

2020 PERIODIC REVIEW REPORT
HYDRO-AIR COMPONENTS, INC. PROPERTY
FORMER STEELFIELDS AREA IV BCP SITE (#C915204)
100 RITTLING BLVD.
BUFFALO, NEW YORK

by
Haley & Aldrich of New York
Rochester, New York

for
New York State Department of Environmental Conservation
Buffalo, New York

File No. 0129356-009
April 2021





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30 April 2021
File No. 0129356-009

New York State Department of Environmental Conservation
Division of Environmental Remediation, Region 9
270 Michigan Avenue
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Attention: Megan Kuczka
Environmental Program Specialist 1

Subject: Hydro-Air Components, Inc. Property
Former Steelfields Area IV BCP Site; NYSDEC Site #C915204
2020 Periodic Review Report & Institutional Controls/Engineering Controls Certification
100 Rittling Blvd.
Buffalo, New York

Ladies and Gentlemen:

On behalf of Hydro-Air Components, Inc. (Hydro-Air), Haley & Aldrich of New York (Haley & Aldrich) hereby submits this Periodic Review Report and Annual Institutional & Engineering Controls Certification for 2020 (2020 PRR). This report summarizes activities performed during the reporting period of 16 January 2020 through 14 April 2021 and was prepared in accordance with the New York State Department of Environmental Conservation (NYSDEC) approved Site Management Plan dated November 2007, as amended on 25 March 2014 to incorporate recommendations from the 2012 Corrective Measures Report (SMP).

The 2020 PRR documents SMP activities implemented during the reporting period and provides documentation of ongoing monitoring activities required by the SMP.

Haley & Aldrich conducted the annual site engineering controls inspection on 5 January 2021. During the inspection Haley & Aldrich observed apparent groundwater discharging at the toe of the slope between the Hydro-Air property and the property to the north. The discharging water was observed ponding in low lying areas of the gravel driveway between the site building and northern property boundary. NYSDEC authorized the extension of the PRR reporting period through 30 April 2021 to allow

30 April 2021

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for this temporary condition to be addressed through placement of additional gravel and re-grading of the gravel roadway. General site monitoring activities were completed over the reporting period by Hydro-Air personnel and contractors, and documentation of the monitoring activities is attached to and incorporated by reference in this 2020 PRR.

Sincerely yours,
HALEY & ALDRICH OF NEW YORK



Andrew L. Nichols
Technical Specialist



Glenn M. White, CHMM
Associate | Senior Project Manager

Enclosures

c: Hydro-Air Components, Inc.; Attn: Rob Daigler
Barclay Damon, LLP.; Attn: Thomas Walsh, Esq.

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SIGNATURE PAGE FOR

**2020 PERIODIC REVIEW REPORT &
INSTITUTIONAL CONTROLS/ENGINEERING CONTROLS CERTIFICATION
HYDRO-AIR COMPONENTS, INC. PROPERTY
(FORMER STEELFIELDS AREA IV BCP SITE; NYSDEC SITE #C915204)
100 RITTLING BLVD.
BUFFALO, NEW YORK**

**PREPARED FOR
NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
BUFFALO, NEW YORK**

PREPARED BY:



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Technical Specialist
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Executive Summary

The Steelfields Area IV Brownfields Cleanup Program (BCP) Site, NYSDEC Site #C915204, comprises 30.91 acres of land located at 100 Rittling Boulevard in Buffalo, New York (See Figures 1 and 2) (the “Site”). Originally part of the larger Steelfields Voluntary Cleanup Program (VCP) Site #V00619, remedial activities were initiated in 2003 under a Voluntary Cleanup Agreement (VCA) between the former Site owner, Steelfields Ltd., and the New York State Department of Environmental Conservation (NYSDEC). In 2006, the current Site owner, Hydro-Air Components, Inc. (Hydro-Air), purchased the Steelfields Area IV property, successfully applied for the BCP and subsequently entered into a Brownfields Cleanup Agreement with NYSDEC under which cleanup and redevelopment of the Site was completed in 2007.

The Site is currently developed with a 144,000 square foot manufacturing building and adjoining office space, surrounded by paved parking lots, landscaped areas, a stormwater retention pond, and seasonally vegetated areas. Soil and groundwater on some portions of the Site have been found to contain volatile organic compounds (VOCs), metals (primarily arsenic, chromium, and lead), and cyanide, associated with past use of the Site as the former Donner-Hanna Coke storage yard. Additionally, alkaline groundwater is known to exist in the northeastern corner of the Site, and acidic groundwater is known to exist in the western portion of the Site.

The NYSDEC-approved remedy for the Site included the following:

- Excavation and removal of soils contaminated from historical coking process wastes, backfilling, and placement of a cover system;
- Use of Oxygen Release Compound (ORC) in Site groundwater wells to stimulate in-situ biodegradation of the Site contaminants of interest (began in 2007); and,
- Installation and operation of an active sub-slab depressurization system (ASD) in the Site building to mitigate the potential for impacted soil vapor intrusion into the indoor air space (ASD constructed and operated continuously since 2007).

Also included as part of the NYSDEC-approved remedy was the recording of a Declaration of Covenants and Restrictions (Deed Restrictions) to address institutional control requirements of the BCP, including, but not limited to:

- Restricting the property to industrial use;
- Preventing use of groundwater at the Site without prior approval; and,
- Adherence to the NYSDEC-approved Site Management Plan (SMP) for long-term management of the Site in order to maintain protection of human health and the environment.

The SMP, dated November 2007, was amended on 25 March 2014 to incorporate recommendations from the 2012 Corrective Measures Report. The SMP consists of institutional and engineering controls (IC/ECs). Site ECs include maintenance of the Site cover system, gasketed stormwater conveyance piping, operation, and maintenance of the sub-slab depressurization system (ASD), and application of ORC in the designated wells. Monitoring of the ECs is conducted periodically per the SMP. Site ICs consist of the Deed Restrictions on the property, which include groundwater and land use restrictions, and adherence to the SMP.

The IC/ECs have remained in-place and have functioned as designed during the reporting period. The SMP and Deed Restrictions remain in-place, groundwater has not been used, and Site use is consistent with land use restrictions (industrial).

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1. Site Overview and Remedy Implementation

The Steelfields Area IV Brownfields Cleanup Program (BCP) Site, NYSDEC Site #C915204, comprises 30.91 acres of land located at 100 Rittling Boulevard in Buffalo, New York (See Figures 1 and 2) (the “Site”). Although initially part of a larger New York State Department of Environmental Conservation (NYSDEC) Voluntary Cleanup Program (VCP) site known as Steelfields (Site #V00619), the Site was remediated by the current Site owner, Hydro-Air Components, Inc. (Hydro-Air) under the BCP in 2006. Site development was completed in 2007 with the construction of an approximately 144,000 square foot manufacturing building and adjoining office space. Remaining portions of the Site include paved parking lots, a gravel road, landscaped areas, a stormwater retention pond, and seasonally vegetated areas. Soil and groundwater on some portions of the Site contain volatile organic compounds (VOCs), metals (primarily arsenic, chromium, and lead), and cyanide, associated with past use of the Site as the former Donner-Hanna Coke Storage Yard. Additionally, alkaline groundwater is known to exist in the northeastern corner of the Site, and acidic groundwater is known to exist in the western portion of the Site.

Soil and groundwater investigations were conducted at the Site between 1997 and 2005 as part of VCP activities. Following investigation, and entry of the Site in the BCP by Hydro-Air, a Site remedy was selected consisting of:

- Excavation and removal of soils contaminated with historical coking process wastes; backfilling; and placement of cover material;
- Use of Oxygen Release Compound (ORC) in designated Site groundwater wells to stimulate and enhance intrinsic bioremediation of the VOCs in the soil and groundwater;
- Installation and operation of an active sub-slab depressurization system (ASD) in the Site building to mitigate the potential for impacted soil vapor intrusion into the indoor air space;
- Use of gasketed stormwater conveyance piping; and,
- Periodic monitoring.

Also included as part of the remedy was the recording of a Declaration of Covenants and Restrictions (Deed Restrictions) to establish institutional control requirements at the Site, including continued industrial use of the property, preventing use of groundwater at the Site without prior approval, and adherence to the Site Management Plan (SMP) for long-term management of the Site to maintain protection of human health and the environment as required by the NYSDEC. The NYSDEC approved the SMP dated November 2007, and its amendment dated 25 March 2014.

This report summarizes activities performed during the period 16 January 2020 through 14 April 2021. This report includes data collected since the SMP was approved in 2007.

2. IC/EC Compliance Report

2.1 INSTITUTIONAL CONTROLS - REQUIREMENTS AND COMPLIANCE

Site institutional controls (ICs) in the form of Deed Restrictions are in effect at the Site. These restrictions include prohibition of groundwater use unless rendered safe for the intended purpose and land use restrictions (industrial use only). The Deed Restrictions also stipulate that the Site is managed under a NYSDEC-approved SMP and requires periodic certification indicating that the Site engineering controls (ECs) remain in-place and continue to be protective.

The Site's Deed Restrictions remained in force during the reporting period. Certifications are included in Appendix A.

2.2 ENGINEERING CONTROLS - REQUIREMENTS AND COMPLIANCE

There are six (6) ECs in place at the Site, which are as follows and further described in the sections below:

- 2.2.1 Existing Cover System
- 2.2.2 Active Sub-Slab Depressurization System
- 2.2.3 Gasketed Stormwater Conveyance
- 2.2.4 ORC In-situ Treatment
- 2.2.5 Groundwater Monitoring
- 2.2.6 Stormwater Pond Monitoring

2.2.1 Existing Cover System

Potential direct exposure to residual contamination remaining at the Site is prevented by the existing cover system, which consists of the building slab, pavement, and one foot of clean gravel or clean soil and vegetative cover. The cover system is required to be maintained in accordance with the SMP. Excavations that breach the cover system may require monitoring and soil management in accordance with the Excavation Work Plan appended to the SMP. In addition, should certain fill materials ever be imported onto the Site, they must be tested prior to Site use to demonstrate compliance with the requirements of the SMP.

2.2.1.1 Prevention of Groundwater Surfacing

Prior to 2010, groundwater that had been in contact with soils from beneath the cover system was observed accumulating in the northeastern loading dock area of the Site building (see Figure 2). Subsequent to corrective measures that were put into place per the NYSDEC-approved Corrective Measures Work Plan, groundwater has not accumulated in the northeastern loading dock area. The reconfiguration of the loading dock pump system (setting to automatic pumping and raising the float set-point) has enabled sufficient pumping to maintain dry conditions and has sufficiently prevented the surfacing of groundwater in the area. Hydro-Air has continued to monitor the efficacy of these controls regularly throughout the reporting period.

Prior to 2012, evidence of surfacing groundwater from beneath the gravel cover areas on the northern end of the Site was evident (see Figure 2). As a voluntary corrective measure, the gravel cover on the northern portion of the access road was enhanced in 2012 by the placement of additional gravel (an additional 9 to 11 inches). Since then, Hydro-Air monitored the continual efficacy of the gravel cover area throughout 2020 and did not observe evidence of groundwater surfacing in these areas.

Nonetheless, during the Site inspection on 5 January 2021, standing water was observed in compacted areas on the gravel roadway between the Site building and northern Site boundary following a period of rainfall and snowmelt. This condition was likely related to recent rainfall/snow melt/localized groundwater recharge. Per correspondence with the NYSDEC on 26 January 2021, it was agreed Hydro-Air would temporarily block-off the access road until seasonal snow cover was melted to see if the standing water condition persisted, and if it did, assess options for the placement of additional gravel cover in the area. In March 2021, Hydro-Air provided photographs documenting the absence of standing water along the road, suggesting the conditions observed in January 2021 were temporary and associated with rapid rainfall and snowmelt prior to the Site inspection. However, to limit the potential for future temporary ponding under similar conditions, Hydro-Air imported approximately 88 tons of #2 crushed limestone to elevate the compacted areas and re-grade the roadway. The crushed stone was imported to the Site on 14 April 2021, per import approval provided by NYSDEC on 24 March 2021. Hydro-Air will continue to monitor the road conditions throughout the 2021 reporting period and prohibit access to the road if unanticipated standing water is observed.

Refer to Appendix B for NYSDEC correspondence; Appendix C for the Annual Inspection Form; Appendix D for representative photographs of standing water conditions on 5 January 2021, “dry” road conditions in March 2021, and gravel placement in April 2021. Import Material Documentation is presented in Appendix E.

2.2.1.2 Soil Rutting During Subsurface Investigations

In October 2020, geotechnical soil borings were advanced on the western portions of the Site in support of scoping activities associated with the proposed Buffalo Skyway infrastructure development. Haley & Aldrich of New York (Haley & Aldrich) was engaged by the Buffalo Skyway project and provided oversight of the subsurface exploration activities, which were conducted in accordance with the SMP. Exploration activities generated 8 drums of drilling fluids/sludge, which were characterized and disposed off-site at the Steuben County Landfill in Bath, New York. The non-hazardous waste manifest and disposal receipt are included in Appendix E.

While accessing the soil boring locations, the drilling rig generated ruts, temporarily breaching the Site cover system. On 23 November 2020, the NYSDEC approved use of imported topsoil to fill the ruts and repair the cover system. NW Contracting was contracted by the Buffalo Skyway project to repair the ruts in December 2020.

The cover system continues to function in accordance with the SMP. Refer to Appendix B for NYSDEC correspondence. See Appendix D for photographs of initial rutting and subsequent repairs. Import Material Documentation is presented in Appendix E.

2.2.1.3 Floor Cracking in Office Areas

During the previous 2019 PRR inspection, floor cracks were observed in walkways within the Site office areas. In August 2020, Hydro-Air personnel repaired observable floor cracks greater than approximately ¼ inch in width using hydraulic cement. See Appendix D for photographs of the floor crack repairs. Additional minor cracks were observed in the floor tile and underlying concrete slab of the Hydro-Air offices during the annual Site inspection. Hydro-Air intends to remove the flooring throughout the office areas and repair the concrete in the future. Minor floor cracks were also observed in select areas of the Site manufacturing space. These cracks will be monitored for potential future expansion.

2.2.2 Sub-Slab Depressurization System

An active sub-slab depressurization (ASD) system was installed during 2006 Site building construction to mitigate the potential for soil vapor intrusion to occur. The ASD system consists of an 8-mil polyethylene vapor barrier and five assemblies strategically placed within the footprint of the Site building, each containing the following items: perforated pipe suction assembly, vertical piping vent stack and associated materials, exhaust fan, and magnehelic pressure gauge.

Based on continued presence of sub-slab vacuum and continuous system operation, the ASD system is operating as designed, and documentation for regular maintenance and monitoring is included in Appendix F. Refer to Section 3.2 below, for additional information, including updates provided within this Periodic Review Report and Annual Institutional & Engineering Controls Certification for 2020 (2020 PRR).

2.2.3 Gasketed Stormwater Conveyance Piping

In areas of the Site with known groundwater impacts, storm water injection (drywells) is prohibited, and storm water conveyance pipes and manholes are required to have gasketed joints for water tightness to prevent the infiltration of impacted groundwater from beneath the cover system into the collection system.

Activities that would have impacted the integrity of the gasketed joints of stormwater conveyance piping were not performed during the reporting period. Gasketed stormwater conveyance pipes therefore remain in-place as designed and installed. No new stormwater conveyance piping was installed during the reporting period.

2.2.4 ORC In-Situ Treatment

The in-situ treatment of residual contamination in remaining soils and groundwater using oxygen release compounds (ORC) is maintained and monitored in accordance with the SMP. The three designated ORC wells are inspected annually, and ORC is required to be replaced semi-annually in accordance with the SMP.

The ORC wells were inspected on both 30 January 2020 and 6 August 2020. The ORC wells are currently intact and operational, and the seals appear to have integrity. ORC was replaced in January 2020, August 2020, and January 2021. Documentation for regular maintenance, monitoring, and ORC replacement is included in Appendix G.

2.2.5 Groundwater Monitoring

Groundwater samples from five (5) monitoring wells and three (3) in-situ ORC remediation wells identified on Figures 2 and 3, are collected annually using low-flow purge and sampling methods as specified in the SMP. Water quality parameters are measured and recorded in the field during the low-flow purge using a flow-through cell and water quality meter. The following field parameters are measured in each monitoring and in-situ remediation well: pH, temperature, Oxidation-Reduction Potential (ORP), specific conductance, turbidity, dissolved oxygen, CO₂, alkalinity, and visual/olfactory observations. Static depth to groundwater is measured at each monitoring well prior to groundwater sample collection. Static groundwater elevations from August 2020 are shown on Figure 3.

Groundwater samples collected from the five (5) monitoring wells are analyzed for VOCs (Method 8260C), arsenic/chromium/lead (Method 6010C), cyanide (Method 9012B), and alkalinity (Method 310.2).

Long-term groundwater monitoring continues at the Site. Groundwater analytical data are included in Appendix I. Sampling documentation is included in Appendix H.

2.2.6 Stormwater Pond Monitoring

Hydro-Air staff collect water samples each month from four locations in the Site stormwater pond (see Figure 2 for monitoring locations) and take pH and temperature readings on the samples using a hand-held probe. Readings are not collected when the pond is frozen. In accordance with the SMP, samples collected from the midpoint of the main pond and near the pond outlet pipe are combined in the field and analyzed as a composite sample.

Stormwater pond sampling continues at the Site. The majority of the pH measurements were between 6 -8 during the reporting period. Sampling data are included in Table IV.

2.3 IC/EC CERTIFICATION

Based on site visits and interviews with site personnel, the IC/ECs are herein certified by Robert Daigler, designated representative of Hydro-Air Components, Inc., and Glenn M. White, CHMM working for Haley & Aldrich of New York on behalf of Hydro-Air Components, Inc. as the Qualified Environmental Professional. Refer to Appendix A for a copy of the appropriate certification documentation.

3. Operations, Maintenance, & Monitoring Plan Compliance Report

Monitoring activities conducted during this reporting period consisted of an annual inspection, annual groundwater sampling, ORC well inspection and replacement of ORC, review of sub-slab vacuum measurements of the ASD, and stormwater pond monitoring. Monitoring activities were conducted in accordance with the SMP. The results of the groundwater and stormwater pond quality monitoring, and operations, maintenance, and monitoring of the ORC wells and ASD are further described below.

3.1 ANNUAL INSPECTION

A Haley & Aldrich representative conducted an annual certification inspection of the Site on 5 January 2021, in accordance with the SMP. The Environmental Inspection Form summarizing observations is included in Appendix C, and representative Site photographs are included in Appendix D.

3.2 GROUNDWATER MONITORING

Groundwater monitoring was conducted in August 2020 and the results are presented on summary Tables I through III, and Figures 3 through 5. Figure 3 presents the groundwater elevation contours for the date of sampling as well as approximate groundwater flow direction. Figure 4 is a posting map of the groundwater parameters of interest (benzene, arsenic, and cyanide). Figure 5 illustrates historical trends for the groundwater parameters of interest using data from this monitoring period as well as historical monitoring periods.

The August 2020 groundwater samples were collected by NW Contracting of Alden, New York, and analyzed by Alpha Analytical, located in Buffalo, NY. These laboratory data have been submitted as an EQUIS® electronic data deliverable (EDD) to the NYSDEC and the laboratory report is included in Appendix I. Groundwater sampling field forms are provided in Appendix H, and historical groundwater monitoring data tables are presented in Appendix J.

3.2.1 Groundwater Elevation Data

The groundwater contour map included as Figure 3 was prepared using the static groundwater elevations measured at the 5 monitoring wells on 6 and 7 August 2020. Due to anomalous groundwater elevation readings at the ORC wells (specifically mounding in the vicinity of A4-ORC-3), these elevations were excluded from contouring. Groundwater mounding around ORC wells A4-ORC-2 and A4-ORC-3 has been observed in prior years and may be influenced by backfilling in portions of the site. Consistent with previous monitoring periods, groundwater elevations indicate that shallow groundwater flow is generally to the southeast across the Site.

3.2.2 Parameters of Interest

The SMP indicates that groundwater quality parameters exceeding applicable NYSDEC Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations - Class GA – June 1998 (Class GA GWQS) for two consecutive events should be considered to be of interest. In 2007, benzene, ethylbenzene, naphthalene, toluene, lead, chromium, cyanide, and arsenic were parameters of interest at the Site. Currently, however, only benzene, cyanide, and arsenic remain parameters of interest per the SMP. During the 2020 sampling, cyanide was elevated over Class GA GWQS at wells A4-MW-5R, A4-

MW-7R, and A4-MW-9. Benzene was elevated over Class GA GWQS at wells A4-MW-5R, A4-MW-7R, A4-MW-8R, A4-MW-9, and A4-MW-10. Arsenic was elevated over Class GA GWQS at A4-MW-8R.

Concentrations for each parameter of interest measured in monitoring wells sampled in August 2020 are shown on Figure 4. Historical monitoring data and moving average trendlines for current parameters of interest at wells A4-MW-5R, A4-MW-8R and A4-MW-9 are shown on Figure 5.

3.2.2.1 A4-MW-5R

Cyanide remains a parameter of interest at monitoring well A4-MW-5R, where a concentration of 350 µg/L was detected in August 2020. Cyanide concentrations have exceeded Class GA GWQS since 2007, and detected concentrations have fluctuated between 103 µg/L and 920 µg/L during this period (see Figure 5), resulting in a slight increasing trend over time. Benzene was detected in monitoring well A4-MW-5R at a concentration (8.4 µg/L) above Class GA GWQS in August 2020 and will be evaluated for inclusion as a parameter of interest in 2021.

3.2.2.2 A4-MW-7R

Currently, there are no parameters of interest at monitoring well A4-MW-7R. However, benzene (140 µg/L), toluene (22 µg/L) and cyanide (500 µg/L) were detected in monitoring well A4-MW-7R at concentrations above Class GA GWQS in August 2020 and will be evaluated for inclusion as parameters of interest in 2021.

3.2.2.3 A4-MW-8R

Benzene and arsenic remain parameters of interest at monitoring well A4-MW-8R, where concentrations of 12,000 µg/L benzene and 33.88 µg/L arsenic were detected in August 2020. Concentrations of benzene have exceeded Class GA GWQS for 15 consecutive monitoring periods. Benzene concentrations have generally decreased over time. Arsenic concentrations detected in August 2020 exceeded Class GA GWQS and have exceeded Class GA GWQS for 13 of the previous 14 monitoring periods. This suggests arsenic should remain a parameter of interest at well A4-MW-8R. Arsenic concentrations have shown a stable to slightly decreasing trend over time.

3.2.2.4 A4-MW-9

Benzene and cyanide remain parameters of interest at well A4-MW-9. While unexpectedly low concentrations of cyanide (140 µg/L) and benzene (non-detect) were identified in well A4-MW-9 in December 2019, each below Class GA GWQS, concentrations of benzene (590 µg/L) and cyanide (1760 µg/L) increased in August 2020. Detected concentrations of each constituent have exceeded Class GA GWQS for 6 of the last 7 years.

3.2.2.5 A4-MW-10

Since 2007, parameters of interest have not been identified in well A4-MW-10. However, benzene was detected in August 2020 (370 µg/L) and June 2018 (41 µg/L) at concentrations exceeding Class GA GWQS. Benzene will be evaluated for inclusion as a parameter of interest at well A4-MW-10 in 2021.

Groundwater monitoring activities will continue in the future following the annual schedule in accordance with the SMP. The next groundwater sampling event is tentatively scheduled for June 2021.

3.3 ORC WELL MAINTENANCE AND MONITORING

The ORC® socks were replaced on 30 January 2020, 7 August 2020, and 27 January 2021. The three ORC® wells were monitored during the annual sampling event on 6 August 2020, in accordance with the SMP. The ORC wells are currently intact and operational, and the seals appear to have integrity.

ORC field parameter monitoring results are presented in Table II. The pH in the ORC wells continues to fluctuate. The pH at A4-ORC-1 decreased between December 2019 and August 2020 (from 5.21 to 3.61). The pH at A4-ORC-2 increased (from 2.95 to 3.17). The pH at A4-ORC-3 decreased (from 5.57 to 5.13). Overall, the pH within the three ORC® wells continues to remain low, and as a result of the low pH conditions, the ORC® is likely being inhibited from enhancing biodegradation of residual contaminants.

Note that the groundwater monitoring wells tested surround the Tar/Blue Soil Fill Excavation Limits where the ORC socks have been placed. The pH of the groundwater in the surrounding monitoring wells tested ranged from 5.53 to 6.19.

As requested by NYSDEC in their 18 February 2020 PRR Response Letter, CO₂ and alkalinity were included as monitoring well field parameters during the annual sampling event. Alkalinity values were measured in the field and reported in Table II. However, field titration kits required for CO₂ measurements repeatedly failed. The test kit manufacturer indicated metals interference as a potential cause of test failure. Hydro-Air and NW Contracting will explore using alternative CO₂ test kits during the 2021 sampling event.

3.4 SUB-SLAB DEPRESSURIZATION SYSTEM OPERATIONS, MAINTENANCE, AND MONITORING

The ASD system continuously operates at the Site and is monitored monthly by Hydro-Air staff, who record the system vacuum readings and operations data on the maintenance form provided in the NYSDEC-approved SMP. These data are available on-site. The ASD system and monitoring documentation for the reporting period is provided in Appendix F.

The ASD system was evaluated on 5 January 2021 by Haley & Aldrich as part of the annual Site inspection. The evaluation included confirmation of vacuum measurements at the five (5) existing monitoring points located within the facility. One magnehelic gauge (NW) indicated no pressurization at the time of the evaluation. According to Hydro-Air staff, the gauge hose was knocked off during the movement of facility equipment the day prior to the evaluation. Following the site inspection, Hydro-Air staff confirmed re-pressurization to levels consistent with historical system operation. Overall, the ASD system operation is consistent with prior operations, and is operating acceptably and consistent with its intended function, design and construction.

Although apparently not adversely impacting sub-slab vacuum, minor cracks continue to be observed (see the photo log in Appendix D) in the tile and underlying concrete slab of the Hydro-Air offices. Visible large cracks observed during the 2019 monitoring period were repaired with hydraulic cement in August 2020. Due to the continued minor cracking, Hydro-Air intends to remove the flooring throughout the office areas and repair the concrete surfaces in the future.

3.5 STORMWATER POND MONITORING

Site stormwater pond water quality (pH and temperature) conditions were monitored monthly at four sampling locations (see Figure 2) by Hydro-Air staff. Stormwater pond monitoring data are summarized in Table IV. For much of the reporting period, the results of the pond monitoring appear consistent with the findings from previous sampling events, and measured pH values generally did not exceed NYSDEC TOGS 1.1.1 ambient water quality guidance values of pH 8.5 (guidance value) during the PRR monitoring period.

During the October 2020 sampling period, pH measured at the discharge pipe (10.5) and northern embayment (11.0) sampling locations exceeded the guidance value. The pH values at each pond monitoring location did not exceed 8.5 during the November 2020 monitoring period. The pond was frozen during the December 2020, January 2021 and February 2021 monitoring periods, precluding field pH measurements. The pH measured at the discharge pipe (9.0) and northern embayment (10.0) sampling locations in March 2021 following thawing of the pond again exceeded the guidance value. Because stormwater pond measurements have not exceeded the guidance value of pH 8.5 for more than three consecutive monitoring events, precautionary measures to mitigate potential for an inadvertent exposure to pond water, as described in the SMP, are not needed.

4. Conclusions and Recommendations

The following are conclusions and recommendations for the Site from the results of monitoring activities completed during the reporting period:

- Access to soil boring locations associated with the regional Buffalo Skyway project generated ruts that breached the Site Cover system. The ruts were repaired, maintaining the integrity of the cover system.
- The engineering controls (groundwater monitoring, existing cover system, ASD system, ORC wells) were operated and maintained during the reporting period. Small cracks continue to be observed in the tile and underlying concrete slab in the office areas of the Hydro-Air building during the reporting period. The cracks represent potential vapor intrusion pathways. Hydro-Air is planning to remove the flooring throughout the offices and repair the underlying concrete surface in the future.
- Water ponding/shallow groundwater surfacing in the gravel areas along the northern Site boundary occurred following rainfall and rapid snowmelt in early January 2021. Access to the area was restricted by Hydro-Air, and ponding water was not observed in March 2021. Hydro-Air imported gravel/stone and elevated/re-graded the road in April 2021. Hydro-Air plans to monitor the road conditions throughout the remainder of 2021 and prohibit access to the road if and when standing water is observed.
- The Deed Restrictions remain in place. Groundwater has not been used at the Site during the reporting period. Site land use has remained for industrial use only during the reporting period.
- Groundwater monitoring results indicate benzene, cyanide and arsenic continue to remain parameters of interest at selected Site groundwater monitoring wells.

References

1. Site Management Plan for Hydro-Air Components, Inc., Former Steelfields Area IV Parcel, Brownfields Cleanup Program, NYSDEC Site #C915204, prepared by TurnKey Environmental Restoration, LLC., dated November 2007, amended 25 March 2014.
2. Division of Water Technical and Operational Guidance Series (1.1.1), Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations, prepared by NYSDEC, dated June 1998.

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TABLES

TABLE I
SUMMARY OF GROUNDWATER ANALYTICAL RESULTS
HYDROAIR COMPONENTS, INC
BUFFALO, NEW YORK

Location Sample Date	Ambient Water Quality Standards	A4-MW-5R 8/7/2020	A4-MW-7R 8/6/2020	A4-MW-8R 8/7/2020	A4-MW-9 8/7/2020	A4-MW-10 8/6/2020
Inorganic Compounds (ug/L)						
Arsenic, Total	25	6.61	5.19	33.88 ^[A]	18.22	5.47
Chromium, Total	50	0.98 J	3.29	1.2	4.14	0.98 J
Cyanide, Total	200	350 ^[A]	500 ^[A]	111	1760 ^[A]	61
Lead, Total	25	0.7 J	ND (1)	ND (1)	0.6 J	0.92 J
Other						
Alkalinity, Total (as CaCO3)	-	420000	230000	878000	320000	854000
Volatile Organic Compounds (ug/L)						
1,1,1-Trichloroethane	5	ND (2.5)	ND (2.5)	ND (250)	ND (12)	ND (10)
1,1,2,2-Tetrachloroethane	5	ND (0.5)	ND (0.5)	ND (50)	ND (2.5)	ND (2)
1,1,2-Trichloroethane	1	ND (1.5)	ND (1.5)	ND (150)	ND (7.5)	ND (6)
1,1-Dichloroethane	5	ND (2.5)	ND (2.5)	ND (250)	ND (12)	ND (10)
1,1-Dichloroethene	5	ND (0.5)	ND (0.5)	ND (50)	ND (2.5)	ND (2)
1,2,3-Trichlorobenzene	5	ND (2.5)	ND (2.5)	ND (250)	ND (12)	ND (10)
1,2,4-Trichlorobenzene	5	ND (2.5)	ND (2.5)	ND (250)	ND (12)	ND (10)
1,2-Dibromo-3-chloropropane (DBCP)	0.04	ND (2.5)	ND (2.5)	ND (250)	ND (12)	ND (10)
1,2-Dibromoethane (Ethylene Dibromide)	0.0006	ND (2)	ND (2)	ND (200)	ND (10)	ND (8)
1,2-Dichlorobenzene	3	ND (2.5)	ND (2.5)	ND (250)	ND (12)	ND (10)
1,2-Dichloroethane	0.6	ND (0.5)	ND (0.5)	ND (50)	ND (2.5)	ND (2)
1,2-Dichloropropane	1	ND (1)	ND (1)	ND (100)	ND (5)	ND (4)
1,3-Dichlorobenzene	3	ND (2.5)	ND (2.5)	ND (250)	ND (12)	ND (10)
1,4-Dichlorobenzene	3	ND (2.5)	ND (2.5)	ND (250)	ND (12)	ND (10)
1,4-Dioxane	-	ND (250)	ND (250)	ND (25000)	ND (1200)	ND (1000)
2-Butanone (Methyl Ethyl Ketone)	50	ND (5)	ND (5)	ND (500)	ND (25)	ND (20)
2-Hexanone	50	ND (5)	ND (5)	ND (500)	ND (25)	ND (20)
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	-	ND (5)	ND (5)	ND (500)	ND (25)	ND (20)
Acetone	50	ND (5)	ND (5)	ND (500)	ND (25)	7.4 J
Benzene	1	8.4 ^[A]	140 ^[A]	12000 ^[A]	590 ^[A]	370 ^[A]
Bromodichloromethane	50	ND (0.5)	ND (0.5)	ND (50)	ND (2.5)	ND (2)
Bromoform	50	ND (2)	ND (2)	ND (200)	ND (10)	ND (8)
Bromomethane (Methyl Bromide)	5	ND (2.5)	ND (2.5)	ND (250)	ND (12)	ND (10)
Carbon disulfide	60	ND (5)	ND (5)	ND (500)	5 J	ND (20)
Carbon tetrachloride	5	ND (0.5)	ND (0.5)	ND (50)	ND (2.5)	ND (2)
Chlorobenzene	5	ND (2.5)	ND (2.5)	ND (250)	ND (12)	ND (10)
Chlorobromomethane	-	ND (2.5)	ND (2.5)	ND (250)	ND (12)	ND (10)
Chloroethane	5	ND (2.5)	ND (2.5)	ND (250)	ND (12)	ND (10)
Chloroform (Trichloromethane)	7	ND (2.5)	ND (2.5)	ND (250)	ND (12)	ND (10)
Chloromethane (Methyl Chloride)	5	ND (2.5)	ND (2.5)	ND (250)	ND (12)	ND (10)
cis-1,2-Dichloroethene	5	ND (2.5)	ND (2.5)	ND (250)	ND (12)	ND (10)
cis-1,3-Dichloropropene	0.4	ND (0.5)	ND (0.5)	ND (50)	ND (2.5)	ND (2)
Cyclohexane	-	ND (10)	ND (10)	ND (1000)	ND (50)	ND (40)
Dibromochloromethane	50	ND (0.5)	ND (0.5)	ND (50)	ND (2.5)	ND (2)
Dichlorodifluoromethane (CFC-12)	5	ND (5)	ND (5)	ND (500)	ND (25)	ND (20)
Ethylbenzene	5	ND (2.5)	ND (2.5)	ND (250)	ND (12)	ND (10)
Isopropylbenzene (Cumene)	5	ND (2.5)	ND (2.5)	ND (250)	ND (12)	ND (10)
m,p-Xylenes	5	ND (2.5)	0.97 J	ND (250)	ND (12)	ND (10)
Methyl acetate	-	ND (2)	ND (2)	ND (200)	ND (10)	ND (8)
Methyl cyclohexane	-	ND (10)	ND (10)	ND (1000)	ND (50)	ND (40)
Methyl Tert Butyl Ether	10	ND (2.5)	ND (2.5)	ND (250)	ND (12)	ND (10)
Methylene chloride	5	ND (2.5)	ND (2.5)	ND (250)	ND (12)	ND (10)
o-Xylene	5	ND (2.5)	ND (2.5)	ND (250)	ND (12)	ND (10)
Styrene	5	ND (2.5)	ND (2.5)	ND (250)	ND (12)	ND (10)
Tetrachloroethene	5	ND (0.5)	ND (0.5)	ND (50)	ND (2.5)	ND (2)
Toluene	5	ND (2.5)	22 ^[A]	ND (250)	ND (12)	40 ^[A]
trans-1,2-Dichloroethene	5	ND (2.5)	ND (2.5)	ND (250)	ND (12)	ND (10)
trans-1,3-Dichloropropene	0.4	ND (0.5)	ND (0.5)	ND (50)	ND (2.5)	ND (2)
Trichloroethene	5	ND (0.5)	ND (0.5)	ND (50)	ND (2.5)	ND (2)
Trichlorofluoromethane (CFC-11)	5	ND (2.5)	ND (2.5)	ND (250)	ND (12)	ND (10)
Trifluorotrichloroethane (Freon 113)	5	ND (2.5)	ND (2.5)	ND (250)	ND (12)	ND (10)
Vinyl chloride	2	ND (1)	ND (1)	ND (100)	ND (5)	ND (4)

Notes:

1. Results in **bold** were detected.
 2. ^[A] - Results in red exceed NYSDEC Ambient Water Quality Standards and Guidance Values - Class GA – June 1998
 3. ND - Not detected above the reporting limit
- J - Estimated value

Table II
Summary of ORC Assessment Results
August 2020

Twelfth Annual Groundwater Monitoring Event
Hydro-Air Site (Formerly Steelfields Area IV)
Buffalo, New York

Parameter	Monitoring Location																														
	A4-ORC-1														A4-ORC-2																
	7/12/2007	2/4/2008	6/3/2008	6/26/2009	6/29/2010	6/29/2011	7/6/2012	7/2/2013	6/3/2014	6/26/2015	6/23/2016	6/23/2017	6/26/2018	12/19/2019	8/6/2020	7/12/2007	2/4/2008	6/3/2008	6/26/2009	6/29/2010	6/29/2011	7/6/2012	7/2/2013	6/3/2014	6/26/2015	6/23/2016	6/23/2017	6/26/2018	12/19/2019	8/6/2020	
Field Measurements																															
DTW (ftTOR)	9.27	4.53	3.97	4.22	2.62	2.65	4.66	2.91	4.89	4.04	4.65	3.82	5.3	2.94	4.42	6	6.27	3.87	2.75	2.01	0.96	2.08	1.23	2.46	2.5	2.25	1.4	1.35	3.41	1.5	
pH (units)	2.34	3.78	3.49	5.00	4.07	3.50	2.90	3.01	6.13	2.93	3.66	2.83	5.70	5.21	3.61	1.98	1.73	1.72	4.31	2.64	2.30	1.40	1.81	2.37	2.14	3.09	2.68	3.91	2.95	3.17	
Temperature (°C)	22.9	3.3	13.6	17.0	18.0	17.8	19.9	18.6	17.1	18.6	16.0	17.1	16.9	5.6	20.5	19.1	6.4	14.2	16.1	17.5	16.0	20.1	17.8	16.0	17.9	16.6	17.8	16.9	4.8	21.9	
Specific Conductance (mS)	3.11	36.6	34.5	28.0	28.3	27.3	26.8	27.4	82.8	22.0	28.0	23.5	21.3	26.4	22.4	3.88	41.7	46.5	34.5	40	17.8	27.5	27.3	298.8	32.1	34.6	22.1	20.6	23.1	27.2	
Turbidity (NTU)	190	23.1	176	6.17	9	8.19	2.46	3.2	33.1	1.17	2.6	0.82	2.53	7.9	235	130	99.8	62.3	50.8	5.01	29.1	11.63	18.6	19.7	3.27	3.91	0.65	4.8	13.7	204	
Dissolved Oxygen (mg/L)	8.15	10.49	7.26	1.55	0.44	0.54	0.49	0.67	0.84	0.95	0.78	0.81	0.7	3.64	1.36	9.05	0.33	7.78	1.00	0.46	0.34	0.53	0.32	-0.5	0.65	0.56	0.56	0.46	4.32	0.24	
Eh (mV)	235	155	209	330	344	58	190	267	-41	250	227	178	39	217	188	383	358	387	466	443	352	388	461	398	355	288	210	318	389	281	
CO2 (mg/L)	--	no rxn	--	--	--	--	--	--	--	--	--	--	--	--	no rxn	--	no rxn	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Alkalinity (ppm)	38	170	--	--	--	--	--	--	--	--	--	--	--	--	1000	6	no rxn	--	--	--	--	--	--	--	--	--	--	--	--	--	1000
Appearance (visual)	brown	--	yellow-brown	amber	dark amber	amber	amber	amber	amber	amber	amber	amber	amber	--	--	brown	--	dark brown	tan/amber	amber	amber	dark amber	amber	amber	amber	amber	amber	amber	amber	orange tint	--

Notes:
1. EnSol Environmental Solutions, Ltd. conducted the 25 June 2007 sampling even
2. Haley & Aldrich completed the February and June 2008 groundwater monitoring event;
3. TestAmerica Buffalo conducted the 25-26 June 2009, 28-29 June 2010, 28-29 June 2011, 5-6 July 2012, 1-2 July 2013, 2-3 June 2014, 25-26 June 2015, 22-23 June 2016, 22-23 June 2017, 25-26 June 2018, an 19 December 2019 sampling events. NW Contracting conducted the August 2020 sampling event.
4. This table has been adapted from the Draft First Semi-Annual Long-Term Groundwater Monitoring Report (June 2007) by Benchmark Environmental Engineering & Science, PLLC.

Table II
Summary of ORC Assessment Results
August 2020

Twelfth Annual Groundwater Monitoring Event
Hydro-Air Site (Formerly Steelfields Area IV)
Buffalo, New York

Parameter	Monitoring Location														
	A4-ORC-3														
	7/12/2007	2/4/2008	6/3/2008	6/25/2009	6/29/2010	6/29/2011	7/6/2012	7/2/2013	6/3/2014	6/26/2015	6/23/2016	6/23/2017	6/26/2018	12/19/2019	8/6/2020
	Field Measurements														
DTW (ftTOR)	6.68	5.25	4.66	5.16	3.6	3.55	5.82	3.55	3.92	4.95	5.62	5.28	3.95	3.03	6
pH (units)	2.71	3.25	3.45	5.39	5.55	5.75	3.89	4.96	3.4	4.02	4.07	5.36	3.21	5.57	5.13
Temperature (°C)	17.9	7.2	11.7	19.72	15.6	15.3	18.5	20.5	17.2	17.5	16	17.2	17.8	7.4	23.02
Specific Conductance (mS)	3.44	39.7	38.2	32.9	28	28.8	26.9	19.7	263.2	21.49	23.9	21.4	26.27	24.27	14.1
Turbidity (NTU)	780	> 800	92.7	152	248	87.5	68.9	39	4.7	6.73	1.7	2.72	1.95	1297	201
Dissolved Oxygen (mg/L)	9.99	5.53	1.05	0.47	1.63	1.95	1.38	0.35	0.23	0.25	0.2	0.49	0.13	1.99	0.85
Eh (mV)	140	263	235	134	174	174	296	302	241	217	127	110	239	41	145
CO2 (mg/L)		no rxn	--	--	--	--	--	--	--	--	--	--	--	no rxn	--
Alkalinity (ppm)	56	357	--	--	--	--	--	--	--	--	--	--	--	--	1000
Appearance (visual)	brown	--	yellow-brown	orange	orange	orange	orange	amber	amber	amber	amber	amber	amber	red/orange	--

- Notes:
1. EnSol Environmental Solutions, Ltd. conducted the 25 June 2007 sampling even
 2. Haley & Aldrich completed the February and June 2008 groundwater monitoring events
 3. TestAmerica Buffalo conducted the 25-26 June 2009, 28-29 June 2010, 28-29 June 2011, 5-6 July 2012, 1-2 July 2013, 2-3 June 2014, 25-26 June 2015, 22-23 June 2016, 22-23 June 2017, 25-26 June 2018, an 19 December 2019 sampling events. NW Contracting conducted the August 2020 sampling event.
 4. This table has been adapted from the Draft First Semi-Annual Long-Term Groundwater Monitoring Report (June 2007) by Benchmark Environmental Engineering & Science, PLLC.

Table III
Summary of Field Measurements
August 2020

Twelfth Annual Groundwater Monitoring Event
Hydro-Air Site (Formerly Steelfields Area IV)
Buffalo, New York

Parameter	Monitoring Location																															
	A4-MW-5R															A4-MW-7R																
	6/25/2007	2/1/2008	6/2/2008	6/25/2009	6/28/2010	6/28/2011	7/5/2012	7/1/2013	6/2/2014	6/25/2015	6/22/2016	6/22/2017	6/25/2018	12/19/2019	8/7/2020	6/25/2007	1/31/2008	6/2/2008	6/25/2009	6/28/2010	6/28/2011	7/5/2012	7/1/2013	6/2/2014	6/25/2015	6/22/2016	6/22/2017	6/26/2018	12/19/2019	8/6/2020		
Field Measurements																																
pH (units)	6.55	6.61	6.80	6.71	6.82	7.36	7.20	6.77	6.14	7.05	7.18	7.27	6.63	7.39	7.43	6.15	6.17	6.33	6.93	5.97	6.31	6.02	5.85	5.23	4.76	5.61	5.67	7.10	6.49	7.12	5.83	5.69
Temperature (°C)	15.9	17.4	6.3	12.3	16.87	18.1	15.5	19.07	15.5	16.4	15.3	15.2	15.7	18	9.4	20.61	18.0	18.1	6.5	11.4	18.34	15.8	16.6	19.4	16.02	14.6	13.6	14.1	14.4	13.5	8.9	15.8
Specific Conductance (uS)	2265	2287	2740	3090	1920	2390	2590	2570	8240	858	1541	1547	1022	1234	696	886	3276	3150	3280	4290	3740	4950	4640	4990	4946	4726	3395	5200	3086	5105	4507	3390
Turbidity (NTU)	36	22.5	13.5	9.4	5.86	6.42	3.18	1.36	3.9	4.41	2.86	3.77	3.29	1.8	3.7	0	61	21.6	31.2	29.8	19.3	15.04	9.51	6.17	13.9	16.45	3.58	2.9	3.26	0.78	16.5	0
Dissolved Oxygen (mg/L)	--	--	0.41	0.37	0.30	0.37	0.65	0.92	0.53	0.68	0.67	0.74	0.79	3.20	6.26	0.40	--	--	0.59	0.35	0.15	0.11	0.22	0.45	0.34	0.33	0.31	0.17	0.14	0.27	3.16	0.43
Oxidation Reduction Potential (mV)	+70	+74	-73	-142	-48	-39	-183	-22	-7	+37	-73	+57	+142	+35	-6	-66	-73	-98	-146	-91	-40	+7	-82	4	12	-37	-5	-30	-29	-21	12	0.49
Appearance (visual)	clear	--	orange tint	lt.brown tint	tan tint	slight yellow tint	--	--	--	--	--	--	--	--	clear	slight gray	cloudy	--	orange tint	yellow tint	yellow tint	slight sheen in bucket	sheen	--	--	--	--	--	--	--	clear	--
Odor (olfactory)	none	--	none	slight	slight	slight	--	--	--	--	--	--	--	--	--	--	sulfur	--	none	slight	slight	slight	--	--	--	--	--	--	--	--	strong	--
CO2 (mg/L)	--	170	490	155	25	700	50	42	42.5	125	160	120	220	--	--	--	--	260	0	425	445	375	375	389	275	275	300	290	305	--	--	
Alkalinity (mg/L)	--	765	660	629	780	680	884	289	357	--	--	--	--	--	--	550	--	340	280	323	420	400	289	289	221	--	--	--	--	--	--	310

- Notes:
1. Benchmark Environmental Engineering & Science conducted the 25 June 2007 sampling event
 2. Haley & Aldrich completed the February and June 2008 groundwater monitoring events
 3. TestAmerica Buffalo conducted the 25-26 June 2009, 28-29 June 2010, 28-29 June 2011, 5-6 July 2012, 1-2 July 2013, 2-3 June 2014, 25-26 June 2015, 22-23 June 2016, 22-23 June 2017, 25-26 June 2018, and 19 December 2019 sampling events. NW Contracting conducted the August 2020 sampling event.
 4. NYSDEC Class "GA" Groundwater Quality Standards (GWQS) as published in NYSDEC Ambient Water Quality Standards/Guidance Values and Groundwater Effluent Limitations (June 1998).
 5. na indicates no Class GA GWQS or GV has been established for this compound.
 6. NS indicates not sampled.
 7. -- indicates not analyzed.
 8. Shaded results indicate results outside the range of the GWQS/GV
 9. This table has been adapted from the Draft First Semi-Annual Long-Term Groundwater Monitoring Report (June 2007) by Benchmark Environmental Engineering & Science, PLLC.

Table III
Summary of Field Measurements
August 2020

Twelfth Annual Groundwater Monitoring Event
Hydro-Air Site (Formerly Steelfields Area IV)
Buffalo, New York

Parameter	Monitoring Location															
	A4-MW-8R															
	6/25/2007	1/31/2008	6/2/2008	6/26/2009	6/28/2010	6/28/2011	7/5/2012	7/1/2013	6/2/2014	6/25/2015	6/22/2016	6/22/2017	6/25/2018	12/19/2019	8/7/2020	
Field Measurements																
pH (units)	6.38	6.47	6.31	6.02	6.5	6.51	6.38	5.87	5.69	6.49	6.34	6.59	6.51	6.45	7.12	5.53
Temperature (°C)	17.3	18.4	7	12.5	16.3	18.8	17	19.5	15.68	16.6	15.2	13.4	14	16.4	8.4	15.07
Specific Conductance (uS)	4102	4001	4630	4840	4670	4730	4650	4510	3490	3087	4188	4767	2965	4633	4543	4630
Turbidity (NTU)	79	43.6	84.6	27.5	8.54	3.88	1.5	4.2	1.9	18.91	3.14	1.93	2.66	4.12	4.4	0
Dissolved Oxygen (mg/L)	--	--	0.67	0.32	0.26	0.14	0.37	0.34	0.21	0.71	0.71	0.48	0.49	3.96	5.21	1.30
Oxidation Reduction Potential (mV)	-50	-65	-78	-68	+56	-22	-67	-35	-6		-40	-32	-39	-65	-35	-49
Appearance (visual)	cloudy		--	clear	clear	clear	clear	--	--	--	--	--	--	--	clear	slight gray
Odor (olfactory)	sulfur		--	none	none	none	none	--	--	--	--	--	--	--	--	--
CO2 (mg/L)	--	--	0	0	550	75	160	195	175	175	180	195	210	210	--	--
Alkalinity (mg/L)	--	--	748	600	816	840	920	799	765	714	--	--	--	--	--	760

Table III
Summary of Field Measurements
August 2020

Twelfth Annual Groundwater Monitoring Event
Hydro-Air Site (Formerly Steelfields Area IV)
Buffalo, New York

Parameter	Monitoring Location																													Class GA GWQS/G			
	A4-MW-9															A4-MW-10																	
	6/25/2007	1/31/2008	6/2/2008	6/26/2009	6/28/2010	6/28/2011	7/5/2012	7/1/2013	6/2/2014	6/25/2015	6/22/2016	6/22/2017	6/25/2018	12/19/2019	8/7/2020	6/25/2007	1/31/2008	6/2/2008	6/25/2009	6/28/2010	6/28/2011	7/5/2012	7/1/2013	6/2/2014	6/25/2015	6/22/2016	6/22/2017	6/25/2018	12/19/2019		8/6/2020		
Field Measurements																																	
pH (units)	3.99	3.96	4.23	3.9	5.91	4.53	5.85	5.15	6.31	7.15	7.48	7.71	7.36	6.80	8.63	5.80	6.73	6.88	NS	6.40	6.65	7.13	6.88	6.41	6.04	7.04	6.90	7.23	6.82	7.00	6.88	6.19	6.5-8.5
Temperature (°C)	18.5	18.3	6.4	11.4	15.7	17.6	18.1	21.2	15.63	14.1	15.8	14.3	14.6	14.5	6.2	19.75	16.7	18.4	NS	11.1	17	18	16.1	19.5	14.81	17.9	13.1	13	16.1	16.3	7.5	14.93	na
Specific Conductance (uS)	11150	11200	8280	11900	9490	8700	3440	4820	14400	1692	1962	2187	2006	4035	1321	4290	3009	2931	NS	3140	2400	2110	2340	2440	2820	2317	2440	2986	2883	3307	3172	1960	na
Turbidity (NTU)	383	69.3	36.7	10.9	10.05	4.92	4.96	18.9	5.23	12.99	2.06	3.54	3.18	2.22	8.4	2.5	16.9	22.8	NS	43	10.8	7.5	5.26	6.54	6.5	1.68	1.54	0.98	3.89	4.86	40.6	12.9	na
Dissolved Oxygen (mg/L)	--	--	0.95	7.93	0.2	0.1	0.24	0.29	0.12	0.71	0.70	0.54	0.57	2.29	6.27	0.33	--	--	NS	0.46	0.15	0.1	0.33	0.39	0.46	0.39	0.40	0.27	0.26	3.56	4.35	0.53	na
Oxidation Reduction Potential (mV)	+207	+206	+127	+157	+137	+83	-42	-23	-20	-93	-139	-41	-18	-87	-72	-68	-81	-91	NS	-24	-5	-38	-98	-56	7	-111	-79	-71	-14	-79	-49	-80	na
Appearance (visual)	turbid	--	clear	yellow tint	yellow tint	clear	--	--	--	--	--	--	--	--	orange tint	gray tint	clear	--	NS	clear	clear	clear	clear	--	--	--	--	--	--	--	orange tint	clear	na
Odor (olfactory)	sulfur	--	none	none	slight	slight	--	--	--	--	--	--	--	--	--	--	slight sulfur	--	NS	none	none	none	none	--	--	--	--	--	--	--	--	--	na
CO2 (mg/L)	--	0	0	300	315	513	581	289	542	485	495	285	525	--	--	--	--	--	NS	422	505	45	65	55	55	47	195	200	210	600	--	--	na
Alkalinity (mg/L)	--	68	60	34	31	40	68	542	187	--	--	--	--	--	--	650	--	--	NS	560	969	1100	1160	1105	2773	1105	--	--	--	--	--	1030	na

- Notes:
1. Benchmark Environmental Engineering & Science conducted the 25 June 2007 sampling event
 2. Haley & Aldrich completed the February and June 2008 groundwater monitoring events
 3. TestAmerica Buffalo conducted the 25-26 June 2009, 28-29 June 2010, 28-29 June 2011, 5-6 July 2012, 1-2 July 2013, 2-3 June 2014, 25-26 June 2015, 22-23 June 2016, 22-23 June 2017, 25-26 June 2018, and 19 December 2019 sampling events. NW Contracting conducted the August 2020 sampling event.
 4. NYSDEC Class "GA" Groundwater Quality Standards (GWQS) as published in NYSDEC Ambient Water Quality Standards/Guidance Values and Groundwater Effluent Limitations (June 1998).
 5. na indicates no Class GA GWQS or GV has been established for this compound.
 6. NS indicates not sampled.
 7. -- indicates not analyzed.
 8. Shaded results indicate results outside the range of the GWQS/GV
 9. This table has been adapted from the Draft First Semi-Annual Long-Term Groundwater Monitoring Report (June 2007) by Benchmark Environmental Engineering & Science, PLLC.

Table IV - 2020 PRR - Stormwater Pond Monitoring Form
Hydro-Air Components, Inc.
BCP Site #C915204, Buffalo, New York

In accordance with the Corrective Measures Report (dated 14 December 2012) and the Revised Site Management Plan (dated 25 March 2014) the following pond parameters have been monitored:

Data Collection Completed By:	Date of Measurement (DD/MM/YR)	Time of Measurement	Estimated Quantity of Water Discharged (Gallons)	Measurement Location						Conditions at Pond (color, vegetation, odor, frozen, etc.)	General Comments (weather conditions, etc)
				Discharge Pipe		Northern Embayment		Main Pond (Combined Sample) ¹			
				pH	Temp (F)	pH	Temp (F)	pH	Temp (F)		
Dale Barto	12/31/2019	11:00 AM	N/A (Starting Point)							Frozen	Cloudy
Dale Barto	1/30/2020	9:00 AM	26,598							Frozen	Cloudy
Dale Barto	2/28/2020	9:00 AM	--							Frozen	Cloudy
Dale Barto	3/25/2020	9:30 AM	64,706							Frozen	Cloudy
Dale Barto	4/30/2020	9:30 AM	53,295	7.8	46	7.5	44	6.6	44	Clear	Raining
Dale Barto	5/28/2020	9:30 AM	102,139	7.8	48	7.6	53	7.3	49	Clear	Sunny
Dale Barto	6/29/2020	9:00 AM	53,259	7.8	54	7.2	53	7.6	51	Clear	Sunny
Dale Barto	7/27/2020	10:30 AM	102,175	7.5	69	6.5	67	6.5	68	Clear	Sunny
Dale Barto	8/26/2020	9:00 AM	53,259	7.9	72	6.7	74	7.5	72	Clear	Sunny
Dale Barto	9/29/2020	--	102,175	7.7	64	7.1	65	7.2	64	Clear	Cloudy
Dale Barto	10/28/2020	9:30 AM	53,259	10.5	54	11.0	56	6.0	57	Clear	Cloudy
Dale Barto	11/30/2020	8:30 AM	102,175	7.8	55	7.1	54	7.1	58	Clear	Cloudy
Dale Barto	12/30/2020	9:00 AM	--							Frozen	Cloudy
Dale Barto	1/27/2021	9:00 AM	--							Frozen	Cloudy
Dale Barto	2/26/2021	9:00 AM	102,198							Frozen	Cloudy
Dale Barto	3/31/2021	9:00 AM	54,420	9.0	42	10.0	40	6.0	42	Cloudy	Raining
Total Reporting Period Discharge:			869,658								

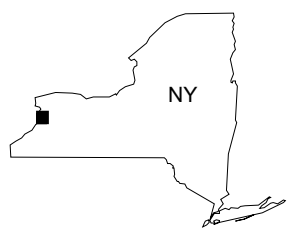
*All pH values will be evaluated against the NYSDEC TOGS 1.1.1 ambient water quality guidance value of pH 8.5 selected for protection of public health.
Exceedance of the guidance value (8.5) for > 3 consecutive monitoring events (combined sample) will trigger enhancements as described in Section IV of the SMP.*

Notes or Other Observations:

1 Combined sample represents the combination of the sample point at the midpoint of the main pond and the sample point near the pond outlet pipe of the main pond. These pond samples are combined in the field to provide a representative pH value for the main pond area.
2 pH measurements were collected using a hand-held probe.

FIGURES

GIS FILE PATH: C:\Users\anichols\Documents\GIS\129356_hydroair\GIS\129356_009_0001_PROJECT_LOCUS.mxd — USER: anichols — LAST SAVED: 3/12/2021 10:40:51 AM



MAP SOURCE: ESRI
SITE COORDINATES: 42°50'54"N, 78°50'24"W



HYDRO-AIR COMPONENTS, INC.
100 RITTLING BOULEVARD
BUFFALO, NEW YORK

PROJECT LOCUS

APPROXIMATE SCALE: 1 IN = 2000 FT
APRIL 2021

FIGURE 1

GIS FILE PATH: C:\Users\anchols\Documents\GIS\129356_hydroair\GISMaps\2021_03\129356_009_0002_SITE_PLAN.mxd — LAST SAVED: 4/30/2021 9:06:41 AM — USER: anchols



LEGEND

- MONITORING WELL, HYDRO-AIR PROPERTY
- ORC WELL, HYDRO-AIR PROPERTY
- RETENTION POND MONITORING LOCATION
- MONITORING WELL, STEELFIELDS III PROPERTY
- ORC WELL, STEELFIELDS III
- PLANT AREA
- APPROXIMATE TAR AND BLUE SOIL/FILL EXCAVATION LIMITS
- FENCE
- POND
- STORMWATER PIPE
- RAILROAD
- TAX PARCEL BOUNDARY
- HYDRO-AIR (STEELFIELDS AREA)
- STEELFIELDS AREA

NOTES

- ALL LOCATIONS AND DIMENSIONS ARE APPROXIMATE.
- TAX PARCEL DATA SOURCE: ERIE COUNTY
- AERIAL IMAGERY SOURCE: NEARMAP, MARCH 2020



0 200 400
SCALE IN FEET

HALEY
ALDRICH

HYDRO-AIR COMPONENTS, INC.
100 RITTLING BOULEVARD
BUFFALO, NEW YORK

SITE PLAN

APRIL 2021

FIGURE 2

GIS FILE PATH: C:\Users\anchols\Documents\GIS\129356_hydroair\GISMaps\2021_03129356_009_0003_SHALLOW_GW_ELEVATION.mxd — LAST SAVED: 4/30/2021 9:20:23 AM — USER: anchols



LEGEND

- MONITORING WELL, HYDRO-AIR PROPERTY, WITH GROUNDWATER ELEVATION IN FEET
- ORC SOCK WELL, HYDRO-AIR PROPERTY, WITH GROUNDWATER ELEVATION IN FEET
- MONITORING WELL, STEELFIELDS AREA III PROPERTY
- ORC SOCK WELL, STEELFIELDS AREA III PROPERTY
- GROUNDWATER ELEVATION CONTOUR, IN FEET ABOVE MEAN SEA LEVEL
- APPROXIMATE GROUNDWATER FLOW DIRECTION
- PLANT AREA
- APPROXIMATE TAR AND BLUE SOIL/FILL EXCAVATION LIMITS
- FENCE
- POND
- STORMWATER PIPE
- RAILROAD
- TAX PARCEL BOUNDARY
- HYDRO-AIR (STEELFIELDS AREA IV)
- STEELFIELDS AREA III

NOTES

- ALL LOCATIONS AND DIMENSIONS ARE APPROXIMATE.
- ASSESSOR PARCEL DATA SOURCE: ERIE COUNTY
- GROUNDWATER DEPTHS MEASURED ON 6 AND 7 AUGUST 2020.
- GROUNDWATER ELEVATIONS FROM ORC WELLS NOT USED IN CONTOURING.
- AERIAL IMAGERY SOURCE: NEARMAP, MARCH 2020

HALEY
ALDRICH

HYDRO-AIR COMPONENTS, INC.
100 RITTLING BOULEVARD
BUFFALO, NEW YORK

SHALLOW GROUNDWATER
ELEVATION MAP - AUGUST 2020

APRIL 2021

FIGURE 3

GIS FILE PATH: C:\Users\anchols\Documents\GIS\129356_hydroair\GISMaps\2021_03129356_009_0004_PARAMETERS_OF_INTEREST_AUG_2020.mxd — LAST SAVED: 3/17/2021 12:23:33 PM



LEGEND

- MONITORING WELL, HYDRO-AIR PROPERTY
- ORC WELL, HYDRO-AIR PROPERTY
- PLANT AREA
- APPROXIMATE TAR AND BLUE SOIL/FILL EXCAVATION LIMITS
- FENCE
- POND
- STORMWATER PIPE
- RAILROAD
- TAX PARCEL BOUNDARY
- HYDRO-AIR (STEELFIELDS AREA)
- STEELFIELDS AREA

NOTES

- ALL LOCATIONS AND DIMENSIONS ARE APPROXIMATE.
- ASSESSOR PARCEL DATA SOURCE: ERIE COUNTY
- $\mu\text{g/L}$ = MICROGRAMS PER LITER
- BOLD** VALUES EXCEED NYSDEC CLASS GA GWQS.
- AERIAL IMAGERY SOURCE: NEARMAP, MARCH 2020



0 200 400
SCALE IN FEET

HALEY
ALDRICH

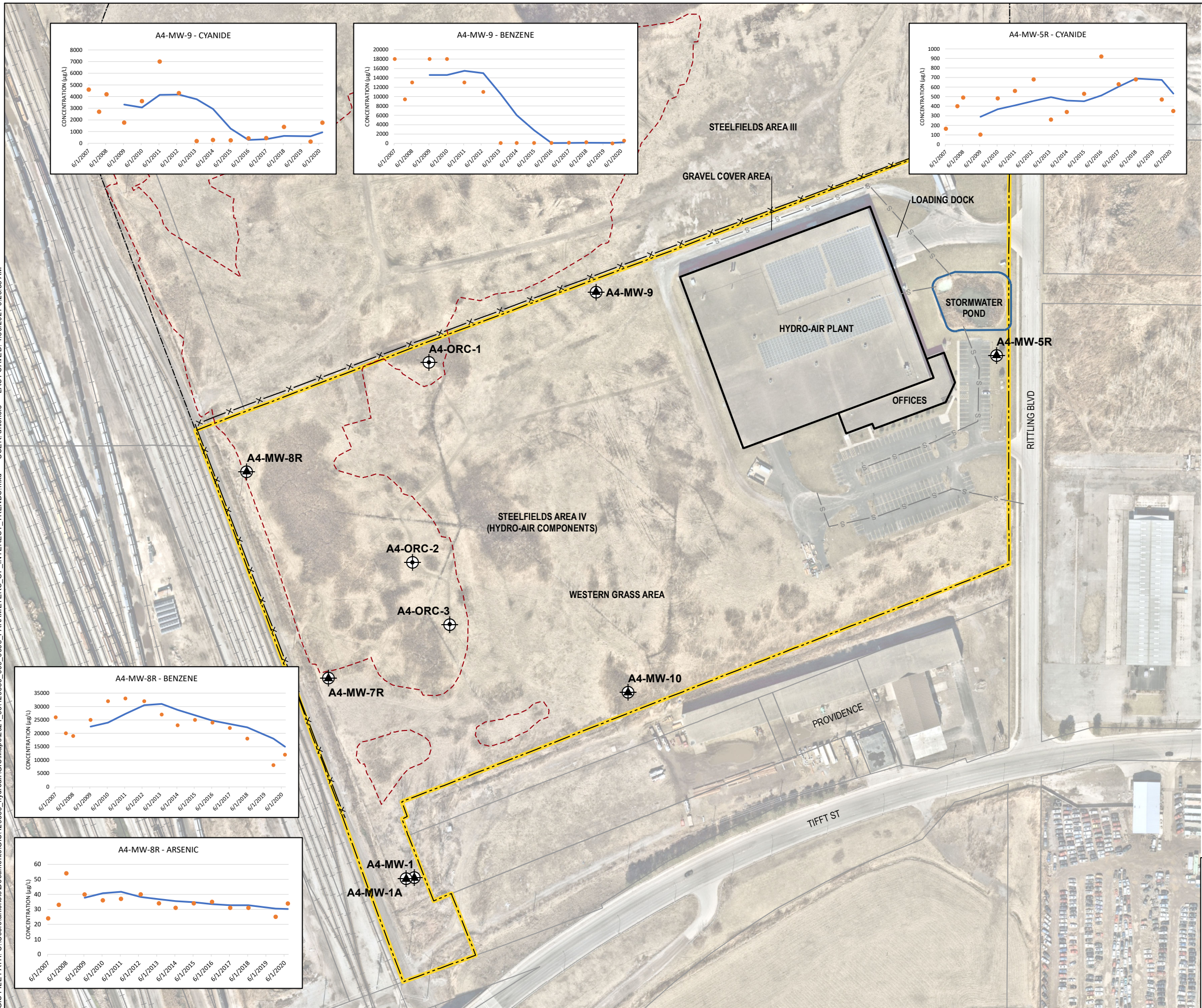
HYDRO-AIR COMPONENTS, INC.
100 RITTLING BOULEVARD
BUFFALO, NEW YORK

GROUNDWATER PARAMETERS OF
INTEREST - AUGUST 2020

APRIL 2021

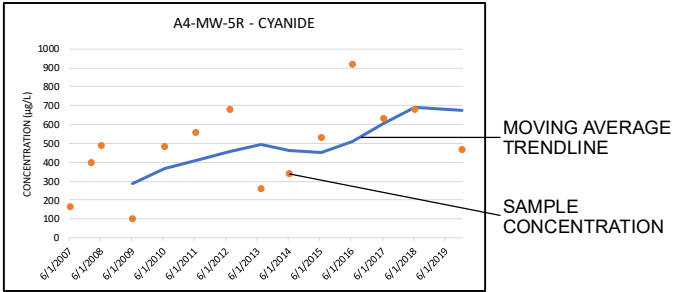
FIGURE 4

GIS FILE PATH: C:\Users\anchols\Documents\GIS\129356_hydroair\GISMaps\2021_03129356_009_0005_PARAMETERS_OF_INTEREST_TRENDS.mxd — USER: anchols — LAST SAVED: 4/30/2021 9:23:58 AM



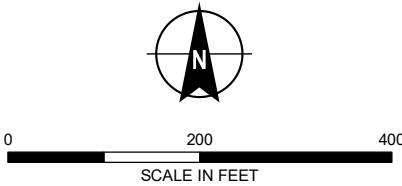
LEGEND

- MONITORING WELL, HYDRO-AIR PROPERTY
- ORC WELL, HYDRO-AIR PROPERTY
- PLANT AREA
- APPROXIMATE TAR AND BLUE SOIL/FILL EXCAVATION LIMITS
- FENCE
- POND
- STORMWATER PIPE
- RAILROAD
- TAX PARCEL BOUNDARY
- HYDRO-AIR (STEELFIELDS AREA)
- STEELFIELDS AREA



NOTES

1. ALL LOCATIONS AND DIMENSIONS ARE APPROXIMATE.
2. ASSESSOR PARCEL DATA SOURCE: ERIE COUNTY
3. µg/L = MICROGRAMS PER LITER
4. MOVING AVERAGE TRENDLINE REPRESENTS THE AVERAGE OF THE 2020 SAMPLE CONCENTRATION AND THE CONCENTRATIONS IDENTIFIED DURING THE THREE (3) PREVIOUS SAMPLING EVENTS. METHOD DETECTION LIMITS USED IN AVERAGING IF AN ANALYTE WAS NOT DETECTED.
5. AERIAL IMAGERY SOURCE: ESRI



HALEY
ALDRICH

HYDRO-AIR COMPONENTS, INC.
100 RITTLING BOULEVARD
BUFFALO, NEW YORK

GROUNDWATER PARAMETERS
OF INTEREST
HISTORICAL TRENDS

APRIL 2021

FIGURE 5

APPENDIX A

Institutional and Engineering Controls Certification Form



Enclosure 2
NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
Site Management Periodic Review Report Notice
Institutional and Engineering Controls Certification Form



Site Details

Box 1

Site No. **C915204**

Site Name **Steelfields Area IV**

Site Address: 100 Rittling Blvd. Zip Code: 14220
City/Town: Buffalo
County: Erie
Site Acreage: 30.910

Reporting Period: January 15, 2020 to April 14, 2021

YES NO

1. Is the information above correct? ☒ ☐

If NO, include handwritten above or on a separate sheet.

2. Has some or all of the site property been sold, subdivided, merged, or undergone a tax map amendment during this Reporting Period? ☐ ☒

3. Has there been any change of use at the site during this Reporting Period (see 6NYCRR 375-1.11(d))? ☐ ☒

4. Have any federal, state, and/or local permits (e.g., building, discharge) been issued for or at the property during this Reporting Period? ☐ ☒

If you answered YES to questions 2 thru 4, include documentation or evidence that documentation has been previously submitted with this certification form.

5. Is the site currently undergoing development? ☐ ☒

Box 2

YES NO

6. Is the current site use consistent with the use(s) listed below? ☒ ☐
Industrial

7. Are all ICs in place and functioning as designed? ☒ ☐

IF THE ANSWER TO EITHER QUESTION 6 OR 7 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

Box 2A

YES NO

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

☐ NA ☐

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)

☐ NA ☐

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. C915204**Box 3****Description of Institutional Controls**ParcelOwnerInstitutional Control**132.12-1-9.121**

Hydro-Air Components, Inc.

Site Management Plan
Ground Water Use Restriction
Landuse Restriction
Soil Management Plan

- i) until the remedial goals for the Controlled Property are attained or deemed complete by the Department, the Department-approved Site Management Plan (SMP) for the implemented remedy must be adhered to.
- ii) a soil cover system and vegetation in accordance with the Soil/Fill Management Plan in the SMP shall be maintained over undeveloped portions of the Controlled Property.
- iii) an active subslab depressurization system (ASD) to eliminate potential soil vapor intrusion shall be installed, operated and maintained in all new buildings and building additions in accordance with the standards and procedures specified in the SMP, and the ASD already installed in the existing building shall continue to be operated and maintained in accordance with the SMP, unless the Department determines that the ASD is not necessary based on the results of a Department-approved evaluation of potential sub-slab vapor impacts.
- iv) the groundwater beneath the Controlled Property cannot be used as a potable water source or for any other use without prior written permission of the Department.
- v) groundwater monitoring in accordance with the SMP shall continue until the Department determines that continued monitoring is unnecessary.
- vi) the in-situ treatment of residual contamination in native soils using oxygen release compounds (ORC) shall be maintained and monitored in accordance with the SMP until the Department determines that continued maintenance and monitoring of ORC is unnecessary.
- vii) in areas of the Controlled Property with known groundwater impacts, storm water injection (drywells) will be prohibited and storm water conveyance pipes will be required to have gasketed joints for water tightness to prevent the infiltration of impacted groundwater into the collection system.

Box 4**Description of Engineering Controls**

Parcel

132.12-1-9.121

Engineering Control

Cover System
Vapor Mitigation

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. C915204

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 ROBERT W. DAIGLER, JR at 100 RITTING BLVD BUFFALO, NY
print name print business address

am certifying as Vice President of Finance (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

4/29/2021
Date

EC CERTIFICATIONS

Box 7

Qualified Environmental Professional 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 Glenn M. White, CHMM at Haley & Aldrich of New York
print name 200 Town Centre Dr. Ste 2, Rochester, NY 14623
print business address

am certifying as a Qualified Environmental Professional for the Owner
(Owner or Remedial Party)



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

Stamp
(Required for PE)

29 April 2021

Date

APPENDIX B

NYSDEC Correspondence

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

Division of Environmental Remediation, Region 9
270 Michigan Avenue, Buffalo, NY 14203-2915
P: (716) 851-7220 | F: (716) 851-7226
www.dec.ny.gov

February 18, 2020

Mr. Robert Daigler
VP of Finance
Hydro-Air Components Incorporated
100 Rittling Boulevard
Buffalo, New York 14220

Dear Mr. Daigler (as the Certifying Party):

Site Management (SM)
Periodic Review Report (PRR) Response
Letter
Steelfields Area IV, Buffalo
Erie County, Site No.: **C915204**

The Department has reviewed your Periodic Review Report (PRR) and IC/EC Certification for the following period: January 15, 2019 to January 15, 2020. The Department hereby accepts the PRR and IC/EC Certification.

The frequency of Periodic Reviews for this site is one year, and your next PRR will be due on February 14, 2021. You will receive a reminder letter and updated certification form 75-days prior to the report's due date. Regardless of receipt or not of the reminder notice, the next PRR, including the signed certification form, is still due on the date specified above.

In future PRR's, please complete the following edits:

- Repair the cracks located in the hallway and provide photo documentation along with a narrative explaining the repair in the 2020-2021 PRR.
- Table 1 – Summary of Groundwater Analytical Results is missing ambient water quality standards for specific analytes (e.g.: 1,2,4-Trimethylbenzene, etc.). Please include the missing standards in future reports.
- Include an Environmental Inspection Form, completed during the site-wide annual inspection. This Form was included in past PRR's.
- Include a table of the monitoring well field parameters, including CO₂ and alkalinity. Also include CO₂ and alkalinity values for the ORC wells in Table 2 – Summary of ORC Assessment Results.

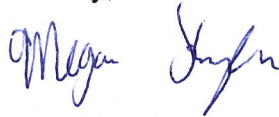


Department of
Environmental
Conservation

Mr. Robert Daigler
February 18, 2020
Page 2

If you have any questions, please contact me at 716-851-7220 or email:
megan.kuczka@dec.ny.gov.

Sincerely,



Megan Kuczka
Environmental Program Specialist – 1

MK/jl

cc: Ms. Andrea Caprio, NYSDEC
Mr. Maurice Moore, NYSDEC
Mr. Glenn White, Haley & Aldrich
Mr. Tom Robitaille, Haley & Aldrich
Mr. Andrew Nichols, Haley & Aldrich
Mr. Ryan Panfil, Hydro-Air Components Inc.
Mr. Robert Daigler, Hydro-Air Components Inc.

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

Division of Environmental Remediation

625 Broadway, 11th Floor, Albany, NY 12233-7020

P: (518)402-9543 | F: (518)402-9547

www.dec.ny.gov

12/7/2020

Robert Daigler
Vp Of Finance
Hydro-Air Components Inc.
100 Rittling Blvd
Buffalo, NY 14220
RDaigler@Zehnder-Rittling.com

Re: Reminder Notice: Site Management Periodic Review Report and IC/EC Certification Submittal

Site Name: Steelfields Area IV

Site No.: C915204

Site Address: 100 Rittling Blvd.
Buffalo, NY 14220

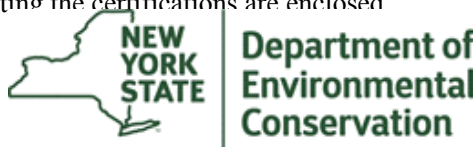
Dear Robert Daigler:

This letter serves as a reminder that sites in active Site Management (SM) require the submittal of a periodic progress report. This report, referred to as the Periodic Review Report (PRR), must document the implementation of, and compliance with, site-specific SM requirements. Section 6.3(b) of DER-10 *Technical Guidance for Site Investigation and Remediation* (available online at <http://www.dec.ny.gov/regulations/67386.html>) provides guidance regarding the information that must be included in the PRR. Further, if the site is comprised of multiple parcels, then you as the Certifying Party must arrange to submit one PRR for all parcels that comprise the site. The PRR must be received by the Department no later than **February 14, 2021**. Guidance on the content of a PRR is enclosed.

Site Management is defined in regulation (6 NYCRR 375-1.2(at)) and in Chapter 6 of DER-10. Depending on when the remedial program for your site was completed, SM may be governed by multiple documents (e.g., Operation, Maintenance, and Monitoring Plan; Soil Management Plan) or one comprehensive Site Management Plan.

A Site Management Plan (SMP) may contain one or all of the following elements, as applicable to the site: a plan to maintain institutional controls and/or engineering controls ("IC/EC Plan"); a plan for monitoring the performance and effectiveness of the selected remedy ("Monitoring Plan"); and/or a plan for the operation and maintenance of the selected remedy ("O&M Plan"). Additionally, the technical requirements for SM are stated in the decision document (e.g., Record of Decision) and, in some cases, the legal agreement directing the remediation of the site (e.g., order on consent, voluntary agreement, etc.).

When you submit the PRR (by the due date above), include the enclosed forms documenting that all SM requirements are being met. The Institutional Controls (ICs) portion of the form (Box 6) must be signed by you or your designated representative. The Engineering Controls (ECs) portion of the form (Box 7) must be signed by a Qualified Environmental Professional (QEP). If you cannot certify that all SM requirements are being met, you must submit a Corrective Measures Work Plan that identifies the actions to be taken to restore compliance. The work plan must include a schedule to be approved by the Department. The Periodic Review process will not be considered complete until all necessary corrective measures are completed and all required controls are certified. Instructions for completing the certifications are enclosed.



All site-related documents and data, including the PRR, must be submitted in electronic format to the Department of Environmental Conservation. The required format for documents is an Adobe PDF file with optical character recognition and no password protection. Data must be submitted as an electronic data deliverable (EDD) according to the instructions on the following webpage:

<https://www.dec.ny.gov/chemical/62440.html>

Documents may be submitted to the project manager either through electronic mail or by using the Department's file transfer service at the following webpage:

<https://fts.dec.state.ny.us/fts/>

The Department will not approve the PRR unless all documents and data generated in support of the PRR have been submitted using the required formats and protocols.

You may contact Megan Kuczka, the Project Manager, at 716-842-2175 or megan.kuczka@dec.ny.gov with any questions or concerns about the site. Please notify the project manager before conducting inspections or field work. You may also write to the project manager at the following address:

New York State Department of Environmental Conservation
270 Michigan Ave

Buffalo, NY 14203-2915

Enclosures

PRR General Guidance
Certification Form Instructions
Certification Forms

cc: w/ enclosures

Megan Kuczka, Project Manager

Andrea Caprio, Hazardous Waste Remediation Supervisor, Region 9

Haley & Aldrich, Inc. - Glenn White - gwhite@HaleyAldrich.com

Enclosure 1

Certification Instructions

I. Verification of Site Details (Box 1 and Box 2):

Answer the three questions in the Verification of Site Details Section. The Owner and/or Qualified Environmental Professional (QEP) may include handwritten changes and/or other supporting documentation, as necessary.

II. Certification of Institutional Controls/ Engineering Controls (IC/ECs)(Boxes 3, 4, and 5)

1.1.1. Review the listed IC/ECs, confirming that all existing controls are listed, and that all existing controls are still applicable. If there is a control that is no longer applicable the Owner / Remedial Party should petition the Department separately to request approval to remove the control.

2. In Box 5, complete certifications for all Plan components, as applicable, by checking the corresponding checkbox.

3. If you cannot certify "YES" for each Control listed in Box 3 & Box 4, sign and date the form in Box 5. Attach supporting documentation that explains why the **Certification** cannot be rendered, as well as a plan of proposed corrective measures, and an associated schedule for completing the corrective measures. Note that this **Certification** form must be submitted even if an IC or EC cannot be certified; however, the certification process will not be considered complete until corrective action is completed.

If the Department concurs with the explanation, the proposed corrective measures, and the proposed schedule, a letter authorizing the implementation of those corrective measures will be issued by the Department's Project Manager. Once the corrective measures are complete, a new Periodic Review Report (with IC/EC Certification) must be submitted within 45 days to the Department. If the Department has any questions or concerns regarding the PRR and/or completion of the IC/EC Certification, the Project Manager will contact you.

III. IC/EC Certification by Signature (Box 6 and Box 7):

If you certified "YES" for each Control, please complete and sign the IC/EC Certifications page as follows:

- For the Institutional Controls on the use of the property, the certification statement in Box 6 shall be completed and may be made by the property owner or designated representative.
- For the Engineering Controls, the certification statement in Box 7 must be completed by a Professional Engineer or Qualified Environmental Professional, as noted on the form.



Enclosure 2
NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
Site Management Periodic Review Report Notice
Institutional and Engineering Controls Certification Form



Site Details

Box 1

Site No. **C915204**

Site Name **Steelfields Area IV**

Site Address: 100 Rittling Blvd. Zip Code: 14220
City/Town: Buffalo
County: Erie
Site Acreage: 30.910

Reporting Period: January 15, 2020 to January 15, 2021

YES NO

1. Is the information above correct? ☐ ☐

If NO, include handwritten above or on a separate sheet.

2. Has some or all of the site property been sold, subdivided, merged, or undergone a tax map amendment during this Reporting Period? ☐ ☐

3. Has there been any change of use at the site during this Reporting Period (see 6NYCRR 375-1.11(d))? ☐ ☐

4. Have any federal, state, and/or local permits (e.g., building, discharge) been issued for or at the property during this Reporting Period? ☐ ☐

If you answered YES to questions 2 thru 4, include documentation or evidence that documentation has been previously submitted with this certification form.

5. Is the site currently undergoing development? ☐ ☐

Box 2

YES NO

6. Is the current site use consistent with the use(s) listed below? ☐ ☐
Industrial

7. Are all ICs in place and functioning as designed? ☐ ☐

IF THE ANSWER TO EITHER QUESTION 6 OR 7 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

Box 2A

YES NO

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

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. C915204**Box 3****Description of Institutional Controls**ParcelOwnerInstitutional Control**132.12-1-9.121**

Hydro-Air Components, Inc.

Site Management Plan
Ground Water Use Restriction
Landuse Restriction
Soil Management Plan

- i) until the remedial goals for the Controlled Property are attained or deemed complete by the Department, the Department-approved Site Management Plan (SMP) for the implemented remedy must be adhered to.
- ii) a soil cover system and vegetation in accordance with the Soil/Fill Management Plan in the SMP shall be maintained over undeveloped portions of the Controlled Property.
- iii) an active subslab depressurization system (ASD) to eliminate potential soil vapor intrusion shall be installed, operated and maintained in all new buildings and building additions in accordance with the standards and procedures specified in the SMP, and the ASD already installed in the existing building shall continue to be operated and maintained in accordance with the SMP, unless the Department determines that the ASD is not necessary based on the results of a Department-approved evaluation of potential sub-slab vapor impacts.
- iv) the groundwater beneath the Controlled Property cannot be used as a potable water source or for any other use without prior written permission of the Department.
- v) groundwater monitoring in accordance with the SMP shall continue until the Department determines that continued monitoring is unnecessary.
- vi) the in-situ treatment of residual contamination in native soils using oxygen release compounds (ORC) shall be maintained and monitored in accordance with the SMP until the Department determines that continued maintenance and monitoring of ORC is unnecessary.
- vii) in areas of the Controlled Property with known groundwater impacts, storm water injection (drywells) will be prohibited and storm water conveyance pipes will be required to have gasketed joints for water tightness to prevent the infiltration of impacted groundwater into the collection system.

Box 4**Description of Engineering Controls**

Parcel

132.12-1-9.121

Engineering Control

Cover System
Vapor Mitigation

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. C915204**

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 _____ at _____,
print name print business address

am certifying as _____(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

Date

EC CERTIFICATIONS

Box 7

Qualified Environmental Professional 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 _____ at _____,
print name print business address

am certifying as a Qualified Environmental Professional for the _____
(Owner or Remedial Party)

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

Stamp
(Required for PE)

Date

Enclosure 3
Periodic Review Report (PRR) General Guidance

- I. Executive Summary: (1/2-page or less)
 - A. Provide a brief summary of site, nature and extent of contamination, and remedial history.
 - B. Effectiveness of the Remedial Program - Provide overall conclusions regarding;
 - 1. progress made during the reporting period toward meeting the remedial objectives for the site
 - 2. the ultimate ability of the remedial program to achieve the remedial objectives for the site.
 - C. Compliance
 - 1. Identify any areas of non-compliance regarding the major elements of the Site Management Plan (SMP, i.e., the Institutional/Engineering Control (IC/EC) Plan, the Monitoring Plan, and the Operation & Maintenance (O&M) Plan).
 - 2. Propose steps to be taken and a schedule to correct any areas of non-compliance.
 - D. Recommendations
 - 1. recommend whether any changes to the SMP are needed
 - 2. recommend any changes to the frequency for submittal of PRRs (increase, decrease)
 - 3. recommend whether the requirements for discontinuing site management have been met.
- II. Site Overview (one page or less)
 - A. Describe the site location, boundaries (figure), significant features, surrounding area, and the nature and extent of contamination prior to site remediation.
 - B. Describe the chronology of the main features of the remedial program for the site, the components of the selected remedy, cleanup goals, site closure criteria, and any significant changes to the selected remedy that have been made since remedy selection.
- III. Evaluate Remedy Performance, Effectiveness, and Protectiveness
Using tables, graphs, charts and bulleted text to the extent practicable, describe the effectiveness of the remedy in achieving the remedial goals for the site. Base findings, recommendations, and conclusions on objective data. Evaluations and should be presented simply and concisely.
- IV. IC/EC Plan Compliance Report (if applicable)
 - A. IC/EC Requirements and Compliance
 - 1. Describe each control, its objective, and how performance of the control is evaluated.
 - 2. Summarize the status of each goal (whether it is fully in place and its effectiveness).
 - 3. Corrective Measures: describe steps proposed to address any deficiencies in ICECs.
 - 4. Conclusions and recommendations for changes.
 - B. IC/EC Certification
 - 1. The certification must be complete (even if there are IC/EC deficiencies), and certified by the appropriate party as set forth in a Department-approved certification form(s).
- V. Monitoring Plan Compliance Report (if applicable)
 - A. Components of the Monitoring Plan (tabular presentations preferred) - Describe the requirements of the monitoring plan by media (i.e., soil, groundwater, sediment, etc.) and by any remedial technologies being used at the site.
 - B. Summary of Monitoring Completed During Reporting Period - Describe the monitoring tasks actually completed during this PRR reporting period. Tables and/or figures should be used to show all data.
 - C. Comparisons with Remedial Objectives - Compare the results of all monitoring with the remedial objectives for the site. Include trend analyses where possible.
 - D. Monitoring Deficiencies - Describe any ways in which monitoring did not fully comply with the monitoring plan.
 - E. Conclusions and Recommendations for Changes - Provide overall conclusions regarding the monitoring completed and the resulting evaluations regarding remedial effectiveness.
- VI. Operation & Maintenance (O&M) Plan Compliance Report (if applicable)
 - A. Components of O&M Plan - Describe the requirements of the O&M plan including required activities, frequencies, recordkeeping, etc.
 - B. Summary of O&M Completed During Reporting Period - Describe the O&M tasks actually completed during this PRR reporting period.
 - C. Evaluation of Remedial Systems - Based upon the results of the O&M activities completed, evaluated

the ability of each component of the remedy subject to O&M requirements to perform as designed/expected.

- D. O&M Deficiencies - Identify any deficiencies in complying with the O&M plan during this PRR reporting period.
- E. Conclusions and Recommendations for Improvements - Provide an overall conclusion regarding O&M for the site and identify any suggested improvements requiring changes in the O&M Plan.

VII. Overall PRR Conclusions and Recommendations

- A. Compliance with SMP - For each component of the SMP (i.e., IC/EC, monitoring, O&M), summarize;
 - 1. whether all requirements of each plan were met during the reporting period
 - 2. any requirements not met
 - 3. proposed plans and a schedule for coming into full compliance.
- B. Performance and Effectiveness of the Remedy - Based upon your evaluation of the components of the SMP, form conclusions about the performance of each component and the ability of the remedy to achieve the remedial objectives for the site.
- C. Future PRR Submittals
 - 1. Recommend, with supporting justification, whether the frequency of the submittal of PRRs should be changed (either increased or decreased).
 - 2. If the requirements for site closure have been achieved, contact the Departments Project Manager for the site to determine what, if any, additional documentation is needed to support a decision to discontinue site management.

VIII. Additional Guidance

Additional guidance regarding the preparation and submittal of an acceptable PRR can be obtained from the Departments Project Manager for the site.

From: [Kuczka, Megan E \(DEC\)](#)
To: [White, Glenn](#)
Cc: [Daigler, Robert \(ZRI\) \(rdaigler@zehnder-rittling.com\)](#); [Panfil, Ryan \(ZRI\)](#); [Nichols, Andrew](#); [Barto, Dale \(ZRI\)](#)
Subject: Re: Steelfields Area IV (C915204)
Date: Wednesday, March 24, 2021 12:38:30 PM
Attachments: [image001.png](#)
[image002.png](#)
[Outlook-pqv24iqs.png](#)

CAUTION: External Email

Glenn -

Thank you for submitting an Import Request for the 2" crusher run. The material is acceptable for use at Steelfields Area IV.

Sincerely,

Megan Kuczka

Environmental Program Specialist 1, Division of Environmental Remediation

New York State Department of Environmental Conservation

270 Michigan Avenue, Buffalo, NY 14203

P: (716) 851-7220 | F: (716) 851-7226 | Megan.Kuczka@dec.ny.gov

www.dec.ny.gov |  |  | 



From: White, Glenn <GWhite@haleyaldrich.com>

Sent: Wednesday, March 24, 2021 12:23 PM

To: Kuczka, Megan E (DEC) <Megan.Kuczka@dec.ny.gov>

Cc: Daigler, Robert (ZRI) (rdaigler@zehnder-rittling.com) <rdaigler@zehnder-rittling.com>; Panfil, Ryan (ZRI) <rpanfil@zehnder-rittling.com>; anichols@haleyaldrich.com <anichols@haleyaldrich.com>; Barto, Dale (ZRI) <dbarto@zehnder-rittling.com>

Subject: RE: Steelfields Area IV (C915204)

ATTENTION: This email came from an external source. Do not open attachments or click on links from unknown senders or unexpected emails.

Megan,

As requested, and on behalf of Zender Rittling (HydroAir), please find attached the import material request form. The facility plans to import 17 cy of #2 crushed limestone for use on its existing access road.

We look forward to your approval.

Regards,
Glenn

Glenn M. White, CHMM
Haley & Aldrich
Tel: 585.321.4239
Fax: 585.359.4650
gwhite@HaleyAldrich.com

From: Kuczka, Megan E (DEC) <Megan.Kuczka@dec.ny.gov>
Sent: Wednesday, March 24, 2021 10:31 AM
To: White, Glenn <GWhite@haleyaldrich.com>
Cc: Daigler, Robert (ZRI) (<rdaigler@zehnder-rittling.com> <rdaigler@zehnder-rittling.com>; Panfil, Ryan (ZRI) <rpanfil@zehnder-rittling.com>; Nichols, Andrew <ANichols@haleyaldrich.com>; Barto, Dale (ZRI) <dbarto@zehnder-rittling.com>
Subject: Re: Steelfields Area IV (C915204)

CAUTION: External Email

Glenn -

Yes, this material will be acceptable. As you stated, please fill out an Import Request Form and I can issue an official approval.

Sincerely,

Megan Kuczka

Environmental Program Specialist 1, Division of Environmental Remediation

New York State Department of Environmental Conservation

270 Michigan Avenue, Buffalo, NY 14203

P: (716) 851-7220 | F: (716) 851-7226 | Megan.Kuczka@dec.ny.gov

www.dec.ny.gov |



Department of
Environmental
Conservation

From: White, Glenn <GWhite@haleyaldrich.com>
Sent: Wednesday, March 24, 2021 10:27 AM
To: Kuczka, Megan E (DEC) <Megan.Kuczka@dec.ny.gov>
Cc: Daigler, Robert (ZRI) (<rdaigler@zehnder-rittling.com> <rdaigler@zehnder-rittling.com>; Panfil, Ryan (ZRI) <rpanfil@zehnder-rittling.com>; anichols@haleyaldrich.com <anichols@haleyaldrich.com>; Barto, Dale (ZRI) <dbarto@zehnder-rittling.com>
Subject: RE: Steelfields Area IV (C915204)

ATTENTION: This email came from an external source. Do not open attachments or click on links from unknown senders or unexpected emails.

Good morning Megan,

Zender is planning to purchase 17 yards of #2 crushed limestone. Please see attached sieve analysis. Although it is not definitive that less than 10% by weight passes the #80 sieve, will this material be acceptable. It is a virgin crushed rock product from a permitted mine.

Let us know and then we can fill out the form.

Thanks

Glenn

Glenn M. White, CHMM

Haley & Aldrich

Tel: 585.321.4239

Fax: 585.359.4650

gwhite@HaleyAldrich.com

From: Kuczka, Megan E (DEC) <Megan.Kuczka@dec.ny.gov>

Sent: Friday, March 19, 2021 11:16 AM

To: White, Glenn <GWhite@haleyaldrich.com>

Cc: Daigler, Robert (ZRI) (<rdaigler@zehnder-rittling.com> <rdaigler@zehnder-rittling.com>); Panfil, Ryan (ZRI) <rpanfil@zehnder-rittling.com>; Nichols, Andrew <ANichols@haleyaldrich.com>; Barto, Dale (ZRI) <dbarto@zehnder-rittling.com>

Subject: Re: Steelfields Area IV (C915204)

CAUTION: External Email

Glenn -

The PRR submittal date can be extended to April 30th. As stated previously, please make sure to submit an Import Request Form, prior to bringing any materials onsite.

Sincerely,

Megan Kuczka

Environmental Program Specialist 1, Division of Environmental Remediation

New York State Department of Environmental Conservation

270 Michigan Avenue, Buffalo, NY 14203

P: (716) 851-7220 | F: (716) 851-7226 | Megan.Kuczka@dec.ny.gov

www.dec.ny.gov



Department of
Environmental
Conservation

From: White, Glenn <GWhite@haleyaldrich.com>
Sent: Friday, March 19, 2021 10:28 AM
To: Kuczka, Megan E (DEC) <Megan.Kuczka@dec.ny.gov>
Cc: Daigler, Robert (ZRI) (<rdaigler@zehnder-rittling.com> <rdaigler@zehnder-rittling.com>; Panfil, Ryan (ZRI) <rpanfil@zehnder-rittling.com>; <anichols@haleyaldrich.com> <anichols@haleyaldrich.com>; Barto, Dale (ZRI) <dbarto@zehnder-rittling.com>
Subject: RE: Steelfields Area IV (C915204)

ATTENTION: This email came from an external source. Do not open attachments or click on links from unknown senders or unexpected emails.

Good morning Megan,

Zender Rittling anticipates placement of additional stone and regrading the surface of the road within the next 4 weeks. Could you extend the deadline for PRR submittal until the April 30 to accommodate completion of this work?

There is currently no standing water in the area which is good news given the freeze/thaw over the last weeks.

Please let us know if you have any questions or concerns.

Thank you,
Glenn

Glenn M. White, CHMM
Haley & Aldrich
Tel: 585.321.4239
Fax: 585.359.4650
gwhite@HaleyAldrich.com

From: Kuczka, Megan E (DEC) <Megan.Kuczka@dec.ny.gov>
Sent: Friday, January 29, 2021 10:56 AM
To: White, Glenn <GWhite@haleyaldrich.com>
Cc: Daigler, Robert (ZRI) (<rdaigler@zehnder-rittling.com> <rdaigler@zehnder-rittling.com>; Panfil, Ryan (ZRI) <rpanfil@zehnder-rittling.com>; Nichols, Andrew <ANichols@haleyaldrich.com>
Subject: Re: Steelfields Area IV (C915204)

CAUTION: External Email

Glenn -

Also please remember to submit an Import Request Form for the gravel, prior to bringing it onsite.

Sincerely,

Megan Kuczka

Environmental Program Specialist 1, Division of Environmental Remediation

New York State Department of Environmental Conservation

270 Michigan Avenue, Buffalo, NY 14203

P: (716) 851-7220 | F: (716) 851-7226 | Megan.Kuczka@dec.ny.gov



From: White, Glenn <GWhite@haleyaldrich.com>
Sent: Tuesday, January 26, 2021 10:48 AM
To: Kuczka, Megan E (DEC) <Megan.Kuczka@dec.ny.gov>
Cc: Daigler, Robert (ZRI) (<rdaigler@zehnder-rittling.com> <rdaigler@zehnder-rittling.com>; Panfil, Ryan (ZRI) <rpanfil@zehnder-rittling.com>; anichols@haleyaldrich.com <anichols@haleyaldrich.com>
Subject: RE: Steelfields Area IV (C915204)

ATTENTION: This email came from an external source. Do not open attachments or click on links from unknown senders or unexpected emails.

Megan, thank you.

Glenn M. White, CHMM
Haley & Aldrich
Tel: 585.321.4239
Fax: 585.359.4650
gwhite@HaleyAldrich.com

From: Kuczka, Megan E (DEC) <Megan.Kuczka@dec.ny.gov>
Sent: Tuesday, January 26, 2021 8:11 AM
To: White, Glenn <GWhite@haleyaldrich.com>
Cc: Daigler, Robert (ZRI) (<rdaigler@zehnder-rittling.com> <rdaigler@zehnder-rittling.com>; Panfil, Ryan (ZRI) <rpanfil@zehnder-rittling.com>; Nichols, Andrew <ANichols@haleyaldrich.com>
Subject: Re: Steelfields Area IV (C915204)

CAUTION: External Email

Glenn -

Thank you for reaching out regarding the groundwater discharge onsite and the need for a PRR extension. Please plan on submitting the PRR by March 31, 2021 and extend the Certifying Period on the IC-EC Certificate. If weather does not allow for the stone to be placed

by the end of March, please let me know.

Sincerely,

Megan Kuczka

Environmental Program Specialist 1, Division of Environmental Remediation

New York State Department of Environmental Conservation

270 Michigan Avenue, Buffalo, NY 14203

P: (716) 851-7220 | F: (716) 851-7226 | Megan.Kuczka@dec.ny.gov

www.dec.ny.gov



Department of
Environmental
Conservation

From: White, Glenn <GWhite@haleyaldrich.com>

Sent: Monday, January 25, 2021 4:21 PM

To: Kuczka, Megan E (DEC) <Megan.Kuczka@dec.ny.gov>

Cc: Daigler, Robert (ZRI) (rdaigler@zehnder-rittling.com) <rdaigler@zehnder-rittling.com>; Panfil, Ryan (ZRI) <rpanfil@zehnder-rittling.com>; anichols@haleyaldrich.com <anichols@haleyaldrich.com>

Subject: Steelfields Area IV (C915204)

ATTENTION: This email came from an external source. Do not open attachments or click on links from unknown senders or unexpected emails.

Megan,

As we discussed this afternoon, on behalf of Hydro Air Components, we respectfully request an extension to complete the PRR currently due on February 14, 2021.

The extension will provide enough time to remedy a current and temporary condition that would otherwise prevent certification that the site cover is protective. Placement of additional crushed stone onto the access road along the north side of the building and associated regrading is necessary to prevent contact with groundwater discharging at the toe of slope between the subject property and the property to the north. The groundwater is suspected to have high pH evidenced by the white flocculent that has accumulated on the road. We anticipate that this condition is seasonal and related to snow melt/localized groundwater recharge. This same condition has been successfully addressed in the past at this site by adding more stone, however, adding stone under the current freeze/thaw conditions is not recommended. We anticipate the stone and regrading can be accomplished during March 2021. Hydro Air Components has agreed to block-off the road until the condition can be remedied.

Please let me know if you have any questions or concerns.

Regards,
Glenn

Glenn M. White, CHMM

Associate

Haley & Aldrich

200 Town Centre Drive | Suite 2
Rochester, NY 14623

T: (585) 321.4239

C: (585) 370.2412

www.haleyaldrich.com

From: [White, Glenn](#)
To: [Nichols, Andrew](#)
Subject: FW: Buffalo Skyway - Tire rut repair on HydroAir Site
Date: Thursday, January 21, 2021 2:31:30 PM

Glenn M. White, CHMM
Haley & Aldrich
Tel: 585.321.4239
Fax: 585.359.4650
gwhite@HaleyAldrich.com

From: Kuczka, Megan E (DEC) <Megan.Kuczka@dec.ny.gov>
Sent: Monday, November 23, 2020 12:45 PM
To: White, Glenn <GWhite@haleyaldrich.com>; Melnyk, Eugene W (DEC) <eugene.melnyk@dec.ny.gov>
Cc: James, Renjit P. (DOT) <Renjit.James@dot.ny.gov>; McKenna, Santa <SMcKenna@haleyaldrich.com>
Subject: Re: Buffalo Skyway - Tire rut repair on HydroAir Site

CAUTION: External Email

Glenn -

You are referring to the Steelfields Area IV (C915204) site correct? If yes, the topsoil is approved for use onsite. Please note the rutting and restoration in the upcoming PRR.

Sincerely,

Megan Kuczka

Environmental Program Specialist 1, Division of Environmental Remediation

New York State Department of Environmental Conservation

270 Michigan Avenue, Buffalo, NY 14203

P: (716) 851-7220 | F: (716) 851-7226 | Megan.Kuczka@dec.ny.gov

www.dec.ny.gov |  |  | 



From: White, Glenn <GWhite@haleyaldrich.com>
Sent: Monday, November 23, 2020 12:10 PM
To: Melnyk, Eugene W (DEC) <eugene.melnyk@dec.ny.gov>; Kuczka, Megan E (DEC) <Megan.Kuczka@dec.ny.gov>
Cc: James, Renjit P. (DOT) <Renjit.James@dot.ny.gov>; McKenna, Santa <SMcKenna@haleyaldrich.com>
Subject: Buffalo Skyway - Tire rut repair on HydroAir Site

ATTENTION: This email came from an external source. Do not open attachments or click on links from unknown senders or unexpected emails.

Good morning Gene,

During our work on the Buffalo Skyway project, we were most recently using a CPT rig on the HydroAir property. The CPT is a bit heavier than a regular HSA rig and that resulted in tire ruts in the 1-foot cover on the site. We are planning to repair the ruts next week by filling them in with topsoil. We plan to purchase 15 yards of soil from JF Krantz. Nature Way Environmental will be placing the soil. The soil has already been tested and approved by the DEC for another site; see attached. There is still enough quantity remaining in that stockpile to complete the work at HydroAir.

Haley & Aldrich is requesting DEC's approval to use the topsoil represented by the attached to fill the ruts on the HydroAir Site.

Please let me know if you have any questions.

Thank you,
Glenn

Glenn M. White, CHMM

Associate | Senior Project Manager
Scientist

Haley & Aldrich

200 Town Centre Drive | Suite 2
Rochester, NY 14623

T: (585) 321.4239

C: (585) 370.2412

www.haleyaldrich.com



**NEW YORK STATE
DEPARTMENT OF ENVIRONMENTAL CONSERVATION**



Request to Import/Reuse Fill or Soil

This form is based on the information required by DER-10, Section 5.4(e). Use of this form is not a substitute for reading the applicable Technical Guidance document.

SECTION 1 – SITE BACKGROUND

The allowable site use is:

Have Ecological Resources been identified?

Is this soil originating from the site?

How many cubic yards of soil will be imported/reused?

If greater than 1000 cubic yards will be imported, enter volume to be imported:

SECTION 2 – MATERIAL OTHER THAN SOIL

Is the material to be imported gravel, rock or stone?

Does it contain less than 10%, by weight, material that would pass a size 80 sieve?

Is this virgin material from a permitted mine or quarry?

Is this material recycled concrete or brick from a DEC registered processing facility?

SECTION 3 - SAMPLING

Provide a brief description of the number and type of samples collected in the space

below: see attached: antithetical testing per DER/PFAS

Example Text: 5 discrete samples were collected and analyzed for VOCs. 2 composite samples were collected and analyzed for SVOCs, Inorganics & PCBs/Pesticides.

If the material meets requirements of DER-10 section 5.5 (other material), no chemical testing needed.

SECTION 3 CONT'D - SAMPLING

Provide a brief written summary of the sampling results or attach evaluation tables (compare to DER-10, Appendix 5):

See attached soil results, ZERO OUTLIERS

Topsoil from JF Krantz Stockpile #1 is Clean!

We are bringing in Native Topsoil sourced from land stripping / Grubbing for a sub division in the WNY area.

Example Text: Arsenic was detected up to 17 ppm in 1 (of 5) samples; the allowable level is 16 ppm.

If Ecological Resources have been identified use the "If Ecological Resources are Present" column in Appendix 5.

SECTION 4 – SOURCE OF FILL

Name of person providing fill and relationship to the source:

JF Krantz

Location where fill was obtained:

Clarence NY

Identification of any state or local approvals as a fill source:

If no approvals are available, provide a brief history of the use of the property that is the fill source:

Vacant Farm Land

Provide a list of supporting documentation included with this request:

See attached summary

The information provided on this form is accurate and complete.



Signature

7/28/20

Date

Brice Reed

Print Name

NW Contracting DBA

Firm

Natures Way Environmental



Lab Project ID: 204965

Client: NWEC&C

Project Reference: 20-179

Sample Identifier: JF Krantz Stock Pile #1

Lab Sample ID: 204965-01

Date Sampled: 10/15/2020

Matrix: Soil

Date Received: 10/15/2020

Metals

Analyte	Result	Units	Qualifier	Date Analyzed
Arsenic	3.48	mg/Kg		10/19/2020 11:05
Barium	74.7	mg/Kg		10/19/2020 11:05
Beryllium	0.275	mg/Kg		10/19/2020 11:05
Cadmium	0.794	mg/Kg		10/19/2020 13:02
Chromium	16.4	mg/Kg		10/19/2020 11:05
Copper	13.1	mg/Kg		10/19/2020 11:05
Lead	24.6	mg/Kg		10/19/2020 11:05
Manganese	427	mg/Kg		10/19/2020 11:05
Nickel	14.7	mg/Kg		10/19/2020 11:05
Selenium	2.35	mg/Kg		10/19/2020 11:05
Silver	< 0.519	mg/Kg		10/19/2020 11:05
Zinc	104	mg/Kg		10/19/2020 11:05

Method Reference(s): EPA 6010C

EPA 3050B

Preparation Date: 10/16/2020

Data File: 201019B

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Report Prepared Friday, October 23, 2020



Lab Project ID: 204965

Client: NWEC&C

Project Reference: 20-179

Sample Identifier: JF Krantz Stock Pile #1

Lab Sample ID: 204965-01

Date Sampled: 10/15/2020

Matrix: Soil

Date Received: 10/15/2020

PCBs

<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>Qualifier</u>	<u>Date Analyzed</u>
PCB-1016	< 0.0304	mg/Kg		10/16/2020 10:37
PCB-1221	< 0.0304	mg/Kg		10/16/2020 10:37
PCB-1232	< 0.0304	mg/Kg		10/16/2020 10:37
PCB-1242	< 0.0304	mg/Kg		10/16/2020 10:37
PCB-1248	< 0.0304	mg/Kg		10/16/2020 10:37
PCB-1254	< 0.0304	mg/Kg		10/16/2020 10:37
PCB-1260	< 0.0304	mg/Kg		10/16/2020 10:37
PCB-1262	< 0.0304	mg/Kg		10/16/2020 10:37
PCB-1268	< 0.0304	mg/Kg		10/16/2020 10:37

<u>Surrogate</u>	<u>Percent Recovery</u>	<u>Limits</u>	<u>Outliers</u>	<u>Date Analyzed</u>
Tetrachloro-m-xylene	38.1	15.1 - 91		10/16/2020 10:37

Method Reference(s): EPA 8082A
EPA 3546
Preparation Date: 10/16/2020

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Report Prepared Friday, October 23, 2020



Lab Project ID: 204965

Client: **NWEC&C**

Project Reference: 20-179

Sample Identifier: JF Krantz Stock Pile #1

Lab Sample ID: 204965-01

Date Sampled: 10/15/2020

Matrix: Soil

Date Received: 10/15/2020

Chlorinated Pesticides

Analyte	Result	Units	Qualifier	Date Analyzed
4,4-DDD	< 3.04	ug/Kg		10/16/2020 10:56
4,4-DDE	< 3.04	ug/Kg		10/16/2020 10:56
4,4-DDT	< 3.04	ug/Kg		10/16/2020 10:56
Aldrin	< 3.04	ug/Kg		10/16/2020 10:56
alpha-BHC	< 3.04	ug/Kg		10/16/2020 10:56
beta-BHC	< 3.04	ug/Kg		10/16/2020 10:56
cis-Chlordane	< 3.04	ug/Kg		10/16/2020 10:56
delta-BHC	< 3.04	ug/Kg		10/16/2020 10:56
Dieldrin	11.1	ug/Kg		10/16/2020 10:56
Endosulfan I	< 3.04	ug/Kg		10/16/2020 10:56
Endosulfan II	< 3.04	ug/Kg		10/16/2020 10:56
Endosulfan Sulfate	< 3.04	ug/Kg		10/16/2020 10:56
Endrin	< 3.04	ug/Kg		10/16/2020 10:56
Endrin Aldehyde	< 3.04	ug/Kg		10/16/2020 10:56
Endrin Ketone	< 3.04	ug/Kg		10/16/2020 10:56
gamma-BHC (Lindane)	< 3.04	ug/Kg		10/16/2020 10:56
Heptachlor	< 3.04	ug/Kg		10/16/2020 10:56
Heptachlor Epoxide	< 3.04	ug/Kg		10/16/2020 10:56
Methoxychlor	2.78	ug/Kg	J	10/16/2020 10:56
Toxaphene	< 30.4	ug/Kg		10/16/2020 10:56
trans-Chlordane	< 3.04	ug/Kg		10/16/2020 10:56

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Report Prepared Friday, October 23, 2020



Lab Project ID: 204965

Client: NWEC&C

Project Reference: 20-179

Sample Identifier: JF Krantz Stock Pile #1

Lab Sample ID: 204965-01

Date Sampled: 10/15/2020

Matrix: Soil

Date Received: 10/15/2020

<u>Surrogate</u>	<u>Percent Recovery</u>	<u>Limits</u>	<u>Outliers</u>	<u>Date Analyzed</u>
Decachlorobiphenyl (1)	45.7	16.8 - 119		10/16/2020 10:56
Tetrachloro-m-xylene (1)	39.1	20.8 - 112		10/16/2020 10:56

Method Reference(s): EPA 8081B

EPA 3546

Preparation Date: 10/16/2020

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Report Prepared Friday, October 23, 2020



Lab Project ID: 204965

Client: **NWEC&C**

Project Reference: 20-179

Sample Identifier: JF Krantz Stock Pile #1

Lab Sample ID: 204965-01

Date Sampled: 10/15/2020

Matrix: Soil

Date Received: 10/15/2020

Semi-Volatile Organics (Acid/Base Neutrals)

Analyte	Result	Units	Qualifier	Date Analyzed
1,1-Biphenyl	< 301	ug/Kg		10/16/2020 17:08
1,2,4,5-Tetrachlorobenzene	< 301	ug/Kg		10/16/2020 17:08
1,2,4-Trichlorobenzene	< 301	ug/Kg		10/16/2020 17:08
1,2-Dichlorobenzene	< 301	ug/Kg		10/16/2020 17:08
1,3-Dichlorobenzene	< 301	ug/Kg		10/16/2020 17:08
1,4-Dichlorobenzene	< 301	ug/Kg		10/16/2020 17:08
2,2-Oxybis (1-chloropropane)	< 301	ug/Kg		10/16/2020 17:08
2,3,4,6-Tetrachlorophenol	< 301	ug/Kg		10/16/2020 17:08
2,4,5-Trichlorophenol	< 301	ug/Kg		10/16/2020 17:08
2,4,6-Trichlorophenol	< 301	ug/Kg		10/16/2020 17:08
2,4-Dichlorophenol	< 301	ug/Kg		10/16/2020 17:08
2,4-Dimethylphenol	< 301	ug/Kg		10/16/2020 17:08
2,4-Dinitrophenol	< 1200	ug/Kg		10/16/2020 17:08
2,4-Dinitrotoluene	< 301	ug/Kg		10/16/2020 17:08
2,6-Dinitrotoluene	< 301	ug/Kg		10/16/2020 17:08
2-Chloronaphthalene	< 301	ug/Kg		10/16/2020 17:08
2-Chlorophenol	< 301	ug/Kg		10/16/2020 17:08
2-Methylnaphthalene	< 301	ug/Kg		10/16/2020 17:08
2-Methylphenol	< 301	ug/Kg		10/16/2020 17:08
2-Nitroaniline	< 301	ug/Kg		10/16/2020 17:08
2-Nitrophenol	< 301	ug/Kg		10/16/2020 17:08
3&4-Methylphenol	356	ug/Kg		10/16/2020 17:08
3,3'-Dichlorobenzidine	< 301	ug/Kg		10/16/2020 17:08

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Lab Project ID: 204965

Client: NWEC&C

Project Reference: 20-179

Sample Identifier: JF Krantz Stock Pile #1

Lab Sample ID: 204965-01

Date Sampled: 10/15/2020

Matrix: Soil

Date Received: 10/15/2020

3-Nitroaniline	< 301	ug/Kg	10/16/2020 17:08
4,6-Dinitro-2-methylphenol	< 602	ug/Kg	10/16/2020 17:08
4-Bromophenyl phenyl ether	< 301	ug/Kg	10/16/2020 17:08
4-Chloro-3-methylphenol	< 301	ug/Kg	10/16/2020 17:08
4-Chloroaniline	< 301	ug/Kg	10/16/2020 17:08
4-Chlorophenyl phenyl ether	< 301	ug/Kg	10/16/2020 17:08
4-Nitroaniline	< 301	ug/Kg	10/16/2020 17:08
4-Nitrophenol	< 301	ug/Kg	10/16/2020 17:08
Acenaphthene	< 301	ug/Kg	10/16/2020 17:08
Acenaphthylene	< 301	ug/Kg	10/16/2020 17:08
Acetophenone	< 301	ug/Kg	10/16/2020 17:08
Anthracene	< 301	ug/Kg	10/16/2020 17:08
Atrazine	< 301	ug/Kg	10/16/2020 17:08
Benzaldehyde	< 301	ug/Kg	10/16/2020 17:08
Benzo (a) anthracene	< 301	ug/Kg	10/16/2020 17:08
Benzo (a) pyrene	< 301	ug/Kg	10/16/2020 17:08
Benzo (b) fluoranthene	< 301	ug/Kg	10/16/2020 17:08
Benzo (g,h,i) perylene	< 301	ug/Kg	10/16/2020 17:08
Benzo (k) fluoranthene	< 301	ug/Kg	10/16/2020 17:08
Bis (2-chloroethoxy) methane	< 301	ug/Kg	10/16/2020 17:08
Bis (2-chloroethyl) ether	< 301	ug/Kg	10/16/2020 17:08
Bis (2-ethylhexyl) phthalate	< 301	ug/Kg	10/16/2020 17:08
Butylbenzylphthalate	< 301	ug/Kg	10/16/2020 17:08
Caprolactam	< 301	ug/Kg	10/16/2020 17:08
Carbazole	< 301	ug/Kg	10/16/2020 17:08

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Report Prepared Friday, October 23, 2020



Lab Project ID: 204965

Client: NWEC&C

Project Reference: 20-179

Sample Identifier:	JF Krantz Stock Pile #1			
Lab Sample ID:	204965-01		Date Sampled:	10/15/2020
Matrix:	Soil		Date Received:	10/15/2020
Chrysene	< 301	ug/Kg		10/16/2020 17:08
Dibenz (a,h) anthracene	< 301	ug/Kg		10/16/2020 17:08
Dibenzofuran	< 301	ug/Kg		10/16/2020 17:08
Diethyl phthalate	< 301	ug/Kg		10/16/2020 17:08
Dimethyl phthalate	< 301	ug/Kg		10/16/2020 17:08
Di-n-butyl phthalate	< 301	ug/Kg		10/16/2020 17:08
Di-n-octylphthalate	< 301	ug/Kg		10/16/2020 17:08
Fluoranthene	266	ug/Kg	J	10/16/2020 17:08
Fluorene	< 301	ug/Kg		10/16/2020 17:08
Hexachlorobenzene	< 301	ug/Kg		10/16/2020 17:08
Hexachlorobutadiene	< 301	ug/Kg		10/16/2020 17:08
Hexachlorocyclopentadiene	< 1200	ug/Kg		10/16/2020 17:08
Hexachloroethane	< 301	ug/Kg		10/16/2020 17:08
Indeno (1,2,3-cd) pyrene	< 301	ug/Kg		10/16/2020 17:08
Isophorone	< 301	ug/Kg		10/16/2020 17:08
Naphthalene	< 301	ug/Kg		10/16/2020 17:08
Nitrobenzene	< 301	ug/Kg		10/16/2020 17:08
N-Nitroso-di-n-propylamine	< 301	ug/Kg		10/16/2020 17:08
N-Nitrosodiphenylamine	< 301	ug/Kg		10/16/2020 17:08
Pentachlorophenol	< 602	ug/Kg		10/16/2020 17:08
Phenanthrene	< 301	ug/Kg		10/16/2020 17:08
Phenol	< 301	ug/Kg		10/16/2020 17:08
Pyrene	234	ug/Kg	J	10/16/2020 17:08

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Report Prepared Friday, October 23, 2020



Lab Project ID: 204965

Client: NWEC&C

Project Reference: 20-179

Sample Identifier: JF Krantz Stock Pile #1

Lab Sample ID: 204965-01

Date Sampled: 10/15/2020

Matrix: Soil

Date Received: 10/15/2020

<u>Surrogate</u>	<u>Percent Recovery</u>	<u>Limits</u>	<u>Outliers</u>	<u>Date Analyzed</u>	
2,4,6-Tribromophenol	57.3	40.1 - 84.5		10/16/2020	17:08
2-Fluorobiphenyl	57.7	43.3 - 79.9		10/16/2020	17:08
2-Fluorophenol	55.6	42.4 - 75.9		10/16/2020	17:08
Nitrobenzene-d5	59.9	39.8 - 77.5		10/16/2020	17:08
Phenol-d5	56.3	43 - 78.8		10/16/2020	17:08
Terphenyl-d14	63.5	43.1 - 87.7		10/16/2020	17:08

Method Reference(s): EPA 8270D

EPA 3546

Preparation Date: 10/16/2020

Data File: B50116.D

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Report Prepared Friday, October 23, 2020



Lab Project ID: 204965

Client: NWEC&C

Project Reference: 20-179

Sample Identifier: JF Krantz Stock Pile #1

Lab Sample ID: 204965-01

Date Sampled: 10/15/2020

Matrix: Soil

Date Received: 10/15/2020

Volatile Organics

Analyte	Result	Units	Qualifier	Date Analyzed
1,1,1-Trichloroethane	< 4.30	ug/Kg		10/16/2020 12:56
1,1,2,2-Tetrachloroethane	< 4.30	ug/Kg		10/16/2020 12:56
1,1,2-Trichloroethane	< 4.30	ug/Kg		10/16/2020 12:56
1,1-Dichloroethane	< 4.30	ug/Kg		10/16/2020 12:56
1,1-Dichloroethene	< 4.30	ug/Kg		10/16/2020 12:56
1,2,3-Trichlorobenzene	< 10.8	ug/Kg		10/16/2020 12:56
1,2,4-Trichlorobenzene	< 10.8	ug/Kg		10/16/2020 12:56
1,2,4-Trimethylbenzene	< 4.30	ug/Kg		10/16/2020 12:56
1,2-Dibromo-3-Chloropropane	< 21.5	ug/Kg		10/16/2020 12:56
1,2-Dibromoethane	< 4.30	ug/Kg		10/16/2020 12:56
1,2-Dichlorobenzene	< 4.30	ug/Kg		10/16/2020 12:56
1,2-Dichloroethane	< 4.30	ug/Kg		10/16/2020 12:56
1,2-Dichloropropane	< 4.30	ug/Kg		10/16/2020 12:56
1,3,5-Trimethylbenzene	< 4.30	ug/Kg		10/16/2020 12:56
1,3-Dichlorobenzene	< 4.30	ug/Kg		10/16/2020 12:56
1,4-Dichlorobenzene	< 4.30	ug/Kg		10/16/2020 12:56
1,4-Dioxane	< 43.0	ug/Kg		10/16/2020 12:56
2-Butanone	< 21.5	ug/Kg		10/16/2020 12:56
2-Hexanone	< 10.8	ug/Kg		10/16/2020 12:56
4-Methyl-2-pentanone	< 10.8	ug/Kg		10/16/2020 12:56
Acetone	< 21.5	ug/Kg		10/16/2020 12:56
Benzene	< 4.30	ug/Kg		10/16/2020 12:56
Bromochloromethane	< 10.8	ug/Kg		10/16/2020 12:56

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Sample Identifier: JF Krantz Stock Pile #1

Lab Sample ID: 204965-01

Date Sampled: 10/15/2020

Matrix: Soil

Date Received: 10/15/2020

Bromodichloromethane	< 4.30	ug/Kg	10/16/2020 12:56
Bromoform	< 10.8	ug/Kg	10/16/2020 12:56
Bromomethane	< 4.30	ug/Kg	10/16/2020 12:56
Carbon disulfide	< 4.30	ug/Kg	10/16/2020 12:56
Carbon Tetrachloride	< 4.30	ug/Kg	10/16/2020 12:56
Chlorobenzene	< 4.30	ug/Kg	10/16/2020 12:56
Chloroethane	< 4.30	ug/Kg	10/16/2020 12:56
Chloroform	< 4.30	ug/Kg	10/16/2020 12:56
Chloromethane	< 4.30	ug/Kg	10/16/2020 12:56
cis-1,2-Dichloroethene	< 4.30	ug/Kg	10/16/2020 12:56
cis-1,3-Dichloropropene	< 4.30	ug/Kg	10/16/2020 12:56
Cyclohexane	< 21.5	ug/Kg	10/16/2020 12:56
Dibromochloromethane	< 4.30	ug/Kg	10/16/2020 12:56
Dichlorodifluoromethane	< 4.30	ug/Kg	10/16/2020 12:56
Ethylbenzene	< 4.30	ug/Kg	10/16/2020 12:56
Freon 113	< 4.30	ug/Kg	10/16/2020 12:56
Isopropylbenzene	< 4.30	ug/Kg	10/16/2020 12:56
m,p-Xylene	< 4.30	ug/Kg	10/16/2020 12:56
Methyl acetate	< 4.30	ug/Kg	10/16/2020 12:56
Methyl tert-butyl Ether	< 4.30	ug/Kg	10/16/2020 12:56
Methylcyclohexane	< 4.30	ug/Kg	10/16/2020 12:56
Methylene chloride	< 10.8	ug/Kg	10/16/2020 12:56
Naphthalene	< 10.8	ug/Kg	10/16/2020 12:56
n-Butylbenzene	< 4.30	ug/Kg	10/16/2020 12:56
n-Propylbenzene	< 4.30	ug/Kg	10/16/2020 12:56

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Report Prepared Friday, October 23, 2020



Lab Project ID: 204965

Client: NWEC&C

Project Reference: 20-179

Sample Identifier: JF Krantz Stock Pile #1

Lab Sample ID: 204965-01

Date Sampled: 10/15/2020

Matrix: Soil

Date Received: 10/15/2020

o-Xylene	< 4.30	ug/Kg	10/16/2020 12:56
p-Isopropyltoluene	< 4.30	ug/Kg	10/16/2020 12:56
sec-Butylbenzene	< 4.30	ug/Kg	10/16/2020 12:56
Styrene	< 10.8	ug/Kg	10/16/2020 12:56
tert-Butylbenzene	< 4.30	ug/Kg	10/16/2020 12:56
Tetrachloroethene	< 4.30	ug/Kg	10/16/2020 12:56
Toluene	< 4.30	ug/Kg	10/16/2020 12:56
trans-1,2-Dichloroethene	< 4.30	ug/Kg	10/16/2020 12:56
trans-1,3-Dichloropropene	< 4.30	ug/Kg	10/16/2020 12:56
Trichloroethene	< 4.30	ug/Kg	10/16/2020 12:56
Trichlorofluoromethane	< 4.30	ug/Kg	10/16/2020 12:56
Vinyl chloride	< 4.30	ug/Kg	10/16/2020 12:56

Surrogate	Percent Recovery	Limits	Outliers	Date Analyzed
1,2-Dichloroethane-d4	92.6	61 - 146		10/16/2020 12:56
4-Bromofluorobenzene	61.8	48.8 - 138		10/16/2020 12:56
Pentafluorobenzene	102	65.4 - 141		10/16/2020 12:56
Toluene-D8	84.7	62.8 - 133		10/16/2020 12:56

Internal standard outliers indicate probable matrix interference

Method Reference(s): EPA 8260C
EPA 5035A - L

Data File: x74078.D

This sample was not collected following SW846 5035A specifications. Accordingly, any Volatiles soil results that are less than 200 ug/Kg, including Non Detects, may be biased low, per ELAP method 5035 guidance document from 11/15/2012.

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Report Prepared Friday, October 23, 2020



Lab Project ID: 204965

Client: NWEC&C

Project Reference: 20-179

Sample Identifier: JF Krantz Stock Pile #1

Lab Sample ID: 204965-01

Date Sampled: 10/15/2020

Matrix: Soil

Date Received: 10/15/2020

Total Cyanide

<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>Qualifier</u>	<u>Date Analyzed</u>
Cyanide, Total	< 0.524	mg/Kg		10/16/2020

Method Reference(s): EPA 9014

EPA 9010C

Preparation Date: 10/19/2020

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Report Prepared Friday, October 23, 2020



Lab Project ID: 204965

Client: NWEC&C

Project Reference: 20-179

Sample Identifier: JF Krantz Stock Pile #1

Lab Sample ID: 204965-01

Date Sampled: 10/15/2020

Matrix: Soil

Date Received: 10/15/2020

Miscellaneous

<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>Qualifier</u>	<u>Date Analyzed</u>
Miscellaneous #1	In Progress	mg/Kg		
Method Reference(s):	N/A			

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Report Prepared Friday, October 23, 2020

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CHAIN OF CUSTODY

REPORT TO:		INVOICE TO:		LAB PROJECT ID														
CLIENT: <u>NW Contracting</u>	CLIENT:	ADDRESS:		<div style="font-size: 2em; font-weight: bold;">204965</div>														
ADDRESS: <u>3553 Crittenden Rd.</u>	ADDRESS:	CITY: STATE: ZIP:																
CITY: <u>Alden</u> STATE: <u>NY</u> ZIP: <u>14004</u>	CITY:	STATE: ZIP:		Quotation #:														
PHONE: <u>716-864-7474</u>	PHONE:	ATTN:																
ATTN: <u>Brice</u>	ATTN:	Email: <u>brice@nwcontracting.com</u>																
PROJECT REFERENCE <div style="font-size: 1.5em; font-weight: bold;">20-179</div>		Matrix Codes: AQ - Aqueous Liquid WA - Water DW - Drinking Water SO - Soil SD - Solid WP - Wipe OL - Oil NQ - Non-Aqueous Liquid WG - Groundwater WW - Wastewater SL - Sludge PT - Paint CK - Caulk AR - Air																
		REQUESTED ANALYSIS																
DATE COLLECTED	TIME COLLECTED	COMPOSITE	GRAB	SAMPLE IDENTIFIER	MATRIX	CONTAINER	PFAS-DEP-10	Pt. 375 Vol's	Pt. 375 SVOCs	Pt. 375 Metals	Pt. 375 Part	PCBs	Total cyanide	Hex. Chrome	Silver	PFAS	REMARKS	PARADIGM LAB SAMPLE NUMBER
10/15/20	11:20	X		JF Krantz Stock Pile #1	SO	5		X	X	X	X	X	X	X	X	X		
																	\$60.00 sampling fee	01

Turnaround Time		Report Supplements	
Availability contingent upon lab approval; additional fees may apply.			
Standard 5 day <input type="checkbox"/>	None Required <input type="checkbox"/>	None Required <input type="checkbox"/>	None Required <input type="checkbox"/>
10 day <input type="checkbox"/>	Batch QC <input type="checkbox"/>	Basic EDD <input type="checkbox"/>	
Rush 3 day <input type="checkbox"/>	Category A <input type="checkbox"/>	NYSDEC EDD <input checked="" type="checkbox"/>	
Rush 2 day <input checked="" type="checkbox"/>	Category B <input checked="" type="checkbox"/>		
Rush 1 day <input type="checkbox"/>			
Date Needed _____	Other <input type="checkbox"/>	Other EDD <input type="checkbox"/>	
please indicate date needed:	please indicate package needed:	please indicate EDD needed:	

<u>Brinn Zuch</u> Sampled By	<u>10/15/20 11:20</u> Date/Time	Total Cost: <div style="border: 1px solid black; width: 100px; height: 50px; display: flex; align-items: center; justify-content: center;"> </div>
<u>Brinn Zuch</u> Relinquished By	<u>10/15/20 11:20</u> Date/Time	P.I.F. <div style="border: 1px solid black; width: 100px; height: 50px; display: flex; align-items: center; justify-content: center;"> </div>
<u>Molly Vail</u> Received @ Lab By	<u>10/15/2020 1544</u> Date/Time	
<u>4°Ciced 10/15/2020 15:40</u>		

By signing this form, client agrees to Paradigm Terms and Conditions (reverse).

See additional page for sample conditions.

2062



Chain of Custody Supplement

Client: NW Contracting Completed by: Molyvail
 Lab Project ID: 204965 Date: 10/15/2020

Sample Condition Requirements

Per NELAC/ELAP 210/241/242/243/244

NELAC compliance with the sample condition requirements upon receipt			
Condition	Yes	No	N/A
Container Type	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/> 5035	<input type="checkbox"/>
Comments			
Transferred to method-compliant container	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Headspace (<1 mL)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Comments			
Preservation	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Comments			
Chlorine Absent (<0.10 ppm per test strip)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Comments			
Holding Time	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Comments			
Temperature	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/> not
Comments	4°C cool		
Compliant Sample Quantity/Type	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Comments	PFAS, Hg, Hex Chrome, Silvex Subbed directly to sub lab		



CHAIN OF CUSTODY

11148

REPORT TO:		INVOICE TO:		LAB PROJECT #:		CLIENT PROJECT #:									
COMPANY:	Paradigm Environmental	COMPANY:	Same												
ADDRESS:	179 Lake Avenue	ADDRESS:													
CITY:	Rochester	STATE:	NY	ZIP:	14608										
PHONE:		FAX:													
ATTN:	Reporting	ATTN:	Accounts Payable												
COMMENTS:	Please email results to reporting@paradigmenv.com														
PROJECT NAME/SITE NAME:				TURNAROUND TIME: (WORKING DAYS)											
20-179				<input type="checkbox"/> 1 <input checked="" type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 5 <input type="checkbox"/> STD <input type="checkbox"/> OTHER											
				Date Due:											
REQUESTED ANALYSIS															
DATE	TIME	COMPOSITE	GRAB	SAMPLE LOCATION/FIELD ID	MATRIX	CONTAINER	PFAS	Part 375 Mercury	Hex. Chrome	Silvex				REMARKS	PARADIGM LAB SAMPLE NUMBER
10/15/20	11:20	X		JF Krantz Stock Pile #1	SO	3	X	X	X	X					
														5 Day turn for the PFAS only.	
														Category B is required at standard turn around time.	

LAB USE ONLY BELOW THIS LINE

Sample Condition: Per NELAC/ELAP 210/241/242/243/244

Receipt Parameter	NELAC Compliance	
Container Type:	Y <input type="checkbox"/>	N <input type="checkbox"/>
Comments:		
Preservation:	Y <input type="checkbox"/>	N <input type="checkbox"/>
Comments:		
Holding Time:	Y <input type="checkbox"/>	N <input type="checkbox"/>
Comments:		
Temperature:	Y <input type="checkbox"/>	N <input type="checkbox"/>
Comments:		

Client	
Sampled By	Date/Time
<i>Brian Zuck</i>	10/15/20
Relinquished By	Date/Time
Received By	Date/Time
Received By	Date/Time
Received @ Lab By	Date/Time

Total Cost:

P.I.F.



ANALYTICAL REPORT

Lab Number:	L2044315
Client:	Paradigm Environmental Services 179 Lake Avenue Rochester, NY 14608
ATTN:	Jane Daloia
Phone:	(585) 647-2530
Project Name:	20-179
Project Number:	20-179
Report Date:	10/22/20

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: 20-179**Project Number:** 20-179**Lab Number:** L2044315**Report Date:** 10/22/20

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L2044315-01	JF KRANTZ STOCK PILE #1	SOIL	Not Specified	10/15/20 11:20	10/15/20

Project Name: 20-179
Project Number: 20-179

Lab Number: L2044315
Report Date: 10/22/20

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: 20-179
Project Number: 20-179

Lab Number: L2044315
Report Date: 10/22/20

Case Narrative (continued)

Report Submission

October 22, 2020: This final report includes the results of all requested analyses.

October 19, 2020: This is a preliminary report.

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

Perfluorinated Alkyl Acids by Isotope Dilution

L2044315-01: The sample was re-extracted within holding time due to QC failures in the original extraction. The results of the re-extraction are reported.

L2044315-01: Extracted Internal Standard recoveries were outside the acceptance criteria for individual analytes. Please refer to the surrogate section of the report for details.

The Extracted Internal Standard recovery for the WG1424371-1 Method Blank, associated with L2044315-01, is below the acceptance criteria for Perfluoro[13C8]Octanesulfonamide (M8FOSA) (less than 10%); however, all associated samples are non-detect for Perfluorooctanesulfonamide (FOSA) and have an acceptable Extracted Internal Standard recovery for M8FOSA; therefore, no further actions were taken.

WG1424371-2: The Extracted Internal Standard recovery is below the acceptance criteria for Perfluoro[13C8]Octanesulfonamide (M8FOSA) (less than 10%); however, all associated target analytes are within criteria; therefore, no further action was taken.

Total Metals

The WG1423055-3 MS recovery, performed on L2044315-01, is outside the acceptance criteria for mercury (122%). A post digestion spike was performed and was within acceptance criteria.

Hexavalent Chromium

The WG1423133-2 LCS recovery for chromium, hexavalent (74%), associated with L2044315-01, is outside our in-house acceptance criteria, but within the vendor-certified acceptance limits. The results of the original

Project Name: 20-179
Project Number: 20-179

Lab Number: L2044315
Report Date: 10/22/20

Case Narrative (continued)

analyses are reported.

The WG1423133-4 Insoluble MS recovery for chromium, hexavalent (18%), performed on L2044315-01, is outside the acceptance criteria. The Soluble MS recovery for chromium, hexavalent (0%) was also outside criteria. This has been attributed to matrix interference. A post-spike was performed with a recovery of 95%.

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:



Kelly Stenstrom

Title: Technical Director/Representative

Date: 10/22/20

ORGANICS

SEMIVOLATILES

Project Name: 20-179

Lab Number: L2044315

Project Number: 20-179

Report Date: 10/22/20

SAMPLE RESULTS

Lab ID: L2044315-01 RE\R
 Client ID: JF KRANTZ STOCK PILE #1
 Sample Location: Not Specified

Date Collected: 10/15/20 11:20
 Date Received: 10/15/20
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 134,LCMSMS-ID
 Analytical Date: 10/22/20 12:22
 Analyst: JW
 Percent Solids: 85%

Extraction Method: ALPHA 23528
 Extraction Date: 10/20/20 19:15

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab						
Perfluorobutanoic Acid (PFBA)	0.130	J	ug/kg	0.550	0.025	1
Perfluoropentanoic Acid (PFPeA)	0.061	J	ug/kg	0.550	0.051	1
Perfluorobutanesulfonic Acid (PFBS)	ND		ug/kg	0.550	0.043	1
Perfluorohexanoic Acid (PFHxA)	0.086	J	ug/kg	0.550	0.058	1
Perfluoroheptanoic Acid (PFHpA)	0.061	J	ug/kg	0.550	0.050	1
Perfluorohexanesulfonic Acid (PFHxS)	ND		ug/kg	0.550	0.067	1
Perfluorooctanoic Acid (PFOA)	0.271	J	ug/kg	0.550	0.046	1
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	ND		ug/kg	0.550	0.197	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		ug/kg	0.550	0.150	1
Perfluorononanoic Acid (PFNA)	0.091	J	ug/kg	0.550	0.083	1
Perfluorooctanesulfonic Acid (PFOS)	0.344	J	ug/kg	0.550	0.143	1
Perfluorodecanoic Acid (PFDA)	ND		ug/kg	0.550	0.074	1
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND		ug/kg	0.550	0.316	1
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	ND		ug/kg	0.550	0.222	1
Perfluoroundecanoic Acid (PFUnA)	ND		ug/kg	0.550	0.051	1
Perfluorodecanesulfonic Acid (PFDS)	ND		ug/kg	0.550	0.168	1
Perfluorooctanesulfonamide (FOSA)	ND		ug/kg	0.550	0.108	1
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND		ug/kg	0.550	0.093	1
Perfluorododecanoic Acid (PFDoA)	ND		ug/kg	0.550	0.077	1
Perfluorotridecanoic Acid (PFTrDA)	ND		ug/kg	0.550	0.225	1
Perfluorotetradecanoic Acid (PFTA)	ND		ug/kg	0.550	0.059	1
PFOA/PFOS, Total	0.615	J	ug/kg	0.550	0.046	1

Project Name: 20-179

Lab Number: L2044315

Project Number: 20-179

Report Date: 10/22/20

SAMPLE RESULTS

Lab ID: L2044315-01 RE\R
 Client ID: JF KRANTZ STOCK PILE #1
 Sample Location: Not Specified

Date Collected: 10/15/20 11:20
 Date Received: 10/15/20
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab						

Surrogate (Extracted Internal Standard)	% Recovery	Qualifier	Acceptance Criteria
Perfluoro[13C4]Butanoic Acid (MPFBA)	92		60-153
Perfluoro[13C5]Pentanoic Acid (M5PFPEA)	92		65-182
Perfluoro[2,3,4-13C3]Butanesulfonic Acid (M3PFBS)	102		70-151
Perfluoro[1,2,3,4,6-13C5]Hexanoic Acid (M5PFHxA)	91		61-147
Perfluoro[1,2,3,4-13C4]Heptanoic Acid (M4PFHpA)	91		62-149
Perfluoro[1,2,3-13C3]Hexanesulfonic Acid (M3PFHxS)	109		63-166
Perfluoro[13C8]Octanoic Acid (M8PFOA)	97		62-152
1H,1H,2H,2H-Perfluoro[1,2-13C2]Octanesulfonic Acid (M2-6:2FTS)	68		32-182
Perfluoro[13C9]Nonanoic Acid (M9PFNA)	99		61-154
Perfluoro[13C8]Octanesulfonic Acid (M8PFOS)	109		65-151
Perfluoro[1,2,3,4,5,6-13C6]Decanoic Acid (M6PFDA)	99		65-150
1H,1H,2H,2H-Perfluoro[1,2-13C2]Decanesulfonic Acid (M2-8:2FTS)	72		25-186
N-Deuteriomethylperfluoro-1-octanesulfonamidoacetic Acid (d3-NMeFOSAA)	37	Q	45-137
Perfluoro[1,2,3,4,5,6,7-13C7]Undecanoic Acid (M7-PFUDA)	102		64-158
Perfluoro[13C8]Octanesulfonamide (M8FOSA)	26		1-125
N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA)	55		42-136
Perfluoro[1,2-13C2]Dodecanoic Acid (MPFDOA)	91		56-148
Perfluoro[1,2-13C2]Tetradecanoic Acid (M2PFTEDA)	78		26-160

Project Name: 20-179

Project Number: 20-179

Lab Number: L2044315

Report Date: 10/22/20

Method Blank Analysis Batch Quality Control

Analytical Method: 134,LCMSMS-ID

Analytical Date: 10/22/20 11:32

Analyst: JW

Extraction Method: ALPHA 23528

Extraction Date: 10/20/20 19:15

Parameter	Result	Qualifier	Units	RL	MDL
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab for sample(s): 01 Batch: WG1424371-1					
Perfluorobutanoic Acid (PFBA)	ND		ug/kg	0.500	0.023
Perfluoropentanoic Acid (PFPeA)	ND		ug/kg	0.500	0.046
Perfluorobutanesulfonic Acid (PFBS)	ND		ug/kg	0.500	0.039
Perfluorohexanoic Acid (PFHxA)	ND		ug/kg	0.500	0.053
Perfluoroheptanoic Acid (PFHpA)	ND		ug/kg	0.500	0.045
Perfluorohexanesulfonic Acid (PFHxS)	ND		ug/kg	0.500	0.061
Perfluorooctanoic Acid (PFOA)	ND		ug/kg	0.500	0.042
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	ND		ug/kg	0.500	0.180
Perfluoroheptanesulfonic Acid (PFHpS)	ND		ug/kg	0.500	0.136
Perfluorononanoic Acid (PFNA)	ND		ug/kg	0.500	0.075
Perfluorooctanesulfonic Acid (PFOS)	ND		ug/kg	0.500	0.130
Perfluorodecanoic Acid (PFDA)	ND		ug/kg	0.500	0.067
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND		ug/kg	0.500	0.287
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	ND		ug/kg	0.500	0.202
Perfluoroundecanoic Acid (PFUnA)	ND		ug/kg	0.500	0.047
Perfluorodecanesulfonic Acid (PFDS)	ND		ug/kg	0.500	0.153
Perfluorooctanesulfonamide (FOSA)	ND		ug/kg	0.500	0.098
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND		ug/kg	0.500	0.085
Perfluorododecanoic Acid (PFDoA)	ND		ug/kg	0.500	0.070
Perfluorotridecanoic Acid (PFTrDA)	ND		ug/kg	0.500	0.204
Perfluorotetradecanoic Acid (PFTA)	ND		ug/kg	0.500	0.054
PFOA/PFOS, Total	ND		ug/kg	0.500	0.042

Project Name: 20-179

Project Number: 20-179

Lab Number: L2044315

Report Date: 10/22/20

Method Blank Analysis Batch Quality Control

Analytical Method: 134,LCMSMS-ID

Analytical Date: 10/22/20 11:32

Analyst: JW

Extraction Method: ALPHA 23528

Extraction Date: 10/20/20 19:15

Parameter	Result	Qualifier	Units	RL	MDL
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab for sample(s): 01 Batch: WG1424371-1					

Surrogate (Extracted Internal Standard)	%Recovery	Qualifier	Acceptance Criteria
Perfluoro[13C4]Butanoic Acid (MPFBA)	96		60-153
Perfluoro[13C5]Pentanoic Acid (M5PFPEA)	98		65-182
Perfluoro[2,3,4-13C3]Butanesulfonic Acid (M3PFBS)	105		70-151
Perfluoro[1,2,3,4,6-13C5]Hexanoic Acid (M5PFHxA)	95		61-147
Perfluoro[1,2,3,4-13C4]Heptanoic Acid (M4PFHpA)	96		62-149
Perfluoro[1,2,3-13C3]Hexanesulfonic Acid (M3PFHxS)	113		63-166
Perfluoro[13C8]Octanoic Acid (M8PFOA)	100		62-152
1H,1H,2H,2H-Perfluoro[1,2-13C2]Octanesulfonic Acid (M2-6:2FTS)	70		32-182
Perfluoro[13C9]Nonanoic Acid (M9PFNA)	104		61-154
Perfluoro[13C8]Octanesulfonic Acid (M8PFOS)	108		65-151
Perfluoro[1,2,3,4,5,6-13C6]Decanoic Acid (M6PFDA)	107		65-150
1H,1H,2H,2H-Perfluoro[1,2-13C2]Decanesulfonic Acid (M2-8:2FTS)	72		25-186
N-Deuteriomethylperfluoro-1-octanesulfonamidoacetic Acid (d3-NMeFOSAA)	75		45-137
Perfluoro[1,2,3,4,5,6,7-13C7]Undecanoic Acid (M7-PFUDA)	114		64-158
Perfluoro[13C8]Octanesulfonamide (M8FOSA)	7		1-125
N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA)	90		42-136
Perfluoro[1,2-13C2]Dodecanoic Acid (MPFDOA)	99		56-148
Perfluoro[1,2-13C2]Tetradecanoic Acid (M2PFTEDA)	87		26-160

Lab Control Sample Analysis **Batch Quality Control**

Project Name: 20-179

Project Number: 20-179

Lab Number: L2044315

Report Date: 10/22/20

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab Associated sample(s): 01 Batch: WG1424371-2 WG1424371-3								
Perfluorobutanoic Acid (PFBA)	101		115		71-135	13		30
Perfluoropentanoic Acid (PFPeA)	97		109		69-132	12		30
Perfluorobutanesulfonic Acid (PFBS)	88		101		72-128	14		30
Perfluorohexanoic Acid (PFHxA)	98		112		70-132	13		30
Perfluoroheptanoic Acid (PFHpA)	98		114		71-131	15		30
Perfluorohexanesulfonic Acid (PFHxS)	97		109		67-130	12		30
Perfluorooctanoic Acid (PFOA)	100		113		69-133	12		30
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	114		126		64-140	10		30
Perfluoroheptanesulfonic Acid (PFHpS)	101		115		70-132	13		30
Perfluorononanoic Acid (PFNA)	99		110		72-129	11		30
Perfluorooctanesulfonic Acid (PFOS)	108		122		68-136	12		30
Perfluorodecanoic Acid (PFDA)	98		111		69-133	12		30
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	114		130		65-137	13		30
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	98		117		63-144	18		30
Perfluoroundecanoic Acid (PFUnA)	99		114		64-136	14		30
Perfluorodecanesulfonic Acid (PFDS)	115		130		59-134	12		30
Perfluorooctanesulfonamide (FOSA)	90		116		67-137	25		30
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	110		119		61-139	8		30
Perfluorododecanoic Acid (PFDoA)	103		123		69-135	18		30
Perfluorotridecanoic Acid (PFTTrDA)	102		121		66-139	17		30
Perfluorotetradecanoic Acid (PFTA)	99		112		69-133	12		30

Lab Control Sample Analysis

Batch Quality Control

Project Name: 20-179

Project Number: 20-179

Lab Number: L2044315

Report Date: 10/22/20

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab Associated sample(s): 01 Batch: WG1424371-2 WG1424371-3								

Surrogate (Extracted Internal Standard)	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
Perfluoro[13C4]Butanoic Acid (MPFBA)	104		104		60-153
Perfluoro[13C5]Pentanoic Acid (M5PFPEA)	102		103		65-182
Perfluoro[2,3,4-13C3]Butanesulfonic Acid (M3PFBS)	107		108		70-151
Perfluoro[1,2,3,4,6-13C5]Hexanoic Acid (M5PFHxA)	102		103		61-147
Perfluoro[1,2,3,4-13C4]Heptanoic Acid (M4PFHpA)	101		102		62-149
Perfluoro[1,2,3-13C3]Hexanesulfonic Acid (M3PFHxS)	115		117		63-166
Perfluoro[13C8]Octanoic Acid (M8PFOA)	103		105		62-152
1H,1H,2H,2H-Perfluoro[1,2-13C2]Octanesulfonic Acid (M2-6:2FTS)	73		76		32-182
Perfluoro[13C9]Nonanoic Acid (M9PFNA)	107		112		61-154
Perfluoro[13C8]Octanesulfonic Acid (M8PFOS)	110		111		65-151
Perfluoro[1,2,3,4,5,6-13C6]Decanoic Acid (M6PFDA)	106		110		65-150
1H,1H,2H,2H-Perfluoro[1,2-13C2]Decanesulfonic Acid (M2-8:2FTS)	74		73		25-186
N-Deuteriomethylperfluoro-1-octanesulfonamidoacetic Acid (d3-NMeFOSAA)	83		87		45-137
Perfluoro[1,2,3,4,5,6,7-13C7]Undecanoic Acid (M7-PFUDA)	109		111		64-158
Perfluoro[13C8]Octanesulfonamide (M8FOSA)	7		11		1-125
N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA)	86		92		42-136
Perfluoro[1,2-13C2]Dodecanoic Acid (MPFDOA)	101		106		56-148
Perfluoro[1,2-13C2]Tetradecanoic Acid (M2PFTEDA)	86		93		26-160

PESTICIDES

Project Name: 20-179**Lab Number:** L2044315**Project Number:** 20-179**Report Date:** 10/22/20**SAMPLE RESULTS**

Lab ID: L2044315-01
 Client ID: JF KRANTZ STOCK PILE #1
 Sample Location: Not Specified

Date Collected: 10/15/20 11:20
 Date Received: 10/15/20
 Field Prep: Not Specified

Sample Depth:
 Matrix: Soil
 Analytical Method: 1,8151A
 Analytical Date: 10/18/20 17:30
 Analyst: JMC
 Percent Solids: 85%
 Methylation Date: 10/17/20 12:35

Extraction Method: EPA 8151A
 Extraction Date: 10/16/20 23:46

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Chlorinated Herbicides by GC - Westborough Lab							
2,4,5-TP (Silvex)	ND		ug/kg	191	5.09	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
DCAA	91		30-150	A
DCAA	88		30-150	B

Project Name: 20-179

Project Number: 20-179

Lab Number: L2044315

Report Date: 10/22/20

Method Blank Analysis Batch Quality Control

Analytical Method: 1,8151A
 Analytical Date: 10/18/20 16:36
 Analyst: JMC

Extraction Method: EPA 8151A
 Extraction Date: 10/16/20 23:46

Methylation Date: 10/17/20 12:35

Parameter	Result	Qualifier	Units	RL	MDL	Column
Chlorinated Herbicides by GC - Westborough Lab for sample(s): 01 Batch: WG1423164-1						
2,4,5-TP (Silvex)	ND		ug/kg	166	4.41	A

Surrogate	%Recovery	Qualifier	Acceptance Criteria	Column
DCAA	92		30-150	A
DCAA	92		30-150	B

Lab Control Sample Analysis Batch Quality Control

Project Name: 20-179

Project Number: 20-179

Lab Number: L2044315

Report Date: 10/22/20

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits	Column
Chlorinated Herbicides by GC - Westborough Lab Associated sample(s): 01 Batch: WG1423164-2 WG1423164-3									
2,4,5-TP (Silvex)	97		80		30-150	19		30	A

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria	Column
DCAA	91		71		30-150	A
DCAA	89		73		30-150	B

METALS

Project Name: 20-179**Lab Number:** L2044315**Project Number:** 20-179**Report Date:** 10/22/20**SAMPLE RESULTS**

Lab ID: L2044315-01

Date Collected: 10/15/20 11:20

Client ID: JF KRANTZ STOCK PILE #1

Date Received: 10/15/20

Sample Location: Not Specified

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Percent Solids: 85%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Mercury, Total	ND		mg/kg	0.075	0.049	1	10/16/20 21:50	10/17/20 11:43	EPA 7471B	1,7471B	AL



Project Name: 20-179

Lab Number: L2044315

Project Number: 20-179

Report Date: 10/22/20

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 Batch: WG1423055-1										
Mercury, Total	ND		mg/kg	0.083	0.054	1	10/16/20 21:50	10/17/20 11:36	1,7471B	AL

Prep Information

Digestion Method: EPA 7471B

Lab Control Sample Analysis
Batch Quality Control**Project Name:** 20-179**Project Number:** 20-179**Lab Number:** L2044315**Report Date:** 10/22/20

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01 Batch: WG1423055-2 SRM Lot Number: D109-540								
Mercury, Total	96		-		60-140	-		

Matrix Spike Analysis

Batch Quality Control

Project Name: 20-179

Lab Number: L2044315

Project Number: 20-179

Report Date: 10/22/20

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 QC Batch ID: WG1423055-3 QC Sample: L2044315-01 Client ID: JF KRANTZ STOCK PILE #1												
Mercury, Total	ND	0.159	0.194	122	Q	-	-		80-120	-		20

Lab Duplicate Analysis
*Batch Quality Control***Project Name:** 20-179**Project Number:** 20-179**Lab Number:** L2044315**Report Date:** 10/22/20

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01 QC Batch ID: WG1423055-4 QC Sample: L2044315-01 Client ID: JF KRANTZ STOCK PILE #1						
Mercury, Total	ND	0.058J	mg/kg	NC		20

INORGANICS & MISCELLANEOUS

Project Name: 20-179

Project Number: 20-179

Lab Number: L2044315

Report Date: 10/22/20

SAMPLE RESULTS

Lab ID: L2044315-01

Client ID: JF KRANTZ STOCK PILE #1

Sample Location: Not Specified

Date Collected: 10/15/20 11:20

Date Received: 10/15/20

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	85.2		%	0.100	NA	1	-	10/16/20 13:35	121,2540G	RI
Chromium, Hexavalent	ND		mg/kg	0.939	0.188	1	10/17/20 00:01	10/18/20 16:42	1,7196A	JW



Project Name: 20-179

Lab Number: L2044315

Project Number: 20-179

Report Date: 10/22/20

Method Blank Analysis
Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab for sample(s): 01 Batch: WG1423133-1										
Chromium, Hexavalent	ND		mg/kg	0.800	0.160	1	10/17/20 00:01	10/18/20 16:31	1,7196A	JW

Lab Control Sample Analysis
Batch Quality Control

Project Name: 20-179

Project Number: 20-179

Lab Number: L2044315

Report Date: 10/22/20

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01 Batch: WG1423133-2								
Chromium, Hexavalent	74	Q	-		80-120	-		20

Matrix Spike Analysis

Batch Quality Control

Project Name: 20-179

Lab Number: L2044315

Project Number: 20-179

Report Date: 10/22/20

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG1423133-4 QC Sample: L2044315-01 Client ID: JF KRANTZ STOCK PILE #1												
Chromium, Hexavalent	ND	889	162	18	Q	-	-		75-125	-		20

Lab Duplicate Analysis

Batch Quality Control

Project Name: 20-179

Project Number: 20-179

Lab Number: L2044315

Report Date: 10/22/20

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG1422999-1 QC Sample: L2044300-06 Client ID: DUP Sample						
Solids, Total	93.8	93.4	%	0		20
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG1423133-6 QC Sample: L2044315-01 Client ID: JF KRANTZ STOCK PILE #1						
Chromium, Hexavalent	ND	ND	mg/kg	NC		20

Project Name: 20-179**Lab Number:** L2044315**Project Number:** 20-179**Report Date:** 10/22/20**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(*)
L2044315-01A	Plastic 2oz unpreserved for TS	A	NA		5.6	Y	Absent		HG-T(28)
L2044315-01B	Glass 120ml/4oz unpreserved	A	NA		5.6	Y	Absent		HERB-APA(14),TS(7),HEXCR-7196(30)
L2044315-01C	Plastic 8oz unpreserved	A	NA		5.6	Y	Absent		A2-NY-537-ISOTOPE(14)

Project Name: 20-179

Project Number: 20-179

Serial_No:10222014:46
Lab Number: L2044315

Report Date: 10/22/20

PFAS PARAMETER SUMMARY

Parameter	Acronym	CAS Number
PERFLUOROALKYL CARBOXYLIC ACIDS (PFCAs)		
Perfluorooctadecanoic Acid	PFODA	16517-11-6
Perfluorohexadecanoic Acid	PFHxDA	67905-19-5
Perfluorotetradecanoic Acid	PFTA	376-06-7
Perfluorotridecanoic Acid	PFTrDA	72629-94-8
Perfluorododecanoic Acid	PFDoA	307-55-1
Perfluoroundecanoic Acid	PFUnA	2058-94-8
Perfluorodecanoic Acid	PFDA	335-76-2
Perfluorononanoic Acid	PFNA	375-95-1
Perfluorooctanoic Acid	PFOA	335-67-1
Perfluoroheptanoic Acid	PFHpA	375-85-9
Perfluorohexanoic Acid	PFHxA	307-24-4
Perfluoropentanoic Acid	PFPeA	2706-90-3
Perfluorobutanoic Acid	PFBA	375-22-4
PERFLUOROALKYL SULFONIC ACIDS (PFSAs)		
Perfluorododecanesulfonic Acid	PFDoDS	79780-39-5
Perfluorodecanesulfonic Acid	PFDS	335-77-3
Perfluorononanesulfonic Acid	PFNS	68259-12-1
Perfluorooctanesulfonic Acid	PFOS	1763-23-1
Perfluoroheptanesulfonic Acid	PFHpS	375-92-8
Perfluorohexanesulfonic Acid	PFHxS	355-46-4
Perfluoropentanesulfonic Acid	PFPeS	2706-91-4
Perfluorobutanesulfonic Acid	PFBS	375-73-5
FLUOROTELOMERS		
1H,1H,2H,2H-Perfluorododecanesulfonic Acid	10:2FTS	120226-60-0
1H,1H,2H,2H-Perfluorodecanesulfonic Acid	8:2FTS	39108-34-4
1H,1H,2H,2H-Perfluorooctanesulfonic Acid	6:2FTS	27619-97-2
1H,1H,2H,2H-Perfluorohexanesulfonic Acid	4:2FTS	757124-72-4
PERFLUOROALKANE SULFONAMIDES (FASAs)		
Perfluorooctanesulfonamide	FOSA	754-91-6
N-Ethyl Perfluorooctane Sulfonamide	NEtFOSA	4151-50-2
N-Methyl Perfluorooctane Sulfonamide	NMeFOSA	31506-32-8
PERFLUOROALKANE SULFONYL SUBSTANCES		
N-Ethyl Perfluorooctanesulfonamido Ethanol	NEtFOSE	1691-99-2
N-Methyl Perfluorooctanesulfonamido Ethanol	NMeFOSE	24448-09-7
N-Ethyl Perfluorooctanesulfonamidoacetic Acid	NEtFOSAA	2991-50-6
N-Methyl Perfluorooctanesulfonamidoacetic Acid	NMeFOSAA	2355-31-9
PER- and POLYFLUOROALKYL ETHER CARBOXYLIC ACIDS		
2,3,3,3-Tetrafluoro-2-[1,1,2,2,3,3,3-Heptafluoropropoxy]-Propanoic Acid	HFPO-DA	13252-13-6
4,8-Dioxa-3h-Perfluorononanoic Acid	ADONA	919005-14-4
CHLORO-PERFLUOROALKYL SULFONIC ACIDS		
11-Chloroeicosafluoro-3-Oxaundecane-1-Sulfonic Acid	11Cl-PF3OUdS	763051-92-9
9-Chlorohexadecafluoro-3-Oxanone-1-Sulfonic Acid	9Cl-PF3ONS	756426-58-1
PERFLUOROETHER SULFONIC ACIDS (PFESAs)		
Perfluoro(2-Ethoxyethane)Sulfonic Acid	PFEEESA	113507-82-7
PERFLUOROETHER/POLYETHER CARBOXYLIC ACIDS (PFPCAs)		
Perfluoro-3-Methoxypropanoic Acid	PFMPA	377-73-1
Perfluoro-4-Methoxybutanoic Acid	PFMBA	863090-89-5
Nonafluoro-3,6-Dioxaheptanoic Acid	NFDHA	151772-58-6

Project Name: 20-179**Lab Number:** L2044315**Project Number:** 20-179**Report Date:** 10/22/20

GLOSSARY

Acronyms

DL	- Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the limit of quantitation (LOQ). The DL includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
EDL	- Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).
EMPC	- Estimated Maximum Possible Concentration: The concentration that results from the signal present at the retention time of an analyte when the ions meet all of the identification criteria except the ion abundance ratio criteria. An EMPC is a worst-case estimate of the concentration.
EPA	- Environmental Protection Agency.
LCS	- Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LCSD	- Laboratory Control Sample Duplicate: Refer to LCS.
LFB	- Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LOD	- Limit of Detection: This value represents the level to which a target analyte can reliably be detected for a specific analyte in a specific matrix by a specific method. The LOD includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
LOQ	- Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.) Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
MDL	- Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
MS	- Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available. For Method 332.0, the spike recovery is calculated using the native concentration, including estimated values.
MSD	- Matrix Spike Sample Duplicate: Refer to MS.
NA	- Not Applicable.
NC	- Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.
NDPA/DPA	- N-Nitrosodiphenylamine/Diphenylamine.
NI	- Not Ignitable.
NP	- Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.
NR	- No Results: Term is utilized when 'No Target Compounds Requested' is reported for the analysis of Volatile or Semivolatile Organic TIC only requests.
RL	- Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
RPD	- Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.
SRM	- Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.
STLP	- Semi-dynamic Tank Leaching Procedure per EPA Method 1315.
TEF	- Toxic Equivalency Factors: The values assigned to each dioxin and furan to evaluate their toxicity relative to 2,3,7,8-TCDD.
TEQ	- Toxic Equivalent: The measure of a sample's toxicity derived by multiplying each dioxin and furan by its corresponding TEF and then summing the resulting values.
TIC	- Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

Report Format: DU Report with 'J' Qualifiers

Project Name: 20-179**Lab Number:** L2044315**Project Number:** 20-179**Report Date:** 10/22/20**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.

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'.

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. If a 'Total' result is requested, the results of its individual components will also be reported.

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.)

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 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

Report Format: DU Report with 'J' Qualifiers



Project Name: 20-179**Lab Number:** L2044315**Project Number:** 20-179**Report Date:** 10/22/20**Data Qualifiers**

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.

Report Format: DU Report with 'J' Qualifiers



Project Name: 20-179**Lab Number:** L2044315**Project Number:** 20-179**Report Date:** 10/22/20

REFERENCES

- 1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - VI, 2018.
- 121 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WEF. Standard Methods Online.
- 134 Determination of Selected Perfluorinated Alkyl Acids in Drinking Water by Solid Phase Extraction and Liquid Chromatography/Tandem Mass Spectrometry (LC/MS/MS) using Isotope Dilution. Alpha SOP 23528.

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.



Alpha Analytical, Inc.Facility: **Company-wide**Department: **Quality Assurance**Title: **Certificate/Approval Program Summary**ID No.: **17873**

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Certification Information

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

Westborough Facility**EPA 624/624.1:** m/p-xylene, o-xylene, Naphthalene**EPA 8260C:** NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.**EPA 8270D:** NPW: Dimethylnaphthalene, 1,4-Diphenylhydrazine; SCM: Dimethylnaphthalene, 1,4-Diphenylhydrazine.**SM4500:** NPW: Amenable Cyanide; SCM: Total Phosphorus, TKN, NO₂, NO₃.**Mansfield Facility****SM 2540D:** TSS**EPA 8082A:** NPW: PCB: 1, 5, 31, 87, 101, 110, 141, 151, 153, 180, 183, 187.**EPA TO-15:** Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.**EPA TO-12** Non-methane organics**EPA 3C** Fixed gases**Biological Tissue Matrix:** EPA 3050B

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

Westborough Facility:**Drinking Water****EPA 300.0:** Chloride, Nitrate-N, Fluoride, Sulfate; **EPA 353.2:** Nitrate-N, Nitrite-N; **SM4500NO3-F:** Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE, EPA 180.1, SM2130B, 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, **LACHAT 10-107-06-1-B:** Ammonia-N, **EPA 351.1, SM4500NO3-F, EPA 353.2:** Nitrate-N, **SM4500P-E, SM4500P-B, E, SM4500SO4-E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D, EPA 300:** Chloride, Sulfate, Nitrate.**EPA 624.1:** Volatile Halocarbons & Aromatics,**EPA 608.3:** Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs**EPA 625.1:** SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045:** PCB-Oil.**Microbiology:** **SM9223B-Colilert-QT; Enterolert-QT, SM9221E, EPA 1600, EPA 1603.****Mansfield Facility:****Drinking Water****EPA 200.7:** Al, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Na, Ag, Ca, Zn. **EPA 200.8:** Al, Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn. **EPA 245.1** Hg. **EPA 522.****Non-Potable Water****EPA 200.7:** Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn.**EPA 200.8:** Al, Sb, As, Be, Cd, Cr, Cu, Fe, Pb, Mn, Ni, K, Se, Ag, Na, TL, Zn.**EPA 245.1** Hg.**SM2340B**

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

**CHAIN OF CUSTODY**

L2044315

11148

REPORT TO:		INVOICE TO:	
COMPANY: Paradigm Environmental	COMPANY: Same	LAB PROJECT #:	CLIENT PROJECT #:
ADDRESS: 179 Lake Avenue	ADDRESS:		
CITY: Rochester STATE: NY ZIP: 14608	CITY: STATE: ZIP:	TURNAROUND TIME: (WORKING DAYS)	
PHONE: FAX:	PHONE: FAX:		
PROJECT NAME/SITE NAME: 20-179	ATTN: Reporting	ATTN: Accounts Payable	<input type="checkbox"/> 1 <input checked="" type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 5 <input type="checkbox"/> STD <input type="checkbox"/> OTHER
COMMENTS: Please email results to reporting@paradigmenv.com		Date Due:	

REQUESTED ANALYSIS																REMARKS	PARADIGM LAB SAMPLE NUMBER
DATE	TIME	C O M P O S I T E	G R A B	SAMPLE LOCATION/FIELD ID	M A T R I X	C O N T A I N E R	P F A S	P a r t 3 7 5 M e r c u r y	H e x . C h r o m e	S i l v e x							
10/15/20	11:20	X		JF Krantz Stock Pile #1	SO	3	X	X	X	X							
																5 Day turn for the PFAS only.	
																Category B is required at standard turn around time.	

****LAB USE ONLY BELOW THIS LINE****

Sample Condition: Per NELAC/ELAP 210/241/242/243/244

Receipt Parameter	NELAC Compliance	
Container Type:	Y <input type="checkbox"/>	N <input type="checkbox"/>
Comments:		
Preservation:	Y <input type="checkbox"/>	N <input type="checkbox"/>
Comments:		
Holding Time:	Y <input type="checkbox"/>	N <input type="checkbox"/>
Comments:		
Temperature:	Y <input type="checkbox"/>	N <input type="checkbox"/>
Comments:		

Client

Sampled By	Date/Time
<i>Boian Zuck</i>	10/15/20 1:20
Relinquished By	Date/Time
<i>Loelwyn Lley (AAL)</i>	10/15/20 13:20
Received By	Date/Time
<i>Loelwyn Lley (AAL)</i>	10/15/20 13:20
Relinquished By	Date/Time
<i>Relinquished By</i>	10/16/20 01:30
Received @ Lab By	Date/Time

Total Cost:

P.I.F.

APPENDIX C

Annual Inspection Form



Environmental Inspection Form Operation, Monitoring, & Maintenance Work Plan

Property Name: Former Steelfields Area IV Site

Project No.: C915204

Client: Hydro-Air Components, Inc.

Property Address: 100 Rittling Blvd.

City, State: Buffalo, NY

Zip Code: 14220

Property ID: (Tax Assessment Map)

Section:

Block:

Lot(s):

Preparer's Name: Glenn White

Date/Time:

CERTIFICATION

The results of this inspection were discussed with the owner and/or owner's representative. Any corrective actions required have been identified and noted in this report, and a supplemental Corrective Actions Form has been completed. Proper implementation of these corrective actions have been discussed with the owner, agreed upon, and scheduled.

Preparer / Inspector: Glenn White, Haley & Aldrich of NY

Date:

Signature:

Next Scheduled Inspection (date):

12/2021

Final Surface Cover / Vegetation

In accordance with the Soil/Fill Management Plan, vegetative or other (eg. Asphalt, buildings, concrete) surface coverage over the entire redeveloped parcel is required by the developer or owner as a pre-condition of occupancy. The following documents the condition of the above.

- | | | | |
|---|---|--|------------------------------|
| 1. Final Cover is in Place and in good condition? | <input checked="" type="checkbox"/> yes | <input type="checkbox"/> no | <input type="checkbox"/> N/A |
| Cover consists of (mainly): Field grasses, buildings, asphalt parking lot, and asphalt and gravel drives. | | | |
| 2. Evidence of erosion? | <input type="checkbox"/> yes | <input checked="" type="checkbox"/> no | <input type="checkbox"/> N/A |
| 3. Cracks visible in pavement? | <input type="checkbox"/> yes | <input checked="" type="checkbox"/> no | <input type="checkbox"/> N/A |
| 4. Evidence of distressed vegetation/turf? | <input type="checkbox"/> yes | <input checked="" type="checkbox"/> no | <input type="checkbox"/> N/A |
| 5. Evidence of unintended traffic and/or rutting? | <input checked="" type="checkbox"/> yes | <input type="checkbox"/> no | <input type="checkbox"/> N/A |
| 6. Evidence of uneven settlement and/or ponding? | <input checked="" type="checkbox"/> yes | <input type="checkbox"/> no | <input type="checkbox"/> N/A |
| 7. Damage to any surface coverage? | <input checked="" type="checkbox"/> yes | <input type="checkbox"/> no | <input type="checkbox"/> N/A |

If yes to any question above, please provide more information below.

See attachment



Environmental Inspection Form Operation, Monitoring, & Maintenance Work Plan

Property Security & Access

In accordance with the Soil/Fill Management Plan, fencing is required to restrict access in all undeveloped areas and as necessary in redeveloped areas. In addition, all fencing around undeveloped areas will be posted with "No Trespassing" signs.

- | | | | |
|--|---|--|---|
| 1. Is access controlled by perimeter fencing? | <input type="checkbox"/> yes | <input checked="" type="checkbox"/> no | <input type="checkbox"/> N/A |
| If not, please note: Site is partially fenced | | | |
| 2. Is fencing in need of repair? | <input checked="" type="checkbox"/> yes | <input type="checkbox"/> no | <input type="checkbox"/> N/A |
| 3. Area access gates in working order? | <input type="checkbox"/> yes | <input type="checkbox"/> no | <input checked="" type="checkbox"/> N/A |
| 4. Sufficient signage posted (No Trespassing)? | <input checked="" type="checkbox"/> yes | <input type="checkbox"/> no | <input type="checkbox"/> N/A |
| 5. Has there been any noted or reported trespassing? | <input type="checkbox"/> yes | <input checked="" type="checkbox"/> no | <input type="checkbox"/> N/A |

Please note any irregularities/ changes in site access and security:

Portions of fencing along the western site boundary are falling over.

Property Use Changes / Site Development

Has the property usage changed, or site been redeveloped since the last inspection?

☐ yes ☒ no ☐ N/A

If so, please list with date: Property use has not changed since 2006 when HydroAir first occupied the building.

Active Sub-Slab Depressurization System (ASD)

Is there an ASD present on-site?

☒ yes ☐ no ☐ N/A

If yes, is it currently operating?

☒ yes ☐ no ☐ N/A

Is the ASD annual inspection checklist completed and enclosed?

See attachment

☒ yes ☐ no ☐ N/A



Environmental Inspection Form Operation, Monitoring, & Maintenance Work Plan

ORC Well Monitoring and Maintenance

Is there ORC mitigation present on-site?

☒ yes ☐ no ☐ N/A

Are the wells currently intact and operational?

☒ yes ☐ no ☐ N/A

Has regular maintenance and monitoring been documented and enclosed or referenced?

☒ yes ☐ no ☐ N/A

Long-Term Ground Water Monitoring

Is there a plan in place and currently being followed?

☒ yes ☐ no ☐ N/A

Are the wells currently intact and operational?

☒ yes ☐ no ☐ N/A

When was the most recent sampling event report and submittal? Date: Included with 2020 PRR

When is the next projected sampling event? Date: July 2021

New Information

Has any new information been brought to the owner/engineer's attention regarding any and/or all engineering and institutional controls and their operation and effectiveness?

☐ yes ☒ no ☐ N/A

Comments: _____

This space for Notes and Comments

Please include the following Attachments:

1. Site Sketch

2. Photographs

Site sketch and photographs included in 2020 PRR report

Environmental Inspection Form Operation, Monitoring, & Maintenance Work Plan

Attachment to Page 1 of 3

Coverage in Western Grass Area

As requested by NYSDEC, french drains were installed in May 2008 to minimize ponding observed after the installation of the soil cover in 2007. While ponding water in the western grass areas was not reported by Hydro-Air throughout the PRR period, ponding was observed during the annual 2020 inspection following prior rainfall and snowmelt. Wetland vegetation continues to grow in the western grass area, as evidenced in photos attached to this PRR.

In October 2020, geotechnical soil borings were advanced in the western grass area as part of scoping activities associated with the proposed Buffalo Skyway development. While accessing the soil boring locations, the drilling rig generated ruts, temporarily breaching the Site cover system. On 23 November 2020, the NYSDEC approved use of imported topsoil to fill the ruts and repair the cover system. Rut repairs were made on 3 December 2020.

During the 2020 annual inspection, isolated rodent burrow holes were observed penetrating the site cover in limited areas of the western grass area, as evidenced in photos attached to this PRR. Observed burrowing activities will be monitored.

Northern Loading Dock

Subsequent to corrective measures that were put into place on 1 December 2012 (per the Corrective Measures Work Plan, approved 29 December 2011 by the Department), water has not accumulated in the northeastern loading dock area. The reconfiguration of the loading dock pump system (setting to automatic pumping and raising the float set-point) enabled sufficient pumping to maintain dry conditions and has sufficiently prevented the surfacing of groundwater in the area. Hydro-Air has continued to monitor the efficacy of these controls regularly throughout 2020.

Gravel Cover Areas

Prior to 2012, evidence of surfacing groundwater from beneath the gravel cover areas on the northern end of the Site was evident (see Figure 2). As a voluntary corrective measure, the gravel cover on the northern portion of the access road was enhanced in 2012 by the placement of additional gravel (an additional 9 to 11 inches). Since then, Hydro-Air monitored the continual efficacy of the gravel cover area throughout 2020 and did not observe evidence of groundwater surfacing in these areas. Nonetheless, during the Site inspection on 5 January 2021, standing water was observed in compacted areas on the gravel roadway between the Site building and northern Site boundary following a period of rainfall and snowmelt. This condition was likely related to recent rainfall/snow melt/localized groundwater recharge. Per correspondence with the NYSDEC on 26 January 2021, it was agreed Hydro-Air would temporarily block-off the access road until seasonal snow cover was melted to see if the standing water condition persisted, and if it did, assess options for the placement of additional gravel cover in the area. In March 2021, Hydro-Air provided photographs documenting the absence of standing water along the road, suggesting the conditions observed in January 2021 were temporary and associated with rapid rainfall and snowmelt prior to the Site inspection. However, to limit the potential for future temporary ponding under similar conditions, Hydro-Air imported approximately 88 tons of #2 crushed limestone to elevate the compacted areas and re-grade the roadway. The crushed stone was imported to the Site on 14 April 2021, per import approval provided by NYSDEC on 24 March 2021. Hydro-Air will continue to monitor the road conditions throughout the 2021 reporting period and prohibit access to the road if unanticipated standing water is observed.

APPENDIX D

Photo Log – 2020 PRR Monitoring Period

HydroAir Components
Buffalo, New York
File No. 129356-009



Photo 1: Representative office floor crack repair with hydraulic cement.



Photo 2: Small floor cracks extending below carpeted floor coverings in Site office.

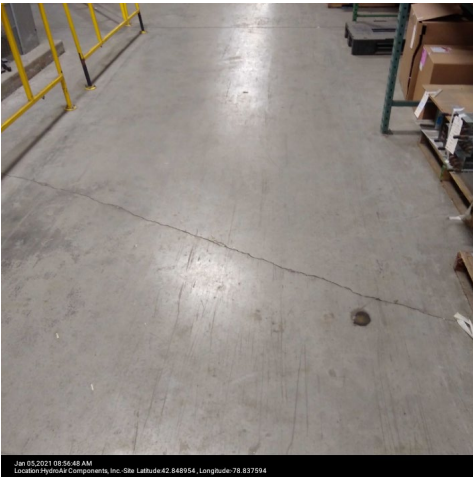


Photo 3: Minor floor crack in manufacturing space.

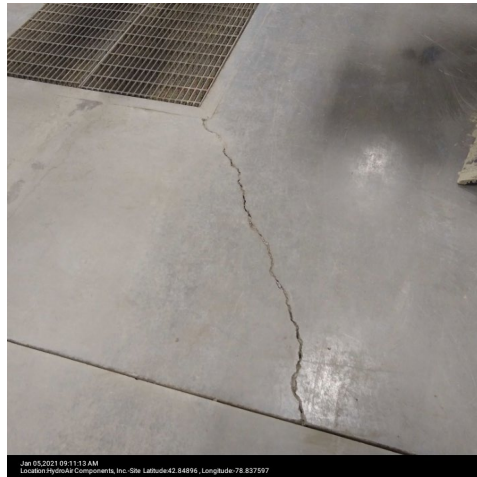


Photo 4: Minor floor crack in manufacturing space.



Photo 5: Standing water along gravel drive in northeast corner of Site. Photo taken 5 January 2021.



Photo 6: Standing water along gravel drive on north side of Site building. Photo taken 5 January 2021.

HydroAir Components
Buffalo, New York
File No. 129356-009



Photo 7: Potential rodent burrow in grass covered area in western portions of the Site.



Photo 8: Rutting in western grass covered area following October 2020 drilling activities.



Photo 9: Rutting in western grass covered area following October 2020 drilling activities.



Photo 10: Rutting repair with imported topsoil, December 2020.



Photo 11: Rutting repair with imported topsoil, December 2020.



Photo 12: Wetland vegetation in western grass area.

**HydroAir Components
Buffalo, New York
File No. 129356-009**



***Photo 13: Gravel drive on north side of Site building.
Photo taken 11 March 2021***



***Photo 14: Gravel drive on north side of Site building.
Photo taken 11 March 2021***



***Photo 15: Gravel drive on north side of Site building.
Photo taken 11 March 2021.***



***Photo 16: Gravel drive on north side of Site building.
Photo taken 14 April 2021.***



***Photo 17: Gravel drive on north side of Site building.
Photo taken 14 April 2021.***



***Photo 18: Gravel drive on north side of Site building.
Photo taken 14 April 2021.***

APPENDIX E

Imported Soil Documentation and Soil Disposal Receipt



**NEW YORK STATE
DEPARTMENT OF ENVIRONMENTAL CONSERVATION**



Request to Import/Reuse Fill or Soil

This form is based on the information required by DER-10, Section 5.4(e). Use of this form is not a substitute for reading the applicable Technical Guidance document.

SECTION 1 – SITE BACKGROUND

The allowable site use is:

Have Ecological Resources been identified?

Is this soil originating from the site?

How many cubic yards of soil will be imported/reused?

If greater than 1000 cubic yards will be imported, enter volume to be imported:

SECTION 2 – MATERIAL OTHER THAN SOIL

Is the material to be imported gravel, rock or stone?

Does it contain less than 10%, by weight, material that would pass a size 80 sieve?

Is this virgin material from a permitted mine or quarry?

Is this material recycled concrete or brick from a DEC registered processing facility?

SECTION 3 - SAMPLING

Provide a brief description of the number and type of samples collected in the space below:

Example Text: 5 discrete samples were collected and analyzed for VOCs. 2 composite samples were collected and analyzed for SVOCs, Inorganics & PCBs/Pesticides.

If the material meets requirements of DER-10 section 5.5 (other material), no chemical testing needed.

SECTION 3 CONT'D - SAMPLING

Provide a brief written summary of the sampling results or attach evaluation tables (compare to DER-10, Appendix 5):

Example Text: Arsenic was detected up to 17 ppm in 1 (of 5) samples; the allowable level is 16 ppm.

If Ecological Resources have been identified use the "If Ecological Resources are Present" column in Appendix 5.

SECTION 4 – SOURCE OF FILL

Name of person providing fill and relationship to the source:

Location where fill was obtained:

Identification of any state or local approvals as a fill source:

If no approvals are available, provide a brief history of the use of the property that is the fill source:

Provide a list of supporting documentation included with this request:

The information provided on this form is accurate and complete.



Signature

Glenn White

3/24/2021

Date

Print Name

Haley & Aldrich of New York

Firm



13870 Taylor Hollow Rd, Collins, New York, 14034 - 716-532-3371 - Fax 716-532-9000

3/22/2021

ZEHNDER-RITTLING

Via EMail: dbarto@zehnder-rittling.com

100 RITTLING

BUFFALO

NY

ATTENTION: DALE BARTO

RE: Material Submittal DRIVEWAY SUBBASE

Dear DALE

This is to certify that the -2" Crusher Run Hard Head Gravel proposed for use on the above listed project meets all the requirements for NYSDOT Item 304 Type 2. This material is manufactured by crushing +2" gravel hard heads into a dense graded subbase. The resulting material is a 100% manufactured product devoid of any natural fines and is comparable and equivalent to limestone subbase. The -2" Hardheads will be supplied out of our NYSDOT approved Middle Road pit which is an virgin sand and gravel deposit with both NYSDOT and NYSDEC material source approvals. NYSDOT Source # 2997, NYSDEC Mine ID #-90369, NYSDEC Permit # 9043-30-0369 .

A typical mechanical analysis of the proposed material follows:

-2' Cr. Run Hard Head Gravel - NYSDOT 304 Type 2 (Equivalent) – Middle Road

Sieve Size	Percent Passing	Specification
2"	100	100
1/4"	31	25-60
#40	13	5-40
#200	8	0-10

Sincerely,

Gernatt Asphalt Products, Inc.

A handwritten signature in black ink that reads "William M. Phillips".

Bill Phillips

Sales Representative

From: [White, Glenn](#)
To: [Nichols, Andrew](#)
Subject: FW: Buffalo Skyway - Tire rut repair on HydroAir Site
Date: Thursday, January 21, 2021 2:31:30 PM

Glenn M. White, CHMM
Haley & Aldrich
Tel: 585.321.4239
Fax: 585.359.4650
gwhite@HaleyAldrich.com

From: Kuczka, Megan E (DEC) <Megan.Kuczka@dec.ny.gov>
Sent: Monday, November 23, 2020 12:45 PM
To: White, Glenn <GWhite@haleyaldrich.com>; Melnyk, Eugene W (DEC) <eugene.melnyk@dec.ny.gov>
Cc: James, Renjit P. (DOT) <Renjit.James@dot.ny.gov>; McKenna, Santa <SMcKenna@haleyaldrich.com>
Subject: Re: Buffalo Skyway - Tire rut repair on HydroAir Site

CAUTION: External Email

Glenn -

You are referring to the Steelfields Area IV (C915204) site correct? If yes, the topsoil is approved for use onsite. Please note the rutting and restoration in the upcoming PRR.

Sincerely,

Megan Kuczka

Environmental Program Specialist 1, Division of Environmental Remediation

New York State Department of Environmental Conservation

270 Michigan Avenue, Buffalo, NY 14203

P: (716) 851-7220 | F: (716) 851-7226 | Megan.Kuczka@dec.ny.gov

www.dec.ny.gov |  |  | 



From: White, Glenn <GWhite@haleyaldrich.com>
Sent: Monday, November 23, 2020 12:10 PM
To: Melnyk, Eugene W (DEC) <eugene.melnyk@dec.ny.gov>; Kuczka, Megan E (DEC) <Megan.Kuczka@dec.ny.gov>
Cc: James, Renjit P. (DOT) <Renjit.James@dot.ny.gov>; McKenna, Santa <SMcKenna@haleyaldrich.com>
Subject: Buffalo Skyway - Tire rut repair on HydroAir Site

ATTENTION: This email came from an external source. Do not open attachments or click on links from unknown senders or unexpected emails.

Good morning Gene,

During our work on the Buffalo Skyway project, we were most recently using a CPT rig on the HydroAir property. The CPT is a bit heavier than a regular HSA rig and that resulted in tire ruts in the 1-foot cover on the site. We are planning to repair the ruts next week by filling them in with topsoil. We plan to purchase 15 yards of soil from JF Krantz. Nature Way Environmental will be placing the soil. The soil has already been tested and approved by the DEC for another site; see attached. There is still enough quantity remaining in that stockpile to complete the work at HydroAir.

Haley & Aldrich is requesting DEC's approval to use the topsoil represented by the attached to fill the ruts on the HydroAir Site.

Please let me know if you have any questions.

Thank you,
Glenn

Glenn M. White, CHMM

Associate | Senior Project Manager
Scientist

Haley & Aldrich

200 Town Centre Drive | Suite 2
Rochester, NY 14623

T: (585) 321.4239

C: (585) 370.2412

www.haleyaldrich.com



**NEW YORK STATE
DEPARTMENT OF ENVIRONMENTAL CONSERVATION**



Request to Import/Reuse Fill or Soil

This form is based on the information required by DER-10, Section 5.4(e). Use of this form is not a substitute for reading the applicable Technical Guidance document.

SECTION 1 – SITE BACKGROUND

The allowable site use is:

Have Ecological Resources been identified?

Is this soil originating from the site?

How many cubic yards of soil will be imported/reused?

If greater than 1000 cubic yards will be imported, enter volume to be imported:

SECTION 2 – MATERIAL OTHER THAN SOIL

Is the material to be imported gravel, rock or stone?

Does it contain less than 10%, by weight, material that would pass a size 80 sieve?

Is this virgin material from a permitted mine or quarry?

Is this material recycled concrete or brick from a DEC registered processing facility?

SECTION 3 - SAMPLING

Provide a brief description of the number and type of samples collected in the space

below: see attached: antithetical testing per DER/PFAS

Example Text: 5 discrete samples were collected and analyzed for VOCs. 2 composite samples were collected and analyzed for SVOCs, Inorganics & PCBs/Pesticides.

If the material meets requirements of DER-10 section 5.5 (other material), no chemical testing needed.

SECTION 3 CONT'D - SAMPLING

Provide a brief written summary of the sampling results or attach evaluation tables (compare to DER-10, Appendix 5):

See attached soil results, ZERO OUTLIERS

Topsoil from JF Krantz Stockpile #1 is Clean!

We are bringing in Native Topsoil sourced from land stripping / Grubbing for a sub division in the WNY area.

Example Text: Arsenic was detected up to 17 ppm in 1 (of 5) samples; the allowable level is 16 ppm.

If Ecological Resources have been identified use the "If Ecological Resources are Present" column in Appendix 5.

SECTION 4 – SOURCE OF FILL

Name of person providing fill and relationship to the source:

JF Krantz

Location where fill was obtained:

Clarence NY

Identification of any state or local approvals as a fill source:

If no approvals are available, provide a brief history of the use of the property that is the fill source:

Vacant Farm Land

Provide a list of supporting documentation included with this request:

See attached summary

The information provided on this form is accurate and complete.



Signature

7/28/20

Date

Brice Reed

Print Name

NW Contracting DBA

Firm

Natures Way Environmental



Lab Project ID: 204965

Client: NWEC&C

Project Reference: 20-179

Sample Identifier: JF Krantz Stock Pile #1

Lab Sample ID: 204965-01

Date Sampled: 10/15/2020

Matrix: Soil

Date Received: 10/15/2020

Metals

Analyte	Result	Units	Qualifier	Date Analyzed
Arsenic	3.48	mg/Kg		10/19/2020 11:05
Barium	74.7	mg/Kg		10/19/2020 11:05
Beryllium	0.275	mg/Kg		10/19/2020 11:05
Cadmium	0.794	mg/Kg		10/19/2020 13:02
Chromium	16.4	mg/Kg		10/19/2020 11:05
Copper	13.1	mg/Kg		10/19/2020 11:05
Lead	24.6	mg/Kg		10/19/2020 11:05
Manganese	427	mg/Kg		10/19/2020 11:05
Nickel	14.7	mg/Kg		10/19/2020 11:05
Selenium	2.35	mg/Kg		10/19/2020 11:05
Silver	< 0.519	mg/Kg		10/19/2020 11:05
Zinc	104	mg/Kg		10/19/2020 11:05

Method Reference(s): EPA 6010C

EPA 3050B

Preparation Date: 10/16/2020

Data File: 201019B

This report is part of a multipage document and should only be evaluated in its entirety. The Chain of Custody provides additional sample information, including compliance with the sample condition requirements upon receipt.

Report Prepared Friday, October 23, 2020



Lab Project ID: 204965

Client: NWEC&C

Project Reference: 20-179

Sample Identifier: JF Krantz Stock Pile #1

Lab Sample ID: 204965-01

Date Sampled: 10/15/2020

Matrix: Soil

Date Received: 10/15/2020

PCBs

<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>Qualifier</u>	<u>Date Analyzed</u>
PCB-1016	< 0.0304	mg/Kg		10/16/2020 10:37
PCB-1221	< 0.0304	mg/Kg		10/16/2020 10:37
PCB-1232	< 0.0304	mg/Kg		10/16/2020 10:37
PCB-1242	< 0.0304	mg/Kg		10/16/2020 10:37
PCB-1248	< 0.0304	mg/Kg		10/16/2020 10:37
PCB-1254	< 0.0304	mg/Kg		10/16/2020 10:37
PCB-1260	< 0.0304	mg/Kg		10/16/2020 10:37
PCB-1262	< 0.0304	mg/Kg		10/16/2020 10:37
PCB-1268	< 0.0304	mg/Kg		10/16/2020 10:37

<u>Surrogate</u>	<u>Percent Recovery</u>	<u>Limits</u>	<u>Outliers</u>	<u>Date Analyzed</u>
Tetrachloro-m-xylene	38.1	15.1 - 91		10/16/2020 10:37

Method Reference(s): EPA 8082A
EPA 3546
Preparation Date: 10/16/2020

This report is part of a multipage document and should only be evaluated in its entirety. The Chain of Custody provides additional sample information, including compliance with the sample condition requirements upon receipt.

Report Prepared Friday, October 23, 2020



Lab Project ID: 204965

Client: **NWEC&C**

Project Reference: 20-179

Sample Identifier: JF Krantz Stock Pile #1

Lab Sample ID: 204965-01

Date Sampled: 10/15/2020

Matrix: Soil

Date Received: 10/15/2020

Chlorinated Pesticides

Analyte	Result	Units	Qualifier	Date Analyzed
4,4-DDD	< 3.04	ug/Kg		10/16/2020 10:56
4,4-DDE	< 3.04	ug/Kg		10/16/2020 10:56
4,4-DDT	< 3.04	ug/Kg		10/16/2020 10:56
Aldrin	< 3.04	ug/Kg		10/16/2020 10:56
alpha-BHC	< 3.04	ug/Kg		10/16/2020 10:56
beta-BHC	< 3.04	ug/Kg		10/16/2020 10:56
cis-Chlordane	< 3.04	ug/Kg		10/16/2020 10:56
delta-BHC	< 3.04	ug/Kg		10/16/2020 10:56
Dieldrin	11.1	ug/Kg		10/16/2020 10:56
Endosulfan I	< 3.04	ug/Kg		10/16/2020 10:56
Endosulfan II	< 3.04	ug/Kg		10/16/2020 10:56
Endosulfan Sulfate	< 3.04	ug/Kg		10/16/2020 10:56
Endrin	< 3.04	ug/Kg		10/16/2020 10:56
Endrin Aldehyde	< 3.04	ug/Kg		10/16/2020 10:56
Endrin Ketone	< 3.04	ug/Kg		10/16/2020 10:56
gamma-BHC (Lindane)	< 3.04	ug/Kg		10/16/2020 10:56
Heptachlor	< 3.04	ug/Kg		10/16/2020 10:56
Heptachlor Epoxide	< 3.04	ug/Kg		10/16/2020 10:56
Methoxychlor	2.78	ug/Kg	J	10/16/2020 10:56
Toxaphene	< 30.4	ug/Kg		10/16/2020 10:56
trans-Chlordane	< 3.04	ug/Kg		10/16/2020 10:56

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Report Prepared Friday, October 23, 2020



Lab Project ID: 204965

Client: NWEC&C

Project Reference: 20-179

Sample Identifier: JF Krantz Stock Pile #1

Lab Sample ID: 204965-01

Date Sampled: 10/15/2020

Matrix: Soil

Date Received: 10/15/2020

<u>Surrogate</u>	<u>Percent Recovery</u>	<u>Limits</u>	<u>Outliers</u>	<u>Date Analyzed</u>
Decachlorobiphenyl (1)	45.7	16.8 - 119		10/16/2020 10:56
Tetrachloro-m-xylene (1)	39.1	20.8 - 112		10/16/2020 10:56

Method Reference(s): EPA 8081B

EPA 3546

Preparation Date: 10/16/2020

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Report Prepared Friday, October 23, 2020



Lab Project ID: 204965

Client: **NWEC&C**

Project Reference: 20-179

Sample Identifier: JF Krantz Stock Pile #1

Lab Sample ID: 204965-01

Date Sampled: 10/15/2020

Matrix: Soil

Date Received: 10/15/2020

Semi-Volatile Organics (Acid/Base Neutrals)

Analyte	Result	Units	Qualifier	Date Analyzed
1,1-Biphenyl	< 301	ug/Kg		10/16/2020 17:08
1,2,4,5-Tetrachlorobenzene	< 301	ug/Kg		10/16/2020 17:08
1,2,4-Trichlorobenzene	< 301	ug/Kg		10/16/2020 17:08
1,2-Dichlorobenzene	< 301	ug/Kg		10/16/2020 17:08
1,3-Dichlorobenzene	< 301	ug/Kg		10/16/2020 17:08
1,4-Dichlorobenzene	< 301	ug/Kg		10/16/2020 17:08
2,2-Oxybis (1-chloropropane)	< 301	ug/Kg		10/16/2020 17:08
2,3,4,6-Tetrachlorophenol	< 301	ug/Kg		10/16/2020 17:08
2,4,5-Trichlorophenol	< 301	ug/Kg		10/16/2020 17:08
2,4,6-Trichlorophenol	< 301	ug/Kg		10/16/2020 17:08
2,4-Dichlorophenol	< 301	ug/Kg		10/16/2020 17:08
2,4-Dimethylphenol	< 301	ug/Kg		10/16/2020 17:08
2,4-Dinitrophenol	< 1200	ug/Kg		10/16/2020 17:08
2,4-Dinitrotoluene	< 301	ug/Kg		10/16/2020 17:08
2,6-Dinitrotoluene	< 301	ug/Kg		10/16/2020 17:08
2-Chloronaphthalene	< 301	ug/Kg		10/16/2020 17:08
2-Chlorophenol	< 301	ug/Kg		10/16/2020 17:08
2-Methylnaphthalene	< 301	ug/Kg		10/16/2020 17:08
2-Methylphenol	< 301	ug/Kg		10/16/2020 17:08
2-Nitroaniline	< 301	ug/Kg		10/16/2020 17:08
2-Nitrophenol	< 301	ug/Kg		10/16/2020 17:08
3&4-Methylphenol	356	ug/Kg		10/16/2020 17:08
3,3'-Dichlorobenzidine	< 301	ug/Kg		10/16/2020 17:08

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Report Prepared Friday, October 23, 2020



Lab Project ID: 204965

Client: NWEC&C

Project Reference: 20-179

Sample Identifier: JF Krantz Stock Pile #1

Lab Sample ID: 204965-01

Date Sampled: 10/15/2020

Matrix: Soil

Date Received: 10/15/2020

3-Nitroaniline	< 301	ug/Kg	10/16/2020 17:08
4,6-Dinitro-2-methylphenol	< 602	ug/Kg	10/16/2020 17:08
4-Bromophenyl phenyl ether	< 301	ug/Kg	10/16/2020 17:08
4-Chloro-3-methylphenol	< 301	ug/Kg	10/16/2020 17:08
4-Chloroaniline	< 301	ug/Kg	10/16/2020 17:08
4-Chlorophenyl phenyl ether	< 301	ug/Kg	10/16/2020 17:08
4-Nitroaniline	< 301	ug/Kg	10/16/2020 17:08
4-Nitrophenol	< 301	ug/Kg	10/16/2020 17:08
Acenaphthene	< 301	ug/Kg	10/16/2020 17:08
Acenaphthylene	< 301	ug/Kg	10/16/2020 17:08
Acetophenone	< 301	ug/Kg	10/16/2020 17:08
Anthracene	< 301	ug/Kg	10/16/2020 17:08
Atrazine	< 301	ug/Kg	10/16/2020 17:08
Benzaldehyde	< 301	ug/Kg	10/16/2020 17:08
Benzo (a) anthracene	< 301	ug/Kg	10/16/2020 17:08
Benzo (a) pyrene	< 301	ug/Kg	10/16/2020 17:08
Benzo (b) fluoranthene	< 301	ug/Kg	10/16/2020 17:08
Benzo (g,h,i) perylene	< 301	ug/Kg	10/16/2020 17:08
Benzo (k) fluoranthene	< 301	ug/Kg	10/16/2020 17:08
Bis (2-chloroethoxy) methane	< 301	ug/Kg	10/16/2020 17:08
Bis (2-chloroethyl) ether	< 301	ug/Kg	10/16/2020 17:08
Bis (2-ethylhexyl) phthalate	< 301	ug/Kg	10/16/2020 17:08
Butylbenzylphthalate	< 301	ug/Kg	10/16/2020 17:08
Caprolactam	< 301	ug/Kg	10/16/2020 17:08
Carbazole	< 301	ug/Kg	10/16/2020 17:08

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Report Prepared Friday, October 23, 2020



Lab Project ID: 204965

Client: NWEC&C

Project Reference: 20-179

Sample Identifier:	JF Krantz Stock Pile #1			
Lab Sample ID:	204965-01		Date Sampled:	10/15/2020
Matrix:	Soil		Date Received:	10/15/2020
Chrysene	< 301	ug/Kg		10/16/2020 17:08
Dibenz (a,h) anthracene	< 301	ug/Kg		10/16/2020 17:08
Dibenzofuran	< 301	ug/Kg		10/16/2020 17:08
Diethyl phthalate	< 301	ug/Kg		10/16/2020 17:08
Dimethyl phthalate	< 301	ug/Kg		10/16/2020 17:08
Di-n-butyl phthalate	< 301	ug/Kg		10/16/2020 17:08
Di-n-octylphthalate	< 301	ug/Kg		10/16/2020 17:08
Fluoranthene	266	ug/Kg	J	10/16/2020 17:08
Fluorene	< 301	ug/Kg		10/16/2020 17:08
Hexachlorobenzene	< 301	ug/Kg		10/16/2020 17:08
Hexachlorobutadiene	< 301	ug/Kg		10/16/2020 17:08
Hexachlorocyclopentadiene	< 1200	ug/Kg		10/16/2020 17:08
Hexachloroethane	< 301	ug/Kg		10/16/2020 17:08
Indeno (1,2,3-cd) pyrene	< 301	ug/Kg		10/16/2020 17:08
Isophorone	< 301	ug/Kg		10/16/2020 17:08
Naphthalene	< 301	ug/Kg		10/16/2020 17:08
Nitrobenzene	< 301	ug/Kg		10/16/2020 17:08
N-Nitroso-di-n-propylamine	< 301	ug/Kg		10/16/2020 17:08
N-Nitrosodiphenylamine	< 301	ug/Kg		10/16/2020 17:08
Pentachlorophenol	< 602	ug/Kg		10/16/2020 17:08
Phenanthrene	< 301	ug/Kg		10/16/2020 17:08
Phenol	< 301	ug/Kg		10/16/2020 17:08
Pyrene	234	ug/Kg	J	10/16/2020 17:08

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Report Prepared Friday, October 23, 2020



Lab Project ID: 204965

Client: NWEC&C

Project Reference: 20-179

Sample Identifier: JF Krantz Stock Pile #1

Lab Sample ID: 204965-01

Date Sampled: 10/15/2020

Matrix: Soil

Date Received: 10/15/2020

<u>Surrogate</u>	<u>Percent Recovery</u>	<u>Limits</u>	<u>Outliers</u>	<u>Date Analyzed</u>	
2,4,6-Tribromophenol	57.3	40.1 - 84.5		10/16/2020	17:08
2-Fluorobiphenyl	57.7	43.3 - 79.9		10/16/2020	17:08
2-Fluorophenol	55.6	42.4 - 75.9		10/16/2020	17:08
Nitrobenzene-d5	59.9	39.8 - 77.5		10/16/2020	17:08
Phenol-d5	56.3	43 - 78.8		10/16/2020	17:08
Terphenyl-d14	63.5	43.1 - 87.7		10/16/2020	17:08

Method Reference(s): EPA 8270D
EPA 3546

Preparation Date: 10/16/2020

Data File: B50116.D

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Report Prepared Friday, October 23, 2020



Lab Project ID: 204965

Client: NWEC&C

Project Reference: 20-179

Sample Identifier: JF Krantz Stock Pile #1

Lab Sample ID: 204965-01

Date Sampled: 10/15/2020

Matrix: Soil

Date Received: 10/15/2020

Volatile Organics

Analyte	Result	Units	Qualifier	Date Analyzed
1,1,1-Trichloroethane	< 4.30	ug/Kg		10/16/2020 12:56
1,1,2,2-Tetrachloroethane	< 4.30	ug/Kg		10/16/2020 12:56
1,1,2-Trichloroethane	< 4.30	ug/Kg		10/16/2020 12:56
1,1-Dichloroethane	< 4.30	ug/Kg		10/16/2020 12:56
1,1-Dichloroethene	< 4.30	ug/Kg		10/16/2020 12:56
1,2,3-Trichlorobenzene	< 10.8	ug/Kg		10/16/2020 12:56
1,2,4-Trichlorobenzene	< 10.8	ug/Kg		10/16/2020 12:56
1,2,4-Trimethylbenzene	< 4.30	ug/Kg		10/16/2020 12:56
1,2-Dibromo-3-Chloropropane	< 21.5	ug/Kg		10/16/2020 12:56
1,2-Dibromoethane	< 4.30	ug/Kg		10/16/2020 12:56
1,2-Dichlorobenzene	< 4.30	ug/Kg		10/16/2020 12:56
1,2-Dichloroethane	< 4.30	ug/Kg		10/16/2020 12:56
1,2-Dichloropropane	< 4.30	ug/Kg		10/16/2020 12:56
1,3,5-Trimethylbenzene	< 4.30	ug/Kg		10/16/2020 12:56
1,3-Dichlorobenzene	< 4.30	ug/Kg		10/16/2020 12:56
1,4-Dichlorobenzene	< 4.30	ug/Kg		10/16/2020 12:56
1,4-Dioxane	< 43.0	ug/Kg		10/16/2020 12:56
2-Butanone	< 21.5	ug/Kg		10/16/2020 12:56
2-Hexanone	< 10.8	ug/Kg		10/16/2020 12:56
4-Methyl-2-pentanone	< 10.8	ug/Kg		10/16/2020 12:56
Acetone	< 21.5	ug/Kg		10/16/2020 12:56
Benzene	< 4.30	ug/Kg		10/16/2020 12:56
Bromochloromethane	< 10.8	ug/Kg		10/16/2020 12:56

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Client: NWEC&C

Project Reference: 20-179

Sample Identifier: JF Krantz Stock Pile #1

Lab Sample ID: 204965-01

Date Sampled: 10/15/2020

Matrix: Soil

Date Received: 10/15/2020

Bromodichloromethane	< 4.30	ug/Kg	10/16/2020 12:56
Bromoform	< 10.8	ug/Kg	10/16/2020 12:56
Bromomethane	< 4.30	ug/Kg	10/16/2020 12:56
Carbon disulfide	< 4.30	ug/Kg	10/16/2020 12:56
Carbon Tetrachloride	< 4.30	ug/Kg	10/16/2020 12:56
Chlorobenzene	< 4.30	ug/Kg	10/16/2020 12:56
Chloroethane	< 4.30	ug/Kg	10/16/2020 12:56
Chloroform	< 4.30	ug/Kg	10/16/2020 12:56
Chloromethane	< 4.30	ug/Kg	10/16/2020 12:56
cis-1,2-Dichloroethene	< 4.30	ug/Kg	10/16/2020 12:56
cis-1,3-Dichloropropene	< 4.30	ug/Kg	10/16/2020 12:56
Cyclohexane	< 21.5	ug/Kg	10/16/2020 12:56
Dibromochloromethane	< 4.30	ug/Kg	10/16/2020 12:56
Dichlorodifluoromethane	< 4.30	ug/Kg	10/16/2020 12:56
Ethylbenzene	< 4.30	ug/Kg	10/16/2020 12:56
Freon 113	< 4.30	ug/Kg	10/16/2020 12:56
Isopropylbenzene	< 4.30	ug/Kg	10/16/2020 12:56
m,p-Xylene	< 4.30	ug/Kg	10/16/2020 12:56
Methyl acetate	< 4.30	ug/Kg	10/16/2020 12:56
Methyl tert-butyl Ether	< 4.30	ug/Kg	10/16/2020 12:56
Methylcyclohexane	< 4.30	ug/Kg	10/16/2020 12:56
Methylene chloride	< 10.8	ug/Kg	10/16/2020 12:56
Naphthalene	< 10.8	ug/Kg	10/16/2020 12:56
n-Butylbenzene	< 4.30	ug/Kg	10/16/2020 12:56
n-Propylbenzene	< 4.30	ug/Kg	10/16/2020 12:56

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Lab Project ID: 204965

Client: NWEC&C

Project Reference: 20-179

Sample Identifier: JF Krantz Stock Pile #1

Lab Sample ID: 204965-01

Date Sampled: 10/15/2020

Matrix: Soil

Date Received: 10/15/2020

o-Xylene	< 4.30	ug/Kg	10/16/2020 12:56
p-Isopropyltoluene	< 4.30	ug/Kg	10/16/2020 12:56
sec-Butylbenzene	< 4.30	ug/Kg	10/16/2020 12:56
Styrene	< 10.8	ug/Kg	10/16/2020 12:56
tert-Butylbenzene	< 4.30	ug/Kg	10/16/2020 12:56
Tetrachloroethene	< 4.30	ug/Kg	10/16/2020 12:56
Toluene	< 4.30	ug/Kg	10/16/2020 12:56
trans-1,2-Dichloroethene	< 4.30	ug/Kg	10/16/2020 12:56
trans-1,3-Dichloropropene	< 4.30	ug/Kg	10/16/2020 12:56
Trichloroethene	< 4.30	ug/Kg	10/16/2020 12:56
Trichlorofluoromethane	< 4.30	ug/Kg	10/16/2020 12:56
Vinyl chloride	< 4.30	ug/Kg	10/16/2020 12:56

Surrogate	Percent Recovery	Limits	Outliers	Date Analyzed
1,2-Dichloroethane-d4	92.6	61 - 146		10/16/2020 12:56
4-Bromofluorobenzene	61.8	48.8 - 138		10/16/2020 12:56
Pentafluorobenzene	102	65.4 - 141		10/16/2020 12:56
Toluene-D8	84.7	62.8 - 133		10/16/2020 12:56

Internal standard outliers indicate probable matrix interference

Method Reference(s): EPA 8260C
EPA 5035A - L

Data File: x74078.D

This sample was not collected following SW846 5035A specifications. Accordingly, any Volatiles soil results that are less than 200 ug/Kg, including Non Detects, may be biased low, per ELAP method 5035 guidance document from 11/15/2012.

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Report Prepared Friday, October 23, 2020



Lab Project ID: 204965

Client: NWEC&C

Project Reference: 20-179

Sample Identifier: JF Krantz Stock Pile #1

Lab Sample ID: 204965-01

Date Sampled: 10/15/2020

Matrix: Soil

Date Received: 10/15/2020

Total Cyanide

<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>Qualifier</u>	<u>Date Analyzed</u>
Cyanide, Total	< 0.524	mg/Kg		10/16/2020

Method Reference(s): EPA 9014

EPA 9010C

Preparation Date: 10/19/2020

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Report Prepared Friday, October 23, 2020



Lab Project ID: 204965

Client: NWEC&C

Project Reference: 20-179

Sample Identifier: JF Krantz Stock Pile #1

Lab Sample ID: 204965-01

Date Sampled: 10/15/2020

Matrix: Soil

Date Received: 10/15/2020

Miscellaneous

<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>Qualifier</u>	<u>Date Analyzed</u>
Miscellaneous #1	In Progress	mg/Kg		
Method Reference(s):	N/A			

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Report Prepared Friday, October 23, 2020

1082



CHAIN OF CUSTODY

REPORT TO:		INVOICE TO:		LAB PROJECT ID														
CLIENT: <u>NW Contracting</u>	CLIENT:	ADDRESS:		<div style="font-size: 2em; font-weight: bold;">204965</div>														
ADDRESS: <u>3553 Crittenden Rd.</u>	ADDRESS:	CITY: STATE: ZIP:																
CITY: <u>Alden</u> STATE: <u>NY</u> ZIP: <u>14004</u>	CITY:	STATE: ZIP:		<div style="font-weight: bold;">Quotation #:</div>														
PHONE: <u>716-864-7474</u>	PHONE:	ATTN:																
ATTN: <u>Brice</u>	ATTN:			<div style="font-weight: bold;">Email:</div> <u>brice@nwcontracting.com</u>														
<div style="font-weight: bold;">PROJECT REFERENCE</div> <div style="font-size: 1.5em; font-weight: bold;">20-179</div>		<div style="font-weight: bold;">Matrix Codes:</div> <div style="display: flex; justify-content: space-between; font-size: 0.8em;"> <div>AQ - Aqueous Liquid NQ - Non-Aqueous Liquid</div> <div>WA - Water WG - Groundwater</div> <div>DW - Drinking Water WW - Wastewater</div> <div>SO - Soil SL - Sludge</div> <div>SD - Solid PT - Paint</div> <div>WP - Wipe CK - Caulk</div> <div>OL - Oil AR - Air</div> </div>																
		REQUESTED ANALYSIS																
DATE COLLECTED	TIME COLLECTED	COMPOSITE	GRAB	SAMPLE IDENTIFIER	MATRIX	CONTAINER	PFAS-DEP-10	Pt. 375 VOCs	Pt. 375 SVOCs	Pt. 375 Metals	Pt. 375 Pests	PCBs	Total cyanide	Hex. Chrome	Silver	PFAS	REMARKS	PARADIGM LAB SAMPLE NUMBER
10/15/20	11:20	X		JF Krantz Stock Pile #1	SO	5		X	X	X	X	X	X	X	X	X		
																	\$60.00 sampling fee	01

Turnaround Time		Report Supplements	
Availability contingent upon lab approval; additional fees may apply.			
Standard 5 day <input type="checkbox"/>	None Required <input type="checkbox"/>	None Required <input type="checkbox"/>	None Required <input type="checkbox"/>
10 day <input type="checkbox"/>	Batch QC <input type="checkbox"/>	Basic EDD <input type="checkbox"/>	
Rush 3 day <input type="checkbox"/>	Category A <input type="checkbox"/>	NYSDEC EDD <input checked="" type="checkbox"/>	
Rush 2 day <input checked="" type="checkbox"/>	Category B <input checked="" type="checkbox"/>		
Rush 1 day <input type="checkbox"/>			
Date Needed _____	Other <input type="checkbox"/>	Other EDD <input type="checkbox"/>	
please indicate date needed:	please indicate package needed:	please indicate EDD needed:	

<u>Brinn Zuck</u>	10/15/20 11:20	Total Cost: <div style="border: 1px solid black; width: 100px; height: 50px; display: flex; align-items: center; justify-content: center;"> </div>
Sampled By	Date/Time	
<u>Brinn Zuck</u>	10/15/20 11:20	P.I.F. <div style="border: 1px solid black; width: 100px; height: 50px; display: flex; align-items: center; justify-content: center;"> </div>
Relinquished By	Date/Time	
<u>Molly Vail</u>	10/15/20 15:44	
Received By	Date/Time	
<u>Molly Vail</u>	10/15/20 15:44	
Received @ Lab By	Date/Time	
<u>4°C rec'd</u>	10/15/20 15:40	

By signing this form, client agrees to Paradigm Terms and Conditions (reverse).

See additional page for sample conditions.

2062



Chain of Custody Supplement

Client: NW Contracting Completed by: Molyvail
 Lab Project ID: 204965 Date: 10/15/2020

Sample Condition Requirements

Per NELAC/ELAP 210/241/242/243/244

NELAC compliance with the sample condition requirements upon receipt			
Condition	Yes	No	N/A
Container Type	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/> 5035	<input type="checkbox"/>
Comments			
Transferred to method-compliant container	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Headspace (<1 mL)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Comments			
Preservation	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Comments			
Chlorine Absent (<0.10 ppm per test strip)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Comments			
Holding Time	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Comments			
Temperature	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/> not
Comments	4°C cool		
Compliant Sample Quantity/Type	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Comments	PFAS, Hg, Hex Chrome, Silvex Subbed directly to sub lab		



CHAIN OF CUSTODY

11148

REPORT TO:		INVOICE TO:		LAB PROJECT #:		CLIENT PROJECT #:						
COMPANY:	Paradigm Environmental	COMPANY:	Same									
ADDRESS:	179 Lake Avenue	ADDRESS:										
CITY:	Rochester	STATE:	NY	ZIP:	14608							
PHONE:		FAX:										
ATTN:	Reporting	ATTN:	Accounts Payable									
COMMENTS:	Please email results to reporting@paradigmenv.com											
PROJECT NAME/SITE NAME:		20-179										
<div style="display: flex; justify-content: space-between;"> <div> TURNAROUND TIME: (WORKING DAYS) <input type="checkbox"/> 1 <input checked="" type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 5 </div> <div> STD <input type="checkbox"/> OTHER <input type="checkbox"/> </div> </div>												
				Date Due:								
REQUESTED ANALYSIS												
DATE	TIME	COMPOSITE	GRAB	SAMPLE LOCATION/FIELD ID	MATRIX	CONTAINER	PFAS	Part 375 Mercury	Hex. Chrome	Silvex	REMARKS	PARADIGM LAB SAMPLE NUMBER
10/15/20	11:20	X		JF Krantz Stock Pile #1	SO	3	X	X	X	X		
											5 Day turn for the PFAS only.	
											Category B is required at standard turn around time.	

LAB USE ONLY BELOW THIS LINE

Sample Condition: Per NELAC/ELAP 210/241/242/243/244

Receipt Parameter	NELAC Compliance	
Container Type:	Y <input type="checkbox"/>	N <input type="checkbox"/>
Comments:		
Preservation:	Y <input type="checkbox"/>	N <input type="checkbox"/>
Comments:		
Holding Time:	Y <input type="checkbox"/>	N <input type="checkbox"/>
Comments:		
Temperature:	Y <input type="checkbox"/>	N <input type="checkbox"/>
Comments:		

Client	
Sampled By	Date/Time
<i>Brian Zuck</i>	10/15/20
Relinquished By	Date/Time
Received By	Date/Time
Received By	Date/Time
Received @ Lab By	Date/Time

Total Cost:

P.I.F.



ANALYTICAL REPORT

Lab Number:	L2044315
Client:	Paradigm Environmental Services 179 Lake Avenue Rochester, NY 14608
ATTN:	Jane Daloia
Phone:	(585) 647-2530
Project Name:	20-179
Project Number:	20-179
Report Date:	10/22/20

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: 20-179**Project Number:** 20-179**Lab Number:** L2044315**Report Date:** 10/22/20

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L2044315-01	JF KRANTZ STOCK PILE #1	SOIL	Not Specified	10/15/20 11:20	10/15/20

Project Name: 20-179
Project Number: 20-179

Lab Number: L2044315
Report Date: 10/22/20

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: 20-179
Project Number: 20-179

Lab Number: L2044315
Report Date: 10/22/20

Case Narrative (continued)

Report Submission

October 22, 2020: This final report includes the results of all requested analyses.

October 19, 2020: This is a preliminary report.

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

Perfluorinated Alkyl Acids by Isotope Dilution

L2044315-01: The sample was re-extracted within holding time due to QC failures in the original extraction. The results of the re-extraction are reported.

L2044315-01: Extracted Internal Standard recoveries were outside the acceptance criteria for individual analytes. Please refer to the surrogate section of the report for details.

The Extracted Internal Standard recovery for the WG1424371-1 Method Blank, associated with L2044315-01, is below the acceptance criteria for Perfluoro[13C8]Octanesulfonamide (M8FOSA) (less than 10%); however, all associated samples are non-detect for Perfluorooctanesulfonamide (FOSA) and have an acceptable Extracted Internal Standard recovery for M8FOSA; therefore, no further actions were taken.

WG1424371-2: The Extracted Internal Standard recovery is below the acceptance criteria for Perfluoro[13C8]Octanesulfonamide (M8FOSA) (less than 10%); however, all associated target analytes are within criteria; therefore, no further action was taken.

Total Metals

The WG1423055-3 MS recovery, performed on L2044315-01, is outside the acceptance criteria for mercury (122%). A post digestion spike was performed and was within acceptance criteria.

Hexavalent Chromium

The WG1423133-2 LCS recovery for chromium, hexavalent (74%), associated with L2044315-01, is outside our in-house acceptance criteria, but within the vendor-certified acceptance limits. The results of the original

Project Name: 20-179**Lab Number:** L2044315**Project Number:** 20-179**Report Date:** 10/22/20**Case Narrative (continued)**

analyses are reported.

The WG1423133-4 Insoluble MS recovery for chromium, hexavalent (18%), performed on L2044315-01, is outside the acceptance criteria. The Soluble MS recovery for chromium, hexavalent (0%) was also outside criteria. This has been attributed to matrix interference. A post-spike was performed with a recovery of 95%.

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:



Kelly Stenstrom

Title: Technical Director/Representative

Date: 10/22/20

ORGANICS

SEMIVOLATILES

Project Name: 20-179

Lab Number: L2044315

Project Number: 20-179

Report Date: 10/22/20

SAMPLE RESULTS

Lab ID: L2044315-01 RE\R
 Client ID: JF KRANTZ STOCK PILE #1
 Sample Location: Not Specified

Date Collected: 10/15/20 11:20
 Date Received: 10/15/20
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 134,LCMSMS-ID
 Analytical Date: 10/22/20 12:22
 Analyst: JW
 Percent Solids: 85%

Extraction Method: ALPHA 23528
 Extraction Date: 10/20/20 19:15

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab						
Perfluorobutanoic Acid (PFBA)	0.130	J	ug/kg	0.550	0.025	1
Perfluoropentanoic Acid (PFPeA)	0.061	J	ug/kg	0.550	0.051	1
Perfluorobutanesulfonic Acid (PFBS)	ND		ug/kg	0.550	0.043	1
Perfluorohexanoic Acid (PFHxA)	0.086	J	ug/kg	0.550	0.058	1
Perfluoroheptanoic Acid (PFHpA)	0.061	J	ug/kg	0.550	0.050	1
Perfluorohexanesulfonic Acid (PFHxS)	ND		ug/kg	0.550	0.067	1
Perfluorooctanoic Acid (PFOA)	0.271	J	ug/kg	0.550	0.046	1
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	ND		ug/kg	0.550	0.197	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		ug/kg	0.550	0.150	1
Perfluorononanoic Acid (PFNA)	0.091	J	ug/kg	0.550	0.083	1
Perfluorooctanesulfonic Acid (PFOS)	0.344	J	ug/kg	0.550	0.143	1
Perfluorodecanoic Acid (PFDA)	ND		ug/kg	0.550	0.074	1
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND		ug/kg	0.550	0.316	1
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	ND		ug/kg	0.550	0.222	1
Perfluoroundecanoic Acid (PFUnA)	ND		ug/kg	0.550	0.051	1
Perfluorodecanesulfonic Acid (PFDS)	ND		ug/kg	0.550	0.168	1
Perfluorooctanesulfonamide (FOSA)	ND		ug/kg	0.550	0.108	1
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND		ug/kg	0.550	0.093	1
Perfluorododecanoic Acid (PFDoA)	ND		ug/kg	0.550	0.077	1
Perfluorotridecanoic Acid (PFTrDA)	ND		ug/kg	0.550	0.225	1
Perfluorotetradecanoic Acid (PFTA)	ND		ug/kg	0.550	0.059	1
PFOA/PFOS, Total	0.615	J	ug/kg	0.550	0.046	1

Project Name: 20-179

Lab Number: L2044315

Project Number: 20-179

Report Date: 10/22/20

SAMPLE RESULTS

Lab ID: L2044315-01 RE\R
 Client ID: JF KRANTZ STOCK PILE #1
 Sample Location: Not Specified

Date Collected: 10/15/20 11:20
 Date Received: 10/15/20
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab						

Surrogate (Extracted Internal Standard)	% Recovery	Qualifier	Acceptance Criteria
Perfluoro[13C4]Butanoic Acid (MPFBA)	92		60-153
Perfluoro[13C5]Pentanoic Acid (M5PFPEA)	92		65-182
Perfluoro[2,3,4-13C3]Butanesulfonic Acid (M3PFBS)	102		70-151
Perfluoro[1,2,3,4,6-13C5]Hexanoic Acid (M5PFHxA)	91		61-147
Perfluoro[1,2,3,4-13C4]Heptanoic Acid (M4PFHpA)	91		62-149
Perfluoro[1,2,3-13C3]Hexanesulfonic Acid (M3PFHxS)	109		63-166
Perfluoro[13C8]Octanoic Acid (M8PFOA)	97		62-152
1H,1H,2H,2H-Perfluoro[1,2-13C2]Octanesulfonic Acid (M2-6:2FTS)	68		32-182
Perfluoro[13C9]Nonanoic Acid (M9PFNA)	99		61-154
Perfluoro[13C8]Octanesulfonic Acid (M8PFOS)	109		65-151
Perfluoro[1,2,3,4,5,6-13C6]Decanoic Acid (M6PFDA)	99		65-150
1H,1H,2H,2H-Perfluoro[1,2-13C2]Decanesulfonic Acid (M2-8:2FTS)	72		25-186
N-Deuteriomethylperfluoro-1-octanesulfonamidoacetic Acid (d3-NMeFOSAA)	37	Q	45-137
Perfluoro[1,2,3,4,5,6,7-13C7]Undecanoic Acid (M7-PFUDA)	102		64-158
Perfluoro[13C8]Octanesulfonamide (M8FOSA)	26		1-125
N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA)	55		42-136
Perfluoro[1,2-13C2]Dodecanoic Acid (MPFDOA)	91		56-148
Perfluoro[1,2-13C2]Tetradecanoic Acid (M2PFTEDA)	78		26-160

Project Name: 20-179

Project Number: 20-179

Lab Number: L2044315

Report Date: 10/22/20

Method Blank Analysis Batch Quality Control

Analytical Method: 134,LCMSMS-ID

Analytical Date: 10/22/20 11:32

Analyst: JW

Extraction Method: ALPHA 23528

Extraction Date: 10/20/20 19:15

Parameter	Result	Qualifier	Units	RL	MDL
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab for sample(s): 01 Batch: WG1424371-1					
Perfluorobutanoic Acid (PFBA)	ND		ug/kg	0.500	0.023
Perfluoropentanoic Acid (PFPeA)	ND		ug/kg	0.500	0.046
Perfluorobutanesulfonic Acid (PFBS)	ND		ug/kg	0.500	0.039
Perfluorohexanoic Acid (PFHxA)	ND		ug/kg	0.500	0.053
Perfluoroheptanoic Acid (PFHpA)	ND		ug/kg	0.500	0.045
Perfluorohexanesulfonic Acid (PFHxS)	ND		ug/kg	0.500	0.061
Perfluorooctanoic Acid (PFOA)	ND		ug/kg	0.500	0.042
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	ND		ug/kg	0.500	0.180
Perfluoroheptanesulfonic Acid (PFHpS)	ND		ug/kg	0.500	0.136
Perfluorononanoic Acid (PFNA)	ND		ug/kg	0.500	0.075
Perfluorooctanesulfonic Acid (PFOS)	ND		ug/kg	0.500	0.130
Perfluorodecanoic Acid (PFDA)	ND		ug/kg	0.500	0.067
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND		ug/kg	0.500	0.287
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	ND		ug/kg	0.500	0.202
Perfluoroundecanoic Acid (PFUnA)	ND		ug/kg	0.500	0.047
Perfluorodecanesulfonic Acid (PFDS)	ND		ug/kg	0.500	0.153
Perfluorooctanesulfonamide (FOSA)	ND		ug/kg	0.500	0.098
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND		ug/kg	0.500	0.085
Perfluorododecanoic Acid (PFDoA)	ND		ug/kg	0.500	0.070
Perfluorotridecanoic Acid (PFTrDA)	ND		ug/kg	0.500	0.204
Perfluorotetradecanoic Acid (PFTA)	ND		ug/kg	0.500	0.054
PFOA/PFOS, Total	ND		ug/kg	0.500	0.042

Project Name: 20-179

Project Number: 20-179

Lab Number: L2044315

Report Date: 10/22/20

Method Blank Analysis Batch Quality Control

Analytical Method: 134,LCMSMS-ID

Analytical Date: 10/22/20 11:32

Analyst: JW

Extraction Method: ALPHA 23528

Extraction Date: 10/20/20 19:15

Parameter	Result	Qualifier	Units	RL	MDL
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab for sample(s): 01 Batch: WG1424371-1					

Surrogate (Extracted Internal Standard)	%Recovery	Qualifier	Acceptance Criteria
Perfluoro[13C4]Butanoic Acid (MPFBA)	96		60-153
Perfluoro[13C5]Pentanoic Acid (M5PFPEA)	98		65-182
Perfluoro[2,3,4-13C3]Butanesulfonic Acid (M3PFBS)	105		70-151
Perfluoro[1,2,3,4,6-13C5]Hexanoic Acid (M5PFHxA)	95		61-147
Perfluoro[1,2,3,4-13C4]Heptanoic Acid (M4PFHpA)	96		62-149
Perfluoro[1,2,3-13C3]Hexanesulfonic Acid (M3PFHxS)	113		63-166
Perfluoro[13C8]Octanoic Acid (M8PFOA)	100		62-152
1H,1H,2H,2H-Perfluoro[1,2-13C2]Octanesulfonic Acid (M2-6:2FTS)	70		32-182
Perfluoro[13C9]Nonanoic Acid (M9PFNA)	104		61-154
Perfluoro[13C8]Octanesulfonic Acid (M8PFOS)	108		65-151
Perfluoro[1,2,3,4,5,6-13C6]Decanoic Acid (M6PFDA)	107		65-150
1H,1H,2H,2H-Perfluoro[1,2-13C2]Decanesulfonic Acid (M2-8:2FTS)	72		25-186
N-Deuteriomethylperfluoro-1-octanesulfonamidoacetic Acid (d3-NMeFOSAA)	75		45-137
Perfluoro[1,2,3,4,5,6,7-13C7]Undecanoic Acid (M7-PFUDA)	114		64-158
Perfluoro[13C8]Octanesulfonamide (M8FOSA)	7		1-125
N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA)	90		42-136
Perfluoro[1,2-13C2]Dodecanoic Acid (MPFDOA)	99		56-148
Perfluoro[1,2-13C2]Tetradecanoic Acid (M2PFTEDA)	87		26-160

Lab Control Sample Analysis

Batch Quality Control

Project Name: 20-179

Project Number: 20-179

Lab Number: L2044315

Report Date: 10/22/20

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab Associated sample(s): 01 Batch: WG1424371-2 WG1424371-3								
Perfluorobutanoic Acid (PFBA)	101		115		71-135	13		30
Perfluoropentanoic Acid (PFPeA)	97		109		69-132	12		30
Perfluorobutanesulfonic Acid (PFBS)	88		101		72-128	14		30
Perfluorohexanoic Acid (PFHxA)	98		112		70-132	13		30
Perfluoroheptanoic Acid (PFHpA)	98		114		71-131	15		30
Perfluorohexanesulfonic Acid (PFHxS)	97		109		67-130	12		30
Perfluorooctanoic Acid (PFOA)	100		113		69-133	12		30
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	114		126		64-140	10		30
Perfluoroheptanesulfonic Acid (PFHpS)	101		115		70-132	13		30
Perfluorononanoic Acid (PFNA)	99		110		72-129	11		30
Perfluorooctanesulfonic Acid (PFOS)	108		122		68-136	12		30
Perfluorodecanoic Acid (PFDA)	98		111		69-133	12		30
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	114		130		65-137	13		30
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	98		117		63-144	18		30
Perfluoroundecanoic Acid (PFUnA)	99		114		64-136	14		30
Perfluorodecanesulfonic Acid (PFDS)	115		130		59-134	12		30
Perfluorooctanesulfonamide (FOSA)	90		116		67-137	25		30
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	110		119		61-139	8		30
Perfluorododecanoic Acid (PFDoA)	103		123		69-135	18		30
Perfluorotridecanoic Acid (PFTTrDA)	102		121		66-139	17		30
Perfluorotetradecanoic Acid (PFTA)	99		112		69-133	12		30

Lab Control Sample Analysis

Batch Quality Control

Project Name: 20-179

Project Number: 20-179

Lab Number: L2044315

Report Date: 10/22/20

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab Associated sample(s): 01 Batch: WG1424371-2 WG1424371-3								

Surrogate (Extracted Internal Standard)	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
Perfluoro[13C4]Butanoic Acid (MPFBA)	104		104		60-153
Perfluoro[13C5]Pentanoic Acid (M5PFPEA)	102		103		65-182
Perfluoro[2,3,4-13C3]Butanesulfonic Acid (M3PFBS)	107		108		70-151
Perfluoro[1,2,3,4,6-13C5]Hexanoic Acid (M5PFHxA)	102		103		61-147
Perfluoro[1,2,3,4-13C4]Heptanoic Acid (M4PFHpA)	101		102		62-149
Perfluoro[1,2,3-13C3]Hexanesulfonic Acid (M3PFHxS)	115		117		63-166
Perfluoro[13C8]Octanoic Acid (M8PFOA)	103		105		62-152
1H,1H,2H,2H-Perfluoro[1,2-13C2]Octanesulfonic Acid (M2-6:2FTS)	73		76		32-182
Perfluoro[13C9]Nonanoic Acid (M9PFNA)	107		112		61-154
Perfluoro[13C8]Octanesulfonic Acid (M8PFOS)	110		111		65-151
Perfluoro[1,2,3,4,5,6-13C6]Decanoic Acid (M6PFDA)	106		110		65-150
1H,1H,2H,2H-Perfluoro[1,2-13C2]Decanesulfonic Acid (M2-8:2FTS)	74		73		25-186
N-Deuteriomethylperfluoro-1-octanesulfonamidoacetic Acid (d3-NMeFOSAA)	83		87		45-137
Perfluoro[1,2,3,4,5,6,7-13C7]Undecanoic Acid (M7-PFUDA)	109		111		64-158
Perfluoro[13C8]Octanesulfonamide (M8FOSA)	7		11		1-125
N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA)	86		92		42-136
Perfluoro[1,2-13C2]Dodecanoic Acid (MPFDOA)	101		106		56-148
Perfluoro[1,2-13C2]Tetradecanoic Acid (M2PFTEDA)	86		93		26-160

PESTICIDES

Project Name: 20-179**Lab Number:** L2044315**Project Number:** 20-179**Report Date:** 10/22/20**SAMPLE RESULTS**

Lab ID: L2044315-01
 Client ID: JF KRANTZ STOCK PILE #1
 Sample Location: Not Specified

Date Collected: 10/15/20 11:20
 Date Received: 10/15/20
 Field Prep: Not Specified

Sample Depth:
 Matrix: Soil
 Analytical Method: 1,8151A
 Analytical Date: 10/18/20 17:30
 Analyst: JMC
 Percent Solids: 85%
 Methylation Date: 10/17/20 12:35

Extraction Method: EPA 8151A
 Extraction Date: 10/16/20 23:46

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Chlorinated Herbicides by GC - Westborough Lab							
2,4,5-TP (Silvex)	ND		ug/kg	191	5.09	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
DCAA	91		30-150	A
DCAA	88		30-150	B

Project Name: 20-179

Project Number: 20-179

Lab Number: L2044315

Report Date: 10/22/20

Method Blank Analysis Batch Quality Control

Analytical Method: 1,8151A
 Analytical Date: 10/18/20 16:36
 Analyst: JMC

Extraction Method: EPA 8151A
 Extraction Date: 10/16/20 23:46

Methylation Date: 10/17/20 12:35

Parameter	Result	Qualifier	Units	RL	MDL	Column
Chlorinated Herbicides by GC - Westborough Lab for sample(s): 01 Batch: WG1423164-1						
2,4,5-TP (Silvex)	ND		ug/kg	166	4.41	A

Surrogate	%Recovery	Qualifier	Acceptance Criteria	Column
DCAA	92		30-150	A
DCAA	92		30-150	B

Lab Control Sample Analysis Batch Quality Control

Project Name: 20-179

Project Number: 20-179

Lab Number: L2044315

Report Date: 10/22/20

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits	Column
Chlorinated Herbicides by GC - Westborough Lab Associated sample(s): 01 Batch: WG1423164-2 WG1423164-3									
2,4,5-TP (Silvex)	97		80		30-150	19		30	A

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria	Column
DCAA	91		71		30-150	A
DCAA	89		73		30-150	B

METALS

Project Name: 20-179**Lab Number:** L2044315**Project Number:** 20-179**Report Date:** 10/22/20**SAMPLE RESULTS**

Lab ID: L2044315-01

Date Collected: 10/15/20 11:20

Client ID: JF KRANTZ STOCK PILE #1

Date Received: 10/15/20

Sample Location: Not Specified

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Percent Solids: 85%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Mercury, Total	ND		mg/kg	0.075	0.049	1	10/16/20 21:50	10/17/20 11:43	EPA 7471B	1,7471B	AL



Project Name: 20-179

Lab Number: L2044315

Project Number: 20-179

Report Date: 10/22/20

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 Batch: WG1423055-1										
Mercury, Total	ND		mg/kg	0.083	0.054	1	10/16/20 21:50	10/17/20 11:36	1,7471B	AL

Prep Information

Digestion Method: EPA 7471B

Lab Control Sample Analysis Batch Quality Control

Project Name: 20-179

Project Number: 20-179

Lab Number: L2044315

Report Date: 10/22/20

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01 Batch: WG1423055-2 SRM Lot Number: D109-540								
Mercury, Total	96		-		60-140	-		

Matrix Spike Analysis

Batch Quality Control

Project Name: 20-179

Lab Number: L2044315

Project Number: 20-179

Report Date: 10/22/20

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 QC Batch ID: WG1423055-3 QC Sample: L2044315-01 Client ID: JF KRANTZ STOCK PILE #1												
Mercury, Total	ND	0.159	0.194	122	Q	-	-		80-120	-		20

Lab Duplicate Analysis
*Batch Quality Control***Project Name:** 20-179**Project Number:** 20-179**Lab Number:** L2044315**Report Date:** 10/22/20

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01 QC Batch ID: WG1423055-4 QC Sample: L2044315-01 Client ID: JF KRANTZ STOCK PILE #1						
Mercury, Total	ND	0.058J	mg/kg	NC		20

INORGANICS & MISCELLANEOUS

Project Name: 20-179

Project Number: 20-179

Lab Number: L2044315

Report Date: 10/22/20

SAMPLE RESULTS

Lab ID: L2044315-01

Client ID: JF KRANTZ STOCK PILE #1

Sample Location: Not Specified

Date Collected: 10/15/20 11:20

Date Received: 10/15/20

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	85.2		%	0.100	NA	1	-	10/16/20 13:35	121,2540G	RI
Chromium, Hexavalent	ND		mg/kg	0.939	0.188	1	10/17/20 00:01	10/18/20 16:42	1,7196A	JW



Project Name: 20-179

Lab Number: L2044315

Project Number: 20-179

Report Date: 10/22/20

Method Blank Analysis
Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab for sample(s): 01 Batch: WG1423133-1										
Chromium, Hexavalent	ND		mg/kg	0.800	0.160	1	10/17/20 00:01	10/18/20 16:31	1,7196A	JW

Lab Control Sample Analysis

Batch Quality Control

Project Name: 20-179

Project Number: 20-179

Lab Number: L2044315

Report Date: 10/22/20

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01 Batch: WG1423133-2								
Chromium, Hexavalent	74	Q	-		80-120	-		20

Matrix Spike Analysis

Batch Quality Control

Project Name: 20-179

Lab Number: L2044315

Project Number: 20-179

Report Date: 10/22/20

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG1423133-4 QC Sample: L2044315-01 Client ID: JF KRANTZ STOCK PILE #1												
Chromium, Hexavalent	ND	889	162	18	Q	-	-		75-125	-		20

Lab Duplicate Analysis

Batch Quality Control

Project Name: 20-179

Project Number: 20-179

Lab Number: L2044315

Report Date: 10/22/20

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG1422999-1 QC Sample: L2044300-06 Client ID: DUP Sample						
Solids, Total	93.8	93.4	%	0		20
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG1423133-6 QC Sample: L2044315-01 Client ID: JF KRANTZ STOCK PILE #1						
Chromium, Hexavalent	ND	ND	mg/kg	NC		20

Project Name: 20-179**Lab Number:** L2044315**Project Number:** 20-179**Report Date:** 10/22/20**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(*)
L2044315-01A	Plastic 2oz unpreserved for TS	A	NA		5.6	Y	Absent		HG-T(28)
L2044315-01B	Glass 120ml/4oz unpreserved	A	NA		5.6	Y	Absent		HERB-APA(14),TS(7),HEXCR-7196(30)
L2044315-01C	Plastic 8oz unpreserved	A	NA		5.6	Y	Absent		A2-NY-537-ISOTOPE(14)

Project Name: 20-179

Project Number: 20-179

Serial_No:10222014:46
Lab Number: L2044315

Report Date: 10/22/20

PFAS PARAMETER SUMMARY

Parameter	Acronym	CAS Number
PERFLUOROALKYL CARBOXYLIC ACIDS (PFCAs)		
Perfluorooctadecanoic Acid	PFODA	16517-11-6
Perfluorohexadecanoic Acid	PFHxDA	67905-19-5
Perfluorotetradecanoic Acid	PFTA	376-06-7
Perfluorotridecanoic Acid	PFTrDA	72629-94-8
Perfluorododecanoic Acid	PFDoA	307-55-1
Perfluoroundecanoic Acid	PFUnA	2058-94-8
Perfluorodecanoic Acid	PFDA	335-76-2
Perfluorononanoic Acid	PFNA	375-95-1
Perfluorooctanoic Acid	PFOA	335-67-1
Perfluoroheptanoic Acid	PFHpA	375-85-9
Perfluorohexanoic Acid	PFHxA	307-24-4
Perfluoropentanoic Acid	PFPeA	2706-90-3
Perfluorobutanoic Acid	PFBA	375-22-4
PERFLUOROALKYL SULFONIC ACIDS (PFSAs)		
Perfluorododecanesulfonic Acid	PFDoDS	79780-39-5
Perfluorodecanesulfonic Acid	PFDS	335-77-3
Perfluorononanesulfonic Acid	PFNS	68259-12-1
Perfluorooctanesulfonic Acid	PFOS	1763-23-1
Perfluoroheptanesulfonic Acid	PFHpS	375-92-8
Perfluorohexanesulfonic Acid	PFHxS	355-46-4
Perfluoropentanesulfonic Acid	PFPeS	2706-91-4
Perfluorobutanesulfonic Acid	PFBS	375-73-5
FLUOROTELOMERS		
1H,1H,2H,2H-Perfluorododecanesulfonic Acid	10:2FTS	120226-60-0
1H,1H,2H,2H-Perfluorodecanesulfonic Acid	8:2FTS	39108-34-4
1H,1H,2H,2H-Perfluorooctanesulfonic Acid	6:2FTS	27619-97-2
1H,1H,2H,2H-Perfluorohexanesulfonic Acid	4:2FTS	757124-72-4
PERFLUOROALKANE SULFONAMIDES (FASAs)		
Perfluorooctanesulfonamide	FOSA	754-91-6
N-Ethyl Perfluorooctane Sulfonamide	NEtFOSA	4151-50-2
N-Methyl Perfluorooctane Sulfonamide	NMeFOSA	31506-32-8
PERFLUOROALKANE SULFONYL SUBSTANCES		
N-Ethyl Perfluorooctanesulfonamido Ethanol	NEtFOSE	1691-99-2
N-Methyl Perfluorooctanesulfonamido Ethanol	NMeFOSE	24448-09-7
N-Ethyl Perfluorooctanesulfonamidoacetic Acid	NEtFOSAA	2991-50-6
N-Methyl Perfluorooctanesulfonamidoacetic Acid	NMeFOSAA	2355-31-9
PER- and POLYFLUOROALKYL ETHER CARBOXYLIC ACIDS		
2,3,3,3-Tetrafluoro-2-[1,1,2,2,3,3,3-Heptafluoropropoxy]-Propanoic Acid	HFPO-DA	13252-13-6
4,8-Dioxa-3h-Perfluorononanoic Acid	ADONA	919005-14-4
CHLORO-PERFLUOROALKYL SULFONIC ACIDS		
11-Chloroeicosafluoro-3-Oxaundecane-1-Sulfonic Acid	11Cl-PF3OUdS	763051-92-9
9-Chlorohexadecafluoro-3-Oxanone-1-Sulfonic Acid	9Cl-PF3ONS	756426-58-1
PERFLUOROETHER SULFONIC ACIDS (PFESAs)		
Perfluoro(2-Ethoxyethane)Sulfonic Acid	PFEEESA	113507-82-7
PERFLUOROETHER/POLYETHER CARBOXYLIC ACIDS (PFPCAs)		
Perfluoro-3-Methoxypropanoic Acid	PFMPA	377-73-1
Perfluoro-4-Methoxybutanoic Acid	PFMBA	863090-89-5
Nonafluoro-3,6-Dioxaheptanoic Acid	NFDHA	151772-58-6

Project Name: 20-179**Lab Number:** L2044315**Project Number:** 20-179**Report Date:** 10/22/20

GLOSSARY

Acronyms

DL	- Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the limit of quantitation (LOQ). The DL includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
EDL	- Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).
EMPC	- Estimated Maximum Possible Concentration: The concentration that results from the signal present at the retention time of an analyte when the ions meet all of the identification criteria except the ion abundance ratio criteria. An EMPC is a worst-case estimate of the concentration.
EPA	- Environmental Protection Agency.
LCS	- Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LCSD	- Laboratory Control Sample Duplicate: Refer to LCS.
LFB	- Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LOD	- Limit of Detection: This value represents the level to which a target analyte can reliably be detected for a specific analyte in a specific matrix by a specific method. The LOD includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
LOQ	- Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.) Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
MDL	- Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
MS	- Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available. For Method 332.0, the spike recovery is calculated using the native concentration, including estimated values.
MSD	- Matrix Spike Sample Duplicate: Refer to MS.
NA	- Not Applicable.
NC	- Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.
NDPA/DPA	- N-Nitrosodiphenylamine/Diphenylamine.
NI	- Not Ignitable.
NP	- Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.
NR	- No Results: Term is utilized when 'No Target Compounds Requested' is reported for the analysis of Volatile or Semivolatile Organic TIC only requests.
RL	- Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
RPD	- Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.
SRM	- Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.
STLP	- Semi-dynamic Tank Leaching Procedure per EPA Method 1315.
TEF	- Toxic Equivalency Factors: The values assigned to each dioxin and furan to evaluate their toxicity relative to 2,3,7,8-TCDD.
TEQ	- Toxic Equivalent: The measure of a sample's toxicity derived by multiplying each dioxin and furan by its corresponding TEF and then summing the resulting values.
TIC	- Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

Report Format: DU Report with 'J' Qualifiers

Project Name: 20-179**Lab Number:** L2044315**Project Number:** 20-179**Report Date:** 10/22/20**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.

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'.

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. If a 'Total' result is requested, the results of its individual components will also be reported.

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.)

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 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

Report Format: DU Report with 'J' Qualifiers



Project Name: 20-179**Lab Number:** L2044315**Project Number:** 20-179**Report Date:** 10/22/20**Data Qualifiers**

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.

Report Format: DU Report with 'J' Qualifiers



Project Name: 20-179**Lab Number:** L2044315**Project Number:** 20-179**Report Date:** 10/22/20

REFERENCES

- 1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - VI, 2018.
- 121 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WEF. Standard Methods Online.
- 134 Determination of Selected Perfluorinated Alkyl Acids in Drinking Water by Solid Phase Extraction and Liquid Chromatography/Tandem Mass Spectrometry (LC/MS/MS) using Isotope Dilution. Alpha SOP 23528.

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.



Alpha Analytical, Inc.Facility: **Company-wide**Department: **Quality Assurance**Title: **Certificate/Approval Program Summary**ID No.: **17873**

Revision 17

Published Date: 4/28/2020 9:42:21 AM

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Certification Information

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

Westborough Facility**EPA 624/624.1:** m/p-xylene, o-xylene, Naphthalene**EPA 8260C:** NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.**EPA 8270D:** NPW: Dimethylnaphthalene, 1,4-Diphenylhydrazine; SCM: Dimethylnaphthalene, 1,4-Diphenylhydrazine.**SM4500:** NPW: Amenable Cyanide; SCM: Total Phosphorus, TKN, NO₂, NO₃.**Mansfield Facility****SM 2540D:** TSS**EPA 8082A:** NPW: PCB: 1, 5, 31, 87, 101, 110, 141, 151, 153, 180, 183, 187.**EPA TO-15:** Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.**EPA TO-12** Non-methane organics**EPA 3C** Fixed gases**Biological Tissue Matrix:** EPA 3050B

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

Westborough Facility:**Drinking Water****EPA 300.0:** Chloride, Nitrate-N, Fluoride, Sulfate; **EPA 353.2:** Nitrate-N, Nitrite-N; **SM4500NO3-F:** Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE, EPA 180.1, SM2130B, 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, **LACHAT 10-107-06-1-B:** Ammonia-N, **EPA 351.1, SM4500NO3-F, EPA 353.2:** Nitrate-N, **SM4500P-E, SM4500P-B, E, SM4500SO4-E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D, EPA 300:** Chloride, Sulfate, Nitrate.**EPA 624.1:** Volatile Halocarbons & Aromatics,**EPA 608.3:** Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs**EPA 625.1:** SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045:** PCB-Oil.**Microbiology:** **SM9223B-Colilert-QT; Enterolert-QT, SM9221E, EPA 1600, EPA 1603.****Mansfield Facility:****Drinking Water****EPA 200.7:** Al, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Na, Ag, Ca, Zn. **EPA 200.8:** Al, Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn. **EPA 245.1** Hg. **EPA 522.****Non-Potable Water****EPA 200.7:** Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn.**EPA 200.8:** Al, Sb, As, Be, Cd, Cr, Cu, Fe, Pb, Mn, Ni, K, Se, Ag, Na, TL, Zn.**EPA 245.1** Hg.**SM2340B**


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



CHAIN OF CUSTODY

L2044315

11148

	REPORT TO:		INVOICE TO:	
	COMPANY: Paradigm Environmental	COMPANY: Same	LAB PROJECT #:	CLIENT PROJECT #:
	ADDRESS: 179 Lake Avenue	ADDRESS:		
	CITY: Rochester STATE: NY ZIP: 14608	CITY: STATE: ZIP:	TURNAROUND TIME: (WORKING DAYS)	
	PHONE: FAX:	PHONE: FAX:	<input type="checkbox"/> 1 <input checked="" type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 5 <input type="checkbox"/> OTHER	
	ATTN: Reporting	ATTN: Accounts Payable	Date Due:	
PROJECT NAME/SITE NAME: 20-179		COMMENTS: Please email results to reporting@paradigmenv.com		

[illegible]

****LAB USE ONLY BELOW THIS LINE****

Sample Condition: Per NELAC/ELAP 210/241/242/243/244

Receipt Parameter		NELAC Compliance	
Container Type:		Y <input type="checkbox"/>	N <input type="checkbox"/>
Comments: _____			
Preservation:		Y <input type="checkbox"/>	N <input type="checkbox"/>
Comments: _____			
Holding Time:		Y <input type="checkbox"/>	N <input type="checkbox"/>
Comments: _____			
Temperature:		Y <input type="checkbox"/>	N <input type="checkbox"/>
Comments: _____			

Client	
Sampled By	Date/Time
Brain Zach	10/15/20 1:20
Relinquished By	Date/Time
Joel Lynn Gray (AAL)	10/15/20 13:20
Received By	Date/Time
Joel Lynn Gray (AAL)	10/15/20 13:20
Received By	Date/Time
Relinquished By	Date/Time
M. McNamee	10/16/20 01:30
Received @ Lab By	Date/Time

Total Cost:

P.I.F.

1

Waste Disposal Documentation

GENERATOR	NON-HAZARDOUS WASTE MANIFEST		1. Generator ID Number <div style="text-align: center;">Ma</div>	2. Page 1 of <div style="text-align: center;">1</div>	3. Emergency Response Phone <div style="text-align: center;">800-659-0556</div>	4. Waste Tracking Number <div style="text-align: center; font-size: 1.2em;">5154</div>	
	5. Generator's Name and Mailing Address NYS DOT c/o Haley Aldrich of NY 200 Town Center Dr, Suite 2 Rochester, NY 14623 Generator's Phone:				Generator's Site Address (if different than mailing address) Buffalo Skyway Project		
	6. Transporter 1 Company Name FINGER LAKES ENVIROTECH, LLC				U.S. EPA ID Number NYR00178632		
	7. Transporter 2 Company Name				U.S. EPA ID Number		
	8. Designated Facility Name and Site Address Steuben County Landfill - Leachale Turnpike Rd, Bath, NY 14810 Facility's Phone:				U.S. EPA ID Number		
TRANSPORTER	9. Waste Shipping Name and Description		10. Containers		11. Total Quantity	12. Unit Wt./Vol.	
			No.	Type			
	1. Groundwater/Sludge 1 BARAGA ST.		1	DM	15		
	2. Groundwater/Sludge 100 Rittling Blvd.		1	DM	8		
	3. Groundwater/Sludge 1376 South Park AVE		1	DM	1		
4.							
DESIGNATED FACILITY	13. Special Handling Instructions and Additional Information Baraga St - 13 Hydro Air - 6 Annex - 1 <div style="text-align: right; font-size: 1.2em;">Approval # 201006-1</div>						
	14. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.						
	Generator's/Offor's Printed/Typed Name Haley Aldrich, Tim Williams				Signature T. Williams		Month Day Year 10 08 2022
	15. International Shipments <input type="checkbox"/> Import to U.S. <input type="checkbox"/> Export from U.S. Port of entry/exit: Date leaving U.S.:						
	16. Transporter Acknowledgment of Receipt of Materials						
Transporter 1 Printed/Typed Name LAVERNE BROWN				Signature Laverne Brown		Month Day Year 10 8 20	
Transporter 2 Printed/Typed Name				Signature		Month Day Year	
17. Discrepancy							
17a. Discrepancy Indication Space <input type="checkbox"/> Quantity <input checked="" type="checkbox"/> Type <input type="checkbox"/> Residue <input type="checkbox"/> Partial Rejection <input type="checkbox"/> Full Rejection <div style="font-size: 1.5em; color: blue;">Changed to industrial sludge</div>							
17b. Alternate Facility (or Generator)						U.S. EPA ID Number	
Facility's Phone:							
17c. Signature of Alternate Facility (or Generator)						Month Day Year	
18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a							
Printed/Typed Name Jamie L. Herbert BCF				Signature Jamie L. Herbert		Month Day Year 10 9 22	

STEUBEN COUNTY D.P.W.
BATH LANDFI

Ticket #: 1080850

DATE IN: 10/09/20 DATE OUT: 10/09/20
TIME IN: 08:59 AM TIME OUT: 11:15 AM
ID-IN: JLH ID-OUT: JLH

Vehicle#: C6771
TT= Commercial BY WEIGHT
OT= Not Specified

Haul Acct#: TRSPILL
Haul Company: T&R SPILL RESPONSE 677

Bill Acct #: TRSPILL
Bill Company: T&R SPILL RESPONSE 677

Gross:	33380 lb	16.69 tn
Tare:	21740 lb	10.87 tn
Net:	11640 lb	5.82 tn

Material

Industrial Sludge	0
-------------------	---

Subtotal: \$256.08
Tax: \$0.00

Total:

\$256.08

Payment Method(s):

1 - Charge

\$256.08

Change: \$0.00

Driver:

DOT 5154

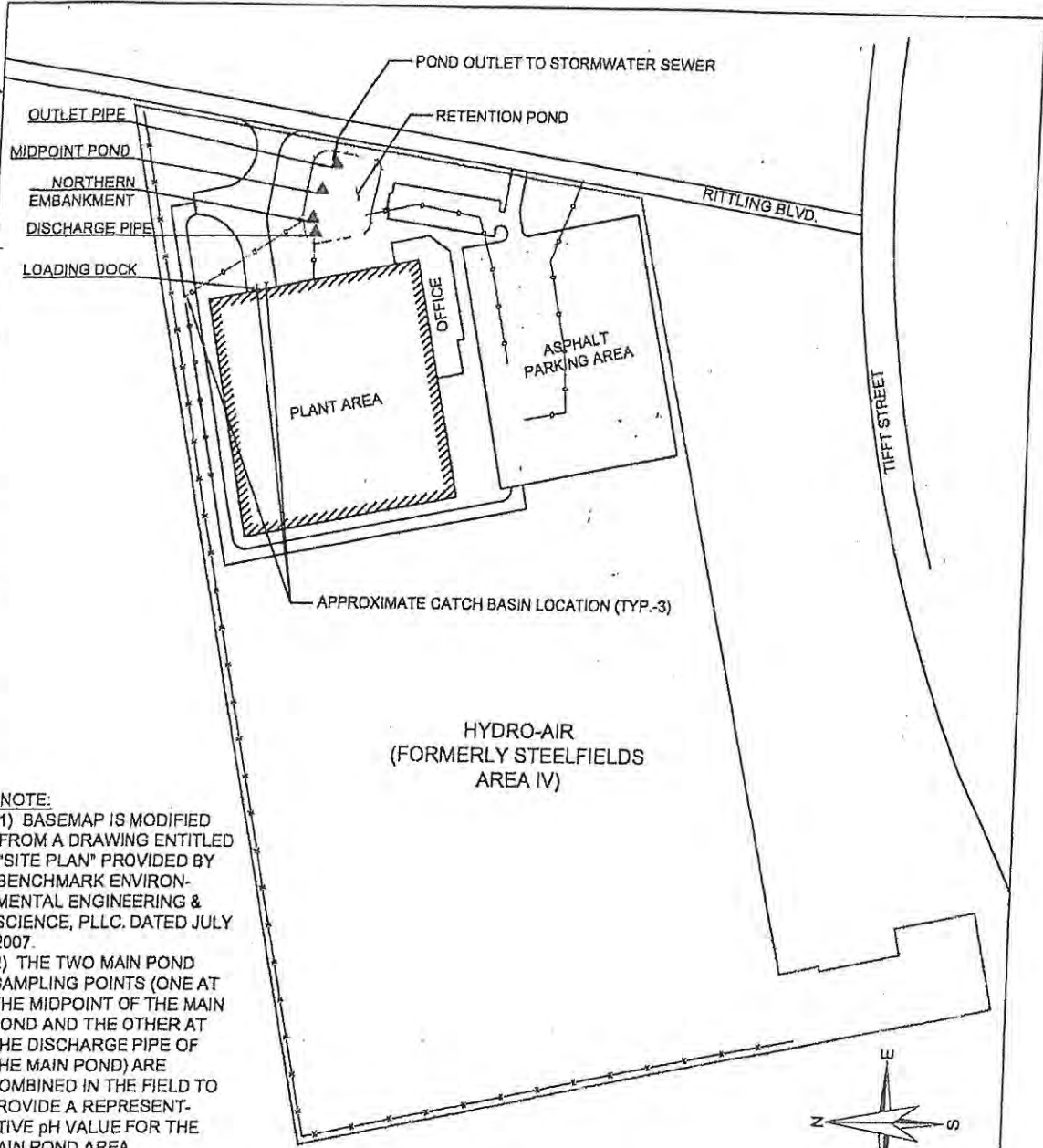
APPENDIX F

ASD System Maintenance and Monitoring Documentation

1-30-2020

9:00 AM

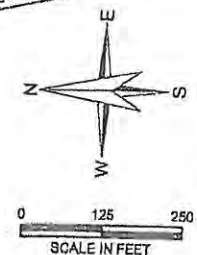
No Reading
Pond
Frozen



NOTE:
1) BASEMAP IS MODIFIED FROM A DRAWING ENTITLED "SITE PLAN" PROVIDED BY BENCHMARK ENVIRONMENTAL ENGINEERING & SCIENCE, PLLC. DATED JULY 2007.
2) THE TWO MAIN POND SAMPLING POINTS (ONE AT THE MIDPOINT OF THE MAIN POND AND THE OTHER AT THE DISCHARGE PIPE OF THE MAIN POND) ARE COMBINED IN THE FIELD TO PROVIDE A REPRESENTATIVE pH VALUE FOR THE MAIN POND AREA.
3) ALL LOCATIONS ARE APPROXIMATE.

LEGEND:

- FENCE
- BCP PROPERTY BOUNDARY
- STORM WATER PIPE
- ▲ RETENTION POND MONITORING LOCATION
- APPROXIMATE CATCH BASIN LOCATION



HALEY ALDRICH

HYDRO AIR COMPONENTS, INC.
BUFFALO, NEW YORK

RETENTION POND MONITORING LOCATIONS

SCALE: AS SHOWN
FEBRUARY 2014

FIGURE 1

SE/1.40 SW/1.65 NE/1.70 NW/1.30

SEWER ROOM
1.20

G:\04558_HYDROAIR\072014 SMP AMENDMENT & REVISIONS\DRAWINGS\04558-007 SITE PLAN MONITORING LOCATIONS_R2.DWG



Monthly Operation & Maintenance Log Active Sub-Slab Depressurization System

Project Name:

Project No.:

Project Location:

Client:

Preparer's Name: Dale A Barto

Date/Time: 1/30/2020

9:00 ^{AM}

Notes:

Monthly Operating Status:

System(s) currently running?

☒ yes

☐ no

Has the system been off-line in the past month?

☐ yes

☒ no

If yes, please list the dates and brief description why (i.e. maintenance, part replacement, etc.):

What is the current Vacuum reading?

1.43

Visual Inspection:

Any piping disconnected?

☐ yes

☒ no

Any cracks visible in piping?

☐ yes

☒ no

Any new cracks visible in slab floor?

☐ yes

☒ no

Magnehelic guage reading 0?

☐ yes

☒ no

If yes to any question above, please provide more information below.

Monthly Operation & Maintenance Log Active Sub-Slab Depressurization System

Change in Occupancy / Use of Space:

Please indicate general use of floor space?

Manufacturing

Has this general use changed in the past month?

☐ yes

☒ no

If yes, please explain:

System Modifications:

Have any modifications been made to the Sub-Slab Depressurization System?

☐ yes

☒ no

If so, please list with date:

Loading Dock Discharge Monitoring Form
Hydro-Air Components, Inc.
BCP Site #C915204, Buffalo, NY

In accordance with

1. ph and temperature of a representative water from the 4 locations indicated on Figure 1.
2. weather conditions (general- wet/ dry, avg temp) since last measurement
3. estimated volume of water pumped from loading dock (based upon pump run time data)
4. notes on condition of pond (visual)

Staff Member	Date of Measure-ment	Measurement Location						Pump Run Time*	Est. Quantity of Water **	Visual Condition of Pond (color, vegetation, etc.)	Comments (e.g. weather conditions, etc)
		Discharge Pipe		Northern Embayment		Main Pond (Combined Samples)					
		ph	Temp (°F)	ph	Temp (°F)	ph	Temp (°F)				
Dale Barto	3/29/19 12:00 AM	8.10	45	7.50	44	6.50	46		9,895	clear	sunny
Dale A Barto	4/29/2019 9:30am	7.90	46	7.80	44	6.80	45		61,125	clear	cloudy
Dale A Barto	5/30/2019 9:30am	7.95	48	7.75	46	6.60	47		30,036	clear	sunny
Dale A Barto	6/28/2019 9:30am	7.80	54	7.60	53	7.10	53		61,125	clear	sunny
Dale A Barto	7/29/2019 9:00am	7.75	72	7.50	72	7.00	73		30,036	clear	sunny
Dale A Barto	8/29/2019 9:30am	7.80	63	7.20	64	7.10	63		61,125	clear	sunny
Dale A Barto	9/30/2019 9:00am	7.70	60	7.30	61	7.00	61		26,560	clear	cloudy
Dale A Barto	10/29/2019 9:00am	7.75	48	7.20	46	7.15	47		64,646	clear	sunny
Dale A Barto	11/27/19 12:00 AM								26,570	Frozen	clear
Dale A Barto	12/31/2019 11:00am								64,653	Frozen	Cloudy
Dale A Barto	1/30/20 12:00 AM								26,598	Frozen	cloudy

Magnehelic Readings

- #1 Server Room Office
- #2 S.E. Corner Cell 600/800
- #3 N.E. Corner Warehouse
- #4 N.W. Corner Cell 200
- #5 S.W. Corner Cell 100

Date	#1 Server Room	#2 S.E. Corner	#3 N.E. Corner	#4 N.W. Corner	#5 S.W. Corner
12/28/2018	1.10	1.45	1.70	1.25	1.70
1/31/2018	1.10	1.40	1.65	1.25	1.65
2/28/2019	1.15	1.45	1.75	1.35	1.70
3/29/2019	1.10	1.45	1.70	1.35	1.70
4/29/2019	1.20	1.40	1.70	1.35	1.40
5/30/2019	1.15	1.40	1.75	1.40	1.75
6/28/2019	1.10	1.45	1.75	1.75	1.75
7/29/2019	1.10	1.45	1.75	1.50	1.75
8/29/2019	1.10	1.50	1.75	1.35	1.75
9/30/2019	1.10	1.40	1.75	1.45	1.70
10/29/2019	1.15	1.40	1.70	1.35	1.70
11/27/2019	1.10	1.35	1.65	1.20	1.65
12/31/2019	1.10	1.40	1.75	1.35	1.70
1/30/2020	1.10	1.40	1.70	1.30	1.65

2/28/2020

Frozen

G:\34655_HYDROAIR\007\2014 SMP AMENDMENT & REVISIONS\DRAWINGS\34655-007_SITE PLAN MONITORING LOCATIONS_R2.DWG

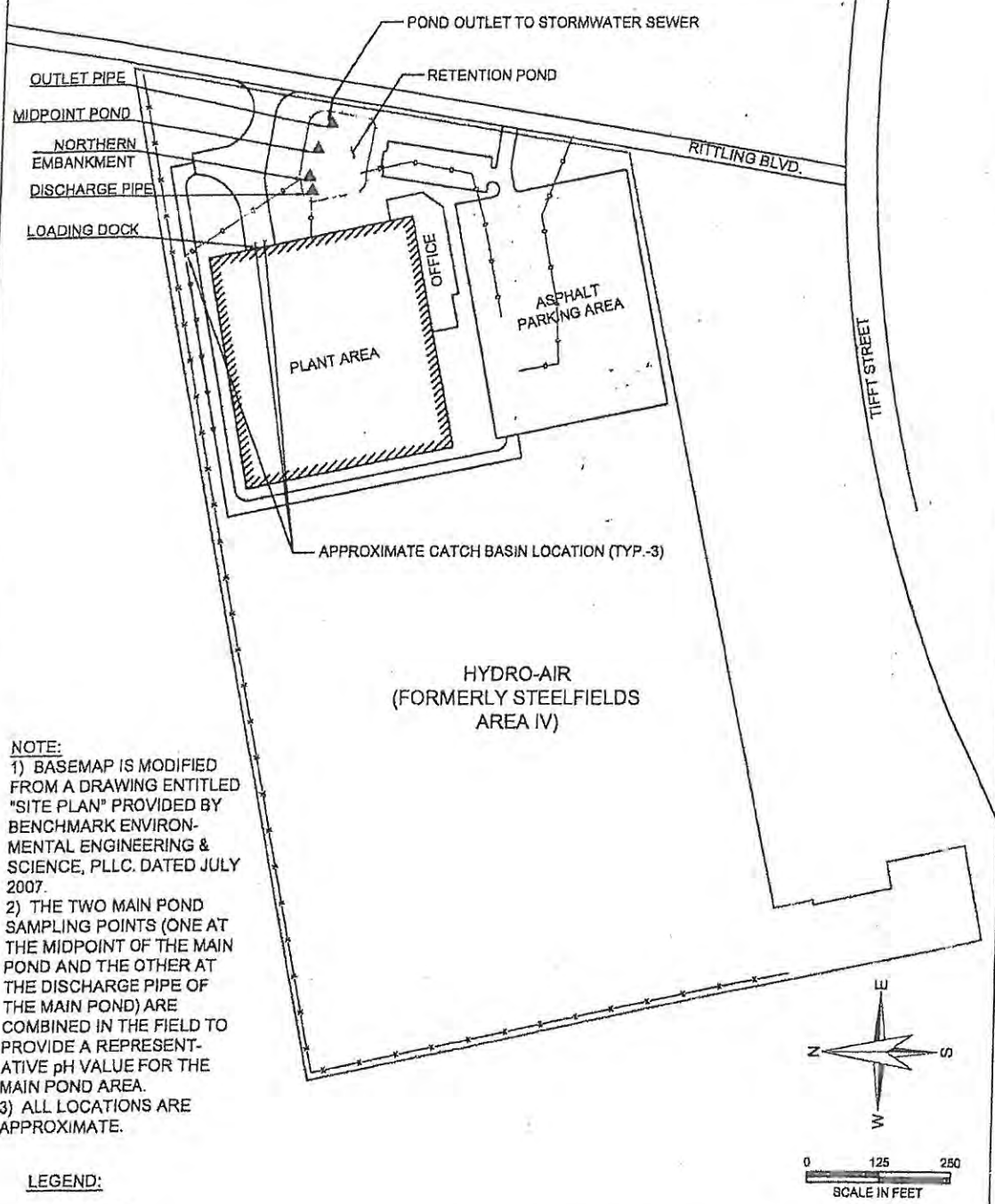


FIGURE 1

SR 1.15

SE/1.40 NE/1.20 NW/1.30 SW/1.70



Monthly Operation & Maintenance Log Active Sub-Slab Depressurization System

Project Name: _____ Project No.: _____
Project Location: _____ Client: _____
Preparer's Name: Dale A Barbo Date/Time: 2/28/2020 9:00 AM
Notes: _____

Monthly Operating Status:

System(s) currently running? ☒ yes ☐ no
Has the system been off-line in the past month? ☐ yes ☐ no

If yes, please list the dates and brief description why (i.e. maintenance, part replacement, etc.):

What is the current Vacuum reading?

1.45

Visual Inspection:

Any piping disconnected?	<input type="checkbox"/> yes	<input checked="" type="checkbox"/> no
Any cracks visible in piping?	<input type="checkbox"/> yes	<input checked="" type="checkbox"/> no
Any new cracks visible in slab floor?	<input type="checkbox"/> yes	<input checked="" type="checkbox"/> no
Magnehelic guage reading 0?	<input type="checkbox"/> yes	<input checked="" type="checkbox"/> no

If yes to any question above, please provide more information below.

Monthly Operation & Maintenance Log Active Sub-Slab Depressurization System

Change in Occupancy / Use of Space:

Please indicate general use of floor space? Manufacturing

Has this general use changed in the past month?

☐ yes

☒ no

If yes, please explain:

System Modifications:

Have any modifications been made to the Sub-Slab Depressurization System?

☐ yes

☒ no

If so, please list with date:

Magnehelic Readings

#1 Server Room Office

#2 S.E. Corner Cell 600/800

#3 N.E. Corner Warehouse

#4 N.W. Corner Cell 200

#5 S.W. Corner Cell 100

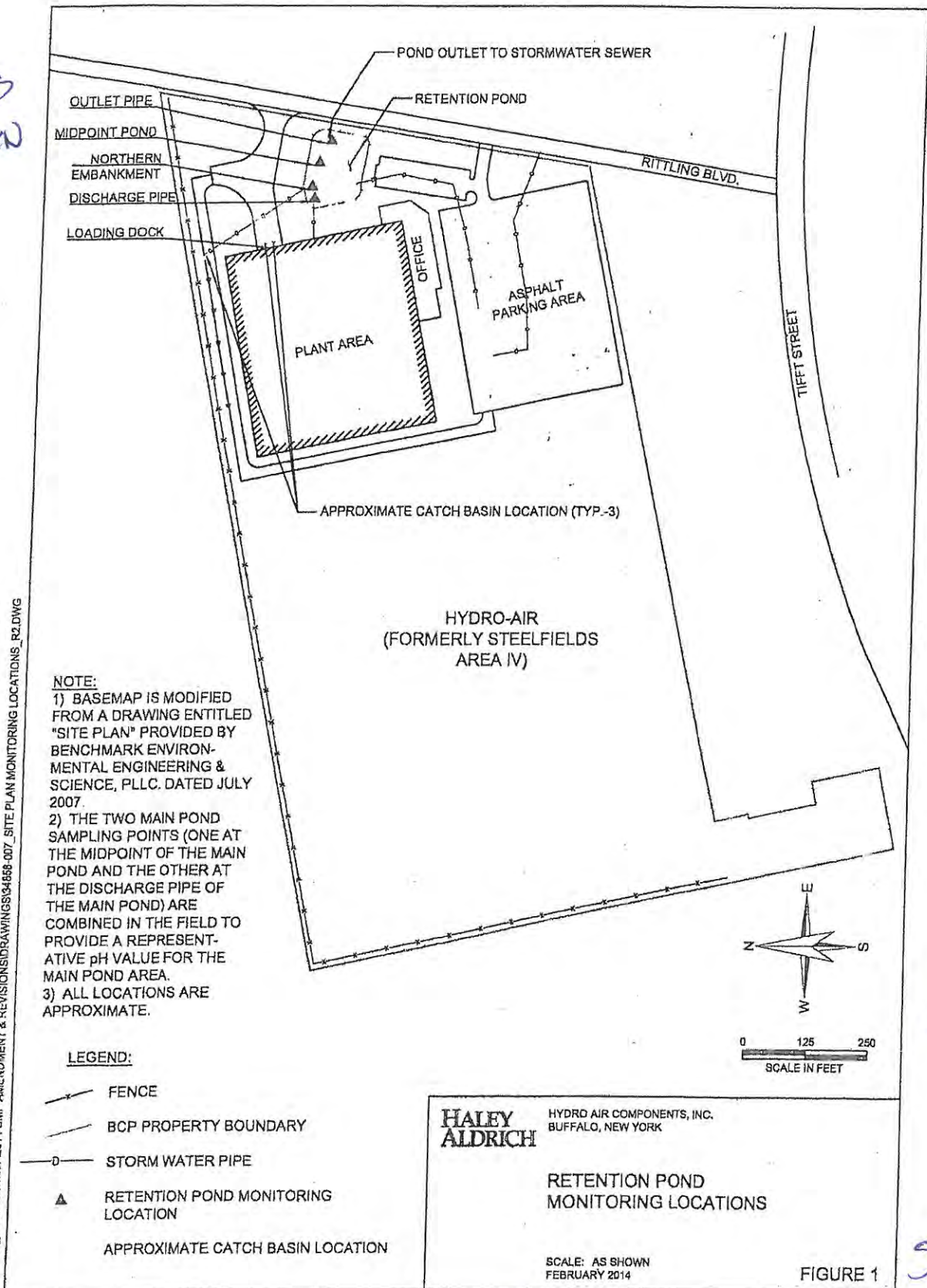
Date	#1 Server Room	#2 S.E. Corner	#3 N.E. Corner	#4 N.W. Corner	#5 S.W. Corner
12/28/2018	1.10	1.45	1.70	1.25	1.70
1/31/2018	1.10	1.40	1.65	1.25	1.65
2/28/2019	1.15	1.45	1.75	1.35	1.70
3/29/2019	1.10	1.45	1.70	1.35	1.70
4/29/2019	1.20	1.40	1.70	1.35	1.40
5/30/2019	1.15	1.40	1.75	1.40	1.75
6/28/2019	1.10	1.45	1.75	1.75	1.75
7/29/2019	1.10	1.45	1.75	1.50	1.75
8/29/2019	1.10	1.50	1.75	1.35	1.75
9/30/2019	1.10	1.40	1.75	1.45	1.70
10/29/2019	1.15	1.40	1.70	1.35	1.70
11/27/2019	1.10	1.35	1.65	1.20	1.65
12/31/2019	1.10	1.40	1.75	1.35	1.70
1/30/2020	1.10	1.40	1.70	1.30	1.65
2/28/2020	1.15	1.40	1.70	1.30	1.70

In accordance with

- [illegible]

3/25/2020

Edges
Frozen



Reading
9/304

Sewer
Room
1.20

NE/1.70 NW/1.30 SE/1.40 SW/1.70

G:\34856_HYDROAIR\072014 SMF AMENDMENT & REVISIONS\DRAWINGS\34856-007 SITE PLAN MONITORING LOCATIONS_R2.DWG



Monthly Operation & Maintenance Log Active Sub-Slab Depressurization System

Project Name: _____ Project No.: _____
Project Location: _____ Client: _____
Preparer's Name: Dale A Banta Date/Time: 3-25-2020
Notes: _____

9:00 am

Monthly Operating Status:

System(s) currently running? ☒ yes ☐ no
Has the system been off-line in the past month? ☐ yes ☒ no
If yes, please list the dates and brief description why (i.e. maintenance, part replacement, etc.):

What is the current Vacuum reading?

1.46

Visual Inspection:

Any piping disconnected? ☐ yes ☒ no
Any cracks visible in piping? ☐ yes ☒ no
Any new cracks visible in slab floor? ☐ yes ☒ no
Magnehelic guage reading 0? ☐ yes ☒ no

If yes to any question above, please provide more information below.

Monthly Operation & Maintenance Log Active Sub-Slab Depressurization System

Change in Occupancy / Use of Space:

Please indicate general use of floor space? Manufacturing

Has this general use changed in the past month?

☐ yes

☒ no

If yes, please explain:

System Modifications:

Have any modifications been made to the Sub-Slab Depressurization System?

☐ yes

☒ no

If so, please list with date:

Magnehelic Readings

- #1 Server Room Office
- #2 S.E. Corner Cell 600/800
- #3 N.E. Corner Warehouse
- #4 N.W. Corner Cell 200
- #5 S.W. Corner Cell 100

Date	#1 Server Room	#2 S.E. Corner	#3 N.E. Corner	#4 N.W. Corner	#5 S.W. Corner
12/28/2018	1.10	1.45	1.70	1.25	1.70
1/31/2018	1.10	1.40	1.65	1.25	1.65
2/28/2019	1.15	1.45	1.75	1.35	1.70
3/29/2019	1.10	1.45	1.70	1.35	1.70
4/29/2019	1.20	1.40	1.70	1.35	1.40
5/30/2019	1.15	1.40	1.75	1.40	1.75
6/28/2019	1.10	1.45	1.75	1.75	1.75
7/29/2019	1.10	1.45	1.75	1.50	1.75
8/29/2019	1.10	1.50	1.75	1.35	1.75
9/30/2019	1.10	1.40	1.75	1.45	1.70
10/29/2019	1.15	1.40	1.70	1.35	1.70
11/27/2019	1.10	1.35	1.65	1.20	1.65
12/31/2019	1.10	1.40	1.75	1.35	1.70
1/30/2020	1.10	1.40	1.70	1.30	1.65
2/28/2020	1.15	1.40	1.70	1.30	1.70
3/25/2020	1.20	1.40	1.70	1.30	1.70

Loading Dock Discharge Monitoring Form
Hydro-Air Components, Inc.
BCP Site #C915204, Buffalo, NY

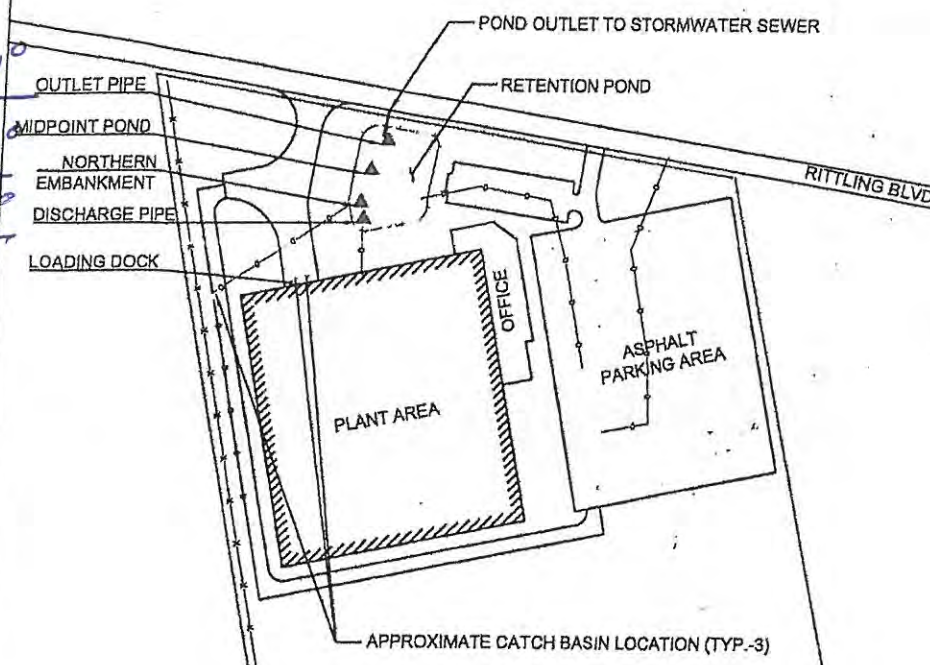
In accordance with

1. ph and temperature of a representative water from the 4 locations indicated on Figure 1.
2. weather conditions (general- wet/ dry, avg temp) since last measurement
3. estimated volume of water pumped from loading dock (based upon pump run time data)
4. notes on condition of pond (visual)

Staff Member	Date of Measure-ment	Measurement Location						Pump Run Time*	Est. Quantity of Water **	Visual Condition of Pond (color, vegetation, etc.)	Comments (e.g. weather conditions, etc)
		Discharge Pipe		Northern Embayment		Main Pond (Combined Samples)					
		ph	Temp (°F)	ph	Temp (°F)	ph	Temp (°F)				
Dale Barto	3/29/19 12:00 AM	8.10	45	7.50	44	6.50	46		9,895	clear	sunny
Dale A Barto	4/29/2019 9:30am	7.90	46	7.80	44	6.80	45		61,125	clear	cloudy
Dale A Barto	5/30/2019 9:30am	7.95	48	7.75	46	6.60	47		30,036	clear	sunny
Dale A Barto	6/28/2019 9:30am	7.80	54	7.60	53	7.10	53		61,125	clear	sunny
Dale A Barto	7/29/2019 9:00am	7.75	72	7.50	72	7.00	73		30,036	clear	sunny
Dale A Barto	8/29/2019 9:30am	7.80	63	7.20	64	7.10	63		61,125	clear	sunny
Dale A Barto	9/30/2019 9:00am	7.70	60	7.30	61	7.00	61		26,560	clear	cloudy
Dale A Barto	10/29/2019 9:00am	7.75	48	7.20	46	7.15	47		64,646	clear	sunny
Dale A Barto	11/27/19 12:00 AM								26,570	Frozen	clear
Dale A Barto	12/31/2019 11:00am								64,653	Frozen	Cloudy
Dale A Barto	1/30/20 12:00 AM								26,598	Frozen	cloudy
Dale A Barto	2/28/2020 9:00am									Frozen	cloudy
Dale A Barto	3/25/2020 9:00am								64,706	Frozen	cloudy

4/30/2020
9:30 AM

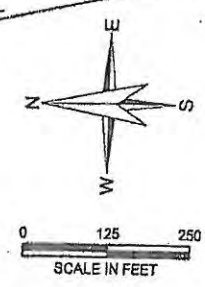
6.6 44°
7.5 49°
7.8 46°



NOTE:
1) BASEMAP IS MODIFIED FROM A DRAWING ENTITLED "SITE PLAN" PROVIDED BY BENCHMARK ENVIRONMENTAL ENGINEERING & SCIENCE, PLLC. DATED JULY 2007.
2) THE TWO MAIN POND SAMPLING POINTS (ONE AT THE MIDPOINT OF THE MAIN POND AND THE OTHER AT THE DISCHARGE PIPE OF THE MAIN POND) ARE COMBINED IN THE FIELD TO PROVIDE A REPRESENTATIVE pH VALUE FOR THE MAIN POND AREA.
3) ALL LOCATIONS ARE APPROXIMATE.

LEGEND:

- x— FENCE
- BCP PROPERTY BOUNDARY
- D— STORM WATER PIPE
- ▲ RETENTION POND MONITORING LOCATION
- APPROXIMATE CATCH BASIN LOCATION



HALEY ALDRICH

HYDRO AIR COMPONENTS, INC.
BUFFALO, NEW YORK

RETENTION POND MONITORING LOCATIONS

SCALE: AS SHOWN
FEBRUARY 2014

FIGURE 1

Servei Roon
1.70

SE/1.40 NE/1.75 NW/1.45 SW/1.70

G:\34558_HYDROAIR\072014 SMP AMENDMENT & REVISIONS\DRAWINGS\04558-007_SITE PLAN MONITORING LOCATIONS_R2.DWG

Monthly Operation & Maintenance Log Active Sub-Slab Depressurization System

Project Name:

Project No.:

Project Location:

Client:

Preparer's Name:

Dele A. Barbo

Date/Time:

4/30/2020

9:30 AM

Notes:

Monthly Operating Status:

System(s) currently running?



yes



no

Has the system been off-line in the past month?



yes



no

If yes, please list the dates and brief description why (i.e. maintenance, part replacement, etc.):

What is the current Vacuum reading?

150

Visual Inspection:

Any piping disconnected?



yes



no

Any cracks visible in piping?



yes



no

Any new cracks visible in slab floor?



yes



no

Magnehelic guage reading 0?



yes



no

If yes to any question above, please provide more information below.

Monthly Operation & Maintenance Log Active Sub-Slab Depressurization System

Change in Occupancy / Use of Space:

Please indicate general use of floor space? Manufacturing

Has this general use changed in the past month?

☐ yes

☒ no

If yes, please explain:

System Modifications:

Have any modifications been made to the Sub-Slab Depressurization System?

☐ yes

☐ no

If so, please list with date:

Magnehelic Readings

- #1 Server Room Office
- #2 S.E. Corner Cell 600/800
- #3 N.E. Corner Warehouse
- #4 N.W. Corner Cell 200
- #5 S.W. Corner Cell 100

Date	#1 Server Room	#2 S.E. Corner	#3 N.E. Corner	#4 N.W. Corner	#5 S.W. Corner
12/28/2018	1.10	1.45	1.70	1.25	1.70
1/31/2018	1.10	1.40	1.65	1.25	1.65
2/28/2019	1.15	1.45	1.75	1.35	1.70
3/29/2019	1.10	1.45	1.70	1.35	1.70
4/29/2019	1.20	1.40	1.70	1.35	1.40
5/30/2019	1.15	1.40	1.75	1.40	1.75
6/28/2019	1.10	1.45	1.75	1.75	1.75
7/29/2019	1.10	1.45	1.75	1.50	1.75
8/29/2019	1.10	1.50	1.75	1.35	1.75
9/30/2019	1.10	1.40	1.75	1.45	1.70
10/29/2019	1.15	1.40	1.70	1.35	1.70
11/27/2019	1.10	1.35	1.65	1.20	1.65
12/31/2019	1.10	1.40	1.75	1.35	1.70
1/30/2020	1.10	1.40	1.70	1.30	1.65
2/28/2020	1.15	1.40	1.70	1.30	1.70
3/25/2020	1.20	1.40	1.70	1.30	1.70
4/30/2020	1.20	1.40	1.75	1.45	1.70

Loading Dock Discharge Monitoring Form
Hydro-Air Components, Inc.
BCP Site #C915204, Buffalo, NY

In accordance with

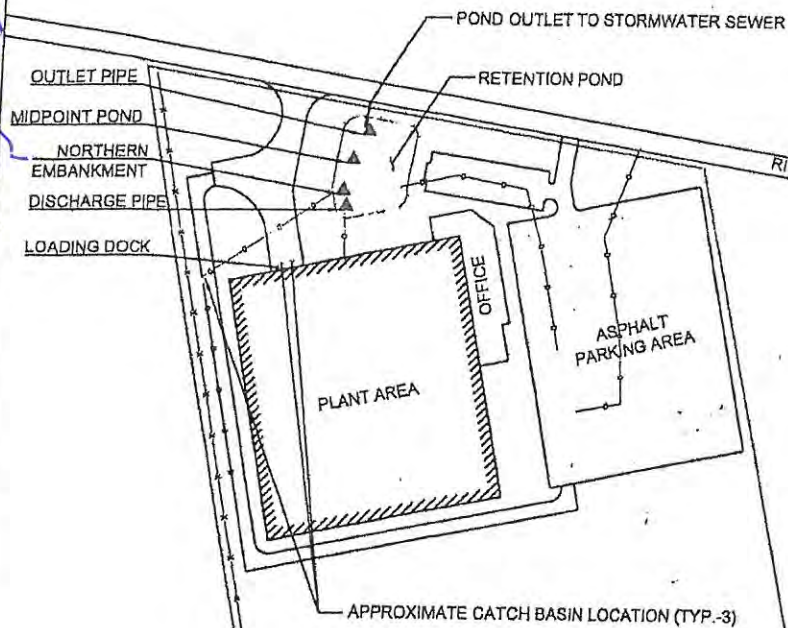
1. ph and temperature of a representative water from the 4 locations indicated on Figure 1.
2. weather conditions (general- wet/ dry, avg temp) since last measurement
3. estimated volume of water pumped from loading dock (based upon pump run time data)
4. notes on condition of pond (visual)

Staff Member	Date of Measure-ment	Measurement Location						Pump Run Time*	Est. Quantity of Water **	Visual Condition of Pond (color, vegetation, etc.)	Comments (e.g. weather conditions, etc)
		Discharge Pipe		Northern Embayment		Main Pond (Combined Samples)					
		ph	Temp (°F)	ph	Temp (°F)	ph	Temp (°F)				
Dale Barto	3/29/19 12:00 AM	8.10	45	7.50	44	6.50	46		9,895	clear	sunny
Dale A Barto	4/29/2019 9:30am	7.90	46	7.80	44	6.80	45		61,125	clear	cloudy
Dale A Barto	5/30/2019 9:30am	7.95	48	7.75	46	6.60	47		30,036	clear	sunny
Dale A Barto	6/28/2019 9:30am	7.80	54	7.60	53	7.10	53		61,125	clear	sunny
Dale A Barto	7/29/2019 9:00am	7.75	72	7.50	72	7.00	73		30,036	clear	sunny
Dale A Barto	8/29/2019 9:30am	7.80	63	7.20	64	7.10	63		61,125	clear	sunny
Dale A Barto	9/30/2019 9:00am	7.70	60	7.30	61	7.00	61		26,560	clear	cloudy
Dale A Barto	10/29/2019 9:00am	7.75	48	7.20	46	7.15	47		64,646	clear	sunny
Dale A Barto	11/27/19 12:00 AM								26,570	Frozen	clear
Dale A Barto	12/31/2019 11:00am								64,653	Frozen	Cloudy
Dale A Barto	1/30/20 12:00 AM								26,598	Frozen	cloudy
Dale A Barto	2/28/2020 9:00am									Frozen	cloudy
Dale A Barto	3/25/2020 9:00am								64,706	Frozen	cloudy
Dale A Barto	4/30/20 12:00 AM	7.80	46	75.00	44	6.60	44		53,295	clear	raining

5/28/2020

9:30 AM

7.3 49°
7.6 53°
7.8 48°

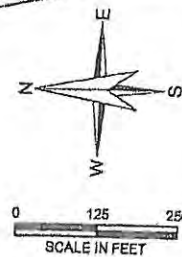


NOTE:

- 1) BASEMAP IS MODIFIED FROM A DRAWING ENTITLED "SITE PLAN" PROVIDED BY BENCHMARK ENVIRONMENTAL ENGINEERING & SCIENCE, PLLC. DATED JULY 2007.
- 2) THE TWO MAIN POND SAMPLING POINTS (ONE AT THE MIDPOINT OF THE MAIN POND AND THE OTHER AT THE DISCHARGE PIPE OF THE MAIN POND) ARE COMBINED IN THE FIELD TO PROVIDE A REPRESENTATIVE pH VALUE FOR THE MAIN POND AREA.
- 3) ALL LOCATIONS ARE APPROXIMATE.

LEGEND:

- FENCE
- BCP PROPERTY BOUNDARY
- STORM WATER PIPE
- RETENTION POND MONITORING LOCATION
- APPROXIMATE CATCH BASIN LOCATION



HALEY ALDRICH

HYDRO AIR COMPONENTS, INC.
BUFFALO, NEW YORK

**RETENTION POND
MONITORING LOCATIONS**

SCALE: AS SHOWN
FEBRUARY 2014

FIGURE 1

Server Room
1.15

SE/1.40 NE/1.70 NW/1.40 SW/1.70

G:\34655_HYDROAIR\072014 SMP AMENDMENT & REVISIONS\DRAWINGS\34655-007 SITE PLAN MONITORING LOCATIONS_R2.DWG



Monthly Operation & Maintenance Log Active Sub-Slab Depressurization System

Project Name: _____ Project No.: _____
Project Location: _____ Client: _____
Preparer's Name: Dale A. Barto Date/Time: 5/28/2020 9:30 AM
Notes: _____

Monthly Operating Status:

System(s) currently running? ☒ yes ☐ no

Has the system been off-line in the past month? ☐ yes ☒ no

If yes, please list the dates and brief description why (i.e. maintenance, part replacement, etc.):

What is the current Vacuum reading?

1.47

Visual Inspection:

Any piping disconnected? ☐ yes ☒ no

Any cracks visible in piping? ☐ yes ☒ no

Any new cracks visible in slab floor? ☐ yes ☒ no

Magnehelic guage reading 0? ☐ yes ☒ no

If yes to any question above, please provide more information below.

Monthly Operation & Maintenance Log Active Sub-Slab Depressurization System

Change in Occupancy / Use of Space:

Please indicate general use of floor space?

Manufacturing

Has this general use changed in the past month?

☐ yes

☒ no

If yes, please explain:

System Modifications:

Have any modifications been made to the Sub-Slab Depressurization System?

☐ yes

☒ no

If so, please list with date:

Loading Dock Discharge Monitoring Form
Hydro-Air Components, Inc.
BCP Site #C915204, Buffalo, NY

In accordance with

1. ph and temperature of a representative water from the 4 locations indicated on Figure 1.
2. weather conditions (general- wet/ dry, avg temp) since last measurement
3. estimated volume of water pumped from loading dock (based upon pump run time data)
4. notes on condition of pond (visual)

Staff Member	Date of Measure-ment	Measurement Location						Pump Run Time*	Est. Quantity of Water **	Visual Condition of Pond (color, vegetation, etc.)	Comments (e.g. weather conditions, etc)
		Discharge Pipe		Northern Embayment		Main Pond (Combined Samples)					
		ph	Temp (°F)	ph	Temp (°F)	ph	Temp (°F)				
Dale Barto	3/29/19 12:00 AM	8.10	45	7.50	44	6.50	46		9,895	clear	sunny
Dale A Barto	4/29/2019 9:30am	7.90	46	7.80	44	6.80	45		61,125	clear	cloudy
Dale A Barto	5/30/2019 9:30am	7.95	48	7.75	46	6.60	47		30,036	clear	sunny
Dale A Barto	6/28/2019 9:30am	7.80	54	7.60	53	7.10	53		61,125	clear	sunny
Dale A Barto	7/29/2019 9:00am	7.75	72	7.50	72	7.00	73		30,036	clear	sunny
Dale A Barto	8/29/2019 9:30am	7.80	63	7.20	64	7.10	63		61,125	clear	sunny
Dale A Barto	9/30/2019 9:00am	7.70	60	7.30	61	7.00	61		26,560	clear	cloudy
Dale A Barto	10/29/2019 9:00am	7.75	48	7.20	46	7.15	47		64,646	clear	sunny
Dale A Barto	11/27/19 12:00 AM								26,570	Frozen	clear
Dale A Barto	12/31/2019 11:00am								64,653	Frozen	Cloudy
Dale A Barto	1/30/20 12:00 AM								26,598	Frozen	cloudy
Dale A Barto	2/28/2020 9:00am									Frozen	cloudy
Dale A Barto	3/25/2020 9:00am								64,706	Frozen	cloudy
Dale A Barto	4/30/20 12:00 AM	7.80	46	75.00	44	6.60	44		53,295	clear	raining
Dale A Barto	5/28/2020 9:30AM	7.80	51	7.60	53	7.30	49		102,139	clear	sunny

Magnehelic Readings

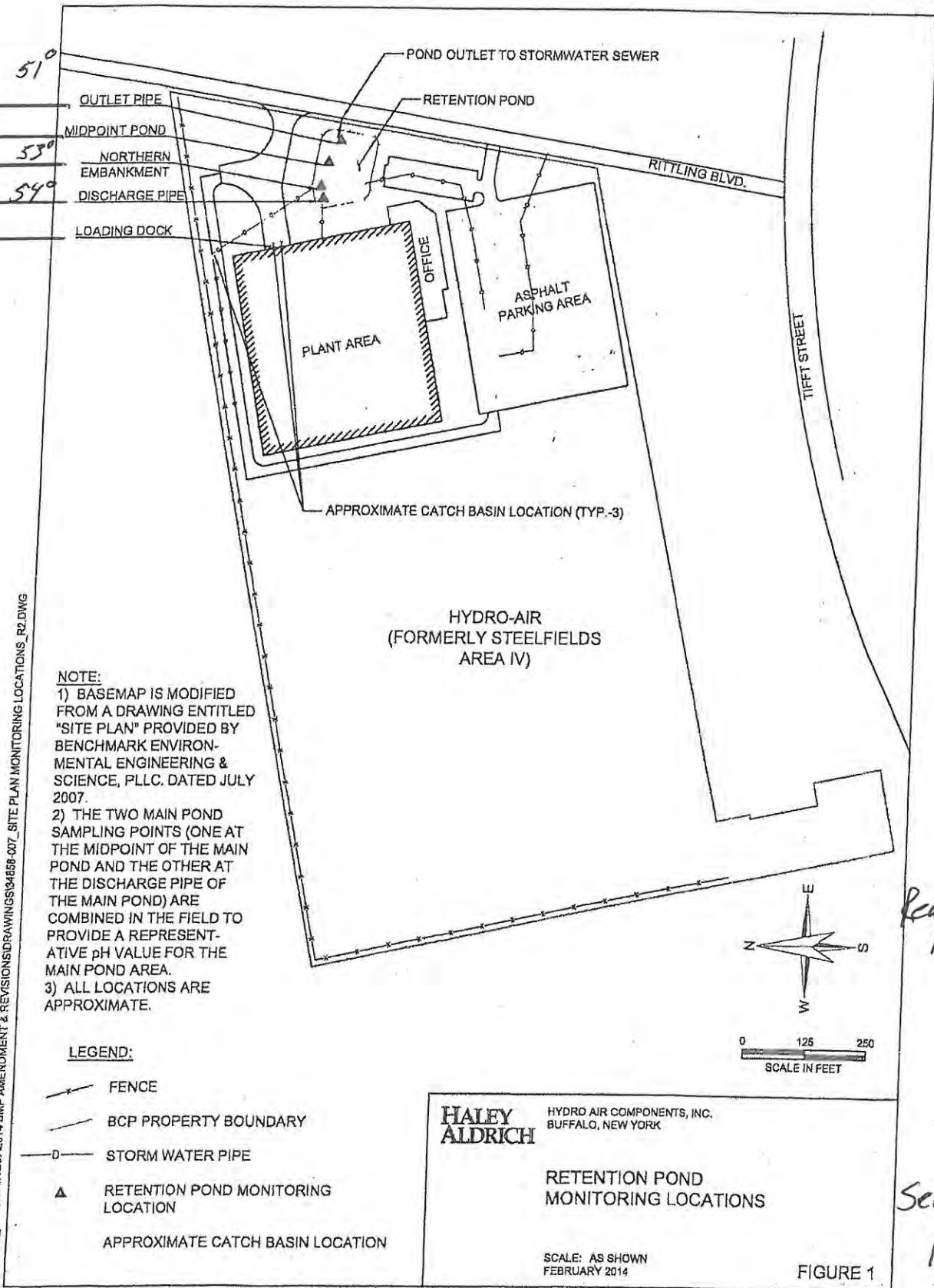
- #1 Server Room Office
- #2 S.E. Corner Cell 600/800
- #3 N.E. Corner Warehouse
- #4 N.W. Corner Cell 200
- #5 S.W. Corner Cell 100

Date	#1 Server Room	#2 S.E. Corner	#3 N.E. Corner	#4 N.W. Corner	#5 S.W. Corner
12/28/2018	1.10	1.45	1.70	1.25	1.70
1/31/2018	1.10	1.40	1.65	1.25	1.65
2/28/2019	1.15	1.45	1.75	1.35	1.70
3/29/2019	1.10	1.45	1.70	1.35	1.70
4/29/2019	1.20	1.40	1.70	1.35	1.40
5/30/2019	1.15	1.40	1.75	1.40	1.75
6/28/2019	1.10	1.45	1.75	1.75	1.75
7/29/2019	1.10	1.45	1.75	1.50	1.75
8/29/2019	1.10	1.50	1.75	1.35	1.75
9/30/2019	1.10	1.40	1.75	1.45	1.70
10/29/2019	1.15	1.40	1.70	1.35	1.70
11/27/2019	1.10	1.35	1.65	1.20	1.65
12/31/2019	1.10	1.40	1.75	1.35	1.70
1/30/2020	1.10	1.40	1.70	1.30	1.65
2/28/2020	1.15	1.40	1.70	1.30	1.70
3/25/2020	1.20	1.40	1.70	1.30	1.70
4/30/2020	1.20	1.40	1.75	1.45	1.70
5/28/2020	1.15	1.40	1.70	1.40	1.70

6/29/2020

9:00 AM

7.60 51°
7.20 53°
7.80 54°



Reading 155,434.

Server Room 1.10

SE/1.45 NE/1.75 SW/1.75 NW/1.35

G:\34655_HYDROAIR\007\2014 SMP AMENDMENT & REVISIONS\DRAWINGS\34655-007 SITE PLAN MONITORING LOCATIONS_R2.DWG



Monthly Operation & Maintenance Log Active Sub-Slab Depressurization System

Project Name:

Project No.:

Project Location:

Client:

Preparer's Name: Dale A. Barrios

Date/Time: 6-29-2020

9:00 AM

Notes:

Monthly Operating Status:

System(s) currently running?

☒ yes

☐ no

Has the system been off-line in the past month?

☐ yes

☒ no

If yes, please list the dates and brief description why (i.e. maintenance, part replacement, etc.):

What is the current Vacuum reading?

1.48

Visual Inspection:

Any piping disconnected?

☐ yes

☒ no

Any cracks visible in piping?

☐ yes

☒ no

Any new cracks visible in slab floor?

☐ yes

☒ no

Magnehelic guage reading 0?

☐ yes

☒ no

If yes to any question above, please provide more information below.

Monthly Operation & Maintenance Log Active Sub-Slab Depressurization System

Change in Occupancy / Use of Space:

Please indicate general use of floor space?

Has this general use changed in the past month?

☐ yes

☒ no

Manufacturing

If yes, please explain:

System Modifications:

Have any modifications been made to the Sub-Slab Depressurization System?

☐ yes

☒ no

If so, please list with date:

Loading Dock Discharge Monitoring Form
Hydro-Air Components, Inc.
BCP Site #C915204, Buffalo, NY

In accordance with

1. ph and temperature of a representative water from the 4 locations indicated on Figure 1.
2. weather conditions (general- wet/ dry, avg temp) since last measurement
3. estimated volume of water pumped from loading dock (based upon pump run time data)
4. notes on condition of pond (visual)

Staff Member	Date of Measure-ment	Measurement Location						Pump Run Time*	Est. Quantity of Water **	Visual Condition of Pond (color, vegetation, etc.)	Comments (e.g. weather conditions, etc)
		Discharge Pipe		Northern Embayment		Main Pond (Combined Samples)					
		ph	Temp (°F)	ph	Temp (°F)	ph	Temp (°F)				
Dale Barto	3/29/19 12:00 AM	8.10	45	7.50	44	6.50	46		9,895	clear	sunny
Dale A Barto	4/29/2019 9:30am	7.90	46	7.80	44	6.80	45		61,125	clear	cloudy
Dale A Barto	5/30/2019 9:30am	7.95	48	7.75	46	6.60	47		30,036	clear	sunny
Dale A Barto	6/28/2019 9:30am	7.80	54	7.60	53	7.10	53		61,125	clear	sunny
Dale A Barto	7/29/2019 9:00am	7.75	72	7.50	72	7.00	73		30,036	clear	sunny
Dale A Barto	8/29/2019 9:30am	7.80	63	7.20	64	7.10	63		61,125	clear	sunny
Dale A Barto	9/30/2019 9:00am	7.70	60	7.30	61	7.00	61		26,560	clear	cloudy
Dale A Barto	10/29/2019 9:00am	7.75	48	7.20	46	7.15	47		64,646	clear	sunny
Dale A Barto	11/27/19 12:00 AM								26,570	Frozen	clear
Dale A Barto	12/31/2019 11:00am								64,653	Frozen	Cloudy
Dale A Barto	1/30/20 12:00 AM								26,598	Frozen	cloudy
Dale A Barto	2/28/2020 9:00am									Frozen	cloudy
Dale A Barto	3/25/2020 9:00am								64,706	Frozen	cloudy
Dale A Barto	4/30/20 12:00 AM	7.80	46	75.00	44	6.60	44		53,295	clear	raining
Dale A Barto	5/28/2020 9:30AM	7.80	51	7.60	53	7.30	49		102,139	clear	sunny
Dale A Barto	6/29/2020 9:00am	7.80	54	7.20	53	7.60	51		53,259	clear	sunny

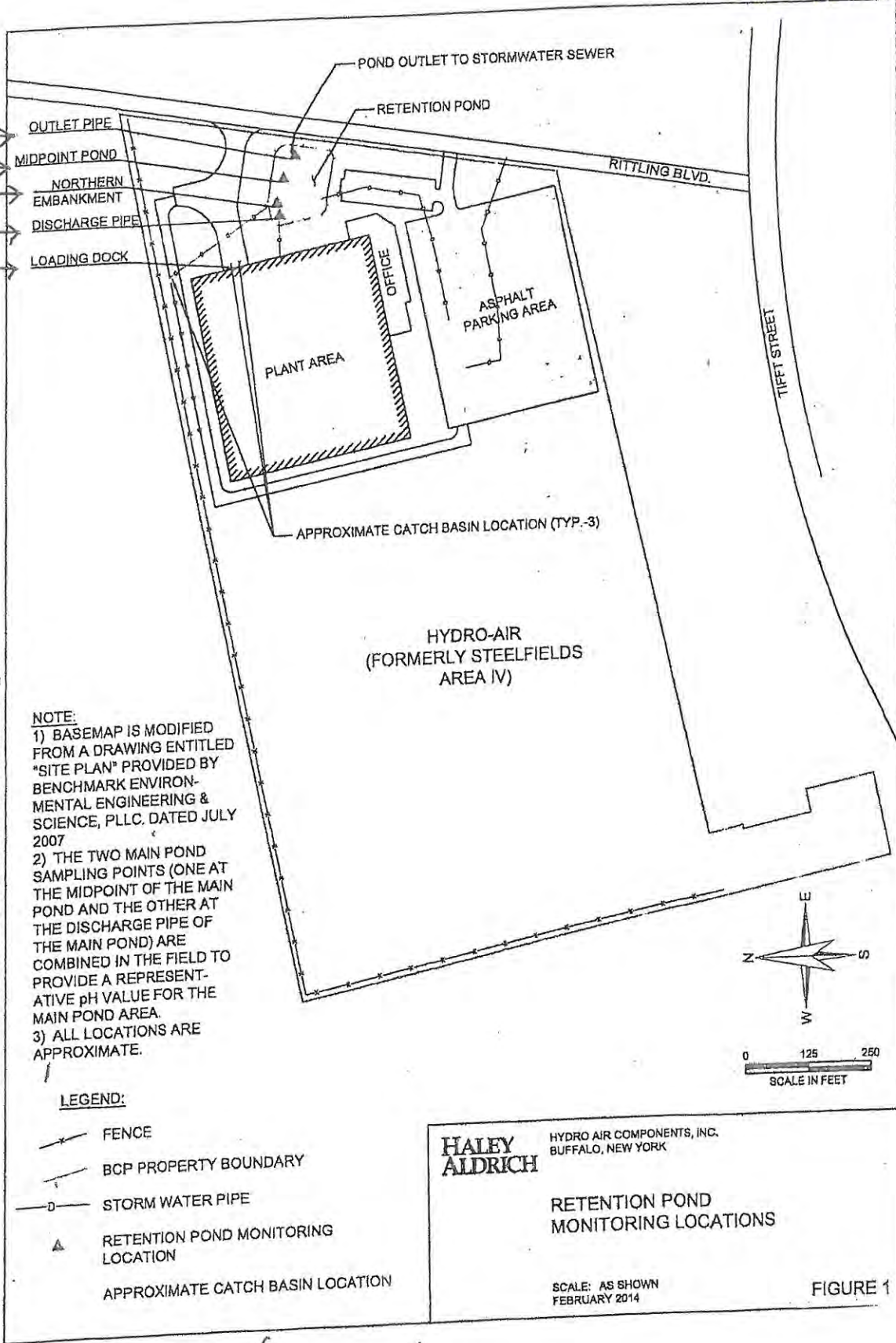
Magnehelic Readings

- #1 Server Room Office
- #2 S.E. Corner Cell 600/800
- #3 N.E. Corner Warehouse
- #4 N.W. Corner Cell 200
- #5 S.W. Corner Cell 100

Date	#1 Server Room	#2 S.E. Corner	#3 N.E. Corner	#4 N.W. Corner	#5 S.W. Corner
12/28/2018	1.10	1.45	1.70	1.25	1.70
1/31/2018	1.10	1.40	1.65	1.25	1.65
2/28/2019	1.15	1.45	1.75	1.35	1.70
3/29/2019	1.10	1.45	1.70	1.35	1.70
4/29/2019	1.20	1.40	1.70	1.35	1.40
5/30/2019	1.15	1.40	1.75	1.40	1.75
6/28/2019	1.10	1.45	1.75	1.75	1.75
7/29/2019	1.10	1.45	1.75	1.50	1.75
8/29/2019	1.10	1.50	1.75	1.35	1.75
9/30/2019	1.10	1.40	1.75	1.45	1.70
10/29/2019	1.15	1.40	1.70	1.35	1.70
11/27/2019	1.10	1.35	1.65	1.20	1.65
12/31/2019	1.10	1.40	1.75	1.35	1.70
1/30/2020	1.10	1.40	1.70	1.30	1.65
2/28/2020	1.15	1.40	1.70	1.30	1.70
3/25/2020	1.20	1.40	1.70	1.30	1.70
4/30/2020	1.20	1.40	1.75	1.45	1.70
5/28/2020	1.15	1.40	1.70	1.40	1.70
6/29/2020	1.10	1.45	1.75	1.35	1.75

7/27/2020 10:30 AM

6.50 68°
6.50 67°
7.50 69°
102,175



SE 1.50 NE 1.75 NW 1.40 SW 1.75

1.10
Server Room



Monthly Operation & Maintenance Log Active Sub-Slab Depressurization System

Project Name:

Project No.:

Project Location:

Client:

Preparer's Name: Dale A Barto

Date/Time:

7/27/2020

10:30 AM

Notes:

Monthly Operating Status:

System(s) currently running?

☒ yes

☐ no

Has the system been off-line in the past month?

☐ yes

☒ no

If yes, please list the dates and brief description why (i.e. maintenance, part replacement, etc.):

What is the current Vacuum reading?

1.50

Visual Inspection:

Any piping disconnected?

☐ yes

☒ no

Any cracks visible in piping?

☐ yes

☒ no

Any new cracks visible in slab floor?

☐ yes

☒ no

Magnehelic guage reading 0?

☐ yes

☒ no

If yes to any question above, please provide more information below.

Monthly Operation & Maintenance Log Active Sub-Slab Depressurization System

Change in Occupancy / Use of Space:

Please indicate general use of floor space? Manufacturing

Has this general use changed in the past month?

☐ yes

☒ no

If yes, please explain:

System Modifications:

Have any modifications been made to the Sub-Slab Depressurization System?

☐ yes

☒ no

If so, please list with date:

Loading Dock Discharge Monitoring Form
Hydro-Air Components, Inc.
BCP Site #C915204, Buffalo, NY

In accordance with

1. ph and temperature of a representative water from the 4 locations indicated on Figure 1.
2. weather conditions (general- wet/ dry, avg temp) since last measurement
3. estimated volume of water pumped from loading dock (based upon pump run time data)
4. notes on condition of pond (visual)

Staff Member	Date of Measure-ment	Measurement Location						Est. Quantity of Water **	Visual Condition of Pond (color, vegetation, etc.)	Comments (e.g. weather conditions, etc)
		Discharge Pipe		Northern Embayment		Main Pond (Combined Samples)				
		ph	Temp (°F)	ph	Temp (°F)	ph	Temp (°F)			
Dale A Barto	1/30/2020 12:00am							26,570	Frozen	clear
Dale A Barto	2/28/2020 11:00am							64,653	Frozen	cloudy
Dale A Barto	3/25/2020 12:00am							26,598	Frozen	cloudy
Dale A Barto	4/30/2020 12:00am 7.80		46	75.00	44	6.60	44	53,295	clear	raining
Dale A Barto	5/28/20 12:00 AM	7.80	51	7.60	53	7.30	49	102,139	clear	sunny
Dale A Barto	6/29/2020 9:00am	7.80	54	7.20	53	7.60	51	53,259	clear	sunny
Dale A Barto	7/27/2020 9:00am	7.50	69	6.50	67	6.50	68	102,175	clear	sunny

* May, 2016 is the first month the discharge quantity was calculated via flow meter

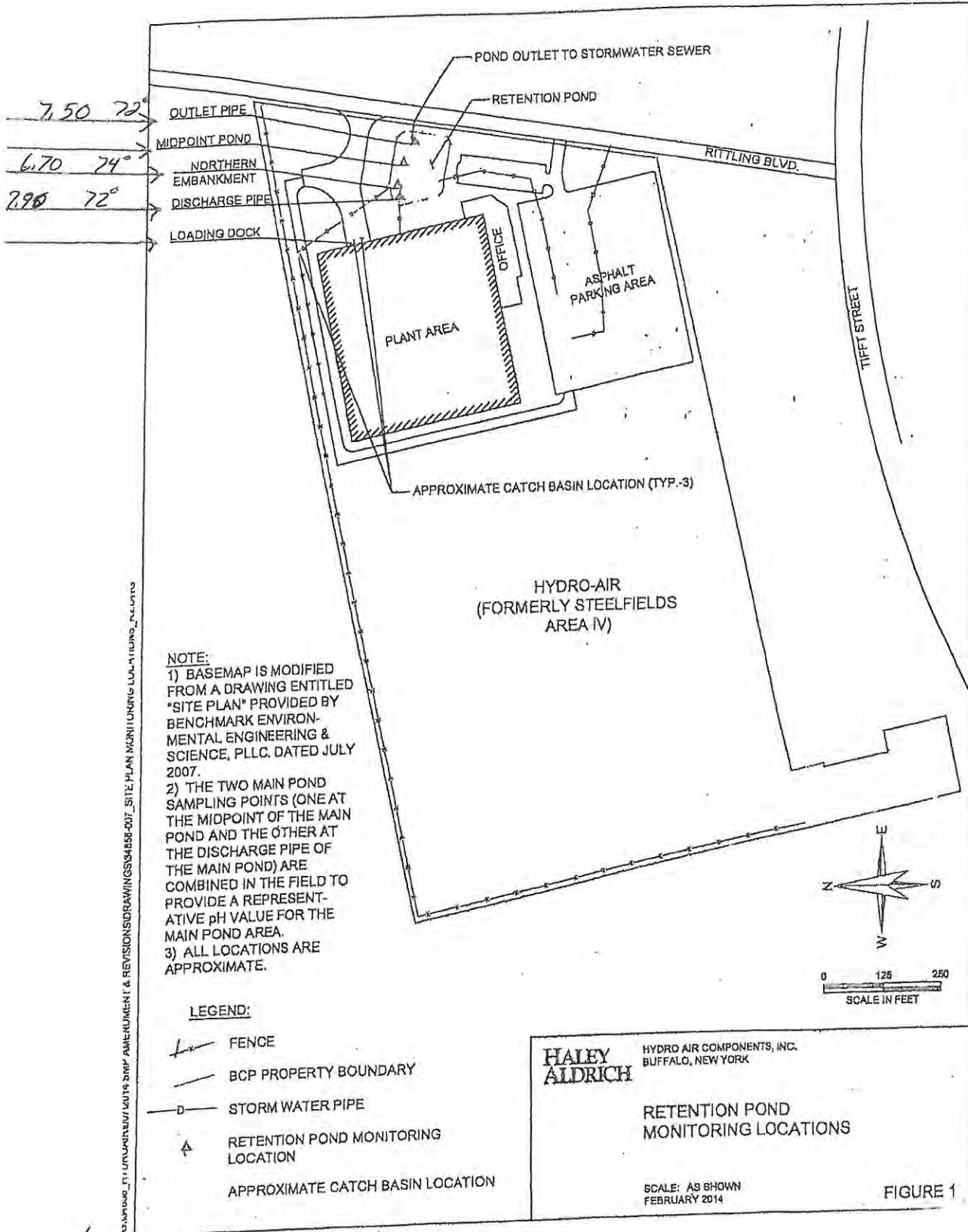
Magnehelic Readings

- #1 Server Room Office
- #2 S.E. Corner Cell 600/800
- #3 N.E. Corner Warehouse
- #4 N.W. Corner Cell 200
- #5 S.W. Corner Cell 100

Date	#1 Server Room	#2 S.E. Corner	#3 N.E. Corner	#4 N.W. Corner	#5 S.W. Corner
12/28/2018	1.10	1.45	1.70	1.25	1.70
1/31/2018	1.10	1.40	1.65	1.25	1.65
2/28/2019	1.15	1.45	1.75	1.35	1.70
3/29/2019	1.10	1.45	1.70	1.35	1.70
4/29/2019	1.20	1.40	1.70	1.35	1.40
5/30/2019	1.15	1.40	1.75	1.40	1.75
6/28/2019	1.10	1.45	1.75	1.75	1.75
7/29/2019	1.10	1.45	1.75	1.50	1.75
8/29/2019	1.10	1.50	1.75	1.35	1.75
9/30/2019	1.10	1.40	1.75	1.45	1.70
10/29/2019	1.15	1.40	1.70	1.35	1.70
11/27/2019	1.10	1.35	1.65	1.20	1.65
12/31/2019	1.10	1.40	1.75	1.35	1.70
1/30/2020	1.10	1.40	1.70	1.30	1.65
2/28/2020	1.15	1.40	1.70	1.30	1.70
3/25/2020	1.20	1.40	1.70	1.30	1.70
4/30/2020	1.20	1.40	1.75	1.45	1.70
5/28/2020	1.15	1.40	1.70	1.40	1.70
6/29/2020	1.10	1.45	1.75	1.35	1.75
7/27/2020	1.10	1.50	1.75	1.40	1.75

8/24/2020

9:00 AM



SE / 1.45 NE / 1.70 NW / 1.45 SW / 1.75

1.15
Server Room

Monthly Operation & Maintenance Log Active Sub-Slab Depressurization System

Project Name: _____ Project No.: _____
Project Location: _____ Client: _____
Preparer's Name: Dale A Barto Date/Time: 8-25-2020 - 9:00 AM
Notes: _____

Monthly Operating Status:

System(s) currently running? ☒ yes ☐ no

Has the system been off-line in the past month? ☐ yes ☒ no

If yes, please list the dates and brief description why (i.e. maintenance, part replacement, etc.):

What is the current Vacuum reading?

1.5

Visual Inspection:

Any piping disconnected?	<input type="checkbox"/> yes	<input checked="" type="checkbox"/> no
Any cracks visible in piping?	<input type="checkbox"/> yes	<input checked="" type="checkbox"/> no
Any new cracks visible in slab floor?	<input type="checkbox"/> yes	<input checked="" type="checkbox"/> no
Magnehelic guage reading 0?	<input type="checkbox"/> yes	<input checked="" type="checkbox"/> no

If yes to any question above, please provide more information below.

Monthly Operation & Maintenance Log Active Sub-Slab Depressurization System

Change in Occupancy / Use of Space:

Please indicate general use of floor space?

Manufacturing

Has this general use changed in the past month?

☐ yes

☒ no

If yes, please explain:

System Modifications:

Have any modifications been made to the Sub-Slab Depressurization System?

☐ yes

☒ no

If so, please list with date:

Magnehelic Readings

#1 Server Room Office

#2 S.E. Corner Cell 600/800

#3 N.E. Corner Warehouse

#4 N.W. Corner Cell 200

#5 S.W. Corner Cell 100

Date	#1 Server Room	#2 S.E. Corner	#3 N.E. Corner	#4 N.W. Corner	#5 S.W. Corner
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3/29/2019	1.10	1.45	1.70	1.35	1.70
4/29/2019	1.20	1.40	1.70	1.35	1.40
5/30/2019	1.15	1.40	1.75	1.40	1.75
6/28/2019	1.10	1.45	1.75	1.75	1.75
7/29/2019	1.10	1.45	1.75	1.50	1.75
8/29/2019	1.10	1.50	1.75	1.35	1.75
9/30/2019	1.10	1.40	1.75	1.45	1.70
10/29/2019	1.15	1.40	1.70	1.35	1.70
11/27/2019	1.10	1.35	1.65	1.20	1.65
12/31/2019	1.10	1.40	1.75	1.35	1.70
1/30/2020	1.10	1.40	1.70	1.30	1.65
2/28/2020	1.15	1.40	1.70	1.30	1.70
3/25/2020	1.20	1.40	1.70	1.30	1.70
4/30/2020	1.20	1.40	1.75	1.45	1.70
5/28/2020	1.15	1.40	1.70	1.40	1.70
6/29/2020	1.10	1.45	1.75	1.35	1.75
7/27/2020	1.10	1.50	1.75	1.40	1.75
8/26/2020	1.15	1.45	1.70	1.45	1.75

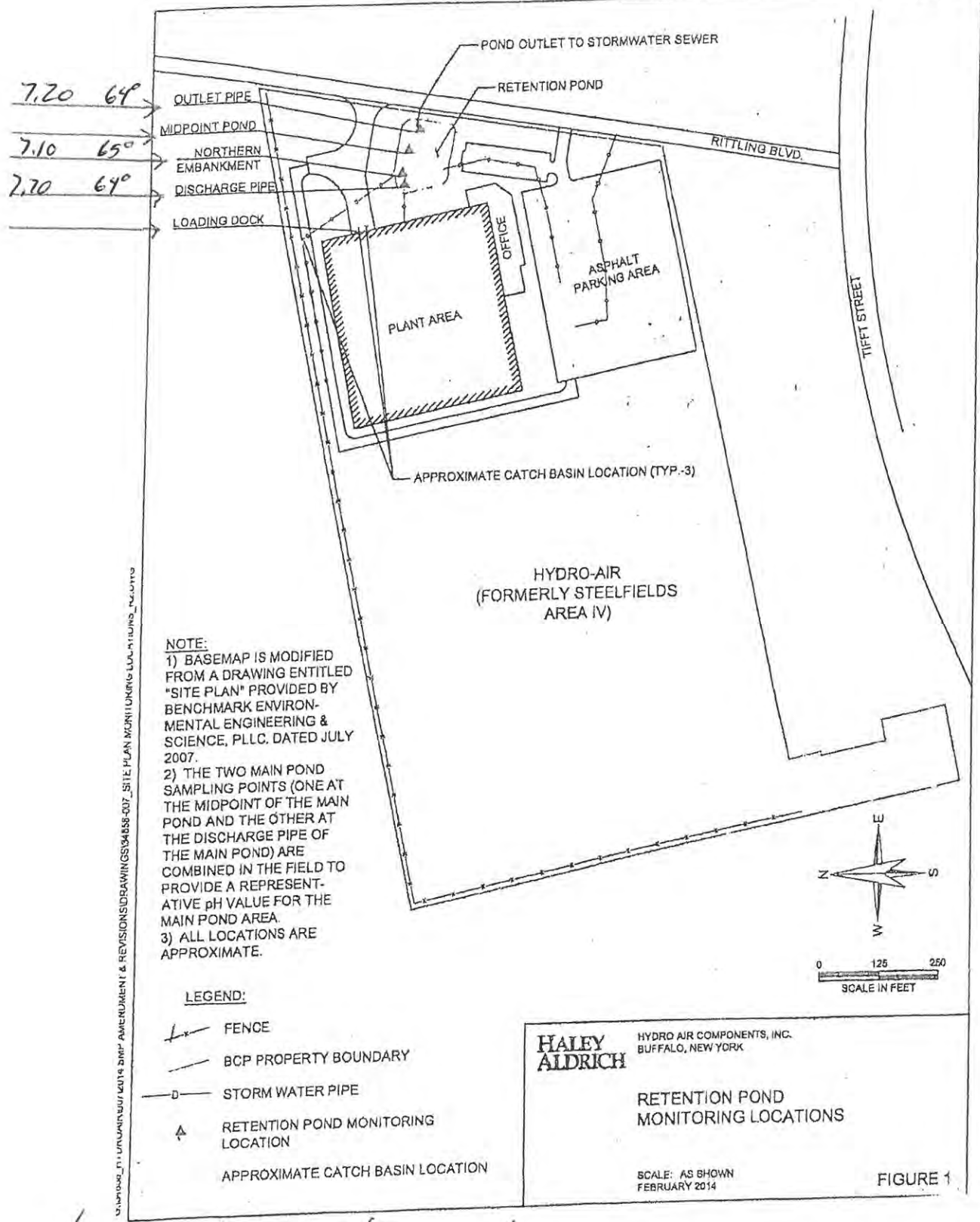
Loading Dock Discharge Monitoring Form
Hydro-Air Components, Inc.
BCP Site #C915204, Buffalo, NY

In accordance with

1. pH and temperature of a representative water from the 4 locations indicated on Figure 1.
2. weather conditions (general- wet/ dry, avg temp) since last measurement
3. estimated volume of water pumped from loading dock (based upon pump run time data)
4. notes on condition of pond (visual)

Staff Member	Date of Measure-ment	Measurement Location						Pump Run Time*	Est. Quantity of Water **	Visual Condition of Pond (color, vegetation, etc.)	Comments (e.g. weather conditions, etc)
		Discharge Pipe		Northern Embayment		Main Pond (Combined Samples)					
		ph	Temp (°F)	ph	Temp (°F)	ph	Temp (°F)				
Dale Barto	3/29/19 12:00 AM	8.10	45	7.50	44	6.50	46		9,895	clear	sunny
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Dale A Barto	5/30/2019 9:30am	7.95	48	7.75	46	6.60	47		30,036	clear	sunny
Dale A Barto	6/28/2019 9:30am	7.80	54	7.60	53	7.10	53		61,125	clear	sunny
Dale A Barto	7/29/2019 9:00am	7.75	72	7.50	72	7.00	73		30,036	clear	sunny
Dale A Barto	8/29/2019 9:30am	7.80	63	7.20	64	7.10	63		61,125	clear	sunny
Dale A Barto	9/30/2019 9:00am	7.70	60	7.30	61	7.00	61		26,560	clear	cloudy
Dale A Barto	10/29/2019 9:00am	7.75	48	7.20	46	7.15	47		64,646	clear	sunny
Dale A Barto	11/27/19 12:00 AM								26,570	Frozen	clear
Dale A Barto	12/31/2019 11:00am								64,653	Frozen	Cloudy
Dale A Barto	1/30/20 12:00 AM								26,598	Frozen	cloudy
Dale A Barto	2/28/2020 9:00am									Frozen	cloudy
Dale A Barto	3/25/2020 9:00am								64,706	Frozen	cloudy
Dale A Barto	4/30/20 12:00 AM	7.80	46	75.00	44	6.60	44		53,295	clear	rainyng
Dale A Barto	5/28/2020 9:30AM	7.80	51	7.60	53	7.30	49		102,139	clear	sunny
Dale A Barto	6/29/2020 9:00am	7.80	54	7.20	53	7.60	51		53,259	clear	sunny
Dale A Barto	7/27/2020 9:00am	7.50,	69	6.50	67	6.50	68		102,175	clear	sunny
Dale A Barto	8/26/20 12:00 AM	7.90	72	6.70	74	7.50	72		53,259	cler	sunny

9/29/2020



SE / 1.50 NE / 1.70 NW / 1.35 SW / 1.25

1.20
Server Room



Monthly Operation & Maintenance Log Active Sub-Slab Depressurization System

Project Name:

Project No.:

Project Location:

Client:

Preparer's Name: Dale A Barto

Date/Time: 9/29/2020 9:30 AM

Notes:

Monthly Operating Status:

System(s) currently running? ☒ yes ☐ no

Has the system been off-line in the past month? ☐ yes ☒ no

If yes, please list the dates and brief description why (i.e. maintenance, part replacement, etc.):

What is the current Vacuum reading?

1.50

Visual Inspection:

Any piping disconnected? ☐ yes ☒ no

Any cracks visible in piping? ☐ yes ☒ no

Any new cracks visible in slab floor? ☐ yes ☒ no

Magnehelic guage reading 0? ☐ yes ☒ no

If yes to any question above, please provide more information below.



Monthly Operation & Maintenance Log Active Sub-Slab Depressurization System

Change in Occupancy / Use of Space:

Please indicate general use of floor space?

Has this general use changed in the past month?

☐ yes

☒ no

Manufacturing

If yes, please explain:

System Modifications:

Have any modifications been made to the Sub-Slab Depressurization System?

☐ yes

☒ no

If so, please list with date:

Loading Dock Discharge Monitoring Form
Hydro-Air Components, Inc.
BCP Site #C915204, Buffalo, NY

In accordance with

1. ph and temperature of a representative water from the 4 locations indicated on Figure 1.
2. weather conditions (general- wet/ dry, avg temp) since last measurement
3. estimated volume of water pumped from loading dock (based upon pump run time data)
4. notes on condition of pond (visual)

Staff Member	Date of Measure-ment	Measurement Location						Pump Run Time*	Est. Quantity of Water **	Visual Condition of Pond (color, vegetation, etc.)	Comments (e.g. weather conditions, etc)
		Discharge Pipe		Northern Embayment		Main Pond (Combined Samples)					
		ph	Temp (°F)	ph	Temp (°F)	ph	Temp (°F)				
Dale Barto	3/29/19 12:00 AM	8.10	45	7.50	44	6.50	46		9,895	clear	sunny
Dale A Barto	4/29/2019 9:30am	7.90	46	7.80	44	6.80	45		61,125	clear	cloudy
Dale A Barto	5/30/2019 9:30am	7.95	48	7.75	46	6.60	47		30,036	clear	sunny
Dale A Barto	6/28/2019 9:30am	7.80	54	7.60	53	7.10	53		61,125	clear	sunny
Dale A Barto	7/29/2019 9:00am	7.75	72	7.50	72	7.00	73		30,036	clear	sunny
Dale A Barto	8/29/2019 9:30am	7.80	63	7.20	64	7.10	63		61,125	clear	sunny
Dale A Barto	9/30/2019 9:00am	7.70	60	7.30	61	7.00	61		26,560	clear	cloudy
Dale A Barto	10/29/2019 9:00am	7.75	48	7.20	46	7.15	47		64,646	clear	sunny
Dale A Barto	11/27/19 12:00 AM								26,570	Frozen	clear
Dale A Barto	12/31/2019 11:00am								64,653	Frozen	Cloudy
Dale A Barto	1/30/20 12:00 AM								26,598	Frozen	cloudy
Dale A Barto	2/28/2020 9:00am									Frozen	cloudy
Dale A Barto	3/25/2020 9:00am								64,706	Frozen	cloudy
Dale A Barto	4/30/20 12:00 AM	7.80	46	75.00	44	6.60	44		53,295	clear	raining
Dale A Barto	5/28/2020 9:30AM	7.80	51	7.60	53	7.30	49		102,139	clear	sunny
Dale A Barto	6/29/2020 9:00am	7.80	54	7.20	53	7.60	51		53,259	clear	sunny
Dale A Barto	7/27/2020 9:00am	7.50,	69	6.50	67	6.50	68		102,175	clear	sunny
Dale A Barto	8/26/20 12:00 AM	7.90	72	6.70	74	7.50	72		53,259	cler	sunny
Dale A Barto	9/29/20 12:00 AM	7.70	64	7.10	65	7.20	64		102,175	clear	cloudy

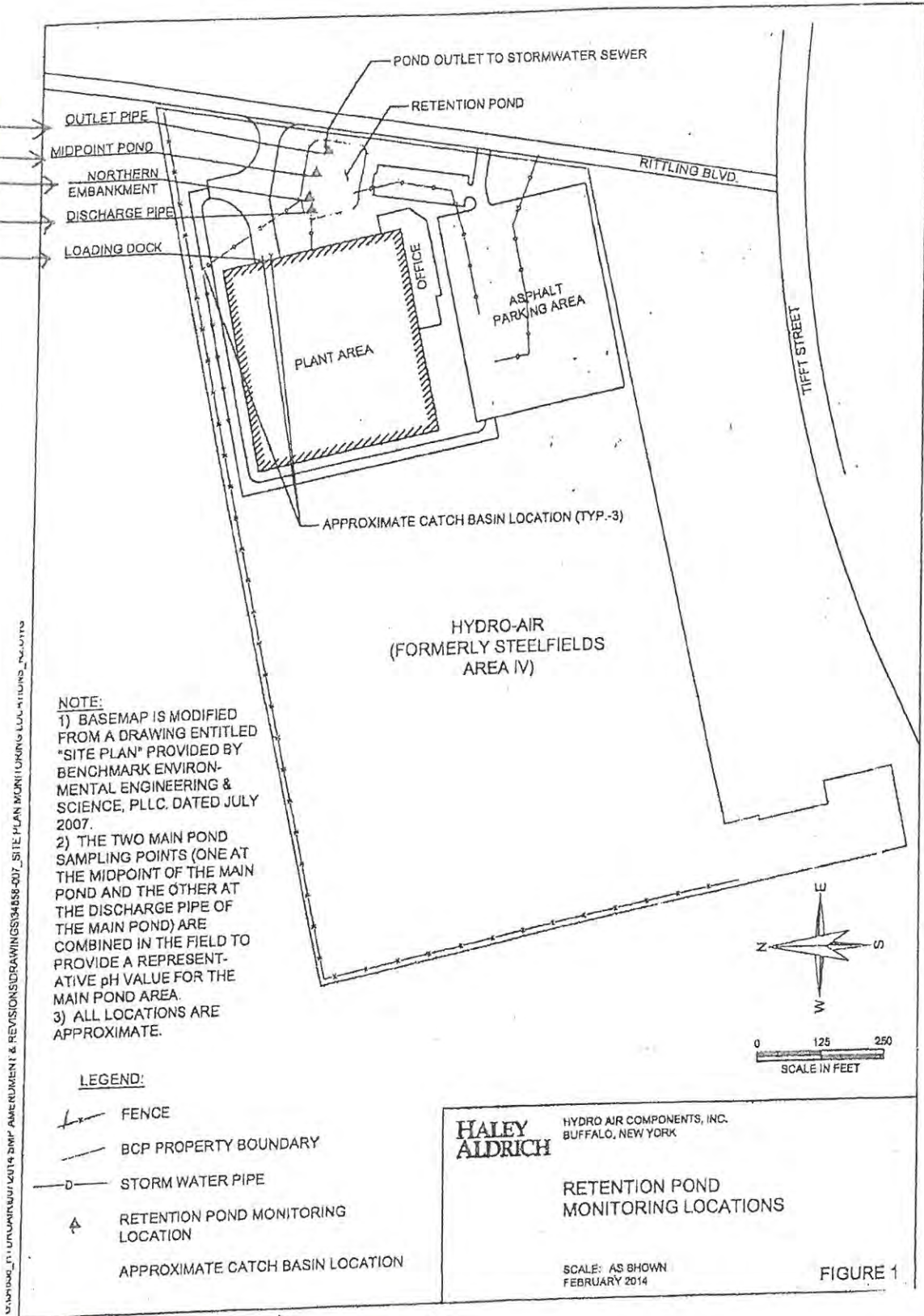
Magnehelic Readings

- #1 Server Room Office
- #2 S.E. Corner Cell 600/800
- #3 N.E. Corner Warehouse
- #4 N.W. Corner Cell 200
- #5 S.W. Corner Cell 100

Date	#1 Server Room	#2 S.E. Corner	#3 N.E. Corner	#4 N.W. Corner	#5 S.W. Corner
12/28/2018	1.10	1.45	1.70	1.25	1.70
1/31/2018	1.10	1.40	1.65	1.25	1.65
2/28/2019	1.15	1.45	1.75	1.35	1.70
3/29/2019	1.10	1.45	1.70	1.35	1.70
4/29/2019	1.20	1.40	1.70	1.35	1.40
5/30/2019	1.15	1.40	1.75	1.40	1.75
6/28/2019	1.10	1.45	1.75	1.75	1.75
7/29/2019	1.10	1.45	1.75	1.50	1.75
8/29/2019	1.10	1.50	1.75	1.35	1.75
9/30/2019	1.10	1.40	1.75	1.45	1.70
10/29/2019	1.15	1.40	1.70	1.35	1.70
11/27/2019	1.10	1.35	1.65	1.20	1.65
12/31/2019	1.10	1.40	1.75	1.35	1.70
1/30/2020	1.10	1.40	1.70	1.30	1.65
2/28/2020	1.15	1.40	1.70	1.30	1.70
3/25/2020	1.20	1.40	1.70	1.30	1.70
4/30/2020	1.20	1.40	1.75	1.45	1.70
5/28/2020	1.15	1.40	1.70	1.40	1.70
6/29/2020	1.10	1.45	1.75	1.35	1.75
7/27/2020	1.10	1.50	1.75	1.40	1.75
8/26/2020	1.15	1.45	1.70	1.45	1.75
9/29/2020	1.20	1.50	1.70	1.35	1.75

10/28/2020
9:30

6.0
6.0
14.0
10.5



1.40 / SE
1.75 / NE
1.40 / NW
1.20 / SW

1.10
Server Room



Monthly Operation & Maintenance Log Active Sub-Slab Depressurization System

Project Name: _____ Project No.: _____
Project Location: _____ Client: _____
Preparer's Name: Robert Darte Date/Time: 10/28/2020 9:30 AM
Notes: _____

Monthly Operating Status:

System(s) currently running? ☒ yes ☐ no

Has the system been off-line in the past month? ☐ yes ☒ no

If yes, please list the dates and brief description why (i.e. maintenance, part replacement, etc.):

What is the current Vacuum reading?

1.47

Visual Inspection:

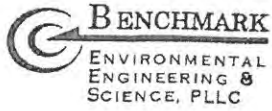
Any piping disconnected? ☐ yes ☒ no

Any cracks visible in piping? ☐ yes ☒ no

Any new cracks visible in slab floor? ☐ yes ☒ no

Magnehelic guage reading 0? ☐ yes ☒ no

If yes to any question above, please provide more information below.



Monthly Operation & Maintenance Log Active Sub-Slab Depressurization System

Change in Occupancy / Use of Space:

Please indicate general use of floor space?

Manufacturing

Has this general use changed in the past month?

☐ yes

☒ no

If yes, please explain:

System Modifications:

Have any modifications been made to the Sub-Slab Depressurization System?

☐ yes

☒ no

If so, please list with date:

Loading Dock Discharge Monitoring Form
Hydro-Air Components, Inc.
BCP Site #C915204, Buffalo, NY

In accordance with

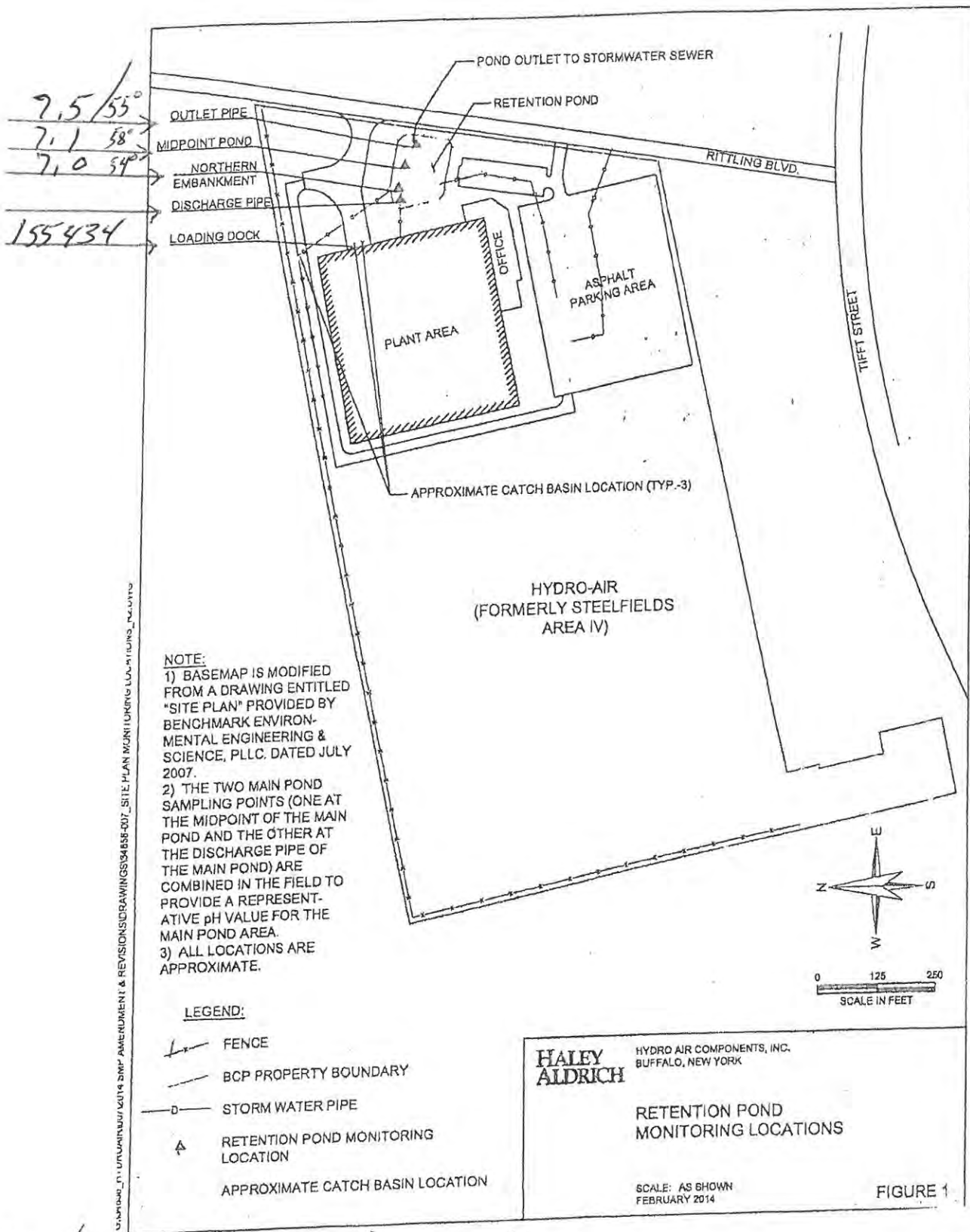
1. ph and temperature of a representative water from the 4 locations indicated on Figure 1.
2. weather conditions (general- wet/ dry, avg temp) since last measurement
3. estimated volume of water pumped from loading dock (based upon pump run time data)
4. notes on condition of pond (visual)

Staff Member	Date of Measure-ment	Measurement Location						Pump Run Time*	Est. Quantity of Water **	Visual Condition of Pond (color, vegetation, etc.)	Comments (e.g. weather conditions, etc)
		Discharge Pipe		Northern Embayment		Main Pond (Combined Samples)					
		ph	Temp (°F)	ph	Temp (°F)	ph	Temp (°F)				
Dale Barto	3/29/19 12:00 AM	8.10	45	7.50	44	6.50	46		9,895	clear	sunny
Dale A Barto	4/29/2019 9:30am	7.90	46	7.80	44	6.80	45		61,125	clear	cloudy
Dale A Barto	5/30/2019 9:30am	7.95	48	7.75	46	6.60	47		30,036	clear	sunny
Dale A Barto	6/28/2019 9:30am	7.80	54	7.60	53	7.10	53		61,125	clear	sunny
Dale A Barto	7/29/2019 9:00am	7.75	72	7.50	72	7.00	73		30,036	clear	sunny
Dale A Barto	8/29/2019 9:30am	7.80	63	7.20	64	7.10	63		61,125	clear	sunny
Dale A Barto	9/30/2019 9:00am	7.70	60	7.30	61	7.00	61		26,560	clear	cloudy
Dale A Barto	10/29/2019 9:00am	7.75	48	7.20	46	7.15	47		64,646	clear	sunny
Dale A Barto	11/27/19 12:00 AM								26,570	Frozen	clear
Dale A Barto	12/31/2019 11:00am								64,653	Frozen	Cloudy
Dale A Barto	1/30/20 12:00 AM								26,598	Frozen	cloudy
Dale A Barto	2/28/2020 9:00am									Frozen	cloudy
Dale A Barto	3/25/2020 9:00am								64,706	Frozen	cloudy
Dale A Barto	4/30/20 12:00 AM	7.80	46	75.00	44	6.60	44		53,295	clear	raining
Dale A Barto	5/28/2020 9:30AM	7.80	51	7.60	53	7.30	49		102,139	clear	sunny
Dale A Barto	6/29/2020 9:00am	7.80	54	7.20	53	7.60	51		53,259	clear	sunny
Dale A Barto	7/27/2020 9:00am	7.50,	69	6.50	67	6.50	68		102,175	clear	sunny
Dale A Barto	8/26/20 12:00 AM	7.90	72	6.70	74	7.50	72		53,259	cler	sunny
Dale A Barto	9/29/20 12:00 AM	7.70	64	7.10	65	7.20	64		102,175	clear	cloudy
Dale A Barto	10/28/2020 9:30AM	10.50	54	6.00	56	6.00	57		53,259	clear	cloudy

Magnehelic Readings

- #1 Server Room Office
- #2 S.E. Corner Cell 600/800
- #3 N.E. Corner Warehouse
- #4 N.W. Corner Cell 200
- #5 S.W. Corner Cell 100

Date	#1 Server Room	#2 S.E. Corner	#3 N.E. Corner	#4 N.W. Corner	#5 S.W. Corner
12/28/2018	1.10	1.45	1.70	1.25	1.70
1/31/2018	1.10	1.40	1.65	1.25	1.65
2/28/2019	1.15	1.45	1.75	1.35	1.70
3/29/2019	1.10	1.45	1.70	1.35	1.70
4/29/2019	1.20	1.40	1.70	1.35	1.40
5/30/2019	1.15	1.40	1.75	1.40	1.75
6/28/2019	1.10	1.45	1.75	1.75	1.75
7/29/2019	1.10	1.45	1.75	1.50	1.75
8/29/2019	1.10	1.50	1.75	1.35	1.75
9/30/2019	1.10	1.40	1.75	1.45	1.70
10/29/2019	1.15	1.40	1.70	1.35	1.70
11/27/2019	1.10	1.35	1.65	1.20	1.65
12/31/2019	1.10	1.40	1.75	1.35	1.70
1/30/2020	1.10	1.40	1.70	1.30	1.65
2/28/2020	1.15	1.40	1.70	1.30	1.70
3/25/2020	1.20	1.40	1.70	1.30	1.70
4/30/2020	1.20	1.40	1.75	1.45	1.70
5/28/2020	1.15	1.40	1.70	1.40	1.70
6/29/2020	1.10	1.45	1.75	1.35	1.75
7/27/2020	1.10	1.50	1.75	1.40	1.75
8/26/2020	1.15	1.45	1.70	1.45	1.75
9/29/2020	1.20	1.50	1.70	1.35	1.75



Dock Road, 114
155434
i.i
Server Room

1.40 / SE
1.70 / NE
1.40 / NW
1.65 / SW



Monthly Operation & Maintenance Log Active Sub-Slab Depressurization System

Project Name: _____ Project No.: _____
Project Location: _____ Client: _____
Preparer's Name: Dale A. Batt Date/Time: 11/30/2020 8:30 AM
Notes: _____

Monthly Operating Status:

System(s) currently running? ☒ yes ☐ no

Has the system been off-line in the past month? ☐ yes ☒ no

If yes, please list the dates and brief description why (i.e. maintenance, part replacement, etc.):

What is the current Vacuum reading?

1.45

Visual Inspection:

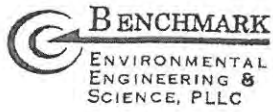
Any piping disconnected? ☐ yes ☒ no

Any cracks visible in piping? ☐ yes ☒ no

Any new cracks visible in slab floor? ☐ yes ☒ no

Magnehelic guage reading 0? ☐ yes ☒ no

If yes to any question above, please provide more information below.



Monthly Operation & Maintenance Log Active Sub-Slab Depressurization System

Change in Occupancy / Use of Space:

Please indicate general use of floor space?

Manufacturing

Has this general use changed in the past month?

☐ yes

☒ no

If yes, please explain:

System Modifications:

Have any modifications been made to the Sub-Slab Depressurization System?

☐ yes

☒ no

If so, please list with date:

Magnehelic Readings

#1 Server Room Office
 #2 S.E. Corner Cell 600/800
 #3 N.E. Corner Warehouse
 #4 N.W. Corner Cell 200
 #5 S.W. Corner Cell 100

Date	#1 Server Room	#2 S.E. Corner	#3 N.E. Corner	#4 N.W. Corner	#5 S.W. Corner	Average
12/28/2018	1.10	1.45	1.70	1.25	1.70	1.44
1/31/2018	1.10	1.40	1.65	1.25	1.65	1.41
2/28/2019	1.15	1.45	1.75	1.35	1.70	1.48
3/29/2019	1.10	1.45	1.70	1.35	1.70	1.46
4/29/2019	1.20	1.40	1.70	1.35	1.40	1.41
5/30/2019	1.15	1.40	1.75	1.40	1.75	1.49
6/28/2019	1.10	1.45	1.75	1.75	1.75	1.56
7/29/2019	1.10	1.45	1.75	1.50	1.75	1.51
8/29/2019	1.10	1.50	1.75	1.35	1.75	1.49
9/30/2019	1.10	1.40	1.75	1.45	1.70	1.48
10/29/2019	1.15	1.40	1.70	1.35	1.70	1.46
11/27/2019	1.10	1.35	1.65	1.20	1.65	1.39
12/31/2019	1.10	1.40	1.75	1.35	1.70	1.46
1/30/2020	1.10	1.40	1.70	1.30	1.65	1.43
2/28/2020	1.15	1.40	1.70	1.30	1.70	1.45
3/25/2020	1.20	1.40	1.70	1.30	1.70	1.46
4/30/2020	1.20	1.40	1.75	1.45	1.70	1.50
5/28/2020	1.15	1.40	1.70	1.40	1.70	1.47
6/29/2020	1.10	1.45	1.75	1.35	1.75	1.48
7/27/2020	1.10	1.50	1.75	1.40	1.75	1.50
8/26/2020	1.15	1.45	1.70	1.45	1.75	1.50
9/29/2020	1.20	1.50	1.70	1.35	1.75	1.50
10/27/2020	1.15	1.40	1.75	1.40	1.70	1.48
11/30/2020	1.10	1.40	1.70	1.40	1.65	1.45

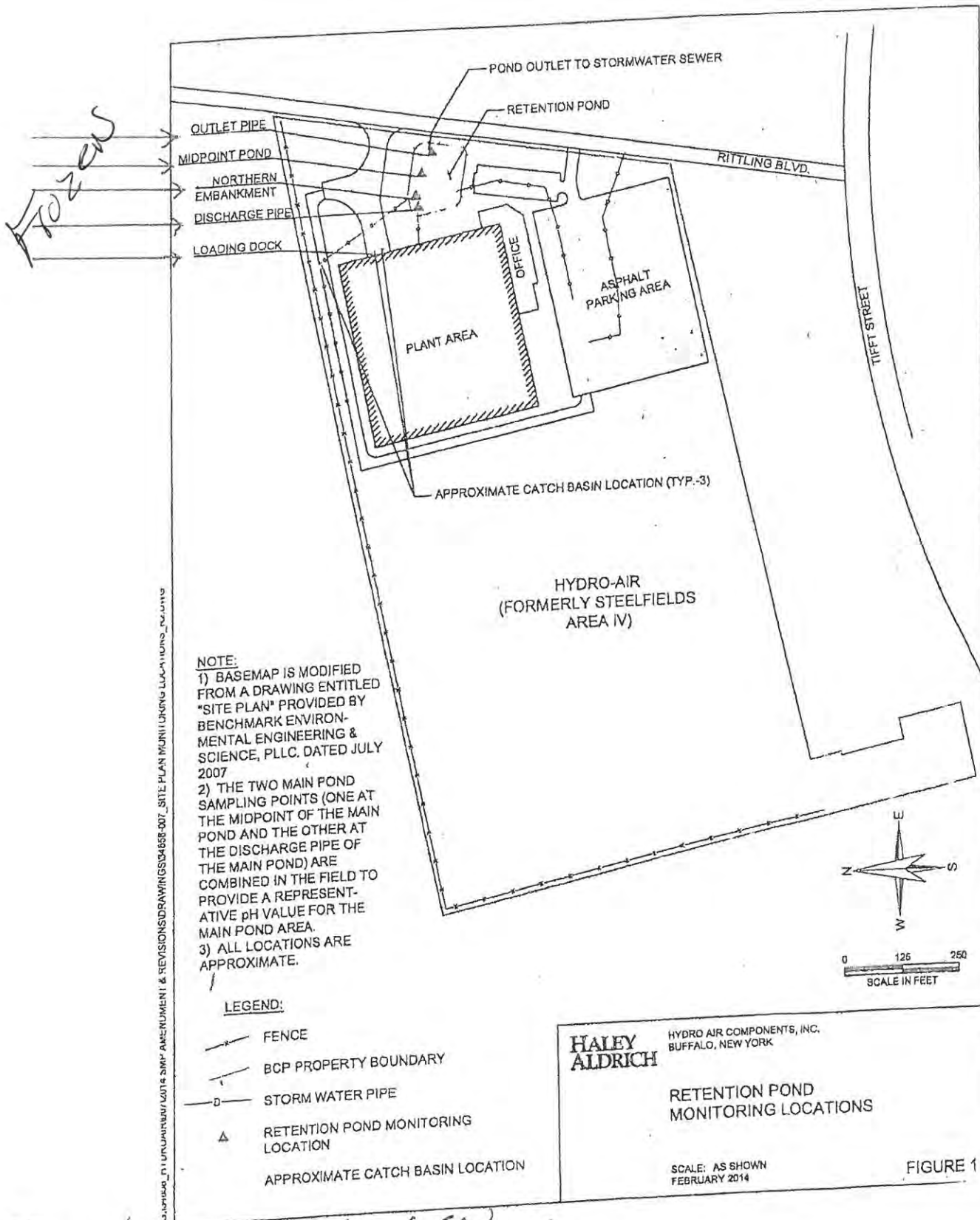
Loading Dock Discharge Monitoring Form
Hydro-Air Components, Inc.
BCP Site #C915204, Buffalo, NY

In accordance with

1. pH and temperature of a representative water from the 4 locations indicated on Figure 1.
2. weather conditions (general- wet/ dry, avg temp) since last measurement
3. estimated volume of water pumped from loading dock (based upon pump run time data)
4. notes on condition of pond (visual)

Staff Member	Date of Measure-ment	Measurement Location						Pump Run Time*	Est. Quantity of Water **	Visual Condition of Pond (color, vegetation, etc.)	Comments (e.g. weather conditions, etc)
		Discharge Pipe		Northern Embayment		Main Pond (Combined Samples)					
		ph	Temp (°F)	ph	Temp (°F)	ph	Temp (°F)				
Dale Barto	3/29/19 12:00 AM	8.10	45	7.50	44	6.50	46		9,895	clear	sunny
Dale A Barto	4/29/2019 9:30am	7.90	46	7.80	44	6.80	45		61,125	clear	cloudy
Dale A Barto	5/30/2019 9:30am	7.95	48	7.75	46	6.60	47		30,036	clear	sunny
Dale A Barto	6/28/2019 9:30am	7.80	54	7.60	53	7.10	53		61,125	clear	sunny
Dale A Barto	7/29/2019 9:00am	7.75	72	7.50	72	7.00	73		30,036	clear	sunny
Dale A Barto	8/29/2019 9:30am	7.80	63	7.20	64	7.10	63		61,125	clear	sunny
Dale A Barto	9/30/2019 9:00am	7.70	60	7.30	61	7.00	61		26,560	clear	cloudy
Dale A Barto	10/29/2019 9:00am	7.75	48	7.20	46	7.15	47		64,646	clear	sunny
Dale A Barto	11/27/19 12:00 AM								26,570	Frozen	clear
Dale A Barto	12/31/2019 11:00am								64,653	Frozen	Cloudy
Dale A Barto	1/30/20 12:00 AM								26,598	Frozen	cloudy
Dale A Barto	2/28/2020 9:00am									Frozen	cloudy
Dale A Barto	3/25/2020 9:00am								64,706	Frozen	cloudy
Dale A Barto	4/30/20 12:00 AM	7.80	46	7.50	44	6.60	44		53,295	clear	raining
Dale A Barto	5/28/2020 9:30AM	7.80	51	7.60	53	7.30	49		102,139	clear	sunny
Dale A Barto	6/29/2020 9:00am	7.80	54	7.20	53	7.60	51		53,259	clear	sunny
Dale A Barto	7/27/2020 9:00am	7.50,	69	6.50	67	6.50	68		102,175	clear	sunny
Dale A Barto	8/26/20 12:00 AM	7.90	72	6.70	74	7.50	72		53,259	cler	sunny
Dale A Barto	9/29/20 12:00 AM	7.70	64	7.10	65	7.20	64		102,175	clear	cloudy
Dale A Barto	10/28/2020 9:30AM	10.50	54	6.00	56	6.00	57		53,259	clear	cloudy
Dale A Barto	11/30/2020 8:30 AM	7.8	55	7.10	54	7.10	58		102,175	clear	Cloudy

12/30/2020
9:00 AM



SE 1.35 / NE 1.70 / NW 1.35 / SW 1.65

1.10
Server Rco



Monthly Operation & Maintenance Log Active Sub-Slab Depressurization System

Project Name: _____ Project No.: _____
Project Location: _____ Client: _____
Preparer's Name: _____ Date/Time: _____
Notes: _____

Monthly Operating Status:

System(s) currently running? ☒ yes ☐ no

Has the system been off-line in the past month? ☐ yes ☒ no

If yes, please list the dates and brief description why (i.e. maintenance, part replacement, etc.):

What is the current Vacuum reading?

1.43

Visual Inspection:

Any piping disconnected?	<input type="checkbox"/> yes	<input checked="" type="checkbox"/> no
Any cracks visible in piping?	<input type="checkbox"/> yes	<input checked="" type="checkbox"/> no
Any new cracks visible in slab floor?	<input type="checkbox"/> yes	<input checked="" type="checkbox"/> no
Magnehelic guage reading 0?	<input type="checkbox"/> yes	<input checked="" type="checkbox"/> no

If yes to any question above, please provide more information below.



Monthly Operation & Maintenance Log Active Sub-Slab Depressurization System

Change in Occupancy / Use of Space:

Please indicate general use of floor space?

Has this general use changed in the past month?

☐ yes

☒ no

Manufacturing

If yes, please explain:

System Modifications:

Have any modifications been made to the Sub-Slab Depressurization System?

☐ yes

☒ no

If so, please list with date:

Magnehelic Readings

- #1 Server Room Office
- #2 S.E. Corner Cell 600/800
- #3 N.E. Corner Warehouse
- #4 N.W. Corner Cell 200
- #5 S.W. Corner Cell 100

Date	#1 Server Room	#2 S.E. Corner	#3 N.E. Corner	#4 N.W. Corner	#5 S.W. Corner	Average
12/28/2018	1.10	1.45	1.70	1.25	1.70	1.44
1/31/2018	1.10	1.40	1.65	1.25	1.65	1.41
2/28/2019	1.15	1.45	1.75	1.35	1.70	1.48
3/29/2019	1.10	1.45	1.70	1.35	1.70	1.46
4/29/2019	1.20	1.40	1.70	1.35	1.40	1.41
5/30/2019	1.15	1.40	1.75	1.40	1.75	1.49
6/28/2019	1.10	1.45	1.75	1.75	1.75	1.56
7/29/2019	1.10	1.45	1.75	1.50	1.75	1.51
8/29/2019	1.10	1.50	1.75	1.35	1.75	1.49
9/30/2019	1.10	1.40	1.75	1.45	1.70	1.48
10/29/2019	1.15	1.40	1.70	1.35	1.70	1.46
11/27/2019	1.10	1.35	1.65	1.20	1.65	1.39
12/31/2019	1.10	1.40	1.75	1.35	1.70	1.46
1/30/2020	1.10	1.40	1.70	1.30	1.65	1.43
2/28/2020	1.15	1.40	1.70	1.30	1.70	1.45
3/25/2020	1.20	1.40	1.70	1.30	1.70	1.46
4/30/2020	1.20	1.40	1.75	1.45	1.70	1.50
5/28/2020	1.15	1.40	1.70	1.40	1.70	1.47
6/29/2020	1.10	1.45	1.75	1.35	1.75	1.48
7/27/2020	1.10	1.50	1.75	1.40	1.75	1.50
8/26/2020	1.15	1.45	1.70	1.45	1.75	1.50
9/29/2020	1.20	1.50	1.70	1.35	1.75	1.50
10/27/2020	1.15	1.40	1.75	1.40	1.70	1.48
11/30/2020	1.10	1.40	1.70	1.40	1.65	1.45
12/29/2020	1.10	1.35	1.70	1.35	1.65	1.43

Hydro-Air Components, Inc.
BCP Site #C915204, Buffalo, NY

In accordance with

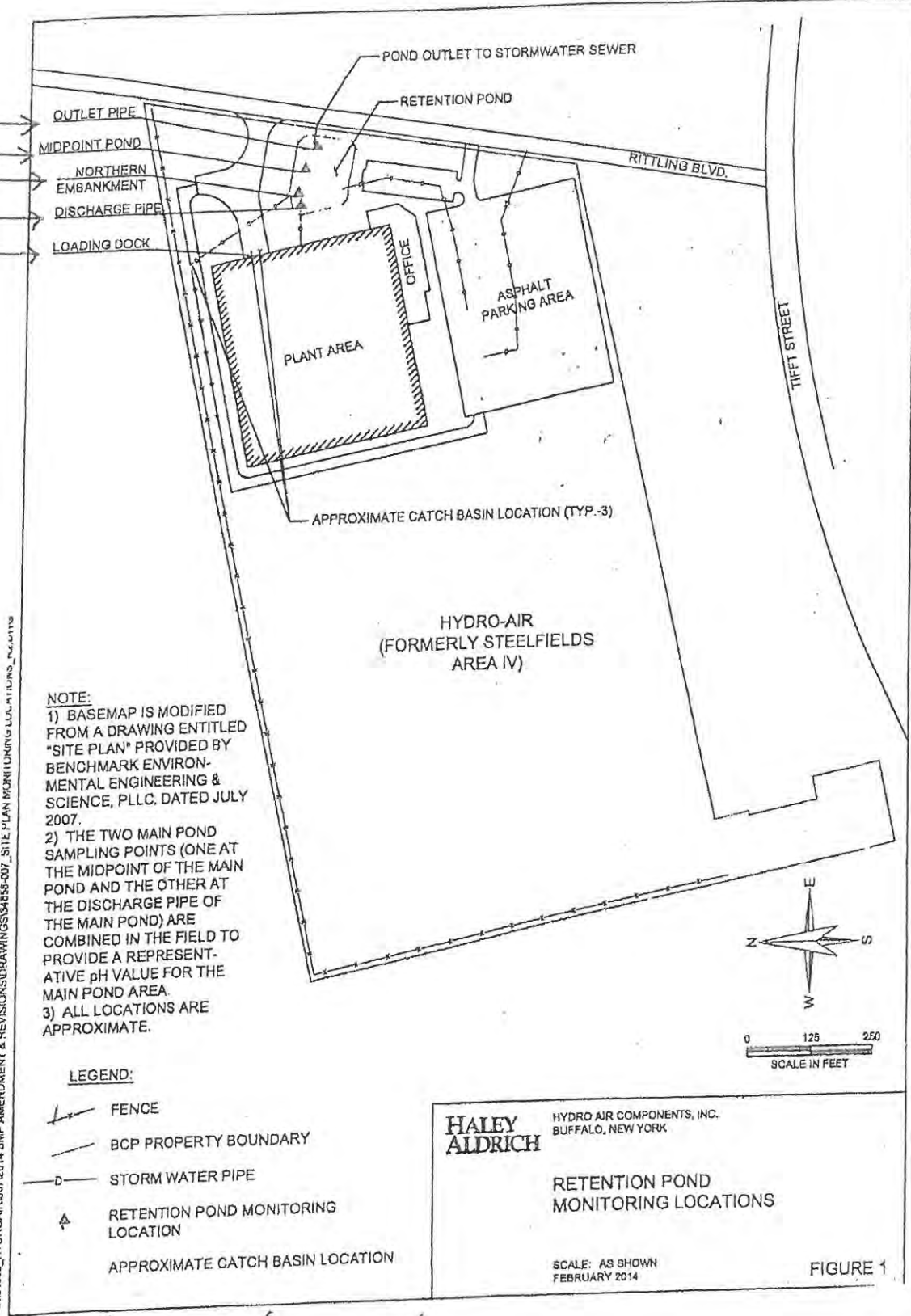
1. pH and temperature of a representative water from the 4 locations indicated on Figure 1.
2. weather conditions (general- wet/ dry, avg temp) since last measurement
3. estimated volume of water pumped from loading dock (based upon pump run time data)
4. notes on condition of pond (visual)

[illegible]

1-27-2021

9:00 AM

FROZEN



SE / 1.35 NE / 1.70 NW / 1.20 SW / 1.70

1.15
Server Room

Date	#1 Server Room	#2 S.E. Corner	#3 N.E. Corner	#4 N.W. Corner	#5 S.W. Corner	Average
12/28/2018	1.10	1.45	1.70	1.25	1.70	1.44
1/31/2018	1.10	1.40	1.65	1.25	1.65	1.41
2/28/2019	1.15	1.45	1.75	1.35	1.70	1.48
3/29/2019	1.10	1.45	1.70	1.35	1.70	1.46
4/29/2019	1.20	1.40	1.70	1.35	1.40	1.41
5/30/2019	1.15	1.40	1.75	1.40	1.75	1.49
6/28/2019	1.10	1.45	1.75	1.75	1.75	1.56
7/29/2019	1.10	1.45	1.75	1.50	1.75	1.51
8/29/2019	1.10	1.50	1.75	1.35	1.75	1.49
9/30/2019	1.10	1.40	1.75	1.45	1.70	1.48
10/29/2019	1.15	1.40	1.70	1.35	1.70	1.46
11/27/2019	1.10	1.35	1.65	1.20	1.65	1.39
12/31/2019	1.10	1.40	1.75	1.35	1.70	1.46
1/30/2020	1.10	1.40	1.70	1.30	1.65	1.43
2/28/2020	1.15	1.40	1.70	1.30	1.70	1.45
3/25/2020	1.20	1.40	1.70	1.30	1.70	1.46
4/30/2020	1.20	1.40	1.75	1.45	1.70	1.50
5/28/2020	1.15	1.40	1.70	1.40	1.70	1.47
6/29/2020	1.10	1.45	1.75	1.35	1.75	1.48
7/27/2020	1.10	1.50	1.75	1.40	1.75	1.50
8/26/2020	1.15	1.45	1.70	1.45	1.75	1.50
9/29/2020	1.20	1.50	1.70	1.35	1.75	1.50
10/27/2020	1.15	1.40	1.75	1.40	1.70	1.48
11/30/2020	1.10	1.40	1.70	1.40	1.65	1.45
12/29/2020	1.10	1.35	1.70	1.35	1.65	1.43
1/27/2021	1.15	1.35	1.70	1.20	1.70	1.42



Monthly Operation & Maintenance Log Active Sub-Slab Depressurization System

Project Name:

Project No.:

Project Location:

Client:

Preparer's Name:

Dale A. Banto

Date/Time:

1-27-2021

9:30 AM

Notes:

Monthly Operating Status:

System(s) currently running?

☒ yes

☐ no

Has the system been off-line in the past month?

☐ yes

☒ no

If yes, please list the dates and brief description why (i.e. maintenance, part replacement, etc.):

Flow meter for overflow to pond needs to be replaced - cleaned today and meter read same as last month. Cleaned meter today

What is the current Vacuum reading?

1.42

Visual Inspection:

Any piping disconnected?

☐ yes

☒ no

Any cracks visible in piping?

☐ yes

☒ no

Any new cracks visible in slab floor?

☐ yes

☒ no

Magnehelic gauge reading 0?

☐ yes

☒ no

If yes to any question above, please provide more information below.



Monthly Operation & Maintenance Log Active Sub-Slab Depressurization System

Change in Occupancy / Use of Space:

Please indicate general use of floor space?

Has this general use changed in the past month?

☐ yes

☒ no

Manufacturing

If yes, please explain:

System Modifications:

Have any modifications been made to the Sub-Slab Depressurization System?

☐ yes

☒ no

If so, please list with date:

Loading Dock Discharge Monitoring Form
 Hydro-Air Components, Inc.
 BCP Site #C915204, Buffalo, NY

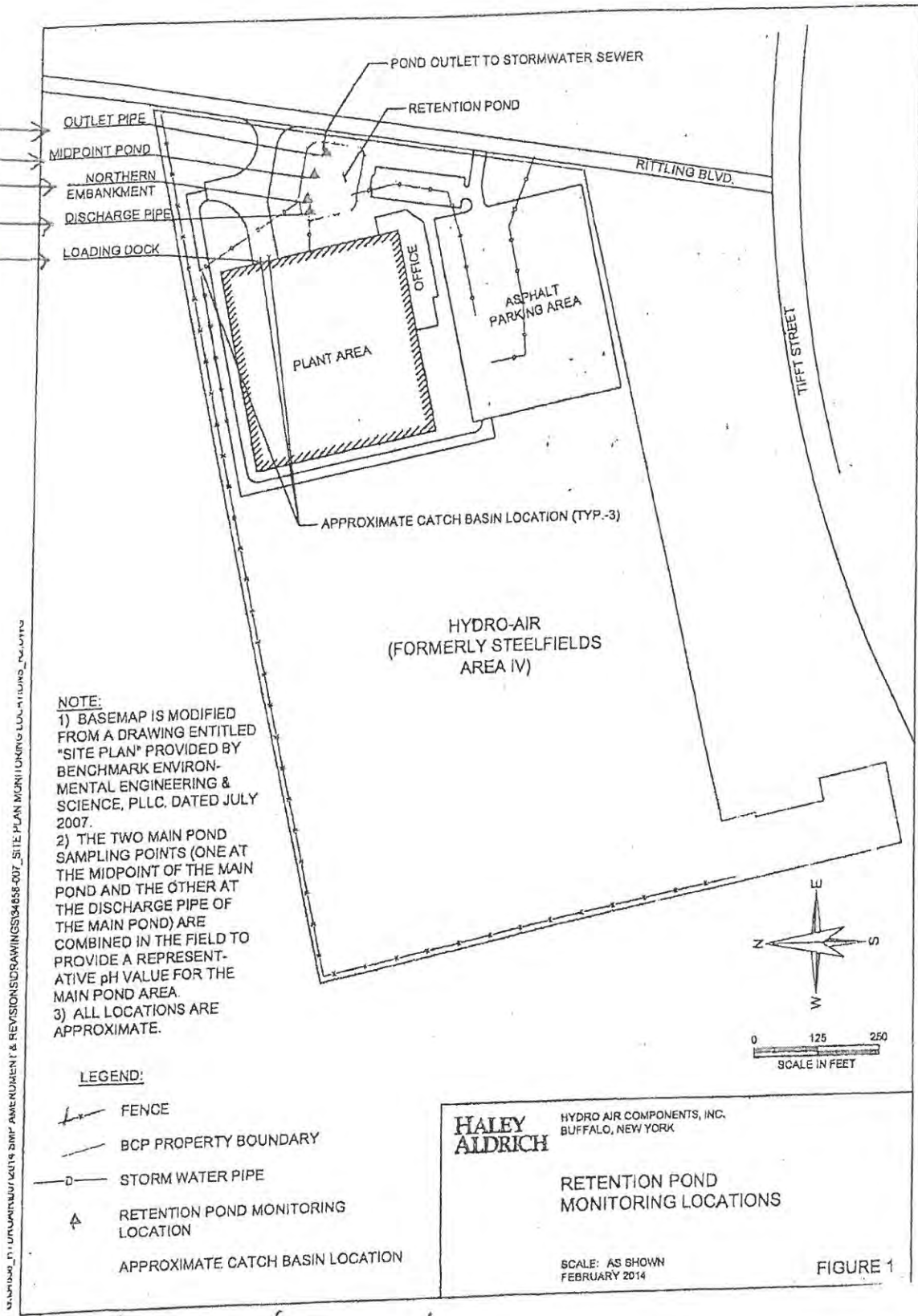
In accordance with

1. pH and temperature of a representative water from the 4 locations indicated on Figure 1.
2. weather conditions (general- wet/ dry, avg temp) since last measurement
3. estimated volume of water pumped from loading dock (based upon pump run time data)
4. notes on condition of pond (visual)

[illegible]

2/26/21

Frozen



1.35 / 1.65 / 1.25 / 1.65
SE / NE / NW / SW

1.20
Server Room

Loading Dock Discharge Monitoring Form
Hydro-Air Components, Inc.
BCP Site #C915204, Buffalo, NY

In accordance with

1. pH and temperature of a representative water from the 4 locations indicated on Figure 1.
2. weather conditions (general- wet/ dry, avg temp) since last measurement
3. estimated volume of water pumped from loading dock (based upon pump run time data)
4. notes on condition of pond (visual)

Staff Member	Date of Measure-ment	Measurement Location						Pump Run Time*	Est. Quantity of Water **	Visual Condition of Pond (color, vegetation, etc.)	Comments (e.g. weather conditions, etc)
		Discharge Pipe		Northern Embayment		Main Pond (Combined Samples)					
		ph	Temp (°F)	ph	Temp (°F)	ph	Temp (°F)				
Dale Barto	3/29/19 12:00 AM	8.10	45	7.50	44	6.50	46		9,895	clear	sunny
Dale A Barto	4/29/2019 9:30am	7.90	46	7.80	44	6.80	45		61,125	clear	cloudy
Dale A Barto	5/30/2019 9:30am	7.95	48	7.75	46	6.60	47		30,036	clear	sunny
Dale A Barto	6/28/2019 9:30am	7.80	54	7.60	53	7.10	53		61,125	clear	sunny
Dale A Barto	7/29/2019 9:00am	7.75	72	7.50	72	7.00	73		30,036	clear	sunny
Dale A Barto	8/29/2019 9:30am	7.80	63	7.20	64	7.10	63		61,125	clear	sunny
Dale A Barto	9/30/2019 9:00am	7.70	60	7.30	61	7.00	61		26,560	clear	cloudy
Dale A Barto	10/29/2019 9:00am	7.75	48	7.20	46	7.15	47		64,646	clear	sunny
Dale A Barto	11/27/19 12:00 AM								26,570	Frozen	clear
Dale A Barto	12/31/2019 11:00am								64,653	Frozen	Cloudy
Dale A Barto	1/30/20 12:00 AM								26,598	Frozen	cloudy
Dale A Barto	2/28/2020 9:00am									Frozen	cloudy
Dale A Barto	3/25/2020 9:00am								64,706	Frozen	cloudy
Dale A Barto	4/30/20 12:00 AM	7.80	46	7.50	44	6.60	44		53,295	clear	raining
Dale A Barto	5/28/2020 9:30AM	7.80	51	7.60	53	7.30	49		102,139	clear	sunny
Dale A Barto	6/29/2020 9:00am	7.80	54	7.20	53	7.60	51		53,259	clear	sunny
Dale A Barto	7/27/2020 9:00am	7.50,	69	6.50	67	6.50	68		102,175	clear	sunny
Dale A Barto	8/26/20 12:00 AM	7.90	72	6.70	74	7.50	72		53,259	cler	sunny
Dale A Barto	9/29/20 12:00 AM	7.70	64	7.10	65	7.20	64		102,175	clear	cloudy
Dale A Barto	10/28/2020 9:30AM	10.50	54	6.00	56	6.00	57		53,259	clear	cloudy
Dale A Barto	11/30/2020 9:00am									Frozen	Cloudy
Dale A Barto	12/30/2020 9:00am									Frozen	cloudy
Dale A Barto	1/27/2021 9:00am									Frozen	Cloudy
Dale A Barto	2/26/2021 9:00am								102,198	Frozen	cloudy

Date	#1 Server Room	#2 S.E. Corner	#3 N.E. Corner	#4 N.W. Corner	#5 S.W. Corner	Average
12/28/2018	1.10	1.45	1.70	1.25	1.70	1.44
1/31/2018	1.10	1.40	1.65	1.25	1.65	1.41
2/28/2019	1.15	1.45	1.75	1.35	1.70	1.48
3/29/2019	1.10	1.45	1.70	1.35	1.70	1.46
4/29/2019	1.20	1.40	1.70	1.35	1.40	1.41
5/30/2019	1.15	1.40	1.75	1.40	1.75	1.49
6/28/2019	1.10	1.45	1.75	1.75	1.75	1.56
7/29/2019	1.10	1.45	1.75	1.50	1.75	1.51
8/29/2019	1.10	1.50	1.75	1.35	1.75	1.49
9/30/2019	1.10	1.40	1.75	1.45	1.70	1.48
10/29/2019	1.15	1.40	1.70	1.35	1.70	1.46
11/27/2019	1.10	1.35	1.65	1.20	1.65	1.39
12/31/2019	1.10	1.40	1.75	1.35	1.70	1.46
1/30/2020	1.10	1.40	1.70	1.30	1.65	1.43
2/28/2020	1.15	1.40	1.70	1.30	1.70	1.45
3/25/2020	1.20	1.40	1.70	1.30	1.70	1.46
4/30/2020	1.20	1.40	1.75	1.45	1.70	1.50
5/28/2020	1.15	1.40	1.70	1.40	1.70	1.47
6/29/2020	1.10	1.45	1.75	1.35	1.75	1.48
7/27/2020	1.10	1.50	1.75	1.40	1.75	1.50
8/26/2020	1.15	1.45	1.70	1.45	1.75	1.50
9/29/2020	1.20	1.50	1.70	1.35	1.75	1.50
10/27/2020	1.15	1.40	1.75	1.40	1.70	1.48
11/30/2020	1.10	1.40	1.70	1.40	1.65	1.45
12/29/2020	1.10	1.35	1.70	1.35	1.65	1.43
1/27/2021	1.15	1.35	1.70	1.20	1.70	1.42
2/26/2021	1.20	1.35	1.65	1.25	1.65	1.42



Monthly Operation & Maintenance Log Active Sub-Slab Depressurization System

Project Name: _____ Project No.: _____
Project Location: _____ Client: _____
Preparer's Name: Dale A Banto Date/Time: 2-26-21 - 9:00 AM
Notes: _____

Monthly Operating Status:

System(s) currently running? ☒ yes ☐ no

Has the system been off-line in the past month? ☐ yes ☒ no

If yes, please list the dates and brief description why (i.e. maintenance, part replacement, etc.):

What is the current Vacuum reading?

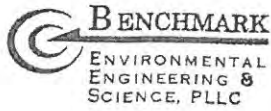
1.42

Visual Inspection:

Any piping disconnected?	<input type="checkbox"/> yes	<input checked="" type="checkbox"/> no
Any cracks visible in piping?	<input type="checkbox"/> yes	<input checked="" type="checkbox"/> no
Any new cracks visible in slab floor?	<input type="checkbox"/> yes	<input checked="" type="checkbox"/> no
Magnehelic guage reading 0?	<input type="checkbox"/> yes	<input checked="" type="checkbox"/> no

If yes to any question above, please provide more information below.

we will be installing a new flow meter
Sometime in March - I will keep you posted.



Monthly Operation & Maintenance Log Active Sub-Slab Depressurization System

Change in Occupancy / Use of Space:

Please indicate general use of floor space?

Manufacturing

Has this general use changed in the past month?

☐ yes

☒ no

If yes, please explain:

System Modifications:

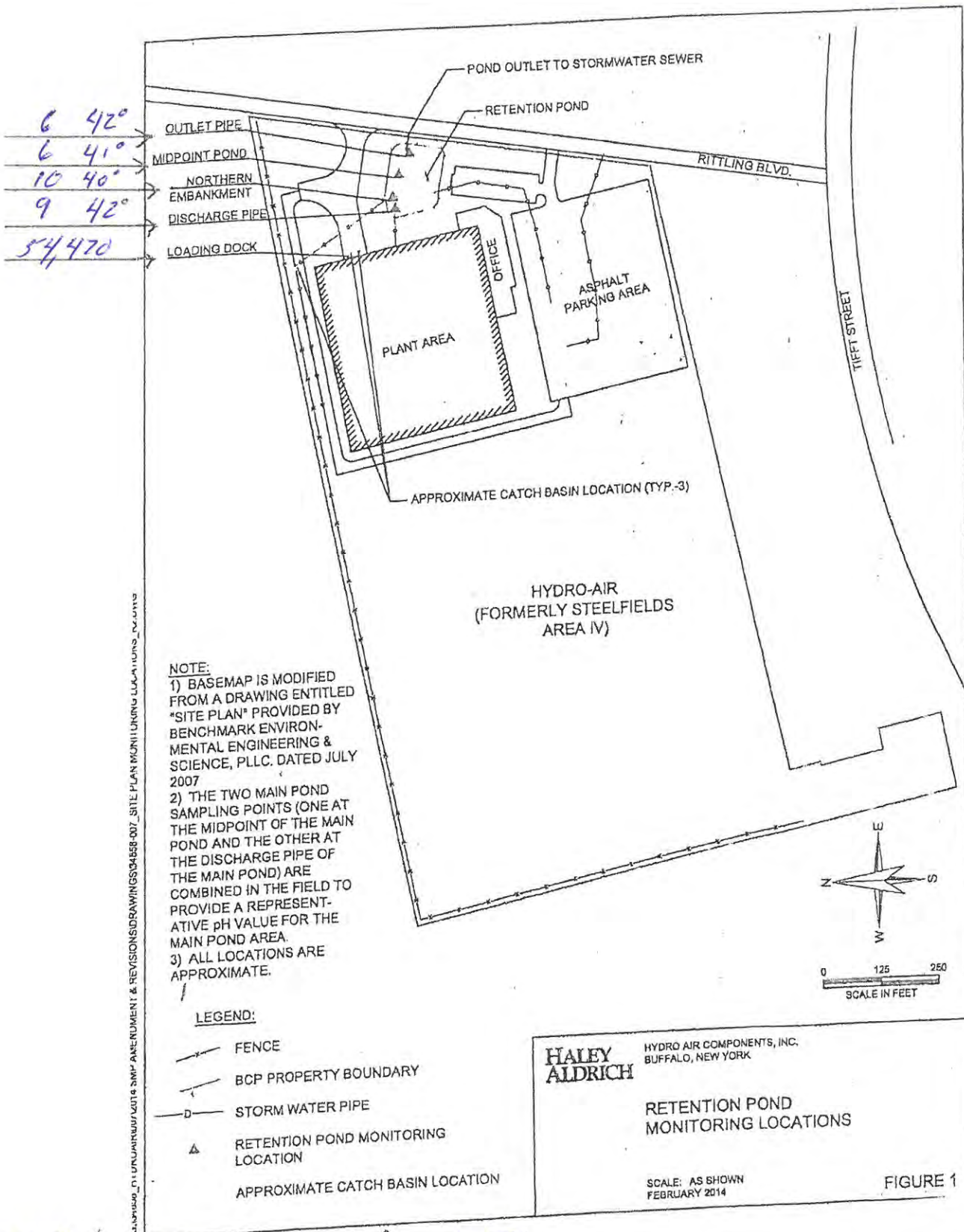
Have any modifications been made to the Sub-Slab Depressurization System?

☐ yes

☒ no

If so, please list with date:

3/31/21



1.45
SE

1.70
NE

1.40
NW

1.65
SW

1.15
Server Rco



Monthly Operation & Maintenance Log Active Sub-Slab Depressurization System

Project Name:

Project No.:

Project Location:

Client:

Preparer's Name:

Dale A Barts

Date/Time:

3/31/21

10:30 AM

Notes:

Monthly Operating Status:

System(s) currently running?

☒ yes

☐ no

Has the system been off-line in the past month?

☒ yes

☐ no

If yes, please list the dates and brief description why (i.e. maintenance, part replacement, etc.):

Replaced the flow meter with a new keyence flow control with a digital readout.

What is the current Vacuum reading?

1.47

Visual Inspection:

Any piping disconnected?

☐ yes

☒ no

Any cracks visible in piping?

☐ yes

☒ no

Any new cracks visible in slab floor?

☐ yes

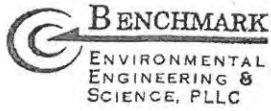
☒ no

Magnehelic guage reading 0?

☐ yes

☒ no

If yes to any question above, please provide more information below.



Monthly Operation & Maintenance Log Active Sub-Slab Depressurization System

Change in Occupancy / Use of Space:

Please indicate general use of floor space?

Manufacturing

Has this general use changed in the past month?

☐ yes

☒ no

If yes, please explain:

System Modifications:

Have any modifications been made to the Sub-Slab Depressurization System?

☐ yes

☒ no

If so, please list with date:

Date	#1 Server Room	#2 S.E. Corner	#3 N.E. Corner	#4 N.W. Corner	#5 S.W. Corner	Average
12/28/2018	1.10	1.45	1.70	1.25	1.70	1.44
1/31/2018	1.10	1.40	1.65	1.25	1.65	1.41
2/28/2019	1.15	1.45	1.75	1.35	1.70	1.48
3/29/2019	1.10	1.45	1.70	1.35	1.70	1.46
4/29/2019	1.20	1.40	1.70	1.35	1.40	1.41
5/30/2019	1.15	1.40	1.75	1.40	1.75	1.49
6/28/2019	1.10	1.45	1.75	1.75	1.75	1.56
7/29/2019	1.10	1.45	1.75	1.50	1.75	1.51
8/29/2019	1.10	1.50	1.75	1.35	1.75	1.49
9/30/2019	1.10	1.40	1.75	1.45	1.70	1.48
10/29/2019	1.15	1.40	1.70	1.35	1.70	1.46
11/27/2019	1.10	1.35	1.65	1.20	1.65	1.39
12/31/2019	1.10	1.40	1.75	1.35	1.70	1.46
1/30/2020	1.10	1.40	1.70	1.30	1.65	1.43
2/28/2020	1.15	1.40	1.70	1.30	1.70	1.45
3/25/2020	1.20	1.40	1.70	1.30	1.70	1.46
4/30/2020	1.20	1.40	1.75	1.45	1.70	1.50
5/28/2020	1.15	1.40	1.70	1.40	1.70	1.47
6/29/2020	1.10	1.45	1.75	1.35	1.75	1.48
7/27/2020	1.10	1.50	1.75	1.40	1.75	1.50
8/26/2020	1.15	1.45	1.70	1.45	1.75	1.50
9/29/2020	1.20	1.50	1.70	1.35	1.75	1.50
10/27/2020	1.15	1.40	1.75	1.40	1.70	1.48
11/30/2020	1.10	1.40	1.70	1.40	1.65	1.45
12/29/2020	1.10	1.35	1.70	1.35	1.65	1.43
1/27/2021	1.15	1.35	1.70	1.20	1.70	1.42
2/26/2021	1.20	1.35	1.65	1.25	1.65	1.42
3/31/2021	1.15	1.45	1.70	1.40	1.65	1.47

Loading Dock Discharge Monitoring Form
Hydro-Air Components, Inc.
BCP Site #C915204, Buffalo, NY

In accordance with

1. ph and temperature of a representative water from the 4 locations indicated on Figure 1.
2. weather conditions (general- wet/ dry, avg temp) since last measurement
3. estimated volume of water pumped from loading dock (based upon pump run time data)
4. notes on condition of pond (visual)

Staff Member	Date of Measure-ment	Measurement Location						Pump Run Time*	Est. Quantity of Water **	Visual Condition of Pond (color, vegetation, etc.)	Comments (e.g. weather conditions, etc)
		Discharge Pipe		Northern Embayment		Main Pond (Combined Samples)					
		ph	Temp (°F)	ph	Temp (°F)	ph	Temp (°F)				
Dale Barto	3/29/19 12:00 AM	8.10	45	7.50	44	6.50	46		9,895	clear	sunny
Dale A Barto	4/29/2019 9:30am	7.90	46	7.80	44	6.80	45		61,125	clear	cloudy
Dale A Barto	5/30/2019 9:30am	7.95	48	7.75	46	6.60	47		30,036	clear	sunny
Dale A Barto	6/28/2019 9:30am	7.80	54	7.60	53	7.10	53		61,125	clear	sunny
Dale A Barto	7/29/2019 9:00am	7.75	72	7.50	72	7.00	73		30,036	clear	sunny
Dale A Barto	8/29/2019 9:30am	7.80	63	7.20	64	7.10	63		61,125	clear	sunny
Dale A Barto	9/30/2019 9:00am	7.70	60	7.30	61	7.00	61		26,560	clear	cloudy
Dale A Barto	10/29/2019 9:00am	7.75	48	7.20	46	7.15	47		64,646	clear	sunny
Dale A Barto	11/27/19 12:00 AM								26,570	Frozen	clear
Dale A Barto	12/31/2019 11:00am								64,653	Frozen	Cloudy
Dale A Barto	1/30/20 12:00 AM								26,598	Frozen	cloudy
Dale A Barto	2/28/2020 9:00am									Frozen	cloudy
Dale A Barto	3/25/2020 9:00am								64,706	Frozen	cloudy
Dale A Barto	4/30/20 12:00 AM	7.80	46	7.50	44	6.60	44		53,295	clear	raining
Dale A Barto	5/28/2020 9:30AM	7.80	51	7.60	53	7.30	49		102,139	clear	sunny
Dale A Barto	6/29/2020 9:00am	7.80	54	7.20	53	7.60	51		53,259	clear	sunny
Dale A Barto	7/27/2020 9:00am	7.50,	69	6.50	67	6.50	68		102,175	clear	sunny
Dale A Barto	8/26/20 12:00 AM	7.90	72	6.70	74	7.50	72		53,259	cler	sunny
Dale A Barto	9/29/20 12:00 AM	7.70	64	7.10	65	7.20	64		102,175	clear	cloudy
Dale A Barto	10/28/2020 9:30AM	10.50	54	6.00	56	6.00	57		53,259	clear	cloudy
Dale A Barto	11/30/2020 9:00am									Frozen	Cloudy
Dale A Barto	12/30/2020 9:00am									Frozen	cloudy
Dale A Barto	1/27/2021 9:00am									Frozen	Cloudy
Dale A Barto	2/26/2021 9:00am								102,198	Frozen	cloudy
Dale A Barto	3/31/21 10:30 AM	9.00	42	10.00	41	6.00	42		54,420	cloudy	Raining

APPENDIX G

ORC Well Inspection Forms

ORC WELL ANNUAL INSPECTION FORM Active ORC monitoring wells

Zehnder Ritting

Project Name: Hydro Air

Project No.:

Project Location: Buffalo NY

Client:

Preparer's Name: Dawn G. Lauer

Date/Time: 1-30-20 9:15

A4 - ORC - 1

A4 - ORC - 2

A4 - ORC - 3

sampling dates: 1-30-20 9:22 11:30 1-30-20 10:50 1:45 1-30-20 11:00 3:50

Field groundwater quality measurements

BTOC -

Water Level

10.13'

12.1'

13.3'

Bottom Depth

14.4'

14.62'

14.3'

pH

3.45

3.51

5.36

Temperature

7.58

8.85

6.93

DO

2.22

1.03

2.40

ORP

180

239

70

Alkalinity

Refer to Figure 1 for well locations

Well integrity

Cement seal

☐ good

☐ poor

If poor please note well.

Pro - casing condition

☒ good

☐ poor

If poor please note any damage.

Lock condition

☒ good

☐ poor

If poor please note well.

Working J - plug

☒ yes

☐ no

If no please note well.

ORC Sock's

Have any Socks been replaced

☒ yes

☐ no

If replaced on what date and why. 1-30-20

scheduled replacement, 6 months on all wells

Are socks fully submerged in well screens.

☒ yes

☐ no

If no explain why.

Are all ORC wells being sampled and maintained according to the site management plan

☒ yes

☐ no

If no please state why.

Initial:

LM

Date:

1-30-20

ORC WELL ANNUAL INSPECTION FORM
Active ORC monitoring wells

Project Name: Zehnder Raising-Hydrofr Project No.: _____
Project Location: Buffalo, NY Client: _____
Preparer's Name: Lauren McNamara Date/Time: 8-6-20
sampling dates: 8/6/20 10:39 8/6/20 12:18 8/6/20 1:03

Field groundwater quality measurements

Water Level	<u>11.3</u>	<u>10.5</u>	<u>13'</u>
Bottom Depth	<u>14.4</u>	<u>14.62</u>	<u>14.3'</u>
pH	<u>3.61</u>	<u>3.17</u>	<u>5.13</u>
Temperature	<u>20.54</u>	<u>21.93</u>	<u>23.22</u>
DO	<u>1.36</u>	<u>0.24</u>	<u>0.85</u>
ORP	<u>188</u>	<u>281</u>	<u>145</u>
Alkalinity	<u>0-500</u>	<u><200</u>	<u>0</u>

Refer to Figure 1 for well locations

Well integrity

Cement seal	<input checked="" type="checkbox"/> good	<input type="checkbox"/> poor	If poor please note well.
Pro - casing condition	<input checked="" type="checkbox"/> good	<input type="checkbox"/> poor	If poor please note any damage.
Lock condition	<input checked="" type="checkbox"/> good	<input type="checkbox"/> poor	If poor please note well.
Working J - plug	<input checked="" type="checkbox"/> yes	<input type="checkbox"/> no	If no please note well.

ORC Sock's

Have any Socks been replaced ☒ yes ☐ no
If replaced on what date and why. 8/7/20 - all socks replaced as part of annual sampling
Are socks fully submerged in well screens. ☒ yes ☐ no
If no explain why. _____

Are all ORC wells begin sampled and maintained according to the site management plan
☒ yes ☐ no
If no please state why. _____

Initial: Juc Date: 8/7/20

APPENDIX H

Groundwater Sampling Field Monitoring Forms

LOW FLOW/MNA FIELD SAMPLING FORM

PROJECT	Hydro Air Sampling
LOCATION	Buffalo, NY
CLIENT	Zehnder Btilling
CONTRACTOR	NW Contracting

H&A FILE NO. _____

PROJECT MGR. DNG

FIELD REP. _____

SAMPLING DATE 8/7/20

Sampling Data:

Sampling Data:							
Well ID:	<u>A4-MW-5R</u>	Well Depth:	<u>11.55</u> ft	Initial Depth To Water:	<u>5.0</u> ft	Purging Device:	<u>peristaltic</u>
Start time:	<u>11:56</u>	Depth To Top Of Screen:	_____ ft	Depth Of Pump Intake:	<u>near bottom</u>	Tubing Present In Well:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Finish Time:	<u>12:56</u>	Depth To Bottom Of Screen:	_____ ft	Date Well Installed:	_____	Tubing Type:	<u>3/8" OD</u>

[illegible]

H&A FILE NO. _____

PROJECT MGR. DME

FIELD REP. _____

SAMPLING DATE 8-6-20

Sampling Data:

Well ID: <u>AW-MW-7R</u>	Well Depth: <u>13.60</u> ft	Initial Depth To Water: <u>3.60</u> ft	Purging Device: <u>peristaltic</u>
Start time: <u>2:07</u>	Depth To Top Of Screen: _____ ft	Depth Of Pump Intake: _____ ft	Tubing Present In Well: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Finish Time: _____	Depth To Bottom Of Screen: _____ ft	Date Well Installed: _____	Tubing Type: <u>3/8" OD</u>

[illegible]

LOW FLOW/MNA FIELD SAMPLING FORM

Page 1 of 1

PROJECT HydroAir Sampling
 LOCATION Buffalo, NY
 CLIENT Zehnder Billing
 CONTRACTOR AW Contracting

H&A FILE NO. _____
 PROJECT MGR. DM6
 FIELD REP. _____
 SAMPLING DATE 8-7-20

Sampling Data:
 Well ID: A4-MW-8R Well Depth: 15.2' BTOC ft Initial Depth To Water: 5.0' ft
 Start time: 8:57 Depth To Top Of Screen: _____ ft Depth Of Pump Intake: _____ ft
 Finish Time: 9:52 Depth To Bottom Of Screen: _____ ft Date Well Installed: _____
 Purging Device: peristaltic
 Tubing Present In Well: ☒ Yes ☐ No
 Tubing Type: 3/8" OD

Elapsed Time (24 hour)	Depth To Water From Casing (ft)	Pump Setting (ml/min) or (gal/min)	Purge Rate (ml/min) or (gal/min)	Cumulative Purge Vol. (liters) or (gal)	Temperature (°F) or (°C)	pH	Conductivity (us/cm) +/- %	Dissolved Oxygen (mg/L) +/- %	Turbidity (NTU) < NTU	ORP/eH (mv) +/- mv	Comments
8:57	0	5.0'									replaced tubing - used
9:02	5	6.5'	0.2	1	19.5'	5.72	4.25	2.27	3.4	-58	3/8" OD HDPE
9:07	10	7	0.2	2	17.0	5.59	4.45	1.55	2.5	-55	
9:15	18	7.3	0.25	3	15.72	5.48	4.55	1.26	0	-49	water column: 10.2'
9:21	24	7.5	0.17	4	15.6	5.46	4.56	1.17	0	-48	
9:26	29	7.5	0.2	5	15.4	5.47	4.59	1.23	0	-47	2" well & 0.17 multiplier
9:33	36	7.6	0.28	7	15.4	5.55	4.57	1.93	0.7	-47	
9:41	44	7.6	0.13	8	15.3	5.52	4.60	1.23	0.4	-49	well volume: 1.73 gallons
9:52	55	7.7	0.18	10	15.07	5.53	4.63	1.3	0	-49	
											casing head: 3.7'
											color: clear, slight gray tinge
											Alkalinity: 760
											good redox

LOW FLOW/MNA FIELD SAMPLING FORM

Page 1 of 1

PROJECT Hydro Air Sampling
LOCATION 3 Buffalo, NY
CLIENT Zehner Biting
CONTRACTOR NW Contracting

H&A FILE NO. _____
PROJECT MGR. DMS
FIELD REP. _____
SAMPLING DATE 8/7/20

Sampling Data:
Well ID: A4-MW-9 Well Depth: 13.5' ft Initial Depth To Water: 6.05 ft
Start time: 10:45 Depth To Top Of Screen: _____ ft Depth Of Pump Intake: _____ ft
Finish Time: 11:37 Depth To Bottom Of Screen: _____ ft Date Well Installed: _____
Purging Device: peristaltic
Tubing Present In Well: ☒ Yes ☐ No
Tubing Type: 3/8" OD

Elapsed Time (24 hour)	Depth To Water From Casing (ft)	Pump Setting (ml/min) or (gal/min)	Purge Rate (ml/min) or (gal/min)	Cumulative Purge Vol. (liters) or (gal)	Temperature (°F) or (°C)	pH	Conductivity (us/cm) +/- %	Dissolved Oxygen (mg/L) +/- %	Turbidity (NTU) < NTU	ORP/eH (mv) +/- mv	Comments
0	6.05										casing height: 2.5'
8	9.15		0.2	1	23.23	6.12	3.18	1.09	38.2	-81	
10	9.05		0.2	2	21.19	6.0	3.47	0.83	11.9	-88	water column: 7.45'
25	9.1		0.2	3	21.15	5.99	3.74	0.59	203	-74	
35	9.1		0.1	4	19.86	5.86	4.18	0.58	8.4	-72	2" Well 3.17
43	9.1		0.3	5	17.26	5.8	4.47	0.43	3.2	-72	
52	9.1		0.1	6	19.75	5.8	4.29	0.33	2.5	-68	well volume: 1.27 gal
											water clear, grayish time
											SiH coming from well
											lots of SiH after 1 well volume
											paused at 11:00 to clear tube
											Alkalinity: 650

10:45
10:50
10:55
11:10
paused at 11:00
in between 11:28
11:37

LOW FLOW/MNA FIELD SAMPLING FORM

PROJECT	Hydro Air Sampling
LOCATION	26 Buffalo NY
CLIENT	Zehner Rilling
CONTRACTOR	NW contracting

H&A FILE NO. _____
PROJECT MGR. DMG
FIELD REP. _____
SAMPLING DATE 8-6-20

Sampling Data:			
Well ID:	<u>A4</u>	Well Depth:	<u>15.55</u> ft
Start time:	<u>08:15</u>	Depth To Top Of Screen:	<u>Top of casing</u>
Finish Time:		Depth To Bottom Of Screen:	
		Initial Depth To Water:	<u>6.65</u> ft
		Depth Of Pump Intake:	
		Date Well Installed:	
		Purging Device:	<u>peristaltic pump</u>
		Tubing Present In Well:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
		Tubing Type:	<u>3/8" on</u>

[illegible]

LOW FLOW/MNA FIELD SAMPLING FORM

Page 1 of 1

PROJECT Hydro Air Sampling
LOCATION Buffalo, NY
CLIENT Zehner Mining
CONTRACTOR NW contracting

H&A FILE NO. _____
PROJECT MGR. DMG
FIELD REP. _____
SAMPLING DATE 8-6-20

Sampling Data:
Well ID: A4-ORC-01 Well Depth: 14.4' ft Initial Depth To Water: 4.42 ft Purging Device: Peristaltic Pump
Start time: 9:28 Depth To Top Of Screen: _____ ft Depth Of Pump Intake: _____ ft Tubing Present In Well: ☒ Yes ☐ No
Finish Time: 10:39 Depth To Bottom Of Screen: _____ ft Date Well Installed: _____ Tubing Type: 3/8" OD

Elapsed Time (24 hour)	Depth To Water From Casing (ft)	Pump Setting (ml/min) or (gal/min)	Purge Rate (ml/min) or (gal/min)	Cumulative Purge Vol. (liters) or (gal)	Temperature (°F) or (°C)	pH	Conductivity (us/cm) or (% +/-)	Dissolved Oxygen (mg/L) or (% +/-)	Turbidity (NTU) or (< NTU)	ORP/eH (mv) or (+/- mv)	Comments
9:28	4.42	0.1	0.1		17.62	4.05	27.6	3.16	178	219	Casing height: 2.15'
5min	5:4		0.1	0.5							well volume:
7			0.1	0.8	15.51	3.44	26.9	1.40	141	211	9.98' water column
15	11.8		0.16	2.5	16.7	3.46	25.2	1.05	132	210	10.67
25	8.35		0.12	3	17.74	3.49	24.5	0.89	133	213	well volume: 17.7 gallons
30	9.55		0.16	3.8	16.64	3.43	24.8	0.99	144	224	6.68 gallons
34	10		0.15	5	18.35	3.53	23.9	1.2	136	219	
45	10.6		0.15	7	18.17	3.46	24	0.62	152	210	Slow recharge
50	10.7		0.15	7.8	19.24	3.44	23	0.38	159	207	after 1 well volume
58	11.2		0.55	8.5	19	3.72	23.7	0.36	226	184	water at 10.6' bgs
1:11	11.3			10	20.54	3.61	22.4	1.36	235	188	
71											
											Cock change on 8/6/20
											at 10:19 AM
											WL ~ 4.45'

H&A FILE NO. _____
PROJECT MGR. DUG
FIELD REP. _____
SAMPLING DATE 8-10-20

Initial Depth To Water: 1.5' ft Purging Device: W/ STATIC

Depth Of Pump Intake: _____ ft Tubing Present In Well: ☒ Yes ☐ No

Date Well Installed: _____ Tubing Type: 3/8" OD

11:17	0.1	1.5										coding height: 25'
11:23	6	2.7		.08	0.5	20.45	3.19	29.6	.28	86.5	168	water column: 13.12'
11:33	16	4.0		.15	2.5	21.8	3.24	26.2	.25	101	179	
11:48	31	11.1		.16	5	22.21	3.26	25	.24	59.5	195	well volume: 8.79 gallons
11:57	40	12.2		.2	5 6.3	21.45	3.71	25.4	5 .57	70.1	250	
12:05	48	8.7		.15	8	21.93	3.19	24.5	.27	48	301	slow recovery
12:18	61	10.5		0.1	9	21.93	3.17	27.2	.24	204	281	

H&A FILE NO. _____
PROJECT MGR. DWG
FIELD REP. _____
SAMPLING DATE 8-6-20

Sampling Data:

Well ID:	A4-ORC-03	Well Depth:	14.3'	ft	Initial Depth To Water:	6.0	ft	Purging Device:	Peristaltic
Start time:	12:25	Depth To Top Of Screen:		ft	Depth Of Pump Intake:		ft	Tubing Present In Well:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Finish Time:	1:03	Depth To Bottom Of Screen:		ft	Date Well Installed:			Tubing Type:	3/8" ID

[illegible]

APPENDIX I

Groundwater Analytical Data – August 2020



ANALYTICAL REPORT

Lab Number:	L2032151
Client:	NW Contracting 3553 Crittenden Rd Alden, NY 14004
ATTN:	Dale Gromza
Phone:	(716) 937-6527
Project Name:	ZEHNZOR RITTLING HYDROAIR
Project Number:	20-014
Report Date:	08/17/20

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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: ZEHNZOR RITTLING HYDROAIR
Project Number: 20-014

Lab Number: L2032151
Report Date: 08/17/20

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L2032151-01	A4-MW-10R	WATER	BUFFALO, NY	08/06/20 13:15	08/07/20
L2032151-02	A4-MW-7R	WATER	BUFFALO, NY	08/06/20 14:15	08/07/20
L2032151-03	A4-MW-8R	WATER	BUFFALO, NY	08/07/20 09:00	08/07/20
L2032151-04	A4-MW-9	WATER	BUFFALO, NY	08/07/20 10:45	08/07/20
L2032151-05	A4-MW-5R	WATER	BUFFALO, NY	08/07/20 12:00	08/07/20
L2032151-06	TRIP BLANK	WATER	BUFFALO, NY	08/07/20 00:00	08/07/20

Project Name: ZEHNZOR RITTLING HYDROAIR
Project Number: 20-014

Lab Number: L2032151
Report Date: 08/17/20

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: ZEHNZOR RITTLING HYDROAIR
Project Number: 20-014

Lab Number: L2032151
Report Date: 08/17/20

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.

Sample Receipt

L2032151-01: The sample identified as "A4-MW-10R" on the chain of custody was identified as "A4-MW-10" on the container label. At the client's request, the sample is reported as "A4-MW-10R".

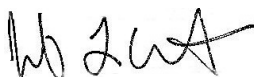
L2032151-06: A sample identified as "TRIP BLANK" for Volatile Organics analysis was received, but not listed on the Chain of Custody. At the client's request, this sample was analyzed.

Cyanide, Total

The WG1397060-4 MS recovery, performed on L2032151-03, is outside the acceptance criteria for cyanide, total (122%); however, the associated LCS recovery is within criteria. No further action was taken.

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:



Jennifer L Clements

Title: Technical Director/Representative

Date: 08/17/20

ORGANICS

VOLATILES

Project Name: ZEHNZOR RITTLING HYDROAIR**Lab Number:** L2032151**Project Number:** 20-014**Report Date:** 08/17/20**SAMPLE RESULTS**

Lab ID: L2032151-01 D

Date Collected: 08/06/20 13:15

Client ID: A4-MW-10R

Date Received: 08/07/20

Sample Location: BUFFALO, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Water

Analytical Method: 1,8260C

Analytical Date: 08/10/20 10:57

Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	10	2.8	4
1,1-Dichloroethane	ND		ug/l	10	2.8	4
Chloroform	ND		ug/l	10	2.8	4
Carbon tetrachloride	ND		ug/l	2.0	0.54	4
1,2-Dichloropropane	ND		ug/l	4.0	0.55	4
Dibromochloromethane	ND		ug/l	2.0	0.60	4
1,1,2-Trichloroethane	ND		ug/l	6.0	2.0	4
Tetrachloroethene	ND		ug/l	2.0	0.72	4
Chlorobenzene	ND		ug/l	10	2.8	4
Trichlorofluoromethane	ND		ug/l	10	2.8	4
1,2-Dichloroethane	ND		ug/l	2.0	0.53	4
1,1,1-Trichloroethane	ND		ug/l	10	2.8	4
Bromodichloromethane	ND		ug/l	2.0	0.77	4
trans-1,3-Dichloropropene	ND		ug/l	2.0	0.66	4
cis-1,3-Dichloropropene	ND		ug/l	2.0	0.58	4
Bromoform	ND		ug/l	8.0	2.6	4
1,1,2,2-Tetrachloroethane	ND		ug/l	2.0	0.67	4
Benzene	370		ug/l	2.0	0.64	4
Toluene	40		ug/l	10	2.8	4
Ethylbenzene	ND		ug/l	10	2.8	4
Chloromethane	ND		ug/l	10	2.8	4
Bromomethane	ND		ug/l	10	2.8	4
Vinyl chloride	ND		ug/l	4.0	0.28	4
Chloroethane	ND		ug/l	10	2.8	4
1,1-Dichloroethene	ND		ug/l	2.0	0.68	4
trans-1,2-Dichloroethene	ND		ug/l	10	2.8	4
Trichloroethene	ND		ug/l	2.0	0.70	4
1,2-Dichlorobenzene	ND		ug/l	10	2.8	4

Project Name: ZEHNZOR RITTLING HYDROAIR**Lab Number:** L2032151**Project Number:** 20-014**Report Date:** 08/17/20**SAMPLE RESULTS**

Lab ID: L2032151-01 D

Date Collected: 08/06/20 13:15

Client ID: A4-MW-10R

Date Received: 08/07/20

Sample Location: BUFFALO, NY

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	10	2.8	4
1,4-Dichlorobenzene	ND		ug/l	10	2.8	4
Methyl tert butyl ether	ND		ug/l	10	2.8	4
p/m-Xylene	ND		ug/l	10	2.8	4
o-Xylene	ND		ug/l	10	2.8	4
cis-1,2-Dichloroethene	ND		ug/l	10	2.8	4
Styrene	ND		ug/l	10	2.8	4
Dichlorodifluoromethane	ND		ug/l	20	4.0	4
Acetone	7.4	J	ug/l	20	5.8	4
Carbon disulfide	ND		ug/l	20	4.0	4
2-Butanone	ND		ug/l	20	7.8	4
4-Methyl-2-pentanone	ND		ug/l	20	4.0	4
2-Hexanone	ND		ug/l	20	4.0	4
Bromochloromethane	ND		ug/l	10	2.8	4
1,2-Dibromoethane	ND		ug/l	8.0	2.6	4
1,2-Dibromo-3-chloropropane	ND		ug/l	10	2.8	4
Isopropylbenzene	ND		ug/l	10	2.8	4
1,2,3-Trichlorobenzene	ND		ug/l	10	2.8	4
1,2,4-Trichlorobenzene	ND		ug/l	10	2.8	4
Methyl Acetate	ND		ug/l	8.0	0.94	4
Cyclohexane	ND		ug/l	40	1.1	4
1,4-Dioxane	ND		ug/l	1000	240	4
Freon-113	ND		ug/l	10	2.8	4
Methyl cyclohexane	ND		ug/l	40	1.6	4

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	107		70-130
Toluene-d8	98		70-130
4-Bromofluorobenzene	106		70-130
Dibromofluoromethane	97		70-130

Project Name: ZEHNZOR RITTLING HYDROAIR**Lab Number:** L2032151**Project Number:** 20-014**Report Date:** 08/17/20**SAMPLE RESULTS**

Lab ID: L2032151-02
 Client ID: A4-MW-7R
 Sample Location: BUFFALO, NY

Date Collected: 08/06/20 14:15
 Date Received: 08/07/20
 Field Prep: Not Specified

Sample Depth:

Matrix: Water
 Analytical Method: 1,8260C
 Analytical Date: 08/10/20 12:02
 Analyst: PD

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	140		ug/l	0.50	0.16	1
Toluene	22		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: ZEHNZOR RITTLING HYDROAIR**Lab Number:** L2032151**Project Number:** 20-014**Report Date:** 08/17/20**SAMPLE RESULTS****Lab ID:** L2032151-02**Date Collected:** 08/06/20 14:15**Client ID:** A4-MW-7R**Date Received:** 08/07/20**Sample Location:** BUFFALO, NY**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	0.97	J	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
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Isopropylbenzene	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
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

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	103		70-130
Toluene-d8	99		70-130
4-Bromofluorobenzene	106		70-130
Dibromofluoromethane	98		70-130

Project Name: ZEHNZOR RITTLING HYDROAIR**Lab Number:** L2032151**Project Number:** 20-014**Report Date:** 08/17/20**SAMPLE RESULTS**

Lab ID: L2032151-03 D

Date Collected: 08/07/20 09:00

Client ID: A4-MW-8R

Date Received: 08/07/20

Sample Location: BUFFALO, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Water

Analytical Method: 1,8260C

Analytical Date: 08/10/20 11:19

Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	250	70.	100
1,1-Dichloroethane	ND		ug/l	250	70.	100
Chloroform	ND		ug/l	250	70.	100
Carbon tetrachloride	ND		ug/l	50	13.	100
1,2-Dichloropropane	ND		ug/l	100	14.	100
Dibromochloromethane	ND		ug/l	50	15.	100
1,1,2-Trichloroethane	ND		ug/l	150	50.	100
Tetrachloroethene	ND		ug/l	50	18.	100
Chlorobenzene	ND		ug/l	250	70.	100
Trichlorofluoromethane	ND		ug/l	250	70.	100
1,2-Dichloroethane	ND		ug/l	50	13.	100
1,1,1-Trichloroethane	ND		ug/l	250	70.	100
Bromodichloromethane	ND		ug/l	50	19.	100
trans-1,3-Dichloropropene	ND		ug/l	50	16.	100
cis-1,3-Dichloropropene	ND		ug/l	50	14.	100
Bromoform	ND		ug/l	200	65.	100
1,1,2,2-Tetrachloroethane	ND		ug/l	50	17.	100
Benzene	12000		ug/l	50	16.	100
Toluene	ND		ug/l	250	70.	100
Ethylbenzene	ND		ug/l	250	70.	100
Chloromethane	ND		ug/l	250	70.	100
Bromomethane	ND		ug/l	250	70.	100
Vinyl chloride	ND		ug/l	100	7.1	100
Chloroethane	ND		ug/l	250	70.	100
1,1-Dichloroethene	ND		ug/l	50	17.	100
trans-1,2-Dichloroethene	ND		ug/l	250	70.	100
Trichloroethene	ND		ug/l	50	18.	100
1,2-Dichlorobenzene	ND		ug/l	250	70.	100

Project Name: ZEHNZOR RITTLING HYDROAIR**Lab Number:** L2032151**Project Number:** 20-014**Report Date:** 08/17/20**SAMPLE RESULTS**

Lab ID: L2032151-03 D

Date Collected: 08/07/20 09:00

Client ID: A4-MW-8R

Date Received: 08/07/20

Sample Location: BUFFALO, NY

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	250	70.	100
1,4-Dichlorobenzene	ND		ug/l	250	70.	100
Methyl tert butyl ether	ND		ug/l	250	70.	100
p/m-Xylene	ND		ug/l	250	70.	100
o-Xylene	ND		ug/l	250	70.	100
cis-1,2-Dichloroethene	ND		ug/l	250	70.	100
Styrene	ND		ug/l	250	70.	100
Dichlorodifluoromethane	ND		ug/l	500	100	100
Acetone	ND		ug/l	500	150	100
Carbon disulfide	ND		ug/l	500	100	100
2-Butanone	ND		ug/l	500	190	100
4-Methyl-2-pentanone	ND		ug/l	500	100	100
2-Hexanone	ND		ug/l	500	100	100
Bromochloromethane	ND		ug/l	250	70.	100
1,2-Dibromoethane	ND		ug/l	200	65.	100
1,2-Dibromo-3-chloropropane	ND		ug/l	250	70.	100
Isopropylbenzene	ND		ug/l	250	70.	100
1,2,3-Trichlorobenzene	ND		ug/l	250	70.	100
1,2,4-Trichlorobenzene	ND		ug/l	250	70.	100
Methyl Acetate	ND		ug/l	200	23.	100
Cyclohexane	ND		ug/l	1000	27.	100
1,4-Dioxane	ND		ug/l	25000	6100	100
Freon-113	ND		ug/l	250	70.	100
Methyl cyclohexane	ND		ug/l	1000	40.	100

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	101		70-130
Toluene-d8	100		70-130
4-Bromofluorobenzene	107		70-130
Dibromofluoromethane	96		70-130

Project Name: ZEHNZOR RITTLING HYDROAIR**Lab Number:** L2032151**Project Number:** 20-014**Report Date:** 08/17/20**SAMPLE RESULTS**

Lab ID: L2032151-04 D

Date Collected: 08/07/20 10:45

Client ID: A4-MW-9

Date Received: 08/07/20

Sample Location: BUFFALO, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Water

Analytical Method: 1,8260C

Analytical Date: 08/10/20 11:40

Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	12	3.5	5
1,1-Dichloroethane	ND		ug/l	12	3.5	5
Chloroform	ND		ug/l	12	3.5	5
Carbon tetrachloride	ND		ug/l	2.5	0.67	5
1,2-Dichloropropane	ND		ug/l	5.0	0.68	5
Dibromochloromethane	ND		ug/l	2.5	0.74	5
1,1,2-Trichloroethane	ND		ug/l	7.5	2.5	5
Tetrachloroethene	ND		ug/l	2.5	0.90	5
Chlorobenzene	ND		ug/l	12	3.5	5
Trichlorofluoromethane	ND		ug/l	12	3.5	5
1,2-Dichloroethane	ND		ug/l	2.5	0.66	5
1,1,1-Trichloroethane	ND		ug/l	12	3.5	5
Bromodichloromethane	ND		ug/l	2.5	0.96	5
trans-1,3-Dichloropropene	ND		ug/l	2.5	0.82	5
cis-1,3-Dichloropropene	ND		ug/l	2.5	0.72	5
Bromoform	ND		ug/l	10	3.2	5
1,1,2,2-Tetrachloroethane	ND		ug/l	2.5	0.84	5
Benzene	590		ug/l	2.5	0.80	5
Toluene	ND		ug/l	12	3.5	5
Ethylbenzene	ND		ug/l	12	3.5	5
Chloromethane	ND		ug/l	12	3.5	5
Bromomethane	ND		ug/l	12	3.5	5
Vinyl chloride	ND		ug/l	5.0	0.36	5
Chloroethane	ND		ug/l	12	3.5	5
1,1-Dichloroethene	ND		ug/l	2.5	0.84	5
trans-1,2-Dichloroethene	ND		ug/l	12	3.5	5
Trichloroethene	ND		ug/l	2.5	0.88	5
1,2-Dichlorobenzene	ND		ug/l	12	3.5	5

Project Name: ZEHNZOR RITTLING HYDROAIR**Lab Number:** L2032151**Project Number:** 20-014**Report Date:** 08/17/20**SAMPLE RESULTS**

Lab ID: L2032151-04 D

Date Collected: 08/07/20 10:45

Client ID: A4-MW-9

Date Received: 08/07/20

Sample Location: BUFFALO, NY

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	12	3.5	5
1,4-Dichlorobenzene	ND		ug/l	12	3.5	5
Methyl tert butyl ether	ND		ug/l	12	3.5	5
p/m-Xylene	ND		ug/l	12	3.5	5
o-Xylene	ND		ug/l	12	3.5	5
cis-1,2-Dichloroethene	ND		ug/l	12	3.5	5
Styrene	ND		ug/l	12	3.5	5
Dichlorodifluoromethane	ND		ug/l	25	5.0	5
Acetone	ND		ug/l	25	7.3	5
Carbon disulfide	5.0	J	ug/l	25	5.0	5
2-Butanone	ND		ug/l	25	9.7	5
4-Methyl-2-pentanone	ND		ug/l	25	5.0	5
2-Hexanone	ND		ug/l	25	5.0	5
Bromochloromethane	ND		ug/l	12	3.5	5
1,2-Dibromoethane	ND		ug/l	10	3.2	5
1,2-Dibromo-3-chloropropane	ND		ug/l	12	3.5	5
Isopropylbenzene	ND		ug/l	12	3.5	5
1,2,3-Trichlorobenzene	ND		ug/l	12	3.5	5
1,2,4-Trichlorobenzene	ND		ug/l	12	3.5	5
Methyl Acetate	ND		ug/l	10	1.2	5
Cyclohexane	ND		ug/l	50	1.4	5
1,4-Dioxane	ND		ug/l	1200	300	5
Freon-113	ND		ug/l	12	3.5	5
Methyl cyclohexane	ND		ug/l	50	2.0	5

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	102		70-130
Toluene-d8	99		70-130
4-Bromofluorobenzene	104		70-130
Dibromofluoromethane	98		70-130

Project Name: ZEHNZOR RITTLING HYDROAIR**Lab Number:** L2032151**Project Number:** 20-014**Report Date:** 08/17/20**SAMPLE RESULTS**

Lab ID: L2032151-05
 Client ID: A4-MW-5R
 Sample Location: BUFFALO, NY

Date Collected: 08/07/20 12:00
 Date Received: 08/07/20
 Field Prep: Not Specified

Sample Depth:

Matrix: Water
 Analytical Method: 1,8260C
 Analytical Date: 08/10/20 12:23
 Analyst: PD

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	8.4		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: ZEHNZOR RITTLING HYDROAIR**Lab Number:** L2032151**Project Number:** 20-014**Report Date:** 08/17/20**SAMPLE RESULTS****Lab ID:** L2032151-05**Date Collected:** 08/07/20 12:00**Client ID:** A4-MW-5R**Date Received:** 08/07/20**Sample Location:** BUFFALO, NY**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
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Isopropylbenzene	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
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

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	107		70-130
Toluene-d8	100		70-130
4-Bromofluorobenzene	106		70-130
Dibromofluoromethane	98		70-130

Project Name: ZEHNZOR RITTLING HYDROAIR**Lab Number:** L2032151**Project Number:** 20-014**Report Date:** 08/17/20**SAMPLE RESULTS**

Lab ID: L2032151-06
 Client ID: TRIP BLANK
 Sample Location: BUFFALO, NY

Date Collected: 08/07/20 00:00
 Date Received: 08/07/20
 Field Prep: Not Specified

Sample Depth:

Matrix: Water
 Analytical Method: 1,8260C
 Analytical Date: 08/10/20 10:36
 Analyst: PD

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: ZEHNZOR RITTLING HYDROAIR**Lab Number:** L2032151**Project Number:** 20-014**Report Date:** 08/17/20**SAMPLE RESULTS**

Lab ID: L2032151-06
 Client ID: TRIP BLANK
 Sample Location: BUFFALO, NY

Date Collected: 08/07/20 00:00
 Date Received: 08/07/20
 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
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Isopropylbenzene	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
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

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	101		70-130
Toluene-d8	99		70-130
4-Bromofluorobenzene	108		70-130
Dibromofluoromethane	100		70-130

Project Name: ZEHNZOR RITTLING HYDROAIR
Project Number: 20-014

Lab Number: L2032151
Report Date: 08/17/20

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
 Analytical Date: 08/10/20 10:14
 Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-06 Batch: WG1397279-5					
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: ZEHNZOR RITTLING HYDROAIR
Project Number: 20-014

Lab Number: L2032151
Report Date: 08/17/20

Method Blank Analysis Batch Quality Control

Analytical Method: 1,8260C
 Analytical Date: 08/10/20 10:14
 Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-06 Batch: WG1397279-5					
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
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70
Isopropylbenzene	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
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: ZEHNZOR RITTLING HYDROAIR
Project Number: 20-014

Lab Number: L2032151
Report Date: 08/17/20

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 08/10/20 10:14
Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-06 Batch: WG1397279-5					

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	104		70-130
Toluene-d8	99		70-130
4-Bromofluorobenzene	105		70-130
Dibromofluoromethane	101		70-130

Lab Control Sample Analysis **Batch Quality Control**

Project Name: ZEHNZOR RITTLING HYDROAIR

Project Number: 20-014

Lab Number: L2032151

Report Date: 08/17/20

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-06 Batch: WG1397279-3 WG1397279-4								
Methylene chloride	99		100		70-130	1		20
1,1-Dichloroethane	96		100		70-130	4		20
Chloroform	92		100		70-130	8		20
Carbon tetrachloride	91		100		63-132	9		20
1,2-Dichloropropane	95		110		70-130	15		20
Dibromochloromethane	88		95		63-130	8		20
1,1,2-Trichloroethane	94		100		70-130	6		20
Tetrachloroethene	86		95		70-130	10		20
Chlorobenzene	90		99		75-130	10		20
Trichlorofluoromethane	92		100		62-150	8		20
1,2-Dichloroethane	93		100		70-130	7		20
1,1,1-Trichloroethane	93		96		67-130	3		20
Bromodichloromethane	90		99		67-130	10		20
trans-1,3-Dichloropropene	89		99		70-130	11		20
cis-1,3-Dichloropropene	90		97		70-130	7		20
Bromoform	82		93		54-136	13		20
1,1,2,2-Tetrachloroethane	91		100		67-130	9		20
Benzene	94		100		70-130	6		20
Toluene	93		99		70-130	6		20
Ethylbenzene	92		100		70-130	8		20
Chloromethane	120		130		64-130	8		20
Bromomethane	98		110		39-139	12		20
Vinyl chloride	100		110		55-140	10		20

Lab Control Sample Analysis Batch Quality Control

Project Name: ZEHNZOR RITTLING HYDROAIR

Project Number: 20-014

Lab Number: L2032151

Report Date: 08/17/20

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-06 Batch: WG1397279-3 WG1397279-4								
Chloroethane	93		96		55-138	3		20
1,1-Dichloroethene	88		98		61-145	11		20
trans-1,2-Dichloroethene	93		100		70-130	7		20
Trichloroethene	93		100		70-130	7		20
1,2-Dichlorobenzene	94		100		70-130	6		20
1,3-Dichlorobenzene	96		100		70-130	4		20
1,4-Dichlorobenzene	94		100		70-130	6		20
Methyl tert butyl ether	86		93		63-130	8		20
p/m-Xylene	95		100		70-130	5		20
o-Xylene	90		100		70-130	11		20
cis-1,2-Dichloroethene	95		100		70-130	5		20
Styrene	95		100		70-130	5		20
Dichlorodifluoromethane	120		120		36-147	0		20
Acetone	110		110		58-148	0		20
Carbon disulfide	90		99		51-130	10		20
2-Butanone	93		110		63-138	17		20
4-Methyl-2-pentanone	82		92		59-130	11		20
2-Hexanone	80		94		57-130	16		20
Bromochloromethane	91		97		70-130	6		20
1,2-Dibromoethane	90		98		70-130	9		20
1,2-Dibromo-3-chloropropane	78		85		41-144	9		20
Isopropylbenzene	99		100		70-130	1		20
1,2,3-Trichlorobenzene	89		93		70-130	4		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: ZEHNZOR RITTLING HYDROAIR

Lab Number: L2032151

Project Number: 20-014

Report Date: 08/17/20

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-06 Batch: WG1397279-3 WG1397279-4								
1,2,4-Trichlorobenzene	89		93		70-130	4		20
Methyl Acetate	92		100		70-130	8		20
Cyclohexane	100		100		70-130	0		20
1,4-Dioxane	88		94		56-162	7		20
Freon-113	99		100		70-130	1		20
Methyl cyclohexane	91		100		70-130	9		20

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	99		103		70-130
Toluene-d8	101		101		70-130
4-Bromofluorobenzene	106		106		70-130
Dibromofluoromethane	96		98		70-130

METALS

Project Name: ZEHNZOR RITTLING HYDROAIR**Lab Number:** L2032151**Project Number:** 20-014**Report Date:** 08/17/20**SAMPLE RESULTS**

Lab ID: L2032151-01

Date Collected: 08/06/20 13:15

Client ID: A4-MW-10R

Date Received: 08/07/20

Sample Location: BUFFALO, NY

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	0.00547		mg/l	0.00050	0.00016	1	08/10/20 20:50	08/11/20 14:44	EPA 3005A	1,6020B	AM
Chromium, Total	0.00098	J	mg/l	0.00100	0.00017	1	08/10/20 20:50	08/11/20 14:44	EPA 3005A	1,6020B	AM
Lead, Total	0.00092	J	mg/l	0.00100	0.00034	1	08/10/20 20:50	08/11/20 14:44	EPA 3005A	1,6020B	AM



Project Name: ZEHNZOR RITTLING HYDROAIR**Lab Number:** L2032151**Project Number:** 20-014**Report Date:** 08/17/20**SAMPLE RESULTS**

Lab ID: L2032151-02

Date Collected: 08/06/20 14:15

Client ID: A4-MW-7R

Date Received: 08/07/20

Sample Location: BUFFALO, NY

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	0.00519		mg/l	0.00050	0.00016	1	08/10/20 20:50	08/11/20 14:49	EPA 3005A	1,6020B	AM
Chromium, Total	0.00329		mg/l	0.00100	0.00017	1	08/10/20 20:50	08/11/20 14:49	EPA 3005A	1,6020B	AM
Lead, Total	ND		mg/l	0.00100	0.00034	1	08/10/20 20:50	08/11/20 14:49	EPA 3005A	1,6020B	AM



Project Name: ZEHNZOR RITTLING HYDROAIR**Lab Number:** L2032151**Project Number:** 20-014**Report Date:** 08/17/20**SAMPLE RESULTS**

Lab ID: L2032151-03

Date Collected: 08/07/20 09:00

Client ID: A4-MW-8R

Date Received: 08/07/20

Sample Location: BUFFALO, NY

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	0.03388		mg/l	0.00050	0.00016	1	08/10/20 20:50	08/11/20 14:54	EPA 3005A	1,6020B	AM
Chromium, Total	0.00120		mg/l	0.00100	0.00017	1	08/10/20 20:50	08/11/20 14:54	EPA 3005A	1,6020B	AM
Lead, Total	ND		mg/l	0.00100	0.00034	1	08/10/20 20:50	08/11/20 14:54	EPA 3005A	1,6020B	AM



Project Name: ZEHNZOR RITTLING HYDROAIR**Lab Number:** L2032151**Project Number:** 20-014**Report Date:** 08/17/20**SAMPLE RESULTS**

Lab ID: L2032151-04

Date Collected: 08/07/20 10:45

Client ID: A4-MW-9

Date Received: 08/07/20

Sample Location: BUFFALO, NY

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	0.01822		mg/l	0.00050	0.00016	1	08/10/20 20:50	08/11/20 15:36	EPA 3005A	1,6020B	AM
Chromium, Total	0.00414		mg/l	0.00100	0.00017	1	08/10/20 20:50	08/11/20 15:36	EPA 3005A	1,6020B	AM
Lead, Total	0.00060	J	mg/l	0.00100	0.00034	1	08/10/20 20:50	08/11/20 15:36	EPA 3005A	1,6020B	AM



Project Name: ZEHNZOR RITTLING HYDROAIR**Lab Number:** L2032151**Project Number:** 20-014**Report Date:** 08/17/20**SAMPLE RESULTS**

Lab ID: L2032151-05

Date Collected: 08/07/20 12:00

Client ID: A4-MW-5R

Date Received: 08/07/20

Sample Location: BUFFALO, NY

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	0.00661		mg/l	0.00050	0.00016	1	08/10/20 20:50	08/11/20 15:41	EPA 3005A	1,6020B	AM
Chromium, Total	0.00098	J	mg/l	0.00100	0.00017	1	08/10/20 20:50	08/11/20 15:41	EPA 3005A	1,6020B	AM
Lead, Total	0.00070	J	mg/l	0.00100	0.00034	1	08/10/20 20:50	08/11/20 15:41	EPA 3005A	1,6020B	AM



Project Name: ZEHNZOR RITTLING HYDROAIR

Lab Number: L2032151

Project Number: 20-014

Report Date: 08/17/20

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): 01-05 Batch: WG1397401-1										
Arsenic, Total	ND		mg/l	0.00050	0.00016	1	08/10/20 20:50	08/11/20 12:29	1,6020B	AM
Chromium, Total	0.00045	J	mg/l	0.00100	0.00017	1	08/10/20 20:50	08/11/20 12:29	1,6020B	AM
Lead, Total	ND		mg/l	0.00100	0.00034	1	08/10/20 20:50	08/11/20 12:29	1,6020B	AM

Prep Information

Digestion Method: EPA 3005A

Lab Control Sample Analysis**Batch Quality Control****Project Name:** ZEHNZOR RITTLING HYDROAIR**Project Number:** 20-014**Lab Number:** L2032151**Report Date:** 08/17/20

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-05 Batch: WG1397401-2								
Arsenic, Total	108		-		80-120	-		
Chromium, Total	101		-		80-120	-		
Lead, Total	112		-		80-120	-		

Matrix Spike Analysis

Batch Quality Control

Project Name: ZEHNZOR RITTLING HYDROAIR

Lab Number: L2032151

Project Number: 20-014

Report Date: 08/17/20

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): 01-05 QC Batch ID: WG1397401-3 WG1397401-4 QC Sample: L2032147-07 Client ID: MS Sample												
Arsenic, Total	0.00034J	0.12	0.1268	106		0.1292	108		75-125	2		20
Chromium, Total	0.0015	0.2	0.2026	100		0.2094	104		75-125	3		20
Lead, Total	ND	0.51	0.5584	109		0.5723	112		75-125	2		20

INORGANICS & MISCELLANEOUS

Project Name: ZEHNZOR RITTLING HYDROAIR**Project Number:** 20-014**Lab Number:** L2032151**Report Date:** 08/17/20**SAMPLE RESULTS****Lab ID:** L2032151-01**Client ID:** A4-MW-10R**Sample Location:** BUFFALO, NY**Date Collected:** 08/06/20 13:15**Date Received:** 08/07/20**Field Prep:** Not Specified**Sample Depth:****Matrix:** Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Alkalinity, Total	854.		mg CaCO3/L	2.00	NA	1	-	08/11/20 07:35	121,2320B	JA
Cyanide, Total	0.061		mg/l	0.005	0.001	1	08/08/20 15:30	08/10/20 14:59	1,9010C/9012B	AG



Project Name: ZEHNZOR RITTLING HYDROAIR**Project Number:** 20-014**Lab Number:** L2032151**Report Date:** 08/17/20**SAMPLE RESULTS****Lab ID:** L2032151-02**Client ID:** A4-MW-7R**Sample Location:** BUFFALO, NY**Date Collected:** 08/06/20 14:15**Date Received:** 08/07/20**Field Prep:** Not Specified**Sample Depth:****Matrix:** Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Alkalinity, Total	230.		mg CaCO3/L	2.00	NA	1	-	08/11/20 07:35	121,2320B	JA
Cyanide, Total	0.500		mg/l	0.005	0.001	1	08/08/20 15:30	08/10/20 15:00	1,9010C/9012B	AG



Project Name: ZEHNZOR RITTLING HYDROAIR

Project Number: 20-014

Lab Number: L2032151

Report Date: 08/17/20

SAMPLE RESULTS

Lab ID: L2032151-03

Client ID: A4-MW-8R

Sample Location: BUFFALO, NY

Date Collected: 08/07/20 09:00

Date Received: 08/07/20

Field Prep: Not Specified

Sample Depth:

Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Alkalinity, Total	878.		mg CaCO3/L	2.00	NA	1	-	08/11/20 07:35	121,2320B	JA
Cyanide, Total	0.111		mg/l	0.005	0.001	1	08/08/20 15:30	08/10/20 15:01	1,9010C/9012B	AG



Project Name: ZEHNZOR RITTLING HYDROAIR**Project Number:** 20-014**Lab Number:** L2032151**Report Date:** 08/17/20**SAMPLE RESULTS****Lab ID:** L2032151-04**Client ID:** A4-MW-9**Sample Location:** BUFFALO, NY**Date Collected:** 08/07/20 10:45**Date Received:** 08/07/20**Field Prep:** Not Specified**Sample Depth:****Matrix:** Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Alkalinity, Total	320.		mg CaCO3/L	2.00	NA	1	-	08/11/20 07:35	121,2320B	JA
Cyanide, Total	1.76		mg/l	0.025	0.009	5	08/10/20 15:30	08/10/20 15:40	1,9010C/9012B	AG



Project Name: ZEHNZOR RITTLING HYDROAIR**Project Number:** 20-014**Lab Number:** L2032151**Report Date:** 08/17/20**SAMPLE RESULTS****Lab ID:** L2032151-05**Client ID:** A4-MW-5R**Sample Location:** BUFFALO, NY**Date Collected:** 08/07/20 12:00**Date Received:** 08/07/20**Field Prep:** Not Specified**Sample Depth:****Matrix:** Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Alkalinity, Total	420.		mg CaCO3/L	2.00	NA	1	-	08/11/20 07:35	121,2320B	JA
Cyanide, Total	0.350		mg/l	0.005	0.001	1	08/08/20 15:30	08/10/20 15:05	1,9010C/9012B	AG



Project Name: ZEHNZOR RITTLING HYDROAIR
Project Number: 20-014

Lab Number: L2032151
Report Date: 08/17/20

Method Blank Analysis
Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab for sample(s): 01-05 Batch: WG1397060-1										
Cyanide, Total	ND		mg/l	0.005	0.001	1	08/08/20 15:30	08/10/20 14:46	1,9010C/9012B	AG

General Chemistry - Westborough Lab for sample(s): 01-05 Batch: WG1397499-1										
Alkalinity, Total	ND		mg CaCO3/L	2.00	NA	1	-	08/11/20 07:35	121,2320B	JA

Lab Control Sample Analysis

Batch Quality Control

Project Name: ZEHNZOR RITTLING HYDROAIR

Project Number: 20-014

Lab Number: L2032151

Report Date: 08/17/20

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01-05 Batch: WG1397060-2 WG1397060-3								
Cyanide, Total	100		100		85-115	0		20
General Chemistry - Westborough Lab Associated sample(s): 01-05 Batch: WG1397499-2								
Alkalinity, Total	104		-		90-110	-		10

Matrix Spike Analysis

Batch Quality Control

Project Name: ZEHNZOR RITTLING HYDROAIR

Lab Number: L2032151

Project Number: 20-014

Report Date: 08/17/20

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01-05 QC Batch ID: WG1397060-4 WG1397060-5 QC Sample: L2032151-03 Client ID: A4-MW-8R												
Cyanide, Total	0.111	0.2	0.354	122	Q	0.347	118		80-120	2		20
General Chemistry - Westborough Lab Associated sample(s): 01-05 QC Batch ID: WG1397499-4 QC Sample: L2031745-02 Client ID: MS Sample												
Alkalinity, Total	420.	100	532	112		-	-		86-116	-		10

Lab Duplicate Analysis

Batch Quality Control

Project Name: ZEHNZOR RITTLING HYDROAIR

Project Number: 20-014

Lab Number: L2032151

Report Date: 08/17/20

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01-05 QC Batch ID: WG1397499-3 QC Sample: L2031745-01 Client ID: DUP Sample						
Alkalinity, Total	298.	296	mg CaCO3/L	1		10

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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(*)
L2032151-01A	Vial HCl preserved	A	NA		5.7	Y	Absent		NYTCL-8260-R2(14)
L2032151-01B	Vial HCl preserved	A	NA		5.7	Y	Absent		NYTCL-8260-R2(14)
L2032151-01C	Vial HCl preserved	A	NA		5.7	Y	Absent		NYTCL-8260-R2(14)
L2032151-01D	Plastic 250ml unpreserved/No Headspace	A	NA		5.7	Y	Absent		ALK-T-2320(14)
L2032151-01E	Plastic 250ml NaOH preserved	A	>12	>12	5.7	Y	Absent		TCN-9010(14)
L2032151-01F	Plastic 250ml HNO3 preserved	A	<2	<2	5.7	Y	Absent		CR-6020T(180),PB-6020T(180),AS-6020T(180)
L2032151-02A	Vial HCl preserved	A	NA		5.7	Y	Absent		NYTCL-8260-R2(14)
L2032151-02B	Vial HCl preserved	A	NA		5.7	Y	Absent		NYTCL-8260-R2(14)
L2032151-02C	Vial HCl preserved	A	NA		5.7	Y	Absent		NYTCL-8260-R2(14)
L2032151-02D	Plastic 250ml unpreserved/No Headspace	A	NA		5.7	Y	Absent		ALK-T-2320(14)
L2032151-02E	Plastic 250ml NaOH preserved	A	>12	>12	5.7	Y	Absent		TCN-9010(14)
L2032151-02F	Plastic 250ml HNO3 preserved	A	<2	<2	5.7	Y	Absent		CR-6020T(180),PB-6020T(180),AS-6020T(180)
L2032151-03A	Vial HCl preserved	A	NA		5.7	Y	Absent		NYTCL-8260-R2(14)
L2032151-03B	Vial HCl preserved	A	NA		5.7	Y	Absent		NYTCL-8260-R2(14)
L2032151-03C	Vial HCl preserved	A	NA		5.7	Y	Absent		NYTCL-8260-R2(14)
L2032151-03D	Plastic 250ml unpreserved/No Headspace	A	NA		5.7	Y	Absent		ALK-T-2320(14)
L2032151-03E	Plastic 250ml NaOH preserved	A	>12	>12	5.7	Y	Absent		TCN-9010(14)
L2032151-03F	Plastic 250ml HNO3 preserved	A	<2	<2	5.7	Y	Absent		CR-6020T(180),PB-6020T(180),AS-6020T(180)
L2032151-04A	Vial HCl preserved	A	NA		5.7	Y	Absent		NYTCL-8260-R2(14)
L2032151-04B	Vial HCl preserved	A	NA		5.7	Y	Absent		NYTCL-8260-R2(14)
L2032151-04C	Vial HCl preserved	A	NA		5.7	Y	Absent		NYTCL-8260-R2(14)
L2032151-04D	Plastic 250ml unpreserved/No Headspace	A	NA		5.7	Y	Absent		ALK-T-2320(14)
L2032151-04E	Plastic 250ml NaOH preserved	A	>12	>12	5.7	Y	Absent		TCN-9010(14)

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Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L2032151-04F	Plastic 250ml HNO3 preserved	A	<2	<2	5.7	Y	Absent		CR-6020T(180),PB-6020T(180),AS-6020T(180)
L2032151-05A	Vial HCl preserved	A	NA		5.7	Y	Absent		NYTCL-8260-R2(14)
L2032151-05B	Vial HCl preserved	A	NA		5.7	Y	Absent		NYTCL-8260-R2(14)
L2032151-05C	Vial HCl preserved	A	NA		5.7	Y	Absent		NYTCL-8260-R2(14)
L2032151-05D	Plastic 250ml unpreserved/No Headspace	A	NA		5.7	Y	Absent		ALK-T-2320(14)
L2032151-05E	Plastic 250ml NaOH preserved	A	>12	>12	5.7	Y	Absent		TCN-9010(14)
L2032151-05F	Plastic 250ml HNO3 preserved	A	<2	<2	5.7	Y	Absent		CR-6020T(180),PB-6020T(180),AS-6020T(180)
L2032151-06A	Vial HCl preserved	A	NA		5.7	Y	Absent		NYTCL-8260-R2(14)
L2032151-06B	Vial HCl preserved	A	NA		5.7	Y	Absent		NYTCL-8260-R2(14)

Project Name: ZEHNZOR RITTLING HYDROAIR**Lab Number:** L2032151**Project Number:** 20-014**Report Date:** 08/17/20

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.
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.

Footnotes

Report Format: DU Report with 'J' Qualifiers

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- 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.

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'.

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, Dibenzo(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. If a 'Total' result is requested, the results of its individual components will also be reported.

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.)

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. (DoD and NYSDEC Part 375 PFAS only.)
- 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 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.

Report Format: DU Report with 'J' Qualifiers



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Data Qualifiers

- 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.

Report Format: DU Report with 'J' Qualifiers



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REFERENCES

- 1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - VI, 2018.
- 121 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WEF. Standard Methods Online.

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.



Alpha Analytical, Inc.Facility: **Company-wide**Department: **Quality Assurance**Title: **Certificate/Approval Program Summary**ID No.: **17873**

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Certification Information

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

Westborough Facility**EPA 624/624.1:** m/p-xylene, o-xylene, Naphthalene**EPA 8260C:** NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.**EPA 8270D:** NPW: Dimethylnaphthalene, 1,4-Diphenylhydrazine; SCM: Dimethylnaphthalene, 1,4-Diphenylhydrazine.**SM4500:** NPW: Amenable Cyanide; SCM: Total Phosphorus, TKN, NO₂, NO₃.**Mansfield Facility****SM 2540D:** TSS**EPA 8082A:** NPW: PCB: 1, 5, 31, 87, 101, 110, 141, 151, 153, 180, 183, 187.**EPA TO-15:** Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene,

3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.

EPA TO-12 Non-methane organics**EPA 3C** Fixed gases**Biological Tissue Matrix:** EPA 3050B

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

Westborough Facility:**Drinking Water****EPA 300.0:** Chloride, Nitrate-N, Fluoride, Sulfate; **EPA 353.2:** Nitrate-N, Nitrite-N; **SM4500NO3-F:** Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE,****EPA 180.1, SM2130B, 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, **LACHAT 10-107-06-1-B:** Ammonia-N, **EPA 351.1, SM4500NO3-F, EPA 353.2:** Nitrate-N, **SM4500P-E, SM4500P-B, E, SM4500SO4-E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D, EPA 300:** Chloride, Sulfate, Nitrate.**EPA 624.1:** Volatile Halocarbons & Aromatics,**EPA 608.3:** Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs**EPA 625.1:** SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045:** PCB-Oil.**Microbiology:** **SM9223B-Colilert-QT; Enterolert-QT, SM9221E, EPA 1600, EPA 1603.****Mansfield Facility:****Drinking Water****EPA 200.7:** Al, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Na, Ag, Ca, Zn. **EPA 200.8:** Al, Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn. **EPA 245.1** Hg.**EPA 522.****Non-Potable Water****EPA 200.7:** Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn.**EPA 200.8:** Al, Sb, As, Be, Cd, Cr, Cu, Fe, Pb, Mn, Ni, K, Se, Ag, Na, TL, Zn.**EPA 245.1** Hg.**SM2340B**

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

NEW YORK CHAIN OF CUSTODY Westborough, MA 01581 8 Walkup Dr. TEL: 508-898-9220 FAX: 508-898-9193		Service Centers Mahwah, NJ 07430: 35 Whitney Rd, Suite 5 Albany, NY 12205: 14 Walker Way Tonawanda, NY 14150: 275 Cooper Ave, Suite 105		Page <div style="border: 1px solid black; padding: 2px; display: inline-block;">1 of 1</div>		Date Rec'd in Lab <div style="border: 1px solid black; padding: 2px; display: inline-block;">08/08/2020</div>		ALPHA Job # <div style="border: 1px solid black; padding: 2px; display: inline-block;">12032151</div>																																																																																																																																																																																																																																			
Mansfield, MA 02048 320 Forbes Blvd TEL: 508-822-9300 FAX: 508-822-3288		Project Information Project Name: <u>Zehnder Biting Hydro Air</u> Project Location: <u>Buffalo NY</u> Project # <u>20-014</u> (Use Project name as Project #) <input type="checkbox"/>				Deliverables <input type="checkbox"/> ASP-A <input type="checkbox"/> ASP-B <input type="checkbox"/> EQUIS (1 File) <input type="checkbox"/> EQUIS (4 File) <input type="checkbox"/> Other				Billing Information <input checked="" type="checkbox"/> Same as Client Info PO #																																																																																																																																																																																																																																	
Client Information Client: <u>NW Contracting</u> Address: <u>3553 Crittenton Road, Aiken, NY 14001</u> Phone: <u>716 937 6527 14001</u> Fax: Email: <u>DGramza@NWContracting.com</u>		Project Manager: <u>Dale Gramza</u> ALPHAQuote #: Turn-Around Time Standard <input checked="" type="checkbox"/> Due Date: Rush (only if pre approved) <input type="checkbox"/> # of Days:				Regulatory Requirement <input type="checkbox"/> NY TOGS <input type="checkbox"/> NY Part 375 <input type="checkbox"/> AWQ Standards <input type="checkbox"/> NY CP-51 <input type="checkbox"/> NY Restricted Use <input type="checkbox"/> Other <input type="checkbox"/> NY Unrestricted Use <input type="checkbox"/> NYC Sewer Discharge				Disposal Site Information Please identify below location of applicable disposal facilities. Disposal Facility: <input type="checkbox"/> NJ <input type="checkbox"/> NY <input type="checkbox"/> Other:																																																																																																																																																																																																																																	
These samples have been previously analyzed by Alpha <input type="checkbox"/> Other project specific requirements/comments:						ANALYSIS				Sample Filtration <input type="checkbox"/> Done <input type="checkbox"/> Lab to do Preservation <input type="checkbox"/> Lab to do (Please Specify below)		Total Bottles																																																																																																																																																																																																																															
Please specify Metals or TAL.						<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <th rowspan="2">ALPHA Lab ID (Lab Use Only)</th> <th rowspan="2">Sample ID</th> <th colspan="2">Collection</th> <th rowspan="2">Sample Matrix</th> <th rowspan="2">Sampler's Initials</th> <th colspan="4"></th> <th rowspan="2">Sample Specific Comments</th> </tr> <tr> <th>Date</th> <th>Time</th> <th></th> <th></th> <th></th> <th></th> </tr> <tr> <td>32151-01</td> <td>A4-MW-10R</td> <td>8/6/20</td> <td>1:15</td> <td>GW</td> <td>DNG</td> <td>3</td> <td>1</td> <td>1</td> <td>1</td> <td></td> <td></td> <td></td> </tr> <tr> <td>-02</td> <td>A4-MW-7R</td> <td>8/6/20</td> <td>2:15</td> <td>GW</td> <td>DNG</td> <td>3</td> <td>1</td> <td>1</td> <td>1</td> <td></td> <td></td> <td></td> </tr> <tr> <td>-03</td> <td>A4-MW-8R</td> <td>8/7/20</td> <td>9:00</td> <td>GW</td> <td>DNG</td> <td>3</td> <td>1</td> <td>1</td> <td>1</td> <td></td> <td></td> <td></td> </tr> <tr> <td>-04</td> <td>A4-MW-9</td> <td>8/7/20</td> <td>10:45</td> <td>GW</td> <td>DNG</td> <td>3</td> <td>1</td> <td>1</td> <td>1</td> <td></td> <td></td> <td></td> </tr> <tr> <td>-05</td> <td>A4-MW-5R</td> <td>8/7/20</td> <td>11:20</td> <td>GW</td> <td>DNG</td> <td>3</td> <td>1</td> <td>1</td> <td>1</td> <td></td> <td></td> <td></td> </tr> <tr><td> </td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td> </td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td> </td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td> </td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td> </td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td> </td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td> </td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td> </td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td> </td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td> </td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td> </td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> </table>				ALPHA Lab ID (Lab Use Only)	Sample ID		Collection		Sample Matrix	Sampler's Initials					Sample Specific Comments	Date	Time					32151-01	A4-MW-10R	8/6/20	1:15	GW	DNG	3	1	1	1				-02	A4-MW-7R	8/6/20	2:15	GW	DNG	3	1	1	1				-03	A4-MW-8R	8/7/20	9:00	GW	DNG	3	1	1	1				-04	A4-MW-9	8/7/20	10:45	GW	DNG	3	1	1	1				-05	A4-MW-5R	8/7/20	11:20	GW	DNG	3	1	1	1																																																																																																																																																		
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Preservative Code: A = None B = HCl C = HNO ₃ D = H ₂ SO ₄ E = NaOH F = MeOH G = NaHSO ₄ H = Na ₂ S ₂ O ₃ K/E = Zn Ac/NaOH O = Other		Container Code P = Plastic A = Amber Glass V = Vial G = Glass B = Bacteria Cup C = Cube O = Other E = Encore D = BOD Bottle		Westboro: Certification No: MA935 Mansfield: Certification No: MA015		Container Type <div style="border: 1px solid black; padding: 2px; display: inline-block;">A P P D</div>		Preservative		Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. BY EXECUTING THIS COC, THE CLIENT HAS READ AND AGREES TO BE BOUND BY ALPHA'S TERMS & CONDITIONS. (See reverse side.)																																																																																																																																																																																																																																	
Relinquished By:		Date/Time <div style="border: 1px solid black; padding: 2px; display: inline-block;">8/7/20 3:50</div>		Received By:		Date/Time <div style="border: 1px solid black; padding: 2px; display: inline-block;">8/7/20 1550</div>																																																																																																																																																																																																																																					
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APPENDIX J

Historical Groundwater Analytical Data Tables

Table 1
Summary of Historical Groundwater Analytical Results
Twelfth Annual Groundwater Monitoring Event
Hydro-Air Site (Formerly Steelfields Area IV)
Buffalo, New York

Parameter (ug/L)	Class GA GWQS/GV	Monitoring Location																														
		A4-MW-5R																A4-MW-7R														
		6/25/2007	2/1/2008	6/2/2008	6/25/2009	6/28/2010	6/28/2011	7/5/2012	7/1/2013	6/2/2014	6/25/2015	6/22/2016	6/22/2017	6/26/2018	12/19/2019	8/7/2020	6/25/2007	1/31/2008	6/2/2008	6/25/2009	6/28/2010	6/28/2011	7/5/2012	7/1/2013	6/2/2014	6/25/2015	6/22/2016	6/22/2017	6/26/2018	12/19/2019	8/6/2020	
Volatile Organic Compounds																																
1,2,4-Trimethylbenzene	5	NM	NM	18	3.8 J	3.8 J	18	ND <10	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	NM	NM	NM	ND < 1.0	ND < 5.0	ND < 5.0	ND < 5.0	ND <5.0	ND <5.0	ND <5.0	ND <5.0	ND <5.0	ND <5.0	ND <5.0	ND <5.0	NM	
Acetone	50*	6.7 J	ND < 50	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	ND<5.0	11 J	ND < 50	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	ND<5.0
Benzene	1	ND	7.1	8.3	5.4	8.2	13	ND <10	0.6 J	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	8.4	16	ND < 1.0	7.9	3.6	6.4	2.3 J	3.6 J	ND <5.0	2.3 J	ND <5.0	ND <5.0	ND <5.0	ND <5.0	ND <5.0	ND <5.0	140
Carbon disulfide	60*	ND	ND < 1.0	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	ND<5.0	24	3.1	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	ND<5.0
Ethylbenzene	5	ND	3.1	4.4	3.5	ND < 5.0	9.1	ND <10	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<2.5	ND	ND < 1.0	ND < 1.0	ND<5.0	ND < 5.0	ND < 5.0	ND <5.0	ND <5.0	ND <5.0	ND <5.0	ND <5.0	ND <5.0	ND <5.0	ND <5.0	ND<2.5	
2-Butanone (MEK)	50*	ND	ND < 10	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	2.8 J	ND < 10	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
Napthalene	10	NM	NM	940	28	29	420	ND <10	14	ND<1.0	2.9	ND<1.0	ND<1.0	ND<1.0	0.5 J	NM	NM	NM	ND<5.0	ND<5.0	ND<5.0	3.3 J	ND <5.0	ND <5.0	ND <5.0	ND <5.0	ND <5.0	ND <5.0	ND <5.0	ND <5.0	NM	
Toluene	5	ND	ND < 5.0	1.6	ND<5.0	ND < 5.0	ND < 5.0	ND <10	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<2.5	ND	ND < 5.0	ND < 1.0	ND<5.0	ND < 5.0	ND < 5.0	ND <5.0	ND <5.0	ND <5.0	ND <5.0	ND <5.0	ND <5.0	ND <5.0	ND <5.0	22	
Xylenes, Total	5	ND	32	25.5	ND<10	NM	NM	ND <20	1.7 J	ND <2.0	ND <2.0	ND <2.0	ND <2.0	ND <2.0	ND <2.0	ND<2.5	1.4 J	ND < 3.0	ND < 1.0	ND<10	NM	NM	ND <10	ND <10	ND <10	ND <10	ND <10	ND <10	ND <10	ND <10	0.97 J	
Metals																																
Arsenic	25	ND	ND < 20	21	19.1	11.5	7.9 J	14	17	ND<1.5	5.8 J	5.9 J	ND<1.5	ND <15	ND <15	6.6	9.1	ND < 20	29	ND<50	ND < 10	ND < 10	12	11	7.3	ND < 15	ND < 15	ND < 15	ND < 15	ND < 75	5.19	
Chromium	50	ND	ND < 10	ND<10	1.8 J	2.1 J	1.7 J	4.1	1.6 J	ND<0.4	ND<0.4	ND<0.4	ND<0.4	ND < 4	1.0 J	0.98 J	11	ND < 10	21	ND<20	ND < 4.0	ND < 4.0	11	ND < 20	9	8.2 J	7.3	6.3 J	6.5 J	ND < 20	3.29	
Lead	25	ND	ND < 5.0	ND<5.0	ND<5.0	ND < 5.0	ND < 5.0	ND <5.0	ND < 5.0	ND<1.0	ND<1.0	3.7 J	3.6 J	ND <10	ND <10	0.70 J	7.6	6.2	17	ND<5.0	4.4	ND < 5.0	27	23	ND < 5.0	ND < 5.0	17	13 J	ND < 200	ND < 50	ND<1.0	
Wet Chemistry																																
Alkalinity	--	--	--	--	--	--	--	--	--	--	508000 B	555000 B	379000	433000 B	272,000	420,000	--	--	--	--	--	--	--	--	--	28,300	ND < 10,000	ND < 10,000	158,000	43800 B	230,000	
Cyanide	200	165	400	490	103	482	560	680	260	340	530	920	630	680	470	350	42.9	100	41	39.4	64	240	49	91	550	14	66	89	33	74	500	

- Notes:
1. Benchmark Environmental Engineering & Science conducted the 25 June 2007 sampling event.
 2. Haley & Aldrich completed the February and June 2008 groundwater monitoring events.
 3. TestAmerica Buffalo conducted the 25-26 June 2009, 28-29 June 2010, 28-29 June 2011, 5-6 July 2012, 1-2 July 2013, 2-3 June 2014, 25-26 June 2015, 22-23 June 2016, 22-23 June 2017, 25-26 June 2018, and 19 December 2019 sampling events. NW Contracting conducted the August 2020 sampling event.
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Summary of Historical Groundwater Analytical Results
Twelfth Annual Groundwater Monitoring Event
Hydro-Air Site (Formerly Steelfields Area IV)
Buffalo, New York

Parameter (ug/L)	Class GA GWQS/GV	Monitoring Location																														
		A4-MW-8R																A4-MW-9														
		6/25/2007	1/31/2008	6/2/2008	6/26/2009	6/28/2010	6/28/2011	7/5/2012	7/1/2013	6/2/2014	6/25/2015	6/22/2016	6/22/2017	6/26/2018	12/19/2019	8/7/2020	6/25/2007	1/31/2008	6/2/2008	6/26/2009	6/28/2010	6/28/2011	7/5/2012	7/1/2013	6/2/2014	6/25/2015	6/22/2016	6/22/2017	6/26/2018	12/19/2019	8/7/2020	
Volatile Organic Compounds																																
1,2,4-Trimethylbenzene	5	NM	NM	ND < 25	ND < 5.0	ND < 400	ND < 100	ND < 500	ND < 500	ND < 500	ND < 500	ND < 500	ND < 50	ND < 500	ND < 200	NM	NM	NM	ND < 100	ND<10	ND < 200	ND < 5	ND < 200	ND < 1.0	ND < 1.0	ND < 2.0	ND < 2.0	ND < 2.0	ND < 2.0	ND < 5.0	NM	
Acetone	50*	ND	ND < 50	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	ND<500	660 J	ND < 50	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	ND<25
Benzene	1	26000 D	20000 D	19000	25000	32000	33000	32000	27000	23000	25000	24000	22000	18000	8100	12000	18000 D	9400	13000	18000	18000	13000	11000	72	93	90	90	150	260	ND < 5.0	590	
Carbon disulfide	60*	ND	ND < 1.0	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	ND<500	77 J	4.2	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	5.0 J	
Ethylbenzene	5	38 J	ND < 1.0	25	33	ND < 400	ND < 100	ND < 500	ND < 500	ND < 500	ND < 500	ND < 500	ND < 50	ND < 500	ND < 200	ND<250	ND	ND < 1.0	ND < 100	ND<10	ND < 200	ND < 5	ND < 200	ND < 1.0	ND < 1.0	ND < 2.0	ND < 2.0	ND < 2.0	ND < 5.0	ND<12.0		
2-Butanone (MEK)	50*	ND	ND < 10	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	ND	ND < 10	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	
Napthalene	10	NM	NM	ND<120	ND<5.0	ND < 400	ND < 100	ND < 500	ND < 500	ND < 500	ND < 500	ND < 500	ND < 50	ND < 500	ND < 200	NM	NM	NM	ND<500	ND<10	ND < 200	ND < 5	ND < 200	ND < 1.0	ND < 1.0	ND < 2.0	ND < 2.0	ND < 2.0	ND < 5.0	NM		
Toluene	5	60 J	ND < 5.0	ND < 25	3.8	ND < 400	ND < 100	ND < 500	ND < 500	ND < 500	ND < 500	ND < 500	ND < 50	ND < 500	ND < 200	ND<250	230 J	11	160	270	280	150	ND < 200	ND < 1.0	ND < 1.0	ND < 2.0	ND < 2.0	ND < 2.0	ND < 2.0	ND < 5.0	ND<12.0	
Xylenes, Total	5	ND	ND < 3.0	ND < 25	5.8	NM	NM	ND <1000	ND <1000	ND <1000	ND <1000	ND <1000	ND <100	ND <1000	ND < 400	ND<250	ND	ND < 3.0	ND < 100	ND<20	NM	NM	ND < 400	ND < 2.0	ND < 2.0	ND < 4.0	ND < 4.0	ND < 4.0	ND < 4.0	ND < 10.0	ND<12.0	
Metals																																
Arsenic	25	24	33	54	39.9	36	37	40	34	31	34	35	31	31	25	33.88	34	ND < 20	ND < 400	ND<50	ND < 50	20	26	ND < 10	7.2 J	ND < 15	5.6 J	ND < 15	ND < 15	ND < 15	18.22	
Chromium	50	3.8	ND < 10	ND < 10	ND < 4.0	ND < 4.0	ND < 4	1.7 J	ND < 4	1.5 J	ND < 4	ND < 4	1.3 J	ND < 4	ND < 4	1.2	170	21	390	84.3	68.4	30	22	1.7 J	1.3 J	ND < 4.0	ND < 4.0	ND < 4.0	1.4 J	ND < 4.0	4.14	
Lead	25	ND	26	8.5	ND < 40	ND < 5.0	ND < 5	3.5 J	ND < 5	ND < 10	3.3 J	7.0 J	4.7 J	ND < 200	3.1 J	ND<1.0	28	590	160	12.0 J	16.3	13	53	ND < 5	ND < 10	ND < 10	4.6 J	ND < 10	ND < 200	ND < 10	0.6 J	
Wet Chemistry																																
Alkalinity	--	--	--	--	--	--	--	--	--	--	737,000	492,000 B	485,000	708,000 B	668,000	878,000	--	--	--	--	--	--	--	--	--	--	312,000	303,000	364,000	226,000 B	359,000	320,000
Cyanide	200	106	86	94	137	91.2	140	140	130	120	120	160	120	140	130	111	4600	2700	4200	1770	3610	7000	4300	190	280	250	420	450	1400	140	1760	

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		A4-MW-10														
		6/25/2007	1/31/2008	6/2/2008	6/25/2009	6/28/2010	6/28/2011	7/5/2012	7/1/2013	6/2/2014	6/25/2015	6/22/2016	6/22/2017	6/25/2018	12/19/2019	8/6/2020
Volatile Organic Compounds																
1,2,4-Trimethylbenzene	5	NM	NM	ND<1.0	ND<5.0	ND < 5.0	3.8 J	ND <200	ND < 1.0	ND < 5.0	ND < 5.0	ND < 5.0	ND < 5.0	ND < 5.0	ND < 5.0	NM
Acetone	50*	5.8 J	NS	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	7.4 J
Benzene	1	ND	NS	ND < 1.0	ND<5.0	ND < 5.0	ND < 5.0	ND <5.0	ND <5.0	ND <5.0	ND <5.0	ND <5.0	ND < 5.0	41	ND < 5.0	370
Carbon disulfide	60*	ND	NS	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	ND <20
Ethylbenzene	5	ND	NS	ND < 1.0	ND<5.0	ND < 5.0	ND < 5.0	ND <5.0	ND <5.0	ND <5.0	ND <5.0	ND <5.0	ND < 5.0	ND < 5.0	ND < 5.0	ND<10
2-Butanone (MEK)	50*	ND	NS	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
Napthalene	10	NM	NM	7.3	ND<5.0	ND<5.0	ND<5.0	ND <5.0	ND <5.0	ND <5.0	ND <5.0	ND <5.0	ND < 5.0	ND < 5.0	ND < 5.0	NM
Toluene	5	ND	NS	ND < 1.0	ND<5.0	ND < 5.0	ND < 5.0	ND <5.0	ND <5.0	ND <5.0	ND <5.0	ND <5.0	ND < 5.0	ND < 5.0	ND < 5.0	40
Xylenes, Total	5	ND	NS	ND < 1.0	ND<10	NM	NM	ND <10	ND <10	ND <10	ND <10	ND <10	ND <10	ND <10	ND < 10.0	ND <10.0
Metals																
Arsenic	25	6.1	NS	26	13.1	8.3 J	7.4 J	13	8.8 J	7.8 J	8.0 J	8.9 J	11 J	10 J	43	5.47
Chromium	50	ND	NS	ND < 10	ND<4.0	ND < 4.0	ND < 4.0	2.1 J	2.4 J	1.4 J	ND < 4.0	ND < 4.0	ND < 4.0	ND < 4.0	3.6 J	0.98 J
Lead	25	ND	NS	ND < 5.0	ND<5.0	ND < 5.0	ND < 5.0	ND <5.0	ND <5.0	3.7 J	ND <10	5.1 J	ND <10	ND <20	9.3 J	0.92 J
Wet Chemistry																
Alkalinity	--	--	--	--	--	--	--	--	--	--	1220000	120000	1100000	1170000 B	1,040,000	854,000
Cyanide	200	108	NS	73	35.7	51.0	110	110	96	86	55	88	79	73	61	61

- Notes:
1. Benchmark Environmental Engineering & Science conducted the 25 June 2007 sampling event.
 2. Haley & Aldrich completed the February and June 2008 groundwater monitoring events.
 3. TestAmerica Buffalo conducted the 25-26 June 2009, 28-29 June 2010, 28-29 June 2011, 5-6 July 2012, 1-2 July 2013, 2-3 June 2014, 25-26 June 2015, 22-23 June 2016, 22-23 June 2017, 25-26 June 2018, and 19 December 2019 sampling events. NW Contracting conducted the August 2020 sampling event.
 4. Only those analytes detected above the Class GA GW QS/GV are presented in this table.
 5. NYSDEC Class "GA" Groundwater Quality Standards (GWQS) as published in NYSDEC Ambient Water Quality Standards/Guidance Values and Groundwater Effluent Limitations (June 1998).
 6. Shaded results indicate exceedance of the GWQS/GV.
 7. ND indicates not detected above laboratory detection limits.
 8. NS indicates not sampled.
 9. NM indicates not measured.
 10. Samples that contain results between the MDL and RL were flagged as estimated, "J", by the laboratory. Samples that contain results flagged with "B" by the laboratory identifies that the compound was found in the blank and the sample. The data user should be aware that there is a possibility of false positive or mis-identification at the quantitation levels.
 11. This table has been adapted from the Draft First Semi-Annual Long-Term Groundwater Monitoring Report (June 2007) by Benchmark Environmental Engineering & Science, PLLC.