2023 Periodic Review Report

Location:

Former Roblin Steel Site
320 South Roberts Road, Dunkirk, New York
NYSDEC Site No. B00173-9

Prepared for:

Chautauqua County Department of Public Facilities
454 North Work Street
Falconer, New York

LaBella Project No. 2200014

March 8, 2024

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1.0 EXECUTIVE SUMMARY

This Periodic Review Report (PRR) is a required element of the approved Site Management Plan (SMP) (June 2021 revision) for the former Roblin Steel Site in Dunkirk, New York. The Site was remediated in accordance with State Assistance Contract (SAC) No. C302808, Site No. B00173-9, which was executed on December 12, 2005.

1.1 Site Summary

The former Roblin Steel Site (hereafter referred to as the "Site") occupies approximately 12 acres of a former industrial park in the City of Dunkirk, Chautauqua County, New York. Historically, the Site contained numerous buildings, the last of which was demolished as part of remedial activities conducted in 2010. The Site is located in an area zoned for industrial use. An environmental investigation conducted at the Site revealed that contamination associated with historical operations had impacted the Site, necessitating remedial activities. The remedial activities were completed pursuant to the Environmental Restoration Program component of Title 5 of the Clean Water/Clean Air Bond Act of 1996, which was administered by the New York State Department of Environmental Conservation (NYSDEC). Following completion of the remedial work described in the Remedial Action Work Plan (RAWP), some contamination was left in the subsurface of the Site, which is hereafter referred to as "remaining contamination." The remedial efforts also included development of a SMP to manage the remaining contamination at the Site in perpetuity or until extinguishment of the Environmental Easement that was placed on the Site, in accordance with Environmental Conservation Law (ECL) Article 71, Title 36.

1.2 Effectiveness of Remedial Program

Based on a recent inspection of the Site, the Site soil cover system is intact and functioning as designed on the Site.

As a result of increases in total VOC concentrations in laboratory groundwater analytical results associated with the sampling of MW-07R and EX-MW-11R, in December 2021 and March 2022, the NYSDEC requested a Corrective Measures Work Plan (CMWP). Such was submitted to the NYSDEC in September 2022 and included a scope of work for the installation of one new permanent groundwater monitoring well (MW-13) between MW-07R and the north property boundary and an injection event proximate both MW-07R and EX-MW-11R. A new well was requested in order to assess total VOC concentrations proximate the north property boundary and to determine whether VOCs appeared to be migrating off-site to the north. Monitoring well MW-13 was installed on December 6, 2022 and subsequently sampled on December 13, 2022. In addition, injection events were proposed in an effort to further breakdown the VOC concentrations proximate MW-07R and EX-MW-11R. An injection permit was submitted to the United States Environmental Protection Agency (USEPA) in late November 2022 and injections were completed in April 2023. A Corrective Measures Summary (CMS) Report is attached in Appendix 1.

Total VOC concentrations have decreased or remained consistent in MW-13, MW-09R, MW-07R, EX-MW-11R, MW-04 and EX-MW-12 since the December 2021, March 2022, and/or December 2022 sampling events. Total VOC concentrations in MW-02R have increased since the December 2021, March 2022, and/or December 2022 sampling events.

Injections were completed in April 2023 as part of a NYSDEC-approved CMWP in an effort to mitigate an increase in total VOC concentrations identified proximate both MW-07R and EX-MW-11R during the December 2021 and March 2022 sampling events. An increase in total VOC concentrations may occur proximate these well locations over time as the remedial measures take effect, prior to a presumed decreasing trend in overall VOC concentrations, as constituents begin to break down. As a result, continued monitoring of contaminant levels at these wells, in addition to the remaining on-site well locations, is recommended at this time. Furthermore, based on limited laboratory analytical data collected to date from MW-13, it does not appear that contaminant migration is occurring toward the north adjacent property from the area proximate MW-07R. Contaminant concentrations in MW-07R and MW-13 should continue to be monitored to assure that off-site migration of VOCs is not occurring as a result of the impact identified proximate MW-07R.

1.3 Non-Compliance

No areas of non-compliance regarding the major elements of the SMP were identified during the preparation of this PRR. No change of use, groundwater use, excavations or imports occurred during the certifying period.

1.4 Recommendations

Overall, the remedial program is viewed to be effective in achieving the remedial objectives for the Site.

No changes to the SMP or the frequency of PRR submissions are recommended at this time with the exception of the proper decommissioning of MW-01, at the discretion of the established remedial party.

Injections were completed in April 2023 as part of a NYSDEC-approved CMWP in an effort to mitigate an increase in total VOC concentrations identified proximate both MW-07R and EX-MW-11R during the December 2021 and March 2022 sampling events. An increase in total VOC concentrations may occur proximate these well locations over time as the remedial measures take effect, prior to a presumed decreasing trend in overall VOC concentrations, as constituents begin to break down. As a result, continued monitoring of contaminant levels at these wells, in addition to the remaining on-site well locations, is recommended at this time. Furthermore, based on limited laboratory analytical data collected to date from MW-13, it does not appear that contaminant migration is occurring toward the north adjacent property from the area proximate MW-07R. Contaminant concentrations in MW-07R and MW-13 should continue to be monitored to assure that off-site migration of VOCs is not occurring as a result of the impact identified proximate MW-07R.

2.0 SITE OVERVIEW

The Site is located at 320 South Roberts Road in the City of Dunkirk, New York. Figure 1 shows the location of the Site and Figure 2 is the Site plan that depicts the Site configuration and location of the groundwater monitoring well network. Progress Drive transects the eastern portion of the Site in a northeast-southwest direction. As a result, a portion of the Site is located east of the roadway and separated from the remainder of the Site. The Site is located in an area zoned for industrial use. A mixture of commercial, industrial and residential properties comprises the land use in the Site's vicinity.

The Site is bounded to the north by an active CSX rail yard; to the east by active Norfolk Southern railroad tracks; to the south by the Former Alumax extrusions property; and to the west by a recently constructed freezer warehouse facility.

Residential properties are located to the northwest and south of the Site beyond the adjoining properties. Lake Erie is situated approximately 3,400 feet to the northwest of the Site. Hyde Creek is located approximately 100 feet from the northeast corner of the Site.

2.1 Site Background

The Site occupies approximately 12 acres of a former industrial park. Historically, the Site contained a large complex of industrial buildings. The last remaining building was demolished as part of the 2010 remedial activities. The adjoining properties located in the former industrial park include the Former Alumax Extrusions property located to the south and the recently redeveloped Former Edgewood Warehouse property located to the west. In 1910, all three of these properties were developed as part of a larger industrial complex operated by the American Locomotive Company. The Site was later used for steel reclamation; however, operations ceased in 1987. Following this closure, salvage operations dismantled and partially demolished a majority of the Site structures throughout the late 1980s and early 1990s. Since that time, the Site has been vacant.

Following acquisition of the Site by Chautauqua County in December 2001, the site was investigated and remediated pursuant to the SAC executed between the County and NYSDEC. The remediation of the site was completed in September 2010 and rendered the site suitable for commercial or industrial use. Details pertaining to the remedial investigation and remedial construction program completed at the Site are summarized in Section 2.2 below.

In May 2013, the construction of a new public roadway through a portion of the site was initiated. The soil cover system established as part of the previous remediation of the Site was disturbed in conjunction with the construction of the new roadway in the Summer/Fall of 2014. Disturbance of the soil cover was completed in accordance with the provisions of the Excavation Work Plan (EWP) contained in the SMP. The cover system was restored by the end of 2014 in accordance with the Record of Decision (ROD) and the SMP upon completion of the new roadway.

2.2 Remedial Program Overview

As indicated above, a remedial investigation was conducted at the Site between 2002 and 2003. Such revealed that contamination associated with historical operations had impacted the Site, necessitating remedial activities. The NYSDEC issued a ROD in March 2005.
The ROD identified seven impacted Media Groups (MGs) associated with the Site. The MGs included:

- Surface soil/fill debris piles;
- Subsurface soil/fill impacted with chlorinated volatile organic compounds (VOCs);
- Subsurface soil/fill impacted with polyaromatic hydrocarbons and metals, and/or petroleum nuisance characteristics;
- Drainage features and contents;
- Building components;
- Concrete and surface soil impacted with polychlorinated biphenyls (PCBs); and,
- Groundwater impacted with VOCs.

The RAWP prepared in February 2006 described the specific remedial activities that would be implemented at the Site to complete the remediation in accordance with the ROD. The remediation program included two distinct types of activities; those that were related to the removal or treatment of contaminated material (Phase I) and those that were directly related to the redevelopment and reuse of the Site (Phase II). The Phase I components included:

- Excavation and off-site disposal of surface soil/fill that exceeded the Site-Specific Cleanup Levels (SSCLs);
- Excavation and off-site disposal of subsurface soil/fill that exceeded SSCLs;
- Cleaning and filling of Site drainage features;
- Removal and disposal of PCB-containing electrical equipment;
- Removal and disposal of miscellaneous Site debris;
- Decommissioning of monitoring wells that were not part of the long-term monitoring program; and,
- Enhanced natural attenuation of Site groundwater.

The Phase II activities included the following:

- Removal of asbestos-containing materials (ACMs);
- Demolition of the building;
- Removal and crushing of the concrete slabs and top 12 inches of the foundations followed by the placement and grading of the crushed concrete on the Site;
- Placement of a demarcation layer (orange fencing) on top of the original Site surface covered by 12 inches of clean NYSDEC Division of Environmental Remediation (DER)-10 approved soil across the entirety of the Site; and
- Establishment of vegetative cover

Following completion of the remedial work described in the RAWP, some contamination may have been left in the subsurface of the Site. The remedial efforts also included development of the SMP (revised June 2021) to manage remaining contamination at the Site in perpetuity or until extinguishment of the Environmental Easement in accordance with ECL Article 71, Title 36.

As a result of increases in total VOC concentrations in laboratory groundwater analytical results associated with the sampling of MW-07R and EX-MW-11R, in December 2021 and March 2022, the NYSDEC requested a CMWP. Such was submitted to the NYSDEC in September 2022 and included a scope of work for the installation of one new permanent groundwater monitoring well (MW-13) between MW-07R and the north property boundary and an injection event proximate both MW-07R and EX-MW-11R. A new well was requested in order to assess total VOC concentrations proximate the north property boundary and to determine whether VOCs appeared to be migrating off-site to the north. In addition, the injection events were proposed in an effort to further breakdown the VOC concentrations proximate MW-07R and EX-MW-11R. An injection permit was submitted to the USEPA in late November 2022 and in-situ direct push injections were conducted between April 11 and April 17, 2023. The injections were performed using a direct hydraulic push rig around each well, over an approximately 1,600 square-foot area, with approximately 10-foot spacing, totaling 32 injection points. The target depths for treatment were 5 to 10 feet below ground surface. Provectus-IR was injected to address the chlorinated VOCs (cVOCs) proximate MW-07R and EX-MW-11R. Provectus is a unique mixture of reagents, including zero valent iron (ZVI) and organic carbon substrate, combined into a single technology that optimized in-situ reductive dechlorination.

In addition, approximately three liters of Dehalococcoides (DHC) was also injected as a bioaugmentation process, to assist in overall cVOC destruction. The DHC was spread over four injection points, approximate to each well area. The product vendor (Provectus) recommended a three-to-six-month lead time of supplemental sampling of MW-07R and EX-MW-11R, in order to allow the materials to perform properly to breakdown the cVOCs proximate each of the two wells. Figure 3 of the CMS Report (Appendix 1) depicts the injection point locations proximate MW-07R and EX-MW-11R. Literature associated with the Provectus-IR and DHC are provided in Appendix E of the CMS report.

3.0 EFFECTIVENESS OF THE REMEDIAL PROGRAM

All remedial actions described in the RAWP were completed during Phase I and Phase II of the remedial program. Remedial goals were accomplished through the removal and off-site disposal of contaminated media exceeding the SSCLs; removal of PCB equipment; enhanced natural attenuation of the Site groundwater; removal of ACMs; demolition of the Site building; and the installation of the Site-wide cover system to prevent exposure to remaining contamination in the subsurface.

As detailed below in Section 4.1.2, the Site Soil Cover System was inspected on December 12, 2023. Based on this inspection, the cover system is intact and functioning effectively throughout the Site.

As a result of increases in total VOC concentrations in laboratory groundwater analytical results associated with the sampling of MW-07R and EX-MW-11R, in December 2021 and March 2022, the NYSDEC requested a CMWP. Such was submitted to the NYSDEC in September 2022 and included a scope of work for the installation of one new permanent groundwater monitoring well (MW-13) between MW-07R and the north property boundary and an injection event proximate both MW-07R and EX-MW-11R. A new well was requested in order to assess total VOC concentrations proximate the north property boundary and to determine whether VOCs appeared to be migrating off-site to the north. In addition, the injection events were proposed in an effort to further breakdown the VOC concentrations proximate MW-07R and EX-MW-11R. An injection permit was submitted to the United States Environmental Protection Agency in late November 2022 and the injections were completed in April 2023.

Total VOC concentrations have decreased or remained consistent in MW-13, MW-09R, MW-07R, EX-MW-11R, MW-04 and EX-MW-12 since the December 2021, March 2022, and/or December 2022 sampling events. Total VOC concentrations in MW-02R have increased since the December 2021, March 2022, and/or December 2022 sampling events. Injections were completed in April 2023 as part of a NYSDEC-approved CMWP in an effort to mitigate an increase in total VOC concentrations identified proximate both MW-07R and EX-MW-11R during the December 2021 and March 2022 sampling events. A CMS Report was submitted to the NYSDEC and is included in Appendix 1. An increase in total VOC concentrations may occur proximate these well locations over time as the remedial measures take effect, prior to a presumed decreasing trend in overall VOC concentrations, as constituents begin to break down. As a result, continued monitoring of contaminant levels at these wells, in addition to the remaining on-site well locations, is recommended at this time. Furthermore, based on limited laboratory analytical data collected to date from MW-13, it does not appear that contaminant migration is occurring toward the north adjacent property from the area proximate MW-07R.

Contaminant concentrations in MW-07R and MW-13 should continue to be monitored to assure that off-site migration of VOCs is not occurring as a result of the impact identified proximate MW-07R.

4.0 INSTITUTIONAL/ENGINEERING CONTROL (IC/EC) PLAN COMPLIANCE REPORT

4.1 IC/EC Requirements and Compliance

4.1.1 IC Requirements-Site Restrictions

In accordance with the SMP, the Site has a series of Institutional Controls (ICs) in the form of Site restrictions. Adherence to these ICs is required by the Environmental Easement.
The Environmental Easement is described on the Boundary Survey of the Former Roblin Steel Site, included within Appendix 2. Site restrictions that apply are as follows:

- The Site may only be used for commercial or industrial use provided that the long-term ICs/Engineering Controls (ECs) included in the SMP are employed;
- The Site may not be used for a higher level of use, such as unrestricted, residential or restricted-residential use without additional remediation and amendment of the Environmental Easement, as approved by the NYSDEC;
- All future activities at the Site that will disturb remaining contaminated material must be conducted in accordance with the SMP;
- The use of groundwater underlying the Site is restricted as a source of potable or process water, without necessary water quality treatment, as determined by the Chautauqua County Department of Health;
- The potential for vapor intrusion must be evaluated for any buildings developed on the Site, and any potential impacts that are identified must be monitored and mitigated;
- The SMP will provide for the operation and maintenance of the components of the remedy;
- Vegetable gardens and farming on the Site are prohibited; and,
- The Site owner is required to provide an IC/EC certification, prepared and submitted by a professional engineer or environmental professional acceptable to the NYSDEC annually or for a period to be approved by the NYSDEC, which will certify that the ICs and ECs put in place are unchanged from the previous certification or that any changes to the controls were approved by the NYSDEC; and, nothing has occurred that impairs the ability of the controls to protect public health and environment or that constitute a violation or failure to comply with the SMP.

4.1.2 Engineering Control-Soil Cover System

Exposure to the remaining contamination in soil/fill at the Site is prevented by a soil cover system that was previously placed over the Site. This cover system is comprised of a minimum of 12 inches of clean soil overlaying a demarcation layer (orange plastic mesh material) over the entire surface of the Site. The EWP, which appears in Appendix A of the SMP, outlines the procedures that are required to be implemented in the event the cover system is breached, penetrated or temporarily removed, and any underlying remaining contamination is disturbed. The cover system is a permanent control, and the quality and integrity of this system will be inspected at defined, regular intervals in perpetuity.

On December 12, 2023, Mr. Andrew Koons of LaBella Associates, D.P.C. (LaBella) conducted the annual Site inspection, which included traversing the Site on foot to observe the current conditions. The Cover Inspection Form is included herein as Appendix 3. Appendix 4 includes photographs taken during the Site inspection.

With the exception of the Progress Drive corridor that crosses the Site, the Site is generally vacant and undeveloped, with vegetated soil cover occurring at the ground surface. The soil cover at the time of the Site inspection was observed to be intact and functioning as intended. The floor and walls of the storm water ditches associated with Progress Drive were covered with a coarse, low-lying vegetation. No evidence of erosion or exposed synthetic erosion control fabric was observed within or adjacent to the ditches. Furthermore, the asphalt road surface was observed to be in good condition.

As mentioned above, one new permanent groundwater monitoring well (MW-13) was installed at the Site on December 6, 2022. Soil cuttings beneath the demarcation layer were drummed for proper off-site disposal by Environmental Services Group, Inc. of Tonawanda, New York, and transported off-site to American Recyclers Company in Tonawanda, New York, as a non-hazardous waste, on April 27, 2023. Air monitoring was performed during intrusive activities as stated in the department approved CMWP. Air monitoring data did not identify exceedances of applicable regulatory guidance. The location of MW-13 can be identified in Figures 2 and 3. The waste manifest for the soil cuttings is included in Appendix 1.

4.1.3 Engineering Control-Sub-Slab Vapor Venting System

No sub-slab vapor venting system (SSVVS) was installed as part of the Site remedy. However, any potential new structures constructed on the Site as part of Site redevelopment may be equipped with a SSVVS, if warranted. The design and sampling of the SSVVS will be performed in accordance with NYSDEC and New York State Department of Health (NYSDOH) guidance at the time the system is installed. The ultimate design of the SSVS will be dependent upon the size and configuration of any newly constructed buildings. Therefore, the specific components of the SSVVS have not been determined.

4.2 IC/EC Certification

The IC/EC Certification Form was completed in its entirety as all ICs/ECs are in place for the Site per the SMP. No change of use, groundwater use, excavations or imports occurred during the certifying period. Appendix 5 includes the NYSDEC "Site Management Periodic Review Report Notice-Institutional and Engineering Controls Certification Form."

5.0 MONITORING PLAN COMPLIANCE REPORT

5.1 Requirements

Sections 3.0 and 5.0 of the SMP describe the measures for evaluating: (1) the performance and effectiveness of the remedy to reduce or mitigate contamination at the Site; (2) the soil cover system; and (3) all affected Site Media.

Such Sections describe the methods to be used for:

- Sampling and analysis of all appropriate media (e.g., groundwater, indoor air, soil vapor, soils);
- Assessing compliance with applicable NYSDEC standards, criteria and guidance, particularly ambient groundwater standards;
- Monitoring the cover system;
- Assessing achievement of the remedial performance criteria;
- Evaluating Site information periodically to confirm that the remedy continues to be effective in protecting public health and the environment; and,
- Preparing the necessary reports for the various monitoring activities.

To adequately address these issues, these Sections provide information on:

- Sampling locations, protocol, and frequency;
- Information on all designed monitoring systems (e.g., well logs);
- Analytical sampling program requirements;
- Reporting requirements;
- Quality Assurance/Quality Control (QA/QC) requirements;
- Inspection and maintenance requirements for monitoring wells;
- Monitoring well decommissioning procedures; and,
- Annual inspection and periodic certification.

5.2 Groundwater Monitoring

The groundwater monitoring program is to be conducted on an annual basis for 30 years. Groundwater samples are analyzed for VOCs appearing on the USEPA Target Compound List (TCL). Trends in contaminant levels in groundwater are evaluated to determine if the remedy continues to be effective in achieving remedial goals.

The groundwater monitoring network prescribed in the SMP consists of six monitoring wells, which includes MW-02R, MW-04, MW-07R, MW-09R, EX-MW11R and EX-MW-12. As noted in the 2021 PRR and observed during the annual site inspection and monitoring event conducted on December 12, 2023, MW-01 was previously damaged during construction of the freezer warehouse on the northwest adjacent property and is no longer part of the groundwater monitoring network. While MW-12 was removed from the groundwater monitoring network following completion of the December 2020 groundwater sampling event, depth to water was collected from MW-12 during the December 12, 2023, groundwater sampling event in order to assist in determining overall groundwater flow patterns at the Site. The NYSDEC authorized the omission of MW-01 and MW-12 from the groundwater monitoring network in the 2020 PRR response letter submitted by the NYSDEC on February 2, 2021.

A summary of the monitoring well data and groundwater elevations are presented below:

Well ID #	Top of Casing (in feet)	Depth to Water (in feet)	Groundwater Elevation (in feet)
MW-02R	616.96	6.45	610.51
MW-04	612.06	3.3	608.76
MW-07R	614.5	3.66	610.84
MW-09R	619.79	2.44	617.35
EX-MW-11R	616.87	5.77	611.1
EX-MW-12	615.86	5.3	610.56
MW-12	618.72	5.92	612.8
MW-13	615.82	4.61	611.21

As discussed above, one new permanent groundwater monitoring well (MW-13) was installed at the Site on December 6, 2022, and is anticipated to be included in future PRRs for the Site.

5.2.1 Sampling Procedure

The seven groundwater monitoring wells were purged and sampled in general accordance with the procedures detailed in the SMP. This included three downgradient wells (MW-02R, MW-04, and EX-MW-12) and the four wells located within areas of groundwater impacted with chlorinated VOCs (MW-09R, MW-07R, MW-13, and EX-MW11R). All monitoring well sampling activities were recorded on groundwater sampling logs, which are included as Appendix 6. Other observations (e.g., well integrity, etc.) were also noted on the well sampling logs. Prior to the initiation of groundwater sampling, groundwater levels were measured with an electronic water level indicator to determine the static water level below the ground surface elevation. The groundwater levels were used to determine the volume of standing water in the wells.

Well purging consisted of the evacuation of a minimum of three well volumes using NYSDEC-approved low-flow purging procedures via a Geotech Geopump II Pump. The samples were collected within three hours of completion of well purging using the low-flow method previously identified. Sample volumes were collected into clean sample bottles containing hydrochloric acid preservative provided by the laboratory. The groundwater samples were submitted for analysis of TCL VOCs via USEPA Method 8260.

5.2.2 Sample Preservation and Handling

Immediately after collection, all samples were placed in a cooler and chilled with ice. To ensure sample integrity, a Chain-of-Custody (COC) sample record was established and kept with the samples to document each person that handled the samples. The samples were transported to Test America Laboratories, Inc., a NYSDOH Environmental Laboratory Accreditation Program certified laboratory for analysis.

The COC records established for the collected samples were maintained throughout the laboratory handling. Copies of the COC and complete analytical laboratory report are included in Appendix 7.

5.2.3 Quality Assurance/Quality Control Samples

In addition to field samples, QA/QC samples were collected to evaluate the effectiveness of the QA/QC procedures implemented during the field and laboratory activities associated with the project. The QA/QC samples included a blind field duplicate and a trip blank that were also analyzed for TCL VOCs. Well sampling at the Site and adjoining, former Alumax Extrusions Site were conducted in conjunction with one another on December 12, 2023, and the samples from both sites were submitted to the laboratory together in one batch and recorded on one COC. As such, the blind field duplicate collected from the former Roblin Steel Site (collected from MW-09R) and trip blank associated with the samples from both sites were utilized to evaluate the effectiveness of the QA/QC procedures for the Site.

5.2.4 Analytical Results

The following section summarizes and discusses the analytical results generated during the aforementioned monitoring event. For discussion purposes, this data is compared with the Standards Criteria and Guidance Values applicable to groundwater: NYSDEC's June 1998 Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations in the Technical and Operational Guidance Series (TOGS) 1.1.1.

Table 1 summarizes the groundwater pre- and post-remedial sampling results and compares the results to applicable water quality standards. Figure 2 depicts the locations of the monitoring wells while Figure 3 depicts apparent groundwater flow direction at the Site.

5.3 Comparisons with Remedial Objectives

As shown in Table 1, VOC concentrations were detected in all monitoring wells, with the exception of EX-MW-12 and MW-04, during this sampling event. Historical monitoring well data and trendlines are included in Appendix 8.

Six VOCs were detected in MW-02R including three VOCs (cis-1, 2-dichloroethene at 320 micrograms per liter or ug/L, vinyl chloride at 280 ug/L and benzene at 2.7 ug/L) at concentrations above NYSDEC TOGS Standards. Total VOC concentrations in this well have increased since the December 2022 sampling event however, injections were completed at the Site around EX-MW-11R which is proximate to and hydraulically up-gradient of MW-02R.

Four VOCs were detected in MW-09R including two VOCs (cis-1,2-dichloroethene at 75 ug/L and vinyl chloride at 310 ug/L) at concentrations above NYSDEC TOGS Standards. Total VOC concentrations in this well have decreased since the December 2022 sampling event and are substantially lower than the maximum concentration detected at this location during the August 2010 sampling event.

Five VOCs were detected in EX-MW-11R including three VOCs (cis-1,2-dichloroethene at 1,700 ug/L, trichloroethene at 44 ug/L, and vinyl chloride at 1,100 ug/L) at concentrations above NYSDEC TOGS Standards. Total VOC concentrations in this well have decreased since the December 2022 sampling event. Injections proximate this well were completed as part a NYSDEC-approved CMWP.

Five VOCs (1,1-dichloroethene at 12 ug/L, cis-1,2-dichloroethene at 3,400 ug/L, trans-1,2-dichloroethane at 9.6 ug/L, trichloroethene at 21 ug/L, and vinyl chloride at 780 ug/L) were detected in MW-07R at concentrations above NYSDEC TOGS Standards. Total VOC concentrations in this well have increased since the December 2022 sampling event but remained consistent with the December 2021 and March 2022 sampling events. Injections proximate this well were completed as part of a NYSDEC-approved CMWP.

Five VOCs were detected in MW-13 including one VOC (benzene) at concentrations above the NYSDEC TOGS Standards. Total VOC concentrations in the well have decreased since the December 2022 sampling event.

A comparison of the results from MW-09R with the blind field duplicate indicates that the data coincide.

5.4 Monitoring Deficiencies

No monitoring deficiencies have been identified during the course of this period review.

5.5 Groundwater Monitoring Conclusions and Recommendations

Total VOC concentrations have decreased or remained consistent in MW-13, MW-09R, MW-07R, EX-MW-11R, MW-04 and EX-MW-12 since the December 2021, March 2022, and/or December 2022 sampling events. Total VOC concentrations in MW-02R have increased since the December 2021, March 2022, and/or December 2022 sampling events. Injections were completed in April 2023 as part of a NYSDEC-approved CMWP in an effort to mitigate an increase in total VOC concentrations identified proximate both MW-07R and EX-MW-11R during the December 2021 and March 2022 sampling events. A CMS Report was submitted to the NYSDEC and is included in Appendix 1. An increase in total VOC concentrations may occur proximate these well locations over time as the remedial measures take effect, prior to a presumed decreasing trend in overall VOC concentrations, as constituents begin to break down. As a result, continued monitoring of contaminant levels at these wells, in addition to the remaining on-site well locations, is recommended at this time. Furthermore, based on limited laboratory analytical data collected to date from MW-13, it does not appear that contaminant migration is occurring toward the north adjacent property from the area proximate MW-07R.

It is also recommended that MW-01 be properly decommissioned due to its damaged condition, at the discretion of the established remedial party.

In consideration of the information above, no changes to the SMP or the frequency of PRR submissions are recommended at this time.

6.0 CONCLUSIONS AND RECOMMENDATIONS

The Site Soil Cover System was inspected on December 12, 2023, and was observed to be intact and functioning as designed throughout the Site.

Total VOC concentrations have decreased or remained consistent in MW-13, MW-09R, MW-07R, EX-MW-11R, MW-04 and EX-MW-12 since the December 2021, March 2022, and/or December 2022 sampling events. Total VOC concentrations in MW-02R have increased since the December 2021, March 2022, and/or December 2022 sampling events. Injections were completed in April 2023 as part of a NYSDEC-approved CMWP in an effort to mitigate an increase in total VOC concentrations identified proximate both MW-07R and EX-MW-11R during the December 2021 and March 2022 sampling events. A CMS Report was submitted to the NYSDEC and is included in Appendix 1. An increase in total VOC concentrations may occur proximate these well locations over time as the remedial measures take effect, prior to a presumed decreasing trend in overall VOC concentrations, as constituents begin to break down. As a result, continued monitoring of contaminant levels at these wells, in addition to the remaining on-site well locations, is recommended at this time. Furthermore, based on limited laboratory analytical data collected to date from MW-13, it does not appear that contaminant migration is occurring toward the north adjacent property from the area proximate MW-07R. Contaminant concentrations in MW-07R and MW-13 should continue to be monitored to assure that off-site migration of VOCs is not occurring as a result of the impact identified proximate MW-07R.

7.0 LIMITATIONS

The conclusions presented in this report are based on information gathered in accordance with generally acceptable professional consulting principles and practices. All conclusions reflect observable conditions existing at the time of the Site inspection. Information provided by outside sources (individuals, agencies, laboratories, etc.) as cited herein, was used in the assessment of the Site. The accuracy of the conclusions drawn from this assessment is, therefore, dependent upon the accuracy of information provided by these sources. Furthermore, LaBella is not responsible for the impacts of any changes in environmental standards, practices, or regulations subsequent to the performance of services.

This report is based upon the application of scientific principles and professional judgment to certain facts with resultant subjective interpretations.

Professional judgments expressed herein are based upon the facts currently available with the limits of the existing data, scope of services, budget and schedule. To the extent that more definitive conclusions are desired by the Client than are warranted by the current available facts, it is specifically Labella's' intent that the conclusions and recommendations stated herein will be intended as guidance and not necessarily a firm course of action expect where explicitly stated as such. LaBella makes no warranties, expressed or implied including without limitation, warranties as to merchantability or fitness of a particular purpose. Furthermore, the information provided in this report is not construed as legal advice.

This assessment and report have been completed and prepared on behalf of and for the exclusive use of Chautauqua County. Any reliance on this report by a third party is at such party's sole risk.

8.0 REFERENCES

DER10/Technical Guidance for Site Investigation and Remediation, NYSDEC, May 3, 2010

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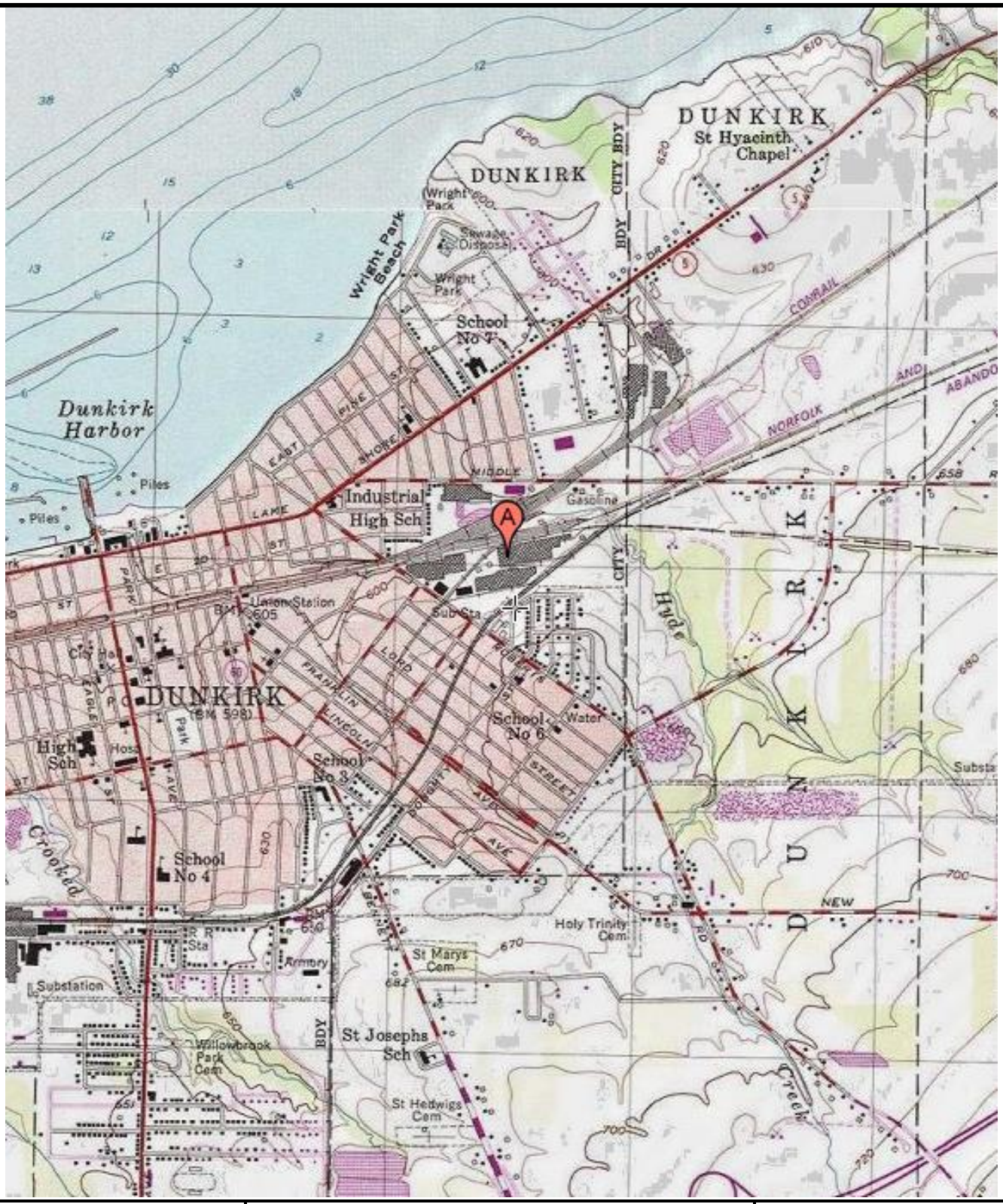
Site Management Plan, Former Roblin Steel Site, TVGA Consultants, November 2010 (updated by LaBella Associates, D.P.C., June 2021)

Corrective Measures Work Plan, Former Roblin Steel Site, LaBella Associates, D.P.C., August 2022

Corrective Measures Summary Report, Former Roblin Steel Site, LaBella Associates, D.P.C., June 2023

FIGURES



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Not To Scale

FIGURE 1
SITE LOCATION MAP

Former Roblin Steel Site
320 South Roberts Road
Dunkirk, New York

LaBella
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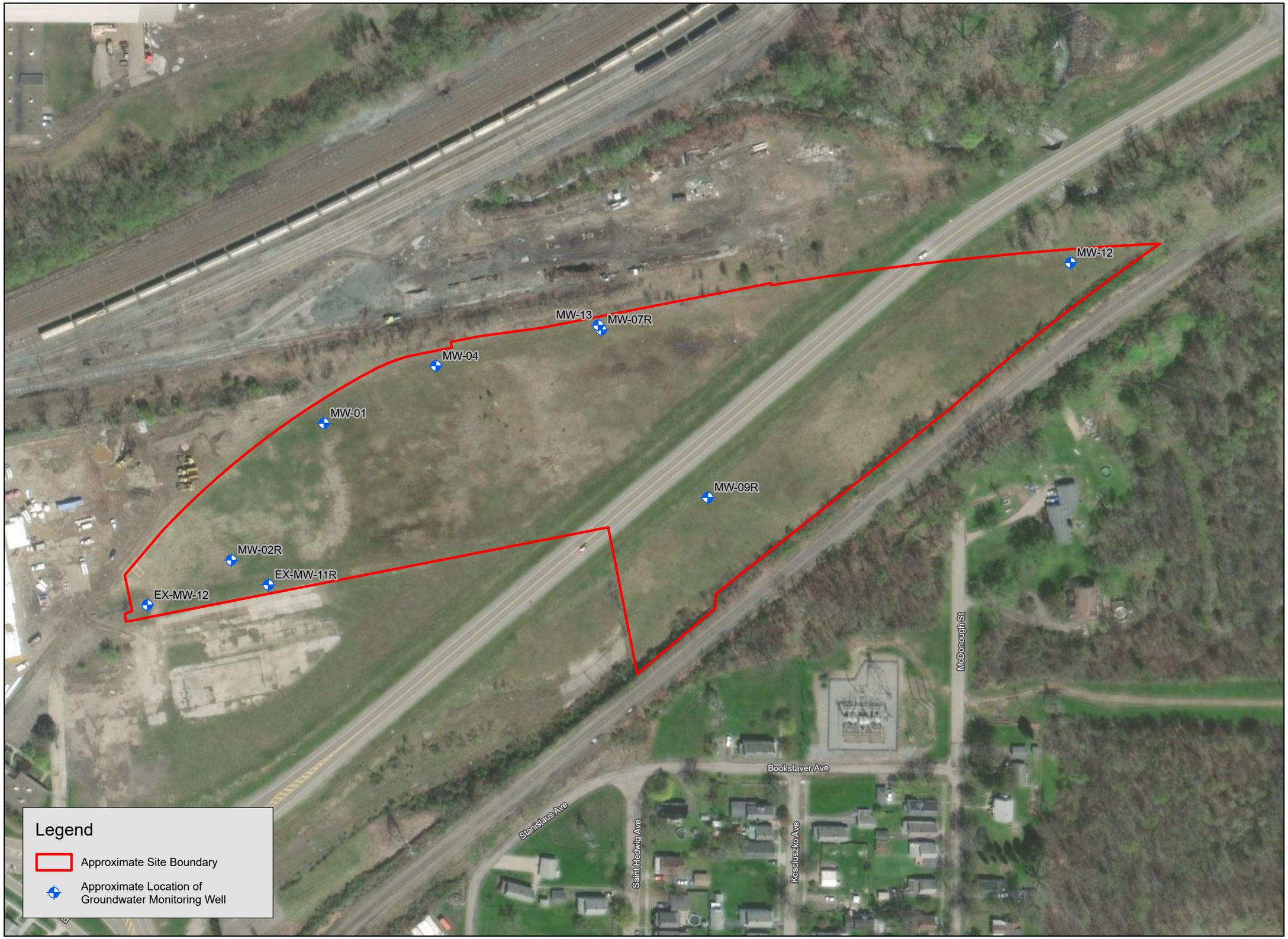
PROJECT NO. 2200014



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INTENDED TO PRINT AS: 11" X 17"

PROJECT:

FORMER ROBLIN STEEL SITE

DRAWING NAME:

SITE PLAN

PROJECT #/DRAWING #/ DATE

2200014

FIGURE 2

01/04/2023

I:\Chautauqua County\2200014 - Dunkirk Brownfield Monitoring\Drawings\DIG\Maps\APRX\2023_01\RoblinSite_Fig2_Fig3\RoblinSite_Fig2_Fig3.aprx

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INTENDED TO PRINT AS: 11" X 17"

PROJECT:

FORMER ROBLIN STEEL SITE

DRAWING NAME:

GROUNDWATER ELEVATIONS

PROJECT #/DRAWING #/ DATE

2200014

FIGURE 3

01/03/2024

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TABLE

Table 1
Former Roblin Steel Site
Summary of Analytical Results
Groundwater Samples

PARAMETER	REGULATORY VALUE	MW-02R														
Collection Date		10/11/02	2/10/09	8/10/10	8/15/13	7/15/14	12/15/15	12/14/16	2/2/18	12/12/18	12/5/19	12/3/20	12/2/21	3/23/22	12/13/22	12/12/23
Volatile Organic Compounds (µg/L)																
1,1-Dichloroethane	5															
1,1-Dichloroethene	5															
cis-1,2-Dichloroethene	5	NA		21.3	10.1	6.27	18	11	13	20	21	10	5.1	27	130	320
trans-1,2-Dichloroethene	5	NA														
1,2-Dichloroethene (Total)	5	88		21.3												
1,2,4-Trimethylbenzene	5		10													
2-Butanone	50		33.5	129												
Acetone	50			21.7	12.3											
Benzene	1	18	7.92	37.3	18.2	22.7	3.5	3.5	5.6	3.2	1.2	1.6	5.4	6.9	2.5 J	2.7 J
Carbon Disulfide	60															
Chloroethane	5				6.2											
Cyclohexane	NL				32.8	43.3	6.3	5	7.9	3.6	3.4	4.2	4.3	5.5	4.5 J	7.7
cis-1,3-Dichloropropene	0.4															
Ethylbenzene	5		9.81	18.9	16.9	22.6	1.9									
Isopropylbenzene	5				2.53	3.12	0.61						1.2	1.3		
Methyl chloride	5															
Methyl Cyclohexane	NL				13.8	22.4	2.3	1.3	2	0.7	0.99	1.2	1.7	0.89 J	3.2 J	7.7
Methylene Chloride	5															
n-Propylbenzene	5		2.57													
Tetrachloroethene	5															
Toluene	5	24	7.19	101												
m,p-Xylene	5	NA	7.62	73.2	2.45	9.81										
o-Xylene	5	NA	2.61	37.2		2.10										
Total Xylenes	5	11	10.23	110.4												
Trichloroethene	5	32		3.31			0.25							0.78 J		3.6 J
Vinyl chloride	2	31		5.34	12.5	9.13	26	42	27	49	37	27	6.1	21	150	280
Total VOCs	-	**204**	**91**	**580**	**128**	**141**	**59**	**63**	**56**	**77**	**64**	**44**	**23.8**	**42.4**	**290.2**	**621.7**

PARAMETER	REGULATORY VALUE	MW-04														
Collection Date		10/11/02	2/10/09	8/10/10	8/21/13	7/15/14	12/15/15	12/14/16	2/2/18	12/12/18	12/5/19	12/3/20	12/2/21	3/23/22	12/13/22	12/12/23
Volatile Organic Compounds (µg/L)																
1,1-Dichloroethane	5															
1,1-Dichloroethene	5															
cis-1,2-Dichloroethene	5	NA					2.6	1.2					1.3			
trans-1,2-Dichloroethene	5	NA														
1,2-Dichloroethene (Total)	5															
1,2,4-Trimethylbenzene	5															
2-Butanone	50															
Acetone	50				43.8											
Benzene	1	6														
Carbon Disulfide	60															
Chloroethane	5															
Cyclohexane	NL															
cis-1,3-Dichloropropene	0.4															
Ethylbenzene	5	2														
Isopropylbenzene	5															
Methyl chloride	5														0.51 J	
Methyl Cyclohexane	NL															
Methylene Chloride	5															
n-Propylbenzene	5															
Tetrachloroethene	5															
Toluene	5															
m,p-Xylene	5	NA														
o-Xylene	5	NA														
Total Xylenes	5	10														
Trichloroethene	5							1.91								
Vinyl chloride	2						0.49									
Total VOCs	-	**18**	**0**	**0**	**44**	**0**	**3**	**3**	**0**	**0**	**0**	**0**	**1.3**	**0**	**0.51**	**0.0**

PARAMETER	REGULATORY VALUE	MW-07R														
Collection Date		10/11/02	5/4/09	8/10/10	8/15/13	7/15/14	12/15/15	12/14/16	2/2/18	12/12/18	12/5/19	12/3/20	12/2/21	3/23/22	12/13/22	12/12/23
Volatile Organic Compounds (µg/L)																
1,1-Dichloroethane	5												4			
1,1-Dichloroethene	5	15											15			12
cis-1,2-Dichloroethene	5	NA		904	128	584	17	5.9	190	3.2	16	23	3600	3400	400	3,400
trans-1,2-Dichloroethene	5	NA											14			9.6 J
1,2-Dichloroethene (Total)	5	1,500		904												
1,2,4-Trimethylbenzene	5															
2-Butanone	50															
Acetone	50															
Benzene	1	10	65	14			0.34									
Carbon Disulfide	60															
Chloroethane	5															
Cyclohexane	NL						0.72									
cis-1,3-Dichloropropene	0.4		1,500													
Ethylbenzene	5	4														
Isopropylbenzene	5															
Methyl chloride	5															
Methyl Cyclohexane	NL		99				0.76									
Methylene Chloride	5															
n-Propylbenzene	5															
Tetrachloroethene	5		160				0.25									
Toluene	5	12	69	29.7												
m,p-Xylene	5	NA	67	33.3												
o-Xylene	5	NA														
Total Xylenes	5	23	67	33.3												
Trichloroethene	5	56		49.2		55.9		2	3.7				120	110		21
Vinyl chloride	2	330	770	402	56.1	205	6.2	3.7	75	3.6	19	12	740	650	140	780
Total VOCs	-	**1,950**	**2,797**	**2,370**	**184**	**845**	**25**	**12**	**194**	**6.8**	**35**	**35**	**4493**	**4160**	**540**	**4,223**

PARAMETER	REGULATORY VALUE	MW-09R														
Collection Date		10/11/02	2/10/09	8/10/10	8/15/13	7/15/14	12/15/15	12/14/16	2/2/18	12/12/18	12/5/19	12/3/20	12/2/21	3/23/22	12/13/22	12/12/23
Volatile Organic Compounds (µg/L)																
1,1-Dichloroethane	5															
1,1-Dichloroethene	5	3	2.02				2.3		1.2							
cis-1,2-Dichloroethene	5	NA	210	277	217	55.7	1,200	500	410	290	180	180	4	170	180	75
trans-1,2-Dichloroethene	5	NA	4.48	17.3			2.9		4.2							
1,2-Dichloroethene (Total)	5	380	214	294												
1,2,4-Trimethylbenzene	5		12.9													
2-Butanone	50			305												
Acetone	50			569												
Benzene	1	35	11.5	445	87.7	46.3	0.97		2.2		3.5	5.5	13	15		
Carbon Disulfide	60												0.57 J			
Chloroethane	5															
Cyclohexane	NL				208	155	15		9.4		9.3	8.5	28	26	22	37
cis-1,3-Dichloropropene	0.4															
Ethylbenzene	5	12	5.66	69.6	33.7	17.3	0.23									
Isopropylbenzene	5						0.28							0.85 J		
Methyl chloride	5															
Methyl Cyclohexane	NL				121	101	13		7.5		7.3	7	9.4	9.9	20	34
Methylene Chloride	5							4.8								
n-Propylbenzene	5															
Tetrachloroethene	5						4.5									
Toluene	5	74	23.3	581												
m,p-Xylene	5	NA	20.5	239												
o-Xylene	5	NA	11.5	128			0.23									
Total Xylenes	5	75	32	367												
Trichloroethene	5	450	135	585				230	39			3.3		1.9		
Vinyl chloride	2	34	33		991	287	310		93	23	110	99	17	110	430	310
Total VOCs	-	**1,063**	**716**	**3,877**	**1,658**	**662**	**1,549**	**735**	**567**	**313**	**310**	**303**	**72**	**224**	**652**	**456**

PARAMETER	REGULATORY VALUE	EX-MW-11R														
Collection Date		10/11/02	2/10/09	8/10/10	8/15/13	7/15/14	12/15/15	12/14/16	2/2/18	12/12/18	12/5/19	12/3/20	12/2/21	3/23/22	12/13/22	12/12/23
Volatile Organic Compounds (µg/L)																
1,1-Dichloroethane	5															
1,1-Dichloroethene	5						4.6	11	5.8				63			
cis-1,2-Dichloroethene	5	NA	354	5,320	1,950	5,400	990	1,000	1,500	960	950	1,400	7,400	6,200	3,600	1,700
trans-1,2-Dichloroethene	5	NA					3.3		4.4				37			
1,2-Dichloroethene (Total)	5	41,000	354	5,320												
1,2,4-Trimethylbenzene	5															
2-Butanone	50															
Acetone	50															
Benzene	1						2.5		3.7							
Carbon Disulfide	60															
Chloroethane	5															
Cyclohexane	NL						16	24	22	19	22	9.6	37	33 J		13 J
cis-1,3-Dichloropropene	0.4															
Ethylbenzene	5						2.4		1.6							
Isopropylbenzene	5						0.68									
Methyl chloride	5															
Methyl Cyclohexane	NL						15	20	23	7.3	11	8	35	38 J	16 J	17 J
Methylene Chloride	5							12								
n-Propylbenzene	5															
Tetrachloroethene	5															
Toluene	5						1.7		0.81							
m,p-Xylene	5	NA					0.73									
o-Xylene	5	NA					4.9									
Total Xylenes	5								2.6							
Trichloroethene	5	150,000	168	4,630		4,510	36	91		10			1,400 F1	1500	600	44 J
Vinyl chloride	2	9,800	27	638	881	1,110	520	360	950	510	330	430	1,300 F1	750	1,100	1,100
Total VOCs	-	**200,800**	**903**	**15,908**	**2,831**	**11,020**	**1,598**	**1,518**	**2,514**	**1,506**	**1,313**	**1,848**	**7,572**	**8,521**	**5,316**	**2,874**

PARAMETER	REGULATORY VALUE	EX-MW-12															MW-13	
Collection Date		10/11/02	2/10/09	8/10/10	8/15/13	7/15/14	12/15/15	12/14/16	2/2/18	12/12/18	12/5/19	12/3/20	12/2/21	3/23/22	12/13/22	12/12/23	12/13/22	12/12/23
Volatile Organic Compounds (µg/L)																		
cis-1,2-Dichloroethene	5	NA		7.6			0.73										19	
trans-1,2-Dichloroethene	5	NA															1.0	
1,2-Dichloroethene (Total)	5	150		7.6														
2-Butanone	50			31.3													5.8 J	
2-Hexanone	50			5.23														
Acetone	50			73.8													23	
Benzene	1	1		24.0	1.9	2.14	0.47										6.4	2.1 J
Carbon Disulfide	60												1.1				1.1	
Chloromethane	5																0.37 J	
Cyclohexane	NL																9.9	6.1
Ethylbenzene	5	1		18.5													2.6	
Methyl Cyclohexane	NL																11.0	6.8
Toluene	5			48.7													10.0	3 J
m,p-Xylene	5	NA		74.7														
o-Xylene	5	NA		40.4														
Total Xylenes	5			115.1													14	5 J
Trichloroethene	5			8.96													1.9	
Vinyl chloride	2	200		27.2													11	
Total VOCs	-	**352**	**0**	**483**	**1.9**	**2.14**	**1**	**0**	**0**	**0**	**0**	**0**	**1.1**	**0.0**	**0.0**	**0.0**	117.09	23

Notes:

Regulatory values are derived from NYS Ambient Water Quality Standards TOGS 1.1.1 (Source of Drinking Water, groundwater).

(-) = No regulatory value is associated with this compound.

Shaded values represent exceedances of the regulatory value.

µg/L = micrograms per Liter (equivalent to parts per billion (ppb)).

Only compounds with one or more detections are shown.

J = Reported concentration is an estimate.

Blank spaces indicate that the analyte was not detected.

"NL" = Regulatory value not listed for parameter

APPENDIX 1

Corrective Measures Summary Report

Corrective Measures Summary Report

Location:

Former Roblin Steel Site
320 South Roberts Road
Dunkirk, New York
NYSDEC Site No. B00173-9

Prepared for:

Chautauqua County
Department of Public Affairs
454 North Work Street
Falconer, New York 14773

LaBella Project No. 2210039.05

June 22, 2023

LaBella
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300 Pearl Street, Suite 130 | Buffalo, NY 14203 | p 716-551-6281 | f 716-551-6282

CERTIFICATIONS

I, Chris Kibler, certify that I am currently a Qualified Environmental Professional as defined in 6 NYCRR 375 and that this Corrective Measures Report was conducted in accordance with all applicable statues and regulations in substantial conformance with the DER Technical Guidance for Site Investigation and Remediation (DER-10).

Signature

6/22/2023
Date

Table of Contents

Figures

Appendices

1.0 BACKGROUND AND SITE DESCRIPTION

The Site is located at 320 South Roberts Road in the City of Dunkirk, New York. Figure 1 shows the location of the Site and Figure 2 is the Site plan that depicts the Site configuration and location of the groundwater monitoring well network. Progress Drive transects the eastern portion of the Site in a northeast-southwest direction. As a result, a portion of the Site is located east of the roadway and separated from the remainder of the Site. The Site is located in an area zoned for industrial use. A mixture of commercial, industrial, and residential properties comprises the land use in the Site's vicinity. The Site is bounded to the north by an active CSX rail yard; to the east by active Norfolk Southern railroad tracks; to the south by the Former Alumax extrusions property; and to the west by a recently constructed freezer warehouse facility. Residential properties are located to the northwest and south of the Site beyond the adjoining properties. Lake Erie is situated approximately 3,400 feet to the northwest of the Site. Hyde Creek is located approximately 100 feet from the northeast corner of the Site.

This Corrective Measures Summary Report details activities related to the monitoring well installation and in-situ direct push injections consistent with the New York State Department of Environmental Conservation (NYSDEC)-approved Notification of Planned Intrusive Activities (Corrective Measures Work Plan) dated September 2022.

2.0 GOVERNING DOCUMENTS

The Corrective Measures work completed at the Site was generally completed in accordance with NYSDEC DER-10, the Excavation Work Plan (EWP) contained within the Site Management Plan (SMP) dated November 2010 and revised June 2021, and the Corrective Measures Work Plan (CMWP) dated September 2022.

3.0 CORRECTIVE MEASURES

The objective of the Corrective Measures work was to address the department's request to address increases in total volatile organic compound (VOC) concentrations associated with groundwater monitoring wells MW-07R and EX-MW-11R during the December 2021 and March 2022 groundwater sampling events. In addition, one (bedrock) groundwater monitoring well (MW-13) was installed north of MW-07R and immediately south of the north Site boundary to establish groundwater conditions on-site proximate the Site boundary to evaluate if any contaminants previously identified on-site may be migrated off-site to the north. In addition, direct push injections were performed proximate both MW-07R and EX-MW-11R.

3.1 Contractors and Consultants

The following details the consultants and contractors involved with the work associated with the Predesign Investigation activities:

Contractor/ Consultant	Role
LaBella Associates, D.P.C.	Environmental consultant responsible for correspondence with NYSDEC, ensuring compliance with applicable SMP documents, environmental oversight, reporting, sample collection, and CAMP monitoring.
LaBella Environmental, LLC	Monitoring well installation and performance of in-situ direct push injection work.
Provectus Environmental Products	Provided consulting and injection products
Environmental Service Group	Waste hauler for auger spoils and decontamination solids.
Eurofins Environment Testing	Laboratory for testing and analysis of auger soils and decontamination solids, and groundwater associated with MW-13.

3.2 Site Controls & Monitoring

Site controls utilized during implementation of the Corrective Measures Work Plan generally consisted of the following:

- One upwind and one downwind Community Air Monitoring Program (CAMP) station was utilized during ground intrusive work. Although locations varied by day due to location of work, the upwind CAMP station was generally located to the west of the work being performed, while the downwind CAMP station was generally located to the east of the work being performed. Each CAMP station consisted of a particulate monitor (DustTrak II Model 8530) which recorded measurements on a 15-minute average.
- Disturbed subsurface soil was continuously screened for evidence of impairment (i.e., visual, olfactory, or photoionization (PID) detector readings).
- Spoils created from monitoring well installation were placed in a drum and characterized for disposal.

CAMP thresholds were not exceeded throughout the project duration, when compared to applicable state guidance. Hourly checks of the handheld PID did not identify any VOC readings above 0.0 parts per million in the ambient air within the work area.

Odors associated with known contaminants of concern at the Site were not encountered during the Corrective Measures work, and as such, corrective actions associated with odor control were not required.

Copies of all field data sheets relating to the CAMP are provided in electronic format in Appendix A. Daily field notes documenting observed daily activities and tasks are included in electronic format in Appendix B. A digital photo log is included in Appendix C.

3.3 Corrective Measures Work Plan Tasks

3.3.1 Monitoring Well Installation and Sampling

On December 6, 2022, a track mounted drill rig equipped with 4 ½ inch hollow stem augers, was used to install one 2-inch PVC monitoring well (MW-13). The monitoring well was sampled and a Monitoring Well Installation Report with results was issued. The Monitoring Well Installation Report detailing the field activities and sampling results is provided in Appendix D.

3.3.2 In-Situ Direct Push Injections

LaBella Environmental, LLC submitted an Underground Injection Control (UIC) request to the United States Environmental Protection Agency (USEPA) in November 2022, for approval to perform the in-situ direct push injections at the Site. Thereafter, such was "authorized by rule" by Harper Stanfield of the USEPA (UIC ID 19NY01399019).

In-situ direct push injections were conducted between April 11 and April 17, 2023. The injections were performed using a direct hydraulic push rig around each well, over an approximately 1,600 square-foot area, with approximately 10-foot spacing, totaling 32 injection points. The target depths for treatment were 5 to 10 feet below ground surface. Provectus-IR was injected to address the chlorinated VOCs (cVOCs) proximate MW-07R and EX-MW-11R. Provectus is a unique mixture of reagents, including zero valent iron (ZVI) and organic carbon substrate, combined into a single technology that optimized in-situ reductive dechlorination. In addition, approximately three liters of Dehalococcoides (DHC) was also injected as a bioaugmentation process, to assist in overall cVOC destruction. The DHC was spread over approximately four injection points proximate each well area. The product vendor (Provectus) recommended a three-to-six-month lead time of supplemental sampling of MW-07R and EX-MW-11R, in order to allow the materials to perform properly to breakdown the cVOCs proximate each of the two wells. Figure 3 depicts the injection point locations proximate MW-07R and EX-MW-11R. Literature associated with the Provectus-IR and DHC are provided in Appendix E.

3.4 Material Management

Corrective Measures tasks resulted in the need to manage the following materials:

1. Auger Spoils and decontamination solids requiring landfill disposal.

3.4.1 Auger Spoils and Decontamination Solids

Auger spoils and decontamination solids generated as a result of activities associated with the Corrective Measures tasks detailed within Section 3.4 above were drummed and staged on-site, and a soil sample was collected and submitted for characterization. The drum was transported by Environmental Service Group (ESG) to American Recyclers Company in Tonawanda, New York, as a non-hazardous waste. Details including waste characterization, laboratory reports, and waste disposal documentation are included within Appendix F.

4.0 SUMMARY AND CONCLUSIONS

While contraventions of select constituents were identified in MW-13, total VOC concentrations in this well were substantially lower than the concentrations identified in MW-07R during the December 2021 and March 2022 sampling events. The continued monitoring of contaminant levels is recommended at MW-13 as part of the overall groundwater monitoring network at the Site and should be closely examined during future annual monitoring events to determine if an increasing trend materializes.

Given the timing of the injection event proximate MW-07R and EX-MW-11R (April 2023) and the recommended processing time of the applied materials, it is recommended that post-remedial sampling of MW-07R and EX-MW-11R be completed during the next annual Periodic Review Report sampling event slated to take place at the Site in December 2023, to evaluate the effectiveness of the injection event.

FIGURES

PROJECT # / DRAWING # / DATE:	DRAWING NAME:	PROJECT:	
2210039.05 **Figure 1** 5/4/2023	Site Location Map	FORMER ROBLIN STEEL SITE Roblin CM Site Dunkirk, NY	N 0 1,000 2,000 Feet LaBella Powered by partnership.

Data Source: LaBella 2023, USGS, National Geographic, i-cubed 2019

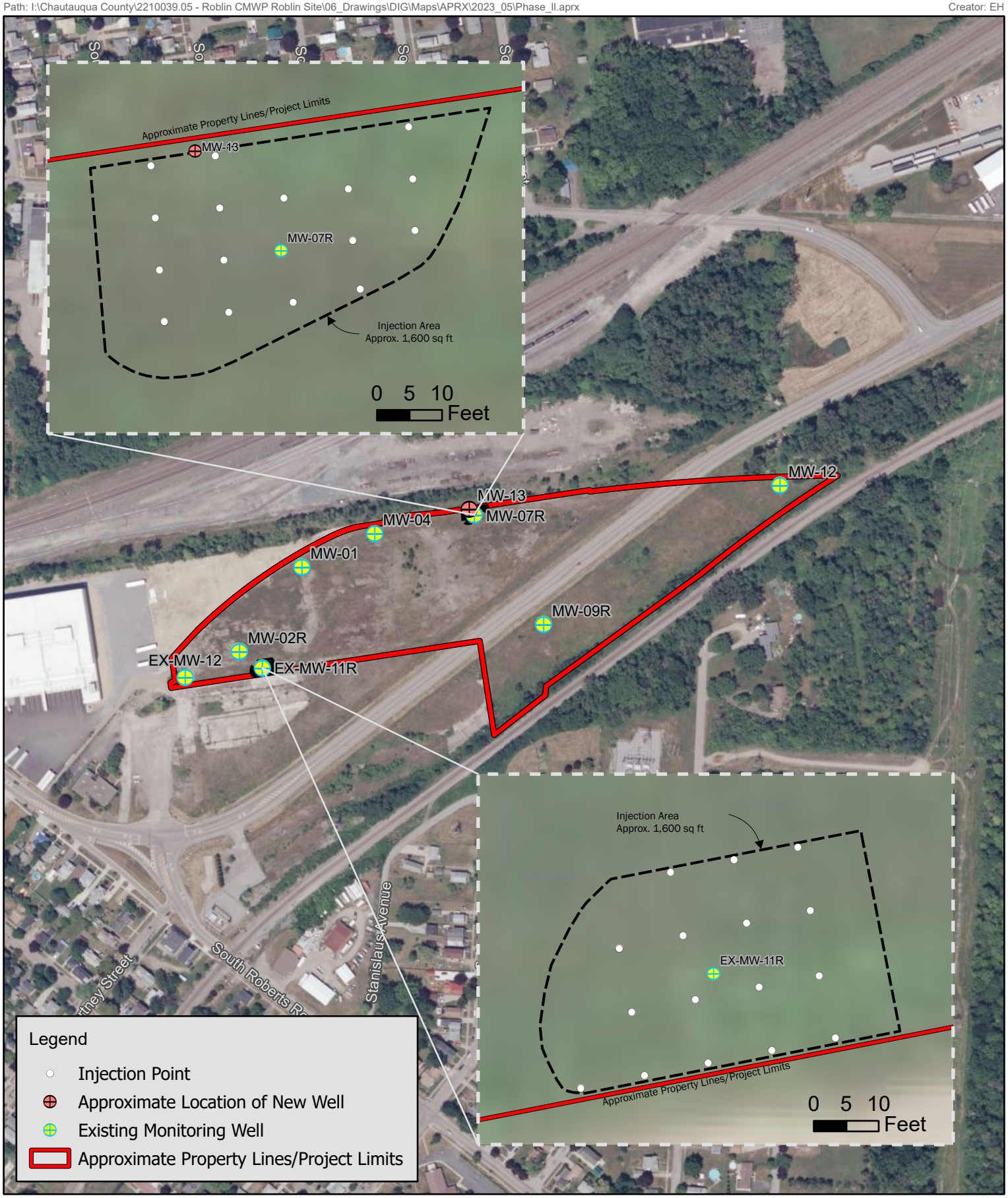
PROJECT # / DRAWING # / DATE:	DRAWING NAME:	PROJECT:
2210039.05 **Figure 2** 5/4/2023	Well Location Map	FORMER ROBLIN STEEL SITE Roblin CM Site Dunkirk, NY

N

0 100 200 Feet

LaBella
Powered by partnership.

Data Source: Bing; LaBella, 2023, Regrid, 2021



PROJECT # / DRAWING # / DATE:	DRAWING NAME:	PROJECT:	
2210039.05 **Figure 3** 5/4/2023	INJECTION LOCATIONS AROUND WELLS MW-07R AND EX-MW-11R	FORMER ROBLIN STEEL SITE Roblin CM Site Dunkirk, NY	N 0 100 200 Feet LaBella Powered by partnership.

Data Source: Bing; LaBella, 2023, Regrid, 2021

APPENDIX A – CAMP AIR MONITORING DATA

Test 003

Downwind

Instrument		Data Properties	
Model	DustTrak II	Start Date	04/11/2023
Instrument S/N	8530171404	Start Time	11:25:08
		Stop Date	04/11/2023
		Stop Time	14:10:08
		Total Time	0:02:45:00
		Logging Interval	900 seconds

Test Data			
Data Point	**Date**	**Time**	**AEROSOL mg/m^3**
1	04/11/2023	11:40:08	0.055
2	04/11/2023	11:55:08	0.019
3	04/11/2023	12:10:08	0.018
4	04/11/2023	12:25:08	0.023
5	04/11/2023	12:40:08	0.017
6	04/11/2023	12:55:08	0.020
7	04/11/2023	13:10:08	0.013
8	04/11/2023	13:25:08	0.017
9	04/11/2023	13:40:08	0.024
10	04/11/2023	13:55:08	0.024
11	04/11/2023	14:10:08	0.022

Test 003

Upwind

Instrument		Data Properties	
Model	DustTrak II	Start Date	04/11/2023
Instrument S/N	8530123203	Start Time	11:26:23
		Stop Date	04/11/2023
		Stop Time	14:11:23
		Total Time	0:02:30:00
		Logging Interval	900 seconds

Test Data			
Data Point	**Date**	**Time**	**AEROSOL mg/m^3**
1	04/11/2023	11:40:36	0.000
2	04/11/2023	11:41:23	0.036
3	04/11/2023	11:56:23	0.027
4	04/11/2023	12:11:23	0.020
5	04/11/2023	12:26:23	0.024
6	04/11/2023	12:41:23	0.018
7	04/11/2023	12:56:23	0.021
8	04/11/2023	13:11:23	0.012
9	04/11/2023	13:26:23	0.012
10	04/11/2023	13:41:23	0.026
11	04/11/2023	13:56:23	0.027

Test 004

Downwind

Instrument		Data Properties	
Model	DustTrak II	Start Date	04/12/2023
Instrument S/N	8530171404	Start Time	08:36:15
		Stop Date	04/12/2023
		Stop Time	15:51:15
		Total Time	0:07:15:00
		Logging Interval	900 seconds

Test Data			
Data Point	**Date**	**Time**	**AEROSOL mg/m^3**
1	04/12/2023	08:51:15	0.029
2	04/12/2023	09:06:15	0.018
3	04/12/2023	09:21:15	0.018
4	04/12/2023	09:36:15	0.017
5	04/12/2023	09:51:15	0.018
6	04/12/2023	10:06:15	0.019
7	04/12/2023	10:21:15	0.018
8	04/12/2023	10:36:15	0.018
9	04/12/2023	10:51:15	0.019
10	04/12/2023	11:06:15	0.019
11	04/12/2023	11:21:15	0.020
12	04/12/2023	11:36:15	0.022
13	04/12/2023	11:51:15	0.021
14	04/12/2023	12:06:15	0.020
15	04/12/2023	12:21:15	0.021
16	04/12/2023	12:36:15	0.021
17	04/12/2023	12:51:15	0.027
18	04/12/2023	13:06:15	0.029
19	04/12/2023	13:21:15	0.026
20	04/12/2023	13:36:15	0.022
21	04/12/2023	13:51:15	0.022
22	04/12/2023	14:06:15	0.021
23	04/12/2023	14:21:15	0.023
24	04/12/2023	14:36:15	0.021
25	04/12/2023	14:51:15	0.021
26	04/12/2023	15:06:15	0.022
27	04/12/2023	15:21:15	0.021
28	04/12/2023	15:36:15	0.019
29	04/12/2023	15:51:15	0.019

Test 004

Upwind

Instrument		Data Properties	
Model	DustTrak II	Start Date	04/12/2023
Instrument S/N	8530123203	Start Time	08:35:07
		Stop Date	04/12/2023
		Stop Time	15:50:07
		Total Time	0:07:15:00
		Logging Interval	900 seconds

Test Data			
Data Point	**Date**	**Time**	**AEROSOL mg/m^3**
1	04/12/2023	08:50:07	0.020
2	04/12/2023	09:05:07	0.019
3	04/12/2023	09:20:07	0.018
4	04/12/2023	09:35:07	0.019
5	04/12/2023	09:50:07	0.018
6	04/12/2023	10:05:07	0.019
7	04/12/2023	10:20:07	0.018
8	04/12/2023	10:35:07	0.017
9	04/12/2023	10:50:07	0.018
10	04/12/2023	11:05:07	0.019
11	04/12/2023	11:20:07	0.019
12	04/12/2023	11:35:07	0.021
13	04/12/2023	11:50:07	0.020
14	04/12/2023	12:05:07	0.018
15	04/12/2023	12:20:07	0.019
16	04/12/2023	12:35:07	0.019
17	04/12/2023	12:50:07	0.023
18	04/12/2023	13:05:07	0.027
19	04/12/2023	13:20:07	0.021
20	04/12/2023	13:35:07	0.020
21	04/12/2023	13:50:07	0.021
22	04/12/2023	14:05:07	0.019
23	04/12/2023	14:20:07	0.020
24	04/12/2023	14:35:07	0.020
25	04/12/2023	14:50:07	0.019
26	04/12/2023	15:05:07	0.019
27	04/12/2023	15:20:07	0.018
28	04/12/2023	15:35:07	0.016
29	04/12/2023	15:50:07	0.016

Test 005

Downwind

Instrument		Data Properties	
Model	DustTrak II	Start Date	04/13/2023
Instrument S/N	8530171404	Start Time	08:44:03
		Stop Date	04/13/2023
		Stop Time	15:29:03
		Total Time	0:06:45:00
		Logging Interval	900 seconds

Test Data			
Data Point	**Date**	**Time**	**AEROSOL mg/m^3**
1	04/13/2023	08:59:03	0.016
2	04/13/2023	09:14:03	0.014
3	04/13/2023	09:29:03	0.015
4	04/13/2023	09:44:03	0.013
5	04/13/2023	09:59:03	0.017
6	04/13/2023	10:14:03	0.012
7	04/13/2023	10:29:03	0.012
8	04/13/2023	10:44:03	0.015
9	04/13/2023	10:59:03	0.013
10	04/13/2023	11:14:03	0.013
11	04/13/2023	11:29:03	0.013
12	04/13/2023	11:44:03	0.012
13	04/13/2023	11:59:03	0.013
14	04/13/2023	12:14:03	0.016
15	04/13/2023	12:29:03	0.013
16	04/13/2023	12:44:03	0.015
17	04/13/2023	12:59:03	0.018
18	04/13/2023	13:14:03	0.017
19	04/13/2023	13:29:03	0.017
20	04/13/2023	13:44:03	0.020
21	04/13/2023	13:59:03	0.017
22	04/13/2023	14:14:03	0.018
23	04/13/2023	14:29:03	0.018
24	04/13/2023	14:44:03	0.019
25	04/13/2023	14:59:03	0.020
26	04/13/2023	15:14:03	0.020
27	04/13/2023	15:29:03	0.020

Test 005

Upwind

Instrument		Data Properties	
Model	DustTrak II	Start Date	04/13/2023
Instrument S/N	8530123203	Start Time	08:43:18
		Stop Date	04/13/2023
		Stop Time	15:28:18
		Total Time	0:06:45:00
		Logging Interval	900 seconds

Test Data			
Data Point	**Date**	**Time**	**AEROSOL mg/m^3**
1	04/13/2023	08:58:18	0.022
2	04/13/2023	09:13:18	0.020
3	04/13/2023	09:28:18	0.020
4	04/13/2023	09:43:18	0.019
5	04/13/2023	09:58:18	0.022
6	04/13/2023	10:13:18	0.020
7	04/13/2023	10:28:18	0.017
8	04/13/2023	10:43:18	0.019
9	04/13/2023	10:58:18	0.019
10	04/13/2023	11:13:18	0.021
11	04/13/2023	11:28:18	0.018
12	04/13/2023	11:43:18	0.017
13	04/13/2023	11:58:18	0.018
14	04/13/2023	12:13:18	0.018
15	04/13/2023	12:28:18	0.019
16	04/13/2023	12:43:18	0.020
17	04/13/2023	12:58:18	0.020
18	04/13/2023	13:13:18	0.023
19	04/13/2023	13:28:18	0.023
20	04/13/2023	13:43:18	0.025
21	04/13/2023	13:58:18	0.023
22	04/13/2023	14:13:18	0.025
23	04/13/2023	14:28:18	0.024
24	04/13/2023	14:43:18	0.024
25	04/13/2023	14:58:18	0.025
26	04/13/2023	15:13:18	0.024
27	04/13/2023	15:28:18	0.024

Test 006

Downwind

Instrument		Data Properties	
Model	DustTrak II	Start Date	04/14/2023
Instrument S/N	8530171404	Start Time	08:53:50
		Stop Date	04/14/2023
		Stop Time	13:53:50
		Total Time	0:05:00:00
		Logging Interval	900 seconds

Test Data			
Data Point	**Date**	**Time**	**AEROSOL mg/m^3**
1	04/14/2023	09:08:50	0.030
2	04/14/2023	09:23:50	0.028
3	04/14/2023	09:38:50	0.027
4	04/14/2023	09:53:50	0.026
5	04/14/2023	10:08:50	0.029
6	04/14/2023	10:23:50	0.030
7	04/14/2023	10:38:50	0.030
8	04/14/2023	10:53:50	0.028
9	04/14/2023	11:08:50	0.026
10	04/14/2023	11:23:50	0.025
11	04/14/2023	11:38:50	0.026
12	04/14/2023	11:53:50	0.027
13	04/14/2023	12:08:50	0.026
14	04/14/2023	12:23:50	0.025
15	04/14/2023	12:38:50	0.026
16	04/14/2023	12:53:50	0.026
17	04/14/2023	13:08:50	0.027
18	04/14/2023	13:23:50	0.027
19	04/14/2023	13:38:50	0.027
20	04/14/2023	13:53:50	0.030

Test 006

Upwind

Instrument		Data Properties	
Model	DustTrak II	Start Date	04/14/2023
Instrument S/N	8530123203	Start Time	08:51:46
		Stop Date	04/14/2023
		Stop Time	14:06:46
		Total Time	0:05:15:00
		Logging Interval	900 seconds

Test Data			
Data Point	**Date**	**Time**	**AEROSOL mg/m^3**
1	04/14/2023	09:06:46	0.032
2	04/14/2023	09:21:46	0.025
3	04/14/2023	09:36:46	0.023
4	04/14/2023	09:51:46	0.021
5	04/14/2023	10:06:46	0.023
6	04/14/2023	10:21:46	0.022
7	04/14/2023	10:36:46	0.023
8	04/14/2023	10:51:46	0.019
9	04/14/2023	11:06:46	0.016
10	04/14/2023	11:21:46	0.013
11	04/14/2023	11:36:46	0.014
12	04/14/2023	11:51:46	0.017
13	04/14/2023	12:06:46	0.017
14	04/14/2023	12:21:46	0.016
15	04/14/2023	12:36:46	0.017
16	04/14/2023	12:51:46	0.017
17	04/14/2023	13:06:46	0.017
18	04/14/2023	13:21:46	0.018
19	04/14/2023	13:36:46	0.018
20	04/14/2023	13:51:46	0.019
21	04/14/2023	14:06:46	0.020

Test 007

Downwind

Instrument		Data Properties	
Model	DustTrak II	Start Date	04/17/2023
Instrument S/N	8530171404	Start Time	09:03:36
		Stop Date	04/17/2023
		Stop Time	14:18:36
		Total Time	0:05:15:00
		Logging Interval	900 seconds

Test Data			
Data Point	**Date**	**Time**	**AEROSOL mg/m^3**
1	04/17/2023	09:18:36	0.005
2	04/17/2023	09:33:36	0.005
3	04/17/2023	09:48:36	0.004
4	04/17/2023	10:03:36	0.003
5	04/17/2023	10:18:36	0.004
6	04/17/2023	10:33:36	0.005
7	04/17/2023	10:48:36	0.006
8	04/17/2023	11:03:36	0.006
9	04/17/2023	11:18:36	0.007
10	04/17/2023	11:33:36	0.007
11	04/17/2023	11:48:36	0.008
12	04/17/2023	12:03:36	0.009
13	04/17/2023	12:18:36	0.009
14	04/17/2023	12:33:36	0.011
15	04/17/2023	12:48:36	0.009
16	04/17/2023	13:03:36	0.006
17	04/17/2023	13:18:36	0.005
18	04/17/2023	13:33:36	0.004
19	04/17/2023	13:48:36	0.004
20	04/17/2023	14:03:36	0.004
21	04/17/2023	14:18:36	0.003

Test 007

Upwind

Instrument		Data Properties	
Model	DustTrak II	Start Date	04/17/2023
Instrument S/N	8530123203	Start Time	09:01:54
		Stop Date	04/17/2023
		Stop Time	14:16:54
		Total Time	0:05:15:00
		Logging Interval	900 seconds

Test Data			
Data Point	**Date**	**Time**	**AEROSOL mg/m^3**
1	04/17/2023	09:16:54	0.006
2	04/17/2023	09:31:54	0.006
3	04/17/2023	09:46:54	0.004
4	04/17/2023	10:01:54	0.003
5	04/17/2023	10:16:54	0.003
6	04/17/2023	10:31:54	0.005
7	04/17/2023	10:46:54	0.005
8	04/17/2023	11:01:54	0.006
9	04/17/2023	11:16:54	0.006
10	04/17/2023	11:31:54	0.006
11	04/17/2023	11:46:54	0.008
12	04/17/2023	12:01:54	0.008
13	04/17/2023	12:16:54	0.009
14	04/17/2023	12:31:54	0.009
15	04/17/2023	12:46:54	0.009
16	04/17/2023	13:01:54	0.006
17	04/17/2023	13:16:54	0.004
18	04/17/2023	13:31:54	0.003
19	04/17/2023	13:46:54	0.003
20	04/17/2023	14:01:54	0.003
21	04/17/2023	14:16:54	0.002

APPENDIX B – DAILY FIELD REPORTS

LaBella
Powered by partnership.

300 Pearl Street
Buffalo, New York 14202
Phone: (716) 551-6281
Fax: (716) 551-6282

FIELD INSPECTION REPORT NO: 1

Date: 4/11/23
(Project No.)

Re: Former Roblin Steel Injections

Time:	10:30	hrs.
Weather:	windy	
Temperature:	53°	°F
Wind:	WSW at 16	mph
Humidity:	49%	%

Time:	1500	hrs.
Weather:	windy	
Temperature:	65	°F
Wind:	WSW at 18	mph
Humidity:	53	%

Contractor, Equipment & Personnel:

Contractor A is: LaBella LLC
Contractor B is:
Contractor C is:
Contractor D is:
Contractor E is:
Contractor F is:

Equipment on-site	A	B	C	D	E	F
Geo-Probe	X					
Skid steer	X					
Personnel	A	B	C	D	E	F
M Reale	X					
K. Terry	X					
K. Medley	X					

Visitors: Representing Time

Daily Log:

- Crew arrives on site. Staging equipment. Will start injections at Ex-Mu-Ll8 location.
- 11:30: A. Koons starts dust monitors for the day. Workers will start pounding injection rods.
- Air compressor will not start, one crew member will go to rental place to pick one up.
- Driller punch remaining injection heads into ground and set up for tomorrow.
- Offsite

LaBella
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300 Pearl Street
Buffalo, New York 14202
Phone: (716) 551-6281
Fax: (716) 551-6282

FIELD INSPECTION REPORT NO: 2

Date: 4/12/23
(Project No.)

Re: Former Roblin Steel Injections

Time:	0845	hrs.
Weather:	windy	
Temperature:	51	°F
Wind:	WSW at 15	mph
Humidity:	71	%

Time:	1600	hrs.
Weather:	windy	
Temperature:	53	°F
Wind:	WSW at 17	mph
Humidity:	63	%

Contractor, Equipment & Personnel:

Contractor A is: LaBella LLC
Contractor B is:
Contractor C is:
Contractor D is:
Contractor E is:
Contractor F is:

Equipment on-site	A	B	C	D	E	F
air compressor	X					
Geo probe	X					
Personnel	A	B	C	D	E	F
M Pepe	X					
K. Terry	X					
K. Medley	X					

Visitors: Representing Time

Daily Log:

- 0830: arrive onsite. Crew has set up for injections. AK sets up dust trackers for the day
- 0845: Crew begins injections at four locations.
- 1100: Still injecting at first 4 locations
- 1300: Injection points 1-4 completed. Setting up on the next 4 points
- 1330: injection points 5-8 begin
- 1600: injection points 5-8 are finished and crew begins cleaning up for the day. Dust trackers come down
- 1700: off site.

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Fax: (716) 551-6282

FIELD INSPECTION REPORT NO: 3

Date: 4/13/23
(Project No.)

Re: former Robbin Steel Injections

Time:	0900	hrs.
Weather:	windy	
Temperature:	57	°F
Wind:	WSW at 15	mph
Humidity:	62	%

Contractor, Equipment & Personnel:

Contractor A is: LaBella LLC
Contractor B is:
Contractor C is:
Contractor D is:
Contractor E is:
Contractor F is:

Time:	1600	hrs.				
Weather:	Sunny + Breezy					
Temperature:	61	°F				
Wind:	WSW at 14	mph				
Humidity:	53	%				

Equipment on-site	A	B	C	D	E	F
air compressor	x					
Geo-probe	x					
Generator	x					
Skid Steer	x					
Personnel	A	B	C	D	E	F
K. Terry	x					
M. Pope	x					
K. Medley	x					

Visitors: Representing Time

Daily Log:

0830: Arrive on site. Crew is setting up for the day. Dust trackers go up.
0900: Crew begins installing injection points 9-12.
1230: Crews begins installing injection points 13-16.
1245: Crew begins ~~pumping~~ injections
1500: Injections 13-16 are complete. Workers pack up and head to next injection spot
1630: Off site

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300 Pearl Street
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Phone: (716) 551-6281
Fax: (716) 551-6282

FIELD INSPECTION REPORT NO: 4

Date: 4/14/23
(Project No.)

Re: Former Roblin Steel Injections

Time:	0900	hrs.
Weather:	Sunny	
Temperature:	55	°F
Wind:	S SW at 3	mph
Humidity:	69	%

Time:	1600	hrs.
Weather:	Sunny	
Temperature:	70	°F
Wind:	SSW at 3	mph
Humidity:	64	%

Contractor, Equipment & Personnel:

Contractor A is: LaBella LLC
Contractor B is:
Contractor C is:
Contractor D is:
Contractor E is:
Contractor F is:

Equipment on-site	A	B	C	D	E	F
air compressor	X					
geo probe	X					
skid steer	X					
generator	X					
Personnel	A	B	C	D	E	F
M. Pepe	X					
K. Terry	X					
K. Medley	X					

Visitors: Representing Time
Megan Kuczka NYSDEC 1200-1250

Daily Log:
0830: Arrive onsite. Dust trackers get set up. Workers will install injection points 1-4.
0930: Injections 1-4 started
1045: Injections 1-4 are finished, start installing points 5-8.
1115: Injections 5-8 begin
1200: Megan Kuczka w/ DEC stops out. Work continues.
1400: Injections 5-8 are finished. Crew sets up for injections 9-12.
1600: Injections 9-12 completed Crew cleans up for the day

LaBella
Powered by partnership.

300 Pearl Street
Buffalo, New York 14202
Phone: (716) 551-6281
Fax: (716) 551-6282

FIELD INSPECTION REPORT NO: 5

Date: 4/17/23
(Project No.)

Re: Former Roblin Steel Injections

Time:	0930	hrs.	
Weather:	Mostly Cloudy		
Temperature:	45	°F	
Wind:	SW	at 11	mph
Humidity:	73	%	

Time:	1500	hrs.	
Weather:	~~mostly~~ Rain		
Temperature:	45°	°F	
Wind:	SW	at 10	mph
Humidity:	63	%	

Contractor, Equipment & Personnel:

Contractor A is: LaBella LLC
Contractor B is:
Contractor C is:
Contractor D is:
Contractor E is:
Contractor F is:

Equipment on-site	A	B	C	D	E	F
air compressor	x					
geo probe	x					
Skid steer	x					
generator	x					

Personnel	A	B	C	D	E	F
M. Pepe	x					
K. Terry	x					
K. Medley	x					

Visitors:	Representing	Time

Daily Log:

0900: Crew arrives on site. Dust trackers are set up. Crew begins setting up and installing injection points 9-12.
0930: Injections 9-12 begin.
1145: Injections 9-12 are completed. Crew begins to set up and ~~[illegible]~~ install injection points 13-16.
1400: Injections 13-16 are completed. Crew will pack up.
1600: off site.

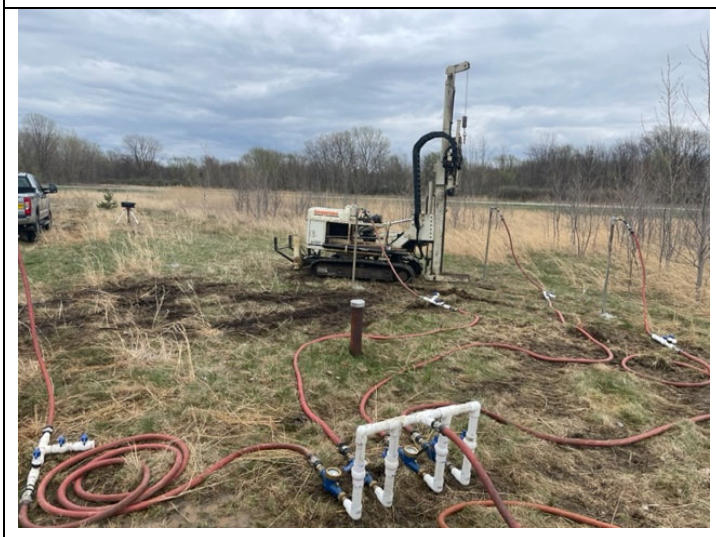
APPENDIX C – PROJECT PHOTOS

Typical injection set up around EX-MW-11R

Typical injection set up around EX-MW-11R

Typical injection set up around EX-MW-11R

Typical injection set up around MW-07R



Typical injection set up around MW-07R

APPENDIX D – MONITORING WELL INSTALLATION REPORT

February 14, 2023

Mr. Drew E. Rodgers, PE
Chautauqua County Department of Public Facilities
454 North Works Street
Falconer, New York 14733

RE: Monitoring Well Installation (MW-13)
Former Roblin Steel Site – 320 South Roberts Road, Dunkirk, New York
NYSDEC Site No. B00173-9

Dear Mr. Rodgers:

As a result of increases in total Volatile Organic Compound (VOC) concentrations in laboratory groundwater analytical results associated with the sampling of MW-07R and EX-MW-11R, in December 2021 and March 2022, the New York State Department of Environmental Conservation (NYSDEC) requested a Corrective Measures Work Plan (CMWP). Such was submitted to the NYSDEC in September 2022, serving also as a notice of planned intrusive activities, and included a scope of work for the installation of one new permanent groundwater monitoring well (MW-13) between MW-07R and the north property boundary and an injection event proximate both MW-07R and EX-MW-11R. The new well was requested in order to assess total VOC concentrations proximate the north property boundary. In addition, the injection events were proposed in an effort to further breakdown the VOC concentrations proximate MW-07R and EX-MW-11R. The monitoring well installation was performed on December 6, 2022, and in conformance with the scope of work outlined in the NYSEC-approved Notification of Planned Intrusive Activities/ CMWP, dated September 13, 2022. The following summarizes the construction and sampling of MW-13.

FIELD INVESTIGATION

Monitoring Well Installation and Sampling

On December 6, 2022, a track mounted Diedrich D-50 drill rig equipped with 4 ½ inch hollow stem augers was used to install a 2-inch PVC monitoring well just south of the northern property boundary, proximate to MW-07R, designated as MW-13. The monitoring well was advanced to an approximate depth of 17.5 feet below the ground surface (ft. bgs). The 2-inch PVC well screen/riser was encased in a steel well casing and completed at the surface with a cement curb box. As the cover system changed in this specific location (i.e. a soil cover replaced by concrete), such constituted a modification of the cover element of the remedy and the upper surface of the remaining contamination. Non-native materials at the Site consisted of sand and gravel-type fill (cover system), to a depth of approximately one ft. bgs. Native soils at the Site consisted of brown and gray, alluvial and glacial deposits (clays, and till). Bedrock (weathered shale) was encountered at a depth of approximately 12 ft. bgs to the end of boring at approximately 18.5 ft. bgs. Static groundwater levels were observed in the groundwater monitoring well just short of five ft. bgs during purging and sampling. The monitoring well location is depicted on Figure 2. Photoionization detector (PID) readings slightly above background [0.0 parts per million (ppm)] were observed throughout the weathered shale layer at approximately 0.5 ppm, likely indicative of background condition throughout that material. No field evidence of impairment (i.e. staining, odors, sheen) was observed within the soil cuttings or purged groundwater. Field logs are included in Appendix 1.

During drilling activities, Community and Air Monitoring Plan (CAMP) equipment, including two DustTrak monitors, were deployed (upwind and downwind) to monitor dust particulates. No dust particulate exceedances of CAMP requirements were recorded during the groundwater monitoring well installation activities. Camp data logs are included in Appendix 2. Soil auger cuttings generated during the installation of the groundwater monitoring well were placed in one, sealed 55-gallon drum and sampled for off-Site disposal. Environmental Service Group is scheduled to transport the auger cuttings to American Recyclers Company for off-Site disposal. Laboratory results for the soil cuttings are included in Appendix 3.

On December 13, 2022, MW-13 was purged and sampled via low-flow techniques. According to the Excavation Work Plan, located with the Site's Site Management Plan, purge water was allowed to be discharged down-gradient of the well location and not allowed to leave the Site limits, as such did not exhibit evidence of impairment. The groundwater sample was collected from MW-13 and submitted for laboratory analysis of Target Compound List VOCs. Based on laboratory analytical groundwater results, fourteen VOCs were identified above laboratory method detection limits (MDLs). All identified concentrations were below applicable NYSDEC guidance [Division of Water Technical and Operational Guidance Series (TOGS)] with the exception of exceedances of benzene (6.4 micrograms per liter [ug/L] with a guidance value of 1 ug/L), cis-1,2-dichloroethene (19 ug/L with a guidance value of 5 ug/L), toluene (10 ug/L with a guidance value of 5ug/L), vinyl chloride (11 ug/L with a guidance value of 2 ug/L) and total xylenes (14 ug/L with a guidance value of 5 ug/L). Approximate total VOC concentrations in MW-13 were 117 ug/ L. Groundwater results are summarized in Table 1 and the laboratory report is included in Appendix 3.

CONCLUSIONS & RECOMMENDATIONS

While contraventions of select constituents were identified in MW-13, total VOC concentrations in this well were substantially lower than the concentrations identified in MW-07R during the December 2021 and March 2022 sampling events. An injection event is slated to occur proximate MW-07R and MW-13 (as well as EX-MW-11R) in early 2023, as part of the CMWP. The continued monitoring of contaminant levels is recommended at MW-13 as part of the overall groundwater monitoring network at the Site and should be closely examined during future annual monitoring events to determine if an increasing trend materializes.

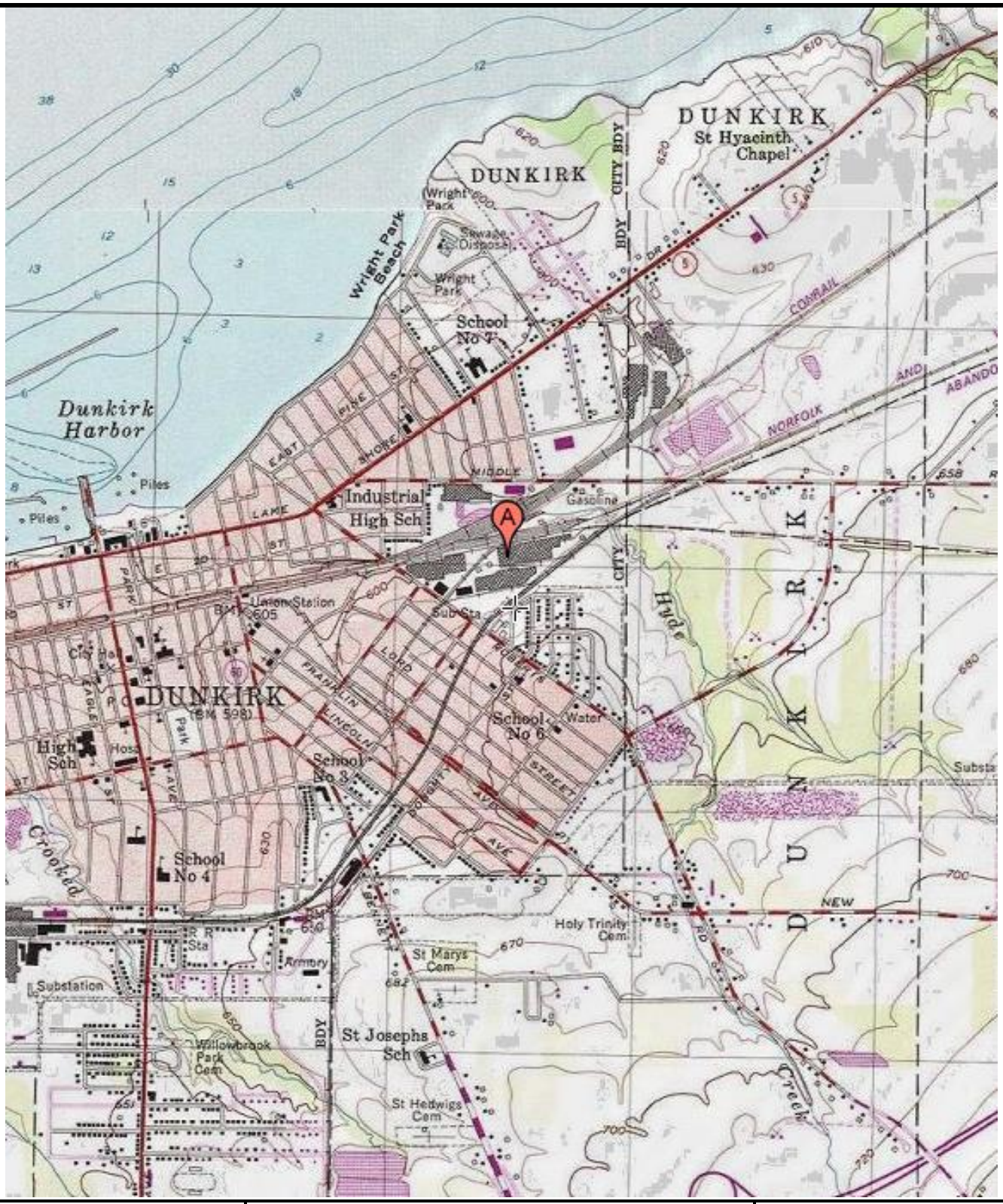
We appreciate the opportunity to serve your professional environmental engineering needs. If you have any questions, please do not hesitate to contact me at (716) 768-4906.

Sincerely,

Chris Kibler
Project Manager
Environmental Professional

Andrew Koons
Geologist
Environmental Professional

FIGURES



N

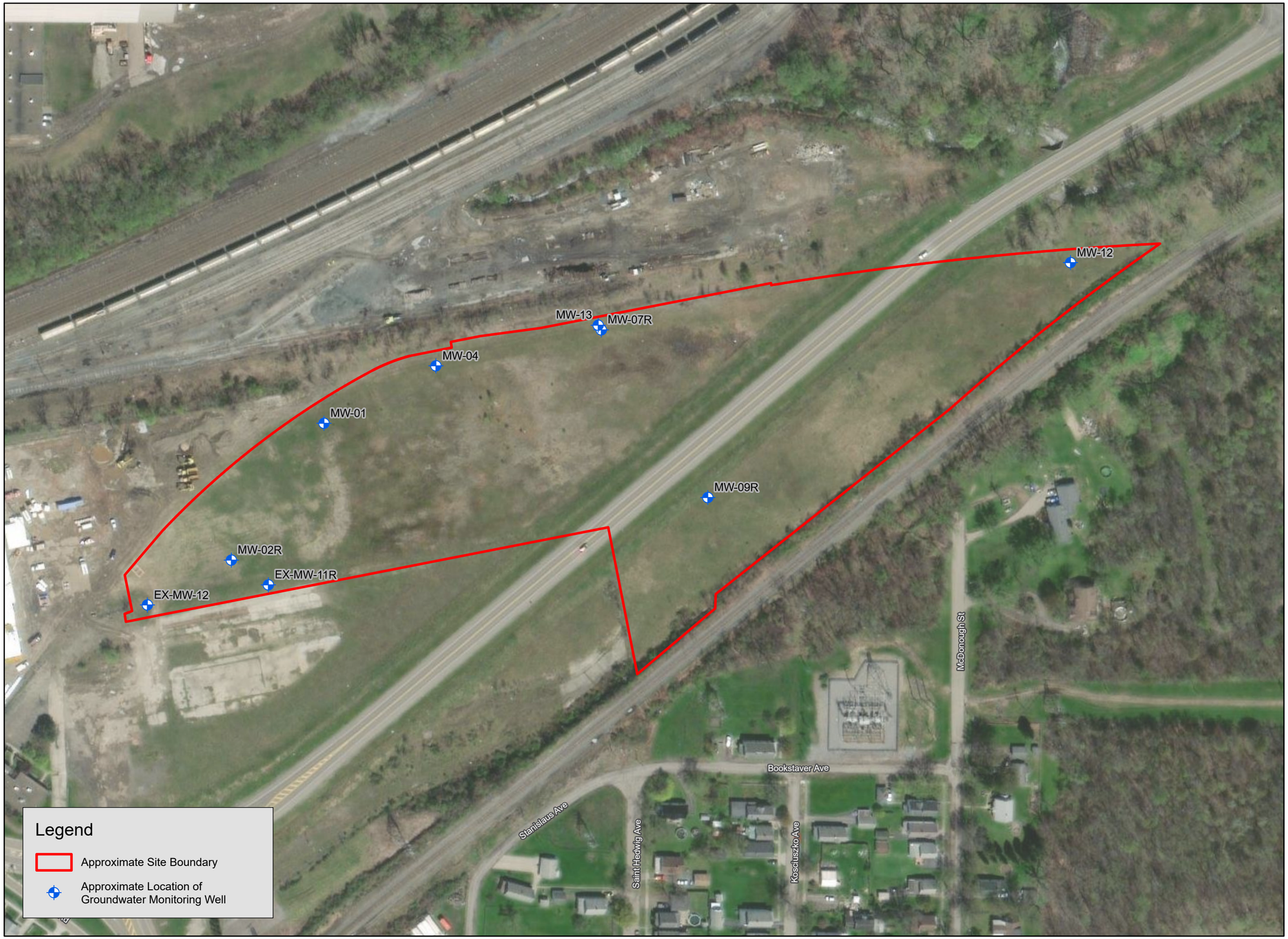
Not To Scale

FIGURE 1
SITE LOCATION MAP

Former Roblin Steel Site
320 South Roberts Road
Dunkirk, New York

LaBella
Powered by partnership.

PROJECT NO. 2200014



LaBella
Powered by partnership.

N
W E
S

0 100 200
Feet

INTENDED TO PRINT AS: 11" X 17"

PROJECT:

FORMER ROBLIN STEEL SITE

DRAWING NAME:

SITE PLAN

PROJECT #/DRAWING #/ DATE

2200014

FIGURE 2

01/04/2023

I:\Chautauqua County\2200014 - Dunkirk Brownfield Monitoring\Drawings\DIG\Maps\APRX\2023_01\RoblinSite_Fig2_Fig3\RoblinSite_Fig2_Fig3.aprx

LaBella
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TABLE

Table 1
Former Roblin Streel Site
Dunkirk, New York
Monitoring Well Installation
Summary of Groundwater Analytical Results
(Detected Analytes Only)

Sample ID	MW-13	NYSDEC TOGS
Sample Date	12/13/2022	
Volatile Organic Compounds (µg/L)		
2-Butanone (MEK)	5.8 J	50
Acetone	23	50
Benzene	6.4	1
Carbon disulfide	1.1	NL
Chloromethane	0.37 J	5
cis-1,2-Dichloroethene	19	5
Cyclohexane	9.9	NL
Ethylbenzene	2.5	5
Methyl cyclohexane	11	NL
Toluene	10	5
trans-1,2-Dichloroethene	1	5
Trichloroethene	1.9	5
Vinyl chloride	11	2
Xylenes, total	14	5
Approximate Total VOCs	117	NA

New York State Department of Environmental Conservation (NYSDEC) Division of Water Technical and Operational Guidance Series (TOGS) (1.1.1), Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations (June 1998)

J = The analyte was positively identified; the associated numerical value is an approximate concentration of the analyte in the sample

NL = Not listed

NA = Not applicable

µg/L = Micrograms per liter

Concentrations in gray exceed NYSDEC TOGS

APPENDIX 1

Field Logs

LaBella
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300 PEARL STREET, BUFFALO, NY
ENVIRONMENTAL ENGINEERING CONSULTANTS

PROJECT

Former Roblin Steel Site Monitoring Well Installation

BORING: MW-13
SHEET 1 of 1
JOB: 2210039.05
CHKD BY:
DATE: 12/6/2022

CONTRACTOR:	LaBella Env. LLC	BORING LOCATION:		TIME:	___ TO ___
DRILLER:	C. Stone	GROUND SURFACE ELEVATION	612.9	DATUM:	AMSL
LABELLA REPRESENTATIVE:	A. Koons	START DATE:		WEATHER:	

TYPE OF DRILL RIG: D-50
AUGER SIZE AND TYPE: 4 1/4"
OVERBURDEN SAMPLING METHOD: NA
DRIVE SAMPLER TYPE: NA
INSIDE DIAMETER:
OTHER:

DEPTH (FEET BGS)	SAMPLE: SAMPLE RECOVERY (INCHES)	SAMPLE: SAMPLE NO. AND DEPTH	SAMPLE: STRATA CHANGE (FEET BGS)	VISUAL CLASSIFICATION	PID FIELD SCREEN (PPM)	REMARKS
0				0-0.2'': Topsoil		Soil classifications based on drill cuttings
				0.2-1.0': Brown SAND and GRAVEL, with little silt (CLEAN FILL)	0 ppm	
1				1.0-10.0': Brown Silty Clay with lilttle sand and gravel	0 ppm	
2						
3						
4						
5						
6						
7						
8						
9						
10				10.0- 12.0': Gray Cleyey SILT with some sand and gravel	0 ppm	
11						
12				12.0-18.5': Weathered SHALE	0.5 ppm	
13						
14						
15						
16						
17						
18						
19				Boring Terminated at 18.5'		
20				Auger Resfusal at 18.5'		

WATER LEVEL DATA			DEPTH (FT)			NOTES:
DATE	TIME	ELAPSED TIME	BOTTOM OF CASING	BOTTOM OF BORING	GROUNDWATER ENCOUNTERED	MW-13 installed at this location (17.5')

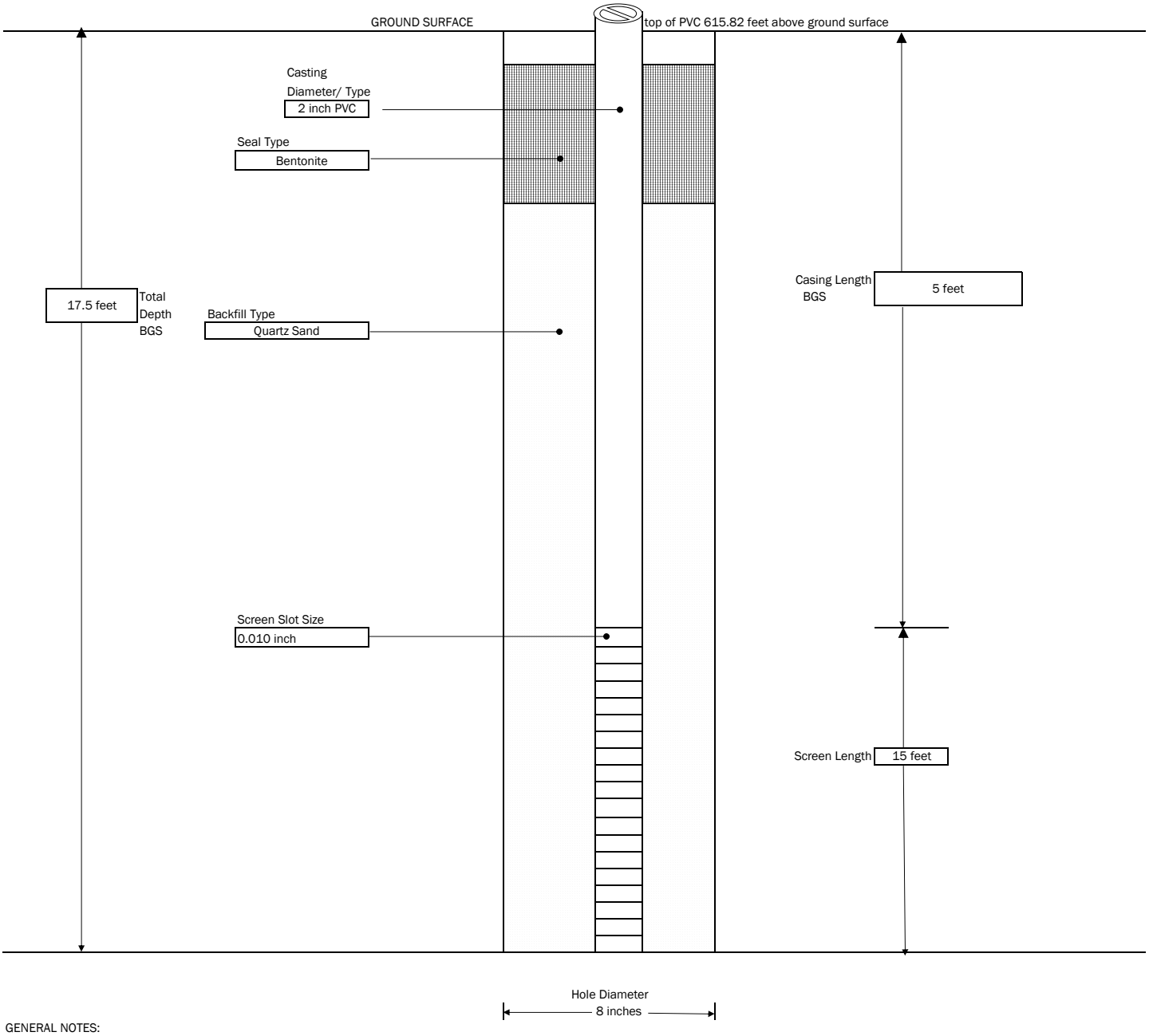
GENERAL NOTES

1) STRATIFICATION LINES REPRESENT APPROXIMATE BOUNDARY BETWEEN SOIL TYPES, TRANSITIONS MAY BE GRADUAL.
2) WATER LEVEL READINGS HAVE BEEN MADE AT TIMES AND UNDER CONDITIONS STATED, FLUCTUATIONS OF GROUNDWATER

BGS = Below Ground Surface	and = 35 - 50%	C = Coarse	R = Rounded
NA = Not Applicable	some = 20 - 35%	M = Medium	A = Angular
	little = 10 - 20%	F = Fine	SR = Subrounded
	trace = 1 - 10%	VF = Very Fine	SA = Subangular

LaBella Powered by partnership. 300 PEARL STREET, BUFFALO, NEW YORK ENVIRONMENTAL ENGINEERING CONSULTANTS	**PROJECT** Former Roblin Steel Site Monitoring Well Installation	**MONITORING WELL :** MW-13 **BORING LOCATION :** MW-13 **SHEET** 1 OF 1 **JOB #** 2210039.05

CONTRACTOR:	LaBella Environmental LLC			TYPE OF DRILL RIG:	D-50
DRILLER:	C. Stone	START TIME:	END TIME:	AUGER SIZE AND TYPE:	4 1/4"
LABELLA REPRESENTATIVE:	A. Koons	GROUND SURFACE ELEVATION: 612.90	DATUM: AMSL	OVERBURDEN SAMPLING METHOD:	NA



GENERAL NOTES:

1) NOT TO SCALE
2) DEPTHS ARE APPROXIMATE

LABELLA ASSOCIATES, D.P.C.
Environmental Engineering Consultants

Well I.D. MW-13

Site Location: Rabbit
Sample Date: 12/13/22
LaBella Representative:

Job No. **2200014**

Well I.D.	Initial Readings	3 Well Volume	9 Well Volumes	5 Well Volume	Sample	Post Sample	Details
Time	1250	1256	1302	1308	1315		
Depth of well	20.10						
Depth to water	4.91						
Well diameter	2"						
Well volume (gallons)	2.4						
Purging device							
Containment device							
Purge time							
Gallons purged	0	2.4	4.8	7.2	—		
Sample device							
Field Parameters							
Temperature	11.9	10.7	11.2	11.7	11.8		
pH measurement	7.54	7.40	6.93	6.88	6.88		
Conductivity (mS/cm)	1.203	1.137	1.117	0.945	0.965		
ORP/Eh (mV)	-34.0	-70.5	-80.3	-52.3	-56.4		
Turbidity (NTUs)	848.67	437.77	396.44	273.46	362.24		

WEATHER:

NOTES/FIELD OBSERVATIONS:

Soft bottom
purged for 10 min before readings
starting

Well Volume Purge: 1 Well Volume = (Total Well Depth – Static Depth To Water) X Well Capacity
(only if applicable) = (ft. –ft.) X . gal/ft = 0.3056 gallons

Well Capacity (Gallons per Foot): **0.75"**=0.02 **1"**=0.04 **1.5"**=0.092 **2"**=0.16 **3"**=0.37
4"=0.65 **5"**=1.02 **6"**=1.47 **12"**=5.88

1. **Stabilization Criteria for range of variation of last three consecutive Readings**

pH: ± 0.2 units; **Temperature:** ± 0.5°C; **Specific Conductance:** ± 10%; **Turbidity:** ≤ 50 NTU

A minimum of three well volumes and a maximum of five well volumes are to be removed from each well prior to sampling. In the event that groundwater recharge is slow, the purging process will continue until the well is purged "dry". After the water level has returned to its pre-purge level (or within a maximum of two hours), samples will be collected. If the water level is slow to recharge and does not reach its pre-purge level within two hours, then samples can be collected after sufficient water has recharged, and the degree of recharge indicated in field notes with time and depth to water noted.

Sep. chain

APPENDIX 2

CAMP Data

Test 001

Downwind

Instrument		Data Properties	
Model	DustTrak II	Start Date	12/06/2022
Instrument S/N	8530120611	Start Time	10:26:53
		Stop Date	12/06/2022
		Stop Time	14:11:53
		Total Time	0:03:45:00
		Logging Interval	900 seconds

Test Data			
Data Point	**Date**	**Time**	**AEROSOL mg/m^3**
1	12/06/2022	10:41:53	-0.034
2	12/06/2022	10:56:53	-0.034
3	12/06/2022	11:11:53	-0.034
4	12/06/2022	11:26:53	-0.034
5	12/06/2022	11:41:53	-0.034
6	12/06/2022	11:56:53	-0.025
7	12/06/2022	12:11:53	-0.034
8	12/06/2022	12:26:53	-0.035
9	12/06/2022	12:41:53	-0.034
10	12/06/2022	12:56:53	-0.030
11	12/06/2022	13:11:53	-0.029
12	12/06/2022	13:26:53	-0.033
13	12/06/2022	13:41:53	-0.033
14	12/06/2022	13:56:53	-0.034
15	12/06/2022	14:11:53	-0.034

Test 002

Upwind

Instrument		Data Properties	
Model	DustTrak II	Start Date	12/06/2022
Instrument S/N	8530141504	Start Time	10:22:49
		Stop Date	12/06/2022
		Stop Time	14:22:49
		Total Time	0:04:00:00
		Logging Interval	900 seconds

Test Data			
Data Point	**Date**	**Time**	**AEROSOL mg/m^3**
1	12/06/2022	10:37:49	0.013
2	12/06/2022	10:52:49	0.012
3	12/06/2022	11:07:49	0.013
4	12/06/2022	11:22:49	0.013
5	12/06/2022	11:37:49	0.013
6	12/06/2022	11:52:49	0.015
7	12/06/2022	12:07:49	0.012
8	12/06/2022	12:22:49	0.013
9	12/06/2022	12:37:49	0.013
10	12/06/2022	12:52:49	0.013
11	12/06/2022	13:07:49	0.014
12	12/06/2022	13:22:49	0.014
13	12/06/2022	13:37:49	0.067
14	12/06/2022	13:52:49	0.015
15	12/06/2022	14:07:49	0.014
16	12/06/2022	14:22:49	0.014

APPENDIX 3

Laboratory Reports

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Chris Kibler
LaBella Associates DPC
300 Pearl Street
Suite 130
Buffalo, New York 14202

Generated 12/19/2022 4:03:42 PM

JOB DESCRIPTION

Alumax & Roblin Periodic Review Reports

JOB NUMBER

480-204719-2

Eurofins Buffalo
10 Hazelwood Drive
Amherst NY 14228-2298

See page two for job notes and contact information.

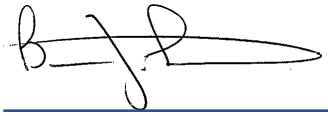
my EOL

Job Notes

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to the NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory. This report is confidential and is intended for the sole use of Eurofins Environment Testing Northeast, LLC Buffalo and its client. All questions regarding this report should be directed to the Eurofins Environment Testing Northeast, LLC Buffalo Project Manager or designee who has signed this report.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing Northeast, LLC Project Manager.

Authorization



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12/19/2022 4:03:42 PM

Authorized for release by
Brian Fischer, Manager of Project Management
Brian.Fischer@et.eurofinsus.com
(716)504-9835

Table of Contents

Definitions/Glossary

Client: LaBella Associates DPC
Job ID: 480-204719-2
Project/Site: Alumax & Roblin Periodic Review Reports

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Job ID: 480-204719-2

Laboratory: Eurofins Buffalo

Narrative

Job Narrative
480-204719-2

Comments
No additional comments.

Receipt
The samples were received on 12/13/2022 2:00 PM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 3.4º C.

Receipt Exceptions

MW-13 listed on COCs twice. Only included in login once.

AL-2 (480-204719-1), AL-1 (480-204719-2), AL-7 (480-204719-3), MW-9R (480-204719-4), EX-MW-11R (480-204719-5), MW-02R (480-204719-6), EX-MW-12 (480-204719-7), MW-04 (480-204719-8), MW-07R (480-204719-9), MW-13 (480-204719-10), DUP (480-204719-11) and TRIP BLANK (480-204719-12)

GC/MS VOA
Method 8260C: The continuing calibration verification (CCV) associated with batch 480-653342 recovered above the upper control limit for Trichlorofluoromethane. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The associated sample is impacted: MW-13 (480-204719-10).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Detection Summary

Client: LaBella Associates DPC
Job ID: 480-204719-2
Project/Site: Alumax & Roblin Periodic Review Reports

Client Sample ID: MW-13
Lab Sample ID: 480-204719-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
2-Butanone (MEK)	5.8	J	10	1.3	ug/L	1		8260C	Total/NA
Acetone	23		10	3.0	ug/L	1		8260C	Total/NA
Benzene	6.4		1.0	0.41	ug/L	1		8260C	Total/NA
Carbon disulfide	1.1		1.0	0.19	ug/L	1		8260C	Total/NA
Chloromethane	0.37	J	1.0	0.35	ug/L	1		8260C	Total/NA
cis-1,2-Dichloroethene	19		1.0	0.81	ug/L	1		8260C	Total/NA
Cyclohexane	9.9		1.0	0.18	ug/L	1		8260C	Total/NA
Ethylbenzene	2.5		1.0	0.74	ug/L	1		8260C	Total/NA
Methylcyclohexane	11		1.0	0.16	ug/L	1		8260C	Total/NA
Toluene	10		1.0	0.51	ug/L	1		8260C	Total/NA
trans-1,2-Dichloroethene	1.0		1.0	0.90	ug/L	1		8260C	Total/NA
Trichloroethene	1.9		1.0	0.46	ug/L	1		8260C	Total/NA
Vinyl chloride	11		1.0	0.90	ug/L	1		8260C	Total/NA
Xylenes, Total	14		2.0	0.66	ug/L	1		8260C	Total/NA

This Detection Summary does not include radiochemical test results.

Client: LaBella Associates DPC
Project/Site: Alumax & Roblin Periodic Review Reports

Job ID: 480-204719-2

Client Sample ID: MW-13

Date Collected: 12/13/22 13:15
Date Received: 12/13/22 14:00

Lab Sample ID: 480-204719-10

Matrix: Water

Method: SW846 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			12/14/22 17:16	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			12/14/22 17:16	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			12/14/22 17:16	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			12/14/22 17:16	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			12/14/22 17:16	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			12/14/22 17:16	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			12/14/22 17:16	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			12/14/22 17:16	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			12/14/22 17:16	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			12/14/22 17:16	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			12/14/22 17:16	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			12/14/22 17:16	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			12/14/22 17:16	1
2-Butanone (MEK)	**5.8**	**J**	10	1.3	ug/L			12/14/22 17:16	1
2-Hexanone	ND		5.0	1.2	ug/L			12/14/22 17:16	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			12/14/22 17:16	1
Acetone	**23**		10	3.0	ug/L			12/14/22 17:16	1
Benzene	**6.4**		1.0	0.41	ug/L			12/14/22 17:16	1
Bromodichloromethane	ND		1.0	0.39	ug/L			12/14/22 17:16	1
Bromoform	ND		1.0	0.26	ug/L			12/14/22 17:16	1
Bromomethane	ND		1.0	0.69	ug/L			12/14/22 17:16	1
Carbon disulfide	**1.1**		1.0	0.19	ug/L			12/14/22 17:16	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			12/14/22 17:16	1
Chlorobenzene	ND		1.0	0.75	ug/L			12/14/22 17:16	1
Dibromochloromethane	ND		1.0	0.32	ug/L			12/14/22 17:16	1
Chloroethane	ND		1.0	0.32	ug/L			12/14/22 17:16	1
Chloroform	ND		1.0	0.34	ug/L			12/14/22 17:16	1
Chloromethane	**0.37**	**J**	1.0	0.35	ug/L			12/14/22 17:16	1
cis-1,2-Dichloroethene	**19**		1.0	0.81	ug/L			12/14/22 17:16	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			12/14/22 17:16	1
Cyclohexane	**9.9**		1.0	0.18	ug/L			12/14/22 17:16	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			12/14/22 17:16	1
Ethylbenzene	**2.5**		1.0	0.74	ug/L			12/14/22 17:16	1
1,2-Dibromoethane	ND		1.0	0.73	ug/L			12/14/22 17:16	1
Isopropylbenzene	ND		1.0	0.79	ug/L			12/14/22 17:16	1
Methyl acetate	ND		2.5	1.3	ug/L			12/14/22 17:16	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			12/14/22 17:16	1
Methylcyclohexane	**11**		1.0	0.16	ug/L			12/14/22 17:16	1
Methylene Chloride	ND		1.0	0.44	ug/L			12/14/22 17:16	1
Styrene	ND		1.0	0.73	ug/L			12/14/22 17:16	1
Tetrachloroethene	ND		1.0	0.36	ug/L			12/14/22 17:16	1
Toluene	**10**		1.0	0.51	ug/L			12/14/22 17:16	1
trans-1,2-Dichloroethene	**1.0**		1.0	0.90	ug/L			12/14/22 17:16	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			12/14/22 17:16	1
Trichloroethene	**1.9**		1.0	0.46	ug/L			12/14/22 17:16	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			12/14/22 17:16	1
Vinyl chloride	**11**		1.0	0.90	ug/L			12/14/22 17:16	1
Xylenes, Total	**14**		2.0	0.66	ug/L			12/14/22 17:16	1

Client Sample Results

Client: LaBella Associates DPC
Job ID: 480-204719-2
Project/Site: Alumax & Roblin Periodic Review Reports

Client Sample ID: MW-13
Lab Sample ID: 480-204719-10
Date Collected: 12/13/22 13:15
Matrix: Water
Date Received: 12/13/22 14:00

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	92		80 - 120		12/14/22 17:16	1
1,2-Dichloroethane-d4 (Surr)	104		77 - 120		12/14/22 17:16	1
4-Bromofluorobenzene (Surr)	89		73 - 120		12/14/22 17:16	1
Dibromofluoromethane (Surr)	97		75 - 123		12/14/22 17:16	1

Surrogate Summary

Client: LaBella Associates DPC
Job ID: 480-204719-2
Project/Site: Alumax & Roblin Periodic Review Reports

Method: 8260C - Volatile Organic Compounds by GC/MS

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)			
		TOL	DCA	BFB	DBFM
Lab Sample ID	Client Sample ID	(80-120)	(77-120)	(73-120)	(75-123)
480-204719-10	MW-13	92	104	89	97
LCS 480-653342/5	Lab Control Sample	94	106	87	97
MB 480-653342/7	Method Blank	91	106	87	100

Surrogate Legend

TOL = Toluene-d8 (Surr)
DCA = 1,2-Dichloroethane-d4 (Surr)
BFB = 4-Bromofluorobenzene (Surr)
DBFM = Dibromofluoromethane (Surr)

Method: 8260C - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 480-653342/7
Matrix: Water
Analysis Batch: 653342

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			12/14/22 11:17	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			12/14/22 11:17	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			12/14/22 11:17	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			12/14/22 11:17	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			12/14/22 11:17	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			12/14/22 11:17	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			12/14/22 11:17	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			12/14/22 11:17	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			12/14/22 11:17	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			12/14/22 11:17	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			12/14/22 11:17	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			12/14/22 11:17	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			12/14/22 11:17	1
2-Butanone (MEK)	ND		10	1.3	ug/L			12/14/22 11:17	1
2-Hexanone	ND		5.0	1.2	ug/L			12/14/22 11:17	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			12/14/22 11:17	1
Acetone	ND		10	3.0	ug/L			12/14/22 11:17	1
Benzene	ND		1.0	0.41	ug/L			12/14/22 11:17	1
Bromodichloromethane	ND		1.0	0.39	ug/L			12/14/22 11:17	1
Bromoform	ND		1.0	0.26	ug/L			12/14/22 11:17	1
Bromomethane	ND		1.0	0.69	ug/L			12/14/22 11:17	1
Carbon disulfide	ND		1.0	0.19	ug/L			12/14/22 11:17	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			12/14/22 11:17	1
Chlorobenzene	ND		1.0	0.75	ug/L			12/14/22 11:17	1
Dibromochloromethane	ND		1.0	0.32	ug/L			12/14/22 11:17	1
Chloroethane	ND		1.0	0.32	ug/L			12/14/22 11:17	1
Chloroform	ND		1.0	0.34	ug/L			12/14/22 11:17	1
Chloromethane	ND		1.0	0.35	ug/L			12/14/22 11:17	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			12/14/22 11:17	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			12/14/22 11:17	1
Cyclohexane	ND		1.0	0.18	ug/L			12/14/22 11:17	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			12/14/22 11:17	1
Ethylbenzene	ND		1.0	0.74	ug/L			12/14/22 11:17	1
1,2-Dibromoethane	ND		1.0	0.73	ug/L			12/14/22 11:17	1
Isopropylbenzene	ND		1.0	0.79	ug/L			12/14/22 11:17	1
Methyl acetate	ND		2.5	1.3	ug/L			12/14/22 11:17	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			12/14/22 11:17	1
Methylcyclohexane	ND		1.0	0.16	ug/L			12/14/22 11:17	1
Methylene Chloride	ND		1.0	0.44	ug/L			12/14/22 11:17	1
Styrene	ND		1.0	0.73	ug/L			12/14/22 11:17	1
Tetrachloroethene	ND		1.0	0.36	ug/L			12/14/22 11:17	1
Toluene	ND		1.0	0.51	ug/L			12/14/22 11:17	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			12/14/22 11:17	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			12/14/22 11:17	1
Trichloroethene	ND		1.0	0.46	ug/L			12/14/22 11:17	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			12/14/22 11:17	1
Vinyl chloride	ND		1.0	0.90	ug/L			12/14/22 11:17	1
Xylenes, Total	ND		2.0	0.66	ug/L			12/14/22 11:17	1

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 480-653342/7
Matrix: Water
Analysis Batch: 653342

Client Sample ID: Method Blank
Prep Type: Total/NA

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	*91*		*80 - 120*		*12/14/22 11:17*	*1*
1,2-Dichloroethane-d4 (Surr)	*106*		*77 - 120*		*12/14/22 11:17*	*1*
4-Bromofluorobenzene (Surr)	*87*		*73 - 120*		*12/14/22 11:17*	*1*
Dibromofluoromethane (Surr)	*100*		*75 - 123*		*12/14/22 11:17*	*1*

Lab Sample ID: LCS 480-653342/5
Matrix: Water
Analysis Batch: 653342

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,1,1-Trichloroethane	25.0	25.0		ug/L		100	73 - 126
1,1,2,2-Tetrachloroethane	25.0	25.9		ug/L		104	76 - 120
1,1,2-Trichloroethane	25.0	22.8		ug/L		91	76 - 122
1,1,2-Trichloro-1,2,2-trifluoroethane	25.0	24.6		ug/L		98	61 - 148
1,1-Dichloroethane	25.0	23.1		ug/L		92	77 - 120
1,1-Dichloroethene	25.0	22.2		ug/L		89	66 - 127
1,2,4-Trichlorobenzene	25.0	24.3		ug/L		97	79 - 122
1,2-Dibromo-3-Chloropropane	25.0	29.3		ug/L		117	56 - 134
1,2-Dichlorobenzene	25.0	24.2		ug/L		97	80 - 124
1,2-Dichloroethane	25.0	24.6		ug/L		98	75 - 120
1,2-Dichloropropane	25.0	22.0		ug/L		88	76 - 120
1,3-Dichlorobenzene	25.0	23.2		ug/L		93	77 - 120
1,4-Dichlorobenzene	25.0	23.0		ug/L		92	80 - 120
2-Butanone (MEK)	125	132		ug/L		105	57 - 140
2-Hexanone	125	150		ug/L		120	65 - 127
4-Methyl-2-pentanone (MIBK)	125	144		ug/L		115	71 - 125
Acetone	125	139		ug/L		112	56 - 142
Benzene	25.0	21.8		ug/L		87	71 - 124
Bromodichloromethane	25.0	24.8		ug/L		99	80 - 122
Bromoform	25.0	24.8		ug/L		99	61 - 132
Bromomethane	25.0	25.4		ug/L		102	55 - 144
Carbon disulfide	25.0	23.4		ug/L		94	59 - 134
Carbon tetrachloride	25.0	25.8		ug/L		103	72 - 134
Chlorobenzene	25.0	21.5		ug/L		86	80 - 120
Dibromochloromethane	25.0	25.4		ug/L		102	75 - 125
Chloroethane	25.0	23.9		ug/L		96	69 - 136
Chloroform	25.0	23.3		ug/L		93	73 - 127
Chloromethane	25.0	28.5		ug/L		114	68 - 124
cis-1,2-Dichloroethene	25.0	22.1		ug/L		89	74 - 124
cis-1,3-Dichloropropene	25.0	23.0		ug/L		92	74 - 124
Cyclohexane	25.0	25.1		ug/L		100	59 - 135
Dichlorodifluoromethane	25.0	32.1		ug/L		128	59 - 135
Ethylbenzene	25.0	22.6		ug/L		90	77 - 123
1,2-Dibromoethane	25.0	23.0		ug/L		92	77 - 120
Isopropylbenzene	25.0	24.4		ug/L		97	77 - 122
Methyl acetate	50.0	55.1		ug/L		110	74 - 133
Methyl tert-butyl ether	25.0	23.6		ug/L		95	77 - 120
Methylcyclohexane	25.0	23.0		ug/L		92	68 - 134

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 480-653342/5
Matrix: Water
Analysis Batch: 653342

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Methylene Chloride	25.0	22.9		ug/L		92	75 - 124
Styrene	25.0	22.3		ug/L		89	80 - 120
Tetrachloroethene	25.0	21.9		ug/L		87	74 - 122
Toluene	25.0	21.8		ug/L		87	80 - 122
trans-1,2-Dichloroethene	25.0	22.4		ug/L		90	73 - 127
trans-1,3-Dichloropropene	25.0	24.7		ug/L		99	80 - 120
Trichloroethene	25.0	22.2		ug/L		89	74 - 123
Trichlorofluoromethane	25.0	30.4		ug/L		122	62 - 150
Vinyl chloride	25.0	25.7		ug/L		103	65 - 133

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Toluene-d8 (Surr)	*94*		*80 - 120*
1,2-Dichloroethane-d4 (Surr)	*106*		*77 - 120*
4-Bromofluorobenzene (Surr)	*87*		*73 - 120*
Dibromofluoromethane (Surr)	*97*		*75 - 123*

QC Association Summary

Client: LaBella Associates DPC
Job ID: 480-204719-2
Project/Site: Alumax & Roblin Periodic Review Reports

GC/MS VOA

Analysis Batch: 653342

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-204719-10	MW-13	Total/NA	Water	8260C	
MB 480-653342/7	Method Blank	Total/NA	Water	8260C	
LCS 480-653342/5	Lab Control Sample	Total/NA	Water	8260C	

Lab Chronicle

Client: LaBella Associates DPC
Job ID: 480-204719-2
Project/Site: Alumax & Roblin Periodic Review Reports

Client Sample ID: MW-13
Date Collected: 12/13/22 13:15
Date Received: 12/13/22 14:00

Lab Sample ID: 480-204719-10
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260C		1	653342	AXK	EET BUF	12/14/22 17:16

Laboratory References:

EET BUF = Eurofins Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

Accreditation/Certification Summary

Client: LaBella Associates DPC
Job ID: 480-204719-2
Project/Site: Alumax & Roblin Periodic Review Reports

Laboratory: Eurofins Buffalo

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
New York	NELAP	10026	03-31-23

Method Summary

Client: LaBella Associates DPC
Job ID: 480-204719-2
Project/Site: Alumax & Roblin Periodic Review Reports

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	EET BUF
5030C	Purge and Trap	SW846	EET BUF

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

EET BUF = Eurofins Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

Sample Summary

Client: LaBella Associates DPC
Job ID: 480-204719-2
Project/Site: Alumax & Roblin Periodic Review Reports

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
480-204719-10	MW-13	Water	12/13/22 13:15	12/13/22 14:00

Eurofins Buffalo
10 Hazelwood Drive

Amherst, NY 14228-2223
phone 716.691.2600 fax 716.691.7991

Chain of Custody Record

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Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other:

Eurofins Environment Testing America

Client Contact	**Project Manager: Chris Kibler**		COC No:
LaBella Associates	Email: ckibler@labellapc.com	Site Contact:	Date: 12/13/22 — 1 of 1 COCs
300 Pearl Street Suite 130	Tel/Fax:	Lab Contact:	Carrier: — TALS Project #:
Buffalo, NY	**Analysis Turnaround Time**		Sampler:
(716) 551-6281 Phone	☐ CALENDAR DAYS ☐ WORKING DAYS		**For Lab Use Only:**
	TAT if different from Below _____		Walk-in Client:
Project Name: Former Roblin Steel Site CMWP	☐ 2 weeks		Lab Sampling:
Site:	☐ 1 week Standard		
P O #	☐ 2 days		Job / SDG No.:
	☐ 1 day		

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y / N)	Perform MS / MSD (Y / N)	VOCs - 8260	Sample Specific Notes:
MW-13	12/13/22	1315	G	H_2O	3			X	

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☒ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return to Client ☒ Disposal by Lab ☐ Archive for _____ Months

Special Instructions/QC Requirements & Comments:

Custody Seals Intact: ☐ Yes ☐ No	Custody Seal No.:		Cooler Temp. (°C): Obs'd:_____ Corr'd:_____		Therm ID No.:_____
Relinquished by:	Company: LaBella	Date/Time: 12/13/22 1400	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company: TAB	Date/Time: 12-13-22 1440

12/19/2022

Login Sample Receipt Checklist

Client: LaBella Associates DPC

Job Number: 480-204719-2

Login Number: 204719
List Number: 1
Creator: Sabuda, Brendan D

List Source: Eurofins Buffalo

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	3.4 #1 ICE
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time (Excluding tests with immediate HTs)..	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Sampling Company provided.	True	
Samples received within 48 hours of sampling.	True	
Samples requiring field filtration have been filtered in the field.	True	
Chlorine Residual checked.	True	

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ANALYTICAL REPORT

PREPARED FOR

Attn: Chris Kibler
LaBella Associates DPC
300 Pearl Street
Suite 130
Buffalo, New York 14202

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JOB DESCRIPTION

Roblin Steel site

JOB NUMBER

480-204473-1

Eurofins Buffalo
10 Hazelwood Drive
Amherst NY 14228-2298

See page two for job notes and contact information.

my EOL

Job Notes

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to the NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory. This report is confidential and is intended for the sole use of Eurofins Environment Testing Northeast, LLC Buffalo and its client. All questions regarding this report should be directed to the Eurofins Environment Testing Northeast, LLC Buffalo Project Manager or designee who has signed this report.

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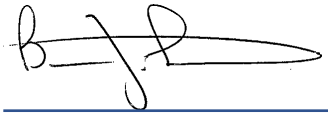
Authorization



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Authorized for release by
Brian Fischer, Manager of Project Management
Brian.Fischer@et.eurofinsus.com
(716)504-9835

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Definitions/Glossary

Client: LaBella Associates DPC
Project/Site: Roblin Steel site

Job ID: 480-204473-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
*3	ISTD response or retention time outside acceptable limits.
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
vs	Reported analyte concentrations are below 200 ug/kg and may be biased low due to the sample not being collected according to 5035A-L low-level specifications.

GC/MS Semi VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
S1-	Surrogate recovery exceeds control limits, low biased.

Metals

Qualifier	Qualifier Description
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Job ID: 480-204473-1

Laboratory: Eurofins Buffalo

Narrative

Job Narrative
480-204473-1

Comments
No additional comments.

Receipt
The sample was received on 12/6/2022 3:30 PM. Unless otherwise noted below, the sample arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 4.8º C.

GC/MS VOA
Method 8260C: Internal standard responses were outside of acceptance limits for the following sample: ROBLIN DRUM (480-204473-1). The sample(s) shows evidence of matrix interference.

Method 8260C: The continuing calibration verification (CCV) associated with batch 480-652739 recovered above the upper control limit for Trichlorofluoromethane. The samples associated with this CCV were non-detects for the affected analyte; therefore, the data have been reported. The associated sample is impacted: ROBLIN DRUM (480-204473-1).

Method 8260C: The following samples were diluted due to the nature of the TCLP sample matrix: ROBLIN DRUM (480-204473-1) and (LB 480-652650/1-A). Elevated reporting limits (RLs) are provided.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

GC/MS Semi VOA
Method 8270D: Six surrogates are used for this analysis. The laboratory's SOP allows one acid and one base of these surrogates to be outside acceptance criteria without performing re-extraction/re-analysis. The following sample contained an allowable number of surrogate compounds outside limits: ROBLIN DRUM (480-204473-1). These results have been reported and qualified.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Metals
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Organic Prep
Method 3510C: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate/sample duplicate (MS/MSD/DUP) associated with preparation batch 480-652622 and 480-652820.

Method 3510C: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate/sample duplicate (MS/MSD/DUP) associated with preparation batch 480-652622 and 480-653570.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Detection Summary

Client: LaBella Associates DPC
Project/Site: Roblin Steel site

Job ID: 480-204473-1

Client Sample ID: ROBLIN DRUM

Lab Sample ID: 480-204473-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	54	vs	31	5.2	ug/Kg	1	☼	8260C	Total/NA
Benzene	2.2	J vs	6.2	0.30	ug/Kg	1	☼	8260C	Total/NA
Carbon disulfide	4.4	J vs	6.2	3.1	ug/Kg	1	☼	8260C	Total/NA
Chloroform	0.58	J B vs	6.2	0.38	ug/Kg	1	☼	8260C	Total/NA
cis-1,2-Dichloroethene	14	vs	6.2	0.79	ug/Kg	1	☼	8260C	Total/NA
Cyclohexane	11	vs	6.2	0.87	ug/Kg	1	☼	8260C	Total/NA
Ethylbenzene	4.7	J vs	6.2	0.43	ug/Kg	1	☼	8260C	Total/NA
Isopropylbenzene	3.4	J *3 vs	6.2	0.93	ug/Kg	1	☼	8260C	Total/NA
Methylcyclohexane	53	vs	6.2	0.94	ug/Kg	1	☼	8260C	Total/NA
Methylene Chloride	5.1	J vs	6.2	2.8	ug/Kg	1	☼	8260C	Total/NA
Styrene	0.78	J vs	6.2	0.31	ug/Kg	1	☼	8260C	Total/NA
Toluene	7.2	vs	6.2	0.47	ug/Kg	1	☼	8260C	Total/NA
trans-1,2-Dichloroethene	1.4	J vs	6.2	0.64	ug/Kg	1	☼	8260C	Total/NA
Trichloroethene	2.7	J vs	6.2	1.4	ug/Kg	1	☼	8260C	Total/NA
Vinyl chloride	2.4	J vs	6.2	0.75	ug/Kg	1	☼	8260C	Total/NA
Xylenes, Total	27	vs	12	1.0	ug/Kg	1	☼	8260C	Total/NA
Benzo[a]anthracene	57	J	210	21	ug/Kg	1	☼	8270D	Total/NA
Benzo[a]pyrene	66	J	210	31	ug/Kg	1	☼	8270D	Total/NA
Benzo[b]fluoranthene	84	J	210	33	ug/Kg	1	☼	8270D	Total/NA
Benzo[g,h,i]perylene	49	J	210	22	ug/Kg	1	☼	8270D	Total/NA
Benzo[k]fluoranthene	32	J	210	27	ug/Kg	1	☼	8270D	Total/NA
Chrysene	79	J	210	47	ug/Kg	1	☼	8270D	Total/NA
Fluoranthene	140	J	210	22	ug/Kg	1	☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	45	J	210	26	ug/Kg	1	☼	8270D	Total/NA
Phenanthrene	100	J	210	31	ug/Kg	1	☼	8270D	Total/NA
Pyrene	110	J	210	25	ug/Kg	1	☼	8270D	Total/NA
Pyridine	0.0021	J	0.10	0.0016	mg/L	1		8270D	TCLP
Arsenic	0.0076	J	0.020	0.0040	mg/Kg	1		6010C	TCLP
Barium	1.1		0.0050	0.0011	mg/Kg	1		6010C	TCLP
Cadmium	0.0014	J	0.0020	0.00030	mg/Kg	1		6010C	TCLP
Lead	0.034		0.010	0.0024	mg/Kg	1		6010C	TCLP
Selenium	0.0042	J B	0.040	0.0040	mg/Kg	1		6010C	TCLP

This Detection Summary does not include radiochemical test results.

Client: LaBella Associates DPC
Project/Site: Roblin Steel site

Job ID: 480-204473-1

Client Sample ID: ROBLIN DRUM
Date Collected: 12/06/22 11:30
Date Received: 12/06/22 15:30

Lab Sample ID: 480-204473-1
Matrix: Solid
Percent Solids: 80.2

Method: SW846 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND	vs	6.2	0.45	ug/Kg	☼	12/08/22 12:27	12/09/22 06:45	1
1,1,2,2-Tetrachloroethane	ND	*3 vs	6.2	1.0	ug/Kg	☼	12/08/22 12:27	12/09/22 06:45	1
1,1,2-Trichloroethane	ND	vs	6.2	0.80	ug/Kg	☼	12/08/22 12:27	12/09/22 06:45	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	vs	6.2	1.4	ug/Kg	☼	12/08/22 12:27	12/09/22 06:45	1
1,1-Dichloroethane	ND	vs	6.2	0.75	ug/Kg	☼	12/08/22 12:27	12/09/22 06:45	1
1,1-Dichloroethene	ND	vs	6.2	0.76	ug/Kg	☼	12/08/22 12:27	12/09/22 06:45	1
1,2,4-Trichlorobenzene	ND	*3 vs	6.2	0.38	ug/Kg	☼	12/08/22 12:27	12/09/22 06:45	1
1,2-Dibromo-3-Chloropropane	ND	*3 vs	6.2	3.1	ug/Kg	☼	12/08/22 12:27	12/09/22 06:45	1
1,2-Dichlorobenzene	ND	*3 vs	6.2	0.48	ug/Kg	☼	12/08/22 12:27	12/09/22 06:45	1
1,2-Dichloroethane	ND	vs	6.2	0.31	ug/Kg	☼	12/08/22 12:27	12/09/22 06:45	1
1,2-Dichloropropane	ND	vs	6.2	3.1	ug/Kg	☼	12/08/22 12:27	12/09/22 06:45	1
1,3-Dichlorobenzene	ND	*3 vs	6.2	0.32	ug/Kg	☼	12/08/22 12:27	12/09/22 06:45	1
1,4-Dichlorobenzene	ND	*3 vs	6.2	0.87	ug/Kg	☼	12/08/22 12:27	12/09/22 06:45	1
2-Butanone (MEK)	ND	vs	31	2.3	ug/Kg	☼	12/08/22 12:27	12/09/22 06:45	1
2-Hexanone	ND	vs	31	3.1	ug/Kg	☼	12/08/22 12:27	12/09/22 06:45	1
4-Methyl-2-pentanone (MIBK)	ND	vs	31	2.0	ug/Kg	☼	12/08/22 12:27	12/09/22 06:45	1
Acetone	**54**	**vs**	31	5.2	ug/Kg	☼	12/08/22 12:27	12/09/22 06:45	1
Benzene	**2.2**	**J vs**	6.2	0.30	ug/Kg	☼	12/08/22 12:27	12/09/22 06:45	1
Bromodichloromethane	ND	vs	6.2	0.83	ug/Kg	☼	12/08/22 12:27	12/09/22 06:45	1
Bromoform	ND	vs	6.2	3.1	ug/Kg	☼	12/08/22 12:27	12/09/22 06:45	1
Bromomethane	ND	vs	6.2	0.56	ug/Kg	☼	12/08/22 12:27	12/09/22 06:45	1
Carbon disulfide	**4.4**	**J vs**	6.2	3.1	ug/Kg	☼	12/08/22 12:27	12/09/22 06:45	1
Carbon tetrachloride	ND	vs	6.2	0.60	ug/Kg	☼	12/08/22 12:27	12/09/22 06:45	1
Chlorobenzene	ND	vs	6.2	0.82	ug/Kg	☼	12/08/22 12:27	12/09/22 06:45	1
Dibromochloromethane	ND	vs	6.2	0.79	ug/Kg	☼	12/08/22 12:27	12/09/22 06:45	1
Chloroethane	ND	vs	6.2	1.4	ug/Kg	☼	12/08/22 12:27	12/09/22 06:45	1
Chloroform	**0.58**	**J B vs**	6.2	0.38	ug/Kg	☼	12/08/22 12:27	12/09/22 06:45	1
Chloromethane	ND	vs	6.2	0.37	ug/Kg	☼	12/08/22 12:27	12/09/22 06:45	1
cis-1,2-Dichloroethene	**14**	**vs**	6.2	0.79	ug/Kg	☼	12/08/22 12:27	12/09/22 06:45	1
cis-1,3-Dichloropropene	ND	vs	6.2	0.89	ug/Kg	☼	12/08/22 12:27	12/09/22 06:45	1
Cyclohexane	**11**	**vs**	6.2	0.87	ug/Kg	☼	12/08/22 12:27	12/09/22 06:45	1
Dichlorodifluoromethane	ND	vs	6.2	0.51	ug/Kg	☼	12/08/22 12:27	12/09/22 06:45	1
Ethylbenzene	**4.7**	**J vs**	6.2	0.43	ug/Kg	☼	12/08/22 12:27	12/09/22 06:45	1
1,2-Dibromoethane	ND	vs	6.2	0.79	ug/Kg	☼	12/08/22 12:27	12/09/22 06:45	1
Isopropylbenzene	**3.4**	**J *3 vs**	6.2	0.93	ug/Kg	☼	12/08/22 12:27	12/09/22 06:45	1
Methyl acetate	ND	vs	31	3.7	ug/Kg	☼	12/08/22 12:27	12/09/22 06:45	1
Methyl tert-butyl ether	ND	vs	6.2	0.61	ug/Kg	☼	12/08/22 12:27	12/09/22 06:45	1
Methylcyclohexane	**53**	**vs**	6.2	0.94	ug/Kg	☼	12/08/22 12:27	12/09/22 06:45	1
Methylene Chloride	**5.1**	**J vs**	6.2	2.8	ug/Kg	☼	12/08/22 12:27	12/09/22 06:45	1
Styrene	**0.78**	**J vs**	6.2	0.31	ug/Kg	☼	12/08/22 12:27	12/09/22 06:45	1
Tetrachloroethene	ND	vs	6.2	0.83	ug/Kg	☼	12/08/22 12:27	12/09/22 06:45	1
Toluene	**7.2**	**vs**	6.2	0.47	ug/Kg	☼	12/08/22 12:27	12/09/22 06:45	1
trans-1,2-Dichloroethene	**1.4**	**J vs**	6.2	0.64	ug/Kg	☼	12/08/22 12:27	12/09/22 06:45	1
trans-1,3-Dichloropropene	ND	vs	6.2	2.7	ug/Kg	☼	12/08/22 12:27	12/09/22 06:45	1
Trichloroethene	**2.7**	**J vs**	6.2	1.4	ug/Kg	☼	12/08/22 12:27	12/09/22 06:45	1
Trichlorofluoromethane	ND	vs	6.2	0.59	ug/Kg	☼	12/08/22 12:27	12/09/22 06:45	1
Vinyl chloride	**2.4**	**J vs**	6.2	0.75	ug/Kg	☼	12/08/22 12:27	12/09/22 06:45	1
Xylenes, Total	**27**	**vs**	12	1.0	ug/Kg	☼	12/08/22 12:27	12/09/22 06:45	1

Client Sample ID: ROBLIN DRUM
Date Collected: 12/06/22 11:30
Date Received: 12/06/22 15:30

Lab Sample ID: 480-204473-1
Matrix: Solid
Percent Solids: 80.2

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*112*		*71 - 125*	*12/08/22 12:27*	*12/09/22 06:45*	*1*
1,2-Dichloroethane-d4 (Surr)	*124*		*64 - 126*	*12/08/22 12:27*	*12/09/22 06:45*	*1*
4-Bromofluorobenzene (Surr)	*79*		*72 - 126*	*12/08/22 12:27*	*12/09/22 06:45*	*1*
Dibromofluoromethane (Surr)	*108*		*60 - 140*	*12/08/22 12:27*	*12/09/22 06:45*	*1*

Method: SW846 8260C - Volatile Organic Compounds by GC/MS - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane	ND		0.010	0.0021	mg/L			12/10/22 12:24	10
2-Butanone (MEK)	ND		0.050	0.013	mg/L			12/10/22 12:24	10
Benzene	ND		0.010	0.0041	mg/L			12/10/22 12:24	10
Carbon tetrachloride	ND		0.010	0.0027	mg/L			12/10/22 12:24	10
Chlorobenzene	ND		0.010	0.0075	mg/L			12/10/22 12:24	10
Chloroform	ND		0.010	0.0034	mg/L			12/10/22 12:24	10
Tetrachloroethene	ND		0.010	0.0036	mg/L			12/10/22 12:24	10
Trichloroethene	ND		0.010	0.0046	mg/L			12/10/22 12:24	10
Vinyl chloride	ND		0.010	0.0090	mg/L			12/10/22 12:24	10
1,1-Dichloroethene	ND		0.010	0.0029	mg/L			12/10/22 12:24	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*100*		*77 - 120*		*12/10/22 12:24*	*10*
4-Bromofluorobenzene (Surr)	*89*		*73 - 120*		*12/10/22 12:24*	*10*
Toluene-d8 (Surr)	*88*		*80 - 120*		*12/10/22 12:24*	*10*
Dibromofluoromethane (Surr)	*102*		*75 - 123*		*12/10/22 12:24*	*10*

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Biphenyl	ND		210	31	ug/Kg	☼	12/07/22 16:14	12/08/22 20:23	1
bis (2-chloroisopropyl) ether	ND		210	42	ug/Kg	☼	12/07/22 16:14	12/08/22 20:23	1
2,4,5-Trichlorophenol	ND		210	57	ug/Kg	☼	12/07/22 16:14	12/08/22 20:23	1
2,4,6-Trichlorophenol	ND		210	42	ug/Kg	☼	12/07/22 16:14	12/08/22 20:23	1
2,4-Dichlorophenol	ND		210	22	ug/Kg	☼	12/07/22 16:14	12/08/22 20:23	1
2,4-Dimethylphenol	ND		210	51	ug/Kg	☼	12/07/22 16:14	12/08/22 20:23	1
2,4-Dinitrophenol	ND		2100	970	ug/Kg	☼	12/07/22 16:14	12/08/22 20:23	1
2,4-Dinitrotoluene	ND		210	43	ug/Kg	☼	12/07/22 16:14	12/08/22 20:23	1
2,6-Dinitrotoluene	ND		210	25	ug/Kg	☼	12/07/22 16:14	12/08/22 20:23	1
2-Chloronaphthalene	ND		210	35	ug/Kg	☼	12/07/22 16:14	12/08/22 20:23	1
2-Chlorophenol	ND		410	38	ug/Kg	☼	12/07/22 16:14	12/08/22 20:23	1
2-Methylphenol	ND		210	25	ug/Kg	☼	12/07/22 16:14	12/08/22 20:23	1
2-Methylnaphthalene	ND		210	42	ug/Kg	☼	12/07/22 16:14	12/08/22 20:23	1
2-Nitroaniline	ND		410	31	ug/Kg	☼	12/07/22 16:14	12/08/22 20:23	1
2-Nitrophenol	ND		210	59	ug/Kg	☼	12/07/22 16:14	12/08/22 20:23	1
3,3'-Dichlorobenzidine	ND		410	250	ug/Kg	☼	12/07/22 16:14	12/08/22 20:23	1
3-Nitroaniline	ND		410	58	ug/Kg	☼	12/07/22 16:14	12/08/22 20:23	1
4,6-Dinitro-2-methylphenol	ND		410	210	ug/Kg	☼	12/07/22 16:14	12/08/22 20:23	1
4-Bromophenyl phenyl ether	ND		210	30	ug/Kg	☼	12/07/22 16:14	12/08/22 20:23	1
4-Chloro-3-methylphenol	ND		210	52	ug/Kg	☼	12/07/22 16:14	12/08/22 20:23	1
4-Chloroaniline	ND		210	52	ug/Kg	☼	12/07/22 16:14	12/08/22 20:23	1
4-Chlorophenyl phenyl ether	ND		210	26	ug/Kg	☼	12/07/22 16:14	12/08/22 20:23	1
4-Methylphenol	ND		410	25	ug/Kg	☼	12/07/22 16:14	12/08/22 20:23	1
4-Nitroaniline	ND		410	110	ug/Kg	☼	12/07/22 16:14	12/08/22 20:23	1
4-Nitrophenol	ND		410	150	ug/Kg	☼	12/07/22 16:14	12/08/22 20:23	1

Client: LaBella Associates DPC
Project/Site: Roblin Steel site

Job ID: 480-204473-1

Client Sample ID: ROBLIN DRUM
Date Collected: 12/06/22 11:30
Date Received: 12/06/22 15:30

Lab Sample ID: 480-204473-1
Matrix: Solid
Percent Solids: 80.2

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		210	31	ug/Kg	☼	12/07/22 16:14	12/08/22 20:23	1
Acenaphthylene	ND		210	27	ug/Kg	☼	12/07/22 16:14	12/08/22 20:23	1
Acetophenone	ND		210	28	ug/Kg	☼	12/07/22 16:14	12/08/22 20:23	1
Anthracene	ND		210	52	ug/Kg	☼	12/07/22 16:14	12/08/22 20:23	1
Atrazine	ND		210	73	ug/Kg	☼	12/07/22 16:14	12/08/22 20:23	1
Benzaldehyde	ND		210	170	ug/Kg	☼	12/07/22 16:14	12/08/22 20:23	1
Benzo[a]anthracene	**57**	**J**	210	21	ug/Kg	☼	12/07/22 16:14	12/08/22 20:23	1
Benzo[a]pyrene	**66**	**J**	210	31	ug/Kg	☼	12/07/22 16:14	12/08/22 20:23	1
Benzo[b]fluoranthene	**84**	**J**	210	33	ug/Kg	☼	12/07/22 16:14	12/08/22 20:23	1
Benzo[g,h,i]perylene	**49**	**J**	210	22	ug/Kg	☼	12/07/22 16:14	12/08/22 20:23	1
Benzo[k]fluoranthene	**32**	**J**	210	27	ug/Kg	☼	12/07/22 16:14	12/08/22 20:23	1
Bis(2-chloroethoxy)methane	ND		210	45	ug/Kg	☼	12/07/22 16:14	12/08/22 20:23	1
Bis(2-chloroethyl)ether	ND		210	27	ug/Kg	☼	12/07/22 16:14	12/08/22 20:23	1
Bis(2-ethylhexyl) phthalate	ND		210	72	ug/Kg	☼	12/07/22 16:14	12/08/22 20:23	1
Butyl benzyl phthalate	ND		210	35	ug/Kg	☼	12/07/22 16:14	12/08/22 20:23	1
Caprolactam	ND		210	63	ug/Kg	☼	12/07/22 16:14	12/08/22 20:23	1
Carbazole	ND		210	25	ug/Kg	☼	12/07/22 16:14	12/08/22 20:23	1
Chrysene	**79**	**J**	210	47	ug/Kg	☼	12/07/22 16:14	12/08/22 20:23	1
Dibenz(a,h)anthracene	ND		210	37	ug/Kg	☼	12/07/22 16:14	12/08/22 20:23	1
Di-n-butyl phthalate	ND		210	36	ug/Kg	☼	12/07/22 16:14	12/08/22 20:23	1
Di-n-octyl phthalate	ND		210	25	ug/Kg	☼	12/07/22 16:14	12/08/22 20:23	1
Dibenzofuran	ND		210	25	ug/Kg	☼	12/07/22 16:14	12/08/22 20:23	1
Diethyl phthalate	ND		210	27	ug/Kg	☼	12/07/22 16:14	12/08/22 20:23	1
Dimethyl phthalate	ND		210	25	ug/Kg	☼	12/07/22 16:14	12/08/22 20:23	1
Fluoranthene	**140**	**J**	210	22	ug/Kg	☼	12/07/22 16:14	12/08/22 20:23	1
Fluorene	ND		210	25	ug/Kg	☼	12/07/22 16:14	12/08/22 20:23	1
Hexachlorobenzene	ND		210	28	ug/Kg	☼	12/07/22 16:14	12/08/22 20:23	1
Hexachlorobutadiene	ND		210	31	ug/Kg	☼	12/07/22 16:14	12/08/22 20:23	1
Hexachlorocyclopentadiene	ND		210	28	ug/Kg	☼	12/07/22 16:14	12/08/22 20:23	1
Hexachloroethane	ND		210	27	ug/Kg	☼	12/07/22 16:14	12/08/22 20:23	1
Indeno[1,2,3-cd]pyrene	**45**	**J**	210	26	ug/Kg	☼	12/07/22 16:14	12/08/22 20:23	1
Isophorone	ND		210	45	ug/Kg	☼	12/07/22 16:14	12/08/22 20:23	1
N-Nitrosodi-n-propylamine	ND		210	36	ug/Kg	☼	12/07/22 16:14	12/08/22 20:23	1
N-Nitrosodiphenylamine	ND		210	170	ug/Kg	☼	12/07/22 16:14	12/08/22 20:23	1
Naphthalene	ND		210	27	ug/Kg	☼	12/07/22 16:14	12/08/22 20:23	1
Nitrobenzene	ND		210	23	ug/Kg	☼	12/07/22 16:14	12/08/22 20:23	1
Pentachlorophenol	ND		410	210	ug/Kg	☼	12/07/22 16:14	12/08/22 20:23	1
Phenanthrene	**100**	**J**	210	31	ug/Kg	☼	12/07/22 16:14	12/08/22 20:23	1
Phenol	ND		210	32	ug/Kg	☼	12/07/22 16:14	12/08/22 20:23	1
Pyrene	**110**	**J**	210	25	ug/Kg	☼	12/07/22 16:14	12/08/22 20:23	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*53*		*53 - 120*	*12/07/22 16:14*	*12/08/22 20:23*	*1*
Phenol-d5 (Surr)	*55*		*54 - 120*	*12/07/22 16:14*	*12/08/22 20:23*	*1*
p-Terphenyl-d14 (Surr)	*87*		*79 - 130*	*12/07/22 16:14*	*12/08/22 20:23*	*1*
2,4,6-Tribromophenol (Surr)	*77*		*54 - 120*	*12/07/22 16:14*	*12/08/22 20:23*	*1*
2-Fluorobiphenyl (Surr)	*66*		*60 - 120*	*12/07/22 16:14*	*12/08/22 20:23*	*1*
2-Fluorophenol (Surr)	*51*	*S1-*	*52 - 120*	*12/07/22 16:14*	*12/08/22 20:23*	*1*

Client Sample ID: ROBLIN DRUM

Date Collected: 12/06/22 11:30
Date Received: 12/06/22 15:30

Lab Sample ID: 480-204473-1

Matrix: Solid
Percent Solids: 80.2

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dichlorobenzene	ND		0.040	0.0018	mg/L		12/15/22 09:33	12/16/22 12:34	1
2,4-Dinitrotoluene	ND		0.020	0.0017	mg/L		12/15/22 09:33	12/16/22 12:34	1
2,4,5-Trichlorophenol	ND		0.020	0.0019	mg/L		12/15/22 09:33	12/16/22 12:34	1
2,4,6-Trichlorophenol	ND		0.020	0.0024	mg/L		12/15/22 09:33	12/16/22 12:34	1
2-Methylphenol	ND		0.020	0.0016	mg/L		12/15/22 09:33	12/16/22 12:34	1
3-Methylphenol	ND		0.040	0.0016	mg/L		12/15/22 09:33	12/16/22 12:34	1
4-Methylphenol	ND		0.040	0.0014	mg/L		12/15/22 09:33	12/16/22 12:34	1
Hexachlorobenzene	ND		0.020	0.0020	mg/L		12/15/22 09:33	12/16/22 12:34	1
Hexachlorobutadiene	ND		0.020	0.0027	mg/L		12/15/22 09:33	12/16/22 12:34	1
Hexachloroethane	ND		0.020	0.0023	mg/L		12/15/22 09:33	12/16/22 12:34	1
Nitrobenzene	ND		0.020	0.0011	mg/L		12/15/22 09:33	12/16/22 12:34	1
Pentachlorophenol	ND		0.040	0.0088	mg/L		12/15/22 09:33	12/16/22 12:34	1
Pyridine	**0.0021**	**J**	0.10	0.0016	mg/L		12/15/22 09:33	12/16/22 12:34	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*95*		*41 - 120*	*12/15/22 09:33*	*12/16/22 12:34*	*1*
2-Fluorobiphenyl (Surr)	*89*		*48 - 120*	*12/15/22 09:33*	*12/16/22 12:34*	*1*
2-Fluorophenol (Surr)	*48*		*35 - 120*	*12/15/22 09:33*	*12/16/22 12:34*	*1*
Nitrobenzene-d5 (Surr)	*84*		*46 - 120*	*12/15/22 09:33*	*12/16/22 12:34*	*1*
p-Terphenyl-d14 (Surr)	*98*		*60 - 148*	*12/15/22 09:33*	*12/16/22 12:34*	*1*
Phenol-d5 (Surr)	*33*		*22 - 120*	*12/15/22 09:33*	*12/16/22 12:34*	*1*

Method: SW846 6010C - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**0.0076**	**J**	0.020	0.0040	mg/Kg		12/09/22 10:09	12/13/22 13:43	1
Barium	**1.1**		0.0050	0.0011	mg/Kg		12/09/22 10:09	12/13/22 13:43	1
Cadmium	**0.0014**	**J**	0.0020	0.00030	mg/Kg		12/09/22 10:09	12/13/22 13:43	1
Chromium	ND		0.0050	0.0020	mg/Kg		12/09/22 10:09	12/13/22 13:43	1
Lead	**0.034**		0.010	0.0024	mg/Kg		12/09/22 10:09	12/13/22 13:43	1
Selenium	**0.0042**	**J B**	0.040	0.0040	mg/Kg		12/09/22 10:09	12/13/22 13:43	1
Silver	ND		0.0060	0.0020	mg/Kg		12/09/22 10:09	12/13/22 13:43	1

Method: SW846 7470A - Mercury (CVAA) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.000043	mg/L		12/09/22 11:47	12/09/22 18:05	1

Surrogate Summary

Client: LaBella Associates DPC
Project/Site: Roblin Steel site

Job ID: 480-204473-1

Method: 8260C - Volatile Organic Compounds by GC/MS

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)			
		TOL	DCA	BFB	DBFM
Lab Sample ID	Client Sample ID	(71-125)	(64-126)	(72-126)	(60-140)
480-204473-1	ROBLIN DRUM	112	124	79	108
LCS 480-652673/1-A	Lab Control Sample	106	102	102	104
MB 480-652673/2-A	Method Blank	104	103	103	106

Surrogate Legend

TOL = Toluene-d8 (Surr)
DCA = 1,2-Dichloroethane-d4 (Surr)
BFB = 4-Bromofluorobenzene (Surr)
DBFM = Dibromofluoromethane (Surr)

Method: 8260C - Volatile Organic Compounds by GC/MS

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)			
		TOL	DCA	BFB	DBFM
Lab Sample ID	Client Sample ID	(80-120)	(77-120)	(73-120)	(75-123)
LCS 480-652922/6	Lab Control Sample	90	93	96	100
MB 480-652922/8	Method Blank	85	99	90	104

Surrogate Legend

TOL = Toluene-d8 (Surr)
DCA = 1,2-Dichloroethane-d4 (Surr)
BFB = 4-Bromofluorobenzene (Surr)
DBFM = Dibromofluoromethane (Surr)

Method: 8260C - Volatile Organic Compounds by GC/MS

Matrix: Solid **Prep Type: TCLP**

		Percent Surrogate Recovery (Acceptance Limits)			
		DCA	BFB	TOL	DBFM
Lab Sample ID	Client Sample ID	(77-120)	(73-120)	(80-120)	(75-123)
480-204473-1	ROBLIN DRUM	100	89	88	102
LB 480-652650/1-A	Method Blank	103	91	89	103

Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)
BFB = 4-Bromofluorobenzene (Surr)
TOL = Toluene-d8 (Surr)
DBFM = Dibromofluoromethane (Surr)

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)					
		NBZ	PHL	TPHd14	TBP	FBP	2FP
Lab Sample ID	Client Sample ID	(53-120)	(54-120)	(79-130)	(54-120)	(60-120)	(52-120)
480-204473-1	ROBLIN DRUM	53	55	87	77	66	51 S1-
LCS 480-652566/2-A	Lab Control Sample	63	66	79	80	69	61
MB 480-652566/1-A	Method Blank	76	78	90	84	83	75

Surrogate Legend

NBZ = Nitrobenzene-d5 (Surr)
PHL = Phenol-d5 (Surr)

Surrogate Summary

Client: LaBella Associates DPC
Project/Site: Roblin Steel site

Job ID: 480-204473-1

TPHd14 = p-Terphenyl-d14 (Surr)
TBP = 2,4,6-Tribromophenol (Surr)
FBP = 2-Fluorobiphenyl (Surr)
2FP = 2-Fluorophenol (Surr)

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)					
		NBZ	PHL	TPHd14	TBP	FBP	2FP
Lab Sample ID	Client Sample ID	(46-120)	(22-120)	(60-148)	(41-120)	(48-120)	(35-120)
LCS 480-653570/2-A	Lab Control Sample	84	35	105	103	92	47
LCSD 480-653570/3-A	Lab Control Sample Dup	88	37	107	106	94	49
MB 480-653570/1-A	Method Blank	90	36	100	95	94	53

Surrogate Legend

NBZ = Nitrobenzene-d5 (Surr)
PHL = Phenol-d5 (Surr)
TPHd14 = p-Terphenyl-d14 (Surr)
TBP = 2,4,6-Tribromophenol (Surr)
FBP = 2-Fluorobiphenyl (Surr)
2FP = 2-Fluorophenol (Surr)

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Matrix: Solid **Prep Type: TCLP**

		Percent Surrogate Recovery (Acceptance Limits)					
		TBP	FBP	2FP	NBZ	TPHd14	PHL
Lab Sample ID	Client Sample ID	(41-120)	(48-120)	(35-120)	(46-120)	(60-148)	(22-120)
480-204473-1	ROBLIN DRUM	95	89	48	84	98	33
LB 480-652622/1-G	Method Blank	102	92	51	92	105	35

Surrogate Legend

TBP = 2,4,6-Tribromophenol (Surr)
FBP = 2-Fluorobiphenyl (Surr)
2FP = 2-Fluorophenol (Surr)
NBZ = Nitrobenzene-d5 (Surr)
TPHd14 = p-Terphenyl-d14 (Surr)
PHL = Phenol-d5 (Surr)

Method: 8260C - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 480-652673/2-A
Matrix: Solid
Analysis Batch: 652739

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 652673

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		5.0	0.36	ug/Kg		12/08/22 12:27	12/08/22 21:12	1
1,1,2,2-Tetrachloroethane	ND		5.0	0.81	ug/Kg		12/08/22 12:27	12/08/22 21:12	1
1,1,2-Trichloroethane	ND		5.0	0.65	ug/Kg		12/08/22 12:27	12/08/22 21:12	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		5.0	1.1	ug/Kg		12/08/22 12:27	12/08/22 21:12	1
1,1-Dichloroethane	ND		5.0	0.61	ug/Kg		12/08/22 12:27	12/08/22 21:12	1
1,2,4-Trichlorobenzene	ND		5.0	0.30	ug/Kg		12/08/22 12:27	12/08/22 21:12	1
1,2-Dibromo-3-Chloropropane	ND		5.0	2.5	ug/Kg		12/08/22 12:27	12/08/22 21:12	1
1,2-Dichlorobenzene	ND		5.0	0.39	ug/Kg		12/08/22 12:27	12/08/22 21:12	1
1,2-Dichloroethane	ND		5.0	0.25	ug/Kg		12/08/22 12:27	12/08/22 21:12	1
1,2-Dichloropropane	ND		5.0	2.5	ug/Kg		12/08/22 12:27	12/08/22 21:12	1
1,3-Dichlorobenzene	ND		5.0	0.26	ug/Kg		12/08/22 12:27	12/08/22 21:12	1
1,1-Dichloroethene	ND		5.0	0.61	ug/Kg		12/08/22 12:27	12/08/22 21:12	1
1,4-Dichlorobenzene	ND		5.0	0.70	ug/Kg		12/08/22 12:27	12/08/22 21:12	1
2-Butanone (MEK)	ND		25	1.8	ug/Kg		12/08/22 12:27	12/08/22 21:12	1
2-Hexanone	ND		25	2.5	ug/Kg		12/08/22 12:27	12/08/22 21:12	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.6	ug/Kg		12/08/22 12:27	12/08/22 21:12	1
Acetone	ND		25	4.2	ug/Kg		12/08/22 12:27	12/08/22 21:12	1
Benzene	ND		5.0	0.25	ug/Kg		12/08/22 12:27	12/08/22 21:12	1
Bromodichloromethane	ND		5.0	0.67	ug/Kg		12/08/22 12:27	12/08/22 21:12	1
Bromoform	ND		5.0	2.5	ug/Kg		12/08/22 12:27	12/08/22 21:12	1
Bromomethane	ND		5.0	0.45	ug/Kg		12/08/22 12:27	12/08/22 21:12	1
Carbon disulfide	ND		5.0	2.5	ug/Kg		12/08/22 12:27	12/08/22 21:12	1
Carbon tetrachloride	ND		5.0	0.48	ug/Kg		12/08/22 12:27	12/08/22 21:12	1
Chlorobenzene	ND		5.0	0.66	ug/Kg		12/08/22 12:27	12/08/22 21:12	1
Dibromochloromethane	ND		5.0	0.64	ug/Kg		12/08/22 12:27	12/08/22 21:12	1
Chloroethane	ND		5.0	1.1	ug/Kg		12/08/22 12:27	12/08/22 21:12	1
Chloroform	0.330	J	5.0	0.31	ug/Kg		12/08/22 12:27	12/08/22 21:12	1
Chloromethane	ND		5.0	0.30	ug/Kg		12/08/22 12:27	12/08/22 21:12	1
cis-1,2-Dichloroethene	ND		5.0	0.64	ug/Kg		12/08/22 12:27	12/08/22 21:12	1
cis-1,3-Dichloropropene	ND		5.0	0.72	ug/Kg		12/08/22 12:27	12/08/22 21:12	1
Cyclohexane	ND		5.0	0.70	ug/Kg		12/08/22 12:27	12/08/22 21:12	1
Dichlorodifluoromethane	ND		5.0	0.41	ug/Kg		12/08/22 12:27	12/08/22 21:12	1
Ethylbenzene	ND		5.0	0.35	ug/Kg		12/08/22 12:27	12/08/22 21:12	1
1,2-Dibromoethane	ND		5.0	0.64	ug/Kg		12/08/22 12:27	12/08/22 21:12	1
Isopropylbenzene	ND		5.0	0.75	ug/Kg		12/08/22 12:27	12/08/22 21:12	1
Methyl acetate	ND		25	3.0	ug/Kg		12/08/22 12:27	12/08/22 21:12	1
Methyl tert-butyl ether	ND		5.0	0.49	ug/Kg		12/08/22 12:27	12/08/22 21:12	1
Methylcyclohexane	ND		5.0	0.76	ug/Kg		12/08/22 12:27	12/08/22 21:12	1
Methylene Chloride	ND		5.0	2.3	ug/Kg		12/08/22 12:27	12/08/22 21:12	1
Styrene	ND		5.0	0.25	ug/Kg		12/08/22 12:27	12/08/22 21:12	1
Tetrachloroethene	ND		5.0	0.67	ug/Kg		12/08/22 12:27	12/08/22 21:12	1
Toluene	ND		5.0	0.38	ug/Kg		12/08/22 12:27	12/08/22 21:12	1
trans-1,2-Dichloroethene	ND		5.0	0.52	ug/Kg		12/08/22 12:27	12/08/22 21:12	1
trans-1,3-Dichloropropene	ND		5.0	2.2	ug/Kg		12/08/22 12:27	12/08/22 21:12	1
Trichloroethene	ND		5.0	1.1	ug/Kg		12/08/22 12:27	12/08/22 21:12	1
Trichlorofluoromethane	ND		5.0	0.47	ug/Kg		12/08/22 12:27	12/08/22 21:12	1
Vinyl chloride	ND		5.0	0.61	ug/Kg		12/08/22 12:27	12/08/22 21:12	1
Xylenes, Total	ND		10	0.84	ug/Kg		12/08/22 12:27	12/08/22 21:12	1

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 480-652673/2-A
Matrix: Solid
Analysis Batch: 652739

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 652673

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	*104*		*71 - 125*	*12/08/22 12:27*	*12/08/22 21:12*	*1*
1,2-Dichloroethane-d4 (Surr)	*103*		*64 - 126*	*12/08/22 12:27*	*12/08/22 21:12*	*1*
4-Bromofluorobenzene (Surr)	*103*		*72 - 126*	*12/08/22 12:27*	*12/08/22 21:12*	*1*
Dibromofluoromethane (Surr)	*106*		*60 - 140*	*12/08/22 12:27*	*12/08/22 21:12*	*1*

Lab Sample ID: LCS 480-652673/1-A
Matrix: Solid
Analysis Batch: 652739

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 652673

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,1,1-Trichloroethane	50.0	45.7		ug/Kg		91	77 - 121
1,1,2,2-Tetrachloroethane	50.0	45.3		ug/Kg		91	80 - 120
1,1,2-Trichloroethane	50.0	51.2		ug/Kg		102	78 - 122
1,1,2-Trichloro-1,2,2-trifluoroethane	50.0	48.2		ug/Kg		96	60 - 140
1,1-Dichloroethane	50.0	42.9		ug/Kg		86	73 - 126
1,2,4-Trichlorobenzene	50.0	46.9		ug/Kg		94	64 - 120
1,2-Dibromo-3-Chloropropane	50.0	40.0		ug/Kg		80	63 - 124
1,2-Dichlorobenzene	50.0	46.5		ug/Kg		93	75 - 120
1,2-Dichloroethane	50.0	50.0		ug/Kg		100	77 - 122
1,2-Dichloropropane	50.0	42.7		ug/Kg		85	75 - 124
1,3-Dichlorobenzene	50.0	49.2		ug/Kg		98	74 - 120
1,1-Dichloroethene	50.0	47.5		ug/Kg		95	59 - 125
1,4-Dichlorobenzene	50.0	48.9		ug/Kg		98	73 - 120
2-Butanone (MEK)	250	195		ug/Kg		78	70 - 134
2-Hexanone	250	240		ug/Kg		96	59 - 130
4-Methyl-2-pentanone (MIBK)	250	237		ug/Kg		95	65 - 133
Acetone	250	199		ug/Kg		79	61 - 137
Benzene	50.0	47.1		ug/Kg		94	79 - 127
Bromodichloromethane	50.0	47.5		ug/Kg		95	80 - 122
Bromoform	50.0	47.7		ug/Kg		95	68 - 126
Bromomethane	50.0	58.6		ug/Kg		117	37 - 149
Carbon disulfide	50.0	43.0		ug/Kg		86	64 - 131
Carbon tetrachloride	50.0	43.5		ug/Kg		87	75 - 135
Chlorobenzene	50.0	51.6		ug/Kg		103	76 - 124
Dibromochloromethane	50.0	51.4		ug/Kg		103	76 - 125
Chloroethane	50.0	52.0		ug/Kg		104	69 - 135
Chloroform	50.0	47.9		ug/Kg		96	80 - 120
Chloromethane	50.0	40.9		ug/Kg		82	63 - 127
cis-1,2-Dichloroethene	50.0	44.7		ug/Kg		89	81 - 120
cis-1,3-Dichloropropene	50.0	42.9		ug/Kg		86	80 - 120
Cyclohexane	50.0	44.2		ug/Kg		88	65 - 120
Dichlorodifluoromethane	50.0	48.9		ug/Kg		98	57 - 142
Ethylbenzene	50.0	50.9		ug/Kg		102	80 - 120
1,2-Dibromoethane	50.0	50.2		ug/Kg		100	78 - 120
Isopropylbenzene	50.0	46.5		ug/Kg		93	72 - 120
Methyl acetate	100	74.9		ug/Kg		75	55 - 136
Methyl tert-butyl ether	50.0	41.9		ug/Kg		84	63 - 125
Methylcyclohexane	50.0	45.7		ug/Kg		91	60 - 140

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 480-652673/1-A
Matrix: Solid
Analysis Batch: 652739

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 652673

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Methylene Chloride	50.0	46.5		ug/Kg		93	61 - 127
Styrene	50.0	47.4		ug/Kg		95	80 - 120
Tetrachloroethene	50.0	52.3		ug/Kg		105	74 - 122
Toluene	50.0	49.6		ug/Kg		99	74 - 128
trans-1,2-Dichloroethene	50.0	43.5		ug/Kg		87	78 - 126
trans-1,3-Dichloropropene	50.0	43.9		ug/Kg		88	73 - 123
Trichloroethene	50.0	47.7		ug/Kg		95	77 - 129
Trichlorofluoromethane	50.0	54.1		ug/Kg		108	65 - 146
Vinyl chloride	50.0	46.4		ug/Kg		93	61 - 133

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Toluene-d8 (Surr)	*106*		*71 - 125*
1,2-Dichloroethane-d4 (Surr)	*102*		*64 - 126*
4-Bromofluorobenzene (Surr)	*102*		*72 - 126*
Dibromofluoromethane (Surr)	*104*		*60 - 140*

Lab Sample ID: MB 480-652922/8
Matrix: Solid
Analysis Batch: 652922

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane	ND		0.0010	0.00021	mg/L			12/10/22 04:41	1
1,1-Dichloroethene	ND		0.0010	0.00029	mg/L			12/10/22 04:41	1
2-Butanone (MEK)	ND		0.0050	0.0013	mg/L			12/10/22 04:41	1
Benzene	ND		0.0010	0.00041	mg/L			12/10/22 04:41	1
Carbon tetrachloride	ND		0.0010	0.00027	mg/L			12/10/22 04:41	1
Chlorobenzene	ND		0.0010	0.00075	mg/L			12/10/22 04:41	1
Chloroform	ND		0.0010	0.00034	mg/L			12/10/22 04:41	1
Tetrachloroethene	ND		0.0010	0.00036	mg/L			12/10/22 04:41	1
Trichloroethene	ND		0.0010	0.00046	mg/L			12/10/22 04:41	1
Vinyl chloride	ND		0.0010	0.00090	mg/L			12/10/22 04:41	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*85*		*80 - 120*		*12/10/22 04:41*	*1*
1,2-Dichloroethane-d4 (Surr)	*99*		*77 - 120*		*12/10/22 04:41*	*1*
4-Bromofluorobenzene (Surr)	*90*		*73 - 120*		*12/10/22 04:41*	*1*
Dibromofluoromethane (Surr)	*104*		*75 - 123*		*12/10/22 04:41*	*1*

Lab Sample ID: LCS 480-652922/6
Matrix: Solid
Analysis Batch: 652922

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,2-Dichloroethane	0.0250	0.0237		mg/L		95	75 - 120
1,1-Dichloroethene	0.0250	0.0219		mg/L		88	66 - 127
2-Butanone (MEK)	0.125	0.114		mg/L		91	57 - 140
Benzene	0.0250	0.0226		mg/L		91	71 - 124
Carbon tetrachloride	0.0250	0.0232		mg/L		93	72 - 134

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 480-652922/6
Matrix: Solid
Analysis Batch: 652922

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chlorobenzene	0.0250	0.0225		mg/L		90	80 - 120
Chloroform	0.0250	0.0226		mg/L		90	73 - 127
Tetrachloroethene	0.0250	0.0241		mg/L		96	74 - 122
Trichloroethene	0.0250	0.0231		mg/L		92	74 - 123
Vinyl chloride	0.0250	0.0247		mg/L		99	65 - 133

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Toluene-d8 (Surr)	*90*		*80 - 120*
1,2-Dichloroethane-d4 (Surr)	*93*		*77 - 120*
4-Bromofluorobenzene (Surr)	*96*		*73 - 120*
Dibromofluoromethane (Surr)	*100*		*75 - 123*

Lab Sample ID: LB 480-652650/1-A
Matrix: Solid
Analysis Batch: 652922

Client Sample ID: Method Blank
Prep Type: TCLP

Analyte	LB Result	LB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane	ND		0.010	0.0021	mg/L			12/10/22 10:05	10
1,1-Dichloroethene	ND		0.010	0.0029	mg/L			12/10/22 10:05	10
2-Butanone (MEK)	ND		0.050	0.013	mg/L			12/10/22 10:05	10
Benzene	ND		0.010	0.0041	mg/L			12/10/22 10:05	10
Carbon tetrachloride	ND		0.010	0.0027	mg/L			12/10/22 10:05	10
Chlorobenzene	ND		0.010	0.0075	mg/L			12/10/22 10:05	10
Chloroform	ND		0.010	0.0034	mg/L			12/10/22 10:05	10
Tetrachloroethene	ND		0.010	0.0036	mg/L			12/10/22 10:05	10
Trichloroethene	ND		0.010	0.0046	mg/L			12/10/22 10:05	10
Vinyl chloride	ND		0.010	0.0090	mg/L			12/10/22 10:05	10

Surrogate	*LB %Recovery*	*LB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*89*		*80 - 120*		*12/10/22 10:05*	*10*
1,2-Dichloroethane-d4 (Surr)	*103*		*77 - 120*		*12/10/22 10:05*	*10*
4-Bromofluorobenzene (Surr)	*91*		*73 - 120*		*12/10/22 10:05*	*10*
Dibromofluoromethane (Surr)	*103*		*75 - 123*		*12/10/22 10:05*	*10*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 480-652566/1-A
Matrix: Solid
Analysis Batch: 652617

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 652566

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Biphenyl	ND		170	24	ug/Kg		12/07/22 16:14	12/08/22 14:00	1
bis (2-chloroisopropyl) ether	ND		170	33	ug/Kg		12/07/22 16:14	12/08/22 14:00	1
2,4,5-Trichlorophenol	ND		170	45	ug/Kg		12/07/22 16:14	12/08/22 14:00	1
2,4,6-Trichlorophenol	ND		170	33	ug/Kg		12/07/22 16:14	12/08/22 14:00	1
2,4-Dichlorophenol	ND		170	18	ug/Kg		12/07/22 16:14	12/08/22 14:00	1
2,4-Dimethylphenol	ND		170	40	ug/Kg		12/07/22 16:14	12/08/22 14:00	1
2,4-Dinitrophenol	ND		1600	770	ug/Kg		12/07/22 16:14	12/08/22 14:00	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 480-652566/1-A
Matrix: Solid
Analysis Batch: 652617

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 652566

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-Dinitrotoluene	ND		170	34	ug/Kg		12/07/22 16:14	12/08/22 14:00	1
2,6-Dinitrotoluene	ND		170	20	ug/Kg		12/07/22 16:14	12/08/22 14:00	1
2-Chloronaphthalene	ND		170	27	ug/Kg		12/07/22 16:14	12/08/22 14:00	1
2-Chlorophenol	ND		320	30	ug/Kg		12/07/22 16:14	12/08/22 14:00	1
2-Methylphenol	ND		170	20	ug/Kg		12/07/22 16:14	12/08/22 14:00	1
2-Methylnaphthalene	ND		170	33	ug/Kg		12/07/22 16:14	12/08/22 14:00	1
2-Nitroaniline	ND		320	24	ug/Kg		12/07/22 16:14	12/08/22 14:00	1
2-Nitrophenol	ND		170	47	ug/Kg		12/07/22 16:14	12/08/22 14:00	1
3,3'-Dichlorobenzidine	ND		320	200	ug/Kg		12/07/22 16:14	12/08/22 14:00	1
3-Nitroaniline	ND		320	46	ug/Kg		12/07/22 16:14	12/08/22 14:00	1
4,6-Dinitro-2-methylphenol	ND		320	170	ug/Kg		12/07/22 16:14	12/08/22 14:00	1
4-Bromophenyl phenyl ether	ND		170	24	ug/Kg		12/07/22 16:14	12/08/22 14:00	1
4-Chloro-3-methylphenol	ND		170	41	ug/Kg		12/07/22 16:14	12/08/22 14:00	1
4-Chloroaniline	ND		170	41	ug/Kg		12/07/22 16:14	12/08/22 14:00	1
4-Chlorophenyl phenyl ether	ND		170	21	ug/Kg		12/07/22 16:14	12/08/22 14:00	1
4-Methylphenol	ND		320	20	ug/Kg		12/07/22 16:14	12/08/22 14:00	1
4-Nitroaniline	ND		320	87	ug/Kg		12/07/22 16:14	12/08/22 14:00	1
4-Nitrophenol	ND		320	120	ug/Kg		12/07/22 16:14	12/08/22 14:00	1
Acenaphthene	ND		170	24	ug/Kg		12/07/22 16:14	12/08/22 14:00	1
Acenaphthylene	ND		170	22	ug/Kg		12/07/22 16:14	12/08/22 14:00	1
Acetophenone	ND		170	23	ug/Kg		12/07/22 16:14	12/08/22 14:00	1
Anthracene	ND		170	41	ug/Kg		12/07/22 16:14	12/08/22 14:00	1
Atrazine	ND		170	58	ug/Kg		12/07/22 16:14	12/08/22 14:00	1
Benzaldehyde	ND		170	130	ug/Kg		12/07/22 16:14	12/08/22 14:00	1
Benzo[a]anthracene	ND		170	17	ug/Kg		12/07/22 16:14	12/08/22 14:00	1
Benzo[a]pyrene	ND		170	24	ug/Kg		12/07/22 16:14	12/08/22 14:00	1
Benzo[b]fluoranthene	ND		170	26	ug/Kg		12/07/22 16:14	12/08/22 14:00	1
Benzo[g,h,i]perylene	ND		170	18	ug/Kg		12/07/22 16:14	12/08/22 14:00	1
Benzo[k]fluoranthene	ND		170	22	ug/Kg		12/07/22 16:14	12/08/22 14:00	1
Bis(2-chloroethoxy)methane	ND		170	35	ug/Kg		12/07/22 16:14	12/08/22 14:00	1
Bis(2-chloroethyl)ether	ND		170	22	ug/Kg		12/07/22 16:14	12/08/22 14:00	1
Bis(2-ethylhexyl) phthalate	ND		170	57	ug/Kg		12/07/22 16:14	12/08/22 14:00	1
Butyl benzyl phthalate	32.6	J	170	27	ug/Kg		12/07/22 16:14	12/08/22 14:00	1
Caprolactam	ND		170	50	ug/Kg		12/07/22 16:14	12/08/22 14:00	1
Carbazole	ND		170	20	ug/Kg		12/07/22 16:14	12/08/22 14:00	1
Chrysene	ND		170	37	ug/Kg		12/07/22 16:14	12/08/22 14:00	1
Dibenz(a,h)anthracene	ND		170	29	ug/Kg		12/07/22 16:14	12/08/22 14:00	1
Di-n-butyl phthalate	ND		170	28	ug/Kg		12/07/22 16:14	12/08/22 14:00	1
Di-n-octyl phthalate	ND		170	20	ug/Kg		12/07/22 16:14	12/08/22 14:00	1
Dibenzofuran	ND		170	20	ug/Kg		12/07/22 16:14	12/08/22 14:00	1
Diethyl phthalate	ND		170	22	ug/Kg		12/07/22 16:14	12/08/22 14:00	1
Dimethyl phthalate	ND		170	20	ug/Kg		12/07/22 16:14	12/08/22 14:00	1
Fluoranthene	ND		170	18	ug/Kg		12/07/22 16:14	12/08/22 14:00	1
Fluorene	ND		170	20	ug/Kg		12/07/22 16:14	12/08/22 14:00	1
Hexachlorobenzene	ND		170	23	ug/Kg		12/07/22 16:14	12/08/22 14:00	1
Hexachlorobutadiene	ND		170	24	ug/Kg		12/07/22 16:14	12/08/22 14:00	1
Hexachlorocyclopentadiene	ND		170	23	ug/Kg		12/07/22 16:14	12/08/22 14:00	1
Hexachloroethane	ND		170	22	ug/Kg		12/07/22 16:14	12/08/22 14:00	1
Indeno[1,2,3-cd]pyrene	ND		170	21	ug/Kg		12/07/22 16:14	12/08/22 14:00	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 480-652566/1-A
Matrix: Solid
Analysis Batch: 652617

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 652566

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Isophorone	ND		170	35	ug/Kg		12/07/22 16:14	12/08/22 14:00	1
N-Nitrosodi-n-propylamine	ND		170	28	ug/Kg		12/07/22 16:14	12/08/22 14:00	1
N-Nitrosodiphenylamine	ND		170	140	ug/Kg		12/07/22 16:14	12/08/22 14:00	1
Naphthalene	ND		170	22	ug/Kg		12/07/22 16:14	12/08/22 14:00	1
Nitrobenzene	ND		170	19	ug/Kg		12/07/22 16:14	12/08/22 14:00	1
Pentachlorophenol	ND		320	170	ug/Kg		12/07/22 16:14	12/08/22 14:00	1
Phenanthrene	ND		170	24	ug/Kg		12/07/22 16:14	12/08/22 14:00	1
Phenol	ND		170	25	ug/Kg		12/07/22 16:14	12/08/22 14:00	1
Pyrene	ND		170	20	ug/Kg		12/07/22 16:14	12/08/22 14:00	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*76*		*53 - 120*	*12/07/22 16:14*	*12/08/22 14:00*	*1*
Phenol-d5 (Surr)	*78*		*54 - 120*	*12/07/22 16:14*	*12/08/22 14:00*	*1*
p-Terphenyl-d14 (Surr)	*90*		*79 - 130*	*12/07/22 16:14*	*12/08/22 14:00*	*1*
2,4,6-Tribromophenol (Surr)	*84*		*54 - 120*	*12/07/22 16:14*	*12/08/22 14:00*	*1*
2-Fluorobiphenyl (Surr)	*83*		*60 - 120*	*12/07/22 16:14*	*12/08/22 14:00*	*1*
2-Fluorophenol (Surr)	*75*		*52 - 120*	*12/07/22 16:14*	*12/08/22 14:00*	*1*

Lab Sample ID: LCS 480-652566/2-A
Matrix: Solid
Analysis Batch: 652617

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 652566

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Biphenyl	1640	1080		ug/Kg		66	59 - 120
bis (2-chloroisopropyl) ether	1640	970		ug/Kg		59	44 - 120
2,4,5-Trichlorophenol	1640	1210		ug/Kg		74	59 - 126
2,4,6-Trichlorophenol	1640	1210		ug/Kg		73	59 - 123
2,4-Dichlorophenol	1640	1140		ug/Kg		69	61 - 120
2,4-Dimethylphenol	1640	1140		ug/Kg		70	59 - 120
2,4-Dinitrophenol	3280	2460		ug/Kg		75	41 - 146
2,4-Dinitrotoluene	1640	1290		ug/Kg		79	63 - 120
2,6-Dinitrotoluene	1640	1240		ug/Kg		75	66 - 120
2-Chloronaphthalene	1640	1060		ug/Kg		64	57 - 120
2-Chlorophenol	1640	1020		ug/Kg		62	53 - 120
2-Methylphenol	1640	1110		ug/Kg		68	54 - 120
2-Methylnaphthalene	1640	988		ug/Kg		60	59 - 120
2-Nitroaniline	1640	1220		ug/Kg		74	61 - 120
2-Nitrophenol	1640	1060		ug/Kg		65	56 - 120
3,3'-Dichlorobenzidine	3280	2380		ug/Kg		73	54 - 120
3-Nitroaniline	1640	1150		ug/Kg		70	48 - 120
4,6-Dinitro-2-methylphenol	3280	2480		ug/Kg		76	49 - 122
4-Bromophenyl phenyl ether	1640	1200		ug/Kg		73	58 - 120
4-Chloro-3-methylphenol	1640	1240		ug/Kg		75	61 - 120
4-Chloroaniline	1640	1030		ug/Kg		63	38 - 120
4-Chlorophenyl phenyl ether	1640	1180		ug/Kg		72	63 - 124
4-Methylphenol	1640	1130		ug/Kg		69	55 - 120
4-Nitroaniline	1640	1250		ug/Kg		76	56 - 120
4-Nitrophenol	3280	2580		ug/Kg		79	43 - 147

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 480-652566/2-A
Matrix: Solid
Analysis Batch: 652617

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 652566

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Acenaphthene	1640	1120		ug/Kg		68	62 - 120
Acenaphthylene	1640	1140		ug/Kg		69	58 - 121
Acetophenone	1640	1030		ug/Kg		63	54 - 120
Anthracene	1640	1240		ug/Kg		76	62 - 120
Atrazine	3280	2620		ug/Kg		80	60 - 127
Benzaldehyde	3280	1940		ug/Kg		59	10 - 150
Benzo[a]anthracene	1640	1250		ug/Kg		76	65 - 120
Benzo[a]pyrene	1640	1250		ug/Kg		76	64 - 120
Benzo[b]fluoranthene	1640	1440		ug/Kg		88	64 - 120
Benzo[g,h,i]perylene	1640	1170		ug/Kg		71	45 - 145
Benzo[k]fluoranthene	1640	1180		ug/Kg		72	65 - 120
Bis(2-chloroethoxy)methane	1640	1050		ug/Kg		64	55 - 120
Bis(2-chloroethyl)ether	1640	961		ug/Kg		59	45 - 120
Bis(2-ethylhexyl) phthalate	1640	1310		ug/Kg		80	61 - 133
Butyl benzyl phthalate	1640	1280		ug/Kg		78	61 - 129
Caprolactam	3280	2680		ug/Kg		82	47 - 120
Carbazole	1640	1280		ug/Kg		78	65 - 120
Chrysene	1640	1200		ug/Kg		73	64 - 120
Dibenz(a,h)anthracene	1640	1220		ug/Kg		75	54 - 132
Di-n-butyl phthalate	1640	1300		ug/Kg		79	58 - 130
Di-n-octyl phthalate	1640	1280		ug/Kg		78	57 - 133
Dibenzofuran	1640	1150		ug/Kg		70	63 - 120
Diethyl phthalate	1640	1270		ug/Kg		77	66 - 120
Dimethyl phthalate	1640	1250		ug/Kg		76	65 - 124
Fluoranthene	1640	1270		ug/Kg		77	62 - 120
Fluorene	1640	1170		ug/Kg		72	63 - 120
Hexachlorobenzene	1640	1210		ug/Kg		73	60 - 120
Hexachlorobutadiene	1640	959		ug/Kg		58	45 - 120
Hexachlorocyclopentadiene	1640	1010		ug/Kg		62	47 - 120
Hexachloroethane	1640	885		ug/Kg		54	41 - 120
Indeno[1,2,3-cd]pyrene	1640	1220		ug/Kg		74	56 - 134
Isophorone	1640	1090		ug/Kg		66	56 - 120
N-Nitrosodi-n-propylamine	1640	1040		ug/Kg		64	52 - 120
N-Nitrosodiphenylamine	1640	1210		ug/Kg		74	51 - 128
Naphthalene	1640	1020		ug/Kg		62	55 - 120
Nitrobenzene	1640	1040		ug/Kg		63	54 - 120
Pentachlorophenol	3280	2330		ug/Kg		71	51 - 120
Phenanthrene	1640	1210		ug/Kg		74	60 - 120
Phenol	1640	1060		ug/Kg		65	53 - 120
Pyrene	1640	1250		ug/Kg		76	61 - 133

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Nitrobenzene-d5 (Surr)	*63*		*53 - 120*
Phenol-d5 (Surr)	*66*		*54 - 120*
p-Terphenyl-d14 (Surr)	*79*		*79 - 130*
2,4,6-Tribromophenol (Surr)	*80*		*54 - 120*
2-Fluorobiphenyl (Surr)	*69*		*60 - 120*
2-Fluorophenol (Surr)	*61*		*52 - 120*

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 480-653570/1-A
Matrix: Solid
Analysis Batch: 653688

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 653570

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dichlorobenzene	ND		0.010	0.00045	mg/L		12/15/22 09:33	12/16/22 10:57	1
2,4,5-Trichlorophenol	ND		0.0050	0.00048	mg/L		12/15/22 09:33	12/16/22 10:57	1
2,4,6-Trichlorophenol	ND		0.0050	0.00060	mg/L		12/15/22 09:33	12/16/22 10:57	1
2,4-Dinitrotoluene	ND		0.0050	0.00043	mg/L		12/15/22 09:33	12/16/22 10:57	1
3-Methylphenol	ND		0.010	0.00040	mg/L		12/15/22 09:33	12/16/22 10:57	1
2-Methylphenol	ND		0.0050	0.00040	mg/L		12/15/22 09:33	12/16/22 10:57	1
Pyridine	ND		0.025	0.00040	mg/L		12/15/22 09:33	12/16/22 10:57	1
4-Methylphenol	ND		0.010	0.00035	mg/L		12/15/22 09:33	12/16/22 10:57	1
Hexachlorobenzene	ND		0.0050	0.00050	mg/L		12/15/22 09:33	12/16/22 10:57	1
Hexachlorobutadiene	ND		0.0050	0.00068	mg/L		12/15/22 09:33	12/16/22 10:57	1
Hexachloroethane	ND		0.0050	0.00058	mg/L		12/15/22 09:33	12/16/22 10:57	1
Nitrobenzene	ND		0.0050	0.00028	mg/L		12/15/22 09:33	12/16/22 10:57	1
Pentachlorophenol	ND		0.010	0.0022	mg/L		12/15/22 09:33	12/16/22 10:57	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*90*		*46 - 120*	*12/15/22 09:33*	*12/16/22 10:57*	*1*
Phenol-d5 (Surr)	*36*		*22 - 120*	*12/15/22 09:33*	*12/16/22 10:57*	*1*
p-Terphenyl-d14 (Surr)	*100*		*60 - 148*	*12/15/22 09:33*	*12/16/22 10:57*	*1*
2,4,6-Tribromophenol (Surr)	*95*		*41 - 120*	*12/15/22 09:33*	*12/16/22 10:57*	*1*
2-Fluorobiphenyl (Surr)	*94*		*48 - 120*	*12/15/22 09:33*	*12/16/22 10:57*	*1*
2-Fluorophenol (Surr)	*53*		*35 - 120*	*12/15/22 09:33*	*12/16/22 10:57*	*1*

Lab Sample ID: LCS 480-653570/2-A
Matrix: Solid
Analysis Batch: 653688

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 653570

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,4-Dichlorobenzene	0.0500	0.0258		mg/L		52	51 - 120
2,4,5-Trichlorophenol	0.0500	0.0483		mg/L		97	65 - 126
2,4,6-Trichlorophenol	0.0500	0.0461		mg/L		92	64 - 120
2,4-Dinitrotoluene	0.0500	0.0515		mg/L		103	69 - 120
3-Methylphenol	0.0500	0.0344		mg/L		69	39 - 120
2-Methylphenol	0.0500	0.0369		mg/L		74	39 - 120
Pyridine	0.100	0.0484		mg/L		48	10 - 120
4-Methylphenol	0.0500	0.0344		mg/L		69	29 - 131
Hexachlorobenzene	0.0500	0.0478		mg/L		96	61 - 120
Hexachlorobutadiene	0.0500	0.0269		mg/L		54	35 - 120
Hexachloroethane	0.0500	0.0231		mg/L		46	43 - 120
Nitrobenzene	0.0500	0.0415		mg/L		83	53 - 123
Pentachlorophenol	0.100	0.100		mg/L		100	29 - 136

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Nitrobenzene-d5 (Surr)	*84*		*46 - 120*
Phenol-d5 (Surr)	*35*		*22 - 120*
p-Terphenyl-d14 (Surr)	*105*		*60 - 148*
2,4,6-Tribromophenol (Surr)	*103*		*41 - 120*
2-Fluorobiphenyl (Surr)	*92*		*48 - 120*
2-Fluorophenol (Surr)	*47*		*35 - 120*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: LCSD 480-653570/3-A
Matrix: Solid
Analysis Batch: 653688

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 653570

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,4-Dichlorobenzene			0.0500	0.0264		mg/L		53	51 - 120	2	36
2,4,5-Trichlorophenol			0.0500	0.0476		mg/L		95	65 - 126	1	18
2,4,6-Trichlorophenol			0.0500	0.0478		mg/L		96	64 - 120	3	19
2,4-Dinitrotoluene			0.0500	0.0526		mg/L		105	69 - 120	2	20
3-Methylphenol			0.0500	0.0357		mg/L		71	39 - 120	4	30
2-Methylphenol			0.0500	0.0387		mg/L		77	39 - 120	5	27
Pyridine			0.100	0.0464		mg/L		46	10 - 120	4	49
4-Methylphenol			0.0500	0.0357		mg/L		71	29 - 131	4	24
Hexachlorobenzene			0.0500	0.0485		mg/L		97	61 - 120	2	15
Hexachlorobutadiene			0.0500	0.0266		mg/L		53	35 - 120	1	44
Hexachloroethane			0.0500	0.0237		mg/L		47	43 - 120	2	46
Nitrobenzene			0.0500	0.0421		mg/L		84	53 - 123	1	24
Pentachlorophenol			0.100	0.105		mg/L		105	29 - 136	5	37

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
Nitrobenzene-d5 (Surr)	*88*		*46 - 120*
Phenol-d5 (Surr)	*37*		*22 - 120*
p-Terphenyl-d14 (Surr)	*107*		*60 - 148*
2,4,6-Tribromophenol (Surr)	*106*		*41 - 120*
2-Fluorobiphenyl (Surr)	*94*		*48 - 120*
2-Fluorophenol (Surr)	*49*		*35 - 120*

Lab Sample ID: LB 480-652622/1-G
Matrix: Solid
Analysis Batch: 653688

Client Sample ID: Method Blank
Prep Type: TCLP
Prep Batch: 653570

Analyte	LB Result	LB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dichlorobenzene	ND		0.040	0.0018	mg/L		12/15/22 09:33	12/16/22 12:10	1
2,4,5-Trichlorophenol	ND		0.020	0.0019	mg/L		12/15/22 09:33	12/16/22 12:10	1
2,4,6-Trichlorophenol	ND		0.020	0.0024	mg/L		12/15/22 09:33	12/16/22 12:10	1
2,4-Dinitrotoluene	ND		0.020	0.0017	mg/L		12/15/22 09:33	12/16/22 12:10	1
3-Methylphenol	ND		0.040	0.0016	mg/L		12/15/22 09:33	12/16/22 12:10	1
2-Methylphenol	ND		0.020	0.0016	mg/L		12/15/22 09:33	12/16/22 12:10	1
Pyridine	ND		0.10	0.0016	mg/L		12/15/22 09:33	12/16/22 12:10	1
4-Methylphenol	ND		0.040	0.0014	mg/L		12/15/22 09:33	12/16/22 12:10	1
Hexachlorobenzene	ND		0.020	0.0020	mg/L		12/15/22 09:33	12/16/22 12:10	1
Hexachlorobutadiene	ND		0.020	0.0027	mg/L		12/15/22 09:33	12/16/22 12:10	1
Hexachloroethane	ND		0.020	0.0023	mg/L		12/15/22 09:33	12/16/22 12:10	1
Nitrobenzene	ND		0.020	0.0011	mg/L		12/15/22 09:33	12/16/22 12:10	1
Pentachlorophenol	ND		0.040	0.0088	mg/L		12/15/22 09:33	12/16/22 12:10	1

Surrogate	*LB %Recovery*	*LB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*92*		*46 - 120*	*12/15/22 09:33*	*12/16/22 12:10*	*1*
Phenol-d5 (Surr)	*35*		*22 - 120*	*12/15/22 09:33*	*12/16/22 12:10*	*1*
p-Terphenyl-d14 (Surr)	*105*		*60 - 148*	*12/15/22 09:33*	*12/16/22 12:10*	*1*
2,4,6-Tribromophenol (Surr)	*102*		*41 - 120*	*12/15/22 09:33*	*12/16/22 12:10*	*1*
2-Fluorobiphenyl (Surr)	*92*		*48 - 120*	*12/15/22 09:33*	*12/16/22 12:10*	*1*
2-Fluorophenol (Surr)	*51*		*35 - 120*	*12/15/22 09:33*	*12/16/22 12:10*	*1*

Method: 6010C - Metals (ICP)

Lab Sample ID: MB 480-652821/2-A
Matrix: Solid
Analysis Batch: 653387

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 652821

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		0.020	0.0040	mg/Kg		12/09/22 10:09	12/13/22 13:04	1
Barium	ND		0.0050	0.0011	mg/Kg		12/09/22 10:09	12/13/22 13:04	1
Cadmium	ND		0.0020	0.00030	mg/Kg		12/09/22 10:09	12/13/22 13:04	1
Chromium	ND		0.0050	0.0020	mg/Kg		12/09/22 10:09	12/13/22 13:04	1
Lead	ND		0.010	0.0024	mg/Kg		12/09/22 10:09	12/13/22 13:04	1
Selenium	ND		0.040	0.0040	mg/Kg		12/09/22 10:09	12/13/22 13:04	1
Silver	ND		0.0060	0.0020	mg/Kg		12/09/22 10:09	12/13/22 13:04	1

Lab Sample ID: LCS 480-652821/3-A
Matrix: Solid
Analysis Batch: 653387

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 652821

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Arsenic	1.00	1.11		mg/Kg		111	80 - 120
Barium	1.00	1.01		mg/Kg		101	80 - 120
Cadmium	1.00	1.09		mg/Kg		109	80 - 120
Chromium	1.00	1.05		mg/Kg		105	80 - 120
Lead	1.00	1.07		mg/Kg		107	80 - 120
Selenium	1.00	1.11		mg/Kg		111	80 - 120
Silver	1.00	1.12		mg/Kg		112	80 - 120

Lab Sample ID: LB 480-652622/1-E
Matrix: Solid
Analysis Batch: 653387

Client Sample ID: Method Blank
Prep Type: TCLP
Prep Batch: 652821

Analyte	LB Result	LB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		0.020	0.0040	mg/Kg		12/09/22 10:09	12/13/22 13:00	1
Barium	ND		0.0050	0.0011	mg/Kg		12/09/22 10:09	12/13/22 13:00	1
Cadmium	ND		0.0020	0.00030	mg/Kg		12/09/22 10:09	12/13/22 13:00	1
Chromium	0.00496	J	0.0050	0.0020	mg/Kg		12/09/22 10:09	12/13/22 13:00	1
Lead	ND		0.010	0.0024	mg/Kg		12/09/22 10:09	12/13/22 13:00	1
Selenium	0.00646	J	0.040	0.0040	mg/Kg		12/09/22 10:09	12/13/22 13:00	1
Silver	ND		0.0060	0.0020	mg/Kg		12/09/22 10:09	12/13/22 13:00	1

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 480-652847/2-A
Matrix: Solid
Analysis Batch: 652921

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 652847

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.000043	mg/L		12/09/22 11:47	12/09/22 17:53	1

Lab Sample ID: LCS 480-652847/3-A
Matrix: Solid
Analysis Batch: 652921

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 652847

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	0.00680	0.00602		mg/L		88	80 - 120

Client: LaBella Associates DPC
Project/Site: Roblin Steel site

Job ID: 480-204473-1

Method: 7470A - Mercury (CVAA) (Continued)

Lab Sample ID: LB 480-652622/1-F
Matrix: Solid
Analysis Batch: 652921

Client Sample ID: Method Blank
Prep Type: TCLP
Prep Batch: 652847

Analyte	LB Result	LB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.000043	mg/L		12/09/22 11:47	12/09/22 17:51	1

QC Association Summary

Client: LaBella Associates DPC
Project/Site: Roblin Steel site

Job ID: 480-204473-1

GC/MS VOA

Leach Batch: 652650

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-204473-1	ROBLIN DRUM	TCLP	Solid	1311	
LB 480-652650/1-A	Method Blank	TCLP	Solid	1311	

Prep Batch: 652673

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-204473-1	ROBLIN DRUM	Total/NA	Solid	5035A_L	
MB 480-652673/2-A	Method Blank	Total/NA	Solid	5035A_L	
LCS 480-652673/1-A	Lab Control Sample	Total/NA	Solid	5035A_L	

Analysis Batch: 652739

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-204473-1	ROBLIN DRUM	Total/NA	Solid	8260C	652673
MB 480-652673/2-A	Method Blank	Total/NA	Solid	8260C	652673
LCS 480-652673/1-A	Lab Control Sample	Total/NA	Solid	8260C	652673

Analysis Batch: 652922

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-204473-1	ROBLIN DRUM	TCLP	Solid	8260C	652650
LB 480-652650/1-A	Method Blank	TCLP	Solid	8260C	652650
MB 480-652922/8	Method Blank	Total/NA	Solid	8260C	
LCS 480-652922/6	Lab Control Sample	Total/NA	Solid	8260C	

GC/MS Semi VOA

Prep Batch: 652566

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-204473-1	ROBLIN DRUM	Total/NA	Solid	3550C	
MB 480-652566/1-A	Method Blank	Total/NA	Solid	3550C	
LCS 480-652566/2-A	Lab Control Sample	Total/NA	Solid	3550C	

Analysis Batch: 652617

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-204473-1	ROBLIN DRUM	Total/NA	Solid	8270D	652566
MB 480-652566/1-A	Method Blank	Total/NA	Solid	8270D	652566
LCS 480-652566/2-A	Lab Control Sample	Total/NA	Solid	8270D	652566

Leach Batch: 652622

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-204473-1	ROBLIN DRUM	TCLP	Solid	1311	
LB 480-652622/1-G	Method Blank	TCLP	Solid	1311	

Prep Batch: 653570

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-204473-1	ROBLIN DRUM	TCLP	Solid	3510C	652622
LB 480-652622/1-G	Method Blank	TCLP	Solid	3510C	652622
MB 480-653570/1-A	Method Blank	Total/NA	Solid	3510C	
LCS 480-653570/2-A	Lab Control Sample	Total/NA	Solid	3510C	
LCSD 480-653570/3-A	Lab Control Sample Dup	Total/NA	Solid	3510C	

QC Association Summary

Client: LaBella Associates DPC
Project/Site: Roblin Steel site

Job ID: 480-204473-1

GC/MS Semi VOA

Analysis Batch: 653688

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-204473-1	ROBLIN DRUM	TCLP	Solid	8270D	653570
LB 480-652622/1-G	Method Blank	TCLP	Solid	8270D	653570
MB 480-653570/1-A	Method Blank	Total/NA	Solid	8270D	653570
LCS 480-653570/2-A	Lab Control Sample	Total/NA	Solid	8270D	653570
LCSD 480-653570/3-A	Lab Control Sample Dup	Total/NA	Solid	8270D	653570

Metals

Leach Batch: 652622

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-204473-1	ROBLIN DRUM	TCLP	Solid	1311	
LB 480-652622/1-E	Method Blank	TCLP	Solid	1311	
LB 480-652622/1-F	Method Blank	TCLP	Solid	1311	

Prep Batch: 652821

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-204473-1	ROBLIN DRUM	TCLP	Solid	3050B	652622
LB 480-652622/1-E	Method Blank	TCLP	Solid	3050B	652622
MB 480-652821/2-A	Method Blank	Total/NA	Solid	3050B	
LCS 480-652821/3-A	Lab Control Sample	Total/NA	Solid	3050B	

Prep Batch: 652847

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-204473-1	ROBLIN DRUM	TCLP	Solid	7470A	652622
LB 480-652622/1-F	Method Blank	TCLP	Solid	7470A	652622
MB 480-652847/2-A	Method Blank	Total/NA	Solid	7470A	
LCS 480-652847/3-A	Lab Control Sample	Total/NA	Solid	7470A	

Analysis Batch: 652921

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-204473-1	ROBLIN DRUM	TCLP	Solid	7470A	652847
LB 480-652622/1-F	Method Blank	TCLP	Solid	7470A	652847
MB 480-652847/2-A	Method Blank	Total/NA	Solid	7470A	652847
LCS 480-652847/3-A	Lab Control Sample	Total/NA	Solid	7470A	652847

Analysis Batch: 653387

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-204473-1	ROBLIN DRUM	TCLP	Solid	6010C	652821
LB 480-652622/1-E	Method Blank	TCLP	Solid	6010C	652821
MB 480-652821/2-A	Method Blank	Total/NA	Solid	6010C	652821
LCS 480-652821/3-A	Lab Control Sample	Total/NA	Solid	6010C	652821

General Chemistry

Analysis Batch: 652563

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-204473-1	ROBLIN DRUM	Total/NA	Solid	Moisture	

Lab Chronicle

Client: LaBella Associates DPC
Project/Site: Roblin Steel site

Job ID: 480-204473-1

Client Sample ID: ROBLIN DRUM
Date Collected: 12/06/22 11:30
Date Received: 12/06/22 15:30

Lab Sample ID: 480-204473-1
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
TCLP	Leach	1311			652650	BML	EET BUF	12/08/22 09:38 - 12/09/22 10:54 [1]
TCLP	Analysis	8260C		10	652922	ATG	EET BUF	12/10/22 12:24
TCLP	Leach	1311			652622	BML	EET BUF	12/08/22 09:01 - 12/09/22 09:36 [1]
TCLP	Prep	3510C			653570	JMP	EET BUF	12/15/22 09:33
TCLP	Analysis	8270D		1	653688	JMM	EET BUF	12/16/22 12:34
TCLP	Leach	1311			652622	BML	EET BUF	12/08/22 09:01 - 12/09/22 09:36 [1]
TCLP	Prep	3050B			652821	NVK	EET BUF	12/09/22 10:09
TCLP	Analysis	6010C		1	653387	LMH	EET BUF	12/13/22 13:43
TCLP	Leach	1311			652622	BML	EET BUF	12/08/22 09:01 - 12/09/22 09:36 [1]
TCLP	Prep	7470A			652847	NVK	EET BUF	12/09/22 11:47
TCLP	Analysis	7470A		1	652921	NVK	EET BUF	12/09/22 18:05
Total/NA	Analysis	Moisture		1	652563	JMM	EET BUF	12/07/22 16:01

Client Sample ID: ROBLIN DRUM
Date Collected: 12/06/22 11:30
Date Received: 12/06/22 15:30

Lab Sample ID: 480-204473-1
Matrix: Solid
Percent Solids: 80.2

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5035A_L			652673	LCH	EET BUF	12/08/22 12:27
Total/NA	Analysis	8260C		1	652739	CDC	EET BUF	12/09/22 06:45
Total/NA	Prep	3550C			652566	SJM	EET BUF	12/07/22 16:14
Total/NA	Analysis	8270D		1	652617	JMM	EET BUF	12/08/22 20:23

[1] Completion dates and times are reported or not reported per method requirements or individual lab discretion.

Laboratory References:

EET BUF = Eurofins Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

Accreditation/Certification Summary

Client: LaBella Associates DPC
Project/Site: Roblin Steel site

Job ID: 480-204473-1

Laboratory: Eurofins Buffalo

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
New York	NELAP	10026	03-31-23

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
7470A	7470A	Solid	Mercury
Moisture		Solid	Percent Moisture
Moisture		Solid	Percent Solids

Method Summary

Client: LaBella Associates DPC
Project/Site: Roblin Steel site

Job ID: 480-204473-1

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	EET BUF
8270D	Semivolatile Organic Compounds (GC/MS)	SW846	EET BUF
6010C	Metals (ICP)	SW846	EET BUF
7470A	Mercury (CVAA)	SW846	EET BUF
Moisture	Percent Moisture	EPA	EET BUF
1311	TCLP Extraction	SW846	EET BUF
3050B	Preparation, Metals	SW846	EET BUF
3510C	Liquid-Liquid Extraction (Separatory Funnel)	SW846	EET BUF
3550C	Ultrasonic Extraction	SW846	EET BUF
5030C	Purge and Trap	SW846	EET BUF
5035A_L	Closed System Purge and Trap	SW846	EET BUF
7470A	Preparation, Mercury	SW846	EET BUF

Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

EET BUF = Eurofins Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

Sample Summary

Client: LaBella Associates DPC
Project/Site: Roblin Steel site

Job ID: 480-204473-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
480-204473-1	ROBLIN DRUM	Solid	12/06/22 11:30	12/06/22 15:30

Eurofins Buffalo
10 Hazelwood Drive

Amherst, NY 14228-2223
phone 716.691.2600 fax 716.691.7991

Chain of Custody Record

eurofins | Environment Testing America

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other:

Eurofins Environment Testing America

Client Contact			
LaBella Associates	Project Manager: Chris Kibler	Site Contact: Andrew Kozak	Date: 12/6/22
300 Pearl sTreet	Email: ckibler@labellapc.com	Lab Contact:	Carrier:
Buffalo, NY	Tel/Fax:		

COC No: 1 of 1 COCs
TALS Project #:
Sampler:
For Lab Use Only:
Walk-in Client:
Lab Sampling:
Job / SDG No.:

Analysis Turnaround Time
☐ CALENDAR DAYS ☐ WORKING DAYS
TAT if different from Below ______ Standard
☐ 2 weeks
☐ 1 week
☐ 2 days
☐ 1 day

Project Name: Roblin Steel Site
Site: MW installation
P O #

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y / N)	Perform MS / MSD (Y / N)	TCLP VOCs	TCLP SVOCs	TCL VOCs	TCL SVOCs	TCLP Metals	Sample Specific Notes:
Roblin Drum	12/6/22	1120	C	Soil	5			X	X	X	X	X	

480-204473 Chain of Custody

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☑ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return to Client ☑ Disposal by Lab ☐ Archive for ______ Months

Special Instructions/QC Requirements & Comments:

4.8 #1

Custody Seals Intact: ☐ Yes ☐ No	Custody Seal No.:		Cooler Temp. (°C): Obs'd: ______ Corr'd: ______		Therm ID No.: ______
Relinquished by: Andrew Kozak	Company: LaBella	Date/Time: 12/6/22 1500	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by: [signature]	Company: ETA	Date/Time: 12/6/22 1530

Login Sample Receipt Checklist

Client: LaBella Associates DPC

Job Number: 480-204473-1

Login Number: 204473
List Number: 1
Creator: Sabuda, Brendan D

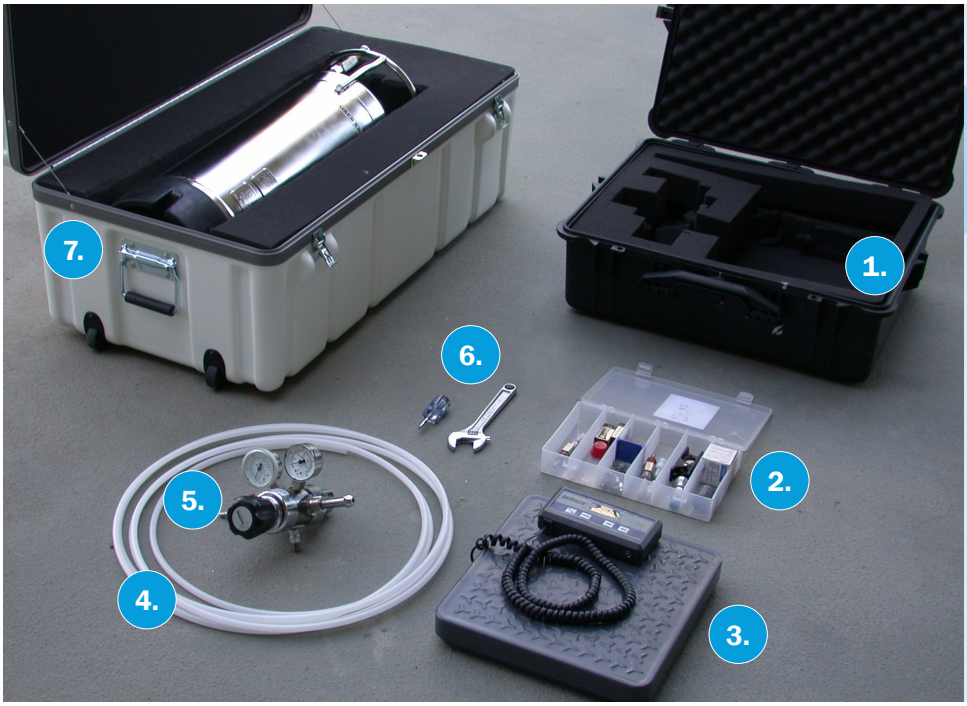
List Source: Eurofins Buffalo

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	4.8 #1 ICE
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time (Excluding tests with immediate HTs)..	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Sampling Company provided.	True	
Samples received within 48 hours of sampling.	True	
Samples requiring field filtration have been filtered in the field.	True	
Chlorine Residual checked.	True	

APPENDIX E – IN-SITU GROUNDWATER TREATMENT DOCUMENTATION

SiREM

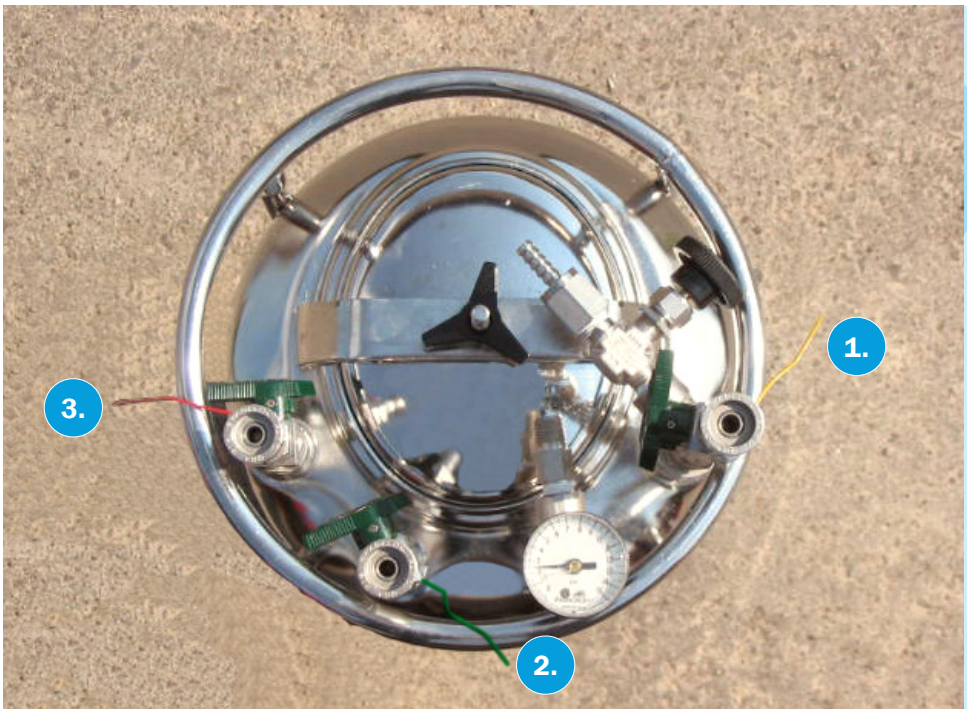
KB-1® Injection Summary



TOOL KIT CONTENTS

1. Toolkit Case
2. Quick Connect Fittings
3. Scale
4. Tubing
5. Regulator
6. Tools
7. KB-1® Vessel in Overpack Case

*Please note that the nitrogen/argon gas cylinder is not included with the culture shipment. Gas can be obtained from a local gas supplier.



VESSEL PORT FUNCTIONS

1. **Inoculation Port (YELLOW)**
   To allow KB-1® to flow out of the vessel.
2. **Purge Port (GREEN)**
   To purge tubing with inert gas.
3. **Pressurization Port (RED)**
   To pressurize KB-1® vessel.

SiREM

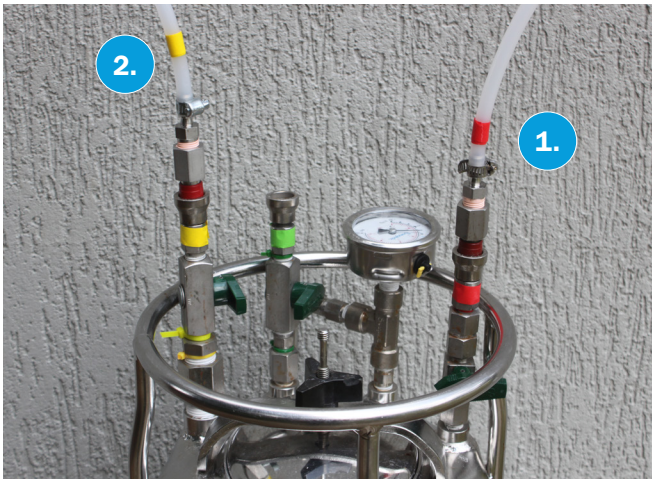
KB-1® Injection Summary

SETUP TO PURGE INJECTION TUBING

1. Gas In: The inert gas tubing remains in the pressurization port **(RED)** for the duration of the injection.

2. Gas Out: Initially the tubing used to inject the KB-1® will be connected to the purge port **(GREEN).**

SETUP TO INJECT KB-1®



1. Gas In: The pressurization port **(RED)** remains in the open position for the duration of the injection.

2. KB-1® Out: The KB-1® injection tubing is moved from the purge port **(GREEN)** to the KB-1® inoculation port **(YELLOW)**.

USING THE SCALE

Turn scale on by pressing the lbs/kg button and ON buttons simultaneously

Change the units to kg by pressing lbs/kg button

Press Zero/Hold to tare scale

Place KB-1® vessel on scale and record the weight

Weight will decrease with each injection of KB-1®

SiREM

KB-1® Injection Summary

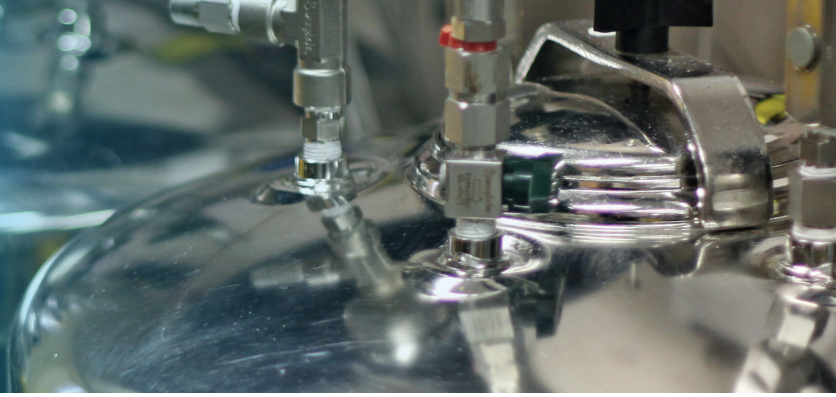
ANAEROBIC WATER DRIVEN KB-1® INJECTION SETUP

1. Gas Tubing
2. KB-1® Injection Tubing
3. Female Quick Connect (1/4" Male NPT)
4. Ball Valve with ¼" Female NPT Fitting*
5. T-Fitting*
6. Ball Valve*
7. Anaerobic water line

*not included with shipment

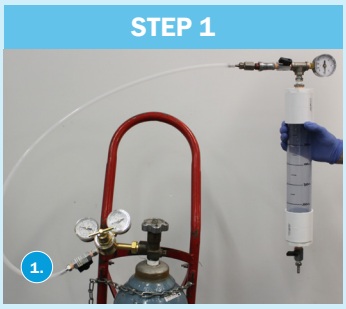
SiREM

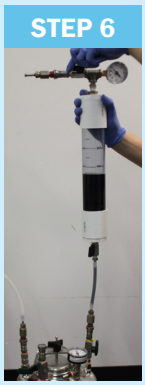
KB-1® Injection Summary



KB-1® INJECTION DISPENSER OPERATION

1. **Gas Line**
2. **Female Quick Connect**
   (item #3 as shown in anaerobic water driven KB-1 injection set-up)





Step 1: Cut the length of tubing that will span from the gas cylinder to the culture vessel (5-10' should be sufficient). Attach one end to the hosebarb on the regulator and the other to the hosebarb on a quick connect. Connect the quick connect to the top port of the injection dispenser.

Step 2: Cut the length of tubing that will span from the injection dispenser to the injection location (5-10' should be sufficient). Attach one end to the hosebarb on the injection dispenser and the other to the hosebarb on a quick connect. Open the valve on the gas cylinder, followed by the regulator, the top of the injection dispenser and finally the bottom of the injection dispenser. Push on the bottom of the quick connect to allow gas to flow through the injection equipment.

Step 3: Close the bottom port on the injection dispenser and allow pressure to build to 5 psi in the dispenser. Close the top port of the injection dispenser.

Step 4: Connect the bottom quick connect into the inoculation port **(YELLOW)**. Move the gas line from the top of the injection dispenser to the pressurization port **(RED)** on the culture vessel. Connect a quick connect into the top port of the injection dispenser.

Step 5: Open the inoculation port **(YELLOW)** and allow KB-1® to flow into the injection dispenser to the desired volume.

Step 6: Pressure will increase as the injection dispenser fills. Release the pressure by opening the top port. Close the top port before the target volume is reached, this will ensure that there is always pressure in the dispenser.

Step 7: Once the target volume is reached close the bottom port and remove the quick connect from the top port.

Step 8: Move the injection dispenser from the inoculation port **(YELLOW)** to the port on the anaerobic water line set up. Connect the gas line to the top of the injection dispenser. Open the top port followed by the bottom port of the injection dispenser. Once the culture has been injected, close the bottom port followed by the top port to keep pressure in the injection dispenser.

Step 9: Repeat steps 4-8 until all injections are complete.

Step 10: Once the injections are complete, pack the vessel(s) in the white over pack(s) & place all tools into the tool kit. Contact Corey Scales at 519-515-0848 for return shipping instructions and paperwork.

For additional information refer to the Culture safety data sheet (SDS)
Contact SiREM for Customer Support
Toll free: 1-866-251-1747
Bioaugmentation Coordinator, Corey Scales: (519) 515-0848

OVERVIEW

Provect-IR® *In Situ* Chemical Reduction (ISCR) reagent is designed to treat persistent organic and/or inorganic contaminants present in the subsurface environment. As developers of the conventional ISCR amendments, scientists now at Provectus know that Provect-IR is a more efficient, and safer amendment. It is unique in its composition:

- Zero Valent Iron: Up to 85% (weight basis), site-specific particle sizes
- Integrated Vitamins, minerals, and nutrients (yeast extract) specially selected for anaerobes
- Chemical oxygen scavenger to maintain reduced condition
- Multiple, Complex, Hydrophilic, Timed-Release organic carbon sources (plant materials, Kelp, Calcium Propionate) @ 390 g H donor / lb product
- Natural, food-grade methane inhibitors to increase safety and efficiency

MATERIAL PACKAGING, HANDLING AND STORAGE

Provect-IR can be specially formulated to meet site-specific needs. The standard formulation contains 40% ZVI and is packaged as a dry powder in 50-lb easy-open (no sharps), polyethylene-lined, recycled paper bags or, upon request, in 2,000 lb supersacks. Typical shipments entail multiple units of 4x4 wooden pallets containing 40 bags x 50 lbs/ bag = 2,000 lbs reagent per pallet. Each pallet is neatly wrapped in water-resistant plastic, but direct exposure to rain should be avoided.

GENERAL HEALTH AND SAFETY GUIDELINES

Provect-IR is non-hazardous and safe to handle. The use of standard personal protective equipment is always recommended, including safety glasses, steel-toe boots, gloves, hearing protection (in the proximity of loud machinery) and hard hats. Dust mask may be desired when working with the material under certain conditions. The SDS is posted on our web site.

SLURRY PREPARATION

Provect-IR is mixed with clean water on site to yield an aqueous slurry (see **Table 1** for field mixing guidelines). Experienced injection contractors can manage (mix, transport/pump, and inject) slurry containing between 20% and 30% solids (defined as the mass of dry Provect-IR divided by the total mass of slurry, including the water). For situations where more volume is desired, slurry density can be decreased (e.g., using a thinner slurry). Conversely, for situations where less volume is required (for example to minimize surfacing issues), thicker slurry with higher

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solids can be applied. A slurry containing *ca.* 30% solids will have the following general characteristics:

- Wet Density = 0.9 to 1.1 g/cm^3
- Dry Density = 0.3 to 0.4 g/cm^3
- Viscosity = 500 to 1,500 c P

TABLE 1. FIELD GUIDE FOR MAKING SLURRY			
per 50 pound bag		**per 25 kg bag**	
Target weight %	**USG water required**	**Target weight %**	**Liters water required**
15	**34**	**15**	**142**
20	**24**	**20**	**100**
22	**21**	**22**	**89**
24	**19**	**24**	**79**
26	**17**	**26**	**71**
28	**15**	**28**	**64**
30	**14**	**30**	**58**
32	**13**	**32**	**53**
34	**12**	**34**	**49**
36	**11**	**36**	**44**

APPLICATION TECHNIQUES

Provect-IR has been employed for source area treatment, plume treatment and/or plume management using permeable reactive barrier (PRBs). The choice of installation method will depend on the site-specific conditions, including treatment depth and geology. The most practiced *in situ* application method has been direct injection of aqueous slurry.

Provect-IR® slurry containing 10 to 35% solids has been added to numerous aquifers using a variety of injection methods, including hydraulic fracturing, pneumatic fracturing, and direct

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injection. It can also be added via direct soil mixing using a wide range of equipment, or it can be placed directly into an open excavation or trench.

GENERAL GUIDELINES FOR DIRECT PUSH INJECTION OF AQUEOUS SLURRY

Mixing Equipment: Reagent slurry has been prepared in various ways, ranging from in-line automated mixing systems, to manual mixing using a hand-held drill with a mixing attachment, to more creative processes. Particularly for larger projects, experienced drillers will have some form of mechanical mixing system on site that includes a tank with a paddle-type mixer at the bottom. The slurry is then transferred to a feed tank connected to an injection pump so that slurry can be prepared continuously while injections are being performed (see example, ChemGrout mixing system). Slurry mixes quickly in these systems (<1 minute), and injections can proceed without interruption.

Pumps: Experienced drillers will have a variety of pumping equipment on site. For injecting slurries, an injection pump capable of generating at least 300 psi of pressure at a flow rate of >5 gpm is desired. Obviously, the pump needs to be able to handle solids, such as piston pumps, grout pumps, and progressing cavity pumps - with a preference towards the piston and grout pumps. Slurry is typically injected at pressures of 100 to 200 psi; however, higher pressures are sometimes required to initiate the injection. It is recommended to have a higher pressure pump available on site that can generate over 500 psi and ca. >10 gpm, as deeper installations often require higher injection pressures.

Tooling. Experienced drillers will have sufficient rod length on site to allow 3 to 5 injection points to be capped overnight to allow pressure to dissipate. This can help prevent backflow and surfacing of slurry as the injection rods are retracted. Likewise, experienced drillers will have on hand a variety of injection tips, some that direct the slurry horizontally (see for example GeoProbe's pressure activated tip).

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In a “top-down” injection approach, the rods are initially advanced to the top of the targeted depth interval, and a specified volume of slurry is injected while recording flow rate, injection pressure, and slurry volume delivered. The injection rods are then further advanced a distance ranging 2 to 4 feet and the process is repeated to help ensure even distribution of slurry over the targeted depth interval. At the end of each injection point, a small volume of water (15 USG) is often used to clear the rods and the injection tip of any slurry.

CONTACT US FOR A SITE EVALUATION

PROVECTUS ENVIRONMENTAL PRODUCTS, INC.

PO BOX 358 | Freeport, IL 61032

Tel: (815) 650-2230 | Email: info@ProvectusEnv.com

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Provect-IR® ISCR Reagent

Provect-IR® is a unique mixture of reagents combined into a single product that optimizes the *in situ* reductive dechlorination of chemicals present in soil, sediment, and groundwater. It acts by promoting synergistic interactions between:

- Natural antimethanogenic compounds
- Hydrophilic, nutrient rich organic carbon sources
- Zero-Valent Iron (ZVI)
- Chemical oxygen scavengers
- Vitamin and mineral sources

This distinctive, patented combination of natural and food-grade chemicals promotes *in situ* chemical reduction (ISCR) conditions for fast and effective destruction of targeted constituents of interest (COIs) such as chlorinated solvents, organochlorine pesticides, and other halogenated compounds (Brown *et al.*, 2009; Dolfing *et al.*, 2008; US Patent Office Scalzi *et al* 2012). Notably, Provect-IR® is the only ISCR reagent to simultaneously inhibit the production of methane during the requisite carbon fermentation processes (US Patent Office Scalzi *et al*, 2013, 2014). This promotes more efficient use of the hydrogen donor while avoiding negative issues associated with elevated methane (CH4) in groundwater, soil gas, and indoor air.

Current regulations for methane in groundwater vary from ca. 10 to 28 mg CH4/L (Indiana Department of Environmental Management, 2014). More State regulations are pending, with several enhanced reductive dechlorination (ERD) projects which intended to use liquid carbon (emulsified oils) sources failing to receive regulatory approval due to issues associated with excessive production of methane during previous technology applications (Personal Communication - State of California; State of Minnesota). Many remedial practitioners have subsequently been required to establish contingencies for conventional ERD/ISCR implementation if methane exceeds a threshold level ranging from 1 ppm to 10 ppm groundwater. These contingencies often entail expensive and extensive systems for capturing and treating methane in soil gas/vapor captured via SVE systems.

MODE OF ACTION – HOW DOES IT WORK?

What is a Methanogen? In the 1970s, Dr. Carl Woese (1928 to 2012) and his colleagues at the University of Illinois - Urbana studied prokaryotic relationships using DNA sequences and they found that microbes that produce methane – or methanogens - are Archaea (Woese and Fox, 1977). The identification of this new Domain of microorganism was very important for many reasons, but from our limited perspective herein this vast difference in genetic composition means that methanogens are significantly different from typical heterotrophic bacteria and eukaryotes. In other words, *Dehalococcoides* ethenogenes are as different from methanogens as you are.

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What is a Statin? A statin can be defined as "a class of lipid-lowering drugs that reduce serum cholesterol levels by inhibiting a key enzyme involved in the biosynthesis of cholesterol". Lovastatin is a widely known, potent statin used for decades to lower cholesterol in human blood by inhibiting 3-hydro-3-methylglutaryl-coenzyme A (HMG-CoA) reductase, which is a key enzyme in the cholesterol biosynthesis pathway (Alberts et al., 1980). It was the first statin approved by the United States Food and Drug Administration in 1987 as a hypercholesterolemic drug.

What is Red Yeast (Rice) Extract? The red yeast rice (RYR) extract that is component of Provect-IR® is a substance extracted from rice that has been fermented with a type of yeast called Monascus purpureus. Red yeast extract is used as a food coloring, food additive/preservative, and is widely consumed by humans. The RYR extract contains a number of monacolins - most importantly, Monacolin K, otherwise known as Lovastatin or Mevinolin. Monacolin K is the only naturally occurring statin compound. In addition to Monacolin K, RYR extract also contains mono-unsaturated fatty acids and other vitamins that will effectively stimulate anaerobic bacteria in the subsurface.

So - How Does a Statin Inhibit a Methanogen? Interestingly, Monacolin K is a potent inhibitor of methanogenic archaea because cell membrane production in archaea shares a similar pathway with cholesterol biosynthesis (Miller and Wolin, 2001). And since methanogens are so uniquely different than bacteria, the inhibitory effect is not observed in microbes that are typically associated with: i) catabolism of organic contaminants (such as pseudomonas species) and/or, ii) halo-respiration/biodegradation of chlorinated solvents (such as *Dehalococcoides* species). RYR has been used in the cattle industry for decades in efforts to manage rumen microbiology and control methane production in cows.

ATTENUATION PROCESSES – SAFER, MORE EFFICIENT ISCR TREATMENT

In situ chemical reduction as defined by Dolfing et al (2008) describes the combined effect of stimulated biological oxygen consumption (via fermentation of an organic carbon source), direct chemical reduction with ZVI or other reduced metals. The corresponding enhanced thermodynamic decomposition reactions that are realized at the lowered redox (Eh) conditions allow for more effective mineralization of many COIs.

Several ERD substrates and other accelerated anaerobic bioremediation technologies exist (e.g., emulsified oils, non-emulsified oils, carbon-based hydrogen release compounds, vegetable matter + ZVI amendments) that purportedly offer similar responses. However, the Provect-IR® antimethanogenic ISCR substrate is unique in its ability to yield Eh values most conducive to reductive dechlorination while simultaneously preventing methane production - which is a waste of the H being generated and potentially a safety issue under field conditions.

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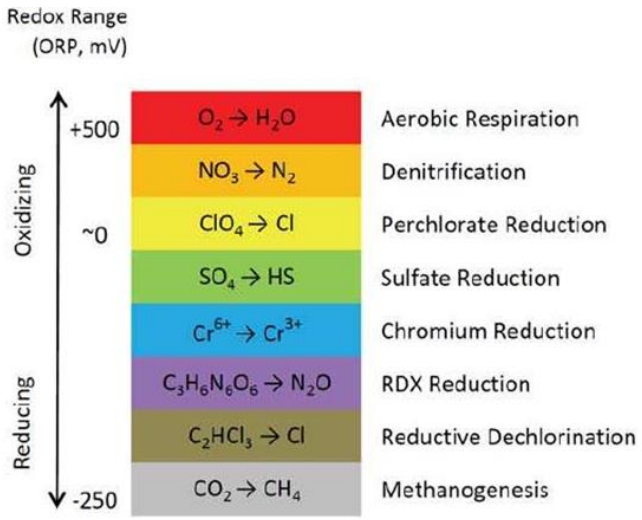

Provect-IR® uniquely combines RYR extract with of a variety of specially selected reagents in order to induce genuine ISCR conditions and facilitate the destruction of targeted COIs in a safer, more efficacious manner. As outlined below, it can be used to manage environments impacted by chlorinated solvents, pesticides, heavy metals and other COIs.

Specially Selected Organic Hydrogen Donors: A variety of hydrophilic, nutrient rich organic carbon sources are incorporated in Provect-IR® that assist in promoting the ISCR process. The Provect-IR bioremediation amendments consist of slow, medium and long-term release carbon sources. Such a formulation is desirable because it provides both a rapidly utilized electron donor (calcium propionate), slow-release long-term electron donors (kelp meal and yeast extract) and long-term release carbon sources (other cellulose and hemi-cellulose carbon such as soy meal). More specifically,

- Calcium propionate and other readily biodegradable carbon sources: Following the addition of simple carbon sources such as lactate, formate, ethanol or glucose to an aquifer setting these compounds are often converted rapidly to hydrogen and acetate. Although this is the desired response, the process is sometimes too rapid, and this can result in aquifer acidification (due to rapid VFA production) and the liberation of too much hydrogen (which allows methanogens and sulfate reducers to compete effectively with dehalogenators, which tend to grow more slowly). Hence, calcium propionate is used as a readily biodegradable carbon source.
- Yeast extract: This supplement provides a variety of organic hydrogen donors that have slower release profiles (i.e., they are not fermented as rapidly as proprionate). Yeast extract also contains biological components that are very useful to anaerobes, but are not available through other carbon-only media. In particular, yeast extract provides an abundant source of priming ATPase along with trace nutrients and vitamin B complexes.

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- Kelp meal/Cellulose based carbon: These hydrogen sources are composed of a hydrophilic, solid and complex carbon that ferment more slowly and inherently generate less methane. The hydrophilic organic component of the kelp meal, for example, is composed of cellulose and hemicellulose and it may be treated during the manufacturing process so that some of the components more easily undergo hydrolysis to glucose while maintaining an overall longevity of 3 to 5+ years.

Chemical Oxygen Scavengers: The presence of chemical oxygen scavengers such as sodium sulfite helps minimize performance lag phases that are often observed following the injection of remedial amendments. This is due, in part, to the presence of oxygen that is introduced as a result of the field mixing and blending operations. It takes a certain amount of time and reagent consumption to remove that introduced oxygen and allow the ISCR reactions to proceed. Provect-IR is unique it that manages this impact chemically, which is a more effective, reliable manner thus allowing the ISCR process to be more effective.

Zero-Valent Iron: The presence of ZVI in Provect-IR® is critical to ISCR reactions. The ZVI is added as a reduced material that is oxidized during the reductive dechlorination reactions which use ZVI as the reducing agent. The beta-elimination reaction mainly produces (chloro)acetylene, ethane/ethane and chloride ions, without the accumulation of potentially problematic catabolites typical of microbiologically mediated sequential reductive dehalogenation processes (e.g., DCE "stall"). As the ZVI reacts, hydroxyl ions are released and pH increases which is useful in neutralizing the acidity generated during the fermentation of carbon, where acids are generated. Oxidized iron species are also produced, where are useful in alpha-elimination reactions and iron cycling. One limitation to ZVI reactions is that they are surface mediated which means that direct contact is required for direct COI destruction.

RYR Extract: Provect-IR® is the only ISCR amendment that will rapidly induce ISCR conditions while simultaneously preventing or significantly minimizing the production of methane. The benefits are notable:

- Safer: Methane is explosive with an LEL of 5% and an UEL of 15%. Production of methane will result from the addition of any conventional ERD or ISCR amendment: excessive and extended production of methane can result in elevated in groundwater concentrations (as high as 1,000 ppm have been reported) which can lead to accumulation in soil gas subsequently impacting indoor air. State specific regulations for methane in groundwater have been promulgated, with others pending for soil gas and indoor air.
- More Efficient = More Cost Effective: Production of methane is a direct indication that the hydrogen generated from the organic carbon amendments was used by methanogens and the amendment has been wasted because it was not utilized by acetogens or

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dehalorespiration. By inhibiting the growth and proliferation of methane producing Archaea, chlororespiring bacteria can become the more dominant bacterial populations.

PRIMARY FEATURES

- Effective: No accumulation of dead-end catabolic intermediates as a function of substrate addition (as is common with [emulsified] oils and sources of carbon only).
  - Does not rely on physical sorption/sequestration as a major "removal" mechanism (as is common with oils).
  - Inherently buffered for pH control – will not acidify an aquifer and liberate heavy metals as potential secondary COIs.
- Efficient: Significantly lower costs as a result more efficient amendment utilization and avoidance of contingencies for methane management. No need for additional buffers.
- Safe: Fewer health and safety concerns as compared with use of traditional ERD or ISCR reagents; Avoid issues associated with new and emerging methane regulations.
- Ease of Use: Green and sustainable. All components integrated in a single package. Logistics with no surprises.
- Longevity: Engineered profile of carbon sources for multi-year longevity estimated at 3 to 7 years based on site-specific hydrogeology. Reagent will stay in place and remain active which prevents rebound.
- Improved Performance: More efficient use of hydrogen donors (does not get wasted as methane).
- Adaptable Formulations for Heavy Metals: Will not mobilize arsenic or other heavy metals yielding secondary contaminants (as is common with [emulsified] oils and sources of carbon only). Can be formulated to manage environments that are co-impacted by various inorganic contaminants while simultaneously mineralizing the organic compounds.
- Patented Technologies: Technology end users and their clients are fully protected from all Patent and other legal issues

PHYSICAL PROPERTIES

Particle Size: ranges from ca. <5 to >100 micron (can be manufactured to specifications).

Dry Density: ranges from 0.4 to 0.5 g/cm3

29% Aqueous Slurry Density: ranges from 0.9 to 1.0 g/cm3

29% Aqueous Slurry Viscosity: ranges from 500 to 1,500 cP

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LITERATURE CITED:

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Kibler, Christopher

From: Will Moody <will.moody@provectusenv.com>
Sent: Wednesday, August 31, 2022 12:02 PM
To: Kibler, Christopher
Subject: RE: [Ext] RE: Quote for a project site in Dunkirk, NY???

Hi Chris,

Thank you for the update. Yes, I can provide dosage details. We typically do not provide our full calculation sheets, but I can outline how we develop our recommended reagent mass. For our Provect-IR remedial programs, we develop and compare two different design calculations. The first calculation is based on the site contaminant concentrations, competing electron acceptors (e.g., nitrate, sulfate, etc.), and desired lifespan of the reagent in the subsurface. The second calculation is based on ensuring sufficient distribution of the reagent in the subsurface. Typically the larger calculated reagent mass is recommended to ensure we overcome the contaminant/electron acceptor demands while achieving good subsurface reagent distribution. For your site, the distribution demand was larger than the contaminant/electron acceptor demand (i.e., the site contaminant concentrations aren't very high).

Please see below for details:

MW-07
1,600 sq ft treatment area with a 5-ft vertical target interval
Contaminant/Electron Acceptor Demand
Used TCE, DCE, and VC concentrations of 120 ug/L, 3,600 ug/L, and 740 ug/L, respectively, for contaminant demands. Data is from 12/2/2021 sample event.
Assumed nitrate and sulfate concentrations of 5 mg/L and 40 mg/L, respectively.
Used a 3 year treatment area lifespan ; the same CVOC and electron acceptor concentrations will be entering the treatment zone over this time period.
Total calculated Provect-IR required is approximately 515 lbs.
Reagent Distribution Calculation
Used a 115 lbs/ft3 soil density to calculate approximate total mass within treatment area (460 US tons).
Recommend an approximate 0.35% by soil mass reagent demand to ensure distribution or **3,250 lbs of Provect-IR** or greater than 6X the contaminant/electron acceptor demand

EX-MW-11R
1,600 sq ft treatment area with a 5-ft vertical target interval
Contaminant/Electron Acceptor Demand
Used TCE, DCE, and VC concentrations of 1,400 ug/L, 7,450 ug/L, and 1,300 ug/L, respectively, for contaminant demands. Data is from 12/2/2021 sample event.
Assumed nitrate and sulfate concentrations of 5 mg/L and 40 mg/L, respectively.
Used a 3 year treatment area lifespan ; the same CVOC and electron acceptor concentrations will be entering the treatment zone over this time period.
Total calculated Provect-IR required is approximately 525 lbs.
Reagent Distribution Calculation
Used a 115 lbs/ft3 soil density to calculate approximate total mass within treatment area (460 US tons)
Recommend an approximate 0.35% by soil mass reagent demand to ensure distribution or 3**,250 lbs of Provect-IR** or greater than 6X the contaminant/electron acceptor demand

Please contact me with questions or if you need any additional information.

APPENDIX F – WASTE DISPOSAL AND CHARACTERIZATION DOCUMENTATION

AMERICAN RECYCLERS COMPANY
Waste Profile Report (WPR)

177 Wales Avenue Tonawanda, New York 14151 *Phone (716) 695-6720 Fax (716) 695-0161*	**APPROVAL NUMBER:** A-21300L **EXPIRATION DATE:** 12/21/2024 **HANDLING CODE:** L

Generator: Chautauqua County DPW (Falconer Shop EPA ID #: NYD981875180

Address: 454 North Works St Contact: Drew E. Rodgers, PE

City Falconer STATE: NY ZIP: 14733 Phone: 716-661-8410 Fax: 716-661-8451

Waste Name: Drill Cuttings	Shipping Name: Non RCRA Non DOT Regulated
Generating Process: IDW - Drill Cuttings	
	Rate of Generation: Once
	Container Type: 55 Gal Steel 1A2

Composition of Waste	%	%
Drill Cuttings	100 - 100	

Phase	%
Solids	
Liquid	
Sludge	
Debris	

Is the material RCRA listed or Characteristicly Hazardous?	☐ YES	☒ NO
Does the material contain Medical or Biological Wastes?	☐ YES	☒ NO
Does the material contain etiological waste?	☐ YES	☒ NO
Does the material contain, or has it come in contact with PCB's?	☐ YES	☒ NO
Is the material radioactive?	☐ YES	☒ NO
Does the material contain septic or domestic sewage?	☐ YES	☒ NO
Is the material Non-Hazardous as defined by RCRA Title 40?	☒ YES	☐ NO

Check all below which apply:

Material is to be shipped and recycled as Universal Waste	☐ YES	☒ NO
Material is to be shipped and recycled under 6 NYCRR Part 371.1(g)(1)(ii)(b) *(ie Computer Equipment & monitors)*	☐ YES	☒ NO
Material is being shipped for disposal/recycle via facility transfer/consolidation permit	☒ YES	☐ NO
Material is a Labpack and all contents are CERTIFIED as Non-RCRA	☐ YES	☒ NO
List all Lab Pack Container Numbers: *(Attach packing slips to profile)*		

I certify that the above submitted information (including any attachments) is true, accurate and complete to the best of my knowledge and ability and that all known and suspected hazards have been disclosed. All material offered herein is deemed Non-RCRA.

Signer Title Deputy Director

Company Chautauqua County DPF

Signed: [signature] **Print:** Drew Rodgers **Date:** 12/21/22

ARC Presonel Reviewed and Approved by:

Approved by: **Print:** Tom Martin **Date:**

NON-HAZARDOUS WASTE MANIFEST

1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Waste Tracking Number
NYD981875180	1	800-535-5053	47332

5. Generator's Name and Mailing Address
Chautauqua County DPW (Falconer Shop)
454 North Works St
Falconer, NY 14733
Generator's Phone: 716-661-8410

Generator's Site Address (if different than mailing address)

6. Transporter 1 Company Name: Environmental Service Group, Inc 716.695.6720 — U.S. EPA ID Number: NYD986903904

7. Transporter 2 Company Name — U.S. EPA ID Number

8. Designated Facility Name and Site Address
American Recyclers Company
177 Wales Avenue
Tonawanda, NY 14150
Facility's Phone: 716.695.6720 — U.S. EPA ID Number: NYR000030809

	9. Waste Shipping Name and Description	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	
1.	Non RCRA Non DOT Regulated, (Drill Cuttings)	01	DM	556		
2.						
3.						
4.						

13. Special Handling Instructions and Additional Information

ERG:
1 -
2 -
3 -
4 -

Approval #:
1 - A-21300L
2 -
3 -
4 -

Handling Codes:
1 - None
2 -
3 -
4 -

24 Hour Emergency Contact:
INFOTRAC (Caller Must ID ESG)

14. GENERATOR'S CERTIFICATION: I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.

Generator's/Offeror's Printed/Typed Name: Brett — Signature — Month — Day — Year

INT'L

15. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter Signature (for exports only): Date leaving U.S.:

TRANSPORTER

16. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: Glenn Caverly — Signature — Month: 4 — Day: 27 — Year: 23

Transporter 2 Printed/Typed Name — Signature — Month — Day — Year

DESIGNATED FACILITY

17. Discrepancy

17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

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: Justin Rainville — Signature — Month: 04 — Day: 27 — Year: 23

DESIGNATED FACILITY'S COPY

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Chris Kibler
LaBella Associates DPC
300 Pearl Street
Suite 130
Buffalo, New York 14202

Generated 12/16/2022 4:23:45 PM

JOB DESCRIPTION

Roblin Steel site

JOB NUMBER

480-204473-1

Eurofins Buffalo
10 Hazelwood Drive
Amherst NY 14228-2298

See page two for job notes and contact information.

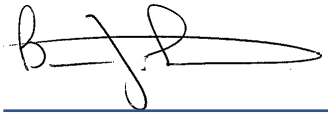
my EOL

Job Notes

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to the NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory. This report is confidential and is intended for the sole use of Eurofins Environment Testing Northeast, LLC Buffalo and its client. All questions regarding this report should be directed to the Eurofins Environment Testing Northeast, LLC Buffalo Project Manager or designee who has signed this report.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing Northeast, LLC Project Manager.

Authorization



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12/16/2022 4:23:45 PM

Authorized for release by
Brian Fischer, Manager of Project Management
Brian.Fischer@et.eurofinsus.com
(716)504-9835

Table of Contents

Definitions/Glossary

Client: LaBella Associates DPC
Project/Site: Roblin Steel site

Job ID: 480-204473-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
*3	ISTD response or retention time outside acceptable limits.
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
vs	Reported analyte concentrations are below 200 ug/kg and may be biased low due to the sample not being collected according to 5035A-L low-level specifications.

GC/MS Semi VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
S1-	Surrogate recovery exceeds control limits, low biased.

Metals

Qualifier	Qualifier Description
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Job ID: 480-204473-1

Laboratory: Eurofins Buffalo

Narrative

Job Narrative
480-204473-1

Comments
No additional comments.

Receipt
The sample was received on 12/6/2022 3:30 PM. Unless otherwise noted below, the sample arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 4.8º C.

GC/MS VOA
Method 8260C: Internal standard responses were outside of acceptance limits for the following sample: ROBLIN DRUM (480-204473-1). The sample(s) shows evidence of matrix interference.

Method 8260C: The continuing calibration verification (CCV) associated with batch 480-652739 recovered above the upper control limit for Trichlorofluoromethane. The samples associated with this CCV were non-detects for the affected analyte; therefore, the data have been reported. The associated sample is impacted: ROBLIN DRUM (480-204473-1).

Method 8260C: The following samples were diluted due to the nature of the TCLP sample matrix: ROBLIN DRUM (480-204473-1) and (LB 480-652650/1-A). Elevated reporting limits (RLs) are provided.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

GC/MS Semi VOA
Method 8270D: Six surrogates are used for this analysis. The laboratory's SOP allows one acid and one base of these surrogates to be outside acceptance criteria without performing re-extraction/re-analysis. The following sample contained an allowable number of surrogate compounds outside limits: ROBLIN DRUM (480-204473-1). These results have been reported and qualified.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Metals
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Organic Prep
Method 3510C: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate/sample duplicate (MS/MSD/DUP) associated with preparation batch 480-652622 and 480-652820.

Method 3510C: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate/sample duplicate (MS/MSD/DUP) associated with preparation batch 480-652622 and 480-653570.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Detection Summary

Client: LaBella Associates DPC
Project/Site: Roblin Steel site

Job ID: 480-204473-1

Client Sample ID: ROBLIN DRUM

Lab Sample ID: 480-204473-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	54	vs	31	5.2	ug/Kg	1	☼	8260C	Total/NA
Benzene	2.2	J vs	6.2	0.30	ug/Kg	1	☼	8260C	Total/NA
Carbon disulfide	4.4	J vs	6.2	3.1	ug/Kg	1	☼	8260C	Total/NA
Chloroform	0.58	J B vs	6.2	0.38	ug/Kg	1	☼	8260C	Total/NA
cis-1,2-Dichloroethene	14	vs	6.2	0.79	ug/Kg	1	☼	8260C	Total/NA
Cyclohexane	11	vs	6.2	0.87	ug/Kg	1	☼	8260C	Total/NA
Ethylbenzene	4.7	J vs	6.2	0.43	ug/Kg	1	☼	8260C	Total/NA
Isopropylbenzene	3.4	J *3 vs	6.2	0.93	ug/Kg	1	☼	8260C	Total/NA
Methylcyclohexane	53	vs	6.2	0.94	ug/Kg	1	☼	8260C	Total/NA
Methylene Chloride	5.1	J vs	6.2	2.8	ug/Kg	1	☼	8260C	Total/NA
Styrene	0.78	J vs	6.2	0.31	ug/Kg	1	☼	8260C	Total/NA
Toluene	7.2	vs	6.2	0.47	ug/Kg	1	☼	8260C	Total/NA
trans-1,2-Dichloroethene	1.4	J vs	6.2	0.64	ug/Kg	1	☼	8260C	Total/NA
Trichloroethene	2.7	J vs	6.2	1.4	ug/Kg	1	☼	8260C	Total/NA
Vinyl chloride	2.4	J vs	6.2	0.75	ug/Kg	1	☼	8260C	Total/NA
Xylenes, Total	27	vs	12	1.0	ug/Kg	1	☼	8260C	Total/NA
Benzo[a]anthracene	57	J	210	21	ug/Kg	1	☼	8270D	Total/NA
Benzo[a]pyrene	66	J	210	31	ug/Kg	1	☼	8270D	Total/NA
Benzo[b]fluoranthene	84	J	210	33	ug/Kg	1	☼	8270D	Total/NA
Benzo[g,h,i]perylene	49	J	210	22	ug/Kg	1	☼	8270D	Total/NA
Benzo[k]fluoranthene	32	J	210	27	ug/Kg	1	☼	8270D	Total/NA
Chrysene	79	J	210	47	ug/Kg	1	☼	8270D	Total/NA
Fluoranthene	140	J	210	22	ug/Kg	1	☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	45	J	210	26	ug/Kg	1	☼	8270D	Total/NA
Phenanthrene	100	J	210	31	ug/Kg	1	☼	8270D	Total/NA
Pyrene	110	J	210	25	ug/Kg	1	☼	8270D	Total/NA
Pyridine	0.0021	J	0.10	0.0016	mg/L	1		8270D	TCLP
Arsenic	0.0076	J	0.020	0.0040	mg/Kg	1		6010C	TCLP
Barium	1.1		0.0050	0.0011	mg/Kg	1		6010C	TCLP
Cadmium	0.0014	J	0.0020	0.00030	mg/Kg	1		6010C	TCLP
Lead	0.034		0.010	0.0024	mg/Kg	1		6010C	TCLP
Selenium	0.0042	J B	0.040	0.0040	mg/Kg	1		6010C	TCLP

This Detection Summary does not include radiochemical test results.

Client: LaBella Associates DPC
Project/Site: Roblin Steel site

Job ID: 480-204473-1

Client Sample ID: ROBLIN DRUM
Date Collected: 12/06/22 11:30
Date Received: 12/06/22 15:30

Lab Sample ID: 480-204473-1
Matrix: Solid
Percent Solids: 80.2

Method: SW846 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND	vs	6.2	0.45	ug/Kg	☼	12/08/22 12:27	12/09/22 06:45	1
1,1,2,2-Tetrachloroethane	ND	*3 vs	6.2	1.0	ug/Kg	☼	12/08/22 12:27	12/09/22 06:45	1
1,1,2-Trichloroethane	ND	vs	6.2	0.80	ug/Kg	☼	12/08/22 12:27	12/09/22 06:45	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	vs	6.2	1.4	ug/Kg	☼	12/08/22 12:27	12/09/22 06:45	1
1,1-Dichloroethane	ND	vs	6.2	0.75	ug/Kg	☼	12/08/22 12:27	12/09/22 06:45	1
1,1-Dichloroethene	ND	vs	6.2	0.76	ug/Kg	☼	12/08/22 12:27	12/09/22 06:45	1
1,2,4-Trichlorobenzene	ND	*3 vs	6.2	0.38	ug/Kg	☼	12/08/22 12:27	12/09/22 06:45	1
1,2-Dibromo-3-Chloropropane	ND	*3 vs	6.2	3.1	ug/Kg	☼	12/08/22 12:27	12/09/22 06:45	1
1,2-Dichlorobenzene	ND	*3 vs	6.2	0.48	ug/Kg	☼	12/08/22 12:27	12/09/22 06:45	1
1,2-Dichloroethane	ND	vs	6.2	0.31	ug/Kg	☼	12/08/22 12:27	12/09/22 06:45	1
1,2-Dichloropropane	ND	vs	6.2	3.1	ug/Kg	☼	12/08/22 12:27	12/09/22 06:45	1
1,3-Dichlorobenzene	ND	*3 vs	6.2	0.32	ug/Kg	☼	12/08/22 12:27	12/09/22 06:45	1
1,4-Dichlorobenzene	ND	*3 vs	6.2	0.87	ug/Kg	☼	12/08/22 12:27	12/09/22 06:45	1
2-Butanone (MEK)	ND	vs	31	2.3	ug/Kg	☼	12/08/22 12:27	12/09/22 06:45	1
2-Hexanone	ND	vs	31	3.1	ug/Kg	☼	12/08/22 12:27	12/09/22 06:45	1
4-Methyl-2-pentanone (MIBK)	ND	vs	31	2.0	ug/Kg	☼	12/08/22 12:27	12/09/22 06:45	1
Acetone	**54**	**vs**	31	5.2	ug/Kg	☼	12/08/22 12:27	12/09/22 06:45	1
Benzene	**2.2**	**J vs**	6.2	0.30	ug/Kg	☼	12/08/22 12:27	12/09/22 06:45	1
Bromodichloromethane	ND	vs	6.2	0.83	ug/Kg	☼	12/08/22 12:27	12/09/22 06:45	1
Bromoform	ND	vs	6.2	3.1	ug/Kg	☼	12/08/22 12:27	12/09/22 06:45	1
Bromomethane	ND	vs	6.2	0.56	ug/Kg	☼	12/08/22 12:27	12/09/22 06:45	1
Carbon disulfide	**4.4**	**J vs**	6.2	3.1	ug/Kg	☼	12/08/22 12:27	12/09/22 06:45	1
Carbon tetrachloride	ND	vs	6.2	0.60	ug/Kg	☼	12/08/22 12:27	12/09/22 06:45	1
Chlorobenzene	ND	vs	6.2	0.82	ug/Kg	☼	12/08/22 12:27	12/09/22 06:45	1
Dibromochloromethane	ND	vs	6.2	0.79	ug/Kg	☼	12/08/22 12:27	12/09/22 06:45	1
Chloroethane	ND	vs	6.2	1.4	ug/Kg	☼	12/08/22 12:27	12/09/22 06:45	1
Chloroform	**0.58**	**J B vs**	6.2	0.38	ug/Kg	☼	12/08/22 12:27	12/09/22 06:45	1
Chloromethane	ND	vs	6.2	0.37	ug/Kg	☼	12/08/22 12:27	12/09/22 06:45	1
cis-1,2-Dichloroethene	**14**	**vs**	6.2	0.79	ug/Kg	☼	12/08/22 12:27	12/09/22 06:45	1
cis-1,3-Dichloropropene	ND	vs	6.2	0.89	ug/Kg	☼	12/08/22 12:27	12/09/22 06:45	1
Cyclohexane	**11**	**vs**	6.2	0.87	ug/Kg	☼	12/08/22 12:27	12/09/22 06:45	1
Dichlorodifluoromethane	ND	vs	6.2	0.51	ug/Kg	☼	12/08/22 12:27	12/09/22 06:45	1
Ethylbenzene	**4.7**	**J vs**	6.2	0.43	ug/Kg	☼	12/08/22 12:27	12/09/22 06:45	1
1,2-Dibromoethane	ND	vs	6.2	0.79	ug/Kg	☼	12/08/22 12:27	12/09/22 06:45	1
Isopropylbenzene	**3.4**	**J *3 vs**	6.2	0.93	ug/Kg	☼	12/08/22 12:27	12/09/22 06:45	1
Methyl acetate	ND	vs	31	3.7	ug/Kg	☼	12/08/22 12:27	12/09/22 06:45	1
Methyl tert-butyl ether	ND	vs	6.2	0.61	ug/Kg	☼	12/08/22 12:27	12/09/22 06:45	1
Methylcyclohexane	**53**	**vs**	6.2	0.94	ug/Kg	☼	12/08/22 12:27	12/09/22 06:45	1
Methylene Chloride	**5.1**	**J vs**	6.2	2.8	ug/Kg	☼	12/08/22 12:27	12/09/22 06:45	1
Styrene	**0.78**	**J vs**	6.2	0.31	ug/Kg	☼	12/08/22 12:27	12/09/22 06:45	1
Tetrachloroethene	ND	vs	6.2	0.83	ug/Kg	☼	12/08/22 12:27	12/09/22 06:45	1
Toluene	**7.2**	**vs**	6.2	0.47	ug/Kg	☼	12/08/22 12:27	12/09/22 06:45	1
trans-1,2-Dichloroethene	**1.4**	**J vs**	6.2	0.64	ug/Kg	☼	12/08/22 12:27	12/09/22 06:45	1
trans-1,3-Dichloropropene	ND	vs	6.2	2.7	ug/Kg	☼	12/08/22 12:27	12/09/22 06:45	1
Trichloroethene	**2.7**	**J vs**	6.2	1.4	ug/Kg	☼	12/08/22 12:27	12/09/22 06:45	1
Trichlorofluoromethane	ND	vs	6.2	0.59	ug/Kg	☼	12/08/22 12:27	12/09/22 06:45	1
Vinyl chloride	**2.4**	**J vs**	6.2	0.75	ug/Kg	☼	12/08/22 12:27	12/09/22 06:45	1
Xylenes, Total	**27**	**vs**	12	1.0	ug/Kg	☼	12/08/22 12:27	12/09/22 06:45	1

Client Sample ID: ROBLIN DRUM
Date Collected: 12/06/22 11:30
Date Received: 12/06/22 15:30

Lab Sample ID: 480-204473-1
Matrix: Solid
Percent Solids: 80.2

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*112*		*71 - 125*	*12/08/22 12:27*	*12/09/22 06:45*	*1*
1,2-Dichloroethane-d4 (Surr)	*124*		*64 - 126*	*12/08/22 12:27*	*12/09/22 06:45*	*1*
4-Bromofluorobenzene (Surr)	*79*		*72 - 126*	*12/08/22 12:27*	*12/09/22 06:45*	*1*
Dibromofluoromethane (Surr)	*108*		*60 - 140*	*12/08/22 12:27*	*12/09/22 06:45*	*1*

Method: SW846 8260C - Volatile Organic Compounds by GC/MS - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane	ND		0.010	0.0021	mg/L			12/10/22 12:24	10
2-Butanone (MEK)	ND		0.050	0.013	mg/L			12/10/22 12:24	10
Benzene	ND		0.010	0.0041	mg/L			12/10/22 12:24	10
Carbon tetrachloride	ND		0.010	0.0027	mg/L			12/10/22 12:24	10
Chlorobenzene	ND		0.010	0.0075	mg/L			12/10/22 12:24	10
Chloroform	ND		0.010	0.0034	mg/L			12/10/22 12:24	10
Tetrachloroethene	ND		0.010	0.0036	mg/L			12/10/22 12:24	10
Trichloroethene	ND		0.010	0.0046	mg/L			12/10/22 12:24	10
Vinyl chloride	ND		0.010	0.0090	mg/L			12/10/22 12:24	10
1,1-Dichloroethene	ND		0.010	0.0029	mg/L			12/10/22 12:24	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*100*		*77 - 120*		*12/10/22 12:24*	*10*
4-Bromofluorobenzene (Surr)	*89*		*73 - 120*		*12/10/22 12:24*	*10*
Toluene-d8 (Surr)	*88*		*80 - 120*		*12/10/22 12:24*	*10*
Dibromofluoromethane (Surr)	*102*		*75 - 123*		*12/10/22 12:24*	*10*

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Biphenyl	ND		210	31	ug/Kg	☼	12/07/22 16:14	12/08/22 20:23	1
bis (2-chloroisopropyl) ether	ND		210	42	ug/Kg	☼	12/07/22 16:14	12/08/22 20:23	1
2,4,5-Trichlorophenol	ND		210	57	ug/Kg	☼	12/07/22 16:14	12/08/22 20:23	1
2,4,6-Trichlorophenol	ND		210	42	ug/Kg	☼	12/07/22 16:14	12/08/22 20:23	1
2,4-Dichlorophenol	ND		210	22	ug/Kg	☼	12/07/22 16:14	12/08/22 20:23	1
2,4-Dimethylphenol	ND		210	51	ug/Kg	☼	12/07/22 16:14	12/08/22 20:23	1
2,4-Dinitrophenol	ND		2100	970	ug/Kg	☼	12/07/22 16:14	12/08/22 20:23	1
2,4-Dinitrotoluene	ND		210	43	ug/Kg	☼	12/07/22 16:14	12/08/22 20:23	1
2,6-Dinitrotoluene	ND		210	25	ug/Kg	☼	12/07/22 16:14	12/08/22 20:23	1
2-Chloronaphthalene	ND		210	35	ug/Kg	☼	12/07/22 16:14	12/08/22 20:23	1
2-Chlorophenol	ND		410	38	ug/Kg	☼	12/07/22 16:14	12/08/22 20:23	1
2-Methylphenol	ND		210	25	ug/Kg	☼	12/07/22 16:14	12/08/22 20:23	1
2-Methylnaphthalene	ND		210	42	ug/Kg	☼	12/07/22 16:14	12/08/22 20:23	1
2-Nitroaniline	ND		410	31	ug/Kg	☼	12/07/22 16:14	12/08/22 20:23	1
2-Nitrophenol	ND		210	59	ug/Kg	☼	12/07/22 16:14	12/08/22 20:23	1
3,3'-Dichlorobenzidine	ND		410	250	ug/Kg	☼	12/07/22 16:14	12/08/22 20:23	1
3-Nitroaniline	ND		410	58	ug/Kg	☼	12/07/22 16:14	12/08/22 20:23	1
4,6-Dinitro-2-methylphenol	ND		410	210	ug/Kg	☼	12/07/22 16:14	12/08/22 20:23	1
4-Bromophenyl phenyl ether	ND		210	30	ug/Kg	☼	12/07/22 16:14	12/08/22 20:23	1
4-Chloro-3-methylphenol	ND		210	52	ug/Kg	☼	12/07/22 16:14	12/08/22 20:23	1
4-Chloroaniline	ND		210	52	ug/Kg	☼	12/07/22 16:14	12/08/22 20:23	1
4-Chlorophenyl phenyl ether	ND		210	26	ug/Kg	☼	12/07/22 16:14	12/08/22 20:23	1
4-Methylphenol	ND		410	25	ug/Kg	☼	12/07/22 16:14	12/08/22 20:23	1
4-Nitroaniline	ND		410	110	ug/Kg	☼	12/07/22 16:14	12/08/22 20:23	1
4-Nitrophenol	ND		410	150	ug/Kg	☼	12/07/22 16:14	12/08/22 20:23	1

Client: LaBella Associates DPC
Project/Site: Roblin Steel site

Job ID: 480-204473-1

Client Sample ID: ROBLIN DRUM
Date Collected: 12/06/22 11:30
Date Received: 12/06/22 15:30

Lab Sample ID: 480-204473-1
Matrix: Solid
Percent Solids: 80.2

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		210	31	ug/Kg	☼	12/07/22 16:14	12/08/22 20:23	1
Acenaphthylene	ND		210	27	ug/Kg	☼	12/07/22 16:14	12/08/22 20:23	1
Acetophenone	ND		210	28	ug/Kg	☼	12/07/22 16:14	12/08/22 20:23	1
Anthracene	ND		210	52	ug/Kg	☼	12/07/22 16:14	12/08/22 20:23	1
Atrazine	ND		210	73	ug/Kg	☼	12/07/22 16:14	12/08/22 20:23	1
Benzaldehyde	ND		210	170	ug/Kg	☼	12/07/22 16:14	12/08/22 20:23	1
Benzo[a]anthracene	**57**	**J**	210	21	ug/Kg	☼	12/07/22 16:14	12/08/22 20:23	1
Benzo[a]pyrene	**66**	**J**	210	31	ug/Kg	☼	12/07/22 16:14	12/08/22 20:23	1
Benzo[b]fluoranthene	**84**	**J**	210	33	ug/Kg	☼	12/07/22 16:14	12/08/22 20:23	1
Benzo[g,h,i]perylene	**49**	**J**	210	22	ug/Kg	☼	12/07/22 16:14	12/08/22 20:23	1
Benzo[k]fluoranthene	**32**	**J**	210	27	ug/Kg	☼	12/07/22 16:14	12/08/22 20:23	1
Bis(2-chloroethoxy)methane	ND		210	45	ug/Kg	☼	12/07/22 16:14	12/08/22 20:23	1
Bis(2-chloroethyl)ether	ND		210	27	ug/Kg	☼	12/07/22 16:14	12/08/22 20:23	1
Bis(2-ethylhexyl) phthalate	ND		210	72	ug/Kg	☼	12/07/22 16:14	12/08/22 20:23	1
Butyl benzyl phthalate	ND		210	35	ug/Kg	☼	12/07/22 16:14	12/08/22 20:23	1
Caprolactam	ND		210	63	ug/Kg	☼	12/07/22 16:14	12/08/22 20:23	1
Carbazole	ND		210	25	ug/Kg	☼	12/07/22 16:14	12/08/22 20:23	1
Chrysene	**79**	**J**	210	47	ug/Kg	☼	12/07/22 16:14	12/08/22 20:23	1
Dibenz(a,h)anthracene	ND		210	37	ug/Kg	☼	12/07/22 16:14	12/08/22 20:23	1
Di-n-butyl phthalate	ND		210	36	ug/Kg	☼	12/07/22 16:14	12/08/22 20:23	1
Di-n-octyl phthalate	ND		210	25	ug/Kg	☼	12/07/22 16:14	12/08/22 20:23	1
Dibenzofuran	ND		210	25	ug/Kg	☼	12/07/22 16:14	12/08/22 20:23	1
Diethyl phthalate	ND		210	27	ug/Kg	☼	12/07/22 16:14	12/08/22 20:23	1
Dimethyl phthalate	ND		210	25	ug/Kg	☼	12/07/22 16:14	12/08/22 20:23	1
Fluoranthene	**140**	**J**	210	22	ug/Kg	☼	12/07/22 16:14	12/08/22 20:23	1
Fluorene	ND		210	25	ug/Kg	☼	12/07/22 16:14	12/08/22 20:23	1
Hexachlorobenzene	ND		210	28	ug/Kg	☼	12/07/22 16:14	12/08/22 20:23	1
Hexachlorobutadiene	ND		210	31	ug/Kg	☼	12/07/22 16:14	12/08/22 20:23	1
Hexachlorocyclopentadiene	ND		210	28	ug/Kg	☼	12/07/22 16:14	12/08/22 20:23	1
Hexachloroethane	ND		210	27	ug/Kg	☼	12/07/22 16:14	12/08/22 20:23	1
Indeno[1,2,3-cd]pyrene	**45**	**J**	210	26	ug/Kg	☼	12/07/22 16:14	12/08/22 20:23	1
Isophorone	ND		210	45	ug/Kg	☼	12/07/22 16:14	12/08/22 20:23	1
N-Nitrosodi-n-propylamine	ND		210	36	ug/Kg	☼	12/07/22 16:14	12/08/22 20:23	1
N-Nitrosodiphenylamine	ND		210	170	ug/Kg	☼	12/07/22 16:14	12/08/22 20:23	1
Naphthalene	ND		210	27	ug/Kg	☼	12/07/22 16:14	12/08/22 20:23	1
Nitrobenzene	ND		210	23	ug/Kg	☼	12/07/22 16:14	12/08/22 20:23	1
Pentachlorophenol	ND		410	210	ug/Kg	☼	12/07/22 16:14	12/08/22 20:23	1
Phenanthrene	**100**	**J**	210	31	ug/Kg	☼	12/07/22 16:14	12/08/22 20:23	1
Phenol	ND		210	32	ug/Kg	☼	12/07/22 16:14	12/08/22 20:23	1
Pyrene	**110**	**J**	210	25	ug/Kg	☼	12/07/22 16:14	12/08/22 20:23	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*53*		*53 - 120*	*12/07/22 16:14*	*12/08/22 20:23*	*1*
Phenol-d5 (Surr)	*55*		*54 - 120*	*12/07/22 16:14*	*12/08/22 20:23*	*1*
p-Terphenyl-d14 (Surr)	*87*		*79 - 130*	*12/07/22 16:14*	*12/08/22 20:23*	*1*
2,4,6-Tribromophenol (Surr)	*77*		*54 - 120*	*12/07/22 16:14*	*12/08/22 20:23*	*1*
2-Fluorobiphenyl (Surr)	*66*		*60 - 120*	*12/07/22 16:14*	*12/08/22 20:23*	*1*
2-Fluorophenol (Surr)	*51*	*S1-*	*52 - 120*	*12/07/22 16:14*	*12/08/22 20:23*	*1*

Client Sample ID: ROBLIN DRUM

Date Collected: 12/06/22 11:30
Date Received: 12/06/22 15:30

Lab Sample ID: 480-204473-1

Matrix: Solid
Percent Solids: 80.2

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dichlorobenzene	ND		0.040	0.0018	mg/L		12/15/22 09:33	12/16/22 12:34	1
2,4-Dinitrotoluene	ND		0.020	0.0017	mg/L		12/15/22 09:33	12/16/22 12:34	1
2,4,5-Trichlorophenol	ND		0.020	0.0019	mg/L		12/15/22 09:33	12/16/22 12:34	1
2,4,6-Trichlorophenol	ND		0.020	0.0024	mg/L		12/15/22 09:33	12/16/22 12:34	1
2-Methylphenol	ND		0.020	0.0016	mg/L		12/15/22 09:33	12/16/22 12:34	1
3-Methylphenol	ND		0.040	0.0016	mg/L		12/15/22 09:33	12/16/22 12:34	1
4-Methylphenol	ND		0.040	0.0014	mg/L		12/15/22 09:33	12/16/22 12:34	1
Hexachlorobenzene	ND		0.020	0.0020	mg/L		12/15/22 09:33	12/16/22 12:34	1
Hexachlorobutadiene	ND		0.020	0.0027	mg/L		12/15/22 09:33	12/16/22 12:34	1
Hexachloroethane	ND		0.020	0.0023	mg/L		12/15/22 09:33	12/16/22 12:34	1
Nitrobenzene	ND		0.020	0.0011	mg/L		12/15/22 09:33	12/16/22 12:34	1
Pentachlorophenol	ND		0.040	0.0088	mg/L		12/15/22 09:33	12/16/22 12:34	1
Pyridine	**0.0021**	**J**	0.10	0.0016	mg/L		12/15/22 09:33	12/16/22 12:34	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*95*		*41 - 120*	*12/15/22 09:33*	*12/16/22 12:34*	*1*
2-Fluorobiphenyl (Surr)	*89*		*48 - 120*	*12/15/22 09:33*	*12/16/22 12:34*	*1*
2-Fluorophenol (Surr)	*48*		*35 - 120*	*12/15/22 09:33*	*12/16/22 12:34*	*1*
Nitrobenzene-d5 (Surr)	*84*		*46 - 120*	*12/15/22 09:33*	*12/16/22 12:34*	*1*
p-Terphenyl-d14 (Surr)	*98*		*60 - 148*	*12/15/22 09:33*	*12/16/22 12:34*	*1*
Phenol-d5 (Surr)	*33*		*22 - 120*	*12/15/22 09:33*	*12/16/22 12:34*	*1*

Method: SW846 6010C - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**0.0076**	**J**	0.020	0.0040	mg/Kg		12/09/22 10:09	12/13/22 13:43	1
Barium	**1.1**		0.0050	0.0011	mg/Kg		12/09/22 10:09	12/13/22 13:43	1
Cadmium	**0.0014**	**J**	0.0020	0.00030	mg/Kg		12/09/22 10:09	12/13/22 13:43	1
Chromium	ND		0.0050	0.0020	mg/Kg		12/09/22 10:09	12/13/22 13:43	1
Lead	**0.034**		0.010	0.0024	mg/Kg		12/09/22 10:09	12/13/22 13:43	1
Selenium	**0.0042**	**J B**	0.040	0.0040	mg/Kg		12/09/22 10:09	12/13/22 13:43	1
Silver	ND		0.0060	0.0020	mg/Kg		12/09/22 10:09	12/13/22 13:43	1

Method: SW846 7470A - Mercury (CVAA) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.000043	mg/L		12/09/22 11:47	12/09/22 18:05	1

Surrogate Summary

Client: LaBella Associates DPC
Project/Site: Roblin Steel site

Job ID: 480-204473-1

Method: 8260C - Volatile Organic Compounds by GC/MS

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)			
		TOL	DCA	BFB	DBFM
Lab Sample ID	Client Sample ID	(71-125)	(64-126)	(72-126)	(60-140)
480-204473-1	ROBLIN DRUM	112	124	79	108
LCS 480-652673/1-A	Lab Control Sample	106	102	102	104
MB 480-652673/2-A	Method Blank	104	103	103	106

Surrogate Legend

TOL = Toluene-d8 (Surr)
DCA = 1,2-Dichloroethane-d4 (Surr)
BFB = 4-Bromofluorobenzene (Surr)
DBFM = Dibromofluoromethane (Surr)

Method: 8260C - Volatile Organic Compounds by GC/MS

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)			
		TOL	DCA	BFB	DBFM
Lab Sample ID	Client Sample ID	(80-120)	(77-120)	(73-120)	(75-123)
LCS 480-652922/6	Lab Control Sample	90	93	96	100
MB 480-652922/8	Method Blank	85	99	90	104

Surrogate Legend

TOL = Toluene-d8 (Surr)
DCA = 1,2-Dichloroethane-d4 (Surr)
BFB = 4-Bromofluorobenzene (Surr)
DBFM = Dibromofluoromethane (Surr)

Method: 8260C - Volatile Organic Compounds by GC/MS

Matrix: Solid **Prep Type: TCLP**

		Percent Surrogate Recovery (Acceptance Limits)			
		DCA	BFB	TOL	DBFM
Lab Sample ID	Client Sample ID	(77-120)	(73-120)	(80-120)	(75-123)
480-204473-1	ROBLIN DRUM	100	89	88	102
LB 480-652650/1-A	Method Blank	103	91	89	103

Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)
BFB = 4-Bromofluorobenzene (Surr)
TOL = Toluene-d8 (Surr)
DBFM = Dibromofluoromethane (Surr)

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)					
		NBZ	PHL	TPHd14	TBP	FBP	2FP
Lab Sample ID	Client Sample ID	(53-120)	(54-120)	(79-130)	(54-120)	(60-120)	(52-120)
480-204473-1	ROBLIN DRUM	53	55	87	77	66	51 S1-
LCS 480-652566/2-A	Lab Control Sample	63	66	79	80	69	61
MB 480-652566/1-A	Method Blank	76	78	90	84	83	75

Surrogate Legend

NBZ = Nitrobenzene-d5 (Surr)
PHL = Phenol-d5 (Surr)

Surrogate Summary

Client: LaBella Associates DPC
Project/Site: Roblin Steel site

Job ID: 480-204473-1

TPHd14 = p-Terphenyl-d14 (Surr)
TBP = 2,4,6-Tribromophenol (Surr)
FBP = 2-Fluorobiphenyl (Surr)
2FP = 2-Fluorophenol (Surr)

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)					
		NBZ	PHL	TPHd14	TBP	FBP	2FP
Lab Sample ID	Client Sample ID	(46-120)	(22-120)	(60-148)	(41-120)	(48-120)	(35-120)
LCS 480-653570/2-A	Lab Control Sample	84	35	105	103	92	47
LCSD 480-653570/3-A	Lab Control Sample Dup	88	37	107	106	94	49
MB 480-653570/1-A	Method Blank	90	36	100	95	94	53

Surrogate Legend

NBZ = Nitrobenzene-d5 (Surr)
PHL = Phenol-d5 (Surr)
TPHd14 = p-Terphenyl-d14 (Surr)
TBP = 2,4,6-Tribromophenol (Surr)
FBP = 2-Fluorobiphenyl (Surr)
2FP = 2-Fluorophenol (Surr)

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Matrix: Solid **Prep Type: TCLP**

		Percent Surrogate Recovery (Acceptance Limits)					
		TBP	FBP	2FP	NBZ	TPHd14	PHL
Lab Sample ID	Client Sample ID	(41-120)	(48-120)	(35-120)	(46-120)	(60-148)	(22-120)
480-204473-1	ROBLIN DRUM	95	89	48	84	98	33
LB 480-652622/1-G	Method Blank	102	92	51	92	105	35

Surrogate Legend

TBP = 2,4,6-Tribromophenol (Surr)
FBP = 2-Fluorobiphenyl (Surr)
2FP = 2-Fluorophenol (Surr)
NBZ = Nitrobenzene-d5 (Surr)
TPHd14 = p-Terphenyl-d14 (Surr)
PHL = Phenol-d5 (Surr)

Method: 8260C - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 480-652673/2-A
Matrix: Solid
Analysis Batch: 652739

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 652673

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		5.0	0.36	ug/Kg		12/08/22 12:27	12/08/22 21:12	1
1,1,2,2-Tetrachloroethane	ND		5.0	0.81	ug/Kg		12/08/22 12:27	12/08/22 21:12	1
1,1,2-Trichloroethane	ND		5.0	0.65	ug/Kg		12/08/22 12:27	12/08/22 21:12	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		5.0	1.1	ug/Kg		12/08/22 12:27	12/08/22 21:12	1
1,1-Dichloroethane	ND		5.0	0.61	ug/Kg		12/08/22 12:27	12/08/22 21:12	1
1,2,4-Trichlorobenzene	ND		5.0	0.30	ug/Kg		12/08/22 12:27	12/08/22 21:12	1
1,2-Dibromo-3-Chloropropane	ND		5.0	2.5	ug/Kg		12/08/22 12:27	12/08/22 21:12	1
1,2-Dichlorobenzene	ND		5.0	0.39	ug/Kg		12/08/22 12:27	12/08/22 21:12	1
1,2-Dichloroethane	ND		5.0	0.25	ug/Kg		12/08/22 12:27	12/08/22 21:12	1
1,2-Dichloropropane	ND		5.0	2.5	ug/Kg		12/08/22 12:27	12/08/22 21:12	1
1,3-Dichlorobenzene	ND		5.0	0.26	ug/Kg		12/08/22 12:27	12/08/22 21:12	1
1,1-Dichloroethene	ND		5.0	0.61	ug/Kg		12/08/22 12:27	12/08/22 21:12	1
1,4-Dichlorobenzene	ND		5.0	0.70	ug/Kg		12/08/22 12:27	12/08/22 21:12	1
2-Butanone (MEK)	ND		25	1.8	ug/Kg		12/08/22 12:27	12/08/22 21:12	1
2-Hexanone	ND		25	2.5	ug/Kg		12/08/22 12:27	12/08/22 21:12	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.6	ug/Kg		12/08/22 12:27	12/08/22 21:12	1
Acetone	ND		25	4.2	ug/Kg		12/08/22 12:27	12/08/22 21:12	1
Benzene	ND		5.0	0.25	ug/Kg		12/08/22 12:27	12/08/22 21:12	1
Bromodichloromethane	ND		5.0	0.67	ug/Kg		12/08/22 12:27	12/08/22 21:12	1
Bromoform	ND		5.0	2.5	ug/Kg		12/08/22 12:27	12/08/22 21:12	1
Bromomethane	ND		5.0	0.45	ug/Kg		12/08/22 12:27	12/08/22 21:12	1
Carbon disulfide	ND		5.0	2.5	ug/Kg		12/08/22 12:27	12/08/22 21:12	1
Carbon tetrachloride	ND		5.0	0.48	ug/Kg		12/08/22 12:27	12/08/22 21:12	1
Chlorobenzene	ND		5.0	0.66	ug/Kg		12/08/22 12:27	12/08/22 21:12	1
Dibromochloromethane	ND		5.0	0.64	ug/Kg		12/08/22 12:27	12/08/22 21:12	1
Chloroethane	ND		5.0	1.1	ug/Kg		12/08/22 12:27	12/08/22 21:12	1
Chloroform	0.330	J	5.0	0.31	ug/Kg		12/08/22 12:27	12/08/22 21:12	1
Chloromethane	ND		5.0	0.30	ug/Kg		12/08/22 12:27	12/08/22 21:12	1
cis-1,2-Dichloroethene	ND		5.0	0.64	ug/Kg		12/08/22 12:27	12/08/22 21:12	1
cis-1,3-Dichloropropene	ND		5.0	0.72	ug/Kg		12/08/22 12:27	12/08/22 21:12	1
Cyclohexane	ND		5.0	0.70	ug/Kg		12/08/22 12:27	12/08/22 21:12	1
Dichlorodifluoromethane	ND		5.0	0.41	ug/Kg		12/08/22 12:27	12/08/22 21:12	1
Ethylbenzene	ND		5.0	0.35	ug/Kg		12/08/22 12:27	12/08/22 21:12	1
1,2-Dibromoethane	ND		5.0	0.64	ug/Kg		12/08/22 12:27	12/08/22 21:12	1
Isopropylbenzene	ND		5.0	0.75	ug/Kg		12/08/22 12:27	12/08/22 21:12	1
Methyl acetate	ND		25	3.0	ug/Kg		12/08/22 12:27	12/08/22 21:12	1
Methyl tert-butyl ether	ND		5.0	0.49	ug/Kg		12/08/22 12:27	12/08/22 21:12	1
Methylcyclohexane	ND		5.0	0.76	ug/Kg		12/08/22 12:27	12/08/22 21:12	1
Methylene Chloride	ND		5.0	2.3	ug/Kg		12/08/22 12:27	12/08/22 21:12	1
Styrene	ND		5.0	0.25	ug/Kg		12/08/22 12:27	12/08/22 21:12	1
Tetrachloroethene	ND		5.0	0.67	ug/Kg		12/08/22 12:27	12/08/22 21:12	1
Toluene	ND		5.0	0.38	ug/Kg		12/08/22 12:27	12/08/22 21:12	1
trans-1,2-Dichloroethene	ND		5.0	0.52	ug/Kg		12/08/22 12:27	12/08/22 21:12	1
trans-1,3-Dichloropropene	ND		5.0	2.2	ug/Kg		12/08/22 12:27	12/08/22 21:12	1
Trichloroethene	ND		5.0	1.1	ug/Kg		12/08/22 12:27	12/08/22 21:12	1
Trichlorofluoromethane	ND		5.0	0.47	ug/Kg		12/08/22 12:27	12/08/22 21:12	1
Vinyl chloride	ND		5.0	0.61	ug/Kg		12/08/22 12:27	12/08/22 21:12	1
Xylenes, Total	ND		10	0.84	ug/Kg		12/08/22 12:27	12/08/22 21:12	1

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 480-652673/2-A
Matrix: Solid
Analysis Batch: 652739

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 652673

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	*104*		*71 - 125*	*12/08/22 12:27*	*12/08/22 21:12*	*1*
1,2-Dichloroethane-d4 (Surr)	*103*		*64 - 126*	*12/08/22 12:27*	*12/08/22 21:12*	*1*
4-Bromofluorobenzene (Surr)	*103*		*72 - 126*	*12/08/22 12:27*	*12/08/22 21:12*	*1*
Dibromofluoromethane (Surr)	*106*		*60 - 140*	*12/08/22 12:27*	*12/08/22 21:12*	*1*

Lab Sample ID: LCS 480-652673/1-A
Matrix: Solid
Analysis Batch: 652739

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 652673

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,1,1-Trichloroethane	50.0	45.7		ug/Kg		91	77 - 121
1,1,2,2-Tetrachloroethane	50.0	45.3		ug/Kg		91	80 - 120
1,1,2-Trichloroethane	50.0	51.2		ug/Kg		102	78 - 122
1,1,2-Trichloro-1,2,2-trifluoroethane	50.0	48.2		ug/Kg		96	60 - 140
1,1-Dichloroethane	50.0	42.9		ug/Kg		86	73 - 126
1,2,4-Trichlorobenzene	50.0	46.9		ug/Kg		94	64 - 120
1,2-Dibromo-3-Chloropropane	50.0	40.0		ug/Kg		80	63 - 124
1,2-Dichlorobenzene	50.0	46.5		ug/Kg		93	75 - 120
1,2-Dichloroethane	50.0	50.0		ug/Kg		100	77 - 122
1,2-Dichloropropane	50.0	42.7		ug/Kg		85	75 - 124
1,3-Dichlorobenzene	50.0	49.2		ug/Kg		98	74 - 120
1,1-Dichloroethene	50.0	47.5		ug/Kg		95	59 - 125
1,4-Dichlorobenzene	50.0	48.9		ug/Kg		98	73 - 120
2-Butanone (MEK)	250	195		ug/Kg		78	70 - 134
2-Hexanone	250	240		ug/Kg		96	59 - 130
4-Methyl-2-pentanone (MIBK)	250	237		ug/Kg		95	65 - 133
Acetone	250	199		ug/Kg		79	61 - 137
Benzene	50.0	47.1		ug/Kg		94	79 - 127
Bromodichloromethane	50.0	47.5		ug/Kg		95	80 - 122
Bromoform	50.0	47.7		ug/Kg		95	68 - 126
Bromomethane	50.0	58.6		ug/Kg		117	37 - 149
Carbon disulfide	50.0	43.0		ug/Kg		86	64 - 131
Carbon tetrachloride	50.0	43.5		ug/Kg		87	75 - 135
Chlorobenzene	50.0	51.6		ug/Kg		103	76 - 124
Dibromochloromethane	50.0	51.4		ug/Kg		103	76 - 125
Chloroethane	50.0	52.0		ug/Kg		104	69 - 135
Chloroform	50.0	47.9		ug/Kg		96	80 - 120
Chloromethane	50.0	40.9		ug/Kg		82	63 - 127
cis-1,2-Dichloroethene	50.0	44.7		ug/Kg		89	81 - 120
cis-1,3-Dichloropropene	50.0	42.9		ug/Kg		86	80 - 120
Cyclohexane	50.0	44.2		ug/Kg		88	65 - 120
Dichlorodifluoromethane	50.0	48.9		ug/Kg		98	57 - 142
Ethylbenzene	50.0	50.9		ug/Kg		102	80 - 120
1,2-Dibromoethane	50.0	50.2		ug/Kg		100	78 - 120
Isopropylbenzene	50.0	46.5		ug/Kg		93	72 - 120
Methyl acetate	100	74.9		ug/Kg		75	55 - 136
Methyl tert-butyl ether	50.0	41.9		ug/Kg		84	63 - 125
Methylcyclohexane	50.0	45.7		ug/Kg		91	60 - 140

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 480-652673/1-A
Matrix: Solid
Analysis Batch: 652739

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 652673

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Methylene Chloride	50.0	46.5		ug/Kg		93	61 - 127
Styrene	50.0	47.4		ug/Kg		95	80 - 120
Tetrachloroethene	50.0	52.3		ug/Kg		105	74 - 122
Toluene	50.0	49.6		ug/Kg		99	74 - 128
trans-1,2-Dichloroethene	50.0	43.5		ug/Kg		87	78 - 126
trans-1,3-Dichloropropene	50.0	43.9		ug/Kg		88	73 - 123
Trichloroethene	50.0	47.7		ug/Kg		95	77 - 129
Trichlorofluoromethane	50.0	54.1		ug/Kg		108	65 - 146
Vinyl chloride	50.0	46.4		ug/Kg		93	61 - 133

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Toluene-d8 (Surr)	*106*		*71 - 125*
1,2-Dichloroethane-d4 (Surr)	*102*		*64 - 126*
4-Bromofluorobenzene (Surr)	*102*		*72 - 126*
Dibromofluoromethane (Surr)	*104*		*60 - 140*

Lab Sample ID: MB 480-652922/8
Matrix: Solid
Analysis Batch: 652922

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane	ND		0.0010	0.00021	mg/L			12/10/22 04:41	1
1,1-Dichloroethene	ND		0.0010	0.00029	mg/L			12/10/22 04:41	1
2-Butanone (MEK)	ND		0.0050	0.0013	mg/L			12/10/22 04:41	1
Benzene	ND		0.0010	0.00041	mg/L			12/10/22 04:41	1
Carbon tetrachloride	ND		0.0010	0.00027	mg/L			12/10/22 04:41	1
Chlorobenzene	ND		0.0010	0.00075	mg/L			12/10/22 04:41	1
Chloroform	ND		0.0010	0.00034	mg/L			12/10/22 04:41	1
Tetrachloroethene	ND		0.0010	0.00036	mg/L			12/10/22 04:41	1
Trichloroethene	ND		0.0010	0.00046	mg/L			12/10/22 04:41	1
Vinyl chloride	ND		0.0010	0.00090	mg/L			12/10/22 04:41	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*85*		*80 - 120*		*12/10/22 04:41*	*1*
1,2-Dichloroethane-d4 (Surr)	*99*		*77 - 120*		*12/10/22 04:41*	*1*
4-Bromofluorobenzene (Surr)	*90*		*73 - 120*		*12/10/22 04:41*	*1*
Dibromofluoromethane (Surr)	*104*		*75 - 123*		*12/10/22 04:41*	*1*

Lab Sample ID: LCS 480-652922/6
Matrix: Solid
Analysis Batch: 652922

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,2-Dichloroethane	0.0250	0.0237		mg/L		95	75 - 120
1,1-Dichloroethene	0.0250	0.0219		mg/L		88	66 - 127
2-Butanone (MEK)	0.125	0.114		mg/L		91	57 - 140
Benzene	0.0250	0.0226		mg/L		91	71 - 124
Carbon tetrachloride	0.0250	0.0232		mg/L		93	72 - 134

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 480-652922/6
Matrix: Solid
Analysis Batch: 652922

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chlorobenzene	0.0250	0.0225		mg/L		90	80 - 120
Chloroform	0.0250	0.0226		mg/L		90	73 - 127
Tetrachloroethene	0.0250	0.0241		mg/L		96	74 - 122
Trichloroethene	0.0250	0.0231		mg/L		92	74 - 123
Vinyl chloride	0.0250	0.0247		mg/L		99	65 - 133

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Toluene-d8 (Surr)	*90*		*80 - 120*
1,2-Dichloroethane-d4 (Surr)	*93*		*77 - 120*
4-Bromofluorobenzene (Surr)	*96*		*73 - 120*
Dibromofluoromethane (Surr)	*100*		*75 - 123*

Lab Sample ID: LB 480-652650/1-A
Matrix: Solid
Analysis Batch: 652922

Client Sample ID: Method Blank
Prep Type: TCLP

Analyte	LB Result	LB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane	ND		0.010	0.0021	mg/L			12/10/22 10:05	10
1,1-Dichloroethene	ND		0.010	0.0029	mg/L			12/10/22 10:05	10
2-Butanone (MEK)	ND		0.050	0.013	mg/L			12/10/22 10:05	10
Benzene	ND		0.010	0.0041	mg/L			12/10/22 10:05	10
Carbon tetrachloride	ND		0.010	0.0027	mg/L			12/10/22 10:05	10
Chlorobenzene	ND		0.010	0.0075	mg/L			12/10/22 10:05	10
Chloroform	ND		0.010	0.0034	mg/L			12/10/22 10:05	10
Tetrachloroethene	ND		0.010	0.0036	mg/L			12/10/22 10:05	10
Trichloroethene	ND		0.010	0.0046	mg/L			12/10/22 10:05	10
Vinyl chloride	ND		0.010	0.0090	mg/L			12/10/22 10:05	10

Surrogate	*LB %Recovery*	*LB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*89*		*80 - 120*		*12/10/22 10:05*	*10*
1,2-Dichloroethane-d4 (Surr)	*103*		*77 - 120*		*12/10/22 10:05*	*10*
4-Bromofluorobenzene (Surr)	*91*		*73 - 120*		*12/10/22 10:05*	*10*
Dibromofluoromethane (Surr)	*103*		*75 - 123*		*12/10/22 10:05*	*10*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 480-652566/1-A
Matrix: Solid
Analysis Batch: 652617

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 652566

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Biphenyl	ND		170	24	ug/Kg		12/07/22 16:14	12/08/22 14:00	1
bis (2-chloroisopropyl) ether	ND		170	33	ug/Kg		12/07/22 16:14	12/08/22 14:00	1
2,4,5-Trichlorophenol	ND		170	45	ug/Kg		12/07/22 16:14	12/08/22 14:00	1
2,4,6-Trichlorophenol	ND		170	33	ug/Kg		12/07/22 16:14	12/08/22 14:00	1
2,4-Dichlorophenol	ND		170	18	ug/Kg		12/07/22 16:14	12/08/22 14:00	1
2,4-Dimethylphenol	ND		170	40	ug/Kg		12/07/22 16:14	12/08/22 14:00	1
2,4-Dinitrophenol	ND		1600	770	ug/Kg		12/07/22 16:14	12/08/22 14:00	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 480-652566/1-A
Matrix: Solid
Analysis Batch: 652617

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 652566

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-Dinitrotoluene	ND		170	34	ug/Kg		12/07/22 16:14	12/08/22 14:00	1
2,6-Dinitrotoluene	ND		170	20	ug/Kg		12/07/22 16:14	12/08/22 14:00	1
2-Chloronaphthalene	ND		170	27	ug/Kg		12/07/22 16:14	12/08/22 14:00	1
2-Chlorophenol	ND		320	30	ug/Kg		12/07/22 16:14	12/08/22 14:00	1
2-Methylphenol	ND		170	20	ug/Kg		12/07/22 16:14	12/08/22 14:00	1
2-Methylnaphthalene	ND		170	33	ug/Kg		12/07/22 16:14	12/08/22 14:00	1
2-Nitroaniline	ND		320	24	ug/Kg		12/07/22 16:14	12/08/22 14:00	1
2-Nitrophenol	ND		170	47	ug/Kg		12/07/22 16:14	12/08/22 14:00	1
3,3'-Dichlorobenzidine	ND		320	200	ug/Kg		12/07/22 16:14	12/08/22 14:00	1
3-Nitroaniline	ND		320	46	ug/Kg		12/07/22 16:14	12/08/22 14:00	1
4,6-Dinitro-2-methylphenol	ND		320	170	ug/Kg		12/07/22 16:14	12/08/22 14:00	1
4-Bromophenyl phenyl ether	ND		170	24	ug/Kg		12/07/22 16:14	12/08/22 14:00	1
4-Chloro-3-methylphenol	ND		170	41	ug/Kg		12/07/22 16:14	12/08/22 14:00	1
4-Chloroaniline	ND		170	41	ug/Kg		12/07/22 16:14	12/08/22 14:00	1
4-Chlorophenyl phenyl ether	ND		170	21	ug/Kg		12/07/22 16:14	12/08/22 14:00	1
4-Methylphenol	ND		320	20	ug/Kg		12/07/22 16:14	12/08/22 14:00	1
4-Nitroaniline	ND		320	87	ug/Kg		12/07/22 16:14	12/08/22 14:00	1
4-Nitrophenol	ND		320	120	ug/Kg		12/07/22 16:14	12/08/22 14:00	1
Acenaphthene	ND		170	24	ug/Kg		12/07/22 16:14	12/08/22 14:00	1
Acenaphthylene	ND		170	22	ug/Kg		12/07/22 16:14	12/08/22 14:00	1
Acetophenone	ND		170	23	ug/Kg		12/07/22 16:14	12/08/22 14:00	1
Anthracene	ND		170	41	ug/Kg		12/07/22 16:14	12/08/22 14:00	1
Atrazine	ND		170	58	ug/Kg		12/07/22 16:14	12/08/22 14:00	1
Benzaldehyde	ND		170	130	ug/Kg		12/07/22 16:14	12/08/22 14:00	1
Benzo[a]anthracene	ND		170	17	ug/Kg		12/07/22 16:14	12/08/22 14:00	1
Benzo[a]pyrene	ND		170	24	ug/Kg		12/07/22 16:14	12/08/22 14:00	1
Benzo[b]fluoranthene	ND		170	26	ug/Kg		12/07/22 16:14	12/08/22 14:00	1
Benzo[g,h,i]perylene	ND		170	18	ug/Kg		12/07/22 16:14	12/08/22 14:00	1
Benzo[k]fluoranthene	ND		170	22	ug/Kg		12/07/22 16:14	12/08/22 14:00	1
Bis(2-chloroethoxy)methane	ND		170	35	ug/Kg		12/07/22 16:14	12/08/22 14:00	1
Bis(2-chloroethyl)ether	ND		170	22	ug/Kg		12/07/22 16:14	12/08/22 14:00	1
Bis(2-ethylhexyl) phthalate	ND		170	57	ug/Kg		12/07/22 16:14	12/08/22 14:00	1
Butyl benzyl phthalate	32.6	J	170	27	ug/Kg		12/07/22 16:14	12/08/22 14:00	1
Caprolactam	ND		170	50	ug/Kg		12/07/22 16:14	12/08/22 14:00	1
Carbazole	ND		170	20	ug/Kg		12/07/22 16:14	12/08/22 14:00	1
Chrysene	ND		170	37	ug/Kg		12/07/22 16:14	12/08/22 14:00	1
Dibenz(a,h)anthracene	ND		170	29	ug/Kg		12/07/22 16:14	12/08/22 14:00	1
Di-n-butyl phthalate	ND		170	28	ug/Kg		12/07/22 16:14	12/08/22 14:00	1
Di-n-octyl phthalate	ND		170	20	ug/Kg		12/07/22 16:14	12/08/22 14:00	1
Dibenzofuran	ND		170	20	ug/Kg		12/07/22 16:14	12/08/22 14:00	1
Diethyl phthalate	ND		170	22	ug/Kg		12/07/22 16:14	12/08/22 14:00	1
Dimethyl phthalate	ND		170	20	ug/Kg		12/07/22 16:14	12/08/22 14:00	1
Fluoranthene	ND		170	18	ug/Kg		12/07/22 16:14	12/08/22 14:00	1
Fluorene	ND		170	20	ug/Kg		12/07/22 16:14	12/08/22 14:00	1
Hexachlorobenzene	ND		170	23	ug/Kg		12/07/22 16:14	12/08/22 14:00	1
Hexachlorobutadiene	ND		170	24	ug/Kg		12/07/22 16:14	12/08/22 14:00	1
Hexachlorocyclopentadiene	ND		170	23	ug/Kg		12/07/22 16:14	12/08/22 14:00	1
Hexachloroethane	ND		170	22	ug/Kg		12/07/22 16:14	12/08/22 14:00	1
Indeno[1,2,3-cd]pyrene	ND		170	21	ug/Kg		12/07/22 16:14	12/08/22 14:00	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 480-652566/1-A
Matrix: Solid
Analysis Batch: 652617

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 652566

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Isophorone	ND		170	35	ug/Kg		12/07/22 16:14	12/08/22 14:00	1
N-Nitrosodi-n-propylamine	ND		170	28	ug/Kg		12/07/22 16:14	12/08/22 14:00	1
N-Nitrosodiphenylamine	ND		170	140	ug/Kg		12/07/22 16:14	12/08/22 14:00	1
Naphthalene	ND		170	22	ug/Kg		12/07/22 16:14	12/08/22 14:00	1
Nitrobenzene	ND		170	19	ug/Kg		12/07/22 16:14	12/08/22 14:00	1
Pentachlorophenol	ND		320	170	ug/Kg		12/07/22 16:14	12/08/22 14:00	1
Phenanthrene	ND		170	24	ug/Kg		12/07/22 16:14	12/08/22 14:00	1
Phenol	ND		170	25	ug/Kg		12/07/22 16:14	12/08/22 14:00	1
Pyrene	ND		170	20	ug/Kg		12/07/22 16:14	12/08/22 14:00	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*76*		*53 - 120*	*12/07/22 16:14*	*12/08/22 14:00*	*1*
Phenol-d5 (Surr)	*78*		*54 - 120*	*12/07/22 16:14*	*12/08/22 14:00*	*1*
p-Terphenyl-d14 (Surr)	*90*		*79 - 130*	*12/07/22 16:14*	*12/08/22 14:00*	*1*
2,4,6-Tribromophenol (Surr)	*84*		*54 - 120*	*12/07/22 16:14*	*12/08/22 14:00*	*1*
2-Fluorobiphenyl (Surr)	*83*		*60 - 120*	*12/07/22 16:14*	*12/08/22 14:00*	*1*
2-Fluorophenol (Surr)	*75*		*52 - 120*	*12/07/22 16:14*	*12/08/22 14:00*	*1*

Lab Sample ID: LCS 480-652566/2-A
Matrix: Solid
Analysis Batch: 652617

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 652566

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Biphenyl	1640	1080		ug/Kg		66	59 - 120
bis (2-chloroisopropyl) ether	1640	970		ug/Kg		59	44 - 120
2,4,5-Trichlorophenol	1640	1210		ug/Kg		74	59 - 126
2,4,6-Trichlorophenol	1640	1210		ug/Kg		73	59 - 123
2,4-Dichlorophenol	1640	1140		ug/Kg		69	61 - 120
2,4-Dimethylphenol	1640	1140		ug/Kg		70	59 - 120
2,4-Dinitrophenol	3280	2460		ug/Kg		75	41 - 146
2,4-Dinitrotoluene	1640	1290		ug/Kg		79	63 - 120
2,6-Dinitrotoluene	1640	1240		ug/Kg		75	66 - 120
2-Chloronaphthalene	1640	1060		ug/Kg		64	57 - 120
2-Chlorophenol	1640	1020		ug/Kg		62	53 - 120
2-Methylphenol	1640	1110		ug/Kg		68	54 - 120
2-Methylnaphthalene	1640	988		ug/Kg		60	59 - 120
2-Nitroaniline	1640	1220		ug/Kg		74	61 - 120
2-Nitrophenol	1640	1060		ug/Kg		65	56 - 120
3,3'-Dichlorobenzidine	3280	2380		ug/Kg		73	54 - 120
3-Nitroaniline	1640	1150		ug/Kg		70	48 - 120
4,6-Dinitro-2-methylphenol	3280	2480		ug/Kg		76	49 - 122
4-Bromophenyl phenyl ether	1640	1200		ug/Kg		73	58 - 120
4-Chloro-3-methylphenol	1640	1240		ug/Kg		75	61 - 120
4-Chloroaniline	1640	1030		ug/Kg		63	38 - 120
4-Chlorophenyl phenyl ether	1640	1180		ug/Kg		72	63 - 124
4-Methylphenol	1640	1130		ug/Kg		69	55 - 120
4-Nitroaniline	1640	1250		ug/Kg		76	56 - 120
4-Nitrophenol	3280	2580		ug/Kg		79	43 - 147

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 480-652566/2-A
Matrix: Solid
Analysis Batch: 652617

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 652566

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Acenaphthene	1640	1120		ug/Kg		68	62 - 120
Acenaphthylene	1640	1140		ug/Kg		69	58 - 121
Acetophenone	1640	1030		ug/Kg		63	54 - 120
Anthracene	1640	1240		ug/Kg		76	62 - 120
Atrazine	3280	2620		ug/Kg		80	60 - 127
Benzaldehyde	3280	1940		ug/Kg		59	10 - 150
Benzo[a]anthracene	1640	1250		ug/Kg		76	65 - 120
Benzo[a]pyrene	1640	1250		ug/Kg		76	64 - 120
Benzo[b]fluoranthene	1640	1440		ug/Kg		88	64 - 120
Benzo[g,h,i]perylene	1640	1170		ug/Kg		71	45 - 145
Benzo[k]fluoranthene	1640	1180		ug/Kg		72	65 - 120
Bis(2-chloroethoxy)methane	1640	1050		ug/Kg		64	55 - 120
Bis(2-chloroethyl)ether	1640	961		ug/Kg		59	45 - 120
Bis(2-ethylhexyl) phthalate	1640	1310		ug/Kg		80	61 - 133
Butyl benzyl phthalate	1640	1280		ug/Kg		78	61 - 129
Caprolactam	3280	2680		ug/Kg		82	47 - 120
Carbazole	1640	1280		ug/Kg		78	65 - 120
Chrysene	1640	1200		ug/Kg		73	64 - 120
Dibenz(a,h)anthracene	1640	1220		ug/Kg		75	54 - 132
Di-n-butyl phthalate	1640	1300		ug/Kg		79	58 - 130
Di-n-octyl phthalate	1640	1280		ug/Kg		78	57 - 133
Dibenzofuran	1640	1150		ug/Kg		70	63 - 120
Diethyl phthalate	1640	1270		ug/Kg		77	66 - 120
Dimethyl phthalate	1640	1250		ug/Kg		76	65 - 124
Fluoranthene	1640	1270		ug/Kg		77	62 - 120
Fluorene	1640	1170		ug/Kg		72	63 - 120
Hexachlorobenzene	1640	1210		ug/Kg		73	60 - 120
Hexachlorobutadiene	1640	959		ug/Kg		58	45 - 120
Hexachlorocyclopentadiene	1640	1010		ug/Kg		62	47 - 120
Hexachloroethane	1640	885		ug/Kg		54	41 - 120
Indeno[1,2,3-cd]pyrene	1640	1220		ug/Kg		74	56 - 134
Isophorone	1640	1090		ug/Kg		66	56 - 120
N-Nitrosodi-n-propylamine	1640	1040		ug/Kg		64	52 - 120
N-Nitrosodiphenylamine	1640	1210		ug/Kg		74	51 - 128
Naphthalene	1640	1020		ug/Kg		62	55 - 120
Nitrobenzene	1640	1040		ug/Kg		63	54 - 120
Pentachlorophenol	3280	2330		ug/Kg		71	51 - 120
Phenanthrene	1640	1210		ug/Kg		74	60 - 120
Phenol	1640	1060		ug/Kg		65	53 - 120
Pyrene	1640	1250		ug/Kg		76	61 - 133

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Nitrobenzene-d5 (Surr)	*63*		*53 - 120*
Phenol-d5 (Surr)	*66*		*54 - 120*
p-Terphenyl-d14 (Surr)	*79*		*79 - 130*
2,4,6-Tribromophenol (Surr)	*80*		*54 - 120*
2-Fluorobiphenyl (Surr)	*69*		*60 - 120*
2-Fluorophenol (Surr)	*61*		*52 - 120*

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 480-653570/1-A
Matrix: Solid
Analysis Batch: 653688

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 653570

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dichlorobenzene	ND		0.010	0.00045	mg/L		12/15/22 09:33	12/16/22 10:57	1
2,4,5-Trichlorophenol	ND		0.0050	0.00048	mg/L		12/15/22 09:33	12/16/22 10:57	1
2,4,6-Trichlorophenol	ND		0.0050	0.00060	mg/L		12/15/22 09:33	12/16/22 10:57	1
2,4-Dinitrotoluene	ND		0.0050	0.00043	mg/L		12/15/22 09:33	12/16/22 10:57	1
3-Methylphenol	ND		0.010	0.00040	mg/L		12/15/22 09:33	12/16/22 10:57	1
2-Methylphenol	ND		0.0050	0.00040	mg/L		12/15/22 09:33	12/16/22 10:57	1
Pyridine	ND		0.025	0.00040	mg/L		12/15/22 09:33	12/16/22 10:57	1
4-Methylphenol	ND		0.010	0.00035	mg/L		12/15/22 09:33	12/16/22 10:57	1
Hexachlorobenzene	ND		0.0050	0.00050	mg/L		12/15/22 09:33	12/16/22 10:57	1
Hexachlorobutadiene	ND		0.0050	0.00068	mg/L		12/15/22 09:33	12/16/22 10:57	1
Hexachloroethane	ND		0.0050	0.00058	mg/L		12/15/22 09:33	12/16/22 10:57	1
Nitrobenzene	ND		0.0050	0.00028	mg/L		12/15/22 09:33	12/16/22 10:57	1
Pentachlorophenol	ND		0.010	0.0022	mg/L		12/15/22 09:33	12/16/22 10:57	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*90*		*46 - 120*	*12/15/22 09:33*	*12/16/22 10:57*	*1*
Phenol-d5 (Surr)	*36*		*22 - 120*	*12/15/22 09:33*	*12/16/22 10:57*	*1*
p-Terphenyl-d14 (Surr)	*100*		*60 - 148*	*12/15/22 09:33*	*12/16/22 10:57*	*1*
2,4,6-Tribromophenol (Surr)	*95*		*41 - 120*	*12/15/22 09:33*	*12/16/22 10:57*	*1*
2-Fluorobiphenyl (Surr)	*94*		*48 - 120*	*12/15/22 09:33*	*12/16/22 10:57*	*1*
2-Fluorophenol (Surr)	*53*		*35 - 120*	*12/15/22 09:33*	*12/16/22 10:57*	*1*

Lab Sample ID: LCS 480-653570/2-A
Matrix: Solid
Analysis Batch: 653688

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 653570

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,4-Dichlorobenzene	0.0500	0.0258		mg/L		52	51 - 120
2,4,5-Trichlorophenol	0.0500	0.0483		mg/L		97	65 - 126
2,4,6-Trichlorophenol	0.0500	0.0461		mg/L		92	64 - 120
2,4-Dinitrotoluene	0.0500	0.0515		mg/L		103	69 - 120
3-Methylphenol	0.0500	0.0344		mg/L		69	39 - 120
2-Methylphenol	0.0500	0.0369		mg/L		74	39 - 120
Pyridine	0.100	0.0484		mg/L		48	10 - 120
4-Methylphenol	0.0500	0.0344		mg/L		69	29 - 131
Hexachlorobenzene	0.0500	0.0478		mg/L		96	61 - 120
Hexachlorobutadiene	0.0500	0.0269		mg/L		54	35 - 120
Hexachloroethane	0.0500	0.0231		mg/L		46	43 - 120
Nitrobenzene	0.0500	0.0415		mg/L		83	53 - 123
Pentachlorophenol	0.100	0.100		mg/L		100	29 - 136

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Nitrobenzene-d5 (Surr)	*84*		*46 - 120*
Phenol-d5 (Surr)	*35*		*22 - 120*
p-Terphenyl-d14 (Surr)	*105*		*60 - 148*
2,4,6-Tribromophenol (Surr)	*103*		*41 - 120*
2-Fluorobiphenyl (Surr)	*92*		*48 - 120*
2-Fluorophenol (Surr)	*47*		*35 - 120*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: LCSD 480-653570/3-A
Matrix: Solid
Analysis Batch: 653688

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 653570

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,4-Dichlorobenzene			0.0500	0.0264		mg/L		53	51 - 120	2	36
2,4,5-Trichlorophenol			0.0500	0.0476		mg/L		95	65 - 126	1	18
2,4,6-Trichlorophenol			0.0500	0.0478		mg/L		96	64 - 120	3	19
2,4-Dinitrotoluene			0.0500	0.0526		mg/L		105	69 - 120	2	20
3-Methylphenol			0.0500	0.0357		mg/L		71	39 - 120	4	30
2-Methylphenol			0.0500	0.0387		mg/L		77	39 - 120	5	27
Pyridine			0.100	0.0464		mg/L		46	10 - 120	4	49
4-Methylphenol			0.0500	0.0357		mg/L		71	29 - 131	4	24
Hexachlorobenzene			0.0500	0.0485		mg/L		97	61 - 120	2	15
Hexachlorobutadiene			0.0500	0.0266		mg/L		53	35 - 120	1	44
Hexachloroethane			0.0500	0.0237		mg/L		47	43 - 120	2	46
Nitrobenzene			0.0500	0.0421		mg/L		84	53 - 123	1	24
Pentachlorophenol			0.100	0.105		mg/L		105	29 - 136	5	37

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
Nitrobenzene-d5 (Surr)	*88*		*46 - 120*
Phenol-d5 (Surr)	*37*		*22 - 120*
p-Terphenyl-d14 (Surr)	*107*		*60 - 148*
2,4,6-Tribromophenol (Surr)	*106*		*41 - 120*
2-Fluorobiphenyl (Surr)	*94*		*48 - 120*
2-Fluorophenol (Surr)	*49*		*35 - 120*

Lab Sample ID: LB 480-652622/1-G
Matrix: Solid
Analysis Batch: 653688

Client Sample ID: Method Blank
Prep Type: TCLP
Prep Batch: 653570

Analyte	LB Result	LB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dichlorobenzene	ND		0.040	0.0018	mg/L		12/15/22 09:33	12/16/22 12:10	1
2,4,5-Trichlorophenol	ND		0.020	0.0019	mg/L		12/15/22 09:33	12/16/22 12:10	1
2,4,6-Trichlorophenol	ND		0.020	0.0024	mg/L		12/15/22 09:33	12/16/22 12:10	1
2,4-Dinitrotoluene	ND		0.020	0.0017	mg/L		12/15/22 09:33	12/16/22 12:10	1
3-Methylphenol	ND		0.040	0.0016	mg/L		12/15/22 09:33	12/16/22 12:10	1
2-Methylphenol	ND		0.020	0.0016	mg/L		12/15/22 09:33	12/16/22 12:10	1
Pyridine	ND		0.10	0.0016	mg/L		12/15/22 09:33	12/16/22 12:10	1
4-Methylphenol	ND		0.040	0.0014	mg/L		12/15/22 09:33	12/16/22 12:10	1
Hexachlorobenzene	ND		0.020	0.0020	mg/L		12/15/22 09:33	12/16/22 12:10	1
Hexachlorobutadiene	ND		0.020	0.0027	mg/L		12/15/22 09:33	12/16/22 12:10	1
Hexachloroethane	ND		0.020	0.0023	mg/L		12/15/22 09:33	12/16/22 12:10	1
Nitrobenzene	ND		0.020	0.0011	mg/L		12/15/22 09:33	12/16/22 12:10	1
Pentachlorophenol	ND		0.040	0.0088	mg/L		12/15/22 09:33	12/16/22 12:10	1

Surrogate	*LB %Recovery*	*LB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*92*		*46 - 120*	*12/15/22 09:33*	*12/16/22 12:10*	*1*
Phenol-d5 (Surr)	*35*		*22 - 120*	*12/15/22 09:33*	*12/16/22 12:10*	*1*
p-Terphenyl-d14 (Surr)	*105*		*60 - 148*	*12/15/22 09:33*	*12/16/22 12:10*	*1*
2,4,6-Tribromophenol (Surr)	*102*		*41 - 120*	*12/15/22 09:33*	*12/16/22 12:10*	*1*
2-Fluorobiphenyl (Surr)	*92*		*48 - 120*	*12/15/22 09:33*	*12/16/22 12:10*	*1*
2-Fluorophenol (Surr)	*51*		*35 - 120*	*12/15/22 09:33*	*12/16/22 12:10*	*1*

Method: 6010C - Metals (ICP)

Lab Sample ID: MB 480-652821/2-A
Matrix: Solid
Analysis Batch: 653387

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 652821

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		0.020	0.0040	mg/Kg		12/09/22 10:09	12/13/22 13:04	1
Barium	ND		0.0050	0.0011	mg/Kg		12/09/22 10:09	12/13/22 13:04	1
Cadmium	ND		0.0020	0.00030	mg/Kg		12/09/22 10:09	12/13/22 13:04	1
Chromium	ND		0.0050	0.0020	mg/Kg		12/09/22 10:09	12/13/22 13:04	1
Lead	ND		0.010	0.0024	mg/Kg		12/09/22 10:09	12/13/22 13:04	1
Selenium	ND		0.040	0.0040	mg/Kg		12/09/22 10:09	12/13/22 13:04	1
Silver	ND		0.0060	0.0020	mg/Kg		12/09/22 10:09	12/13/22 13:04	1

Lab Sample ID: LCS 480-652821/3-A
Matrix: Solid
Analysis Batch: 653387

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 652821

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Arsenic	1.00	1.11		mg/Kg		111	80 - 120
Barium	1.00	1.01		mg/Kg		101	80 - 120
Cadmium	1.00	1.09		mg/Kg		109	80 - 120
Chromium	1.00	1.05		mg/Kg		105	80 - 120
Lead	1.00	1.07		mg/Kg		107	80 - 120
Selenium	1.00	1.11		mg/Kg		111	80 - 120
Silver	1.00	1.12		mg/Kg		112	80 - 120

Lab Sample ID: LB 480-652622/1-E
Matrix: Solid
Analysis Batch: 653387

Client Sample ID: Method Blank
Prep Type: TCLP
Prep Batch: 652821

Analyte	LB Result	LB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		0.020	0.0040	mg/Kg		12/09/22 10:09	12/13/22 13:00	1
Barium	ND		0.0050	0.0011	mg/Kg		12/09/22 10:09	12/13/22 13:00	1
Cadmium	ND		0.0020	0.00030	mg/Kg		12/09/22 10:09	12/13/22 13:00	1
Chromium	0.00496	J	0.0050	0.0020	mg/Kg		12/09/22 10:09	12/13/22 13:00	1
Lead	ND		0.010	0.0024	mg/Kg		12/09/22 10:09	12/13/22 13:00	1
Selenium	0.00646	J	0.040	0.0040	mg/Kg		12/09/22 10:09	12/13/22 13:00	1
Silver	ND		0.0060	0.0020	mg/Kg		12/09/22 10:09	12/13/22 13:00	1

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 480-652847/2-A
Matrix: Solid
Analysis Batch: 652921

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 652847

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.000043	mg/L		12/09/22 11:47	12/09/22 17:53	1

Lab Sample ID: LCS 480-652847/3-A
Matrix: Solid
Analysis Batch: 652921

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 652847

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	0.00680	0.00602		mg/L		88	80 - 120

Client: LaBella Associates DPC
Project/Site: Roblin Steel site

Job ID: 480-204473-1

Method: 7470A - Mercury (CVAA) (Continued)

Lab Sample ID: LB 480-652622/1-F
Matrix: Solid
Analysis Batch: 652921

Client Sample ID: Method Blank
Prep Type: TCLP
Prep Batch: 652847

Analyte	LB Result	LB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.000043	mg/L		12/09/22 11:47	12/09/22 17:51	1

QC Association Summary

Client: LaBella Associates DPC
Project/Site: Roblin Steel site

Job ID: 480-204473-1

GC/MS VOA

Leach Batch: 652650

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-204473-1	ROBLIN DRUM	TCLP	Solid	1311	
LB 480-652650/1-A	Method Blank	TCLP	Solid	1311	

Prep Batch: 652673

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-204473-1	ROBLIN DRUM	Total/NA	Solid	5035A_L	
MB 480-652673/2-A	Method Blank	Total/NA	Solid	5035A_L	
LCS 480-652673/1-A	Lab Control Sample	Total/NA	Solid	5035A_L	

Analysis Batch: 652739

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-204473-1	ROBLIN DRUM	Total/NA	Solid	8260C	652673
MB 480-652673/2-A	Method Blank	Total/NA	Solid	8260C	652673
LCS 480-652673/1-A	Lab Control Sample	Total/NA	Solid	8260C	652673

Analysis Batch: 652922

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-204473-1	ROBLIN DRUM	TCLP	Solid	8260C	652650
LB 480-652650/1-A	Method Blank	TCLP	Solid	8260C	652650
MB 480-652922/8	Method Blank	Total/NA	Solid	8260C	
LCS 480-652922/6	Lab Control Sample	Total/NA	Solid	8260C	

GC/MS Semi VOA

Prep Batch: 652566

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-204473-1	ROBLIN DRUM	Total/NA	Solid	3550C	
MB 480-652566/1-A	Method Blank	Total/NA	Solid	3550C	
LCS 480-652566/2-A	Lab Control Sample	Total/NA	Solid	3550C	

Analysis Batch: 652617

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-204473-1	ROBLIN DRUM	Total/NA	Solid	8270D	652566
MB 480-652566/1-A	Method Blank	Total/NA	Solid	8270D	652566
LCS 480-652566/2-A	Lab Control Sample	Total/NA	Solid	8270D	652566

Leach Batch: 652622

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-204473-1	ROBLIN DRUM	TCLP	Solid	1311	
LB 480-652622/1-G	Method Blank	TCLP	Solid	1311	

Prep Batch: 653570

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-204473-1	ROBLIN DRUM	TCLP	Solid	3510C	652622
LB 480-652622/1-G	Method Blank	TCLP	Solid	3510C	652622
MB 480-653570/1-A	Method Blank	Total/NA	Solid	3510C	
LCS 480-653570/2-A	Lab Control Sample	Total/NA	Solid	3510C	
LCSD 480-653570/3-A	Lab Control Sample Dup	Total/NA	Solid	3510C	

QC Association Summary

Client: LaBella Associates DPC
Project/Site: Roblin Steel site

Job ID: 480-204473-1

GC/MS Semi VOA

Analysis Batch: 653688

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-204473-1	ROBLIN DRUM	TCLP	Solid	8270D	653570
LB 480-652622/1-G	Method Blank	TCLP	Solid	8270D	653570
MB 480-653570/1-A	Method Blank	Total/NA	Solid	8270D	653570
LCS 480-653570/2-A	Lab Control Sample	Total/NA	Solid	8270D	653570
LCSD 480-653570/3-A	Lab Control Sample Dup	Total/NA	Solid	8270D	653570

Metals

Leach Batch: 652622

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-204473-1	ROBLIN DRUM	TCLP	Solid	1311	
LB 480-652622/1-E	Method Blank	TCLP	Solid	1311	
LB 480-652622/1-F	Method Blank	TCLP	Solid	1311	

Prep Batch: 652821

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-204473-1	ROBLIN DRUM	TCLP	Solid	3050B	652622
LB 480-652622/1-E	Method Blank	TCLP	Solid	3050B	652622
MB 480-652821/2-A	Method Blank	Total/NA	Solid	3050B	
LCS 480-652821/3-A	Lab Control Sample	Total/NA	Solid	3050B	

Prep Batch: 652847

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-204473-1	ROBLIN DRUM	TCLP	Solid	7470A	652622
LB 480-652622/1-F	Method Blank	TCLP	Solid	7470A	652622
MB 480-652847/2-A	Method Blank	Total/NA	Solid	7470A	
LCS 480-652847/3-A	Lab Control Sample	Total/NA	Solid	7470A	

Analysis Batch: 652921

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-204473-1	ROBLIN DRUM	TCLP	Solid	7470A	652847
LB 480-652622/1-F	Method Blank	TCLP	Solid	7470A	652847
MB 480-652847/2-A	Method Blank	Total/NA	Solid	7470A	652847
LCS 480-652847/3-A	Lab Control Sample	Total/NA	Solid	7470A	652847

Analysis Batch: 653387

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-204473-1	ROBLIN DRUM	TCLP	Solid	6010C	652821
LB 480-652622/1-E	Method Blank	TCLP	Solid	6010C	652821
MB 480-652821/2-A	Method Blank	Total/NA	Solid	6010C	652821
LCS 480-652821/3-A	Lab Control Sample	Total/NA	Solid	6010C	652821

General Chemistry

Analysis Batch: 652563

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-204473-1	ROBLIN DRUM	Total/NA	Solid	Moisture	

Lab Chronicle

Client: LaBella Associates DPC
Project/Site: Roblin Steel site

Job ID: 480-204473-1

Client Sample ID: ROBLIN DRUM
Date Collected: 12/06/22 11:30
Date Received: 12/06/22 15:30

Lab Sample ID: 480-204473-1
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
TCLP	Leach	1311			652650	BML	EET BUF	12/08/22 09:38 - 12/09/22 10:54 [1]
TCLP	Analysis	8260C		10	652922	ATG	EET BUF	12/10/22 12:24
TCLP	Leach	1311			652622	BML	EET BUF	12/08/22 09:01 - 12/09/22 09:36 [1]
TCLP	Prep	3510C			653570	JMP	EET BUF	12/15/22 09:33
TCLP	Analysis	8270D		1	653688	JMM	EET BUF	12/16/22 12:34
TCLP	Leach	1311			652622	BML	EET BUF	12/08/22 09:01 - 12/09/22 09:36 [1]
TCLP	Prep	3050B			652821	NVK	EET BUF	12/09/22 10:09
TCLP	Analysis	6010C		1	653387	LMH	EET BUF	12/13/22 13:43
TCLP	Leach	1311			652622	BML	EET BUF	12/08/22 09:01 - 12/09/22 09:36 [1]
TCLP	Prep	7470A			652847	NVK	EET BUF	12/09/22 11:47
TCLP	Analysis	7470A		1	652921	NVK	EET BUF	12/09/22 18:05
Total/NA	Analysis	Moisture		1	652563	JMM	EET BUF	12/07/22 16:01

Client Sample ID: ROBLIN DRUM
Date Collected: 12/06/22 11:30
Date Received: 12/06/22 15:30

Lab Sample ID: 480-204473-1
Matrix: Solid
Percent Solids: 80.2

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5035A_L			652673	LCH	EET BUF	12/08/22 12:27
Total/NA	Analysis	8260C		1	652739	CDC	EET BUF	12/09/22 06:45
Total/NA	Prep	3550C			652566	SJM	EET BUF	12/07/22 16:14
Total/NA	Analysis	8270D		1	652617	JMM	EET BUF	12/08/22 20:23

[1] Completion dates and times are reported or not reported per method requirements or individual lab discretion.

Laboratory References:

EET BUF = Eurofins Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

Accreditation/Certification Summary

Client: LaBella Associates DPC
Project/Site: Roblin Steel site

Job ID: 480-204473-1

Laboratory: Eurofins Buffalo

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
New York	NELAP	10026	03-31-23

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
7470A	7470A	Solid	Mercury
Moisture		Solid	Percent Moisture
Moisture		Solid	Percent Solids

Method Summary

Client: LaBella Associates DPC
Project/Site: Roblin Steel site

Job ID: 480-204473-1

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	EET BUF
8270D	Semivolatile Organic Compounds (GC/MS)	SW846	EET BUF
6010C	Metals (ICP)	SW846	EET BUF
7470A	Mercury (CVAA)	SW846	EET BUF
Moisture	Percent Moisture	EPA	EET BUF
1311	TCLP Extraction	SW846	EET BUF
3050B	Preparation, Metals	SW846	EET BUF
3510C	Liquid-Liquid Extraction (Separatory Funnel)	SW846	EET BUF
3550C	Ultrasonic Extraction	SW846	EET BUF
5030C	Purge and Trap	SW846	EET BUF
5035A_L	Closed System Purge and Trap	SW846	EET BUF
7470A	Preparation, Mercury	SW846	EET BUF

Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

EET BUF = Eurofins Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

Sample Summary

Client: LaBella Associates DPC
Project/Site: Roblin Steel site

Job ID: 480-204473-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
480-204473-1	ROBLIN DRUM	Solid	12/06/22 11:30	12/06/22 15:30

Eurofins Buffalo
10 Hazelwood Drive

Amherst, NY 14228-2223
phone 716.691.2600 fax 716.691.7991

Chain of Custody Record

eurofins | Environment Testing America

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other:

Eurofins Environment Testing America

Client Contact	
LaBella Associates	Project Manager: Chris Kibler
300 Pearl sTreet	Email: CKibler@labellapc.com
Buffalo, NY	Tel/Fax:
Project Name: Roblin Steel Site	Site Contact: Andrew Korb
Site: MW installation	Lab Contact:
P O #	Date: 12/6/22
	Carrier:

COC No: 1 of 1 COCs
TALS Project #:
Sampler:
For Lab Use Only:
Walk-in Client:
Lab Sampling:
Job / SDG No.:

Analysis Turnaround Time
☐ CALENDAR DAYS ☐ WORKING DAYS
TAT if different from Below: Standard
☐ 2 weeks
☐ 1 week
☐ 2 days
☐ 1 day

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y / N)	Perform MS / MSD (Y / N)	TCLP VOCs	TCLP SVOCs	TCL VOCs	TCL SVOCs	TCLP Metals	Sample Specific Notes:
Roblin Drum	12/6/22	1120	C	Soil	5			X	X	X	X	X	

480-204473 Chain of Custody

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☑ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return to Client ☑ Disposal by Lab ☐ Archive for ____ Months

Special Instructions/QC Requirements & Comments:

4.8 #1

Custody Seals Intact: ☐ Yes ☐ No | Custody Seal No.: | Cooler Temp. (°C): Obs'd: ____ Corr'd: ____ | Therm ID No.: ____

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Andrew Korb	LaBella	12/6/22 1500			
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by: [signature]	Company: TA	Date/Time: 12/6/22 1530

Login Sample Receipt Checklist

Client: LaBella Associates DPC

Job Number: 480-204473-1

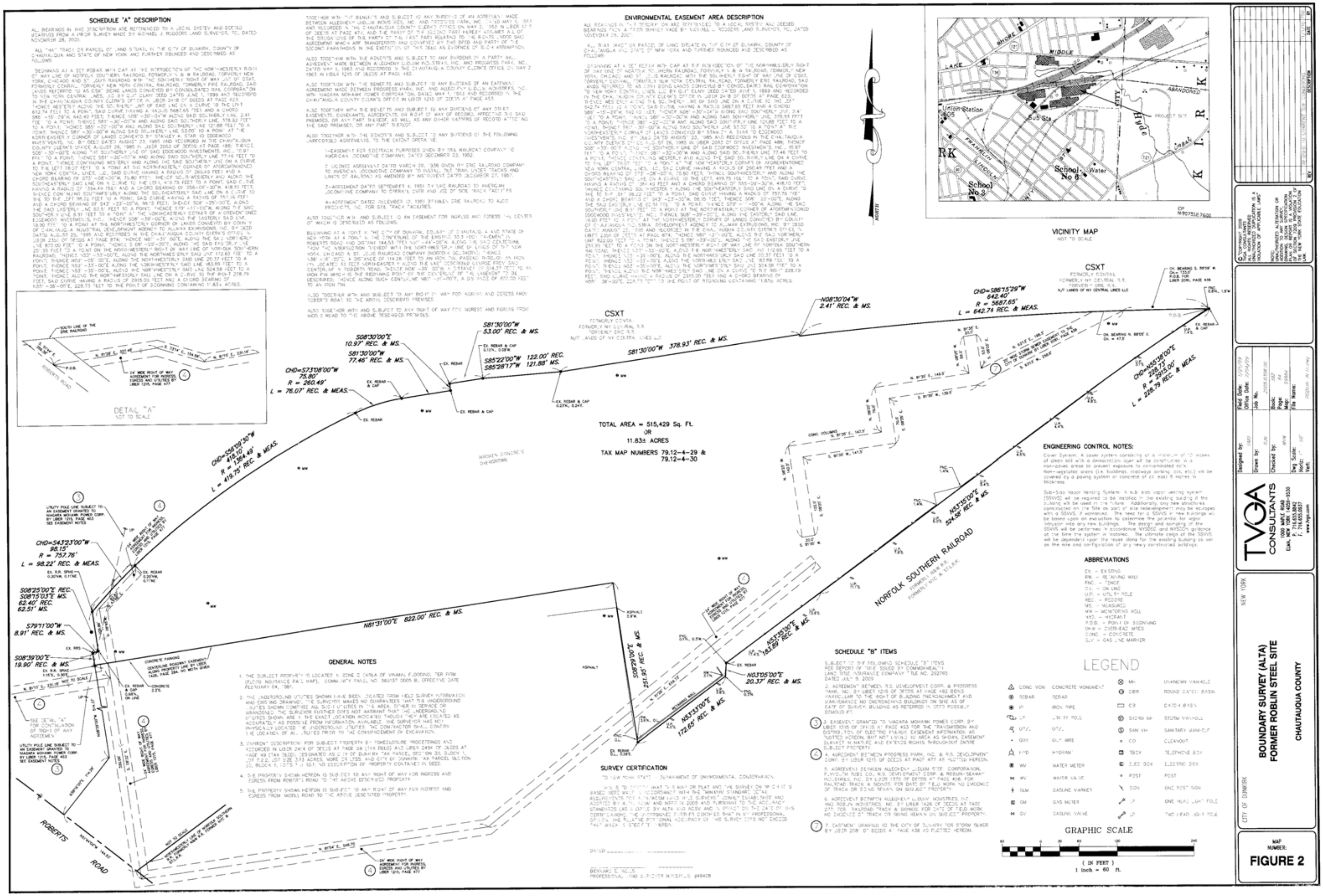
Login Number: 204473
List Number: 1
Creator: Sabuda, Brendan D

List Source: Eurofins Buffalo

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	4.8 #1 ICE
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time (Excluding tests with immediate HTs)..	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Sampling Company provided.	True	
Samples received within 48 hours of sampling.	True	
Samples requiring field filtration have been filtered in the field.	True	
Chlorine Residual checked.	True	

APPENDIX 2

Boundary Survey-Former Roblin Steel Site



SCHEDULE "A" DESCRIPTION
ENVIRONMENTAL EASEMENT AREA DESCRIPTION
VICINITY MAP
NOT TO SCALE
NORTH
DETAIL "A"
NOT TO SCALE
CSXT
NORFOLK SOUTHERN RAILROAD
TOTAL AREA = 515,429 Sq. Ft.
OR
11.83± ACRES
TAX MAP NUMBERS 79.12-4-29 &
79.12-4-30
N81°31'00"E 822.00' REC. & MS.
S81°30'00"W 378.93' REC. & MS.
N08°30'04"W
2.41' REC. & MS.
CHD=S86°15'29"W
642.40'
R = 5687.65'
L = 642.74 REC. & MEAS.
CHD=N55°38'00"E
228.73'
R = 2915.00'
L = 228.79 REC. & MEAS.
N53°35'00"E
524.58' REC. & MS.
N53°35'00"E
183.69' REC. & MS.
N03°05'00"E
20.37' REC. & MS.
N53°33'00"E
172.65' REC. & MS.
S08°29'00"E
251.95' REC. & MS.
S81°30'00"W
53.00' REC. & MS.
S85°22'00"W 122.00' REC.
S85°28'17"W 121.88' MS.
S08°30'00"E
10.97' REC. & MS.
S81°30'00"W
77.46' REC. & MS.
CHD=S73°08'00"W
75.80'
R = 260.49'
L = 76.07' REC. & MEAS.
CHD=S56°09'30"W
418.10'
R = 1364.49'
L = 419.75' REC. & MEAS.
CHD=S43°23'00"W
98.15'
R = 757.76'
L = 98.22' REC. & MEAS.
S08°25'00"E REC.
S08°15'03"E MS.
62.40' REC.
62.51' MS.
S79°11'00"W
8.91' REC. & MS.
S08°39'00"E
19.90' REC. & MS.
ROBERTS ROAD
GENERAL NOTES
SURVEY CERTIFICATION
SCHEDULE "B" ITEMS
ENGINEERING CONTROL NOTES:
ABBREVIATIONS
LEGEND
GRAPHIC SCALE
(IN FEET)
1 inch = 60 ft.
TVGA CONSULTANTS
1000 MAPLE ROAD
ELMA, NEW YORK 14059-9530
P. 716.655.8842
F. 716.655.0937
www.tvga.com
CITY OF DUNKIRK
NEW YORK
BOUNDARY SURVEY (ALTA)
FORMER ROBLIN STEEL SITE
CHAUTAUQUA COUNTY
MAP NUMBER:
FIGURE 2

APPENDIX 3

Cover Inspection Form

COVER INSPECTION FORM
Former Roblin Steel Site

Property Name: Former Roblin Steel Site Inspection Date:

Property Address: 320 South Roberts Road

City: Dunkirk State: NY Zip Code: 14048

Property ID: (Tax Assessment Map)

Section: 79.12 Block: 4 Lot(s): 29 and 30

Total Acreage: 12 acres

Weather (during inspection): Temperature: 29° Conditions: Cloudy

SIGNATURE Andrew Koons

The findings of this inspection were discussed with appropriate personnel, corrective actions were identified and implementation was mutually agreed upon:

Inspector: Andrew Koons Date: 12/12/2023

Next Scheduled Inspection Date: December 2024

SECURITY AND ACCESS

	Yes	No
1. Access controlled by perimeter fencing?		X
Are there sections of the fence material damaged or missing?		
Are the fence or gate post foundations structurally sound?		
2. "No Trespass" signs posted in appropriate languages?		X
Are the signs securely attached to the fencing or posts?		
Are there sufficient signs; are the signs adequately spaced around the perimeter of the property?		
3. Is there evidence of trespassing?		X
Is there evidence of illegal dumping?		

COVER & VEGETATION

	Yes	No
4. Final cover in acceptable condition?	X	
Is there evidence of sloughing, erosion, ponding or settlement?		X
Is there evidence of unintended traffic; rutting?		X
Is there evidence of distressed vegetation/turf?		X

	Yes	No
5. Final cover sufficiently covers soil/fill material?	X	
Are there cracks visible in the soil or pavement?		X
Is there evidence of erosion in the stormwater channels or swales?		X
Is there damage to the synthetic erosion control fabric in the channels or swales?		X

ACTIVITY ON SITE

6. Any activity on site that mechanically disturbed soil cover?		X

ADDITIONAL FACILITY INFORMATION

Development on or near the site? (Specify size and type: e.g., residential, 40 acres, well and septic)

COMMENTS

Item #

ATTACHMENTS

1. Site Sketch
2. Photographs
3. Laboratory Report (s)

APPENDIX 4

Photographs

View of south roadside ditch

View facing east

View of northern property boundary

View facing west

View of MW-13 (new well)

View of north roadside ditch

APPENDIX 5

Site Management Periodic Review Report – 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. **B00173**

Site Name Former Roblin Steel Site (Dunkirk)

Site Address: 320 South Roberts Road Zip Code: 14048
City/Town: Dunkirk
County: Chautauqua
Site Acreage: 11.830

Reporting Period: December 15, 2022 to December 15, 2023

	YES	NO
1. Is the information above correct?	X	☐
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?	☐	X
3. Has there been any change of use at the site during this Reporting Period (see 6NYCRR 375-1.11(d))?	☐	X
4. Have any federal, state, and/or local permits (e.g., building, discharge) been issued for or at the property during this Reporting Period?	X	☐
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?	☐	X

Box 2

	YES	NO
6. Is the current site use consistent with the use(s) listed below? Commercial and Industrial	X	☐
7. Are all ICs in place and functioning as designed?	X	☐

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

SITE NO. B00173 **Box 3**

Description of Institutional Controls

Parcel	Owner	Institutional Control
79.12-4-29	Chautauqua County	Ground Water Use Restriction Soil Management Plan Landuse Restriction Monitoring Plan Site Management Plan IC/EC Plan

The Site Management Plan includes:
- An Engineering and Institutional Controls Plan. Engineering controls include a one-foot thick soil cover system, asphalt cover system (Progress Drive), and provisions for evaluating the potential for soil vapor intrusion to any new buildings constructed and the installation of soil vapor mitigation systems if warranted. Institutional controls at the site will include groundwater use restrictions and use restrictions of the Site to restricted use (i.e. commercial/industrial purposes).
- An Excavation Work Plan to assure that future intrusive activities and soil/fill handling at the Site are completed in a safe and environmentally responsible manner.
- A Site Monitoring Plan that includes: provisions for groundwater monitoring; and,
- A Site-wide Inspection program to assure that the Institutional controls have not been altered and remain effective.

79.12-4-30	Chautauqua County	Ground Water Use Restriction Soil Management Plan Monitoring Plan Site Management Plan IC/EC Plan Landuse Restriction

The Site Management Plan includes:
- An Engineering and Institutional Controls Plan. Engineering controls include a one-foot thick soil cover system, asphalt cover system (Progress Drive) and provisions for evaluating the potential for soil vapor intrusion to any new buildings constructed and the installation of soil vapor mitigation systems if warranted. Institutional controls at the site will include groundwater use restrictions and use restrictions of the Site to restricted use (i.e. commercial/industrial purposes).
- An Excavation Work Plan to assure that future intrusive activities and soil/fill handling at the Site are completed in a safe and environmentally responsible manner.
- A Site Monitoring Plan that includes: provisions for groundwater monitoring; and,
- A Site-wide Inspection program to assure that the Institutional controls have not been altered and remain effective.

Box 4

Description of Engineering Controls

Parcel	Engineering Control
79.12-4-29	Cover System Vapor Mitigation
79.12-4-30	Vapor Mitigation Cover System

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 compete.

YES	NO
X	☐

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
X	☐

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. B00173

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 Tim Card (print name) at 454 N. Work St., Falconer, NY 14733 (print business address),

am certifying as Owner (Owner or Remedial Party)

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

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

1/4/24
Date

EC CERTIFICATIONS

Box 7

Professional Engineer Signature

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

I Daniel Noll (print name) at LaBella Associates, DPC 300 State Street, Rochester, NY (print business address),

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

Signature of Professional Engineer, for the Owner or Remedial Party, Rendering Certification	Stamp (Required for PE)	Date
		1.9.2024

APPENDIX 6

Groundwater Sampling Logs

LaBella
Powered by partnership.

300 Pearl Street Suite 130
Buffalo, New York 14202
Telephone: (716) 551-6281

Project Name: Former Roblin Steel PRR
Location: Dunkirk, NY
Project No.: 2200014
Sampled By: A. Koons
Date: 12/12/2023
Weather: 29°F, cloudy

WELL I.D.: MW-02R

WELL SAMPLING INFORMATION

Well Diameter: 2.0'
Depth of Well: 23.50'
Measuring Point: Top of inner casing
Pump Type: Peri-pump

Static Water Level: 6.45'
Length of Well Screen:
Depth to Top of Pump:
Tubing Type: 1/4" OD

FIELD PARAMETER MEASUREMENT

Time	Pump Rate (mL/min)	Gallons Purged	Temp °C	Conductivity (mS/cm) +/- 3%	pH +/- 0.1	Redox (mV) +/- 10 mV	Turbidity (NTU) +/- 10%	Dissolved Oxygen (mg/L) +/- 10%	Comments
10:50	1,000	0	11.7	1.029	7.41	-37.4	12.41	7.13	
11:00	1,000	2.75	12.7	1.052	7.35	-42.9	34.55	4.80	
11:10	1,000	5.5	12.9	1.088	7.29	-46.3	11.45	4.81	
11:20	1,000	8.25	12.6	1.102	7.17	-74.9	5.46	4.43	

Total 8.25 Gallons Purged

Purge Time Start: 10:50 Purge Time End: 11:20 Final Static Water Level:

OBSERVATIONS

Sampled at 11:25

LaBella
Powered by partnership.

300 Pearl Street Suite 130
Buffalo, New York 14202
Telephone: (716) 551-6281

Project Name: Former Roblin Steel PRR
Location: Dunkirk, NY
Project No.: 2200014
Sampled By: A. Koons
Date: 12/12/2023
Weather: 29°F, cloudy

WELL I.D.: MW-04

WELL SAMPLING INFORMATION

Well Diameter: 2”
Depth of Well: 16.2’
Measuring Point: Top of inner casing
Pump Type: Peri-pump

Static Water Level: 3.30’
Length of Well Screen:
Depth to Top of Pump:
Tubing Type: 1/4” OD

FIELD PARAMETER MEASUREMENT

Time	Pump Rate (mL/min)	Gallons Purged	Temp °C	Conductivity (mS/cm) +/- 3%	pH +/- 0.1	Redox (mV) +/- 10 mV	Turbidity (NTU) +/- 10%	Dissolved Oxygen (mg/L) +/- 10%	Comments
12:20	1,000	0	13.6	1.036	7.56	-25.1	7.82	6.52	
12:27	1,000	2.0	12.4	1.011	7.26	-20.9	10.35	5.12	
12:34	1,000	4.0	12.5	1.038	7.14	-50.9	5.43	5.21	
12:41	1,000	6.0	12.4	1.031	7.14	-99.9	7.33	5.24	

Total 6.0 Gallons Purged

Purge Time Start: 12:20 Purge Time End: 12:41 Final Static Water Level:

OBSERVATIONS

Sampled at 12:45

LaBella
Powered by partnership.

300 Pearl Street Suite 130
Buffalo, New York 14202
Telephone: (716) 551-6281

Project Name: Former Roblin Steel PRR
Location: Dunkirk, NY
Project No.: 2200014
Sampled By: A. Koons
Date: 12/12/2023
Weather: 29°F, cloudy

WELL I.D.: MW-07R

WELL SAMPLING INFORMATION

Well Diameter: 2”
Depth of Well: 17.8’
Measuring Point: Top of inner casing
Pump Type: Peri-pump

Static Water Level: 3.66’
Length of Well Screen:
Depth to Top of Pump:
Tubing Type: 1/4” OD

FIELD PARAMETER MEASUREMENT

Time	Pump Rate (mL/min)	Gallons Purged	Temp °C	Conductivity (mS/cm) +/- 3%	pH +/- 0.1	Redox (mV) +/- 10 mV	Turbidity (NTU) +/- 10%	Dissolved Oxygen (mg/L) +/- 10%	Comments
13:36	1,000	0	13.6	1.036	7.56	-25.1	7.82	6.52	
13:44	1,000	2.25	12.4	1.011	7.26	-20.9	10.35	5.12	
13:52	1,000	4.5	12.5	1.038	7.14	-50.9	5.43	5.21	
14:00	1,000	6.75	12.4	1.031	7.14	-99.9	7.33	5.24	

Total 6.75 Gallons Purged

Purge Time Start: 13:36 Purge Time End: 14:00 Final Static Water Level:

OBSERVATIONS

Sampled at 14:05

LaBella
Powered by partnership

300 Pearl Street Suite 130
Buffalo, New York 14202
Telephone: (716) 551-6281

Project Name: Former Roblin Steel PRR
Location: Dunkirk, NY
Project No.: 2200014
Sampled By: A. Koons
Date: 12/12/2023
Weather: 29°F, cloudy

WELL I.D.: MW-09R

WELL SAMPLING INFORMATION

Well Diameter: 2”
Depth of Well: 16.9’
Measuring Point: Top of inner casing
Pump Type: Peri-pump

Static Water Level: 2.44’
Length of Well Screen:
Depth to Top of Pump:
Tubing Type: 1/4” OD

FIELD PARAMETER MEASUREMENT

Time	Pump Rate (mL/min)	Gallons Purged	Temp °C	Conductivity (mS/cm) +/- 3%	pH +/- 0.1	Redox (mV) +/- 10 mV	Turbidity (NTU) +/- 10%	Dissolved Oxygen (mg/L) +/- 10%	Comments
9:45	1,000	0	11.0	0.565	7.86	-110.7	5.66	6.21	
9:53	1,000	2.3	10.8	0.792	7.47	-103.5	10.42	5.36	
10:01	1,000	4.6	11.3	0.827	7.36	-100.7	2.59	5.07	
10:04	1,000	6.9	11.4	0.965	7.35	-98.6	0.33	5.32	

Total 6.9 Gallons Purged

Purge Time Start: 9:45 Purge Time End: 10:09 Final Static Water Level:

OBSERVATIONS

Sampled at 10:15

LaBella
Powered by partnership.

300 Pearl Street Suite 130
Buffalo, New York 14202
Telephone: (716) 551-6281

Project Name: Former Roblin Steel PRR
Location: Dunkirk, NY
Project No.: 2200014
Sampled By: A. Koons
Date: 12/12/2023
Weather: 29°F, cloudy

WELL I.D.: EX-MW-11R

WELL SAMPLING INFORMATION

Well Diameter: 2”
Depth of Well: 18.9’
Measuring Point: Top of inner casing
Pump Type: Peri-pump

Static Water Level: 5.77’
Length of Well Screen:
Depth to Top of Pump:
Tubing Type: 1/4” OD

FIELD PARAMETER MEASUREMENT

Time	Pump Rate (mL/min)	Gallons Purged	Temp °C	Conductivity (mS/cm) +/- 3%	pH +/- 0.1	Redox (mV) +/- 10 mV	Turbidity (NTU) +/- 10%	Dissolved Oxygen (mg/L) +/- 10%	Comments
10:20	1,000	0	12.5	0.757	7.45	-80.0	6.26	5.59	
10:27	1,000	2.0	12.4	0.676	7.61	-100.9	15.72	4.28	
10:34	1,000	4.0	12.8	0.621	7.50	-96.1	9.73	4.96	
10:41	1,000	6.0	12.9	0.618	7.48	-103.6	8.84	5.11	

Total 6.0 Gallons Purged

Purge Time Start: 10:20 Purge Time End: 10:41 Final Static Water Level:

OBSERVATIONS

Sampled at 10:45

LaBella
Powered by partnership.

300 Pearl Street Suite 130
Buffalo, New York 14202
Telephone: (716) 551-6281

WELL I.D.: EX-MW-12

Project Name: Former Roblin Steel PRR
Location: Dunkirk, NY
Project No.: 2200014
Sampled By: A. Koons
Date: 12/12/2023
Weather: 29°F, cloudy

WELL SAMPLING INFORMATION

Well Diameter: 2”
Depth of Well: 23.2
Measuring Point: Top of inner casing
Pump Type: Peri-pump

Static Water Level: 5.30’
Length of Well Screen:
Depth to Top of Pump:
Tubing Type: 1/4” OD

FIELD PARAMETER MEASUREMENT

Time	Pump Rate (mL/min)	Gallons Purged	Temp °C	Conductivity (mS/cm) +/- 3%	pH +/- 0.1	Redox (mV) +/- 10 mV	Turbidity (NTU) +/- 10%	Dissolved Oxygen (mg/L) +/- 10%	Comments
1135	1,000	0	13.0	1.680	6.97	-103.2	3.06	4.99	
11:45	1,000	2.8	12.6	1.684	6.79	-74.0	7.19	3.82	
11:55	1,000	5.6	12.3	1.621	6.83	-91.4	5.17	4.84	
12:05	1,.000	8.4	12.8	1.731	6.79	-77.8	0.86	3.69	

Total 8.4 Gallons Purged

Purge Time Start: 11:35 Purge Time End: 12:05 Final Static Water Level:

OBSERVATIONS

Sampled at 12:10

LaBella
Powered by partnership.

300 Pearl Street Suite 130
Buffalo, New York 14202
Telephone: (716) 551-6281

WELL I.D.: MW-13

Project Name: Former Roblin Steel PRR
Location: Dunkirk, NY
Project No.: 2200014
Sampled By: A. Koons
Date: 12/12/2023
Weather: 29°F, cloudy

WELL SAMPLING INFORMATION

Well Diameter: 2”
Depth of Well: 20.20
Measuring Point: Top of inner casing
Pump Type: Peri-pump

Static Water Level: 4.61’
Length of Well Screen:
Depth to Top of Pump:
Tubing Type: 1/4” OD

FIELD PARAMETER MEASUREMENT

Time	Pump Rate (mL/min)	Gallons Purged	Temp °C	Conductivity (mS/cm) +/- 3%	pH +/- 0.1	Redox (mV) +/- 10 mV	Turbidity (NTU) +/- 10%	Dissolved Oxygen (mg/L) +/- 10%	Comments
12:54	1,000	0	12.7	1.304	7.10	-146.5	42.34	4.12	
13:04	1,000	2.5	12.1	1.310	7.14	-127.7	66.43	3.91	
13:14	1,000	5.0	12.0	1.310	7.04	-121.1	15.66	4.64	
13:24	1,000	7.5	12.4	1.315	6.91	-79.9	14.06	5.13	

Total 7.5 Gallons Purged

Purge Time Start: 12:54 Purge Time End: 13:24 Final Static Water Level:

OBSERVATIONS

Sampled at 13:30

APPENDIX 7

Laboratory Analytical Results

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Chris Kibler
LaBella Associates DPC
300 Pearl Street
Suite 130
Buffalo, New York 14202

Generated 12/22/2023 11:51:51 AM

JOB DESCRIPTION

Alumax & Roblin Periodic Review Reports

JOB NUMBER

480-215658-1

Eurofins Buffalo
10 Hazelwood Drive
Amherst NY 14228-2298

See page two for job notes and contact information.

my EOL

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing Northeast, LLC Project Manager.

Authorization

Generated
12/22/2023 11:51:51 AM

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Designee for
Brian Fischer, Manager of Project Management
Brian.Fischer@et.eurofinsus.com
(716)504-9835

Table of Contents

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
E	Result exceeded calibration range.
F1	MS and/or MSD recovery exceeds control limits.
F2	MS/MSD RPD exceeds control limits
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Job ID: 480-215658-1 Eurofins Buffalo

Job Narrative
480-215658-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers are applied to indicate exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

- Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt
The samples were received on 12/13/2023 9:00 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 2.9°C

GC/MS VOA
Method 8260C: The continuing calibration verification (CCV) associated with batch 480-695216 recovered outside acceptance criteria, low biased, for 2-Butanone (MEK) . A reporting limit (RL) standard was analyzed, and the target analytes are detected. Since the associated samples were non-detect for the analyte(s), the data are reported. The associated samples are impacted: AL-7 (480-215658-2), AL-2 (480-215658-3), MW-09R (480-215658-4), MW-02R (480-215658-6), EX-MW-12 (480-215658-7), MW-04 (480-215658-8), MW-13 (480-215658-9), MW-07R (480-215658-10) and TRIP BLANK (480-215658-12).

Method 8260C: The following samples were diluted to bring the concentration of target analytes within the calibration range: MW-09R (480-215658-4), MW-02R (480-215658-6) and MW-07R (480-215658-10). Elevated reporting limits (RLs) are provided.

Method 8260C: The following volatiles samples were diluted due to foaming at the time of purging during the original sample analysis: EX-MW-12 (480-215658-7), MW-04 (480-215658-8) and MW-13 (480-215658-9). Elevated reporting limits (RLs) are provided.

Method 8260C: The following sample(s) was collected in a properly preserved vial; however, the pH was outside the required criteria when verified by the laboratory. The sample was analyzed within the 7-day holding time specified for unpreserved samples: AL-7 (480-215658-2).

Method 8260C: The continuing calibration verification (CCV) associated with batch 480-695377 recovered outside acceptance criteria, low biased, for Chloromethane. A reporting limit (RL) standard was analyzed, and the target analytes are detected. Since the associated samples were non-detect for the analyte(s), the data are reported. The associated samples are impacted: AL-1 (480-215658-1), EX-MW-11R (480-215658-5), MW-07R (480-215658-10) and DUP (480-215658-11).

Method 8260C: The following samples were diluted to bring the concentration of target analytes within the calibration range: AL-1 (480-215658-1), EX-MW-11R (480-215658-5), MW-07R (480-215658-10), DUP (480-215658-11), (480-215658-B-11 MS) and (480-215658-B-11 MSD). Elevated reporting limits (RLs) are provided.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Detection Summary

Client: LaBella Associates DPC
Job ID: 480-215658-1
Project/Site: Alumax & Roblin Periodic Review Reports

Client Sample ID: AL-1 — Lab Sample ID: 480-215658-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	27		2.0	0.82	ug/L	2		8260C	Total/NA
cis-1,2-Dichloroethene	140		2.0	1.6	ug/L	2		8260C	Total/NA
Cyclohexane	33		2.0	0.36	ug/L	2		8260C	Total/NA
Methylcyclohexane	18		2.0	0.32	ug/L	2		8260C	Total/NA
Vinyl chloride	130		2.0	1.8	ug/L	2		8260C	Total/NA
Xylenes, Total	7.6		4.0	1.3	ug/L	2		8260C	Total/NA

Client Sample ID: AL-7 — Lab Sample ID: 480-215658-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
2-Butanone (MEK)	1.6	J	10	1.3	ug/L	1		8260C	Total/NA
Acetone	7.3	J	10	3.0	ug/L	1		8260C	Total/NA
cis-1,2-Dichloroethene	2.0		1.0	0.81	ug/L	1		8260C	Total/NA

Client Sample ID: AL-2 — Lab Sample ID: 480-215658-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	30		1.0	0.41	ug/L	1		8260C	Total/NA
Cyclohexane	11		1.0	0.18	ug/L	1		8260C	Total/NA
Methylcyclohexane	1.5		1.0	0.16	ug/L	1		8260C	Total/NA

Client Sample ID: MW-09R — Lab Sample ID: 480-215658-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	75		10	8.1	ug/L	10		8260C	Total/NA
Cyclohexane	37		10	1.8	ug/L	10		8260C	Total/NA
Methylcyclohexane	34		10	1.6	ug/L	10		8260C	Total/NA
Vinyl chloride	310		10	9.0	ug/L	10		8260C	Total/NA

Client Sample ID: EX-MW-11R — Lab Sample ID: 480-215658-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	1700		50	41	ug/L	50		8260C	Total/NA
Cyclohexane	13	J	50	9.0	ug/L	50		8260C	Total/NA
Methylcyclohexane	17	J	50	8.0	ug/L	50		8260C	Total/NA
Trichloroethene	44	J	50	23	ug/L	50		8260C	Total/NA
Vinyl chloride	1100		50	45	ug/L	50		8260C	Total/NA

Client Sample ID: MW-02R — Lab Sample ID: 480-215658-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	2.7	J	5.0	2.1	ug/L	5		8260C	Total/NA
cis-1,2-Dichloroethene	320		5.0	4.1	ug/L	5		8260C	Total/NA
Cyclohexane	7.7		5.0	0.90	ug/L	5		8260C	Total/NA
Methylcyclohexane	7.7		5.0	0.80	ug/L	5		8260C	Total/NA
Trichloroethene	3.6	J	5.0	2.3	ug/L	5		8260C	Total/NA
Vinyl chloride	280		5.0	4.5	ug/L	5		8260C	Total/NA

Client Sample ID: EX-MW-12 — Lab Sample ID: 480-215658-7

No Detections.

Client Sample ID: MW-04 — Lab Sample ID: 480-215658-8

No Detections.

This Detection Summary does not include radiochemical test results.

Eurofins Buffalo

Detection Summary

Client: LaBella Associates DPC
Job ID: 480-215658-1
Project/Site: Alumax & Roblin Periodic Review Reports

Client Sample ID: MW-13 — Lab Sample ID: 480-215658-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	2.1	J	4.0	1.6	ug/L	4		8260C	Total/NA
Cyclohexane	6.1		4.0	0.72	ug/L	4		8260C	Total/NA
Methylcyclohexane	6.8		4.0	0.64	ug/L	4		8260C	Total/NA
Toluene	3.0	J	4.0	2.0	ug/L	4		8260C	Total/NA
Xylenes, Total	5.0	J	8.0	2.6	ug/L	4		8260C	Total/NA

Client Sample ID: MW-07R — Lab Sample ID: 480-215658-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethene	12		10	2.9	ug/L	10		8260C	Total/NA
cis-1,2-Dichloroethene	3200	E	10	8.1	ug/L	10		8260C	Total/NA
trans-1,2-Dichloroethene	9.6	J	10	9.0	ug/L	10		8260C	Total/NA
Trichloroethene	21		10	4.6	ug/L	10		8260C	Total/NA
Vinyl chloride	690	F1	10	9.0	ug/L	10		8260C	Total/NA
cis-1,2-Dichloroethene - DL	3400		80	65	ug/L	80		8260C	Total/NA
Vinyl chloride - DL	780		80	72	ug/L	80		8260C	Total/NA

Client Sample ID: DUP — Lab Sample ID: 480-215658-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	99		10	8.1	ug/L	10		8260C	Total/NA
Cyclohexane	39		10	1.8	ug/L	10		8260C	Total/NA
Methylcyclohexane	37		10	1.6	ug/L	10		8260C	Total/NA
Vinyl chloride	360	F1	10	9.0	ug/L	10		8260C	Total/NA

Client Sample ID: TRIP BLANK — Lab Sample ID: 480-215658-12

No Detections.

This Detection Summary does not include radiochemical test results.

Client: LaBella Associates DPC
Job ID: 480-215658-1
Project/Site: Alumax & Roblin Periodic Review Reports

Client Sample ID: AL-1
Lab Sample ID: 480-215658-1
Date Collected: 12/12/23 08:30
Matrix: Water
Date Received: 12/13/23 09:00

Method: SW846 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		2.0	1.6	ug/L			12/14/23 11:48	2
1,1,2,2-Tetrachloroethane	ND		2.0	0.42	ug/L			12/14/23 11:48	2
1,1,2-Trichloroethane	ND		2.0	0.46	ug/L			12/14/23 11:48	2
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		2.0	0.62	ug/L			12/14/23 11:48	2
1,1-Dichloroethane	ND		2.0	0.76	ug/L			12/14/23 11:48	2
1,1-Dichloroethene	ND		2.0	0.58	ug/L			12/14/23 11:48	2
1,2,4-Trichlorobenzene	ND		2.0	0.82	ug/L			12/14/23 11:48	2
1,2-Dibromo-3-Chloropropane	ND		2.0	0.78	ug/L			12/14/23 11:48	2
1,2-Dichlorobenzene	ND		2.0	1.6	ug/L			12/14/23 11:48	2
1,2-Dichloroethane	ND		2.0	0.42	ug/L			12/14/23 11:48	2
1,2-Dichloropropane	ND		2.0	1.4	ug/L			12/14/23 11:48	2
1,3-Dichlorobenzene	ND		2.0	1.6	ug/L			12/14/23 11:48	2
1,4-Dichlorobenzene	ND		2.0	1.7	ug/L			12/14/23 11:48	2
2-Butanone (MEK)	ND		20	2.6	ug/L			12/14/23 11:48	2
2-Hexanone	ND		10	2.5	ug/L			12/14/23 11:48	2
4-Methyl-2-pentanone (MIBK)	ND		10	4.2	ug/L			12/14/23 11:48	2
Acetone	ND		20	6.0	ug/L			12/14/23 11:48	2
Benzene	**27**		2.0	0.82	ug/L			12/14/23 11:48	2
Bromodichloromethane	ND		2.0	0.78	ug/L			12/14/23 11:48	2
Bromoform	ND		2.0	0.52	ug/L			12/14/23 11:48	2
Bromomethane	ND		2.0	1.4	ug/L			12/14/23 11:48	2
Carbon disulfide	ND		2.0	0.38	ug/L			12/14/23 11:48	2
Carbon tetrachloride	ND		2.0	0.54	ug/L			12/14/23 11:48	2
Chlorobenzene	ND		2.0	1.5	ug/L			12/14/23 11:48	2
Dibromochloromethane	ND		2.0	0.64	ug/L			12/14/23 11:48	2
Chloroethane	ND		2.0	0.64	ug/L			12/14/23 11:48	2
Chloroform	ND		2.0	0.68	ug/L			12/14/23 11:48	2
Chloromethane	ND		2.0	0.70	ug/L			12/14/23 11:48	2
cis-1,2-Dichloroethene	**140**		2.0	1.6	ug/L			12/14/23 11:48	2
cis-1,3-Dichloropropene	ND		2.0	0.72	ug/L			12/14/23 11:48	2
Cyclohexane	**33**		2.0	0.36	ug/L			12/14/23 11:48	2
Dichlorodifluoromethane	ND		2.0	1.4	ug/L			12/14/23 11:48	2
Ethylbenzene	ND		2.0	1.5	ug/L			12/14/23 11:48	2
1,2-Dibromoethane	ND		2.0	1.5	ug/L			12/14/23 11:48	2
Isopropylbenzene	ND		2.0	1.6	ug/L			12/14/23 11:48	2
Methyl acetate	ND		5.0	2.6	ug/L			12/14/23 11:48	2
Methyl tert-butyl ether	ND		2.0	0.32	ug/L			12/14/23 11:48	2
Methylcyclohexane	**18**		2.0	0.32	ug/L			12/14/23 11:48	2
Methylene Chloride	ND		2.0	0.88	ug/L			12/14/23 11:48	2
Styrene	ND		2.0	1.5	ug/L			12/14/23 11:48	2
Tetrachloroethene	ND		2.0	0.72	ug/L			12/14/23 11:48	2
Toluene	ND		2.0	1.0	ug/L			12/14/23 11:48	2
trans-1,2-Dichloroethene	ND		2.0	1.8	ug/L			12/14/23 11:48	2
trans-1,3-Dichloropropene	ND		2.0	0.74	ug/L			12/14/23 11:48	2
Trichloroethene	ND		2.0	0.92	ug/L			12/14/23 11:48	2
Trichlorofluoromethane	ND		2.0	1.8	ug/L			12/14/23 11:48	2
Vinyl chloride	**130**		2.0	1.8	ug/L			12/14/23 11:48	2
Xylenes, Total	**7.6**		4.0	1.3	ug/L			12/14/23 11:48	2

Client: LaBella Associates DPC
Job ID: 480-215658-1
Project/Site: Alumax & Roblin Periodic Review Reports

Client Sample ID: AL-1
Lab Sample ID: 480-215658-1
Date Collected: 12/12/23 08:30
Matrix: Water
Date Received: 12/13/23 09:00

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	97		80 - 120		12/14/23 11:48	2
1,2-Dichloroethane-d4 (Surr)	83		77 - 120		12/14/23 11:48	2
4-Bromofluorobenzene (Surr)	97		73 - 120		12/14/23 11:48	2
Dibromofluoromethane (Surr)	88		75 - 123		12/14/23 11:48	2

Client: LaBella Associates DPC
Job ID: 480-215658-1
Project/Site: Alumax & Roblin Periodic Review Reports

Client Sample ID: AL-7
Lab Sample ID: 480-215658-2
Date Collected: 12/12/23 08:55
Matrix: Water
Date Received: 12/13/23 09:00

Method: SW846 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			12/13/23 13:57	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			12/13/23 13:57	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			12/13/23 13:57	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			12/13/23 13:57	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			12/13/23 13:57	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			12/13/23 13:57	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			12/13/23 13:57	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			12/13/23 13:57	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			12/13/23 13:57	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			12/13/23 13:57	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			12/13/23 13:57	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			12/13/23 13:57	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			12/13/23 13:57	1
2-Butanone (MEK)	**1.6**	**J**	10	1.3	ug/L			12/13/23 13:57	1
2-Hexanone	ND		5.0	1.2	ug/L			12/13/23 13:57	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			12/13/23 13:57	1
Acetone	**7.3**	**J**	10	3.0	ug/L			12/13/23 13:57	1
Benzene	ND		1.0	0.41	ug/L			12/13/23 13:57	1
Bromodichloromethane	ND		1.0	0.39	ug/L			12/13/23 13:57	1
Bromoform	ND		1.0	0.26	ug/L			12/13/23 13:57	1
Bromomethane	ND		1.0	0.69	ug/L			12/13/23 13:57	1
Carbon disulfide	ND		1.0	0.19	ug/L			12/13/23 13:57	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			12/13/23 13:57	1
Chlorobenzene	ND		1.0	0.75	ug/L			12/13/23 13:57	1
Dibromochloromethane	ND		1.0	0.32	ug/L			12/13/23 13:57	1
Chloroethane	ND		1.0	0.32	ug/L			12/13/23 13:57	1
Chloroform	ND		1.0	0.34	ug/L			12/13/23 13:57	1
Chloromethane	ND		1.0	0.35	ug/L			12/13/23 13:57	1
cis-1,2-Dichloroethene	**2.0**		1.0	0.81	ug/L			12/13/23 13:57	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			12/13/23 13:57	1
Cyclohexane	ND		1.0	0.18	ug/L			12/13/23 13:57	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			12/13/23 13:57	1
Ethylbenzene	ND		1.0	0.74	ug/L			12/13/23 13:57	1
1,2-Dibromoethane	ND		1.0	0.73	ug/L			12/13/23 13:57	1
Isopropylbenzene	ND		1.0	0.79	ug/L			12/13/23 13:57	1
Methyl acetate	ND		2.5	1.3	ug/L			12/13/23 13:57	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			12/13/23 13:57	1
Methylcyclohexane	ND		1.0	0.16	ug/L			12/13/23 13:57	1
Methylene Chloride	ND		1.0	0.44	ug/L			12/13/23 13:57	1
Styrene	ND		1.0	0.73	ug/L			12/13/23 13:57	1
Tetrachloroethene	ND		1.0	0.36	ug/L			12/13/23 13:57	1
Toluene	ND		1.0	0.51	ug/L			12/13/23 13:57	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			12/13/23 13:57	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			12/13/23 13:57	1
Trichloroethene	ND		1.0	0.46	ug/L			12/13/23 13:57	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			12/13/23 13:57	1
Vinyl chloride	ND		1.0	0.90	ug/L			12/13/23 13:57	1
Xylenes, Total	ND		2.0	0.66	ug/L			12/13/23 13:57	1

Client: LaBella Associates DPC
Job ID: 480-215658-1
Project/Site: Alumax & Roblin Periodic Review Reports

Client Sample ID: AL-7
Lab Sample ID: 480-215658-2
Date Collected: 12/12/23 08:55
Matrix: Water
Date Received: 12/13/23 09:00

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	97		80 - 120		12/13/23 13:57	1
1,2-Dichloroethane-d4 (Surr)	90		77 - 120		12/13/23 13:57	1
4-Bromofluorobenzene (Surr)	99		73 - 120		12/13/23 13:57	1
Dibromofluoromethane (Surr)	87		75 - 123		12/13/23 13:57	1

Client: LaBella Associates DPC
Job ID: 480-215658-1
Project/Site: Alumax & Roblin Periodic Review Reports

Client Sample ID: AL-2
Lab Sample ID: 480-215658-3
Date Collected: 12/12/23 09:35
Matrix: Water
Date Received: 12/13/23 09:00

Method: SW846 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			12/13/23 14:19	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			12/13/23 14:19	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			12/13/23 14:19	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			12/13/23 14:19	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			12/13/23 14:19	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			12/13/23 14:19	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			12/13/23 14:19	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			12/13/23 14:19	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			12/13/23 14:19	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			12/13/23 14:19	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			12/13/23 14:19	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			12/13/23 14:19	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			12/13/23 14:19	1
2-Butanone (MEK)	ND		10	1.3	ug/L			12/13/23 14:19	1
2-Hexanone	ND		5.0	1.2	ug/L			12/13/23 14:19	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			12/13/23 14:19	1
Acetone	ND		10	3.0	ug/L			12/13/23 14:19	1
Benzene	**30**		1.0	0.41	ug/L			12/13/23 14:19	1
Bromodichloromethane	ND		1.0	0.39	ug/L			12/13/23 14:19	1
Bromoform	ND		1.0	0.26	ug/L			12/13/23 14:19	1
Bromomethane	ND		1.0	0.69	ug/L			12/13/23 14:19	1
Carbon disulfide	ND		1.0	0.19	ug/L			12/13/23 14:19	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			12/13/23 14:19	1
Chlorobenzene	ND		1.0	0.75	ug/L			12/13/23 14:19	1
Dibromochloromethane	ND		1.0	0.32	ug/L			12/13/23 14:19	1
Chloroethane	ND		1.0	0.32	ug/L			12/13/23 14:19	1
Chloroform	ND		1.0	0.34	ug/L			12/13/23 14:19	1
Chloromethane	ND		1.0	0.35	ug/L			12/13/23 14:19	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			12/13/23 14:19	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			12/13/23 14:19	1
Cyclohexane	**11**		1.0	0.18	ug/L			12/13/23 14:19	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			12/13/23 14:19	1
Ethylbenzene	ND		1.0	0.74	ug/L			12/13/23 14:19	1
1,2-Dibromoethane	ND		1.0	0.73	ug/L			12/13/23 14:19	1
Isopropylbenzene	ND		1.0	0.79	ug/L			12/13/23 14:19	1
Methyl acetate	ND		2.5	1.3	ug/L			12/13/23 14:19	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			12/13/23 14:19	1
Methylcyclohexane	**1.5**		1.0	0.16	ug/L			12/13/23 14:19	1
Methylene Chloride	ND		1.0	0.44	ug/L			12/13/23 14:19	1
Styrene	ND		1.0	0.73	ug/L			12/13/23 14:19	1
Tetrachloroethene	ND		1.0	0.36	ug/L			12/13/23 14:19	1
Toluene	ND		1.0	0.51	ug/L			12/13/23 14:19	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			12/13/23 14:19	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			12/13/23 14:19	1
Trichloroethene	ND		1.0	0.46	ug/L			12/13/23 14:19	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			12/13/23 14:19	1
Vinyl chloride	ND		1.0	0.90	ug/L			12/13/23 14:19	1
Xylenes, Total	ND		2.0	0.66	ug/L			12/13/23 14:19	1

Client: LaBella Associates DPC
Job ID: 480-215658-1
Project/Site: Alumax & Roblin Periodic Review Reports

Client Sample ID: AL-2
Lab Sample ID: 480-215658-3
Date Collected: 12/12/23 09:35
Matrix: Water
Date Received: 12/13/23 09:00

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	99		80 - 120		12/13/23 14:19	1
1,2-Dichloroethane-d4 (Surr)	88		77 - 120		12/13/23 14:19	1
4-Bromofluorobenzene (Surr)	99		73 - 120		12/13/23 14:19	1
Dibromofluoromethane (Surr)	88		75 - 123		12/13/23 14:19	1

Client: LaBella Associates DPC
Job ID: 480-215658-1
Project/Site: Alumax & Roblin Periodic Review Reports

Client Sample ID: MW-09R
Lab Sample ID: 480-215658-4
Date Collected: 12/12/23 10:15
Matrix: Water
Date Received: 12/13/23 09:00

Method: SW846 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		10	8.2	ug/L			12/13/23 14:41	10
1,1,2,2-Tetrachloroethane	ND		10	2.1	ug/L			12/13/23 14:41	10
1,1,2-Trichloroethane	ND		10	2.3	ug/L			12/13/23 14:41	10
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		10	3.1	ug/L			12/13/23 14:41	10
1,1-Dichloroethane	ND		10	3.8	ug/L			12/13/23 14:41	10
1,1-Dichloroethene	ND		10	2.9	ug/L			12/13/23 14:41	10
1,2,4-Trichlorobenzene	ND		10	4.1	ug/L			12/13/23 14:41	10
1,2-Dibromo-3-Chloropropane	ND		10	3.9	ug/L			12/13/23 14:41	10
1,2-Dichlorobenzene	ND		10	7.9	ug/L			12/13/23 14:41	10
1,2-Dichloroethane	ND		10	2.1	ug/L			12/13/23 14:41	10
1,2-Dichloropropane	ND		10	7.2	ug/L			12/13/23 14:41	10
1,3-Dichlorobenzene	ND		10	7.8	ug/L			12/13/23 14:41	10
1,4-Dichlorobenzene	ND		10	8.4	ug/L			12/13/23 14:41	10
2-Butanone (MEK)	ND		100	13	ug/L			12/13/23 14:41	10
2-Hexanone	ND		50	12	ug/L			12/13/23 14:41	10
4-Methyl-2-pentanone (MIBK)	ND		50	21	ug/L			12/13/23 14:41	10
Acetone	ND		100	30	ug/L			12/13/23 14:41	10
Benzene	ND		10	4.1	ug/L			12/13/23 14:41	10
Bromodichloromethane	ND		10	3.9	ug/L			12/13/23 14:41	10
Bromoform	ND		10	2.6	ug/L			12/13/23 14:41	10
Bromomethane	ND		10	6.9	ug/L			12/13/23 14:41	10
Carbon disulfide	ND		10	1.9	ug/L			12/13/23 14:41	10
Carbon tetrachloride	ND		10	2.7	ug/L			12/13/23 14:41	10
Chlorobenzene	ND		10	7.5	ug/L			12/13/23 14:41	10
Dibromochloromethane	ND		10	3.2	ug/L			12/13/23 14:41	10
Chloroethane	ND		10	3.2	ug/L			12/13/23 14:41	10
Chloroform	ND		10	3.4	ug/L			12/13/23 14:41	10
Chloromethane	ND		10	3.5	ug/L			12/13/23 14:41	10
cis-1,2-Dichloroethene	**75**		10	8.1	ug/L			12/13/23 14:41	10
cis-1,3-Dichloropropene	ND		10	3.6	ug/L			12/13/23 14:41	10
Cyclohexane	**37**		10	1.8	ug/L			12/13/23 14:41	10
Dichlorodifluoromethane	ND		10	6.8	ug/L			12/13/23 14:41	10
Ethylbenzene	ND		10	7.4	ug/L			12/13/23 14:41	10
1,2-Dibromoethane	ND		10	7.3	ug/L			12/13/23 14:41	10
Isopropylbenzene	ND		10	7.9	ug/L			12/13/23 14:41	10
Methyl acetate	ND		25	13	ug/L			12/13/23 14:41	10
Methyl tert-butyl ether	ND		10	1.6	ug/L			12/13/23 14:41	10
Methylcyclohexane	**34**		10	1.6	ug/L			12/13/23 14:41	10
Methylene Chloride	ND		10	4.4	ug/L			12/13/23 14:41	10
Styrene	ND		10	7.3	ug/L			12/13/23 14:41	10
Tetrachloroethene	ND		10	3.6	ug/L			12/13/23 14:41	10
Toluene	ND		10	5.1	ug/L			12/13/23 14:41	10
trans-1,2-Dichloroethene	ND		10	9.0	ug/L			12/13/23 14:41	10
trans-1,3-Dichloropropene	ND		10	3.7	ug/L			12/13/23 14:41	10
Trichloroethene	ND		10	4.6	ug/L			12/13/23 14:41	10
Trichlorofluoromethane	ND		10	8.8	ug/L			12/13/23 14:41	10
Vinyl chloride	**310**		10	9.0	ug/L			12/13/23 14:41	10
Xylenes, Total	ND		20	6.6	ug/L			12/13/23 14:41	10

Client: LaBella Associates DPC
Job ID: 480-215658-1
Project/Site: Alumax & Roblin Periodic Review Reports

Client Sample ID: MW-09R
Lab Sample ID: 480-215658-4
Date Collected: 12/12/23 10:15
Matrix: Water
Date Received: 12/13/23 09:00

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	97		80 - 120		12/13/23 14:41	10
1,2-Dichloroethane-d4 (Surr)	92		77 - 120		12/13/23 14:41	10
4-Bromofluorobenzene (Surr)	98		73 - 120		12/13/23 14:41	10
Dibromofluoromethane (Surr)	92		75 - 123		12/13/23 14:41	10

Client: LaBella Associates DPC
Job ID: 480-215658-1
Project/Site: Alumax & Roblin Periodic Review Reports

Client Sample ID: EX-MW-11R
Lab Sample ID: 480-215658-5
Date Collected: 12/12/23 10:45
Matrix: Water
Date Received: 12/13/23 09:00

Method: SW846 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		50	41	ug/L			12/14/23 12:11	50
1,1,2,2-Tetrachloroethane	ND		50	11	ug/L			12/14/23 12:11	50
1,1,2-Trichloroethane	ND		50	12	ug/L			12/14/23 12:11	50
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		50	16	ug/L			12/14/23 12:11	50
1,1-Dichloroethane	ND		50	19	ug/L			12/14/23 12:11	50
1,1-Dichloroethene	ND		50	15	ug/L			12/14/23 12:11	50
1,2,4-Trichlorobenzene	ND		50	21	ug/L			12/14/23 12:11	50
1,2-Dibromo-3-Chloropropane	ND		50	20	ug/L			12/14/23 12:11	50
1,2-Dichlorobenzene	ND		50	40	ug/L			12/14/23 12:11	50
1,2-Dichloroethane	ND		50	11	ug/L			12/14/23 12:11	50
1,2-Dichloropropane	ND		50	36	ug/L			12/14/23 12:11	50
1,3-Dichlorobenzene	ND		50	39	ug/L			12/14/23 12:11	50
1,4-Dichlorobenzene	ND		50	42	ug/L			12/14/23 12:11	50
2-Butanone (MEK)	ND		500	66	ug/L			12/14/23 12:11	50
2-Hexanone	ND		250	62	ug/L			12/14/23 12:11	50
4-Methyl-2-pentanone (MIBK)	ND		250	110	ug/L			12/14/23 12:11	50
Acetone	ND		500	150	ug/L			12/14/23 12:11	50
Benzene	ND		50	21	ug/L			12/14/23 12:11	50
Bromodichloromethane	ND		50	20	ug/L			12/14/23 12:11	50
Bromoform	ND		50	13	ug/L			12/14/23 12:11	50
Bromomethane	ND		50	35	ug/L			12/14/23 12:11	50
Carbon disulfide	ND		50	9.5	ug/L			12/14/23 12:11	50
Carbon tetrachloride	ND		50	14	ug/L			12/14/23 12:11	50
Chlorobenzene	ND		50	38	ug/L			12/14/23 12:11	50
Dibromochloromethane	ND		50	16	ug/L			12/14/23 12:11	50
Chloroethane	ND		50	16	ug/L			12/14/23 12:11	50
Chloroform	ND		50	17	ug/L			12/14/23 12:11	50
Chloromethane	ND		50	18	ug/L			12/14/23 12:11	50
cis-1,2-Dichloroethene	**1700**		50	41	ug/L			12/14/23 12:11	50
cis-1,3-Dichloropropene	ND		50	18	ug/L			12/14/23 12:11	50
Cyclohexane	**13**	**J**	50	9.0	ug/L			12/14/23 12:11	50
Dichlorodifluoromethane	ND		50	34	ug/L			12/14/23 12:11	50
Ethylbenzene	ND		50	37	ug/L			12/14/23 12:11	50
1,2-Dibromoethane	ND		50	37	ug/L			12/14/23 12:11	50
Isopropylbenzene	ND		50	40	ug/L			12/14/23 12:11	50
Methyl acetate	ND		130	65	ug/L			12/14/23 12:11	50
Methyl tert-butyl ether	ND		50	8.0	ug/L			12/14/23 12:11	50
Methylcyclohexane	**17**	**J**	50	8.0	ug/L			12/14/23 12:11	50
Methylene Chloride	ND		50	22	ug/L			12/14/23 12:11	50
Styrene	ND		50	37	ug/L			12/14/23 12:11	50
Tetrachloroethene	ND		50	18	ug/L			12/14/23 12:11	50
Toluene	ND		50	26	ug/L			12/14/23 12:11	50
trans-1,2-Dichloroethene	ND		50	45	ug/L			12/14/23 12:11	50
trans-1,3-Dichloropropene	ND		50	19	ug/L			12/14/23 12:11	50
Trichloroethene	**44**	**J**	50	23	ug/L			12/14/23 12:11	50
Trichlorofluoromethane	ND		50	44	ug/L			12/14/23 12:11	50
Vinyl chloride	**1100**		50	45	ug/L			12/14/23 12:11	50
Xylenes, Total	ND		100	33	ug/L			12/14/23 12:11	50

Client: LaBella Associates DPC
Job ID: 480-215658-1
Project/Site: Alumax & Roblin Periodic Review Reports

Client Sample ID: EX-MW-11R
Lab Sample ID: 480-215658-5
Date Collected: 12/12/23 10:45
Matrix: Water
Date Received: 12/13/23 09:00

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	99		80 - 120		12/14/23 12:11	50
1,2-Dichloroethane-d4 (Surr)	88		77 - 120		12/14/23 12:11	50
4-Bromofluorobenzene (Surr)	98		73 - 120		12/14/23 12:11	50
Dibromofluoromethane (Surr)	86		75 - 123		12/14/23 12:11	50

Client: LaBella Associates DPC
Job ID: 480-215658-1
Project/Site: Alumax & Roblin Periodic Review Reports

Client Sample ID: MW-02R
Lab Sample ID: 480-215658-6
Date Collected: 12/12/23 11:25
Matrix: Water
Date Received: 12/13/23 09:00

Method: SW846 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		5.0	4.1	ug/L			12/13/23 15:25	5
1,1,2,2-Tetrachloroethane	ND		5.0	1.1	ug/L			12/13/23 15:25	5
1,1,2-Trichloroethane	ND		5.0	1.2	ug/L			12/13/23 15:25	5
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		5.0	1.6	ug/L			12/13/23 15:25	5
1,1-Dichloroethane	ND		5.0	1.9	ug/L			12/13/23 15:25	5
1,1-Dichloroethene	ND		5.0	1.5	ug/L			12/13/23 15:25	5
1,2,4-Trichlorobenzene	ND		5.0	2.1	ug/L			12/13/23 15:25	5
1,2-Dibromo-3-Chloropropane	ND		5.0	2.0	ug/L			12/13/23 15:25	5
1,2-Dichlorobenzene	ND		5.0	4.0	ug/L			12/13/23 15:25	5
1,2-Dichloroethane	ND		5.0	1.1	ug/L			12/13/23 15:25	5
1,2-Dichloropropane	ND		5.0	3.6	ug/L			12/13/23 15:25	5
1,3-Dichlorobenzene	ND		5.0	3.9	ug/L			12/13/23 15:25	5
1,4-Dichlorobenzene	ND		5.0	4.2	ug/L			12/13/23 15:25	5
2-Butanone (MEK)	ND		50	6.6	ug/L			12/13/23 15:25	5
2-Hexanone	ND		25	6.2	ug/L			12/13/23 15:25	5
4-Methyl-2-pentanone (MIBK)	ND		25	11	ug/L			12/13/23 15:25	5
Acetone	ND		50	15	ug/L			12/13/23 15:25	5
Benzene	**2.7**	**J**	5.0	2.1	ug/L			12/13/23 15:25	5
Bromodichloromethane	ND		5.0	2.0	ug/L			12/13/23 15:25	5
Bromoform	ND		5.0	1.3	ug/L			12/13/23 15:25	5
Bromomethane	ND		5.0	3.5	ug/L			12/13/23 15:25	5
Carbon disulfide	ND		5.0	0.95	ug/L			12/13/23 15:25	5
Carbon tetrachloride	ND		5.0	1.4	ug/L			12/13/23 15:25	5
Chlorobenzene	ND		5.0	3.8	ug/L			12/13/23 15:25	5
Dibromochloromethane	ND		5.0	1.6	ug/L			12/13/23 15:25	5
Chloroethane	ND		5.0	1.6	ug/L			12/13/23 15:25	5
Chloroform	ND		5.0	1.7	ug/L			12/13/23 15:25	5
Chloromethane	ND		5.0	1.8	ug/L			12/13/23 15:25	5
cis-1,2-Dichloroethene	**320**		5.0	4.1	ug/L			12/13/23 15:25	5
cis-1,3-Dichloropropene	ND		5.0	1.8	ug/L			12/13/23 15:25	5
Cyclohexane	**7.7**		5.0	0.90	ug/L			12/13/23 15:25	5
Dichlorodifluoromethane	ND		5.0	3.4	ug/L			12/13/23 15:25	5
Ethylbenzene	ND		5.0	3.7	ug/L			12/13/23 15:25	5
1,2-Dibromoethane	ND		5.0	3.7	ug/L			12/13/23 15:25	5
Isopropylbenzene	ND		5.0	4.0	ug/L			12/13/23 15:25	5
Methyl acetate	ND		13	6.5	ug/L			12/13/23 15:25	5
Methyl tert-butyl ether	ND		5.0	0.80	ug/L			12/13/23 15:25	5
Methylcyclohexane	**7.7**		5.0	0.80	ug/L			12/13/23 15:25	5
Methylene Chloride	ND		5.0	2.2	ug/L			12/13/23 15:25	5
Styrene	ND		5.0	3.7	ug/L			12/13/23 15:25	5
Tetrachloroethene	ND		5.0	1.8	ug/L			12/13/23 15:25	5
Toluene	ND		5.0	2.6	ug/L			12/13/23 15:25	5
trans-1,2-Dichloroethene	ND		5.0	4.5	ug/L			12/13/23 15:25	5
trans-1,3-Dichloropropene	ND		5.0	1.9	ug/L			12/13/23 15:25	5
Trichloroethene	**3.6**	**J**	5.0	2.3	ug/L			12/13/23 15:25	5
Trichlorofluoromethane	ND		5.0	4.4	ug/L			12/13/23 15:25	5
Vinyl chloride	**280**		5.0	4.5	ug/L			12/13/23 15:25	5
Xylenes, Total	ND		10	3.3	ug/L			12/13/23 15:25	5

Client: LaBella Associates DPC
Job ID: 480-215658-1
Project/Site: Alumax & Roblin Periodic Review Reports

Client Sample ID: MW-02R
Lab Sample ID: 480-215658-6
Date Collected: 12/12/23 11:25
Matrix: Water
Date Received: 12/13/23 09:00

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	97		80 - 120		12/13/23 15:25	5
1,2-Dichloroethane-d4 (Surr)	90		77 - 120		12/13/23 15:25	5
4-Bromofluorobenzene (Surr)	99		73 - 120		12/13/23 15:25	5
Dibromofluoromethane (Surr)	91		75 - 123		12/13/23 15:25	5

Client: LaBella Associates DPC
Job ID: 480-215658-1
Project/Site: Alumax & Roblin Periodic Review Reports

Client Sample ID: EX-MW-12
Lab Sample ID: 480-215658-7
Date Collected: 12/12/23 12:10
Matrix: Water
Date Received: 12/13/23 09:00

Method: SW846 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		4.0	3.3	ug/L			12/13/23 15:48	4
1,1,2,2-Tetrachloroethane	ND		4.0	0.84	ug/L			12/13/23 15:48	4
1,1,2-Trichloroethane	ND		4.0	0.92	ug/L			12/13/23 15:48	4
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		4.0	1.2	ug/L			12/13/23 15:48	4
1,1-Dichloroethane	ND		4.0	1.5	ug/L			12/13/23 15:48	4
1,1-Dichloroethene	ND		4.0	1.2	ug/L			12/13/23 15:48	4
1,2,4-Trichlorobenzene	ND		4.0	1.6	ug/L			12/13/23 15:48	4
1,2-Dibromo-3-Chloropropane	ND		4.0	1.6	ug/L			12/13/23 15:48	4
1,2-Dichlorobenzene	ND		4.0	3.2	ug/L			12/13/23 15:48	4
1,2-Dichloroethane	ND		4.0	0.84	ug/L			12/13/23 15:48	4
1,2-Dichloropropane	ND		4.0	2.9	ug/L			12/13/23 15:48	4
1,3-Dichlorobenzene	ND		4.0	3.1	ug/L			12/13/23 15:48	4
1,4-Dichlorobenzene	ND		4.0	3.4	ug/L			12/13/23 15:48	4
2-Butanone (MEK)	ND		40	5.3	ug/L			12/13/23 15:48	4
2-Hexanone	ND		20	5.0	ug/L			12/13/23 15:48	4
4-Methyl-2-pentanone (MIBK)	ND		20	8.4	ug/L			12/13/23 15:48	4
Acetone	ND		40	12	ug/L			12/13/23 15:48	4
Benzene	ND		4.0	1.6	ug/L			12/13/23 15:48	4
Bromodichloromethane	ND		4.0	1.6	ug/L			12/13/23 15:48	4
Bromoform	ND		4.0	1.0	ug/L			12/13/23 15:48	4
Bromomethane	ND		4.0	2.8	ug/L			12/13/23 15:48	4
Carbon disulfide	ND		4.0	0.76	ug/L			12/13/23 15:48	4
Carbon tetrachloride	ND		4.0	1.1	ug/L			12/13/23 15:48	4
Chlorobenzene	ND		4.0	3.0	ug/L			12/13/23 15:48	4
Dibromochloromethane	ND		4.0	1.3	ug/L			12/13/23 15:48	4
Chloroethane	ND		4.0	1.3	ug/L			12/13/23 15:48	4
Chloroform	ND		4.0	1.4	ug/L			12/13/23 15:48	4
Chloromethane	ND		4.0	1.4	ug/L			12/13/23 15:48	4
cis-1,2-Dichloroethene	ND		4.0	3.2	ug/L			12/13/23 15:48	4
cis-1,3-Dichloropropene	ND		4.0	1.4	ug/L			12/13/23 15:48	4
Cyclohexane	ND		4.0	0.72	ug/L			12/13/23 15:48	4
Dichlorodifluoromethane	ND		4.0	2.7	ug/L			12/13/23 15:48	4
Ethylbenzene	ND		4.0	3.0	ug/L			12/13/23 15:48	4
1,2-Dibromoethane	ND		4.0	2.9	ug/L			12/13/23 15:48	4
Isopropylbenzene	ND		4.0	3.2	ug/L			12/13/23 15:48	4
Methyl acetate	ND		10	5.2	ug/L			12/13/23 15:48	4
Methyl tert-butyl ether	ND		4.0	0.64	ug/L			12/13/23 15:48	4
Methylcyclohexane	ND		4.0	0.64	ug/L			12/13/23 15:48	4
Methylene Chloride	ND		4.0	1.8	ug/L			12/13/23 15:48	4
Styrene	ND		4.0	2.9	ug/L			12/13/23 15:48	4
Tetrachloroethene	ND		4.0	1.4	ug/L			12/13/23 15:48	4
Toluene	ND		4.0	2.0	ug/L			12/13/23 15:48	4
trans-1,2-Dichloroethene	ND		4.0	3.6	ug/L			12/13/23 15:48	4
trans-1,3-Dichloropropene	ND		4.0	1.5	ug/L			12/13/23 15:48	4
Trichloroethene	ND		4.0	1.8	ug/L			12/13/23 15:48	4
Trichlorofluoromethane	ND		4.0	3.5	ug/L			12/13/23 15:48	4
Vinyl chloride	ND		4.0	3.6	ug/L			12/13/23 15:48	4
Xylenes, Total	ND		8.0	2.6	ug/L			12/13/23 15:48	4

Client: LaBella Associates DPC
Job ID: 480-215658-1
Project/Site: Alumax & Roblin Periodic Review Reports

Client Sample ID: EX-MW-12
Lab Sample ID: 480-215658-7
Date Collected: 12/12/23 12:10
Matrix: Water
Date Received: 12/13/23 09:00

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	96		80 - 120		12/13/23 15:48	4
1,2-Dichloroethane-d4 (Surr)	89		77 - 120		12/13/23 15:48	4
4-Bromofluorobenzene (Surr)	99		73 - 120		12/13/23 15:48	4
Dibromofluoromethane (Surr)	93		75 - 123		12/13/23 15:48	4

Client: LaBella Associates DPC
Job ID: 480-215658-1
Project/Site: Alumax & Roblin Periodic Review Reports

Client Sample ID: MW-04
Lab Sample ID: 480-215658-8
Date Collected: 12/12/23 12:45
Matrix: Water
Date Received: 12/13/23 09:00

Method: SW846 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		4.0	3.3	ug/L			12/13/23 16:10	4
1,1,2,2-Tetrachloroethane	ND		4.0	0.84	ug/L			12/13/23 16:10	4
1,1,2-Trichloroethane	ND		4.0	0.92	ug/L			12/13/23 16:10	4
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		4.0	1.2	ug/L			12/13/23 16:10	4
1,1-Dichloroethane	ND		4.0	1.5	ug/L			12/13/23 16:10	4
1,1-Dichloroethene	ND		4.0	1.2	ug/L			12/13/23 16:10	4
1,2,4-Trichlorobenzene	ND		4.0	1.6	ug/L			12/13/23 16:10	4
1,2-Dibromo-3-Chloropropane	ND		4.0	1.6	ug/L			12/13/23 16:10	4
1,2-Dichlorobenzene	ND		4.0	3.2	ug/L			12/13/23 16:10	4
1,2-Dichloroethane	ND		4.0	0.84	ug/L			12/13/23 16:10	4
1,2-Dichloropropane	ND		4.0	2.9	ug/L			12/13/23 16:10	4
1,3-Dichlorobenzene	ND		4.0	3.1	ug/L			12/13/23 16:10	4
1,4-Dichlorobenzene	ND		4.0	3.4	ug/L			12/13/23 16:10	4
2-Butanone (MEK)	ND		40	5.3	ug/L			12/13/23 16:10	4
2-Hexanone	ND		20	5.0	ug/L			12/13/23 16:10	4
4-Methyl-2-pentanone (MIBK)	ND		20	8.4	ug/L			12/13/23 16:10	4
Acetone	ND		40	12	ug/L			12/13/23 16:10	4
Benzene	ND		4.0	1.6	ug/L			12/13/23 16:10	4
Bromodichloromethane	ND		4.0	1.6	ug/L			12/13/23 16:10	4
Bromoform	ND		4.0	1.0	ug/L			12/13/23 16:10	4
Bromomethane	ND		4.0	2.8	ug/L			12/13/23 16:10	4
Carbon disulfide	ND		4.0	0.76	ug/L			12/13/23 16:10	4
Carbon tetrachloride	ND		4.0	1.1	ug/L			12/13/23 16:10	4
Chlorobenzene	ND		4.0	3.0	ug/L			12/13/23 16:10	4
Dibromochloromethane	ND		4.0	1.3	ug/L			12/13/23 16:10	4
Chloroethane	ND		4.0	1.3	ug/L			12/13/23 16:10	4
Chloroform	ND		4.0	1.4	ug/L			12/13/23 16:10	4
Chloromethane	ND		4.0	1.4	ug/L			12/13/23 16:10	4
cis-1,2-Dichloroethene	ND		4.0	3.2	ug/L			12/13/23 16:10	4
cis-1,3-Dichloropropene	ND		4.0	1.4	ug/L			12/13/23 16:10	4
Cyclohexane	ND		4.0	0.72	ug/L			12/13/23 16:10	4
Dichlorodifluoromethane	ND		4.0	2.7	ug/L			12/13/23 16:10	4
Ethylbenzene	ND		4.0	3.0	ug/L			12/13/23 16:10	4
1,2-Dibromoethane	ND		4.0	2.9	ug/L			12/13/23 16:10	4
Isopropylbenzene	ND		4.0	3.2	ug/L			12/13/23 16:10	4
Methyl acetate	ND		10	5.2	ug/L			12/13/23 16:10	4
Methyl tert-butyl ether	ND		4.0	0.64	ug/L			12/13/23 16:10	4
Methylcyclohexane	ND		4.0	0.64	ug/L			12/13/23 16:10	4
Methylene Chloride	ND		4.0	1.8	ug/L			12/13/23 16:10	4
Styrene	ND		4.0	2.9	ug/L			12/13/23 16:10	4
Tetrachloroethene	ND		4.0	1.4	ug/L			12/13/23 16:10	4
Toluene	ND		4.0	2.0	ug/L			12/13/23 16:10	4
trans-1,2-Dichloroethene	ND		4.0	3.6	ug/L			12/13/23 16:10	4
trans-1,3-Dichloropropene	ND		4.0	1.5	ug/L			12/13/23 16:10	4
Trichloroethene	ND		4.0	1.8	ug/L			12/13/23 16:10	4
Trichlorofluoromethane	ND		4.0	3.5	ug/L			12/13/23 16:10	4
Vinyl chloride	ND		4.0	3.6	ug/L			12/13/23 16:10	4
Xylenes, Total	ND		8.0	2.6	ug/L			12/13/23 16:10	4

Client: LaBella Associates DPC
Job ID: 480-215658-1
Project/Site: Alumax & Roblin Periodic Review Reports

Client Sample ID: MW-04
Lab Sample ID: 480-215658-8
Date Collected: 12/12/23 12:45
Matrix: Water
Date Received: 12/13/23 09:00

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	97		80 - 120		12/13/23 16:10	4
1,2-Dichloroethane-d4 (Surr)	90		77 - 120		12/13/23 16:10	4
4-Bromofluorobenzene (Surr)	97		73 - 120		12/13/23 16:10	4
Dibromofluoromethane (Surr)	90		75 - 123		12/13/23 16:10	4

Client: LaBella Associates DPC
Job ID: 480-215658-1
Project/Site: Alumax & Roblin Periodic Review Reports

Client Sample ID: MW-13
Lab Sample ID: 480-215658-9
Date Collected: 12/12/23 13:30
Matrix: Water
Date Received: 12/13/23 09:00

Method: SW846 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		4.0	3.3	ug/L			12/13/23 16:32	4
1,1,2,2-Tetrachloroethane	ND		4.0	0.84	ug/L			12/13/23 16:32	4
1,1,2-Trichloroethane	ND		4.0	0.92	ug/L			12/13/23 16:32	4
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		4.0	1.2	ug/L			12/13/23 16:32	4
1,1-Dichloroethane	ND		4.0	1.5	ug/L			12/13/23 16:32	4
1,1-Dichloroethene	ND		4.0	1.2	ug/L			12/13/23 16:32	4
1,2,4-Trichlorobenzene	ND		4.0	1.6	ug/L			12/13/23 16:32	4
1,2-Dibromo-3-Chloropropane	ND		4.0	1.6	ug/L			12/13/23 16:32	4
1,2-Dichlorobenzene	ND		4.0	3.2	ug/L			12/13/23 16:32	4
1,2-Dichloroethane	ND		4.0	0.84	ug/L			12/13/23 16:32	4
1,2-Dichloropropane	ND		4.0	2.9	ug/L			12/13/23 16:32	4
1,3-Dichlorobenzene	ND		4.0	3.1	ug/L			12/13/23 16:32	4
1,4-Dichlorobenzene	ND		4.0	3.4	ug/L			12/13/23 16:32	4
2-Butanone (MEK)	ND		40	5.3	ug/L			12/13/23 16:32	4
2-Hexanone	ND		20	5.0	ug/L			12/13/23 16:32	4
4-Methyl-2-pentanone (MIBK)	ND		20	8.4	ug/L			12/13/23 16:32	4
Acetone	ND		40	12	ug/L			12/13/23 16:32	4
Benzene	**2.1**	**J**	4.0	1.6	ug/L			12/13/23 16:32	4
Bromodichloromethane	ND		4.0	1.6	ug/L			12/13/23 16:32	4
Bromoform	ND		4.0	1.0	ug/L			12/13/23 16:32	4
Bromomethane	ND		4.0	2.8	ug/L			12/13/23 16:32	4
Carbon disulfide	ND		4.0	0.76	ug/L			12/13/23 16:32	4
Carbon tetrachloride	ND		4.0	1.1	ug/L			12/13/23 16:32	4
Chlorobenzene	ND		4.0	3.0	ug/L			12/13/23 16:32	4
Dibromochloromethane	ND		4.0	1.3	ug/L			12/13/23 16:32	4
Chloroethane	ND		4.0	1.3	ug/L			12/13/23 16:32	4
Chloroform	ND		4.0	1.4	ug/L			12/13/23 16:32	4
Chloromethane	ND		4.0	1.4	ug/L			12/13/23 16:32	4
cis-1,2-Dichloroethene	ND		4.0	3.2	ug/L			12/13/23 16:32	4
cis-1,3-Dichloropropene	ND		4.0	1.4	ug/L			12/13/23 16:32	4
Cyclohexane	**6.1**		4.0	0.72	ug/L			12/13/23 16:32	4
Dichlorodifluoromethane	ND		4.0	2.7	ug/L			12/13/23 16:32	4
Ethylbenzene	ND		4.0	3.0	ug/L			12/13/23 16:32	4
1,2-Dibromoethane	ND		4.0	2.9	ug/L			12/13/23 16:32	4
Isopropylbenzene	ND		4.0	3.2	ug/L			12/13/23 16:32	4
Methyl acetate	ND		10	5.2	ug/L			12/13/23 16:32	4
Methyl tert-butyl ether	ND		4.0	0.64	ug/L			12/13/23 16:32	4
Methylcyclohexane	**6.8**		4.0	0.64	ug/L			12/13/23 16:32	4
Methylene Chloride	ND		4.0	1.8	ug/L			12/13/23 16:32	4
Styrene	ND		4.0	2.9	ug/L			12/13/23 16:32	4
Tetrachloroethene	ND		4.0	1.4	ug/L			12/13/23 16:32	4
Toluene	**3.0**	**J**	4.0	2.0	ug/L			12/13/23 16:32	4
trans-1,2-Dichloroethene	ND		4.0	3.6	ug/L			12/13/23 16:32	4
trans-1,3-Dichloropropene	ND		4.0	1.5	ug/L			12/13/23 16:32	4
Trichloroethene	ND		4.0	1.8	ug/L			12/13/23 16:32	4
Trichlorofluoromethane	ND		4.0	3.5	ug/L			12/13/23 16:32	4
Vinyl chloride	ND		4.0	3.6	ug/L			12/13/23 16:32	4
Xylenes, Total	**5.0**	**J**	8.0	2.6	ug/L			12/13/23 16:32	4

Client: LaBella Associates DPC
Job ID: 480-215658-1
Project/Site: Alumax & Roblin Periodic Review Reports

Client Sample ID: MW-13
Lab Sample ID: 480-215658-9
Date Collected: 12/12/23 13:30
Matrix: Water
Date Received: 12/13/23 09:00

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	100		80 - 120		12/13/23 16:32	4
1,2-Dichloroethane-d4 (Surr)	89		77 - 120		12/13/23 16:32	4
4-Bromofluorobenzene (Surr)	98		73 - 120		12/13/23 16:32	4
Dibromofluoromethane (Surr)	92		75 - 123		12/13/23 16:32	4

Client: LaBella Associates DPC
Job ID: 480-215658-1
Project/Site: Alumax & Roblin Periodic Review Reports

Client Sample ID: MW-07R
Lab Sample ID: 480-215658-10
Date Collected: 12/12/23 14:05
Matrix: Water
Date Received: 12/13/23 09:00

Method: SW846 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		10	8.2	ug/L			12/13/23 16:54	10
1,1,2,2-Tetrachloroethane	ND		10	2.1	ug/L			12/13/23 16:54	10
1,1,2-Trichloroethane	ND		10	2.3	ug/L			12/13/23 16:54	10
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		10	3.1	ug/L			12/13/23 16:54	10
1,1-Dichloroethane	ND		10	3.8	ug/L			12/13/23 16:54	10
1,1-Dichloroethene	**12**		10	2.9	ug/L			12/13/23 16:54	10
1,2,4-Trichlorobenzene	ND		10	4.1	ug/L			12/13/23 16:54	10
1,2-Dibromo-3-Chloropropane	ND		10	3.9	ug/L			12/13/23 16:54	10
1,2-Dichlorobenzene	ND		10	7.9	ug/L			12/13/23 16:54	10
1,2-Dichloroethane	ND		10	2.1	ug/L			12/13/23 16:54	10
1,2-Dichloropropane	ND		10	7.2	ug/L			12/13/23 16:54	10
1,3-Dichlorobenzene	ND		10	7.8	ug/L			12/13/23 16:54	10
1,4-Dichlorobenzene	ND		10	8.4	ug/L			12/13/23 16:54	10
2-Butanone (MEK)	ND		100	13	ug/L			12/13/23 16:54	10
2-Hexanone	ND		50	12	ug/L			12/13/23 16:54	10
4-Methyl-2-pentanone (MIBK)	ND		50	21	ug/L			12/13/23 16:54	10
Acetone	ND		100	30	ug/L			12/13/23 16:54	10
Benzene	ND		10	4.1	ug/L			12/13/23 16:54	10
Bromodichloromethane	ND		10	3.9	ug/L			12/13/23 16:54	10
Bromoform	ND		10	2.6	ug/L			12/13/23 16:54	10
Bromomethane	ND		10	6.9	ug/L			12/13/23 16:54	10
Carbon disulfide	ND		10	1.9	ug/L			12/13/23 16:54	10
Carbon tetrachloride	ND		10	2.7	ug/L			12/13/23 16:54	10
Chlorobenzene	ND		10	7.5	ug/L			12/13/23 16:54	10
Dibromochloromethane	ND		10	3.2	ug/L			12/13/23 16:54	10
Chloroethane	ND		10	3.2	ug/L			12/13/23 16:54	10
Chloroform	ND		10	3.4	ug/L			12/13/23 16:54	10
Chloromethane	ND		10	3.5	ug/L			12/13/23 16:54	10
cis-1,2-Dichloroethene	**3200**	**E**	10	8.1	ug/L			12/13/23 16:54	10
cis-1,3-Dichloropropene	ND		10	3.6	ug/L			12/13/23 16:54	10
Cyclohexane	ND		10	1.8	ug/L			12/13/23 16:54	10
Dichlorodifluoromethane	ND		10	6.8	ug/L			12/13/23 16:54	10
Ethylbenzene	ND		10	7.4	ug/L			12/13/23 16:54	10
1,2-Dibromoethane	ND		10	7.3	ug/L			12/13/23 16:54	10
Isopropylbenzene	ND		10	7.9	ug/L			12/13/23 16:54	10
Methyl acetate	ND		25	13	ug/L			12/13/23 16:54	10
Methyl tert-butyl ether	ND		10	1.6	ug/L			12/13/23 16:54	10
Methylcyclohexane	ND		10	1.6	ug/L			12/13/23 16:54	10
Methylene Chloride	ND		10	4.4	ug/L			12/13/23 16:54	10
Styrene	ND		10	7.3	ug/L			12/13/23 16:54	10
Tetrachloroethene	ND		10	3.6	ug/L			12/13/23 16:54	10
Toluene	ND		10	5.1	ug/L			12/13/23 16:54	10
trans-1,2-Dichloroethene	**9.6**	**J**	10	9.0	ug/L			12/13/23 16:54	10
trans-1,3-Dichloropropene	ND		10	3.7	ug/L			12/13/23 16:54	10
Trichloroethene	**21**		10	4.6	ug/L			12/13/23 16:54	10
Trichlorofluoromethane	ND		10	8.8	ug/L			12/13/23 16:54	10
Vinyl chloride	**690**	**F1**	10	9.0	ug/L			12/13/23 16:54	10
Xylenes, Total	ND		20	6.6	ug/L			12/13/23 16:54	10

Client Sample ID: MW-07R
Lab Sample ID: 480-215658-10
Date Collected: 12/12/23 14:05
Matrix: Water
Date Received: 12/13/23 09:00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*97*		*80 - 120*		*12/13/23 16:54*	*10*
1,2-Dichloroethane-d4 (Surr)	*88*		*77 - 120*		*12/13/23 16:54*	*10*
4-Bromofluorobenzene (Surr)	*99*		*73 - 120*		*12/13/23 16:54*	*10*
Dibromofluoromethane (Surr)	*89*		*75 - 123*		*12/13/23 16:54*	*10*

Method: SW846 8260C - Volatile Organic Compounds by GC/MS - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		80	66	ug/L			12/14/23 12:33	80
1,1,2,2-Tetrachloroethane	ND		80	17	ug/L			12/14/23 12:33	80
1,1,2-Trichloroethane	ND		80	18	ug/L			12/14/23 12:33	80
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		80	25	ug/L			12/14/23 12:33	80
1,1-Dichloroethane	ND		80	30	ug/L			12/14/23 12:33	80
1,1-Dichloroethene	ND		80	23	ug/L			12/14/23 12:33	80
1,2,4-Trichlorobenzene	ND		80	33	ug/L			12/14/23 12:33	80
1,2-Dibromo-3-Chloropropane	ND		80	31	ug/L			12/14/23 12:33	80
1,2-Dichlorobenzene	ND		80	63	ug/L			12/14/23 12:33	80
1,2-Dichloroethane	ND		80	17	ug/L			12/14/23 12:33	80
1,2-Dichloropropane	ND		80	58	ug/L			12/14/23 12:33	80
1,3-Dichlorobenzene	ND		80	62	ug/L			12/14/23 12:33	80
1,4-Dichlorobenzene	ND		80	67	ug/L			12/14/23 12:33	80
2-Butanone (MEK)	ND		800	110	ug/L			12/14/23 12:33	80
2-Hexanone	ND		400	99	ug/L			12/14/23 12:33	80
4-Methyl-2-pentanone (MIBK)	ND		400	170	ug/L			12/14/23 12:33	80
Acetone	ND		800	240	ug/L			12/14/23 12:33	80
Benzene	ND		80	33	ug/L			12/14/23 12:33	80
Bromodichloromethane	ND		80	31	ug/L			12/14/23 12:33	80
Bromoform	ND		80	21	ug/L			12/14/23 12:33	80
Bromomethane	ND		80	55	ug/L			12/14/23 12:33	80
Carbon disulfide	ND		80	15	ug/L			12/14/23 12:33	80
Carbon tetrachloride	ND		80	22	ug/L			12/14/23 12:33	80
Chlorobenzene	ND		80	60	ug/L			12/14/23 12:33	80
Dibromochloromethane	ND		80	26	ug/L			12/14/23 12:33	80
Chloroethane	ND		80	26	ug/L			12/14/23 12:33	80
Chloroform	ND		80	27	ug/L			12/14/23 12:33	80
Chloromethane	ND		80	28	ug/L			12/14/23 12:33	80
cis-1,2-Dichloroethene	**3400**		80	65	ug/L			12/14/23 12:33	80
cis-1,3-Dichloropropene	ND		80	29	ug/L			12/14/23 12:33	80
Cyclohexane	ND		80	14	ug/L			12/14/23 12:33	80
Dichlorodifluoromethane	ND		80	54	ug/L			12/14/23 12:33	80
Ethylbenzene	ND		80	59	ug/L			12/14/23 12:33	80
1,2-Dibromoethane	ND		80	58	ug/L			12/14/23 12:33	80
Isopropylbenzene	ND		80	63	ug/L			12/14/23 12:33	80
Methyl acetate	ND		200	100	ug/L			12/14/23 12:33	80
Methyl tert-butyl ether	ND		80	13	ug/L			12/14/23 12:33	80
Methylcyclohexane	ND		80	13	ug/L			12/14/23 12:33	80
Methylene Chloride	ND		80	35	ug/L			12/14/23 12:33	80
Styrene	ND		80	58	ug/L			12/14/23 12:33	80
Tetrachloroethene	ND		80	29	ug/L			12/14/23 12:33	80
Toluene	ND		80	41	ug/L			12/14/23 12:33	80
trans-1,2-Dichloroethene	ND		80	72	ug/L			12/14/23 12:33	80

Client: LaBella Associates DPC
Job ID: 480-215658-1
Project/Site: Alumax & Roblin Periodic Review Reports

Client Sample ID: MW-07R
Lab Sample ID: 480-215658-10
Date Collected: 12/12/23 14:05
Matrix: Water
Date Received: 12/13/23 09:00

Method: SW846 8260C - Volatile Organic Compounds by GC/MS - DL (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
trans-1,3-Dichloropropene	ND		80	30	ug/L			12/14/23 12:33	80
Trichloroethene	ND		80	37	ug/L			12/14/23 12:33	80
Trichlorofluoromethane	ND		80	70	ug/L			12/14/23 12:33	80
Vinyl chloride	**780**		80	72	ug/L			12/14/23 12:33	80
Xylenes, Total	ND		160	53	ug/L			12/14/23 12:33	80

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*98*		*80 - 120*		*12/14/23 12:33*	*80*
1,2-Dichloroethane-d4 (Surr)	*90*		*77 - 120*		*12/14/23 12:33*	*80*
4-Bromofluorobenzene (Surr)	*104*		*73 - 120*		*12/14/23 12:33*	*80*
Dibromofluoromethane (Surr)	*92*		*75 - 123*		*12/14/23 12:33*	*80*

Client: LaBella Associates DPC
Job ID: 480-215658-1
Project/Site: Alumax & Roblin Periodic Review Reports

Client Sample ID: DUP
Lab Sample ID: 480-215658-11
Date Collected: 12/12/23 00:00
Matrix: Water
Date Received: 12/13/23 09:00

Method: SW846 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		10	8.2	ug/L			12/14/23 12:56	10
1,1,2,2-Tetrachloroethane	ND		10	2.1	ug/L			12/14/23 12:56	10
1,1,2-Trichloroethane	ND		10	2.3	ug/L			12/14/23 12:56	10
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		10	3.1	ug/L			12/14/23 12:56	10
1,1-Dichloroethane	ND		10	3.8	ug/L			12/14/23 12:56	10
1,1-Dichloroethene	ND		10	2.9	ug/L			12/14/23 12:56	10
1,2,4-Trichlorobenzene	ND		10	4.1	ug/L			12/14/23 12:56	10
1,2-Dibromo-3-Chloropropane	ND		10	3.9	ug/L			12/14/23 12:56	10
1,2-Dichlorobenzene	ND		10	7.9	ug/L			12/14/23 12:56	10
1,2-Dichloroethane	ND		10	2.1	ug/L			12/14/23 12:56	10
1,2-Dichloropropane	ND		10	7.2	ug/L			12/14/23 12:56	10
1,3-Dichlorobenzene	ND		10	7.8	ug/L			12/14/23 12:56	10
1,4-Dichlorobenzene	ND		10	8.4	ug/L			12/14/23 12:56	10
2-Butanone (MEK)	ND		100	13	ug/L			12/14/23 12:56	10
2-Hexanone	ND		50	12	ug/L			12/14/23 12:56	10
4-Methyl-2-pentanone (MIBK)	ND		50	21	ug/L			12/14/23 12:56	10
Acetone	ND		100	30	ug/L			12/14/23 12:56	10
Benzene	ND		10	4.1	ug/L			12/14/23 12:56	10
Bromodichloromethane	ND		10	3.9	ug/L			12/14/23 12:56	10
Bromoform	ND		10	2.6	ug/L			12/14/23 12:56	10
Bromomethane	ND	F2	10	6.9	ug/L			12/14/23 12:56	10
Carbon disulfide	ND		10	1.9	ug/L			12/14/23 12:56	10
Carbon tetrachloride	ND		10	2.7	ug/L			12/14/23 12:56	10
Chlorobenzene	ND		10	7.5	ug/L			12/14/23 12:56	10
Dibromochloromethane	ND		10	3.2	ug/L			12/14/23 12:56	10
Chloroethane	ND	F2	10	3.2	ug/L			12/14/23 12:56	10
Chloroform	ND		10	3.4	ug/L			12/14/23 12:56	10
Chloromethane	ND		10	3.5	ug/L			12/14/23 12:56	10
cis-1,2-Dichloroethene	**99**		10	8.1	ug/L			12/14/23 12:56	10
cis-1,3-Dichloropropene	ND		10	3.6	ug/L			12/14/23 12:56	10
Cyclohexane	**39**		10	1.8	ug/L			12/14/23 12:56	10
Dichlorodifluoromethane	ND		10	6.8	ug/L			12/14/23 12:56	10
Ethylbenzene	ND		10	7.4	ug/L			12/14/23 12:56	10
1,2-Dibromoethane	ND		10	7.3	ug/L			12/14/23 12:56	10
Isopropylbenzene	ND		10	7.9	ug/L			12/14/23 12:56	10
Methyl acetate	ND		25	13	ug/L			12/14/23 12:56	10
Methyl tert-butyl ether	ND		10	1.6	ug/L			12/14/23 12:56	10
Methylcyclohexane	**37**		10	1.6	ug/L			12/14/23 12:56	10
Methylene Chloride	ND		10	4.4	ug/L			12/14/23 12:56	10
Styrene	ND		10	7.3	ug/L			12/14/23 12:56	10
Tetrachloroethene	ND		10	3.6	ug/L			12/14/23 12:56	10
Toluene	ND		10	5.1	ug/L			12/14/23 12:56	10
trans-1,2-Dichloroethene	ND		10	9.0	ug/L			12/14/23 12:56	10
trans-1,3-Dichloropropene	ND		10	3.7	ug/L			12/14/23 12:56	10
Trichloroethene	ND		10	4.6	ug/L			12/14/23 12:56	10
Trichlorofluoromethane	ND		10	8.8	ug/L			12/14/23 12:56	10
Vinyl chloride	**360**	**F1**	10	9.0	ug/L			12/14/23 12:56	10
Xylenes, Total	ND		20	6.6	ug/L			12/14/23 12:56	10

Client: LaBella Associates DPC
Job ID: 480-215658-1
Project/Site: Alumax & Roblin Periodic Review Reports

Client Sample ID: DUP
Lab Sample ID: 480-215658-11
Date Collected: 12/12/23 00:00
Matrix: Water
Date Received: 12/13/23 09:00

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	95		80 - 120		12/14/23 12:56	10
1,2-Dichloroethane-d4 (Surr)	97		77 - 120		12/14/23 12:56	10
4-Bromofluorobenzene (Surr)	100		73 - 120		12/14/23 12:56	10
Dibromofluoromethane (Surr)	97		75 - 123		12/14/23 12:56	10

Client: LaBella Associates DPC
Job ID: 480-215658-1
Project/Site: Alumax & Roblin Periodic Review Reports

Client Sample ID: TRIP BLANK
Lab Sample ID: 480-215658-12
Date Collected: 12/12/23 00:00
Matrix: Water
Date Received: 12/13/23 09:00

Method: SW846 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			12/13/23 17:39	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			12/13/23 17:39	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			12/13/23 17:39	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			12/13/23 17:39	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			12/13/23 17:39	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			12/13/23 17:39	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			12/13/23 17:39	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			12/13/23 17:39	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			12/13/23 17:39	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			12/13/23 17:39	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			12/13/23 17:39	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			12/13/23 17:39	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			12/13/23 17:39	1
2-Butanone (MEK)	ND		10	1.3	ug/L			12/13/23 17:39	1
2-Hexanone	ND		5.0	1.2	ug/L			12/13/23 17:39	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			12/13/23 17:39	1
Acetone	ND		10	3.0	ug/L			12/13/23 17:39	1
Benzene	ND		1.0	0.41	ug/L			12/13/23 17:39	1
Bromodichloromethane	ND		1.0	0.39	ug/L			12/13/23 17:39	1
Bromoform	ND		1.0	0.26	ug/L			12/13/23 17:39	1
Bromomethane	ND		1.0	0.69	ug/L			12/13/23 17:39	1
Carbon disulfide	ND		1.0	0.19	ug/L			12/13/23 17:39	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			12/13/23 17:39	1
Chlorobenzene	ND		1.0	0.75	ug/L			12/13/23 17:39	1
Dibromochloromethane	ND		1.0	0.32	ug/L			12/13/23 17:39	1
Chloroethane	ND		1.0	0.32	ug/L			12/13/23 17:39	1
Chloroform	ND		1.0	0.34	ug/L			12/13/23 17:39	1
Chloromethane	ND		1.0	0.35	ug/L			12/13/23 17:39	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			12/13/23 17:39	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			12/13/23 17:39	1
Cyclohexane	ND		1.0	0.18	ug/L			12/13/23 17:39	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			12/13/23 17:39	1
Ethylbenzene	ND		1.0	0.74	ug/L			12/13/23 17:39	1
1,2-Dibromoethane	ND		1.0	0.73	ug/L			12/13/23 17:39	1
Isopropylbenzene	ND		1.0	0.79	ug/L			12/13/23 17:39	1
Methyl acetate	ND		2.5	1.3	ug/L			12/13/23 17:39	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			12/13/23 17:39	1
Methylcyclohexane	ND		1.0	0.16	ug/L			12/13/23 17:39	1
Methylene Chloride	ND		1.0	0.44	ug/L			12/13/23 17:39	1
Styrene	ND		1.0	0.73	ug/L			12/13/23 17:39	1
Tetrachloroethene	ND		1.0	0.36	ug/L			12/13/23 17:39	1
Toluene	ND		1.0	0.51	ug/L			12/13/23 17:39	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			12/13/23 17:39	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			12/13/23 17:39	1
Trichloroethene	ND		1.0	0.46	ug/L			12/13/23 17:39	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			12/13/23 17:39	1
Vinyl chloride	ND		1.0	0.90	ug/L			12/13/23 17:39	1
Xylenes, Total	ND		2.0	0.66	ug/L			12/13/23 17:39	1

Client: LaBella Associates DPC
Job ID: 480-215658-1
Project/Site: Alumax & Roblin Periodic Review Reports

Client Sample ID: TRIP BLANK
Lab Sample ID: 480-215658-12
Date Collected: 12/12/23 00:00
Matrix: Water
Date Received: 12/13/23 09:00

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	99		80 - 120		12/13/23 17:39	1
1,2-Dichloroethane-d4 (Surr)	93		77 - 120		12/13/23 17:39	1
4-Bromofluorobenzene (Surr)	100		73 - 120		12/13/23 17:39	1
Dibromofluoromethane (Surr)	92		75 - 123		12/13/23 17:39	1

Surrogate Summary

Client: LaBella Associates DPC
Job ID: 480-215658-1
Project/Site: Alumax & Roblin Periodic Review Reports

Method: 8260C - Volatile Organic Compounds by GC/MS

Matrix: Water
Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)			
		TOL	DCA	BFB	DBFM
Lab Sample ID	Client Sample ID	(80-120)	(77-120)	(73-120)	(75-123)
480-215658-1	AL-1	97	83	97	88
480-215658-2	AL-7	97	90	99	87
480-215658-3	AL-2	99	88	99	88
480-215658-4	MW-09R	97	92	98	92
480-215658-5	EX-MW-11R	99	88	98	86
480-215658-6	MW-02R	97	90	99	91
480-215658-7	EX-MW-12	96	89	99	93
480-215658-8	MW-04	97	90	97	90
480-215658-9	MW-13	100	89	98	92
480-215658-10	MW-07R	97	88	99	89
480-215658-10 - DL	MW-07R	98	90	104	92
480-215658-11	DUP	95	97	100	97
480-215658-11 MS	DUP	95	89	100	92
480-215658-11 MSD	DUP	96	87	106	90
480-215658-12	TRIP BLANK	99	93	100	92
LCS 480-695216/6	Lab Control Sample	96	87	98	89
LCS 480-695377/6	Lab Control Sample	97	84	102	88
MB 480-695216/8	Method Blank	97	89	98	91
MB 480-695377/8	Method Blank	98	87	104	93

Surrogate Legend

TOL = Toluene-d8 (Surr)
DCA = 1,2-Dichloroethane-d4 (Surr)
BFB = 4-Bromofluorobenzene (Surr)
DBFM = Dibromofluoromethane (Surr)

Method: 8260C - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 480-695216/8
Matrix: Water
Analysis Batch: 695216

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			12/13/23 11:40	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			12/13/23 11:40	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			12/13/23 11:40	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			12/13/23 11:40	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			12/13/23 11:40	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			12/13/23 11:40	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			12/13/23 11:40	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			12/13/23 11:40	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			12/13/23 11:40	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			12/13/23 11:40	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			12/13/23 11:40	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			12/13/23 11:40	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			12/13/23 11:40	1
2-Butanone (MEK)	ND		10	1.3	ug/L			12/13/23 11:40	1
2-Hexanone	ND		5.0	1.2	ug/L			12/13/23 11:40	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			12/13/23 11:40	1
Acetone	ND		10	3.0	ug/L			12/13/23 11:40	1
Benzene	ND		1.0	0.41	ug/L			12/13/23 11:40	1
Bromodichloromethane	ND		1.0	0.39	ug/L			12/13/23 11:40	1
Bromoform	ND		1.0	0.26	ug/L			12/13/23 11:40	1
Bromomethane	ND		1.0	0.69	ug/L			12/13/23 11:40	1
Carbon disulfide	ND		1.0	0.19	ug/L			12/13/23 11:40	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			12/13/23 11:40	1
Chlorobenzene	ND		1.0	0.75	ug/L			12/13/23 11:40	1
Dibromochloromethane	ND		1.0	0.32	ug/L			12/13/23 11:40	1
Chloroethane	ND		1.0	0.32	ug/L			12/13/23 11:40	1
Chloroform	ND		1.0	0.34	ug/L			12/13/23 11:40	1
Chloromethane	ND		1.0	0.35	ug/L			12/13/23 11:40	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			12/13/23 11:40	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			12/13/23 11:40	1
Cyclohexane	ND		1.0	0.18	ug/L			12/13/23 11:40	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			12/13/23 11:40	1
Ethylbenzene	ND		1.0	0.74	ug/L			12/13/23 11:40	1
1,2-Dibromoethane	ND		1.0	0.73	ug/L			12/13/23 11:40	1
Isopropylbenzene	ND		1.0	0.79	ug/L			12/13/23 11:40	1
Methyl acetate	ND		2.5	1.3	ug/L			12/13/23 11:40	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			12/13/23 11:40	1
Methylcyclohexane	ND		1.0	0.16	ug/L			12/13/23 11:40	1
Methylene Chloride	ND		1.0	0.44	ug/L			12/13/23 11:40	1
Styrene	ND		1.0	0.73	ug/L			12/13/23 11:40	1
Tetrachloroethene	ND		1.0	0.36	ug/L			12/13/23 11:40	1
Toluene	ND		1.0	0.51	ug/L			12/13/23 11:40	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			12/13/23 11:40	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			12/13/23 11:40	1
Trichloroethene	ND		1.0	0.46	ug/L			12/13/23 11:40	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			12/13/23 11:40	1
Vinyl chloride	ND		1.0	0.90	ug/L			12/13/23 11:40	1
Xylenes, Total	ND		2.0	0.66	ug/L			12/13/23 11:40	1

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 480-695216/8
Matrix: Water
Analysis Batch: 695216

Client Sample ID: Method Blank
Prep Type: Total/NA

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	*97*		*80 - 120*		*12/13/23 11:40*	*1*
1,2-Dichloroethane-d4 (Surr)	*89*		*77 - 120*		*12/13/23 11:40*	*1*
4-Bromofluorobenzene (Surr)	*98*		*73 - 120*		*12/13/23 11:40*	*1*
Dibromofluoromethane (Surr)	*91*		*75 - 123*		*12/13/23 11:40*	*1*

Lab Sample ID: LCS 480-695216/6
Matrix: Water
Analysis Batch: 695216

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,1,1-Trichloroethane	25.0	26.5		ug/L		106	73 - 126
1,1,2,2-Tetrachloroethane	25.0	25.9		ug/L		104	76 - 120
1,1,2-Trichloroethane	25.0	24.8		ug/L		99	76 - 122
1,1,2-Trichloro-1,2,2-trifluoroethane	25.0	25.3		ug/L		101	61 - 148
1,1-Dichloroethane	25.0	24.0		ug/L		96	77 - 120
1,1-Dichloroethene	25.0	22.4		ug/L		90	66 - 127
1,2,4-Trichlorobenzene	25.0	23.7		ug/L		95	79 - 122
1,2-Dibromo-3-Chloropropane	25.0	27.7		ug/L		111	56 - 134
1,2-Dichlorobenzene	25.0	24.8		ug/L		99	80 - 124
1,2-Dichloroethane	25.0	23.2		ug/L		93	75 - 120
1,2-Dichloropropane	25.0	25.5		ug/L		102	76 - 120
1,3-Dichlorobenzene	25.0	24.8		ug/L		99	77 - 120
1,4-Dichlorobenzene	25.0	23.9		ug/L		96	80 - 120
2-Butanone (MEK)	125	106		ug/L		85	57 - 140
2-Hexanone	125	113		ug/L		91	65 - 127
4-Methyl-2-pentanone (MIBK)	125	114		ug/L		91	71 - 125
Acetone	125	104		ug/L		83	56 - 142
Benzene	25.0	24.7		ug/L		99	71 - 124
Bromodichloromethane	25.0	26.8		ug/L		107	80 - 122
Bromoform	25.0	25.1		ug/L		100	61 - 132
Bromomethane	25.0	25.4		ug/L		102	55 - 144
Carbon disulfide	25.0	21.6		ug/L		87	59 - 134
Carbon tetrachloride	25.0	29.2		ug/L		117	72 - 134
Chlorobenzene	25.0	25.2		ug/L		101	80 - 120
Dibromochloromethane	25.0	25.1		ug/L		101	75 - 125
Chloroethane	25.0	24.9		ug/L		100	69 - 136
Chloroform	25.0	24.6		ug/L		98	73 - 127
Chloromethane	25.0	24.0		ug/L		96	68 - 124
cis-1,2-Dichloroethene	25.0	24.4		ug/L		98	74 - 124
cis-1,3-Dichloropropene	25.0	27.2		ug/L		109	74 - 124
Cyclohexane	25.0	24.0		ug/L		96	59 - 135
Dichlorodifluoromethane	25.0	27.6		ug/L		110	59 - 135
Ethylbenzene	25.0	23.8		ug/L		95	77 - 123
1,2-Dibromoethane	25.0	26.6		ug/L		106	77 - 120
Isopropylbenzene	25.0	27.9		ug/L		112	77 - 122
Methyl acetate	50.0	49.7		ug/L		99	74 - 133
Methyl tert-butyl ether	25.0	24.1		ug/L		97	77 - 120
Methylcyclohexane	25.0	26.1		ug/L		104	68 - 134

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 480-695216/6
Matrix: Water
Analysis Batch: 695216

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Methylene Chloride	25.0	25.6		ug/L		102	75 - 124
Styrene	25.0	24.7		ug/L		99	80 - 120
Tetrachloroethene	25.0	25.5		ug/L		102	74 - 122
Toluene	25.0	25.9		ug/L		104	80 - 122
trans-1,2-Dichloroethene	25.0	23.3		ug/L		93	73 - 127
trans-1,3-Dichloropropene	25.0	28.3		ug/L		113	80 - 120
Trichloroethene	25.0	25.5		ug/L		102	74 - 123
Trichlorofluoromethane	25.0	26.4		ug/L		106	62 - 150
Vinyl chloride	25.0	26.3		ug/L		105	65 - 133

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Toluene-d8 (Surr)	*96*		*80 - 120*
1,2-Dichloroethane-d4 (Surr)	*87*		*77 - 120*
4-Bromofluorobenzene (Surr)	*98*		*73 - 120*
Dibromofluoromethane (Surr)	*89*		*75 - 123*

Lab Sample ID: MB 480-695377/8
Matrix: Water
Analysis Batch: 695377

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			12/14/23 11:16	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			12/14/23 11:16	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			12/14/23 11:16	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			12/14/23 11:16	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			12/14/23 11:16	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			12/14/23 11:16	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			12/14/23 11:16	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			12/14/23 11:16	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			12/14/23 11:16	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			12/14/23 11:16	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			12/14/23 11:16	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			12/14/23 11:16	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			12/14/23 11:16	1
2-Butanone (MEK)	ND		10	1.3	ug/L			12/14/23 11:16	1
2-Hexanone	ND		5.0	1.2	ug/L			12/14/23 11:16	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			12/14/23 11:16	1
Acetone	ND		10	3.0	ug/L			12/14/23 11:16	1
Benzene	ND		1.0	0.41	ug/L			12/14/23 11:16	1
Bromodichloromethane	ND		1.0	0.39	ug/L			12/14/23 11:16	1
Bromoform	ND		1.0	0.26	ug/L			12/14/23 11:16	1
Bromomethane	ND		1.0	0.69	ug/L			12/14/23 11:16	1
Carbon disulfide	ND		1.0	0.19	ug/L			12/14/23 11:16	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			12/14/23 11:16	1
Chlorobenzene	ND		1.0	0.75	ug/L			12/14/23 11:16	1
Dibromochloromethane	ND		1.0	0.32	ug/L			12/14/23 11:16	1
Chloroethane	ND		1.0	0.32	ug/L			12/14/23 11:16	1
Chloroform	ND		1.0	0.34	ug/L			12/14/23 11:16	1

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 480-695377/8
Matrix: Water
Analysis Batch: 695377

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	ND		1.0	0.35	ug/L			12/14/23 11:16	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			12/14/23 11:16	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			12/14/23 11:16	1
Cyclohexane	ND		1.0	0.18	ug/L			12/14/23 11:16	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			12/14/23 11:16	1
Ethylbenzene	ND		1.0	0.74	ug/L			12/14/23 11:16	1
1,2-Dibromoethane	ND		1.0	0.73	ug/L			12/14/23 11:16	1
Isopropylbenzene	ND		1.0	0.79	ug/L			12/14/23 11:16	1
Methyl acetate	ND		2.5	1.3	ug/L			12/14/23 11:16	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			12/14/23 11:16	1
Methylcyclohexane	ND		1.0	0.16	ug/L			12/14/23 11:16	1
Methylene Chloride	ND		1.0	0.44	ug/L			12/14/23 11:16	1
Styrene	ND		1.0	0.73	ug/L			12/14/23 11:16	1
Tetrachloroethene	ND		1.0	0.36	ug/L			12/14/23 11:16	1
Toluene	ND		1.0	0.51	ug/L			12/14/23 11:16	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			12/14/23 11:16	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			12/14/23 11:16	1
Trichloroethene	ND		1.0	0.46	ug/L			12/14/23 11:16	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			12/14/23 11:16	1
Vinyl chloride	ND		1.0	0.90	ug/L			12/14/23 11:16	1
Xylenes, Total	ND		2.0	0.66	ug/L			12/14/23 11:16	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*98*		*80 - 120*		*12/14/23 11:16*	*1*
1,2-Dichloroethane-d4 (Surr)	*87*		*77 - 120*		*12/14/23 11:16*	*1*
4-Bromofluorobenzene (Surr)	*104*		*73 - 120*		*12/14/23 11:16*	*1*
Dibromofluoromethane (Surr)	*93*		*75 - 123*		*12/14/23 11:16*	*1*

Lab Sample ID: LCS 480-695377/6
Matrix: Water
Analysis Batch: 695377

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,1,1-Trichloroethane	25.0	27.2		ug/L		109	73 - 126
1,1,2,2-Tetrachloroethane	25.0	25.2		ug/L		101	76 - 120
1,1,2-Trichloroethane	25.0	25.3		ug/L		101	76 - 122
1,1,2-Trichloro-1,2,2-trifluoroethane	25.0	24.8		ug/L		99	61 - 148
1,1-Dichloroethane	25.0	23.9		ug/L		96	77 - 120
1,1-Dichloroethene	25.0	22.9		ug/L		92	66 - 127
1,2,4-Trichlorobenzene	25.0	25.7		ug/L		103	79 - 122
1,2-Dibromo-3-Chloropropane	25.0	28.1		ug/L		113	56 - 134
1,2-Dichlorobenzene	25.0	25.3		ug/L		101	80 - 124
1,2-Dichloroethane	25.0	23.2		ug/L		93	75 - 120
1,2-Dichloropropane	25.0	24.3		ug/L		97	76 - 120
1,3-Dichlorobenzene	25.0	25.4		ug/L		102	77 - 120
1,4-Dichlorobenzene	25.0	24.5		ug/L		98	80 - 120
2-Butanone (MEK)	125	114		ug/L		91	57 - 140
2-Hexanone	125	116		ug/L		92	65 - 127

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 480-695377/6
Matrix: Water
Analysis Batch: 695377

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
4-Methyl-2-pentanone (MIBK)	125	122		ug/L		97	71 - 125
Acetone	125	136		ug/L		109	56 - 142
Benzene	25.0	24.4		ug/L		98	71 - 124
Bromodichloromethane	25.0	26.0		ug/L		104	80 - 122
Bromoform	25.0	25.7		ug/L		103	61 - 132
Bromomethane	25.0	22.2		ug/L		89	55 - 144
Carbon disulfide	25.0	21.4		ug/L		86	59 - 134
Carbon tetrachloride	25.0	30.3		ug/L		121	72 - 134
Chlorobenzene	25.0	25.3		ug/L		101	80 - 120
Dibromochloromethane	25.0	26.8		ug/L		107	75 - 125
Chloroethane	25.0	25.1		ug/L		100	69 - 136
Chloroform	25.0	24.8		ug/L		99	73 - 127
Chloromethane	25.0	20.3		ug/L		81	68 - 124
cis-1,2-Dichloroethene	25.0	25.1		ug/L		100	74 - 124
cis-1,3-Dichloropropene	25.0	26.9		ug/L		108	74 - 124
Cyclohexane	25.0	24.1		ug/L		96	59 - 135
Dichlorodifluoromethane	25.0	15.5		ug/L		62	59 - 135
Ethylbenzene	25.0	24.8		ug/L		99	77 - 123
1,2-Dibromoethane	25.0	26.2		ug/L		105	77 - 120
Isopropylbenzene	25.0	29.3		ug/L		117	77 - 122
Methyl acetate	50.0	51.7		ug/L		103	74 - 133
Methyl tert-butyl ether	25.0	25.2		ug/L		101	77 - 120
Methylcyclohexane	25.0	26.5		ug/L		106	68 - 134
Methylene Chloride	25.0	26.0		ug/L		104	75 - 124
Styrene	25.0	25.3		ug/L		101	80 - 120
Tetrachloroethene	25.0	27.0		ug/L		108	74 - 122
Toluene	25.0	26.4		ug/L		106	80 - 122
trans-1,2-Dichloroethene	25.0	23.7		ug/L		95	73 - 127
trans-1,3-Dichloropropene	25.0	28.6		ug/L		114	80 - 120
Trichloroethene	25.0	24.6		ug/L		99	74 - 123
Trichlorofluoromethane	25.0	25.6		ug/L		102	62 - 150
Vinyl chloride	25.0	23.1		ug/L		93	65 - 133

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Toluene-d8 (Surr)	*97*		*80 - 120*
1,2-Dichloroethane-d4 (Surr)	*84*		*77 - 120*
4-Bromofluorobenzene (Surr)	*102*		*73 - 120*
Dibromofluoromethane (Surr)	*88*		*75 - 123*

Lab Sample ID: 480-215658-11 MS
Matrix: Water
Analysis Batch: 695377

Client Sample ID: DUP
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
1,1,1-Trichloroethane	ND		250	274		ug/L		109	73 - 126
1,1,2,2-Tetrachloroethane	ND		250	260		ug/L		104	76 - 120
1,1,2-Trichloroethane	ND		250	255		ug/L		102	76 - 122
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		250	266		ug/L		106	61 - 148

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: 480-215658-11 MS
Matrix: Water
Analysis Batch: 695377

Client Sample ID: DUP
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
1,1-Dichloroethane	ND		250	248		ug/L		99	77 - 120
1,1-Dichloroethene	ND		250	224		ug/L		90	66 - 127
1,2,4-Trichlorobenzene	ND		250	257		ug/L		103	79 - 122
1,2-Dibromo-3-Chloropropane	ND		250	262		ug/L		105	56 - 134
1,2-Dichlorobenzene	ND		250	255		ug/L		102	80 - 124
1,2-Dichloroethane	ND		250	241		ug/L		96	75 - 120
1,2-Dichloropropane	ND		250	260		ug/L		104	76 - 120
1,3-Dichlorobenzene	ND		250	259		ug/L		104	77 - 120
1,4-Dichlorobenzene	ND		250	249		ug/L		100	78 - 124
2-Butanone (MEK)	ND		1250	1200		ug/L		96	57 - 140
2-Hexanone	ND		1250	1190		ug/L		95	65 - 127
4-Methyl-2-pentanone (MIBK)	ND		1250	1170		ug/L		93	71 - 125
Acetone	ND		1250	1330		ug/L		106	56 - 142
Benzene	ND		250	257		ug/L		103	71 - 124
Bromodichloromethane	ND		250	272		ug/L		109	80 - 122
Bromoform	ND		250	234		ug/L		93	61 - 132
Bromomethane	ND	F2	250	193		ug/L		77	55 - 144
Carbon disulfide	ND		250	195		ug/L		78	59 - 134
Carbon tetrachloride	ND		250	297		ug/L		119	72 - 134
Chlorobenzene	ND		250	254		ug/L		101	80 - 120
Dibromochloromethane	ND		250	248		ug/L		99	75 - 125
Chloroethane	ND	F2	250	196		ug/L		79	69 - 136
Chloroform	ND		250	263		ug/L		105	73 - 127
Chloromethane	ND		250	199		ug/L		80	68 - 124
cis-1,2-Dichloroethene	99		250	337		ug/L		95	74 - 124
cis-1,3-Dichloropropene	ND		250	270		ug/L		108	74 - 124
Cyclohexane	39		250	276		ug/L		95	59 - 135
Dichlorodifluoromethane	ND		250	152		ug/L		61	59 - 135
Ethylbenzene	ND		250	251		ug/L		100	77 - 123
1,2-Dibromoethane	ND		250	256		ug/L		102	77 - 120
Isopropylbenzene	ND		250	291		ug/L		117	77 - 122
Methyl acetate	ND		500	544		ug/L		109	74 - 133
Methyl tert-butyl ether	ND		250	248		ug/L		99	77 - 120
Methylcyclohexane	37		250	298		ug/L		104	68 - 134
Methylene Chloride	ND		250	256		ug/L		103	75 - 124
Styrene	ND		250	253		ug/L		101	80 - 120
Tetrachloroethene	ND		250	270		ug/L		108	74 - 122
Toluene	ND		250	262		ug/L		105	80 - 122
trans-1,2-Dichloroethene	ND		250	239		ug/L		96	73 - 127
trans-1,3-Dichloropropene	ND		250	272		ug/L		109	80 - 120
Trichloroethene	ND		250	258		ug/L		103	74 - 123
Trichlorofluoromethane	ND		250	262		ug/L		105	62 - 150
Vinyl chloride	360	F1	250	489	F1	ug/L		53	65 - 133

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
Toluene-d8 (Surr)	*95*		*80 - 120*
1,2-Dichloroethane-d4 (Surr)	*89*		*77 - 120*
4-Bromofluorobenzene (Surr)	*100*		*73 - 120*

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: 480-215658-11 MS
Matrix: Water
Analysis Batch: 695377

Client Sample ID: DUP
Prep Type: Total/NA

Surrogate	MS %Recovery	MS Qualifier	Limits
Dibromofluoromethane (Surr)	92		75 - 123

Lab Sample ID: 480-215658-11 MSD
Matrix: Water
Analysis Batch: 695377

Client Sample ID: DUP
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,1,1-Trichloroethane	ND		250	269		ug/L		108	73 - 126	2	15
1,1,2,2-Tetrachloroethane	ND		250	262		ug/L		105	76 - 120	1	15
1,1,2-Trichloroethane	ND		250	255		ug/L		102	76 - 122	0	15
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		250	262		ug/L		105	61 - 148	1	20
1,1-Dichloroethane	ND		250	248		ug/L		99	77 - 120	0	20
1,1-Dichloroethene	ND		250	227		ug/L		91	66 - 127	1	16
1,2,4-Trichlorobenzene	ND		250	255		ug/L		102	79 - 122	1	20
1,2-Dibromo-3-Chloropropane	ND		250	267		ug/L		107	56 - 134	2	15
1,2-Dichlorobenzene	ND		250	246		ug/L		98	80 - 124	4	20
1,2-Dichloroethane	ND		250	241		ug/L		97	75 - 120	0	20
1,2-Dichloropropane	ND		250	276		ug/L		111	76 - 120	6	20
1,3-Dichlorobenzene	ND		250	261		ug/L		104	77 - 120	1	20
1,4-Dichlorobenzene	ND		250	248		ug/L		99	78 - 124	0	20
2-Butanone (MEK)	ND		1250	1250		ug/L		100	57 - 140	3	20
2-Hexanone	ND		1250	1190		ug/L		95	65 - 127	0	15
4-Methyl-2-pentanone (MIBK)	ND		1250	1240		ug/L		99	71 - 125	6	35
Acetone	ND		1250	1320		ug/L		106	56 - 142	0	15
Benzene	ND		250	255		ug/L		102	71 - 124	1	13
Bromodichloromethane	ND		250	266		ug/L		106	80 - 122	2	15
Bromoform	ND		250	235		ug/L		94	61 - 132	1	15
Bromomethane	ND	F2	250	226	F2	ug/L		91	55 - 144	16	15
Carbon disulfide	ND		250	195		ug/L		78	59 - 134	0	15
Carbon tetrachloride	ND		250	306		ug/L		123	72 - 134	3	15
Chlorobenzene	ND		250	253		ug/L		101	80 - 120	0	25
Dibromochloromethane	ND		250	260		ug/L		104	75 - 125	5	15
Chloroethane	ND	F2	250	244	F2	ug/L		98	69 - 136	22	15
Chloroform	ND		250	255		ug/L		102	73 - 127	3	20
Chloromethane	ND		250	187		ug/L		75	68 - 124	6	15
cis-1,2-Dichloroethene	99		250	342		ug/L		97	74 - 124	2	15
cis-1,3-Dichloropropene	ND		250	265		ug/L		106	74 - 124	2	15
Cyclohexane	39		250	271		ug/L		93	59 - 135	2	20
Dichlorodifluoromethane	ND		250	157		ug/L		63	59 - 135	4	20
Ethylbenzene	ND		250	251		ug/L		100	77 - 123	0	15
1,2-Dibromoethane	ND		250	262		ug/L		105	77 - 120	2	15
Isopropylbenzene	ND		250	291		ug/L		116	77 - 122	0	20
Methyl acetate	ND		500	556		ug/L		111	74 - 133	2	20
Methyl tert-butyl ether	ND		250	254		ug/L		102	77 - 120	3	37
Methylcyclohexane	37		250	292		ug/L		102	68 - 134	2	20
Methylene Chloride	ND		250	260		ug/L		104	75 - 124	1	15
Styrene	ND		250	252		ug/L		101	80 - 120	0	20
Tetrachloroethene	ND		250	277		ug/L		111	74 - 122	3	20

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: 480-215658-11 MSD
Client Sample ID: DUP
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 695377

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Toluene	ND		250	256		ug/L		102	80 - 122	2	15
trans-1,2-Dichloroethene	ND		250	240		ug/L		96	73 - 127	0	20
trans-1,3-Dichloropropene	ND		250	277		ug/L		111	80 - 120	2	15
Trichloroethene	ND		250	265		ug/L		106	74 - 123	3	16
Trichlorofluoromethane	ND		250	254		ug/L		102	62 - 150	3	20
Vinyl chloride	360	F1	250	488	F1	ug/L		52	65 - 133	0	15

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
Toluene-d8 (Surr)	*96*		*80 - 120*
1,2-Dichloroethane-d4 (Surr)	*87*		*77 - 120*
4-Bromofluorobenzene (Surr)	*106*		*73 - 120*
Dibromofluoromethane (Surr)	*90*		*75 - 123*

QC Association Summary

Client: LaBella Associates DPC
Job ID: 480-215658-1
Project/Site: Alumax & Roblin Periodic Review Reports

GC/MS VOA

Analysis Batch: 695216

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-215658-2	AL-7	Total/NA	Water	8260C	
480-215658-3	AL-2	Total/NA	Water	8260C	
480-215658-4	MW-09R	Total/NA	Water	8260C	
480-215658-6	MW-02R	Total/NA	Water	8260C	
480-215658-7	EX-MW-12	Total/NA	Water	8260C	
480-215658-8	MW-04	Total/NA	Water	8260C	
480-215658-9	MW-13	Total/NA	Water	8260C	
480-215658-10	MW-07R	Total/NA	Water	8260C	
480-215658-12	TRIP BLANK	Total/NA	Water	8260C	
MB 480-695216/8	Method Blank	Total/NA	Water	8260C	
LCS 480-695216/6	Lab Control Sample	Total/NA	Water	8260C	

Analysis Batch: 695377

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-215658-1	AL-1	Total/NA	Water	8260C	
480-215658-5	EX-MW-11R	Total/NA	Water	8260C	
480-215658-10 - DL	MW-07R	Total/NA	Water	8260C	
480-215658-11	DUP	Total/NA	Water	8260C	
MB 480-695377/8	Method Blank	Total/NA	Water	8260C	
LCS 480-695377/6	Lab Control Sample	Total/NA	Water	8260C	
480-215658-11 MS	DUP	Total/NA	Water	8260C	
480-215658-11 MSD	DUP	Total/NA	Water	8260C	

Lab Chronicle

Client: LaBella Associates DPC
Job ID: 480-215658-1
Project/Site: Alumax & Roblin Periodic Review Reports

Client Sample ID: AL-1
Lab Sample ID: 480-215658-1
Date Collected: 12/12/23 08:30
Matrix: Water
Date Received: 12/13/23 09:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260C		2	695377	CR	EET BUF	12/14/23 11:48

Client Sample ID: AL-7
Lab Sample ID: 480-215658-2
Date Collected: 12/12/23 08:55
Matrix: Water
Date Received: 12/13/23 09:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260C		1	695216	CR	EET BUF	12/13/23 13:57

Client Sample ID: AL-2
Lab Sample ID: 480-215658-3
Date Collected: 12/12/23 09:35
Matrix: Water
Date Received: 12/13/23 09:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260C		1	695216	CR	EET BUF	12/13/23 14:19

Client Sample ID: MW-09R
Lab Sample ID: 480-215658-4
Date Collected: 12/12/23 10:15
Matrix: Water
Date Received: 12/13/23 09:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260C		10	695216	CR	EET BUF	12/13/23 14:41

Client Sample ID: EX-MW-11R
Lab Sample ID: 480-215658-5
Date Collected: 12/12/23 10:45
Matrix: Water
Date Received: 12/13/23 09:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260C		50	695377	CR	EET BUF	12/14/23 12:11

Client Sample ID: MW-02R
Lab Sample ID: 480-215658-6
Date Collected: 12/12/23 11:25
Matrix: Water
Date Received: 12/13/23 09:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260C		5	695216	CR	EET BUF	12/13/23 15:25

Client Sample ID: EX-MW-12
Lab Sample ID: 480-215658-7
Date Collected: 12/12/23 12:10
Matrix: Water
Date Received: 12/13/23 09:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260C		4	695216	CR	EET BUF	12/13/23 15:48

Lab Chronicle

Client: LaBella Associates DPC
Job ID: 480-215658-1
Project/Site: Alumax & Roblin Periodic Review Reports

Client Sample ID: MW-04
Lab Sample ID: 480-215658-8
Date Collected: 12/12/23 12:45
Matrix: Water
Date Received: 12/13/23 09:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260C		4	695216	CR	EET BUF	12/13/23 16:10

Client Sample ID: MW-13
Lab Sample ID: 480-215658-9
Date Collected: 12/12/23 13:30
Matrix: Water
Date Received: 12/13/23 09:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260C		4	695216	CR	EET BUF	12/13/23 16:32

Client Sample ID: MW-07R
Lab Sample ID: 480-215658-10
Date Collected: 12/12/23 14:05
Matrix: Water
Date Received: 12/13/23 09:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260C		10	695216	CR	EET BUF	12/13/23 16:54
Total/NA	Analysis	8260C	DL	80	695377	CR	EET BUF	12/14/23 12:33

Client Sample ID: DUP
Lab Sample ID: 480-215658-11
Date Collected: 12/12/23 00:00
Matrix: Water
Date Received: 12/13/23 09:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260C		10	695377	CR	EET BUF	12/14/23 12:56

Client Sample ID: TRIP BLANK
Lab Sample ID: 480-215658-12
Date Collected: 12/12/23 00:00
Matrix: Water
Date Received: 12/13/23 09:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260C		1	695216	CR	EET BUF	12/13/23 17:39

Laboratory References:

EET BUF = Eurofins Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

Accreditation/Certification Summary

Client: LaBella Associates DPC
Job ID: 480-215658-1
Project/Site: Alumax & Roblin Periodic Review Reports

Laboratory: Eurofins Buffalo

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
New York	NELAP	10026	03-31-24

Method Summary

Client: LaBella Associates DPC
Job ID: 480-215658-1
Project/Site: Alumax & Roblin Periodic Review Reports

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	EET BUF
5030C	Purge and Trap	SW846	EET BUF

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

EET BUF = Eurofins Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

Sample Summary

Client: LaBella Associates DPC
Job ID: 480-215658-1
Project/Site: Alumax & Roblin Periodic Review Reports

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
480-215658-1	AL-1	Water	12/12/23 08:30	12/13/23 09:00
480-215658-2	AL-7	Water	12/12/23 08:55	12/13/23 09:00
480-215658-3	AL-2	Water	12/12/23 09:35	12/13/23 09:00
480-215658-4	MW-09R	Water	12/12/23 10:15	12/13/23 09:00
480-215658-5	EX-MW-11R	Water	12/12/23 10:45	12/13/23 09:00
480-215658-6	MW-02R	Water	12/12/23 11:25	12/13/23 09:00
480-215658-7	EX-MW-12	Water	12/12/23 12:10	12/13/23 09:00
480-215658-8	MW-04	Water	12/12/23 12:45	12/13/23 09:00
480-215658-9	MW-13	Water	12/12/23 13:30	12/13/23 09:00
480-215658-10	MW-07R	Water	12/12/23 14:05	12/13/23 09:00
480-215658-11	DUP	Water	12/12/23 00:00	12/13/23 09:00
480-215658-12	TRIP BLANK	Water	12/12/23 00:00	12/13/23 09:00

Eurofins Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Phone: 716-691-2600 Fax: 716-691-7991

Chain of Custody Record

eurofins | Environment Testing

Client Information	Sampler: A. Koons	Lab PM: Fischer, Brian J	Carrier Tracking No(s):	COC No: 480-190974-40138.1
Client Contact: Chris Kibler	Phone: 716.417.9156	E-Mail: Brian.Fischer@et.eurofinsus.com	State of Origin: NY	Page: Page 1 of 2
Company: LaBella Associates DPC	PWSID:			Job #:
Address: 300 Pearl Street Suite 130	Due Date Requested:			
City: Buffalo	TAT Requested (days): Standard			
State, Zip: NY, 14202	Compliance Project: Δ Yes Δ No			
Phone:	PO #: Purchase Order Requested			
Email: CKibler@labellapc.com	WO #:			
Project Name: Alumax & Roblin Periodic Review Reports	Project #: 48015183			
Site:	SSOW#:			

Analysis Requested

480-215658 Chain of Custody

Preservation Codes:
A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Y - Trizma, Z - other (specify)
Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8260C - TCL VOCs	Total Number of Containers	Special Instructions/Note:
			Preservation Code:				A		
AL-1	12/12/23	0830	G	Water			X		
AL-7		0855		Water					
AL-2		0935		Water					
MW-09R		1015		Water					
EX-MW-11R		1045		Water					
~~MW-02R~~ MW-02R		1125		Water					
EX-MW-12		1210		Water					
MW-04		1245		Water					
MW-13		1330		Water					
MW-07R		1405		Water					
DUP		—		Water					

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☑ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
1	[signature]	12/12/23 1530	LaBella	[signature]	12-13-23 900	TAB
2	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
3	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.:

Cooler Temperature(s) °C and Other Remarks: 2.9 ICE

Ver: 06/08/2021

Eurofins Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Phone: 716-691-2600 Fax: 716-691-7991

Chain of Custody Record

eurofins | Environment Testing

Client Information	Sampler: A. Koons	Lab PM: Fischer, Brian J	Carrier Tracking No(s):	COC No: 480-190974-40138.2
Client Contact: Chris Kibler	Phone: 716-417-9158	E-Mail: Brian.Fischer@et.eurofinsus.com	State of Origin: NY	Page: Page 2 of 2
Company: LaBella Associates DPC	PWSID:			Job #:
Address: 300 Pearl Street Suite 130	Due Date Requested:			
City: Buffalo	TAT Requested (days): Standard			
State, Zip: NY, 14202	Compliance Project: Δ Yes Δ No			
Phone:	PO #: Purchase Order Requested			
Email: CKibler@labellapc.com	WO #:			
Project Name: Alumax & Roblin Periodic Review Reports	Project #: 48015183			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Y - Trizma, Z - other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8260C - TCL VOCs	Total Number of containers	Special Instructions/Note:
			Preservation Code:				A		
Trip Blank	12/12/23	—	G	Water			X		

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☒ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
	Relinquished by:	12/12/23 1530	LaBella	Received by:	12-13-23 900	TAL
	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
		Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.: | Cooler Temperature(s) °C and Other Remarks:

Ver: 06/08/2021

Login Sample Receipt Checklist

Client: LaBella Associates DPC

Job Number: 480-215658-1

Login Number: 215658

List Source: Eurofins Buffalo

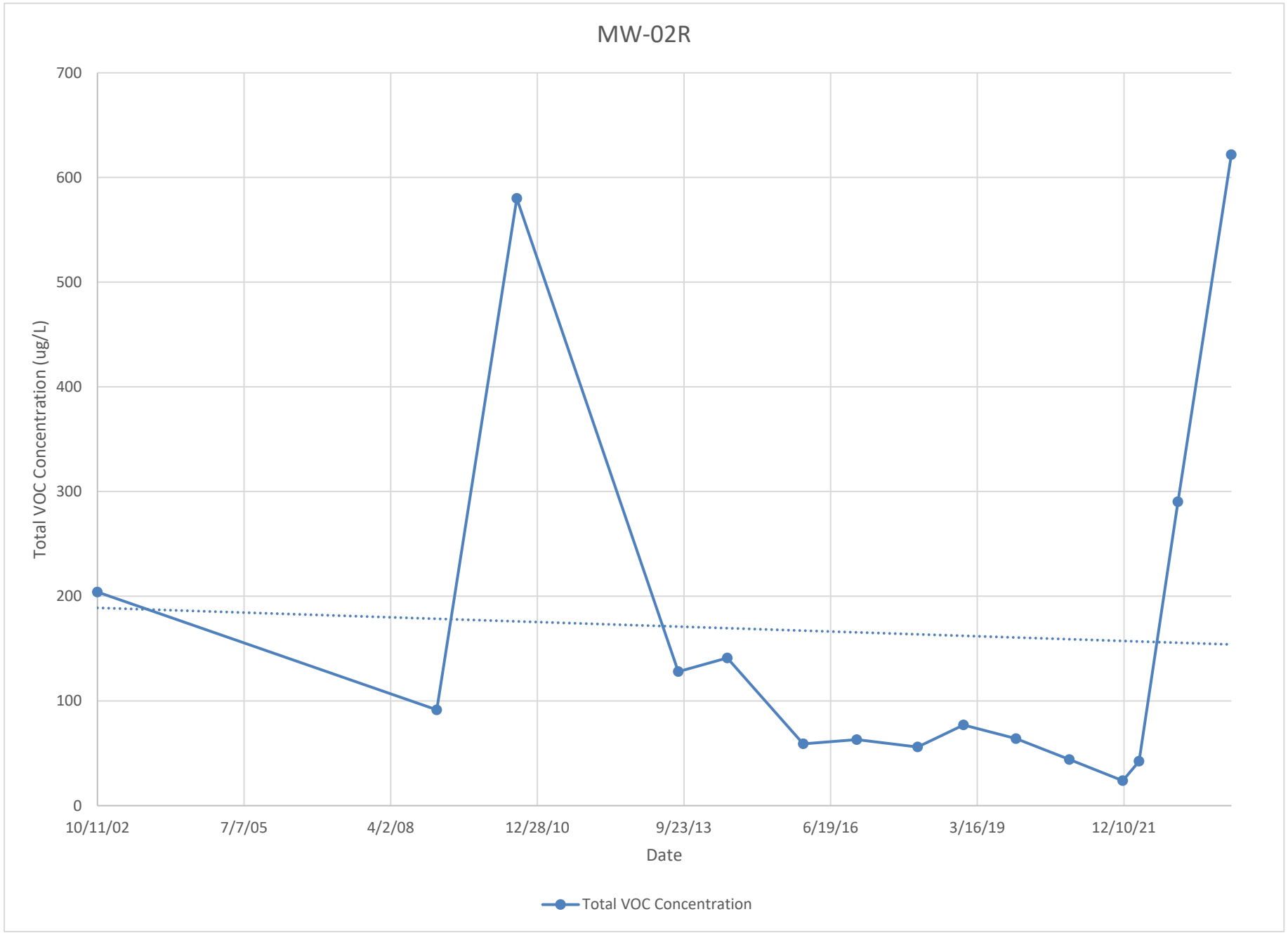
List Number: 1

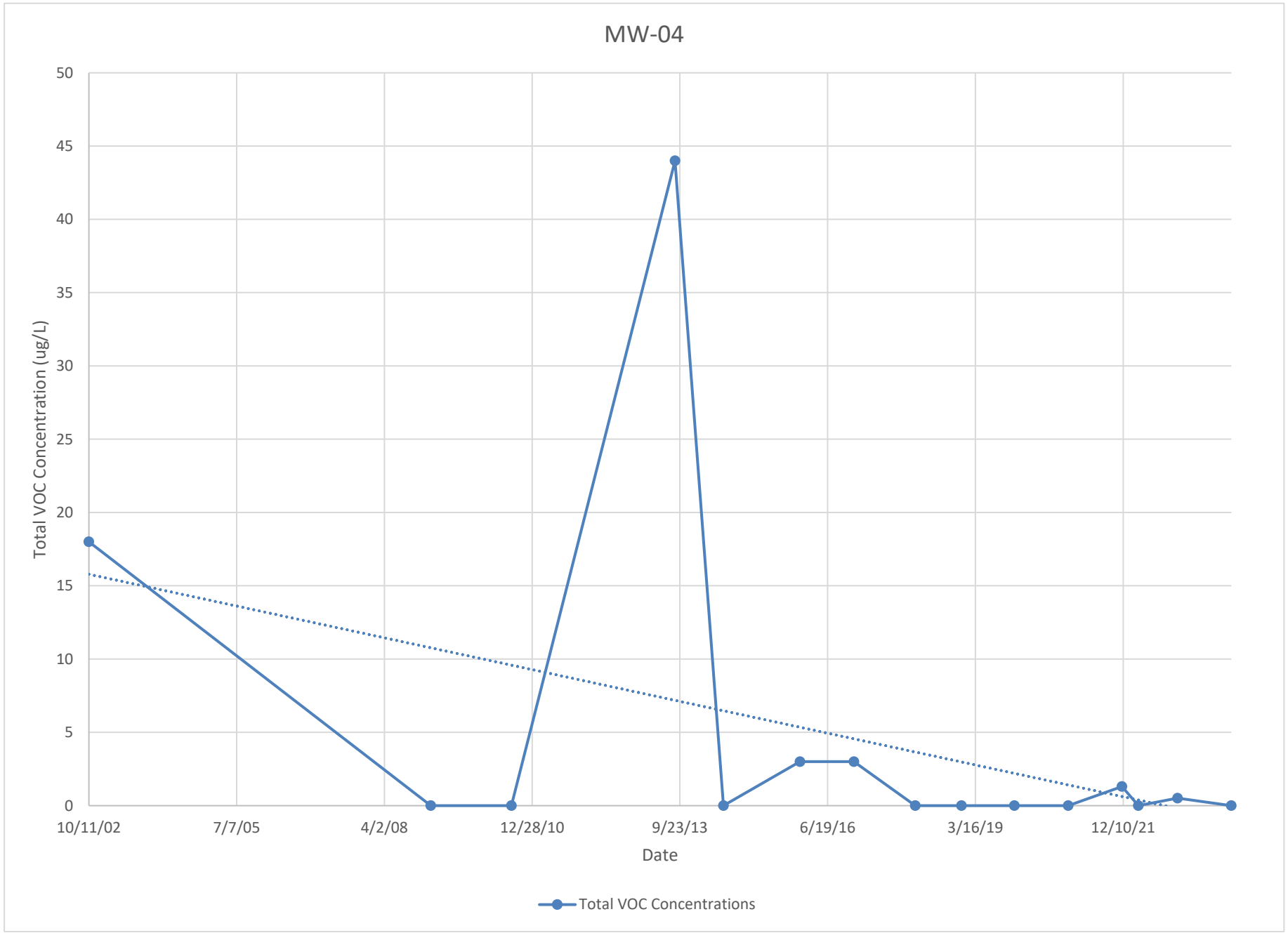
Creator: Stopa, Erik S

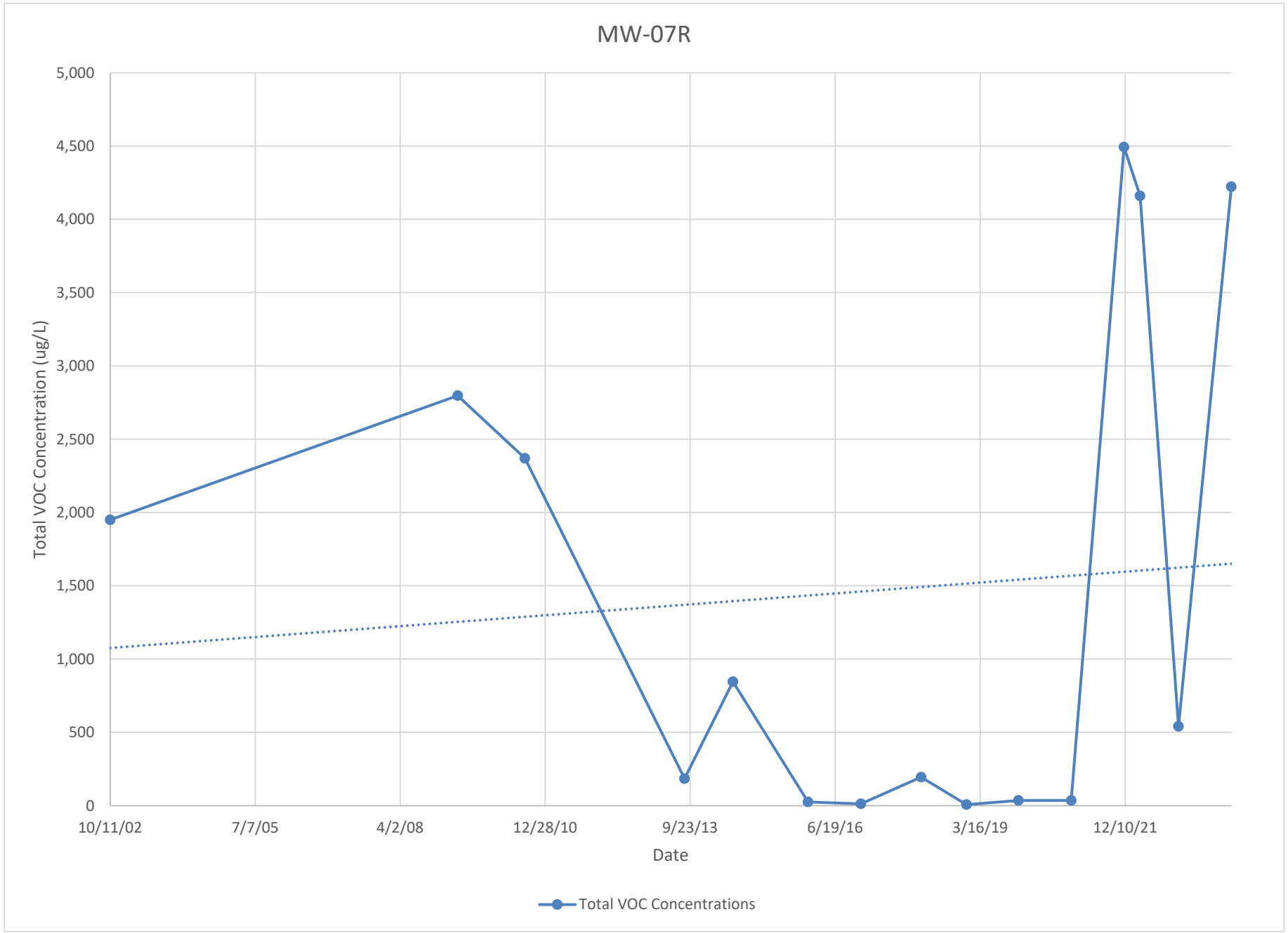
Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time (Excluding tests with immediate HTs)..	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Sampling Company provided.	True	LABELLA
Samples received within 48 hours of sampling.	True	
Samples requiring field filtration have been filtered in the field.	N/A	
Chlorine Residual checked.	N/A	

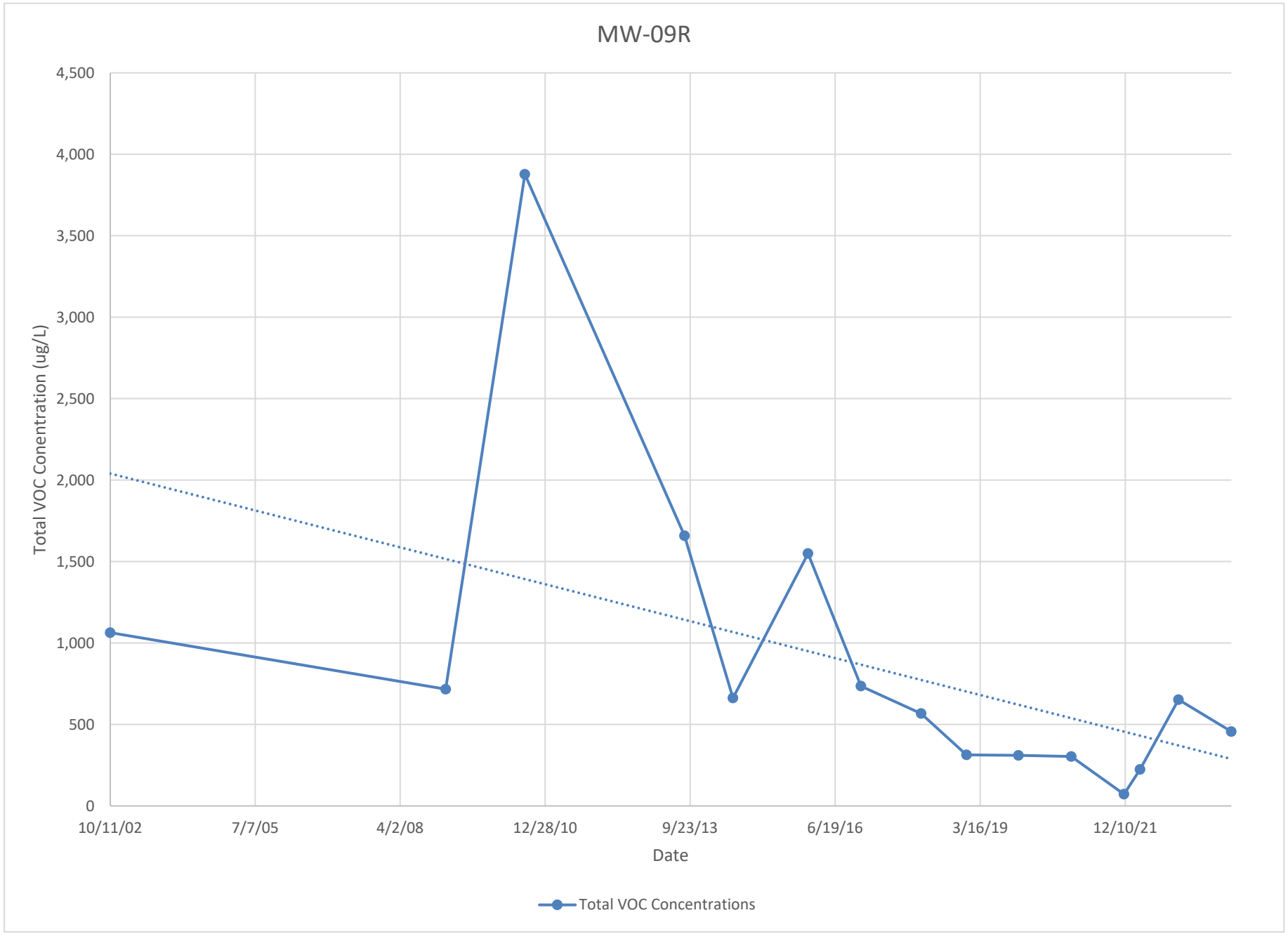
APPENDIX 8

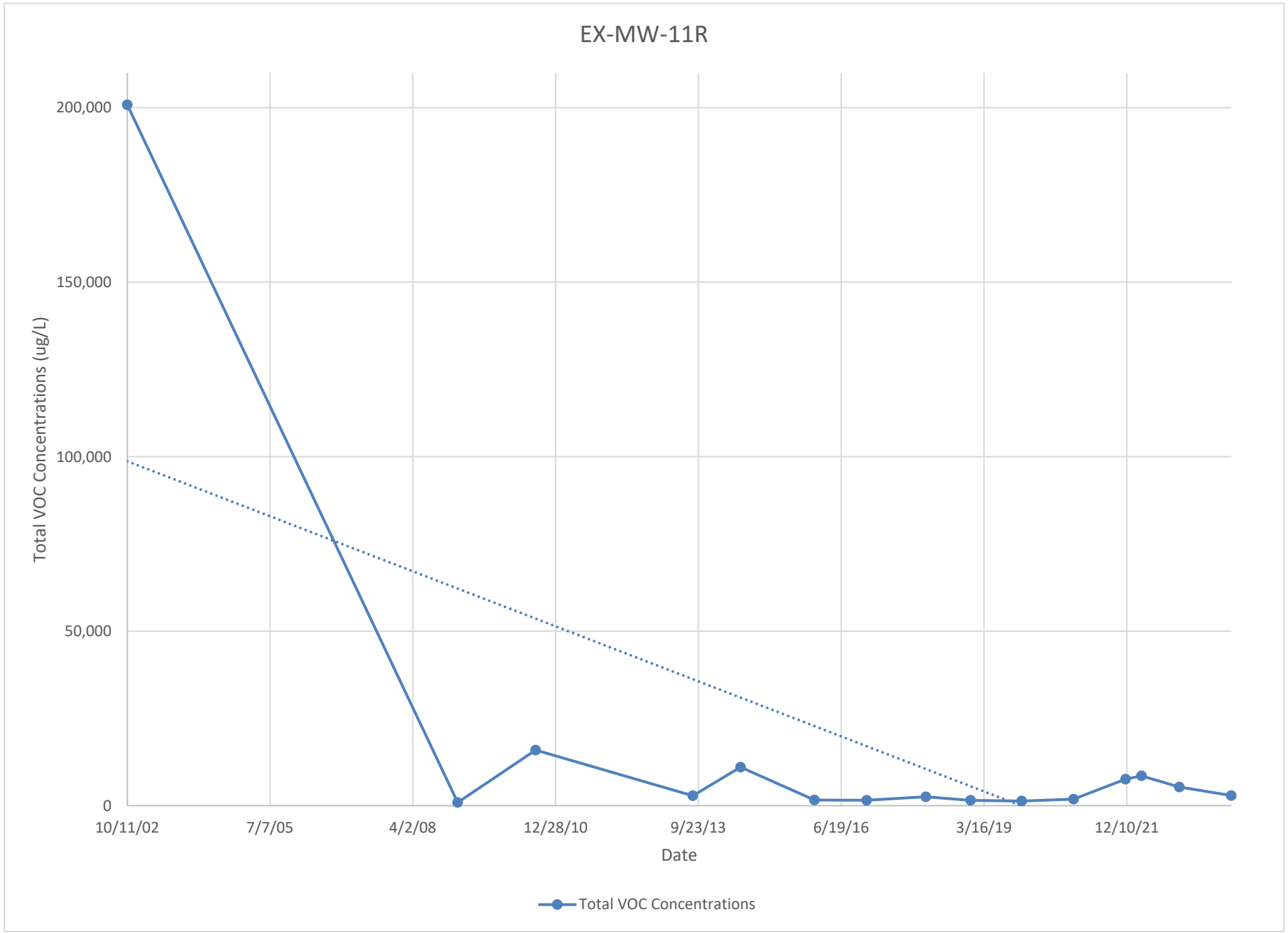
Historical Monitoring Well Data and Trendlines

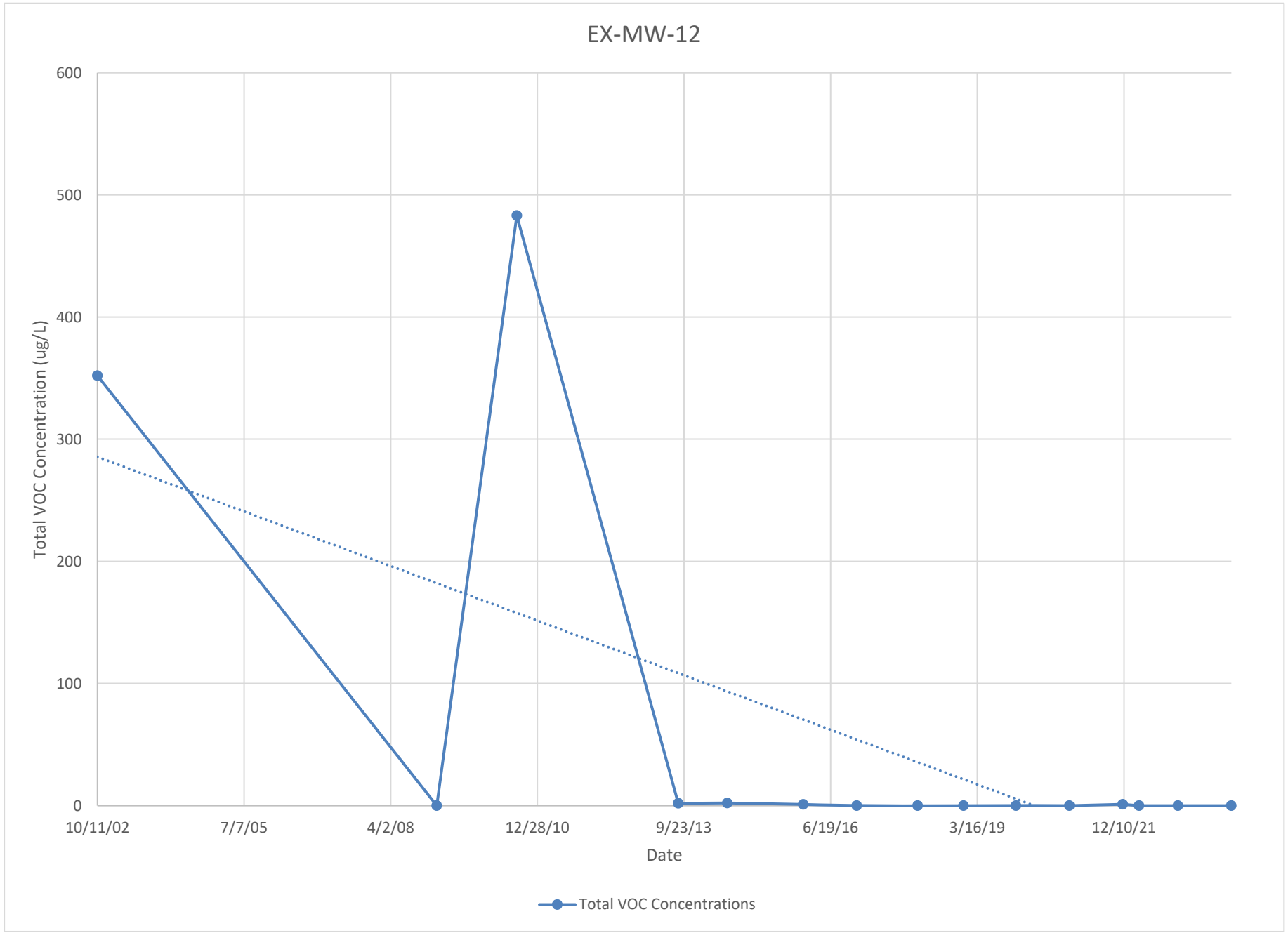

MW-02R
700
600
500
400
300
200
100
0
Total VOC Concentration (ug/L)
10/11/02
7/7/05
4/2/08
12/28/10
9/23/13
6/19/16
3/16/19
12/10/21
Date
Total VOC Concentration

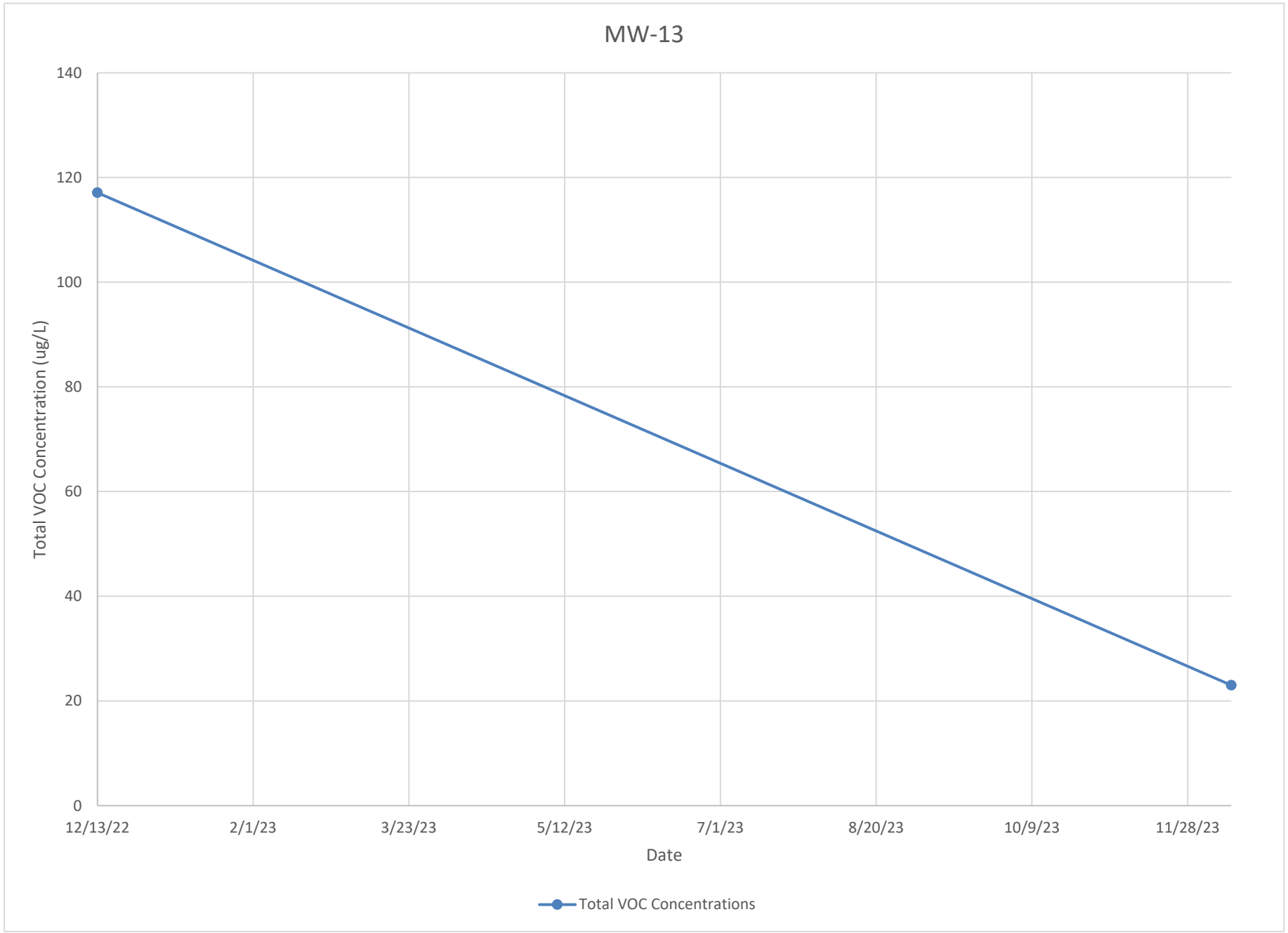

MW-04
50
45
40
35
30
25
20
15
10
5
0
Total VOC Concentration (ug/L)
10/11/02
7/7/05
4/2/08
12/28/10
9/23/13
6/19/16
3/16/19
12/10/21
Date
Total VOC Concentrations


MW-07R
5,000
4,500
4,000
3,500
3,000
2,500
2,000
1,500
1,000
500
0
Total VOC Concentration (ug/L)
10/11/02
7/7/05
4/2/08
12/28/10
9/23/13
6/19/16
3/16/19
12/10/21
Date
Total VOC Concentrations


MW-09R
4,500
4,000
3,500
3,000
2,500
2,000
1,500
1,000
500
0
Total VOC Conentration (ug/L)
10/11/02
7/7/05
4/2/08
12/28/10
9/23/13
6/19/16
3/16/19
12/10/21
Date
Total VOC Concentrations


EX-MW-11R
200,000
150,000
100,000
50,000
0
Total VOC Concentrations (ug/L)
10/11/02
7/7/05
4/2/08
12/28/10
9/23/13
6/19/16
3/16/19
12/10/21
Date
Total VOC Concentrations


EX-MW-12
600
500
400
300
200
100
0
Total VOC Concentration (ug/L)
10/11/02
7/7/05
4/2/08
12/28/10
9/23/13
6/19/16
3/16/19
12/10/21
Date
Total VOC Concentrations


MW-13
140
120
100
80
60
40
20
0
Total VOC Concentration (ug/L)
12/13/22
2/1/23
3/23/23
5/12/23
7/1/23
8/20/23
10/9/23
11/28/23
Date
Total VOC Concentrations