1 SHORE ROAD
GLENWOOD LANDING, NEW YORK 11547
FORMER PENETREX PROCESSING
NYSDEC SITE #13-0034

PERIODIC REVIEW REPORT
(JANUARY 2022 – MARCH 2023)

SUBMITTED TO:

New York State Department of Environmental Conservation
Division of Environmental Remediation
Remedial Bureau A, Section C
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1.0 INTRODUCTION AND SITE HISTORY

P.W. Grosser Consulting, Inc. (PWGC) has prepared this periodic review report (PRR) to document the results of the groundwater sampling, air/soil vapor sampling, and inspection events that have occurred from January 1, 2022, through March 31, 2023, at 1 Shore Road in Glenwood Landing, New York. This PRR was performed in accordance with the Site Management Plan (SMP), which was most recently updated in October 2021, that governs the environmental requirements at the subject property. The site is currently listed as a New York State Department of Environmental Conservation (NYSDEC) Class IV inactive hazardous waste disposal site identified as I.D. No. 13-0034.

A Class IV inactive hazardous waste site is assigned to a site that has been properly closed but that requires continued site management consisting of operation, maintenance and/or monitoring. The classification indicates that remedial activities have been completed, however, the site has still not been brought into compliance due to residually impacted media present at the property which exceeds standards, criteria, or guidance.

1.1. Site Description and History

The subject Site consists of an approximately one-acre parcel located on the east side of Shore Road in the Hamlet of Glenwood Landing, New York. The subject site is located in the Town of North Hempstead and Nassau County. A site location map is included as **Figure 1**. The property is improved with a two-story slab-on-grade steel and masonry industrial building with no basement, a three-story wood-frame house with a basement, asphalt parking, a communications tower, and other ancillary improvements. A site plan is included as **Figure 2**.

A former dry-cleaning business, known as Penetrex Processing, Inc. (Penetrex), is reported to have operated at the site for several years prior to abandoning the facility in 1984. PWGC began a Remedial Investigation (RI) in November 2001 at the site to obtain information necessary to determine the need for remediation. The RI determined that concentrations of Volatile Organic Compounds (VOCs), including Tetrachloroethene (PCE), and Trichloroethene (TCE), exceeded the NYSDEC Ambient Water Quality Standards (AWQS) in the site's groundwater. These exceedances were determined to be the result of the improper discharge of dry cleaning chemicals to sanitary leaching pool DW-5 and/or storm water drywell DW-1 located in the eastern portion of the Site (**Figure 2**). The RI also determined that this improper discharge had also created a soil vapor intrusion condition into the Site's two buildings.

Interim remedial measures (IRMs) at the Site carried out between 2007 and 2009 included the following actions:

- An Environmental Easement was put in place to restrict land use and prevent future exposure to contamination remaining at the site after remediation.
- Designed and installed two Sub-Slab Depressurization Systems (SSDSs) for the residential and commercial structures on the site to mitigate the potential for soil vapor intrusion. An active, single loop horizontal system with perforated piping was installed beneath the concrete slabs of each building. Riser pipes connect the systems to fans which exhaust sub-slab vapors through the discharge vents above the rooflines of the respective buildings and create a negative pressure beneath the slabs. The fans are designed to run continuously to sustain the negative pressure

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beneath the slabs and mitigate the potential for vapor intrusion into the buildings. The as-built drawings for both systems are included in **Appendix A**.

- Installed five monitoring wells to supplement the previously existing seven monitoring wells and sampled each one to establish a VOC baseline prior to the application of remediation chemicals via in-situ injection. Two of the wells, MW-8D and MW-9D are screened at deeper intervals [40 feet to 50 feet] to evaluate groundwater quality below the water table.
- Designed and implemented an in-situ chemical injection program to treat chlorinated VOCs in the groundwater. A chemical solution of potassium permanganate was injected through temporary points in the delineated area of contamination within the eastern portion of the site's parking area.
- Conducted a post-injection round of sampling which indicated a substantial reduction in the mass of contamination at the subject site. This was best illustrated in the results from monitoring well MW-8, where the concentration of total VOCs decreased from 7,758 µg/L to 1,462 µg/L in the initial post-injection sampling. VOC concentrations in samples collected from the other monitoring wells in the impacted area were significantly lower than in MW-8.
- Developed and implemented a Site Management Plan (SMP) for the management and monitoring of remaining contamination at the site. The SMP has been revised several times with the current, NYSDEC-approved version dated October 2021.

The SMP, which was most recently updated in October 2021, addresses the means for implementing the Institutional Controls (ICs) and Engineering Controls (ECs) that are required by the Environmental Easement for the Site. The requirements include the operation of the two SSDSs, maintenance of a site cover system, pan-annual (once every fifth quarter) groundwater sampling, annual indoor air sampling, and an annual site-wide inspection to confirm that ICs and ECs are properly implemented and functioning as intended. An annual PRR submission to the NYSDEC is also included as a requirement in the SMP.

In addition to the routine sampling outlined in the SMP, the SMP also outlines the procedures for achieving permanent shutdown of the SSDSs. In December 2021, the initial steps of the permanent SSDS shutdown procedures were performed and included temporary deactivation of the two systems followed by the performance of a soil vapor intrusion survey in accordance with NYSDOH protocol. Concentrations of VOCs in soil vapor at the commercial building did not meet NYSDOH guidance for "No Further Action" and the SSDS at the commercial building was reactivated on a full-time basis after the results of the survey were reviewed by PWGC. The soil vapor intrusion survey performed at the residential house in December 2021 did meet NYSDOH guidance for "No Further Action" and, in accordance with the SMP, the SSDS at the residential house has remained deactivated since this survey.

At the time of the March 2023 field activities the commercial building was unoccupied, and the residential house was occupied by a single tenant.

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1.2. 2018 Corrective Measure Work Plan and Activities

After reviewing PWGC's 2017 Periodic Review Report, the NYSDEC issued a letter on May 24, 2018, that required a Corrective Measures Work Plan (CMWP) be implemented for the following reasons as described by NYSDEC:

- *In 2017, tetrachloroethene (PCE) was detected in the indoor air of the multi-unit house located on-site at a concentration of 20.6 micrograms per cubic meter (µg/m³). This is above concentrations typically found in residential homes. The indoor air of the multi-unit house has been above background concentrations for the last 2 years and there was no product inventory of items found in the basement discussed within the PRR. Section 5.0 Conclusions and Recommendations doesn't discuss this detection, nor does it discuss steps taken to determine the cause or correct the issue, essentially concluding that there is no potential intrusion issue at the house. This issue needs to be discussed within the PRR, sources of the PCE need to be identified and actions taken to reduce the levels.*
- *A soil vapor intrusion (SVI) evaluation was not conducted during the 2018 heating season and there is no current data determining whether the sub-slab depressurization system (SSDS) installed at the multi-unit house is functioning as designed. According to the 2011 Record of Decision (ROD), there is to be continued evaluation of the potential for vapor intrusion, monitoring of the indoor air and a monitoring plan which includes monitoring the effectiveness of the sub-slab depressurization system. An SVI evaluation including concurrent indoor, sub-slab and outdoor air samples must be collected during the 2018-2019 heating season to fulfill the requirements of the 2011 ROD and to verify the steps taken to reduce the PCE indoor air detections were effective.*
- *No groundwater was collected from MW-01 in April or November 2017, however, past groundwater sampling shows consistent PCE detections. Figure 4 states that MW-01 was obstructed. This should be designated in the "Notes" area of the applicable Table. The obstruction must be removed, and this well must be sampled to verify either increasing or decreasing PCE concentrations in MW-01.*
- *The 2017 groundwater sampling dates for MW-06 in Table 2 are transposed; The 10/31/17 sampling data is listed before the 4/27/17 sampling data. This must be corrected in the final PRR document.*

To address the NYSDEC comments, PWGC submitted a Corrective Measure Work Plan (CMWP) to the NYSDEC in June 2018. Following approval of the CMWP, the following corrective measures were performed:

- PWGC performed an inspection of the site's two SSDSs for evidence of damage or other issues which may interfere with the systems' performance. No damage or other issues which may have affected the SSDSs performance were observed.
- Performance of an SSDS communication test in accordance with NYSDOH guidelines to confirm that negative pressure exists beneath the slab.
- The completion of an NYSDOH Indoor Air Questionnaire and Product Inventory Form as part of the inspection process.
- A soil vapor intrusion evaluation was performed in the house during the heating season on March 15, 2019. The sampling was performed in accordance with NYSDOH Guidance for Evaluating Soil Vapor Intrusion and included the collection of one sub-slab vapor sample, one indoor air sample, and one outdoor air sample.
- The obstruction which prevented groundwater sampling at MW-1 in 2017 was removed.

1.3. 2021 SMP Update

In September 2021, PWGC petitioned for the site to be delisted as a Class IV inactive hazardous waste site based on the significant drop and subsequent stabilization of chlorinated solvent VOCs, namely TCE and PCE, in groundwater at the site following the application of potassium permanganate to the impacted area in December 2008 and January 2009. The applied chemicals have also been effective in keeping residual impact contained within the initial impacted area, vertically and horizontally, and has effectively mitigated impacted groundwater from migrating off-site. Additionally, PWGC petitioned for the deactivation of the two SSDSs at the site based on the lack of TCE and PCE detected in sub-slab samples collected from beneath the residential house on-site, and the low concentrations of TCE and PCE detected in sub-slab samples collected from beneath the commercial building on-site during recent monitoring events.

NYSDEC did not accept the request to have the site delisted in September 2021; however, NYSDEC approved the following changes to the SMP based on the information presented:

- Reduction in routine groundwater sampling from bi-annually (twice per year) to pan-annually (once every fifth quarter). Additionally, MW-3, which was previously damaged, would not require replacement.
- The requirement to perform additional injections of remediation chemicals would no longer applies to the site; however, NYSDEC will allow future injection activities to take place if deemed to be beneficial.
- Steps to achieve shutdown of the SSDSs on-site were approved. These steps include a six-week SSDS deactivation period to allow the subsurface to attain normal background conditions, and the collection of indoor and sub-slab soil vapor samples from both buildings. If favorable results are attained, the SSDSs will remain shut down for an extended period of time and then resampled in the same method. If favorable results are attained again, then permanent deactivation of the SSDS will be requested. If sample results collected during deactivation detect exceedances that require mitigation, then the SSDS will be re-activated, and the routine annual air sampling requirements would continue.
    - *The initial steps of this procedure were performed in December 2021 at both buildings which demonstrated that soil vapor mitigation remains warranted at the commercial building while mitigation measures at the residential house no longer appeared to be necessary. The resampling of soil vapor and indoor air in accordance with the SSDS closure procedures at the residential house was performed in March 2023 while SSDS monitoring at the commercial building reverted to the routine procedures outlined in the SMP.*
- NYSDEC will allow restricted-residential site development to be performed at the property, however, future development will require an evaluation of vapor intrusion to determine if vapor mitigation systems should be included in the building design.

These approved modifications were applied to the current version of the site's SMP which was updated and submitted to NYSDEC in October 2021.

1.4. December 2021 SSDS Shutdown Evaluation

In December 2021, PWGC mobilized to the site to perform soil vapor intrusion surveys at both buildings in accordance with the SSDS shutdown protocols detailed in the current version of the SMP, which are based on NYSDOH protocols. Prior to this sampling event, the

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two SSDSs were deactivated on November 4, 2021, to allow for a six-week neutralization period.

Sub-slab vapor and indoor air concentrations at the residential house yielded a decision of "no further action" when analyzed using the NYSDOH decision matrices for each of the seven compounds included in the guidance, including the site's historical contaminants of concern: PCE and TCE. The soil vapor and air indoor air results at the residential home indicate that vapor mitigation measures do not appear to be warranted and the SSDS at this location has remained deactivated. The follow up soil vapor intrusion survey to determine if permanent shutdown of this SSDS is warranted was performed during the March 2023 PRR sampling event detailed in this report.

The elevated sub-slab vapor concentration of TCE at sampling location SV004/IA004, located in the commercial building, yielded a decision of "mitigate" despite TCE not being detected in indoor air at this location. Due to the elevated concentration of TCE in soil vapor, which is a historical contaminant of concern at the site, soil vapor mitigation measures appear to remain warranted. The SSDS at the commercial building was subsequently reactivated on February 4, 2022.

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2.0 MARCH 2023 GROUNDWATER MONITORING AND SAMPLING

PWGC mobilized to the site on March 16, 2023, to perform groundwater monitoring activities.

2.1. Groundwater Monitoring

Groundwater monitoring consisted of measuring depth to water and total well depth measurements for the monitoring wells at the site. Groundwater monitoring data is recorded in the Groundwater Monitoring Well Sampling Logs attached in **Appendix B**. Water levels were collected using a Solinst Oil / Water Interface Probe. Groundwater sampling was performed in accordance with the site-specific SMP. A site plan illustrating the location of the monitoring wells is included as **Figure 3**.

2.2. Monitoring Well Sampling

The eleven monitoring wells at the site (MW-1, MW-2, MW-4, MW-5, MW-6, MW-7, MW-8, MW-8D, MW-9, MW-9D, and MW-10) were sampled as part of the March 2023 sampling event. Each of the monitoring wells at the site are screened at a depth of ten to twenty feet below grade to match the elevation of the water table with the exception of MW-8D and MW-9D which are screened at thirty-two to forty-two feet below grade to monitor the vertical migration of chlorinated solvents beneath the source area. Samples were collected utilizing low flow purging and sampling procedures outlined in the United States Environmental Protection Agency (USEPA) Standard Operating Procedures (SOP) EQASOP-GW001. These monitoring wells were purged using a Grundfos pump and disposable polyethylene tubing which was replaced prior to sampling each well. During purging, the groundwater parameters pH, temperature, conductivity, oxygen reduction potential, turbidity, and dissolved oxygen were monitored every three minutes with a Horiba U52 water quality instrument. When measurements stabilized in accordance with the USEPA standard operating procedure EQASOP-GW001, purging was completed, and the Horiba was disconnected. The groundwater samples were then collected directly from the tubing and placed in pre-cleaned laboratory-supplied glassware and packed in a cooler on ice. Monitoring well sampling logs are included as **Appendix B.**

Samples were shipped under proper chain-of-custody procedures to Alpha Analytical Laboratories, Inc. (Alpha), a New York State Department of Health (NYSDOH) Environmental Laboratory Approval Program (ELAP) certified laboratory. The samples were analyzed for the presence of:

- Volatile Organic Compounds (VOCs) by USEPA method 8260.

Non-disposable sampling equipment (i.e. oil / water interface probe, Grundfos pump, etc.) was decontaminated prior to and between each well by using a distilled water and non-phosphate detergent wash followed by a distilled water rinse.

2.3. Quality Assurance / Quality Control

QA/QC for the groundwater sampling event included the following ASP-B protocols, including the analysis of a trip blank, the collection and analysis of a blind duplicate, a field blank, a matrix spike sample, and a matrix spike duplicate. The accuracy, precision, and completeness requirements were addressed by the laboratory for the data generated. Alpha indicated in an analytical narrative report of the sampling that the samples were received

in accordance with the chain of custody and no significant deviations were encountered during the preparation or analysis.

The sampling results were submitted to Laboratory Data Consultants (LDC), Inc of Carlsbad, California for a third-party quality assurance evaluation. The data was deemed to be usable by LDC. The Data Usability Summary Report is included as **Appendix E.**

2.4. Monitoring Well Sampling Results

Analytical results for samples collected from the monitoring wells were compared to NYSDEC Ambient Water Quality Standards (AWQS). Tetrachloroethene (PCE), Trichloroethene (TCE) and cis-1,2-Dichloroethene (Cis-1,2-DCE) were detected at concentrations exceeding AWQS during this sampling event. Analytical results are displayed on **Table 2** and are summarized below.

PCE was detected at concentrations exceeding its respective AWQS of 5 µg/L at five of the eleven monitoring wells including MW-7, MW-8, and MW-9, and to a lesser extent at MW-1 and MW-10. Concentrations of PCE ranged from 9.3 µg/L at MW-10 to 130 µg/L at MW-9. PCE was not detected at the other six monitoring well locations.

TCE was detected at a concentration exceeding its respective AWQS of 5 µg/L at one of the eleven monitoring well locations, which was at MW-9 where a concentration of 7 µg/L was detected. PCE was not detected at the other ten monitoring well locations.

Cis-1-2-DCE was detected at a concentration exceeding its respective AWQS at one of the eleven monitoring well locations, which was MW-8 where a concentration of 50 µg/L was detected. Cis-1,2-DCE was not detected at the other ten monitoring well locations.

Monitoring well locations MW-2, MW-4, MW-5, MW-6, MW-8D, and MW-9D did not yield concentrations of VOCs exceeding AWQS. Based on review of the analytical data, the highest degree of residual impact appears to be located in the center of the site at the locations of MW-7, MW-8, and MW-9 at the water table elevation. Low to no impact in wells outside of this area demonstrates that the plume is contained to the area around DW-1 and DW-5 and does not extend to the deeper elevations of the water table where MW-8D and MW-9D are screened.

The complete analytical data reports are included as **Appendix C**.

2.5. Historical Groundwater Results Discussion

Historical chlorinated VOC concentrations, dating as far back as 2001, for each well have been included in **Table 3**. This table includes PCE, TCE, cis-1,2-DCE, and vinyl chloride (VC) concentrations only; please note that results with "J" qualifiers have been listed as non-detect as these concentrations are less than the reporting limit and are considered less accurate.

Based on these results, the highest degree of impact appears to be located in the center of the site between wells MW-7, MW-8, and MW-9, which is consistent with groundwater sampling results over the past several years. Based upon the relatively low concentrations of chlorinated solvents in MW-2, MW-4, MW-5, MW-6, and MW-8D and MW-9D

groundwater impact is not migrating to the property boundary, off-site, or deeper into the aquifer. Moreover, exceedances of chlorinated solvent VOCs have not been observed in MW-8D since December 2018 and have not been observed in MW-9D since September 2008.

Overall, the VOC impact at the site appears to have been substantially reduced by the chemical injections in December 2008 and January 2009. Total Chlorinated Volatile Organic Compound (CVOC) and groundwater elevation contour figures (**Figures 4 and 5)** have been generated to reflect groundwater flow direction as well as the extent of groundwater impact. These figures illustrate that groundwater flow is to the northwest while the total CVOC concentrations have decreased and is limited to the area of the former source area centered around underground injection control structures DW-1 and DW-5.

2.6. Future Sampling Recommendations

Based on decreasing concentrations and the lack of off-site migration as detailed over the past years, PWGC recommends the following actions:

- Continue groundwater sampling on a pan-annual (every fifth quarter basis). The next groundwater sampling event will take place in June 2024.
- Reduce the routine well sampling to MW-1, MW-2, MW-4, MW-5, MW-6, MW-7, MW-8, MW-9, and MW-10.
- Discontinuing of sampling of MW-8D and MW-9D based on the lack of impacts observed at these two locations over the past several monitoring events.

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3.0 MARCH 2023 SOIL VAPOR AND INDOOR AIR SAMPLING

PWGC mobilized to the site on March 16 and 17, 2023, to perform air sampling activities. The March 2023 sampling event was performed in accordance with the routine sampling requirements detailed in the SMP for the commercial building and the sampling in the residential house was performed in the accordance with the SSDS shutdown requirements detailed in the SMP.

3.1. Commercial Building Indoor Air Sampling

A total of four indoor ambient air samples were collected in the commercial building (one sample from each of the four main ground floor spaces) for a period of twenty-four hours by PWGC on March 16 to 17, 2023. An upwind outdoor air sample was also collected during this time as a quality assurance/quality control measure. The sampling was performed in accordance with the routine air sampling protocols outlined in the SMP.

Each of the indoor air samples were collected from a height representing the breathing zone (between three and five feet above the floor). The outdoor air sample was collected from approximately three feet above the ground and placed in the up-wind direction from the buildings.

The samples were collected into 6-liter Summa® vacuum canisters fitted with 24-hour flow controllers. The canisters were certified clean by the laboratory. The samples were submitted to Alpha Analytical Laboratories for analysis of VOCs by USEPA Method TO-15-SIM for the ambient air samples and TO-15 for the soil vapor samples.

The soil-vapor/indoor air sampling locations were identified as follows:

- IA001 – Located in the western portion of the commercial building.
- IA002 – Located in the central portion of the commercial building.
- IA003 – Located in the eastern portion of the commercial building.
- IA004 - Located in the southern portion of the commercial building.

An up-wind outdoor air sample, OA001, was collected as a quality assurance/quality control measure. A site plan illustrating the location of the sampling areas is included as **Figure 6.**

3.1.1. Commercial Building Ambient Indoor Air Sampling Results

The primary method for analyzing ambient indoor air sampling results in New York State is by analyzing data using the NYSDOH Air Guidance Values included in Table 3.1 of the NYSDOH Guidance for Evaluating Soil Vapor Intrusion, October 2006. The list of analytes for the indoor air guidance values includes Methylene Chloride, TCE, and PCE.

Methylene chloride and TCE were not detected in each of the four indoor air samples collected from the commercial building. PCE was detected in the four indoor air samples collected from the commercial building. However, the highest concentration of PCE which was detected in indoor air was 1.04 µg/m^3 at IA003, which is less than the Air Guidance Value of 30 µg/m^3. Additionally, PCE was also detected in OA001 at a concentration of 0.834 µg/m3 indicating that the minor concentrations of PCE detected in the indoor air are potentially associated with an off-site source.

Moreover, the commercial building has historically included elevated concentrations of methylene chloride in the indoor air samples. As documented in previous PRR reports, the elevated concentrations appeared to be associated with the storage and use of adhesive products that were used by a furniture company that had previously occupied the property and has since vacated the building. During the March 2023 sampling event, methylene chloride was not detected in each of the four indoor air samples indicating that the elevated concentrations of this compound were likely not associated with subsurface impact at the site.

Analytical results for indoor air samples are summarized in **Table 4**. The laboratory analytical report is included in **Appendix C.**

3.1.2. Indoor Air Sample Results Analysis

Based on the analytical results of the four indoor air samples collected from the commercial building, the SSDS appears to be functioning and effective at mitigating chlorinated solvent vapors in the subsurface from impacting the indoor air of the building. Moreover, the elevated concentrations of methylene chloride detected in the indoor air during previous sampling events appears to have been addressed by the vacating of the former tenant who had used methylene chloride containing adhesives as part of their operations.

3.2. Residential House Soil Vapor Intrusion Assessment for SSDS Shutdown

A total of one soil vapor and one indoor ambient air sample were collected from the basement of the residential house for a period of twenty-four hours by PWGC on March 16 to 17, 2023. An upwind outdoor air sample was also collected during this time as a quality assurance/quality control measure. The sampling was performed in accordance with the SMP as a measure to achieve shutdown of the SSDS system installed at the residential house and the SSDS had been deactivated for approximately fifteen months at the time of this sampling event.

The indoor air sample was collected from a height representing the breathing zone (between three and five feet above the floor). The outdoor air sample was collected from approximately three feet above the ground and placed in the up-wind direction from the building.

The soil vapor sample was collected from the permanent soil vapor monitoring point located in the basement of the residential house. Prior to sampling, the integrity of the sampling port seal was tested using tracer gas analysis. The environment surrounding the seal was enriched with the tracer gas, helium, as readings were collected through the sampling probe with a portable helium detector. Tracer gas readings collected from the soil vapor probe was acceptable indicating the seals were intact and the soil vapor monitoring point was acceptable for sample collection. After the initial tracer gas test was performed, one to three volumes of the sample tubing were purged prior to collecting the sample. Flow rates for both purging and collecting did not exceed 0.2 liters per minute to minimize potential indoor air infiltration during sampling.

The samples were collected into 6-liter Summa® vacuum canisters fitted with 24-hour flow controllers. The canisters were certified clean by the laboratory. The samples were

submitted to Alpha Analytical Laboratories for analysis of VOCs by USEPA Method TO-15-SIM for the ambient air samples and TO-15 for the soil vapor sample.

The soil-vapor/indoor air sampling locations were identified as follows:

- SV005/IA005 – Located in the basement of the residential house.

An up-wind outdoor air sample, OA001, was collected as a quality assurance/quality control measure. A site plan illustrating the location of the sampling areas is included as **Figure 6.**

3.2.1. Residential House Soil Vapor Intrusion Assessment Sampling Results

The primary method for analyzing soil vapor intrusion in New York State is by analyzing data using the NYSDOH decision matrices included in Appendix A of the NYSDOH Guidance for Evaluating Soil Vapor Intrusion, October 2006. The matrices include guidance for seven chlorinated solvent compounds: PCE, TCE, cis-1,2-DCE, 1,1-dichloroethene, carbon tetrachloride, 1,1,1-trichloroethane, methylene chloride, and VC. The four possibilities of recommended guidance that can be obtained from the matrices are as follows:

- No further action – Indicating that vapor mitigation measures are not warranted for the compound being assessed.
- Monitor – Indicating that sub-slab vapor and indoor air concentrations are at levels that a significant intrusion condition cannot be confirmed or ruled out. Generally, the subsequent measures include assessing building conditions and/or resampling.
- Mitigate – Indicating that a soil vapor intrusion condition exists that should be mitigated to minimize potential exposures. A common mitigation measure is an SSDS similar to the systems currently installed at the two buildings at the subject property.
- Identify Source and Resample or Mitigate – Indicating that the source of impact may be emanating from an above ground source from inside the structure being sampled or form the outdoor air. In this scenario, efforts should be made to identify the source of impact and remove it, if possible. Mitigation measures also may be considered if soil vapor cannot be ruled out as a possible source.

Soil vapor and indoor air concentrations for TCE, PCE, cis-1,2-dichlorethene, 1,1-dichloroethene, carbon tetrachloride, 1,1,1-trichloroethane, methylene chloride and VC yielded guidance of "no further action" at the residential house when analyzed using the NYSDOH decision matrices.

Analytical results for indoor/outdoor air samples and Sub-Slab vapor are summarized in **Table 4**. The laboratory analytical report is included in **Appendix C**. The completed decision matrix for SV005/IA005 is included as **Appendix D**.

3.2.2. Soil Vapor Intrusion Assessment Sampling Results Analysis

Sub-slab vapor and indoor air concentrations at the residential house (SV005/IA005) yielded decisions of "no further action" when analyzed using the NYSDOH decision matrices for each of the seven compounds included in the guidance, including the site's historical contaminants of concern: PCE and TCE. This soil vapor intrusion assessment was performed approximately fifteen months following the deactivation of the SSDS at this location. The soil vapor and air indoor air results at the residential home indicate that vapor

mitigation measures do not appear to be warranted. Based on the results of the soil vapor intrusion assessments performed in December 2021 and March 2023 while the house's SSDS was deactivated, the SSDS which services the house is no longer necessary.

3.3. Quality Assurance / Quality Control

QA/QC for the soil vapor and air sampling event included the following ASP-B protocols. The accuracy, precision, and completeness requirements were addressed by the laboratory for the data generated. Alpha indicated in an analytical narrative report of the sampling that the samples were received in accordance with the chain of custody and no significant deviations were encountered during the preparation or analysis.

The sampling results were submitted to LDC for a third-party quality assurance evaluation. The data was deemed to be usable by LDC. The Data Usability Summary Report is included as **Appendix E.**

3.4. Future Recommendations

Based on these results of the March 2023 indoor air sampling at the commercial building and the soil vapor intrusion assessment at the residential house, PWGC recommends the following actions:

- The routine air sampling at the commercial building should continue to be conducted in accordance with the routine sampling procedures outlined in the SMP. The next indoor air sampling event is due to occur between January 1, 2024, and March 31, 2024.
- The SSDS which services the residential house should be permanently decommissioned.

4.0 SITEWIDE INSPECTION

The SMP was developed to confirm that the site remedy continues to be effective in protecting public health and the environment. The SMP specifies a sitewide inspection on an annual basis. During these inspections, an inspection form is completed which is included as **Appendix F**. The form is used to compile sufficient information to assess the following:

- Compliance with ICs, including site usage;
- An evaluation of the condition and continued effectiveness of ECs;
- General site conditions at the time of the inspection;
- The site management activities being conducted including, where appropriate, confirmation sampling and a health and safety inspection;
- Compliance with permits and schedules included in the SMP; and
- Confirm that site records are up to date.

The sitewide inspection was performed on March 2, 2023, by Kaitlyn Crosby, a representative of PWGC. The components of the SSDS were visually inspected for signs of damage such as cracks in piping, fans, and alarms. The SSDS at the commercial building was temporarily deactivated to confirm that the low-pressure alarms were active. Prior to the deactivation of the SSDS, vacuum gauge readings were recorded to confirm that the SSDS was active. The SSDS at the residential house was inspected to confirm that it remains to be deactivated since the last sampling event in December 2021. The inspection indicated that the SSDS at the commercial building was functioning properly and the SSDS system at the residential house was not active at the time of inspection. Both SSDS appeared to be in good physical condition and no damage to either system was observed.

The site cover system was observed during the sitewide inspection which consists of the majority of the site being paved with asphalt and the concrete foundations of the two buildings. There was no observed evidence of site development or ground-intrusive activities that would result in damage or deficiencies to the site cover system. The commercial building was unoccupied at the time of inspection and the residential house was occupied by a single tenant, which conforms to the ICs placed on the property.

The groundwater monitoring system was inspected for signs of damage. MW-6 was observed to be buried under soil at the time of inspection, however the well was able to be unearthed by PWGC. MW-6 appeared to be in good condition and was able to be sampled properly in March 2023. The other monitoring wells appeared to be in good condition with plugs and protective manhole covers in place.

4.1. Future Inspection Recommendations

Based on the inspection observations, there are no recommendations for corrective measures at this time. The next sitewide inspection is due to occur in June 2024.

5.0 CONCLUSIONS

This report documents activities performed between January 1, 2022, through March 31, 2021.

PWGC mobilized to the site on March 16, 2023, to perform groundwater monitoring activities. PCE was detected at concentrations exceeding its respective AWQS at monitoring well locations MW-1, MW-7, MW-8, MW-9, and MW-10. TCE was detected at a concentration exceeding its respective AWQS at MW-9. Cis-1,2-DCE was detected at a concentration exceeding its respective AWQS at MW-8. Monitoring well locations MW-2, MW-4, MW-5, MW-6, MW-8D, and MW-9D did not contain exceedances of VOCs greater than AWQS during this reporting period.

Based on these analytical results, the highest degree of residual impact appears to be located in the center of the site at monitoring well locations MW-7, MW-8, and MW-9. This area coincides with the UIC structures believed to have received discharges of chlorinated solvents from the former dry-cleaning operation and is consistent with previous sampling events. Based upon the relatively low concentrations and/or non-detections of chlorinated solvents, especially PCE, in MW-2, MW-4, MW-6, MW-8D, and MW-9D it appears that VOC impacts in groundwater are not migrating towards the property boundary and off-site, or to deeper intervals in the aquifer.

Overall, total VOC impact at the site appears to have been substantially reduced by the chemical injections in December 2008 and January 2009. Remaining groundwater impact is only observed in the immediate vicinity of the former source area and is less than 150 µg/L.

PWGC mobilized to the site on March 16 and 17, 2023, to perform air sampling activities within the commercial building and residential house. A soil vapor intrusion assessment was performed at the residential house to determine if the SSDS at this location can be permanently decommissioned, and the sampling performed at the commercial building was performed to evaluate if the SSDS at this location was effectively mitigating against impacted soil vapors from affecting indoor air.

The results of the soil vapor intrusion assessment at the residential house indicated that sub-slab vapor and indoor air concentrations of VOCs, including PCE and TCE, met the criteria for "no further action" and for permanent decommissioning in accordance with the SMP. The analytical results of the indoor air samples collected from the commercial building meet NYSDOH indoor guidance values and demonstrated that the SSDS at this building is effectively mitigating against impacted soil vapor from affecting indoor air quality. Moreover, the elevated concentrations of methylene chloride detected in the indoor air during previous sampling events at the commercial building appears to have been addressed by the vacating of the former tenant who had used methylene chloride containing adhesives as part of their operations.

PWGC mobilized to the site on March 2, 2023, to conduct a site-wide inspection. The inspection indicated that the SSDS at the commercial building was functioning properly and the SSDS at the residential house had remained deactivated as per the SSDS closure requirements. The site cover system and groundwater monitoring wells were observed to

be in good condition during the site inspection and the site usage conformed to the ICs placed on the property.

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6.0 RECOMMENDATIONS

At this time, PWGC offers the following recommendations for the site:

- Due to a demonstrated decrease of chlorinated solvent VOC concentrations in groundwater since monitoring began in 2001 (corresponding to 22 sampling events), as well as the lack of migration of these compounds beyond the source area, PWGC recommends the following actions:
    - Continue groundwater sampling on a pan-annual (every fifth quarter basis). The next groundwater sampling event will take place in the second quarter of 2024 (June 2024).
    - Reduce the groundwater sampling to monitoring well locations MW-1, MW-2, MW-4, MW-5, MW-6, MW-7, MW-8, MW-9, and MW-10.
    - Discontinue sampling of MW-8D and MW-9D based on the lack of impacts observed at these two locations over the past several monitoring events.
- Based on the results of the soil vapor and indoor air sampling in March 2023, the following is recommended:
    - The SSDS at the residential house should be permanently decommissioned and the SMP should be updated to reflect this change.
    - The SSDS at the commercial building should remain active and routine indoor air sampling at this building should continue in accordance with the SMP. The next indoor air sapling event is due to occur between January 1, 2024, and March 31, 2024.
- Continue annual sitewide inspections with the next inspection scheduled for June 2024.

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7.0 REFERENCES

NYSDEC, Division of Water Technical and Operational Guidance Series (TOGS) 1.1.1, Ambient Water Quality Standards and Guidance Values; June 1998 and addendum April 2000.

New York State Department of Health, *Vapor Intrusion Guidance*, October 2006

PWGC, Penetrex Processing Company Site, Site Management Plan, Updated October 2021.

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FIGURES

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SITE LOCATION

1 SHORE ROAD
GLENWOOD LANDING, NY

Miles
0 ¼ ½ ¾ 1

Project:	PEN2301
Date:	9/24/2020
Designed by:	JFC
Drawn by:	TJS
Approved by:	JFC
Figure No:	1

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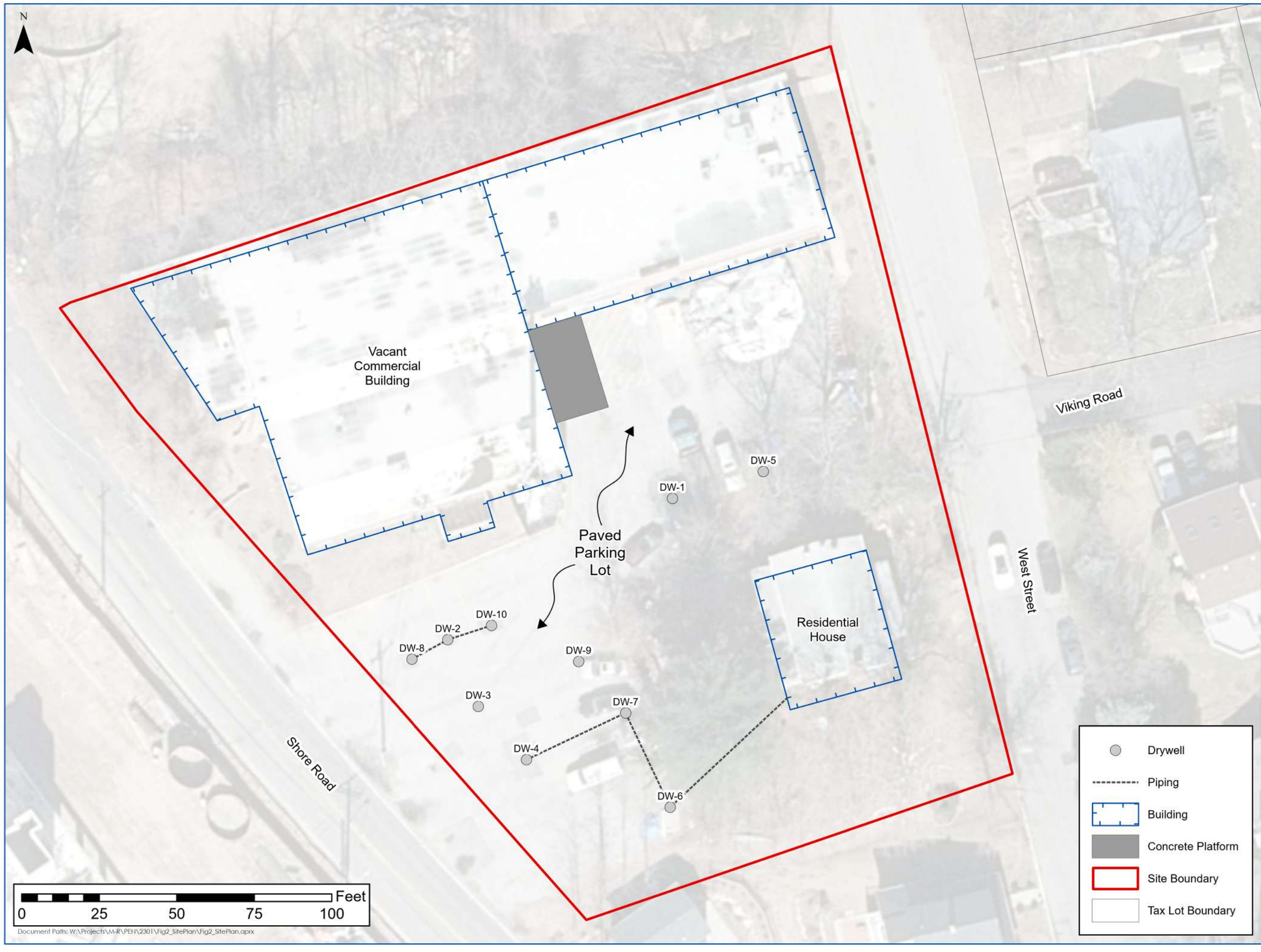

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DRAWING PREPARED FOR:

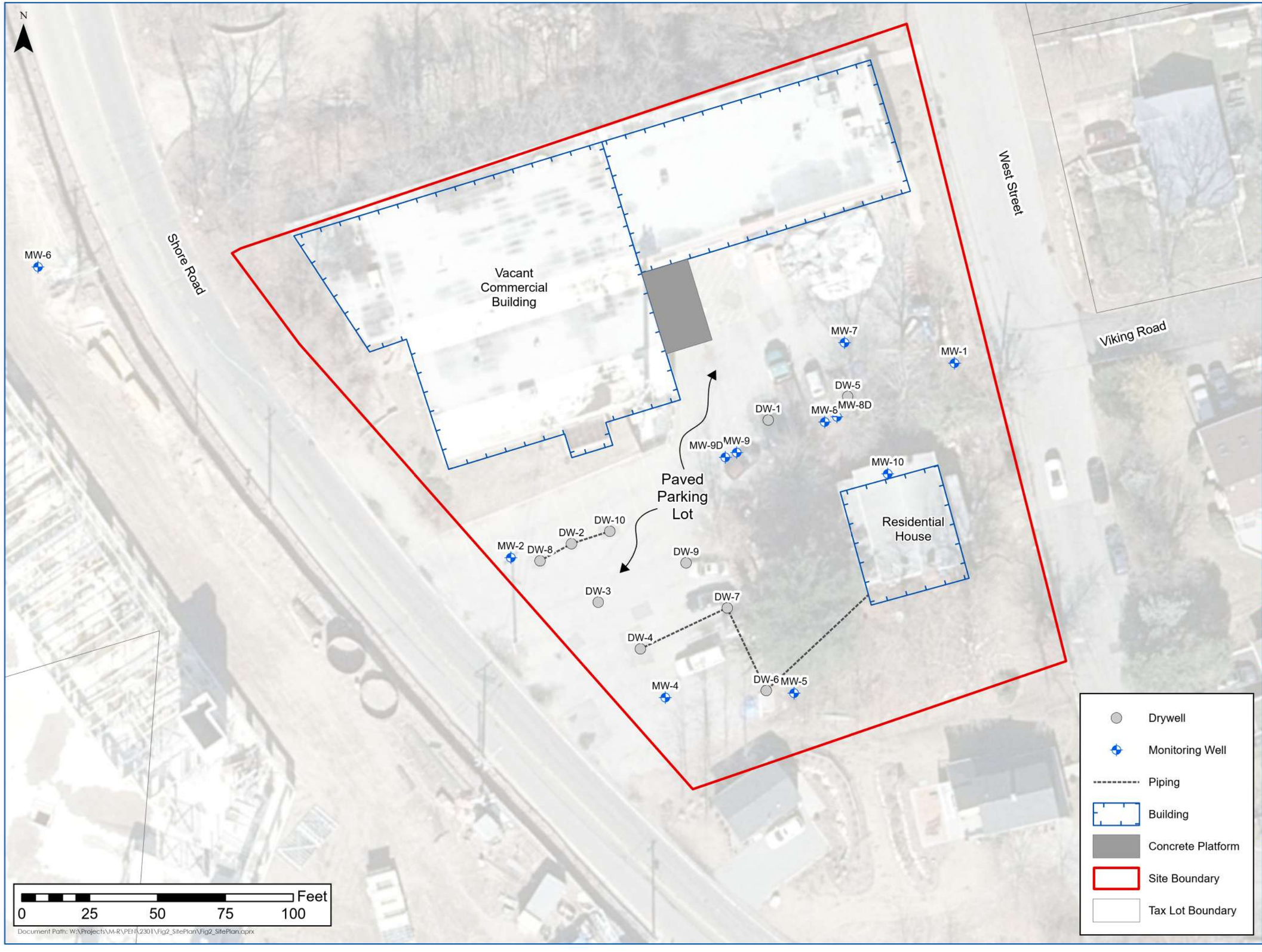
REVISION	DATE	INITIAL	COMMENTS

DRAWING INFORMATION:

Project:	PEN2301	Designed by:	JFC
Date:	5/4/2023	Drawn by:	TJS
Scale:	AS SHOWN	Approved by:	JFC

Site Plan

1 Shore Rd
Glenwood Landing, NY



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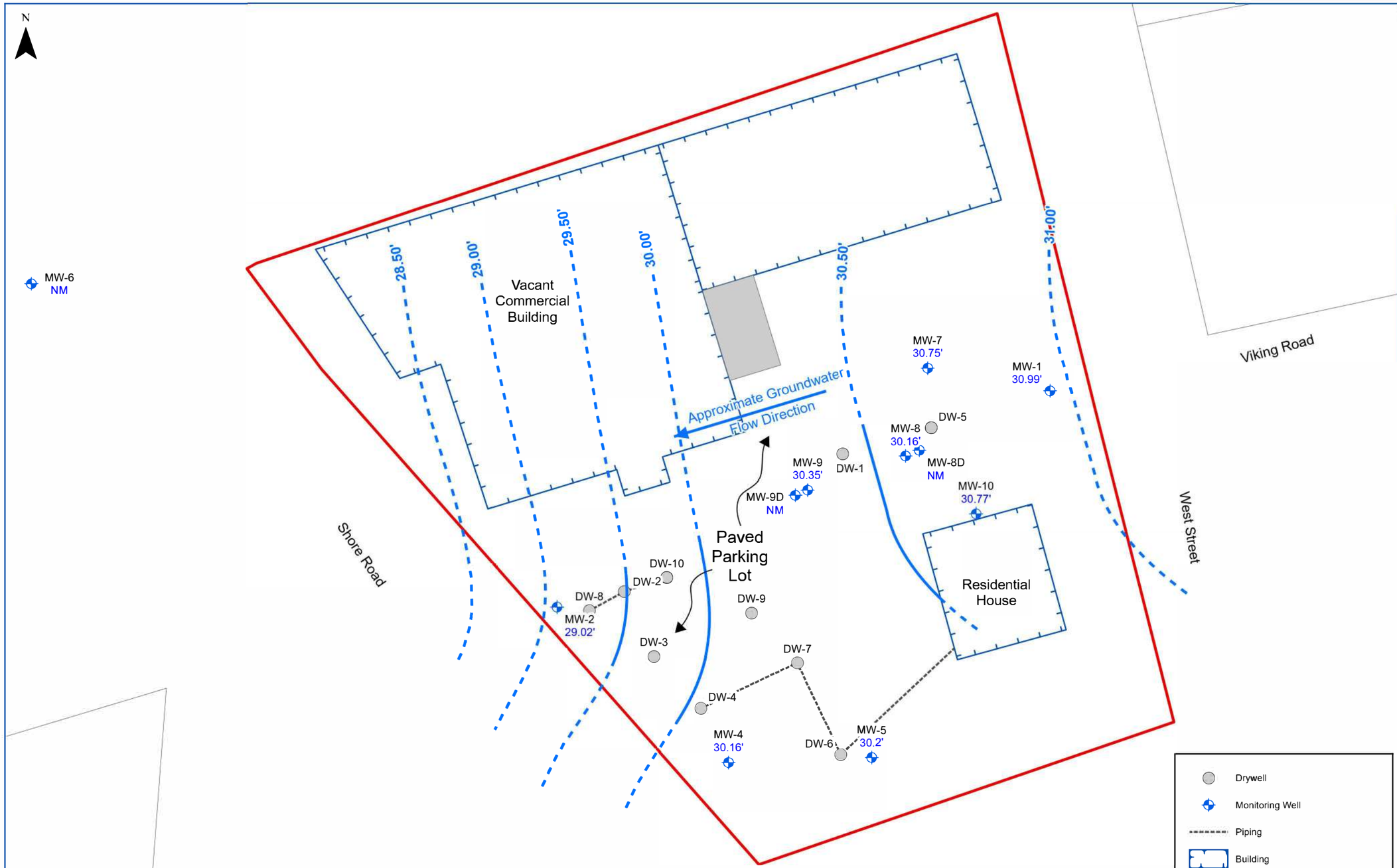
Date:	5/4/2023	Drawn by:	TJS
Scale:	AS SHOWN	Approved by:	JFC

Monitoring Well Locations

1 Shore Rd
Glenwood Landing, NY



Notes:
NM - not measured
Groundwater elevations measured on 9/9/2020 and 9/11/2020

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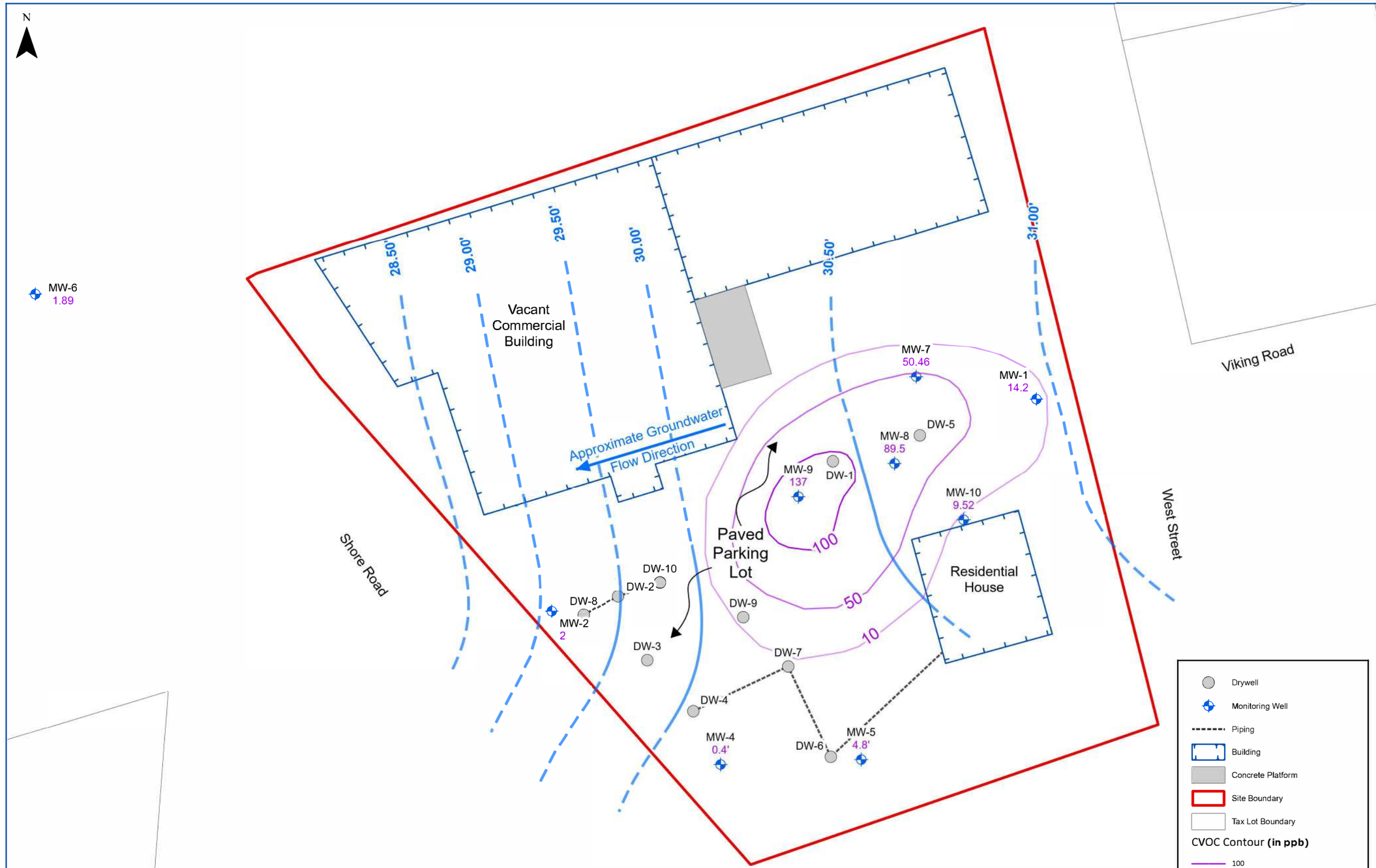
REVISION	DATE	INITIAL	COMMENTS

DRAWING INFORMATION:

Project:	PEN2301	Designed by:	UC
Date:	5/4/2023	Drawn by:	PH
Scale:	AS SHOWN	Approved by:	UC

Groundwater Elevation March 2023

1 Shore Rd
Glenwood Landing, NY



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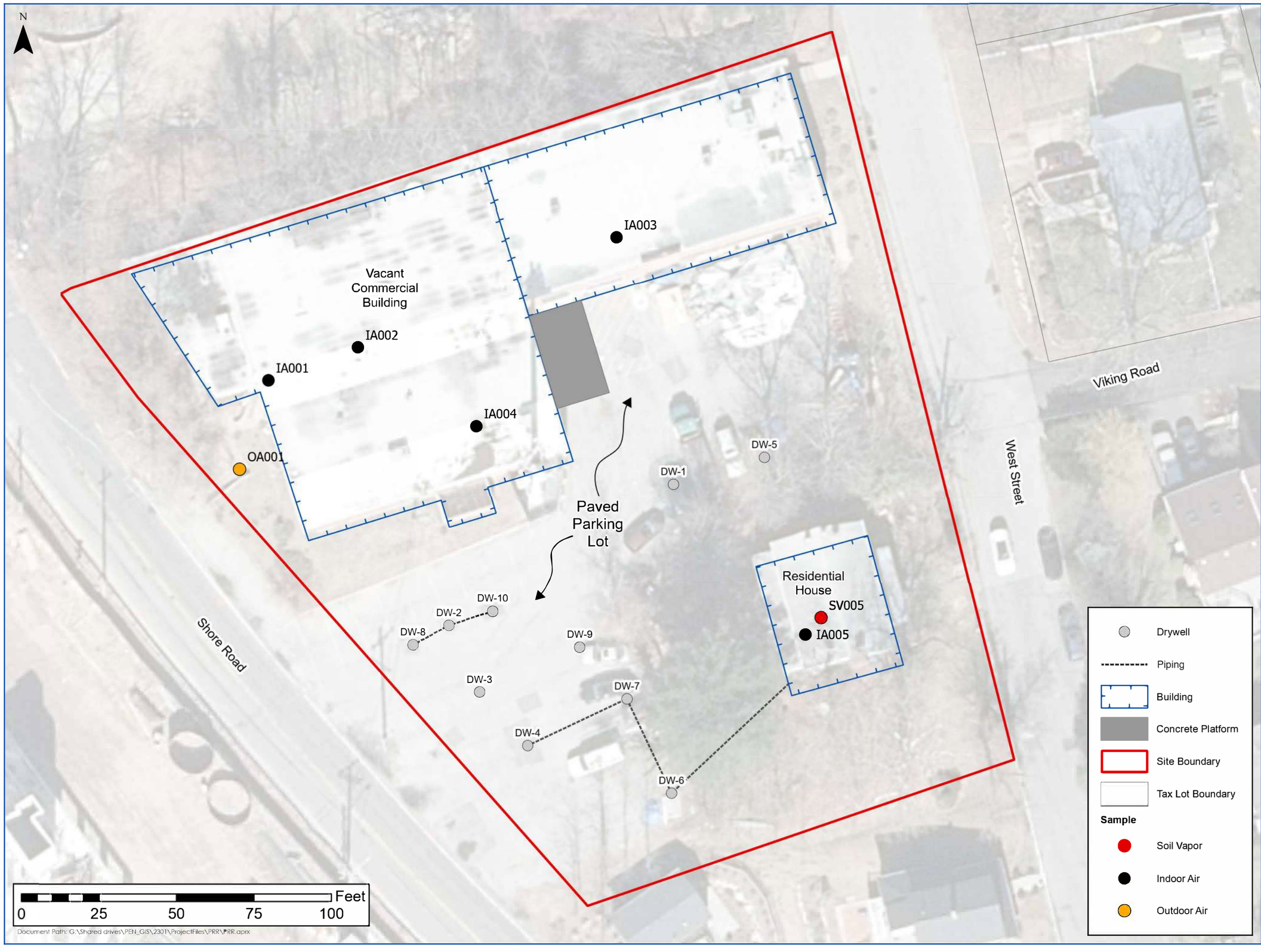
REVISION	DATE	INITIAL	COMMENTS

DRAWING INFORMATION:

Project:	PEN2301	Designed by:	UC
Date:	5/5/2023	Drawn by:	PH
Scale:	AS SHOWN	Approved by:	UC

Total CVOC Contours March 2023

1 Shore Rd
Glenwood Landing, NY



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REVISION	DATE	INITIAL	COMMENTS

DRAWING INFORMATION:

Project:	PEN2301	Designed by:	UC
Date:	5/4/2023	Drawn by:	PH
Scale:	AS SHOWN	Approved by:	UC

Air Sample Locations

1 Shore Rd
Glenwood Landing, NY

TABLES

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Table 1
Groundwater Monitoring Field Data
1 Shore Road, Glenwood Landing, NY

Well ID	Reference Elevation	Depth to Water	Relative Groundwater Elevation
December 21, 2021			
MW-1	49.06	18.07	30.99
MW-2	38.88	9.86	29.02
MW-3	38.86	NM	NM
MW-4	39.36	9.20	30.16
MW-5	40.32	10.12	30.20
MW-6	36.81	NM	NM
MW-7	49.18	18.43	30.75
MW-8	46.19	16.03	30.16
MW-9	44.86	14.51	30.35
MW-10	45.53	14.76	30.77

Notes:
Measurements are in feet.
The Reference Elevation is based on an arbitrary datum.

TABLE 2
March 2023 - Groundwater Analytical Results - VOCs
1 Shore Road, Glenwood Landing, New York

Sample ID Sampling Date Lab Sample ID	NYSDEC Groundwater Standards [1]	MW-1 3/16/2023 L2314139-01	MW-2 3/16/2023 L2314139-02	MW-4 3/16/2023 L2314139-03	MW-5 3/16/2023 L2314139-04	MW-6 3/16/2023 L2314139-05	MW-7 3/16/2023 L2314139-06	MW-8 3/16/2023 L2314139-08	MW-8D 3/16/2023 L2314139-07	MW-9 3/16/2023 L2314139-09	MW-9D 3/16/2023 L2314139-10	MW-10 3/16/2023 L2314139-11	DUPE 3/16/2023 L2314139-12
Volatile Organic Compounds by 8260 - µg/L													
1,1,1,2-Tetrachloroethane	5	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,1,1-Trichloroethane	5	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,1,2,2-Tetrachloroethane	5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1,2-Trichloroethane	1	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U
1,1-Dichloroethane	5	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,1-Dichloroethene	5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1-Dichloropropene	5	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2,3-Trichlorobenzene	5	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2,3-Trichloropropane	0.04	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2,4,5-Tetramethylbenzene	5	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
1,2,4-Trichlorobenzene	5	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2,4-Trimethylbenzene	5	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2-Dibromo-3-chloropropane	0.04	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2-Dibromoethane	0.0006	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
1,2-Dichlorobenzene	3	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2-Dichloroethane	0.6	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-Dichloroethene, Total	NS	2.5 U	2.5 U	2.5 U	2.5 U	1.4 J	2.5 U	50	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2-Dichloropropane	1	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,3,5-Trimethylbenzene	5	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,3-Dichlorobenzene	3	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,3-Dichloropropane	5	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,3-Dichloropropene, Total	NS	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,4-Dichlorobenzene	3	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,4-Dioxane	NS	250 U	250 U	250 U	250 U	250 U	250 U	250 U	250 U	250 U	250 U	250 U	250 U
2,2-Dichloropropane	5	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
2-Butanone	50	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
2-Hexanone	50	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
4-Methyl-2-pentanone	NS	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Acetone	50	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Acrylonitrile	5	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Benzene	1	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Bromobenzene	5	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Bromochloromethane	5	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Bromodichloromethane	50	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Bromoform	50	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
Bromomethane	5	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Carbon disulfide	60	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Carbon tetrachloride	5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Chlorobenzene	5	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Chloroethane	5	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Chloroform	7	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Chloromethane	NS	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
cis-1,2-Dichloroethene	5	2.5 U	2.5 U	2.5 U	2.5 U	1.4 J	2.5 U	**50**	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
cis-1,3-Dichloropropene	0.4	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Dibromochloromethane	50	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Dibromomethane	5	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Dichlorodifluoromethane	5	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Ethyl ether	NS	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Ethylbenzene	5	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Hexachlorobutadiene	0.5	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Isopropylbenzene	5	2.5 U	0.9 J	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Methyl tert butyl ether	10	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Methylene chloride	5	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
n-Butylbenzene	5	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
n-Propylbenzene	5	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Naphthalene	10	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
o-Chlorotoluene	5	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
o-Xylene	5	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
p-Chlorotoluene	5	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
p-Diethylbenzene	NS	2 U	1.4 J	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
p-Ethyltoluene	NS	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
p-Isopropyltoluene	5	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
p/m-Xylene	5	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
sec-Butylbenzene	5	2.5 U	2.4 J	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Styrene	5	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
tert-Butylbenzene	5	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Tetrachloroethene	5	**14**	2	0.4 J	4.2	0.49 J	**50**	**38**	2.8	**130**	0.36 J	**9.3**	0.34 J
Toluene	5	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
trans-1,2-Dichloroethene	5	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
trans-1,3-Dichloropropene	0.4	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
trans-1,4-Dichloro-2-butene	5	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Trichloroethene	5	0.2 J	0.26 J	0.5 U	0.6	0.5 U	0.46 J	1.5	0.5 U	**7**	0.5 U	0.22 J	0.5 U
Trichlorofluoromethane	5	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Vinyl acetate	NS	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Vinyl chloride	2	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Xylenes, Total	NS	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Total VOCs	NS	14.2	6.96	0.4	4.8	3.29	50.46	89.5	2.8	137	0.36	9.3	0.34

Notes:
[1] NYSDEC Ambient Water Quality Standards and Guidance Values 6/1998, April 2000 addendum
* - Guidance Value
D - The reported value is from a secondary analysis with a dilution factor. The original analysis exceeded the calibration range
J - Data indicates the presence of a compound that meets the identification criteria. The result is less than the quantitation limit but greater than MDL
Q - Indicates the lab controlled sample did not meet the control limits required
U - The compound was not detected at the indicated concentration
Bold / Shaded text denotes concentrations exceeding NYSDEC AWQS

Table 3
Groundwater Historical CVOC Concentrations
1 Shore Road, Glenwood Landing, NY

Sampling Date:	AWQS [1]	11/13/01	1/19/05	9/6/06	9/17/08	4/6/09	7/7/09	10/7/09	1/20/10	4/8/10	10/13/10	4/20/11	4/24/15	10/28/15	4/28/16	10/25/16	4/27/17	10/31/17	4/3/18	12/19/18	7/24/19	9/11/20	12/21/21	3/16/23
MW-1																								
cis-1,2-Dichloroethene	5	ND	1.43	ND	ND	ND	ND	ND	0.55	ND	ND	ND	ND	ND	ND	ND	NC	NC	ND	ND	NC	ND	ND	ND
Tetrachloroethene	5	**100**	**82.8**	**120**	**25**	**62**	**50**	**19**	**12**	**80**	**11**	**18**	**10**	**15**	**7.3**	**15**	NC	NC	**15**	**6.5**	NC	**14**	4	**14**
Trichloroethene	5	4	2.11	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NC	NC	ND	ND	NC	0.51	ND	0.2
Vinyl Chloride	2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NC	NC	ND	ND	NC	ND	ND	ND
CVOCs, Total	NS	104	86.34	120	25	62	50	19	12.55	80	11	18	10	15	7.3	15	NC	NC	15	6.5	NC	14.51	4	14.2
MW-2																								
cis-1,2-Dichloroethene	5	**11**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethene	5	**11**	**14**	ND	ND	**5.1**	**6**	3.7	**5.2**	5	3.6	**7.5**	4.7	**6.1**	**5.6**	**9.1**	**9.1**	3	4.7	**7.9**	**5.6**	**6.5**	1.83	2
Trichloroethene	5	3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.65	ND	ND	ND	ND	ND	0.5	ND	ND
Vinyl Chloride	2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
CVOCs, Total	NS	25	14	0	0	5.1	6	3.7	5.2	5	3.6	7.5	4.7	6.1	5.6	9.75	9.1	3	4.7	7.9	5.6	7	1.83	2
MW-3																								
cis-1,2-Dichloroethene	5	**97**	**14**	ND	**6**	1.8	ND	**17**	**18**	**6.9**	**27**	**100**	**79**	**67**	**100**	ND	**72**	**61**	**45**	ND	NC	NC	NC	NC
Tetrachloroethene	5	**54**	ND	ND	ND	1.1	3.7	3.2	4.6	2.8	**6.4**	**20**	**54**	**37**	**13**	ND	**11**	**12**	3.7	ND	NC	NC	NC	NC
Trichloroethene	5	**9**	0.7	ND	ND	1.2	**9.1**	**7.4**	**6.5**	2.2	**6**	**7.1**	**6.9**	**6.3**	2.4	0.78	4.4	4	1.1	ND	NC	NC	NC	NC
Vinyl Chloride	2	**5**	ND	ND	ND	ND	**4.6**	**4.3**	**4**	**2.2**	**6.2**	**13**	**6.5**	**8.5**	**5.9**	ND	**13**	**10**	**2.8**	ND	NC	NC	NC	NC
CVOCs, Total	NS	165	14.7	0	6	4.1	17.4	31.9	33.1	14.1	45.6	140.1	146.4	118.8	121.3	0.78	100.4	87	52.6	0	NC	NC	NC	NC
MW-4																								
cis-1,2-Dichloroethene	5	3	ND	ND	ND	0.77	ND	3	2	0.53	ND	ND	ND	ND	ND	ND	ND	ND	ND	**30**	ND	ND	0.66	ND
Tetrachloroethene	5	**65**	ND	ND	ND	0.82	**5.6**	1.8	0.98	2.2	2.2	1.2	ND	ND	ND	ND	ND	ND	ND	**8.4**	2.6	2	0.67	0.4
Trichloroethene	5	**7**	ND	ND	**8**	1.8	**12**	3.9	0.52	0.54	0.64	ND	ND	ND	ND	ND	ND	ND	ND	2.8	ND	0.75	0.83	ND
Vinyl Chloride	2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**6.3**	ND	ND	ND	ND
CVOCs, Total	NS	75	0	0	8	3.39	17.6	8.7	3.5	3.27	2.84	1.2	0	0	0	0	0	0	0	47.5	2.6	2.75	2.16	0.4
MW-5																								
cis-1,2-Dichloroethene	5	NC	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NC	ND	ND	ND	ND	NC	ND	NC	2.7	0.84	ND
Tetrachloroethene	5	NC	**11**	ND	ND	ND	ND	ND	ND	4.8	ND	0.53	ND	NC	ND	ND	**6.2**	1.9	NC	ND	NC	1	**9.88**	4.2
Trichloroethene	5	NC	**6**	ND	**6**	1.1	ND	1.1	ND	2.5	1.2	ND	ND	NC	ND	ND	0.55	0.78	NC	ND	NC	4.1	2.62	0.6
Vinyl Chloride	2	NC	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NC	ND	ND	ND	ND	NC	ND	NC	ND	ND	ND
CVOCs, Total	NS	NC	17	0	6	1.1	0	1.1	0	7.3	1.2	0.53	0	NC	0	0	6.75	2.68	NC	0	NC	7.8	13.34	4.8
MW-6																								
cis-1,2-Dichloroethene	5	NC	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NC	NC	NC	ND	ND	NC	ND	ND	ND	3.8	1.94	1.4
Tetrachloroethene	5	NC	2	ND	ND	2.2	2.3	2.1	4.3	**6.5**	2.8	**15**	NC	NC	NC	2.2	3.3	NC	2.1	2.6	3.3	1.1	ND	0.49
Trichloroethene	5	NC	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NC	NC	NC	ND	ND	NC	ND	ND	ND	ND	ND	ND
Vinyl Chloride	2	NC	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NC	NC	NC	ND	ND	NC	ND	ND	ND	ND	ND	ND
CVOCs, Total	NS	NC	2	0	0	2.2	2.3	2.1	4.3	6.5	2.8	15	NC	NC	NC	2.2	3.3	NC	2.1	2.6	3.3	4.9	1.94	1.89
MW-7																								
cis-1,2-Dichloroethene	5	NC	ND	**27**	ND	NC	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethene	5	NC	**267**	**530**	**271**	NC	**240**	**120**	**130**	**100**	**140**	**290**	**190**	**110**	**140**	**97**	**170**	**98**	**70**	**92**	**140**	**86**	**37**	**50**
Trichloroethene	5	NC	**16.5**	ND	ND	NC	ND	ND	ND	**5.3**	ND	4.9	2.6	1	1.4	0.89	2.2	1	0.79	0.95	1.5	0.8	ND	0.46
Vinyl Chloride	2	NC	ND	ND	ND	NC	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
CVOCs, Total	NS	NC	283.5	557	271	NC	240	120	130	105.3	140	294.9	192.6	111	141.4	97.89	172.2	99	70.79	92.95	141.5	86.8	37	50.46
MW-8																								
cis-1,2-Dichloroethene	5	NC	NC	NC	**1,022**	**440**	**210**	**15**	ND	ND	4.2	**14**	ND	**21**	**16**	**30**	ND	ND	3	**15**	**12**	**30**	**32.1**	**50**
Tetrachloroethene	5	NC	NC	NC	**5,994**	**930**	**700**	**120**	**120**	**240**	**190**	**320**	**21**	**48**	**38**	**33**	**120**	2	**40**	**41**	**57**	**20**	**46.3**	**38**
Trichloroethene	5	NC	NC	NC	**742**	**92**	**25**	ND	ND	ND	ND	**18**	0.55	4	2.8	3.2	**5.6**	ND	2.1	1.3	1.6	1.5	0.87	1.5
Vinyl Chloride	2	NC	NC	NC	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
CVOCs, Total	NS	NC	NC	NC	7,758	1462	935	135	120	240	194.2	352	21.55	73	56.8	66.2	125.6	2	45.1	57.3	70.6	51.5	79.27	89.5
MW-8D																								
cis-1,2-Dichloroethene	5	NC	NC	NC	**18**	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethene	5	NC	NC	NC	**308**	NA	4.6	**6.4**	**5.5**	**12**	1.3	3.6	3.8	7.1	0.97	0.76	**64**	2.9	**140**	**9.2**	1	0.69	0.98	2.8
Trichloroethene	5	NC	NC	NC	**7**	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1.2	ND	2	ND	ND	ND	ND	ND
Vinyl Chloride	2	NC	NC	NC	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
CVOCs, Total	NS	NC	NC	NC	333	0	4.6	6.4	5.5	12	1.3	3.6	3.8	7.1	0.97	0.76	65.2	2.9	142	9.2	1	0.69	0.98	2.8
MW-9																								
cis-1,2-Dichloroethene	5	NC	NC	NC	**17**	ND	ND	ND	ND	ND	3.2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethene	5	NC	NC	NC	**175**	**400**	**280**	**300**	**330**	**210**	**280**	**170**	**53**	**270**	**130**	**270**	**160**	**130**	**120**	**180**	**160**	**140**	**106**	**130**
Trichloroethene	5	NC	NC	NC	**9**	**12**	**10**	**11**	**16**	4.1	**12**	**22**	4.3	**8.9**	**13**	**8**	**16**	4.7	**10**	**15**	**10**	**7.6**	4.29	**7**
Vinyl Chloride	2	NC	NC	NC	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
CVOCs, Total	NS	NC	NC	NC	201	412	290	311	346	214.1	295.2	192	57.3	278.9	143	278	176	134.7	130	195	170	147.6	110.29	137
MW-9D																								
cis-1,2-Dichloroethene	5	NC	NC	NC	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethene	5	NC	NC	NC	**12**	1.2	ND	ND	ND	ND	ND	ND	ND	1	ND	0.86	2	1.2	ND	0.77	0.87	ND	ND	0.36
Trichloroethene	5	NC	NC	NC	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Vinyl Chloride	2	NC	NC	NC	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
CVOCs, Total	NS	NC	NC	NC	12	1.2	0	0	0	0	0	0	0	1	0	0.86	2	1.2	0	0.77	0.87	0	0	0.36
MW-10																								
cis-1,2-Dichloroethene	5	NC	NC	NC	ND	0.83	ND	1.4	1.4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethene	5	NC	NC	NC	**121**	**41**	**140**	**17**	**120**	**50**	**69**	**80**	**22**	**66**	**92**	**9.9**	**80**	**20**	**39**	ND	**58**	**30**	4.69	**9.3**
Trichloroethene	5	NC	NC	NC	ND	1.3	1.5	ND	1.4	0.67	0.62	1.3	0.78	ND	0.77	ND	0.56	0.93	0.94	ND	0.32	ND	ND	0.22
Vinyl Chloride	2	NC	NC	NC	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
CVOCs, Total	NS	NC	NC	NC	121	43.13	141.5	18.4	122.8	50.67	69.62	81.3	22.78	66	92.77	9.9	80.56	20.93	39.94	0	58.32	30	4.69	9.52

Notes:
[1] NYSDEC Ambient Water Quality Standards and Guidance Values 6/1998, April 2000 addendum (NYSDEC AWQS)
NS - No Standard
ND - Not detected
NA - Not analyzed
NC - Not collected
Bold / Shaded text denotes concentrations exceeding Groundwater Standards.

Table 4
March 2023 VOC Air Analytical Data
1 Shore Road, Glenwood Landing, NY

Location:		Commercial		Commercial		Commercial		Commercial		Residential		Residential		Outdoor Air	
Sample ID:		IA001		IA002		IA003		IA004		IA005		SV005		OA001	
Corresponding IA:	NYSDOH AGV FOR SOIL VAPOR AND INDOOR AIR	N/A		N/A		N/A		N/A		N/A		IA005		N/A	
Sampling Date:	(Soil Vapor/Indoor Air)	3/17/2023		3/17/2023		3/17/2023		3/17/2023		3/17/2023		3/17/2023		3/17/2023	
Lab Sample ID:		L2314229-01		L2314229-02		L2314229-03		L2314229-04		L2314229-05		L2314229-06		L2314229-07	
Sample Type:		Indoor Air		Indoor Air		Indoor Air		Indoor Air		Indoor Air		Soil Vapor		Outdoor Air	
Volatile Organic Compounds (µg/m^3)															
1,1,1-Trichloroethane	NS	0.109	U	0.109	U	0.109	U	0.109	U	0.109	U	1.09	U	0.109	U
1,1,2,2-Tetrachloroethane	NS	1.37	U	1.37	U	1.37	U	1.37	U	1.37	U	1.37	U	1.37	U
1,1,2-Trichloroethane	NS	1.09	U	1.09	U	1.09	U	1.09	U	1.09	U	1.09	U	1.09	U
1,1-Dichloroethane	NS	0.809	U	0.809	U	0.809	U	0.809	U	0.809	U	0.809	U	0.809	U
1,1-Dichloroethene	NS	0.079	U	0.079	U	0.079	U	0.079	U	0.079	U	0.793	U	0.079	U
1,2,4-Trichlorobenzene	NS	1.48	U	1.48	U	1.48	U	1.48	U	1.48	U	1.48	U	1.48	U
1,2,4-Trimethylbenzene	NS	0.983	U	0.983	U	0.983	U	0.983	U	0.983	U	0.983	U	0.983	U
1,2-Dibromoethane	NS	1.54	U	1.54	U	1.54	U	1.54	U	1.54	U	1.54	U	1.54	U
1,2-Dichlorobenzene	NS	1.2	U	1.2	U	1.2	U	1.2	U	1.2	U	1.2	U	1.2	U
1,2-Dichloroethane	NS	0.809	U	0.809	U	0.809	U	0.809	U	0.809	U	0.809	U	0.809	U
1,2-Dichloropropane	NS	0.924	U	0.924	U	0.924	U	0.924	U	0.924	U	0.924	U	0.924	U
1,3,5-Trimethylbenzene	NS	0.983	U	0.983	U	0.983	U	0.983	U	0.983	U	0.983	U	0.983	U
1,3-Butadiene	NS	0.442	U	0.442	U	0.442	U	0.442	U	0.442	U	0.442	U	0.442	U
1,3-Dichlorobenzene	NS	1.2	U	1.2	U	1.2	U	1.2	U	1.2	U	1.2	U	1.2	U
1,4-Dichlorobenzene	NS	1.2	U	1.2	U	1.2	U	1.2	U	1.2	U	1.2	U	1.2	U
1,4-Dioxane	NS	0.721	U	0.721	U	0.721	U	0.721	U	0.721	U	0.721	U	0.721	U
2,2,4-Trimethylpentane	NS	0.934	U	0.934	U	0.934	U	0.934	U	0.934	U	0.934	U	0.934	U
2-Butanone	NS	1.47	U	1.47	U	4.01		1.47	U	1.47	U	25.5		1.47	U
2-Hexanone	NS	0.82	U	0.82	U	0.82	U	0.82	U	0.82	U	4.47		0.82	U
3-Chloropropene	NS	0.626	U	0.626	U	0.626	U	0.626	U	0.626	U	0.626	U	0.626	U
4-Ethyltoluene	NS	0.983	U	0.983	U	0.983	U	0.983	U	0.983	U	0.983	U	0.983	U
4-Methyl-2-pentanone	NS	2.05	U	2.05	U	2.05	U	2.05	U	2.05	U	2.05	U	2.05	U
Acetone	NS	4.66		5.11		37.5		5.06		5.8		14.1		4.25	
Benzene	NS	0.639	U	0.639	U	0.7		0.639	U	0.639	U	1.03		0.821	
Benzyl chloride	NS	1.04	U	1.04	U	1.04	U	1.04	U	1.04	U	1.04	U	1.04	U
Bromodichloromethane	NS	1.34	U	1.34	U	1.34	U	1.34	U	1.34	U	1.34	U	1.34	U
Bromoform	NS	2.07	U	2.07	U	2.07	U	2.07	U	2.07	U	2.07	U	2.07	U
Bromomethane	NS	0.777	U	0.777	U	0.777	U	0.777	U	0.777	U	0.777	U	0.777	U
Carbon disulfide	NS	0.623	U	0.623	U	0.623	U	0.623	U	0.623	U	0.623	U	0.623	U
Carbon tetrachloride	NS	0.447		0.396		0.472		0.403		0.39		1.26	U	0.453	
Chlorobenzene	NS	0.921	U	0.921	U	0.921	U	0.921	U	0.921	U	0.921	U	0.921	U
Chloroethane	NS	0.528	U	0.528	U	0.528	U	0.528	U	0.528	U	0.528	U	0.528	U
Chloroform	NS	0.977	U	0.977	U	0.977	U	0.977	U	0.977	U	0.977	U	0.977	U
Chloromethane	NS	1.18		1.21		1.2		1.18		1.19		2.68		1.24	
cis-1,2-Dichloroethene	NS	0.079	U	0.079	U	0.079	U	0.079	U	0.079	U	0.793	U	0.079	U
cis-1,3-Dichloropropene	NS	0.908	U	0.908	U	0.908	U	0.908	U	0.908	U	0.908	U	0.908	U
Cyclohexane	NS	0.688	U	0.688	U	0.688	U	0.688	U	0.688	U	0.688	U	0.688	U
Dibromochloromethane	NS	1.7	U	1.7	U	1.7	U	1.7	U	1.7	U	1.7	U	1.7	U
Dichlorodifluoromethane	NS	2.26		2.41		2.29		2.36		2.24		2.26		2.44	
Ethanol	NS	9.69		9.42	U	266		9.97		9.42	U	21.7		9.42	U
Ethyl Acetate	NS	1.8	U	1.8	U	1.8	U	1.8	U	1.8	U	1.8	U	1.8	U
Ethylbenzene	NS	0.869	U	0.869	U	0.869	U	0.869	U	0.869	U	1.57		0.869	U
Freon-113	NS	1.53	U	1.53	U	1.53	U	1.53	U	1.53	U	1.53	U	1.53	U
Freon-114	NS	1.4	U	1.4	U	1.4	U	1.4	U	1.4	U	1.4	U	1.4	U
Heptane	NS	0.82	U	0.82	U	0.82	U	0.82	U	0.82	U	1.2		0.82	U
Hexachlorobutadiene	NS	2.13	U	2.13	U	2.13	U	2.13	U	2.13	U	2.13	U	2.13	U
Isopropanol	NS	1.35		1.28		5.04		1.23	U	1.29		39.3		3.22	
Methyl tert butyl ether	NS	0.721	U	0.721	U	0.721	U	0.721	U	0.721	U	0.721	U	0.721	U
Methylene chloride	60	1.74	U	1.74	U	1.74	U	1.74	U	1.74	U	1.74	U	1.74	U
n-Hexane	NS	0.705	U	0.705	U	0.832		0.705	U	0.705	U	1.37		1.5	
o-Xylene	NS	0.869	U	0.869	U	0.869	U	0.869	U	0.869	U	2.07		0.869	U
p/m-Xylene	NS	1.74	U	1.74	U	1.74	U	1.74	U	1.74	U	6.34		1.74	U
Styrene	NS	0.852	U	0.852	U	0.852	U	0.852	U	0.852	U	0.852	U	0.852	U
Tertiary butyl Alcohol	NS	1.52	U	1.52	U	1.52	U	1.52	U	1.52	U	1.52	U	1.52	U
Tetrachloroethene	30	0.997		0.807		1.04		0.773		1.87		1.7		0.834	
Tetrahydrofuran	NS	1.47	U	1.47	U	2.24		1.47	U	1.47	U	1.47	U	1.48	
Toluene	NS	0.923		0.765		3.69		0.754	U	1.21		38.8		1.59	
trans-1,2-Dichloroethene	NS	0.793	U	0.793	U	0.793	U	0.793	U	0.793	U	0.793	U	0.793	U
trans-1,3-Dichloropropene	NS	0.908	U	0.908	U	0.908	U	0.908	U	0.908	U	0.908	U	0.908	U
Trichloroethene	2	0.107	U	0.107	U	0.107	U	0.107	U	0.107	U	1.07	U	0.107	U
Trichlorofluoromethane	NS	1.12		1.12	U	1.18		1.16		1.24		1.14		1.14	
Vinyl bromide	NS	0.874	U	0.874	U	0.874	U	0.874	U	0.874	U	0.874	U	0.874	U
Vinyl chloride	NS	0.051	U	0.051	U	0.051	U	0.051	U	0.051	U	0.511	U	0.051	U

Notes:
1 - Air Guideline Values, NYSDOH Guidance for Evaluating Soil Vapor Intrusion in the State of New York (applies to indoor air only)
J - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL).
U - Not detected at the reported detection limit for the sample.
D - Result is from an analysis that was detected
Shaded text denotes indoor air concentrations exceed NYSDOH AGV for Action Indipendant of the Coresponding Indoor Air or Soil Vapor Concentration

APPENDIX A

P.W. GROSSER CONSULTING, INC • P.W. GROSSER CONSULTING ENGINEER & HYDROGEOLOGIST, PC
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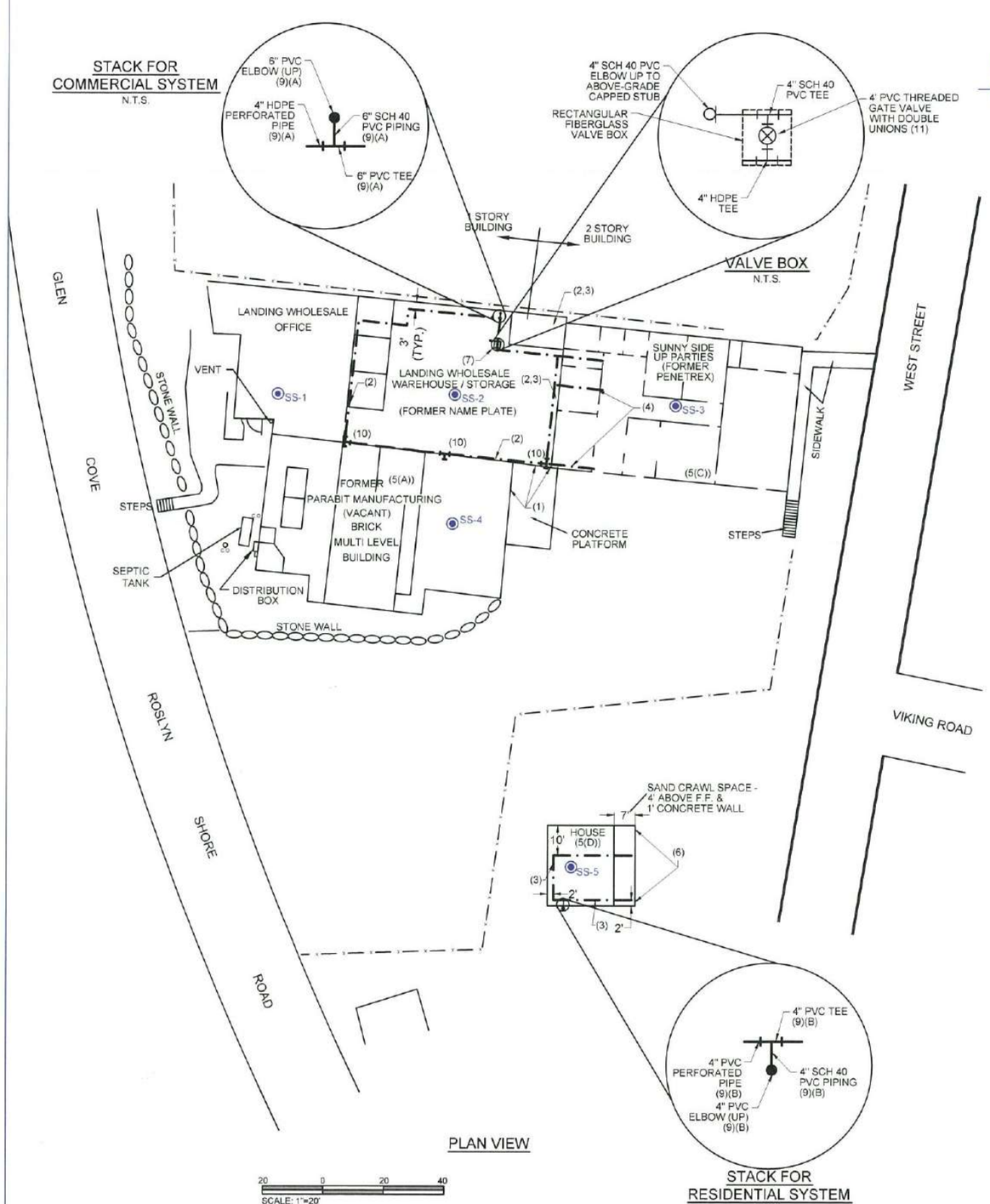
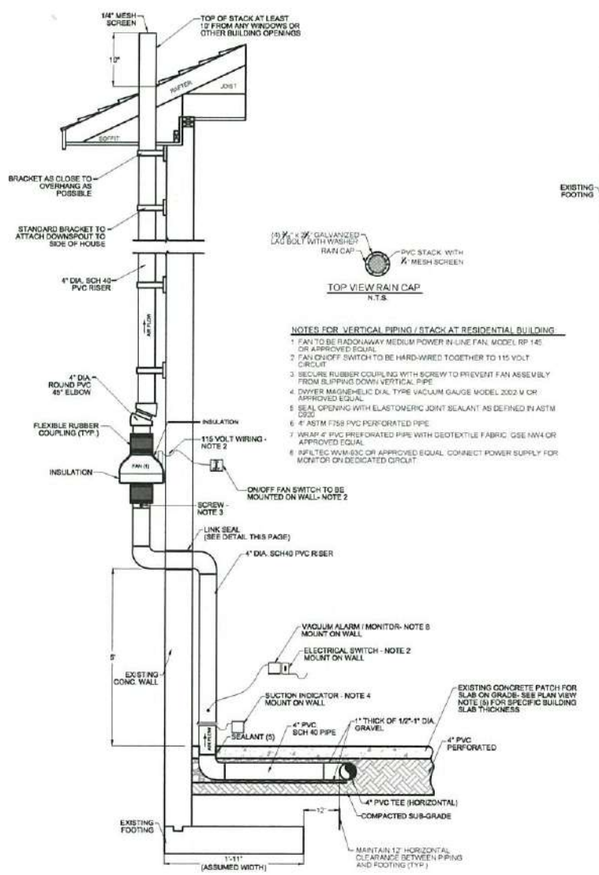
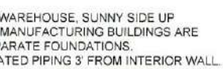
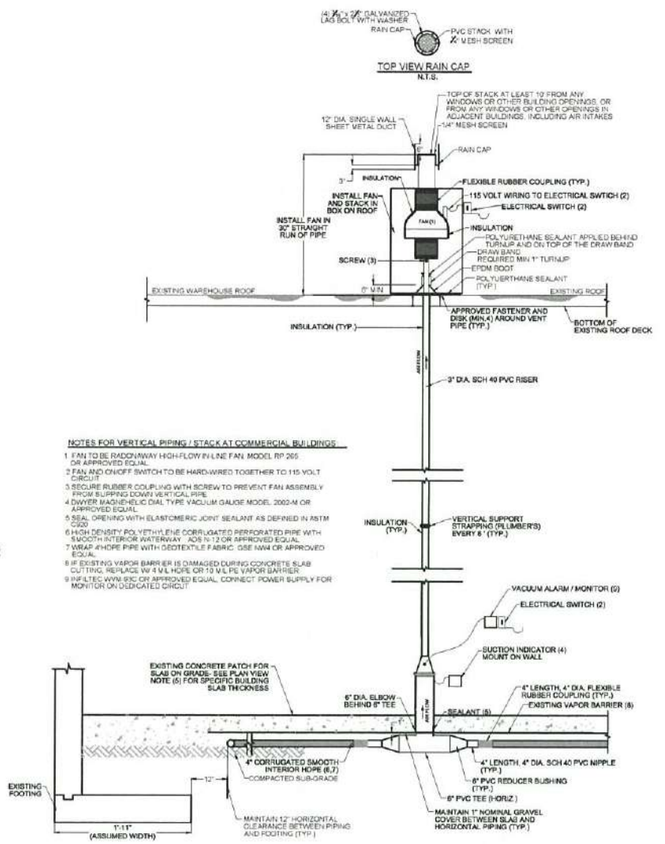


NOTES:
1. THE LAND WHOLESALE WAREHOUSE, SUNNY SIDE UP PARTIES, AND PARABIT MANUFACTURING BUILDINGS ARE ASSUMED TO HAVE SEPARATE FOUNDATIONS.
2. INSTALL HDPE PERFORATED PIPING 3' FROM INTERIOR WALL. THIS ASSUMES FOOTINGS ARE 2' WIDE, FROM THE INTERIOR WALLS, AND THEREFORE THE PIPING IS 12" INSIDE OF THE FOOTINGS.
3. INSTALL 4" DIA. SCH 40 PVC SOLID PIPE IN SAME TRENCH AS HDPE PERFORATED PIPE W/ 12" OF CLEARANCE FROM FOUNDATION WALL.
4. INSTALL 3-15' SECTIONS OF 4" PVC PERFORATED PIPE W/ CAPPED ENDS. REFER TO CONSTRUCTION DETAILS (THIS SHEET). REMOVE CYLINDRICAL SECTIONS OF SOIL WITH HIGH PRESSURE AIR TO INSTALL PIPE.
5. (A) 10' THICK EXIST. CONCRETE SLAB WITH VAPOR BARRIER. (B) 11" THICK EXIST. CONCRETE SLAB WITH VAPOR BARRIER. (C) 11" THICK EXIST. CONCRETE SLAB WITH VAPOR BARRIER. (D) 4" THICK EXIST. CONCRETE SLAB.
6. INSTALL 2-8' SECTIONS OF 4" PVC PERFORATED PIPE. REFER TO (4) ABOVE FOR INSTALLATION DETAILS.
7. INSTALL CAPPED STUB OF 4" PVC SOLID PIPE 4' ABOVE F.F. FOR POSSIBLE FUTURE CONNECTION TO STACK & FAN. FAN & STACK WILL BE INSTALLED IF CONTAMINANT CONCENTRATIONS BENEATH THE SUNNY SIDE SLAB ARE NOT REDUCED WITHIN THE TIME INDICATED BY THE SAMPLING PLAN. AT THAT TIME, THE GATE VALVE WHICH ALLOWS FLOW FROM THE SUNNY SIDE SYSTEM INTO THE LANDING SYSTEM WILL BE CLOSED, ISOLATING THE TWO SYSTEMS.
8. INSTALL 4' CAPPED STUB FOR POSSIBLE FUTURE EXPANSION ON SOUTH SIDE OF BUILDING.
9. (A) FOR DETAILS OF THE 6" PVC TEE, CONNECTING HORIZONTAL PIPING, VERTICAL PIPING, ABOVE GRADE EQUIPMENT & THE EXHAUST STACK, REFER TO SUB-SLAB DE-PRESSURIZATION SYSTEM DETAIL FOR COMMERCIAL BUILDINGS (THIS SHEET). (B) FOR DETAILS OF THE 4" PVC TEE, CONNECTING HORIZONTAL PIPING, VERTICAL PIPING, ABOVE GRADE EQUIPMENT & THE EXHAUST STACK, REFER TO SUB-SLAB DE-PRESSURIZATION SYSTEM-DETAIL FOR RESIDENTIAL BUILDING (THIS SHEET).
10. INSTALL 4" HDPE TEES FOR POSSIBLE FUTURE EXPANSION OF SYSTEM.
11. INFILTEC WVM-93C OR APPROVED EQUAL. CONNECT POWER SUPPLY FOR MONITOR ON DEDICATED CIRCUIT.



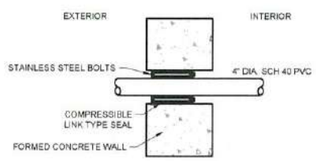


NOTES FOR VERTICAL PIPING / STACK AT RESIDENTIAL BUILDING
1. FAN TO BE RADONAWAY MEDIUM POWER IN-LINE FAN, MODEL RP 145 OR APPROVED EQUAL
2. FAN ON/OFF SWITCH TO BE HARD-WIRED TOGETHER TO 115 VOLT CIRCUIT
3. SECURE RUBBER COUPLING WITH SCREW TO PREVENT FAN ASSEMBLY FROM SLIPPING DOWN VERTICAL PIPE
4. DWYER MAGNEHELIC DIAL TYPE VACUUM GAUGE MODEL 2002-M OR APPROVED EQUAL
5. SEAL OPENING WITH ELASTOMERIC JOINT SEALANT AS DEFINED IN ASTM C920
6. 4" ASTM F758 PVC PERFORATED PIPE
7. WRAP 4" PVC PERFORATED PIPE WITH GEOTEXTILE FABRIC GSE NW4 OR APPROVED EQUAL
8. INFILTEC WVM-93C OR APPROVED EQUAL. CONNECT POWER SUPPLY FOR MONITOR ON DEDICATED CIRCUIT



NOTES FOR VERTICAL PIPING / STACK AT COMMERCIAL BUILDINGS
1. FAN TO BE RADONAWAY HIGH-FLOW IN-LINE FAN, MODEL RP 265 OR APPROVED EQUAL
2. FAN AND ON/OFF SWITCH TO BE HARD-WIRED TOGETHER TO 115 VOLT CIRCUIT
3. SECURE RUBBER COUPLING WITH SCREW TO PREVENT FAN ASSEMBLY FROM SLIPPING DOWN VERTICAL PIPE
4. DWYER MAGNEHELIC DIAL TYPE VACUUM GAUGE MODEL 2002-M OR APPROVED EQUAL
5. SEAL OPENING WITH ELASTOMERIC JOINT SEALANT AS DEFINED IN ASTM C920
6. HIGH DENSITY POLYETHYLENE CORRUGATED PERFORATED PIPE WITH SMOOTH INTERIOR WATERWAY. ADS N-12 OR APPROVED EQUAL
7. WRAP 4"HDPE PIPE WITH GEOTEXTILE FABRIC GSE NW4 OR APPROVED EQUAL
8. IF EXISTING VAPOR BARRIER IS DAMAGED DURING CONCRETE SLAB CUTTING, REPLACE W/ 4 MIL HDPE OR 10 MIL PE VAPOR BARRIER
9. INFILTEC WVM-93C OR APPROVED EQUAL. CONNECT POWER SUPPLY FOR MONITOR ON DEDICATED CIRCUIT

SUB-SLAB DE-PRESSURIZATION SYSTEM DETAIL FOR COMMERCIAL BUILDINGS
N.T.S.



LINK TYPE SEAL DETAIL
N.T.S.

REVISIONS	DATE	INITIAL	COMMENTS

AS-BUILT SITE PLAN AND DETAILS
1 SHORE ROAD
GLENWOOD LANDING
FORMER PENETREX PROCESSING
NYSDEC I.D. No. 130034

PWGC
Strategic Environmental & Engineering Solutions
630 Johnson Ave. Suite 7 Bohemia, N.Y. 11716-2618
Ph: 631 589-8333 Fx: 631 589-8705 E-mail: info@pwgroseer.com

Project: PEN0001	Approved By: PWG	Figure No: 7
Designed By: DD	Date: 8/15/07	
Drawn By: TC/LLG	Scale: AS SHOWN	

UNAUTHORIZED ALTERATION OR ADDITION TO THIS DRAWING AND RELATED DOCUMENTS IS A VIOLATION OF SEC. 7209 OF THE N.Y.S. EDUCATION LAW

J:\Projects M-R\Pen - Penetrex\SSDPS\F01 As Built.dwg

APPENDIX B

P.W. GROSSER CONSULTING, INC • P.W. GROSSER CONSULTING ENGINEER & HYDROGEOLOGIST, PC
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P.W. GROSSER CONSULTING, Inc

Well Sampling Log

Well Designation:	MW-1	**Sampled By:**	KC
Site Address:	1 Shore Road, Glenwood Landing, NY	**Project Manager:**	Ryan Morley
Project Name:	Former Penetrex Processing Facility	**Project Number:**	PEN2301

Reference Elevation (ft):	NM	**Well Use:**	Monitoring/Observation
Depth to Product (ft):	NP	**Product Elevation (ft):**	NP
Depth to Water (ft):	18.07	**Groundwater Elevation (ft):**	#VALUE!
Depth to Bottom (ft):	27.08	**Bottom Elevation (ft):**	NM
Height of Water Column (ft):	NM	**Well Diameter (in):**	4
Standing Water Volume (gal):	NM	**Calculated Purge Volume (gal):**	N/A
Sample Date:	3/16/2023	**Begin Purge Time:**	12:30
Sample Time:	12:45	**Complete Purge Time:**	12:45
Purge Method:	Low Flow - Grundfos	**Sample Method:**	Low Flow - Grundfos
Purge Rate (gpm):	0.13	**Purge Time (min):**	15
Actual Purge Volume (gal):	2	**Casing Volumes Removed:**	N/A
Sample Appearance:	Clear	**Odors Observed:**	None
Analytical Laboratory:	Alpha Analytical	**Notes:**	
Date Shipped:	3/17/2023		
Analyses Requested:			
VOC (8260)			

Field Indicator Parameters

Reading	Time	Temp. (°C)	pH	Turbidity NTU	ORP mV	Cond. (mS/cm)	DO mg/L		
1	12:30	13.23	6.34	28.7	203	3.160	4.50		
2	12:33	13.70	6.22	19.7	209	3.500	5.26		
3	12:36	13.81	6.20	18.9	210	3.58	4.72		
4	12:39	13.95	6.18	16.0	210	3.62	4.58		
5	12:42	13.94	6.18	13.4	210	3.63	4.59		

Take readings every three minutes

P.W. GROSSER CONSULTING, Inc

Well Sampling Log

Well Designation:	MW-2	**Sampled By:**	KC
Site Address:	1 Shore Road, Glenwood Landing, NY	**Project Manager:**	Ryan Morley
Project Name:	Former Penetrex Processing Facility	**Project Number:**	PEN2301

Reference Elevation (ft):	NM	**Well Use:**	Monitoring/Observation
Depth to Product (ft):	NP	**Product Elevation (ft):**	NP
Depth to Water (ft):	9.86	**Groundwater Elevation (ft):**	#VALUE!
Depth to Bottom (ft):	18.15	**Bottom Elevation (ft):**	NM
Height of Water Column (ft):	NM	**Well Diameter (in):**	4
Standing Water Volume (gal):	NM	**Calculated Purge Volume (gal):**	N/A
Sample Date:	3/16/2023	**Begin Purge Time:**	7:23
Sample Time:	7:55	**Complete Purge Time:**	7:53
Purge Method:	Low Flow - Grundfos	**Sample Method:**	Low Flow - Grundfos
Purge Rate (gpm):	0.18	**Purge Time (min):**	30
Actual Purge Volume (gal):	5.5	**Casing Volumes Removed:**	N/A
Sample Appearance:	Clear	**Odors Observed:**	None
Analytical Laboratory:	Alpha Analytical	**Notes:**	
Date Shipped:	3/17/2023		
Analyses Requested:			
VOC (8260)			

Field Indicator Parameters

Reading	Time	Temp. (°C)	pH	Turbidity NTU	ORP mV	Cond. (mS/cm)	DO mg/L		
1	7:23	11.33	5.95	313.0	118	1.570	1.05		
2	7:26	12.32	5.97	302.0	100	1.560	0.00		
3	7:29	12.54	5.97	266.0	97	1.55	0.00		
4	7:32	12.77	5.97	210.0	94	1.54	0.00		
5	7:35	12.76	5.97	180.0	93	1.53	0.00		
6	7:38	13.03	5.96	153.0	89	1.53	0.00		
7	7:41	12.98	5.96	147.0	89	1.50	0.00		
8	7:44	12.90	5.97	115.0	88	1.43	0.00		
9	7:47	12.86	5.97	86.2	85	1.44	0.00		
10	7:50	12.73	5.98	57.0	84	1.46	0.00		
11	7:53	13.02	6.00	13.7	80	1.52	0.00		

Take readings every three minutes

P.W. GROSSER CONSULTING, Inc

Well Sampling Log

Well Designation:	MW-3	**Sampled By:**	KC
Site Address:	1 Shore Road, Glenwood Landing, NY	**Project Manager:**	Ryan Morley
Project Name:	Former Penetrex Processing Facility	**Project Number:**	PEN2301

Reference Elevation (ft):	NM	**Well Use:**	Monitoring/Observation
Depth to Product (ft):	-	**Product Elevation (ft):**	NP
Depth to Water (ft):	-	**Groundwater Elevation (ft):**	#VALUE!
Depth to Bottom (ft):	-	**Bottom Elevation (ft):**	NM
Height of Water Column (ft):	NM	**Well Diameter (in):**	4
Standing Water Volume (gal):	NM	**Calculated Purge Volume (gal):**	N/A
Sample Date:	-	**Begin Purge Time:**	-
Sample Time:	-	**Complete Purge Time:**	-
Purge Method:	-	**Sample Method:**	-
Purge Rate (gpm):	-	**Purge Time (min):**	-
Actual Purge Volume (gal):	-	**Casing Volumes Removed:**	-
Sample Appearance:	-	**Odors Observed:**	-
Analytical Laboratory:	Alpha Analytical	**Notes:**	Not sampled; well destroyed
Date Shipped:	3/17/2023		
Analyses Requested:			
-			

Field Indicator Parameters

Reading	Time	Temp. (°C)	pH	Turbidity NTU	ORP mV	Cond. (mS/cm)	DO mg/L		

Take readings every three minutes

P.W. GROSSER CONSULTING, Inc

Well Sampling Log

Well Designation:	MW-4	**Sampled By:**	KC
Site Address:	1 Shore Road, Glenwood Landing, NY	**Project Manager:**	Ryan Morley
Project Name:	Former Penetrex Processing Facility	**Project Number:**	PEN2301

Reference Elevation (ft):	NM	**Well Use:**	Monitoring/Observation
Depth to Product (ft):	NP	**Product Elevation (ft):**	NP
Depth to Water (ft):	9.20	**Groundwater Elevation (ft):**	#VALUE!
Depth to Bottom (ft):	18.91	**Bottom Elevation (ft):**	NM
Height of Water Column (ft):	NM	**Well Diameter (in):**	4
Standing Water Volume (gal):	NM	**Calculated Purge Volume (gal):**	N/A
Sample Date:	3/16/2023	**Begin Purge Time:**	8:10
Sample Time:	8:20	**Complete Purge Time:**	8:19
Purge Method:	Low Flow - Grundfos	**Sample Method:**	Low Flow - Grundfos
Purge Rate (gpm):	0.17	**Purge Time (min):**	9
Actual Purge Volume (gal):	1.5	**Casing Volumes Removed:**	N/A
Sample Appearance:	Clear	**Odors Observed:**	None
Analytical Laboratory:	Alpha Analytical	**Notes:**	
Date Shipped:	3/17/2023		
Analyses Requested:			
VOC (8260)			

Field Indicator Parameters

Reading	Time	Temp. (°C)	pH	Turbidity NTU	ORP mV	Cond. (mS/cm)	DO mg/L		
1	8:10	9.26	6.63	26.9	31	0.335	1.09		
2	8:13	10.62	6.17	0.0	99	0.347	0.62		
3	8:16	10.13	6.19	0.0	105	0.35	0.13		
4	8:19	10.14	6.21	0.0	108	0.36	0.11		

Take readings every three minutes

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Well Sampling Log

Well Designation:	MW-5	**Sampled By:**	KC
Site Address:	1 Shore Road, Glenwood Landing, NY	**Project Manager:**	Ryan Morley
Project Name:	Former Penetrex Processing Facility	**Project Number:**	PEN2301

Reference Elevation (ft):	NM	**Well Use:**	Monitoring/Observation
Depth to Product (ft):	NP	**Product Elevation (ft):**	NP
Depth to Water (ft):	10.12	**Groundwater Elevation (ft):**	#VALUE!
Depth to Bottom (ft):	20.04	**Bottom Elevation (ft):**	NM
Height of Water Column (ft):	NM	**Well Diameter (in):**	4
Standing Water Volume (gal):	NM	**Calculated Purge Volume (gal):**	N/A
Sample Date:	3/16/2023	**Begin Purge Time:**	8:31
Sample Time:	8:50	**Complete Purge Time:**	8:46
Purge Method:	Low Flow - Grundfos	**Sample Method:**	Low Flow - Grundfos
Purge Rate (gpm):	0.13	**Purge Time (min):**	15
Actual Purge Volume (gal):	2	**Casing Volumes Removed:**	N/A
Sample Appearance:	Clear	**Odors Observed:**	None
Analytical Laboratory:	Alpha Analytical	**Notes:**	
Date Shipped:	3/17/2023		
Analyses Requested:			
VOC (8260)			

Field Indicator Parameters

Reading	Time	Temp. (°C)	pH	Turbidity NTU	ORP mV	Cond. (mS/cm)	DO mg/L		
1	8:31	10.25	5.88	147.0	141	1.060	0.46		
2	8:34	10.55	5.75	91.8	162	1.050	0.38		
3	8:37	10.35	5.75	87.3	163	1.07	0.29		
4	8:40	10.22	5.75	76.8	164	1.07	0.28		
5	8:43	10.24	5.75	70.1	164	1.07	0.28		
6	8:46	10.26	5.75	48.9	164	1.07	0.27		

Take readings every three minutes

P.W. GROSSER CONSULTING, Inc

Well Sampling Log

Well Designation:	MW-6	**Sampled By:**	KC
Site Address:	1 Shore Road, Glenwood Landing, NY	**Project Manager:**	Ryan Morley
Project Name:	Former Penetrex Processing Facility	**Project Number:**	PEN2301

Reference Elevation (ft):	NM	**Well Use:**	Monitoring/Observation
Depth to Product (ft):	NP	**Product Elevation (ft):**	NP
Depth to Water (ft):	NM	**Groundwater Elevation (ft):**	#VALUE!
Depth to Bottom (ft):	NM	**Bottom Elevation (ft):**	NM
Height of Water Column (ft):	NM	**Well Diameter (in):**	4
Standing Water Volume (gal):	NM	**Calculated Purge Volume (gal):**	N/A
Sample Date:	3/16/2023	**Begin Purge Time:**	-
Sample Time:	11:00	**Complete Purge Time:**	-
Purge Method:	Polyethylene Bailer	**Sample Method:**	Polyethylene Bailer
Purge Rate (gpm):	-	**Purge Time (min):**	-
Actual Purge Volume (gal):	-	**Casing Volumes Removed:**	-
Sample Appearance:	Slighty turbid	**Odors Observed:**	None
Analytical Laboratory:	Alpha Analytical	**Notes:**	Grab sample; install new monitoring well casing
Date Shipped:	3/17/2023		
Analyses Requested:			
VOC (8260)			

Field Indicator Parameters

Reading	Time	Temp. (°C)	pH	Turbidity NTU	ORP mV	Cond. (mS/cm)	DO mg/L		

Take readings every three minutes

P.W. GROSSER CONSULTING, Inc

Well Sampling Log

Well Designation:	MW-7	**Sampled By:**	KC
Site Address:	1 Shore Road, Glenwood Landing, NY	**Project Manager:**	Ryan Morley
Project Name:	Former Penetrex Processing Facility	**Project Number:**	PEN2301

Reference Elevation (ft):	NM	**Well Use:**	Monitoring/Observation
Depth to Product (ft):	NP	**Product Elevation (ft):**	NP
Depth to Water (ft):	18.43	**Groundwater Elevation (ft):**	#VALUE!
Depth to Bottom (ft):	29.15	**Bottom Elevation (ft):**	NM
Height of Water Column (ft):	NM	**Well Diameter (in):**	4
Standing Water Volume (gal):	NM	**Calculated Purge Volume (gal):**	N/A
Sample Date:	3/16/2023	**Begin Purge Time:**	12:05
Sample Time:	12:20	**Complete Purge Time:**	12:20
Purge Method:	Low Flow - Grundfos	**Sample Method:**	Low Flow - Grundfos
Purge Rate (gpm):	0.20	**Purge Time (min):**	15
Actual Purge Volume (gal):	3	**Casing Volumes Removed:**	N/A
Sample Appearance:	Clear	**Odors Observed:**	None
Analytical Laboratory:	Alpha Analytical	**Notes:**	
Date Shipped:	3/17/2023		
Analyses Requested:			
VOC (8260)			

Field Indicator Parameters

Reading	Time	Temp. (°C)	pH	Turbidity NTU	ORP mV	Cond. (mS/cm)	DO mg/L		
1	12:05	13.80	6.40	809.0	202	1.940	5.79		
2	12:08	14.18	6.39	608.0	206	2.340	5.53		
3	12:11	14.30	6.40	385.0	207	2.48	5.35		
4	12:14	14.41	6.42	143.0	207	2.49	5.24		
5	12:17	14.41	6.41	82.2	208	2.57	5.17		
6	12:20	14.43	6.42	40.8	208	2.64	5.12		

Take readings every three minutes

P.W. GROSSER CONSULTING, Inc

Well Sampling Log

Well Designation:	MW-8	**Sampled By:**	KC
Site Address:	1 Shore Road, Glenwood Landing, NY	**Project Manager:**	Ryan Morley
Project Name:	Former Penetrex Processing Facility	**Project Number:**	PEN2301

Reference Elevation (ft):	NM	**Well Use:**	Monitoring/Observation
Depth to Product (ft):	NP	**Product Elevation (ft):**	NP
Depth to Water (ft):	16.03	**Groundwater Elevation (ft):**	#VALUE!
Depth to Bottom (ft):	23.28	**Bottom Elevation (ft):**	NM
Height of Water Column (ft):	NM	**Well Diameter (in):**	4
Standing Water Volume (gal):	NM	**Calculated Purge Volume (gal):**	N/A
Sample Date:	3/16/2023	**Begin Purge Time:**	9:39
Sample Time:	9:55	**Complete Purge Time:**	9:51
Purge Method:	Low Flow - Grundfos	**Sample Method:**	Low Flow - Grundfos
Purge Rate (gpm):	0.17	**Purge Time (min):**	12
Actual Purge Volume (gal):	2	**Casing Volumes Removed:**	N/A
Sample Appearance:	Clear	**Odors Observed:**	None
Analytical Laboratory:	Alpha Analytical	**Notes:**	
Date Shipped:	3/17/2023		
Analyses Requested:			
VOC (8260)			

Field Indicator Parameters

Reading	Time	Temp. (°C)	pH	Turbidity NTU	ORP mV	Cond. (mS/cm)	DO mg/L		
1	9:39	11.86	5.97	226.0	219	2.710	1.84		
2	9:42	13.13	6.28	24.3	200	2.880	0.90		
3	9:45	13.77	6.34	0.0	185	2.96	0.60		
4	9:48	13.85	6.36	0.0	176	2.95	0.50		
5	9:51	13.83	6.36	0.0	170	2.72	0.71		
6	9:54	13.85	6.35	0.0	169	2.47	1.06		

Take readings every three minutes

P.W. GROSSER CONSULTING, Inc

Well Sampling Log

Well Designation:	MW-8D	**Sampled By:**	KC
Site Address:	1 Shore Road, Glenwood Landing, NY	**Project Manager:**	Ryan Morley
Project Name:	Former Penetrex Processing Facility	**Project Number:**	PEN2301

Reference Elevation (ft):	NM	**Well Use:**	Monitoring/Observation
Depth to Product (ft):	NP	**Product Elevation (ft):**	NP
Depth to Water (ft):	15.63	**Groundwater Elevation (ft):**	#VALUE!
Depth to Bottom (ft):	42.50	**Bottom Elevation (ft):**	NM
Height of Water Column (ft):	NM	**Well Diameter (in):**	4
Standing Water Volume (gal):	NM	**Calculated Purge Volume (gal):**	N/A
Sample Date:	3/16/2023	**Begin Purge Time:**	10:39
Sample Time:	11:10	**Complete Purge Time:**	11:09
Purge Method:	Low Flow - Grundfos	**Sample Method:**	Low Flow - Grundfos
Purge Rate (gpm):	0.20	**Purge Time (min):**	30
Actual Purge Volume (gal):	6	**Casing Volumes Removed:**	N/A
Sample Appearance:	Clear	**Odors Observed:**	None
Analytical Laboratory:	Alpha Analytical	**Notes:**	
Date Shipped:	3/17/2023		
Analyses Requested:			
VOC (8260)			

Field Indicator Parameters

Reading	Time	Temp. (°C)	pH	Turbidity NTU	ORP mV	Cond. (mS/cm)	DO mg/L		
1	10:39	12.28	6.39	>1000	182	3.560	2.75		
2	10:42	13.18	6.37	>1000	182	3.750	2.79		
3	10:45	13.54	6.38	>1000	181	4.00	2.82		
4	10:48	13.78	6.39	465.0	180	4.18	2.88		
5	10:51	13.80	6.40	430.0	178	3.88	2.95		
6	10:54	13.78	6.39	277.0	178	3.67	3.01		
7	10:57	13.80	6.39	150.0	178	3.58	3.08		
8	11:00	13.78	6.38	88.4	178	3.56	3.15		
9	11:03	13.81	6.39	61.3	178	3.54	3.20		
10	11:06	13.81	6.39	45.2	178	3.54	3.20		
11	11:09	13.79	6.39	48.9	178	3.54	3.21		

Take readings every three minutes

P.W. GROSSER CONSULTING, Inc

Well Sampling Log

Well Designation:	MW-9	**Sampled By:**	KC
Site Address:	1 Shore Road, Glenwood Landing, NY	**Project Manager:**	Ryan Morley
Project Name:	Former Penetrex Processing Facility	**Project Number:**	PEN2301

Reference Elevation (ft):	NM	**Well Use:**	Monitoring/Observation
Depth to Product (ft):	NP	**Product Elevation (ft):**	NP
Depth to Water (ft):	14.51	**Groundwater Elevation (ft):**	#VALUE!
Depth to Bottom (ft):	23.26	**Bottom Elevation (ft):**	NM
Height of Water Column (ft):	NM	**Well Diameter (in):**	4
Standing Water Volume (gal):	NM	**Calculated Purge Volume (gal):**	N/A
Sample Date:	3/16/2023	**Begin Purge Time:**	9:00
Sample Time:	9:15	**Complete Purge Time:**	9:12
Purge Method:	Low Flow - Grundfos	**Sample Method:**	Low Flow - Grundfos
Purge Rate (gpm):	0.17	**Purge Time (min):**	12
Actual Purge Volume (gal):	2	**Casing Volumes Removed:**	N/A
Sample Appearance:	Clear	**Odors Observed:**	None
Analytical Laboratory:	Alpha Analytical	**Notes:**	MS/MSD collected
Date Shipped:	3/17/2023		
Analyses Requested:			
VOC (8260)			

Field Indicator Parameters

Reading	Time	Temp. (°C)	pH	Turbidity NTU	ORP mV	Cond. (mS/cm)	DO mg/L		
1	9:00	11.00	6.51	770.0	113	1.160	3.53		
2	9:03	12.25	6.26	365.0	136	1.170	2.85		
3	9:06	12.57	6.25	111.0	141	1.22	2.74		
4	9:09	12.81	6.24	33.6	147	1.26	2.84		
5	9:12	12.83	6.24	16.5	149	1.26	2.85		

Take readings every three minutes

P.W. GROSSER CONSULTING, Inc

Well Sampling Log

Well Designation:	MW-9D	**Sampled By:**	KC
Site Address:	1 Shore Road, Glenwood Landing, NY	**Project Manager:**	Ryan Morley
Project Name:	Former Penetrex Processing Facility	**Project Number:**	PEN2301

Reference Elevation (ft):	NM	**Well Use:**	Monitoring/Observation
Depth to Product (ft):	NP	**Product Elevation (ft):**	NP
Depth to Water (ft):	15.28	**Groundwater Elevation (ft):**	#VALUE!
Depth to Bottom (ft):	46.62	**Bottom Elevation (ft):**	NM
Height of Water Column (ft):	NM	**Well Diameter (in):**	4
Standing Water Volume (gal):	NM	**Calculated Purge Volume (gal):**	N/A
Sample Date:	3/16/2023	**Begin Purge Time:**	9:19
Sample Time:	9:35	**Complete Purge Time:**	9:31
Purge Method:	Low Flow - Grundfos	**Sample Method:**	Low Flow - Grundfos
Purge Rate (gpm):	0.25	**Purge Time (min):**	12
Actual Purge Volume (gal):	3	**Casing Volumes Removed:**	N/A
Sample Appearance:	Clear	**Odors Observed:**	None
Analytical Laboratory:	Alpha Analytical	**Notes:**	DUP001 collected
Date Shipped:	3/17/2023		
Analyses Requested:			
VOC (8260)			

Field Indicator Parameters

Reading	Time	Temp. (°C)	pH	Turbidity NTU	ORP mV	Cond. (mS/cm)	DO mg/L		
1	9:19	11.18	7.19	49.9	120	0.074	10.42		
2	9:22	12.41	6.05	9.5	163	0.097	10.06		
3	9:25	12.43	5.93	1.2	196	0.187	9.62		
4	9:28	12.46	5.56	0.0	217	0.322	9.21		
5	9:31	12.43	5.54	0.0	221	0.328	9.12		

Take readings every three minutes

P.W. GROSSER CONSULTING, Inc

Well Sampling Log

Well Designation:	MW-10	**Sampled By:**	KC
Site Address:	1 Shore Road, Glenwood Landing, NY	**Project Manager:**	Ryan Morley
Project Name:	Former Penetrex Processing Facility	**Project Number:**	PEN2301

Reference Elevation (ft):	NM	**Well Use:**	Monitoring/Observation
Depth to Product (ft):	NP	**Product Elevation (ft):**	NP
Depth to Water (ft):	14.76	**Groundwater Elevation (ft):**	#VALUE!
Depth to Bottom (ft):	22.59	**Bottom Elevation (ft):**	NM
Height of Water Column (ft):	NM	**Well Diameter (in):**	4
Standing Water Volume (gal):	NM	**Calculated Purge Volume (gal):**	N/A
Sample Date:	3/16/2023	**Begin Purge Time:**	11:21
Sample Time:	11:55	**Complete Purge Time:**	11:51
Purge Method:	Low Flow - Grundfos	**Sample Method:**	Low Flow - Grundfos
Purge Rate (gpm):	0.15	**Purge Time (min):**	30
Actual Purge Volume (gal):	4.5	**Casing Volumes Removed:**	N/A
Sample Appearance:	Clear	**Odors Observed:**	None
Analytical Laboratory:	Alpha Analytical	**Notes:**	
Date Shipped:	3/17/2023		
Analyses Requested:			
VOC (8260)			

Field Indicator Parameters

Reading	Time	Temp. (°C)	pH	Turbidity NTU	ORP mV	Cond. (mS/cm)	DO mg/L		
1	11:21	12.54	6.28	>1000	187	2.700	1.59		
2	11:24	12.15	6.12	774.0	197	2.370	1.50		
3	11:27	12.20	6.12	981.0	199	2.26	1.54		
4	11:30	12.78	6.12	535.0	201	2.06	1.56		
5	11:33	12.89	6.13	348.0	201	1.96	1.47		
6	11:36	12.95	6.13	177.0	200	1.89	1.39		
7	11:39	13.12	6.13	144.0	199	1.89	1.39		
8	11:42	13.30	6.14	97.8	198	1.79	1.38		
9	11:45	13.24	6.13	87.3	199	1.81	1.40		
10	11:48	13.10	6.13	57.6	200	1.83	1.44		
11	11:51	13.06	6.13	38.8	201	1.85	1.5		

Take readings every three minutes

Air Sampling Log						
Sample ID	**Start Time 3/16/2023**	**Initial Vacuum**	**Canister ID**	**Flow Control ID**	**Final Vacuum**	**End Time 3/17/2023**
IA001	10:00	-30.63	3372	0234	-8.15	9:04
IA002	10:02	-30.60	3565	02267	-8.07	9:02
IA003	10:06	-30.64	3382	02240	-7.07	9:06
IA004	10:04	-29.62	1866	0011	-8.24	9:00
IA005	10:10	-29.60	905	014883	-7.36	8:55
SV005	10:12	-31.08	1530	01212	-9.22	8:57
OA001	10:30	-30.70	2980	0097	-8.07	9:08

APPENDIX C

P.W. GROSSER CONSULTING, INC • P.W. GROSSER CONSULTING ENGINEER & HYDROGEOLOGIST, PC
631.589.6353 • WWW.PWGROSSER.COM • PWGC.INFO@PWGROSSER.COM
BOHEMIA • MANHATTAN • SARATOGA SPRINGS • SYRACUSE • SHELTON, CT

ANALYTICAL REPORT

Lab Number:	L2314139
Client:	P. W. Grosser 630 Johnson Avenue Suite 7 Bohemia, NY 11716
ATTN:	Ryan Morley
Phone:	(631) 589-6353
Project Name:	FORMER PENETREX PROCESSING
Project Number:	PEN2301
Report Date:	03/22/23

Certifications & Approvals: MA (M-MA086), NH NELAP (2064), CT (PH-0574), IL (200077), ME (MA00086), MD (348), NJ (MA935), NY (11148), NC (25700/666), PA (68-03671), RI (LAO00065), TX (T104704476), VT (VT-0935), VA (460195), USDA (Permit #P330-17-00196).

Eight Walkup Drive, Westborough, MA 01581-1019
508-898-9220 (Fax) 508-898-9193 800-624-9220 - www.alphalab.com

Project Name: FORMER PENETREX PROCESSING
Project Number: PEN2301

Lab Number: L2314139
Report Date: 03/22/23

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L2314139-01	MW-1	WATER	1 SHORE RD, GLENWOOD LANDING, NY	03/16/23 12:45	03/17/23
L2314139-02	MW-2	WATER	1 SHORE RD, GLENWOOD LANDING, NY	03/16/23 07:55	03/17/23
L2314139-03	MW-4	WATER	1 SHORE RD, GLENWOOD LANDING, NY	03/16/23 08:20	03/17/23
L2314139-04	MW-5	WATER	1 SHORE RD, GLENWOOD LANDING, NY	03/16/23 08:50	03/17/23
L2314139-05	MW-6	WATER	1 SHORE RD, GLENWOOD LANDING, NY	03/16/23 11:00	03/17/23
L2314139-06	MW-7	WATER	1 SHORE RD, GLENWOOD LANDING, NY	03/16/23 12:20	03/17/23
L2314139-07	MW-8	WATER	1 SHORE RD, GLENWOOD LANDING, NY	03/16/23 09:55	03/17/23
L2314139-08	MW-8D	WATER	1 SHORE RD, GLENWOOD LANDING, NY	03/16/23 11:10	03/17/23
L2314139-09	MW-9	WATER	1 SHORE RD, GLENWOOD LANDING, NY	03/16/23 09:15	03/17/23
L2314139-10	MW-9D	WATER	1 SHORE RD, GLENWOOD LANDING, NY	03/16/23 09:35	03/17/23
L2314139-11	MW-10	WATER	1 SHORE RD, GLENWOOD LANDING, NY	03/16/23 11:55	03/17/23
L2314139-12	DUP001	WATER	1 SHORE RD, GLENWOOD LANDING, NY	03/16/23 00:00	03/17/23
L2314139-13	TRIP BLANK	WATER	1 SHORE RD, GLENWOOD LANDING, NY	03/16/23 00:00	03/17/23

Project Name:	FORMER PENETREX PROCESSING	**Lab Number:**	L2314139
Project Number:	PEN2301	**Report Date:**	03/22/23

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively.

When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances, the specific failure is not narrated but noted in the associated QC Outlier Summary Report, located directly after the Case Narrative. QC information is also incorporated in the Data Usability Assessment table (Format 11) of our Data Merger tool, where it can be reviewed in conjunction with the sample result, associated regulatory criteria and any associated data usability implications.

Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

HOLD POLICY - For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Alpha Project Manager and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Project Management at 800-624-9220 with any questions.

Project Name:	FORMER PENETREX PROCESSING	**Lab Number:**	L2314139
Project Number:	PEN2301	**Report Date:**	03/22/23

Case Narrative (continued)

Report Submission

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

Volatile Organics

L2314139-04: The pH was greater than two; however, the sample was analyzed within the method required holding time.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature: Ashaley Moynihan

Title: Technical Director/Representative Date: 03/22/23

ORGANICS

VOLATILES

Project Name: FORMER PENETREX PROCESSING **Lab Number:** L2314139

Project Number: PEN2301 **Report Date:** 03/22/23

SAMPLE RESULTS

Lab ID: L2314139-01
Client ID: MW-1
Sample Location: 1 SHORE RD, GLENWOOD LANDING, NY

Date Collected: 03/16/23 12:45
Date Received: 03/17/23
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8260D
Analytical Date: 03/21/23 11:35
Analyst: LAC

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	14		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14	1
1,1-Dichloropropene	ND		ug/l	2.5	0.70	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1

Project Name: FORMER PENETREX PROCESSING **Lab Number:** L2314139

Project Number: PEN2301 **Report Date:** 03/22/23

SAMPLE RESULTS

Lab ID: L2314139-01 Date Collected: 03/16/23 12:45

Client ID: MW-1 Date Received: 03/17/23

Sample Location: 1 SHORE RD, GLENWOOD LANDING, NY Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Trichloroethene	0.20	J	ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
Xylenes, Total	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
1,2-Dichloroethene, Total	ND		ug/l	2.5	0.70	1
Dibromomethane	ND		ug/l	5.0	1.0	1
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70	1
Acrylonitrile	ND		ug/l	5.0	1.5	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	ND		ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
Vinyl acetate	ND		ug/l	5.0	1.0	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
2,2-Dichloropropane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,3-Dichloropropane	ND		ug/l	2.5	0.70	1
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.70	1
Bromobenzene	ND		ug/l	2.5	0.70	1
n-Butylbenzene	ND		ug/l	2.5	0.70	1
sec-Butylbenzene	ND		ug/l	2.5	0.70	1
tert-Butylbenzene	ND		ug/l	2.5	0.70	1
o-Chlorotoluene	ND		ug/l	2.5	0.70	1
p-Chlorotoluene	ND		ug/l	2.5	0.70	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Hexachlorobutadiene	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
p-Isopropyltoluene	ND		ug/l	2.5	0.70	1
Naphthalene	ND		ug/l	2.5	0.70	1

Project Name: FORMER PENETREX PROCESSING **Lab Number:** L2314139

Project Number: PEN2301 **Report Date:** 03/22/23

SAMPLE RESULTS

Lab ID: L2314139-01 Date Collected: 03/16/23 12:45

Client ID: MW-1 Date Received: 03/17/23

Sample Location: 1 SHORE RD, GLENWOOD LANDING, NY Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
n-Propylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,4-Dioxane	ND		ug/l	250	61.	1
p-Diethylbenzene	ND		ug/l	2.0	0.70	1
p-Ethyltoluene	ND		ug/l	2.0	0.70	1
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	0.54	1
Ethyl ether	ND		ug/l	2.5	0.70	1
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.70	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	100		70-130
Toluene-d8	98		70-130
4-Bromofluorobenzene	95		70-130
Dibromofluoromethane	102		70-130

Project Name: FORMER PENETREX PROCESSING **Lab Number:** L2314139

Project Number: PEN2301 **Report Date:** 03/22/23

SAMPLE RESULTS

Lab ID: L2314139-02
Client ID: MW-2
Sample Location: 1 SHORE RD, GLENWOOD LANDING, NY

Date Collected: 03/16/23 07:55
Date Received: 03/17/23
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8260D
Analytical Date: 03/21/23 11:59
Analyst: LAC

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	2.0		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14	1
1,1-Dichloropropene	ND		ug/l	2.5	0.70	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1

Project Name: FORMER PENETREX PROCESSING **Lab Number:** L2314139

Project Number: PEN2301 **Report Date:** 03/22/23

SAMPLE RESULTS

Lab ID: L2314139-02 Date Collected: 03/16/23 07:55

Client ID: MW-2 Date Received: 03/17/23

Sample Location: 1 SHORE RD, GLENWOOD LANDING, NY Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Trichloroethene	0.26	J	ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
Xylenes, Total	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
1,2-Dichloroethene, Total	ND		ug/l	2.5	0.70	1
Dibromomethane	ND		ug/l	5.0	1.0	1
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70	1
Acrylonitrile	ND		ug/l	5.0	1.5	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	ND		ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
Vinyl acetate	ND		ug/l	5.0	1.0	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
2,2-Dichloropropane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,3-Dichloropropane	ND		ug/l	2.5	0.70	1
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.70	1
Bromobenzene	ND		ug/l	2.5	0.70	1
n-Butylbenzene	ND		ug/l	2.5	0.70	1
sec-Butylbenzene	2.4	J	ug/l	2.5	0.70	1
tert-Butylbenzene	ND		ug/l	2.5	0.70	1
o-Chlorotoluene	ND		ug/l	2.5	0.70	1
p-Chlorotoluene	ND		ug/l	2.5	0.70	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Hexachlorobutadiene	ND		ug/l	2.5	0.70	1
Isopropylbenzene	0.90	J	ug/l	2.5	0.70	1
p-Isopropyltoluene	ND		ug/l	2.5	0.70	1
Naphthalene	ND		ug/l	2.5	0.70	1

Project Name: FORMER PENETREX PROCESSING **Lab Number:** L2314139

Project Number: PEN2301 **Report Date:** 03/22/23

SAMPLE RESULTS

Lab ID: L2314139-02 Date Collected: 03/16/23 07:55

Client ID: MW-2 Date Received: 03/17/23

Sample Location: 1 SHORE RD, GLENWOOD LANDING, NY Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
n-Propylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,4-Dioxane	ND		ug/l	250	61.	1
p-Diethylbenzene	1.4	J	ug/l	2.0	0.70	1
p-Ethyltoluene	ND		ug/l	2.0	0.70	1
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	0.54	1
Ethyl ether	ND		ug/l	2.5	0.70	1
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.70	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	101		70-130
Toluene-d8	98		70-130
4-Bromofluorobenzene	93		70-130
Dibromofluoromethane	102		70-130

Project Name: FORMER PENETREX PROCESSING **Lab Number:** L2314139

Project Number: PEN2301 **Report Date:** 03/22/23

SAMPLE RESULTS

Lab ID: L2314139-03
Client ID: MW-4
Sample Location: 1 SHORE RD, GLENWOOD LANDING, NY

Date Collected: 03/16/23 08:20
Date Received: 03/17/23
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8260D
Analytical Date: 03/21/23 12:22
Analyst: LAC

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	0.40	J	ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14	1
1,1-Dichloropropene	ND		ug/l	2.5	0.70	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1

Project Name: FORMER PENETREX PROCESSING **Lab Number:** L2314139

Project Number: PEN2301 **Report Date:** 03/22/23

SAMPLE RESULTS

Lab ID: L2314139-03 Date Collected: 03/16/23 08:20

Client ID: MW-4 Date Received: 03/17/23

Sample Location: 1 SHORE RD, GLENWOOD LANDING, NY Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Trichloroethene	ND		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
Xylenes, Total	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
1,2-Dichloroethene, Total	ND		ug/l	2.5	0.70	1
Dibromomethane	ND		ug/l	5.0	1.0	1
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70	1
Acrylonitrile	ND		ug/l	5.0	1.5	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	ND		ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
Vinyl acetate	ND		ug/l	5.0	1.0	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
2,2-Dichloropropane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,3-Dichloropropane	ND		ug/l	2.5	0.70	1
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.70	1
Bromobenzene	ND		ug/l	2.5	0.70	1
n-Butylbenzene	ND		ug/l	2.5	0.70	1
sec-Butylbenzene	ND		ug/l	2.5	0.70	1
tert-Butylbenzene	ND		ug/l	2.5	0.70	1
o-Chlorotoluene	ND		ug/l	2.5	0.70	1
p-Chlorotoluene	ND		ug/l	2.5	0.70	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Hexachlorobutadiene	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
p-Isopropyltoluene	ND		ug/l	2.5	0.70	1
Naphthalene	ND		ug/l	2.5	0.70	1

Project Name: FORMER PENETREX PROCESSING **Lab Number:** L2314139

Project Number: PEN2301 **Report Date:** 03/22/23

SAMPLE RESULTS

Lab ID: L2314139-03 Date Collected: 03/16/23 08:20

Client ID: MW-4 Date Received: 03/17/23

Sample Location: 1 SHORE RD, GLENWOOD LANDING, NY Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
n-Propylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,4-Dioxane	ND		ug/l	250	61.	1
p-Diethylbenzene	ND		ug/l	2.0	0.70	1
p-Ethyltoluene	ND		ug/l	2.0	0.70	1
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	0.54	1
Ethyl ether	ND		ug/l	2.5	0.70	1
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.70	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	100		70-130
Toluene-d8	97		70-130
4-Bromofluorobenzene	93		70-130
Dibromofluoromethane	102		70-130

Project Name: FORMER PENETREX PROCESSING **Lab Number:** L2314139

Project Number: PEN2301 **Report Date:** 03/22/23

SAMPLE RESULTS

Lab ID: L2314139-04
Client ID: MW-5
Sample Location: 1 SHORE RD, GLENWOOD LANDING, NY

Date Collected: 03/16/23 08:50
Date Received: 03/17/23
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8260D
Analytical Date: 03/21/23 12:45
Analyst: LAC

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	4.2		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14	1
1,1-Dichloropropene	ND		ug/l	2.5	0.70	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1

Project Name: FORMER PENETREX PROCESSING **Lab Number:** L2314139

Project Number: PEN2301 **Report Date:** 03/22/23

SAMPLE RESULTS

Lab ID: L2314139-04 Date Collected: 03/16/23 08:50

Client ID: MW-5 Date Received: 03/17/23

Sample Location: 1 SHORE RD, GLENWOOD LANDING, NY Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Trichloroethene	0.60		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
Xylenes, Total	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
1,2-Dichloroethene, Total	ND		ug/l	2.5	0.70	1
Dibromomethane	ND		ug/l	5.0	1.0	1
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70	1
Acrylonitrile	ND		ug/l	5.0	1.5	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	ND		ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
Vinyl acetate	ND		ug/l	5.0	1.0	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
2,2-Dichloropropane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,3-Dichloropropane	ND		ug/l	2.5	0.70	1
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.70	1
Bromobenzene	ND		ug/l	2.5	0.70	1
n-Butylbenzene	ND		ug/l	2.5	0.70	1
sec-Butylbenzene	ND		ug/l	2.5	0.70	1
tert-Butylbenzene	ND		ug/l	2.5	0.70	1
o-Chlorotoluene	ND		ug/l	2.5	0.70	1
p-Chlorotoluene	ND		ug/l	2.5	0.70	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Hexachlorobutadiene	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
p-Isopropyltoluene	ND		ug/l	2.5	0.70	1
Naphthalene	ND		ug/l	2.5	0.70	1

Project Name: FORMER PENETREX PROCESSING **Lab Number:** L2314139

Project Number: PEN2301 **Report Date:** 03/22/23

SAMPLE RESULTS

Lab ID: L2314139-04 Date Collected: 03/16/23 08:50

Client ID: MW-5 Date Received: 03/17/23

Sample Location: 1 SHORE RD, GLENWOOD LANDING, NY Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
n-Propylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,4-Dioxane	ND		ug/l	250	61.	1
p-Diethylbenzene	ND		ug/l	2.0	0.70	1
p-Ethyltoluene	ND		ug/l	2.0	0.70	1
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	0.54	1
Ethyl ether	ND		ug/l	2.5	0.70	1
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.70	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	103		70-130
Toluene-d8	97		70-130
4-Bromofluorobenzene	95		70-130
Dibromofluoromethane	104		70-130

Project Name: FORMER PENETREX PROCESSING **Lab Number:** L2314139

Project Number: PEN2301 **Report Date:** 03/22/23

SAMPLE RESULTS

Lab ID: L2314139-05
Client ID: MW-6
Sample Location: 1 SHORE RD, GLENWOOD LANDING, NY

Date Collected: 03/16/23 11:00
Date Received: 03/17/23
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8260D
Analytical Date: 03/21/23 13:09
Analyst: LAC

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	0.49	J	ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14	1
1,1-Dichloropropene	ND		ug/l	2.5	0.70	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1

Project Name: FORMER PENETREX PROCESSING **Lab Number:** L2314139

Project Number: PEN2301 **Report Date:** 03/22/23

SAMPLE RESULTS

Lab ID: L2314139-05 Date Collected: 03/16/23 11:00

Client ID: MW-6 Date Received: 03/17/23

Sample Location: 1 SHORE RD, GLENWOOD LANDING, NY Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Trichloroethene	ND		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
Xylenes, Total	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	1.4	J	ug/l	2.5	0.70	1
1,2-Dichloroethene, Total	1.4	J	ug/l	2.5	0.70	1
Dibromomethane	ND		ug/l	5.0	1.0	1
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70	1
Acrylonitrile	ND		ug/l	5.0	1.5	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	ND		ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
Vinyl acetate	ND		ug/l	5.0	1.0	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
2,2-Dichloropropane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,3-Dichloropropane	ND		ug/l	2.5	0.70	1
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.70	1
Bromobenzene	ND		ug/l	2.5	0.70	1
n-Butylbenzene	ND		ug/l	2.5	0.70	1
sec-Butylbenzene	ND		ug/l	2.5	0.70	1
tert-Butylbenzene	ND		ug/l	2.5	0.70	1
o-Chlorotoluene	ND		ug/l	2.5	0.70	1
p-Chlorotoluene	ND		ug/l	2.5	0.70	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Hexachlorobutadiene	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
p-Isopropyltoluene	ND		ug/l	2.5	0.70	1
Naphthalene	ND		ug/l	2.5	0.70	1

Project Name: FORMER PENETREX PROCESSING **Lab Number:** L2314139

Project Number: PEN2301 **Report Date:** 03/22/23

SAMPLE RESULTS

Lab ID: L2314139-05 Date Collected: 03/16/23 11:00

Client ID: MW-6 Date Received: 03/17/23

Sample Location: 1 SHORE RD, GLENWOOD LANDING, NY Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
n-Propylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,4-Dioxane	ND		ug/l	250	61.	1
p-Diethylbenzene	ND		ug/l	2.0	0.70	1
p-Ethyltoluene	ND		ug/l	2.0	0.70	1
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	0.54	1
Ethyl ether	ND		ug/l	2.5	0.70	1
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.70	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	102		70-130
Toluene-d8	97		70-130
4-Bromofluorobenzene	94		70-130
Dibromofluoromethane	102		70-130

Project Name: FORMER PENETREX PROCESSING **Lab Number:** L2314139

Project Number: PEN2301 **Report Date:** 03/22/23

SAMPLE RESULTS

Lab ID: L2314139-06
Client ID: MW-7
Sample Location: 1 SHORE RD, GLENWOOD LANDING, NY

Date Collected: 03/16/23 12:20
Date Received: 03/17/23
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8260D
Analytical Date: 03/21/23 13:32
Analyst: LAC

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	50		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14	1
1,1-Dichloropropene	ND		ug/l	2.5	0.70	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1

Project Name: FORMER PENETREX PROCESSING **Lab Number:** L2314139

Project Number: PEN2301 **Report Date:** 03/22/23

SAMPLE RESULTS

Lab ID: L2314139-06 Date Collected: 03/16/23 12:20

Client ID: MW-7 Date Received: 03/17/23

Sample Location: 1 SHORE RD, GLENWOOD LANDING, NY Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Trichloroethene	0.46	J	ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
Xylenes, Total	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
1,2-Dichloroethene, Total	ND		ug/l	2.5	0.70	1
Dibromomethane	ND		ug/l	5.0	1.0	1
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70	1
Acrylonitrile	ND		ug/l	5.0	1.5	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	ND		ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
Vinyl acetate	ND		ug/l	5.0	1.0	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
2,2-Dichloropropane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,3-Dichloropropane	ND		ug/l	2.5	0.70	1
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.70	1
Bromobenzene	ND		ug/l	2.5	0.70	1
n-Butylbenzene	ND		ug/l	2.5	0.70	1
sec-Butylbenzene	ND		ug/l	2.5	0.70	1
tert-Butylbenzene	ND		ug/l	2.5	0.70	1
o-Chlorotoluene	ND		ug/l	2.5	0.70	1
p-Chlorotoluene	ND		ug/l	2.5	0.70	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Hexachlorobutadiene	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
p-Isopropyltoluene	ND		ug/l	2.5	0.70	1
Naphthalene	ND		ug/l	2.5	0.70	1

Project Name: FORMER PENETREX PROCESSING **Lab Number:** L2314139

Project Number: PEN2301 **Report Date:** 03/22/23

SAMPLE RESULTS

Lab ID: L2314139-06 Date Collected: 03/16/23 12:20

Client ID: MW-7 Date Received: 03/17/23

Sample Location: 1 SHORE RD, GLENWOOD LANDING, NY Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
n-Propylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,4-Dioxane	ND		ug/l	250	61.	1
p-Diethylbenzene	ND		ug/l	2.0	0.70	1
p-Ethyltoluene	ND		ug/l	2.0	0.70	1
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	0.54	1
Ethyl ether	ND		ug/l	2.5	0.70	1
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.70	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	100		70-130
Toluene-d8	98		70-130
4-Bromofluorobenzene	94		70-130
Dibromofluoromethane	101		70-130

Project Name: FORMER PENETREX PROCESSING **Lab Number:** L2314139

Project Number: PEN2301 **Report Date:** 03/22/23

SAMPLE RESULTS

Lab ID: L2314139-07
Client ID: MW-8
Sample Location: 1 SHORE RD, GLENWOOD LANDING, NY

Date Collected: 03/16/23 09:55
Date Received: 03/17/23
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8260D
Analytical Date: 03/21/23 13:55
Analyst: LAC

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	2.8		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14	1
1,1-Dichloropropene	ND		ug/l	2.5	0.70	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1

Project Name: FORMER PENETREX PROCESSING **Lab Number:** L2314139

Project Number: PEN2301 **Report Date:** 03/22/23

SAMPLE RESULTS

Lab ID: L2314139-07 Date Collected: 03/16/23 09:55

Client ID: MW-8 Date Received: 03/17/23

Sample Location: 1 SHORE RD, GLENWOOD LANDING, NY Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Trichloroethene	ND		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
Xylenes, Total	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
1,2-Dichloroethene, Total	ND		ug/l	2.5	0.70	1
Dibromomethane	ND		ug/l	5.0	1.0	1
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70	1
Acrylonitrile	ND		ug/l	5.0	1.5	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	ND		ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
Vinyl acetate	ND		ug/l	5.0	1.0	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
2,2-Dichloropropane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,3-Dichloropropane	ND		ug/l	2.5	0.70	1
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.70	1
Bromobenzene	ND		ug/l	2.5	0.70	1
n-Butylbenzene	ND		ug/l	2.5	0.70	1
sec-Butylbenzene	ND		ug/l	2.5	0.70	1
tert-Butylbenzene	ND		ug/l	2.5	0.70	1
o-Chlorotoluene	ND		ug/l	2.5	0.70	1
p-Chlorotoluene	ND		ug/l	2.5	0.70	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Hexachlorobutadiene	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
p-Isopropyltoluene	ND		ug/l	2.5	0.70	1
Naphthalene	ND		ug/l	2.5	0.70	1

Project Name: FORMER PENETREX PROCESSING **Lab Number:** L2314139

Project Number: PEN2301 **Report Date:** 03/22/23

SAMPLE RESULTS

Lab ID: L2314139-07 Date Collected: 03/16/23 09:55

Client ID: MW-8 Date Received: 03/17/23

Sample Location: 1 SHORE RD, GLENWOOD LANDING, NY Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
n-Propylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,4-Dioxane	ND		ug/l	250	61.	1
p-Diethylbenzene	ND		ug/l	2.0	0.70	1
p-Ethyltoluene	ND		ug/l	2.0	0.70	1
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	0.54	1
Ethyl ether	ND		ug/l	2.5	0.70	1
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.70	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	104		70-130
Toluene-d8	98		70-130
4-Bromofluorobenzene	94		70-130
Dibromofluoromethane	103		70-130

Project Name: FORMER PENETREX PROCESSING **Lab Number:** L2314139

Project Number: PEN2301 **Report Date:** 03/22/23

SAMPLE RESULTS

Lab ID: L2314139-08
Client ID: MW-8D
Sample Location: 1 SHORE RD, GLENWOOD LANDING, NY

Date Collected: 03/16/23 11:10
Date Received: 03/17/23
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8260D
Analytical Date: 03/21/23 14:19
Analyst: LAC

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	38		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14	1
1,1-Dichloropropene	ND		ug/l	2.5	0.70	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1

Project Name: FORMER PENETREX PROCESSING **Lab Number:** L2314139

Project Number: PEN2301 **Report Date:** 03/22/23

SAMPLE RESULTS

Lab ID: L2314139-08 Date Collected: 03/16/23 11:10

Client ID: MW-8D Date Received: 03/17/23

Sample Location: 1 SHORE RD, GLENWOOD LANDING, NY Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Trichloroethene	1.5		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
Xylenes, Total	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	50		ug/l	2.5	0.70	1
1,2-Dichloroethene, Total	50		ug/l	2.5	0.70	1
Dibromomethane	ND		ug/l	5.0	1.0	1
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70	1
Acrylonitrile	ND		ug/l	5.0	1.5	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	ND		ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
Vinyl acetate	ND		ug/l	5.0	1.0	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
2,2-Dichloropropane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,3-Dichloropropane	ND		ug/l	2.5	0.70	1
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.70	1
Bromobenzene	ND		ug/l	2.5	0.70	1
n-Butylbenzene	ND		ug/l	2.5	0.70	1
sec-Butylbenzene	ND		ug/l	2.5	0.70	1
tert-Butylbenzene	ND		ug/l	2.5	0.70	1
o-Chlorotoluene	ND		ug/l	2.5	0.70	1
p-Chlorotoluene	ND		ug/l	2.5	0.70	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Hexachlorobutadiene	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
p-Isopropyltoluene	ND		ug/l	2.5	0.70	1
Naphthalene	ND		ug/l	2.5	0.70	1

Project Name: FORMER PENETREX PROCESSING **Lab Number:** L2314139

Project Number: PEN2301 **Report Date:** 03/22/23

SAMPLE RESULTS

Lab ID: L2314139-08 Date Collected: 03/16/23 11:10

Client ID: MW-8D Date Received: 03/17/23

Sample Location: 1 SHORE RD, GLENWOOD LANDING, NY Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
n-Propylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,4-Dioxane	ND		ug/l	250	61.	1
p-Diethylbenzene	ND		ug/l	2.0	0.70	1
p-Ethyltoluene	ND		ug/l	2.0	0.70	1
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	0.54	1
Ethyl ether	ND		ug/l	2.5	0.70	1
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.70	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	102		70-130
Toluene-d8	97		70-130
4-Bromofluorobenzene	93		70-130
Dibromofluoromethane	102		70-130

Project Name: FORMER PENETREX PROCESSING **Lab Number:** L2314139

Project Number: PEN2301 **Report Date:** 03/22/23

SAMPLE RESULTS

Lab ID: L2314139-09
Client ID: MW-9
Sample Location: 1 SHORE RD, GLENWOOD LANDING, NY

Date Collected: 03/16/23 09:15
Date Received: 03/17/23
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8260D
Analytical Date: 03/21/23 16:33
Analyst: LAC

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	130		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14	1
1,1-Dichloropropene	ND		ug/l	2.5	0.70	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1

Project Name: FORMER PENETREX PROCESSING **Lab Number:** L2314139

Project Number: PEN2301 **Report Date:** 03/22/23

SAMPLE RESULTS

Lab ID: L2314139-09 Date Collected: 03/16/23 09:15

Client ID: MW-9 Date Received: 03/17/23

Sample Location: 1 SHORE RD, GLENWOOD LANDING, NY Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Trichloroethene	7.0		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
Xylenes, Total	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
1,2-Dichloroethene, Total	ND		ug/l	2.5	0.70	1
Dibromomethane	ND		ug/l	5.0	1.0	1
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70	1
Acrylonitrile	ND		ug/l	5.0	1.5	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	ND		ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
Vinyl acetate	ND		ug/l	5.0	1.0	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
2,2-Dichloropropane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,3-Dichloropropane	ND		ug/l	2.5	0.70	1
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.70	1
Bromobenzene	ND		ug/l	2.5	0.70	1
n-Butylbenzene	ND		ug/l	2.5	0.70	1
sec-Butylbenzene	ND		ug/l	2.5	0.70	1
tert-Butylbenzene	ND		ug/l	2.5	0.70	1
o-Chlorotoluene	ND		ug/l	2.5	0.70	1
p-Chlorotoluene	ND		ug/l	2.5	0.70	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Hexachlorobutadiene	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
p-Isopropyltoluene	ND		ug/l	2.5	0.70	1
Naphthalene	ND		ug/l	2.5	0.70	1

Project Name: FORMER PENETREX PROCESSING **Lab Number:** L2314139

Project Number: PEN2301 **Report Date:** 03/22/23

SAMPLE RESULTS

Lab ID: L2314139-09 Date Collected: 03/16/23 09:15

Client ID: MW-9 Date Received: 03/17/23

Sample Location: 1 SHORE RD, GLENWOOD LANDING, NY Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
n-Propylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,4-Dioxane	ND		ug/l	250	61.	1
p-Diethylbenzene	ND		ug/l	2.0	0.70	1
p-Ethyltoluene	ND		ug/l	2.0	0.70	1
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	0.54	1
Ethyl ether	ND		ug/l	2.5	0.70	1
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.70	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	97		70-130
Toluene-d8	102		70-130
4-Bromofluorobenzene	105		70-130
Dibromofluoromethane	98		70-130

Project Name: FORMER PENETREX PROCESSING **Lab Number:** L2314139

Project Number: PEN2301 **Report Date:** 03/22/23

SAMPLE RESULTS

Lab ID: L2314139-10 Date Collected: 03/16/23 09:35

Client ID: MW-9D Date Received: 03/17/23

Sample Location: 1 SHORE RD, GLENWOOD LANDING, NY Field Prep: Not Specified

Sample Depth:

Matrix: Water

Analytical Method: 1,8260D

Analytical Date: 03/21/23 14:42

Analyst: LAC

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	0.36	J	ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14	1
1,1-Dichloropropene	ND		ug/l	2.5	0.70	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1

Project Name: FORMER PENETREX PROCESSING **Lab Number:** L2314139

Project Number: PEN2301 **Report Date:** 03/22/23

SAMPLE RESULTS

Lab ID: L2314139-10 Date Collected: 03/16/23 09:35

Client ID: MW-9D Date Received: 03/17/23

Sample Location: 1 SHORE RD, GLENWOOD LANDING, NY Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Trichloroethene	ND		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
Xylenes, Total	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
1,2-Dichloroethene, Total	ND		ug/l	2.5	0.70	1
Dibromomethane	ND		ug/l	5.0	1.0	1
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70	1
Acrylonitrile	ND		ug/l	5.0	1.5	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	ND		ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
Vinyl acetate	ND		ug/l	5.0	1.0	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
2,2-Dichloropropane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,3-Dichloropropane	ND		ug/l	2.5	0.70	1
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.70	1
Bromobenzene	ND		ug/l	2.5	0.70	1
n-Butylbenzene	ND		ug/l	2.5	0.70	1
sec-Butylbenzene	ND		ug/l	2.5	0.70	1
tert-Butylbenzene	ND		ug/l	2.5	0.70	1
o-Chlorotoluene	ND		ug/l	2.5	0.70	1
p-Chlorotoluene	ND		ug/l	2.5	0.70	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Hexachlorobutadiene	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
p-Isopropyltoluene	ND		ug/l	2.5	0.70	1
Naphthalene	ND		ug/l	2.5	0.70	1

Project Name: FORMER PENETREX PROCESSING **Lab Number:** L2314139

Project Number: PEN2301 **Report Date:** 03/22/23

SAMPLE RESULTS

Lab ID: L2314139-10 Date Collected: 03/16/23 09:35

Client ID: MW-9D Date Received: 03/17/23

Sample Location: 1 SHORE RD, GLENWOOD LANDING, NY Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
n-Propylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,4-Dioxane	ND		ug/l	250	61.	1
p-Diethylbenzene	ND		ug/l	2.0	0.70	1
p-Ethyltoluene	ND		ug/l	2.0	0.70	1
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	0.54	1
Ethyl ether	ND		ug/l	2.5	0.70	1
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.70	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	104		70-130
Toluene-d8	98		70-130
4-Bromofluorobenzene	93		70-130
Dibromofluoromethane	103		70-130

Project Name: FORMER PENETREX PROCESSING **Lab Number:** L2314139

Project Number: PEN2301 **Report Date:** 03/22/23

SAMPLE RESULTS

Lab ID: L2314139-11
Client ID: MW-10
Sample Location: 1 SHORE RD, GLENWOOD LANDING, NY

Date Collected: 03/16/23 11:55
Date Received: 03/17/23
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8260D
Analytical Date: 03/21/23 15:06
Analyst: LAC

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	9.3		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14	1
1,1-Dichloropropene	ND		ug/l	2.5	0.70	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1

Project Name: FORMER PENETREX PROCESSING **Lab Number:** L2314139

Project Number: PEN2301 **Report Date:** 03/22/23

SAMPLE RESULTS

Lab ID: L2314139-11 Date Collected: 03/16/23 11:55

Client ID: MW-10 Date Received: 03/17/23

Sample Location: 1 SHORE RD, GLENWOOD LANDING, NY Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Trichloroethene	0.22	J	ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
Xylenes, Total	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
1,2-Dichloroethene, Total	ND		ug/l	2.5	0.70	1
Dibromomethane	ND		ug/l	5.0	1.0	1
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70	1
Acrylonitrile	ND		ug/l	5.0	1.5	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	ND		ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
Vinyl acetate	ND		ug/l	5.0	1.0	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
2,2-Dichloropropane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,3-Dichloropropane	ND		ug/l	2.5	0.70	1
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.70	1
Bromobenzene	ND		ug/l	2.5	0.70	1
n-Butylbenzene	ND		ug/l	2.5	0.70	1
sec-Butylbenzene	ND		ug/l	2.5	0.70	1
tert-Butylbenzene	ND		ug/l	2.5	0.70	1
o-Chlorotoluene	ND		ug/l	2.5	0.70	1
p-Chlorotoluene	ND		ug/l	2.5	0.70	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Hexachlorobutadiene	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
p-Isopropyltoluene	ND		ug/l	2.5	0.70	1
Naphthalene	ND		ug/l	2.5	0.70	1

Project Name: FORMER PENETREX PROCESSING **Lab Number:** L2314139

Project Number: PEN2301 **Report Date:** 03/22/23

SAMPLE RESULTS

Lab ID: L2314139-11 Date Collected: 03/16/23 11:55

Client ID: MW-10 Date Received: 03/17/23

Sample Location: 1 SHORE RD, GLENWOOD LANDING, NY Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
n-Propylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,4-Dioxane	ND		ug/l	250	61.	1
p-Diethylbenzene	ND		ug/l	2.0	0.70	1
p-Ethyltoluene	ND		ug/l	2.0	0.70	1
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	0.54	1
Ethyl ether	ND		ug/l	2.5	0.70	1
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.70	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	105		70-130
Toluene-d8	98		70-130
4-Bromofluorobenzene	93		70-130
Dibromofluoromethane	104		70-130

Project Name: FORMER PENETREX PROCESSING **Lab Number:** L2314139

Project Number: PEN2301 **Report Date:** 03/22/23

SAMPLE RESULTS

Lab ID: L2314139-12 Date Collected: 03/16/23 00:00

Client ID: DUP001 Date Received: 03/17/23

Sample Location: 1 SHORE RD, GLENWOOD LANDING, NY Field Prep: Not Specified

Sample Depth:

Matrix: Water

Analytical Method: 1,8260D

Analytical Date: 03/21/23 15:29

Analyst: LAC

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	0.34	J	ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14	1
1,1-Dichloropropene	ND		ug/l	2.5	0.70	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1

Project Name: FORMER PENETREX PROCESSING **Lab Number:** L2314139

Project Number: PEN2301 **Report Date:** 03/22/23

SAMPLE RESULTS

Lab ID: L2314139-12 Date Collected: 03/16/23 00:00

Client ID: DUP001 Date Received: 03/17/23

Sample Location: 1 SHORE RD, GLENWOOD LANDING, NY Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Trichloroethene	ND		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
Xylenes, Total	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
1,2-Dichloroethene, Total	ND		ug/l	2.5	0.70	1
Dibromomethane	ND		ug/l	5.0	1.0	1
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70	1
Acrylonitrile	ND		ug/l	5.0	1.5	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	ND		ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
Vinyl acetate	ND		ug/l	5.0	1.0	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
2,2-Dichloropropane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,3-Dichloropropane	ND		ug/l	2.5	0.70	1
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.70	1
Bromobenzene	ND		ug/l	2.5	0.70	1
n-Butylbenzene	ND		ug/l	2.5	0.70	1
sec-Butylbenzene	ND		ug/l	2.5	0.70	1
tert-Butylbenzene	ND		ug/l	2.5	0.70	1
o-Chlorotoluene	ND		ug/l	2.5	0.70	1
p-Chlorotoluene	ND		ug/l	2.5	0.70	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Hexachlorobutadiene	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
p-Isopropyltoluene	ND		ug/l	2.5	0.70	1
Naphthalene	ND		ug/l	2.5	0.70	1

Project Name: FORMER PENETREX PROCESSING **Lab Number:** L2314139

Project Number: PEN2301 **Report Date:** 03/22/23

SAMPLE RESULTS

Lab ID: L2314139-12 Date Collected: 03/16/23 00:00

Client ID: DUP001 Date Received: 03/17/23

Sample Location: 1 SHORE RD, GLENWOOD LANDING, NY Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
n-Propylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,4-Dioxane	ND		ug/l	250	61.	1
p-Diethylbenzene	ND		ug/l	2.0	0.70	1
p-Ethyltoluene	ND		ug/l	2.0	0.70	1
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	0.54	1
Ethyl ether	ND		ug/l	2.5	0.70	1
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.70	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	104		70-130
Toluene-d8	98		70-130
4-Bromofluorobenzene	93		70-130
Dibromofluoromethane	103		70-130

Project Name: FORMER PENETREX PROCESSING **Lab Number:** L2314139

Project Number: PEN2301 **Report Date:** 03/22/23

SAMPLE RESULTS

Lab ID: L2314139-13
Client ID: TRIP BLANK
Sample Location: 1 SHORE RD, GLENWOOD LANDING, NY

Date Collected: 03/16/23 00:00
Date Received: 03/17/23
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8260D
Analytical Date: 03/21/23 15:53
Analyst: LAC

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	ND		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14	1
1,1-Dichloropropene	ND		ug/l	2.5	0.70	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1

Project Name: FORMER PENETREX PROCESSING **Lab Number:** L2314139

Project Number: PEN2301 **Report Date:** 03/22/23

SAMPLE RESULTS

Lab ID: L2314139-13 Date Collected: 03/16/23 00:00

Client ID: TRIP BLANK Date Received: 03/17/23

Sample Location: 1 SHORE RD, GLENWOOD LANDING, NY Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Trichloroethene	ND		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
Xylenes, Total	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
1,2-Dichloroethene, Total	ND		ug/l	2.5	0.70	1
Dibromomethane	ND		ug/l	5.0	1.0	1
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70	1
Acrylonitrile	ND		ug/l	5.0	1.5	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	ND		ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
Vinyl acetate	ND		ug/l	5.0	1.0	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
2,2-Dichloropropane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,3-Dichloropropane	ND		ug/l	2.5	0.70	1
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.70	1
Bromobenzene	ND		ug/l	2.5	0.70	1
n-Butylbenzene	ND		ug/l	2.5	0.70	1
sec-Butylbenzene	ND		ug/l	2.5	0.70	1
tert-Butylbenzene	ND		ug/l	2.5	0.70	1
o-Chlorotoluene	ND		ug/l	2.5	0.70	1
p-Chlorotoluene	ND		ug/l	2.5	0.70	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Hexachlorobutadiene	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
p-Isopropyltoluene	ND		ug/l	2.5	0.70	1
Naphthalene	ND		ug/l	2.5	0.70	1

Project Name: FORMER PENETREX PROCESSING **Lab Number:** L2314139

Project Number: PEN2301 **Report Date:** 03/22/23

SAMPLE RESULTS

Lab ID: L2314139-13 Date Collected: 03/16/23 00:00

Client ID: TRIP BLANK Date Received: 03/17/23

Sample Location: 1 SHORE RD, GLENWOOD LANDING, NY Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
n-Propylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,4-Dioxane	ND		ug/l	250	61.	1
p-Diethylbenzene	ND		ug/l	2.0	0.70	1
p-Ethyltoluene	ND		ug/l	2.0	0.70	1
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	0.54	1
Ethyl ether	ND		ug/l	2.5	0.70	1
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.70	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	105		70-130
Toluene-d8	98		70-130
4-Bromofluorobenzene	92		70-130
Dibromofluoromethane	104		70-130

Project Name: FORMER PENETREX PROCESSING **Lab Number:** L2314139

Project Number: PEN2301 **Report Date:** 03/22/23

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260D
Analytical Date: 03/21/23 08:30
Analyst: PID

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-08,10-13 Batch: WG1757204-5					
Methylene chloride	ND		ug/l	2.5	0.70
1,1-Dichloroethane	ND		ug/l	2.5	0.70
Chloroform	ND		ug/l	2.5	0.70
Carbon tetrachloride	ND		ug/l	0.50	0.13
1,2-Dichloropropane	ND		ug/l	1.0	0.14
Dibromochloromethane	ND		ug/l	0.50	0.15
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50
Tetrachloroethene	ND		ug/l	0.50	0.18
Chlorobenzene	ND		ug/l	2.5	0.70
Trichlorofluoromethane	ND		ug/l	2.5	0.70
1,2-Dichloroethane	ND		ug/l	0.50	0.13
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70
Bromodichloromethane	ND		ug/l	0.50	0.19
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14
1,1-Dichloropropene	ND		ug/l	2.5	0.70
Bromoform	ND		ug/l	2.0	0.65
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17
Benzene	ND		ug/l	0.50	0.16
Toluene	ND		ug/l	2.5	0.70
Ethylbenzene	ND		ug/l	2.5	0.70
Chloromethane	ND		ug/l	2.5	0.70
Bromomethane	ND		ug/l	2.5	0.70
Vinyl chloride	ND		ug/l	1.0	0.07
Chloroethane	ND		ug/l	2.5	0.70
1,1-Dichloroethene	ND		ug/l	0.50	0.17
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70
Trichloroethene	ND		ug/l	0.50	0.18

Project Name: FORMER PENETREX PROCESSING **Lab Number:** L2314139

Project Number: PEN2301 **Report Date:** 03/22/23

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260D
Analytical Date: 03/21/23 08:30
Analyst: PID

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-08,10-13 Batch: WG1757204-5					
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70
Methyl tert butyl ether	ND		ug/l	2.5	0.70
p/m-Xylene	ND		ug/l	2.5	0.70
o-Xylene	ND		ug/l	2.5	0.70
Xylenes, Total	ND		ug/l	2.5	0.70
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70
1,2-Dichloroethene, Total	ND		ug/l	2.5	0.70
Dibromomethane	ND		ug/l	5.0	1.0
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70
Acrylonitrile	ND		ug/l	5.0	1.5
Styrene	ND		ug/l	2.5	0.70
Dichlorodifluoromethane	ND		ug/l	5.0	1.0
Acetone	ND		ug/l	5.0	1.5
Carbon disulfide	ND		ug/l	5.0	1.0
2-Butanone	ND		ug/l	5.0	1.9
Vinyl acetate	ND		ug/l	5.0	1.0
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0
2-Hexanone	ND		ug/l	5.0	1.0
Bromochloromethane	ND		ug/l	2.5	0.70
2,2-Dichloropropane	ND		ug/l	2.5	0.70
1,2-Dibromoethane	ND		ug/l	2.0	0.65
1,3-Dichloropropane	ND		ug/l	2.5	0.70
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.70
Bromobenzene	ND		ug/l	2.5	0.70
n-Butylbenzene	ND		ug/l	2.5	0.70
sec-Butylbenzene	ND		ug/l	2.5	0.70
tert-Butylbenzene	ND		ug/l	2.5	0.70

Project Name: FORMER PENETREX PROCESSING **Lab Number:** L2314139

Project Number: PEN2301 **Report Date:** 03/22/23

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260D
Analytical Date: 03/21/23 08:30
Analyst: PID

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-08,10-13 Batch: WG1757204-5					
o-Chlorotoluene	ND		ug/l	2.5	0.70
p-Chlorotoluene	ND		ug/l	2.5	0.70
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70
Hexachlorobutadiene	ND		ug/l	2.5	0.70
Isopropylbenzene	ND		ug/l	2.5	0.70
p-Isopropyltoluene	ND		ug/l	2.5	0.70
Naphthalene	ND		ug/l	2.5	0.70
n-Propylbenzene	ND		ug/l	2.5	0.70
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70
1,4-Dioxane	ND		ug/l	250	61.
p-Diethylbenzene	ND		ug/l	2.0	0.70
p-Ethyltoluene	ND		ug/l	2.0	0.70
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	0.54
Ethyl ether	ND		ug/l	2.5	0.70
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.70

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	96		70-130
Toluene-d8	98		70-130
4-Bromofluorobenzene	96		70-130
Dibromofluoromethane	102		70-130

Project Name: FORMER PENETREX PROCESSING **Lab Number:** L2314139

Project Number: PEN2301 **Report Date:** 03/22/23

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260D
Analytical Date: 03/21/23 08:36
Analyst: PID

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 09 Batch: WG1757267-5					
Methylene chloride	ND		ug/l	2.5	0.70
1,1-Dichloroethane	ND		ug/l	2.5	0.70
Chloroform	ND		ug/l	2.5	0.70
Carbon tetrachloride	ND		ug/l	0.50	0.13
1,2-Dichloropropane	ND		ug/l	1.0	0.14
Dibromochloromethane	ND		ug/l	0.50	0.15
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50
Tetrachloroethene	ND		ug/l	0.50	0.18
Chlorobenzene	ND		ug/l	2.5	0.70
Trichlorofluoromethane	ND		ug/l	2.5	0.70
1,2-Dichloroethane	ND		ug/l	0.50	0.13
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70
Bromodichloromethane	ND		ug/l	0.50	0.19
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14
1,1-Dichloropropene	ND		ug/l	2.5	0.70
Bromoform	ND		ug/l	2.0	0.65
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17
Benzene	ND		ug/l	0.50	0.16
Toluene	ND		ug/l	2.5	0.70
Ethylbenzene	ND		ug/l	2.5	0.70
Chloromethane	ND		ug/l	2.5	0.70
Bromomethane	ND		ug/l	2.5	0.70
Vinyl chloride	ND		ug/l	1.0	0.07
Chloroethane	ND		ug/l	2.5	0.70
1,1-Dichloroethene	ND		ug/l	0.50	0.17
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70
Trichloroethene	ND		ug/l	0.50	0.18

Project Name: FORMER PENETREX PROCESSING **Lab Number:** L2314139

Project Number: PEN2301 **Report Date:** 03/22/23

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260D
Analytical Date: 03/21/23 08:36
Analyst: PID

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 09 Batch: WG1757267-5					
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70
Methyl tert butyl ether	ND		ug/l	2.5	0.70
p/m-Xylene	ND		ug/l	2.5	0.70
o-Xylene	ND		ug/l	2.5	0.70
Xylenes, Total	ND		ug/l	2.5	0.70
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70
1,2-Dichloroethene, Total	ND		ug/l	2.5	0.70
Dibromomethane	ND		ug/l	5.0	1.0
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70
Acrylonitrile	ND		ug/l	5.0	1.5
Styrene	ND		ug/l	2.5	0.70
Dichlorodifluoromethane	ND		ug/l	5.0	1.0
Acetone	ND		ug/l	5.0	1.5
Carbon disulfide	ND		ug/l	5.0	1.0
2-Butanone	ND		ug/l	5.0	1.9
Vinyl acetate	ND		ug/l	5.0	1.0
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0
2-Hexanone	ND		ug/l	5.0	1.0
Bromochloromethane	ND		ug/l	2.5	0.70
2,2-Dichloropropane	ND		ug/l	2.5	0.70
1,2-Dibromoethane	ND		ug/l	2.0	0.65
1,3-Dichloropropane	ND		ug/l	2.5	0.70
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.70
Bromobenzene	ND		ug/l	2.5	0.70
n-Butylbenzene	ND		ug/l	2.5	0.70
sec-Butylbenzene	ND		ug/l	2.5	0.70
tert-Butylbenzene	ND		ug/l	2.5	0.70

Project Name: FORMER PENETREX PROCESSING **Lab Number:** L2314139

Project Number: PEN2301 **Report Date:** 03/22/23

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260D
Analytical Date: 03/21/23 08:36
Analyst: PID

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 09 Batch: WG1757267-5					
o-Chlorotoluene	ND		ug/l	2.5	0.70
p-Chlorotoluene	ND		ug/l	2.5	0.70
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70
Hexachlorobutadiene	ND		ug/l	2.5	0.70
Isopropylbenzene	ND		ug/l	2.5	0.70
p-Isopropyltoluene	ND		ug/l	2.5	0.70
Naphthalene	ND		ug/l	2.5	0.70
n-Propylbenzene	ND		ug/l	2.5	0.70
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70
1,4-Dioxane	ND		ug/l	250	61.
p-Diethylbenzene	ND		ug/l	2.0	0.70
p-Ethyltoluene	ND		ug/l	2.0	0.70
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	0.54
Ethyl ether	ND		ug/l	2.5	0.70
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.70

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	102		70-130
Toluene-d8	103		70-130
4-Bromofluorobenzene	105		70-130
Dibromofluoromethane	101		70-130

Lab Control Sample Analysis

Batch Quality Control

Project Name: FORMER PENETREX PROCESSING

Project Number: PEN2301

Lab Number: L2314139

Report Date: 03/22/23

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-08,10-13 Batch: WG1757204-3 WG1757204-4								
Methylene chloride	100		100		70-130	0		20
1,1-Dichloroethane	100		100		70-130	0		20
Chloroform	95		95		70-130	0		20
Carbon tetrachloride	96		94		63-132	2		20
1,2-Dichloropropane	100		100		70-130	0		20
Dibromochloromethane	80		82		63-130	2		20
1,1,2-Trichloroethane	88		90		70-130	2		20
Tetrachloroethene	110		100		70-130	10		20
Chlorobenzene	98		99		75-130	1		20
Trichlorofluoromethane	110		100		62-150	10		20
1,2-Dichloroethane	93		92		70-130	1		20
1,1,1-Trichloroethane	99		98		67-130	1		20
Bromodichloromethane	86		83		67-130	4		20
trans-1,3-Dichloropropene	83		83		70-130	0		20
cis-1,3-Dichloropropene	88		87		70-130	1		20
1,1-Dichloropropene	100		100		70-130	0		20
Bromoform	76		77		54-136	1		20
1,1,2,2-Tetrachloroethane	85		86		67-130	1		20
Benzene	100		98		70-130	2		20
Toluene	99		100		70-130	1		20
Ethylbenzene	100		100		70-130	0		20
Chloromethane	91		90		64-130	1		20
Bromomethane	79		74		39-139	7		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: FORMER PENETREX PROCESSING

Project Number: PEN2301

Lab Number: L2314139

Report Date: 03/22/23

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-08,10-13 Batch: WG1757204-3 WG1757204-4								
Vinyl chloride	110		110		55-140	0		20
Chloroethane	120		110		55-138	9		20
1,1-Dichloroethene	110		110		61-145	0		20
trans-1,2-Dichloroethene	100		100		70-130	0		20
Trichloroethene	100		99		70-130	1		20
1,2-Dichlorobenzene	97		97		70-130	0		20
1,3-Dichlorobenzene	99		99		70-130	0		20
1,4-Dichlorobenzene	98		98		70-130	0		20
Methyl tert butyl ether	85		86		63-130	1		20
p/m-Xylene	100		100		70-130	0		20
o-Xylene	100		100		70-130	0		20
cis-1,2-Dichloroethene	100		100		70-130	0		20
Dibromomethane	88		88		70-130	0		20
1,2,3-Trichloropropane	91		89		64-130	2		20
Acrylonitrile	97		97		70-130	0		20
Styrene	100		100		70-130	0		20
Dichlorodifluoromethane	76		74		36-147	3		20
Acetone	73		77		58-148	5		20
Carbon disulfide	100		100		51-130	0		20
2-Butanone	73		78		63-138	7		20
Vinyl acetate	89		88		70-130	1		20
4-Methyl-2-pentanone	84		85		59-130	1		20
2-Hexanone	74		76		57-130	3		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: FORMER PENETREX PROCESSING

Project Number: PEN2301

Lab Number: L2314139

Report Date: 03/22/23

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-08,10-13 Batch: WG1757204-3 WG1757204-4								
Bromochloromethane	99		98		70-130	1		20
2,2-Dichloropropane	97		93		63-133	4		20
1,2-Dibromoethane	85		86		70-130	1		20
1,3-Dichloropropane	90		90		70-130	0		20
1,1,1,2-Tetrachloroethane	88		88		64-130	0		20
Bromobenzene	98		98		70-130	0		20
n-Butylbenzene	99		99		53-136	0		20
sec-Butylbenzene	100		100		70-130	0		20
tert-Butylbenzene	100		99		70-130	1		20
o-Chlorotoluene	100		110		70-130	10		20
p-Chlorotoluene	99		98		70-130	1		20
1,2-Dibromo-3-chloropropane	71		74		41-144	4		20
Hexachlorobutadiene	100		100		63-130	0		20
Isopropylbenzene	100		100		70-130	0		20
p-Isopropyltoluene	100		100		70-130	0		20
Naphthalene	81		85		70-130	5		20
n-Propylbenzene	100		100		69-130	0		20
1,2,3-Trichlorobenzene	88		90		70-130	2		20
1,2,4-Trichlorobenzene	91		93		70-130	2		20
1,3,5-Trimethylbenzene	100		99		64-130	1		20
1,2,4-Trimethylbenzene	97		97		70-130	0		20
1,4-Dioxane	92		92		56-162	0		20
p-Diethylbenzene	96		95		70-130	1		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: FORMER PENETREX PROCESSING

Project Number: PEN2301

Lab Number: L2314139

Report Date: 03/22/23

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-08,10-13 Batch: WG1757204-3 WG1757204-4								
p-Ethyltoluene	100		100		70-130	0		20
1,2,4,5-Tetramethylbenzene	90		90		70-130	0		20
Ethyl ether	95		92		59-134	3		20
trans-1,4-Dichloro-2-butene	77		77		70-130	0		20

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	99		99		70-130
Toluene-d8	101		103		70-130
4-Bromofluorobenzene	97		98		70-130
Dibromofluoromethane	100		100		70-130

Lab Control Sample Analysis

Batch Quality Control

Project Name: FORMER PENETREX PROCESSING

Project Number: PEN2301

Lab Number: L2314139

Report Date: 03/22/23

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 09 Batch: WG1757267-3 WG1757267-4								
Methylene chloride	91		92		70-130	1		20
1,1-Dichloroethane	92		92		70-130	0		20
Chloroform	94		95		70-130	1		20
Carbon tetrachloride	100		100		63-132	0		20
1,2-Dichloropropane	88		86		70-130	2		20
Dibromochloromethane	93		95		63-130	2		20
1,1,2-Trichloroethane	86		87		70-130	1		20
Tetrachloroethene	99		98		70-130	1		20
Chlorobenzene	97		95		75-130	2		20
Trichlorofluoromethane	110		100		62-150	10		20
1,2-Dichloroethane	92		93		70-130	1		20
1,1,1-Trichloroethane	100		100		67-130	0		20
Bromodichloromethane	92		94		67-130	2		20
trans-1,3-Dichloropropene	88		88		70-130	0		20
cis-1,3-Dichloropropene	90		88		70-130	2		20
1,1-Dichloropropene	98		99		70-130	1		20
Bromoform	82		82		54-136	0		20
1,1,2,2-Tetrachloroethane	88		91		67-130	3		20
Benzene	97		96		70-130	1		20
Toluene	95		93		70-130	2		20
Ethylbenzene	94		92		70-130	2		20
Chloromethane	82		79		64-130	4		20
Bromomethane	**140**	Q	130		39-139	7		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: FORMER PENETREX PROCESSING

Project Number: PEN2301

Lab Number: L2314139

Report Date: 03/22/23

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 09 Batch: WG1757267-3 WG1757267-4								
Vinyl chloride	99		98		55-140	1		20
Chloroethane	**170**	Q	**160**	Q	55-138	6		20
1,1-Dichloroethene	96		96		61-145	0		20
trans-1,2-Dichloroethene	96		95		70-130	1		20
Trichloroethene	90		92		70-130	2		20
1,2-Dichlorobenzene	100		99		70-130	1		20
1,3-Dichlorobenzene	99		99		70-130	0		20
1,4-Dichlorobenzene	99		98		70-130	1		20
Methyl tert butyl ether	87		89		63-130	2		20
p/m-Xylene	95		90		70-130	5		20
o-Xylene	90		90		70-130	0		20
cis-1,2-Dichloroethene	92		92		70-130	0		20
Dibromomethane	93		94		70-130	1		20
1,2,3-Trichloropropane	87		84		64-130	4		20
Acrylonitrile	76		73		70-130	4		20
Styrene	90		85		70-130	6		20
Dichlorodifluoromethane	94		90		36-147	4		20
Acetone	74		85		58-148	14		20
Carbon disulfide	94		92		51-130	2		20
2-Butanone	67		65		63-138	3		20
Vinyl acetate	85		84		70-130	1		20
4-Methyl-2-pentanone	68		70		59-130	3		20
2-Hexanone	67		72		57-130	7		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: FORMER PENETREX PROCESSING

Project Number: PEN2301

Lab Number: L2314139

Report Date: 03/22/23

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 09 Batch: WG1757267-3 WG1757267-4								
Bromochloromethane	86		88		70-130	2		20
2,2-Dichloropropane	100		100		63-133	0		20
1,2-Dibromoethane	90		93		70-130	3		20
1,3-Dichloropropane	90		90		70-130	0		20
1,1,1,2-Tetrachloroethane	94		94		64-130	0		20
Bromobenzene	97		96		70-130	1		20
n-Butylbenzene	98		96		53-136	2		20
sec-Butylbenzene	100		100		70-130	0		20
tert-Butylbenzene	100		100		70-130	0		20
o-Chlorotoluene	97		96		70-130	1		20
p-Chlorotoluene	98		95		70-130	3		20
1,2-Dibromo-3-chloropropane	85		91		41-144	7		20
Hexachlorobutadiene	84		82		63-130	2		20
Isopropylbenzene	100		100		70-130	0		20
p-Isopropyltoluene	100		100		70-130	0		20
Naphthalene	78		81		70-130	4		20
n-Propylbenzene	98		97		69-130	1		20
1,2,3-Trichlorobenzene	80		80		70-130	0		20
1,2,4-Trichlorobenzene	85		81		70-130	5		20
1,3,5-Trimethylbenzene	96		95		64-130	1		20
1,2,4-Trimethylbenzene	94		93		70-130	1		20
1,4-Dioxane	94		94		56-162	0		20
p-Diethylbenzene	99		97		70-130	2		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: FORMER PENETREX PROCESSING

Project Number: PEN2301

Lab Number: L2314139

Report Date: 03/22/23

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 09 Batch: WG1757267-3 WG1757267-4								
p-Ethyltoluene	99		98		70-130	1		20
1,2,4,5-Tetramethylbenzene	86		85		70-130	1		20
Ethyl ether	81		90		59-134	11		20
trans-1,4-Dichloro-2-butene	74		77		70-130	4		20

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	102		104		70-130
Toluene-d8	103		103		70-130
4-Bromofluorobenzene	102		100		70-130
Dibromofluoromethane	100		100		70-130

Matrix Spike Analysis

Batch Quality Control

Project Name: FORMER PENETREX PROCESSING

Project Number: PEN2301

Lab Number: L2314139

Report Date: 03/22/23

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab	Associated sample(s): 09	QC Batch ID: WG1757267-6	WG1757267-7	QC Sample: L2314139-09	Client ID: MW-9							
Methylene chloride	ND	10	8.9	89		8.9	89		70-130	0		20
1,1-Dichloroethane	ND	10	8.7	87		8.8	88		70-130	1		20
Chloroform	ND	10	8.6	86		8.9	89		70-130	3		20
Carbon tetrachloride	ND	10	9.8	98		9.9	99		63-132	1		20
1,2-Dichloropropane	ND	10	8.6	86		8.6	86		70-130	0		20
Dibromochloromethane	ND	10	9.4	94		9.4	94		63-130	0		20
1,1,2-Trichloroethane	ND	10	8.8	88		8.7	87		70-130	1		20
Tetrachloroethene	130	10	140	100		140	100		70-130	0		20
Chlorobenzene	ND	10	9.0	90		9.2	92		75-130	2		20
Trichlorofluoromethane	ND	10	10	100		11	110		62-150	10		20
1,2-Dichloroethane	ND	10	9.0	90		8.8	88		70-130	2		20
1,1,1-Trichloroethane	ND	10	9.7	97		10	100		67-130	3		20
Bromodichloromethane	ND	10	9.0	90		8.8	88		67-130	2		20
trans-1,3-Dichloropropene	ND	10	8.1	81		8.1	81		70-130	0		20
cis-1,3-Dichloropropene	ND	10	8.2	82		8.2	82		70-130	0		20
1,1-Dichloropropene	ND	10	9.4	94		9.5	95		70-130	1		20
Bromoform	ND	10	8.3	83		8.3	83		54-136	0		20
1,1,2,2-Tetrachloroethane	ND	10	9.4	94		9.5	95		67-130	1		20
Benzene	ND	10	9.2	92		9.2	92		70-130	0		20
Toluene	ND	10	8.9	89		9.1	91		70-130	2		20
Ethylbenzene	ND	10	8.7	87		9.0	90		70-130	3		20
Chloromethane	ND	10	7.5	75		7.7	77		64-130	3		20
Bromomethane	ND	10	10	100		11	110		39-139	10		20
Vinyl chloride	ND	10	9.7	97		9.7	97		55-140	0		20

Matrix Spike Analysis

Batch Quality Control

Project Name: FORMER PENETREX PROCESSING

Project Number: PEN2301

Lab Number: L2314139

Report Date: 03/22/23

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab	Associated sample(s): 09	QC Batch ID: WG1757267-6	WG1757267-7	QC Sample: L2314139-09	Client ID: MW-9							
Chloroethane	ND	10	12	120		11	110		55-138	9		20
1,1-Dichloroethene	ND	10	9.2	92		9.8	98		61-145	6		20
trans-1,2-Dichloroethene	ND	10	9.2	92		9.4	94		70-130	2		20
Trichloroethene	7.0	10	16	90		16	90		70-130	0		20
1,2-Dichlorobenzene	ND	10	9.6	96		9.8	98		70-130	2		20
1,3-Dichlorobenzene	ND	10	9.6	96		9.8	98		70-130	2		20
1,4-Dichlorobenzene	ND	10	9.7	97		9.7	97		70-130	0		20
Methyl tert butyl ether	ND	10	8.8	88		9.0	90		63-130	2		20
p/m-Xylene	ND	20	17	85		18	90		70-130	6		20
o-Xylene	ND	20	17	85		18	90		70-130	6		20
cis-1,2-Dichloroethene	ND	10	8.8	88		9.1	91		70-130	3		20
Dibromomethane	ND	10	9.3	93		9.2	92		70-130	1		20
1,2,3-Trichloropropane	ND	10	8.9	89		9.3	93		64-130	4		20
Acrylonitrile	ND	10	7.6	76		7.9	79		70-130	4		20
Styrene	ND	20	16	80		17	85		70-130	6		20
Dichlorodifluoromethane	ND	10	8.3	83		8.5	85		36-147	2		20
Acetone	ND	10	8.7	87		8.7	87		58-148	0		20
Carbon disulfide	ND	10	8.8	88		9.0	90		51-130	2		20
2-Butanone	ND	10	8.1	81		7.9	79		63-138	2		20
Vinyl acetate	ND	10	8.1	81		7.9	79		70-130	2		20
4-Methyl-2-pentanone	ND	10	7.7	77		8.0	80		59-130	4		20
2-Hexanone	ND	10	7.5	75		7.4	74		57-130	1		20
Bromochloromethane	ND	10	8.7	87		8.6	86		70-130	1		20
2,2-Dichloropropane	ND	10	7.7	77		7.8	78		63-133	1		20

Matrix Spike Analysis
Batch Quality Control

Project Name: FORMER PENETREX PROCESSING
Project Number: PEN2301
Lab Number: L2314139
Report Date: 03/22/23

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab	Associated sample(s): 09	QC Batch ID: WG1757267-6	WG1757267-7	QC Sample: L2314139-09	Client ID: MW-9							
1,2-Dibromoethane	ND	10	9.3	93		9.2	92		70-130	1		20
1,3-Dichloropropane	ND	10	9.0	90		9.0	90		70-130	0		20
1,1,1,2-Tetrachloroethane	ND	10	9.0	90		9.3	93		64-130	3		20
Bromobenzene	ND	10	9.4	94		9.4	94		70-130	0		20
n-Butylbenzene	ND	10	8.9	89		9.2	92		53-136	3		20
sec-Butylbenzene	ND	10	9.5	95		10	100		70-130	5		20
tert-Butylbenzene	ND	10	9.6	96		10	100		70-130	4		20
o-Chlorotoluene	ND	10	9.2	92		9.2	92		70-130	0		20
p-Chlorotoluene	ND	10	9.2	92		9.3	93		70-130	1		20
1,2-Dibromo-3-chloropropane	ND	10	8.7	87		9.7	97		41-144	11		20
Hexachlorobutadiene	ND	10	7.9	79		8.3	83		63-130	5		20
Isopropylbenzene	ND	10	9.4	94		9.8	98		70-130	4		20
p-Isopropyltoluene	ND	10	9.3	93		9.7	97		70-130	4		20
Naphthalene	ND	10	8.6	86		8.6	86		70-130	0		20
n-Propylbenzene	ND	10	9.0	90		9.5	95		69-130	5		20
1,2,3-Trichlorobenzene	ND	10	8.6	86		8.7	87		70-130	1		20
1,2,4-Trichlorobenzene	ND	10	8.3	83		8.3	83		70-130	0		20
1,3,5-Trimethylbenzene	ND	10	8.8	88		9.3	93		64-130	6		20
1,2,4-Trimethylbenzene	ND	10	8.8	88		9.0	90		70-130	2		20
1,4-Dioxane	ND	500	550	110		560	112		56-162	2		20
p-Diethylbenzene	ND	10	9.0	90		9.4	94		70-130	4		20
p-Ethyltoluene	ND	10	9.2	92		9.6	96		70-130	4		20
1,2,4,5-Tetramethylbenzene	ND	10	8.0	80		8.1	81		70-130	1		20
Ethyl ether	ND	10	9.2	92		9.2	92		59-134	0		20

Matrix Spike Analysis

Batch Quality Control

Project Name: FORMER PENETREX PROCESSING
Project Number: PEN2301
Lab Number: L2314139
Report Date: 03/22/23

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab	Associated sample(s): 09		QC Batch ID: WG1757267-6			WG1757267-7		QC Sample: L2314139-09		Client ID: MW-9		
trans-1,4-Dichloro-2-butene	ND	10	6.1	**61**	Q	6.6	**66**	Q	70-130	8		20

Surrogate	MS % Recovery	MS Qualifier	MSD % Recovery	MSD Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	103		101		70-130
4-Bromofluorobenzene	99		101		70-130
Dibromofluoromethane	96		99		70-130
Toluene-d8	101		102		70-130

Project Name: FORMER PENETREX PROCESSING
Project Number: PEN2301

Lab Number: L2314139
Report Date: 03/22/23

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Cooler Information

Cooler	Custody Seal
A	Absent

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L2314139-01A	Vial HCl preserved	A	NA		4.9	Y	Absent		NYTCL-8260(14)
L2314139-01B	Vial HCl preserved	A	NA		4.9	Y	Absent		NYTCL-8260(14)
L2314139-01C	Vial HCl preserved	A	NA		4.9	Y	Absent		NYTCL-8260(14)
L2314139-02A	Vial HCl preserved	A	NA		4.9	Y	Absent		NYTCL-8260(14)
L2314139-02B	Vial HCl preserved	A	NA		4.9	Y	Absent		NYTCL-8260(14)
L2314139-02C	Vial HCl preserved	A	NA		4.9	Y	Absent		NYTCL-8260(14)
L2314139-03A	Vial HCl preserved	A	NA		4.9	Y	Absent		NYTCL-8260(14)
L2314139-03B	Vial HCl preserved	A	NA		4.9	Y	Absent		NYTCL-8260(14)
L2314139-03C	Vial HCl preserved	A	NA		4.9	Y	Absent		NYTCL-8260(14)
L2314139-04A	Vial HCl preserved	A	NA		4.9	Y	Absent		NYTCL-8260(14)
L2314139-04B	Vial HCl preserved	A	NA		4.9	Y	Absent		NYTCL-8260(14)
L2314139-04C	Vial HCl preserved	A	NA		4.9	Y	Absent		NYTCL-8260(14)
L2314139-05A	Vial HCl preserved	A	NA		4.9	Y	Absent		NYTCL-8260(14)
L2314139-05B	Vial HCl preserved	A	NA		4.9	Y	Absent		NYTCL-8260(14)
L2314139-05C	Vial HCl preserved	A	NA		4.9	Y	Absent		NYTCL-8260(14)
L2314139-06A	Vial HCl preserved	A	NA		4.9	Y	Absent		NYTCL-8260(14)
L2314139-06B	Vial HCl preserved	A	NA		4.9	Y	Absent		NYTCL-8260(14)
L2314139-06C	Vial HCl preserved	A	NA		4.9	Y	Absent		NYTCL-8260(14)
L2314139-07A	Vial HCl preserved	A	NA		4.9	Y	Absent		NYTCL-8260(14)
L2314139-07B	Vial HCl preserved	A	NA		4.9	Y	Absent		NYTCL-8260(14)
L2314139-07C	Vial HCl preserved	A	NA		4.9	Y	Absent		NYTCL-8260(14)
L2314139-08A	Vial HCl preserved	A	NA		4.9	Y	Absent		NYTCL-8260(14)
L2314139-08B	Vial HCl preserved	A	NA		4.9	Y	Absent		NYTCL-8260(14)

*Values in parentheses indicate holding time in days

Project Name: FORMER PENETREX PROCESSING
Project Number: PEN2301

Lab Number: L2314139
Report Date: 03/22/23

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L2314139-08C	Vial HCl preserved	A	NA		4.9	Y	Absent		NYTCL-8260(14)
L2314139-09A	Vial HCl preserved	A	NA		4.9	Y	Absent		NYTCL-8260(14)
L2314139-09A1	Vial HCl preserved	A	NA		4.9	Y	Absent		NYTCL-8260(14)
L2314139-09A2	Vial HCl preserved	A	NA		4.9	Y	Absent		NYTCL-8260(14)
L2314139-09B	Vial HCl preserved	A	NA		4.9	Y	Absent		NYTCL-8260(14)
L2314139-09B1	Vial HCl preserved	A	NA		4.9	Y	Absent		NYTCL-8260(14)
L2314139-09B2	Vial HCl preserved	A	NA		4.9	Y	Absent		NYTCL-8260(14)
L2314139-09C	Vial HCl preserved	A	NA		4.9	Y	Absent		NYTCL-8260(14)
L2314139-09C1	Vial HCl preserved	A	NA		4.9	Y	Absent		NYTCL-8260(14)
L2314139-09C2	Vial HCl preserved	A	NA		4.9	Y	Absent		NYTCL-8260(14)
L2314139-10A	Vial HCl preserved	A	NA		4.9	Y	Absent		NYTCL-8260(14)
L2314139-10B	Vial HCl preserved	A	NA		4.9	Y	Absent		NYTCL-8260(14)
L2314139-10C	Vial HCl preserved	A	NA		4.9	Y	Absent		NYTCL-8260(14)
L2314139-11A	Vial HCl preserved	A	NA		4.9	Y	Absent		NYTCL-8260(14)
L2314139-11B	Vial HCl preserved	A	NA		4.9	Y	Absent		NYTCL-8260(14)
L2314139-11C	Vial HCl preserved	A	NA		4.9	Y	Absent		NYTCL-8260(14)
L2314139-12A	Vial HCl preserved	A	NA		4.9	Y	Absent		NYTCL-8260(14)
L2314139-12B	Vial HCl preserved	A	NA		4.9	Y	Absent		NYTCL-8260(14)
L2314139-12C	Vial HCl preserved	A	NA		4.9	Y	Absent		NYTCL-8260(14)
L2314139-13A	Vial HCl preserved	A	NA		4.9	Y	Absent		NYTCL-8260(14)
L2314139-13B	Vial HCl preserved	A	NA		4.9	Y	Absent		NYTCL-8260(14)

*Values in parentheses indicate holding time in days

Project Name:	FORMER PENETREX PROCESSING	**Lab Number:**	L2314139
Project Number:	PEN2301	**Report Date:**	03/22/23

GLOSSARY

Acronyms

DL - Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the limit of quantitation (LOQ). The DL includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

EDL - Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).

EMPC - Estimated Maximum Possible Concentration: The concentration that results from the signal present at the retention time of an analyte when the ions meet all of the identification criteria except the ion abundance ratio criteria. An EMPC is a worst-case estimate of the concentration.

EPA - Environmental Protection Agency.

LCS - Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.

LCSD - Laboratory Control Sample Duplicate: Refer to LCS.

LFB - Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.

LOD - Limit of Detection: This value represents the level to which a target analyte can reliably be detected for a specific analyte in a specific matrix by a specific method. The LOD includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

LOQ - Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

MDL - Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

MS - Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available. For Method 332.0, the spike recovery is calculated using the native concentration, including estimated values.

MSD - Matrix Spike Sample Duplicate: Refer to MS.

NA - Not Applicable.

NC - Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.

NDPA/DPA - N-Nitrosodiphenylamine/Diphenylamine.

NI - Not Ignitable.

NP - Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.

NR - No Results: Term is utilized when 'No Target Compounds Requested' is reported for the analysis of Volatile or Semivolatile Organic TIC only requests.

RL - Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

RPD - Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.

SRM - Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.

STLP - Semi-dynamic Tank Leaching Procedure per EPA Method 1315.

TEF - Toxic Equivalency Factors: The values assigned to each dioxin and furan to evaluate their toxicity relative to 2,3,7,8-TCDD.

TEQ - Toxic Equivalent: The measure of a sample's toxicity derived by multiplying each dioxin and furan by its corresponding TEF and then summing the resulting values.

TIC - Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

Report Format: DU Report with 'J' Qualifiers

Project Name:	FORMER PENETREX PROCESSING	**Lab Number:**	L2314139
Project Number:	PEN2301	**Report Date:**	03/22/23

Footnotes

1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Chlordane: The target compound Chlordane (CAS No. 57-74-9) is reported for GC ECD analyses. Per EPA,this compound "refers to a mixture of chlordane isomers, other chlorinated hydrocarbons and numerous other components." (Reference: USEPA Toxicological Review of Chlordane, In Support of Summary Information on the Integrated Risk Information System (IRIS), December 1997.)

Difference: With respect to Total Oxidizable Precursor (TOP) Assay analysis, the difference is defined as the Post-Treatment value minus the Pre-Treatment value.

Final pH: As it pertains to Sample Receipt & Container Information section of the report, Final pH reflects pH of container determined after adjustment at the laboratory, if applicable. If no adjustment required, value reflects Initial pH.

Frozen Date/Time: With respect to Volatile Organics in soil, Frozen Date/Time reflects the date/time at which associated Reagent Water-preserved vials were initially frozen. Note: If frozen date/time is beyond 48 hours from sample collection, value will be reflected in 'bold'.

Gasoline Range Organics (GRO): Gasoline Range Organics (GRO) results include all chromatographic peaks eluting from Methyl tert butyl ether through Naphthalene, with the exception of GRO analysis in support of State of Ohio programs, which includes all chromatographic peaks eluting from Hexane through Dodecane.

Initial pH: As it pertains to Sample Receipt & Container Information section of the report, Initial pH reflects pH of container determined upon receipt, if applicable.

PAH Total: With respect to Alkylated PAH analyses, the 'PAHs, Total' result is defined as the summation of results for all or a subset of the following compounds: Naphthalene, C1-C4 Naphthalenes, 2-Methylnaphthalene, 1-Methylnaphthalene, Biphenyl, Acenaphthylene, Acenaphthene, Fluorene, C1-C3 Fluorenes, Phenanthrene, C1-C4 Phenanthrenes/Anthracenes, Anthracene, Fluoranthene, Pyrene, C1-C4 Fluoranthenes/Pyrenes, Benz(a)anthracene, Chrysene, C1-C4 Chrysenes, Benzo(b)fluoranthene, Benzo(j)+(k)fluoranthene, Benzo(e)pyrene, Benzo(a)pyrene, Perylene, Indeno(1,2,3-cd)pyrene, Dibenz(ah)+(ac)anthracene, Benzo(g,h,i)perylene. If a 'Total' result is requested, the results of its individual components will also be reported.

PFAS Total: With respect to PFAS analyses, the 'PFAS, Total (5)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA and PFOS. In addition, the 'PFAS, Total (6)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA, PFDA and PFOS. For MassDEP DW compliance analysis only, the 'PFAS, Total (6)' result is defined as the summation of results at or above the RL. Note: If a 'Total' result is requested, the results of its individual components will also be reported.

Total: With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

Data Qualifiers

A - Spectra identified as "Aldol Condensates" are byproducts of the extraction/concentration procedures when acetone is introduced in the process.

B - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).

C - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.

D - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.

E - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.

F - The ratio of quantifier ion response to qualifier ion response falls outside of the laboratory criteria. Results are considered to be an estimated maximum concentration.

G - The concentration may be biased high due to matrix interferences (i.e, co-elution) with non-target compound(s). The result should be considered estimated.

H - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.

I - The lower value for the two columns has been reported due to obvious interference.

J - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively

Report Format: DU Report with 'J' Qualifiers

Project Name:	FORMER PENETREX PROCESSING	**Lab Number:**	L2314139
Project Number:	PEN2301	**Report Date:**	03/22/23

Data Qualifiers

Identified Compounds (TICs).

M - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.

ND - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

NJ - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.

P - The RPD between the results for the two columns exceeds the method-specified criteria.

Q - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)

R - Analytical results are from sample re-analysis.

RE - Analytical results are from sample re-extraction.

S - Analytical results are from modified screening analysis.

V - The surrogate associated with this target analyte has a recovery outside the QC acceptance limits. (Applicable to MassDEP DW Compliance samples only.)

Z - The batch matrix spike and/or duplicate associated with this target analyte has a recovery/RPD outside the QC acceptance limits. (Applicable to MassDEP DW Compliance samples only.)

Project Name:	FORMER PENETREX PROCESSING	**Lab Number:**	L2314139
Project Number:	PEN2301	**Report Date:**	03/22/23

REFERENCES

1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - VI, 2018.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.

Certification Information

The following analytes are not included in our Primary NELAP Scope of Accreditation:

Westborough Facility
EPA 624/624.1: m/p-xylene, o-xylene, Naphthalene
EPA 625/625.1: alpha-Terpineol
EPA 8260C/8260D: NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.
EPA 8270D/8270E: NPW: Dimethylnaphthalene,1,4-Diphenylhydrazine, alpha-Terpineol; SCM: Dimethylnaphthalene,1,4-Diphenylhydrazine.
SM4500: NPW: Amenable Cyanide; SCM: Total Phosphorus, TKN, NO2, NO3.

Mansfield Facility
SM 2540D: TSS
EPA 8082A: NPW: PCB: 1, 5, 31, 87,101, 110, 141, 151, 153, 180, 183, 187.
EPA TO-15: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.
Biological Tissue Matrix: EPA 3050B

The following analytes are included in our Massachusetts DEP Scope of Accreditation

Westborough Facility:

Drinking Water
EPA 300.0: Chloride, Nitrate-N, Fluoride, Sulfate; **EPA 353.2**: Nitrate-N, Nitrite-N; **SM4500NO3-F**: Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE, EPA 180.1, SM2130B, SM4500Cl-D, SM2320B, SM2540C, SM4500H-B, SM4500NO2-B**
EPA 332: Perchlorate; **EPA 524.2:** THMs and VOCs; **EPA 504.1:** EDB, DBCP.
Microbiology: **SM9215B; SM9223-P/A, SM9223B-Colilert-QT,SM9222D**.

Non-Potable Water
SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH: Ammonia-N and Kjeldahl-N, **EPA 350.1**: Ammonia-N, **LACHAT 10-107-06-1-B**: Ammonia-N, **EPA 351.1, SM4500NO3-F, EPA 353.2**: Nitrate-N, **SM4500P-E, SM4500P-B, E, SM4500SO4-E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D, EPA 300: Chloride, Sulfate, Nitrate.**
EPA 624.1: Volatile Halocarbons & Aromatics,
EPA 608.3: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs
EPA 625.1: SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045**: PCB-Oil.
Microbiology: **SM9223B-Colilert-QT; Enterolert-QT, SM9221E, EPA 1600, EPA 1603, SM9222D.**

Mansfield Facility:

Drinking Water
EPA 200.7: Al, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Na, Ag, Ca, Zn. **EPA 200.8:** Al, Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn. **EPA 245.1** Hg.
EPA 522, EPA 537.1.

Non-Potable Water
EPA 200.7: Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn.
EPA 200.8: Al, Sb, As, Be, Cd, Cr, Cu, Fe, Pb, Mn, Ni, K, Se, Ag, Na, TL, Zn.
EPA 245.1 Hg.
SM2340B

For a complete listing of analytes and methods, please contact your Alpha Project Manager.

NEW YORK CHAIN OF CUSTODY

ALPHA ANALYTICAL

Westborough, MA 01581
8 Walkup Dr.
TEL: 508-898-9220
FAX: 508-898-9193

Mansfield, MA 02048
320 Forbes Blvd
TEL: 508-822-9300
FAX: 508-822-3288

Service Centers
Mahwah, NJ 07430: 35 Whitney Rd, Suite 5
Albany, NY 12205: 14 Walker Way
Tonawanda, NY 14150: 275 Cooper Ave, Suite 105

Page 1 of 2

Date Rec'd in Lab: 3/17/23

ALPHA Job #: L2314139

Client Information
Client: PWGC
Address: 650 Johnson Ave
Bohemia, NY 11716
Phone: 631-664-2016
Fax:
Email: RyanM@pwgrosser.com

Project Information
Project Name: Former Penetrex Processing
Project Location: 1 Shore Rd, Glenwood Landing, NY
Project # PEN 2301
(Use Project name as Project #) ☐
Project Manager: Ryan Morley
ALPHAQuote #:

Turn-Around Time
Standard ☒ Due Date:
Rush (only if pre approved) ☐ # of Days:

Deliverables
☐ ASP-A ☒ ASP-B
☐ EQuIS (1 File) ☐ EQuIS (4 File)
☐ Other

Billing Information
☒ Same as Client Info
PO #

Regulatory Requirement
☐ NY TOGS ☐ NY Part 375
☐ AWQ Standards ☐ NY CP-51
☐ NY Restricted Use ☐ Other
☐ NY Unrestricted Use
☐ NYC Sewer Discharge

Disposal Site Information
Please identify below location of applicable disposal facilities.
Disposal Facility:
☐ NJ ☐ NY
☐ Other:

These samples have been previously analyzed by Alpha ☐

Other project specific requirements/comments:
Also email: Kcrosby@pwgrosser.com

Please specify Metals or TAL.

ANALYSIS

Sample Filtration
☐ Done
☐ Lab to do
Preservation
☐ Lab to do
(Please Specify below)

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	VOC (8260)	Sample Specific Comments	Total # Bottles
14139-01	MW-1	3-16-23	1245	GW	KC	X		3
-02	MW-2		0755					
-03	MW-4		0820					
-04	MW-5		0850					
-05	MW-6		1100					
-06	MW-7		1220					
-07	MW-8		0955					
-08	MW-8D		1110					
-09	MW-9		0915				MS/MSD	9
-10	MW-9D		0935					3

Container Type: V
Preservative: B

Preservative Code:
A = None
B = HCl
C = HNO_3
D = H_2SO_4
E = NaOH
F = MeOH
G = $NaHSO_4$
H = $Na_2S_2O_3$
K/E = Zn Ac/NaOH
O = Other

Container Code
P = Plastic
A = Amber Glass
V = Vial
G = Glass
B = Bacteria Cup
C = Cube
O = Other
E = Encore
D = BOD Bottle

Westboro: Certification No: MA935
Mansfield: Certification No: MA015

Relinquished By:	Date/Time	Received By:	Date/Time
	3/17/23 1350		3/17/23 1350
	3/17/23 1839		3/17/23 1430
	3/17/23 2150		3/17/23 2150
	3/17/23 2350		3/17/23 2350

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. BY EXECUTING THIS COC, THE CLIENT HAS READ AND AGREES TO BE BOUND BY ALPHA'S TERMS & CONDITIONS. (See reverse side.)

Form No: 01-25 HC (rev. 30-Sept-2013)

NEW YORK CHAIN OF CUSTODY

Westborough, MA 01581
8 Walkup Dr.
TEL: 508-898-9220
FAX: 508-898-9193

Mansfield, MA 02048
320 Forbes Blvd
TEL: 508-822-9300
FAX: 508-822-3288

Service Centers
Mahwah, NJ 07430: 35 Whitney Rd, Suite 5
Albany, NY 12205: 14 Walker Way
Tonawanda, NY 14150: 275 Cooper Ave, Suite 105

Page: 2 of 2

Date Rec'd in Lab: 3/17/23

ALPHA Job #: L2314139

Client Information
Client: PWGC
Address: 630 Johnson Ave
Bohemia, NY 11716
Phone: 631-589-6353
Fax:
Email: RyanM@pwgrosser.com

Project Information
Project Name: Former Peretrex Processing
Project Location: 1 Shore Rd, Glenwood Landing, NY
Project # PEN 2301
(Use Project name as Project #) ☐
Project Manager: Ryan Morley
ALPHAQuote #:

Turn-Around Time
Standard ☒ Due Date:
Rush (only if pre approved) ☐ # of Days:

Deliverables
☐ ASP-A ☒ ASP-B
☐ EQuIS (1 File) ☐ EQuIS (4 File)
☐ Other

Regulatory Requirement
☐ NY TOGS ☐ NY Part 375
☐ AWQ Standards ☐ NY CP-51
☐ NY Restricted Use ☐ Other
☐ NY Unrestricted Use
☐ NYC Sewer Discharge

Billing Information
☒ Same as Client Info
PO #

Disposal Site Information
Please identify below location of applicable disposal facilities.
Disposal Facility:
☐ NJ ☐ NY
☐ Other:

These samples have been previously analyzed by Alpha ☐

Other project specific requirements/comments:
Also email: Kcrosby@pwgrosser.com

Please specify Metals or TAL.

Sample Filtration
☐ Done
☐ Lab to do
Preservation
☐ Lab to do
(Please Specify below)

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	ANALYSIS: VOC (8260)	Sample Specific Comments	Total Bottle
14139-11	MW-10	3-16-23	1155	GW	KC	X		3
-12	DUP001	↓	XX	↓	↓	X		3
-13	TRIP BLANK	XX	XX	↓	XX	X		2

Container Type: V
Preservative: B

Preservative Code:
A = None
B = HCl
C = HNO_3
D = H_2SO_4
E = NaOH
F = MeOH
G = $NaHSO_4$
H = $Na_2S_2O_3$
K/E = Zn Ac/NaOH
O = Other

Container Code
P = Plastic
A = Amber Glass
V = Vial
G = Glass
B = Bacteria Cup
C = Cube
O = Other
E = Encore
D = BOD Bottle

Westboro: Certification No: MA935
Mansfield: Certification No: MA015

Relinquished By:	Date/Time	Received By:	Date/Time
	3/17/23 1360		3/17/23 1350
	3/17/23 1839		3/17/23 1930
	3/17/23 2150		3/17/23 2150
	3/17/23 2350		3/17/23 2350

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. BY EXECUTING THIS COC, THE CLIENT HAS READ AND AGREES TO BE BOUND BY ALPHA'S TERMS & CONDITIONS. (See reverse side.)

Form No: 01-25 HC (rev. 30-Sept-2013)

ANALYTICAL REPORT

Lab Number:	L2314229
Client:	P. W. Grosser 630 Johnson Avenue Suite 7 Bohemia, NY 11716
ATTN:	Ryan Morley
Phone:	(631) 589-6353
Project Name:	FORMER PENETREX PROCESSING
Project Number:	PEN2301
Report Date:	03/30/23

Certifications & Approvals: MA (M-MA030), NH NELAP (2062), CT (PH-0141), DoD (L2474), FL (E87814), IL (200081), LA (85084), ME (MA00030), MD (350), NJ (MA015), NY (11627), NC (685), OH (CL106), PA (68-02089), RI (LAO00299), TX (T104704419), VT (VT-0015), VA (460194), WA (C954), US Army Corps of Engineers, USDA (Permit #P330-17-00150), USFWS (Permit #206964).

320 Forbes Boulevard, Mansfield, MA 02048-1806
508-822-9300 (Fax) 508-822-3288 800-624-9220 - www.alphalab.com

Project Name: FORMER PENETREX PROCESSING
Project Number: PEN2301

Lab Number: L2314229
Report Date: 03/30/23

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L2314229-01	IA001	AIR	1 SHORE RD GLENWOOD LANDING, NY	03/17/23 09:04	03/17/23
L2314229-02	IA002	AIR	1 SHORE RD GLENWOOD LANDING, NY	03/17/23 09:02	03/17/23
L2314229-03	IA003	AIR	1 SHORE RD GLENWOOD LANDING, NY	03/17/23 09:06	03/17/23
L2314229-04	IA004	AIR	1 SHORE RD GLENWOOD LANDING, NY	03/17/23 09:00	03/17/23
L2314229-05	IA005	AIR	1 SHORE RD GLENWOOD LANDING, NY	03/17/23 08:55	03/17/23
L2314229-06	SV005	SOIL_VAPOR	1 SHORE RD GLENWOOD LANDING, NY	03/17/23 08:57	03/17/23
L2314229-07	OA001	AIR	1 SHORE RD GLENWOOD LANDING, NY	03/17/23 09:08	03/17/23

Project Name:	FORMER PENETREX PROCESSING	**Lab Number:**	L2314229
Project Number:	PEN2301	**Report Date:**	03/30/23

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively.

When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances, the specific failure is not narrated but noted in the associated QC Outlier Summary Report, located directly after the Case Narrative. QC information is also incorporated in the Data Usability Assessment table (Format 11) of our Data Merger tool, where it can be reviewed in conjunction with the sample result, associated regulatory criteria and any associated data usability implications.

Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

HOLD POLICY - For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Alpha Project Manager and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Project Management at 800-624-9220 with any questions.

Project Name:	FORMER PENETREX PROCESSING	**Lab Number:**	L2314229
Project Number:	PEN2301	**Report Date:**	03/30/23

Case Narrative (continued)

Volatile Organics in Air

Canisters were released from the laboratory on March 13, 2023. The canister certification results are provided as an addendum.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature: Christopher J. Anderson

Title: Technical Director/Representative Date: 03/30/23

AIR

Project Name: FORMER PENETREX PROCESSING
Project Number: PEN2301
Lab Number: L2314229
Report Date: 03/30/23

SAMPLE RESULTS

Lab ID: L2314229-01
Client ID: IA001
Sample Location: 1 SHORE RD GLENWOOD LANDING, NY

Date Collected: 03/17/23 09:04
Date Received: 03/17/23
Field Prep: Not Specified

Sample Depth:
Matrix: Air
Anaytical Method: 48,TO-15
Analytical Date: 03/30/23 01:43
Analyst: RAY

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air - Mansfield Lab								
Dichlorodifluoromethane	0.458	0.200	--	2.26	0.989	--		1
Chloromethane	0.569	0.200	--	1.18	0.413	--		1
Freon-114	ND	0.200	--	ND	1.40	--		1
1,3-Butadiene	ND	0.200	--	ND	0.442	--		1
Bromomethane	ND	0.200	--	ND	0.777	--		1
Chloroethane	ND	0.200	--	ND	0.528	--		1
Ethanol	5.14	5.00	--	9.69	9.42	--		1
Vinyl bromide	ND	0.200	--	ND	0.874	--		1
Acetone	1.96	1.00	--	4.66	2.38	--		1
Trichlorofluoromethane	0.200	0.200	--	1.12	1.12	--		1
Isopropanol	0.550	0.500	--	1.35	1.23	--		1
Tertiary butyl Alcohol	ND	0.500	--	ND	1.52	--		1
Methylene chloride	ND	0.500	--	ND	1.74	--		1
3-Chloropropene	ND	0.200	--	ND	0.626	--		1
Carbon disulfide	ND	0.200	--	ND	0.623	--		1
Freon-113	ND	0.200	--	ND	1.53	--		1
trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
1,1-Dichloroethane	ND	0.200	--	ND	0.809	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
2-Butanone	ND	0.500	--	ND	1.47	--		1
Ethyl Acetate	ND	0.500	--	ND	1.80	--		1
Chloroform	ND	0.200	--	ND	0.977	--		1
Tetrahydrofuran	ND	0.500	--	ND	1.47	--		1

Project Name: FORMER PENETREX PROCESSING
Project Number: PEN2301
Lab Number: L2314229
Report Date: 03/30/23

SAMPLE RESULTS

Lab ID: L2314229-01
Client ID: IA001
Sample Location: 1 SHORE RD GLENWOOD LANDING, NY

Date Collected: 03/17/23 09:04
Date Received: 03/17/23
Field Prep: Not Specified

Sample Depth:

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab								
1,2-Dichloroethane	ND	0.200	--	ND	0.809	--		1
n-Hexane	ND	0.200	--	ND	0.705	--		1
Benzene	ND	0.200	--	ND	0.639	--		1
Cyclohexane	ND	0.200	--	ND	0.688	--		1
1,2-Dichloropropane	ND	0.200	--	ND	0.924	--		1
Bromodichloromethane	ND	0.200	--	ND	1.34	--		1
1,4-Dioxane	ND	0.200	--	ND	0.721	--		1
2,2,4-Trimethylpentane	ND	0.200	--	ND	0.934	--		1
Heptane	ND	0.200	--	ND	0.820	--		1
cis-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
1,1,2-Trichloroethane	ND	0.200	--	ND	1.09	--		1
Toluene	0.245	0.200	--	0.923	0.754	--		1
2-Hexanone	ND	0.200	--	ND	0.820	--		1
Dibromochloromethane	ND	0.200	--	ND	1.70	--		1
1,2-Dibromoethane	ND	0.200	--	ND	1.54	--		1
Chlorobenzene	ND	0.200	--	ND	0.921	--		1
Ethylbenzene	ND	0.200	--	ND	0.869	--		1
p/m-Xylene	ND	0.400	--	ND	1.74	--		1
Bromoform	ND	0.200	--	ND	2.07	--		1
Styrene	ND	0.200	--	ND	0.852	--		1
1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1
o-Xylene	ND	0.200	--	ND	0.869	--		1
4-Ethyltoluene	ND	0.200	--	ND	0.983	--		1
1,3,5-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1

Project Name: FORMER PENETREX PROCESSING
Project Number: PEN2301
Lab Number: L2314229
Report Date: 03/30/23

SAMPLE RESULTS

Lab ID: L2314229-01
Client ID: IA001
Sample Location: 1 SHORE RD GLENWOOD LANDING, NY

Date Collected: 03/17/23 09:04
Date Received: 03/17/23
Field Prep: Not Specified

Sample Depth:

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab								
1,2,4-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
Benzyl chloride	ND	0.200	--	ND	1.04	--		1
1,3-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,4-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,2-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,2,4-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1
Hexachlorobutadiene	ND	0.200	--	ND	2.13	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	88		60-140
Bromochloromethane	92		60-140
chlorobenzene-d5	90		60-140

Project Name: FORMER PENETREX PROCESSING
Project Number: PEN2301
Lab Number: L2314229
Report Date: 03/30/23

SAMPLE RESULTS

Lab ID: L2314229-01
Client ID: IA001
Sample Location: 1 SHORE RD GLENWOOD LANDING, NY

Date Collected: 03/17/23 09:04
Date Received: 03/17/23
Field Prep: Not Specified

Sample Depth:
Matrix: Air
Anaytical Method: 48,TO-15-SIM
Analytical Date: 03/30/23 01:43
Analyst: RAY

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air by SIM - Mansfield Lab								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Carbon tetrachloride	0.071	0.020	--	0.447	0.126	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
Tetrachloroethene	0.147	0.020	--	0.997	0.136	--		1

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-difluorobenzene	88		60-140
bromochloromethane	91		60-140
chlorobenzene-d5	92		60-140

Project Name: FORMER PENETREX PROCESSING
Project Number: PEN2301
Lab Number: L2314229
Report Date: 03/30/23

SAMPLE RESULTS

Lab ID: L2314229-02
Client ID: IA002
Sample Location: 1 SHORE RD GLENWOOD LANDING, NY

Date Collected: 03/17/23 09:02
Date Received: 03/17/23
Field Prep: Not Specified

Sample Depth:
Matrix: Air
Anaytical Method: 48,TO-15
Analytical Date: 03/30/23 02:22
Analyst: RAY

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air - Mansfield Lab								
Dichlorodifluoromethane	0.488	0.200	--	2.41	0.989	--		1
Chloromethane	0.588	0.200	--	1.21	0.413	--		1
Freon-114	ND	0.200	--	ND	1.40	--		1
1,3-Butadiene	ND	0.200	--	ND	0.442	--		1
Bromomethane	ND	0.200	--	ND	0.777	--		1
Chloroethane	ND	0.200	--	ND	0.528	--		1
Ethanol	ND	5.00	--	ND	9.42	--		1
Vinyl bromide	ND	0.200	--	ND	0.874	--		1
Acetone	2.15	1.00	--	5.11	2.38	--		1
Trichlorofluoromethane	ND	0.200	--	ND	1.12	--		1
Isopropanol	0.519	0.500	--	1.28	1.23	--		1
Tertiary butyl Alcohol	ND	0.500	--	ND	1.52	--		1
Methylene chloride	ND	0.500	--	ND	1.74	--		1
3-Chloropropene	ND	0.200	--	ND	0.626	--		1
Carbon disulfide	ND	0.200	--	ND	0.623	--		1
Freon-113	ND	0.200	--	ND	1.53	--		1
trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
1,1-Dichloroethane	ND	0.200	--	ND	0.809	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
2-Butanone	ND	0.500	--	ND	1.47	--		1
Ethyl Acetate	ND	0.500	--	ND	1.80	--		1
Chloroform	ND	0.200	--	ND	0.977	--		1
Tetrahydrofuran	ND	0.500	--	ND	1.47	--		1

Project Name: FORMER PENETREX PROCESSING
Project Number: PEN2301
Lab Number: L2314229
Report Date: 03/30/23

SAMPLE RESULTS

Lab ID: L2314229-02
Client ID: IA002
Sample Location: 1 SHORE RD GLENWOOD LANDING, NY

Date Collected: 03/17/23 09:02
Date Received: 03/17/23
Field Prep: Not Specified

Sample Depth:

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab								
1,2-Dichloroethane	ND	0.200	--	ND	0.809	--		1
n-Hexane	ND	0.200	--	ND	0.705	--		1
Benzene	ND	0.200	--	ND	0.639	--		1
Cyclohexane	ND	0.200	--	ND	0.688	--		1
1,2-Dichloropropane	ND	0.200	--	ND	0.924	--		1
Bromodichloromethane	ND	0.200	--	ND	1.34	--		1
1,4-Dioxane	ND	0.200	--	ND	0.721	--		1
2,2,4-Trimethylpentane	ND	0.200	--	ND	0.934	--		1
Heptane	ND	0.200	--	ND	0.820	--		1
cis-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
1,1,2-Trichloroethane	ND	0.200	--	ND	1.09	--		1
Toluene	0.203	0.200	--	0.765	0.754	--		1
2-Hexanone	ND	0.200	--	ND	0.820	--		1
Dibromochloromethane	ND	0.200	--	ND	1.70	--		1
1,2-Dibromoethane	ND	0.200	--	ND	1.54	--		1
Chlorobenzene	ND	0.200	--	ND	0.921	--		1
Ethylbenzene	ND	0.200	--	ND	0.869	--		1
p/m-Xylene	ND	0.400	--	ND	1.74	--		1
Bromoform	ND	0.200	--	ND	2.07	--		1
Styrene	ND	0.200	--	ND	0.852	--		1
1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1
o-Xylene	ND	0.200	--	ND	0.869	--		1
4-Ethyltoluene	ND	0.200	--	ND	0.983	--		1
1,3,5-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1

Project Name: FORMER PENETREX PROCESSING
Project Number: PEN2301
Lab Number: L2314229
Report Date: 03/30/23

SAMPLE RESULTS

Lab ID: L2314229-02
Client ID: IA002
Sample Location: 1 SHORE RD GLENWOOD LANDING, NY

Date Collected: 03/17/23 09:02
Date Received: 03/17/23
Field Prep: Not Specified

Sample Depth:

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab								
1,2,4-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
Benzyl chloride	ND	0.200	--	ND	1.04	--		1
1,3-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,4-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,2-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,2,4-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1
Hexachlorobutadiene	ND	0.200	--	ND	2.13	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	89		60-140
Bromochloromethane	92		60-140
chlorobenzene-d5	91		60-140

Project Name: FORMER PENETREX PROCESSING
Project Number: PEN2301
Lab Number: L2314229
Report Date: 03/30/23

SAMPLE RESULTS

Lab ID: L2314229-02
Client ID: IA002
Sample Location: 1 SHORE RD GLENWOOD LANDING, NY

Date Collected: 03/17/23 09:02
Date Received: 03/17/23
Field Prep: Not Specified

Sample Depth:
Matrix: Air
Anaytical Method: 48,TO-15-SIM
Analytical Date: 03/30/23 02:22
Analyst: RAY

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air by SIM - Mansfield Lab								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Carbon tetrachloride	0.063	0.020	--	0.396	0.126	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
Tetrachloroethene	0.119	0.020	--	0.807	0.136	--		1

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-difluorobenzene	89		60-140
bromochloromethane	91		60-140
chlorobenzene-d5	92		60-140

Project Name: FORMER PENETREX PROCESSING
Project Number: PEN2301
Lab Number: L2314229
Report Date: 03/30/23

SAMPLE RESULTS

Lab ID: L2314229-03
Client ID: IA003
Sample Location: 1 SHORE RD GLENWOOD LANDING, NY

Date Collected: 03/17/23 09:06
Date Received: 03/17/23
Field Prep: Not Specified

Sample Depth:
Matrix: Air
Anaytical Method: 48,TO-15
Analytical Date: 03/30/23 03:01
Analyst: RAY

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air - Mansfield Lab								
Dichlorodifluoromethane	0.463	0.200	--	2.29	0.989	--		1
Chloromethane	0.580	0.200	--	1.20	0.413	--		1
Freon-114	ND	0.200	--	ND	1.40	--		1
1,3-Butadiene	ND	0.200	--	ND	0.442	--		1
Bromomethane	ND	0.200	--	ND	0.777	--		1
Chloroethane	ND	0.200	--	ND	0.528	--		1
Ethanol	141	5.00	--	266	9.42	--		1
Vinyl bromide	ND	0.200	--	ND	0.874	--		1
Acetone	15.8	1.00	--	37.5	2.38	--		1
Trichlorofluoromethane	0.210	0.200	--	1.18	1.12	--		1
Isopropanol	2.05	0.500	--	5.04	1.23	--		1
Tertiary butyl Alcohol	ND	0.500	--	ND	1.52	--		1
Methylene chloride	ND	0.500	--	ND	1.74	--		1
3-Chloropropene	ND	0.200	--	ND	0.626	--		1
Carbon disulfide	ND	0.200	--	ND	0.623	--		1
Freon-113	ND	0.200	--	ND	1.53	--		1
trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
1,1-Dichloroethane	ND	0.200	--	ND	0.809	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
2-Butanone	1.36	0.500	--	4.01	1.47	--		1
Ethyl Acetate	ND	0.500	--	ND	1.80	--		1
Chloroform	ND	0.200	--	ND	0.977	--		1
Tetrahydrofuran	0.759	0.500	--	2.24	1.47	--		1

Project Name: FORMER PENETREX PROCESSING
Project Number: PEN2301
Lab Number: L2314229
Report Date: 03/30/23

SAMPLE RESULTS

Lab ID: L2314229-03
Client ID: IA003
Sample Location: 1 SHORE RD GLENWOOD LANDING, NY

Date Collected: 03/17/23 09:06
Date Received: 03/17/23
Field Prep: Not Specified

Sample Depth:

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab								
1,2-Dichloroethane	ND	0.200	--	ND	0.809	--		1
n-Hexane	0.236	0.200	--	0.832	0.705	--		1
Benzene	0.219	0.200	--	0.700	0.639	--		1
Cyclohexane	ND	0.200	--	ND	0.688	--		1
1,2-Dichloropropane	ND	0.200	--	ND	0.924	--		1
Bromodichloromethane	ND	0.200	--	ND	1.34	--		1
1,4-Dioxane	ND	0.200	--	ND	0.721	--		1
2,2,4-Trimethylpentane	ND	0.200	--	ND	0.934	--		1
Heptane	ND	0.200	--	ND	0.820	--		1
cis-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
1,1,2-Trichloroethane	ND	0.200	--	ND	1.09	--		1
Toluene	0.980	0.200	--	3.69	0.754	--		1
2-Hexanone	ND	0.200	--	ND	0.820	--		1
Dibromochloromethane	ND	0.200	--	ND	1.70	--		1
1,2-Dibromoethane	ND	0.200	--	ND	1.54	--		1
Chlorobenzene	ND	0.200	--	ND	0.921	--		1
Ethylbenzene	ND	0.200	--	ND	0.869	--		1
p/m-Xylene	ND	0.400	--	ND	1.74	--		1
Bromoform	ND	0.200	--	ND	2.07	--		1
Styrene	ND	0.200	--	ND	0.852	--		1
1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1
o-Xylene	ND	0.200	--	ND	0.869	--		1
4-Ethyltoluene	ND	0.200	--	ND	0.983	--		1
1,3,5-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1

Project Name: FORMER PENETREX PROCESSING
Project Number: PEN2301
Lab Number: L2314229
Report Date: 03/30/23

SAMPLE RESULTS

Lab ID: L2314229-03
Client ID: IA003
Sample Location: 1 SHORE RD GLENWOOD LANDING, NY

Date Collected: 03/17/23 09:06
Date Received: 03/17/23
Field Prep: Not Specified

Sample Depth:

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab								
1,2,4-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
Benzyl chloride	ND	0.200	--	ND	1.04	--		1
1,3-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,4-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,2-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,2,4-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1
Hexachlorobutadiene	ND	0.200	--	ND	2.13	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	90		60-140
Bromochloromethane	92		60-140
chlorobenzene-d5	91		60-140

Project Name: FORMER PENETREX PROCESSING
Project Number: PEN2301
Lab Number: L2314229
Report Date: 03/30/23

SAMPLE RESULTS

Lab ID: L2314229-03
Client ID: IA003
Sample Location: 1 SHORE RD GLENWOOD LANDING, NY

Date Collected: 03/17/23 09:06
Date Received: 03/17/23
Field Prep: Not Specified

Sample Depth:
Matrix: Air
Anaytical Method: 48,TO-15-SIM
Analytical Date: 03/30/23 03:01
Analyst: RAY

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air by SIM - Mansfield Lab								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Carbon tetrachloride	0.075	0.020	--	0.472	0.126	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
Tetrachloroethene	0.153	0.020	--	1.04	0.136	--		1

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-difluorobenzene	89		60-140
bromochloromethane	92		60-140
chlorobenzene-d5	93		60-140

Project Name: FORMER PENETREX PROCESSING
Project Number: PEN2301
Lab Number: L2314229
Report Date: 03/30/23

SAMPLE RESULTS

Lab ID: L2314229-04
Client ID: IA004
Sample Location: 1 SHORE RD GLENWOOD LANDING, NY

Date Collected: 03/17/23 09:00
Date Received: 03/17/23
Field Prep: Not Specified

Sample Depth:
Matrix: Air
Anaytical Method: 48,TO-15
Analytical Date: 03/30/23 03:40
Analyst: RAY

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air - Mansfield Lab								
Dichlorodifluoromethane	0.478	0.200	--	2.36	0.989	--		1
Chloromethane	0.573	0.200	--	1.18	0.413	--		1
Freon-114	ND	0.200	--	ND	1.40	--		1
1,3-Butadiene	ND	0.200	--	ND	0.442	--		1
Bromomethane	ND	0.200	--	ND	0.777	--		1
Chloroethane	ND	0.200	--	ND	0.528	--		1
Ethanol	5.29	5.00	--	9.97	9.42	--		1
Vinyl bromide	ND	0.200	--	ND	0.874	--		1
Acetone	2.13	1.00	--	5.06	2.38	--		1
Trichlorofluoromethane	0.206	0.200	--	1.16	1.12	--		1
Isopropanol	ND	0.500	--	ND	1.23	--		1
Tertiary butyl Alcohol	ND	0.500	--	ND	1.52	--		1
Methylene chloride	ND	0.500	--	ND	1.74	--		1
3-Chloropropene	ND	0.200	--	ND	0.626	--		1
Carbon disulfide	ND	0.200	--	ND	0.623	--		1
Freon-113	ND	0.200	--	ND	1.53	--		1
trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
1,1-Dichloroethane	ND	0.200	--	ND	0.809	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
2-Butanone	ND	0.500	--	ND	1.47	--		1
Ethyl Acetate	ND	0.500	--	ND	1.80	--		1
Chloroform	ND	0.200	--	ND	0.977	--		1
Tetrahydrofuran	ND	0.500	--	ND	1.47	--		1

Project Name: FORMER PENETREX PROCESSING
Project Number: PEN2301
Lab Number: L2314229
Report Date: 03/30/23

SAMPLE RESULTS

Lab ID: L2314229-04
Client ID: IA004
Sample Location: 1 SHORE RD GLENWOOD LANDING, NY

Date Collected: 03/17/23 09:00
Date Received: 03/17/23
Field Prep: Not Specified

Sample Depth:

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab								
1,2-Dichloroethane	ND	0.200	--	ND	0.809	--		1
n-Hexane	ND	0.200	--	ND	0.705	--		1
Benzene	ND	0.200	--	ND	0.639	--		1
Cyclohexane	ND	0.200	--	ND	0.688	--		1
1,2-Dichloropropane	ND	0.200	--	ND	0.924	--		1
Bromodichloromethane	ND	0.200	--	ND	1.34	--		1
1,4-Dioxane	ND	0.200	--	ND	0.721	--		1
2,2,4-Trimethylpentane	ND	0.200	--	ND	0.934	--		1
Heptane	ND	0.200	--	ND	0.820	--		1
cis-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
1,1,2-Trichloroethane	ND	0.200	--	ND	1.09	--		1
Toluene	ND	0.200	--	ND	0.754	--		1
2-Hexanone	ND	0.200	--	ND	0.820	--		1
Dibromochloromethane	ND	0.200	--	ND	1.70	--		1
1,2-Dibromoethane	ND	0.200	--	ND	1.54	--		1
Chlorobenzene	ND	0.200	--	ND	0.921	--		1
Ethylbenzene	ND	0.200	--	ND	0.869	--		1
p/m-Xylene	ND	0.400	--	ND	1.74	--		1
Bromoform	ND	0.200	--	ND	2.07	--		1
Styrene	ND	0.200	--	ND	0.852	--		1
1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1
o-Xylene	ND	0.200	--	ND	0.869	--		1
4-Ethyltoluene	ND	0.200	--	ND	0.983	--		1
1,3,5-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1

Project Name: FORMER PENETREX PROCESSING
Project Number: PEN2301
Lab Number: L2314229
Report Date: 03/30/23

SAMPLE RESULTS

Lab ID: L2314229-04
Client ID: IA004
Sample Location: 1 SHORE RD GLENWOOD LANDING, NY

Date Collected: 03/17/23 09:00
Date Received: 03/17/23
Field Prep: Not Specified

Sample Depth:

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab								
1,2,4-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
Benzyl chloride	ND	0.200	--	ND	1.04	--		1
1,3-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,4-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,2-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,2,4-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1
Hexachlorobutadiene	ND	0.200	--	ND	2.13	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	88		60-140
Bromochloromethane	91		60-140
chlorobenzene-d5	91		60-140

Project Name: FORMER PENETREX PROCESSING
Project Number: PEN2301
Lab Number: L2314229
Report Date: 03/30/23

SAMPLE RESULTS

Lab ID: L2314229-04
Client ID: IA004
Sample Location: 1 SHORE RD GLENWOOD LANDING, NY

Date Collected: 03/17/23 09:00
Date Received: 03/17/23
Field Prep: Not Specified

Sample Depth:
Matrix: Air
Anaytical Method: 48,TO-15-SIM
Analytical Date: 03/30/23 03:40
Analyst: RAY

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air by SIM - Mansfield Lab								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Carbon tetrachloride	0.064	0.020	--	0.403	0.126	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
Tetrachloroethene	0.114	0.020	--	0.773	0.136	--		1

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-difluorobenzene	88		60-140
bromochloromethane	90		60-140
chlorobenzene-d5	92		60-140

Project Name: FORMER PENETREX PROCESSING
Project Number: PEN2301
Lab Number: L2314229
Report Date: 03/30/23

SAMPLE RESULTS

Lab ID: L2314229-05
Client ID: IA005
Sample Location: 1 SHORE RD GLENWOOD LANDING, NY

Date Collected: 03/17/23 08:55
Date Received: 03/17/23
Field Prep: Not Specified

Sample Depth:
Matrix: Air
Anaytical Method: 48,TO-15
Analytical Date: 03/30/23 04:20
Analyst: RAY

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air - Mansfield Lab								
Dichlorodifluoromethane	0.454	0.200	--	2.24	0.989	--		1
Chloromethane	0.576	0.200	--	1.19	0.413	--		1
Freon-114	ND	0.200	--	ND	1.40	--		1
1,3-Butadiene	ND	0.200	--	ND	0.442	--		1
Bromomethane	ND	0.200	--	ND	0.777	--		1
Chloroethane	ND	0.200	--	ND	0.528	--		1
Ethanol	ND	5.00	--	ND	9.42	--		1
Vinyl bromide	ND	0.200	--	ND	0.874	--		1
Acetone	2.44	1.00	--	5.80	2.38	--		1
Trichlorofluoromethane	0.220	0.200	--	1.24	1.12	--		1
Isopropanol	0.526	0.500	--	1.29	1.23	--		1
Tertiary butyl Alcohol	ND	0.500	--	ND	1.52	--		1
Methylene chloride	ND	0.500	--	ND	1.74	--		1
3-Chloropropene	ND	0.200	--	ND	0.626	--		1
Carbon disulfide	ND	0.200	--	ND	0.623	--		1
Freon-113	ND	0.200	--	ND	1.53	--		1
trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
1,1-Dichloroethane	ND	0.200	--	ND	0.809	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
2-Butanone	ND	0.500	--	ND	1.47	--		1
Ethyl Acetate	ND	0.500	--	ND	1.80	--		1
Chloroform	ND	0.200	--	ND	0.977	--		1
Tetrahydrofuran	ND	0.500	--	ND	1.47	--		1

Project Name: FORMER PENETREX PROCESSING
Project Number: PEN2301
Lab Number: L2314229
Report Date: 03/30/23

SAMPLE RESULTS

Lab ID: L2314229-05
Client ID: IA005
Sample Location: 1 SHORE RD GLENWOOD LANDING, NY

Date Collected: 03/17/23 08:55
Date Received: 03/17/23
Field Prep: Not Specified

Sample Depth:

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab								
1,2-Dichloroethane	ND	0.200	--	ND	0.809	--		1
n-Hexane	ND	0.200	--	ND	0.705	--		1
Benzene	ND	0.200	--	ND	0.639	--		1
Cyclohexane	ND	0.200	--	ND	0.688	--		1
1,2-Dichloropropane	ND	0.200	--	ND	0.924	--		1
Bromodichloromethane	ND	0.200	--	ND	1.34	--		1
1,4-Dioxane	ND	0.200	--	ND	0.721	--		1
2,2,4-Trimethylpentane	ND	0.200	--	ND	0.934	--		1
Heptane	ND	0.200	--	ND	0.820	--		1
cis-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
1,1,2-Trichloroethane	ND	0.200	--	ND	1.09	--		1
Toluene	0.322	0.200	--	1.21	0.754	--		1
2-Hexanone	ND	0.200	--	ND	0.820	--		1
Dibromochloromethane	ND	0.200	--	ND	1.70	--		1
1,2-Dibromoethane	ND	0.200	--	ND	1.54	--		1
Chlorobenzene	ND	0.200	--	ND	0.921	--		1
Ethylbenzene	ND	0.200	--	ND	0.869	--		1
p/m-Xylene	ND	0.400	--	ND	1.74	--		1
Bromoform	ND	0.200	--	ND	2.07	--		1
Styrene	ND	0.200	--	ND	0.852	--		1
1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1
o-Xylene	ND	0.200	--	ND	0.869	--		1
4-Ethyltoluene	ND	0.200	--	ND	0.983	--		1
1,3,5-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1

Project Name: FORMER PENETREX PROCESSING
Project Number: PEN2301
Lab Number: L2314229
Report Date: 03/30/23

SAMPLE RESULTS

Lab ID: L2314229-05
Client ID: IA005
Sample Location: 1 SHORE RD GLENWOOD LANDING, NY

Date Collected: 03/17/23 08:55
Date Received: 03/17/23
Field Prep: Not Specified

Sample Depth:

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab								
1,2,4-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
Benzyl chloride	ND	0.200	--	ND	1.04	--		1
1,3-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,4-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,2-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,2,4-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1
Hexachlorobutadiene	ND	0.200	--	ND	2.13	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	92		60-140
Bromochloromethane	93		60-140
chlorobenzene-d5	94		60-140

Project Name: FORMER PENETREX PROCESSING
Project Number: PEN2301
Lab Number: L2314229
Report Date: 03/30/23

SAMPLE RESULTS

Lab ID: L2314229-05
Client ID: IA005
Sample Location: 1 SHORE RD GLENWOOD LANDING, NY

Date Collected: 03/17/23 08:55
Date Received: 03/17/23
Field Prep: Not Specified

Sample Depth:
Matrix: Air
Anaytical Method: 48,TO-15-SIM
Analytical Date: 03/30/23 04:20
Analyst: RAY

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air by SIM - Mansfield Lab								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Carbon tetrachloride	0.062	0.020	--	0.390	0.126	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
Tetrachloroethene	0.276	0.020	--	1.87	0.136	--		1

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-difluorobenzene	92		60-140
bromochloromethane	94		60-140
chlorobenzene-d5	95		60-140

Project Name: FORMER PENETREX PROCESSING
Project Number: PEN2301
Lab Number: L2314229
Report Date: 03/30/23

SAMPLE RESULTS

Lab ID: L2314229-06
Client ID: SV005
Sample Location: 1 SHORE RD GLENWOOD LANDING, NY

Date Collected: 03/17/23 08:57
Date Received: 03/17/23
Field Prep: Not Specified

Sample Depth:
Matrix: Soil_Vapor
Anaytical Method: 48,TO-15
Analytical Date: 03/30/23 05:38
Analyst: RAY

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air - Mansfield Lab								
Dichlorodifluoromethane	0.457	0.200	--	2.26	0.989	--		1
Chloromethane	1.30	0.200	--	2.68	0.413	--		1
Freon-114	ND	0.200	--	ND	1.40	--		1
Vinyl chloride	ND	0.200	--	ND	0.511	--		1
1,3-Butadiene	ND	0.200	--	ND	0.442	--		1
Bromomethane	ND	0.200	--	ND	0.777	--		1
Chloroethane	ND	0.200	--	ND	0.528	--		1
Ethanol	11.5	5.00	--	21.7	9.42	--		1
Vinyl bromide	ND	0.200	--	ND	0.874	--		1
Acetone	5.93	1.00	--	14.1	2.38	--		1
Trichlorofluoromethane	0.203	0.200	--	1.14	1.12	--		1
Isopropanol	16.0	0.500	--	39.3	1.23	--		1
1,1-Dichloroethene	ND	0.200	--	ND	0.793	--		1
Tertiary butyl Alcohol	ND	0.500	--	ND	1.52	--		1
Methylene chloride	ND	0.500	--	ND	1.74	--		1
3-Chloropropene	ND	0.200	--	ND	0.626	--		1
Carbon disulfide	ND	0.200	--	ND	0.623	--		1
Freon-113	ND	0.200	--	ND	1.53	--		1
trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
1,1-Dichloroethane	ND	0.200	--	ND	0.809	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
2-Butanone	8.64	0.500	--	25.5	1.47	--		1
cis-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1

Project Name: FORMER PENETREX PROCESSING
Project Number: PEN2301
Lab Number: L2314229
Report Date: 03/30/23

SAMPLE RESULTS

Lab ID: L2314229-06
Client ID: SV005
Sample Location: 1 SHORE RD GLENWOOD LANDING, NY

Date Collected: 03/17/23 08:57
Date Received: 03/17/23
Field Prep: Not Specified

Sample Depth:

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab								
Ethyl Acetate	ND	0.500	--	ND	1.80	--		1
Chloroform	ND	0.200	--	ND	0.977	--		1
Tetrahydrofuran	ND	0.500	--	ND	1.47	--		1
1,2-Dichloroethane	ND	0.200	--	ND	0.809	--		1
n-Hexane	0.389	0.200	--	1.37	0.705	--		1
1,1,1-Trichloroethane	ND	0.200	--	ND	1.09	--		1
Benzene	0.322	0.200	--	1.03	0.639	--		1
Carbon tetrachloride	ND	0.200	--	ND	1.26	--		1
Cyclohexane	ND	0.200	--	ND	0.688	--		1
1,2-Dichloropropane	ND	0.200	--	ND	0.924	--		1
Bromodichloromethane	ND	0.200	--	ND	1.34	--		1
1,4-Dioxane	ND	0.200	--	ND	0.721	--		1
Trichloroethene	ND	0.200	--	ND	1.07	--		1
2,2,4-Trimethylpentane	ND	0.200	--	ND	0.934	--		1
Heptane	0.292	0.200	--	1.20	0.820	--		1
cis-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
1,1,2-Trichloroethane	ND	0.200	--	ND	1.09	--		1
Toluene	10.3	0.200	--	38.8	0.754	--		1
2-Hexanone	1.09	0.200	--	4.47	0.820	--		1
Dibromochloromethane	ND	0.200	--	ND	1.70	--		1
1,2-Dibromoethane	ND	0.200	--	ND	1.54	--		1
Tetrachloroethene	0.251	0.200	--	1.70	1.36	--		1
Chlorobenzene	ND	0.200	--	ND	0.921	--		1
Ethylbenzene	0.362	0.200	--	1.57	0.869	--		1

Project Name: FORMER PENETREX PROCESSING
Project Number: PEN2301
Lab Number: L2314229
Report Date: 03/30/23

SAMPLE RESULTS

Lab ID: L2314229-06
Client ID: SV005
Sample Location: 1 SHORE RD GLENWOOD LANDING, NY

Date Collected: 03/17/23 08:57
Date Received: 03/17/23
Field Prep: Not Specified

Sample Depth:

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab								
p/m-Xylene	1.46	0.400	--	6.34	1.74	--		1
Bromoform	ND	0.200	--	ND	2.07	--		1
Styrene	ND	0.200	--	ND	0.852	--		1
1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1
o-Xylene	0.477	0.200	--	2.07	0.869	--		1
4-Ethyltoluene	ND	0.200	--	ND	0.983	--		1
1,3,5-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
1,2,4-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
Benzyl chloride	ND	0.200	--	ND	1.04	--		1
1,3-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,4-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,2-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,2,4-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1
Hexachlorobutadiene	ND	0.200	--	ND	2.13	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	93		60-140
Bromochloromethane	94		60-140
chlorobenzene-d5	95		60-140

Project Name: FORMER PENETREX PROCESSING
Project Number: PEN2301
Lab Number: L2314229
Report Date: 03/30/23

SAMPLE RESULTS

Lab ID: L2314229-07
Client ID: OA001
Sample Location: 1 SHORE RD GLENWOOD LANDING, NY

Date Collected: 03/17/23 09:08
Date Received: 03/17/23
Field Prep: Not Specified

Sample Depth:
Matrix: Air
Anaytical Method: 48,TO-15
Analytical Date: 03/30/23 01:04
Analyst: RAY

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air - Mansfield Lab								
Dichlorodifluoromethane	0.493	0.200	--	2.44	0.989	--		1
Chloromethane	0.599	0.200	--	1.24	0.413	--		1
Freon-114	ND	0.200	--	ND	1.40	--		1
1,3-Butadiene	ND	0.200	--	ND	0.442	--		1
Bromomethane	ND	0.200	--	ND	0.777	--		1
Chloroethane	ND	0.200	--	ND	0.528	--		1
Ethanol	ND	5.00	--	ND	9.42	--		1
Vinyl bromide	ND	0.200	--	ND	0.874	--		1
Acetone	1.79	1.00	--	4.25	2.38	--		1
Trichlorofluoromethane	0.203	0.200	--	1.14	1.12	--		1
Isopropanol	1.31	0.500	--	3.22	1.23	--		1
Tertiary butyl Alcohol	ND	0.500	--	ND	1.52	--		1
Methylene chloride	ND	0.500	--	ND	1.74	--		1
3-Chloropropene	ND	0.200	--	ND	0.626	--		1
Carbon disulfide	ND	0.200	--	ND	0.623	--		1
Freon-113	ND	0.200	--	ND	1.53	--		1
trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
1,1-Dichloroethane	ND	0.200	--	ND	0.809	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
2-Butanone	ND	0.500	--	ND	1.47	--		1
Ethyl Acetate	ND	0.500	--	ND	1.80	--		1
Chloroform	ND	0.200	--	ND	0.977	--		1
Tetrahydrofuran	0.501	0.500	--	1.48	1.47	--		1

Project Name: FORMER PENETREX PROCESSING
Project Number: PEN2301
Lab Number: L2314229
Report Date: 03/30/23

SAMPLE RESULTS

Lab ID: L2314229-07
Client ID: OA001
Sample Location: 1 SHORE RD GLENWOOD LANDING, NY

Date Collected: 03/17/23 09:08
Date Received: 03/17/23
Field Prep: Not Specified

Sample Depth:

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab								
1,2-Dichloroethane	ND	0.200	--	ND	0.809	--		1
n-Hexane	0.426	0.200	--	1.50	0.705	--		1
Benzene	0.257	0.200	--	0.821	0.639	--		1
Cyclohexane	ND	0.200	--	ND	0.688	--		1
1,2-Dichloropropane	ND	0.200	--	ND	0.924	--		1
Bromodichloromethane	ND	0.200	--	ND	1.34	--		1
1,4-Dioxane	ND	0.200	--	ND	0.721	--		1
2,2,4-Trimethylpentane	ND	0.200	--	ND	0.934	--		1
Heptane	ND	0.200	--	ND	0.820	--		1
cis-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
1,1,2-Trichloroethane	ND	0.200	--	ND	1.09	--		1
Toluene	0.421	0.200	--	1.59	0.754	--		1
2-Hexanone	ND	0.200	--	ND	0.820	--		1
Dibromochloromethane	ND	0.200	--	ND	1.70	--		1
1,2-Dibromoethane	ND	0.200	--	ND	1.54	--		1
Chlorobenzene	ND	0.200	--	ND	0.921	--		1
Ethylbenzene	ND	0.200	--	ND	0.869	--		1
p/m-Xylene	ND	0.400	--	ND	1.74	--		1
Bromoform	ND	0.200	--	ND	2.07	--		1
Styrene	ND	0.200	--	ND	0.852	--		1
1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1
o-Xylene	ND	0.200	--	ND	0.869	--		1
4-Ethyltoluene	ND	0.200	--	ND	0.983	--		1
1,3,5-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1

Project Name: FORMER PENETREX PROCESSING
Project Number: PEN2301
Lab Number: L2314229
Report Date: 03/30/23

SAMPLE RESULTS

Lab ID: L2314229-07
Client ID: OA001
Sample Location: 1 SHORE RD GLENWOOD LANDING, NY

Date Collected: 03/17/23 09:08
Date Received: 03/17/23
Field Prep: Not Specified

Sample Depth:

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab								
1,2,4-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
Benzyl chloride	ND	0.200	--	ND	1.04	--		1
1,3-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,4-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,2-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,2,4-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1
Hexachlorobutadiene	ND	0.200	--	ND	2.13	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	87		60-140
Bromochloromethane	90		60-140
chlorobenzene-d5	92		60-140

Project Name: FORMER PENETREX PROCESSING
Project Number: PEN2301
Lab Number: L2314229
Report Date: 03/30/23

SAMPLE RESULTS

Lab ID: L2314229-07
Client ID: OA001
Sample Location: 1 SHORE RD GLENWOOD LANDING, NY

Date Collected: 03/17/23 09:08
Date Received: 03/17/23
Field Prep: Not Specified

Sample Depth:
Matrix: Air
Anaytical Method: 48,TO-15-SIM
Analytical Date: 03/30/23 01:04
Analyst: RAY

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air by SIM - Mansfield Lab								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Carbon tetrachloride	0.072	0.020	--	0.453	0.126	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
Tetrachloroethene	0.123	0.020	--	0.834	0.136	--		1

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-difluorobenzene	86		60-140
bromochloromethane	90		60-140
chlorobenzene-d5	93		60-140

Project Name: FORMER PENETREX PROCESSING **Lab Number:** L2314229

Project Number: PEN2301 **Report Date:** 03/30/23

Method Blank Analysis
Batch Quality Control

Analytical Method: 48,TO-15
Analytical Date: 03/29/23 16:40

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab for sample(s): 01-07 Batch: WG1760414-4								
Dichlorodifluoromethane	ND	0.200	--	ND	0.989	--		1
Chloromethane	ND	0.200	--	ND	0.413	--		1
Freon-114	ND	0.200	--	ND	1.40	--		1
Vinyl chloride	ND	0.200	--	ND	0.511	--		1
1,3-Butadiene	ND	0.200	--	ND	0.442	--		1
Bromomethane	ND	0.200	--	ND	0.777	--		1
Chloroethane	ND	0.200	--	ND	0.528	--		1
Ethanol	ND	5.00	--	ND	9.42	--		1
Vinyl bromide	ND	0.200	--	ND	0.874	--		1
Acetone	ND	1.00	--	ND	2.38	--		1
Trichlorofluoromethane	ND	0.200	--	ND	1.12	--		1
Isopropanol	ND	0.500	--	ND	1.23	--		1
1,1-Dichloroethene	ND	0.200	--	ND	0.793	--		1
Tertiary butyl Alcohol	ND	0.500	--	ND	1.52	--		1
Methylene chloride	ND	0.500	--	ND	1.74	--		1
3-Chloropropene	ND	0.200	--	ND	0.626	--		1
Carbon disulfide	ND	0.200	--	ND	0.623	--		1
Freon-113	ND	0.200	--	ND	1.53	--		1
trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
1,1-Dichloroethane	ND	0.200	--	ND	0.809	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
2-Butanone	ND	0.500	--	ND	1.47	--		1
cis-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
Ethyl Acetate	ND	0.500	--	ND	1.80	--		1
Chloroform	ND	0.200	--	ND	0.977	--		1

Project Name: FORMER PENETREX PROCESSING **Lab Number:** L2314229

Project Number: PEN2301 **Report Date:** 03/30/23

Method Blank Analysis
Batch Quality Control

Analytical Method: 48,TO-15
Analytical Date: 03/29/23 16:40

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab for sample(s): 01-07 Batch: WG1760414-4								
Tetrahydrofuran	ND	0.500	--	ND	1.47	--		1
1,2-Dichloroethane	ND	0.200	--	ND	0.809	--		1
n-Hexane	ND	0.200	--	ND	0.705	--		1
1,1,1-Trichloroethane	ND	0.200	--	ND	1.09	--		1
Benzene	ND	0.200	--	ND	0.639	--		1
Carbon tetrachloride	ND	0.200	--	ND	1.26	--		1
Cyclohexane	ND	0.200	--	ND	0.688	--		1
1,2-Dichloropropane	ND	0.200	--	ND	0.924	--		1
Bromodichloromethane	ND	0.200	--	ND	1.34	--		1
1,4-Dioxane	ND	0.200	--	ND	0.721	--		1
Trichloroethene	ND	0.200	--	ND	1.07	--		1
2,2,4-Trimethylpentane	ND	0.200	--	ND	0.934	--		1
Heptane	ND	0.200	--	ND	0.820	--		1
cis-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
1,1,2-Trichloroethane	ND	0.200	--	ND	1.09	--		1
Toluene	ND	0.200	--	ND	0.754	--		1
2-Hexanone	ND	0.200	--	ND	0.820	--		1
Dibromochloromethane	ND	0.200	--	ND	1.70	--		1
1,2-Dibromoethane	ND	0.200	--	ND	1.54	--		1
Tetrachloroethene	ND	0.200	--	ND	1.36	--		1
Chlorobenzene	ND	0.200	--	ND	0.921	--		1
Ethylbenzene	ND	0.200	--	ND	0.869	--		1
p/m-Xylene	ND	0.400	--	ND	1.74	--		1

Project Name: FORMER PENETREX PROCESSING **Lab Number:** L2314229

Project Number: PEN2301 **Report Date:** 03/30/23

Method Blank Analysis
Batch Quality Control

Analytical Method: 48,TO-15
Analytical Date: 03/29/23 16:40

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab for sample(s): 01-07 Batch: WG1760414-4								
Bromoform	ND	0.200	--	ND	2.07	--		1
Styrene	ND	0.200	--	ND	0.852	--		1
1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1
o-Xylene	ND	0.200	--	ND	0.869	--		1
4-Ethyltoluene	ND	0.200	--	ND	0.983	--		1
1,3,5-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
1,2,4-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
Benzyl chloride	ND	0.200	--	ND	1.04	--		1
1,3-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,4-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,2-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,2,4-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1
Hexachlorobutadiene	ND	0.200	--	ND	2.13	--		1

Project Name: FORMER PENETREX PROCESSING **Lab Number:** L2314229

Project Number: PEN2301 **Report Date:** 03/30/23

Method Blank Analysis
Batch Quality Control

Analytical Method: 48,TO-15-SIM
Analytical Date: 03/29/23 17:19

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab for sample(s): 01-05,07 Batch: WG1760416-4								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Carbon tetrachloride	ND	0.020	--	ND	0.126	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1

Lab Control Sample Analysis

Batch Quality Control

Project Name: FORMER PENETREX PROCESSING

Project Number: PEN2301

Lab Number: L2314229

Report Date: 03/30/23

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01-07 Batch: WG1760414-3								
Dichlorodifluoromethane	92		-		70-130	-		
Chloromethane	102		-		70-130	-		
Freon-114	92		-		70-130	-		
Vinyl chloride	92		-		70-130	-		
1,3-Butadiene	92		-		70-130	-		
Bromomethane	96		-		70-130	-		
Chloroethane	110		-		70-130	-		
Ethanol	84		-		40-160	-		
Vinyl bromide	90		-		70-130	-		
Acetone	84		-		40-160	-		
Trichlorofluoromethane	96		-		70-130	-		
Isopropanol	80		-		40-160	-		
1,1-Dichloroethene	92		-		70-130	-		
Tertiary butyl Alcohol	71		-		70-130	-		
Methylene chloride	97		-		70-130	-		
3-Chloropropene	92		-		70-130	-		
Carbon disulfide	80		-		70-130	-		
Freon-113	93		-		70-130	-		
trans-1,2-Dichloroethene	104		-		70-130	-		
1,1-Dichloroethane	107		-		70-130	-		
Methyl tert butyl ether	85		-		70-130	-		
2-Butanone	100		-		70-130	-		
cis-1,2-Dichloroethene	111		-		70-130	-		

Lab Control Sample Analysis
Batch Quality Control

Project Name: FORMER PENETREX PROCESSING
Project Number: PEN2301

Lab Number: L2314229
Report Date: 03/30/23

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01-07 Batch: WG1760414-3								
Ethyl Acetate	101		-		70-130	-		
Chloroform	105		-		70-130	-		
Tetrahydrofuran	100		-		70-130	-		
1,2-Dichloroethane	104		-		70-130	-		
n-Hexane	99		-		70-130	-		
1,1,1-Trichloroethane	102		-		70-130	-		
Benzene	94		-		70-130	-		
Carbon tetrachloride	104		-		70-130	-		
Cyclohexane	99		-		70-130	-		
1,2-Dichloropropane	106		-		70-130	-		
Bromodichloromethane	99		-		70-130	-		
1,4-Dioxane	96		-		70-130	-		
Trichloroethene	101		-		70-130	-		
2,2,4-Trimethylpentane	102		-		70-130	-		
Heptane	109		-		70-130	-		
cis-1,3-Dichloropropene	103		-		70-130	-		
4-Methyl-2-pentanone	104		-		70-130	-		
trans-1,3-Dichloropropene	86		-		70-130	-		
1,1,2-Trichloroethane	105		-		70-130	-		
Toluene	99		-		70-130	-		
2-Hexanone	101		-		70-130	-		
Dibromochloromethane	105		-		70-130	-		
1,2-Dibromoethane	105		-		70-130	-		

Lab Control Sample Analysis

Batch Quality Control

Project Name: FORMER PENETREX PROCESSING

Project Number: PEN2301

Lab Number: L2314229

Report Date: 03/30/23

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01-07 Batch: WG1760414-3								
Tetrachloroethene	100		-		70-130	-		
Chlorobenzene	102		-		70-130	-		
Ethylbenzene	114		-		70-130	-		
p/m-Xylene	114		-		70-130	-		
Bromoform	111		-		70-130	-		
Styrene	110		-		70-130	-		
1,1,2,2-Tetrachloroethane	108		-		70-130	-		
o-Xylene	117		-		70-130	-		
4-Ethyltoluene	107		-		70-130	-		
1,3,5-Trimethylbenzene	105		-		70-130	-		
1,2,4-Trimethylbenzene	105		-		70-130	-		
Benzyl chloride	99		-		70-130	-		
1,3-Dichlorobenzene	115		-		70-130	-		
1,4-Dichlorobenzene	118		-		70-130	-		
1,2-Dichlorobenzene	111		-		70-130	-		
1,2,4-Trichlorobenzene	106		-		70-130	-		
Hexachlorobutadiene	106		-		70-130	-		

Lab Control Sample Analysis

Batch Quality Control

Project Name: FORMER PENETREX PROCESSING

Project Number: PEN2301

Lab Number: L2314229

Report Date: 03/30/23

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air by SIM - Mansfield Lab Associated sample(s): 01-05,07 Batch: WG1760416-3								
Vinyl chloride	95		-		70-130	-		25
1,1-Dichloroethene	95		-		70-130	-		25
cis-1,2-Dichloroethene	112		-		70-130	-		25
1,1,1-Trichloroethane	100		-		70-130	-		25
Carbon tetrachloride	97		-		70-130	-		25
Trichloroethene	102		-		70-130	-		25
Tetrachloroethene	105		-		70-130	-		25

Lab Duplicate Analysis
Batch Quality Control

Project Name: FORMER PENETREX PROCESSING
Project Number: PEN2301

Lab Number: L2314229
Report Date: 03/30/23

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01-07 QC Batch ID: WG1760414-5 QC Sample: L2314229-05 Client ID: IA005						
Dichlorodifluoromethane	0.454	0.473	ppbV	4		25
Chloromethane	0.576	0.573	ppbV	1		25
Freon-114	ND	ND	ppbV	NC		25
1,3-Butadiene	ND	ND	ppbV	NC		25
Bromomethane	ND	ND	ppbV	NC		25
Chloroethane	ND	ND	ppbV	NC		25
Ethanol	ND	ND	ppbV	NC		25
Vinyl bromide	ND	ND	ppbV	NC		25
Acetone	2.44	2.45	ppbV	0		25
Trichlorofluoromethane	0.220	0.222	ppbV	1		25
Isopropanol	0.526	0.533	ppbV	1		25
Tertiary butyl Alcohol	ND	ND	ppbV	NC		25
Methylene chloride	ND	ND	ppbV	NC		25
3-Chloropropene	ND	ND	ppbV	NC		25
Carbon disulfide	ND	ND	ppbV	NC		25
Freon-113	ND	ND	ppbV	NC		25
trans-1,2-Dichloroethene	ND	ND	ppbV	NC		25
1,1-Dichloroethane	ND	ND	ppbV	NC		25
Methyl tert butyl ether	ND	ND	ppbV	NC		25
2-Butanone	ND	ND	ppbV	NC		25
Ethyl Acetate	ND	ND	ppbV	NC		25

Lab Duplicate Analysis
Batch Quality Control

Project Name: FORMER PENETREX PROCESSING
Project Number: PEN2301

Lab Number: L2314229
Report Date: 03/30/23

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01-07 QC Batch ID: WG1760414-5 QC Sample: L2314229-05 Client ID: IA005						
Chloroform	ND	ND	ppbV	NC		25
Tetrahydrofuran	ND	ND	ppbV	NC		25
1,2-Dichloroethane	ND	ND	ppbV	NC		25
n-Hexane	ND	0.206	ppbV	NC		25
Benzene	ND	ND	ppbV	NC		25
Cyclohexane	ND	ND	ppbV	NC		25
1,2-Dichloropropane	ND	ND	ppbV	NC		25
Bromodichloromethane	ND	ND	ppbV	NC		25
1,4-Dioxane	ND	ND	ppbV	NC		25
2,2,4-Trimethylpentane	ND	ND	ppbV	NC		25
Heptane	ND	ND	ppbV	NC		25
cis-1,3-Dichloropropene	ND	ND	ppbV	NC		25
4-Methyl-2-pentanone	ND	ND	ppbV	NC		25
trans-1,3-Dichloropropene	ND	ND	ppbV	NC		25
1,1,2-Trichloroethane	ND	ND	ppbV	NC		25
Toluene	0.322	0.340	ppbV	5		25
2-Hexanone	ND	ND	ppbV	NC		25
Dibromochloromethane	ND	ND	ppbV	NC		25
1,2-Dibromoethane	ND	ND	ppbV	NC		25
Chlorobenzene	ND	ND	ppbV	NC		25
Ethylbenzene	ND	ND	ppbV	NC		25

Lab Duplicate Analysis
Batch Quality Control

Project Name: FORMER PENETREX PROCESSING
Project Number: PEN2301

Lab Number: L2314229
Report Date: 03/30/23

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01-07 QC Batch ID: WG1760414-5 QC Sample: L2314229-05 Client ID: IA005						
p/m-Xylene	ND	ND	ppbV	NC		25
Bromoform	ND	ND	ppbV	NC		25
Styrene	ND	ND	ppbV	NC		25
1,1,2,2-Tetrachloroethane	ND	ND	ppbV	NC		25
o-Xylene	ND	ND	ppbV	NC		25
4-Ethyltoluene	ND	ND	ppbV	NC		25
1,3,5-Trimethylbenzene	ND	ND	ppbV	NC		25
1,2,4-Trimethylbenzene	ND	ND	ppbV	NC		25
Benzyl chloride	ND	ND	ppbV	NC		25
1,3-Dichlorobenzene	ND	ND	ppbV	NC		25
1,4-Dichlorobenzene	ND	ND	ppbV	NC		25
1,2-Dichlorobenzene	ND	ND	ppbV	NC		25
1,2,4-Trichlorobenzene	ND	ND	ppbV	NC		25
Hexachlorobutadiene	ND	ND	ppbV	NC		25
Volatile Organics in Air by SIM - Mansfield Lab Associated sample(s): 01-05,07 QC Batch ID: WG1760416-5 QC Sample: L2314229-05 Client ID: IA005						
Vinyl chloride	ND	ND	ppbV	NC		25
1,1-Dichloroethene	ND	ND	ppbV	NC		25
cis-1,2-Dichloroethene	ND	ND	ppbV	NC		25
1,1,1-Trichloroethane	ND	ND	ppbV	NC		25
Carbon tetrachloride	0.062	0.066	ppbV	6		25
Trichloroethene	ND	ND	ppbV	NC		25
Tetrachloroethene	0.276	0.282	ppbV	2		25

Project Name: FORMER PENETREX PROCESSING **Lab Number:** L2314229

Project Number: PEN2301 **Report Date:** 03/30/23

Canister and Flow Controller Information

Samplenum	Client ID	Media ID	Media Type	Date Prepared	Bottle Order	Cleaning Batch ID	Can Leak Check	Initial Pressure (in. Hg)	Pressure on Receipt (in. Hg)	Flow Controler Leak Chk	Flow Out mL/min	Flow In mL/min	% RPD
L2314229-01	IA001	0234	Flow 5	03/13/23	415771		-	-	-	Pass	3.0	2.8	7
L2314229-01	IA001	3372	6.0L Can	03/13/23	415771	L2311656-04	Pass	-29.3	-6.7	-	-	-	-
L2314229-02	IA002	02267	Flow 5	03/13/23	415771		-	-	-	Pass	3.0	3.1	3
L2314229-02	IA002	3565	6.0L Can	03/13/23	415771	L2311656-05	Pass	-29.4	-6.7	-	-	-	-
L2314229-03	IA003	02240	Flow 5	03/13/23	415771		-	-	-	Pass	3.0	2.7	11
L2314229-03	IA003	3382	6.0L Can	03/13/23	415771	L2311656-04	Pass	-29.3	-6.4	-	-	-	-
L2314229-04	IA004	0011	Flow 5	03/13/23	415771		-	-	-	Pass	3.0	2.9	3
L2314229-04	IA004	1866	6.0L Can	03/13/23	415771	L2311656-05	Pass	-29.3	-7.5	-	-	-	-
L2314229-05	IA005	01883	Flow 5	03/13/23	415771		-	-	-	Pass	3.0	3.1	3
L2314229-05	IA005	905	6.0L Can	03/13/23	415771	L2311656-05	Pass	-29.3	-6.5	-	-	-	-
L2314229-06	SV005	01212	Flow 5	03/13/23	415771		-	-	-	Pass	3.0	3.2	6
L2314229-06	SV005	1530	6.0L Can	03/13/23	415771	L2311656-05	Pass	-29.3	-9.0	-	-	-	-
L2314229-07	OA001	0097	Flow 5	03/13/23	415771		-	-	-	Pass	3.0	1.8	50
L2314229-07	OA001	2980	6.0L Can	03/13/23	415771	L2311656-04	Pass	-29.4	-6.7	-	-	-	-

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT
Lab Number: L2311656
Report Date: 03/30/23

Air Canister Certification Results

Lab ID: L2311656-04
Client ID: CAN 1712 SHELF 42
Sample Location:

Date Collected: 03/06/23 18:00
Date Received: 03/07/23
Field Prep: Not Specified

Sample Depth:
Matrix: Air
Anaytical Method: 48,TO-15
Analytical Date: 03/07/23 19:52
Analyst: RAY

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air - Mansfield Lab								
Chlorodifluoromethane	ND	0.200	--	ND	0.707	--		1
Propylene	ND	0.500	--	ND	0.861	--		1
Propane	ND	0.500	--	ND	0.902	--		1
Dichlorodifluoromethane	ND	0.200	--	ND	0.989	--		1
Chloromethane	ND	0.200	--	ND	0.413	--		1
Freon-114	ND	0.200	--	ND	1.40	--		1
Methanol	ND	5.00	--	ND	6.55	--		1
Vinyl chloride	ND	0.200	--	ND	0.511	--		1
1,3-Butadiene	ND	0.200	--	ND	0.442	--		1
Butane	ND	0.200	--	ND	0.475	--		1
Bromomethane	ND	0.200	--	ND	0.777	--		1
Chloroethane	ND	0.200	--	ND	0.528	--		1
Ethanol	ND	5.00	--	ND	9.42	--		1
Dichlorofluoromethane	ND	0.200	--	ND	0.842	--		1
Vinyl bromide	ND	0.200	--	ND	0.874	--		1
Acrolein	ND	0.500	--	ND	1.15	--		1
Acetone	ND	1.00	--	ND	2.38	--		1
Acetonitrile	ND	0.200	--	ND	0.336	--		1
Trichlorofluoromethane	ND	0.200	--	ND	1.12	--		1
Isopropanol	ND	0.500	--	ND	1.23	--		1
Acrylonitrile	ND	0.500	--	ND	1.09	--		1
Pentane	ND	0.200	--	ND	0.590	--		1
Ethyl ether	ND	0.200	--	ND	0.606	--		1
1,1-Dichloroethene	ND	0.200	--	ND	0.793	--		1

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT
Lab Number: L2311656
Report Date: 03/30/23

Air Canister Certification Results

Lab ID: L2311656-04
Client ID: CAN 1712 SHELF 42
Sample Location:

Date Collected: 03/06/23 18:00
Date Received: 03/07/23
Field Prep: Not Specified

Sample Depth:

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab								
Tertiary butyl Alcohol	ND	0.500	--	ND	1.52	--		1
Methylene chloride	ND	0.500	--	ND	1.74	--		1
3-Chloropropene	ND	0.200	--	ND	0.626	--		1
Carbon disulfide	ND	0.200	--	ND	0.623	--		1
Freon-113	ND	0.200	--	ND	1.53	--		1
trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
1,1-Dichloroethane	ND	0.200	--	ND	0.809	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
Vinyl acetate	ND	1.00	--	ND	3.52	--		1
Xylenes, total	ND	0.600	--	ND	0.869	--		1
2-Butanone	ND	0.500	--	ND	1.47	--		1
cis-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
Ethyl Acetate	ND	0.500	--	ND	1.80	--		1
Chloroform	ND	0.200	--	ND	0.977	--		1
Tetrahydrofuran	ND	0.500	--	ND	1.47	--		1
2,2-Dichloropropane	ND	0.200	--	ND	0.924	--		1
1,2-Dichloroethane	ND	0.200	--	ND	0.809	--		1
n-Hexane	ND	0.200	--	ND	0.705	--		1
Diisopropyl ether	ND	0.200	--	ND	0.836	--		1
1,2-Dichloroethene (total)	ND	1.00	--	ND	1.00	--		1
tert-Butyl Ethyl Ether	ND	0.200	--	ND	0.836	--		1
1,1,1-Trichloroethane	ND	0.200	--	ND	1.09	--		1
1,1-Dichloropropene	ND	0.200	--	ND	0.908	--		1
Benzene	ND	0.200	--	ND	0.639	--		1
Carbon tetrachloride	ND	0.200	--	ND	1.26	--		1
Cyclohexane	ND	0.200	--	ND	0.688	--		1
tert-Amyl Methyl Ether	ND	0.200	--	ND	0.836	--		1

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT
Lab Number: L2311656
Report Date: 03/30/23

Air Canister Certification Results

Lab ID: L2311656-04
Client ID: CAN 1712 SHELF 42
Sample Location:

Date Collected: 03/06/23 18:00
Date Received: 03/07/23
Field Prep: Not Specified

Sample Depth:

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab								
Dibromomethane	ND	0.200	--	ND	1.42	--		1
1,2-Dichloropropane	ND	0.200	--	ND	0.924	--		1
Bromodichloromethane	ND	0.200	--	ND	1.34	--		1
1,4-Dioxane	ND	0.200	--	ND	0.721	--		1
Trichloroethene	ND	0.200	--	ND	1.07	--		1
2,2,4-Trimethylpentane	ND	0.200	--	ND	0.934	--		1
Methyl Methacrylate	ND	0.500	--	ND	2.05	--		1
Heptane	ND	0.200	--	ND	0.820	--		1
cis-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
1,1,2-Trichloroethane	ND	0.200	--	ND	1.09	--		1
Toluene	ND	0.200	--	ND	0.754	--		1
1,3-Dichloropropane	ND	0.200	--	ND	0.924	--		1
2-Hexanone	ND	0.200	--	ND	0.820	--		1
Dibromochloromethane	ND	0.200	--	ND	1.70	--		1
1,2-Dibromoethane	ND	0.200	--	ND	1.54	--		1
Butyl acetate	ND	0.500	--	ND	2.38	--		1
Octane	ND	0.200	--	ND	0.934	--		1
Tetrachloroethene	ND	0.200	--	ND	1.36	--		1
1,1,1,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1
Chlorobenzene	ND	0.200	--	ND	0.921	--		1
Ethylbenzene	ND	0.200	--	ND	0.869	--		1
p/m-Xylene	ND	0.400	--	ND	1.74	--		1
Bromoform	ND	0.200	--	ND	2.07	--		1
Styrene	ND	0.200	--	ND	0.852	--		1
1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT
Lab Number: L2311656
Report Date: 03/30/23

Air Canister Certification Results

Lab ID: L2311656-04
Client ID: CAN 1712 SHELF 42
Sample Location:

Date Collected: 03/06/23 18:00
Date Received: 03/07/23
Field Prep: Not Specified

Sample Depth:

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab								
o-Xylene	ND	0.200	--	ND	0.869	--		1
1,2,3-Trichloropropane	ND	0.200	--	ND	1.21	--		1
Nonane	ND	0.200	--	ND	1.05	--		1
Isopropylbenzene	ND	0.200	--	ND	0.983	--		1
Bromobenzene	ND	0.200	--	ND	0.793	--		1
2-Chlorotoluene	ND	0.200	--	ND	1.04	--		1
n-Propylbenzene	ND	0.200	--	ND	0.983	--		1
4-Chlorotoluene	ND	0.200	--	ND	1.04	--		1
4-Ethyltoluene	ND	0.200	--	ND	0.983	--		1
1,3,5-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
tert-Butylbenzene	ND	0.200	--	ND	1.10	--		1
1,2,4-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
Decane	ND	0.200	--	ND	1.16	--		1
Benzyl chloride	ND	0.200	--	ND	1.04	--		1
1,3-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,4-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
sec-Butylbenzene	ND	0.200	--	ND	1.10	--		1
1,2,3-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
p-Isopropyltoluene	ND	0.200	--	ND	1.10	--		1
1,2-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
n-Butylbenzene	ND	0.200	--	ND	1.10	--		1
1,2-Dibromo-3-chloropropane	ND	0.200	--	ND	1.93	--		1
Undecane	ND	0.200	--	ND	1.28	--		1
Dodecane	ND	0.200	--	ND	1.39	--		1
1,2,4-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1
Naphthalene	ND	0.200	--	ND	1.05	--		1
1,2,3-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT
Lab Number: L2311656
Report Date: 03/30/23

Air Canister Certification Results

Lab ID: L2311656-04
Client ID: CAN 1712 SHELF 42
Sample Location:

Date Collected: 03/06/23 18:00
Date Received: 03/07/23
Field Prep: Not Specified

Sample Depth:

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab								
Hexachlorobutadiene	ND	0.200	--	ND	2.13	--		1

	Results	Qualifier	Units	RDL	Dilution Factor
Tentatively Identified Compounds					

No Tentatively Identified Compounds

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	93		60-140
Bromochloromethane	95		60-140
chlorobenzene-d5	93		60-140

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT
Lab Number: L2311656
Report Date: 03/30/23

Air Canister Certification Results

Lab ID: L2311656-04
Client ID: CAN 1712 SHELF 42
Sample Location:

Date Collected: 03/06/23 18:00
Date Received: 03/07/23
Field Prep: Not Specified

Sample Depth:
Matrix: Air
Anaytical Method: 48,TO-15-SIM
Analytical Date: 03/07/23 19:52
Analyst: RAY

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air by SIM - Mansfield Lab								
Dichlorodifluoromethane	ND	0.200	--	ND	0.989	--		1
Chloromethane	ND	0.200	--	ND	0.413	--		1
Freon-114	ND	0.050	--	ND	0.349	--		1
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
1,3-Butadiene	ND	0.020	--	ND	0.044	--		1
Bromomethane	ND	0.020	--	ND	0.078	--		1
Chloroethane	ND	0.100	--	ND	0.264	--		1
Acrolein	ND	0.050	--	ND	0.115	--		1
Acetone	ND	1.00	--	ND	2.38	--		1
Trichlorofluoromethane	ND	0.050	--	ND	0.281	--		1
Acrylonitrile	ND	0.500	--	ND	1.09	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Methylene chloride	ND	0.500	--	ND	1.74	--		1
Freon-113	ND	0.050	--	ND	0.383	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
2-Butanone	ND	0.500	--	ND	1.47	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Chloroform	ND	0.020	--	ND	0.098	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Benzene	ND	0.100	--	ND	0.319	--		1
Carbon tetrachloride	ND	0.020	--	ND	0.126	--		1

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT
Lab Number: L2311656
Report Date: 03/30/23

Air Canister Certification Results

Lab ID: L2311656-04
Client ID: CAN 1712 SHELF 42
Sample Location:

Date Collected: 03/06/23 18:00
Date Received: 03/07/23
Field Prep: Not Specified

Sample Depth:

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
1,2-Dichloropropane	ND	0.020	--	ND	0.092	--		1
Bromodichloromethane	ND	0.020	--	ND	0.134	--		1
1,4-Dioxane	ND	0.100	--	ND	0.360	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
cis-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
1,1,2-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Toluene	ND	0.100	--	ND	0.377	--		1
Dibromochloromethane	ND	0.020	--	ND	0.170	--		1
1,2-Dibromoethane	ND	0.020	--	ND	0.154	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1
1,1,1,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
Chlorobenzene	ND	0.100	--	ND	0.461	--		1
Ethylbenzene	ND	0.020	--	ND	0.087	--		1
p/m-Xylene	ND	0.040	--	ND	0.174	--		1
Bromoform	ND	0.020	--	ND	0.207	--		1
Styrene	ND	0.020	--	ND	0.085	--		1
1,1,2,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
o-Xylene	ND	0.020	--	ND	0.087	--		1
Isopropylbenzene	ND	0.200	--	ND	0.983	--		1
4-Ethyltoluene	ND	0.020	--	ND	0.098	--		1
1,3,5-Trimethybenzene	ND	0.020	--	ND	0.098	--		1
1,2,4-Trimethylbenzene	ND	0.020	--	ND	0.098	--		1
Benzyl chloride	ND	0.100	--	ND	0.518	--		1
1,3-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
1,4-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1

Project Name: BATCH CANISTER CERTIFICATION **Lab Number:** L2311656

Project Number: CANISTER QC BAT **Report Date:** 03/30/23

Air Canister Certification Results

Lab ID: L2311656-04
Client ID: CAN 1712 SHELF 42
Sample Location:

Date Collected: 03/06/23 18:00
Date Received: 03/07/23
Field Prep: Not Specified

Sample Depth:

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
sec-Butylbenzene	ND	0.200	--	ND	1.10	--		1
p-Isopropyltoluene	ND	0.200	--	ND	1.10	--		1
1,2-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
n-Butylbenzene	ND	0.200	--	ND	1.10	--		1
1,2,4-Trichlorobenzene	ND	0.050	--	ND	0.371	--		1
Naphthalene	ND	0.050	--	ND	0.262	--		1
1,2,3-Trichlorobenzene	ND	0.050	--	ND	0.371	--		1
Hexachlorobutadiene	ND	0.050	--	ND	0.533	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	95		60-140
bromochloromethane	98		60-140
chlorobenzene-d5	96		60-140

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT
Lab Number: L2311656
Report Date: 03/30/23

Air Canister Certification Results

Lab ID: L2311656-05
Client ID: CAN 3052 SHELF 43
Sample Location:

Date Collected: 03/06/23 18:00
Date Received: 03/07/23
Field Prep: Not Specified

Sample Depth:
Matrix: Air
Anaytical Method: 48,TO-15
Analytical Date: 03/07/23 20:31
Analyst: RAY

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air - Mansfield Lab								
Chlorodifluoromethane	ND	0.200	--	ND	0.707	--		1
Propylene	ND	0.500	--	ND	0.861	--		1
Propane	ND	0.500	--	ND	0.902	--		1
Dichlorodifluoromethane	ND	0.200	--	ND	0.989	--		1
Chloromethane	ND	0.200	--	ND	0.413	--		1
Freon-114	ND	0.200	--	ND	1.40	--		1
Methanol	ND	5.00	--	ND	6.55	--		1
Vinyl chloride	ND	0.200	--	ND	0.511	--		1
1,3-Butadiene	ND	0.200	--	ND	0.442	--		1
Butane	ND	0.200	--	ND	0.475	--		1
Bromomethane	ND	0.200	--	ND	0.777	--		1
Chloroethane	ND	0.200	--	ND	0.528	--		1
Ethanol	ND	5.00	--	ND	9.42	--		1
Dichlorofluoromethane	ND	0.200	--	ND	0.842	--		1
Vinyl bromide	ND	0.200	--	ND	0.874	--		1
Acrolein	ND	0.500	--	ND	1.15	--		1
Acetone	ND	1.00	--	ND	2.38	--		1
Acetonitrile	ND	0.200	--	ND	0.336	--		1
Trichlorofluoromethane	ND	0.200	--	ND	1.12	--		1
Isopropanol	ND	0.500	--	ND	1.23	--		1
Acrylonitrile	ND	0.500	--	ND	1.09	--		1
Pentane	ND	0.200	--	ND	0.590	--		1
Ethyl ether	ND	0.200	--	ND	0.606	--		1
1,1-Dichloroethene	ND	0.200	--	ND	0.793	--		1

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT
Lab Number: L2311656
Report Date: 03/30/23

Air Canister Certification Results

Lab ID: L2311656-05
Client ID: CAN 3052 SHELF 43
Sample Location:

Date Collected: 03/06/23 18:00
Date Received: 03/07/23
Field Prep: Not Specified

Sample Depth:

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab								
Tertiary butyl Alcohol	ND	0.500	--	ND	1.52	--		1
Methylene chloride	ND	0.500	--	ND	1.74	--		1
3-Chloropropene	ND	0.200	--	ND	0.626	--		1
Carbon disulfide	ND	0.200	--	ND	0.623	--		1
Freon-113	ND	0.200	--	ND	1.53	--		1
trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
1,1-Dichloroethane	ND	0.200	--	ND	0.809	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
Vinyl acetate	ND	1.00	--	ND	3.52	--		1
Xylenes, total	ND	0.600	--	ND	0.869	--		1
2-Butanone	ND	0.500	--	ND	1.47	--		1
cis-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
Ethyl Acetate	ND	0.500	--	ND	1.80	--		1
Chloroform	ND	0.200	--	ND	0.977	--		1
Tetrahydrofuran	ND	0.500	--	ND	1.47	--		1
2,2-Dichloropropane	ND	0.200	--	ND	0.924	--		1
1,2-Dichloroethane	ND	0.200	--	ND	0.809	--		1
n-Hexane	ND	0.200	--	ND	0.705	--		1
Diisopropyl ether	ND	0.200	--	ND	0.836	--		1
1,2-Dichloroethene (total)	ND	1.00	--	ND	1.00	--		1
tert-Butyl Ethyl Ether	ND	0.200	--	ND	0.836	--		1
1,1,1-Trichloroethane	ND	0.200	--	ND	1.09	--		1
1,1-Dichloropropene	ND	0.200	--	ND	0.908	--		1
Benzene	ND	0.200	--	ND	0.639	--		1
Carbon tetrachloride	ND	0.200	--	ND	1.26	--		1
Cyclohexane	ND	0.200	--	ND	0.688	--		1
tert-Amyl Methyl Ether	ND	0.200	--	ND	0.836	--		1

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT
Lab Number: L2311656
Report Date: 03/30/23

Air Canister Certification Results

Lab ID: L2311656-05
Client ID: CAN 3052 SHELF 43
Sample Location:

Date Collected: 03/06/23 18:00
Date Received: 03/07/23
Field Prep: Not Specified

Sample Depth:

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab								
Dibromomethane	ND	0.200	--	ND	1.42	--		1
1,2-Dichloropropane	ND	0.200	--	ND	0.924	--		1
Bromodichloromethane	ND	0.200	--	ND	1.34	--		1
1,4-Dioxane	ND	0.200	--	ND	0.721	--		1
Trichloroethene	ND	0.200	--	ND	1.07	--		1
2,2,4-Trimethylpentane	ND	0.200	--	ND	0.934	--		1
Methyl Methacrylate	ND	0.500	--	ND	2.05	--		1
Heptane	ND	0.200	--	ND	0.820	--		1
cis-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
1,1,2-Trichloroethane	ND	0.200	--	ND	1.09	--		1
Toluene	ND	0.200	--	ND	0.754	--		1
1,3-Dichloropropane	ND	0.200	--	ND	0.924	--		1
2-Hexanone	ND	0.200	--	ND	0.820	--		1
Dibromochloromethane	ND	0.200	--	ND	1.70	--		1
1,2-Dibromoethane	ND	0.200	--	ND	1.54	--		1
Butyl acetate	ND	0.500	--	ND	2.38	--		1
Octane	ND	0.200	--	ND	0.934	--		1
Tetrachloroethene	ND	0.200	--	ND	1.36	--		1
1,1,1,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1
Chlorobenzene	ND	0.200	--	ND	0.921	--		1
Ethylbenzene	ND	0.200	--	ND	0.869	--		1
p/m-Xylene	ND	0.400	--	ND	1.74	--		1
Bromoform	ND	0.200	--	ND	2.07	--		1
Styrene	ND	0.200	--	ND	0.852	--		1
1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT
Lab Number: L2311656
Report Date: 03/30/23

Air Canister Certification Results

Lab ID: L2311656-05
Client ID: CAN 3052 SHELF 43
Sample Location:

Date Collected: 03/06/23 18:00
Date Received: 03/07/23
Field Prep: Not Specified

Sample Depth:

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab								
o-Xylene	ND	0.200	--	ND	0.869	--		1
1,2,3-Trichloropropane	ND	0.200	--	ND	1.21	--		1
Nonane	ND	0.200	--	ND	1.05	--		1
Isopropylbenzene	ND	0.200	--	ND	0.983	--		1
Bromobenzene	ND	0.200	--	ND	0.793	--		1
2-Chlorotoluene	ND	0.200	--	ND	1.04	--		1
n-Propylbenzene	ND	0.200	--	ND	0.983	--		1
4-Chlorotoluene	ND	0.200	--	ND	1.04	--		1
4-Ethyltoluene	ND	0.200	--	ND	0.983	--		1
1,3,5-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
tert-Butylbenzene	ND	0.200	--	ND	1.10	--		1
1,2,4-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
Decane	ND	0.200	--	ND	1.16	--		1
Benzyl chloride	ND	0.200	--	ND	1.04	--		1
1,3-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,4-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
sec-Butylbenzene	ND	0.200	--	ND	1.10	--		1
1,2,3-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
p-Isopropyltoluene	ND	0.200	--	ND	1.10	--		1
1,2-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
n-Butylbenzene	ND	0.200	--	ND	1.10	--		1
1,2-Dibromo-3-chloropropane	ND	0.200	--	ND	1.93	--		1
Undecane	ND	0.200	--	ND	1.28	--		1
Dodecane	ND	0.200	--	ND	1.39	--		1
1,2,4-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1
Naphthalene	ND	0.200	--	ND	1.05	--		1
1,2,3-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT
Lab Number: L2311656
Report Date: 03/30/23

Air Canister Certification Results

Lab ID: L2311656-05
Client ID: CAN 3052 SHELF 43
Sample Location:

Date Collected: 03/06/23 18:00
Date Received: 03/07/23
Field Prep: Not Specified

Sample Depth:

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab								
Hexachlorobutadiene	ND	0.200	--	ND	2.13	--		1

	Results	Qualifier	Units	RDL	Dilution Factor
Tentatively Identified Compounds					

No Tentatively Identified Compounds

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	93		60-140
Bromochloromethane	95		60-140
chlorobenzene-d5	93		60-140

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT
Lab Number: L2311656
Report Date: 03/30/23

Air Canister Certification Results

Lab ID: L2311656-05
Client ID: CAN 3052 SHELF 43
Sample Location:

Date Collected: 03/06/23 18:00
Date Received: 03/07/23
Field Prep: Not Specified

Sample Depth:
Matrix: Air
Anaytical Method: 48,TO-15-SIM
Analytical Date: 03/07/23 20:31
Analyst: RAY

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air by SIM - Mansfield Lab								
Dichlorodifluoromethane	ND	0.200	--	ND	0.989	--		1
Chloromethane	ND	0.200	--	ND	0.413	--		1
Freon-114	ND	0.050	--	ND	0.349	--		1
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
1,3-Butadiene	ND	0.020	--	ND	0.044	--		1
Bromomethane	ND	0.020	--	ND	0.078	--		1
Chloroethane	ND	0.100	--	ND	0.264	--		1
Acrolein	ND	0.050	--	ND	0.115	--		1
Acetone	ND	1.00	--	ND	2.38	--		1
Trichlorofluoromethane	ND	0.050	--	ND	0.281	--		1
Acrylonitrile	ND	0.500	--	ND	1.09	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Methylene chloride	ND	0.500	--	ND	1.74	--		1
Freon-113	ND	0.050	--	ND	0.383	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
2-Butanone	ND	0.500	--	ND	1.47	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Chloroform	ND	0.020	--	ND	0.098	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Benzene	ND	0.100	--	ND	0.319	--		1
Carbon tetrachloride	ND	0.020	--	ND	0.126	--		1

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT
Lab Number: L2311656
Report Date: 03/30/23

Air Canister Certification Results

Lab ID: L2311656-05
Client ID: CAN 3052 SHELF 43
Sample Location:

Date Collected: 03/06/23 18:00
Date Received: 03/07/23
Field Prep: Not Specified

Sample Depth:

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
1,2-Dichloropropane	ND	0.020	--	ND	0.092	--		1
Bromodichloromethane	ND	0.020	--	ND	0.134	--		1
1,4-Dioxane	ND	0.100	--	ND	0.360	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
cis-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
1,1,2-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Toluene	ND	0.100	--	ND	0.377	--		1
Dibromochloromethane	ND	0.020	--	ND	0.170	--		1
1,2-Dibromoethane	ND	0.020	--	ND	0.154	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1
1,1,1,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
Chlorobenzene	ND	0.100	--	ND	0.461	--		1
Ethylbenzene	ND	0.020	--	ND	0.087	--		1
p/m-Xylene	ND	0.040	--	ND	0.174	--		1
Bromoform	ND	0.020	--	ND	0.207	--		1
Styrene	ND	0.020	--	ND	0.085	--		1
1,1,2,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
o-Xylene	ND	0.020	--	ND	0.087	--		1
Isopropylbenzene	ND	0.200	--	ND	0.983	--		1
4-Ethyltoluene	ND	0.020	--	ND	0.098	--		1
1,3,5-Trimethybenzene	ND	0.020	--	ND	0.098	--		1
1,2,4-Trimethylbenzene	ND	0.020	--	ND	0.098	--		1
Benzyl chloride	ND	0.100	--	ND	0.518	--		1
1,3-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
1,4-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT
Lab Number: L2311656
Report Date: 03/30/23

Air Canister Certification Results

Lab ID: L2311656-05
Client ID: CAN 3052 SHELF 43
Sample Location:

Date Collected: 03/06/23 18:00
Date Received: 03/07/23
Field Prep: Not Specified

Sample Depth:

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
sec-Butylbenzene	ND	0.200	--	ND	1.10	--		1
p-Isopropyltoluene	ND	0.200	--	ND	1.10	--		1
1,2-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
n-Butylbenzene	ND	0.200	--	ND	1.10	--		1
1,2,4-Trichlorobenzene	ND	0.050	--	ND	0.371	--		1
Naphthalene	ND	0.050	--	ND	0.262	--		1
1,2,3-Trichlorobenzene	ND	0.050	--	ND	0.371	--		1
Hexachlorobutadiene	ND	0.050	--	ND	0.533	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	96		60-140
bromochloromethane	99		60-140
chlorobenzene-d5	97		60-140

Project Name: FORMER PENETREX PROCESSING
Project Number: PEN2301

Lab Number: L2314229
Report Date: 03/30/23

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Cooler Information

Cooler	Custody Seal
NA	Present/Intact

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L2314229-01A	Canister - 2.7 Liter	NA	NA			Y	Absent		TO15-SIM(30),TO15-LL(30)
L2314229-02A	Canister - 2.7 Liter	NA	NA			Y	Absent		TO15-LL(30),TO15-SIM(30)
L2314229-03A	Canister - 2.7 Liter	NA	NA			Y	Absent		TO15-LL(30),TO15-SIM(30)
L2314229-04A	Canister - 2.7 Liter	NA	NA			Y	Absent		TO15-SIM(30),TO15-LL(30)
L2314229-05A	Canister - 2.7 Liter	NA	NA			Y	Absent		TO15-LL(30),TO15-SIM(30)
L2314229-06A	Canister - 2.7 Liter	NA	NA			Y	Absent		TO15-LL(30)
L2314229-07A	Canister - 2.7 Liter	NA	NA			Y	Absent		TO15-LL(30),TO15-SIM(30)

*Values in parentheses indicate holding time in days

Project Name:	FORMER PENETREX PROCESSING	**Lab Number:**	L2314229
Project Number:	PEN2301	**Report Date:**	03/30/23

GLOSSARY

Acronyms

DL - Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the limit of quantitation (LOQ). The DL includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

EDL - Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).

EMPC - Estimated Maximum Possible Concentration: The concentration that results from the signal present at the retention time of an analyte when the ions meet all of the identification criteria except the ion abundance ratio criteria. An EMPC is a worst-case estimate of the concentration.

EPA - Environmental Protection Agency.

LCS - Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.

LCSD - Laboratory Control Sample Duplicate: Refer to LCS.

LFB - Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.

LOD - Limit of Detection: This value represents the level to which a target analyte can reliably be detected for a specific analyte in a specific matrix by a specific method. The LOD includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

LOQ - Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

MDL - Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

MS - Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available. For Method 332.0, the spike recovery is calculated using the native concentration, including estimated values.

MSD - Matrix Spike Sample Duplicate: Refer to MS.

NA - Not Applicable.

NC - Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.

NDPA/DPA - N-Nitrosodiphenylamine/Diphenylamine.

NI - Not Ignitable.

NP - Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.

NR - No Results: Term is utilized when 'No Target Compounds Requested' is reported for the analysis of Volatile or Semivolatile Organic TIC only requests.

RL - Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

RPD - Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.

SRM - Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.

STLP - Semi-dynamic Tank Leaching Procedure per EPA Method 1315.

TEF - Toxic Equivalency Factors: The values assigned to each dioxin and furan to evaluate their toxicity relative to 2,3,7,8-TCDD.

TEQ - Toxic Equivalent: The measure of a sample's toxicity derived by multiplying each dioxin and furan by its corresponding TEF and then summing the resulting values.

TIC - Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

Report Format: Data Usability Report

Project Name:	FORMER PENETREX PROCESSING	**Lab Number:**	L2314229
Project Number:	PEN2301	**Report Date:**	03/30/23

Footnotes

1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Chlordane: The target compound Chlordane (CAS No. 57-74-9) is reported for GC ECD analyses. Per EPA,this compound "refers to a mixture of chlordane isomers, other chlorinated hydrocarbons and numerous other components." (Reference: USEPA Toxicological Review of Chlordane, In Support of Summary Information on the Integrated Risk Information System (IRIS), December 1997.)

Difference: With respect to Total Oxidizable Precursor (TOP) Assay analysis, the difference is defined as the Post-Treatment value minus the Pre-Treatment value.

Final pH: As it pertains to Sample Receipt & Container Information section of the report, Final pH reflects pH of container determined after adjustment at the laboratory, if applicable. If no adjustment required, value reflects Initial pH.

Frozen Date/Time: With respect to Volatile Organics in soil, Frozen Date/Time reflects the date/time at which associated Reagent Water-preserved vials were initially frozen. Note: If frozen date/time is beyond 48 hours from sample collection, value will be reflected in 'bold'.

Gasoline Range Organics (GRO): Gasoline Range Organics (GRO) results include all chromatographic peaks eluting from Methyl tert butyl ether through Naphthalene, with the exception of GRO analysis in support of State of Ohio programs, which includes all chromatographic peaks eluting from Hexane through Dodecane.

Initial pH: As it pertains to Sample Receipt & Container Information section of the report, Initial pH reflects pH of container determined upon receipt, if applicable.

PAH Total: With respect to Alkylated PAH analyses, the 'PAHs, Total' result is defined as the summation of results for all or a subset of the following compounds: Naphthalene, C1-C4 Naphthalenes, 2-Methylnaphthalene, 1-Methylnaphthalene, Biphenyl, Acenaphthylene, Acenaphthene, Fluorene, C1-C3 Fluorenes, Phenanthrene, C1-C4 Phenanthrenes/Anthracenes, Anthracene, Fluoranthene, Pyrene, C1-C4 Fluoranthenes/Pyrenes, Benz(a)anthracene, Chrysene, C1-C4 Chrysenes, Benzo(b)fluoranthene, Benzo(j)+(k)fluoranthene, Benzo(e)pyrene, Benzo(a)pyrene, Perylene, Indeno(1,2,3-cd)pyrene, Dibenz(ah)+(ac)anthracene, Benzo(g,h,i)perylene. If a 'Total' result is requested, the results of its individual components will also be reported.

PFAS Total: With respect to PFAS analyses, the 'PFAS, Total (5)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA and PFOS. In addition, the 'PFAS, Total (6)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA, PFDA and PFOS. For MassDEP DW compliance analysis only, the 'PFAS, Total (6)' result is defined as the summation of results at or above the RL. Note: If a 'Total' result is requested, the results of its individual components will also be reported.

Total: With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

Data Qualifiers

A - Spectra identified as "Aldol Condensates" are byproducts of the extraction/concentration procedures when acetone is introduced in the process.

B - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).

C - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.

D - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.

E - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.

F - The ratio of quantifier ion response to qualifier ion response falls outside of the laboratory criteria. Results are considered to be an estimated maximum concentration.

G - The concentration may be biased high due to matrix interferences (i.e, co-elution) with non-target compound(s). The result should be considered estimated.

H - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.

I - The lower value for the two columns has been reported due to obvious interference.

J - Estimated value. This represents an estimated concentration for Tentatively Identified Compounds (TICs).

M - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.

Report Format: Data Usability Report

Project Name:	FORMER PENETREX PROCESSING	**Lab Number:**	L2314229
Project Number:	PEN2301	**Report Date:**	03/30/23

Data Qualifiers

ND - Not detected at the reporting limit (RL) for the sample.

NJ - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.

P - The RPD between the results for the two columns exceeds the method-specified criteria.

Q - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)

R - Analytical results are from sample re-analysis.

RE - Analytical results are from sample re-extraction.

S - Analytical results are from modified screening analysis.

V - The surrogate associated with this target analyte has a recovery outside the QC acceptance limits. (Applicable to MassDEP DW Compliance samples only.)

Z - The batch matrix spike and/or duplicate associated with this target analyte has a recovery/RPD outside the QC acceptance limits. (Applicable to MassDEP DW Compliance samples only.)

Report Format: Data Usability Report

REFERENCES

48 Compendium of Methods for the Determination of Toxic Organic Compounds in Ambient Air. Second Edition. EPA/625/R-96/010b, January 1999.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.

Certification Information

The following analytes are not included in our Primary NELAP Scope of Accreditation:

Westborough Facility
EPA 624/624.1: m/p-xylene, o-xylene, Naphthalene
EPA 625/625.1: alpha-Terpineol
EPA 8260C/8260D: NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.
EPA 8270D/8270E: NPW: Dimethylnaphthalene,1,4-Diphenylhydrazine, alpha-Terpineol; SCM: Dimethylnaphthalene,1,4-Diphenylhydrazine.
SM4500: NPW: Amenable Cyanide; SCM: Total Phosphorus, TKN, NO2, NO3.

Mansfield Facility
SM 2540D: TSS
EPA 8082A: NPW: PCB: 1, 5, 31, 87,101, 110, 141, 151, 153, 180, 183, 187.
EPA TO-15: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.
Biological Tissue Matrix: EPA 3050B

The following analytes are included in our Massachusetts DEP Scope of Accreditation

Westborough Facility:

Drinking Water
EPA 300.0: Chloride, Nitrate-N, Fluoride, Sulfate; **EPA 353.2**: Nitrate-N, Nitrite-N; **SM4500NO3-F**: Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE, EPA 180.1, SM2130B, SM4500Cl-D, SM2320B, SM2540C, SM4500H-B, SM4500NO2-B**
EPA 332: Perchlorate; **EPA 524.2:** THMs and VOCs; **EPA 504.1:** EDB, DBCP.
Microbiology: **SM9215B; SM9223-P/A, SM9223B-Colilert-QT,SM9222D**.

Non-Potable Water
SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH: Ammonia-N and Kjeldahl-N, **EPA 350.1**: Ammonia-N, **LACHAT 10-107-06-1-B**: Ammonia-N, **EPA 351.1, SM4500NO3-F, EPA 353.2**: Nitrate-N, **SM4500P-E, SM4500P-B, E, SM4500SO4-E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D, EPA 300: Chloride, Sulfate, Nitrate.**
EPA 624.1: Volatile Halocarbons & Aromatics,
EPA 608.3: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs
EPA 625.1: SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045**: PCB-Oil.
Microbiology: **SM9223B-Colilert-QT; Enterolert-QT, SM9221E, EPA 1600, EPA 1603, SM9222D.**

Mansfield Facility:

Drinking Water
EPA 200.7: Al, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Na, Ag, Ca, Zn. **EPA 200.8:** Al, Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn. **EPA 245.1** Hg.
EPA 522, EPA 537.1.

Non-Potable Water
EPA 200.7: Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn.
EPA 200.8: Al, Sb, As, Be, Cd, Cr, Cu, Fe, Pb, Mn, Ni, K, Se, Ag, Na, TL, Zn.
EPA 245.1 Hg.
SM2340B

For a complete listing of analytes and methods, please contact your Alpha Project Manager.

AIR ANALYSIS

CHAIN OF CUSTODY PAGE 1 OF 1

ALPHA ANALYTICAL
320 Forbes Blvd, Mansfield, MA 02048
TEL: 508-822-9300 FAX: 508-822-3288

Date Rec'd in Lab: 3/18/23

ALPHA Job #: L2341229

Client Information
Client: PWGC
Address: 630 Johnson Ave
Bohemia, NY 11716
Phone: 631-589-6353
Fax:
Email: RyanM@pwgrosser.com
☐ These samples have been previously analyzed by Alpha

Project Information
Project Name: Former Penetrex Processing
Project Location: 1 Shore Rd Glenwood Landing, NY
Project #: PEN2301
Project Manager: Ryan Morley
ALPHA Quote #:

Turn-Around Time
☒ Standard ☐ RUSH (only confirmed if pre-approved)
Date Due: Time:

Report Information - Data Deliverables
☐ FAX
☒ ADEx
Criteria Checker:
(Default based on Regulatory Criteria Indicated)
Other Formats:
☐ EMAIL (standard pdf report)
☐ Additional Deliverables:
Report to: (if different than Project Manager)

Billing Information
☒ Same as Client info PO #:

Regulatory Requirements/Report Limits

State/Fed	Program	Res / Comm

Other Project Specific Requirements/Comments: Also email: Kcrosby@pwgrosser.com

Project-Specific Target Compound List: ☐

All Columns Below Must Be Filled Out

ALPHA Lab ID (Lab Use Only)	Sample ID	COLLECTION End Date	Start Time	End Time	Initial Vacuum	Final Vacuum	Sample Matrix*	Sampler's Initials	Can Size	ID Can	ID - Flow Controller	ANALYSIS TO-15	TO-15 SIM	APH Solvent Non-petroleum HCs ☐	Fixed Gases	Sulfides & Mercaptans by TO-15	Sample Comments (i.e. PID)
42229-01	IA001	3-17-23	1000	0904	-30.63	-8.15	AA	KC	6L	3372	0234	X					
-02	IA002		1002	0902	-30.60	-8.07				3565	02267						
-03	IA003		1006	0906	-30.64	-7.07				3382	02240						
-04	IA004		1004	0900	-29.62	-8.24				1866	0011						
-05	IA005		1010	0855	-29.60	-7.36				905	01883						
-06	SV005		1012	0857	-31.08	-9.22	SV			1530	01242						
-07	OA001		1030	0908	-30.70	-8.07	AA			2980	0097						

*SAMPLE MATRIX CODES
AA = Ambient Air (Indoor/Outdoor)
SV = Soil Vapor/Landfill Gas/SVE
Other = Please Specify

Container Type: 6L = CS

Relinquished By:	Date/Time	Received By:	Date/Time:
	3/17/23 1350		3/17/23 1350
	3/17/23 1831		3/17 2100
	3-18-23 0800		3/18/23 0805

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. All samples submitted are subject to Alpha's Terms and Conditions. See reverse side.

Form No: 101-02 Rev: (25-Sep-15)

APPENDIX D

P.W. GROSSER CONSULTING, INC • P.W. GROSSER CONSULTING ENGINEER & HYDROGEOLOGIST, PC
631.589.6353 • WWW.PWGROSSER.COM • PWGC.INFO@PWGROSSER.COM
BOHEMIA • MANHATTAN • SARATOGA SPRINGS • SYRACUSE • SHELTON, CT

Appendix A
NYSDOH Decision Matrix A
SV005/IA005
1 Shore Road, Glenwood Landing, NY

NYSDOH Decision Matrix A Sample Location SV005/IA005			Indoor Air Concentration - TRICHLOROETHENE (TCE) (µg/m³)		
			< 0.2	0.2 to < 1	1 and Above
			ND		
Sub-Slab Concentration - TRICHLOROETHENE (TCE) (ug/m3)	< 6	**ND**	1. No further Action	2. No Further Action	3. IDENTIFY SOURCE(S) and RESAMPLE or MITIGATE
	6 to < 60		4. No Further Action	5. MONITOR	6. MITIGATE
	60 and Above		7. MITIGATE	8. MITIGATE	9. MITIGATE

NYSDOH Decision Matrix A Sample Location SV005/IA005			Indoor Air Concentration - cis-1,2-Dichloroethene (µg/m³)		
			< 0.2	0.2 to < 1	1 and Above
			ND		
Sub-Slab Concentration - cis-1,2-Dichloroethene(ug/m3)	< 6	**ND**	1. No further Action	2. No Further Action	3. IDENTIFY SOURCE(S) and RESAMPLE or MITIGATE
	6 to < 60		4. No Further Action	5. MONITOR	6. MITIGATE
	60 and Above		7. MITIGATE	8. MITIGATE	9. MITIGATE

NYSDOH Decision Matrix A Sample Location SV005/IA005			Indoor Air Concentration - 1,1-Dichloroethene (µg/m³)		
			< 0.2	0.2 to < 1	1 and Above
			ND		
Sub-Slab Concentration - 1,1-Dichloroethene (ug/m3)	< 6	**ND**	1. No further Action	2. No Further Action	3. IDENTIFY SOURCE(S) and RESAMPLE or MITIGATE
	6 to < 60		4. No Further Action	5. MONITOR	6. MITIGATE
	60 and Above		7. MITIGATE	8. MITIGATE	9. MITIGATE

NYSDOH Decision Matrix A Sample Location SV005/IA005			Indoor Air Concentration - Carbon Tetrachloride (µg/m³)		
			< 0.2	0.2 to < 1	1 and Above
				0.39	
Sub-Slab Concentration - Carbon Tetrachloride(ug/m3)	< 6	**ND**	1. No further Action	2. No Further Action	3. IDENTIFY SOURCE(S) and RESAMPLE or MITIGATE
	6 to < 60		4. No Further Action	5. MONITOR	6. MITIGATE
	60 and Above		7. MITIGATE	8. MITIGATE	9. MITIGATE

ND - Analyte not Detected

Appendix D
NYSDOH Decision Matrices B/C
SV005/IA005
1 Shore Road, Glenwood Landing, NY

NYSDOH Decision Matrix B Sample Location SV005/IA005			Indoor Air Concentration - Tetrachloroethene (PCE) (µg/m³)		
			< 3	3 to < 10	10 and Above
			1.87		
Sub-Slab Concentration - Tetrachloroethene (PCE) (ug/m3)	< 100	**1.7**	1. No further Action	2. No Further Action	3. IDENTIFY SOURCE(S) and RESAMPLE or MITIGATE
	100 to < 1,000		4. No Further Action	5. MONITOR	6. MITIGATE
	1,000 and Above		7. MITIGATE	8. MITIGATE	9. MITIGATE

NYSDOH Decision Matrix B Sample Location SV005/IA005			Indoor Air Concentration - 1,1,1-Trichloroethane (µg/m³)		
			< 3	3 to < 10	10 and Above
			ND		
Sub-Slab Concentration - 1,1,1-Trichloroethane (ug/m3)	< 100	**ND**	1. No further Action	2. No Further Action	3. IDENTIFY SOURCE(S) and RESAMPLE or MITIGATE
	100 to < 1,000		4. No Further Action	5. MONITOR	6. MITIGATE
	1,000 and Above		7. MITIGATE	8. MITIGATE	9. MITIGATE

NYSDOH Decision Matrix B Sample Location SV005/IA005			Indoor Air Concentration - Methylene Chloride (µg/m³)		
			< 3	3 to < 10	10 and Above
			ND		
Sub-Slab Concentration - Methylene Chloride (ug/m3)	< 100	**ND**	1. No further Action	2. No Further Action	3. IDENTIFY SOURCE(S) and RESAMPLE or MITIGATE
	100 to < 1,000		4. No Further Action	5. MONITOR	6. MITIGATE
	1,000 and Above		7. MITIGATE	8. MITIGATE	9. MITIGATE

NYSDOH Decision Matrix C Sample Location SV005/IA005			Indoor Air Concentration - Vinyl Chloride (µg/m³)	
			< 0.2	0.2 and Above
			ND	
Sub-Slab Concentration - Vinyl Chloride (ug/m3)	< 6	**ND**	1. No further Action	2. IDENTIFY SOURCE(S) and RESAMPLE or MITIGATE
	6 to < 60		3. MONITOR	4. MITIGATE
	60 and Above		5. MITIGATE	6. MITIGATE

ND - Analyte not Detected

APPENDIX E

P.W. GROSSER CONSULTING, INC • P.W. GROSSER CONSULTING ENGINEER & HYDROGEOLOGIST, PC
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BOHEMIA • MANHATTAN • SARATOGA SPRINGS • SYRACUSE • SHELTON, CT

LABORATORY DATA CONSULTANTS, INC.
2701 Loker Ave. West, Suite 220, Carlsbad, CA 92010 Bus: 760-827-1100 Fax: 760-827-1099

P.W. Grosser Consulting
630 Johnson Ave, Suite 7
Bohemia, NY 11716
ATTN: Mr. Derek Ersbak
dereke@pwgrosser.com

May 9, 2023

SUBJECT: PEN2301 - Data Validation

Dear Mr. Ersbak,

Enclosed are the final validation reports for the fraction listed below. These SDGs were received on April 7, 2023. Attachment 1 is a summary of the samples that were reviewed for each analysis.

LDC Project #56504:

SDG #	Fraction
L2314139 L2314229	Volatiles,

The data validation was performed under Category B guidelines. The analysis was validated using the following documents, as applicable to each method:

- USEPA Region 2 Standard Operating Procedure for Validating Volatile Organic Compounds by Gas Chromatography/Mass Spectrometry, SOP HW-24, Revision 4 (October 2014)
- USEPA Region 2 Analysis of Volatile Organic Compounds in Air Contained Canisters, SOP HW-31, Revision 6 (September 2016)
- USEPA Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review, EPA 540-R-20-005 (November 2020)
- EPA SW 846, Third Edition, Test Methods for Evaluating Solid Waste, update 1, July 1992; update IIA, August 1993; update II, September 1994; update IIB, January 1995; update III, December 1996; update IIIA, April 1998; IIIB, November 2004; update IV, February 2007; update V, July 2014; update VI, July 2018

Please feel free to contact us if you have any questions.

Sincerely,

Pei Geng
pgeng@lab-data.com
Project Manager/Senior Chemist

900 pages-EM Client Selected Samples (5% of data) Attachment 1

Category B

LDC# 56504 (P.W. Grosser Consulting - Bohemia, NY / Penetrex, PEN2301)

LDC	SDG#	DATE REC'D	(3) DATE DUE	VOA (TO-15)		VOA (8260D)																															
Matrix:	Air/Water/Soil			A	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S
A	L2314139	04/07/23	04/28/23	-	-	2	0																														
B	L2314229	04/07/23	04/28/23	1	0	-	-																														
Total	TR/PG			1	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3

Shaded cells indicate Category B validation (all other cells are Category A validation). These sample counts do not include MS, MSD, or DUP's. V:\LOGIN\PW Grosser\Penetrex_PEN2301\56504ST.wpd

Site: PEN2301
Laboratory: Alpha Analytical, Inc., Westborough, MA
Report No.: L2314139
Reviewer: Felomina Tanguilig and Pei Geng/Laboratory Data Consultants for P.W. Grosser Consulting
Date: May 8, 2023

Samples Reviewed and Evaluation Summary

FIELD ID	LAB ID	FRACTIONS VALIDATED
MW-9D	L2314139-10	VOC
DUP001	L2314139-12	VOC

Associated QC Samples(s):
Field/Trip Blanks: TRIP BLANK
Field Duplicate pair: MW-9D and DUP001

The above-listed water sample was collected on March 16, 2023 and was analyzed for volatile organic compounds (VOCs) by SW-846 method 8260D. The data validation was performed in accordance with the USEPA Region 2 *Standard Operating Procedure for Validating Volatile Organic Compounds by Gas Chromatography/Mass Spectrometry,* SOP HW-24, Revision 4 (October 2014) and the USEPA Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review, EPA 540-R-20-005 (November 2020), modified as necessary to accommodate the non-CLP methodologies used.

The organic data were evaluated based on the following parameters:

- Data Completeness
- Holding Times and Sample Preservation
- Gas Chromatography/Mass Spectrometry (GC/MS) Tunes
- Initial and Continuing Calibrations
- Blanks
- Surrogate Recoveries
- Matrix Spike/Matrix Spike Duplicate (MS/MSD) Results
- Laboratory Control Sample (LCS) Results
- Internal Standards
- Field Duplicate Results
- Quantitation Limits and Data Assessment
- Sample Quantitation and Compound Identification

Overall Evaluation of Data and Potential Usability Issues

All results are usable as reported or usable with minor qualification due to laboratory quality control outliers.

The validation findings were based on the following information.

Data Completeness

The data package was complete as defined under the requirements for the NYSDEC ASP category B laboratory deliverables.

Holding Times and Sample Preservation

All criteria were met.

GC/MS Tunes

All criteria were met.

Initial and Continuing Calibrations

Initial calibration:

Compounds that did not meet criteria are summarized in the following tables.

Date	Instrument ID	Compound	RRF (Limits)	Associated Samples		Validation Action
02/08/23	ICAL-MS105	1,4-Dioxane	0.00132 (≥0.005)	MW-9D DUP001	+	UJ nondetects

X = Initial calibration (IC) relative standard deviation (%RSD) > 20; estimate (J/UJ) positive and nondetect results.
XX = Continuing calibration (CC) percent difference (%D) > 20; estimate (J/UJ) positive and nondetect results.
SS = Second source verification percent difference (%D) > 30; estimate (J/UJ) positive and nondetect results.
+ = Response factor (RRF) < validation criteria; estimate (J/UJ) positive and nondetect results.

The 1,4-dioxane results were estimated due to response factor exceedance. The bias cannot be determined. The results can be used for project objectives as nondetects with estimated quantitation limits (UJ) which may have a minor impact on the data usability.

Date	Instrument ID	Compound	ICV %D	Associated Samples		Validation Action
02/08/23	ICV-MS105	Bromomethane	30.8	MW-9D DUP001	SS	UJ nondetects

X = Initial calibration (IC) relative standard deviation (%RSD) > 20; estimate (J/UJ) positive and nondetect results.
XX = Continuing calibration (CC) percent difference (%D) > 20; estimate (J/UJ) positive and nondetect results.
SS = Second source verification percent difference (%D) > 30; estimate (J/UJ) positive and nondetect results.
+ = Response factor (RRF) < validation criteria; estimate (J/UJ) positive and nondetect results.

The bromomethane results were estimated due to second source calibration exceedance. The bias cannot be determined. The results can be used for project objectives as nondetects with estimated quantitation limits (UJ) which may have a minor impact on the data usability.

Continuing calibration:

Compounds that did not meet criteria are summarized in the following tables.

Date	Instrument ID	Compound	CC %D	Associated Samples		Validation Action
03/21/23	CCV-VOA105	Dichlorodifluoromethane	24.2	MW-9D	XX	UJ nondetects
		Bromomethane	21.5	DUP001	XX	UJ nondetects
		Acetone	26.7		XX	UJ nondetects
		2-Butanone	26.3		XX	UJ nondetects
		trans-1,4-Dichloro-2-butene	22.4		XX	UJ nondetects
		1,2-Dibromo-3-chloropropane	28.6		XX	UJ nondetects
		2-Hexanone	25.5		XX	UJ nondetects
		Bromoform	24.3		XX	UJ nondetects

X = Initial calibration (IC) relative standard deviation (%RSD) > 20; estimate (J/UJ) positive and nondetect results.
XX = Continuing calibration (CC) percent difference (%D) > 20; estimate (J/UJ) positive and nondetect results.
SS = Second source verification percent difference (%D) > 30; estimate (J/UJ) positive and nondetect results.
+ = Response factor (RRF) < validation criteria; estimate (J/UJ) positive and nondetect results.

The dichlorodifluoromethane, bromomethane, acetone, 2-butanone, trans-1,4-dichloro-2-butene, 1,2-dibromo-3-chloropropane, 2-hexanone, and bromoform results were estimated due to continuing calibration exceedances. The bias cannot be determined. The results can be used for project objectives as nondetects with estimated quantitation limits (UJ) which may have a minor impact on the data usability.

Date	Instrument ID	Compound	RRF (Limits)	Associated Samples		Validation Action
03/21/23	CCV-VOA105	1,4-Dioxane	0.00122 (≥0.005)	MW-9D DUP001	+	UJ nondetects

X = Initial calibration (IC) relative standard deviation (%RSD) > 20; estimate (J/UJ) positive and nondetect results.
XX = Continuing calibration (CC) percent difference (%D) > 20; estimate (J/UJ) positive and nondetect results.
SS = Second source verification percent difference (%D) > 30; estimate (J/UJ) positive and nondetect results.
+ = Response factor (RRF) < validation criteria; estimate (J/UJ) positive and nondetect results.

The 1,4-dioxane results were estimated due to response factor exceedance. The bias cannot be determined. The results can be used for project objectives as nondetects with estimated quantitation limits (UJ) which may have a minor impact on the data usability.

Blanks

Contamination was not detected in the method blanks.

No positive results were found in the trip blank sample TRIP BLANK for VOC analysis.

Surrogate Recoveries

All criteria were met.

MS/MSD Results

MS/MSD analyses were not associated with this sample set. Validation action was not required on this basis.

LCS Results

All criteria were met.

Internal Standards

All criteria were met.

Field Duplicate Results

Samples MW-9D and DUP001 were submitted as the field duplicate pair with this sample group. The following table summarizes the concentrations.

Compound	Concentration (ug/L)		RPD
	MW-9D	DUP001	
Tetrachloroethene	0.36	0.34	6

Quantitation Limits and Data Assessment

Results were reported which were below the reporting limit (RL) and above the method detection limit (MDL) in the VOC analysis. These results were qualified as estimated (J) by the laboratory.

Dilutions were not required for VOC analysis.

Sample Quantitation and Compound Identification

Calculations were spot-checked; no discrepancies were noted.

DATA VALIDATION QUALIFIERS

U - The analyte was analyzed for, but due to blank contamination was flagged as nondetect (U). The result is usable as a nondetect.

J - Data are flagged (J) when a QC analysis fails outside the primary acceptance limits. The qualified "J" data are not excluded from further review or consideration. However, only one flag (J) is applied to a sample result, even though several associated QC analyses may fail. The 'J' data may be biased high or low or the direction of the bias may be indeterminable.

UJ - The analyte was not detected above the reported sample quantitation limit. Data are flagged (UJ) when a QC analysis fails outside the primary acceptance limits. The qualified "UJ" data are not excluded from further review or consideration. However, only one flag is applied to a sample result, even though several associated QC analyses may fail. The 'UJ' data may be biased low.

JN - The analysis indicates the presence of a compound that has been "tentatively identified" (N) and the associated numerical value represents its approximate (J) concentration.

R - Data rejected (R) on the basis of an unacceptable QC analysis should be excluded from further review or consideration. Data are rejected when associated QC analysis results exceed the expanded control limits of the QC criteria. The rejected data are known to contain significant errors based on documented information. The data user must not use the rejected data to make environmental decisions. The presence or absence of the analyte cannot be verified.

Results Summary
Form 1
Volatile Organics by GC/MS

Client	: P. W. Grosser	Lab Number	: L2314139
Project Name	: FORMER PENETREX PROCESSING	Project Number	: PEN2301
Lab ID	: L2314139-10	Date Collected	: 03/16/23 09:35
Client ID	: MW-9D	Date Received	: 03/17/23
Sample Location	: 1 SHORE RD, GLENWOOD LANDING, NY	Date Analyzed	: 03/21/23 14:42
Sample Matrix	: WATER	Dilution Factor	: 1
Analytical Method	: 1,8260D	Analyst	: LAC
Lab File ID	: V05230321A21	Instrument ID	: VOA105
Sample Amount	: 10 ml	GC Column	: RTX-502.2
Level	: LOW	%Solids	: N/A
Extract Volume (MeOH)	: N/A	Injection Volume	: N/A

CAS NO.	Parameter	ug/L Results	RL	MDL	Qualifier
75-09-2	Methylene chloride	ND	2.5	0.70	U
75-34-3	1,1-Dichloroethane	ND	2.5	0.70	U
67-66-3	Chloroform	ND	2.5	0.70	U
56-23-5	Carbon tetrachloride	ND	0.50	0.13	U
78-87-5	1,2-Dichloropropane	ND	1.0	0.14	U
124-48-1	Dibromochloromethane	ND	0.50	0.15	U
79-00-5	1,1,2-Trichloroethane	ND	1.5	0.50	U
127-18-4	Tetrachloroethene	0.36	0.50	0.18	J
108-90-7	Chlorobenzene	ND	2.5	0.70	U
75-69-4	Trichlorofluoromethane	ND	2.5	0.70	U
107-06-2	1,2-Dichloroethane	ND	0.50	0.13	U
71-55-6	1,1,1-Trichloroethane	ND	2.5	0.70	U
75-27-4	Bromodichloromethane	ND	0.50	0.19	U
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.16	U
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.14	U
542-75-6	1,3-Dichloropropene, Total	ND	0.50	0.14	U
563-58-6	1,1-Dichloropropene	ND	2.5	0.70	U
75-25-2	Bromoform	ND	2.0	0.65	U
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	0.17	U
71-43-2	Benzene	ND	0.50	0.16	U
108-88-3	Toluene	ND	2.5	0.70	U
100-41-4	Ethylbenzene	ND	2.5	0.70	U
74-87-3	Chloromethane	ND	2.5	0.70	U
74-83-9	Bromomethane	ND	2.5	0.70	U
75-01-4	Vinyl chloride	ND	1.0	0.07	U

5/8/23 R

Results Summary
Form 1
Volatile Organics by GC/MS

Client	: P. W. Grosser	Lab Number	: L2314139
Project Name	: FORMER PENETREX PROCESSING	Project Number	: PEN2301
Lab ID	: L2314139-10	Date Collected	: 03/16/23 09:35
Client ID	: MW-9D	Date Received	: 03/17/23
Sample Location	: 1 SHORE RD, GLENWOOD LANDING, NY	Date Analyzed	: 03/21/23 14:42
Sample Matrix	: WATER	Dilution Factor	: 1
Analytical Method	: 1,8260D	Analyst	: LAC
Lab File ID	: V05230321A21	Instrument ID	: VOA105
Sample Amount	: 10 ml	GC Column	: RTX-502.2
Level	: LOW	%Solids	: N/A
Extract Volume (MeOH)	: N/A	Injection Volume	: N/A

CAS NO.	Parameter	ug/L Results	RL	MDL	Qualifier
75-00-3	Chloroethane	ND	2.5	0.70	U
75-35-4	1,1-Dichloroethene	ND	0.50	0.17	U
156-60-5	trans-1,2-Dichloroethene	ND	2.5	0.70	U
79-01-6	Trichloroethene	ND	0.50	0.18	U
95-50-1	1,2-Dichlorobenzene	ND	2.5	0.70	U
541-73-1	1,3-Dichlorobenzene	ND	2.5	0.70	U
106-46-7	1,4-Dichlorobenzene	ND	2.5	0.70	U
1634-04-4	Methyl tert butyl ether	ND	2.5	0.70	U
179601-23-1	p/m-Xylene	ND	2.5	0.70	U
95-47-6	o-Xylene	ND	2.5	0.70	U
1330-20-7	Xylenes, Total	ND	2.5	0.70	U
156-59-2	cis-1,2-Dichloroethene	ND	2.5	0.70	U
540-59-0	1,2-Dichloroethene, Total	ND	2.5	0.70	U
74-95-3	Dibromomethane	ND	5.0	1.0	U
96-18-4	1,2,3-Trichloropropane	ND	2.5	0.70	U
107-13-1	Acrylonitrile	ND	5.0	1.5	U
100-42-5	Styrene	ND	2.5	0.70	U
75-71-8	Dichlorodifluoromethane	ND	5.0	1.0	U
67-64-1	Acetone	ND	5.0	1.5	U
75-15-0	Carbon disulfide	ND	5.0	1.0	U
78-93-3	2-Butanone	ND	5.0	1.9	U
108-05-4	Vinyl acetate	ND	5.0	1.0	U
108-10-1	4-Methyl-2-pentanone	ND	5.0	1.0	U
591-78-6	2-Hexanone	ND	5.0	1.0	U
74-97-5	Bromochloromethane	ND	2.5	0.70	U

5/3/23

Results Summary
Form 1
Volatile Organics by GC/MS

Client	: P. W. Grosser	Lab Number	: L2314139
Project Name	: FORMER PENETREX PROCESSING	Project Number	: PEN2301
Lab ID	: L2314139-10	Date Collected	: 03/16/23 09:35
Client ID	: MW-9D	Date Received	: 03/17/23
Sample Location	: 1 SHORE RD, GLENWOOD LANDING, NY	Date Analyzed	: 03/21/23 14:42
Sample Matrix	: WATER	Dilution Factor	: 1
Analytical Method	: 1,8260D	Analyst	: LAC
Lab File ID	: V05230321A21	Instrument ID	: VOA105
Sample Amount	: 10 ml	GC Column	: RTX-502.2
Level	: LOW	%Solids	: N/A
Extract Volume (MeOH)	: N/A	Injection Volume	: N/A

CAS NO.	Parameter	ug/L Results	RL	MDL	Qualifier
594-20-7	2,2-Dichloropropane	ND	2.5	0.70	U
106-93-4	1,2-Dibromoethane	ND	2.0	0.65	U
142-28-9	1,3-Dichloropropane	ND	2.5	0.70	U
630-20-6	1,1,1,2-Tetrachloroethane	ND	2.5	0.70	U
108-86-1	Bromobenzene	ND	2.5	0.70	U
104-51-8	n-Butylbenzene	ND	2.5	0.70	U
135-98-8	sec-Butylbenzene	ND	2.5	0.70	U
98-06-6	tert-Butylbenzene	ND	2.5	0.70	U
95-49-8	o-Chlorotoluene	ND	2.5	0.70	U
106-43-4	p-Chlorotoluene	ND	2.5	0.70	U
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.5	0.70	U
87-68-3	Hexachlorobutadiene	ND	2.5	0.70	U
98-82-8	Isopropylbenzene	ND	2.5	0.70	U
99-87-6	p-Isopropyltoluene	ND	2.5	0.70	U
91-20-3	Naphthalene	ND	2.5	0.70	U
103-65-1	n-Propylbenzene	ND	2.5	0.70	U
87-61-6	1,2,3-Trichlorobenzene	ND	2.5	0.70	U
120-82-1	1,2,4-Trichlorobenzene	ND	2.5	0.70	U
108-67-8	1,3,5-Trimethylbenzene	ND	2.5	0.70	U
95-63-6	1,2,4-Trimethylbenzene	ND	2.5	0.70	U
123-91-1	1,4-Dioxane	ND	250	61.	U
105-05-5	p-Diethylbenzene	ND	2.0	0.70	U
622-96-8	p-Ethyltoluene	ND	2.0	0.70	U
95-93-2	1,2,4,5-Tetramethylbenzene	ND	2.0	0.54	U
60-29-7	Ethyl ether	ND	2.5	0.70	U

5/8/23 Q

Results Summary
Form 1
Volatile Organics by GC/MS

Client	: P. W. Grosser	Lab Number	: L2314139
Project Name	: FORMER PENETREX PROCESSING	Project Number	: PEN2301
Lab ID	: L2314139-10	Date Collected	: 03/16/23 09:35
Client ID	: MW-9D	Date Received	: 03/17/23
Sample Location	: 1 SHORE RD, GLENWOOD LANDING, NY	Date Analyzed	: 03/21/23 14:42
Sample Matrix	: WATER	Dilution Factor	: 1
Analytical Method	: 1,8260D	Analyst	: LAC
Lab File ID	: V05230321A21	Instrument ID	: VOA105
Sample Amount	: 10 ml	GC Column	: RTX-502.2
Level	: LOW	%Solids	: N/A
Extract Volume (MeOH)	: N/A	Injection Volume	: N/A

		ug/L			
CAS NO.	Parameter	Results	RL	MDL	Qualifier
110-57-6	trans-1,4-Dichloro-2-butene	ND	2.5	0.70	U

4/8/23

Results Summary
Form 1
Volatile Organics by GC/MS

Client	: P. W. Grosser	Lab Number	: L2314139
Project Name	: FORMER PENETREX PROCESSING	Project Number	: PEN2301
Lab ID	: L2314139-12	Date Collected	: 03/16/23 00:00
Client ID	: DUP001	Date Received	: 03/17/23
Sample Location	: 1 SHORE RD, GLENWOOD LANDING, NY	Date Analyzed	: 03/21/23 15:29
Sample Matrix	: WATER	Dilution Factor	: 1
Analytical Method	: 1,8260D	Analyst	: LAC
Lab File ID	: V05230321A23	Instrument ID	: VOA105
Sample Amount	: 10 ml	GC Column	: RTX-502.2
Level	: LOW	%Solids	: N/A
Extract Volume (MeOH)	: N/A	Injection Volume	: N/A

CAS NO.	Parameter	ug/L Results	RL	MDL	Qualifier
75-09-2	Methylene chloride	ND	2.5	0.70	U
75-34-3	1,1-Dichloroethane	ND	2.5	0.70	U
67-66-3	Chloroform	ND	2.5	0.70	U
56-23-5	Carbon tetrachloride	ND	0.50	0.13	U
78-87-5	1,2-Dichloropropane	ND	1.0	0.14	U
124-48-1	Dibromochloromethane	ND	0.50	0.15	U
79-00-5	1,1,2-Trichloroethane	ND	1.5	0.50	U
127-18-4	Tetrachloroethene	0.34	0.50	0.18	J
108-90-7	Chlorobenzene	ND	2.5	0.70	U
75-69-4	Trichlorofluoromethane	ND	2.5	0.70	U
107-06-2	1,2-Dichloroethane	ND	0.50	0.13	U
71-55-6	1,1,1-Trichloroethane	ND	2.5	0.70	U
75-27-4	Bromodichloromethane	ND	0.50	0.19	U
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.16	U
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.14	U
542-75-6	1,3-Dichloropropene, Total	ND	0.50	0.14	U
563-58-6	1,1-Dichloropropene	ND	2.5	0.70	U
75-25-2	Bromoform	ND	2.0	0.65	U
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	0.17	U
71-43-2	Benzene	ND	0.50	0.16	U
108-88-3	Toluene	ND	2.5	0.70	U
100-41-4	Ethylbenzene	ND	2.5	0.70	U
74-87-3	Chloromethane	ND	2.5	0.70	U
74-83-9	Bromomethane	ND	2.5	0.70	U
75-01-4	Vinyl chloride	ND	1.0	0.07	U

5/8/23 Q

Results Summary
Form 1
Volatile Organics by GC/MS

Client	: P. W. Grosser	Lab Number	: L2314139
Project Name	: FORMER PENETREX PROCESSING	Project Number	: PEN2301
Lab ID	: L2314139-12	Date Collected	: 03/16/23 00:00
Client ID	: DUP001	Date Received	: 03/17/23
Sample Location	: 1 SHORE RD, GLENWOOD LANDING, NY	Date Analyzed	: 03/21/23 15:29
Sample Matrix	: WATER	Dilution Factor	: 1
Analytical Method	: 1,8260D	Analyst	: LAC
Lab File ID	: V05230321A23	Instrument ID	: VOA105
Sample Amount	: 10 ml	GC Column	: RTX-502.2
Level	: LOW	%Solids	: N/A
Extract Volume (MeOH)	: N/A	Injection Volume	: N/A

CAS NO.	Parameter	ug/L Results	RL	MDL	Qualifier
75-00-3	Chloroethane	ND	2.5	0.70	U
75-35-4	1,1-Dichloroethene	ND	0.50	0.17	U
156-60-5	trans-1,2-Dichloroethene	ND	2.5	0.70	U
79-01-6	Trichloroethene	ND	0.50	0.18	U
95-50-1	1,2-Dichlorobenzene	ND	2.5	0.70	U
541-73-1	1,3-Dichlorobenzene	ND	2.5	0.70	U
106-46-7	1,4-Dichlorobenzene	ND	2.5	0.70	U
1634-04-4	Methyl tert butyl ether	ND	2.5	0.70	U
179601-23-1	p/m-Xylene	ND	2.5	0.70	U
95-47-6	o-Xylene	ND	2.5	0.70	U
1330-20-7	Xylenes, Total	ND	2.5	0.70	U
156-59-2	cis-1,2-Dichloroethene	ND	2.5	0.70	U
540-59-0	1,2-Dichloroethene, Total	ND	2.5	0.70	U
74-95-3	Dibromomethane	ND	5.0	1.0	U
96-18-4	1,2,3-Trichloropropane	ND	2.5	0.70	U
107-13-1	Acrylonitrile	ND	5.0	1.5	U
100-42-5	Styrene	ND	2.5	0.70	U
75-71-8	Dichlorodifluoromethane	ND	5.0	1.0	U
67-64-1	Acetone	ND	5.0	1.5	U
75-15-0	Carbon disulfide	ND	5.0	1.0	U
78-93-3	2-Butanone	ND	5.0	1.9	U
108-05-4	Vinyl acetate	ND	5.0	1.0	U
108-10-1	4-Methyl-2-pentanone	ND	5.0	1.0	U
591-78-6	2-Hexanone	ND	5.0	1.0	U
74-97-5	Bromochloromethane	ND	2.5	0.70	U

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Results Summary
Form 1
Volatile Organics by GC/MS

Client	: P. W. Grosser	Lab Number	: L2314139
Project Name	: FORMER PENETREX PROCESSING	Project Number	: PEN2301
Lab ID	: L2314139-12	Date Collected	: 03/16/23 00:00
Client ID	: DUP001	Date Received	: 03/17/23
Sample Location	: 1 SHORE RD, GLENWOOD LANDING, NY	Date Analyzed	: 03/21/23 15:29
Sample Matrix	: WATER	Dilution Factor	: 1
Analytical Method	: 1,8260D	Analyst	: LAC
Lab File ID	: V05230321A23	Instrument ID	: VOA105
Sample Amount	: 10 ml	GC Column	: RTX-502.2
Level	: LOW	%Solids	: N/A
Extract Volume (MeOH)	: N/A	Injection Volume	: N/A

CAS NO.	Parameter	ug/L Results	RL	MDL	Qualifier
594-20-7	2,2-Dichloropropane	ND	2.5	0.70	U
106-93-4	1,2-Dibromoethane	ND	2.0	0.65	U
142-28-9	1,3-Dichloropropane	ND	2.5	0.70	U
630-20-6	1,1,1,2-Tetrachloroethane	ND	2.5	0.70	U
108-86-1	Bromobenzene	ND	2.5	0.70	U
104-51-8	n-Butylbenzene	ND	2.5	0.70	U
135-98-8	sec-Butylbenzene	ND	2.5	0.70	U
98-06-6	tert-Butylbenzene	ND	2.5	0.70	U
95-49-8	o-Chlorotoluene	ND	2.5	0.70	U
106-43-4	p-Chlorotoluene	ND	2.5	0.70	U
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.5	0.70	U
87-68-3	Hexachlorobutadiene	ND	2.5	0.70	U
98-82-8	Isopropylbenzene	ND	2.5	0.70	U
99-87-6	p-Isopropyltoluene	ND	2.5	0.70	U
91-20-3	Naphthalene	ND	2.5	0.70	U
103-65-1	n-Propylbenzene	ND	2.5	0.70	U
87-61-6	1,2,3-Trichlorobenzene	ND	2.5	0.70	U
120-82-1	1,2,4-Trichlorobenzene	ND	2.5	0.70	U
108-67-8	1,3,5-Trimethylbenzene	ND	2.5	0.70	U
95-63-6	1,2,4-Trimethylbenzene	ND	2.5	0.70	U
123-91-1	1,4-Dioxane	ND	250	61.	U
105-05-5	p-Diethylbenzene	ND	2.0	0.70	U
622-96-8	p-Ethyltoluene	ND	2.0	0.70	U
95-93-2	1,2,4,5-Tetramethylbenzene	ND	2.0	0.54	U
60-29-7	Ethyl ether	ND	2.5	0.70	U

5/8/23

Results Summary
Form 1
Volatile Organics by GC/MS

Client	: P. W. Grosser	Lab Number	: L2314139
Project Name	: FORMER PENETREX PROCESSING	Project Number	: PEN2301
Lab ID	: L2314139-12	Date Collected	: 03/16/23 00:00
Client ID	: DUP001	Date Received	: 03/17/23
Sample Location	: 1 SHORE RD, GLENWOOD LANDING, NY	Date Analyzed	: 03/21/23 15:29
Sample Matrix	: WATER	Dilution Factor	: 1
Analytical Method	: 1,8260D	Analyst	: LAC
Lab File ID	: V05230321A23	Instrument ID	: VOA105
Sample Amount	: 10 ml	GC Column	: RTX-502.2
Level	: LOW	%Solids	: N/A
Extract Volume (MeOH)	: N/A	Injection Volume	: N/A

		ug/L			
CAS NO.	Parameter	Results	RL	MDL	Qualifier
110-57-6	trans-1,4-Dichloro-2-butene	ND	2.5	0.70	U

5/8/23 Q

LDC #: 56504A1a **VALIDATION COMPLETENESS WORKSHEET** Date: 5/5/23
SDG #: L2314139 Category B Page: 1 of 1
Laboratory: Alpha Analytical, Inc., Westborough, MA Reviewer: FT
2nd Reviewer: [illegible]

METHOD: GC/MS Volatiles (EPA SW-846 Method 8260D)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Sample receipt/Technical holding times	A / A	
II.	GC/MS Instrument performance check	A	
III.	Initial calibration/ICV	SW/SW	%RSD ≤ 20, 1st ICV ≤ 30
IV.	Continuing calibration	SW	CCV ≤ 20
V.	Laboratory Blanks	A	
VI.	Field blanks	ND	TB = TRIP BLANK
VII.	Surrogate spikes	A	
VIII.	Matrix spike/Matrix spike duplicates	N	
IX.	Laboratory control samples	A	LCS 1D
X.	Field duplicates	SW	D = 1,2
XI.	Internal standards	A	
XII.	Target analyte quantitation	A	Results < RL > MDL = J det
XIII.	Target analyte identification	A	
XIV.	Overall assessment of data	A	

Note: A = Acceptable; N = Not provided/applicable; SW = See worksheet; ND = No compounds detected; R = Rinsate; FB = Field blank; D = Duplicate; TB = Trip blank; EB = Equipment blank; SB=Source blank; OTHER:

	Client ID	Lab ID	Matrix	Date
1	MW-9D	L2314139-10	Water	03/16/23
2	DUP001	L2314139-12	Water	03/16/23
3				
4				
5				
6				
7				
8				
9				
10				

Notes:

	WG1757204-5		VOA 105 3/21/23				

LDC #: 56904A1a **VALIDATION FINDINGS CHECKLIST** Page: 1 of 2
Reviewer: FT

Method: Volatiles (EPA SW 846 Method 8260(D))

Validation Area	Yes	No	NA	Findings/Comments
I. Technical holding times				
Were all technical holding times met?	✓			
Was cooler temperature criteria met?	✓			
II. GC/MS Instrument performance check				
Were the BFB performance results reviewed and found to be within the specified criteria?	✓			
Were all samples analyzed within the 12 hour clock criteria?	✓			
IIIa. Initial calibration				
Did the laboratory perform a 5 point calibration prior to sample analysis?	✓			
Were all percent relative standard deviations (%RSD) and relative response factors (RRF) within method criteria for all CCCs and SPCCs?	✓	1		
Was a curve fit used for evaluation? If yes, did the initial calibration meet the curve fit acceptance criteria of ≥ 0.990?		✓		
Were all percent relative standard deviations (%RSD) ≤ ~~30%/15%~~ 20% and relative response factors (RRF) ≥ 0.05?	✓			
IIIb. Initial Calibration Verification				
Was an initial calibration verification standard analyzed after each initial calibration for each instrument?	✓			
Were all percent differences (%D) ≤ 20%?		✓		
IV. Continuing calibration				
Was a continuing calibration standard analyzed at least once every 12 hours for each instrument?	✓			
Were all percent differences (%D) and relative response factors (RRF) within method criteria for all CCCs and SPCCs?	✓			
Were all percent differences (%D) ≤ 20% and relative response factors (RRF) ≥ 0.05?		✓		
V. Laboratory Blanks				
Was a laboratory blank associated with every sample in this SDG?	✓			
Was a laboratory blank analyzed at least once every 12 hours for each matrix and concentration?	✓			
Was there contamination in the laboratory blanks? If yes, please see the Blanks validation findings worksheet.		✓		
VI. Field blanks				
Were field blanks were identified in this SDG?	✓			
Were target analytes detected in the field blanks?		✓		
VII. Surrogate spikes				
Were all surrogate percent recovery (%R) within QC limits?	✓			
If the percent recovery (%R) for one or more surrogates was out of QC limits, was a reanalysis performed to confirm samples with %R outside of criteria?			✓	

Validation Area	Yes	No	NA	
VIII. Matrix spike/Matrix spike duplicates				
Were matrix spike (MS) and matrix spike duplicate (MSD) analyzed in this SDG?			✓	
Were the MS/MSD percent recoveries (%R) and the relative percent differences (RPD) within the QC limits?			✓	
IX. Laboratory control samples				
Was an LCS analyzed per analytical batch?	✓			
Were the LCS percent recoveries (%R) and relative percent difference (RPD) within the QC limits?	✓			
X. Field duplicates				
Were field duplicate pairs identified in this SDG?	✓			
Were target analytes detected in the field duplicates?	✓			
XI. Internal standards				
Were internal standard area counts within -50% to +100% of the associated calibration standard?	✓			
Were retention times within ± 30 seconds of the associated calibration standard?	✓			
XII. Target analyte quantitation				
Did the laboratory LOQs/RLs meet the QAPP LOQs/RLs?	✓			
Were the correct internal standard (IS), quantitation ion and relative response factor (RRF) used to quantitate the target analyte?	✓			
Were target analyte quantitation and RLs adjusted to reflect all sample dilutions and dry weight factors applicable to level IV validation?	✓			
XIII. Target analyte identification				
Were relative retention times (RRT's) within ± 0.06 RRT units of the standard?	✓			
Did analyte spectra meet specified EPA "Functional Guidelines" criteria?	✓			
Were chromatogram peaks verified and accounted for?	✓			
Were manual integrations reviewed and found acceptable?	✓			
Did the laboratory provide before and after integration printouts?			✓	
XIV. System performance				
System performance was found to be acceptable.	✓			
XV. Overall assessment of data				
Overall assessment of data was found to be acceptable.	✓			

TARGET COMPOUND WORKSHEET

METHOD: VOA

A. Chloromethane	AA. Tetrachloroethene	AAA. 1,3,5-Trimethylbenzene	AAAA. Ethyl tert-butyl ether	A1. 1,3-Butadiene
B. Bromomethane	BB. 1,1,2,2-Tetrachloroethane	BBB. 4-Chlorotoluene	BBBB. tert-Amyl methyl ether	B1. Hexane
C. Vinyl choride	CC. Toluene	CCC. tert-Butylbenzene	CCCC. 1-Chlorohexane	C1. Heptane
D. Chloroethane	DD. Chlorobenzene	DDD. 1,2,4-Trimethylbenzene	DDDD. Isopropyl alcohol	D1. Propylene
E. Methylene chloride	EE. Ethylbenzene	EEE. sec-Butylbenzene	EEEE. Acetonitrile	E1. Freon 11
F. Acetone	FF. Styrene	FFF. 1,3-Dichlorobenzene	FFFF. Acrolein	F1. Freon 12
G. Carbon disulfide	GG. Xylenes, total	GGG. p-Isopropyltoluene	GGGG. Acrylonitrile	G1. Freon 113
H. 1,1-Dichloroethene	HH. Vinyl acetate	HHH. 1,4-Dichlorobenzene	HHHH. 1,4-Dioxane	H1. Freon 114
I. 1,1-Dichloroethane	II. 2-Chloroethylvinyl ether	III. n-Butylbenzene	IIII. Isobutyl alcohol	I1. 2-Nitropropane
J. 1,2-Dichloroethene, total	JJ. Dichlorodifluoromethane	JJJ. 1,2-Dichlorobenzene	JJJJ. Methacrylonitrile	J1. Dimethyl disulfide
K. Chloroform	KK. Trichlorofluoromethane	KKK. 1,2,4-Trichlorobenzene	KKKK. Propionitrile	K1. 2,3-Dimethyl pentane
L. 1,2-Dichloroethane	LL. Methyl-tert-butyl ether	LLL. Hexachlorobutadiene	LLLL. Ethyl ether	L1. 2,4-Dimethyl pentane
M. 2-Butanone	MM. 1,2-Dibromo-3-chloropropane	MMM. Naphthalene	MMMM. Benzyl chloride	M1. 3,3-Dimethyl pentane
N. 1,1,1-Trichloroethane	NN. Methyl ethyl ketone	NNN. 1,2,3-Trichlorobenzene	NNNN. Iodomethane	N1. 2-Methylpentane
O. Carbon tetrachloride	OO. 2,2-Dichloropropane	OOO. 1,3,5-Trichlorobenzene	OOOO.1,1-Difluoroethane	O1. 3-Methylpentane
P. Bromodichloromethane	PP. Bromochloromethane	PPP. trans-1,2-Dichloroethene	PPPP. Tetrahydrofuran	P1. 3-Ethylpentane
Q. 1,2-Dichloropropane	QQ. 1,1-Dichloropropene	QQQ. cis-1,2-Dichloroethene	QQQQ. Methyl acetate	Q1. 2,2-Dimethylpentane
R. cis-1,3-Dichloropropene	RR. Dibromomethane	RRR. m,p-Xylenes	RRRR. Ethyl acetate	R1. 2,2,3- Trimethylbutane
S. Trichloroethene	SS. 1,3-Dichloropropane	SSS. o-Xylene	SSSS. Cyclohexane	S1. 2,2,4-Trimethylpentane
T. Dibromochloromethane	TT. 1,2-Dibromoethane	TTT. 1,1,2-Trichloro-1,2,2-trifluoroethane	TTTT. Methyl cyclohexane	T1. 2-Methylhexane
U. 1,1,2-Trichloroethane	UU. 1,1,1,2-Tetrachloroethane	UUU. 1,2-Dichlorotetrafluoroethane	UUUU. Allyl chloride	U1. Nonanal
V. Benzene	VV. Isopropylbenzene	VVV. 4-Ethyltoluene	VVVV. Methyl methacrylate	V1. 2-Methylnaphthalene
W. trans-1,3-Dichloropropene	WW. Bromobenzene	WWW. Ethanol	WWWW. Ethyl methacrylate	W1. Methanol
X. Bromoform	XX. 1,2,3-Trichloropropane	XXX. Di-isopropyl ether	XXXX. cis-1,4-Dichloro-2-butene	X1. 1,2,3-Trimethylbenzene
Y. 4-Methyl-2-pentanone	YY. n-Propylbenzene	YYY. tert-Butanol	YYYY. trans-1,4-Dichloro-2-butene	Y1. 2-Propanol
Z. 2-Hexanone	ZZ. 2-Chlorotoluene	ZZZ. tert-Butyl alcohol	ZZZZ. Pentachloroethane	Z1.

LDC #: 56904 A1a

VALIDATION FINDINGS WORKSHEET
Initial Calibration

METHOD: GC/MS BNA (EPA SW 846 Method 8270 D)

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

(Y) N N/A Did the laboratory conduct an acceptable 5 point calibration prior to sample analysis?

(Y) N N/A Were percent relative standard deviations (%RSD) and relative response factors (RRF) within method criteria for all CCC's and SPCC's?

(Y) N N/A Was a curve fit used for evaluation? If yes, what was the acceptance criteria used for evaluation?_____

(Y) N N/A Did the initial calibration meet the acceptance criteria?

Y (N) N/A Were all %RSDs and RRFs within the validation criteria of ≤ 15/30% / 15% / 20% and ≥0.05 RRF ?

#	Date	Standard ID	Compound	Finding %RSD (Limit: <)	Finding RRF (Limit: >0.05)	Associated Samples	Qualifications
		ICAL-MS105	HHHH		0.00132 (I 0.005)	All	J/UJ/A ND

LDC #: 56504 A1a

VALIDATION FINDINGS WORKSHEET
Initial Calibration Verification

Reviewer: FT

METHOD: GC/MS VOA (EPA SW 846 Method 8260 D)

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

Y N N/A Was an initial calibration verification standard analyzed after each ICAL for each instrument?

Y N N/A Were all %D within the validation criteria of ~~≤20 %D~~? 30%

#	Date	Standard ID	Compound	Finding %D (Limit: ~~<20.0%~~ 30%)	Associated Samples	Qualifications
	2/8/23 0659	ICV-MS105	B	30.8	A1	J/UJ/A (ND)

LDC #: 56504A1a

VALIDATION FINDINGS WORKSHEET
Continuing Calibration

Page: 1 of 1
Reviewer: FT

METHOD: GC/MS VOA (EPA SW 846 Method 8260 B)

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

Y N N/A Was a continuing calibration standard analyzed at least once every 12 hours for each instrument?
Y N N/A Were percent differences (%D) and relative response factors (RRF) within method criteria for all CCC's and SPCC's ?
Y N N/A Were all %D and RRFs within the validation criteria of ≤20 %D and ≥0.05 RRF ?

#	Date	Standard ID	Compound	Finding %D (Limit: <20.0%)	Finding RRF (Limit: >0.05)	Associated Samples	Qualifications
	3/21/03 0721	CCV-VOA105	JJ	24.2		All	J/UJ/A and ND
			B	21.5			
			F	26.7			
			M	26.3			
			YYYY	22.4			
			MM	28.6			
			HHHH		0.00122 (≥0.005)		
			Z	25.5			
			X	24.3			

CONCAL.wpd

LDC #: 56904A1a

VALIDATION FINDINGS WORKSHEET
Field Duplicates

METHOD: GCMS VOA (EPA Method 8260 D)

Y N N/A Were field duplicate pairs identified in this SDG?
Y N N/A Were target compounds detected in the field duplicate pairs?

Compound	Concentration (ug/L)		RPD (≤ %)	QUAL
	1	2		
AA	0.36	0.34	6	

Compound	Concentration ( )		RPD (≤ %)	QUAL

Compound	Concentration ( )		RPD (≤ %)	QUAL

Compound	Concentration ( )		RPD (≤ %)	QUAL

LDC #: 56504A1a

VALIDATION FINDINGS WORKSHEET
Initial Calibration Calculation Verification

METHOD: GC/MS VOA (EPA SW 846 Method 8260 D)

The Relative Response Factor (RRF), average RRF, and percent relative standard deviation (%RSD) were recalculated for the analytes identified below using the following calculations:

$RRF = (A_x)(C_{is})/(A_{is})(C_x)$
average RRF = sum of the RRFs/number of standards
%RSD = 100 * (S/X)

A_x = Area of compound,
C_x = Concentration of compound,
S = Standard deviation of the RRFs
X = Mean of the RRFs

A_{is} = Area of associated internal standard
C_{is} = Concentration of internal standard

#	Standard ID	Calibration Date	Compound (Reference Internal Standard)	Reported RRF (10 std)	Recalc RRF (10 std)	Reported Average RRF (initial)	Recalc Average RRF (initial)	Reported %RSD	Recalc %RSD
1	ICAL VOA105	02/08/23	C (1st internal standard)	0.246	0.246	0.247	0.247	10.49	10.49
			AA (2nd internal standard)	0.351	0.351	0.358	0.358	8.28	8.28
			BB (3rd internal standard)	0.442	0.442	0.485	0.485	6.50	6.50
			(4th internal standard)						
2			(1st internal standard)						
			(2nd internal standard)						
			(3rd internal standard)						
			(4th internal standard)						
3			(1st internal standard)						
			(2nd internal standard)						
			(3rd internal standard)						
			(4th internal standard)						
4			(1st internal standard)						
			(2nd internal standard)						
			(3rd internal standard)						
			(4th internal standard)						

Comments: Refer to Initial Calibration findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 56504A1a

VALIDATION FINDINGS WORKSHEET
Surrogate Results Verification

Reviewer: FT
2nd reviewer: ____

METHOD: GC/MS VOA (EPA SW 846 Method 8260~~B~~ D)

The percent recoveries (%R) of surrogates were recalculated for the analytes identified below using the following calculation:

% Recovery: SF/SS * 100

Where: SF = Surrogate Found
SS = Surrogate Spiked

Sample ID: #1

	Surrogate Spiked	Surrogate Found	Percent Recovery Reported	Percent Recovery Recalculated	Percent Difference
Dibromofluoromethane	10.0	10.320	FT ~~104~~ 103	103	0
1,2-Dichloroethane-d4	↓	10.408	104	104	↓
Toluene-d8		9.816	98	98	
Bromofluorobenzene		9.312	93	93	

Sample ID: ____

	Surrogate Spiked	Surrogate Found	Percent Recovery Reported	Percent Recovery Recalculated	Percent Difference
Dibromofluoromethane					
1,2-Dichloroethane-d4					
Toluene-d8					
Bromofluorobenzene					

Sample ID: ____

	Surrogate Spiked	Surrogate Found	Percent Recovery Reported	Percent Recovery Recalculated	Percent Difference
Dibromofluoromethane					
1,2-Dichloroethane-d4					
Toluene-d8					
Bromofluorobenzene					

Sample ID: ____

	Surrogate Spiked	Surrogate Found	Percent Recovery Reported	Percent Recovery Recalculated	Percent Difference
Dibromofluoromethane					
1,2-Dichloroethane-d4					
Toluene-d8					
Bromofluorobenzene					

Sample ID: ____

	Surrogate Spiked	Surrogate Found	Percent Recovery Reported	Percent Recovery Recalculated	Percent Difference
Dibromofluoromethane					
1,2-Dichloroethane-d4					
Toluene-d8					
Bromofluorobenzene					

LDC #: 56504 A1a

VALIDATION FINDINGS WORKSHEET
Laboratory Control Sample Results Verification

Reviewer: FT

METHOD: GC/MS VOA (EPA Method 8260 D)

The percent recoveries (%R) and Relative Percent Difference (RPD) of the laboratoy control sample and laboratory control sample duplicate (if applicable) were recalculated for the analytes identified below using the following calculation:

% Recovery = 100 * SSC/SA Where: SSC = Spiked sample concentration; SA = Spike added

RPD = | LCSC - LCSDC | * 2/(LCSC + LCSDC) LCSC = Laboraotry control sample concentration LCSDC = Laboratory control sample duplicate concentration

LCS ID: WG175720 4-LCS

Compound	Spike Added (ug/L)		Spiked Sample Concentration (ug/L)		LCS Percent Recovery		LCSD Percent Recovery		LCS/LCSD RPD	
	LCS	LCSD	LCS	LCSD	Reported	Recalc.	Reported	Recalc.	Reported	Recalculated
1,1-Dichloroethene	10	10	11	11	110	110	110	110	0	0
Trichloroethene	↓	↓	10	9.9	100	100	99	99	1	1
Benzene	↓	↓	10	9.8	100	100	98	98	2	2
Toluene	↓	↓	9.9	10	99	99	100	100	1	1
Chlorobenzene	↓	↓	9.8	9.9	98	98	99	99	1	1

Comments: Refer to Laboratory Control Sample findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 56504A1a

VALIDATION FINDINGS WORKSHEET
Sample Calculation Verification

METHOD: GC/MS VOA (EPA SW 846 Method 8260 D)

Y N N/A Were all reported results recalculated and verified for all level IV samples?

Y N N/A Were all recalculated results for detected target analytes agree within 10.0% of the reported results?

Concentration = $\frac{(A_x)(I_s)(DF)}{(A_{is})(RRF)(V_o)(\%S)}$

A_x	=	Area of the characteristic ion (EICP) for the compound to be measured
A_{is}	=	Area of the characteristic ion (EICP) for the specific internal standard
I_s	=	Amount of internal standard added in nanograms (ng)
RRF	=	Relative response factor of the calibration standard.
V_o	=	Volume or weight of sample pruged in milliliters (ml) or grams (g).
Df	=	Dilution factor.
%S	=	Percent solids, applicable to soils and solid matrices only.

Example:

Sample I.D. #2, ΔΔ

Conc. = $\frac{(3982)(10.0)}{(322233)(0.358)}$

= 0.345 ug/L

#	Sample ID	Compound	Reported Concentration (ug/L)	Calculated Concentration (ug/L)	Qualification
	#2	ΔΔ	0.34	0.345	

Site: PEN2301
Laboratory: Alpha Analytical Inc., Westborough, MA
Report No.: L2314229
Reviewer: Felomina Tanguilig and Pei Geng/Laboratory Data Consultants for P.W. Grosser Consulting
Date: May 8, 2023

Samples Reviewed and Evaluation Summary

FIELD ID	LAB ID	FRACTIONS VALIDATED
SV005	L2314229-06	VOC

Associated QC Samples(s):
Field/Trip Blanks: None Associated
Field Duplicate pair: None Associated

The above-listed air sample was collected on March 17, 2023 and was analyzed for volatile organic compounds (VOC) by method TO-15. The data validation was performed in accordance with the USEPA Region 2 *Analysis of Volatile Organic Compounds in Air Contained Canisters*, SOP HW-31, Revision 6 (September 2016) and the USEPA *Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review*, EPA 540-R-20-005 (November 2020), modified as necessary to accommodate the non-CLP methodologies used.

The organic data were evaluated based on the following parameters:

- Data Completeness
- Holding Times and Sample Preservation
- Gas Chromatography/Mass Spectrometry (GC/MS) Tunes
- Initial and Continuing Calibrations
- Blanks
- Laboratory Duplicate Results
- Laboratory Control Sample (LCS) Results
- Internal Standards
- Field Duplicate Results
- Quantitation Limits and Data Assessment
- Sample Quantitation and Compound Identification

Overall Evaluation of Data and Potential Usability Issues

All results are usable as reported or usable with minor qualification due to laboratory quality control outliers.

The validation findings were based on the following information.

Data Completeness

The data package was complete as defined under the requirements for the NYSDEC ASP category B laboratory deliverables.

Holding Times and Sample Preservation

All criteria were met.

GC/MS Tunes

All criteria were met.

Initial and Continuing Calibrations

All criteria were met.

Blanks

Contamination was not detected in the method blanks.

All canisters were cleaned as required by the method. The laboratory indicated that canister certification was performed by batch. No volatile contaminants were found in the representative canister blank.

A field blank was not associated with this sample set. Validation action was not required on this basis.

Laboratory Duplicate Results

Laboratory duplicates were not associated with this sample set. Validation action was not required on this basis.

LCS Results

All criteria were met.

Internal Standards

All criteria were met.

Field Duplicate Results

A field duplicate pair was not associated with this sample set. Validation action was not required on this basis.

Quantitation Limits and Data Assessment

No results were reported which were below the reporting limit (RL) and above the method detection limit (MDL) in the VOC analysis.

Dilutions were not required for VOC analysis.

Sample Quantitation and Compound Identification

Calculations were spot-checked; no discrepancies were noted.

DATA VALIDATION QUALIFIERS

U - The analyte was analyzed for, but due to blank contamination was flagged as nondetect (U). The result is usable as a nondetect.

J - Data are flagged (J) when a QC analysis fails outside the primary acceptance limits. The qualified "J" data are not excluded from further review or consideration. However, only one flag (J) is applied to a sample result, even though several associated QC analyses may fail. The 'J' data may be biased high or low or the direction of the bias may be indeterminable.

UJ - The analyte was not detected above the reported sample quantitation limit. Data are flagged (UJ) when a QC analysis fails outside the primary acceptance limits. The qualified "UJ" data are not excluded from further review or consideration. However, only one flag is applied to a sample result, even though several associated QC analyses may fail. The 'UJ' data may be biased low.

JN - The analysis indicates the presence of a compound that has been "tentatively identified" (N) and the associated numerical value represents its approximate (J) concentration.

R - Data rejected (R) on the basis of an unacceptable QC analysis should be excluded from further review or consideration. Data are rejected when associated QC analysis results exceed the expanded control limits of the QC criteria. The rejected data are known to contain significant errors based on documented information. The data user must not use the rejected data to make environmental decisions. The presence or absence of the analyte cannot be verified.

Results Summary
Form 1
Volatile Organics in Air

Client	: P. W. Grosser	Lab Number	: L2314229
Project Name	: FORMER PENETREX PROCESSING	Project Number	: PEN2301
Lab ID	: L2314229-06	Date Collected	: 03/17/23 08:57
Client ID	: SV005	Date Received	: 03/17/23
Sample Location	: 1 SHORE RD GLENWOOD LANDING, NY	Date Analyzed	: 03/30/23 05:38
Sample Matrix	: SOIL_VAPOR	Dilution Factor	: 1
Analytical Method	: 48,TO-15	Analyst	: RAY
Lab File ID	: R1732571	Instrument ID	: AIRLAB17
Sample Amount	: 250 ml	GC Column	: RTX-1

		ppbV			ug/m3			
CAS NO.	Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier
75-71-8	Dichlorodifluoromethane	0.457	0.200	--	2.26	0.989	--	
74-87-3	Chloromethane	1.30	0.200	--	2.68	0.413	--	
76-14-2	Freon-114	ND	0.200	--	ND	1.40	--	U
75-01-4	Vinyl chloride	ND	0.200	--	ND	0.511	--	U
106-99-0	1,3-Butadiene	ND	0.200	--	ND	0.442	--	U
74-83-9	Bromomethane	ND	0.200	--	ND	0.777	--	U
75-00-3	Chloroethane	ND	0.200	--	ND	0.528	--	U
64-17-5	Ethanol	11.5	5.00	--	21.7	9.42	--	
593-60-2	Vinyl bromide	ND	0.200	--	ND	0.874	--	U
67-64-1	Acetone	5.93	1.00	--	14.1	2.38	--	
75-69-4	Trichlorofluoromethane	0.203	0.200	--	1.14	1.12	--	
67-63-0	Isopropanol	16.0	0.500	--	39.3	1.23	--	
75-35-4	1,1-Dichloroethene	ND	0.200	--	ND	0.793	--	U
75-65-0	Tertiary butyl Alcohol	ND	0.500	--	ND	1.52	--	U
75-09-2	Methylene chloride	ND	0.500	--	ND	1.74	--	U
107-05-1	3-Chloropropene	ND	0.200	--	ND	0.626	--	U
75-15-0	Carbon disulfide	ND	0.200	--	ND	0.623	--	U
76-13-1	Freon-113	ND	0.200	--	ND	1.53	--	U
156-60-5	trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--	U
75-34-3	1,1-Dichloroethane	ND	0.200	--	ND	0.809	--	U
1634-04-4	Methyl tert butyl ether	ND	0.200	--	ND	0.721	--	U
78-93-3	2-Butanone	8.64	0.500	--	25.5	1.47	--	
156-59-2	cis-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--	U
141-78-6	Ethyl Acetate	ND	0.500	--	ND	1.80	--	U
67-66-3	Chloroform	ND	0.200	--	ND	0.977	--	U
109-99-9	Tetrahydrofuran	ND	0.500	--	ND	1.47	--	U

5/8/23

Results Summary
Form 1
Volatile Organics in Air

Client	: P. W. Grosser	**Lab Number**	: L2314229
Project Name	: FORMER PENETREX PROCESSING	**Project Number**	: PEN2301
Lab ID	: L2314229-06	**Date Collected**	: 03/17/23 08:57
Client ID	: SV005	**Date Received**	: 03/17/23
Sample Location	: 1 SHORE RD GLENWOOD LANDING, NY	**Date Analyzed**	: 03/30/23 05:38
Sample Matrix	: SOIL_VAPOR	**Dilution Factor**	: 1
Analytical Method	: 48,TO-15	**Analyst**	: RAY
Lab File ID	: R1732571	**Instrument ID**	: AIRLAB17
Sample Amount	: 250 ml	**GC Column**	: RTX-1

CAS NO.	Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	
107-06-2	1,2-Dichloroethane	ND	0.200	--	ND	0.809	--	U	U
110-54-3	n-Hexane	0.389	0.200	--	1.37	0.705	--		
71-55-6	1,1,1-Trichloroethane	ND	0.200	--	ND	1.09	--	U	U
71-43-2	Benzene	0.322	0.200	--	1.03	0.639	--		
56-23-5	Carbon tetrachloride	ND	0.200	--	ND	1.26	--	U	U
110-82-7	Cyclohexane	ND	0.200	--	ND	0.688	--	U	
78-87-5	1,2-Dichloropropane	ND	0.200	--	ND	0.924	--	U	
75-27-4	Bromodichloromethane	ND	0.200	--	ND	1.34	--	U	
123-91-1	1,4-Dioxane	ND	0.200	--	ND	0.721	--	U	
79-01-6	Trichloroethene	ND	0.200	--	ND	1.07	--	U	
540-84-1	2,2,4-Trimethylpentane	ND	0.200	--	ND	0.934	--	U	
142-82-5	Heptane	0.292	0.200	--	1.20	0.820	--		
10061-01-5	cis-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--	U	U
108-10-1	4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--	U	
10061-02-6	trans-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--	U	
79-00-5	1,1,2-Trichloroethane	ND	0.200	--	ND	1.09	--	U	
108-88-3	Toluene	10.3	0.200	--	38.8	0.754	--		
591-78-6	2-Hexanone	1.09	0.200	--	4.47	0.820	--		
124-48-1	Dibromochloromethane	ND	0.200	--	ND	1.70	--	U	U
106-93-4	1,2-Dibromoethane	ND	0.200	--	ND	1.54	--	U	U
127-18-4	Tetrachloroethene	0.251	0.200	--	1.70	1.36	--		
108-90-7	Chlorobenzene	ND	0.200	--	ND	0.921	--	U	U
100-41-4	Ethylbenzene	0.362	0.200	--	1.57	0.869	--		
179601-23-1	p/m-Xylene	1.46	0.400	--	6.34	1.74	--		
75-25-2	Bromoform	ND	0.200	--	ND	2.07	--	U	U
100-42-5	Styrene	ND	0.200	--	ND	0.852	--	U	U

5/8/23 Q

Results Summary
Form 1
Volatile Organics in Air

Client	: P. W. Grosser	Lab Number	: L2314229
Project Name	: FORMER PENETREX PROCESSING	Project Number	: PEN2301
Lab ID	: L2314229-06	Date Collected	: 03/17/23 08:57
Client ID	: SV005	Date Received	: 03/17/23
Sample Location	: 1 SHORE RD GLENWOOD LANDING, NY	Date Analyzed	: 03/30/23 05:38
Sample Matrix	: SOIL_VAPOR	Dilution Factor	: 1
Analytical Method	: 48,TO-15	Analyst	: RAY
Lab File ID	: R1732571	Instrument ID	: AIRLAB17
Sample Amount	: 250 ml	GC Column	: RTX-1

		ppbV			ug/m3			
CAS NO.	Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--	U
95-47-6	o-Xylene	0.477	0.200	--	2.07	0.869	--	
622-96-8	4-Ethyltoluene	ND	0.200	--	ND	0.983	--	U
108-67-8	1,3,5-Trimethylbenzene	ND	0.200	--	ND	0.983	--	U
95-63-6	1,2,4-Trimethylbenzene	ND	0.200	--	ND	0.983	--	U
100-44-7	Benzyl chloride	ND	0.200	--	ND	1.04	--	U
541-73-1	1,3-Dichlorobenzene	ND	0.200	--	ND	1.20	--	U
106-46-7	1,4-Dichlorobenzene	ND	0.200	--	ND	1.20	--	U
95-50-1	1,2-Dichlorobenzene	ND	0.200	--	ND	1.20	--	U
120-82-1	1,2,4-Trichlorobenzene	ND	0.200	--	ND	1.48	--	U
87-68-3	Hexachlorobutadiene	ND	0.200	--	ND	2.13	--	U

LDC #: 56504B48a **VALIDATION COMPLETENESS WORKSHEET** Date: 5/5/23
SDG #: L2314229 Category B Page: 1 of 1
Laboratory: Alpha Analytical, Inc., Westborough, MA Reviewer:
2nd Reviewer:

METHOD: GC/MS Volatiles (EPA Method TO-15)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Sample receipt/Technical holding times	A/A	
II.	GC/MS Instrument performance check	A	
III.	Initial calibration/ICV	A/A	%D RSD / ICV ≤ 30
IV.	Continuing calibration	A	CCV ≤ 30
V.	Laboratory Blanks	A	batch
VI.	Field blanks	N	
VII.	Surrogate spikes	N	
VIII.	Duplicate sample analysis	A	1A005 DUP
IX.	Laboratory control samples	A	LCS
X.	Field duplicates	N	
XI.	Internal standards	A	
XII.	Target analyte quantitation	A	
XIII.	Target analyte identification	A	
XIV.	Leak Check Compounds	N	
XV.	Overall assessment of data	A	

Note: A = Acceptable; N = Not provided/applicable; SW = See worksheet; ND = No compounds detected; R = Rinsate; FB = Field blank; D = Duplicate; TB = Trip blank; EB = Equipment blank; SB=Source blank; OTHER:

	Client ID	Lab ID	Matrix	Date
1	SV005	L2314229-06	Air	03/17/23
2				
3				
4				
5				
6				
7				
8				
9				

Notes:

	WG1760414-4		3/30	17			

Method: Volatiles (EPA Method TO-15)

Validation Area	Yes	No	NA	Findings/Comments
I. Technical holding times				
Were all technical holding times met?	✓			
Was canister pressure criteria met?	✓			
II. GC/MS Instrument performance check				
Were the BFB performance results reviewed and found to be within the specified criteria?	✓			
Were all samples analyzed within the 24 hour clock criteria?	✓			
IIIa. Initial calibration				
Did the laboratory perform a 5 point calibration prior to sample analysis?	✓			
Were all percent relative standard deviations (%RSD) ≤ 30%?	✓			
IIIb. Initial calibration verification				
Was an initial calibration verification standard analyzed after every ICAL for each instrument?	✓			
Were all percent differences (%D) ≤ 30%?	✓			
IV. Continuing calibration				
Was a continuing calibration standard analyzed at least once every 24 hours for each instrument?	✓			
Were all percent differences (%D) ≤ 30%?	✓			
V. Laboratory Blanks/Canister Blanks				
Was a laboratory blank associated with every sample in this SDG?	✓			
Was a laboratory blank analyzed at least once every 24 hours for each matrix and concentration?	✓			
Was there contamination in the laboratory blanks?		✓		
Was a canister blank analyzed for every canister?	✓			
Was there contamination in the canister blanks?		✓		
VI. Field Blanks				
Were field blanks identified in this SDG?		✓	-	
Were target compounds detected in the field blanks?			✓	
VII. Surrogate spikes (Optional)				
Were all surrogate percent recoveries (%R) within QC limits?			✓	
If the percent recovery (%R) for one or more surrogates was out of QC limits, was a reanalysis performed to confirm samples with %R outside of criteria?			✓	
VIII. Laboratory Duplicate				
Was a laboratory duplicate analyzed for this SDG?			✓	
Were the relative percent differences (RPD) within the QC limits?			✓	

Validation Area	Yes	No	NA	Findings/Comments
IX. Laboratory control samples				
Was an LCS analyzed per analytical batch for this SDG?	✓			
Were the LCS percent recoveries (%R) and relative percent difference (RPD) within the QC limits?	✓			
X. Field duplicates				
Were field duplicate pairs identified in this SDG?		✓		
Were target compounds detected in the field duplicates?			✓	
XI. Internal standards				
Were internal standard area counts within ± 40% from the associated calibration standard?	✓			
Were retention times within ± 20.0 seconds from the associated calibration standard?	✓			
XII. Compound quantitation				
Did the laboratory LOQs/RLs meet the QAPP LOQs/RLs?	✓			
Were the correct internal standard (IS), quantitation ion and relative response factor (RRF) used to quantitate the compound?	✓			
Were compound quantitation and RLs adjusted to reflect all sample dilutions applicable to level IV validation?	✓			
XIII. Target compound identification				
Were relative retention times (RRT's) within ± 0.06 RRT units of the standard?	✓			
Did compound spectra meet specified EPA "Functional Guidelines" criteria?	✓			
Were chromatogram peaks verified and accounted for?	✓		✓	
XIV. System performance				
System performance was found to be acceptable.	✓			
XV. Leak check compounds				
Was a leak check compound used to evaluate sample integrity and included in the laboratory analyte list?			✓	
Was the leak check compound detected in the samples? If yes, please see leak check validation findings worksheet.			✓	
XV. Overall assessment of data				
Overall assessment of data was found to be acceptable.	✓			

TARGET COMPOUND WORKSHEET

METHOD: VOA

A. Chloromethane	AA. Tetrachloroethene	AAA. 1,3,5-Trimethylbenzene	AAAA. Ethyl tert-butyl ether	A1. 1,3-Butadiene
B. Bromomethane	BB. 1,1,2,2-Tetrachloroethane	BBB. 4-Chlorotoluene	BBBB. tert-Amyl methyl ether	B1. Hexane
C. Vinyl choride	CC. Toluene	CCC. tert-Butylbenzene	CCCC. 1-Chlorohexane	C1. Heptane
D. Chloroethane	DD. Chlorobenzene	DDD. 1,2,4-Trimethylbenzene	DDDD. Isopropyl alcohol	D1. Propylene
E. Methylene chloride	EE. Ethylbenzene	EEE. sec-Butylbenzene	EEEE. Acetonitrile	E1. Freon 11
F. Acetone	FF. Styrene	FFF. 1,3-Dichlorobenzene	FFFF. Acrolein	F1. Freon 12
G. Carbon disulfide	GG. Xylenes, total	GGG. p-Isopropyltoluene	GGGG. Acrylonitrile	G1. Freon 113
H. 1,1-Dichloroethene	HH. Vinyl acetate	HHH. 1,4-Dichlorobenzene	HHHH. 1,4-Dioxane	H1. Freon 114
I. 1,1-Dichloroethane	II. 2-Chloroethylvinyl ether	III. n-Butylbenzene	IIII. Isobutyl alcohol	I1. 2-Nitropropane
J. 1,2-Dichloroethene, total	JJ. Dichlorodifluoromethane	JJJ. 1,2-Dichlorobenzene	JJJJ. Methacrylonitrile	J1. Dimethyl disulfide
K. Chloroform	KK. Trichlorofluoromethane	KKK. 1,2,4-Trichlorobenzene	KKKK. Propionitrile	K1. 2,3-Dimethyl pentane
L. 1,2-Dichloroethane	LL. Methyl-tert-butyl ether	LLL. Hexachlorobutadiene	LLLL. Ethyl ether	L1. 2,4-Dimethyl pentane
M. 2-Butanone	MM. 1,2-Dibromo-3-chloropropane	MMM. Naphthalene	MMMM. Benzyl chloride	M1. 3,3-Dimethyl pentane
N. 1,1,1-Trichloroethane	NN. Methyl ethyl ketone	NNN. 1,2,3-Trichlorobenzene	NNNN. Iodomethane	N1. 2-Methylpentane
O. Carbon tetrachloride	OO. 2,2-Dichloropropane	OOO. 1,3,5-Trichlorobenzene	OOOO.1,1-Difluoroethane	O1. 3-Methylpentane
P. Bromodichloromethane	PP. Bromochloromethane	PPP. trans-1,2-Dichloroethene	PPPP. Tetrahydrofuran	P1. 3-Ethylpentane
Q. 1,2-Dichloropropane	QQ. 1,1-Dichloropropene	QQQ. cis-1,2-Dichloroethene	QQQQ. Methyl acetate	Q1. 2,2-Dimethylpentane
R. cis-1,3-Dichloropropene	RR. Dibromomethane	RRR. m,p-Xylenes	RRRR. Ethyl acetate	R1. 2,2,3- Trimethylbutane
S. Trichloroethene	SS. 1,3-Dichloropropane	SSS. o-Xylene	SSSS. Cyclohexane	S1. 2,2,4-Trimethylpentane
T. Dibromochloromethane	TT. 1,2-Dibromoethane	TTT. 1,1,2-Trichloro-1,2,2-trifluoroethane	TTTT. Methyl cyclohexane	T1. 2-Methylhexane
U. 1,1,2-Trichloroethane	UU. 1,1,1,2-Tetrachloroethane	UUU. 1,2-Dichlorotetrafluoroethane	UUUU. Allyl chloride	U1. Nonanal
V. Benzene	VV. Isopropylbenzene	VVV. 4-Ethyltoluene	VVVV. Methyl methacrylate	V1. 2-Methylnaphthalene
W. trans-1,3-Dichloropropene	WW. Bromobenzene	WWW. Ethanol	WWWW. Ethyl methacrylate	W1. Methanol
X. Bromoform	XX. 1,2,3-Trichloropropane	XXX. Di-isopropyl ether	XXXX. cis-1,4-Dichloro-2-butene	X1. 1,2,3-Trimethylbenzene
Y. 4-Methyl-2-pentanone	YY. n-Propylbenzene	YYY. tert-Butanol	YYYY. trans-1,4-Dichloro-2-butene	Y1. 2-Propanol
Z. 2-Hexanone	ZZ. 2-Chlorotoluene	ZZZ. tert-Butyl alcohol	ZZZZ. Pentachloroethane	Z1.

LDC #: 56504B48a

VALIDATION FINDINGS WORKSHEET
Initial Calibration Calculation Verification

Reviewer: FT

METHOD: GC/MS VOA (EPA Method TO-15)

The Relative Response Factor (RRF), average RRF, and percent relative standard deviation (%RSD) were recalculated for the compounds identified below using the following calculations:

$RRF = (A_x)(C_{is})/(A_{is})(C_x)$
average RRF = sum of the RRFs/number of standards
$\%RSD = 100 * (S/X)$

A_x = Area of compound,
C_x = Concentration of compound,
S = Standard deviation of the RRFs
X = Mean of the RRFs

A_{is} = Area of associated internal standard
C_{is} = Concentration of internal standard

#	Standard ID	Calibration Date	Compound (Reference Internal Standard)	Reported RRF (std) 10	Recalculated RRF (std) 10	Reported Average RRF (initial)	Recalculated Average RRF (initial)	Reported %RSD	Recalculated %RSD
1	ICAL LAB17	1/19/23	Δ	0.357	0.357	0.3752	0.3752	6.37	6.37
			√	0.481	0.481	0.5298	0.5298	15.09	15.09
			CC	4.021	4.021	4.5638	4.5638	16.52	16.52
2									
3									

Comments: Refer to Initial Calibration findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 56504 B4Ba

VALIDATION FINDINGS WORKSHEET
Continuing Calibration Results Verification

METHOD: GC/MS VOA (EPA TO-15)

The percent difference (%D) of the initial calibration average Relative Response Factors (RRFs) and the continuing calibration RRFs were recalculated for the compounds identified below using the following calculation:

% Difference = 100 * (ave. RRF - RRF)/ave. RRF
$RRF = (A_x)(C_{is})/(A_{is})(C_x)$

Where: ave. RRF = initial calibration average RRF
RRF = continuing calibration RRF
A_x = Area of compound, A_{is} = Area of associated internal standard
C_x = Concentration of compound, C_{is} = Concentration of internal standard

#	Standard ID	Calibration Date	Compound (Reference internal Standard)	Average RRF (initial)	Reported RRF (CC)	Recalculated RRF (CC)	Reported %D	Recalculated %D
1	ccv	3/29/23 1304	Δ	0.3752	0.378	a 378	0.8	0.8
			V	0.5298	0.49	0.49	7.5	7.5
			CC	4.5638	4.283	4.283	6.2	6.2
2								
3								

Comments: Refer to Continuing Calibration findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #:_____

VALIDATION FINDINGS WORKSHEET
Laboratory Control Sample Results Verification

METHOD: GC/MS VOA (EPA Method TO-15)

The percent recoveries (%R) and Relative Percent Difference (RPD) of the laboratoy control sample and laboratory control sample duplicate (if applicable) were recalculated for the compounds identified below using the following calculation:

% Recovery = 100 * SSC/SA Where: SSC = Spiked sample concentration
SA = Spike added

RPD = I LCS - LCSD I * 2/(LCS + LCSD) LCS = Laboractry control sample percent recovery LCSD = Laboratory control sample duplicate percent recovery

LCS ID: WG1760414 - LCS

Compound	Spike Added (ppbv)		Spiked Sample Concentration (ppbv)		LCS Percent Recovery		LCSD Percent Recovery		LCS/LCSD RPD	
	LCS	LCSD	LCS	LCSD	Reported	Recalc	Reported	Recalc	Reported	Recalculated
JJ	10.0	NA	9.25	NA	92	92				
A	↓	↓	10.2	↓	102	102				
C			9.16		92	92				
B			9.64		96	96				
D			11.0		110	110				
F			41.8		84	84				

Comments: Refer to Laboratory Control Sample findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 56904B48a

VALIDATION FINDINGS WORKSHEET
Sample Calculation Verification

Reviewer: JT

METHOD: GC/GCMS/HPLC/LCMS

(Y) N N/A Were all reported results recalculated and verified for all level IV samples?

(Y) N N/A Were all recalculated results for detected target compounds agree within 10.0% of the reported results?

Concentration = $\frac{(A_x)(I_s)(V_t)(DF)(2.0)}{(A_{is})(RRF)(V_o)(V_i)(\%S)}$

A_x = Area of the characteristic ion (EICP) for the compound to be measured

A_{is} = Area of the characteristic ion (EICP) for the specific internal standard

I_s = Amount of internal standard added in nanograms (ng)

V_o = Volume or weight of sample extract in milliliters (ml) or grams (g).

V_i = Volume of extract injected in microliters (ul)

V_t = Volume of the concentrated extract in microliters (ul)

Df = Dilution Factor.

%S = Percent solids, applicable to soil and solid matrices only.

2.0 = Factor of 2 to account for GPC cleanup

Example:

Sample I.D. #1, Δ

Conc. = $\frac{11267\ (10.0)}{230141\ (0.3752)}$

=

1.30 ppbV

#	Sample ID	Compound	Reported Concentration ( )	Calculated Concentration ( )	Qualification
	#1	Δ	1.30 ppbV	1.30 ppbV	
			2.68 ug/m3	2.68 ug/m3	
	$\frac{ug}{m^3}$ =	$\frac{(1.30)(50.49)}{24.45}$	= 2.68	ug/m3	

APPENDIX F

P.W. GROSSER CONSULTING, INC • P.W. GROSSER CONSULTING ENGINEER & HYDROGEOLOGIST, PC
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Annual Inspection Checklist

FORMER PENETREX PROCESSING FACILITY

1 SHORE ROAD

GLENWOOD LANDING, NEW YORK

Date/time: March 2, 2023 – 9:00 AM

Inspector (name/organization): Kaitlyn Crosby / P.W. Grosser Consulting, Inc.

Detail the condition of the first-floor concrete slab, make note of any significant penetrations through the concrete slab:

The condition of the slabs are good. No significant penetrations were observed.

Detail the condition of sub-slab depressurization system, including, above grade piping, two blowers, and two pressure alarms:

No damage was observed in the above-grade piping and the two blowers. The pressure readings indicated that the blowers were functioning as intended. The pressure alarms were tested by deactivating the SSDS, at which time the alarms sounded, indicating that the alarms were functioning properly.

Are any repairs and/or maintenance needed at this time? If so, conduct another inspection following repairs.

No repairs are needed at this time. There were no signs of development or ground-intrusive activities having been performed since the implementation of the SMP. Monitoring well MW -3 is destroyed. No damage was observed to the other monitoring wells.

Kaitlyn Crosby		03/02/2023
Name	Signature	Date