U210 | - |

## 14. Transport information

**DOT**

**UN-No** UN1897
**Proper Shipping Name** TETRACHLOROETHYLENE
**Hazard Class** 6.1
**Packing Group** III

**TDG**

**UN-No** UN1897

**Proper Shipping Name** TETRACHLOROETHYLENE
**Hazard Class** 6.1
**Packing Group** III

**IATA**
**UN-No** UN1897
**Proper Shipping Name** TETRACHLOROETHYLENE
**Hazard Class** 6.1
**Packing Group** III

**IMDG/IMO**
**UN-No** UN1897
**Proper Shipping Name** TETRACHLOROETHYLENE
**Hazard Class** 6.1
**Subsidiary Hazard Class** P
**Packing Group** III

## 15. Regulatory information

**All of the components in the product are on the following Inventory lists:** X = listed

**International Inventories**

| Component | TSCA | DSL | NDSL | EINECS | ELINCS | NLP | PICCS | ENCS | AICS | IECSC | KECL |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Tetrachloroethylene | X | X | - | 204-825-9 | - | | X | X | X | X | X |

**Legend:**
**X - Listed**
**E - Indicates a substance that is the subject of a Section 5(e) Consent order under TSCA.**
**F - Indicates a substance that is the subject of a Section 5(f) Rule under TSCA.**
**N - Indicates a polymeric substance containing no free-radical initiator in its inventory name but is considered to cover the designated polymer made with any free-radical initiator regardless of the amount used.**
**P - Indicates a commenced PMN substance**
**R - Indicates a substance that is the subject of a Section 6 risk management rule under TSCA.**
**S - Indicates a substance that is identified in a proposed or final Significant New Use Rule**
**T - Indicates a substance that is the subject of a Section 4 test rule under TSCA.**
**XU - Indicates a substance exempt from reporting under the Inventory Update Rule, i.e. Partial Updating of the TSCA Inventory Data Base Production and Site Reports (40 CFR 710(B).**
**Y1 - Indicates an exempt polymer that has a number-average molecular weight of 1,000 or greater.**
**Y2 - Indicates an exempt polymer that is a polyester and is made only from reactants included in a specified list of low concern reactants that comprises one of the eligibility criteria for the exemption rule.**

**U.S. Federal Regulations**

**TSCA 12(b)** Not applicable

**SARA 313**

| Component | CAS-No | Weight % | SARA 313 - Threshold Values % |
|---|---|---|---|
| Tetrachloroethylene | 127-18-4 | >95 | 0.1 |

**SARA 311/312 Hazard Categories** See section 2 for more information

**CWA (Clean Water Act)**

| Component | CWA - Hazardous Substances | CWA - Reportable Quantities | CWA - Toxic Pollutants | CWA - Priority Pollutants |
|---|---|---|---|---|
| Tetrachloroethylene | - | - | X | X |

**Clean Air Act**

| Component | HAPS Data | Class 1 Ozone Depletors | Class 2 Ozone Depletors |
|---|---|---|---|
| Tetrachloroethylene | X | | - |

**OSHA** Occupational Safety and Health Administration
Not applicable

**CERCLA** This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302)

| Component | Hazardous Substances RQs | CERCLA EHS RQs |
|---|---|---|
| Tetrachloroethylene | 100 lb 1 lb | - |

**California Proposition 65** This product contains the following proposition 65 chemicals

| Component | CAS-No | California Prop. 65 | Prop 65 NSRL | Category |
|---|---|---|---|---|
| Tetrachloroethylene | 127-18-4 | Carcinogen | 14 µg/day | Carcinogen |

**U.S. State Right-to-Know Regulations**

| Component | Massachusetts | New Jersey | Pennsylvania | Illinois | Rhode Island |
|---|---|---|---|---|---|
| Tetrachloroethylene | X | X | X | X | X |

**U.S. Department of Transportation**

Reportable Quantity (RQ): Y
DOT Marine Pollutant Y
DOT Severe Marine Pollutant N

**U.S. Department of Homeland Security**
This product does not contain any DHS chemicals.

**Other International Regulations**

**Mexico - Grade** No information available

## 16. Other information

**Prepared By**
Regulatory Affairs
Thermo Fisher Scientific
Email: EMSDS.RA@thermofisher.com

**Creation Date** 10-Dec-2009
**Revision Date** 23-Jan-2018
**Print Date** 23-Jan-2018
**Revision Summary** This document has been updated to comply with the US OSHA HazCom 2012 Standard replacing the current legislation under 29 CFR 1910.1200 to align with the Globally Harmonized System of Classification and Labeling of Chemicals (GHS).

**Disclaimer**
**The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text**

**End of SDS**

# SAFETY DATA SHEET

**Creation Date** 03-Feb-2010 **Revision Date** 14-Jul-2016 **Revision Number** 2

## 1. Identification

**Product Name** **Trichloroethylene**

**Cat No. :** **T340-4; T341-4; T341-20; T341-500; T403-4**

**Synonyms** Trichloroethene (Stabilized/Technical/Electronic/Certified ACS)

**Recommended Use** Laboratory chemicals.
**Uses advised against**

**Details of the supplier of the safety data sheet**

**Company**
Fisher Scientific
One Reagent Lane
Fair Lawn, NJ 07410
Tel: (201) 796-7100

**Emergency Telephone Number**
CHEMTREC®, Inside the USA: 800-424-9300
CHEMTREC®, Outside the USA: 001-703-527-3887

## 2. Hazard(s) identification

**Classification**
This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

| | |
|---|---|
| Skin Corrosion/irritation | Category 2 |
| Serious Eye Damage/Eye Irritation | Category 2 |
| Skin Sensitization | Category 1 |
| Germ Cell Mutagenicity | Category 2 |
| Carcinogenicity | Category 1A |
| Specific target organ toxicity (single exposure) | Category 3 |
| Target Organs - Central nervous system (CNS). | |
| Specific target organ toxicity - (repeated exposure) | Category 2 |
| Target Organs - Kidney, Liver, Heart, spleen, Blood. | |

**Label Elements**

**Signal Word**
Danger

**Hazard Statements**
Causes skin irritation
Causes serious eye irritation
May cause an allergic skin reaction
May cause drowsiness or dizziness
Suspected of causing genetic defects
May cause cancer
May cause damage to organs through prolonged or repeated exposure

**Precautionary Statements**
**Prevention**
Obtain special instructions before use
Do not handle until all safety precautions have been read and understood
Use personal protective equipment as required
Wash face, hands and any exposed skin thoroughly after handling
Contaminated work clothing should not be allowed out of the workplace
Do not breathe dust/fume/gas/mist/vapors/spray
Use only outdoors or in a well-ventilated area
Wear protective gloves/protective clothing/eye protection/face protection
**Response**
IF exposed or concerned: Get medical attention/advice
**Inhalation**
IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
**Skin**
IF ON SKIN: Wash with plenty of soap and water
Take off contaminated clothing and wash before reuse
If skin irritation or rash occurs: Get medical advice/attention
**Eyes**
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
If eye irritation persists: Get medical advice/attention
**Storage**
Store locked up
Store in a well-ventilated place. Keep container tightly closed
**Disposal**
Dispose of contents/container to an approved waste disposal plant
**Hazards not otherwise classified (HNOC)**
Harmful to aquatic life with long lasting effects
WARNING! This product contains a chemical known in the State of California to cause cancer, birth defects or other reproductive harm.

## 3. Composition / information on ingredients

| Component | CAS-No | Weight % |
|---|---|---|
| Trichloroethylene | 79-01-6 | 100 |

## 4. First-aid measures

**General Advice** Show this safety data sheet to the doctor in attendance. Immediate medical attention is required.

**Eye Contact** Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. In the case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

**Skin Contact** Wash off immediately with plenty of water for at least 15 minutes. Immediate medical attention is required.

**Inhalation** Move to fresh air. If not breathing, give artificial respiration. Do not use mouth-to-mouth method if victim ingested or inhaled the substance; give artificial respiration with the aid of a

| | |
|---|---|
| | pocket mask equipped with a one-way valve or other proper respiratory medical device. Immediate medical attention is required. |
| **Ingestion** | Do not induce vomiting. Call a physician or Poison Control Center immediately. |
| **Most important symptoms/effects** | None reasonably foreseeable. May cause allergic skin reaction. Inhalation of high vapor concentrations may cause symptoms like headache, dizziness, tiredness, nausea and vomiting: Symptoms of allergic reaction may include rash, itching, swelling, trouble breathing, tingling of the hands and feet, dizziness, lightheadedness, chest pain, muscle pain or flushing |
| **Notes to Physician** | Treat symptomatically |

## 5. Fire-fighting measures

| | |
|---|---|
| **Suitable Extinguishing Media** | Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide. |
| **Unsuitable Extinguishing Media** | No information available |
| **Flash Point** | No information available |
| **Method -** | No information available |
| **Autoignition Temperature** | 410 °C / 770 °F |
| **Explosion Limits** | |
| **Upper** | 10.5 vol % |
| **Lower** | 8 vol % |
| **Oxidizing Properties** | Not oxidising |
| **Sensitivity to Mechanical Impact** | No information available |
| **Sensitivity to Static Discharge** | No information available |

**Specific Hazards Arising from the Chemical**
Thermal decomposition can lead to release of irritating gases and vapors. Containers may explode when heated. Keep product and empty container away from heat and sources of ignition.

**Hazardous Combustion Products**
Hydrogen chloride gas Chlorine Phosgene Carbon monoxide (CO) Carbon dioxide ($CO_2$)

**Protective Equipment and Precautions for Firefighters**
As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear. Thermal decomposition can lead to release of irritating gases and vapors.

**NFPA**

| Health | Flammability | Instability | Physical hazards |
|---|---|---|---|
| 2 | 1 | 0 | N/A |

## 6. Accidental release measures

| | |
|---|---|
| **Personal Precautions** | Ensure adequate ventilation. Use personal protective equipment. Keep people away from and upwind of spill/leak. Evacuate personnel to safe areas. |
| **Environmental Precautions** | Should not be released into the environment. Do not flush into surface water or sanitary sewer system. |
| **Methods for Containment and Clean Up** | Soak up with inert absorbent material. Keep in suitable, closed containers for disposal. |

## 7. Handling and storage

| | |
|---|---|
| **Handling** | Wear personal protective equipment. Do not get in eyes, on skin, or on clothing. Use only under a chemical fume hood. Do not breathe vapors or spray mist. Do not ingest. |
| **Storage** | Keep containers tightly closed in a dry, cool and well-ventilated place. Protect from light. Do not store in aluminum containers. |

## 8. Exposure controls / personal protection

**Exposure Guidelines**

| Component | ACGIH TLV | OSHA PEL | NIOSH IDLH | Mexico OEL (TWA) |
|---|---|---|---|---|
| Trichloroethylene | TWA: 10 ppm<br>STEL: 25 ppm | (Vacated) TWA: 50 ppm<br>(Vacated) TWA: 270 mg/m³<br>Ceiling: 200 ppm<br>(Vacated) STEL: 200 ppm<br>(Vacated) STEL: 1080 mg/m³<br>TWA: 100 ppm | IDLH: 1000 ppm | TWA: 100 ppm<br>TWA: 535 mg/m³<br>STEL: 200 ppm<br>STEL: 1080 mg/m³ |

*Legend*

*ACGIH - American Conference of Governmental Industrial Hygienists*
*OSHA - Occupational Safety and Health Administration*
*NIOSH IDLH: The National Institute for Occupational Safety and Health Immediately Dangerous to Life or Health*

**Engineering Measures** Use only under a chemical fume hood. Ensure adequate ventilation, especially in confined areas. Ensure that eyewash stations and safety showers are close to the workstation location.

**Personal Protective Equipment**

**Eye/face Protection** Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

**Skin and body protection** Long sleeved clothing.

**Respiratory Protection** Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

**Hygiene Measures** Handle in accordance with good industrial hygiene and safety practice.

## 9. Physical and chemical properties

| | |
|---|---|
| **Physical State** | Liquid |
| **Appearance** | Colorless |
| **Odor** | Characteristic |
| **Odor Threshold** | No information available |
| **pH** | No information available |
| **Melting Point/Range** | -85 °C / -121 °F |
| **Boiling Point/Range** | 87 °C / 188.6 °F |
| **Flash Point** | No information available |
| **Evaporation Rate** | 0.69 (Carbon Tetrachloride = 1.0) |
| **Flammability (solid,gas)** | Not applicable |
| **Flammability or explosive limits** | |
| **Upper** | 10.5 vol % |
| **Lower** | 8 vol % |
| **Vapor Pressure** | 77.3 mbar @ 20 °C |
| **Vapor Density** | 4.5 (Air = 1.0) |
| **Specific Gravity** | 1.460 |
| **Solubility** | Slightly soluble in water |
| **Partition coefficient; n-octanol/water** | No data available |
| **Autoignition Temperature** | 410 °C / 770 °F |
| **Decomposition Temperature** | > 120°C |
| **Viscosity** | 0.55 mPa.s (25°C) |

**Molecular Formula** C2 H Cl3
**Molecular Weight** 131.39

## 10. Stability and reactivity

**Reactive Hazard** None known, based on information available

**Stability** Light sensitive.

**Conditions to Avoid** Incompatible products. Excess heat. Exposure to light. Exposure to moist air or water.

**Incompatible Materials** Strong oxidizing agents, Strong bases, Amines, Alkali metals, Metals,

**Hazardous Decomposition Products** Hydrogen chloride gas, Chlorine, Phosgene, Carbon monoxide (CO), Carbon dioxide ($CO_2$)

**Hazardous Polymerization** Hazardous polymerization does not occur.

**Hazardous Reactions** None under normal processing.

## 11. Toxicological information

**Acute Toxicity**

**Product Information**
**Component Information**

| Component | LD50 Oral | LD50 Dermal | LC50 Inhalation |
|---|---|---|---|
| Trichloroethylene | LD50 = 4290 mg/kg ( Rat )<br>LD50 = 4920 mg/kg ( Rat ) | LD50 > 20 g/kg ( Rabbit )<br>LD50 = 29000 mg/kg ( Rabbit ) | LC50 = 26 mg/L ( Rat ) 4 h |

**Toxicologically Synergistic Products** No information available

**Delayed and immediate effects as well as chronic effects from short and long-term exposure**

**Irritation** Irritating to eyes and skin

**Sensitization** No information available

**Carcinogenicity** The table below indicates whether each agency has listed any ingredient as a carcinogen.

| Component | CAS-No | IARC | NTP | ACGIH | OSHA | Mexico |
|---|---|---|---|---|---|---|
| Trichloroethylene | 79-01-6 | Group 1 | Reasonably Anticipated | A2 | X | Not listed |

*IARC: (International Agency for Research on Cancer)*

*IARC: (International Agency for Research on Cancer)*
*Group 1 - Carcinogenic to Humans*
*Group 2A - Probably Carcinogenic to Humans*
*Group 2B - Possibly Carcinogenic to Humans*

*NTP: (National Toxicity Program)*

*NTP: (National Toxicity Program)*
*Known - Known Carcinogen*
*Reasonably Anticipated - Reasonably Anticipated to be a Human Carcinogen*

*ACGIH: (American Conference of Governmental Industrial Hygienists)*

*A1 - Known Human Carcinogen*
*A2 - Suspected Human Carcinogen*
*A3 - Animal Carcinogen*
*ACGIH: (American Conference of Governmental Industrial Hygienists)*

**Mutagenic Effects** Mutagenic effects have occurred in humans.

**Reproductive Effects** No information available.

**Developmental Effects** No information available.

**Teratogenicity** No information available.

**STOT - single exposure** Central nervous system (CNS)
**STOT - repeated exposure** Kidney Liver Heart spleen Blood

**Aspiration hazard** No information available

**Symptoms / effects,both acute and delayed** Inhalation of high vapor concentrations may cause symptoms like headache, dizziness, tiredness, nausea and vomiting: Symptoms of allergic reaction may include rash, itching, swelling, trouble breathing, tingling of the hands and feet, dizziness, lightheadedness, chest pain, muscle pain or flushing

**Endocrine Disruptor Information** No information available

**Other Adverse Effects** The toxicological properties have not been fully investigated.

## 12. Ecological information

**Ecotoxicity**

Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment. Do not empty into drains. The product contains following substances which are hazardous for the environment. Contains a substance which is:. Harmful to aquatic organisms. Toxic to aquatic organisms.

| Component | Freshwater Algae | Freshwater Fish | Microtox | Water Flea |
|---|---|---|---|---|
| Trichloroethylene | EC50: = 175 mg/L, 96h (Pseudokirchneriella subcapitata)<br>EC50: = 450 mg/L, 96h (Desmodesmus subspicatus) | LC50: 39 - 54 mg/L, 96h static (Lepomis macrochirus)<br>LC50: 31.4 - 71.8 mg/L, 96h flow-through (Pimephales promelas) | EC50 = 0.81 mg/L 24 h<br>EC50 = 115 mg/L 10 min<br>EC50 = 190 mg/L 15 min<br>EC50 = 235 mg/L 24 h<br>EC50 = 410 mg/L 24 h<br>EC50 = 975 mg/L 5 min | EC50: = 2.2 mg/L, 48h (Daphnia magna) |

**Persistence and Degradability** Persistence is unlikely based on information available.

**Bioaccumulation/ Accumulation** No information available.

**Mobility** Will likely be mobile in the environment due to its volatility.

| Component | log Pow |
|---|---|
| Trichloroethylene | 2.4 |

## 13. Disposal considerations

**Waste Disposal Methods** Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Chemical waste generators must also consult local, regional, and national hazardous waste regulations to ensure complete and accurate classification.

| Component | RCRA - U Series Wastes | RCRA - P Series Wastes |
|---|---|---|
| Trichloroethylene - 79-01-6 | U228 | - |

## 14. Transport information

**DOT**

**UN-No** UN1710
**Proper Shipping Name** TRICHLOROETHYLENE
**Hazard Class** 6.1
**Packing Group** III

**TDG**

**UN-No** UN1710
**Proper Shipping Name** TRICHLOROETHYLENE
**Hazard Class** 6.1
**Packing Group** III

**IATA**

**UN-No** UN1710
**Proper Shipping Name** TRICHLOROETHYLENE

| | |
|---|---|
| **Hazard Class** | 6.1 |
| **Packing Group** | III |

**IMDG/IMO**

| | |
|---|---|
| **UN-No** | UN1710 |
| **Proper Shipping Name** | TRICHLOROETHYLENE |
| **Hazard Class** | 6.1 |
| **Packing Group** | III |

## 15. Regulatory information

**All of the components in the product are on the following Inventory lists:** X = listed

**International Inventories**

| Component | TSCA | DSL | NDSL | EINECS | ELINCS | NLP | PICCS | ENCS | AICS | IECSC | KECL |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Trichloroethylene | X | X | - | 201-167-4 | - | | X | X | X | X | X |

**Legend:**
**X - Listed**
**E - Indicates a substance that is the subject of a Section 5(e) Consent order under TSCA.**
**F - Indicates a substance that is the subject of a Section 5(f) Rule under TSCA.**
**N - Indicates a polymeric substance containing no free-radical initiator in its inventory name but is considered to cover the designated polymer made with any free-radical initiator regardless of the amount used.**
**P - Indicates a commenced PMN substance**
**R - Indicates a substance that is the subject of a Section 6 risk management rule under TSCA.**
**S - Indicates a substance that is identified in a proposed or final Significant New Use Rule**
**T - Indicates a substance that is the subject of a Section 4 test rule under TSCA.**
**XU - Indicates a substance exempt from reporting under the Inventory Update Rule, i.e. Partial Updating of the TSCA Inventory Data Base Production and Site Reports (40 CFR 710(B).**
**Y1 - Indicates an exempt polymer that has a number-average molecular weight of 1,000 or greater.**
**Y2 - Indicates an exempt polymer that is a polyester and is made only from reactants included in a specified list of low concern reactants that comprises one of the eligibility criteria for the exemption rule.**

**U.S. Federal Regulations**

**TSCA 12(b)** Not applicable

| Component | TSCA 12(b) |
|---|---|
| Trichloroethylene | Section 5 |

**SARA 313**

| Component | CAS-No | Weight % | SARA 313 - Threshold Values % |
|---|---|---|---|
| Trichloroethylene | 79-01-6 | 100 | 0.1 |

**SARA 311/312 Hazard Categories**

| | |
|---|---|
| **Acute Health Hazard** | Yes |
| **Chronic Health Hazard** | Yes |
| **Fire Hazard** | No |
| **Sudden Release of Pressure Hazard** | No |
| **Reactive Hazard** | No |

**CWA (Clean Water Act)**

| Component | CWA - Hazardous Substances | CWA - Reportable Quantities | CWA - Toxic Pollutants | CWA - Priority Pollutants |
|---|---|---|---|---|
| Trichloroethylene | X | 100 lb | X | X |

**Clean Air Act**

| Component | HAPS Data | Class 1 Ozone Depletors | Class 2 Ozone Depletors |
|---|---|---|---|
| Trichloroethylene | X | | - |

**OSHA** Occupational Safety and Health Administration
Not applicable

**CERCLA**
This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302)

| Component | Hazardous Substances RQs | CERCLA EHS RQs |
|---|---|---|
| Trichloroethylene | 100 lb 1 lb | - |

**California Proposition 65** This product contains the following proposition 65 chemicals

| Component | CAS-No | California Prop. 65 | Prop 65 NSRL | Category |
|---|---|---|---|---|
| Trichloroethylene | 79-01-6 | Carcinogen<br>Developmental<br>Male Reproductive | 14 µg/day<br>50 µg/day | Developmental<br>Carcinogen |

**U.S. State Right-to-Know Regulations**

| Component | Massachusetts | New Jersey | Pennsylvania | Illinois | Rhode Island |
|---|---|---|---|---|---|
| Trichloroethylene | X | X | X | X | X |

**U.S. Department of Transportation**

Reportable Quantity (RQ): Y
DOT Marine Pollutant N
DOT Severe Marine Pollutant N

**U.S. Department of Homeland Security**
This product does not contain any DHS chemicals.

**Other International Regulations**

**Mexico - Grade** No information available

## 16. Other information

**Prepared By** Regulatory Affairs
Thermo Fisher Scientific
Email: EMSDS.RA@thermofisher.com

**Creation Date** 03-Feb-2010
**Revision Date** 14-Jul-2016
**Print Date** 14-Jul-2016
**Revision Summary** This document has been updated to comply with the US OSHA HazCom 2012 Standard replacing the current legislation under 29 CFR 1910.1200 to align with the Globally Harmonized System of Classification and Labeling of Chemicals (GHS).

**Disclaimer**
**The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text**

**End of SDS**

# SAFETY DATA SHEET

**Revision Date** 19-Jan-2018 **Revision Number** 3

## 1. Identification

**Product Name** **Poly(vinyl chloride), high molecular weight**

**Cat No. :** **AC183320000; AC183320010; AC183325000**

**Synonyms** Chlorethene homopolymer; Ethylene, chloro-, polymer; PVC

**Recommended Use** Laboratory chemicals.
**Uses advised against** Not for food, drug, pesticide or biocidal product use

**Details of the supplier of the safety data sheet**

**Company**
Fisher Scientific
One Reagent Lane
Fair Lawn, NJ 07410
Tel: (201) 796-7100

Acros Organics
One Reagent Lane
Fair Lawn, NJ 07410

**Emergency Telephone Number**
For information **US** call: 001-800-ACROS-01 / **Europe** call: +32 14 57 52 11
Emergency Number **US:**001-201-796-7100 / **Europe:** +32 14 57 52 99
**CHEMTREC** Tel. No.**US:**001-800-424-9300 / **Europe:**001-703-527-3887

## 2. Hazard(s) identification

**Classification**
Classification under 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Based on available data, the classification criteria are not met

**Label Elements**
None required

**Hazards not otherwise classified (HNOC)**
None identified

## 3. Composition/Information on Ingredients

| Component | CAS-No | Weight % |
|---|---|---|
| PVC (Chloroethylene, polymer) | 9002-86-2 | 100 |

## 4. First-aid measures

**Eye Contact** Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes.

**Skin Contact** Wash off immediately with plenty of water for at least 15 minutes.

**Inhalation** Move to fresh air.

**Ingestion** Do not induce vomiting.

**Most important symptoms and effects** No information available.

**Notes to Physician** Treat symptomatically

## 5. Fire-fighting measures

**Unsuitable Extinguishing Media** No information available

**Flash Point**
**Method -** No information available

**Autoignition Temperature** 435 °C

**Explosion Limits**
**Upper** No data available
**Lower** No data available
**Sensitivity to Mechanical Impact** No information available
**Sensitivity to Static Discharge** No information available

**Specific Hazards Arising from the Chemical**
Keep product and empty container away from heat and sources of ignition.

**Hazardous Combustion Products**
None known
**Protective Equipment and Precautions for Firefighters**
As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

**NFPA**

| Health | Flammability | Instability | Physical hazards |
|---|---|---|---|
| 1 | 1 | 0 | N/A |

## 6. Accidental release measures

**Personal Precautions** Ensure adequate ventilation. Use personal protective equipment.
**Environmental Precautions** See Section 12 for additional ecological information.

**Methods for Containment and Clean Up** No information available.

## 7. Handling and storage

**Handling** Ensure adequate ventilation.

**Storage** Keep containers tightly closed in a dry, cool and well-ventilated place.

## 8. Exposure controls / personal protection

**Exposure Guidelines**

| Component | ACGIH TLV | OSHA PEL | NIOSH IDLH | Mexico OEL (TWA) |
|---|---|---|---|---|
| PVC (Chloroethylene, polymer) | TWA: 1 mg/m³ | | | |

*Legend*

*ACGIH - American Conference of Governmental Industrial Hygienists*

**Engineering Measures** Ensure adequate ventilation, especially in confined areas.

**Personal Protective Equipment**

**Eye/face Protection** Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

**Skin and body protection** Wear appropriate protective gloves and clothing to prevent skin exposure.

**Respiratory Protection** Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

**Hygiene Measures** Handle in accordance with good industrial hygiene and safety practice.

## 9. Physical and chemical properties

| | |
|---|---|
| **Physical State** | Powder Solid |
| **Appearance** | Off-white |
| **Odor** | Odorless |
| **Odor Threshold** | No information available |
| **pH** | |
| **Melting Point/Range** | No data available |
| **Boiling Point/Range** | |
| **Flash Point** | |
| **Evaporation Rate** | No information available |
| **Flammability (solid,gas)** | No information available |
| **Flammability or explosive limits** | |
| **Upper** | No data available |
| **Lower** | No data available |
| **Vapor Pressure** | No information available |
| **Vapor Density** | No information available |
| **Specific Gravity** | 1.4000 |
| **Solubility** | No information available |
| **Partition coefficient; n-octanol/water** | No data available |
| **Autoignition Temperature** | 435 °C |
| **Decomposition Temperature** | No information available |
| **Viscosity** | No information available |

## 10. Stability and reactivity

**Reactive Hazard** None known, based on information available

**Stability** Stable under normal conditions.

**Conditions to Avoid** Incompatible products.

**Incompatible Materials** Strong oxidizing agents

**Hazardous Decomposition Products** None under normal use conditions

**Hazardous Polymerization** Hazardous polymerization does not occur.

**Hazardous Reactions** None under normal processing.

## 11. Toxicological information

**Acute Toxicity**

**Component Information**
**Toxicologically Synergistic Products** No information available

**Delayed and immediate effects as well as chronic effects from short and long-term exposure**

**Irritation** No information available

**Sensitization** No information available

**Carcinogenicity** The table below indicates whether each agency has listed any ingredient as a carcinogen.

| Component | CAS-No | IARC | NTP | ACGIH | OSHA | Mexico |
|---|---|---|---|---|---|---|
| PVC (Chloroethylene, polymer) | 9002-86-2 | Not listed | Not listed | Not listed | Not listed | Not listed |

**Mutagenic Effects** No information available

**Reproductive Effects** No information available.

**Developmental Effects** No information available.

**Teratogenicity** No information available.

**STOT - single exposure** None known
**STOT - repeated exposure** None known

**Aspiration hazard** No information available

**Symptoms / effects,both acute and delayed** No information available

**Endocrine Disruptor Information** No information available

**Other Adverse Effects** The toxicological properties have not been fully investigated.

## 12. Ecological information

**Ecotoxicity**
Do not empty into drains.

**Persistence and Degradability** No information available

**Bioaccumulation/ Accumulation** No information available.

**Mobility** No information available.

## 13. Disposal considerations

**Waste Disposal Methods** Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Chemical waste generators must also consult local, regional, and national hazardous waste regulations to ensure complete and accurate classification.

## 14. Transport information

**DOT** Not regulated
**TDG** Not regulated
**IATA** Not regulated
**IMDG/IMO** Not regulated

## 15. Regulatory information

**International Inventories**

| Component | TSCA | DSL | NDSL | EINECS | ELINCS | NLP | PICCS | ENCS | AICS | IECSC | KECL |
|---|---|---|---|---|---|---|---|---|---|---|---|
| PVC (Chloroethylene, polymer) | X | X | - | - | 420-490-3 | | X | X | X | X | X |

**Legend:**
**X - Listed**
**E - Indicates a substance that is the subject of a Section 5(e) Consent order under TSCA.**
**F - Indicates a substance that is the subject of a Section 5(f) Rule under TSCA.**
**N - Indicates a polymeric substance containing no free-radical initiator in its inventory name but is considered to cover the designated polymer made with any free-radical initiator regardless of the amount used.**
**P - Indicates a commenced PMN substance**
**R - Indicates a substance that is the subject of a Section 6 risk management rule under TSCA.**
**S - Indicates a substance that is identified in a proposed or final Significant New Use Rule**
**T - Indicates a substance that is the subject of a Section 4 test rule under TSCA.**
**XU - Indicates a substance exempt from reporting under the Inventory Update Rule, i.e. Partial Updating of the TSCA Inventory Data Base Production and Site Reports (40 CFR 710(B).**
**Y1 - Indicates an exempt polymer that has a number-average molecular weight of 1,000 or greater.**
**Y2 - Indicates an exempt polymer that is a polyester and is made only from reactants included in a specified list of low concern reactants that comprises one of the eligibility criteria for the exemption rule.**

**U.S. Federal Regulations**

**TSCA 12(b)** Not applicable

**SARA 313** Not applicable

**SARA 311/312 Hazard Categories** See section 2 for more information

**CWA (Clean Water Act)** Not applicable

**Clean Air Act** Not applicable

**OSHA** Occupational Safety and Health Administration
Not applicable

**CERCLA** Not applicable

**California Proposition 65** This product does not contain any Proposition 65 chemicals

**U.S. State Right-to-Know Regulations** Not applicable

| Component | Massachusetts | New Jersey | Pennsylvania | Illinois | Rhode Island |
|---|---|---|---|---|---|
| PVC (Chloroethylene, polymer) | - | X | - | - | - |

**U.S. Department of Transportation**

Reportable Quantity (RQ): N
DOT Marine Pollutant N
DOT Severe Marine Pollutant N

**U.S. Department of Homeland Security**
This product does not contain any DHS chemicals.

**Other International Regulations**

**Mexico - Grade** No information available

## 16. Other information

**Prepared By** Regulatory Affairs
Thermo Fisher Scientific
Email: EMSDS.RA@thermofisher.com

| | |
|---|---|
| **Revision Date** | 19-Jan-2018 |
| **Print Date** | 19-Jan-2018 |
| **Revision Summary** | This document has been updated to comply with the US OSHA HazCom 2012 Standard replacing the current legislation under 29 CFR 1910.1200 to align with the Globally Harmonized System of Classification and Labeling of Chemicals (GHS). |

**Disclaimer**

**The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text**

## End of SDS

# Vinyl chloride

Safety Data Sheet 1300505

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Date of issue: 10/02/2015 Version: 1.0

## SECTION 1: Identification

### 1.1. Identification

| | | |
|---|---|---|
| Product form | : | Substance |
| Substance name | : | Vinyl chloride |
| CAS No | : | 75-01-4 |
| Product code | : | 1300-5-05 |
| Formula | : | C2H3Cl |
| Synonyms | : | 1-Chloroethene; 1-Chloroethylene; Chloroethene; Chloroethylene |
| Other means of identification | : | MFCD00040415 |

### 1.2. Relevant identified uses of the substance or mixture and uses advised against

| | | |
|---|---|---|
| Use of the substance/mixture | : | Laboratory chemicals<br>Manufacture of substances<br>Scientific research and development |

### 1.3. Details of the supplier of the safety data sheet

SynQuest Laboratories, Inc.
P.O. Box 309
Alachua, FL 32615 - United States of America
T (386) 462-0788 - F (386) 462-7097
info@synquestlabs.com - www.synquestlabs.com

### 1.4. Emergency telephone number

| | | |
|---|---|---|
| Emergency number | : | (844) 523-4086 (3E Company - Account 10069) |

## SECTION 2: Hazard(s) identification

### 2.1. Classification of the substance or mixture

**Classification (GHS-US)**

| | | |
|---|---|---|
| Simple Asphy | H380 - | May displace oxygen and cause rapid suffocation |
| Flam. Gas 1 | H220 - | Extremely flammable gas |
| Compressed gas | H280 - | Contains gas under pressure; may explode if heated |
| Carc. 1A | H350 - | May cause cancer |

Full text of H-phrases: see section 16

### 2.2. Label elements

**GHS-US labeling**

Hazard pictograms (GHS-US) :

GHS02 GHS04 GHS08

Signal word (GHS-US) : Danger

Hazard statements (GHS-US) :
H220 - Extremely flammable gas
H280 - Contains gas under pressure; may explode if heated
H350 - May cause cancer
H380 - May displace oxygen and cause rapid suffocation

Precautionary statements (GHS-US) :
P201 - Obtain special instructions before use
P202 - Do not handle until all safety precautions have been read and understood
P210 - Keep away from heat/sparks/open flames/hot surfaces. No smoking
P280 - Wear protective gloves/protective clothing/eye protection/face protection
P308+P313 - If exposed or concerned: Get medical advice/attention
P377 - Leaking gas fire: Do not extinguish, unless leak can be stopped safely
P381 - Eliminate all ignition sources if safe to do so
P403 - Store in a well-ventilated place
P405 - Store locked up
P410+P403 - Protect from sunlight. Store in a well-ventilated place
P501 - Dispose of contents/container to an approved waste disposal plant

### 2.3. Other hazards

Other hazards not contributing to the classification : May cause frostbite.

### 2.4. Unknown acute toxicity (GHS US)

Not applicable

## SECTION 3: Composition/information on ingredients

### 3.1. Substance

Substance type : Mono-constituent

| Name | Product identifier | % | Classification (GHS-US) |
|---|---|---|---|
| Vinyl chloride<br>(Main constituent) | (CAS No) 75-01-4 | <= 100 | Simple Asphy, H380<br>Flam. Gas 1, H220<br>Compressed gas, H280<br>Carc. 1A, H350 |

Full text of H-phrases: see section 16

### 3.2. Mixture

Not applicable

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

First-aid measures general : In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible). Move the affected personnel away from the contaminated area.

First-aid measures after inhalation : Remove person to fresh air and keep comfortable for breathing. If not breathing, give artificial respiration. Get immediate medical advice/attention.

First-aid measures after skin contact : Thaw frosted parts with lukewarm water. Do no rub affected area. Get immediate medical advice/attention.

First-aid measures after eye contact : Remove contact lenses, if present and easy to do. Continue rinsing. Get medical advice/attention. Immediately flush eyes thoroughly with water for at least 15 minutes.

First-aid measures after ingestion : Due to its physical form, exposure to this chemical is not likely. Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth out with water. Get medical advice/attention.

### 4.2. Most important symptoms and effects, both acute and delayed

Symptoms/injuries : The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11.

Symptoms/injuries after skin contact : Contact with the liquid the may cause cold burns/frostbite.

Symptoms/injuries after eye contact : Direct contact with the liquefied gas may cause severe and possibly permanent eye injury due to frostbite from rapid liquid evaporation.

### 4.3. Indication of any immediate medical attention and special treatment needed

No additional information available

## SECTION 5: Firefighting measures

### 5.1. Extinguishing media

Suitable extinguishing media : Alcohol resistant foam. Carbon dioxide. Dry powder. Water spray. Use extinguishing media appropriate for surrounding fire.

### 5.2. Special hazards arising from the substance or mixture

Fire hazard : Thermal decomposition generates: Carbon oxides. Hydrogen chloride.

Explosion hazard : Contains gas under pressure; may explode if heated. Use water spray or fog for cooling exposed containers.

### 5.3. Advice for firefighters

Protection during firefighting : Wear gas tight chemically protective clothing in combination with self contained breathing apparatus. For further information refer to section 8: "Exposure controls/personal protection".

## SECTION 6: Accidental release measures

### 6.1. Personal precautions, protective equipment and emergency procedures

General measures : Evacuate unnecessary personnel. Gas/vapor heavier than air. May accumulate in confined spaces, particularly at or below ground level. Ensure adequate air ventilation. Do not breathe gas, fumes, vapor or spray. May cause suffocation by reducing oxygen available for breathing. Gas/vapor explosive with air within explosion limits. Eliminate every possible source of ignition.

#### 6.1.1. For non-emergency personnel

Emergency procedures : Only qualified personnel equipped with suitable protective equipment may intervene.

#### 6.1.2. For emergency responders

Protective equipment : Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".

### 6.2. Environmental precautions

Avoid release to the environment. Notify authorities if product enters sewers or public waters.

### 6.3. Methods and material for containment and cleaning up

For containment : Stop leak if safe to do so.

### 6.4. Reference to other sections

No additional information available

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

Precautions for safe handling : Ensure good ventilation of the work station. Do not breathe fumes, gas, mist, spray, vapors. Wear personal protective equipment. Avoid contact with skin and eyes. Keep away from ignition sources (including static discharges).

Safe handling of the gas receptacle : Contents under pressure. Ensure cylinder valve is closed and not leaking after each use.

Hygiene measures : Handle in accordance with good industrial hygiene and safety procedures. Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

### 7.2. Conditions for safe storage, including any incompatibilities

Technical measures : Securely chain cylinders when in use and protect against physical damage. Ground/bond container and receiving equipment.

Storage conditions : Protect from sunlight. Do not expose to temperatures exceeding 50 °C.

Incompatible materials : Refer to Section 10 on Incompatible Materials.

Storage area : Store in dry, cool, well-ventilated area.

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

| **Vinyl chloride (75-01-4)** | | |
|---|---|---|
| ACGIH | ACGIH TWA (ppm) | 1 ppm |
| OSHA | OSHA PEL (TWA) (ppm) | 1 ppm |
| OSHA | OSHA PEL (STEL) (ppm) | 5 ppm (see 29 CFR 1910.1017) |

### 8.2. Exposure controls

Appropriate engineering controls : Ensure good ventilation of the work station. Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure.

Hand protection : Protective gloves.

Eye protection : Chemical goggles or safety glasses. Face shield.

Skin and body protection : Wear suitable protective clothing.

Respiratory protection : In case of inadequate ventilation wear respiratory protection.

## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

Physical state : Gas

Appearance : Colorless gas at ordinary temperature. Colorless liquid below -14 °C (7 °F).

Color : Colorless

Odor : mild Sweet

Odor threshold : No data available

pH : No data available

Melting point : -153.7 °C

Freezing point : No data available

Boiling point : -13.8 °C

Flash point : -78 °C (open cup)

| | | |
|---|---|---|
| Relative evaporation rate (butyl acetate=1) | : | No data available |
| Flammability (solid, gas) | : | No data available |
| Explosion limits | : | No data available |
| Explosive properties | : | No data available |
| Oxidizing properties | : | No data available |
| Vapor pressure | : | 3330 hPa (at 20 °C) |
| Relative density | : | No data available |
| Relative vapor density at 20 °C | : | No data available |
| Specific gravity / density | : | 0.911 g/cm³ (at 20 °C) |
| Solubility | : | Water: 1.1 g/l (at 20 °C) |
| Log Pow | : | 1.58 (at 22 °C) |
| Auto-ignition temperature | : | 472.22 °C |
| Decomposition temperature | : | No data available |
| Viscosity | : | No data available |
| Viscosity, kinematic | : | No data available |
| Viscosity, dynamic | : | No data available |

### 9.2. Other information

No additional information available

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

No additional information available

### 10.2. Chemical stability

The product is stable at normal handling and storage conditions. Stabilized product: Hydroquinone.

### 10.3. Possibility of hazardous reactions

No additional information available

### 10.4. Conditions to avoid

Exclude sources of heat, sparks and open flame. Protect from sunlight. Do not expose to temperatures exceeding 50 °C.

### 10.5. Incompatible materials

Oxidizing agents. Copper.

### 10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced. Hazardous decomposition products in case of fire, see Section 5.

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

Acute toxicity : Not classified

| **Vinyl chloride (75-01-4)** | |
|---|---|
| LD50 oral rat | 500 mg/kg |
| LC50 inhalation rat (mg/l) | 18 lb/h (Exposure time: 15 min) |
| ATE US (oral) | 500.000 mg/kg body weight |

| | | |
|---|---|---|
| Skin corrosion/irritation | : | Not classified |
| Serious eye damage/irritation | : | Not classified |
| Respiratory or skin sensitization | : | Not classified |
| Germ cell mutagenicity | : | Not classified |
| Carcinogenicity | : | May cause cancer. |

| **Vinyl chloride (75-01-4)** | |
|---|---|
| IARC group | 1 - Carcinogenic to humans |
| National Toxicology Program (NTP) Status | 2 - Known Human Carcinogens |
| In OSHA Hazard Communication Carcinogen list | Yes |
| In OSHA Specifically Regulated Carcinogen list | Yes |

| | | |
|---|---|---|
| Reproductive toxicity | : | Not classified |
| Specific target organ toxicity (single exposure) | : | Not classified |
| Specific target organ toxicity (repeated exposure) | : | Not classified |
| Aspiration hazard | : | Not classified |
| Symptoms/injuries after skin contact | : | Contact with the liquid the may cause cold burns/frostbite. |
| Symptoms/injuries after eye contact | : | Direct contact with the liquefied gas may cause severe and possibly permanent eye injury due to frostbite from rapid liquid evaporation. |

## SECTION 12: Ecological information

### 12.1. Toxicity

| Vinyl chloride (75-01-4) | |
|---|---|
| LC50 fish 1 | 210 mg/l (Exposure time: 96 h - Species: Brachydanio rerio) |

### 12.2. Persistence and degradability

No additional information available

### 12.3. Bioaccumulative potential

| Vinyl chloride (75-01-4) | |
|---|---|
| BCF fish 1 | (no significant bioaccumulation) |
| Log Pow | 1.58 (at 22 °C) |

### 12.4. Mobility in soil

No additional information available

### 12.5. Other adverse effects

No additional information available

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

| | | |
|---|---|---|
| Regional legislation (waste) | : | U.S. - RCRA (Resource Conservation & Recovery Act) - Basis for Listing - Appendix VII. U.S. - RCRA (Resource Conservation & Recovery Act) - Constituents for Detection Monitoring. U.S. - RCRA (Resource Conservation & Recovery Act) - D Series Wastes - Max Conc of Contaminants for the Tox Characteristic. U.S. - RCRA (Resource Conservation & Recovery Act) - Hazardous Constituents - Appendix VIII to 40 CFR 261. U.S. - RCRA (Resource Conservation & Recovery Act) - List for Hazardous Constituents. U.S. - RCRA (Resource Conservation & Recovery Act) - Part 268 Appendix III - Halogenated Organic Compounds (HOCs). U.S. - RCRA (Resource Conservation & Recovery Act) - Phase 4 LDR Rule - Universal Treatment Standards. U.S. - RCRA (Resource Conservation & Recovery Act) - TSD Facilities Ground Water Monitoring. U.S. - RCRA (Resource Conservation & Recovery Act) - U Series Wastes - Acutely Toxic Wastes & Other Hazardous Characteristics. |
| Waste treatment methods | : | Remove to an authorized incinerator equipped with an afterburner and a flue gas scrubber. |
| Waste disposal recommendations | : | Dispose of contents/container in accordance with licensed collector's sorting instructions. |

## SECTION 14: Transport information

### Department of Transportation (DOT)

In accordance with DOT

| | | |
|---|---|---|
| Transport document description | : | UN1086 Vinyl chloride, stabilized, 2.1 |
| UN-No.(DOT) | : | UN1086 |
| Proper Shipping Name (DOT) | : | Vinyl chloride, stabilized |
| Transport hazard class(es) (DOT) | : | 2.1 - Class 2.1 - Flammable gas 49 CFR 173.115 |
| Hazard labels (DOT) | : | 2.1 - Flammable gas |

| | | |
|---|---|---|
| DOT Packaging Non Bulk (49 CFR 173.xxx) | : | 304 |

| | | |
|---|---|---|
| DOT Packaging Bulk (49 CFR 173.xxx) | : | 314;315 |
| DOT Special Provisions (49 CFR 172.102) | : | 21 - This material must be stabilized by appropriate means (e.g., addition of chemical inhibitor, purging to remove oxygen) to prevent dangerous polymerization (see 173.21(f) of this subchapter).<br>B44 - All parts of valves and safety relief devices in contact with lading must be of a material which will not cause formation of acetylides.<br>N86 - UN pressure receptacles made of aluminum alloy are not authorized.<br>T50 - When portable tank instruction T50 is referenced in Column (7) of the 172.101 Table, the applicable liquefied compressed gases are authorized to be transported in portable tanks in accordance with the requirements of 173.313 of this subchapter. |
| DOT Packaging Exceptions (49 CFR 173.xxx) | : | 306 |
| DOT Quantity Limitations Passenger aircraft/rail (49 CFR 173.27) | : | Forbidden |
| DOT Quantity Limitations Cargo aircraft only (49 CFR 175.75) | : | 150 kg |
| DOT Vessel Stowage Location | : | B - (i) The material may be stowed ‘‘on deck’’ or ‘‘under deck’’ on a cargo vessel and on a passenger vessel carrying a number of passengers limited to not more than the larger of 25 passengers, or one passenger per each 3 m of overall vessel length; and (ii) ‘‘On deck only’’ on passenger vessels in which the number of passengers specified in paragraph (k)(2)(i) of this section is exceeded. |
| DOT Vessel Stowage Other | : | 40 - Stow ‘‘clear of living quarters’’ |
| Emergency Response Guide (ERG) Number | : | 116P |
| Other information | : | No supplementary information available. |

### TDG

No additional information available

### Transport by sea

| | | |
|---|---|---|
| UN-No. (IMDG) | : | 1086 |
| Proper Shipping Name (IMDG) | : | VINYL CHLORIDE, STABILIZED |
| Class (IMDG) | : | 2 - Gases |

### Air transport

| | | |
|---|---|---|
| UN-No. (IATA) | : | 1086 |
| Proper Shipping Name (IATA) | : | Vinyl chloride, stabilized |
| Class (IATA) | : | 2 |

## SECTION 15: Regulatory information

### 15.1. US Federal regulations

| **Vinyl chloride (75-01-4)** | |
|---|---|
| Listed on the United States TSCA (Toxic Substances Control Act) inventory<br>Subject to reporting requirements of United States SARA Section 313 | |
| SARA Section 313 - Emission Reporting | 0.1 % |

All components of this product are listed, or excluded from listing, on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory

Chemical(s) subject to the reporting requirements of Section 313 or Title III of the Superfund Amendments and Reauthorization Act (SARA) of 1986 and 40 CFR Part 372.

| | | |
|---|---|---|
| Vinyl chloride | CAS No 75-01-4 | 100% |

### 15.2. International regulations

#### CANADA

| **Vinyl chloride (75-01-4)** | |
|---|---|
| Listed on the Canadian DSL (Domestic Sustances List) | |
| WHMIS Classification | Class A - Compressed Gas<br>Class B Division 1 - Flammable Gas<br>Class D Division 2 Subdivision A - Very toxic material causing other toxic effects<br>Class D Division 2 Subdivision B - Toxic material causing other toxic effects<br>Class F - Dangerously Reactive Material |

### EU-Regulations
No additional information available

### National regulations

| Vinyl chloride (75-01-4) |
|---|
| Listed on IARC (International Agency for Research on Cancer)<br>Listed on the AICS (Australian Inventory of Chemical Substances)<br>Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)<br>Listed on the Japanese ENCS (Existing & New Chemical Substances) inventory<br>Listed on the Korean ECL (Existing Chemicals List)<br>Listed on NZIoC (New Zealand Inventory of Chemicals)<br>Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances)<br>Japanese Pollutant Release and Transfer Register Law (PRTR Law)<br>Listed as carcinogen on NTP (National Toxicology Program)<br>Listed on the Canadian IDL (Ingredient Disclosure List)<br>Listed on INSQ (Mexican national Inventory of Chemical Substances)<br>Listed on Turkish inventory of chemical |

### 15.3. US State regulations

| Vinyl chloride (75-01-4) | |
|---|---|
| U.S. - California - Proposition 65 - Carcinogens List | Yes |
| U.S. - California - Proposition 65 - Developmental Toxicity | No |
| U.S. - California - Proposition 65 - Reproductive Toxicity - Female | No |
| U.S. - California - Proposition 65 - Reproductive Toxicity - Male | No |
| No significant risk level (NSRL) | 3 µg/day |
| State or local regulations | U.S. - Massachusetts - Right To Know List<br>U.S. - New Jersey - Right to Know Hazardous Substance List<br>U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List<br>U.S. - Pennsylvania - RTK (Right to Know) - Special Hazardous Substances<br>U.S. - Pennsylvania - RTK (Right to Know) List |

California Proposition 65 - This product contains, or may contain, trace quantities of a substance(s) known to the state of California to cause cancer and/or reproductive toxicity

## SECTION 16: Other information

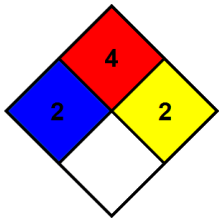
Full text of H-phrases:

| | |
|---|---|
| Carc. 1A | Carcinogenicity Category 1A |
| Compressed gas | Gases under pressure Compressed gas |
| Flam. Gas 1 | Flammable gases Category 1 |
| Simple Asphy | Simple Asphyxiant |
| H220 | Extremely flammable gas |
| H280 | Contains gas under pressure; may explode if heated |
| H350 | May cause cancer |
| H380 | May displace oxygen and cause rapid suffocation |

NFPA health hazard : 2 - Intense or continued exposure could cause temporary incapacitation or possible residual injury unless prompt medical attention is given.

NFPA fire hazard : 4 - Will rapidly or completely vaporize at normal pressure and temperature, or is readily dispersed in air and will burn readily.

NFPA reactivity : 2 - Normally unstable and readily undergo violent decomposition but do not detonate. Also: may react violently with water or may form potentially explosive mixtures with water.



HMIS III Rating

| | | |
|---|---|---|
| Health | : | 2 Moderate Hazard - Temporary or minor injury may occur<br>* - Chronic (long-term) health effects may result from repeated overexposure |
| Flammability | : | 4 Severe Hazard - Flammable gases, or very volatile flammable liquids with flash points below 73 F, and boiling points below 100 F. Materials may ignite spontaneously with air. (Class IA) |
| Physical | : | 2 Moderate Hazard - Materials that are unstable and may undergo violent chemical changes at normal temperature and pressure with low risk for explosion. Materials may react violently with water or form peroxides upon exposure to air. |

SDS US (GHS HazCom 2012)

*The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is offered solely for your consideration, investigation, and verification. It does not represent any guarantee of the properties of the product nor that the hazard precautions or procedures described are the only ones which exist. SynQuest shall not be held liable or any damage resulting from handling or from contact with the above product.*

# ALCONOX MSDS

## Section 1 : MANUFACTURER INFORMATION

**Product name:** Alconox

**Supplier:** Same as manufacturer.

**Manufacturer:** Alconox, Inc.
30 Glenn St.
Suite 309
White Plains, NY 10603.

**Manufacturer emergency phone number:** 800-255-3924.
813-248-0585 (outside of the United States).

**Manufacturer:** Alconox, Inc.
30 Glenn St.
Suite 309
White Plains, NY 10603.

**Supplier MSDS date:** 2009/04/20

**D.O.T. Classification:** Not regulated.

## Section 2 : HAZARDOUS INGREDIENTS

| C.A.S. | CONCENTRATION % | Ingredient Name | T.L.V. | LD/50 | LC/50 |
|---|---|---|---|---|---|
| 25155-30-0 | 10-30 | SODIUM DODECYLBENZENESULFONATE | NOT AVAILABLE | 438 MG/KG RAT ORAL 1330 MG/KG MOUSE ORAL | NOT AVAILABLE |
| 497-19-8 | 7-13 | SODIUM CARBONATE | NOT AVAILABLE | 4090 MG/KG RAT ORAL 6600 MG/KG MOUSE ORAL | 2300 MG/M3/2H RAT INHALATION 1200 MG/M3/2H MOUSE INHALATION |
| 7722 88-5 | 10-30 | TETRASODIUM PYROPHOSPHATE | 5 MG/M3 | 4000 MG/KG RAT ORAL 2980 MG/KG MOUSE ORAL | NOT AVAILABLE |
| 7758-29-4 | 10-30 | SODIUM PHOSPHATE | NOT AVAILABLE | 3120 MG/KG RAT ORAL 3100 MG/KG MOUSE ORAL >4640 MG/KG RABBIT DERMAL | NOT AVAILABLE |

## Section 2A : ADDITIONAL INGREDIENT INFORMATION

**Note:** (supplier).
CAS# 497-19-8: LD50 4020 mg/kg - rat oral.
CAS# 7758-29-4: LD50 3100 mg/kg - rat oral.

## Section 3 : PHYSICAL / CHEMICAL CHARACTERISTICS

**Physical state:** Solid

**Appearance & odor:** Almost odourless.
White granular powder.

**Odor threshold (ppm):** Not available.

**Vapour pressure (mmHg):** Not applicable.

**Vapour density (air=1):** Not applicable.

**By weight:** Not available.

**Evaporation rate (butyl acetate = 1):** Not applicable.

**Boiling point (°C):** Not applicable.

**Freezing point (°C):** Not applicable.

**pH:** (1% aqueous solution).
9.5

**Specific gravity @ 20 °C:** (water = 1).
0.85 - 1.10

**Solubility in water (%):** 100 - > 10% w/w

**Coefficient of water\oil dist.:** Not available.

**VOC:** None

## Section 4 : FIRE AND EXPLOSION HAZARD DATA

**Flammability:** Not flammable.

**Conditions of flammability:** Surrounding fire.

**Extinguishing media:** Carbon dioxide, dry chemical, foam.
Water
Water fog.

**Special procedures:** Self-contained breathing apparatus required.
Firefighters should wear the usual protective gear.

**Auto-ignition temperature:** Not available.

**Flash point (°C), method:** None

**Lower flammability limit (% vol):** Not applicable.

**Upper flammability limit (% vol):** Not applicable.

Not available.

**Sensitivity to mechanical impact:** Not applicable.

**Hazardous combustion products:** Oxides of carbon (COx).
Hydrocarbons.

**Rate of burning:** Not available.

**Explosive power:** None

## Section 5 : REACTIVITY DATA

**Chemical stability:** Stable under normal conditions.

**Conditions of instability:** None known.

**Hazardous polymerization:** Will not occur.

**Incompatible substances:** Strong acids.
Strong oxidizers.

**Hazardous decomposition products:** See hazardous combustion products.

## Section 6 : HEALTH HAZARD DATA

**Route of entry:** Skin contact, eye contact, inhalation and ingestion.

**Effects of Acute Exposure**

**Eye contact:** May cause irritation.

**Skin contact:** Prolonged contact may cause irritation.

**Inhalation:** Airborne particles may cause irritation.

**Ingestion:** May cause vomiting and diarrhea.
May cause abdominal pain.
May cause gastric distress.

**Effects of chronic exposure:** Contains an ingredient which may be corrosive.

**LD50 of product, species & route:** > 5000 mg/kg rat oral.

**LC50 of product, species & route:** Not available for mixture, see the ingredients section.

**Exposure limit of material:** Not available for mixture, see the ingredients section.

**Sensitization to product:** Not available.

**Carcinogenic effects:** Not listed as a carcinogen.

**Reproductive effects:** Not available.

**Teratogenicity:** Not available.

**Mutagenicity:** Not available.

**Synergistic materials:** Not available.

**Medical conditions aggravated by exposure:** Not available.

**First Aid**

**Skin contact:** Remove contaminated clothing.
Wash thoroughly with soap and water.
Seek medical attention if irritation persists.

**Eye contact:** Check for and remove contact lenses.
Flush eyes with clear, running water for 15 minutes while holding eyelids open: if irritation persists, consult a physician.

**Inhalation:** Remove victim to fresh air.
Seek medical attention if symptoms persist.

**Ingestion:** Dilute with two glasses of water.
Never give anything by mouth to an unconscious person.
Do not induce vomiting, seek immediate medical attention.

## Section 7 : PRECAUTIONS FOR SAFE HANDLING AND USE

**Leak/Spill:** Contain the spill.
Recover uncontaminated material for re-use.
Wear appropriate protective equipment.
Contaminated material should be swept or shoveled into appropriate waste container for disposal.

**Waste disposal:** In accordance with municipal, provincial and federal regulations.

**Handling procedures and equipment:** Protect against physical damage.
Avoid breathing dust.
Wash thoroughly after handling.
Keep out of reach of children.
Avoid contact with skin, eyes and clothing.
Launder contaminated clothing prior to reuse.

**Storage requirements:** Keep containers closed when not in use.
Store away from strong acids or oxidizers.
Store in a cool, dry and well ventilated area.

## Section 8 : CONTROL MEASURES

**Precautionary Measures**

**Gloves/Type:**

Neoprene or rubber gloves.

**Respiratory/Type:**

If exposure limit is exceeded, wear a NIOSH approved respirator.

**Eye/Type:**

Safety glasses with side-shields.

**Footwear/Type:** Safety shoes per local regulations.

**Clothing/Type:** As required to prevent skin contact.

**Other/Type:** Eye wash capability should be in close proximity.

**Ventilation requirements:** Local exhaust at points of emission.

ATTACHMENT D
HEAT STRESS

# HEAT STRESS

1. Heart rate (HR) should be monitored by the radial pulse for 30 seconds as soon as possible in the resting period.

   If at the beginning of the rest period a worker's radial pulse is measure and his heart rate exceeds 100 beats per minute, the worker's next work period should be reduced by 33%. Therefore, if the original work period was one hour, the following work cycle should be reduced to 40 minutes.

2. Heat Stroke is a true medical emergency. First aid should be directed toward immediate measures to cool the body quickly, as well as seeing that the victim receives medical attention as soon as possible.

   Prior to medical treatment, remove as much clothing as possible and proceed to cool the victim's body, taking care not to over chill the victim once his temperature falls below $102^0$F. One of the following cooling measures should be taken: (a) sponge the bare skin with cool water; (b) apply cold packs continuously; (c) wrap the victim in a sheet soaked with water; or (d) immerse the victim in a tub of cold water, while closely monitoring the victim's level of consciousness.

3. Prior to site activity, the Site Safety Officer may make arrangements for heat stress monitoring (i.e., monitoring heart rate, body temperature and body water loss) during actual site work if conditions warrant these measures. In addition, the Site Safety Officer would want to ensure that the team members have been acclimatized to the particular environmental conditions and that personnel are aware of the signs and symptoms of heat sickness and have been adequately trained in first aid procedures. As Site Safety Officer, one could also make sure there is sufficient personnel on-site, so as to rotate work assignments, schedule work during hours of reduced temperatures and ensure personnel do not consume alcoholic or caffeinated beverages but rather drink moderate levels of an electrolyte solution and eat well prior to commencing site work.

4. The worker could be experiencing a condition of heat rash. Allow workers to rest and relieve the itching associated with heat rash rather than return to work too soon. Itching

workers may not follow stringent decontamination procedures or scratch where it itches on-site and risk cross contamination.

Keeping the skin clean and dry will reduce the incidence of heat rash. This can be accomplished by wearing cotton garments (or other materials that absorb perspiration) underneath protective clothing. Upon removal of the protective clothing, the worker should wash and dry his skin thoroughly.

5. The sense of thirst is not an adequate regulator of water replacement during heat exposure. Therefore, as a general rule, the amount of water administered should replace the amount of water lost, and it should be administered at regular intervals throughout the day. For every 1/2 pound of water loss, 8 ounces of water should be ingested. Water should be replaced by drinking 2-4 ounce servings during every rest period. A recommended alternative to water is an electrolyte drink spilt 50/50 with water.

6. Although there is no specific test given during a baseline physical that would identify a person's intolerance to heat, there are physical factors and personal habits which may indicate possible intolerance to heat, such as, whether or not an individual smokes, one's dietary habit, body weight, as well as predisposed physical conditions such as high blood pressure, heavier conditions, diabetes or one's medication, that may influence an individual's ability to tolerate excessive heat.

7. Heat cramps are caused by profuse perspiration with inadequate fluid intake and salt replacement. Heat cramps most often afflict people in good physical condition who overwork in conditions of high temperature and humidity. Heat cramps usually come on suddenly during vigorous activity. Untreated, heat cramps may progress directly to heat exhaustion or heat stroke. First aid treatment: remove victim to a cool place and give sips of salted water (1 teaspoon of salt to 1 quart of water) - 4 ounces every 15 minutes over a period of one hour. A commercial preparation, e.g., Gatorade, may be used if split 50/50 with water.

   The salted water or solution should mitigate the cramps. Manual pressure should not be applied to the cramped muscles.

TABLE C-1

REQUIRED FREQUENCY OF HEAT STRESS MONITORING
FOR WORKERS IN IMPERMEABLE CLOTHING

| **Adjusted (2) Temperature ($^0$F)** | **Work Time Allowed Before Monitoring Break (min.)** |
|---|---|
| 90 or above | 15 |
| 87.5-90 | 30 |
| 82.5-87.5 | 60 |
| 77.5-82.5 | 90 |
| 72.5-77.5 | 120 |

(1) Adapted from Eastern Research Group and National Institute for Occupational Safety and Health, Occupational Safety and Health Guidance Manual for Super Activities. September 26, 1984, pp. 8-75.

(2) Calculate the adjusted air temperature (Ta adj) by using this equation:

$$\text{Ta adj } {}^0\text{F} = \text{Ta } {}^0\text{F} + (13 \times \% \text{ sunshine})$$

Measure air temperature (Ta) with a standard thermometer, with the bulb shielded from radiant heat. Then estimate percent sunshine (100 percent sunshine = no cloud cover an a sharp, distinct shadow; 0 percent sunshine = no shadows).

TABLE C-2

HEAT STRESS SIGNS AND SYMPTOMS

| **Heat Stress Indicator** | **When to Measure** | **If Exceeds** | **Action** |
|---|---|---|---|
| heart rate (pulse) | beginning of rest period | 110 beats per minute | shorten next work period by 33% |
| oral temperature | beginning of rest period | 99 $^{0}$F (after thermometer is under tongue for 3 minutes)<br>100.6 $^{0}$F or greater | shorten next work period by 33%<br><br>prohibit work in impermeable clothing and shorten next work period by 33% |
| body weight | 1. before workday begins (a.m.)<br>2. after workday ends (p.m.) | Decreases more than 5% | increase fluid intake |

ATTACHMENT E
COLD STRESS

# COLD STRESS (Hypothermia)

Cold stress is a function of cold, wetness and wind. A worker's susceptibility to cold stress can vary according to his/her physical fitness, degree of acclimatization to cold weather, age and diet.

## Prevention

Institute the following steps to prevent or overexposure of workers to cold:

1. Maintain body core temperature at $96.8^0$ F or above by encouraging workers to drink warm liquids during breaks (preferably not coffee) and wear several layers of clothing. Wool is recommended since it can keep the body warm even when the wood is wet.
2. Avoid frostbite by adequately covering hands, feet and other extremities. Clothing such as insulated gloves or mittens, earmuffs and hat liners should be worn. To prevent contact frostbite (from touching metal and cold surfaces below $20^0$ F) workers should wear anti-contact gloves. Tool handles and control bars should be covered with insulating material.
3. Adjust work schedules if necessary, providing adequate rest periods. When feasible, rotate personnel and perform work during the warmer hours of the day.
4. Provide a heated enclosure for workers close to their work area. Workers should remove their outer layer(s) of clothing while in the shelter to allow for sweat evaporation.
5. In the event that wind barriers are constructed around an intrusive operation (such as drilling), the enclosure must be properly vented to prevent the build-up of toxic or explosive gases or vapors. Care must be taken to keep any heat source away from flammable substances.
6. Using a wind chill chart such as the one in Table D-1, obtain the equivalent chill temperature (ECT) based on actual wind speed and temperature. Refer to the ECT when setting up work warm-up schedules, planning appropriate clothing, etc. Workers should use warming shelters at regular intervals at or below an ECT or $20^0$ F For exposure skin, continuous exposure should not be permitted at or below an ECT of $-35^0$ F.
7. Workers who become immersed in water or whose clothing becomes wet (from perspiration, rain, etc) must immediately be provided a change of dry clothing whenever the air temperature is $25.6^0$ F or below.

8. Maintain an optimal level of worker fitness by encouraging regular exercise, proper diet, etc. If possible, acclimatize workers to site conditions for several days before work begins.

Monitoring

Personnel should be aware of the symptoms of cold stress. If the following symptoms of systemic hypothermia are noticed in any worker, he/she should immediately go the warm shelter:

Heavy, uncontrollable shivering;
Excessive fatigue or drowsiness;
Loss of coordination;
Difficulty in speaking; and,
Frostbite (see below).

Frostbite is the generic term for local injury resulting from cold. The stages of frostbite and their symptoms are as follows:

1. Frostbite or incipient frostbite: sudden blanching or whitening of the skin.
2. Superficial frostbite: waxy or white skin, which is firm to the touch (tissue underneath is still resilient).
3. Deep frostbite: tissues are cold, pale and solid.

**TABLE D-1**

## WINDCHILL CHART

| Wind Speed (mph) | Actual thermometer Reading ($^0$F) | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | 50 | 40 | 30 | 20 | 10 | 0 | -10 | -20 | -30 | -40 |
| | Equivalent Temperature ($^0$F) | | | | | | | | | |
| Calm | 50 | 40 | 30 | 20 | 10 | 0 | -10 | -20 | -30 | -40 |
| 5 | 48 | 37 | 27 | 16 | 6 | -5 | -15 | -26 | -36 | -47 |
| 10 | 40 | 28 | 16 | 4 | -9 | -21 | -33 | -46 | -58 | -70 |
| 15 | 36 | 22 | 9 | -5 | -18 | -36 | -45 | -58 | -72 | -85 |
| 20 | 32 | 18 | 4 | -10 | -25 | -39 | -53 | -67 | -82 | -96 |
| 25 | 30 | 16 | 0 | -15 | -29 | -44 | -59 | -74 | -88 | -104 |
| 30 | 28 | 13 | -2 | -18 | -33 | -48 | -63 | -79 | -94 | -109 |
| 35 | 27 | 11 | -4 | -20 | -35 | -49 | -67 | -82 | -98 | -113 |
| 40 | 26 | 10 | -6 | -21 | -37 | -53 | -69 | -85 | -100 | -116 |
| >40 (Little added effect) | Little Danger (For properly clothed person) | | | | Increasing Danger (Danger from freezing of exposed flesh) | | | Great Danger | | |

ATTACHMENT ***D***

QUALITY ASSURANCE PROJECT PLAN

**iPARK 84**
**(FORMER IBM EAST FISHKILL FACILITY)**

# LOT 10 FIELD INVESTIGATION
# QUALITY ASSURANCE PROJECT PLAN (QAPP)

## 1.0 PROJECT ORGANIZATION AND RESPONSIBILITIES

Walden maintains company policies and procedures to ensure that samples collected and any analytical analyses performed are completed with a high degree of quality. These policies and procedures ensure confidence that the resulting data represent the matrix being sampled. Quality Assurance/Quality Control (QA/QC) starts with the design of the sampling program and ends with the summarized analytical data submitted in the final report. This Quality Assurance Project Plan (QAPP) describes these policies and procedures for soil***, sediment, and groundwater (if required)*** sampling. Specific details of the work to be performed at the site are provided in the *Lot 10 Boundary Modification Field Investigation Work Plan* (***revised October*** 2022). ***Note that the scope of work includes sampling for Per- and Polyfluoroalkyl Substances (PFAS) and 1,4-dioxane. PFAS sampling will be conducted in accordance with the procedures detailed in NYSDEC's Sampling, Analysis and Assessment of Per- and Polyfluoroalkyl Substances (PFAS) Under NYSDEC's Part 375 Remedial Programs*** **(June 2021).**

The project Quality Assurance Officer (QAO) shall be Mr. Lawrence Zeman. The QAO is responsible for ongoing surveillance of project activities, ensuring conformance to this QAPP, and evaluating the effectiveness of the QAPP requirements. The QAO will have access to all personnel and subcontractors, as necessary, to resolve technical problems and take corrective action, as appropriate. The QAO has the authority to recommend that work be stopped when the quality of the work appears to be in jeopardy. The QAO will be available to respond to immediate QA/QC problems. The primary QAO responsibilities are as follows:

- Monitor the correction of QC problems and alert task leaders to situations where similar problems might occur;
- Develop and maintain project QA files for sampling, monitoring, and field QA records;
- Participate in QA audits;
- Recommend changes to the project manager to improve the effectiveness of the project in attaining its QA objectives for field sampling and monitoring activities; and
- Review proposed additions and changes to this QAPP.

Project QA will be maintained under the direction of Mr. Zeman, in accordance with this QAPP.

QC for specific tasks will be the responsibility of Walden and its subcontractors, which shall be selected at the time the work is required under the direction of Mr. Zeman.

## 2.0 QUALITY ASSURANCE PROJECT PLAN OBJECTIVES

### 2.1 OVERVIEW

Overall project goals are defined by developing Data Quality Objectives (DQOs), which are qualitative and quantitative statements that specify the quality of the data required to support decision-making. Data quality is measured by how well the data meet the project QA/QC goals. In this QAPP, "Quality Assurance" and "Quality Control" are defined as follows:

- Quality Assurance - The total integrated program to assure the reliability of monitoring and measurement data; and
- Quality Control - The routine application of procedures to obtain prescribed standards of performance in the monitoring and measurement process.

### 2.2 QA/QC REQUIREMENTS

QA elements to be evaluated include accuracy, precision, sensitivity, representativeness, and completeness. Data reporting must be clear, concise and comprehensive. The data generated by the analytical laboratory for this project are required to be sensitive enough to achieve detection levels low enough to meet Contract Required Quantitation Limits (CRQLs) as specified in NYSDEC Analytical Services Protocol (NYSDEC ASP) for Superfund CLP and EPA SW-846 methods performed in accordance with NYSDEC ASP protocol. The analytical results meeting the CRQLs will provide data sensitive enough to meet the objectives of this investigation as described in the work plan. The QC elements that are important to this project are blank contamination, instrument calibration, field data completeness, sample holding times, sample preservation, and sample custody.

#### 2.2.1 Initial Instrument Calibration

Calibration curves will be developed for each of the compounds to be analyzed. Standard concentrations and a blank will be used to produce the initial curves. The development of calibration curves and initial calibration response factors must be consistent with method requirements presented in the most recent version of NYSDEC ASP.

### 2.2.2 Continuing Instrument Calibration

The initial calibration curve will be verified every twelve (12) hours by analyzing one (1) calibration standard. The standard concentration will be the midpoint concentration of the initial calibration curve. The calibration check compound must come within 25% relative percent difference (RPD) of the average response factor obtained during initial calibration. If the RPD is greater than 25%, then corrective action must be taken, as provided in the specific methodology.

### 2.2.3 Method Blanks

The method blank or preparation blank is prepared from an analyte-free matrix, which includes the same reagents, internal standards and surrogate standards as the related samples. It is carried through the entire sample preparation and analytical procedure. A method blank analysis will be performed once for each 12-hour period during the analysis of samples for volatile organic compounds (VOCs) and once for each batch of samples for semi-volatile organic compounds (SVOCs) and metals. An acceptable method blank will contain less than five (5) times the CRQL of methylene chloride, acetone, 2-butanone, and phthalate esters. For all other target compounds, the method blank must contain less than or equal to the CRQL of any single target compound. For non-target peaks in the method blank, the peak area must be less than 10% of the nearest internal standard. The method blank will be used to demonstrate the level of laboratory background and reagent contamination that might result from the analytical process itself.

### 2.2.4 Equipment Blanks

An equipment blank consists of two sets of identical, laboratory-cleaned sample containers. The first set is filled at the laboratory with deionized laboratory-grade water. The water used is from the same source as that used for the laboratory method blank. In the field, this water will be passed through the field sampling equipment into an additional second set of containers that will then be taken back to the laboratory to be analyzed for the compounds of interest. Equipment blanks shall be collected at a rate of one (1) per day of sampling. The purpose of an equipment blank is to determine whether the field sampling equipment is cross-contaminating samples.

### 2.2.5 Field Duplicates

Duplicate samples are two (2) or more samples considered to be representative sub-samples of the same source. The samples are identically processed throughout the measurement system. A field duplicate (blind duplicate) will be analyzed for the appropriate parameters. Laboratory duplicate analyses will be performed on solid matrices at a rate of five percent (5%). Duplicate samples will be analyzed for Target Analyte List (TAL) constituents. Duplicate analyses for Target Compound List (TCL) compounds will be associated with matrix spike and matrix spike duplicate analyses. The results of the duplicate analyses will be used to assess the precision of the measurement systems.

### 2.2.6 Surrogate Spike Analysis

Surrogate standard determinations will be performed on all samples and blanks analyzed by the analytical laboratory. All samples and blanks will be spiked with the appropriate surrogate compounds (as indicated by the methodology) before purging or extraction in order to monitor sample preparation and analyses. Surrogate spike recoveries shall fall within the advisory limits in accordance with the NYSDEC ASP protocols for samples falling within the quantitation limits without dilution.

### 2.2.7 Matrix Spike/Matrix Spike Duplicate/Matrix Spike Blank (MS/MSD/MSB) Analysis

MS, MSD and MSB analyses will be performed to evaluate the matrix effect of the sample upon the analytical methodology along with the precision of the instrument by measuring recoveries. The MS/MSD/MSB samples will be analyzed for each group of samples of a similar matrix, at a rate of one (1) for every batch of field samples. The RPD will be calculated from the difference between the MS and MSD.

Matrix spike blank analysis will be performed to indicate the appropriateness of the spiking solution(s) used for the MS/MSD.

## 2.3 ACCURACY

Accuracy is defined as the nearness of the mean (x) of a set of results to the true value. Accuracy is assessed by means of reference samples and percent recoveries. Accuracy includes both precision and recovery and is expressed as percent recovery (% REC). The MS sample is used to determine the percent recovery. The matrix spike percent recovery (% REC) is calculated by the following equation:

$$\%\ REC = \frac{SSR - SR}{SA}$$

where:

SSR = measurement from spiked sample
SR = measurement from un-spiked sample
SA = actual data of spike added

## 2.4 PRECISION

Precision is defined as the measurement of agreement of a set of replicate results among themselves without assumption of any prior information as to the true result. Precision is assessed by means of duplicate/replicate sample analyses.

Analytical precision is expressed in terms of RPD. The RPD is calculated using the following formula:

$$RPD = \frac{D_1 - D_2}{(D_1 + D_2)/2}$$

where:

| | | |
|---|---|---|
| RPD | = | relative percent difference |
| $D_1$ | = | larger sample value |
| $D_2$ | = | smaller sample value (duplicate) |

## 2.5 SENSITIVITY

The sensitivity objectives for this QAPP require that data generated by the analytical laboratory achieve detection levels low enough to meet the CRQLs specified by NYSDEC ASP. The method detection limits (MDL) for target compounds and target analyses will be established by the analytical laboratory to be well below the project objectives. The laboratory will submit appropriate documentation to Walden as required by the QAO.

## 2.6 REPRESENTATIVENESS

Representativeness is a measure of the relationship of an individual sample taken from a particular site to the remainder of that site and the relationship of a small aliquot of the sample (i.e., the one used in the actual analysis) to the sample remaining on-site. A blind duplicate is used to accomplish this task, as well as to assess the precision of the data. Two (2) identical groundwater samples will be collected from one (1) monitoring well and submitted as different samples. The RPD between the two (2) samples should be between 25% and 50%. The use of standardized techniques and statistical sampling methods influences the representativeness of an aliquot of sample to the sample at the site. The representativeness of samples is assured by adherence to proposed sampling procedures.

## 2.7 COMPLETENESS

Completeness is a measure of the quantity of data obtained from a measurement system as compared to the amount of data expected from the measurement system. Completeness is defined as the percentage of all results that are not affected by failing QC qualifiers, and should be between 70% and 100% of all analyses performed. The objective of completeness in laboratory reporting is to provide a thorough data support package. The laboratory data package provides documentation of sample analysis and results in the form of summaries, QC data, and raw analytical data. The laboratory will be required to submit data packages that follow NYSDEC ASP reporting format, which, at a minimum, will include the following components:

1. All sample chain-of custody forms;
2. The case narrative(s) presenting a discussion of any problems and/or procedural changes required during analyses. Also presented in the case narrative are sample summary forms;
3. Documentation demonstrating the laboratory's ability to attain the contract specified detection limits for all target analyses in all required matrices;
4. Tabulated target compound results and tentatively identified compounds;
5. Surrogate spike analysis results (organics);
6. Matrix spike/matrix spike duplicate/matrix spike blank results;
7. QC checks sample and standard recovery results;
8. Spike sample results (inorganics);
9. Blank results (field and method); and
10. Internal standard area and real-time (RT) summary.

## 2.8 COMPARABILITY

Comparability is the degree to which analytical data generated from an individual laboratory can be compared with those from another laboratory, in terms of use of standardized industry methods and equivalent instrumentation techniques. No laboratory split samples are expected to be taken for this project.

# 3.0 CALIBRATION AND MAINTENANCE PROCEDURES FOR FIELD EQUIPMENT

Walden follows manufacturer's recommendations and guidelines with regard to field instrument calibration procedures. The calibration of each instrument will be checked prior to each day's use. The date and time of the calibration check, instrument serial and model number, and signature of the calibrating technician will be entered into the field logbook. If the instrument readings are incorrect, the instrument will be either recalibrated by the technician or returned to Walden's office where it will be further evaluated and/or repaired. If field instruments require major overhauls, the instruments will be returned to the manufacturer.

Preventive maintenance of field equipment is performed routinely before each sampling event. More extensive maintenance is performed based on hours of use. The Walden equipment coordinator has overall responsibility for the preventive maintenance program. However, certain maintenance programs are also overseen by the project manager. Manually operated sampling equipment is routinely checked to ensure that it operates properly and that excessive wear has not occurred. If necessary, equipment is taken out of service for repair or replacement.

## 4.0 SAMPLE CUSTODY

### 4.1 OVERVIEW

Sample handling in the field and in the laboratory will conform to the sample custody procedures presented in this section. Field custody procedures involve proper sample identification, chain-of-custody forms, and packaging and shipping procedures. Laboratory custody begins with the receipt of samples at the laboratory and continues through sample storage, analysis, data reporting, and data archiving. This section provides the procedures that will be followed during the course of the project to ensure proper sample custody.

### 4.2 FIELD CUSTODY PROCEDURES FOR OFF-SITE LABORATORY

The following elements are important for maintaining the field custody of samples:

- Sample identification;
- Sample labels;
- Custody records;
- Shipping records; and
- Packaging procedures.

Sample labels will be attached to all sampling bottles before field activities begin. The sample labels will contain the site name, Walden job number, sample location and identification, date, time, sampler's initials, and the parameter(s) for analysis. Sampling locations will be marked on a map with a description of the sample location. The number, type of sample, and sample identification will be entered into the field logbook.

A chain-of-custody form, initiated at the analytical laboratory, will accompany the sample bottles from the laboratory into the field. Upon receipt of the bottles and cooler, the sampler will sign and date the first "Received" blank space. After each sample is collected and appropriately identified, entries will be made on the chain-of-custody form that includes:

- Site name and address;
- Samplers' names and signatures;
- Names and signatures of persons involved in chain of possession;
- Sample number;
- Number of containers;

- Sampling station identification;
- Date and time of collection;
- Type of sample and the analyses requested;
- Preservatives used (if any); and
- Pertinent field data (pH, temperature, turbidity, etc.).

After sampling has been completed, the samplers will return/ship the samples to the laboratory. The sampler will sign and date the next "Relinquished" blank space. One copy of the custody form will remain in the field and the remaining copies will accompany the samples to the laboratory. The laboratory will receive all samples within 24 hours of collection. Samples will be received by laboratory personnel, who will assume custody of the samples and sign and date the next "Received" blank.

### 4.3 LABORATORY CUSTODY PROCEDURES

Upon receipt by the analytical laboratory, samples will proceed through an orderly processing sequence specifically designed to ensure continuous integrity of both the sample and its documentation.

All samples will be received by the laboratory's sample control group and will be carefully checked for label identification and completed accurate chain-of-custody records. The sample will be tracked from storage through the laboratory system until the analytical process is completed and the sample is returned to the custody of the sample control group for disposal. Generally, access to New York State Department of Health (NYSDOH) Environmental Laboratory Approval Program (ELAP) certified laboratories is restricted to prevent any unauthorized contact with samples, extracts, or documentation.

## 5.0 SAMPLE PREPARATION/ANALYTICAL PROCEDURES

Containers, preservation and holding times of environmental samples will be applied as detailed in the NYSDEC ASP. The holding time of samples of all matrices for all analysis will be seven (7) days from the verified time of sample receipt (VTSR).

If any modifications or additions to the standard procedures are anticipated, and if any nonstandard sample preparation or analytical protocols are to be used, the modifications and the nonstandard protocol will be explicitly defined and documented.

Prior approval by Walden's QAO is required for any nonstandard analytical or sample preparation protocol used by the laboratory.

## 6.0 DATA REDUCTION, REVIEW, AND REPORTING

The process of data reduction, review, and reporting ensures that assessments or conclusions based on the final data accurately reflect actual site conditions. This plan presents the specific procedures, methods, and format that will be employed for data reduction, review, and reporting of each measurement parameter determined in the laboratory and field. Also described in this section is the process by which all data, reports, and work plans are proofed and checked for technical and numerical errors prior to final submission.

### 6.1 DATA REDUCTION

Data reduction is the process by which raw analytical data generated from the laboratory instrument systems are converted into usable mass concentrations. The raw data, which may take the form of summation of areas under the instrument curve responses, or observations, is processed by the laboratory and converted into concentrations expressed in micrograms per kilogram (µg/kg) for soil samples. The analytical laboratory will be required to follow ASP data reduction procedures.

Data reduction also includes the process by which raw field data are summarized in tables and graphs, from which quantitative or qualitative assessments can be derived by filter integration and evaluation.

Field data obtained during sampling is summarized on appropriate field forms. This information will be used to assess field conditions at the time of sampling and is summarized and analyzed along with the chemistry data in the final report. Occasionally, the reduction of actual field data requires correcting measurement data for the measurement system's baseline value. The data will be adjusted only after the raw data has been submitted to Walden's QAO and prior to final report preparation.

### 6.2 DATA REVIEW

#### 6.2.1 Laboratory Data

The purpose of laboratory data review is to define and document analytical data quality and determine whether the laboratory data quality is sufficient for the intended use(s) of the data. The QAO or a designee under the project manager's supervision will review each analytical data package for completeness (i.e., *have all the analyses requested been performed?*) and general protocol compliance, such as holding times, detection limits, spike recoveries, and surrogate recoveries. If information is found to be missing from the data package the analytical laboratory will be contacted and requested to submit any missing information.

### 6.2.2 Usability Report

Walden's QAO will perform a data usability analysis on all analytical laboratory data. The laboratory data reports will be evaluated and a Data Usability Summary Report (DUSR) will be prepared in accordance with the NYSDEC Draft Division of Environmental Resources (DER)-10 Appendix 2B: Guidance for the Development of Data Usability Summary Reports. Taking into account protocols for sampling, transport, analysis, reduction, reporting, and the data validation report, the QAO will use this information and his/her own experience to establish whether the results of each analysis can be used for the purpose intended. The QAO will determine whether the final results can be used as reported, qualified to indicate limitations, or rejected outright.

## 6.3 REPORTING

### 6.3.1 Field Data Reporting

All field real-time measurements and observations will be recorded legibly in project logbooks or field data records, with all entries signed and dated. Field measurements may include photoionization detector (PID) results. If entries are changed, the change will not obscure the original entry. The reason for the change will be stated, and the correction and explanation will be signed and dated at the time the correction is made. Field data records will be organized into standard formats whenever possible, and retained in permanent files. Soil boring logs will be prepared based on the field observations recorded in the project logbook/field notebook.

### 6.3.2 Laboratory Data Reporting

All sample data packages submitted by the analytical laboratory will be required to be reported in conformance to the NYSDEC ASP Superfund-CLP, Category B deliverable requirements.

## 6.4 DATA USAGE

The data will be used to evaluate and determine whether soils meet project objectives.

# 7.0 INTERNAL QUALITY CONTROL

## 7.1 OVERVIEW

QC checks will be performed to ensure the collection of representative and valid data. Internal QC refers to all data compilation and contaminant measurements. QC checks will be used to monitor project activities to determine whether QA objectives are being met. All specific internal QC checks to be used are identified in this section.

## 7.2 LABORATORY QUALITY CONTROL

The analytical laboratory is required to exercise internal control in a manner consistent with the requirements of this plan. Control checks and internal QC audits are required by the NYSDEC ASP methods. These include reference material analysis, blank analysis, MS/MSD analysis, cleanups, instrument adjustments and calibrations, standards, and internal audits.

A laboratory qualified professional will proof and check all final reports for transcription and/or calculation errors. Twenty percent (20%) of all final reports will be subsequently checked again by a qualified professional. All data tables will be checked to ensure that no transcription errors have occurred. Data tables will also be checked to ensure that any criteria cited for comparison purposes is appropriate and correctly referenced. All calculations will be checked to ensure that they will be properly presented and that resulting values are achievable. If any results cannot be duplicated the calculations will be independently checked for accuracy.

# 8.0 PERFORMANCE AND SYSTEMS AUDITS

Performance audits may be used to monitor project activities to assure compliance with project DQOs. The following text summarizes the field audits that may be conducted periodically.

## 8.1 FIELD AUDITS

Walden periodically conducts internal audits of field activities. The Walden on-site project manager will routinely monitor all field activities to ensure that work is done correctly. All sampling and analytical work will be reviewed routinely by the project manager.

A field audit will include monitoring and evaluation of sample collection, sample holding times, preservation techniques, field QC, and equipment calibration. These audit forms will be kept on file with the Walden project manager for one (1) year after completion of the project, then will be transferred to storage and held for an additional five (5) years.

# 9.0 ANALYTICAL CORRECTIVE ACTION

## 9.1 LABORATORY CORRECTIVE ACTION

Corrective actions will be implemented if unsatisfactory performance and/or system audit results indicate that problems exist. Corrective action may also be implemented if the result of a data assessment or internal QC check warrants such action.

ATTACHMENT ***E***

COMMUNITY AIR MONITORING PLAN

# iPARK 84
# (FORMER IBM EAST FISHKILL FACILITY)

## LOT 10 FIELD INVESTIGATION
## COMMUNITY AIR MONITORING PLAN (CAMP)

The following Community Air Monitoring Plan (CAMP) is based on the New York State Department of Environmental Conservation's (NYSDEC's) Division of Environmental Remediation Technical Guidance for Site Investigation and Remediation (DER-10) (May 2010) Appendix 1A: New York State Department of Health Generic Community Air Monitoring Plan, with modifications as appropriate for the scope of work to be performed at the iPark 84 Former IBM East Fishkill facility.

### Overview

A CAMP requires real-time monitoring for volatile organic compounds (VOCs) and particulates (i.e., dust) at the downwind perimeter of each designated work area when certain activities are in progress at contaminated sites. The CAMP is not intended for use in establishing action levels for worker respiratory protection. Rather, its intent is to provide a measure of protection for the downwind community (i.e., off-site receptors including residences and businesses and on-site workers not directly involved with the subject work activities) from potential airborne contaminant releases as a direct result of investigative and remedial work activities. The action levels specified herein require increased monitoring, corrective actions to abate emissions, and/or work shutdown. Additionally, the CAMP helps to confirm that work activities did not spread contamination off-site through the air.

Reliance on the CAMP should not preclude simple, common-sense measures to keep VOCs, dust, and odors at a minimum around the work areas.

### Qualified Environmental Monitor Responsibilities

The qualified environmental monitor (QEM) shall be Walden Environmental Engineering, PLLC (Walden), whose designated employees will be responsible for implementing the CAMP and performing the on-site air monitoring specified below. The QEM has the authority to stop work and shall be responsible for the air monitoring and daily calibration and maintenance of the equipment in accordance with the manufacturer's specifications. All instrumentation and equipment shall be maintained at all times in proper operating condition. Copies of manufacturers' monitoring equipment specifications shall be maintained on-site at all times during the work and shall be attached to the on-site copy of the CAMP.

The QEM or designated representative shall document in the dedicated CAMP project log book each calibration event, any equipment and instrument malfunctions, unusual conditions, air monitoring station locations, any exceedances of action levels and countermeasures implemented. Dates and times must be well documented.

Ambient air monitoring shall be conducted upwind and downwind of the work area at the property perimeters for fugitive dust emissions and organic vapors during periods of soil boring, excavation, other ground intrusive activities, placement of excavated materials in storage piles, and loading of transporting vehicles. If readings above established threshold levels are detected, the Contractor shall institute measures to control dust and/or organic vapors at no additional cost to the Owner. The measures utilized shall be subject to the approval of the Owner and Owner's designated representatives.

Any exceedance of a CAMP threshold or action level shall be recorded on the project summary report which shall be submitted to NYSDEC and NYSDOH. The summary report shall include the instrument readings at the monitoring stations, location of the monitoring station where any exceedance was recorded, readings at upwind locations, duration of any elevated readings (i.e., number of 15-minute time-weighted exceedances), activities being performed at the time of any exceedances, and descriptions of countermeasures implemented to control the exceedance and prevent future occurrences.

The Contractor shall respond to exceedances of the CAMP action levels immediately.

Odor or dust complaints from any owner of an adjacent or nearby property shall be managed by the Contractor in a manner equivalent to an exceedance of an action level in the CAMP.

**Community Air Monitoring Plan**

Based upon the nature of known or potential contaminants at the Site, real-time air monitoring for volatile organic compounds (VOCs) and particulate levels at the perimeter of the exclusion zone/work area will be necessary. ***The proposed CAMP air monitoring locations are shown on Figure 1 of the Lot 10 Boundary Modification Field Investigation Work Plan. Note that the CAMP stations may be adjusted in the field based on the work area locations and wind direction.***

**Continuous monitoring** will be required for all ground intrusive activities and during the demolition of contaminated or potentially contaminated structures. Ground intrusive activities in this case include, but are not limited to, soil/waste excavation and handling, test pitting or trenching, and the installation of soil borings.

**Periodic monitoring** for VOCs will be required during non-intrusive activities such as the collection of soil samples. "Periodic" monitoring during sample collection might reasonably consist of taking a reading upon arrival at a sample location, monitoring while overturning soil, and taking a reading prior to leaving a sample location. In some instances, depending upon the proximity of potentially exposed individuals, continuous monitoring may be required during sampling activities. Examples of such situations include groundwater sampling at wells on the curb of a busy urban street, in the midst of a public park, or adjacent to a school or residence.

## VOC Monitoring, Response Levels, and Actions

Volatile organic compounds (VOCs) shall be monitored at the downwind perimeter of the immediate work area (i.e., the exclusion zone) on a continuous basis or as otherwise specified. Upwind concentrations should be measured at the start of each workday and periodically thereafter to establish background conditions. The monitoring work should be performed using equipment such as a MiniRAE 2000 photoionization detector (PID) Portable VOC Monitor or other appropriate instrument to measure the types of contaminants known or suspected to be present. The equipment should be calibrated at least daily for the contaminant(s) of concern or for an appropriate surrogate. The equipment should be capable of calculating 15-minute running average concentrations, which will be compared to the levels specified below.

- If the ambient air concentration of total organic vapors at the downwind perimeter of the work area or exclusion zone exceeds five (5) parts per million (ppm) above background for the 15-minute average, work activities must be temporarily halted and monitoring continued. If the total organic vapor level readily decreases (per instantaneous readings) below five (5) ppm over background, work activities can resume with continued monitoring;
- If total organic vapor levels at the downwind perimeter of the work area or exclusion zone persist at levels in excess of five (5) ppm over background but less than 25 ppm, work activities must be halted. The source of vapors must be identified, corrective actions taken to abate emissions, and monitoring continued. After these steps, work activities can only resume provided that the total organic vapor level 200 feet downwind of the exclusion zone or half the distance to the nearest potential receptor or residential/commercial structure, whichever is less - but in no case less than 20 feet, is below five (5) ppm over background for the 15-minute average; and
- If the organic vapor level is above 25 ppm at the perimeter of the work area, activities must be shutdown. Work methods and controls will be re-evaluated.

All 15-minute readings must be recorded and be available for State (NYSDEC and NYSDOH) personnel to review. Instantaneous readings, if any, used for decision purposes should also be recorded.

## Particulate Monitoring, Response Levels, and Actions

Particulate (dust) concentrations should be monitored continuously at the upwind and downwind perimeters of the exclusion zone at temporary particulate monitoring stations. The particulate monitoring should be performed using real-time monitoring equipment (such as a portable particulate monitor EPAM 5000 or equal) capable of measuring particulate matter less than ten (10) micrometers in size (PM-10) and capable of integrating over a period of fifteen (15) minutes (or less) for comparison to the airborne particulate action level. The equipment must be equipped with an audible alarm to indicate exceedance of the action level. In addition, fugitive dust migration should be visually assessed during all work activities.

All readings must be recorded and be available for State (NYSDEC and NYSDOH) personnel to review.

Particulate concentrations shall be monitored at the upwind perimeter of an active work zone for background concentrations at the beginning and the end of the work day and at the downwind perimeter of an active work zone on a continuous basis during all ground intrusive activities. At any time, the Contractor will carry out dust and particulate control measures, such as water misting to prevent generation of dust and particulate matter during the work activities.

If the elevated levels of particulate matter are detected during the monitoring, corrective action is determined by the following levels:

- If the downwind PM-10 at a site perimeter location is 100 micrograms per cubic meter ($\mu g/m^3$) greater than background (upwind perimeter) for the 15-minute period of if airborne dust is observed leaving the perimeter of the work area, then dust suppression techniques must be employed. Work may continue with dust suppression techniques if the downwind PM-10 particulate level does not exceed 150 $\mu g/m^3$ above the upwind level and if no visible dust is migrating from the work area; and
- If, after implementing dust suppression techniques, downwind PM-10 particulate levels are greater than 150 $\mu g/m^3$ above the upwind level, work must be stopped and re-evaluation of work activities initiated. Work can resume if dust suppression measures and other controls are successful in reducing the downwind PM-10 particulate concentration to within 150 $\mu g/m^3$ of the upwind level and in preventing visible dust migration.

**Summary**

As noted above, air monitoring activities for the iPark 84 Lot 10 investigation work described in the *Lot 10 Boundary Modification Field Investigation Work Plan* (Walden, ***revised October*** 2022) will be appropriate for the soil sampling activities to be conducted in the investigation area. Therefore, the CAMP will encompass VOC and particulate monitoring during the ground intrusive activities. A CAMP report will be submitted to NYSDEC and NYSDOH upon completion of the project.

# ATTACHMENT B

## TANK 253 (SWMU #69) HISTORIC DOCUMENTATION

INTERNATIONAL BUSINESS MACHINES CORPORATION

EAST FISHKILL FACILITY

DUTCHESS COUNTY, NEW YORK

RECEIVED

SEP 20 1989

Bureau of Hazardous Waste
Facility Permitting
Division of Hazardous
Substances Regulation

# 6NYCRR PART 373

# SOLID WASTE

# MANAGEMENT UNIT QUESTIONNAIRE

# ADDENDUM

VOLUME 2

SEPTEMBER 1989

CORDDRY CARPENTER DIETZ AND ZACK

ENGINEERS AND PLANNERS

HARRISBURG PENNSYLVANIA

## 3-4 STORAGE/TREATMENT TANKS
[EXCLUSIVE OF 3-3]

NOTE: COMPLETE 3-4.1 THROUGH 3-4.3 FOR EACH INDIVIDUAL STORAGE TREATMENT TANK SWMU WHICH EITHER IS CURRENTLY OR HAS PREVIOUSLY BEEN OPERATED ON YOUR SITE.

BELOW GROUND TANK IS DEFINED AS ANY ONE OR COMBINATION OF TANKS, INCLUDING UNDERGROUND CONNECTING PIPES, WHERE 10% OR MORE OF THE VOLUME IS BENEATH THE SURFACE OF THE GROUND.

### 3-4.1 WASTE CHARACTERISTICS

Provide the following information regarding the wastes that are/have been stored in each storage tank on your site. Identify the unit according to your map identifier code and provide the appropriate EPA process code.[2] Indicate the operational status of the unit, identifying the first year of operation for active units or the inclusive dates of operation [from-to] for units presently inactive. Include the hazardous waste code from 6NYCRR371.4 for each listed hazardous waste handled at each unit. If you handle/handled hazardous wastes which are not cited in Part 371.4, [2] enter the code(s) from 6NYCRR371.3 that describe(s) the characteristics and/or the toxic constituents of those hazardous wastes.[2] For any wastes which do not have a corresponding DEC hazardous waste number, please determine, as best you can, if the particular waste would be considered a hazardous waste or to contain hazardous waste constituent(s) under Part 371 and provide waste descriptions.[2] For each waste, indicate the quantity that was/is handled on an ANNUAL basis. Provide the appropriate unit of measure (e.g., tons, cubic yards, drums or gallons). Please indicate (x) in last column if any prior or current release of hazardous waste or hazardous waste constituents was/is associated with the unit identified.

| SWMU TYPE/ UNIT IDENTIFIER[1] | SIZE | OPERATIONAL STATUS | EPA PROCESS CODE | DEC HAZARDOUS WASTE NO. OR WASTE DESCRIPTION[2] | ESTIMATED ANNUAL QUANTITY (SPECIFY UNITS) | ASSOCIATED RELEASE? |
|---|---|---|---|---|---|---|
| 253 | 800 gal. | ACTIVE X<br>YEAR START: 1969 | S02 | Industrial Waste | NOT KNOWN | X |
| | | | | D002 | | |
| | | INACTIVE<br>INCLUSIVE YEARS: ____ - ____ | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | May Containe: | | |
| | | | | Arsenic & Compounds | Trace | |
| | | | | Phenols | Trace | |
| | | | | Methyl Ethyl Ketone | Trace | |
| | | | | Trichloroethylene | Trace | |
| | | | | Chromium & Compounds | Trace | |
| | | | | Formaldehyde | Trace | |
| | | | | Fluorides | Trace | |
| | | | | | | |
| | | | | | | |
| | | | | | | |

NOTE: Tank designated as I.W. Pump Station wet well.

1 UNIT ID as coded on your facility site map.

2 EPA Process Codes, DEC Hazardous Waste Codes and criteria constituting wastes are defined in Part 1 DEFINITIONS of this questionnaire.

## 3-4 STORAGE/TREATMENT TANKS

### 3-4.2 WASTE MANAGEMENT PRACTICES

Please answer the following questions concerning waste management practices associated with the SWMU identified on the preceding page.

1. Was/is the tank above or below ground? Please describe basic design parameters and materials of construction.

| Above Ground | Below Ground | NK | Description/COMMENT |
|---|---|---|---|
| | X | | B/333 NW, Vertical, Typical Concrete Manhole, 4' Diam. x 8'6" Ht. |
| | | | This unit is equipped with a level control system and a high level alarm. |
| | | | This tank is a coated, inground unit. |

Is/was the unit covered or uncovered? If covered, briefly describe.

| Covered | Uncovered | NK | Description/COMMENT |
|---|---|---|---|
| | X | | This unit is a typical manhole with a vented cover. |

2. Describe inspection procedures for tanks and ancillary equipment (e.g., ultrasound, tank tightness tests, etc) and provide date of latest inspection.

| Date of Latest Inspection | NK | Inspection Procedures/COMMENT |
|---|---|---|
| Daily | | A visual inspection of the tank system is performed daily. |

3. If the tank is/was uncovered, are/were procedures in place to maintain at least 2 feet (60 cm) freeboard? Describe the procedures.

| Yes | No. | NK | NA | Description/COMMENT |
|---|---|---|---|---|
| X | | | | Manual |
| | | | | Automatic X |
| | | | | The liquid level is maintained within the tank by a mechanical float which controls the pumps. |

1 UNIT ID as coded on your facility site map.

## 3-4 STORAGE/TREATMENT TANKS

3-4.2 (Cont'd)

4. If the tank is/was uncovered, are/were devices or procedures in place to monitor releases to the atmosphere? Describe.

| Yes | No | NK | NA | Monitoring Description/COMMENT |
|---|---|---|---|---|
| | X | | | |

If the tank is/was uncovered, are/were devices or procedures in place to control releases to the atmosphere? Describe.

| Yes | No | NK | NA | Control Description/COMMENT |
|---|---|---|---|---|
| | X | | | |

5. Was/is the tank equipped with a secondary containment structure (e.g., dike or trench)? Please describe.

| Yes | No | NK | Description/COMMENT |
|---|---|---|---|
| | X | | |

6. Was/is the tank equipped with a drainage control system or a diversion structure (e.g., standby tank)? Describe.

| Yes | No | NK | Description/COMMENT |
|---|---|---|---|
| | X | | |

7. If hazardous waste was/is continuously fed into the tank, was/is the tank equipped with a means to stop inflow (e.g., waste cutoff or by-pass to a standby tank)? Please specify.

| Yes | No | NK | NA | COMMENT |
|---|---|---|---|---|
| | X | | | |

1 UNIT ID as coded on your facility map.

## 3-4 STORAGE/TREATMENT TANKS

3-4.2 (Cont'd)

8. Was/is there evidence of external corrosion? If yes, briefly describe the extent of the problem. If no, describe corrosion protection provided (e.g., corrosion resistant coatings or liners, or cathodic protection systems).

| Yes | No | NK | Description/COMMENT |
|---|---|---|---|
| | X | | This tank is constructed of concrete with a corrosion resistant coating. |

9. If the tank was/is used for waste treatment, briefly describe the treatment process.

| NA (no treatment) | NK | Process Description/COMMENT |
|---|---|---|
| X | | This unit is not used for waste treatment. |

10. If the tank was/is used for storage of hazardous waste, what was/is average residence time?

| NA (no storage) | NK (Residence Time Unknown) | Residence Time (units) | COMMENT |
|---|---|---|---|
| | | Less than 1 hour. | |

1 UNIT ID as coded on your facility map.

3-4 STORAGE/TREATMENT TANKS

3-4.3 EVIDENCE OF RELEASE/REMEDIATION

Please provide the following information on any prior or current release of hazardous waste or hazardous waste constituents associated with the SWMU described in the preceding pages.

Evidence of Release

| None | Indirect* | Positive Proof from Direct Observation | Positive Proof from Laboratory Analyses | COMMENT |
|---|---|---|---|---|
| | | X | | On 2/20/84, a high level alarm was activated when Industrial Waste was overflowing from manholes. |

*e.g., discoloration of surrounding soil, dead vegetation

Characteristics of Release

| DEC Hazardous Waste # [2] or Waste Descritpion | Estimated Quantity or Volume released (Units) | Date(s) of Release | Nature of Release |
|---|---|---|---|
| Industrial Waste | Several thousand gal. | 2/20/84 | Industrial Waste overflowed manholes. |

NOTE: IBM Spill Control No. 84-017.

1 UNIT ID as coded on your facility site map.

2 EPA Process Codes, DEC Hazardous Waste Codes and criteria constituting wastes are defined in Part 1 DEFINITIONS of this questionnaire.

3-4 STORAGE/TREATMENT TANKS

3-4.3 (Cont'd)

For the SWMU described above, please provide any analytical data that may be available which would describe the nature and/or extent of environmental contamination that exists as a result of release. Any information on the concentration of hazardous waste or hazardous waste constituents in contaminated soil, groundwater (GW), surface water (SW) or air should be attached. Include any information/data (including groundwater monitoring data) submitted to EPA and the State under any other regulatory programs (e.g., Superfund) that concerns prior or continuing releases as described above. If any analytical data are attached for the unit, please indicate below:

| GW Monitoring Data Attached | SW Analytical Data Attached | Soil Analytical Data Attached | Air Monitoring Data Attached |
|---|---|---|---|
| | X | | |

For the prior/current release documented above please describe relevant remediation implemented or planned.

| Previously Implemented Yes | NO | NK | Inclusive Dates | Description/COMMENT |
|---|---|---|---|---|
| | | | | Discharge was stopped by pumping flow from wet well to a sanitary drain. |

| Currently Implemented Yes | No | NK | Start Date | Description/COMMENT |
|---|---|---|---|---|
| X | | | 4/81 | IBM is currently implementing the Remedial Action Plans as established with the NYSDEC in April 1981, which include both groundwater monitoring and groundwater treatment. |

| Planned to be Implemented Yes | No | NK | Start Date | Description/COMMENT |
|---|---|---|---|---|
| X | | | 4/81 | IBM will continue to implement the Remedial Action Plans as established with the NYSDEC in April 1981. |

1 UNIT ID as coded on your facility map.

# UPSETS - LOG

GRAB SAMPLES: IW B/330 LIFT STATION OVERFLOW

DATE: 2/20/84

| WASTE-WATER # | Time: | Sample Point Description | $Cr^{+6}$ | Ph | FE |
|---|---|---|---|---|---|
| SW0020 | 9:30AM | B/330 LIFT STATION AT DISCHARGE TO STREAM | <0.005 | 7.2 | 0.05 |
| SW0021 | " | STREAM- 40' FROM DISCHARGE | " | 7.2 | <0.04 |
| W0022 | " | STREAM- 100' FROM DISCHARGE | " | 7.2 | 0.06 |
| SW0023 | " | WEST DR/ DEV. DR BRIDGE | " | 7.3 | 0.06 |
| W0024 | " | UPSTREAM | " | 7.2 | <0.04 |
| SW0025 | " | DOWNSTREAM | " | 7.3 | 0.14 |
| W0030 | 9:30AM | MANHOLE 114 LIFT STA. DISCHARGE | " | 7.0 | 0.10 |
| W0031 | " | STREAM AT DISCHARGE | " | 7.3 | 0.08 |
| SW0032 | " | STREAM AT WEST DR. | " | 7.4 | 0.09 |
| W0033 | " | DNST | " | 7.4 | 0.26 |
| SW0034 | " | UPST | " | 7.2 | <0.04 |
| W0035 | " | MANHOLE 116 ACROSS LIFT STN | " | 6.1 | 0.20 |
| W0037 | 2:00PM | MANHOLE 114 AT DISCHARGE | " | 7.5 | 0.14 |
| SW0038 | " | STREAM AT DISCHARGE | " | 7.4 | 0.14 |
| W0039 | " | WEST DR. STREAM | " | 7.4 | 0.14 |
| SW0040 | " | DNST | " | 7.4 | 0.28 |
| W0041 | " | UPST | " | 7.4 | 0.12 |
| W0042 | 3:00PM | B/300-330 BRIDGE UPST. FROM DISCHARGE | " | 7.7 | 0.05 |
| SW0043 | " | MANHOLE 114 AT DISCHARGE | " | 7.5 | 0.45 |
| W0044 | " | STREAM AT DISCHARGE | " | 7.6 | 0.06 |
| SW0045 | " | WEST DR. STREAM | " | 6.8 | 0.06 |
| SW0046 | " | DNST | " | 7.8 | <0.22 |
| W0047 | " | UPST | " | 8.0 | <0.04 |

## 3-4 STORAGE/TREATMENT TANKS

### 3-4.3 EVIDENCE OF RELEASE/REMEDIATION

Please provide the following information on any prior or current release of hazardous waste or hazardous waste constituents associated with the SWMU described in the preceeding pages.

Evidence of Release

| None | Indirect* | Positive Proof from Direct Observation | Positive Proof from Laboratory Analyses | COMMENT |
|---|---|---|---|---|
| | | X | | During construction activities in B/330, an I.W. drain was broken by the contractor and wastewater spilled into the excavation. |

*e.g., discoloration of surrounding soil, dead vegetation

Characteristics of Release

| DEC Hazardous Waste # or Waste Descritpion [2] | Estimated Quantity or Volume released (Units) | Date(s) of Release | Nature of Release |
|---|---|---|---|
| Industrial Wastewater | 1500 gal. | 5/12/84 | A break occurred in an underground Industrial Waste Line. |

NOTE: IBM Spill Control No. 84-048.

1 UNIT ID as coded on your facility site map.

2 EPA Process Codes, DEC Hazardous Waste Codes and criteria constituting wastes are defined in Part 1 DEFINITIONS of this questionnaire.

3-4 STORAGE/TREATMENT TANKS

3-4.3 (Cont'd)

For the SWMU described above, please provide any analytical data that may be available which would describe the nature and/or extent of environmental contamination that exists as a result of release. Any information on the concentration of hazardous waste or hazardous waste constituents in contaminated soil, groundwater (GW), surface water (SW) or air should be attached. Include any information/data (including groundwater monitoring data) submitted to EPA and the State under any other regulatory programs (e.g., Superfund) that concerns prior or continuing releases as described above. If any analytical data are attached for the unit, please indicate below:

| GW Monitoring Data Attached | SW Analytical Data Attached | Soil Analytical Data Attached | Air Monitoring Data Attached |
|---|---|---|---|
| | X | | |

For the prior/current release documented above please describe relevant remediation implemented or planned.

| Previously Implemented Yes | NO | NK | Inclusive Dates | Description/COMMENT |
|---|---|---|---|---|
| X | | | 5/12/84 | The pipeline was plugged upstream of the break and liquid in the excavation was pumped to tankers and taken to an I.W. Plant. |

| Currently Implemented Yes | No | NK | Start Date | Description/COMMENT |
|---|---|---|---|---|
| X | | | 4/81 | IBM is currently implementing the Remedial Action Plans as established with the NYSDEC in April 1981, which include both groundwater monitoring and groundwater treatment. |

| Planned to be Implemented Yes | No | NK | Start Date | Description/COMMENT |
|---|---|---|---|---|
| X | | | 4/81 | IBM will continue to implement the Remedial Action Plans as established with the NYSDEC in April 1981. |

1 UNIT ID as coded on your facility map.

IBM

84-048

Pg 712a

# Request for Laboratory Work

| WORK REQUESTED OF | TITLE OF LABORATORY | DEPT. NO. |
|---|---|---|
| Environmental Lab | | [redacted] 76B |
| REQUESTING EMPLOYEE'S JOB OR REFERENCE NO. | | DATE 5/16 |

| | |
|---|---|
| PART NAME | PART NUMBER |
| VENDOR NAME | PURCHASE ORDER NO. |
| QUANTITY | ENG. CHANGE |
| UNIT | MACHINES AFFECTED |

DESCRIPTION OF PART & REASON FOR WORK: (PLEASE PRINT)

Sample of liquid in excavation in front of B/330 lobby on 5/12/84 Due to I.W. line Break.

Sample contained $F^- = <0.1 mg/L$

$Cr^{+6} =$ None Detected

$pH = 7.0$

DISPOSITION OF PARTS UPON COMPLETION OF WORK: ☐ RETURN ☐ DISCARD ☐ SALVAGE

WRITTEN REPORT TO BE FORWARDED: ☐ YES ☐ NO TO _____

| ENCLOSURES: | | | |
|---|---|---|---|
| REQUESTED BY: S Donskin | DEPT. 92D | EXT. 9815 | DATE SUBMITTED |
| APPROVED BY: | DATE | | PRIORITY |

(FOR LABORATORY USE ONLY)

| LABORATORY PROJECT NO. NR 2210 | ESTIMATED DATE OF COMPLETION | |
|---|---|---|
| ASSIGNED TO: AH | APPROVED BY: | DATE |

| REMARKS: | ORDER-REF. | ACCOUNT | JOB | DEPT. CHG. |
|---|---|---|---|---|
| | | | | |

| ESTIMATES: | |
|---|---|
| MATERIAL COST | |
| LABOR COST | |
| BURDEN | |
| TOTAL HOURS | DATE COMPLETED |

923-6574-7
MRO. CAT. NO. 780600785

LAB TESTER'S COPY

## 3-4 STORAGE/TREATMENT TANKS

### 3-4.3 EVIDENCE OF RELEASE/REMEDIATION

Please provide the following information on any prior or current release of hazardous waste or hazardous waste constituents associated with the SWMU described in the preceeding pages.

Evidence of Release

| None | Indirect* | Positive Proof from Direct Observation | Positive Proof from Laboratory Analyses | COMMENT |
|---|---|---|---|---|
| | | X | | The Industrial Waste Lift Station at B/330 overflowed as a result of a malfunction in the liquid level sensing device. |

*e.g., discoloration of surrounding soil, dead vegetation

Characteristics of Release

| DEC Hazardous Waste # [2] or Waste Descritpion | Estimated Quantity or Volume released (Units) | Date(s) of Release | Nature of Release |
|---|---|---|---|
| Industrial Wastewater | Several thousand gal. | 7/16/85 | A level sensor failure resulted in an overflow. |

NOTE: IBM Spill Control No. 85-090.

1 UNIT ID as coded on your facility site map.

2 EPA Process Codes, DEC Hazardous Waste Codes and criteria constituting wastes are defined in Part 1 DEFINITIONS of this questionnaire.

3-4 STORAGE/TREATMENT TANKS

3-4.3 (Cont'd)

For the SWMU described above, please provide any analytical data that may be available which would describe the nature and/or extent of environmental contamination that exists as a result of release. Any information on the concentration of hazardous waste or hazardous waste constituents in contaminated soil, groundwater (GW), surface water (SW) or air should be attached. Include any information/data (including groundwater monitoring data) submitted to EPA and the State under any other regulatory programs (e.g., Superfund) that concerns prior or continuing releases as described above. If any analytical data are attached for the unit, please indicate below:

| GW Monitoring Data Attached | SW Analytical Data Attached | Soil Analytical Data Attached | Air Monitoring Data Attached |
|---|---|---|---|
| | X | | |

For the prior/current release documented above please describe relevant remediation implemented or planned.

| Previously Implemented Yes | NO | NK | Inclusive Dates | Description/COMMENT |
|---|---|---|---|---|
| X | | | 7/16/85 | Flow and liquid in the lift station was removed using portable pumps. The pump station was repaired; contaminated soil was drummed and disposed of offsite; liquid was collected in a tanker and was taken to an on-site I.W. Plant. |

| Currently Implemented Yes | No | NK | Start Date | Description/COMMENT |
|---|---|---|---|---|
| X | | | 4/81 | IBM is currently implementing the Remedial Action Plans as established with the NYSDEC in April 1981, which include both groundwater monitoring and groundwater treatment. |

| Planned to be Implemented Yes | No | NK | Start Date | Description/COMMENT |
|---|---|---|---|---|
| X | | | 4/81 | IBM will continue to implement the Remedial Action Plans as established with the NYSDEC in April 1981. |

1 UNIT ID as coded on your facility map.

Pg 714a
86-096

DATE: 86/10/27 RCRA ANALYTICAL REPORT IBM INTERNAL USE ONLY
PAGE: 1

SAMPLE ID: NR861303 SAMPLE DATE: 86-10-27
LOCATION: 323 B TYPE: LIQUID- ONE PHASE
GRID: REQUESTER: R. GUNN
MANIFEST NO:
ENG#(OP23-1): SPILL FACILITIES PRJ NO:
DESCRIPTION: SAMPLE FROM CONTAINMENT AREA IN BASEMENT OF B/323. TANK FARM IN MIDDLE OF BUILDING

ADDITIONAL DATA

| | QUANTITY | METHOD DETECT LIMIT | TOTAL OR LEACHATE | UNITS |
|---|---|---|---|---|
| HEXAVALENT CHROME | 0.02 | 0.005 | TOTAL | MG/L |
| FREE FLUORIDE | 35.6 | | TOTAL | MG/L |
| PH | 7.3 | | TOTAL | S.U. |

COMMENTS: PH TAKEN AT TANK WITH PH PAPER SHOWED NUETRAL. PH TAKEN IN LAB WITH METER REPORTED ABOVE.
R. GUNN IN EMERGENCY CONTROL CONTACTED AND ADVISED OF ANALYSIS AT APPROX: 0520 CC: EMERGENCY CONTROL

(SIGNATURE) HBS

END OF REPORT

IBM-EF- 88

IBM-EF- 88

# PRELIMINARY REVIEW

IBM CORPORATION
East Fishkill Facility
Hopewell Junction, New York

EPA I.D. NO. NYD000707901

Prepared for:

Mr. Ben Singh
U.S. Environmental Protection Agency
Region II
26 Federal Plaza, Room 907
New York, New York 10278

Prepared by:

Kearney/Centaur Division
A. T. Kearney, Inc.
One Wall Street Court
New York, New York 10005

EPA Contract No. 68-W9-0040
Work Assignment No. R02-16-08

July 1991

Building 333 at the IBM East Fishkill Facility is a general facility building with one potential SWMU associated with its operations. The SWMU associated with this building is:

69 Tank 253

**Unit Number(s):** 69

**Unit Name:** Tank 253

**Location:** Building 333, Northwest Exterior

**Description:** This unit, designated by IBM as the I.W. Pump Station Well, is a vertical 800-gallon concrete manhole, measuring 4' in diameter and 8'6" deep. The tank is a coated inground unit. Other information regarding waste management practices, source and disposition of the wastes, and function of the unit, could not be found from review of available file materials.

**Date of Start-up:** 1969

**Date of Closure:** This unit is currently active.

**Waste Managed:** This unit manages industrial wastewater. EPA waste codes include D002. The wastes may also contain traces of arsenic and compounds, phenols, methyl ethyl ketone, trichloroethylene, chromium and compounds, formaldehyde and fluorides. See Section III.D for a discussion of the industrial wastewater system at this facility.

**Release Controls:** This unit is provided with a vented cover, and tank level is maintained through the use of a mechanical float which controls the pumps. The interior of the tank is reportedly coated with a corrosion resistant coating.

**History of Releases:** Several thousand gallons of industrial wastewater reportedly overflowed from the manhole on February 20, 1984. The overflow was stepped by pumping the spilled wastes from the wet well to Sanitary Wastewater Treatment Plant (SWMUs 364-412). Sample analysis of the discharged liquid showed less than 1 ppm of free fluorides.

On May 12, 1984, a break in an underground industrial waste line resulted in a spill of 1,500 gallons of this waste. The incident reportedly occurred during construction activities in Building 330 when an I.W. drain was broken by a contractor. The pipeline was reportedly plugged upstream of the break, and the liquid which had flowed into the excavation was removed from the spill area by pumping into a tanker and treating it at the "I.W. Plant." The building (Building 316 or Building 312) which houses the "I.W. Plant" could not be determined from review of available file materials. Sample analysis of the liquid showed less than 1 ppm of free fluorides.

**Unit Number(s):** 69 (cont'd)

**Unit Name:** Tank 253

**History of Releases:** (cont'd)
Another incident at this unit occurred on August 16, 1985 when a level sensor failure at the unit resulted in an overflow of several thousand gallons of the industrial wastewater. Flow from the life station was reportedly removed using portable pumps, and the pump station repaired. Contaminated soils at the spill area was reportedly excavated, drummed and disposed of off-site, while the liquid was pumped into a tanker and taken to the on-site "I.W. Plant" presumably.

No other information, such as post-excavation sampling showing the effectiveness of the clean-up action, was found pertaining to these releases. This unit may be located in an area currently undergoing remedial action per an April 1981 Consent Agreement with NYSDEC.

**Informational Needs:**

- Source and destination of wastes
- Unit function
- Waste management practices
- Annual quantity of wastes managed
- Information regarding effectiveness of clean-up effort

**References:** 87, 126