
PERIODIC REVIEW REPORT

**OLEAN REDEVELOPMENT PARCEL 2
BCP SITE NO. C905032**

OLEAN, NEW YORK

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Prepared for:

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PERIODIC REVIEW REPORT - 2023

Olean Redevelopment Parcel 2

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1.0 INTRODUCTION

Benchmark Civil/Environmental Engineering & Geology, PLLC (Benchmark) has prepared this Periodic Review Report (PRR) on behalf of Solean West LLC (Solean West) to summarize the post-remedial status of New York State Department of Environmental Conservation (NYSDEC) Brownfield Cleanup Program (BCP) Site No. C905032, located in Olean, Cattaraugus County, New York (see Figure 1), commonly referred to as the Olean Redevelopment Parcel 2 (Site).

This PRR has been prepared for the Site in accordance with NYSDEC DER-10/ Technical Guidance for Site Investigation and Remediation (May 3, 2010). This PRR and the NYSDEC's Institutional and Engineering Controls (IC/EC) Certification Form (see Appendix A) have been completed for the post-remedial activities at the Site for reporting period March 15, 2022 to March 15, 2023.

1.1 Site Background

The Olean Redevelopment Parcel 2 Site is a portion of a larger former refinery operation that operated in the Olean area from the mid-1800s through the 1950s. Separate refineries operated on the Site and were merged in 1902 into the Vacuum Oil Company, and then in 1931 became the Socony-Vacuum Oil Company until 1954 when the refinery closed (see Figure 2). The property was divided into multiple parcels in the 1960s. Felmont Oil Company (Felmont) constructed an anhydrous ammonia plant on the northern parcels where they manufactured ammonia from natural gas. Felmont sold the ammonia to Agway for use in manufacturing fertilizer at Agway's plant located on what is now referred to as Olean Redevelopment Parcel 1. In 1983, Agway purchased the portion of the Felmont site that included the ammonia production plant. Agway dismantled and sold both the ammonia and fertilizer plants in 1984.

The properties adjoining and near the Site include commercial and industrial properties including a vacant former industrial site (Olean Redevelopment Parcel 1) remediated under the BCP and undergoing redevelopment for commercial use to the south; Southern Tier Rail line to the north; a former industrial site (Olean Redevelopment Parcel 3) remediated under the BCP and redeveloped as a commercial solar farm to the east; and a Verizon Service Center to the west.

A Remedial Action Work Plan (RAWP) was prepared and submitted by Olean Gateway, LLC in March 2014 and approved by NYSDEC to address the residual soil and groundwater remediation. The remedial program was successful in achieving the remedial objectives for the Site, and the Site Management Plan (SMP) and Final Engineering Report (FER) were approved by NYSDEC in October 2014 and December 2014. The Certificate of Completion (COC) was received December 14, 2015 and recorded on December 24, 2015.

The Site has been redeveloped as a photovoltaic solar system consisting of nominally 300 solar arrays to in-feed the nearby National Grid commercial electrical system (grid) as described in the 2017 PRR. Figures 2 and 3 illustrate the pre- and post-remediation site conditions.

1.2 Purpose and Scope

The SMP requires, among other things, periodic inspection, and certification that the institutional and engineering controls implemented at the Site remain in place and are functioning as designed. This PRR serves that purpose as well as documenting post-remedial actions taken since the COC was issued and during this reporting period, if any.

2.0 SITE OVERVIEW

The Site is located at 1470 Buffalo Road in the City of Olean, Cattaraugus County, New York and identified as Section 94.047 Block 2 and Lot 28.1 on the Cattaraugus County Tax Map (see Figure 4). The Site is an approximately 9.1-acre area and is bounded by the Southern Tier Rail Authority railroad tracks to the north, the Olean Redevelopment Parcel 1 (NYSDEC BCP Site C905031) to the south, the Olean Redevelopment Parcel 3 (NYSDEC BCP Site C905033) to the east, and Verizon Service Center to the west. The owner of the Site at the time of issuance of the SMP was Olean Gateway LLC. Site ownership was transferred to Solean West LLC in 2016.

Remedial activities conducted between 2010 and 2015 were completed in accordance with the approved Interim Remedial Measures (IRM) Work Plan and RAWP. The remedial activities included:

Interim Remedial Measures

IRMs were previously performed in 2010 by ExxonMobil in accordance with the IRM Work Plan. The IRM Report for the Buffalo Street properties (referred to previously as BCP Site Nos. 1, 2 & 3) was prepared in March 2011 prior to the property being purchased by Olean Gateway. The previous IRM activities associated with the Olean Redevelopment Site 2 consisted of the following:

- Closure/removal of several structures/tanks:
 - One vault structure (20'x20'x8' deep) contained sediment/soil on the bottom of the vault, samples of which did not indicate the presence of significant levels of organics. The vault was closed in-place by filling with sand.
 - Two approximate 3,500-gallon and one 13,000-gallon steel underground storage tanks (USTs) were found by W&C that, when found, contained sand. A sample of the sand contained only minor detections of organics and, as such, the USTs were considered "closed in-place" by the NYSDEC.
 - Ten USTs were identified on the western portion of the Site. The USTs were believed to be process tanks associated with wax manufacturing. Liquid and solid samples from the tanks contained minor concentrations of organics. The size of the tanks ranged from approximately 700 to 2,300 gallons. The tanks were removed from the Site.
- Recovery of measurable light non-aqueous phase liquid (LNAPL) from groundwater monitoring wells via sorbent socks.

Remedial Actions

The following is a summary of the remedial actions completed by Olean Gateway at the Olean Redevelopment Parcel 2:

- Approximately 2,715 tons of arsenic-contaminated soil/fill was excavated, loaded, and transported off-site by D&H Excavating for disposal at Waste Management's Chaffee Landfill, located in Chaffee, NY.
- Approximately 143 tons of mercury-contaminated soil/fill was excavated, loaded, and transported off-site by D&H Excavating for disposal at Waste Management's Chaffee Landfill, located in Chaffee, NY.
- Approximately 638 tons of grossly contaminated petroleum soils (GCPS) was excavated, loaded, and transported off-site by D&H Excavating for disposal at Waste Management's Chaffee Landfill, located in Chaffee, NY.
- Approximately 33,767 linear feet of subsurface metallic product piping (steel, cast iron, lead and copper) was exposed, tapped, evacuated of contents, removed, cleaned, and recycled. An additional 156 linear feet of wood pipe was also exposed, tapped, evacuated of contents, removed, cleaned, and disposed off-site. Piping that extended beyond the property boundary was capped and/or grouted at the apparent property line. Approximately 240 cubic yards of GCPS was excavated during piping removal activities and treated on the on-site force vented biopiles (FVBPs) and reused as backfill below the cover system.
- Approximately 25, 55-gallon drums were generated from the removal of the abandoned subsurface piping. The contents of the piping included LNAPL, residual pipe scale, and product sludge. The drums were disposed at CWM Chemical Services, LLC, located in Model City, NY. Water extracted from excavations during piping removal was pumped into holding tanks, treated with bag filters and granular activated carbon (GAC) on-site, pumped into a secondary on-site temporary holding tank, sampled, and discharged to the City of the Olean sanitary sewer with approval under an Industrial Pretreatment Program permit.
- A soil vapor extraction (SVE) system was installed and operated to address GCPS remaining in-place in the deeper soil/fill from approximately 2 to 15 fbs. The SVE system included the installation of 13 SVE wells, associated conveyance piping, and placement of one trailer-mounted SVE blower (refer to Figure 6). Emissions from the SVE system are controlled using a biofilter contained within an approximate 20-foot by 8-foot steel roll-off box outfitted with perforated pipe. The biofilters contain an approximate 1-foot thick gravel layer at the base of the box overlain by approximately 3 feet of wood chip and compost filter medium, which allowed the naturally occurring microbes to bioremediate the air stream and control the nuisance odors from the SVE system.

- LNAPL recovery was completed using hydrocarbon absorbent socks at monitoring well WCMW1 and a product pump at well W14. The LNAPL thickness at these two groundwater monitoring wells varied from 0 to 6.5 feet in well W14 and 0.02 to 0.6 feet in well WCMW1 in 2014-2015; there was no evidence of LNAPL in well WCMW4 in 2014-2015. During LNAPL monitoring events, the socks were wrung of product and reinstalled. The volume of recovered LNAPL from well W14 was approximately 48 gallons and well WCMW1 0.5 gallons. Recovered product was transferred to properly labeled and sealed 55-gallon drums at the Site for future off-site disposal. Socks with obvious staining/saturation of LNAPL were removed and replaced with new socks.
- A final cover system consisting of a demarcation layer, minimum 12 inches of clean imported soil, and vegetation was installed at the Site in April-May 2015. Prior to redevelopment, the vegetation was established across the Site.
- An Environmental Easement was executed in December 2015 between Olean Gateway and NYSDEC and recorded with the deed in the Cattaraugus County Clerk's office to restrict land use to commercial/industrial operations; restrict the use of groundwater as a source of potable or process water without necessary water quality treatment as determined by the NYSDOH or County DOH; and prevent future exposure to any contamination remaining at the Site.

Development and implementation of the SMP for management of remaining contamination as required by the Environmental Easement., which includes plans for (1) institutional and engineering controls, (2) excavation, (3) monitoring and reporting, and (4) operation and maintenance.

2.1 Site Redevelopment Activities

The Site was sold by Olean Gateway to Solean West in March 2016. Solean West leases the land to the Solar Company. The COC was transferred from Olean Gateway on June 21, 2016 to Solean West LLC (Solean West) and 1470B PV LLC (Solar Company). The Site was redeveloped, in accordance the NYSDEC-approved August 31, 2016 Work Plan for Redevelopment Activities, as a photovoltaic solar system consisting of nominally 300 solar arrays to in-feed the nearby National Grid commercial electrical system (grid). Redevelopment construction began in October 2016 and was substantially complete as of the date of the 2017 PRR. Solar facility construction activities included installation of a new access road, concrete pad, aboveground equipment, power poles, fence gates and support poles, and conduits. Two power poles, four equipment support poles, four gate posts, fence posts, and a small amount

of conduit (for Verizon/National Grid communications) penetrated through the cover system; all other construction activities occurred on the ground surface or above the demarcation layer. No additional redevelopment activities occurred during this reporting period.

3.0 SITE MANAGEMENT PLAN

An SMP was prepared for the Site and approved by the Department in November 2015. The SMP includes a Monitoring and Sampling Plan, an Operation & Maintenance (O&M) Plan, an Excavation Work Plan (EWP), and a copy of the Environmental Easement. A brief description of the components of the SMP is presented below.

3.1 Monitoring and Sampling Plan

The monitoring and sampling plan specifies the methods used for sampling of:

- LNAPL monitoring and collection.
- Sampling and analysis of groundwater.
- Remedial SVE system monitoring.
- Site-wide inspection.
- Evaluating Site information periodically to confirm that the remedy continues to be effective in protecting public health and the environment.

3.1.1 LNAPL Monitoring/Recovery System

LNAPL has historically been detected on-site in monitoring well WCMW1 and W14. WCMW4 was previously monitored for LNAPL but NYSDEC approved the removal of the well from the LNAPL monitoring in a comment letter dated June 21, 2021. Table 1 presents a summary of the monthly LNAPL measurements for the period of July 17, 2014 through February 9, 2023. During the March 15, 2022 to March 15, 2023 reporting period, the LNAPL thickness ranged from not detectable to 0.09 feet in well WCMW1. LNAPL is recovered using hydrocarbon absorbent socks in well WCMW1. The adsorbent socks are installed in the well at the LNAPL/water interface. During monthly inspections, socks that had obvious staining/saturation of LNAPL are removed and replaced with new socks. As indicated on Table 1, there were four sock change-outs for well WCMW1 during this reporting period. Used socks that are changed out are containerized in drums, labeled, and characterized for off-site disposal. An oil skimmer was installed in well W14 in September 2015 and replaced in July 2016. Recoverable product at well W14 was present during 2 of the 12 monthly monitoring events, but any recoverable product generated by the belt skimmer went directly into an on-site storage drum for disposal and therefore no product level measurements were

taken. Approximately 2 gallons of LNAPL were recovered from well W14 this reporting period. The on-site drum currently contains approximately 22 gallons of product. Drums will be shipped when they are full.

3.1.2 Groundwater Sampling and Analysis

Benchmark completed the annual groundwater monitoring event August 2, 2022. Well WCMW4 measured only 0.4 inches of water during the June 2021 sampling event; therefore, there was insufficient water volume to sample. Wells WCMW1 and W14 both had product present at the time of the August 2022 sampling event; therefore, only three wells (W13, W17, and W28) were sampled. A groundwater sample was obtained from each well and analyzed for target compound list (TCL) volatile organic compounds (VOCs) and tentatively identified compounds (TICs) using USEPA Method 8260; semi-VOCs and TICs via USEPA Method 8270; and arsenic and lead using USEPA Method 6010. Appendix C includes field notes from the groundwater sampling event and the laboratory analytical data package. Table 2 summarizes groundwater elevations from 2012 through 2022. Tables 3 and 4 summarize the 2022 analytical results as well as historic groundwater quality data.

3.1.2.1 Results

Groundwater Elevations

The groundwater elevations were contoured as shown on Figure 6 using August 2022 water level data. Overall groundwater flow direction in the uppermost sand and gravel aquifer is toward the southeast consistent with the prior groundwater contour maps. As shown on Figure 7, all wells except W13 are downgradient of the SVE system.

Analytical Data

Analytical results from the August 2022 groundwater sampling event are presented in Table 3 (VOCs and SVOCs) and Table 4 (metals).

VOCs

Groundwater samples from wells W13 and W28 did not contain VOCs at concentrations above NYSDEC Class GA groundwater quality standards (GWQSS). Results from well W17 indicated five VOCs above GWQSS. Except for 1,2,4-trimethylbenzene, the

VOC concentrations are lower than those detected in 2021. VOC-TICs were detected at all three wells during the August 2022 sampling event. The VOC-TIC concentration at well W13 has decreased consistently since the June 2020 sampling. The VOC-TIC concentrations in wells W17 and W28 are consistent with 2021 results.

SVOCs

Benzo(a)anthracene was detected above its GWQS (0.002 ug/L) in wells W13 (0.02 ug/L) and W28 (0.05 ug/L). Chrysene was detected above its GWQS (0.002 ug/L) in wells W17 (0.03 ug/L) and W28 (0.08 ug/L). SVOC-TIC concentrations were of the same order of magnitude as prior testing results without any apparent trend.

Metals

Arsenic was not detected in well W17 and detected at concentrations well below the GWQS/GV in wells W13 and W28. Lead was not detected in any of the three wells sampled. Well WCMW4, where arsenic and lead were detected above GWQs in July 2019¹, was not sampled due to insufficient volume at the time of the August 2022 sampling event.

3.1.3 SVE System and Monitoring

The SVE system (referred to as 2-SVE-1) has been in operation at Olean Redevelopment Parcel 2 since October 2014. The SVE system is comprised of two main components:

1. The collection system is a constructed of a series of vertical extraction wells and extraction well manifold piping.
2. The trailer-mounted mechanical SVE system consists of a blower, motor and ancillary equipment that generates the vacuum and moves the extracted vapor to the biofilter.

The blower is manifolded to a series of 13 wells designated 2-SVE-1 through 2-SVE-13 (refer to Figure 7). The extracted air is conveyed through 4" PVC piping installed below grade from the wells to the blower. Figure 7 shows the approximate piping network. The

¹ As discussed in the 2020 PRR, the metal detections in well WCMW4 were attributed to the turbid nature of the sample, and future groundwater samples with high turbidity are to be filtered by the laboratory prior to analysis.

extracted air is treated in a biofilter prior to discharge to the atmosphere. The biofilter treatment medium consists of a mixture of compost and mulch (approx. 50% each by weight). The natural bacteria in the biofilter use the organics in the waste stream as a source of energy. The biofilter medium needs to be maintained in a slightly wet state and periodically mixed (fluffed-up). Biofilter media requires mixing when nuisance odors become an issue or when a thick cake layer forms on top preventing proper venting. The top 4-6 inches of the biofilter media is mixed/raked periodically to keep the media broken up and loose. Raking of the biofilter was not required during the 2022/2023 reporting period due to low effluent PID readings. Table D-1 records biofilter mixing events, SVE monitoring parameters, and tracks total VOC mass removal rates and amounts.

On November 18, 2019, Solean West submitted a request to NYSDEC with verification soil/fill sampling data for consideration of termination of the SVE operation since the VOC removal had leveled off as evidenced by the data submitted in the PRR. The Department replied on January 6, 2020 stating that system shutdown was not approved; however, the SVE operation could be reduced and optimized to focus on treating areas that still show impact.

After further discussions with the Department, an additional request was filed on March 16, 2020² proposing the shut-down of the eastern leg of the SVE system (SVE wells 2-SVE-8 through 2-SVE-13). This request proposed the following revisions to the SMP for operation of SVE System 2-SVE-1 effective immediately:

- Discontinue operation of the eastern leg of the SVE system, which includes wells 2-SVE-8 through 2-SVE-13.
- Continue operation of wells 2-SVE-2 through 2-SVE-6 and discontinue operation of wells 2-SVE-1 and 2-SVE-7 due to consistently low wellhead PID readings and to obtain higher vacuum at the operating wells.
- Continue PID readings at wellheads 2-SVE-1 through 2-SVE-13.
- Discontinue operation of the SVE system during the winter months (December through March) with startup once temperatures are consistently above 32°F.

² Benchmark Environmental Engineering & Science, PLLC. March 16, 2020 Letter to NYSDEC Re: SMP Revision 1: Operation of SVE System 2-SVE-1 Olean Redevelopment Parcel 2 (Site No. C905032).

On April 1, 2020³ the Department issued an approval of the proposed reduction in SVE system operation, which supersedes the operational requirements of the SMP. On April 7, 2020, Benchmark attempted to shut off the proposed wells listed above, which resulted in an increase in vacuum with the potential to cause damage to the system. Alternative wells had to be shut off to relieve pressure on the system. Wells with the highest PID readings were left open to better balance the operating system. SVE wells 2-SVE-2, -7, -9, and -12 were turned off to further optimize the system. All other SVE wells were left open.

SVE system operation for the 2022/2023 reporting period remained consistent with the previous 2021/2022 period except for SVE well 2-SVE-2 was turned back on. The system was turned off on January 9, 2023 for the winter.

3.1.3.1 Results

The SVE system has been successful in removing volatile organic vapors from the subsurface soil/fill. Appendix D presents a summary of monitoring data and a graphic chart. The estimated mass of organic petroleum hydrocarbon removed through January 9, 2023 is 7,522 pounds. The rate of removal for 2-SVE-1 has decreased from a maximum of 95 pounds per day during the initial mass removal period (2014) to an average of 0.14 pounds per day over the 2022/2023 reporting period. The system mass removal rate continued to show ‘waning’ rates during this reporting period. Chart 2-SVE-1 depicts the continued ‘waning’ rates as Mass Removal (MR) 6.

Benchmark completed system checks on June 16, 2022, September 21, 2022, and January 3, 2023. Individual SVE well PID readings as well as the 2-SVE-1 system PID and vacuum readings were taken from the seven individual wells that were on to confirm the system is running within specifications (refer to Table D-2 in Appendix D). During the June 2022 system checks, PID readings from the individual wells ranged from 0.1 to 2.1 ppm. Although the individual well readings during the September 2022 system check were higher (ranging from 2.5 to 82.2 ppm), the most recent system check in January 2023 showed PID readings of 0.0 ppm for all wells except 2-SVE-5 (4.6 ppm) and 2-SVE-6 (0.7 ppm).

³ New York State Department of Environmental Conservation. April 1, 2020 Letter to Mr. Paul Curran, Solean West LLC, Re: Olean Redevelopment Parcel 2 #C905032, Olean (C), Cattaraugus County, Soil Vapor Extraction (SVE) Operation.

The effluent PID concentration was 0.0 ppm during all system checks. The system influent PID concentrations were as follows:

- June 2022: 0.2 ppm, operating at 94.3 inches of H₂O vacuum
- September 2022: 4.9 ppm, operating at 66.9 inches of H₂O vacuum
- January 2023: 0.0 ppm, operating at 75.1 inches of H₂O vacuum

SVE wells 2-SVE-7, -8, -9, -11, -12, and -13 remained off during the 2022/2023 reporting period. SVE well 2-SVE-2 was turned back on. PID readings collected during the 2022/2023 reporting period at SVE wells 2-SVE-1, -2, -3, -4, -5, -6, and -10 generally remained consistent with 2021/2022 reporting period results. SVE well 2-SVE-3 noted a measurable increase in its maximum detected PID value, increasing from 16.2 ppm in March 2021 to 82.2 ppm in September 2022. SVE well 2-SVE-5 again had the greatest decrease, from a maximum detected PID value of 27.7 ppm in March 2021 to 10.4 ppm in September 2022.

3.1.4 Monitoring Results Summary

The amount of LNAPL recovered from well W14 decreased from 3 gallons during the 2021/2022 reporting period to 2 gallons during the 2022/2023 reporting period. Product was detected in monitoring wells WCMW1 and W14 so they were not sampled during the August 2022 event. Groundwater quality has remained the same at all monitoring wells with the exception at W-17 where five VOCs exceeded GWQSs. The groundwater quality at wells W13 and W28 meets NYSDEC GWQS for VOCs and SVOCs. Monitoring wells W13, W17, and W28 meet the GWQS for arsenic and lead. Monitoring well WCMW4 was not sampled during the June 2021 sampling event as there was insufficient volume to sample. The SVE system has been very effective in removing organics vapors from the vadose zone, and continues to show a diminished organic removal rate.

3.2 Operation & Maintenance Plan

The O&M Plan addresses operation and maintenance for the SVE systems.

3.2.1 SVE System

3.2.1.1 Routine System Operation and Maintenance

The SVE system is designed to require little maintenance over the expected duration of use at the Olean Redevelopment Parcel 2 Site. The blower bearing housing is oil-filled and checked once per month. If the level is below the overflow, SAE 40 weight oil is added through the top fill port of the housing. Grease fittings for the blower shaft are topped off periodically (i.e., every 2 months).

3.2.1.2 System Monitoring Devices and Alarms

Monitored system operating conditions that trigger a local (red panel light) and remote (common autodialer channel) alarm condition include low air vacuum, high air pressure, moisture separator tank high level, condensate tank high level, and heater/exhaust fan failure. Except for heater/exhaust fan failure, these alarm conditions automatically shut down the SVE system. A trailer entry (security) relay also triggers a local and remote alarm but does not cause system shutdown. Blower and condensate pump failure (e.g., due to thermal overload, power loss, or manual shut down) also triggers the autodialer. If the SVE system alarm is activated, the autodialer will contact Benchmark. Based on the alarm fault, Benchmark will respond and/or contact the appropriate repair vendor (e.g., electrician, mechanical repair service). On September 17, 2021 the SVE system was shut-down due to the failure of the blower's electric motor. The motor was repaired, and the system was placed back into service on November 19, 2021.

3.2.2 Annual Inspection and Certification Program

The Annual Inspection and Certification Program outlines the requirements for the Site to certify and attest that the institutional controls and/or engineering controls (IC/ECs) employed at the Site are unchanged from the previous certification. The annual certification primarily consists of an annual Site Inspection to complete the NYSDEC's IC/EC Certification Form. The Site inspection will verify that the IC/ECs:

- Are in place and effective.
- Are performing as designed.
- That nothing has occurred that would impair the ability of the controls to protect the public health and environment.

- That nothing has occurred that would constitute a violation or failure to comply with any operation and maintenance plan for such controls.
- Access is available to the Site to evaluate continued maintenance of such controls.

A Site inspection of the property was conducted on March 9, 2023 by Ms. Lori Riker, a Benchmark licensed professional engineer who meets the requirements of a Qualified Environmental Professional (QEP). No observable indication of intrusive activities, cover failure, or use of groundwater were noted during the Site inspection.

Appendix A includes the completed Site Management PRR Notice – IC/ECs Certification Form. Appendix B is a photolog showing the condition of the Site at the time of the March 9, 2023, inspection.

3.3 Excavation Work Plan

An Excavation Work Plan (EWP) was included in the approved SMP for the Site. The EWP provides guidelines for the management of soil and fill material during intrusive activities. There were no intrusive activities during the time of the PRR.

As detailed in the Environmental Easements, several IC/ECs need to be maintained as a requirement of the BCA for the Site.

3.3.1 Institutional Controls

- Groundwater-Use Restriction: The use of groundwater for potable and non-potable purposes is prohibited.
- Land-Use Restriction: The controlled property may be used for commercial and/or industrial use.
- Implementation of the SMP including the O&M Plan and EWP.

3.3.2 Engineering Controls

- Vapor Mitigation: There are no buildings on the Site and, as such, no active sub-slab depressurization (ASD) systems exist.
- SVE System: The SVE system has been operated and monitored since October 2014 and continues to operate except for the winter shutdown.

- LNAPL Recovery/Monitoring: LNAPL recovery and monitoring has been performed monthly via absorbent socks in well WCMW1 and an oil skimmer in well W14.
- Groundwater Monitoring: Annual sampling was completed in August 2022.
- Cover System: The cover system is intact and functioning as intended.

At the time of the Site inspection, the Site was compliant with all IC/EC requirements.

4.0 CONCLUSIONS AND RECOMMENDATIONS

4.1 Conclusions

At the time of the inspection, the Site complied with the SMP. Specifically, the Site is compliant with the ICs including land-use restrictions, groundwater-use restrictions, and the EWP component. The Site is compliant with the ECs as described below:

- Long-term groundwater monitoring indicates overall improved groundwater quality at well W17, which is the only well sampled that exceeds GWQS/GVs for VOCs. Only three SVOCs remain above GWQS/GVs across the three wells sampled.
- Oil skimming from well W14 has resulted in the total recovery of approximately 300 gallons of LNAPL, including approximately 2 gallons of LNAPL this reporting period.
- The rate of removal with the SVE system has decreased from a maximum of 95 pounds per day during the initial mass removal period (November 2014) to an average of 0.14 pounds per day over the 2022/2023 reporting period. Vapor mass removal has experienced an asymptotic reduction over the life of the system, which is an expected occurrence reflective of improvement in subsurface soil quality.

4.2 Recommendations

Benchmark, on behalf of Solean West, will submit to the Department a Work Plan to collect follow up soil samples in the vicinity of 2019 soil borings VSS-5 and VSS-6. Based on the results, Benchmark will petition the Department for approval to shut down the remaining SVE system.

If groundwater samples collected during the June 2023 event have high turbidity, the samples will be filtered by the laboratory and analyzed for dissolved arsenic and lead.

5.0 DECLARATION/LIMITATION

Benchmark Civil/Environmental Engineering & Geology, PLLC personnel conducted the annual site inspection for BCP Site No. C905032, Olean, New York according to generally accepted practices. This report complies with the scope of work provided to Solean West LLC by Benchmark Civil/Environmental Engineering & Geology, PLLC.

This report has been prepared for the exclusive use of Solean West LLC. The contents of this report are limited to information available at the time of the Site inspection. The findings herein may be relied upon only at the discretion of Solean West LLC. Use of or reliance upon this report or its findings by any other person or entity is prohibited without written permission of Benchmark Civil/Environmental Engineering & Geology, PLLC.

TABLES



TABLE 1
SVE SYSTEM 2-SVE-1 LNAPL MONITORING AND COLLECTION LOG

OLEAN REDEVELOPMENT PARCEL 2
NYSDEC BCP SITE NO. C905032
OLEAN, NEW YORK

Date	Inspector's Initials	WCMW1						W14						Accumulated Volume Collected (gallons)	Skimmer Operational?
		Product Present? (Y / N)	Product Depth (fbTOR)	Water Level (fbTOR)	Product Level (feet)	Product Recovered (gallons)	Change Absorbent Sock? (Y / N)	Product Present? (Y / N)	Product Depth (fbTOR)	Water Level (fbTOR)	Product Level (feet)	Product Recovered (gallons)			
7/17/14	SF	Y	20.27	20.29	0.02	0	N	See note						--	NA
10/29/14	JJR	Y	23.19	23.52	0.33	0	Removed	Y	20.86	25.66	4.8	4	4	NA	
11/5/14	JJR	Y	22.93	23.55	0.62	0.4	NA	Y	20.55	26.71	6.16	0	4	NA	
11/13/14	JJR	Y	22.76	23.1	0.34	0	NA	Y	21.41	26.43	5.02	5	9	NA	
12/15/14	JJR	Y	22.04	22.31	0.27	0	NA	Y	19.64	25.26	5.62	5	14	NA	
1/15/15	JJR	Y	21.21	21.42	0.21	0	NA	Y	18.91	24.97	6.06	See Notes	14	NA	
2/27/15	BMG	Y	22.65	22.98	0.33	0.1	Y	Y	20.3	25.95	5.65	5	19	NA	
3/11/15	BMG	--	--	--	--	--	--	Y	20.78	23.55	2.77	4	23	NA	
3/12/15	BMG	--	--	--	--	--	--	Y	20.97	24.15	3.18	3	26	NA	
3/13/15	BMG	--	--	--	--	--	--	Y	20.66	23.13	2.47	3.3	29	NA	
3/16/15	BMG	--	--	--	--	--	--	Y	19.67	25.2	5.53	5	34	NA	
4/6/15	BMG	Y	20.32	20.34	0.02	0	Y	Y	17.98	18.93	0.95	2	36	NA	
7/2/15	BMG	N	NA	20.75	0	0	Y	Y	18.42	22.85	4.43	3.5	40	NA	
9/2/15	PWW	Y	22.92	22.95	0.03	0	N	Y	20.38	27.0	6.62	5	45	NA	
9/3/15	PWW	--	--	--	--	--	--	Y	20.51	25.59	5.08	3.5	48	NA	
9/29/15	PWW	Y	23.19	23.26	0.07	0	Y	Y	20.87	26.21	5.34	See Notes	--	NA	
10/14/15	PWW	Y	22.88	22.91	0.03	0	N	Y	22.75	29.3	6.55	--	--	Y	
10/28/15	ML	Y	22.74	22.75	0.01	0	Y	Y	23.61	27.62	4.01	--	--	Y	
11/11/15	ML	Y	22.32	22.34	0.02	0	Y	Y	23.38	27.98	4.6	--	--	Y	
11/24/15	ML	Y	22.06	22.07	0.01	0	N	Y	23.01	28.16	5.15	--	--	Y	
12/9/15	ML	Y	21.8	22.19	0.39	0	N	Y	23.04	23.36	0.32	--	--	Y	
12/22/15	ML	Y	21.76	21.82	0.06	0	N	Y	23.23	23.46	0.23	--	--	Y	
1/5/16	ML	Y	20.31	20.34	0.03	0	N	Y	21.57	21.94	0.37	--	--	Y	
2/2/16	ML	Y	20.94	20.96	0.02	0	N	Y	22.18	22.29	0.11	--	--	Y	
3/1/16	ML	Y	20.3	20.32	0.02	0	N	Y	21.49	21.69	0.2	--	--	Y	
4/12/16	BG	N	NA	23.31	NA	0	Y	Y	22.09 (Note 1)	22.3	0.21	--	--	Y	
5/4/16	ML	Y	20.52	20.53	0.01	0	N	Y	21.64	21.83	0.19	--	--	Y	
6/2/16	ML	Y	21.69	21.71	0.02	0	N	Y	22.68	23.29	0.61	--	--	Y	
7/6/16	BMG	Y	23.1	DRY	NA	0.1	Y	Y	24.18	28.2	4.02	32	80	Y	
7/15/16	BMG	--	--	--	--	--	--	--	--	--	--	18	98 (Note A)	Y	
8/1/16	BMG	Y	24.0	24.25	0.25	0.1	Y	Y	25.85	25.85	0	34	132	Y	
8/12/16	BMG	--	--	--	--	--	--	--	--	--	--	7	139 (Note B)	Y	
9/19/16	BMG	Y	23.93	24.03	0.1	0.1	Y	Y	25.5	28.8	3.3	46	185 (Note C)	Y	
10/27/16	BMG	N	NA	21.86	0	0.1	N	Y	22.95	22.97	0.02	29	214	Y	
11/22/16	BMG	N	NA	22.11	0	0	N	Y	NA	23.23	NA	10	224	Y	
12/21/16	BMG	N	NA	21.55	0	0	N	Y	22.7	22.74	0.04	0	224	Y	
1/5/17	BMG	N	NA	20.38	0	0	N	Y	21.6	21.62	0.02	0	224	Y	
2/14/17	BMG	N	NA	18.9	0	0	N	Y	19.9	19.92	0.02	3	227	Y	
3/28/17	BMG	N	NA	20.14	0	0	N	Y	21.1	21.15	0.05	1	228	Y	
4/11/17	BMG	N	NA	19.41	0	0	N	Y	20.4	20.42	0.02	0	228 (Note D)	Y	
5/30/17	BMG	N	NA	20.35	0	0	N	Y	21	21.31	0.31	0	228	Y	
6/28/17	BMG	N	NA	21.45	0	0	N	Y	22.5	22.51	0.01	0	228	Y	
7/24/17	BMG	N	NA	22.25	0	0	N	Y	23.25	23.46	0.21	1	229	Y	
8/9/17	CFD	N	NA	23.06	0	0	N	Y	24.05	24.15	0.1	12.5	242 (Note E)	Y	
9/26/17	CFD	Y	23.71	23.85	0.14	0.2	Y	Y	23.95	23.99	0.04	7.5	249	Y	
10/26/17	CFD	Y	24.02	24.12	0.1	0.1	Y	Y	25.31	25.32	0.01	5	254	Y	
11/28/17	CFD	N	NA	24.05	0	0	N	Y	23.85	23.97	0.12	2	256	Y	
12/26/17	CFD	N	NA	24.01	0	0	N	Y	21.89	21.93	0.04	0	256	Y	
1/25/18	CFD	N	NA	23.68	0	0	N	N	NA	20.92	NA	1	257	Y	
2/15/18	CFD	N	NA	20.43	0	0	Y	N	NA	21.33	NA	0	257	Y	
3/12/18	CFD	N	NA	19.56	0	0	N	N	NA	20.35	NA	0	257	Y	
4/27/18	CFD	N	NA	19.06	0	0	N	N	NA	20.84	NA	1	258	Y	
5/24/18	CFD	Y	21.02	21.05	0.03	0.05	Y	N	NA	21.24	NA	0.25	259	Y	
6/28/18	CFD	N	NA	21.48	0	0	N	N	NA	21.86	NA	0.25	259	Y	
7/17/18	CFD	Y	22.58	22.61	0.03	0.05	Y	N	NA	23.6	NA	0.5	259	Y	
8/1/18	CFD	Y	22.12	22.14	0.02	0.2	Y	N	NA	23.45	NA	3	262	Y	
9/24/18	CFD	N	NA	21.9	0	0	N	N	NA	22.93	NA	1	263	Y	
10/15/18	CFD	Y	21.01	21.03	0.02	0.1	Y	N	NA	21.94	NA	0.5	264	Y	
11/29/18	CFD	N	NA	21.14	0	0	N	N	NA	21.53	NA	0.5	264	Y	
12/20/18	CFD	N	NA	22.16	0	0	N	N	NA	21.10	NA	0.50	265	Y	
1/21/19	CFD	N	NA	20.31	0	0	Y	N	NA	20.62	NA	1.00	266	Y	
2/13/19	CFD	Y	19.03	19.06	0.03	0.2	Y	N	NA	19.89	NA	1.5	267	Y	
3/21/19	CFD	Y	20.08	20.09	0.01	0.1	Y	N	NA	21.00	NA	1.0	268	Y	
4/24/19	CFD	N	NA	20.67	0	0	Y	N	NA	21.60	NA	0	268	Y	
5/24/19	CFD	N	NA	20.27	0	0	N	N	NA	21.05	NA	0.25	269	Y	
6/21/19	CFD	N	NA	19.98	0	0	N	N	NA	20.86	NA	0	269	Y	
7/30/19	CFD	N	NA	20.12	0	0	N	N	NA	21.00	NA	0.25	269	Y	
8/23/19	CFD	N	NA	17.27	0	0	N	N	NA	20.84	NA	2.0	271	Y	
9/30/19	CWE	N	NA	23.51	0	0	N	N	NA	24.35	NA	1.5	272	Y	
10/31/19	CWE	N	23.15	23.45	0.30	0	N	N	25.12	25.13	0.01	5.0	277	Y	
11/25/19	CWE	Y	22.45	22.71	0.26	0	N	N	NA	23.45	NA	0	277 (Note F)	Y	



TABLE 1
SVE SYSTEM 2-SVE-1 LNAPL MONITORING AND COLLECTION LOG

OLEAN REDEVELOPMENT PARCEL 2
NYSDEC BCP SITE NO. C905032
OLEAN, NEW YORK

Date	Inspector's Initials	WCMW1						W14						
		Product Present? (Y / N)	Product Depth (fbTOR)	Water Level (fbTOR)	Product Level (feet)	Product Recovered (gallons)	Change Absorbent Sock? (Y / N)	Product Present? (Y / N)	Product Depth (fbTOR)	Water Level (fbTOR)	Product Level (feet)	Product Recovered (gallons)	Accumulated Volume Collected (gallons)	Skimmer Operational?
12/30/19	CWE	Y	21.77	21.8	0.03	0	N	N	NA	22.7	NA	0	277	Y
1/30/20	CWE	N	NA	20.45	0	0	N	N	NA	21.4	NA	0.0	277	Y
2/27/20	CWE	N	NA	19.5	0	0	N	N	NA	20.15	NA	0	277	Y
3/30/20	CWE	N	NA	19.51	0	0	N	N	NA	20.50	NA	0.0	277	Y
4/27/20	CWE	N	NA	19.7	0	0	N	N	NA	20.70	NA	1.0	278	Y
5/28/20	CWE	N	NA	20.31	0	0	N	N	NA	21.2	NA	0.0	278	Y
6/29/20	CWE	N	NA	21.51	0	0	N	N	NA	22.44	NA	0.0	278	Y
7/31/20	CWE	Y	24.41	24.6	0.19	0	N	N	NA	23.50	NA	0.0	278	Y
8/31/20	CWE	Y	25.72	25.98	0.26	0	N	N	NA	25.32	NA	12.0	290	Y
9/28/20	CWE	Y	24.2	24.51	0.31	0	Y	N	NA	25.4	NA	5.0	295	Y
10/29/20	CWE	Y	24.3	24.5	0.2	0	N	N	NA	25.40	NA	0.0	295	Y
11/25/20	CWE	Y	24.1	24.21	0.11	0	N	N	NA	25.10	NA	0.0	295	Y
12/17/20	CFD	Y	23.48	23.52	0.04	0	N	N	NA	24.69	NA	0.0	295	Y
1/21/21	CWE	N	NA	21.91	0	0	N	N	NA	22.75	NA	0.0	295	Y
2/22/21	CWE	Y	22.84	23	0.16	0	N	N	NA	23.81	NA	0.0	295	Y
3/25/21	CWE	Y	22.12	22.23	0.11	0	N	N	NA	23.12	NA	0.0	295	Y
4/12/21	CWE	Y	21.95	22.05	0.1	0	N	N	NA	22.71	NA	0.0	295	Y
5/20/21	CWE	Y	21.15	21.19	0.04	0	N	N	NA	21.9	NA	0.0	295	Y
6/24/21	CWE	Y	21.99	22.09	0.1	0	N	Y	NA	22.87	NA	1.0	296	Y
7/29/21	CWE	N	NA	19.71	0	0	N	Y	NA	20.40	NA	2.0	298	Y
8/30/21	CWE	Y	20.98	21.01	0.03	0	N	N	NA	21.8	NA	0.0	298	Y
9/30/21	CWE	Y	21.89	21.92	0.03	0	N	N	NA	22.41	NA	0.0	298	Y
10/28/21	CWE	Y	21.75	21.76	0.01	0	N	N	NA	22.78	NA	0.0	298	Y
11/29/21	CWE	Y	21.35	21.39	0.04	0	N	N	NA	22.21	NA	0.0	298	Y
12/29/21	CWE	Y	21.00	21.11	0.11	0	N	N	NA	21.7	NA	0.0	298	Y
1/24/22	CWE	Y	21.00	21.09	0.09	0	N	N	NA	21.88	NA	0.0	298	Y
2/14/22	CWE	Y	21.77	21.82	0.05	0	N	N	NA	22.70	NA	0.0	298	Y
3/21/22	CWE	Y	18.71	19.01	0.3	0	N	N	NA	19.56	NA	0.0	298	Y
4/26/22	CWE	N	NA	19.89	0	0	Y	N	NA	20.71	NA	0.0	298	Y
5/31/22	CWE	Y	20.88	20.93	0.05	0	N	N	NA	21.65	NA	0.0	298	Y
6/30/22	CWE	Y	21.85	21.87	0.02	0	Y	N	NA	22.49	NA	0.0	298	Y
7/28/22	CWE	Y	23.06	23.1	0.04	0.09	Y	N	NA	23.80	NA	0.0	298	Y
8/29/22	CWE	Y	23.88	23.99	0.11	0.05	Y	N	NA	25.22	NA	0.0	298	Y
9/29/22	CWE	Y	23.62	23.65	0.03	0	N	N	NA	24.66	NA	0.0	298	Y
10/31/22	CWE	Y	23.88	23.91	0.03	0	N	N	NA	24.72	NA	1.0	299	Y
11/28/22	CWE	Y	23.01	23.08	0.07	0	N	N	NA	23.81	NA	1.0	300	Y
12/29/22	CWE	Y	21.84	21.86	0.02	0	N	N	NA	22.72	NA	0.0	300	Y
1/23/23	CWE	N	NA	20.45	0	0	N	N	NA	21.25	NA	0.0	300	Y
2/9/23	CWE	N	NA	20.52	0	0	N	N	NA	21.35	NA	0.0	300	Y

Total LNAPL Collected This Reporting Period

0.14 gal

2.0 gal

Total Volume of LNAPL collected through 2/9/2023

2.0 gal

300 gal

Date	Note or Comment
7/17/14	Well W14 had blockage in the well casing. No measurement made.
1/15/15	W14 False Reading, Bailer had ~2.2 feet of product, more viscous than past rounds. Recovered 1.75 gallons of LNAPL
9/29/15	Set-up product skimmer
10/14/15	Used Spill Buddy to recover LNAPL. skimmer not functioning properly. Sock in well WCMW1 in good condition.
4/12/16	Note 1: Well W-14 cut down 3.47'
7/7/16	Installed new solar panel powered skimmer at well W-14. Set to run on auto for 2 hours per day.
7/15/16	Note A: Transfer 40 gallons of oil from skimmer drum to storage drum. No product/water level measurements were collected
8/12/16	Note B: Transfer 45 gallons of oil from skimmer drum to storage drum. No product/water level measurements were collected.
9/19/16	Note C: Transfer 47 gallons of oil from skimmer drum to storage drum.
4/11/17	Note D: 48 Gallons accumulated product in drum since last time skimmer drum emptied.
8/8/17	Note E: Transfer 52 gallons of oil from skimmer drum to storage drum.
11/19/19	Note F: Transfer 45 gallons of oil from skimmer drum to storage drum.

Shaded cells are data collected pre-remediation; all other data collected post-remediation.



TABLE 2

GROUNDWATER MONITORING WELL WATER LEVELS
 PERIODIC REVIEW REPORT
 OLEAN REDEVELOPMENT PARCEL 2
 OLEAN, NEW YORK

Well	Purpose of Well	Top of Riser (TOR) Elevation (ft)	Depth to Water (ft)	Liquid Elevation (ft)	Depth to Water (ft)	Liquid Elevation (ft)	Depth to Water (ft)	Liquid Elevation (ft)	Depth to Water (ft)	Liquid Elevation (ft)	Depth to Water (ft)	Liquid Elevation (ft)	Depth to Water (ft)	Liquid Elevation (ft)	Depth to Water (ft)	Liquid Elevation (ft)	Depth to Water (ft)	Liquid Elevation (ft)	Depth to Water (ft)	Liquid Elevation (ft)	Depth to Water (ft)	Liquid Elevation (ft)	Depth to Water (ft)	Liquid Elevation (ft)	Depth to Water (ft)	Liquid Elevation (ft)	Depth to Water (ft)	Liquid Elevation (ft)	Depth to Water (ft)	Liquid Elevation (ft)			
			8/25/2012	1407.52	7/17 & 18/2014	1410.62	12/15 & 17 & 18/2014	1409.08	4/14/2015	1407.97	9/2/2015 & 9/3/2015	1408.36	8/9/2016	1408.14	12/14/2016	1406.82	5/16 to 5/18/17	1411.74	12/20 to 12/22/17	1408.94	6/13/2018	1409.89	12/19 to 12/20/18	1411.31	7/9 to 7/10/19	1410.77	6/16 to 6/18/20	1411.01	6/27/2021	1410.66	8/2/2022	1407.84	
WCMW-1	LNAPL	1430.89	23.90	1407.52	20.29	1410.62	22.04	1409.08	--	--	22.95	1407.97	--	--	--	--	--	--	--	--	19.58	1411.31	20.12	1410.77	22.32	1408.57	22.02	1409.13	23.15	1407.84			
WCMW-4	GWQM	1426.95	18.72	1408.23	15.22	1411.73	17.72	1409.23	--	--	18.59	1408.36	18.36	1408.59	15.81	1411.14	13.87	1413.08	18.03	1408.92	16.05	1410.90	14.55	1412.40	15.90	1411.05	18.37	1408.58	16.29	1410.66	dry		
W13	GWQM	1431.14	23.46	1407.68	21.14	1410.00	22.22	1408.92	19.40	1411.74	23.00	1408.14	24.32	1406.82	--	--	19.41	1411.73	22.20	1408.94	21.25	1409.89	19.65	1411.49	20.16	1410.98	21.28	1409.86	21.80	1409.34	23.05	1408.09	
W14	LNAPL	1432.14	26.85	1406.91	--	--	--	--	--	--	27.00	1407.43	--	--	--	--	--	--	--	--	--	--	--	20.43	1411.71	17.72	1414.42	22.30	1409.84	19.34	1412.89	24.19	1407.96
W17	GWQM	1424.83	17.42	1407.41	14.27	1410.56	16.01	1408.82	13.46	1411.37	17.01	1407.82	18.36	1406.47	15.74	1409.09	13.87	1410.96	16.40	1408.43	15.40	1409.43	14.14	1410.69	14.62	1410.21	15.83	1409.00	16.82	1408.01	17.31	1407.52	
W28	GWQM	1433.29	27.52	1405.77	--	--	--	--	--	--	25.06	1408.23	26.34	1406.95	--	--	21.52	1411.77	24.50	1408.79	23.30	1409.99	21.63	1411.66	22.28	1411.01	23.38	1409.91	23.95	1409.34	25.14	1408.15	

Notes:
 Depth to water from top of well riser.
 1) W14 well riser was increased by 3.47 feet (based on TOC delta) in November 2015. Revised well top of riser elevation is 1432.14'. Historic top of riser elevation was 1428.67'.

Acronyms:
 NA = Not available
 -- = Not measured

 = depth to water measurements pre-remediation

TABLE 3
2008-2022 GROUNDWATER ANALYTICAL SUMMARY - ORGANICS
PERIODIC REVIEW REPORT
OLEAN REDEVELOPMENT PARCEL 2
OLEAN, NEW YORK

Parameter ¹	GWQS/GV ²	W-13												
		07/17/14	12/17/14	04/13/15	09/02/15	08/10/16	12/14/16	05/16/17	12/22/17	06/12/18	07/10/19	06/19/20	06/27/21	08/02/22
Volatile Organic Compounds (ug/L)														
1,2,4-Trimethylbenzene	5	ND	0.79 J	ND										
1,2-Dichlorobenzene	3	ND												
1,3,5-Trimethylbenzene	5	ND												
1,4-Dichlorobenzene	3	ND												
Acetone	50	ND	12 J	ND	1.7 J									
Benzene	1	ND												
Chlorobenzene	5	ND												
Chloroform	7	ND												
Cyclohexane	--	NA	NA	ND										
Ethylbenzene	5	ND												
Isopropylbenzene	5	NA	NA	ND										
m&p-Xylene	--	ND												
Methylcyclohexane	--	NA	NA	ND										
n-Butylbenzene	5	ND												
n-Propylbenzene	5	ND												
p-Isopropyltoluene	5	NA	NA	ND										
o-Xylene	--	ND												
sec-Butylbenzene	5	ND												
tert-Butylbenzene	5	ND												
Toluene	5	ND												
Total xylenes	5	ND												
<i>Total TICs</i>	--	29	NA	11	3	ND	0.9	0.6	52	8	38	133	6	1 J
<i>Total VOCs</i>	--	29	ND	11	3	ND	0.9	0.6	52	8	38	145.0	0.8	1.7 J
Semi-Volatile Organic Compounds (ug/L)														
Acenaphthene ⁴	20	ND	0.04 J	0.04 J										
Anthracene ⁴	50	ND												
Benzo(a)anthracene ⁴	0.002	ND	0.02 J											
Bis (2 ethylhexyl)phthalate	5	ND												
Carbazole	--	ND	NA	ND										
Chrysene ⁴	0.002	ND												
Fluorene ⁴	50	ND	0.03 J											
Isophorone	--	NA	NA	NA	NA	ND								
1-Methylnaphthalene ⁴	--	NA	ND	NA	NA	ND								
Naphthalene ⁴	10 *	ND												
Phenanthrene ⁴	50	ND	1.3 JB	ND	ND	0.03 J								
Pyrene ⁴	50	ND	0.03 J	ND										
<i>Total TICs</i>	--	20	ND	ND	13	54	20	161	124	124	189	73	23	63 J
<i>Total SVOCs</i>	--	20	ND	ND	13	54	20	161	124	124	190	73	0.04	0.06 J

Notes:

1. Only those parameters detected at a minimum of one sample location are presented in this table; all other compounds were reported as non-detect.
2. NYSDEC Class "GA" Groundwater Quality Standards/Guidance Values (GWQS/GV), 6 NYCRR Part 703.
3. WCMW4 not sampled in June 2020 due to well being dry
4. SVOC results obtained using Method 1,870D-SIM, (starting June 2021 to present)

Definitions:

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 NA = Not analyzed
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 "*" = Groundwater Quality Guidance Value
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 J = Estimated value; result is less than the sample quantitation limit but greater than zero.
 B = Compound was found in the blank and sample

BOLD = Analytical result exceeds individual GWQS/GV.
 = Dates highlighted in blue indicate samples collected pre-remediation; all other samples collected post-remediation.

TABLE 3
2008-2022 GROUNDWATER ANALYTICAL SUMMARY - ORGANICS
PERIODIC REVIEW REPORT
OLEAN REDEVELOPMENT PARCEL 2
OLEAN, NEW YORK

Parameter ¹	GWQS/GV ²	W-17													
		02/22/12	07/17/14	12/17/14	04/13/15	09/02/15	08/10/16	12/14/16	05/17/17	12/22/17	06/11/18	07/10/19	06/19/20	06/27/21	08/02/22
Volatile Organic Compounds (ug/L)															
1,2,4-Trimethylbenzene	5	123	61.2	145	134	70.7	57.3	67.7	43.6	60.9 F1	93.3	ND	78	ND	110 D
1,2-Dichlorobenzene	3	3.1	2.63	2.68	3.23	2	1.91	2.23	1.4	1.95	3.25	ND	ND	4.40	2.8 J D
1,3,5-Trimethylbenzene	5	35.9	18.6	32.6	35.9	14.7	14.3	9.2	7.37	6.9	2.27	ND	ND	ND	ND
1,4-Dichlorobenzene	3	1	1.6	ND	ND	1.01	ND	ND	ND	ND	1.11	ND	ND	1.3 J	ND
Acetone	50	28.7	ND	44 J	ND	ND									
Benzene	1	12.2	4.06	4.8	5.58	7.1	7.86	7.37	3.94	7.31	12	5.2 J	9.3 J	19	12 D
Chlorobenzene	5	4	5.7	3.68	3.57	3.19	3.21	2.78	1.95	2.33	2.57	ND	ND	2.4 J	1.7 J D
Chloroform	7	ND													
Cyclohexane	--	NA	56.2	NA	76.4	34.8	32.2	37.4	31.3	38.2	69.6	35	49	65	47 D
Ethylbenzene	5	1.1	ND	1.02	1.52	ND	ND	2.2 J	1.8 J D						
Isopropylbenzene	5	NA	5.51	12.1	12.2	6.66	5.83	5.91	4.39	6.56	10.2	9.1 J	ND	16	10 D
m&p-Xylene	--	--	16.4	8.05	3	ND	2.66	ND	ND	2.68	2.94	ND	ND	6	4.9 J D
Methylcyclohexane	--	NA	70	70	113	57.5	33.2	45.4	36.4	51.1 F1	82.7	31	54	110	64 D
n-Butylbenzene	5	0.51	ND	ND	1.71	ND									
n-Propylbenzene	5	11	5.15	11.1	12.2	5.6	5.47	5.51	3.8	5.61	8.31	ND	ND	14	9.3 D
p-Isopropyltoluene	5	NA	ND	1.29	1.49	ND	1 J	ND							
o-Xylene	--	--	59.4	132	105	76.2	58.4	68	50.5	63.7 F1	82	ND	82	120	100 D
sec-Butylbenzene	5	1.4	1.29	1.37	1.99	ND	ND	ND	ND	ND	1.38	ND	ND	1.8 J	ND
tert-Butylbenzene	5	0.35	ND												
Toluene	5	6.5	3.16	4.82	2.71	1.75	1.44	1.75	ND	1.66	2.04	ND	ND	2.2 J	1.7 J D
Total xylenes	5	162	75.8	140	108	76.2	61.1	68.0	50.5	66.4	84.9	80	82	126	104.9
Total TICs	--	517	583	NA	190	148	87	174	69	97	287	98	ND	102	102 J
Total VOCs	--	908	894	429	702	429	372	427	254	347	662	302	354	491	365
Semi-Volatile Organic Compounds (ug/L)															
Acenaphthene ⁴	20	NA	ND												
Anthracene ⁴	50	NA	ND	0.09 J											
Benzo(a)anthracene ⁴	0.002	NA	ND	0.04 J											
Bis (2 ethylhexyl)phthalate	5	NA	10.3	ND											
Carbazole	--	NA	ND	NA	0.56 J										
Chrysene ⁴	0.002	NA	ND	0.03 J											
Fluorene ⁴	50	NA	ND	0.27	0.28										
Isophorone	--	NA	NA	NA	NA	NA	ND								
1-Methylnaphthalene ⁴	--	NA	NA	2.62	NA	NA	ND								
Naphthalene ⁴	10 *	NA	ND	0.17	0.18										
Phenanthrene ⁴	50	NA	ND	2.2 JB	ND	ND	ND								
Pyrene ⁴	50	NA	ND	0.05 J	ND										
Total TICs	--	NA	175	ND	147	385	238	47	337	62	47	508	373	446	328 J
Total SVOCs	--	NA	186	3	147	385	238	47	337	62	47	510	373	0	0

Notes:

1. Only those parameters detected at a minimum of one sample location are presented in this table; all other compounds were reported as non-detect.
2. NYSDEC Class "GA" Groundwater Quality Standards/Guidance Values (GWQS/GV), 6 NYCRR Part 703.
3. WCMW4 not sampled in June 2020 due to well being dry
4. SVOC results obtained using Method 1,870D-SIM, (starting June 2021 to present)

Definitions:

- ND = Parameter not detected above laboratory detection limit.
- NA = Not analyzed
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- ** = Groundwater Quality Guidance Value
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- J = Estimated value; result is less than the sample quantitation limit but greater than zero.
- B = Compound was found in the blank and sample

BOLD = Analytical result exceeds individual GWQS/GV.

Blue background = Dates highlighted in blue indicate samples collected pre-remediation; all other samples collected post-remediation.



TABLE 3
2008-2022 GROUNDWATER ANALYTICAL SUMMARY - ORGANICS
PERIODIC REVIEW REPORT
OLEAN REDEVELOPMENT PARCEL 2
OLEAN, NEW YORK

Parameter ¹	GWQS/GV ²	W-28										WCMW-4					
		02/22/12	08/10/16	12/14/16	05/16/17	12/22/17	06/12/18	07/10/19	06/19/20	06/27/21	08/02/22	08/11/16	12/14/16	05/17/17	12/22/17	06/12/18	07/10/19
Volatile Organic Compounds (ug/L)																	
1,2,4-Trimethylbenzene	5	0.25	ND														
1,2-Dichlorobenzene	3	ND															
1,3,5-Trimethylbenzene	5	ND															
1,4-Dichlorobenzene	3	ND															
Acetone	50	ND															
Benzene	1	ND															
Chlorobenzene	5	ND															
Chloroform	7	ND															
Cyclohexane	--	NA	ND	0.72 J	0.95 J	ND	ND	ND	ND	ND	ND						
Ethylbenzene	5	ND															
Isopropylbenzene	5	NA	ND														
m&p-Xylene	--	--	ND														
Methylcyclohexane	--	NA	ND	0.92 J	0.94 J	ND	ND	ND	ND	ND	ND						
n-Butylbenzene	5	ND															
n-Propylbenzene	5	ND															
p-Isopropyltoluene	5	NA	ND														
o-Xylene	--	--	ND														
sec-Butylbenzene	5	0.38	ND														
tert-Butylbenzene	5	0.43	ND														
Toluene	5	ND															
Total xylenes	5	0.44	ND														
Total TICs	--	155	238	44	131	46	34	94	64	30	32 J	635	1	ND	ND	ND	ND
Total VOCs	--	156	238	44	131	46	34	94	64	2	2 J	635	1	ND	ND	ND	ND
Semi-Volatile Organic Compounds (ug/L)																	
Acenaphthene ⁴	20	ND															
Anthracene ⁴	50	ND	0.08 J	ND													
Benzo(a)anthracene ⁴	0.002	ND	0.05 J	ND	ND	ND	ND	ND	ND								
Bis (2 ethylhexyl)phthalate	5	ND	16.4 B	ND	ND	ND	ND	ND									
Carbazole	--	NA	ND														
Chrysene ⁴	0.002	0.57	ND	0.08 J	ND	ND	ND	ND	ND	ND							
Fluorene ⁴	50	0.63	ND	0.3	ND												
Isophorone	--	NA	ND	ND	ND	ND	ND	ND	0.99 J	ND							
1-Methylnaphthalene ⁴	--	ND	NA	ND													
Naphthalene ⁴	10 *	ND	0.09 J	ND													
Phenanthrene ⁴	50	0.74	ND														
Pyrene ⁴	50	0.55 J	ND	0.04 J	0.12	ND	ND	ND	ND	ND	ND						
Total TICs	--	413	392	74	469	33	ND	301	204	250	290 J	168	162	257	123	77	315
Total SVOCs	--	415	392	74	469	33	ND	301	205	0	0.08 J	#VALUE!	162	257	123	77	315

Notes:

1. Only those parameters detected at a minimum of one sample location are presented in this table; all other compounds were reported as non-detect.
2. NYSDEC Class "GA" Groundwater Quality Standards/Guidance Values (GWQS/GV), 6 NYCRR Part 703.
3. WCMW4 not sampled in June 2020 due to well being dry
4. SVOC results obtained using Method 1,870D-SIM, (starting June 2021 to present)

Definitions:

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 "*" = Groundwater Quality Guidance Value
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 = Dates highlighted in blue indicate samples collected pre-remediation; all other samples collected post-remediation.



TABLE 4
2008-2021 GROUNDWATER ANALYTICAL SUMMARY - METALS
PERIODIC REVIEW REPORT
OLEAN REDEVELOPMENT PARCEL 2
OLEAN, NEW YORK

Parameter ¹	GWQS/GV ²	W-13										W-17								W-28										WCMW4									
		08/29/08	08/10/16	12/14/16	05/16/17	12/22/17	06/12/18	07/10/19	06/19/20	06/27/21	08/02/22	08/29/08	08/10/16	12/14/16	05/17/17	12/22/17	06/11/18	07/10/19	06/19/20	06/27/21	08/02/22	02/16/11	02/16/11	05/18/11	08/17/11	11/16/11	02/22/12	08/10/16	12/14/16	05/16/17	12/22/17	06/12/18	07/10/19	06/19/20	06/27/21	08/02/22	05/17/17	06/11/18	07/10/19
Metals (ug/L)																																							
Arsenic	25	3.6	ND	4.0	4.0 J	5.4	ND	1.38	ND	30.4	13.8	20.5	27.1	20	70.4	ND	16.9	ND	ND	ND	9.8 J	13 J	6.3	4.0 J	22	27.1	140												
Lead	25	<3.0	ND	1.2	ND	<3.0	7.9	17.9	ND	ND	ND	3 J	ND	ND	ND	30.4	13.7	NA	NA	NA	NA	17.2	ND	6.3	ND	ND	5.8 J	3.3 J	ND	ND	9.6	12.7	29						

Notes:

- Only those parameters detected at a minimum of one sample location are presented in this table; all other compounds were reported as non-detect.
- NYSDEC Class "GA" Groundwater Quality Standards/Guidance Values (GWQS/GV), 6 NYCRR Part 703.
- WCMW4 not sampled in June 2020 due to well being dry

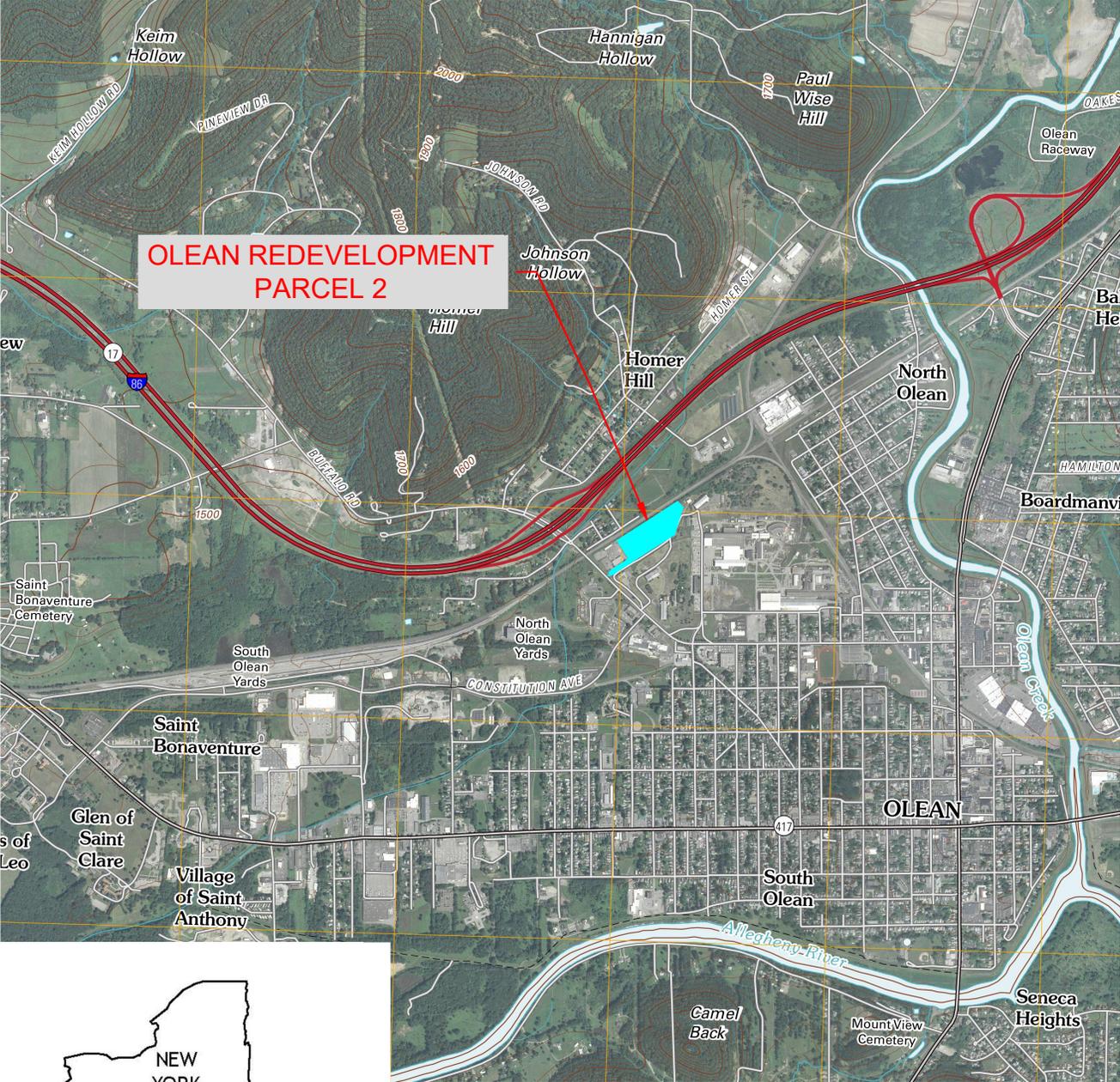
Definitions:

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 = Dates highlighted in blue indicate samples collected pre-remediation; all other samples collected post-remediation.

FIGURES

F:\CAD\Benchmark\Solean West,2023 PRR\Figure 1: Site Location & Vicinity Map.dwg, 2/4/2023 11:08:19 AM



QUADRANGLE LOCATION



BASE MAP USGS OLEAN NY QUADRANGLE 2010

APPROXIMATE SCALE 1" = 2,500'



2558 HAMBURG TURNPIKE, SUITE 300, BUFFALO, NY 14218, (716) 856-0599

PROJECT NO.: 0370-016-001

DATE: MARCH 2023

DRAFTED BY: RFL-CMC

SITE LOCATION AND VICINITY MAP

PERIODIC REVIEW REPORT
 OLEAN REDEVELOPMENT SITE 2
 NYSDEC BCP SITE NO. C905032
 OLEAN, NEW YORK
 PREPARED FOR
 SOLEAN WEST LLC

DISCLAIMER:
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APPROXIMATE SCALE 1" = 300'



Property Boundary (Approximate)

Base Image Google Earth April 2007



2558 HAMBURG TURNPIKE, SUITE 300, BUFFALO, NY 14218, (716) 856-0599

PROJECT NO.: 0370-016-001

DATE: MARCH 2023

DRAFTED BY: RFL-CMC

SITE PLAN PRE-REMEDATION

PERIODIC REVIEW REPORT

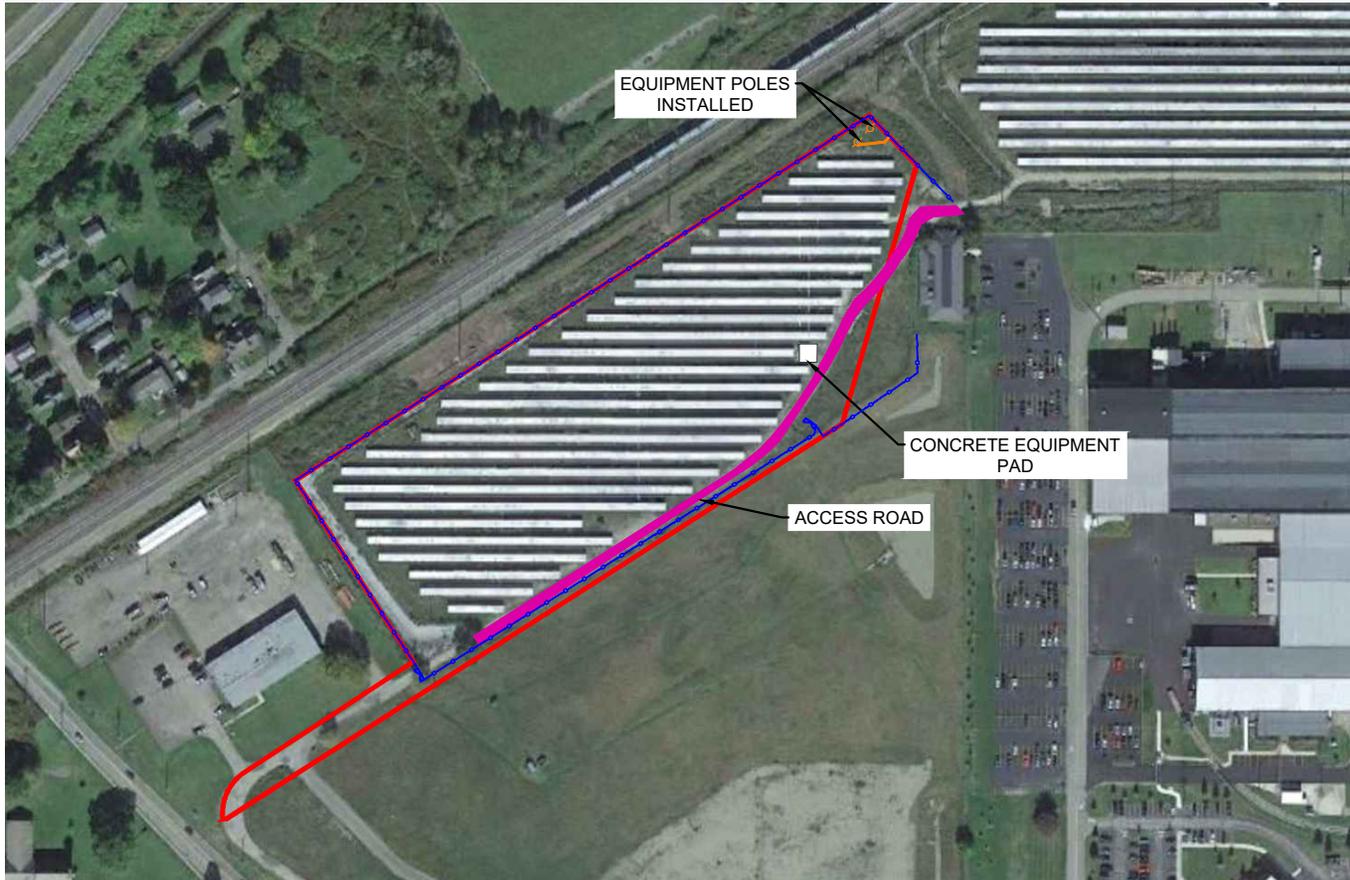
OLEAN REDEVELOPMENT PARCEL 2
NYSDEC BCP SITE NO. C905032
OLEAN, NEW YORK

PREPARED FOR
SOLEAN WEST LLC

FIGURE 2

DISCLAIMER:

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LEGEND



Property Boundary (Approximate)
 Conduit penetrations of cover system during redevelopment
 Power Pole installed during redevelopment



New Fence installed during redevelopment

Approximate Scale 1" = 300'

Base Image Google Earth August 2016



2558 HAMBURG TURNPIKE, SUITE 300, BUFFALO, NY 14218, (716) 856-0599

PROJECT NO.: 0370-016-001

DATE: MARCH 2023

DRAFTED BY: RFL-CMC

SITE PLAN POST-REMEDATION

PERIODIC REVIEW REPORT

OLEAN REDEVELOPMENT PARCEL 2
 NYSDEC BCP SITE NO. C905032
 OLEAN, NEW YORK

PREPARED FOR
 SOLEAN WEST LLC

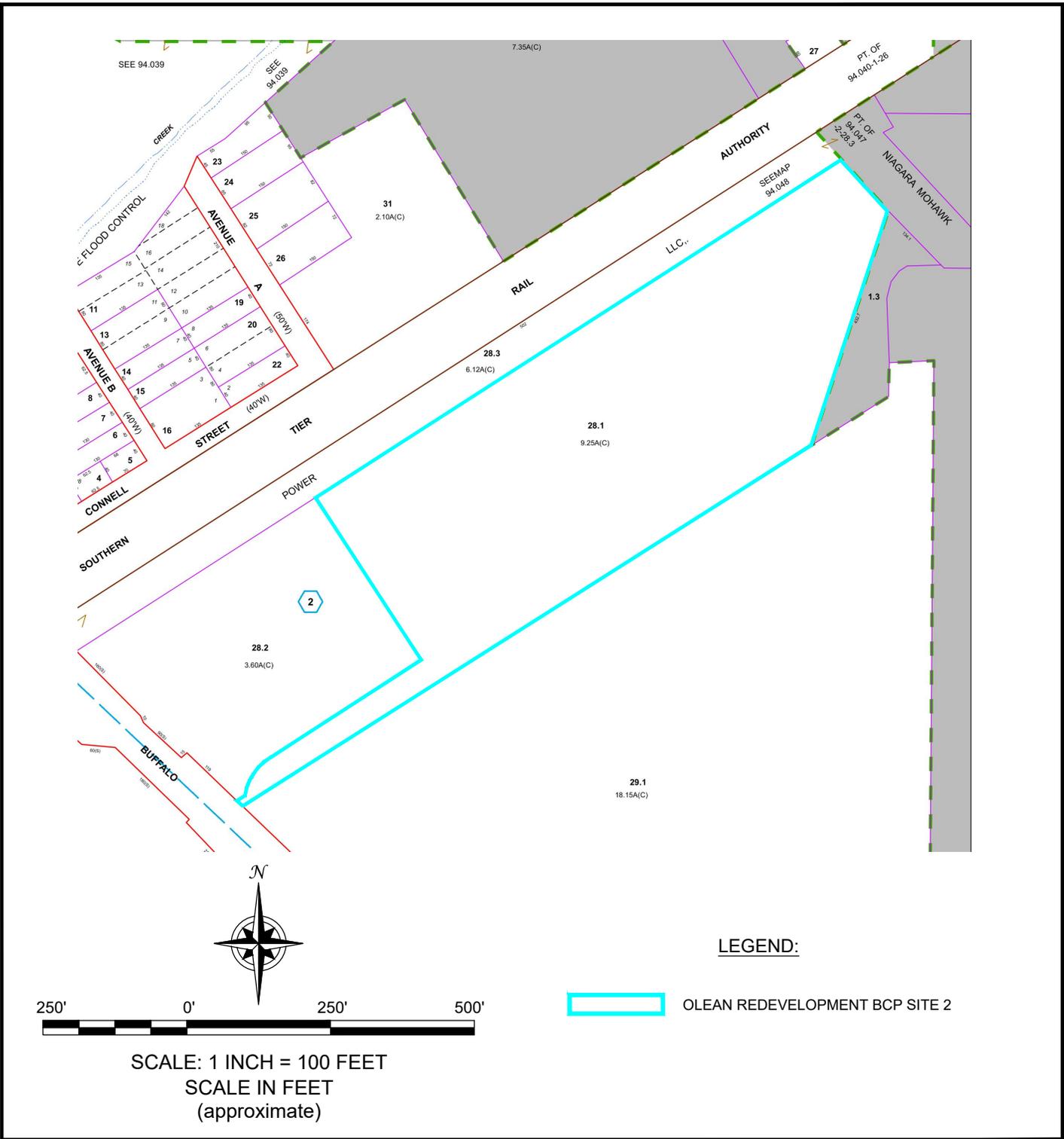
FIGURE 3

DISCLAIMER:

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FIGURE 4

F:\CAD\Benchmark\Solean West\2023 PRR\Figure 4; Survey_Tax Map.dwg, 2/4/2023 11:59:54 AM




BENCHMARK

2558 HAMBURG TURNPIKE, SUITE 300, BUFFALO, NY 14218, (716) 856-0599

PROJECT NO.:	0370-016-001
DATE:	MARCH 2023
DRAFTED BY:	CMC

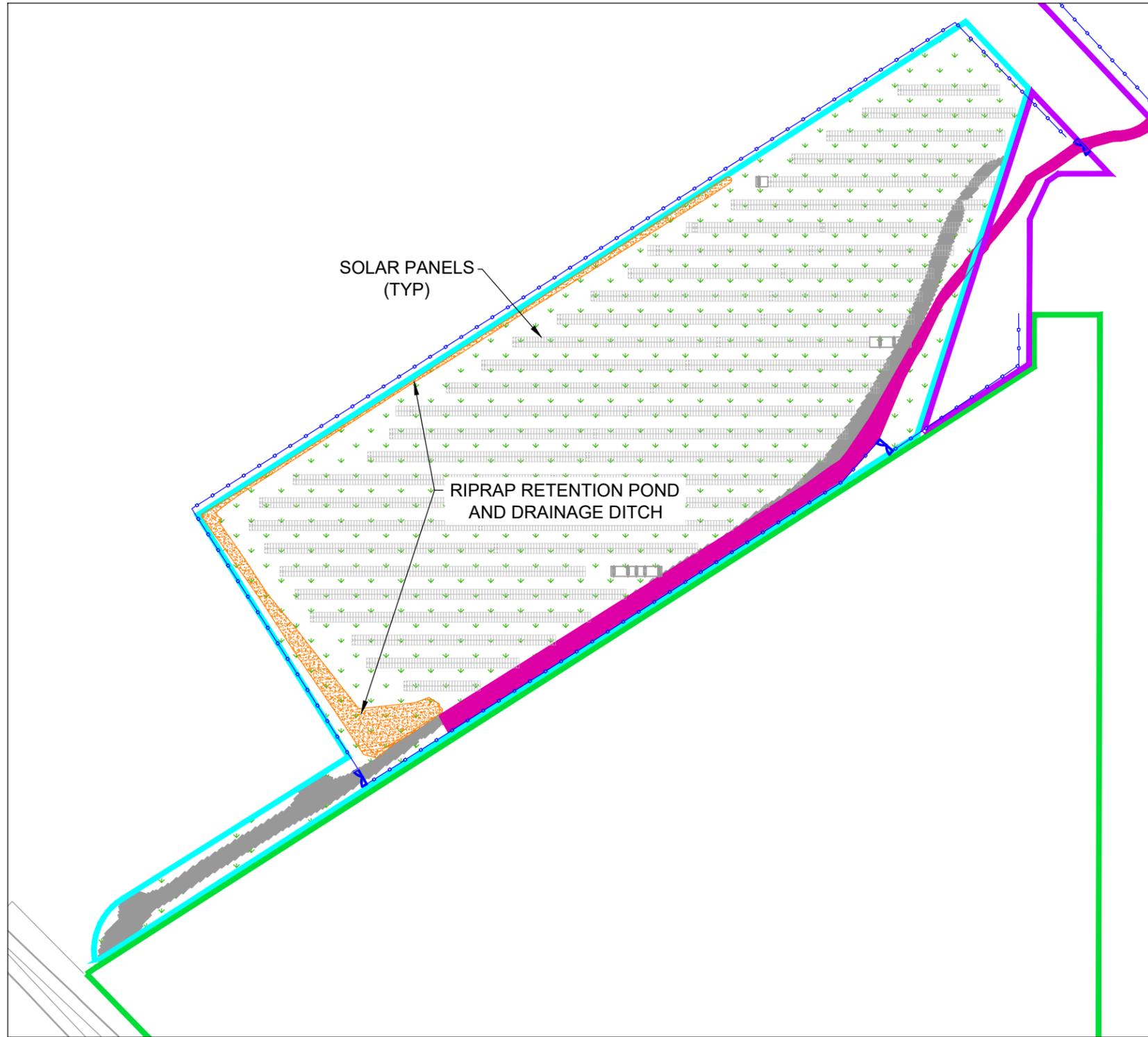
SURVEY / TAX PARCEL MAP

PERIODIC REVIEW REPORT

OLEAN REDEVELOPMENT PARCEL 2
 NYSDEC BCP SITE NO. C905032
 OLEAN, NEW YORK

PREPARED FOR
SOLEAN WEST LLC

DISCLAIMER:
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SOLAR PANELS
(TYP)

RIPRAP RETENTION POND
AND DRAINAGE DITCH

150' 0' 150' 300'

SCALE: 1 INCH = 150 FEET
SCALE IN FEET
(approximate)



LEGEND:

-  OLEAN REDEVELOPMENT BCP SITE 1
-  OLEAN REDEVELOPMENT BCP SITE 2
-  OLEAN REDEVELOPMENT BCP SITE 3
-  APPROXIMATE LOCATION OF ACCESS ROAD
(12" MIN. GRAVEL)
-  FENCE
-  ASPHALT ROADWAY
-  VEGETATED SOIL COVER

SITE COVER SYSTEM MAP

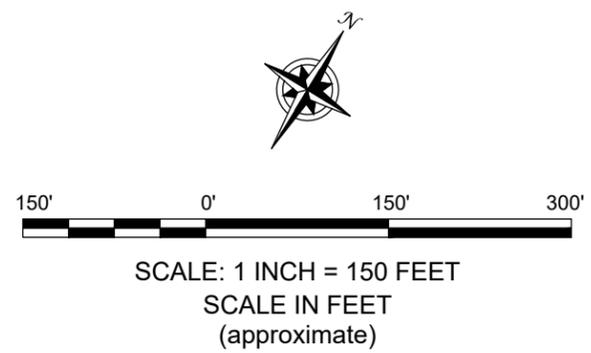
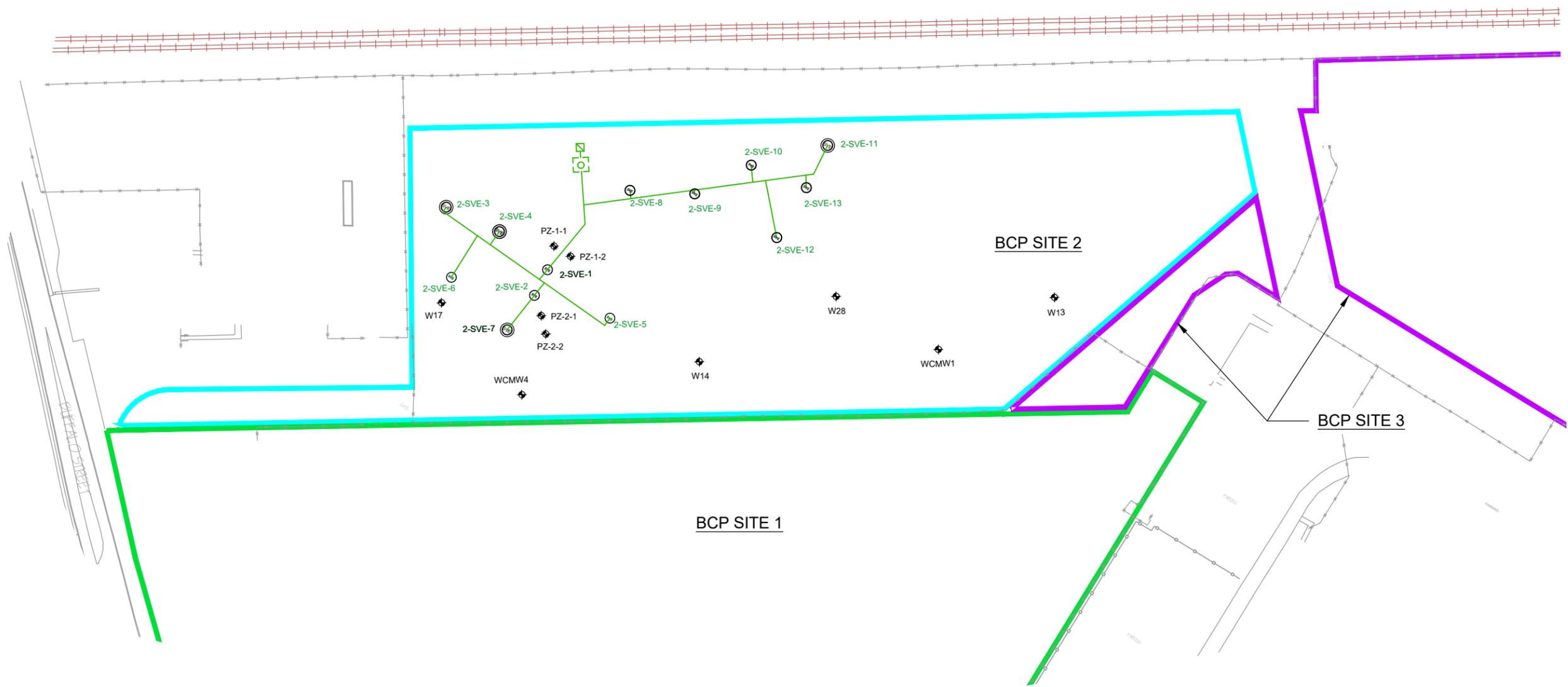
PERIODIC REVIEW REPORT
OLEAN REDEVELOPMENT PARCEL 2
BCP SITE NO. C905032
OLEAN, NEW YORK
PREPARED FOR
SOLEAN WEST LLC



2558 HAMBURG TURNPIKE, SUITE 300, BUFFALO, NY 14218,
(716) 856-0599

JOB NO.: 0370-016-001

FIGURE 5



- LEGEND:**
- OLEAN REDEVELOPMENT BCP SITE 1
 - OLEAN REDEVELOPMENT BCP SITE 2
 - OLEAN REDEVELOPMENT BCP SITE 3
 - SVE EXTRACTION WELL (SCREEN FROM 5 TO 15')
 - SVE EXTRACTION WELL (SCREEN FROM 2 TO 15')
 - PZ-1-2 VADOSE ZONE PIEZOMETER
 - W14 EXISTING MONITORING WELL
 - SVE PIPING FORCE MAIN (SUBGRADE)
 - SVE TRAILER BLOWER AND BIOFILTER

SOIL VAPOR EXTRACTION SYSTEM MAP

PERIODIC REVIEW REPORT
OLEAN REDEVELOPMENT PARCEL 2
NYSDEC BCP SITE NO. C905032
OLEAN, NEW YORK
PREPARED FOR
SOLEAN WEST LLC



2558 HAMBURG TURNPIKE, SUITE 300, BUFFALO, NY 14218,
(716) 866-0999

JOB NO.: 0370-016-001

FIGURE 7

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APPENDIX A

INSTITUTIONAL & ENGINEERING CONTROLS CERTIFICATION FORM

Box 2A

8. Has any new information revealed that assumptions made in the Qualitative Exposure Assessment regarding offsite contamination are no longer valid?

YES NO

If you answered YES to question 8, include documentation or evidence that documentation has been previously submitted with this certification form.

9. Are the assumptions in the Qualitative Exposure Assessment still valid?
(The Qualitative Exposure Assessment must be certified every five years)

If you answered NO to question 9, the Periodic Review Report must include an updated Qualitative Exposure Assessment based on the new assumptions.

SITE NO. C905032

Box 3

Description of Institutional Controls

Parcel

Owner

Institutional Control

94.047-2-28.1

Solean West LLC

Ground Water Use Restriction
Soil Management Plan
Landuse Restriction
Monitoring Plan
Site Management Plan
O&M Plan
IC/EC Plan

- The property may be used for commercial and/or industrial use;
- All engineering controls (ECs) must be operated and maintained as specified in the Site Management Plan (SMP);
- All ECs must be inspected at a frequency and in a manner defined in the SMP.
- The use of groundwater underlying the property is prohibited without necessary water quality treatment as determined by the NYSDOH or the Cattaraugus County Department of Health to render it safe for use as drinking water or for industrial purposes, and the user must first notify and obtain written approval to do so from the Department.
- Groundwater and other environmental or public health monitoring must be performed as defined in the SMP;
- Data and information pertinent to site management must be reported at the frequency and in a manner as defined in the SMP;
- All future activities that will disturb remaining contaminated material must be conducted in accordance with the SMP;
- Monitoring to assess the performance and effectiveness of the remedy must be performed as defined in the SMP;
- Operation, maintenance, monitoring, inspection, and reporting of any mechanical or physical component of the remedy shall be performed as defined in the SMP; and
- Access to the site must be provided to agents, employees or other representatives of the State of New York with reasonable prior notice to the property owner to assure compliance with the restrictions identified by the Environmental Easement.

Box 4

Description of Engineering Controls

Parcel

94.047-2-28.1

Engineering Control

Vapor Mitigation
Cover System
Air Sparging/Soil Vapor Extraction
Groundwater Treatment System

- a site cover that will allow for commercial use, that will consist either of structures such as buildings, pavement, sidewalks comprising the site development or a soil cover in areas where the upper one foot of exposed surface soil will exceed the applicable SCOs;
- removal of LNAPL from monitoring wells using the methods outlined in the SMP and RAWP;
- a soil vapor extraction (SVE) system to mitigate residual contamination in subsurface soil; and
- a vapor mitigation system for any future building(s) developed on-site.

Box 5

Periodic Review Report (PRR) Certification Statements

1. I certify by checking "YES" below that:

- a) the Periodic Review report and all attachments were prepared under the direction of, and reviewed by, the party making the Engineering Control certification;
- b) to the best of my knowledge and belief, the work and conclusions described in this certification are in accordance with the requirements of the site remedial program, and generally accepted engineering practices; and the information presented is accurate and complete.

YES NO

2. For each Engineering control listed in Box 4, I certify by checking "YES" below that all of the following statements are true:

- (a) The Engineering Control(s) employed at this site is unchanged since the date that the Control was put in-place, or was last approved by the Department;
- (b) nothing has occurred that would impair the ability of such Control, to protect public health and the environment;
- (c) access to the site will continue to be provided to the Department, to evaluate the remedy, including access to evaluate the continued maintenance of this Control;
- (d) nothing has occurred that would constitute a violation or failure to comply with the Site Management Plan for this Control; and
- (e) if a financial assurance mechanism is required by the oversight document for the site, the mechanism remains valid and sufficient for its intended purpose established in the document.

YES NO

IF THE ANSWER TO QUESTION 2 IS NO, sign and date below and DO NOT COMPLETE THE REST OF THIS FORM. Otherwise continue.

A Corrective Measures Work Plan must be submitted along with this form to address these issues.

Signature of Owner, Remedial Party or Designated Representative

Date

IC CERTIFICATIONS
SITE NO. C905032

Box 6

SITE OWNER OR DESIGNATED REPRESENTATIVE SIGNATURE

I certify that all information and statements in Boxes 1,2, and 3 are true. I understand that a false statement made herein is punishable as a Class "A" misdemeanor, pursuant to Section 210.45 of the Penal Law.

I Michael Lesakowski at TurnKey Environmental Restoration, LLC
2558 Hamburg Turnpike Suite 300, Buffalo, NY 14218,
print name print business address

am certifying as Designated Representative of Owner (Owner or Remedial Party)

for the Site named in the Site Details Section of this form.



Signature of Owner, Remedial Party, or Designated Representative
Rendering Certification

04/06/2023
Date

EC CERTIFICATIONS
SITE NO. C905032

Box 7

Professional Engineer Signature

I certify that all information in Boxes 4 and 5 are true. I understand that a false statement made herein is punishable as a Class "A" misdemeanor, pursuant to Section 210.45 of the Penal Law.

I Lori E. Riker at Benchmark Civil/Environmental Engineering & Geology, PLLC
2558 Hamburg Turnpike, Suite 300, Buffalo, NY 14218,
print name print business address

am certifying as a Professional Engineer for the Owner

(Owner or Remedial Party)



Lori Riker

Signature of Professional Engineer, for the Owner or Remedial Party, Rendering Certification

Stamp
(Required for PE)

4/5/2003
Date

APPENDIX B

SITE PHOTOGRAPHIC LOG

SITE PHOTOGRAPHS

Photo 1:



Photo 2:



Photo 3:



Photo 4:



March 9, 2023 Site Visit

Photo 1: Stone access road (looking northeast)

Photo 2: Rip rap pond and drainage ditch (looking northwest)

Photo 3: Vegetative soil cover around solar panels and belt skimmer shed (looking west)

Photo 4: Vegetative soil cover between solar panel rows and northern fence line (looking southwest)

SITE PHOTOGRAPHS

Photo 5:



Photo 6:



Photo 7:



Photo 8:



March 9, 2023 Site Visit

Photo 5: Site vegetative soil conditions between typical solar panel rows (looking east)

Photo 6: SVE trailer and biofilter

Photo 7: Vegetative soil cover under solar panels (looking south)

Photo 8: Riprap retention area with electrical conduit and solar panels beyond (looking east)

SITE PHOTOGRAPHS

Photo 9:



Photo 10:



Photo 9: Riprap detention pond and drainage ditch (looking northwest)

Photo 10: 2-SVE-1 treatment system trailer and bio pad (looking south)

APPENDIX C

GROUNDWATER SAMPLING FIELD FORMS AND ANALYTICAL DATA

Project Name: ORP #2 (Solean West)

Date: 8-2-22

Location: Olean, NY

Project No.:

Field Team:

Well No. WCMW1			Diameter (inches):			Sample Date / Time:			
Product Depth (fbTOR): 23.03			Water Column (ft):			DTW when sampled:			
DTW (static) (fbTOR): 23.15			One Well Volume (gal):			Purpose: <input type="checkbox"/> Development <input type="checkbox"/> Sample <input type="checkbox"/> Purge & Sample			
Total Depth (fbTOR):			Total Volume Purged (gal):			Purge Method:			
Time	Water Level (fbTOR)	Acc. Volume (gallons)	pH (units)	Temp. (deg. C)	SC (uS)	Turbidity (NTU)	DO (mg/L)	ORP (mV)	Appearance & Odor
0	Initial								
1									
2									
3									
4									
5									
6									
7									
8									
9									
10									
Sample Information:									
	S1								
	S2								

Well No. WCMW4			Diameter (inches): 3			Sample Date / Time:			
Product Depth (fbTOR):			Water Column (ft):			DTW when sampled:			
DTW (static) (fbTOR): Dry			One Well Volume (gal):			Purpose: <input type="checkbox"/> Development <input type="checkbox"/> Sample <input type="checkbox"/> Purge & Sample			
Total Depth (fbTOR): 16.09 16.37			Total Volume Purged (gal):			Purge Method:			
Time	Water Level (fbTOR)	Acc. Volume (gallons)	pH (units)	Temp. (deg. C)	SC (uS)	Turbidity (NTU)	DO (mg/L)	ORP (mV)	Appearance & Odor
0	Initial								
1									
2									
3									
4									
5									
6									
7									
8									
9									
10									
Sample Information:									
	S1								
	S2								

REMARKS: Historic product in WCMW1

Volume Calculation

Diam.	Vol. (g/ft)
1"	0.041
2"	0.163
4"	0.653
6"	1.469

Stabilization Criteria

Parameter	Criteria
pH	± 0.1 unit
SC	± 3%
Turbidity	± 10%
DO	± 0.3 mg/L
ORP	± 10 mV

Note: All water level measurements are in feet, distance from top of riser.

Project Name: ORP #2 (Solean West)

Date: 8-2-22

Location: Olean, NY

Project No.:

Field Team: CEH

Well No. W13			Diameter (inches): 4			Sample Date / Time: 8-2-22/1130			
Product Depth (fbTOR):			Water Column (ft): 9.35			DTW when sampled: 23.49			
DTW (static) (fbTOR): 23.07			One Well Volume (gal): 6.11			Purpose: <input type="checkbox"/> Development <input type="checkbox"/> Sample <input checked="" type="checkbox"/> Purge & Sample			
Total Depth (fbTOR): 32.42			Total Volume Purged (gal): 8.00			Purge Method: Low Flow			
Time	Water Level (fbTOR)	Acc. Volume (gallons)	pH (units)	Temp. (deg. C)	SC (uS)	Turbidity (NTU)	DO (mg/L)	ORP (mV)	Appearance & Odor
1118	0 Initial	0.00	7.20	19.4	1159	460	1.05	2	Turbid, no color
1121	1 23.49	1.00	6.89	17.4	1159	81.5	0.86	-38	clear, no color
1123	2 23.51	2.00	6.93	14.8	1109	24.4	0.82	-50	" " "
1125	3 23.50	3.00	6.97	15.8	1037	15.7	0.86	-59	" " "
1127	4 23.50	4.00	7.03	14.1	1014	12.1	0.85	-67	" " "
1129	5 23.48	5.00	7.04	14.1	1012	8.74	0.76	-71	" " "
	6								
	7								
	8								
	9								
	10								
Sample Information:									
1130	S1 23.49	6.00	7.06	14.2	998.2	8.06	0.80	-76	clear, no color
1140	S2 23.50	8.00	7.09	15.1	974.8	8.08	0.97	-81	" " "

Well No. W14			Diameter (inches):			Sample Date / Time:			
Product Depth (fbTOR): 24.18			Water Column (ft):			DTW when sampled:			
DTW (static) (fbTOR): 24.19			One Well Volume (gal):			Purpose: <input type="checkbox"/> Development <input type="checkbox"/> Sample <input type="checkbox"/> Purge & Sample			
Total Depth (fbTOR):			Total Volume Purged (gal):			Purge Method:			
Time	Water Level (fbTOR)	Acc. Volume (gallons)	pH (units)	Temp. (deg. C)	SC (uS)	Turbidity (NTU)	DO (mg/L)	ORP (mV)	Appearance & Odor
	0 Initial								
	1								
	2								
	3								
	4								
	5								
	6								
	7								
	8								
	9								
	10								
Sample Information:									
	S1								
	S2								

REMARKS: Historic product in W14

took blind dup with W13

Stabilization Criteria

Parameter	Criteria
pH	± 0.1 unit
SC	± 3%
Turbidity	± 10%
DO	± 0.3 mg/L
ORP	± 10 mV

Volume Calculation

Diam.	Vol. (g/ft)
1"	0.041
2"	0.163
4"	0.653
6"	1.469

Note: All water level measurements are in feet, distance from top of riser.

Project Name: ORP #2 (Solean West)

Date: 8-2-22

Location: Olean, NY

Project No.:

Field Team: CFH

Well No. W17		Diameter (inches): 4				Sample Date / Time: 8-2-22 / 1430			
Product Depth (fbTOR):		Water Column (ft): 9.25				DTW when sampled: 18.07			
DTW (static) (fbTOR): 17.35		One Well Volume (gal): 6.64				Purpose: <input type="checkbox"/> Development <input type="checkbox"/> Sample <input checked="" type="checkbox"/> Purge & Sample			
Total Depth (fbTOR): 26.66		Total Volume Purged (gal): 10.00				Purge Method: Low Flow			
Time	Water Level (fbTOR)	Acc. Volume (gallons)	pH (units)	Temp. (deg. C)	SC (uS)	Turbidity (NTU)	DO (mg/L)	ORP (mV)	Appearance & Odor
1403	0 Initial	0.00	7.32	22.7	680.7	110	1.01	-55	Sl Turbid, no odor
1406	1 17.80	1.00	7.11	18.1	670.5	37.7	0.97	-91	Clear, no odor
1408	2 18.07	2.00	7.11	16.6	686.4	30.6	0.87	-96	" " "
1410	3 18.07	3.00	7.01	14.1	723.5	19.0	0.81	-97	" " "
1412	4 18.07	4.00	7.01	14.2	774.7	17.4	0.86	-97	" " "
1414	5 18.07	5.00	6.99	14.1	816.5	16.5	0.67	-97	" " "
1416	6 18.07	6.00	6.98	14.1	849.2	16.0	0.59	-97	" " "
1418	7 18.07	7.00	6.97	13.9	878.7	11.9	0.68	-99	" " "
1420	8 18.07	8.00	6.96	13.8	886.3	12.4	0.67	-97	" " "
	9								
	10								
Sample Information:									
1430	S1 18.07	4.00	6.98	14.3	894.3	10.3	0.73	-97	Clear, no odor
1433	S2 18.11	10.00	7.03	15.0	911.9	9.55	0.74	-98	" " "

Well No. W28		Diameter (inches): 4				Sample Date / Time: 8-2-22 / 1240			
Product Depth (fbTOR):		Water Column (ft): 5.52				DTW when sampled: 26.82			
DTW (static) (fbTOR): 25.15		One Well Volume (gal): 3.60				Purpose: <input type="checkbox"/> Development <input type="checkbox"/> Sample <input checked="" type="checkbox"/> Purge & Sample			
Total Depth (fbTOR): 30.67		Total Volume Purged (gal): 8.00				Purge Method: Low Flow			
Time	Water Level (fbTOR)	Acc. Volume (gallons)	pH (units)	Temp. (deg. C)	SC (uS)	Turbidity (NTU)	DO (mg/L)	ORP (mV)	Appearance & Odor
1219	0 Initial	0.00	7.22	20.6	1123	19.8	0.93	-17	Clear, no odor
1221	1 26.03	1.00	7.05	16.5	1131	20.9	0.80	-60	" " "
1225	2 26.35	2.00	7.02	15.8	1136	29.9	0.78	-72	" " "
1229	3 26.55	3.00	7.00	15.3	1135	43.2	0.74	-77	" " "
1231	4 26.69	4.00	7.02	15.9	1144	39.5	0.67	-82	" " "
1233	5 26.75	5.00	7.03	15.3	1149	41.0	0.63	-85	" " "
	6								
	7								
	8								
	9								
	10								
Sample Information:									
1246	S1 26.82	6.00	7.03	15.4	1139	39.8	0.67	-88	Clear, no odor
1246	S2 26.58	8.00	7.05	17.7	1139	23.8	0.62	-105	" " "

REMARKS: TOOK MS/MSD WITH W28

Note: All water level measurements are in feet, distance from top of riser.

Diam.	Vol. (g/ft)
1"	0.041
2"	0.163
4"	0.653
6"	1.469

Parameter	Criteria
pH	± 0.1 unit
SC	± 3%
Turbidity	± 10%
DO	± 0.3 mg/L
ORP	± 10 mV

PREPARED BY:



EQUIPMENT CALIBRATION LOG

PROJECT INFORMATION:

Project Name: **ORP #2 (Solean West)**

Project No.:

Date: **8-2-22**

Client: **Acorn**

Instrument Source: BM Rental

METER TYPE	UNITS	TIME	MAKE/MODEL	SERIAL NUMBER	CAL. BY	STANDARD	POST CAL. READING	SETTINGS
<input checked="" type="checkbox"/> pH meter	units	0900	Myron L Company Ultra Meter 6P	6213516 <input type="checkbox"/> 6243084 <input checked="" type="checkbox"/> 6212375 <input type="checkbox"/> 6223973 <input type="checkbox"/>	CEH	4.00 7.00 10.01	3.99 7.01 10.00	
<input checked="" type="checkbox"/> Turbidity meter	NTU	0900	Hach 2100P or 2100Q Turbidimeter	06120C020523 (P) <input type="checkbox"/> 17110C0030619 <input checked="" type="checkbox"/> 13120C030432 (Q) <input type="checkbox"/>	CEH	< 0.4 or 10 for 2100 Q 20 100 800	9.28	
<input type="checkbox"/> Turbidity meter	NTU		LaMotte 2020	6523-1816 (La) <input type="checkbox"/>		0.0 NTU 1.0 NTU 10.0 NTU		
<input checked="" type="checkbox"/> Sp. Cond. meter	uS mS	0900	Myron L Company Ultra Meter 6P	6213516 <input type="checkbox"/> 6243084 <input checked="" type="checkbox"/> 6212375 <input checked="" type="checkbox"/> 6223973 <input type="checkbox"/>	CEH	7000 mS @ 25 °C	700 i	
<input type="checkbox"/> PID	ppm		MinRAE 2000			open air zero ppm Iso. Gas		MIBK response factor = 1.0
<input checked="" type="checkbox"/> Dissolved Oxygen	ppm	0900	HACH Model HQ30d	080700023281 <input type="checkbox"/> 100500041867 <input type="checkbox"/> 1402000100319 <input checked="" type="checkbox"/>	CEH	100% Saturation	100 %	
<input type="checkbox"/> Particulate meter	mg/m ³					zero air		
<input type="checkbox"/> Oxygen	%					open air		
<input type="checkbox"/> Hydrogen sulfide	ppm					open air		
<input type="checkbox"/> Carbon monoxide	ppm					open air		
<input type="checkbox"/> LEL	%					open air		
<input type="checkbox"/> Radiation Meter	uR/H					background area		

ADDITIONAL REMARKS:

PREPARED BY: **Equipment Calibration Log.xls**

DATE: **8-2-22**



ANALYTICAL REPORT

Lab Number:	L2241788
Client:	Benchmark & Turnkey Companies 2558 Hamburg Turnpike Suite 300 Buffalo, NY 14218
ATTN:	Lori Riker
Phone:	(716) 856-0599
Project Name:	ORP #2
Project Number:	0370-016-001
Report Date:	08/19/22

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

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: ORP #2
Project Number: 0370-016-001

Lab Number: L2241788
Report Date: 08/19/22

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L2241788-01	W13	WATER	OLEAN, NY	08/02/22 11:30	08/03/22
L2241788-02	W17	WATER	OLEAN, NY	08/02/22 14:30	08/03/22
L2241788-03	W28	WATER	OLEAN, NY	08/02/22 12:40	08/03/22
L2241788-04	BLIND DUP	WATER	OLEAN, NY	08/02/22 08:00	08/03/22
L2241788-05	TRIP BLANK	WATER	OLEAN, NY	08/02/22 00:00	08/03/22

Project Name: ORP #2
Project Number: 0370-016-001

Lab Number: L2241788
Report Date: 08/19/22

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: ORP #2
Project Number: 0370-016-001

Lab Number: L2241788
Report Date: 08/19/22

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

L2241788-02D: The sample has elevated detection limits due to the dilution required by the sample matrix (foam).

Semivolatile Organics

The WG1672732-1 Method Blank, associated with L2241788-01 through -04, has TIC(s) detected. The results are qualified with a "B" for any associated samples that have detections of the same TIC(s).

The WG1672732-6/-7 MS/MSD recoveries, performed on L2241788-03, are below the acceptance criteria for 3,3'-dichlorobenzidine (0%/0%) and 4-nitrophenol (0%/0%) due to the concentration of these compounds in the MS/MSD falling below the reported detection limit.

Semivolatile Organics by SIM

The WG1672733-1 Method Blank, associated with L2241788-01 through -04, has a concentration above the reporting limit for Phenanthrene. Since the associated sample concentrations are either greater than 10x the blank concentration or non-detect to the RL for this target analyte, no corrective action is required. Any results detected below the reporting limit are qualified with a "B".

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:

Tiffani Morrissey - Tiffani Morrissey

Title: Technical Director/Representative

Date: 08/19/22

ORGANICS

VOLATILES

Project Name: ORP #2
Project Number: 0370-016-001

Lab Number: L2241788
Report Date: 08/19/22

SAMPLE RESULTS

Lab ID: L2241788-01
 Client ID: W13
 Sample Location: OLEAN, NY

Date Collected: 08/02/22 11:30
 Date Received: 08/03/22
 Field Prep: Not Specified

Sample Depth:
 Matrix: Water
 Analytical Method: 1,8260C
 Analytical Date: 08/10/22 13:52
 Analyst: MV

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
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
Trichloroethene	ND		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1

Project Name: ORP #2
Project Number: 0370-016-001

Lab Number: L2241788
Report Date: 08/19/22

SAMPLE RESULTS

Lab ID: L2241788-01
Client ID: W13
Sample Location: OLEAN, NY

Date Collected: 08/02/22 11:30
Date Received: 08/03/22
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
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
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	1.7	J	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
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
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
n-Butylbenzene	ND		ug/l	2.5	0.70	1
sec-Butylbenzene	ND		ug/l	2.5	0.70	1
1,2-Dibromo-3-chloropropane	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
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
Methyl Acetate	ND		ug/l	2.0	0.23	1
Cyclohexane	ND		ug/l	10	0.27	1
1,4-Dioxane	ND		ug/l	250	61.	1
Freon-113	ND		ug/l	2.5	0.70	1
Methyl cyclohexane	ND		ug/l	10	0.40	1

Tentatively Identified Compounds

Total TIC Compounds	1.09	J	ug/l			1
Unknown	1.09	J	ug/l			1

Project Name: ORP #2
Project Number: 0370-016-001

Lab Number: L2241788
Report Date: 08/19/22

SAMPLE RESULTS

Lab ID: L2241788-01
 Client ID: W13
 Sample Location: OLEAN, NY

Date Collected: 08/02/22 11:30
 Date Received: 08/03/22
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
-----------	--------	-----------	-------	----	-----	-----------------

Volatile Organics by GC/MS - Westborough Lab						
--	--	--	--	--	--	--

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	109		70-130
Toluene-d8	105		70-130
4-Bromofluorobenzene	93		70-130
Dibromofluoromethane	99		70-130

Project Name: ORP #2
Project Number: 0370-016-001

Lab Number: L2241788
Report Date: 08/19/22

SAMPLE RESULTS

Lab ID: L2241788-02 D
 Client ID: W17
 Sample Location: OLEAN, NY

Date Collected: 08/02/22 14:30
 Date Received: 08/03/22
 Field Prep: Not Specified

Sample Depth:
 Matrix: Water
 Analytical Method: 1,8260C
 Analytical Date: 08/09/22 23:35
 Analyst: MV

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	5.0	1.4	2
1,1-Dichloroethane	ND		ug/l	5.0	1.4	2
Chloroform	ND		ug/l	5.0	1.4	2
Carbon tetrachloride	ND		ug/l	1.0	0.27	2
1,2-Dichloropropane	ND		ug/l	2.0	0.27	2
Dibromochloromethane	ND		ug/l	1.0	0.30	2
1,1,2-Trichloroethane	ND		ug/l	3.0	1.0	2
Tetrachloroethene	ND		ug/l	1.0	0.36	2
Chlorobenzene	1.7	J	ug/l	5.0	1.4	2
Trichlorofluoromethane	ND		ug/l	5.0	1.4	2
1,2-Dichloroethane	ND		ug/l	1.0	0.26	2
1,1,1-Trichloroethane	ND		ug/l	5.0	1.4	2
Bromodichloromethane	ND		ug/l	1.0	0.38	2
trans-1,3-Dichloropropene	ND		ug/l	1.0	0.33	2
cis-1,3-Dichloropropene	ND		ug/l	1.0	0.29	2
Bromoform	ND		ug/l	4.0	1.3	2
1,1,2,2-Tetrachloroethane	ND		ug/l	1.0	0.33	2
Benzene	12		ug/l	1.0	0.32	2
Toluene	1.7	J	ug/l	5.0	1.4	2
Ethylbenzene	1.8	J	ug/l	5.0	1.4	2
Chloromethane	ND		ug/l	5.0	1.4	2
Bromomethane	ND		ug/l	5.0	1.4	2
Vinyl chloride	ND		ug/l	2.0	0.14	2
Chloroethane	ND		ug/l	5.0	1.4	2
1,1-Dichloroethene	ND		ug/l	1.0	0.34	2
trans-1,2-Dichloroethene	ND		ug/l	5.0	1.4	2
Trichloroethene	ND		ug/l	1.0	0.35	2
1,2-Dichlorobenzene	2.8	J	ug/l	5.0	1.4	2

Project Name: ORP #2
Project Number: 0370-016-001

Lab Number: L2241788
Report Date: 08/19/22

SAMPLE RESULTS

Lab ID: L2241788-02 D
 Client ID: W17
 Sample Location: OLEAN, NY

Date Collected: 08/02/22 14:30
 Date Received: 08/03/22
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/l	5.0	1.4	2
1,4-Dichlorobenzene	ND		ug/l	5.0	1.4	2
Methyl tert butyl ether	ND		ug/l	5.0	1.4	2
p/m-Xylene	4.9	J	ug/l	5.0	1.4	2
o-Xylene	100		ug/l	5.0	1.4	2
cis-1,2-Dichloroethene	ND		ug/l	5.0	1.4	2
Styrene	ND		ug/l	5.0	1.4	2
Dichlorodifluoromethane	ND		ug/l	10	2.0	2
Acetone	ND		ug/l	10	2.9	2
Carbon disulfide	ND		ug/l	10	2.0	2
2-Butanone	ND		ug/l	10	3.9	2
4-Methyl-2-pentanone	ND		ug/l	10	2.0	2
2-Hexanone	ND		ug/l	10	2.0	2
Bromochloromethane	ND		ug/l	5.0	1.4	2
1,2-Dibromoethane	ND		ug/l	4.0	1.3	2
n-Butylbenzene	ND		ug/l	5.0	1.4	2
sec-Butylbenzene	ND		ug/l	5.0	1.4	2
1,2-Dibromo-3-chloropropane	ND		ug/l	5.0	1.4	2
Isopropylbenzene	10		ug/l	5.0	1.4	2
p-Isopropyltoluene	ND		ug/l	5.0	1.4	2
n-Propylbenzene	9.3		ug/l	5.0	1.4	2
1,2,3-Trichlorobenzene	ND		ug/l	5.0	1.4	2
1,2,4-Trichlorobenzene	ND		ug/l	5.0	1.4	2
1,3,5-Trimethylbenzene	ND		ug/l	5.0	1.4	2
1,2,4-Trimethylbenzene	110		ug/l	5.0	1.4	2
Methyl Acetate	ND		ug/l	4.0	0.47	2
Cyclohexane	47		ug/l	20	0.54	2
1,4-Dioxane	ND		ug/l	500	120	2
Freon-113	ND		ug/l	5.0	1.4	2
Methyl cyclohexane	64		ug/l	20	0.79	2

Project Name: ORP #2
Project Number: 0370-016-001

Lab Number: L2241788
Report Date: 08/19/22

SAMPLE RESULTS

Lab ID: L2241788-02 D
 Client ID: W17
 Sample Location: OLEAN, NY

Date Collected: 08/02/22 14:30
 Date Received: 08/03/22
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						

Tentatively Identified Compounds

Total TIC Compounds	102	J	ug/l			2
Cyclohexene	7.44	NJ	ug/l			2
Cyclopentane, Methyl-	19.4	NJ	ug/l			2
Unknown	4.08	J	ug/l			2
Unknown Benzene	3.88	J	ug/l			2
Unknown	5.20	J	ug/l			2
Unknown Cycloalkane	5.64	J	ug/l			2
Cyclohexane, 1,1-dimethyl-	7.00	NJ	ug/l			2
Unknown Benzene	11.8	J	ug/l			2
Unknown	6.98	J	ug/l			2
Unknown Aromatic	4.60	J	ug/l			2
Unknown Cycloalkane	5.06	J	ug/l			2
Unknown Cycloalkane	4.18	J	ug/l			2
Unknown Cycloalkane	9.52	J	ug/l			2
Unknown Benzene	3.60	J	ug/l			2
Unknown	3.74	J	ug/l			2

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	95		70-130
Toluene-d8	100		70-130
4-Bromofluorobenzene	94		70-130
Dibromofluoromethane	99		70-130

Project Name: ORP #2
Project Number: 0370-016-001

Lab Number: L2241788
Report Date: 08/19/22

SAMPLE RESULTS

Lab ID: L2241788-03
 Client ID: W28
 Sample Location: OLEAN, NY

Date Collected: 08/02/22 12:40
 Date Received: 08/03/22
 Field Prep: Not Specified

Sample Depth:
 Matrix: Water
 Analytical Method: 1,8260C
 Analytical Date: 08/09/22 23:58
 Analyst: MV

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
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
Trichloroethene	ND		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1

Project Name: ORP #2
Project Number: 0370-016-001

Lab Number: L2241788
Report Date: 08/19/22

SAMPLE RESULTS

Lab ID: L2241788-03
Client ID: W28
Sample Location: OLEAN, NY

Date Collected: 08/02/22 12:40
Date Received: 08/03/22
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
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
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70	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
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
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
n-Butylbenzene	ND		ug/l	2.5	0.70	1
sec-Butylbenzene	ND		ug/l	2.5	0.70	1
1,2-Dibromo-3-chloropropane	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
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
Methyl Acetate	ND		ug/l	2.0	0.23	1
Cyclohexane	0.95	J	ug/l	10	0.27	1
1,4-Dioxane	ND		ug/l	250	61.	1
Freon-113	ND		ug/l	2.5	0.70	1
Methyl cyclohexane	0.94	J	ug/l	10	0.40	1

Project Name: ORP #2
Project Number: 0370-016-001

Lab Number: L2241788
Report Date: 08/19/22

SAMPLE RESULTS

Lab ID: L2241788-03
 Client ID: W28
 Sample Location: OLEAN, NY

Date Collected: 08/02/22 12:40
 Date Received: 08/03/22
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						

Tentatively Identified Compounds

Total TIC Compounds	32.3	J	ug/l			1
Unknown Alkene	5.25	J	ug/l			1
Unknown	1.88	J	ug/l			1
Unknown	2.96	J	ug/l			1
Unknown Aromatic	4.81	J	ug/l			1
Unknown	2.00	J	ug/l			1
Indane	6.89	NJ	ug/l			1
Unknown Aromatic	2.61	J	ug/l			1
Unknown Indene	1.85	J	ug/l			1
Unknown	1.85	J	ug/l			1
Cyclohexene, 1,2-dimethyl-	2.15	NJ	ug/l			1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	96		70-130
Toluene-d8	99		70-130
4-Bromofluorobenzene	92		70-130
Dibromofluoromethane	97		70-130

Project Name: ORP #2
Project Number: 0370-016-001

Lab Number: L2241788
Report Date: 08/19/22

SAMPLE RESULTS

Lab ID: L2241788-04
 Client ID: BLIND DUP
 Sample Location: OLEAN, NY

Date Collected: 08/02/22 08:00
 Date Received: 08/03/22
 Field Prep: Not Specified

Sample Depth:

Matrix: Water
 Analytical Method: 1,8260C
 Analytical Date: 08/10/22 00:22
 Analyst: MV

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
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
Trichloroethene	ND		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1

Project Name: ORP #2
Project Number: 0370-016-001

Lab Number: L2241788
Report Date: 08/19/22

SAMPLE RESULTS

Lab ID: L2241788-04
Client ID: BLIND DUP
Sample Location: OLEAN, NY

Date Collected: 08/02/22 08:00
Date Received: 08/03/22
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
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
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70	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
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
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
n-Butylbenzene	ND		ug/l	2.5	0.70	1
sec-Butylbenzene	ND		ug/l	2.5	0.70	1
1,2-Dibromo-3-chloropropane	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
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
Methyl Acetate	ND		ug/l	2.0	0.23	1
Cyclohexane	ND		ug/l	10	0.27	1
1,4-Dioxane	ND		ug/l	250	61.	1
Freon-113	ND		ug/l	2.5	0.70	1
Methyl cyclohexane	ND		ug/l	10	0.40	1

Project Name: ORP #2
Project Number: 0370-016-001

Lab Number: L2241788
Report Date: 08/19/22

SAMPLE RESULTS

Lab ID: L2241788-04
 Client ID: BLIND DUP
 Sample Location: OLEAN, NY

Date Collected: 08/02/22 08:00
 Date Received: 08/03/22
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						

Tentatively Identified Compounds

Total TIC Compounds	5.42	J	ug/l			1
Cyclotrisiloxane, Hexamethyl-	1.36	NJ	ug/l			1
Butane, 2,3-Dimethyl-	1.14	NJ	ug/l			1
Sulfur Dioxide	1.48	NJ	ug/l			1
Unknown Aromatic	1.44	J	ug/l			1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	96		70-130
Toluene-d8	98		70-130
4-Bromofluorobenzene	95		70-130
Dibromofluoromethane	101		70-130

Project Name: ORP #2
Project Number: 0370-016-001

Lab Number: L2241788
Report Date: 08/19/22

SAMPLE RESULTS

Lab ID: L2241788-05
 Client ID: TRIP BLANK
 Sample Location: OLEAN, NY

Date Collected: 08/02/22 00:00
 Date Received: 08/03/22
 Field Prep: Not Specified

Sample Depth:
 Matrix: Water
 Analytical Method: 1,8260C
 Analytical Date: 08/10/22 00:45
 Analyst: MV

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
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
Trichloroethene	ND		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1

Project Name: ORP #2
Project Number: 0370-016-001

Lab Number: L2241788
Report Date: 08/19/22

SAMPLE RESULTS

Lab ID: L2241788-05
Client ID: TRIP BLANK
Sample Location: OLEAN, NY

Date Collected: 08/02/22 00:00
Date Received: 08/03/22
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
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
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70	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
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
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
n-Butylbenzene	ND		ug/l	2.5	0.70	1
sec-Butylbenzene	ND		ug/l	2.5	0.70	1
1,2-Dibromo-3-chloropropane	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
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
Methyl Acetate	ND		ug/l	2.0	0.23	1
Cyclohexane	ND		ug/l	10	0.27	1
1,4-Dioxane	ND		ug/l	250	61.	1
Freon-113	ND		ug/l	2.5	0.70	1
Methyl cyclohexane	ND		ug/l	10	0.40	1

Tentatively Identified Compounds

Total TIC Compounds	1.29	J	ug/l			1
Cyclotrisiloxane, Hexamethyl-	1.29	NJ	ug/l			1

Project Name: ORP #2
Project Number: 0370-016-001

Lab Number: L2241788
Report Date: 08/19/22

SAMPLE RESULTS

Lab ID: L2241788-05
 Client ID: TRIP BLANK
 Sample Location: OLEAN, NY

Date Collected: 08/02/22 00:00
 Date Received: 08/03/22
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
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Volatile Organics by GC/MS - Westborough Lab

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	96		70-130
Toluene-d8	98		70-130
4-Bromofluorobenzene	94		70-130
Dibromofluoromethane	100		70-130

Project Name: ORP #2
Project Number: 0370-016-001

Lab Number: L2241788
Report Date: 08/19/22

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 08/09/22 20:25
Analyst: TMS

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 02-05 Batch: WG1673714-5					
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
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
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70

Project Name: ORP #2
Project Number: 0370-016-001

Lab Number: L2241788
Report Date: 08/19/22

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 08/09/22 20:25
Analyst: TMS

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 02-05 Batch: WG1673714-5					
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
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70
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
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
1,2-Dibromoethane	ND		ug/l	2.0	0.65
n-Butylbenzene	ND		ug/l	2.5	0.70
sec-Butylbenzene	ND		ug/l	2.5	0.70
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70
Isopropylbenzene	ND		ug/l	2.5	0.70
p-Isopropyltoluene	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
Methyl Acetate	ND		ug/l	2.0	0.23
Cyclohexane	ND		ug/l	10	0.27
1,4-Dioxane	ND		ug/l	250	61.
Freon-113	ND		ug/l	2.5	0.70
Methyl cyclohexane	ND		ug/l	10	0.40

Project Name: ORP #2
Project Number: 0370-016-001

Lab Number: L2241788
Report Date: 08/19/22

**Method Blank Analysis
Batch Quality Control**

Analytical Method: 1,8260C
Analytical Date: 08/09/22 20:25
Analyst: TMS

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 02-05 Batch: WG1673714-5					

Tentatively Identified Compounds

Total TIC Compounds	1.32	J	ug/l		
Cyclotrisiloxane, Hexamethyl-	1.32	NJ	ug/l		

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	96		70-130
Toluene-d8	100		70-130
4-Bromofluorobenzene	94		70-130
Dibromofluoromethane	99		70-130

Project Name: ORP #2
Project Number: 0370-016-001

Lab Number: L2241788
Report Date: 08/19/22

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 08/10/22 10:23
Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01 Batch: WG1673963-5					
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
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
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70

Project Name: ORP #2
Project Number: 0370-016-001

Lab Number: L2241788
Report Date: 08/19/22

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 08/10/22 10:23
Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01 Batch: WG1673963-5					
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
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70
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
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
1,2-Dibromoethane	ND		ug/l	2.0	0.65
n-Butylbenzene	ND		ug/l	2.5	0.70
sec-Butylbenzene	ND		ug/l	2.5	0.70
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70
Isopropylbenzene	ND		ug/l	2.5	0.70
p-Isopropyltoluene	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
Methyl Acetate	ND		ug/l	2.0	0.23
Cyclohexane	ND		ug/l	10	0.27
1,4-Dioxane	ND		ug/l	250	61.
Freon-113	ND		ug/l	2.5	0.70
Methyl cyclohexane	ND		ug/l	10	0.40

Project Name: ORP #2
Project Number: 0370-016-001

Lab Number: L2241788
Report Date: 08/19/22

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 08/10/22 10:23
Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01 Batch: WG1673963-5					

Tentatively Identified Compounds

Total TIC Compounds	1.19	J	ug/l		
Unknown	1.19	J	ug/l		

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	106		70-130
Toluene-d8	106		70-130
4-Bromofluorobenzene	96		70-130
Dibromofluoromethane	99		70-130

Lab Control Sample Analysis

Batch Quality Control

Project Name: ORP #2
Project Number: 0370-016-001

Lab Number: L2241788
Report Date: 08/19/22

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 02-05 Batch: WG1673714-3 WG1673714-4								
Methylene chloride	91		89		70-130	2		20
1,1-Dichloroethane	87		86		70-130	1		20
Chloroform	92		90		70-130	2		20
Carbon tetrachloride	96		96		63-132	0		20
1,2-Dichloropropane	84		84		70-130	0		20
Dibromochloromethane	97		98		63-130	1		20
1,1,2-Trichloroethane	90		90		70-130	0		20
Tetrachloroethene	100		100		70-130	0		20
Chlorobenzene	94		94		75-130	0		20
Trichlorofluoromethane	93		94		62-150	1		20
1,2-Dichloroethane	87		90		70-130	3		20
1,1,1-Trichloroethane	92		92		67-130	0		20
Bromodichloromethane	92		92		67-130	0		20
trans-1,3-Dichloropropene	91		93		70-130	2		20
cis-1,3-Dichloropropene	89		89		70-130	0		20
Bromoform	99		100		54-136	1		20
1,1,2,2-Tetrachloroethane	86		89		67-130	3		20
Benzene	88		88		70-130	0		20
Toluene	90		90		70-130	0		20
Ethylbenzene	91		90		70-130	1		20
Chloromethane	50	Q	50	Q	64-130	0		20
Bromomethane	47		48		39-139	2		20
Vinyl chloride	70		69		55-140	1		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: ORP #2
Project Number: 0370-016-001

Lab Number: L2241788
Report Date: 08/19/22

Parameter	LCS		LCSD		%Recovery		RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual	Limits	RPD			
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 02-05 Batch: WG1673714-3 WG1673714-4									
Chloroethane	78		82		55-138	5			20
1,1-Dichloroethene	90		91		61-145	1			20
trans-1,2-Dichloroethene	92		93		70-130	1			20
Trichloroethene	95		94		70-130	1			20
1,2-Dichlorobenzene	97		98		70-130	1			20
1,3-Dichlorobenzene	98		99		70-130	1			20
1,4-Dichlorobenzene	97		96		70-130	1			20
Methyl tert butyl ether	90		94		63-130	4			20
p/m-Xylene	95		95		70-130	0			20
o-Xylene	95		95		70-130	0			20
cis-1,2-Dichloroethene	93		94		70-130	1			20
Styrene	95		95		70-130	0			20
Dichlorodifluoromethane	81		81		36-147	0			20
Acetone	56	Q	74		58-148	28		Q	20
Carbon disulfide	86		85		51-130	1			20
2-Butanone	57	Q	66		63-138	15			20
4-Methyl-2-pentanone	81		82		59-130	1			20
2-Hexanone	75		77		57-130	3			20
Bromochloromethane	100		110		70-130	10			20
1,2-Dibromoethane	96		98		70-130	2			20
n-Butylbenzene	93		92		53-136	1			20
sec-Butylbenzene	94		92		70-130	2			20
1,2-Dibromo-3-chloropropane	96		98		41-144	2			20

Lab Control Sample Analysis

Batch Quality Control

Project Name: ORP #2
Project Number: 0370-016-001

Lab Number: L2241788
Report Date: 08/19/22

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 02-05 Batch: WG1673714-3 WG1673714-4								
Isopropylbenzene	93		93		70-130	0		20
p-Isopropyltoluene	98		96		70-130	2		20
n-Propylbenzene	91		90		69-130	1		20
1,2,3-Trichlorobenzene	96		100		70-130	4		20
1,2,4-Trichlorobenzene	98		100		70-130	2		20
1,3,5-Trimethylbenzene	94		93		64-130	1		20
1,2,4-Trimethylbenzene	97		95		70-130	2		20
Methyl Acetate	74		75		70-130	1		20
Cyclohexane	85		86		70-130	1		20
1,4-Dioxane	92		96		56-162	4		20
Freon-113	100		100		70-130	0		20
Methyl cyclohexane	91		90		70-130	1		20

Surrogate	LCS		LCSD		Acceptance Criteria
	%Recovery	Qual	%Recovery	Qual	
1,2-Dichloroethane-d4	93		95		70-130
Toluene-d8	99		98		70-130
4-Bromofluorobenzene	95		95		70-130
Dibromofluoromethane	100		100		70-130

Lab Control Sample Analysis

Batch Quality Control

Project Name: ORP #2
Project Number: 0370-016-001

Lab Number: L2241788
Report Date: 08/19/22

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01 Batch: WG1673963-3 WG1673963-4								
Methylene chloride	93		98		70-130	5		20
1,1-Dichloroethane	110		110		70-130	0		20
Chloroform	99		100		70-130	1		20
Carbon tetrachloride	95		100		63-132	5		20
1,2-Dichloropropane	96		100		70-130	4		20
Dibromochloromethane	87		96		63-130	10		20
1,1,2-Trichloroethane	95		100		70-130	5		20
Tetrachloroethene	98		100		70-130	2		20
Chlorobenzene	95		100		75-130	5		20
Trichlorofluoromethane	100		110		62-150	10		20
1,2-Dichloroethane	100		110		70-130	10		20
1,1,1-Trichloroethane	93		98		67-130	5		20
Bromodichloromethane	110		110		67-130	0		20
trans-1,3-Dichloropropene	90		99		70-130	10		20
cis-1,3-Dichloropropene	91		97		70-130	6		20
Bromoform	87		97		54-136	11		20
1,1,2,2-Tetrachloroethane	91		110		67-130	19		20
Benzene	100		110		70-130	10		20
Toluene	97		100		70-130	3		20
Ethylbenzene	97		100		70-130	3		20
Chloromethane	150	Q	160	Q	64-130	6		20
Bromomethane	110		110		39-139	0		20
Vinyl chloride	140		150	Q	55-140	7		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: ORP #2
Project Number: 0370-016-001

Lab Number: L2241788
Report Date: 08/19/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01 Batch: WG1673963-3 WG1673963-4								
Chloroethane	260	Q	250	Q	55-138	4		20
1,1-Dichloroethene	99		110		61-145	11		20
trans-1,2-Dichloroethene	99		100		70-130	1		20
Trichloroethene	93		96		70-130	3		20
1,2-Dichlorobenzene	92		100		70-130	8		20
1,3-Dichlorobenzene	96		100		70-130	4		20
1,4-Dichlorobenzene	97		99		70-130	2		20
Methyl tert butyl ether	85		94		63-130	10		20
p/m-Xylene	95		100		70-130	5		20
o-Xylene	95		100		70-130	5		20
cis-1,2-Dichloroethene	94		100		70-130	6		20
Styrene	95		100		70-130	5		20
Dichlorodifluoromethane	140		150	Q	36-147	7		20
Acetone	93		120		58-148	25	Q	20
Carbon disulfide	110		120		51-130	9		20
2-Butanone	80		93		63-138	15		20
4-Methyl-2-pentanone	85		100		59-130	16		20
2-Hexanone	76		97		57-130	24	Q	20
Bromochloromethane	90		94		70-130	4		20
1,2-Dibromoethane	86		98		70-130	13		20
n-Butylbenzene	110		110		53-136	0		20
sec-Butylbenzene	100		100		70-130	0		20
1,2-Dibromo-3-chloropropane	72		88		41-144	20		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: ORP #2
Project Number: 0370-016-001

Lab Number: L2241788
Report Date: 08/19/22

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01 Batch: WG1673963-3 WG1673963-4								
Isopropylbenzene	95		98		70-130	3		20
p-Isopropyltoluene	96		98		70-130	2		20
n-Propylbenzene	100		100		69-130	0		20
1,2,3-Trichlorobenzene	79		94		70-130	17		20
1,2,4-Trichlorobenzene	82		94		70-130	14		20
1,3,5-Trimethylbenzene	97		99		64-130	2		20
1,2,4-Trimethylbenzene	95		96		70-130	1		20
Methyl Acetate	98		120		70-130	20		20
Cyclohexane	120		130		70-130	8		20
1,4-Dioxane	74		92		56-162	22	Q	20
Freon-113	110		120		70-130	9		20
Methyl cyclohexane	100		110		70-130	10		20

Surrogate	LCS		LCSD		Acceptance Criteria
	%Recovery	Qual	%Recovery	Qual	
1,2-Dichloroethane-d4	108		111		70-130
Toluene-d8	104		103		70-130
4-Bromofluorobenzene	93		90		70-130
Dibromofluoromethane	98		101		70-130

Matrix Spike Analysis

Batch Quality Control

Project Name: ORP #2
Project Number: 0370-016-001

Lab Number: L2241788
Report Date: 08/19/22

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): 02-05 QC Batch ID: WG1673714-6 WG1673714-7 QC Sample: L2241788-03 Client ID: W28												
Methylene chloride	ND	10	10	100		9.8	98		70-130	2		20
1,1-Dichloroethane	ND	10	9.8	98		9.6	96		70-130	2		20
Chloroform	ND	10	10	100		9.9	99		70-130	1		20
Carbon tetrachloride	ND	10	11	110		11	110		63-132	0		20
1,2-Dichloropropane	ND	10	9.4	94		9.4	94		70-130	0		20
Dibromochloromethane	ND	10	10	100		10	100		63-130	0		20
1,1,2-Trichloroethane	ND	10	13	130		12	120		70-130	8		20
Tetrachloroethene	ND	10	12	120		12	120		70-130	0		20
Chlorobenzene	ND	10	10	100		10	100		75-130	0		20
Trichlorofluoromethane	ND	10	11	110		11	110		62-150	0		20
1,2-Dichloroethane	ND	10	9.4	94		9.1	91		70-130	3		20
1,1,1-Trichloroethane	ND	10	11	110		11	110		67-130	0		20
Bromodichloromethane	ND	10	10	100		9.9	99		67-130	1		20
trans-1,3-Dichloropropene	ND	10	10	100		9.9	99		70-130	1		20
cis-1,3-Dichloropropene	ND	10	9.6	96		9.4	94		70-130	2		20
Bromoform	ND	10	11	110		10	100		54-136	10		20
1,1,2,2-Tetrachloroethane	ND	10	9.7	97		9.8	98		67-130	1		20
Benzene	ND	10	10	100		10	100		70-130	0		20
Toluene	ND	10	10	100		10	100		70-130	0		20
Ethylbenzene	ND	10	10	100		10	100		70-130	0		20
Chloromethane	ND	10	4.9	49	Q	5.0	50	Q	64-130	2		20
Bromomethane	ND	10	3.4	34	Q	4.0	40		39-139	16		20
Vinyl chloride	ND	10	8.5	85		8.4	84		55-140	1		20

Matrix Spike Analysis

Batch Quality Control

Project Name: ORP #2
Project Number: 0370-016-001

Lab Number: L2241788
Report Date: 08/19/22

<i>Parameter</i>	<i>Native Sample</i>	<i>MS Added</i>	<i>MS Found</i>	<i>MS %Recovery</i>	<i>Qual</i>	<i>MSD Found</i>	<i>MSD %Recovery</i>	<i>Qual</i>	<i>Recovery Limits</i>	<i>RPD</i>	<i>Qual</i>	<i>RPD Limits</i>
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 02-05 QC Batch ID: WG1673714-6 WG1673714-7 QC Sample: L2241788-03 Client ID: W28												
Chloroethane	ND	10	9.3	93		9.2	92		55-138	1		20
1,1-Dichloroethene	ND	10	11	110		11	110		61-145	0		20
trans-1,2-Dichloroethene	ND	10	11	110		11	110		70-130	0		20
Trichloroethene	ND	10	11	110		11	110		70-130	0		20
1,2-Dichlorobenzene	ND	10	11	110		11	110		70-130	0		20
1,3-Dichlorobenzene	ND	10	11	110		11	110		70-130	0		20
1,4-Dichlorobenzene	ND	10	10	100		10	100		70-130	0		20
Methyl tert butyl ether	ND	10	10	100		10	100		63-130	0		20
p/m-Xylene	ND	20	22	110		21	105		70-130	5		20
o-Xylene	ND	20	21	105		21	105		70-130	0		20
cis-1,2-Dichloroethene	ND	10	10	100		10	100		70-130	0		20
Styrene	ND	20	21	105		21	105		70-130	0		20
Dichlorodifluoromethane	ND	10	9.5	95		9.2	92		36-147	3		20
Acetone	ND	10	8.6	86		10	100		58-148	15		20
Carbon disulfide	ND	10	10	100		10	100		51-130	0		20
2-Butanone	ND	10	9.6	96		8.9	89		63-138	8		20
4-Methyl-2-pentanone	ND	10	10	100		10	100		59-130	0		20
2-Hexanone	ND	10	9.5	95		9.5	95		57-130	0		20
Bromochloromethane	ND	10	11	110		11	110		70-130	0		20
1,2-Dibromoethane	ND	10	11	110		10	100		70-130	10		20
n-Butylbenzene	ND	10	10	100		10	100		53-136	0		20
sec-Butylbenzene	ND	10	11	110		10	100		70-130	10		20
1,2-Dibromo-3-chloropropane	ND	10	12	120		12	120		41-144	0		20

Matrix Spike Analysis Batch Quality Control

Project Name: ORP #2
Project Number: 0370-016-001

Lab Number: L2241788
Report Date: 08/19/22

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): 02-05 QC Batch ID: WG1673714-6 WG1673714-7 QC Sample: L2241788-03 Client ID: W28												
Isopropylbenzene	ND	10	10	100		10	100		70-130	0		20
p-Isopropyltoluene	ND	10	11	110		11	110		70-130	0		20
n-Propylbenzene	ND	10	10	100		10	100		69-130	0		20
1,2,3-Trichlorobenzene	ND	10	12	120		12	120		70-130	0		20
1,2,4-Trichlorobenzene	ND	10	12	120		12	120		70-130	0		20
1,3,5-Trimethylbenzene	ND	10	10	100		10	100		64-130	0		20
1,2,4-Trimethylbenzene	ND	10	10	100		10	100		70-130	0		20
Methyl Acetate	ND	10	7.5	75		7.3	73		70-130	3		20
Cyclohexane	0.95J	10	11	110		11	110		70-130	0		20
1,4-Dioxane	ND	500	520	104		490	98		56-162	6		20
Freon-113	ND	10	11	110		11	110		70-130	0		20
Methyl cyclohexane	0.94J	10	11	110		11	110		70-130	0		20

Surrogate	MS % Recovery	MS Qualifier	MSD % Recovery	MSD Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	92		91		70-130
4-Bromofluorobenzene	93		93		70-130
Dibromofluoromethane	99		98		70-130
Toluene-d8	100		99		70-130

SEMIVOLATILES

Project Name: ORP #2
Project Number: 0370-016-001

Lab Number: L2241788
Report Date: 08/19/22

SAMPLE RESULTS

Lab ID: L2241788-01
 Client ID: W13
 Sample Location: OLEAN, NY

Date Collected: 08/02/22 11:30
 Date Received: 08/03/22
 Field Prep: Not Specified

Sample Depth:

Matrix: Water
 Analytical Method: 1,8270D
 Analytical Date: 08/15/22 14:32
 Analyst: SZ

Extraction Method: EPA 3510C
 Extraction Date: 08/09/22 12:24

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Bis(2-chloroethyl)ether	ND		ug/l	2.0	0.50	1
3,3'-Dichlorobenzidine	ND		ug/l	5.0	1.6	1
2,4-Dinitrotoluene	ND		ug/l	5.0	1.2	1
2,6-Dinitrotoluene	ND		ug/l	5.0	0.93	1
4-Chlorophenyl phenyl ether	ND		ug/l	2.0	0.49	1
4-Bromophenyl phenyl ether	ND		ug/l	2.0	0.38	1
Bis(2-chloroisopropyl)ether	ND		ug/l	2.0	0.53	1
Bis(2-chloroethoxy)methane	ND		ug/l	5.0	0.50	1
Hexachlorocyclopentadiene	ND		ug/l	20	0.69	1
Isophorone	ND		ug/l	5.0	1.2	1
Nitrobenzene	ND		ug/l	2.0	0.77	1
NDPA/DPA	ND		ug/l	2.0	0.42	1
n-Nitrosodi-n-propylamine	ND		ug/l	5.0	0.64	1
Bis(2-ethylhexyl)phthalate	ND		ug/l	3.0	1.5	1
Butyl benzyl phthalate	ND		ug/l	5.0	1.2	1
Di-n-butylphthalate	ND		ug/l	5.0	0.39	1
Di-n-octylphthalate	ND		ug/l	5.0	1.3	1
Diethyl phthalate	ND		ug/l	5.0	0.38	1
Dimethyl phthalate	ND		ug/l	5.0	1.8	1
Biphenyl	ND		ug/l	2.0	0.46	1
4-Chloroaniline	ND		ug/l	5.0	1.1	1
2-Nitroaniline	ND		ug/l	5.0	0.50	1
3-Nitroaniline	ND		ug/l	5.0	0.81	1
4-Nitroaniline	ND		ug/l	5.0	0.80	1
Dibenzofuran	ND		ug/l	2.0	0.50	1
1,2,4,5-Tetrachlorobenzene	ND		ug/l	10	0.44	1
Acetophenone	ND		ug/l	5.0	0.53	1
2,4,6-Trichlorophenol	ND		ug/l	5.0	0.61	1

Project Name: ORP #2
Project Number: 0370-016-001

Lab Number: L2241788
Report Date: 08/19/22

SAMPLE RESULTS

Lab ID: L2241788-01
Client ID: W13
Sample Location: OLEAN, NY

Date Collected: 08/02/22 11:30
Date Received: 08/03/22
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
p-Chloro-m-cresol	ND		ug/l	2.0	0.35	1
2-Chlorophenol	ND		ug/l	2.0	0.48	1
2,4-Dichlorophenol	ND		ug/l	5.0	0.41	1
2,4-Dimethylphenol	ND		ug/l	5.0	1.8	1
2-Nitrophenol	ND		ug/l	10	0.85	1
4-Nitrophenol	ND		ug/l	10	0.67	1
2,4-Dinitrophenol	ND		ug/l	20	6.6	1
4,6-Dinitro-o-cresol	ND		ug/l	10	1.8	1
Phenol	ND		ug/l	5.0	0.57	1
2-Methylphenol	ND		ug/l	5.0	0.49	1
3-Methylphenol/4-Methylphenol	ND		ug/l	5.0	0.48	1
2,4,5-Trichlorophenol	ND		ug/l	5.0	0.77	1
Carbazole	ND		ug/l	2.0	0.49	1
Atrazine	ND		ug/l	10	0.76	1
Benzaldehyde	ND		ug/l	5.0	0.53	1
Caprolactam	ND		ug/l	10	3.3	1
2,3,4,6-Tetrachlorophenol	ND		ug/l	5.0	0.84	1

Project Name: ORP #2
Project Number: 0370-016-001

Lab Number: L2241788
Report Date: 08/19/22

SAMPLE RESULTS

Lab ID: L2241788-01
 Client ID: W13
 Sample Location: OLEAN, NY

Date Collected: 08/02/22 11:30
 Date Received: 08/03/22
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						

Tentatively Identified Compounds

Total TIC Compounds	62.5	J	ug/l			1
Benzoic Acid	2.29	NJ	ug/l			1
Unknown	2.44	J	ug/l			1
Unknown	3.09	J	ug/l			1
Unknown	1.74	J	ug/l			1
Unknown	2.54	J	ug/l			1
Unknown	5.24	J	ug/l			1
Unknown	1.67	J	ug/l			1
Unknown	12.2	J	ug/l			1
Unknown	2.73	J	ug/l			1
Unknown Alkane	4.84	J	ug/l			1
Unknown Alkane	2.84	J	ug/l			1
Unknown Benzene	3.38	J	ug/l			1
Unknown Organic Acid	2.33	J	ug/l			1
Unknown Organic Acid	2.40	J	ug/l			1
Unknown Organic Acid	12.8	JB	ug/l			1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	52		21-120
Phenol-d6	50		10-120
Nitrobenzene-d5	75		23-120
2-Fluorobiphenyl	72		15-120
2,4,6-Tribromophenol	70		10-120
4-Terphenyl-d14	79		41-149

Project Name: ORP #2
Project Number: 0370-016-001

Lab Number: L2241788
Report Date: 08/19/22

SAMPLE RESULTS

Lab ID: L2241788-01
 Client ID: W13
 Sample Location: OLEAN, NY

Date Collected: 08/02/22 11:30
 Date Received: 08/03/22
 Field Prep: Not Specified

Sample Depth:
 Matrix: Water
 Analytical Method: 1,8270D-SIM
 Analytical Date: 08/12/22 15:33
 Analyst: AH

Extraction Method: EPA 3510C
 Extraction Date: 08/09/22 12:25

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS-SIM - Westborough Lab						
Acenaphthene	0.04	J	ug/l	0.10	0.01	1
2-Chloronaphthalene	ND		ug/l	0.20	0.02	1
Fluoranthene	ND		ug/l	0.10	0.02	1
Hexachlorobutadiene	ND		ug/l	0.50	0.05	1
Naphthalene	ND		ug/l	0.10	0.05	1
Benzo(a)anthracene	0.02	J	ug/l	0.10	0.02	1
Benzo(a)pyrene	ND		ug/l	0.10	0.02	1
Benzo(b)fluoranthene	ND		ug/l	0.10	0.01	1
Benzo(k)fluoranthene	ND		ug/l	0.10	0.01	1
Chrysene	ND		ug/l	0.10	0.01	1
Acenaphthylene	ND		ug/l	0.10	0.01	1
Anthracene	ND		ug/l	0.10	0.01	1
Benzo(ghi)perylene	ND		ug/l	0.10	0.01	1
Fluorene	0.03	J	ug/l	0.10	0.01	1
Phenanthrene	0.03	J	ug/l	0.10	0.02	1
Dibenzo(a,h)anthracene	ND		ug/l	0.10	0.01	1
Indeno(1,2,3-cd)pyrene	ND		ug/l	0.10	0.01	1
Pyrene	ND		ug/l	0.10	0.02	1
2-Methylnaphthalene	ND		ug/l	0.10	0.02	1
Pentachlorophenol	ND		ug/l	0.80	0.01	1
Hexachlorobenzene	ND		ug/l	0.80	0.01	1
Hexachloroethane	ND		ug/l	0.80	0.06	1

Project Name: ORP #2
Project Number: 0370-016-001

Lab Number: L2241788
Report Date: 08/19/22

SAMPLE RESULTS

Lab ID: L2241788-01
 Client ID: W13
 Sample Location: OLEAN, NY

Date Collected: 08/02/22 11:30
 Date Received: 08/03/22
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS-SIM - Westborough Lab						

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	56		21-120
Phenol-d6	52		10-120
Nitrobenzene-d5	82		23-120
2-Fluorobiphenyl	82		15-120
2,4,6-Tribromophenol	122	Q	10-120
4-Terphenyl-d14	93		41-149

Project Name: ORP #2
Project Number: 0370-016-001

Lab Number: L2241788
Report Date: 08/19/22

SAMPLE RESULTS

Lab ID: L2241788-02
 Client ID: W17
 Sample Location: OLEAN, NY

Date Collected: 08/02/22 14:30
 Date Received: 08/03/22
 Field Prep: Not Specified

Sample Depth:
 Matrix: Water
 Analytical Method: 1,8270D
 Analytical Date: 08/16/22 19:20
 Analyst: JG

Extraction Method: EPA 3510C
 Extraction Date: 08/09/22 12:24

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Bis(2-chloroethyl)ether	ND		ug/l	2.0	0.50	1
3,3'-Dichlorobenzidine	ND		ug/l	5.0	1.6	1
2,4-Dinitrotoluene	ND		ug/l	5.0	1.2	1
2,6-Dinitrotoluene	ND		ug/l	5.0	0.93	1
4-Chlorophenyl phenyl ether	ND		ug/l	2.0	0.49	1
4-Bromophenyl phenyl ether	ND		ug/l	2.0	0.38	1
Bis(2-chloroisopropyl)ether	ND		ug/l	2.0	0.53	1
Bis(2-chloroethoxy)methane	ND		ug/l	5.0	0.50	1
Hexachlorocyclopentadiene	ND		ug/l	20	0.69	1
Isophorone	ND		ug/l	5.0	1.2	1
Nitrobenzene	ND		ug/l	2.0	0.77	1
NDPA/DPA	ND		ug/l	2.0	0.42	1
n-Nitrosodi-n-propylamine	ND		ug/l	5.0	0.64	1
Bis(2-ethylhexyl)phthalate	ND		ug/l	3.0	1.5	1
Butyl benzyl phthalate	ND		ug/l	5.0	1.2	1
Di-n-butylphthalate	ND		ug/l	5.0	0.39	1
Di-n-octylphthalate	ND		ug/l	5.0	1.3	1
Diethyl phthalate	ND		ug/l	5.0	0.38	1
Dimethyl phthalate	ND		ug/l	5.0	1.8	1
Biphenyl	ND		ug/l	2.0	0.46	1
4-Chloroaniline	ND		ug/l	5.0	1.1	1
2-Nitroaniline	ND		ug/l	5.0	0.50	1
3-Nitroaniline	ND		ug/l	5.0	0.81	1
4-Nitroaniline	ND		ug/l	5.0	0.80	1
Dibenzofuran	ND		ug/l	2.0	0.50	1
1,2,4,5-Tetrachlorobenzene	ND		ug/l	10	0.44	1
Acetophenone	ND		ug/l	5.0	0.53	1
2,4,6-Trichlorophenol	ND		ug/l	5.0	0.61	1

Project Name: ORP #2
Project Number: 0370-016-001

Lab Number: L2241788
Report Date: 08/19/22

SAMPLE RESULTS

Lab ID: L2241788-02
Client ID: W17
Sample Location: OLEAN, NY

Date Collected: 08/02/22 14:30
Date Received: 08/03/22
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
p-Chloro-m-cresol	ND		ug/l	2.0	0.35	1
2-Chlorophenol	ND		ug/l	2.0	0.48	1
2,4-Dichlorophenol	ND		ug/l	5.0	0.41	1
2,4-Dimethylphenol	ND		ug/l	5.0	1.8	1
2-Nitrophenol	ND		ug/l	10	0.85	1
4-Nitrophenol	ND		ug/l	10	0.67	1
2,4-Dinitrophenol	ND		ug/l	20	6.6	1
4,6-Dinitro-o-cresol	ND		ug/l	10	1.8	1
Phenol	ND		ug/l	5.0	0.57	1
2-Methylphenol	ND		ug/l	5.0	0.49	1
3-Methylphenol/4-Methylphenol	ND		ug/l	5.0	0.48	1
2,4,5-Trichlorophenol	ND		ug/l	5.0	0.77	1
Carbazole	0.56	J	ug/l	2.0	0.49	1
Atrazine	ND		ug/l	10	0.76	1
Benzaldehyde	ND		ug/l	5.0	0.53	1
Caprolactam	ND		ug/l	10	3.3	1
2,3,4,6-Tetrachlorophenol	ND		ug/l	5.0	0.84	1

Project Name: ORP #2
Project Number: 0370-016-001

Lab Number: L2241788
Report Date: 08/19/22

SAMPLE RESULTS

Lab ID: L2241788-02
 Client ID: W17
 Sample Location: OLEAN, NY

Date Collected: 08/02/22 14:30
 Date Received: 08/03/22
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						

Tentatively Identified Compounds

Total TIC Compounds	328	J	ug/l			1
Unknown	11.7	J	ug/l			1
Unknown	12.0	J	ug/l			1
Unknown	17.0	J	ug/l			1
Unknown	21.6	J	ug/l			1
Unknown	13.6	J	ug/l			1
Unknown	14.0	J	ug/l			1
Unknown	20.5	J	ug/l			1
Unknown	16.5	J	ug/l			1
Unknown	13.2	J	ug/l			1
Unknown Alkane	20.9	J	ug/l			1
Unknown Benzene	42.9	J	ug/l			1
Unknown Benzene	50.5	J	ug/l			1
Unknown Benzene	19.6	J	ug/l			1
Unknown Organic Acid	39.4	J	ug/l			1
Unknown Organic Acid	14.7	JB	ug/l			1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	69		21-120
Phenol-d6	60		10-120
Nitrobenzene-d5	93		23-120
2-Fluorobiphenyl	75		15-120
2,4,6-Tribromophenol	122	Q	10-120
4-Terphenyl-d14	91		41-149

Project Name: ORP #2
Project Number: 0370-016-001

Lab Number: L2241788
Report Date: 08/19/22

SAMPLE RESULTS

Lab ID: L2241788-02
 Client ID: W17
 Sample Location: OLEAN, NY

Date Collected: 08/02/22 14:30
 Date Received: 08/03/22
 Field Prep: Not Specified

Sample Depth:
 Matrix: Water
 Analytical Method: 1,8270D-SIM
 Analytical Date: 08/18/22 10:12
 Analyst: JJW

Extraction Method: EPA 3510C
 Extraction Date: 08/09/22 12:25

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS-SIM - Westborough Lab						
Acenaphthene	ND		ug/l	0.10	0.01	1
2-Chloronaphthalene	ND		ug/l	0.20	0.02	1
Fluoranthene	ND		ug/l	0.10	0.02	1
Hexachlorobutadiene	ND		ug/l	0.50	0.05	1
Naphthalene	0.18		ug/l	0.10	0.05	1
Benzo(a)anthracene	0.04	J	ug/l	0.10	0.02	1
Benzo(a)pyrene	ND		ug/l	0.10	0.02	1
Benzo(b)fluoranthene	ND		ug/l	0.10	0.01	1
Benzo(k)fluoranthene	ND		ug/l	0.10	0.01	1
Chrysene	0.03	J	ug/l	0.10	0.01	1
Acenaphthylene	ND		ug/l	0.10	0.01	1
Anthracene	0.09	J	ug/l	0.10	0.01	1
Benzo(ghi)perylene	ND		ug/l	0.10	0.01	1
Fluorene	0.28		ug/l	0.10	0.01	1
Phenanthrene	ND		ug/l	0.10	0.02	1
Dibenzo(a,h)anthracene	ND		ug/l	0.10	0.01	1
Indeno(1,2,3-cd)pyrene	ND		ug/l	0.10	0.01	1
Pyrene	ND		ug/l	0.10	0.02	1
2-Methylnaphthalene	ND		ug/l	0.10	0.02	1
Pentachlorophenol	ND		ug/l	0.80	0.01	1
Hexachlorobenzene	ND		ug/l	0.80	0.01	1
Hexachloroethane	ND		ug/l	0.80	0.06	1

Project Name: ORP #2
Project Number: 0370-016-001

Lab Number: L2241788
Report Date: 08/19/22

SAMPLE RESULTS

Lab ID: L2241788-02
 Client ID: W17
 Sample Location: OLEAN, NY

Date Collected: 08/02/22 14:30
 Date Received: 08/03/22
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
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Semivolatile Organics by GC/MS-SIM - Westborough Lab

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	63		21-120
Phenol-d6	57		10-120
Nitrobenzene-d5	80		23-120
2-Fluorobiphenyl	68		15-120
2,4,6-Tribromophenol	94		10-120
4-Terphenyl-d14	73		41-149

Project Name: ORP #2
Project Number: 0370-016-001

Lab Number: L2241788
Report Date: 08/19/22

SAMPLE RESULTS

Lab ID: L2241788-03
 Client ID: W28
 Sample Location: OLEAN, NY

Date Collected: 08/02/22 12:40
 Date Received: 08/03/22
 Field Prep: Not Specified

Sample Depth:
 Matrix: Water
 Analytical Method: 1,8270D
 Analytical Date: 08/16/22 19:46
 Analyst: JG

Extraction Method: EPA 3510C
 Extraction Date: 08/09/22 12:24

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Bis(2-chloroethyl)ether	ND		ug/l	2.0	0.50	1
3,3'-Dichlorobenzidine	ND		ug/l	5.0	1.6	1
2,4-Dinitrotoluene	ND		ug/l	5.0	1.2	1
2,6-Dinitrotoluene	ND		ug/l	5.0	0.93	1
4-Chlorophenyl phenyl ether	ND		ug/l	2.0	0.49	1
4-Bromophenyl phenyl ether	ND		ug/l	2.0	0.38	1
Bis(2-chloroisopropyl)ether	ND		ug/l	2.0	0.53	1
Bis(2-chloroethoxy)methane	ND		ug/l	5.0	0.50	1
Hexachlorocyclopentadiene	ND		ug/l	20	0.69	1
Isophorone	ND		ug/l	5.0	1.2	1
Nitrobenzene	ND		ug/l	2.0	0.77	1
NDPA/DPA	ND		ug/l	2.0	0.42	1
n-Nitrosodi-n-propylamine	ND		ug/l	5.0	0.64	1
Bis(2-ethylhexyl)phthalate	ND		ug/l	3.0	1.5	1
Butyl benzyl phthalate	ND		ug/l	5.0	1.2	1
Di-n-butylphthalate	ND		ug/l	5.0	0.39	1
Di-n-octylphthalate	ND		ug/l	5.0	1.3	1
Diethyl phthalate	ND		ug/l	5.0	0.38	1
Dimethyl phthalate	ND		ug/l	5.0	1.8	1
Biphenyl	ND		ug/l	2.0	0.46	1
4-Chloroaniline	ND		ug/l	5.0	1.1	1
2-Nitroaniline	ND		ug/l	5.0	0.50	1
3-Nitroaniline	ND		ug/l	5.0	0.81	1
4-Nitroaniline	ND		ug/l	5.0	0.80	1
Dibenzofuran	ND		ug/l	2.0	0.50	1
1,2,4,5-Tetrachlorobenzene	ND		ug/l	10	0.44	1
Acetophenone	ND		ug/l	5.0	0.53	1
2,4,6-Trichlorophenol	ND		ug/l	5.0	0.61	1

Project Name: ORP #2
Project Number: 0370-016-001

Lab Number: L2241788
Report Date: 08/19/22

SAMPLE RESULTS

Lab ID: L2241788-03
Client ID: W28
Sample Location: OLEAN, NY

Date Collected: 08/02/22 12:40
Date Received: 08/03/22
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
p-Chloro-m-cresol	ND		ug/l	2.0	0.35	1
2-Chlorophenol	ND		ug/l	2.0	0.48	1
2,4-Dichlorophenol	ND		ug/l	5.0	0.41	1
2,4-Dimethylphenol	ND		ug/l	5.0	1.8	1
2-Nitrophenol	ND		ug/l	10	0.85	1
4-Nitrophenol	ND		ug/l	10	0.67	1
2,4-Dinitrophenol	ND		ug/l	20	6.6	1
4,6-Dinitro-o-cresol	ND		ug/l	10	1.8	1
Phenol	ND		ug/l	5.0	0.57	1
2-Methylphenol	ND		ug/l	5.0	0.49	1
3-Methylphenol/4-Methylphenol	ND		ug/l	5.0	0.48	1
2,4,5-Trichlorophenol	ND		ug/l	5.0	0.77	1
Carbazole	ND		ug/l	2.0	0.49	1
Atrazine	ND		ug/l	10	0.76	1
Benzaldehyde	ND		ug/l	5.0	0.53	1
Caprolactam	ND		ug/l	10	3.3	1
2,3,4,6-Tetrachlorophenol	ND		ug/l	5.0	0.84	1

Project Name: ORP #2
Project Number: 0370-016-001

Lab Number: L2241788
Report Date: 08/19/22

SAMPLE RESULTS

Lab ID: L2241788-03
 Client ID: W28
 Sample Location: OLEAN, NY

Date Collected: 08/02/22 12:40
 Date Received: 08/03/22
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						

Tentatively Identified Compounds

Total TIC Compounds	290	J	ug/l			1
Unknown	18.2	J	ug/l			1
Unknown	18.9	J	ug/l			1
Unknown	34.0	J	ug/l			1
Unknown	27.2	J	ug/l			1
Unknown	19.6	J	ug/l			1
Unknown	20.4	J	ug/l			1
Unknown	18.1	J	ug/l			1
Unknown	15.6	J	ug/l			1
Unknown	29.0	J	ug/l			1
Unknown	18.1	J	ug/l			1
Unknown	15.8	J	ug/l			1
Unknown	10.6	J	ug/l			1
Unknown Alkane	16.9	J	ug/l			1
Unknown Organic Acid	11.7	JB	ug/l			1
Unknown Organic Acid	15.4	JB	ug/l			1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	63		21-120
Phenol-d6	58		10-120
Nitrobenzene-d5	93		23-120
2-Fluorobiphenyl	83		15-120
2,4,6-Tribromophenol	84		10-120
4-Terphenyl-d14	103		41-149

Project Name: ORP #2
Project Number: 0370-016-001

Lab Number: L2241788
Report Date: 08/19/22

SAMPLE RESULTS

Lab ID: L2241788-03
 Client ID: W28
 Sample Location: OLEAN, NY

Date Collected: 08/02/22 12:40
 Date Received: 08/03/22
 Field Prep: Not Specified

Sample Depth:
 Matrix: Water
 Analytical Method: 1,8270D-SIM
 Analytical Date: 08/12/22 16:05
 Analyst: AH

Extraction Method: EPA 3510C
 Extraction Date: 08/09/22 12:25

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS-SIM - Westborough Lab						
Acenaphthene	ND		ug/l	0.10	0.01	1
2-Chloronaphthalene	ND		ug/l	0.20	0.02	1
Fluoranthene	ND		ug/l	0.10	0.02	1
Hexachlorobutadiene	ND		ug/l	0.50	0.05	1
Naphthalene	ND		ug/l	0.10	0.05	1
Benzo(a)anthracene	0.05	J	ug/l	0.10	0.02	1
Benzo(a)pyrene	ND		ug/l	0.10	0.02	1
Benzo(b)fluoranthene	ND		ug/l	0.10	0.01	1
Benzo(k)fluoranthene	ND		ug/l	0.10	0.01	1
Chrysene	0.08	J	ug/l	0.10	0.01	1
Acenaphthylene	ND		ug/l	0.10	0.01	1
Anthracene	ND		ug/l	0.10	0.01	1
Benzo(ghi)perylene	ND		ug/l	0.10	0.01	1
Fluorene	ND		ug/l	0.10	0.01	1
Phenanthrene	ND		ug/l	0.10	0.02	1
Dibenzo(a,h)anthracene	ND		ug/l	0.10	0.01	1
Indeno(1,2,3-cd)pyrene	ND		ug/l	0.10	0.01	1
Pyrene	0.12		ug/l	0.10	0.02	1
2-Methylnaphthalene	ND		ug/l	0.10	0.02	1
Pentachlorophenol	ND		ug/l	0.80	0.01	1
Hexachlorobenzene	ND		ug/l	0.80	0.01	1
Hexachloroethane	ND		ug/l	0.80	0.06	1

Project Name: ORP #2
Project Number: 0370-016-001

Lab Number: L2241788
Report Date: 08/19/22

SAMPLE RESULTS

Lab ID: L2241788-03
 Client ID: W28
 Sample Location: OLEAN, NY

Date Collected: 08/02/22 12:40
 Date Received: 08/03/22
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
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Semivolatile Organics by GC/MS-SIM - Westborough Lab

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	65		21-120
Phenol-d6	61		10-120
Nitrobenzene-d5	90		23-120
2-Fluorobiphenyl	89		15-120
2,4,6-Tribromophenol	93		10-120
4-Terphenyl-d14	103		41-149

Project Name: ORP #2
Project Number: 0370-016-001

Lab Number: L2241788
Report Date: 08/19/22

SAMPLE RESULTS

Lab ID: L2241788-04
Client ID: BLIND DUP
Sample Location: OLEAN, NY

Date Collected: 08/02/22 08:00
Date Received: 08/03/22
Field Prep: Not Specified

Sample Depth:

Matrix: Water
Analytical Method: 1,8270D
Analytical Date: 08/16/22 20:12
Analyst: JG

Extraction Method: EPA 3510C
Extraction Date: 08/09/22 12:24

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Bis(2-chloroethyl)ether	ND		ug/l	2.0	0.50	1
3,3'-Dichlorobenzidine	ND		ug/l	5.0	1.6	1
2,4-Dinitrotoluene	ND		ug/l	5.0	1.2	1
2,6-Dinitrotoluene	ND		ug/l	5.0	0.93	1
4-Chlorophenyl phenyl ether	ND		ug/l	2.0	0.49	1
4-Bromophenyl phenyl ether	ND		ug/l	2.0	0.38	1
Bis(2-chloroisopropyl)ether	ND		ug/l	2.0	0.53	1
Bis(2-chloroethoxy)methane	ND		ug/l	5.0	0.50	1
Hexachlorocyclopentadiene	ND		ug/l	20	0.69	1
Isophorone	ND		ug/l	5.0	1.2	1
Nitrobenzene	ND		ug/l	2.0	0.77	1
NDPA/DPA	ND		ug/l	2.0	0.42	1
n-Nitrosodi-n-propylamine	ND		ug/l	5.0	0.64	1
Bis(2-ethylhexyl)phthalate	1.8	J	ug/l	3.0	1.5	1
Butyl benzyl phthalate	ND		ug/l	5.0	1.2	1
Di-n-butylphthalate	ND		ug/l	5.0	0.39	1
Di-n-octylphthalate	ND		ug/l	5.0	1.3	1
Diethyl phthalate	ND		ug/l	5.0	0.38	1
Dimethyl phthalate	ND		ug/l	5.0	1.8	1
Biphenyl	ND		ug/l	2.0	0.46	1
4-Chloroaniline	ND		ug/l	5.0	1.1	1
2-Nitroaniline	ND		ug/l	5.0	0.50	1
3-Nitroaniline	ND		ug/l	5.0	0.81	1
4-Nitroaniline	ND		ug/l	5.0	0.80	1
Dibenzofuran	ND		ug/l	2.0	0.50	1
1,2,4,5-Tetrachlorobenzene	ND		ug/l	10	0.44	1
Acetophenone	ND		ug/l	5.0	0.53	1
2,4,6-Trichlorophenol	ND		ug/l	5.0	0.61	1

Project Name: ORP #2
Project Number: 0370-016-001

Lab Number: L2241788
Report Date: 08/19/22

SAMPLE RESULTS

Lab ID: L2241788-04
Client ID: BLIND DUP
Sample Location: OLEAN, NY

Date Collected: 08/02/22 08:00
Date Received: 08/03/22
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
p-Chloro-m-cresol	ND		ug/l	2.0	0.35	1
2-Chlorophenol	ND		ug/l	2.0	0.48	1
2,4-Dichlorophenol	ND		ug/l	5.0	0.41	1
2,4-Dimethylphenol	ND		ug/l	5.0	1.8	1
2-Nitrophenol	ND		ug/l	10	0.85	1
4-Nitrophenol	ND		ug/l	10	0.67	1
2,4-Dinitrophenol	ND		ug/l	20	6.6	1
4,6-Dinitro-o-cresol	ND		ug/l	10	1.8	1
Phenol	ND		ug/l	5.0	0.57	1
2-Methylphenol	ND		ug/l	5.0	0.49	1
3-Methylphenol/4-Methylphenol	ND		ug/l	5.0	0.48	1
2,4,5-Trichlorophenol	ND		ug/l	5.0	0.77	1
Carbazole	ND		ug/l	2.0	0.49	1
Atrazine	ND		ug/l	10	0.76	1
Benzaldehyde	ND		ug/l	5.0	0.53	1
Caprolactam	ND		ug/l	10	3.3	1
2,3,4,6-Tetrachlorophenol	ND		ug/l	5.0	0.84	1

Project Name: ORP #2
Project Number: 0370-016-001

Lab Number: L2241788
Report Date: 08/19/22

SAMPLE RESULTS

Lab ID: L2241788-04
 Client ID: BLIND DUP
 Sample Location: OLEAN, NY

Date Collected: 08/02/22 08:00
 Date Received: 08/03/22
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						

Tentatively Identified Compounds

Total TIC Compounds	36.7	J	ug/l			1
Unknown	1.60	J	ug/l			1
Unknown	2.76	J	ug/l			1
Unknown	1.56	J	ug/l			1
Unknown	1.53	J	ug/l			1
Unknown	1.93	J	ug/l			1
Unknown	1.78	JB	ug/l			1
Unknown Alcohol	2.33	J	ug/l			1
Unknown Alkane	1.96	J	ug/l			1
Unknown Alkane	5.53	J	ug/l			1
Unknown Alkane	3.82	J	ug/l			1
Unknown Alkane	1.96	J	ug/l			1
Unknown Benzene	4.04	J	ug/l			1
Unknown Ketone	1.49	J	ug/l			1
Unknown Organic Acid	2.18	J	ug/l			1
Unknown Organic Acid	2.25	J	ug/l			1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	45		21-120
Phenol-d6	44		10-120
Nitrobenzene-d5	75		23-120
2-Fluorobiphenyl	65		15-120
2,4,6-Tribromophenol	67		10-120
4-Terphenyl-d14	82		41-149

Project Name: ORP #2
Project Number: 0370-016-001

Lab Number: L2241788
Report Date: 08/19/22

SAMPLE RESULTS

Lab ID: L2241788-04
 Client ID: BLIND DUP
 Sample Location: OLEAN, NY

Date Collected: 08/02/22 08:00
 Date Received: 08/03/22
 Field Prep: Not Specified

Sample Depth:
 Matrix: Water
 Analytical Method: 1,8270D-SIM
 Analytical Date: 08/12/22 16:53
 Analyst: AH

Extraction Method: EPA 3510C
 Extraction Date: 08/09/22 12:25

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS-SIM - Westborough Lab						
Acenaphthene	0.03	J	ug/l	0.10	0.01	1
2-Chloronaphthalene	ND		ug/l	0.20	0.02	1
Fluoranthene	ND		ug/l	0.10	0.02	1
Hexachlorobutadiene	ND		ug/l	0.50	0.05	1
Naphthalene	ND		ug/l	0.10	0.05	1
Benzo(a)anthracene	0.02	J	ug/l	0.10	0.02	1
Benzo(a)pyrene	ND		ug/l	0.10	0.02	1
Benzo(b)fluoranthene	ND		ug/l	0.10	0.01	1
Benzo(k)fluoranthene	ND		ug/l	0.10	0.01	1
Chrysene	ND		ug/l	0.10	0.01	1
Acenaphthylene	ND		ug/l	0.10	0.01	1
Anthracene	0.02	J	ug/l	0.10	0.01	1
Benzo(ghi)perylene	ND		ug/l	0.10	0.01	1
Fluorene	0.03	J	ug/l	0.10	0.01	1
Phenanthrene	0.03	J	ug/l	0.10	0.02	1
Dibenzo(a,h)anthracene	ND		ug/l	0.10	0.01	1
Indeno(1,2,3-cd)pyrene	ND		ug/l	0.10	0.01	1
Pyrene	ND		ug/l	0.10	0.02	1
2-Methylnaphthalene	ND		ug/l	0.10	0.02	1
Pentachlorophenol	ND		ug/l	0.80	0.01	1
Hexachlorobenzene	ND		ug/l	0.80	0.01	1
Hexachloroethane	ND		ug/l	0.80	0.06	1

Project Name: ORP #2
Project Number: 0370-016-001

Lab Number: L2241788
Report Date: 08/19/22

SAMPLE RESULTS

Lab ID: L2241788-04
 Client ID: BLIND DUP
 Sample Location: OLEAN, NY

Date Collected: 08/02/22 08:00
 Date Received: 08/03/22
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
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Semivolatile Organics by GC/MS-SIM - Westborough Lab

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	53		21-120
Phenol-d6	50		10-120
Nitrobenzene-d5	77		23-120
2-Fluorobiphenyl	76		15-120
2,4,6-Tribromophenol	111		10-120
4-Terphenyl-d14	89		41-149

Project Name: ORP #2
Project Number: 0370-016-001

Lab Number: L2241788
Report Date: 08/19/22

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270D
Analytical Date: 08/09/22 17:54
Analyst: SZ

Extraction Method: EPA 3510C
Extraction Date: 08/08/22 23:34

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 01-04 Batch: WG1672732-1					
Bis(2-chloroethyl)ether	ND		ug/l	2.0	0.50
3,3'-Dichlorobenzidine	ND		ug/l	5.0	1.6
2,4-Dinitrotoluene	ND		ug/l	5.0	1.2
2,6-Dinitrotoluene	ND		ug/l	5.0	0.93
4-Chlorophenyl phenyl ether	ND		ug/l	2.0	0.49
4-Bromophenyl phenyl ether	ND		ug/l	2.0	0.38
Bis(2-chloroisopropyl)ether	ND		ug/l	2.0	0.53
Bis(2-chloroethoxy)methane	ND		ug/l	5.0	0.50
Hexachlorocyclopentadiene	ND		ug/l	20	0.69
Isophorone	ND		ug/l	5.0	1.2
Nitrobenzene	ND		ug/l	2.0	0.77
NDPA/DPA	ND		ug/l	2.0	0.42
n-Nitrosodi-n-propylamine	ND		ug/l	5.0	0.64
Bis(2-ethylhexyl)phthalate	ND		ug/l	3.0	1.5
Butyl benzyl phthalate	ND		ug/l	5.0	1.2
Di-n-butylphthalate	ND		ug/l	5.0	0.39
Di-n-octylphthalate	ND		ug/l	5.0	1.3
Diethyl phthalate	ND		ug/l	5.0	0.38
Dimethyl phthalate	ND		ug/l	5.0	1.8
Biphenyl	ND		ug/l	2.0	0.46
4-Chloroaniline	ND		ug/l	5.0	1.1
2-Nitroaniline	ND		ug/l	5.0	0.50
3-Nitroaniline	ND		ug/l	5.0	0.81
4-Nitroaniline	ND		ug/l	5.0	0.80
Dibenzofuran	ND		ug/l	2.0	0.50
1,2,4,5-Tetrachlorobenzene	ND		ug/l	10	0.44
Acetophenone	ND		ug/l	5.0	0.53
2,4,6-Trichlorophenol	ND		ug/l	5.0	0.61
p-Chloro-m-cresol	ND		ug/l	2.0	0.35

Project Name: ORP #2
Project Number: 0370-016-001

Lab Number: L2241788
Report Date: 08/19/22

Method Blank Analysis Batch Quality Control

Analytical Method: 1,8270D
Analytical Date: 08/09/22 17:54
Analyst: SZ

Extraction Method: EPA 3510C
Extraction Date: 08/08/22 23:34

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 01-04 Batch: WG1672732-1					
2-Chlorophenol	ND		ug/l	2.0	0.48
2,4-Dichlorophenol	ND		ug/l	5.0	0.41
2,4-Dimethylphenol	ND		ug/l	5.0	1.8
2-Nitrophenol	ND		ug/l	10	0.85
4-Nitrophenol	ND		ug/l	10	0.67
2,4-Dinitrophenol	ND		ug/l	20	6.6
4,6-Dinitro-o-cresol	ND		ug/l	10	1.8
Phenol	ND		ug/l	5.0	0.57
2-Methylphenol	ND		ug/l	5.0	0.49
3-Methylphenol/4-Methylphenol	ND		ug/l	5.0	0.48
2,4,5-Trichlorophenol	ND		ug/l	5.0	0.77
Carbazole	ND		ug/l	2.0	0.49
Atrazine	ND		ug/l	10	0.76
Benzaldehyde	ND		ug/l	5.0	0.53
Caprolactam	ND		ug/l	10	3.3
2,3,4,6-Tetrachlorophenol	ND		ug/l	5.0	0.84

Tentatively Identified Compounds

Total TIC Compounds	14.7	J	ug/l
Unknown	2.36	J	ug/l
Unknown	3.74	J	ug/l
Unknown	3.64	J	ug/l
Unknown Organic Acid	4.98	J	ug/l

Project Name: ORP #2
Project Number: 0370-016-001

Lab Number: L2241788
Report Date: 08/19/22

**Method Blank Analysis
Batch Quality Control**

Analytical Method: 1,8270D
Analytical Date: 08/09/22 17:54
Analyst: SZ

Extraction Method: EPA 3510C
Extraction Date: 08/08/22 23:34

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 01-04 Batch: WG1672732-1					

Surrogate	%Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	56		21-120
Phenol-d6	47		10-120
Nitrobenzene-d5	60		23-120
2-Fluorobiphenyl	59		15-120
2,4,6-Tribromophenol	75		10-120
4-Terphenyl-d14	61		41-149

Project Name: ORP #2
Project Number: 0370-016-001

Lab Number: L2241788
Report Date: 08/19/22

Method Blank Analysis Batch Quality Control

Analytical Method: 1,8270D-SIM
Analytical Date: 08/09/22 11:56
Analyst: JJW

Extraction Method: EPA 3510C
Extraction Date: 08/08/22 23:35

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS-SIM - Westborough Lab for sample(s): 01-04 Batch: WG1672733-1					
Acenaphthene	ND		ug/l	0.10	0.01
2-Chloronaphthalene	ND		ug/l	0.20	0.02
Fluoranthene	0.08	J	ug/l	0.10	0.02
Hexachlorobutadiene	ND		ug/l	0.50	0.05
Naphthalene	ND		ug/l	0.10	0.05
Benzo(a)anthracene	0.05	J	ug/l	0.10	0.02
Benzo(a)pyrene	0.03	J	ug/l	0.10	0.02
Benzo(b)fluoranthene	0.06	J	ug/l	0.10	0.01
Benzo(k)fluoranthene	0.02	J	ug/l	0.10	0.01
Chrysene	0.05	J	ug/l	0.10	0.01
Acenaphthylene	ND		ug/l	0.10	0.01
Anthracene	0.03	J	ug/l	0.10	0.01
Benzo(ghi)perylene	0.03	J	ug/l	0.10	0.01
Fluorene	ND		ug/l	0.10	0.01
Phenanthrene	0.10		ug/l	0.10	0.02
Dibenzo(a,h)anthracene	ND		ug/l	0.10	0.01
Indeno(1,2,3-cd)pyrene	0.04	J	ug/l	0.10	0.01
Pyrene	0.07	J	ug/l	0.10	0.02
2-Methylnaphthalene	ND		ug/l	0.10	0.02
Pentachlorophenol	ND		ug/l	0.80	0.01
Hexachlorobenzene	ND		ug/l	0.80	0.01
Hexachloroethane	ND		ug/l	0.80	0.06

Project Name: ORP #2
Project Number: 0370-016-001

Lab Number: L2241788
Report Date: 08/19/22

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270D-SIM
Analytical Date: 08/09/22 11:56
Analyst: JJW

Extraction Method: EPA 3510C
Extraction Date: 08/08/22 23:35

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS-SIM - Westborough Lab for sample(s): 01-04 Batch: WG1672733-1					

Surrogate	%Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	58		21-120
Phenol-d6	52		10-120
Nitrobenzene-d5	70		23-120
2-Fluorobiphenyl	57		15-120
2,4,6-Tribromophenol	69		10-120
4-Terphenyl-d14	60		41-149

Lab Control Sample Analysis

Batch Quality Control

Project Name: ORP #2
Project Number: 0370-016-001

Lab Number: L2241788
Report Date: 08/19/22

Parameter	LCS		LCSD		%Recovery Limits	RPD	RPD	
	%Recovery	Qual	%Recovery	Qual			Qual	Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-04 Batch: WG1672732-2 WG1672732-3								
Bis(2-chloroethyl)ether	47		47		40-140	0		30
3,3'-Dichlorobenzidine	43		46		40-140	7		30
2,4-Dinitrotoluene	50		48		48-143	4		30
2,6-Dinitrotoluene	48		50		40-140	4		30
4-Chlorophenyl phenyl ether	53		53		40-140	0		30
4-Bromophenyl phenyl ether	57		54		40-140	5		30
Bis(2-chloroisopropyl)ether	49		49		40-140	0		30
Bis(2-chloroethoxy)methane	49		49		40-140	0		30
Hexachlorocyclopentadiene	50		53		40-140	6		30
Isophorone	49		48		40-140	2		30
Nitrobenzene	51		52		40-140	2		30
NDPA/DPA	54		51		40-140	6		30
n-Nitrosodi-n-propylamine	52		51		29-132	2		30
Bis(2-ethylhexyl)phthalate	61		58		40-140	5		30
Butyl benzyl phthalate	59		57		40-140	3		30
Di-n-butylphthalate	54		52		40-140	4		30
Di-n-octylphthalate	64		62		40-140	3		30
Diethyl phthalate	55		54		40-140	2		30
Dimethyl phthalate	50		48		40-140	4		30
Biphenyl	52		53		40-140	2		30
4-Chloroaniline	44		44		40-140	0		30
2-Nitroaniline	51	Q	50	Q	52-143	2		30
3-Nitroaniline	45		44		25-145	2		30

Lab Control Sample Analysis

Batch Quality Control

Project Name: ORP #2
Project Number: 0370-016-001

Lab Number: L2241788
Report Date: 08/19/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-04 Batch: WG1672732-2 WG1672732-3								
4-Nitroaniline	50	Q	49	Q	51-143	2		30
Dibenzofuran	53		54		40-140	2		30
1,2,4,5-Tetrachlorobenzene	55		58		2-134	5		30
Acetophenone	54		53		39-129	2		30
2,4,6-Trichlorophenol	53		57		30-130	7		30
p-Chloro-m-cresol	55		57		23-97	4		30
2-Chlorophenol	53		54		27-123	2		30
2,4-Dichlorophenol	57		56		30-130	2		30
2,4-Dimethylphenol	50		40		30-130	22		30
2-Nitrophenol	51		50		30-130	2		30
4-Nitrophenol	50		49		10-80	2		30
2,4-Dinitrophenol	51		57		20-130	11		30
4,6-Dinitro-o-cresol	47		45		20-164	4		30
Phenol	41		40		12-110	2		30
2-Methylphenol	50		49		30-130	2		30
3-Methylphenol/4-Methylphenol	53		52		30-130	2		30
2,4,5-Trichlorophenol	55		56		30-130	2		30
Carbazole	53	Q	54	Q	55-144	2		30
Atrazine	62		61		40-140	2		30
Benzaldehyde	65		67		40-140	3		30
Caprolactam	22		24		10-130	9		30
2,3,4,6-Tetrachlorophenol	53		54		40-140	2		30

Lab Control Sample Analysis

Batch Quality Control

Project Name: ORP #2
Project Number: 0370-016-001

Lab Number: L2241788
Report Date: 08/19/22

Parameter	<i>LCS</i> %Recovery	<i>Qual</i>	<i>LCSD</i> %Recovery	<i>Qual</i>	<i>%Recovery</i> Limits	<i>RPD</i>	<i>Qual</i>	<i>RPD</i> Limits
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Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-04 Batch: WG1672732-2 WG1672732-3

<i>Surrogate</i>	<i>LCS</i> %Recovery	<i>Qual</i>	<i>LCSD</i> %Recovery	<i>Qual</i>	<i>Acceptance</i> Criteria
2-Fluorophenol	52		53		21-120
Phenol-d6	46		45		10-120
Nitrobenzene-d5	53		55		23-120
2-Fluorobiphenyl	51		53		15-120
2,4,6-Tribromophenol	65		66		10-120
4-Terphenyl-d14	54		52		41-149

Lab Control Sample Analysis

Batch Quality Control

Project Name: ORP #2
Project Number: 0370-016-001

Lab Number: L2241788
Report Date: 08/19/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS-SIM - Westborough Lab Associated sample(s): 01-04 Batch: WG1672733-2 WG1672733-3								
Acenaphthene	80		56		40-140	35		40
2-Chloronaphthalene	70		52		40-140	30		40
Fluoranthene	65		44		40-140	39		40
Hexachlorobutadiene	82		63		40-140	26		40
Naphthalene	74		55		40-140	29		40
Benzo(a)anthracene	85		58		40-140	38		40
Benzo(a)pyrene	75		51		40-140	38		40
Benzo(b)fluoranthene	92		58		40-140	45	Q	40
Benzo(k)fluoranthene	83		59		40-140	34		40
Chrysene	87		57		40-140	42	Q	40
Acenaphthylene	65		47		40-140	32		40
Anthracene	78		53		40-140	38		40
Benzo(ghi)perylene	87		60		40-140	37		40
Fluorene	78		54		40-140	36		40
Phenanthrene	79		53		40-140	39		40
Dibenzo(a,h)anthracene	88		62		40-140	35		40
Indeno(1,2,3-cd)pyrene	93		64		40-140	37		40
Pyrene	64		43		40-140	39		40
2-Methylnaphthalene	72		53		40-140	30		40
Pentachlorophenol	64		40		40-140	46	Q	40
Hexachlorobenzene	98		67		40-140	38		40
Hexachloroethane	74		56		40-140	28		40

Lab Control Sample Analysis

Batch Quality Control

Project Name: ORP #2
Project Number: 0370-016-001

Lab Number: L2241788
Report Date: 08/19/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS-SIM - Westborough Lab Associated sample(s): 01-04 Batch: WG1672733-2 WG1672733-3								

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
2-Fluorophenol	69		51		21-120
Phenol-d6	60		44		10-120
Nitrobenzene-d5	80		58		23-120
2-Fluorobiphenyl	72		53		15-120
2,4,6-Tribromophenol	102		70		10-120
4-Terphenyl-d14	56		38	Q	41-149

Matrix Spike Analysis

Batch Quality Control

Project Name: ORP #2
Project Number: 0370-016-001

Lab Number: L2241788
Report Date: 08/19/22

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-04 QC Batch ID: WG1672732-6 WG1672732-7 QC Sample: L2241788-03 Client ID: W28												
Bis(2-chloroethyl)ether	ND	18.2	11	61		8.6	47		40-140	24		30
3,3'-Dichlorobenzidine	ND	18.2	ND	0	Q	ND	0	Q	40-140	NC		30
2,4-Dinitrotoluene	ND	18.2	11	61		11	61		48-143	0		30
2,6-Dinitrotoluene	ND	18.2	14	77		11	61		40-140	24		30
4-Chlorophenyl phenyl ether	ND	18.2	10	55		9.7	53		40-140	3		30
4-Bromophenyl phenyl ether	ND	18.2	11	61		10	55		40-140	10		30
Bis(2-chloroisopropyl)ether	ND	18.2	10	55		9.2	51		40-140	8		30
Bis(2-chloroethoxy)methane	ND	18.2	11	61		10	55		40-140	10		30
Hexachlorocyclopentadiene	ND	18.2	12.J	66		11.J	61		40-140	9		30
Isophorone	ND	18.2	11	61		10	55		40-140	10		30
Nitrobenzene	ND	18.2	11	61		10	55		40-140	10		30
NDPA/DPA	ND	18.2	10	55		10	55		40-140	0		30
n-Nitrosodi-n-propylamine	ND	18.2	11	61		10	55		29-132	10		30
Bis(2-ethylhexyl)phthalate	ND	18.2	17	94		16	88		40-140	6		30
Butyl benzyl phthalate	ND	18.2	16	88		15	83		40-140	6		30
Di-n-butylphthalate	ND	18.2	14	77		13	72		40-140	7		30
Di-n-octylphthalate	ND	18.2	17	94		16	88		40-140	6		30
Diethyl phthalate	ND	18.2	12	66		10	55		40-140	18		30
Dimethyl phthalate	ND	18.2	11	61		10	55		40-140	10		30
Biphenyl	ND	18.2	11	61		11	61		40-140	0		30
4-Chloroaniline	ND	18.2	5.6	31	Q	6.9	38	Q	40-140	21		30
2-Nitroaniline	ND	18.2	15	83		14	77		52-143	7		30
3-Nitroaniline	ND	18.2	4.4J	24	Q	8.3	46		25-145	61	Q	30

Matrix Spike Analysis

Batch Quality Control

Project Name: ORP #2
Project Number: 0370-016-001

Lab Number: L2241788
Report Date: 08/19/22

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-04 QC Batch ID: WG1672732-6 WG1672732-7 QC Sample: L2241788-03 Client ID: W28												
4-Nitroaniline	ND	18.2	5.5	30	Q	5.5	30	Q	51-143	0		30
Dibenzofuran	ND	18.2	11	61		9.6	53		40-140	14		30
1,2,4,5-Tetrachlorobenzene	ND	18.2	12	66		11	61		2-134	9		30
Acetophenone	ND	18.2	11	61		11	61		39-129	0		30
2,4,6-Trichlorophenol	ND	18.2	13	72		12	66		30-130	8		30
p-Chloro-m-cresol	ND	18.2	13	72		13	72		23-97	0		30
2-Chlorophenol	ND	18.2	11	61		10	55		27-123	10		30
2,4-Dichlorophenol	ND	18.2	12	66		11	61		30-130	9		30
2,4-Dimethylphenol	ND	18.2	2.9J	16	Q	3.8J	21	Q	30-130	27		30
2-Nitrophenol	ND	18.2	11	61		10	55		30-130	10		30
4-Nitrophenol	ND	18.2	ND	0	Q	ND	0	Q	10-80	NC		30
2,4-Dinitrophenol	ND	18.2	13.J	72		12.J	66		20-130	8		30
4,6-Dinitro-o-cresol	ND	18.2	10	55		9.1J	50		20-164	9		30
Phenol	ND	18.2	8.4	46		7.9	43		12-110	6		30
2-Methylphenol	ND	18.2	9.8	54		9.6	53		30-130	2		30
3-Methylphenol/4-Methylphenol	ND	18.2	10	55		10	55		30-130	0		30
2,4,5-Trichlorophenol	ND	18.2	12	66		12	66		30-130	0		30
Carbazole	ND	18.2	13	72		13	72		55-144	0		30
Atrazine	ND	18.2	1.4J	8	Q	1.7J	9	Q	40-140	19		30
Benzaldehyde	ND	18.2	14	77		12	66		40-140	15		30
Caprolactam	ND	18.2	9.8J	54		15	83		10-130	42	Q	30
2,3,4,6-Tetrachlorophenol	ND	18.2	12	66		11	61		40-140	9		30

Matrix Spike Analysis

Batch Quality Control

Project Name: ORP #2
Project Number: 0370-016-001

Lab Number: L2241788
Report Date: 08/19/22

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
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Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-04 QC Batch ID: WG1672732-6 WG1672732-7 QC Sample: L2241788-03 Client ID: W28

Surrogate	MS % Recovery	Qualifier	MSD % Recovery	Qualifier	Acceptance Criteria
2,4,6-Tribromophenol	71		69		10-120
2-Fluorobiphenyl	61		55		15-120
2-Fluorophenol	57		50		21-120
4-Terphenyl-d14	70		69		41-149
Nitrobenzene-d5	66		58		23-120
Phenol-d6	52		49		10-120

Matrix Spike Analysis

Batch Quality Control

Project Name: ORP #2
Project Number: 0370-016-001

Lab Number: L2241788
Report Date: 08/19/22

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS-SIM - Westborough Lab Associated sample(s): 01-04 QC Batch ID: WG1672733-6 WG1672733-7 QC Sample: L2241788-03 Client ID: W28												
Acenaphthene	ND	18.2	13	72		12	66		40-140	8		40
2-Chloronaphthalene	ND	18.2	13	72		12	66		40-140	8		40
Fluoranthene	ND	18.2	15	83		14	77		40-140	7		40
Hexachlorobutadiene	ND	18.2	14	77		12	66		40-140	15		40
Naphthalene	ND	18.2	12	66		11	61		40-140	9		40
Benzo(a)anthracene	0.05J	18.2	15	83		14	77		40-140	7		40
Benzo(a)pyrene	ND	18.2	14	77		13	72		40-140	7		40
Benzo(b)fluoranthene	ND	18.2	16	88		14	77		40-140	13		40
Benzo(k)fluoranthene	ND	18.2	14	77		15	83		40-140	7		40
Chrysene	0.08J	18.2	14	77		13	72		40-140	7		40
Acenaphthylene	ND	18.2	13	72		11	61		40-140	17		40
Anthracene	ND	18.2	13	72		12	66		40-140	8		40
Benzo(ghi)perylene	ND	18.2	15	83		14	77		40-140	7		40
Fluorene	ND	18.2	15	83		14	77		40-140	7		40
Phenanthrene	ND	18.2	13	72		12	66		40-140	8		40
Dibenzo(a,h)anthracene	ND	18.2	16	88		15	83		40-140	6		40
Indeno(1,2,3-cd)pyrene	ND	18.2	17	94		16	88		40-140	6		40
Pyrene	0.12	18.2	15	82		14	76		40-140	7		40
2-Methylnaphthalene	ND	18.2	12	66		11	61		40-140	9		40
Pentachlorophenol	ND	18.2	18	99		17	94		40-140	6		40
Hexachlorobenzene	ND	18.2	15	83		15	83		40-140	0		40
Hexachloroethane	ND	18.2	14	77		12	66		40-140	15		40

Matrix Spike Analysis

Batch Quality Control

Project Name: ORP #2
Project Number: 0370-016-001

Lab Number: L2241788
Report Date: 08/19/22

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
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Semivolatiles Organics by GC/MS-SIM - Westborough Lab Associated sample(s): 01-04 QC Batch ID: WG1672733-6 WG1672733-7 QC Sample: L2241788-03
 Client ID: W28

Surrogate	MS		MSD		Acceptance Criteria
	% Recovery	Qualifier	% Recovery	Qualifier	
2,4,6-Tribromophenol	132	Q	119		10-120
2-Fluorobiphenyl	75		68		15-120
2-Fluorophenol	58		51		21-120
4-Terphenyl-d14	78		72		41-149
Nitrobenzene-d5	74		64		23-120
Phenol-d6	53		48		10-120

METALS

Project Name: ORP #2
Project Number: 0370-016-001

Lab Number: L2241788
Report Date: 08/19/22

SAMPLE RESULTS

Lab ID: L2241788-01
 Client ID: W13
 Sample Location: OLEAN, NY

Date Collected: 08/02/22 11:30
 Date Received: 08/03/22
 Field Prep: Not Specified

Sample Depth:
 Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Arsenic, Total	0.004	J	mg/l	0.005	0.002	1	08/05/22 09:44	08/17/22 12:15	EPA 3005A	1,6010D	JF
Lead, Total	ND		mg/l	0.010	0.003	1	08/05/22 09:44	08/17/22 12:15	EPA 3005A	1,6010D	JF



Project Name: ORP #2
Project Number: 0370-016-001

Lab Number: L2241788
Report Date: 08/19/22

SAMPLE RESULTS

Lab ID: L2241788-02
 Client ID: W17
 Sample Location: OLEAN, NY

Date Collected: 08/02/22 14:30
 Date Received: 08/03/22
 Field Prep: Not Specified

Sample Depth:
 Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Arsenic, Total	ND		mg/l	0.005	0.002	1	08/05/22 09:44	08/17/22 12:19	EPA 3005A	1,6010D	JF
Lead, Total	ND		mg/l	0.010	0.003	1	08/05/22 09:44	08/17/22 12:19	EPA 3005A	1,6010D	JF



Project Name: ORP #2
Project Number: 0370-016-001

Lab Number: L2241788
Report Date: 08/19/22

SAMPLE RESULTS

Lab ID: L2241788-03
 Client ID: W28
 Sample Location: OLEAN, NY

Date Collected: 08/02/22 12:40
 Date Received: 08/03/22
 Field Prep: Not Specified

Sample Depth:
 Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Arsenic, Total	0.004	J	mg/l	0.005	0.002	1	08/05/22 09:44	08/17/22 12:26	EPA 3005A	1,6010D	JF
Lead, Total	ND		mg/l	0.010	0.003	1	08/05/22 09:44	08/17/22 12:26	EPA 3005A	1,6010D	JF



Project Name: ORP #2
Project Number: 0370-016-001

Lab Number: L2241788
Report Date: 08/19/22

SAMPLE RESULTS

Lab ID: L2241788-04
 Client ID: BLIND DUP
 Sample Location: OLEAN, NY

Date Collected: 08/02/22 08:00
 Date Received: 08/03/22
 Field Prep: Not Specified

Sample Depth:
 Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Arsenic, Total	0.003	J	mg/l	0.005	0.002	1	08/05/22 09:44	08/17/22 12:23	EPA 3005A	1,6010D	JF
Lead, Total	ND		mg/l	0.010	0.003	1	08/05/22 09:44	08/17/22 12:23	EPA 3005A	1,6010D	JF



Project Name: ORP #2
Project Number: 0370-016-001

Lab Number: L2241788
Report Date: 08/19/22

Method Blank Analysis Batch Quality Control

Parameter	Result Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Mansfield Lab for sample(s): 01-04 Batch: WG1671558-1									
Arsenic, Total	ND	mg/l	0.005	0.002	1	08/05/22 09:44	08/17/22 11:20	1,6010D	JF
Lead, Total	ND	mg/l	0.010	0.003	1	08/05/22 09:44	08/17/22 11:20	1,6010D	JF

Prep Information

Digestion Method: EPA 3005A

Lab Control Sample Analysis Batch Quality Control

Project Name: ORP #2
Project Number: 0370-016-001

Lab Number: L2241788
Report Date: 08/19/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-04 Batch: WG1671558-2								
Arsenic, Total	94		-		80-120	-		
Lead, Total	93		-		80-120	-		

Matrix Spike Analysis Batch Quality Control

Project Name: ORP #2
Project Number: 0370-016-001

Lab Number: L2241788
Report Date: 08/19/22

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-04 QC Batch ID: WG1671558-3 WG1671558-4 QC Sample: L2241763-02 Client ID: MS Sample												
Arsenic, Total	0.025	0.12	0.139	95		0.138	94		75-125	1		20
Lead, Total	0.057	0.53	0.545	92		0.545	92		75-125	0		20
Total Metals - Mansfield Lab Associated sample(s): 01-04 QC Batch ID: WG1671558-7 WG1671558-8 QC Sample: L2241788-03 Client ID: W28												
Arsenic, Total	0.004J	0.12	0.128	107		0.126	105		75-125	2		20
Lead, Total	ND	0.53	0.507	96		0.505	95		75-125	0		20

Project Name: ORP #2
Project Number: 0370-016-001

Lab Number: L2241788
Report Date: 08/19/22

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(*)
L2241788-01A	Vial HCl preserved	A	NA		3.3	Y	Absent		NYTCL-8260-R2(14)
L2241788-01B	Vial HCl preserved	A	NA		3.3	Y	Absent		NYTCL-8260-R2(14)
L2241788-01C	Vial HCl preserved	A	NA		3.3	Y	Absent		NYTCL-8260-R2(14)
L2241788-01D	Plastic 250ml HNO3 preserved	A	<2	<2	3.3	Y	Absent		AS-TI(180),PB-TI(180)
L2241788-01E	Amber 250ml unpreserved	A	7	7	3.3	Y	Absent		NYTCL-8270-SIM-LVI(7),NYTCL-8270-LVI(7)
L2241788-01F	Amber 250ml unpreserved	A	7	7	3.3	Y	Absent		NYTCL-8270-SIM-LVI(7),NYTCL-8270-LVI(7)
L2241788-02A	Vial HCl preserved	A	NA		3.3	Y	Absent		NYTCL-8260-R2(14)
L2241788-02B	Vial HCl preserved	A	NA		3.3	Y	Absent		NYTCL-8260-R2(14)
L2241788-02C	Vial HCl preserved	A	NA		3.3	Y	Absent		NYTCL-8260-R2(14)
L2241788-02D	Plastic 250ml HNO3 preserved	A	<2	<2	3.3	Y	Absent		AS-TI(180),PB-TI(180)
L2241788-02E	Amber 250ml unpreserved	A	7	7	3.3	Y	Absent		NYTCL-8270-SIM-LVI(7),NYTCL-8270-LVI(7)
L2241788-02F	Amber 250ml unpreserved	A	7	7	3.3	Y	Absent		NYTCL-8270-SIM-LVI(7),NYTCL-8270-LVI(7)
L2241788-03A	Vial HCl preserved	A	NA		3.3	Y	Absent		NYTCL-8260-R2(14)
L2241788-03A1	Vial HCl preserved	A	NA		3.3	Y	Absent		NYTCL-8260-R2(14)
L2241788-03A2	Vial HCl preserved	A	NA		3.3	Y	Absent		NYTCL-8260-R2(14)
L2241788-03B	Vial HCl preserved	A	NA		3.3	Y	Absent		NYTCL-8260-R2(14)
L2241788-03B1	Vial HCl preserved	A	NA		3.3	Y	Absent		NYTCL-8260-R2(14)
L2241788-03B2	Vial HCl preserved	A	NA		3.3	Y	Absent		NYTCL-8260-R2(14)
L2241788-03C	Vial HCl preserved	A	NA		3.3	Y	Absent		NYTCL-8260-R2(14)
L2241788-03C1	Vial HCl preserved	A	NA		3.3	Y	Absent		NYTCL-8260-R2(14)
L2241788-03C2	Vial HCl preserved	A	NA		3.3	Y	Absent		NYTCL-8260-R2(14)
L2241788-03D	Plastic 250ml HNO3 preserved	A	<2	<2	3.3	Y	Absent		AS-TI(180),PB-TI(180)
L2241788-03D1	Plastic 250ml HNO3 preserved	A	<2	<2	3.3	Y	Absent		AS-TI(180),PB-TI(180)

Project Name: ORP #2**Lab Number:** L2241788**Project Number:** 0370-016-001**Report Date:** 08/19/22**Container Information**

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L2241788-03D2	Plastic 250ml HNO3 preserved	A	<2	<2	3.3	Y	Absent		AS-TI(180),PB-TI(180)
L2241788-03E	Amber 250ml unpreserved	A	7	7	3.3	Y	Absent		NYTCL-8270-SIM-LVI(7),NYTCL-8270-LVI(7)
L2241788-03E1	Amber 250ml unpreserved	A	7	7	3.3	Y	Absent		NYTCL-8270-SIM-LVI(7),NYTCL-8270-LVI(7)
L2241788-03E2	Amber 250ml unpreserved	A	7	7	3.3	Y	Absent		NYTCL-8270-SIM-LVI(7),NYTCL-8270-LVI(7)
L2241788-03F	Amber 250ml unpreserved	A	7	7	3.3	Y	Absent		NYTCL-8270-SIM-LVI(7),NYTCL-8270-LVI(7)
L2241788-03F1	Amber 250ml unpreserved	A	7	7	3.3	Y	Absent		NYTCL-8270-SIM-LVI(7),NYTCL-8270-LVI(7)
L2241788-03F2	Amber 250ml unpreserved	A	7	7	3.3	Y	Absent		NYTCL-8270-SIM-LVI(7),NYTCL-8270-LVI(7)
L2241788-04A	Vial HCl preserved	A	NA		3.3	Y	Absent		NYTCL-8260-R2(14)
L2241788-04B	Vial HCl preserved	A	NA		3.3	Y	Absent		NYTCL-8260-R2(14)
L2241788-04C	Vial HCl preserved	A	NA		3.3	Y	Absent		NYTCL-8260-R2(14)
L2241788-04D	Plastic 250ml HNO3 preserved	A	<2	<2	3.3	Y	Absent		AS-TI(180),PB-TI(180)
L2241788-04E	Amber 250ml unpreserved	A	7	7	3.3	Y	Absent		NYTCL-8270-SIM-LVI(7),NYTCL-8270-LVI(7)
L2241788-04F	Amber 250ml unpreserved	A	7	7	3.3	Y	Absent		NYTCL-8270-SIM-LVI(7),NYTCL-8270-LVI(7)
L2241788-05A	Vial HCl preserved	A	NA		3.3	Y	Absent		NYTCL-8260-R2(14)
L2241788-05B	Vial HCl preserved	A	NA		3.3	Y	Absent		NYTCL-8260-R2(14)

Project Name: ORP #2
Project Number: 0370-016-001

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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



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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: ORP #2
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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: ORP #2
Project Number: 0370-016-001

Lab Number: L2241788
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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, SM4500CI-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, **LCHAT 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.

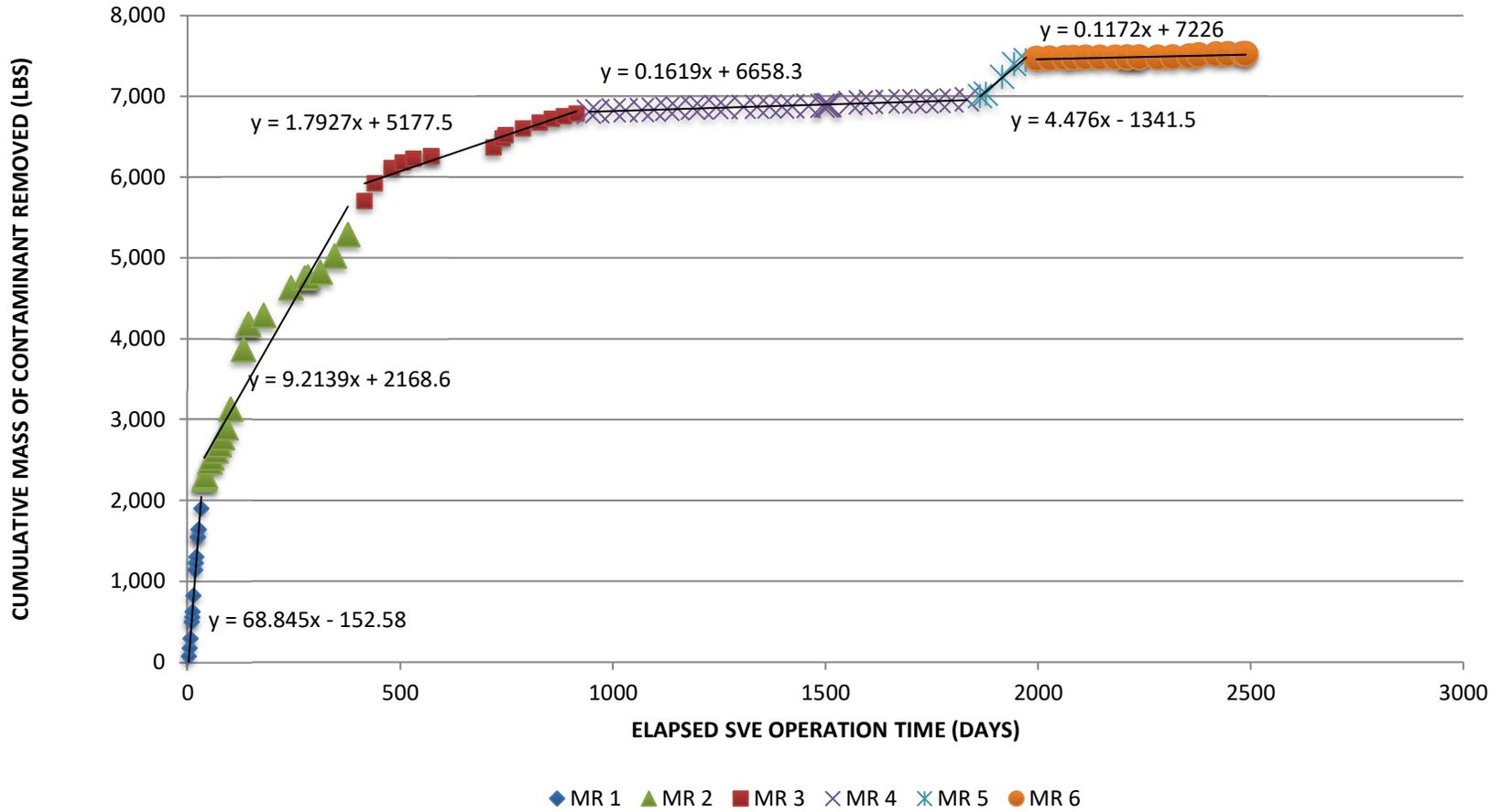
SM2340B

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

APPENDIX D

SVE PERIODIC INSPECTION LOGS

**CUMULATIVE MASS REMOVAL VERSUS TIME
2-SVE-1
OLEAN GATEWAY**



Mass removal is based on a correlation of PID readings and vapor sample analysis for gasoline and diesel range organics (GRO and DRO) measured in influent air.



TABLE D-1
SUMMARY OF SVE SYSTEM 2-SVE-1 VOC MASS REMOVAL

OLEAN REDEVELOPMENT PARCEL 2
NYSDEC BCP SITE NO. C905032
OLEAN, NEW YORK

Date	Elapsed Time (days)	SVE Operation Time (days)	Influent (Untreated) PID Reading	Effluent (Post-Biofilter) PID Reading (ppm)	Corrected Influent Concentration ¹	Vacuum (in of H ₂ O)	Air Velocity (ft/min)	Pipe Diameter (in)	Air Flow Rate		Volume of Air Processed Since Previous Reading (CF)	Rate of VOC Removal (lb/day)	VOCs Removed Since Last Monitoring Period (lb)	Total VOC Removal to Date (lb)	Notes
									(ACFM)	(SCFM)					
24-Oct-14	0	0	163	30	400	41.0	9800	4	855	797	0	0.0			
27-Oct-14	3	3	265	60	651	47.8	9800	4	855	797	3495362	46.6	71.0	71	
29-Oct-14	5	5	360	40	884	47.8	8500	4	742	691	1987711	54.9	101.4	172	
31-Oct-14	7	7	395	11	970	47.8	9800	4	855	797	2176132	69.5	118.0	290	
3-Nov-14	10	10	388	21	953	47.8	9800	4	855	797	3419636	68.3	205.2	496	
4-Nov-14	11	11	385	23	945	47.8	9800	4	855	797	956542	67.7	56.7	552	
5-Nov-14	12	12	476	30	1169	47.8	9800	4	855	797	1076109	83.8	71.0	623	
7-Nov-14	14	14	540	30	1326	47.8	9800	4	855	797	2534835	95.0	197.4	821	
11-Nov-14	18	18	329	12	808	47.8	9800	4	855	797	4734881	57.9	315.4	1,136	
13-Nov-14	19	19	460	30	1129	47.8	9800	4	855	797	1482639	80.9	89.7	1,226	
14-Nov-14	20	20	403	23	989	47.8	9800	4	855	797	1147850	70.9	75.9	1,302	
17-Nov-14	24	24	369	30	906	47.8	9800	4	855	797	4129071	64.9	244.3	1,546	System shut-off
24-Nov-14	31	24	542	11	1331	47.8	9800	4	855	797	0	0.0	0.0	1,546	System Restart
26-Nov-14	33	26	578	12	1419	47.8	8900	4	777	724	2113827	92.4	93.6	1,640	System shut-off
1-Dec-14	38	26	385	30	945	47.8	8900	4	777	724	0	0.0	0.0	1,640	System Restart
2-Dec-14	39	32	542	20	1331	47.8	8900	4	777	724	6222034	86.6	258.5	1,898	System shut-off
23-Jun-15	241	39	95	10	233	47.8	8900	4	777	724	7318763	15.2	357.3	2,255	System reactivated
24-Jun-15	243	40	95	10	233	47.8	10500	4	916	854	1793515	17.9	24.1	2,280	
26-Jun-15	244	42	75	10	184	47.8	10500	4	916	854	1896002	14.1	24.7	2,304	
6-Jul-15	255	53	95	10	233	47.8	10500	4	916	854	13220771	17.9	172.3	2,477	
10-Jul-15	259	57	75	25	184	47.8	6200	4	541	504	2859376	8.3	51.7	2,528	
20-Jul-15	269	67	75	10	184	47.8	6200	4	541	504	7261907	8.3	83.5	2,612	
28-Jul-15	277	74	105	5	258	47.8	6200	4	541	504	5643107	11.7	77.9	2,690	
5-Aug-15	285	82	90	5	221	47.8	6200	4	541	504	5859956	10.0	87.6	2,777	
13-Aug-15	293	90	180	10	442	47.8	6200	4	541	504	5781789	20.0	119.7	2,897	
24-Aug-15	304	101	200	10	491	47.8	6200	4	541	504	8010792	22.3	233.3	3,130	
23-Sep-15	334	132	240	10	589	47.8	6200	4	541	504	21914318	26.7	739.1	3,869	
5-Oct-15	346	143	240	10	589	47.8	6200	4	541	504	8449532	26.7	310.9	4,180	Blower shut down for maintenance
17-Nov-15	389	143	60	5	147	68.3	6200	4	541	504	0	0.0	0.0	4,180	Blower Replaced
23-Dec-15	425	179	55	5	135	61.5	6200	4	541	504	26097479	6.1	110.0	4,290	
13-Jan-16	446	243	40	5	98	65.6	6200	4	541	504	46672883	4.5	339.9	4,630	
14-Feb-16	478	275	30	5	74	54.6	5900	4	515	480	22113679	3.2	122.1	4,752	
22-Feb-16	485	283						4	0	0	0	0.0	11.9	4,764	System down; high water levels
3-May-16	557	283	20	3	49	54.6	6550	4	572	533	0	0.0	11.9	4,764	
1-Jun-16	586	312	35	3	86	61.5	6550	4	572	533	22136495	4.1	59.4	4,823	
5-Jul-16	620	346	66	10	162	61.5	6550	4	572	533	25972421	7.8	201.1	5,024	
5-Aug-16	651	377	80	4	196	61.5	6550	4	572	533	23846679	9.4	266.9	5,291	
13-Sep-16	690	416	100	5	246	50.5	6550	4	572	533	30096043	11.8	415.2	5,707	
7-Oct-16	714	440	55	5	135	61.5	6550	4	572	533	18332534	6.5	217.8	5,924	
16-Nov-16	754	480	25	5	61	41.0	6550	4	572	533	30751347	2.9	188.6	6,113	
12-Dec-16	780	506	20	5	49	54.4	6550	4	572	533	19834938	2.4	68.4	6,181	
6-Jan-17	805	531	10.3	1	25	54.4	6550	4	572	533	19339465	1.2	44.9	6,226	
17-Feb-17	847	573	3.8	1	9	40.8	6000	4	524	488	29340448	0.4	33.8	6,260	
23-Jun-17	973	573	4.5	1	11	40.8	6000	4	524	488	0	0.0	1.3	6,260	System down; high water levels
14-Jul-17	994	720	13.7	1	34	40.8	6000	4	524	488	103306488	1.5	109.3	6,369	
4-Aug-17	1015	741	85	1	209	40.8	6000	4	524	488	14797112	9.2	111.9	6,481	
11-Aug-17	1022	748	18.7	1	46	40.8	6000	4	524	488	4916916	2.0	39.1	6,520	
21-Sep-17	1063	789	19.1	1	47	54.6	6000	4	524	488	28937822	2.1	83.8	6,604	
30-Oct-17	1102	828	15.7	1.2	39	54.6	6000	4	524	488	27327319	1.7	72.9	6,677	
28-Nov-17	1131	857	13.4	4.9	33	54.6	6000	4	524	488	20348469	1.4	45.4	6,722	
26-Dec-17	1159	885	8.7	1.8	21	54.6	6000	4	524	488	19709148	0.9	33.4	6,756	
25-Jan-18	1189	915	10.4	3.4	26	54.6	6000	4	524	488	21119559	1.1	30.9	6,787	
23-Feb-18	1218	944	2.9	NA	7	45.0	6000	4	524	488	20270384	0.3	20.7	6,807	
15-Mar-18	1237	963	4.2	1.7	10	42	6000	4	524	488	13725883	0.5	7.5	6,815	
23-Apr-18	1276	1002	0.9	0.2	2	40.0	6000	4	524	488	27406080	0.1	10.7	6,826	
21-May-18	1304	1030	0.3	0	1	50.0	6000	4	524	488	19677426	0.0	1.8	6,827	Bio-filter raked 5/11/18 & 5/25/18
28-Jun-18	1342	1068	1.4	0.2	3	44.0	6000	4	524	488	26705079	0.2	3.5	6,831	Bio-filter raked 6/8/18 & 6/22/18
26-Jul-18	1370	1096	1.2	0.1	3	46.0	6000	4	524	488	19677426	0.1	3.9	6,835	Bio-filter raked 7/6/2018 & 7/20/18
27-Aug-18	1402	1128	3.7	1	9	44.0	6000	4	524	488	22488487	0.4	8.4	6,843	Bio-filter raked 8/3/2018, 8/17/18, & 8/31/18
20-Sep-18	1426	1152	2.5	0.3	6	48.0	6000	4	524	488	16866365	0.3	8.0	6,851	Bio-filter raked 9/14/18 & 9/28/18
26-Oct-18	1462	1188	1.6	0.2	4	46.0	6000	4	524	488	25299548	0.2	8.0	6,859	Bio-filter raked 10/12/18 & 10/26/18
15-Nov-18	1482	1208	1.3	0.1	3	44.0	6000	4	524	488	14055304	0.1	3.1	6,862	Bio-filter raked 11/2/18, 11/16/18, & 11/30/18
20-Dec-18	1517	1243	1	0.2	2	44.0	6000	4	524	488	24596783	0.1	4.3	6,867	Bio-filter raked 12/14/2018 & 12/28/18
11-Jan-19	1539	1265	0.2	0	0	42.0	6000	4	524	488	15460835	0.0	1.4	6,868	Bio-filter raked 1/11/19 & 1/25/19
22-Feb-19	1581	1307	0.7	0	2	40.0	6000	4	524	488	29516139	0.1	2.0	6,870	Bio-filter raked 2/8/19 & 2/22/19



TABLE D-1
SUMMARY OF SVE SYSTEM 2-SVE-1 VOC MASS REMOVAL

OLEAN REDEVELOPMENT PARCEL 2
NYSDEC BCP SITE NO. C905032
OLEAN, NEW YORK

Date	Elapsed Time (days)	SVE Operation Time (days)	Influent (Untreated) PID Reading	Effluent (Post-Biofilter) PID Reading (ppm)	Corrected Influent Concentration ¹	Vacuum (in of H ₂ O)	Air Velocity (ft/min)	Pipe Diameter (in)	Air Flow Rate		Volume of Air Processed Since Previous Reading (CF)	Rate of VOC Removal (lb/day)	VOCs Removed Since Last Monitoring Period (lb)	Total VOC Removal to Date (lb)	Notes
									(ACFM)	(SCFM)					
26-Mar-19	1613	1339	0.2	0	0	40.0	6000	4	524	488	22488487	0.0	1.6	6,872	Bio-filter raked 3/8/19 & 3/22/19
24-Apr-19	1642	1368	0.4	0.1	1	42.0	6000	4	524	488	20380192	0.0	0.9	6,873	Bio-filter raked 4/5/19 & 4/19/19
24-May-19	1672	1398	0.5	0	1	40.0	6000	4	524	488	21082957	0.1	1.5	6,874	Bio-filter raked 5/3/19, 5/17/19 & 5/31/19
17-Jun-19	1696	1422	1	0	2	38.0	6000	4	524	488	16866365	0.1	1.9	6,876	Bio-filter raked 6/14/19 & 6/28/19
25-Jul-19	1734	1460	1.3	0	3	40.0	6000	4	524	488	26705079	0.1	4.7	6,881	Bio-filter raked 7/12/19 & 7/26/19
27-Aug-19	1767	1493	1.6	0	4	34.2	6000	4	524	488	23191252	0.2	5.2	6,886	
4-Sep-19	1775	1501	1.3	0	3	68.3	6000	4	524	488	5622122	0.1	1.2	6,887	
9-Sep-19	1780	1506	7.7	0.1	19	54.6	6000	4	524	488	3513826	0.8	2.4	6,890	
12-Sep-19	1783	1509	8.5	0.1	21	57.4	6000	4	524	488	2108296	0.9	2.6	6,892	
31-Oct-19	1832	1558	1.3	0	3	57.4	6000	4	524	488	34435496	0.1	25.9	6,918	
25-Nov-19	1857	1583	2.9	0	9	61.5	6000	4	524	488	17569131	0.4	6.5	6,925	
19-Dec-19	1881	1607	1.1	0	3	61.5	6000	4	524	488	16866365	0.1	6.2	6,931	
27-Jan-20	1920	1646	0.6	0	2	79.2	6000	4	524	488	27407844	0.1	4.3	6,935	
27-Feb-20	1951	1677	0.4	0	1	61.5	6000	4	524	488	21785722	0.1	2.0	6,937	
30-Mar-20	1983	1709	0.3	0	1	68.3	6000	4	524	488	22488487	0.0	1.5	6,939	
27-Apr-20	2011	1737	0.5	0	1	82.0	6000	4	524	488	19677426	0.1	1.5	6,940	Wells 2-SVE-2, -7, -9, and -12 turned off for optimization
26-May-20	2040	1766	0.6	0	2	83.3	6000	4	524	488	20380192	0.1	2.1	6,942	
25-Jun-20	2070	1796	3.1	0	9	83.3	6000	4	524	488	21082957	0.4	7.2	6,949	
31-Jul-20	2106	1832	3.2	0	9	86.1	6000	4	524	488	25299548	0.4	14.7	6,964	
31-Aug-20	2137	1863	17.1	0.4	51	83.3	6000	4	524	488	21785722	2.2	40.9	7,005	Bio-filter raked
14-Sep-20	2151	1877	14.4	0.9	43	82.0	6000	4	524	488	9638713	1.9	28.7	7,034	
22-Oct-20	2189	1915	70.6	0.2	209	95.6	6000	4	524	488	26705079	9.2	209.9	7,243	
19-Nov-20	2217	1943	15.9	0.2	47	83.3	6000	4	524	488	19677426	2.1	157.4	7,401	
17-Dec-20	2245	1971	9.5	0.3	28	51.2	6000	4	524	488	19677426	1.2	46.2	7,447	
11-Jan-21	2270	1996	0.9	0	3	75.1	6000	4	524	488	17569131	0.1	16.9	7,464	
11-Feb-21	2301	2027	1.1	0	3	69.7	6000	4	524	488	21785722	0.1	4.0	7,468	
18-Mar-21	2336	2062	1.7	0	5	82.0	6000	4	524	488	24596783	0.2	6.4	7,474	
8-Apr-21	2357	2083	0.4	0	1	71.0	6000	4	524	488	14758070	0.1	2.9	7,477	
6-May-21	2385	2111	0.3	0	1	69.7	6000	4	524	488	19677426	0.0	1.3	7,478	
9-Jun-21	2419	2145	0	0	0	61.5	6000	4	524	488	23894018	0.0	0.7	7,479	
15-Jul-21	2455	2181	0	0	0	88.8	6000	4	524	488	25299548	0.0	0.0	7,479	
12-Aug-21	2483	2209	0.5	0	1	97.0	6000	4	524	488	19677426	0.1	0.9	7,480	
22-Nov-21	2585	2209	0.5	0	1	75.1	6000	4	524	488	0	0.0	0.0	7,480	System restarted on 11/19/21 (off on 8/30 motor failure)
20-Dec-21	2613	2237	0.3	0	1	110.6	6000	4	524	488	19677426	0.0	0.5	7,481	System was turned off for winter on 1/13/22
3-May-22	2747	2237	0.2	0	1	88.8	6000	4	524	488	0	0.0	0.0	7,481	Restart system on 5/3/22 and opened well 2-SVE-2
16-Jun-22	2791	2281	0.2	0	1	94.3	6000	4	524	488	30921670	0.0	0.6	7,481	
21-Jul-22	2826	2316	1.3	0	4	80.6	6000	4	524	488	24596783	0.2	3.4	7,485	
29-Aug-22	2865	2355	2.9	0	9	69.7	6000	4	524	488	27407844	0.4	10.6	7,495	
21-Sep-22	2888	2378	4.9	0	15	82.0	6000	4	524	488	16163600	0.6	11.7	7,507	
31-Oct-22	2928	2418	0.6	0	2	57.4	6000	4	524	488	28110609	0.1	14.3	7,521	
28-Nov-22	2956	2446	0	0	0	61.5	6000	4	524	488	19677426	0.0	1.1	7,522	
3-Jan-23	2992	2482	0	0	0	75.1	6000	4	524	488	25299548	0.0	0.0	7,522	
9-Jan-23	2998	2488	0	0	0	71.0	6000	4	524	488	4216591	0.0	0.0	7,522	System was turned off for winter on 1/9/23

Notes:

- The estimated mass of contamination recovered is based on ratio of the sum of the gasoline and diesel range organics (GRO and DRO) as measured by a vapor sample collected with a summa canister to the contemporaneous PID reading.
The ratio 2.46 milligram per cubic meter for each 1 ppm on the PID was used for 10/24/2014 through 11/7/2019
The ratio 2.96 milligram per cubic meter for each 1 ppm on the PID was used for 11/7/2019 to present

TABLE D-2
 Summary of SVE System 2-1
 Periodic Review Report
 Olean Redevelopment Parcel 2
 Olean, New York

Date	Well	PID	System PID (ppm)	Notes
6/16/22	2-SVE-1	0.4	Influent: 0.2 Effluent: 0	SVE System 2-1 Vacuum: 94.3 inches H ₂ O
	2-SVE-2	0.6		
	2-SVE-3	0.9		
	2-SVE-4	0.9		
	2-SVE-5	0.1		
	2-SVE-6	2.1		
	2-SVE-7	off		
	2-SVE-8	off		
	2-SVE-9	off		
	2-SVE-10	0.1		
	2-SVE-11	off		
	2-SVE-12	off		
	2-SVE-13	off		
9/21/22	2-SVE-1	6.1	Influent: 4.9 Effluent: 0	SVE System 2-1 Vacuum: 66.9 inches H ₂ O
	2-SVE-2	2.9		
	2-SVE-3	82.2		
	2-SVE-4	6.1		
	2-SVE-5	10.4		
	2-SVE-6	2.5		
	2-SVE-7	off		
	2-SVE-8	off		
	2-SVE-9	off		
	2-SVE-10	8.1		
	2-SVE-11	off		
	2-SVE-12	off		
	2-SVE-13	off		
1/3/2023 (for 4th Q '22)	2-SVE-1	0.0	Influent: 0.0 Effluent: 0	SVE System 2-1 Vacuum: 75.1 inches H ₂ O
	2-SVE-2	0.0		
	2-SVE-3	0.0		
	2-SVE-4	0.0		
	2-SVE-5	4.6		
	2-SVE-6	0.7		
	2-SVE-7	off		
	2-SVE-8	off		
	2-SVE-9	off		
	2-SVE-10	0.0		
	2-SVE-11	off		
	2-SVE-12	off		
	2-SVE-13	off		