LABELLA Associates, D.P.C.
Engineering
Architecture
Environmental
Planning

Olympic Towers, 300 Pearl Street, Suite 130 | Buffalo, NY 14202 | p 716.551.6281 | f 716.551.6282 | www.labellapc.com

2016 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. 2160148

January 2017

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1.0 EXECUTIVE SUMMARY

This Periodic Review Report (PRR) is a required element of the approved Site Management Plan (SMP) 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 an inactive industrial park in the City of Dunkirk, Chautauqua County, New York. Historically, the Site contained an 88,500-square foot facility building that 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 (ERP) 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 majority of the Site. The soil cover system has been partially denuded along the northwestern perimeter of the Site in an area that encompasses approximately 0.7 acres. In this area, the soil cover system is still functioning as designed, but is not in compliance with the one foot cover soil thickness requirement specified in the SMP; refer to Section 1.3 below for details.

Recent groundwater sampling results indicate that total VOC concentrations at the Site have generally decreased over time.

1.3 Non-Compliance

The Site Soil Cover System was inspected on December 7, 2016. While visually indiscernible at the time of the inspection, a recent survey conducted by KHEOPS Architecture, Engineering & Survey, D.P.C. (KHEOPS) determined that the cover system thickness along the northwestern perimeter of the Site, in an area that encompasses approximately 0.7 acres, is not in compliance with the "one-foot of clean soil" thickness requirement identified within the SMP. This area is located within the former footprint of the soil/fill stockpile generated during the construction of the Millennium Parkway and reconstruction of Talcott Street and South Roberts Road. Said stockpile was removed from the Site in 2016 and the KHEOPS survey was conducted within the former stockpile footprint in order to verify the thickness of the cover system following stockpile removal. The cover system thickness is less than one foot in the approximate 0.7-acre area shown on the recent KHEOPS survey which is included in the Figures Appendix subsequent Figure 2. The County plans to augment the cover system in this area with clean soil

to reestablish the required one foot cover thickness in early 2017. The clean soil to be placed within this area to augment the cover system will be procured from a virgin source that has been characterized pursuant to DER-10.

Additionally, at the time of this report, the County was in the process of completing the confirmatory sampling and chemical analysis of the cover system within the former stockpile footprint in accordance with the modified confirmatory sampling plan approved by the NYSDEC on June 27, 2016.

When all corrective measures specified in the CAWP have been implemented, a Corrective Action Report will be submitted to the NYSDEC for review and comment.

No other areas of non-compliance regarding the major elements of the SMP were identified during the preparation of this PRR.

1.4 Recommendations

Overall, the remedial program is viewed to be effective in achieving the remedial objectives for the Site. As indicated above in Section 1.3, the corrective measures designed to address the issue of non-compliance associated with the Millennium stockpile are nearing completion and a Corrective Action Report will be submitted to the NYSDEC thereafter for review and comment. No changes to the SMP or the frequency of PRR submissions are recommended at this time with the exception of the permanent removal of MW-01, MW-04, MW-12 and EX-MW12 from the groundwater monitoring program. Continued evaluation of Site wells MW-02R, MW-07R, MW-09R and EX-MW11R is warranted.

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 which depicts the location of the sampled wells. Millennium Parkway now 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 new 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 comprise 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 the Edgewood property. Residential properties are located to the northwest and south of the Site beyond the adjoining properties. Lake Erie is approximately 4,000 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 an inactive industrial park. Historically, the Site contained an 88,500-square foot facility building. The building was demolished as part of the 2010 remedial activities. The adjoining properties located in the industrial park include the former Alumax Extrusions property located to the south and the Edgewood 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 (ALCO). 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 Millennium Parkway construction project was initiated. The alignment of the new roadway passes through the Site. The soil cover system established as part of the remediation at the Site was disturbed in conjunction with the construction of the new Millennium Parkway Talcott Street Extension (Millennium Parkway) project in Summer/Fall 2014. Disturbance of the soil cover was completed in accordance with the provisions of the Excavation Work Plan (EWP) of 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 (PAHs) 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 are related to the removal or treatment of contaminated material (Phase I) and those that are 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 to manage remaining contamination at the Site in perpetuity or until extinguishment of the Environmental Easement in accordance with ECL Article 71, Title 36.

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 indicated below in Section 4.1.2, the Site Soil Cover System was inspected on December 7, 2016. Based on this inspection, the cover system is intact and functioning effectively on a majority of the Site. While not in compliance with the required soil cover thickness, the cover system in the approximately 0.7-acre area of the former Millennium stockpile is still functioning as intended and will be repaired per the CAWP. When all corrective measures have been completed, a Corrective Action Report will be submitted to the NYSDEC for review and comment.

The results of the December 2016 groundwater sampling event revealed that total VOC concentrations appear to be generally decreasing when compared to results from prior sampling events.

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 1. 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 NYSEC 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.

Excavation spoils generated from off-site sources during the construction of the Millennium Parkway in Summer/Fall 2014 were stockpiled on the western portion of the Site. This material was not properly analyzed per NYSDEC DER-10 requirements prior to its placement at the Site; therefore, as indicated in the 2015 PRR, the Site was not in compliance with the SMP. Additionally, the stockpile was not in compliance with the Master Erosion Control Plan (MECP) as the pile crossed the western Site boundary and extended onto the west adjoining property (known as the Edgewood Property). Per the MECP, no stockpiled material is permitted within 50 feet of the Site parcel boundaries.

To address this non-compliance, Chautauqua County commissioned a Corrective Action Work Plan (CAWP) for the stockpiled material that was approved by the NYSDEC (see Appendix 2). The corrective action included the following:

- Removal of all materials stockpiled on the Edgewood property;
- Removal of all materials that could be classified as solid waste;
- Removal of all material that exceed Commercial Use Soil Cleanup Objectives (SCOs);
- End-point sampling of soil beneath the stockpiled soils once they are removed;
- Completion of a verification survey to confirm that 12 inches of soil cover is still in place after soil removal is complete;
- Site restoration; and,

- Preparation of a summary report documenting and verifying that the corrective measures were completed in accordance with the DEC-approved CAWP. Figures detailing the Site plan, contours, and profile of existing soil are to be included.

The material in the stockpile was characterized pursuant to the CAWP and the ensuing results were submitted to the NYSDEC by Chautauqua County on March 24, 2016 in the form of a Stockpile Characterization Report (Appendix 3). Based on the analytical data generated for the stockpiled material, NYSDEC mandated the removal of all of the stockpiled material from the Site and adjacent Edgewood property (Appendix 3 subsequent the 2016 Stockpile Characterization Report). Consequently, the material was subject to waste stream characterization and was approved for disposal at the Chautauqua County Landfill. Appendix 4 contains the waste stream approval documentation.

From August 1-18, 2016, a majority of the stockpiled material was transported off-site by D&H Excavating to the Chautauqua County landfill. LaBella was on-site during these timeframes to conduct air monitoring during excavation and loading operations. On August 18, 2016, the NYSDEC required the termination of load-out activities at the Site due to excessive tracking of soil onto public roads by trucks exiting the Site destined for the landfill. At NYSDEC's request, a Truck Tracking Prevention & Control Plan was developed and submitted on September 15, 2016 to address this issue (Appendix 5). This plan received NYSDEC approval and load-out operations were resumed and completed on October 6, 2016. Per the approved plan, trucks were routed through an inspection/wash station located on the concrete slab on the adjacent Alumax Site and inspected by LaBella. Based on inspections of exiting trucks performed by LaBella on this date, no mud was observed on any of the truck tires. Therefore, no spoils or rinse water were deposited or discharged on the Alumax slab.

Following completion of the stockpile removal, KHEOPS conducted a topographic survey within the limits of the former stockpile on the Site and compared current ground surface elevations with the elevations of the base of the demarcation layer installed during the remediation of the Site in 2010 (see the recent KHEOPS survey included in the Figures Appendix subsequent Figure 2). The difference between these elevations represents the current thickness of the cover system. Based upon the results of the survey, it was determined that the soil cover had been denuded in an approximately 0.7-acre portion of the former stockpile footprint and that DER-10 compliant soil is needed in order to re-establish the required Site cover soil thickness in the area.

On December 7, 2015, Mr. Chris Kibler of 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 6. Appendix 7 includes photographs taking during the Site inspection.

The Site is generally vacant and undeveloped, with vegetated soil cover occurring at the ground surface. The Millennium Parkway crosses through the Site in northeast-southwest direction. At the time of the Site inspection, the floor and walls of the storm water ditches associated with this roadway 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 very good condition.

During the Site inspection, the former footprint of the Millennium stockpile was observed on the western portion of the Site and extending onto the west-adjoining Edgewood property. This area was distinguished from the remainder of the site by the lack of vegetation. The approximately 0.7-acre area of diminished cover soil identified during the KHEOPS survey was visually indiscernible at the time of the

Site inspection. However, no areas of exposed demarcation layer material were observed on the Roblin Site. The County plans to augment the cover system in this area with clean soil to reestablish the required one foot cover thickness in early 2017. The clean soil to be placed within this area to augment the cover system will be procured from a virgin source that has been characterized pursuant to DER-10.

Additionally, at the time of this report, the County was in the process of completing the confirmatory sampling and chemical analysis of the cover system within the former stockpile footprint in accordance with the modified confirmatory sampling plan approved by the NYSDEC on June 27, 2016. A copy of the revised sampling plan and the NYSDEC approval letter are provided in Appendix 8.

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 potentially 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 SSVS have not been determined.

4.2 IC/EC Certification

The IC/EC Certification Form could not be completed in its entirety due to non-compliance with the SMP. As indicated above, during removal of the Millennium stockpile spoils from the Site, an approximately 0.7-acre area of the Site cover system was denuded such that cover soil within this area is less than the required cover system thickness of one foot. The County is in the process of completing the confirmatory sampling and analysis of the cover soil within the former stockpile footprint and restoring the cover system to the required thickness. When all corrective measures have been completed, a Corrective Action Report will be submitted to the NYSDEC for review and comment. The form has been filled out accordingly and has been included as Appendix 9.

5.0 MONITORING PLAN COMPLIANCE REPORT

5.1 Requirements

The Monitoring Plan is included in Section 3.0 of the SMP and describes the measures for evaluating the performance and effectiveness of the remedy to reduce or mitigate contamination at the Site, the soil cover system, and all affected Site Media.

The Monitoring Plan describes 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, the Monitoring Plan provides 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 will be analyzed for VOCs appearing on the USEPA TCL. Trends in contaminant levels in groundwater will be evaluated to determine if the remedy continues to be effective in achieving remedial goals.

5.2.1 Sampling Procedure

The eight groundwater monitoring wells were purged and sampled in general accordance with the procedures detailed in the November 2010 SMP. This included the five downgradient wells (MW-01, MW-02R, MW-04, MW-12 and EX-MW12) and the three wells located within areas of groundwater impacted with chlorinated VOCs (MW-09R, MW-07R and EX-MW11R) All monitoring well sampling activities were recorded in groundwater sampling logs, which are included as Appendix 10. 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 AC/DC Peristaltic Pump. After completion of development, the wells were allowed to recharge. The samples were collected within three hours of completion of well development 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 (ELAP) 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 11.

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 (collected from EX-MW-11R) and a trip blank that were also analyzed for TCL VOCs.

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 (SCGs) 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.

5.3 Comparisons with Remedial Objectives

As shown in Table 1, VOC concentrations identified in monitoring wells MW-01, MW-04, MW-12 and EX-MW12 are well below standards.

One or more VOCs were detected at concentrations above standards in samples collected from monitoring wells MW-07R, MW-09R and EX-MW11R. However, total VOC concentrations in these wells have decreased since previous sampling events. These wells will continue to be evaluated during future sampling events for any indication of trends.

One or more VOCs were detected at concentrations above standards in the sample collected from monitoring well MW-02R. Although total VOC concentrations in this well have slightly increased since the previous sampling event, total VOC concentrations are substantially lower than the maximum concentration detected at this location during the August 2010 sampling event. This well will continue to be evaluated during future sampling events for any indication of trends.

A comparison of the results from EX-MW11R with the blind field duplicate indicates that the data generally coincide (i.e. all concentrations for the duplicate were within 1.5 times of the detected concentrations of the original sample). In addition, no VOC detections were identified within the Trip Blank analysis.

5.4 Monitoring Deficiencies

No monitoring deficiencies were noted during the completion of the PRR and annual sampling event.

5.5 Groundwater Monitoring Conclusions and Recommendations

No contraventions of TOGS VOC standards were detected in MW-01, MW-04, MW-12 and EX-MW12 during the 2015 and 2016 monitoring events. As a result, it is recommended that these wells be permanently removed from monitoring program. While several VOC concentrations were detected above standards in MW-07R, MW-09R and EX-MW11R, total VOC concentrations for each of these wells have generally decreased over time. Although total VOC levels in MW-02R have slightly increased since the

previous sampling event , such are well below the maximum concentration detected at this location. Based on this trend, no changes to the Monitoring Plan or the SMP are recommended with the exception of the permanent removal of MW-01, MW-04, MW-12 and EX-MW12 from the monitoring program.

6.0 CONCLUSIONS AND RECOMMENDATIONS

The Site Soil Cover System was inspected on December 7, 2016 and was observed to be intact and functioning as designed on the majority of the Site. The stockpile of excavation spoils that originated from the construction of the Millennium Parkway and reconstruction of Talcott and South Roberts Road has been removed from the Site pursuant to the CAWP. A recent survey of the cover system thickness following the removal of the stockpile indicated an approximately 0.7-acre area within the former stockpile footprint wherein the cover soil has been denuded to less than the one foot cover system thickness. However, the cover soil that remains in this denuded area continues to provide a measure of protection against exposure to the underlying soil/fill. Chautauqua County is in the process of completing the confirmatory sampling and analysis of the cover soil within the former stockpile footprint and restoring the cover system within the denuded area to the required thickness. When all corrective measures have been completed, a Corrective Action Report will be submitted to the NYSDEC for review and comment.

Total VOC concentrations in a majority of the Site wells have decreased over time. Continued evaluation of Site wells MW-02R, MW-07R, MW-09R and EX-MW11R is warranted. No changes to the Monitoring Plan or the SMP are recommended with the exception of the permanent removal of MW-01, MW-04, MW-12 and EX-MW12 from the monitoring program.

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 be 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

Environmental Easement for 320 South Roberts Road, Chautauqua County Clerk, June 2011

Environmental Remediation of the Former Roblin Steel Site, NYSDEC Site No. B00173-9, Final Engineering Report, TVGA Consultants, November 2010

Environmental Restoration Record of Decision, Former Roblin Steel Site, Site Number B-00173, NYSDEC Division of Environmental Remediation, March 2005

Excavation Work Plan, Former Roblin Steel Site, TVGA Consultants, November 2010

Master Erosion Control Plan, Former Roblin Steel Site, TVGA Consultants, November 2010

Remedial Action Work Plan, TVGA Consultants, February 2006

Site Investigation/Remedial Alternatives Report, Former Roblin Steel Site, TVGA Consultants, December 2004

Site Management Plan, Former Roblin Steel Site, TVGA Consultants, November 2010

Periodic Review Report, Former Roblin Steel Site, LaBella Associates, D.P.C., December 2015

Revised Corrective Action Work Plan, Former Roblin Steel Site, KHEOPS Architecture, Engineering and Survey, DPC, April 3, 2015

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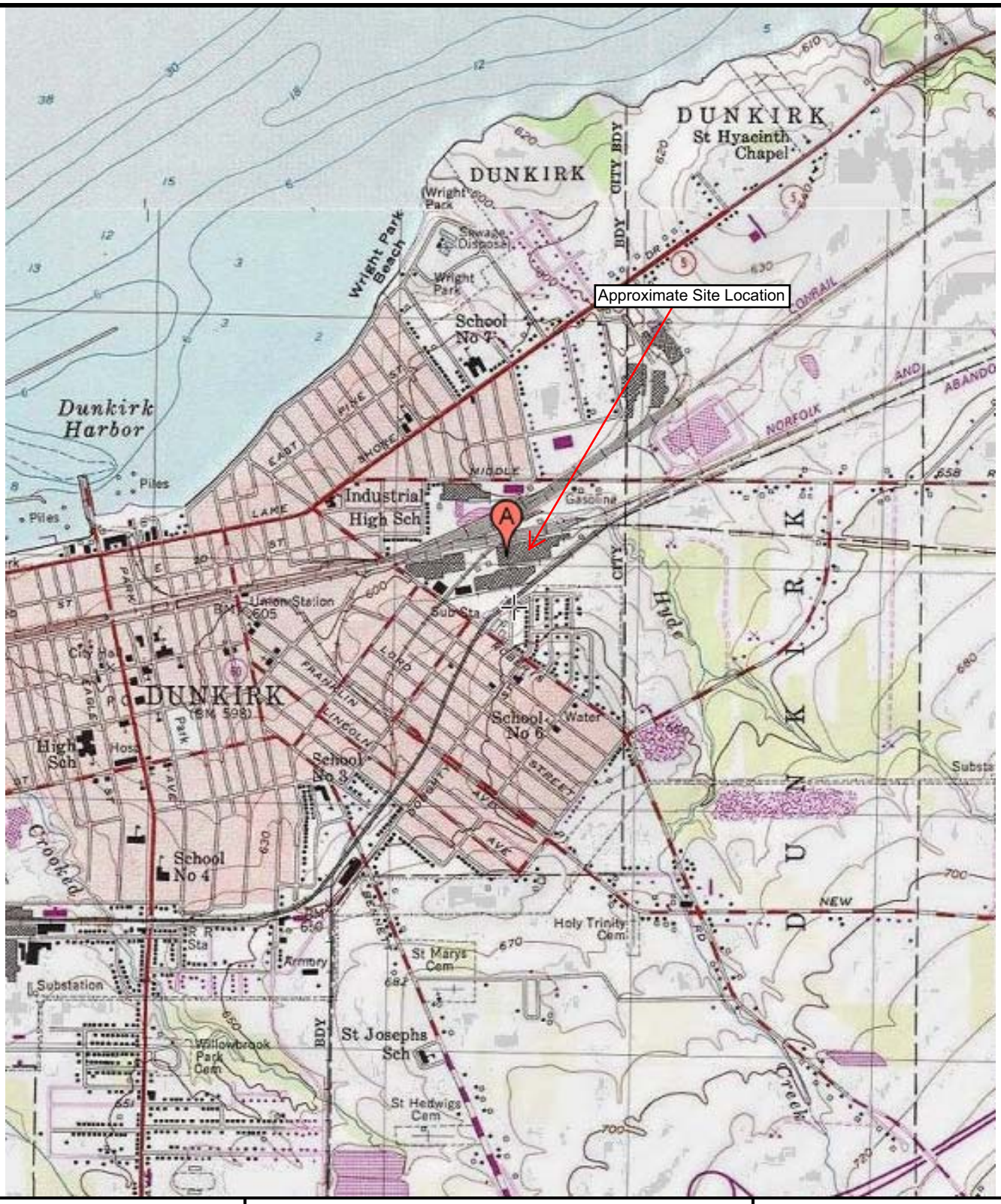
FIGURES



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Not To Scale

FIGURE 1
SITE LOCATION MAP

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

LABELLA

PROJECT NO. 2160148

LEGEND

- MW09 — EXISTING MONITORING WELL
- APPROXIMATE PROPERTY LINES/PROJECT LIMITS

NOTES:

GROUNDWATER SAMPLING WAS PERFORMED IN DECEMBER 2016

60 0 60 120 FT.
1"=60'

REV	DESCRIPTION	DATE	BY

NOTE:
ORIGINAL DRAWINGS PROVIDED BY
KNIGHT ARCHITECTURE,
ENGINEERING, & SURVEY, DPC

Date: DECEMBER 2016
Job No. 2160148
Drawing File No.
File Name:

Designed by: TAP
Drawn by: ATB
Checked by: CK
Dwg Scale: Horiz: 1" = 60'
Vert: 1" = 60'

LABELLA Associates, D.P.C.
300 PEARL STREET, SUITE 100
BUFFALO, NY 14202
P: (716) 551-2281
F: (716) 551-2582
www.labellapc.com
Engineering
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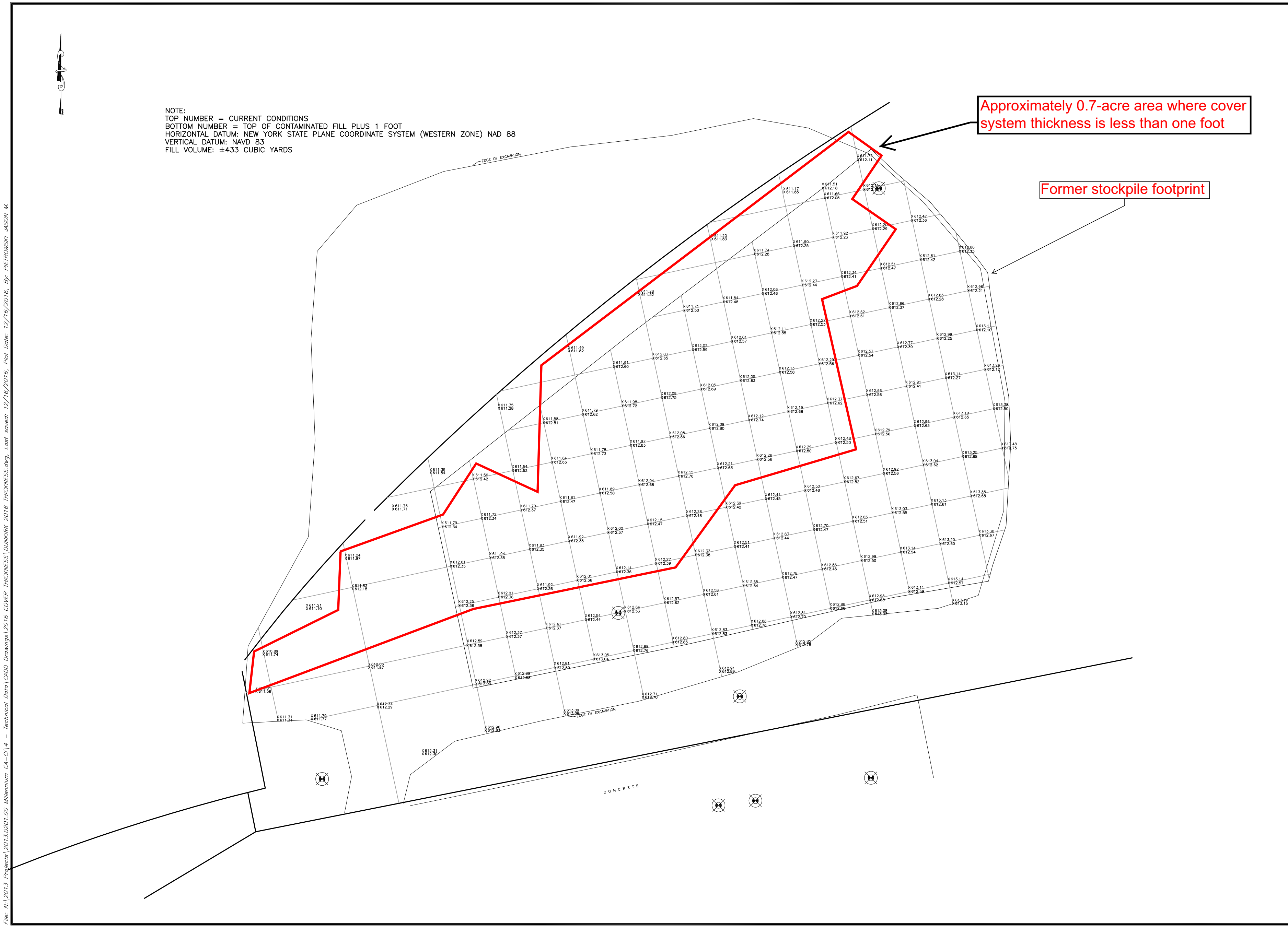
CITY OF DUNKIRK NEW YORK

SITE PLAN
FORMER ROBLIN STEEL SITE
CITY OF DUNKIRK
CHAUTAUQUA COUNTY

SHEET REFERENCE NUMBER:

FIGURE 2

File: I:\Chautauqua County\2160148 - Annual Brownfield Inspection\Reports\Roblin 2016 PRR\FIGURE 2 Former Roblin GW SAMPLE RESULTS.dwg, Last saved: 12/27/2016, Plot Date: 12/28/2016, By: BENKLEMAN, ANDREW, Plot Style: LABELLA.CTB



SOIL COVER SURVEY
FORMER ROBLIN STEEL SITE
CITY OF DUNKIRK
CHAUTAQUA COUNTY, NEW YORK STATE

KHEOPS
ARCHITECTURE, ENGINEERING & SURVEY, DPC
300 Pearl Street, Suite 100
Buffalo, New York 14202
P. 716.849.8739
F. 716.856.0981
WWW.KHEOPSDPC.COM

Designed by: JMP	Field Date: 11/21/16
Drawn by: JMP	Office Date: 12/5/16
Checked by: DRH	Job No. 2013.201.08
Dwg Scale: Horiz: 1"=20' Vert: N/A	Book: Page: Map:
	File Name: SOIL COVER THICKNESS

NOTES:
UNAUTHORIZED ALTERATION OR ADDITION TO ANY SURVEY, DRAWING, DESIGN SPECIFICATION PLAN OR REPORT IS A VIOLATION OF SECTION 7209 PROVISION 2 OF THE NEW YORK STATE EDUCATION LAW.
THESE PLANS ARE NOT SUITABLE FOR MACHINE GUIDANCE USE OR PURPOSES.

REV | DESCRIPTION | DATE | BY

MAP NUMBER:

TABLE

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

PARAMETER	REGULATORY VALUE	MW-01							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	10/11/02	2/10/09	8/10/10	8/15/13	7/15/14	12/15/15	12/14/16
Volatile Organic Compounds (ug/L)															
1,1-Dichloroethene	5														
1,1-Dichloroethane	5						0.26								
cis-1,2-Dichloroethene	5						0.46		NA		21.3	10.1	6.27	18	11
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	1							18	7.92	37.3	18.2	22.7	3.5	3.5
Carbon Disulfide	60						5.6	0.19							
Chloroethane	5											6.2			
Cyclohexane	5											32.8	43.3	6.3	5
cis-1,3-Dichloropropene	0														
Ethylbenzene	5									9.81	18.9	16.9	22.6	1.9	
Isopropylbenzene	5											2.53	3.12	0.61	
Methyl Cyclohexane	5						1					13.8	22.4	2.3	1.3
Methylene Chloride	5														
n-Propylbenzene	5									2.57					
Tetrachloroethene	5														
Toluene	5								24	7.19	101				
m,p-Xylene	5	NA							NA	7.62	73.2	2.45	9.81		
o-Xylene	5	NA							NA	2.61	37.2		2.10		
Total Xylenes	5	4							11	10.23	110.4				
Trichloroethene	5							0.53	32		3.31			0.25	
Vinyl chloride	2								31		5.34	12.5	9.13	26	42
Total VOCs	-	**5**	**0**	**0**	**0**	**0**	**7**	**0.72**	**204**	**91.45**	**579.95**	**127.78**	**141.43**	**59**	**62.8**

NOT SAMPLED

PARAMETER	REGULATORY VALUE	MW-04							MW-07R						
Collection Date		10/11/02	2/10/09	8/10/10	8/21/13	7/15/14	12/15/15	12/14/16	10/11/02	5/4/09	8/10/10	8/15/13	7/15/14	12/15/15	12/14/16
Volatile Organic Compounds (ug/L)															
1,1-Dichloroethene	5								15						
1,1-Dichloroethane	5														
cis-1,2-Dichloroethene	5	NA					2.6	1.2	NA		904	128	584	17	5.9
trans-1,2-Dichloroethene	5	NA							NA						
1,2-Dichloroethene (Total)	5								1,500		904				
1,2,4-Trimethylbenzene	5														
2-Butanone	50														
Acetone	50				43.8										
Benzene	1	6							10	65	14			0.34	
Carbon Disulfide	60														
Chloroethane	5														
Cyclohexane	5													0.72	
cis-1,3-Dichloropropene	0									1,500					
Ethylbenzene	5	2							4						
Isopropylbenzene	5														
Methyl Cyclohexane	5									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							NA	67	33.3				
o-Xylene	5	NA							NA						
Total Xylenes	5	10							23	67	33.3				
Trichloroethene	5							1.91	56		49.2		55.9		2
Vinyl chloride	2						0.49		330	770	402	56.1	205	6.2	3.7
Total VOCs	-	**18**	**0**	**0**	**43.8**	**0**	**3**	**3.1**	**1950**	**2797**	**2369.5**	**184.1**	**844.9**	**25**	**11.6**

NOT SAMPLED

PARAMETER	REGULATORY VALUE	MW-09R							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	10/11/02	2/10/09	8/10/10	8/15/13	7/15/14	12/15/15	12/14/16
Volatile Organic Compounds (ug/L)															
1,1-Dichloroethene	5	3	2.02				2.3							4.6	11
1,1-Dichloroethane	5														
cis-1,2-Dichloroethene	5	NA	210	277	217	55.7	1,200	500	NA	354	5,320	1,950	5,400	990	1,000
trans-1,2-Dichloroethene	5	NA	4.48	17.3			2.9		NA					3.3	
1,2-Dichloroethene (Total)	5	380	214	294					41,000	354	5,320				
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							2.5	
Carbon Disulfide	60														
Chloroethane	5														
Cyclohexane	5				208	155	15							16	24
cis-1,3-Dichloropropene	0														
Ethylbenzene	5	12	5.66	69.6	33.7	17.3	0.23							2.4	
Isopropylbenzene	5						0.28							0.68	
Methyl Cyclohexane	5				121	101	13							15	20
Methylene Chloride	5							4.8							12
n-Propylbenzene	5														
Tetrachloroethene	5						4.5								
Toluene	5	74	23.3	581										1.7	
m,p-Xylene	5	NA	20.5	239					NA					0.73	
o-Xylene	5	NA	11.5	128			0.23		NA					4.9	
Total Xylenes	5	75	32	367											
Trichloroethene	5	450	135	585				230	150,000	168	4,630		4,510	36	91
Vinyl chloride	2	34	33		991	287	310		9,800	27	638	881	1110	520	360
Total VOCs	-	**1063**	**716.34**	**3877.2**	**1658.4**	**662.3**	**1,549**	**734.8**	**200,800**	**903**	**15,908**	**2,831**	**11,020**	**1,598**	**1,518**

PARAMETER	REGULATORY VALUE	MW-12							EX-MW-12						
Collection Date		10/11/02	2/10/09	8/10/10	8/15/13	7/15/14	12/15/15	12/14/16	10/11/02	2/10/09	8/10/10	8/15/13	7/15/14	12/15/15	12/14/16
Volatile Organic Compounds (ug/L)															
cis-1,2-Dichloroethene	5	NA					0.53		NA		7.6			0.73	
trans-1,2-Dichloroethene	5	NA							NA						
1,2-Dichloroethene (Total)	5	150							150		7.6				
2-Butanone	50										31.3				
2-Hexanone	50										5.23				
Acetone	50										73.8				
Benzene	1	1							1		24.0	1.9	2.14	0.47	
Ethylbenzene	5	1							1		18.5				
Toluene	5										48.7				
m,p-Xylene	5								NA		74.7				
o-Xylene	5								NA		40.4				
Total Xylenes	5										115.1				
Trichloroethene	5										8.96				
Vinyl chloride	2	200							200		27.2				
Total VOCs	-	**352**	**0**	**0**	**0**	**0**	**0.53**	**0**	**352**	**0**	**483.1**	**1.9**	**2.14**	**1**	**0**

NOT SAMPLED

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.
ug/L = micrograms per Liter (equivalent to parts per billion (ppb)).
Only compounds with one or more detections are shown.
Blank spaces indicate that the analyte was not detected.
"NA" = parameter was not analyzed

APPENDIX 1

Survey-Former Roblin Steel Site Boundary

SCHEDULE "A" DESCRIPTION

ALL BEARINGS IN THIS DESCRIPTION ARE REFERENCED TO A LOCAL SYSTEM AND DEEDED BEARINGS FROM A PRIOR SURVEY MADE BY MICHAEL J. RODGERS LAND SURVEYOR, PC, DATED NOVEMBER 28, 2001.

ALL THAT TRACT OR PARCEL OF LAND SITUATE IN THE CITY OF DUNKIRK, COUNTY OF CHAUTAUQUA AND STATE OF NEW YORK AND FURTHER BOUNDED AND DESCRIBED AS FOLLOWS:

BEGINNING AT A SET REBAR WITH CAP AT THE INTERSECTION OF THE NORTHWESTERLY RIGHT OF WAY LINE OF NORFOLK SOUTHERN RAILROAD, FORMERLY N & W RAILROAD, FORMERLY NEW YORK, CHICAGO AND ST. LOUIS RAILROAD WITH THE SOUTHERLY RIGHT OF WAY LINE OF CSXT, FORMERLY CONRAIL, FORMERLY NEW YORK CENTRAL RAILROAD, FORMERLY ERIE RAILROAD, SAID LANDS REFERRED TO AS CSXT BEING LANDS CONVEYED BY CONSOLIDATED RAIL CORPORATION TO NEW YORK CENTRAL LINES, LLC BY QUIT CLAIM DEED DATED JUNE 1, 1999 AND RECORDED IN THE CHAUTAUQUA COUNTY CLERK'S OFFICE IN LIBER 2418 OF DEEDS AT PAGE 623; THENCE WESTERLY ALONG THE SOUTHERLY LINE OF SAID LINE ON A CURVE TO THE LEFT 642.74 FEET TO A POINT, SAID CURVE HAVING A RADIUS 5687.65 FEET AND A CHORD S86° -15'-29"W, 642.40 FEET; THENCE N08° -30'-04"W ALONG SAID SOUTHERLY LINE, 2.41 FEET TO A POINT; THENCE S81° -30'-00"W AND ALONG SAID SOUTHERLY LINE, 378.93 FEET TO A POINT; THENCE S85° -22'-00"W AND ALONG SAID SOUTHERLY LINE 121.88 FEET TO A POINT; THENCE S81° -30'-00"W ALONG SAID SOUTHERLY LINE 53.00' TO A POINT AT THE NORTHEASTERLY CORNER OF LANDS CONVEYED BY STANLEY A. STAR TO EDGEWOOD INVESTMENTS, INC. BY DEED DATED AUGUST 23, 1985 AND RECORDED IN THE CHAUTAUQUA COUNTY CLERK'S OFFICE AUGUST 26, 1985 IN LIBER 2063 OF DEEDS AT PAGE 488; THENCE S08° -30'-00"E ALONG THE SOUTHERLY LINE OF SAID EDGEWOOD INVESTMENTS, INC., 10.97 FEET TO A POINT; THENCE S81° -30'-00"W AND ALONG SAID SOUTHERLY LINE 77.46 FEET TO A POINT; THENCE CONTINUING WESTERLY AND ALONG THE SAID SOUTHERLY LINE ON A CURVE TO THE LEFT 76.07 FEET TO A POINT AT THE NORTHEASTERLY CORNER OF AFOREMENTIONED NEW YORK CENTRAL LINES, LLC, SAID CURVE HAVING A RADIUS OF 260.49 FEET AND A CHORD BEARING OF S73° -08'-00"W, 75.80 FEET; THENCE SOUTHWESTERLY AND ALONG THE SOUTHEASTERLY SAID LINE ON A CURVE TO THE LEFT, 419.75 FEET TO A POINT, SAID CURVE HAVING A RADIUS OF 1364.49 FEET AND A CHORD BEARING OF S56-09'-30"W, 418.10 FEET; THENCE CONTINUING SOUTHWESTERLY ALONG THE SOUTHEASTERLY SAID LINE ON A CURVE TO THE TO THE LEFT 98.22 FEET TO A POINT, SAID CURVE HAVING A RADIUS OF 757.76 FEET AND A CHORD BEARING OF S43° -23'-00"W, 98.15 FEET; THENCE S08° -25'-00"E, ALONG THE SAID EASTERLY LINE 62.51 FEET TO A POINT; THENCE S79° -11'-00"W, ALONG THE SAID SOUTHERLY LINE 8.91 FEET TO A POINT AT THE NORTHEASTERLY CORNER OF AFOREMENTIONED EDGEWOOD INVESTMENTS, INC.; THENCE S08° -39'-00"E, ALONG THE EASTERLY SAID LINE, 19.90 FEET TO A POINT AT THE NORTHWESTERLY CORNER OF LANDS CONVEYED BY COUNTY OF CHAUTAUQUA INDUSTRIAL DEVELOPMENT AGENCY TO ALUMAX EXTRUSIONS, INC. BY DEED DATED AUGUST 25, 1995 AND RECORDED IN THE CHAUTAUQUA COUNTY CLERK'S OFFICE IN LIBER 2351 OF DEEDS AT PAGE 874; THENCE N81° -31'-00"E, ALONG THE SAID NORTHERLY LINE 822.00 FEET TO A POINT; THENCE S 08° -29'-00"E, ALONG THE SAID EASTERLY LINE 251.95 FEET TO A POINT ON THE NORTHWESTERLY RIGHT OF WAY LINE OF NORFOLK SOUTHERN RAILROAD; THENCE N53° -33'-00"E, ALONG THE NORTHWESTERLY SAID LINE 172.65 FEET TO A POINT; THENCE N03° -05'-00"E, ALONG THE NORTHWESTERLY SAID LINE 20.37 FEET TO A POINT; THENCE N53° -33'-00"E ALONG THE NORTHWESTERLY SAID LINE 183.89 FEET TO A POINT; THENCE N53° -35'-00"E, ALONG THE NORTHWESTERLY SAID LINE 524.58 FEET TO A POINT; THENCE ALONG THE NORTHWESTERLY SAID LINE ON A CURVE TO THE RIGHT 228.79 FEET, SAID CURVE HAVING A RADIUS OF 2915.00 FEET AND A CHORD BEARING OF N55° -38'-00"E, 228.73 FEET TO THE POINT OF BEGINNING CONTAINING 11.83± ACRES.

TOGETHER WITH THE BENEFITS AND SUBJECT TO ANY BURDENS OF AN AGREEMENT MADE BETWEEN ALLEGHENY LUDLUM INDUSTRIES, INC. AND PROGRESS PARK, INC. DATED MAY 1, 1963 AND RECORDED IN THE CHAUTAUQUA COUNTY CLERK'S OFFICE ON MAY 2, 1963 IN LIBER 1215 OF DEEDS AT PAGE 477, AND THE PARTY OF THE SECOND PART HEREBY ASSUMES ALL OF THE OBLIGATIONS OF THE PARTY OF THE FIRST PART RELATING TO THE RIGHTS UNDER SAID AGREEMENT WHICH ARE TRANSFERRED AND CONVEYED BY THIS DEED AND PARTY OF THE SECOND PARATHIONS IN THE EXECUTION OF THIS DEED AS EVIDENCE OF SUCH ASSUMPTION.

ALSO TOGETHER WITH THE BENEFITS AND SUBJECT TO ANY BURDENS OF A PARTY WALL AGREEMENT MADE BETWEEN ALLEGHENY LUDLUM INDUSTRIES, INC. AND PROGRESS PARK, INC., DATED MAY 1, 1963 AND RECORDED IN THE CHAUTAUQUA COUNTY CLERK'S OFFICE ON MAY 2 1963 IN LIBER 1215 OF DEEDS AT PAGE 462.

ALSO TOGETHER WITH THE BENEFITS AND SUBJECT TO ANY BURDENS OF AN EASEMENT AGREEMENT MADE BETWEEN PROGRESS PARK, INC. AND ALLEGHENY LUDLUM INDUSTRIES, INC. WITH NIAGARA MOHAWK POWER CORPORATION, DATED MAY 1, 1963 AND RECORDED IN THE CHAUTAUQUA COUNTY CLERK'S OFFICE IN LIBER 1215 OF DEEDS AT PAGE 453.

ALSO TOGETHER WITH THE BENEFITS AND SUBJECT TO ANY BURDENS OF ANY OTHER EASEMENTS, COVENANTS, AGREEMENTS, OR RIGHT OF WAY OF RECORD, AFFECTING THE SAID PREMISES, OR ANY PART THEREOF, AS WELL AS ANY OTHER MATTERS OF RECORD AFFECTING THE SAID PREMISES, OR ANY PART THEREOF.

ALSO TOGETHER WITH THE BENEFITS AND SUBJECT TO ANY BURDENS OF THE FOLLOWING UNRECORDED AGREEMENTS, TO THE EXTENT OPERATIVE:

1-EASEMENT FOR SIDETRACK PURPOSES GIVEN BY ERIE RAILROAD COMPANY TO AMERICAN LOCOMOTIVE COMPANY, DATED DECEMBER 23, 1952.

2-LICENSE AGREEMENT DATED MARCH 29, 1938 GIVEN BY ERIE RAILROAD COMPANY TO AMERICAN LOCOMOTIVE COMPANY TO INSTALL TILE DRAIN UNDER TRACKS AND LANDS OF RAILROAD AS AMENDED BY INSTRUMENT DATED DECEMBER 27, 1957.

3-AGREEMENT DATED SEPTEMBER 4, 1951 BY ERIE RAILROAD TO AMERICAN LOCOMOTIVE COMPANY TO OPERATE OVER AND USE OF SIDE TRACK FACILITIES.

4-AGREEMENT DATED DECEMBER 12, 1951 BETWEEN ERIE RAILROAD TO ALCO PRODUCTS, INC. FOR SIDE TRACK FACILITIES.

ALSO TOGETHER WITH AND SUBJECT TO AN EASEMENT FOR INGRESS AND EGRESS THE CENTER OF WHICH IS DESCRIBED AS FOLLOWS:

BEGINNING AT A POINT IN THE CITY OF DUNKIRK, COUNTY OF CHAUTAUQUA AND STATE OF NEW YORK AT A POINT IN THE CENTERLINE OF THE EXISTING 30.3 FOOT PAVEMENT IN ROBERTS ROAD AND DISTANT 144.53 FEET N51° -44'-00"W, ALONG THE SAID CENTERLINE FROM THE INTERSECTION THEREOF WITH THE NORTHWESTERLY LINE OF LANDS OF THE NEW YORK, CHICAGO & ST. LOUIS RAILROAD COMPANY (NORFOLK SOUTHERN); THENCE N38° -16'-00"E, A DISTANCE OF 114.28 FEET TO AN IRON PIN, PASSING THROUGH AN IRON PIN LOCATED 33 FEET NORTHEASTERLY ALONG THE LAST DESCRIBED COURSE FROM SAID CENTERLINE IN ROBERTS ROAD; THENCE N08° -39'-00"W, A DISTANCE OF 514.37 FEET TO AN IRON PIN WHICH IS THE BEGINNING POINT OF THE CENTERLINE OF THE EASEMENT TO BE DESCRIBED; THENCE ALONG SUCH CENTERLINE N81° -31'-00"E, A DISTANCE OF 822.00 FEET TO AN IRON PIN.

ALSO TOGETHER WITH AND SUBJECT TO ANY RIGHT OF WAY FOR INGRESS AND EGRESS FROM ROBERTS ROAD TO THE ABOVE DESCRIBED PREMISES.

ALSO TOGETHER WITH AND SUBJECT TO ANY RIGHT OF WAY FOR INGRESS AND EGRESS FROM MIDDLE ROAD TO THE ABOVE DESCRIBED PREMISES.

ENVIRONMENTAL EASEMENT AREA DESCRIPTION

ALL BEARINGS IN THIS DESCRIPTION ARE REFERENCED TO A LOCAL SYSTEM AND DEEDED BEARINGS FROM A PRIOR SURVEY MADE BY MICHAEL J. RODGERS LAND SURVEYOR, PC, DATED NOVEMBER 28, 2001.

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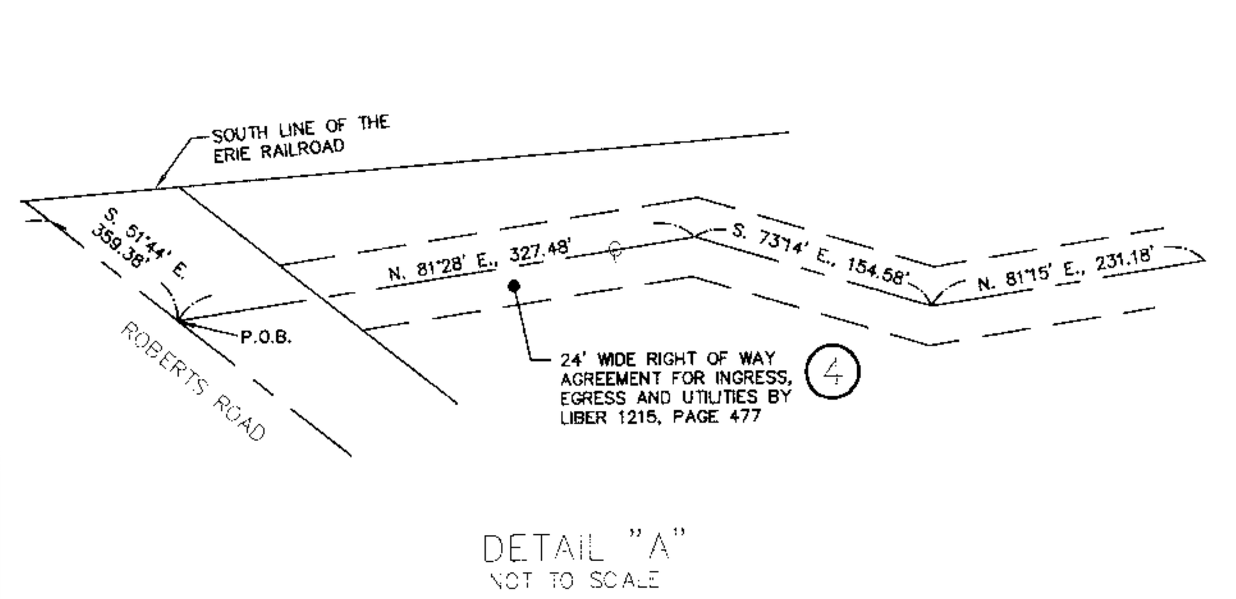

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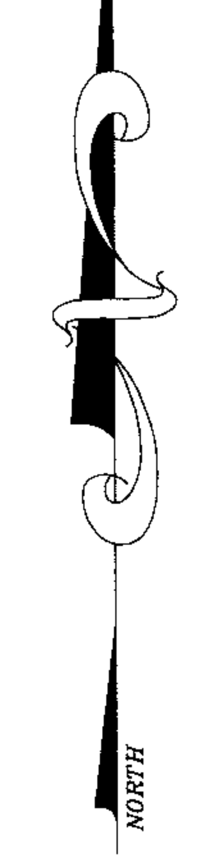
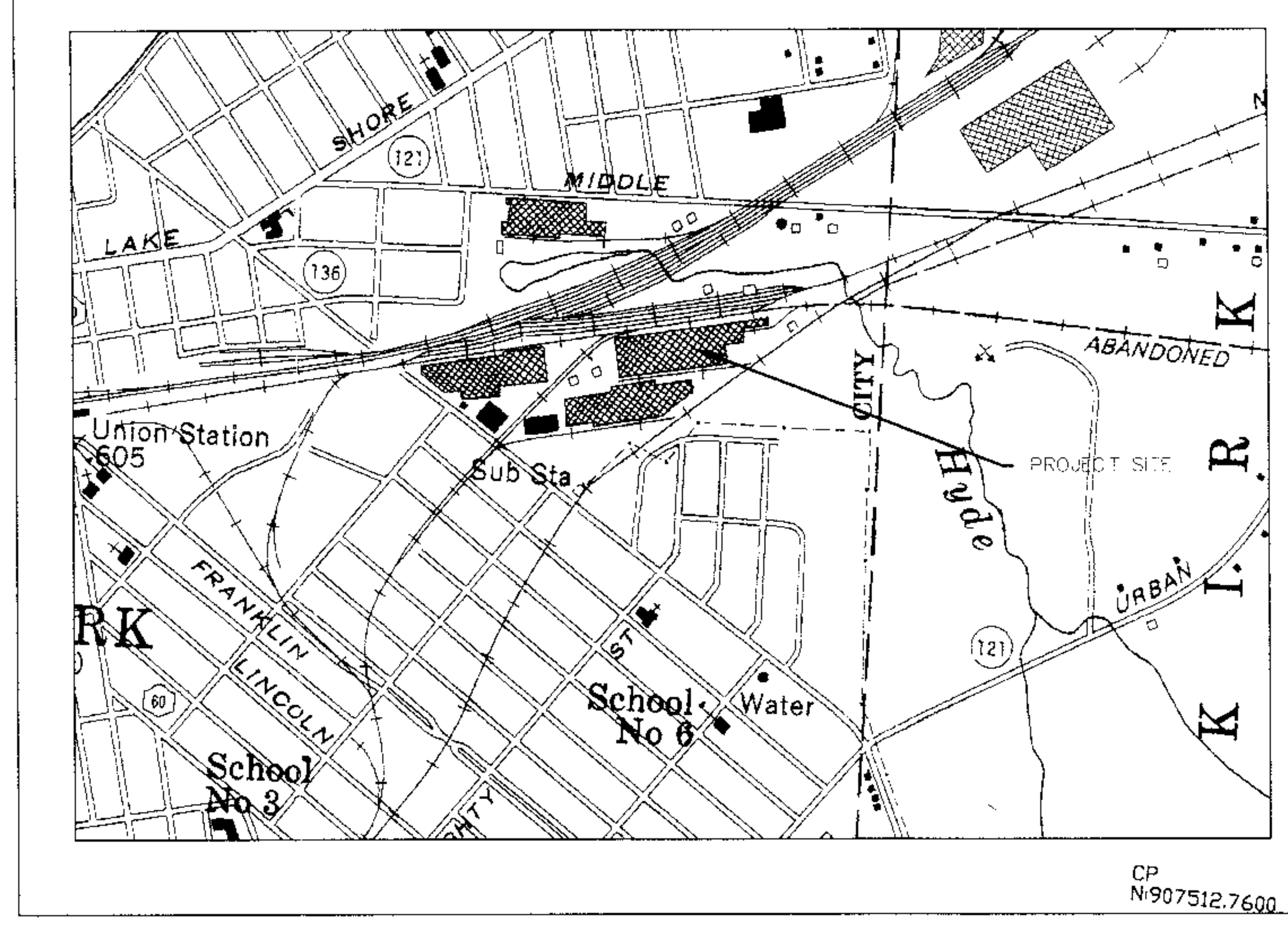
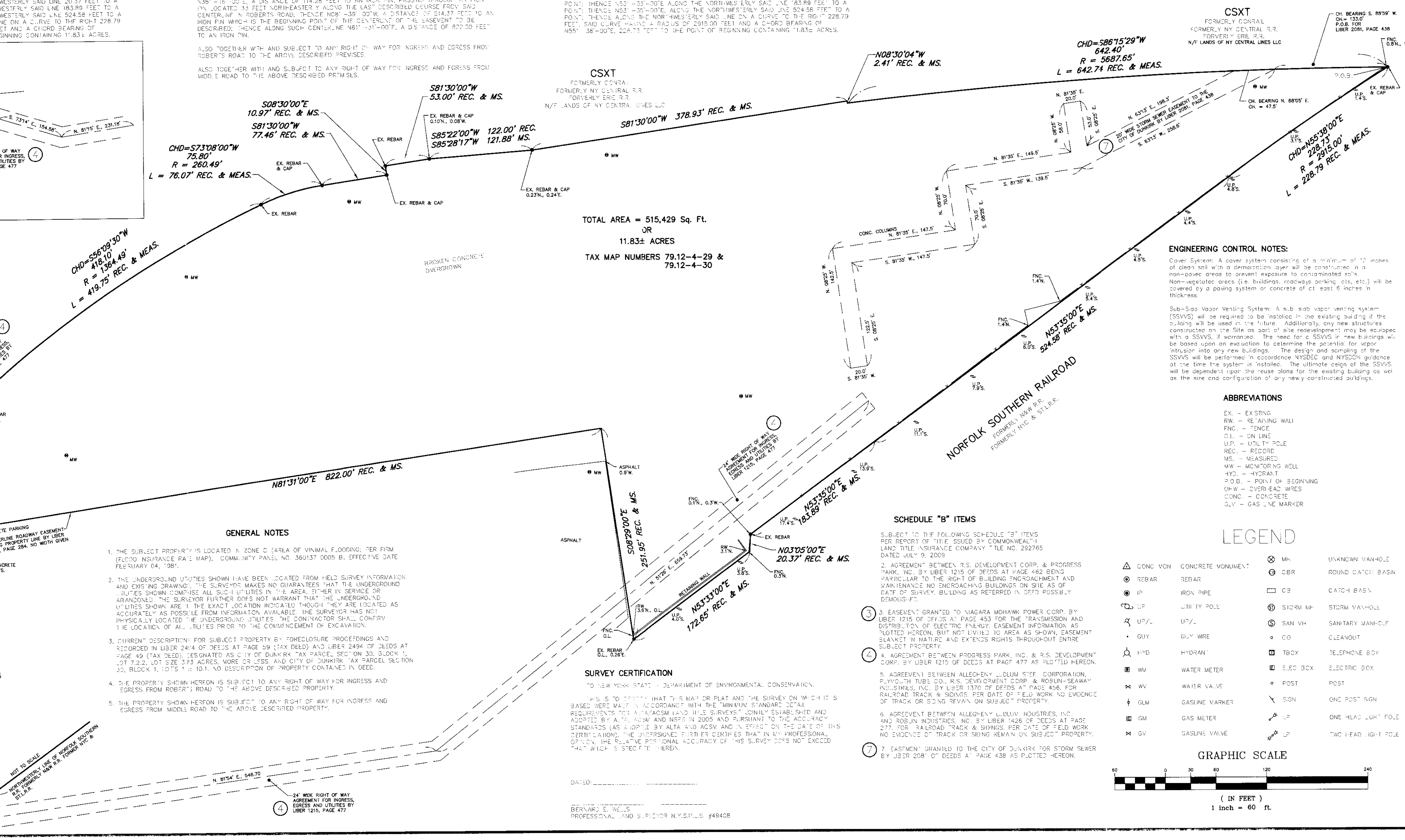




VICINITY MAP
NOT TO SCALE



GENERAL NOTES

1. THE SUBJECT PROPERTY IS LOCATED IN ZONE C (AREA OF MINIMAL FLOODING; PER FIRM (FLOOD INSURANCE RATE MAP), COMMUNITY PANEL NO. 360137 0005 B, EFFECTIVE DATE FEBRUARY 04, 1981.
2. THE UNDERGROUND UTILITIES SHOWN HAVE BEEN LOCATED FROM FIELD SURVEY INFORMATION AND EXISTING DRAWINGS. THE SURVEYOR MAKES NO GUARANTEES THAT THE UNDERGROUND UTILITIES SHOWN COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED. THE SURVEYOR FURTHER DOES NOT WARRANT THAT THE UNDERGROUND UTILITIES SHOWN ARE IN THE EXACT LOCATION INDICATED THOUGH THEY ARE LOCATED AS ACCURATELY AS POSSIBLE FROM INFORMATION AVAILABLE. THE SURVEYOR HAS NOT PHYSICALLY LOCATED THE UNDERGROUND UTILITIES. THE CONTRACTOR SHALL CONFIRM THE LOCATION OF ALL UTILITIES PRIOR TO THE COMMENCEMENT OF EXCAVATION.
3. CURRENT DESCRIPTIONS FOR SUBJECT PROPERTY BY FORECLOSURE PROCEEDINGS AND RECORDED IN LIBER 2494 OF DEEDS AT PAGE 59 (TAX DEED) AND LIBER 2494 OF DEEDS AT PAGE 49 (TAX DEED). DESIGNATED AS CITY OF DUNKIRK TAX PARCEL SECTION 30, BLOCK 1, LOT 7.2.2, LOT SIZE 3.83 ACRES, MORE OR LESS. AND CITY OF DUNKIRK TAX PARCEL SECTION 30, BLOCK 1, LOTS 1 & 10.1. NO DESCRIPTION OF PROPERTY CONTAINED IN DEED.
4. THE PROPERTY SHOWN HEREON IS SUBJECT TO ANY RIGHT OF WAY FOR INGRESS AND EGRESS FROM ROBERTS ROAD TO THE ABOVE DESCRIBED PROPERTY.
5. THE PROPERTY SHOWN HEREON IS SUBJECT TO ANY RIGHT OF WAY FOR INGRESS AND EGRESS FROM MIDDLE ROAD TO THE ABOVE DESCRIBED PROPERTY.

SURVEY CERTIFICATION

TO NEW YORK STATE - DEPARTMENT OF ENVIRONMENTAL CONSERVATION.

THIS IS TO CERTIFY THAT THIS MAP OR PLAT AND THE SURVEY ON WHICH IT IS BASED WERE MADE IN ACCORDANCE WITH THE "MINIMUM STANDARD DETAIL REQUIREMENTS FOR ALTA/ACSM LAND TITLE SURVEYS," JOINTLY ESTABLISHED AND ADOPTED BY ALTA, ACSM AND NSPS IN 2005 AND PURSUANT TO THE ACCURACY STANDARDS (AS ADOPTED BY ALTA AND ACSM AND IN EFFECT ON THE DATE OF THIS CERTIFICATION) THE UNDERSIGNED FURTHER CERTIFIES THAT IN MY PROFESSIONAL OPINION, AS A LAND SURVEYOR ... THE POSITIONAL ACCURACY OF THIS SURVEY DOES NOT EXCEED THAT WHICH IS SPECIFIED HEREIN.

DATED: ____________

____
BERNARD E. WELLS
PROFESSIONAL LAND SURVEYOR N.Y.S.P.L.S. #49408

SCHEDULE "B" ITEMS

SUBJECT TO THE FOLLOWING SCHEDULE "B" ITEMS PER REPORT OF TITLE ISSUED BY COMMONWEALTH LAND TITLE INSURANCE COMPANY TITLE NO. 292765 DATED JULY 9, 2009

2. AGREEMENT BETWEEN R.S. DEVELOPMENT CORP. & PROGRESS PARK, INC. BY LIBER 1215 OF DEEDS AT PAGE 462 BEING PARTICULAR TO THE RIGHT OF BUILDING ENCROACHMENT AND MAINTENANCE NO ENCROACHING BUILDINGS ON SITE AS OF DATE OF SURVEY. BUILDING AS REFERRED IN DEED POSSIBLY DEMOLISHED.

(3) 3. EASEMENT GRANTED TO NIAGARA MOHAWK POWER CORP. BY LIBER 1215 OF DEEDS AT PAGE 453 FOR THE TRANSMISSION AND DISTRIBUTION OF ELECTRIC ENERGY. EASEMENT INFORMATION AS PLOTTED HEREON, BUT NOT LIMITED TO AREA AS SHOWN, EASEMENT BLANKET IN NATURE AND EXTENDS RIGHTS THROUGHOUT ENTIRE SUBJECT PROPERTY.

(4) 4. AGREEMENT BETWEEN PROGRESS PARK, INC. & R.S. DEVELOPMENT CORP. BY LIBER 1215 OF DEEDS AT PAGE 477 AS PLOTTED HEREON.

5. AGREEMENT BETWEEN ALLEGHENY LUDLUM STEEL CORPORATION, PLYMOUTH TUBE CO., R.S. DEVELOPMENT CORP. & ROBLIN-SEAWAY INDUSTRIES, INC. BY LIBER 1370 OF DEEDS AT PAGE 456. FOR RAILROAD TRACK & SIDINGS. PER DATE OF FIELD WORK NO EVIDENCE OF TRACK OR SIDING REMAIN ON SUBJECT PROPERTY.

6. AGREEMENT BETWEEN ALLEGHENY LUDLUM INDUSTRIES, INC. AND ROBLIN INDUSTRIES, INC. BY LIBER 1426 OF DEEDS AT PAGE 277. FOR RAILROAD TRACK & SIDINGS. PER DATE OF FIELD WORK NO EVIDENCE OF TRACK OR SIDING REMAIN ON SUBJECT PROPERTY.

(7) 7. EASEMENT GRANTED TO THE CITY OF DUNKIRK FOR STORM SEWER BY LIBER 2081 OF DEEDS AT PAGE 438 AS PLOTTED HEREON.

ENGINEERING CONTROL NOTES:

Cover System: A cover system consisting of a minimum of 12 inches of clean soil with a demarcation layer will be constructed in all non-paved areas to prevent exposure to contaminated soils. Non-vegetated areas (i.e. buildings, roadways parking lots, etc.) will be covered by a paving system or concrete of at least 6 inches in thickness.

Sub-Slab Vapor Venting System: A sub slab vapor venting system (SSVVS) will be required to be installed in the existing building if the building will be used in the future. Additionally, any new structures constructed on the Site as part of site redevelopment may be equipped with a SSVVS, if warranted. The need for a SSVVS in new buildings will be based upon an evaluation to determine the potential for vapor intrusion into any new buildings. The design and sampling of the SSVVS will be performed in accordance NYSDEC and NYSDOH guidance at the time the system is installed. The ultimate deign of the SSVVS will be dependent upon the reuse plans for the existing building as well as the size and configuration of any newly constructed buildings.

ABBREVIATIONS

EX. - EXISTING
RW. - RETAINING WALL
FNC. - FENCE
O.L. - ON LINE
U.P. - UTILITY POLE
REC. - RECORD
MS. - MEASURED
MW - MONITORING WELL
HYD. - HYDRANT
P.O.B. - POINT OF BEGINNING
OHW - OVERHEAD WIRES
CONC. - CONCRETE
GLM - GAS LINE MARKER

LEGEND

CONC MON	CONCRETE MONUMENT	MH	UNKNOWN MANHOLE
REBAR	REBAR	CBR	ROUND CATCH BASIN
IP	IRON PIPE	CB	CATCH BASIN
UP	UTILITY POLE	STORM MH	STORM MANHOLE
UP/L	UP/L	SAN MH	SANITARY MANHOLE
GUY	GUY WIRE	CO	CLEANOUT
HYD	HYDRANT	TBOX	TELEPHONE BOX
WM	WATER METER	ELEC BOX	ELECTRIC BOX
WV	WATER VALVE	POST	POST
GLM	GASLINE MARKER	SIGN	ONE POST SIGN
GM	GAS METER	LP	ONE HEAD LIGHT POLE
GV	GASLINE VALVE	LP	TWO HEAD LIGHT POLE

GRAPHIC SCALE

60 0 30 60 120 240

(IN FEET)
1 inch = 60 ft.

REV	DESCRIPTION	DATE	BY
1	REVISED TO CURRENT SITE CONDITIONS	11/1/10	TSO

Designed by: DMD	Field Date: 1/21/09	Office Date: 2/04/09	
Drawn by: RJN	Job No. 2005.0308.00		
Checked by: WNW	Book: 392	Page: 84	Map: 59884
Dwg Scale: Horiz: 1" = 60' Vert:	File Name: ROBLIN ALTA.dwg		

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

LABELLA Associates, D.P.C. | Engineering Architecture Environmental Planning

APPENDIX 2

Corrective Action Work Plan

KHEOPS
Architecture, Engineering & Survey, DPC

Tel (716) 849-8739
Fax (716) 856-0981
www.kheopsdpc.com

300 Pearl Street
Suite 100
Buffalo, NY 14202

2013.0201.00
April 3, 2015

New York State Department of Environmental Conservation
270 Michigan Avenue
Buffalo, NY 14203-2999

Attn: David Syzmanski, Project Manager

Re: Revised Corrective Action Work Plan
Former Roblin Steel Site, 320 South Roberts Road, Dunkirk NY
NYSDEC Site No. B00173-9

Dear Mr. Syzmanski:

On behalf of the Chautauqua County Department of Public Facilities, KHEOPS Architecture, Engineering & Survey, DPC (KHEOPS) has revised the proposed Corrective Action Work Plan (CAWP) for the Former Roblin Steel Site according to your letter dated March 16, 2015. The intent of this document is to obtain approval from the NYSDEC for the proposed CAWP for the Former Roblin Steel Site in order to bring the site into compliance with the Site Management Plan (SMP). The site is not in compliance with the SMP due to a large stockpile of off-site materials that was created during the construction for the Millennium Parkway project.

The proposed corrective action includes the following:

- Removal of all materials stockpiled on the Edgewood property;
- Removal of all materials that could be classified as solid waste; and
- Removal of all materials that exceed Commercial Use Soil Cleanup Objectives (SCOs).
- End-point sampling of soil beneath the stockpiled soils once they are removed;
- Completion of a verification survey to confirm that 12-inches of soil cover are still in place after soil removal is complete;
- Site restoration;
- Preparation of a summary report verifying that the corrective measures were completed.

Soil Removal

During construction activities, offsite materials were stockpiled on the Edgewood property. These materials must be removed from the site. All solid waste materials and any other miscellaneous debris that is not an acceptable fill material must be removed and disposed of off-site in a permitted treatment, storage or disposal (TSD) facility. Fill material that is in compliance with the NYSDEC DER-10

Technical Guidance for Site Investigation and Remediation imported fill criteria may be imported to the Former Roblin Steel Site.

During a site visit on September 19, 2014, large pieces of concrete, polyethylene pipe, geotextile fabrics and other items which may be classified as solid waste materials were observed within the stockpile. Subsequent to the visit, it was determined that while the Contractor was building the pile, all of the solid waste material was pushed to the north end of the pile to separate it from the acceptable fill. All solid waste materials and any other miscellaneous debris that is not an acceptable fill material will be removed and disposed of off-site in a permitted TSD facility. It is intended that the stockpile will be screened to separate the material.

This option would require analytical testing of the stockpiled materials in accordance with the NYSDEC DER-10 Technical Guidance for Site Investigation and Remediation. The estimated volume of soil stockpiled is 9,000 cy; therefore, according to Table 5.4(e)10 of DER-10, the collection and analysis of a minimum of 23 discreet VOC samples and 10 composite samples would be needed. It is assumed that additional testing will be required for endpoint sampling when contaminated materials are detected. It is assumed that some contaminated materials will be identified based on the sampling that has already been completed at the site. These contaminated materials will need to be excavated and disposed of off-site at a permitted TSD facility.

The selective removal and disposal of solid waste and contaminated materials will require photoionization detector (PID) screening of materials as excavation progresses. Suspected contaminated materials will be identified by elevated PID readings, visual indicators or olfactory indicators. Suspect materials will be placed on a minimum 10 mil waterproof tarp and covered with a minimum 10 mil waterproof tarp at the end of each day while awaiting laboratory results to determine if they must be taken off-site. An alternative will be the use of roll off containers.

The following table summarizes the confirmation sampling frequencies that will be used:

Soil excavation of less than 20 feet in perimeter	One bottom sample and one sidewall sample biased in the direction of surface runoff.
Soil excavation of 20 to 300 feet in perimeter	One sample from the top of each sidewall for every 30 linear feet of sidewall and one sample from the excavation bottom for every 900 square feet of bottom area.
Soil excavation of greater than 300 feet in perimeter	One sample from the top of each sidewall for every 30 linear feet of sidewall and one sample from the excavation bottom for every 900 square feet of bottom area.

<u>Example of How to Use Table:</u> The Contractor will identify an area on the stockpile that requires excavation. The area will be identified by visual indicators of solid waste or elevated PID readings. Once excavation begins, each bucketful will be monitored with the PID device. If an elevated reading is detected, the material will be segregated onto a separate tarp (pile #1) until testing in accordance with Table 5.4(e)10 of DER-10 confirms its use as acceptable fill material. Bucket-fulls taken from the same excavation that show no elevated PID readings must be placed on a separate tarp (pile #2) for testing. The excavation will be progressed until the sidewalls and bottom of the excavation return no readings on the PID. Once no PID readings are noted, the Table above will be used to determine how many end point samples are required in addition to the sampling of the segregated materials. Any materials not meeting the criteria for acceptable fill material must be removed from the site.

Water Collection and Treatment

A system to collect stormwater runoff from the stockpile will be implemented at the site in order to collect and treat any potentially contaminated runoff prior to discharge into any stormwater or sanitary sewer system. Collected stormwater will require analytical testing prior to discharge in order to verify that no contaminants are present.

The anticipated collection system will include methods to divert runoff to a sump. The sump must not allow collected water to infiltrate into the ground. The water collected in the sump will then be pumped to a holding tank where it will be analytically tested prior to discharge to an approved discharge point.

If determined that the collected stormwater is contaminated and it cannot be treated on-site, the contaminated water will be collected in new or reconditioned 55-gallon drums or roll-off containers labeled in accordance with federal and State Regulations. The drums or containers will be sealed water-tight to prevent infiltration and leaking of water and will be stored on-site in such a manner that the contents will not spill or leak. All water will be transported and disposed of in accordance with applicable laws.

Endpoint Sampling

Once the existing stockpile has been moved/screened, the soil beneath the stockpiled soils will be subjected to endpoint sampling in order to verify that the surface soil meets site remedial objectives and DER-10 imported fill criteria. Samples will be collected from a depth of 0 to 6 inches below vegetative cover, if any.

Verification Survey

Once the existing stockpile has been moved/screened, the site will be surveyed to confirm that the minimum 12-inches of soil cover are still in place. The survey work will include re-establishment or recovery of survey control points, collection of ground shots at a 50-foot grid spacing and preparation of surface mapping in order to compare the existing surface with the original surface.

In addition, ten randomly located hand borings will be completed at the site to verify the depth of cover. For this site, it is assumed that no more than 10 hand borings will be required and that these hand borings could be completed within one 8-hour work day.

Site Restoration

If after the completion of the verification survey, it is determined that additional cover material is required, clean fill material that is in compliance with the NYSDEC DER-10 imported fill criteria will be placed to reestablish the 12-inch cover material. A cover inspection will then be performed in accordance with SMP to verify the integrity of the cover system. In areas where no vegetation is present, grass seed and fertilizer will be placed.

CAWP Summary Report/PRR

A summary report documenting and verifying that the corrective measures were completed in accordance with the DEC-approved CAWP will be submitted as part of a revised Periodic Review Report (PRR) for the site. Figures detailing the site plan, contours, and profile of existing soil will be included.

The County will direct the Contractor to begin removing and disposing of the stockpiled materials as soon as this CAWP is approved by the NYSDEC. Weather permitting; the County anticipates that the work can be completed within 60 business days.

Should you have any questions or concerns regarding this submittal, please feel free to contact me at 716-849-8739 or eschiller@kheopsdpc.com at your earliest convenience.

Sincerely,
KHEOPS Architecture, Engineering & Survey, DPC

Edward M. Schiller, PE
Regional Manager
ES/mlb/jld

Table 5.4(e)10 from DER 10 Technical Guidance for Site Investigation and Remediation

Table 5.4(e)10 Recommended Number of Soil Samples for Soil Imported To or Exported From a Site			
Contaminant	**VOCs**	**SVOCs, Inorganics & PCBs/Pesticides**	
Soil Quantity (cubic yards)	**Discrete Samples**	**Composite**	**Discrete Samples/Composite**
0-50	**1**	**1**	**3-5 discrete samples from different locations in the fill being provided will comprose a composite sample for analysis**
50-100	**2**	**1**	
100-200	**3**	**1**	
200-300	**4**	**1**	
300-400	**4**	**2**	
400-500	**5**	**2**	
500-800	**6**	**2**	
800-1000	**7**	**2**	
> 1000	**Add an additional 2 VOC and 1 composite for each additional 1000 cubic yards or consult with DER**		

Note: Table 5.4(e)10 from the May 2010 Final DER-10 Technical Guidance for Site Investigation and Remediation

New York State Department of Environmental Conservation
Division of Environmental Remediation
270 Michigan Ave, Buffalo, New York 14203-2915
Phone: (716) 851-7220; **Fax:** (716) 851-7226
Website: www.dec.ny.gov

Joe Martens
Commissioner

March 16, 2015

Ms. Michelle Bodewes
Project Manager
KHEOPS
300 Pearl Street - Suite 100
Buffalo, New York 14202

Dear Ms. Bodewes:

Corrective Action Work Plan
Former Roblin Steel Site (Dunkirk), Dunkirk (C)
Chautauqua County, Site No.: B00173

The Department has reviewed your Corrective Action Work Plan (CAWP) (Dated: March 9, 2015) and has the following comments:

- End-point sampling of soil beneath the stockpiled soils is required to verify that the surface soil meets Site remedial objectives and DER-10 imported fill criteria.

- Section 2.4.2 of the Site Management Plan (*TVGA Consultants: November, 2010*) cites a demarcation layer and a before and after survey to verify that the required 12-inches of soil cover were emplaced. Reference to this survey should be made to compare if the CAWP reaches previous soil grade and to verify if remaining imported fill has been adequately assessed. Close scrutiny and analytical evaluation to compare original elevations and soil composition. Please provide more detail as to how this will be performed.

- It is required that a restoration plan be provided to ensure that surface cover meets Site remedial design specifications. Soil and vegetative cover specifications must be considered unless there is a proposed development which would require an additional Work Plan proposal.

- Tarps used to line and cover assumed contaminated material must be waterproof (I.E.: polyethylene sheeting) to preclude erosion and runoff.

- Contingencies for water collection and treatment must be considered if any contaminated materials are exposed to the elements. Appropriate water storage, analytical, and permitted treatment/disposal must be discussed.

- A summary report verifying that Corrective measures were completed must be submitted as part of a revised Periodic Review Report (PRR) for the Site. Figures detailing the Site plan, contours, and a profile of existing soil should be included as documentation of work performed.

Please provide revision to the CAWP by March 27, 2015 so that we may proceed with this work in a timely manner.

If you have any questions or comments, please contact me at (716) 851-7220 or e-mail: david.szymanski@dec.ny.gov.

Sincerely,

David Szymanski
Environmental Program Specialist 1

DS:sz

ec: Mr. Martin Doster - NYSDEC
Mr. George Spanos - Chautauqua County Dept. of Public Facilities
Ms. Jessica Gostomski - KHEOPS

LABELLA Associates, D.P.C. | Engineering Architecture Environmental Planning

APPENDIX 3

2016 Stockpile Characterization Report

CHAUTAUQUA COUNTY DEPARTMENT OF PUBLIC FACILITIES

Vincent W. Horrigan
County Executive

George P. Spanos
Director of Public Facilities

March 24, 2016

Mr. David Szymanski
NYSDEC
270 Michigan Avenue
Buffalo, NY 14203

Re: Stockpile Characterization and Management
Former Roblin Steel Site (Site #B00173-9), Dunkirk, NY

Dear Mr. Szymanski:

As you are aware, approximately 17,500 cubic yards of soil and fill generated during the construction of the Millennium Parkway was placed on portions of the former Roblin Steel Site (#B00173-9) and neighboring Edgewood Warehouse Site (#E907032) in 2014. Chautauqua County had intended to utilize this material during the future redevelopment of the County-owned brownfield sites located along the Millennium Parkway, which include the aforementioned sites and the former Alumax Site (#V00589). Fill material will ultimately be needed on these sites to bring them up to grade for redevelopment, and the use of the stockpiled material for this purpose is both economically and environmentally beneficial given that it will:

- Reduce the volume of fill material that needs to be imported to these sites;
- Reuse suitable material generated during the previous highway project; and
- Minimize the volume of material that must be landfilled.

The presence of this uncharacterized material, however, was determined to conflict with the requirements of the Site Management Plan (SMP) for the former Roblin Steel Site and a Corrective Action Work Plan (CAWP) was prepared and approved by the New York State Department of Environmental Conservation (NYSDEC) to bring the site into compliance with the SMP. Pursuant to the CAWP and subsequent correspondence with the NYSDEC, the material within the stockpile was characterized in accordance with NYSDEC Division of Environmental Remediation Technical Guidance for Site Investigation and Remediation (DER-10).

The results of the characterization are presented in the attached letter report from LaBella Associates dated January 29, 2016, which indicates that concrete, brick, asphalt and railroad ties are interspersed with soil throughout the stockpile. In addition, the letter report indicates that several Semi-Volatile Organic Compounds (SVOCs) and metals were detected in the soil/fill material samples from throughout the stockpile at concentrations that exceed the Allowable Constituent Levels for Imported Fill or Soil as listed in Table A-1 of the Excavation Work Plan for the former Roblin Steel Site. However, with the exception of SVOCs detected in one location where asphalt-containing fill was present, parameter concentrations only slightly exceed the Allowable Constituent Levels and are generally below Part 375 Commercial Use Soil Cleanup Objectives.

The report concluded that, based on the urban nature of the site and surrounding area and in consideration of the institutional controls currently in place to restrict future use of the site to commercial or industrial purposes, the stockpiled material appears to be suitable for re-use during the redevelopment of the brownfield sites if placed under the prescribed cover system at the time of redevelopment. Therefore, Chautauqua County proposes to perform the following corrective measures relative to the stockpiled material:

1. Utilize a mobile screening plant to segregate and remove Construction & Demolition (C&D) debris from the soil present within the stockpile. The material will be screened to a 2-inch minus size.
2. C&D debris removed from the stockpile will be transported off-site for recycling or disposal at appropriately permitted facilities.
3. Screened soil will be temporarily relocated to the concrete slab on the Alumax site and placed in an interim stockpile that will be stabilized and seeded.
4. Erosion controls will be placed around the perimeter of the interim stockpile.
5. A change of use form addressing the interim stockpile will be submitted for the Alumax Site.
6. The area within the former stockpile footprint on the Roblin Steel Site will be surveyed to confirm the required cover system thickness. Areas that do not satisfy the required thickness will be supplemented with clean soil and turf will be re-established throughout the entire footprint area.
7. The interim stockpile will be periodically inspected in accordance with the Combined Institutional Control Plan and Operations and Maintenance Plan (CICP/OMP) for the Alumax site.

The interim stockpile will remain on the Alumax Site until redevelopment of these brownfield sites occurs, at which time the material will be utilized as fill material under the cover system associated with the new development. The cover systems that will be constructed above the material from the stockpile during the redevelopment of each site will be in accordance with their respective SMPs or, in the case of the former Alumax Site, the CICP/OMP.

Chautauqua County is prepared to implement the corrective measures outlined above within 60-days of receiving NYSDEC approval.

Please do not hesitate to contact me (716-661-8410; rodgersd@co.chautauqua.ny.us) should you have any questions concerning the plan outlined herein.

Sincerely,

Drew E. Rodgers, PE
Engineer III

Cc: George Spanos, PE – Director CCDPF
Rob Naperalski, C.P.G – Labella Associates
Kenneth Strell – Kheops Architecture, Engineering, and Survey, DPC

LABELLA Associates, D.P.C.
Engineering Architecture Environmental Planning
Olympic Towers, 300 Pearl Street, Suite 130 | Buffalo, NY 14202 | p 716.551.6281 | f 716.551.6282 | www.labellapc.com

January 29, 2016

Mr. George Spanos
Chautauqua County Department of Public Facilities
545 N. Works Street
Falconer, New York 14733

Re: Former Roblin Steel Site (NYSDEC Site No. B00173-9) - Stockpile Characterization
320 South Roberts Road, Dunkirk, New York
LaBella Project # 2160146

Dear Mr. Spanos:

LaBella Associates, D.P.C. ("LaBella") provided environmental field support services in connection with the implementation of corrective measures relative to the stockpile of off-site material placed on the former Roblin Steel Site "Site" during construction of the Millennium Parkway in Dunkirk, New York. The following sections summarize the field and laboratory characterization activities; present and discuss the corresponding results; and provide recommendations regarding the management of the stockpiled material.

Introduction

Approximately 17,500 cubic yards of soil and fill generated during the construction of the Millennium Parkway was placed on portions of the former Roblin Steel Site and neighboring Edgewood Warehouse Site (NYSDEC Site Code E907032) in 2014. During the 2014 Annual Periodic Review of the Site, the presence of this material was determined to conflict with the requirements of the Site Management Plan (SMP). A Corrective Action Work Plan (CAWP) was subsequently prepared and approved by the New York State Department of Environmental Conservation (NYSDEC) to bring the site into compliance with the SMP. In accordance with the CAWP, the stockpile was required to be characterized to determine management options. The characterization included the visual examination, field screening for total organic vapors (TOVs), and chemical analysis of the stockpiled material in accordance with NYSDEC Division of Environmental Remediation Technical Guidance for Site Investigation and Remediation (DER-10).

Field Investigation

On December 16 and 17, 2015 LaBella mobilized to the Site to characterize and screen the stockpile material, and to collect soil/fill material samples for laboratory analysis. Utilizing a track mounted excavator, operated by D&H Excavating, sixteen test pits were excavated across the stockpile, designated as TP1 through TP16. Test pits were excavated through the total depth of the stockpile to terminal depths of three feet (ft) to fourteen ft from the top of the stockpile. Test pit locations are depicted on Figure 1.

The soil/fill material observed throughout the stockpile generally consisted of a silty clay soil with varying amounts of concrete, brick, asphalt, sand, and railroad ties interspersed throughout. Screening

of the soil/fill material with a photoionization detector (PID) during the excavation of the test pits revealed TOV levels that slightly exceeded background levels [0.0 parts per million (ppm)] in only one test pit, TP4 at a depth of 0 ft- 4 ft, with the highest reading of 0.4 ppm. No grossly contaminated material or strong odors were observed during the excavation of the test pits. A slight petroleum odor was observed within the top two feet of TP-4. Black fill material that is likely representative of asphalt, was observed in five test pits, TP4, TP9, TP10, TP11, and TP12. Test pit logs containing the field observations and TOV measurements are provided in Attachment 1.

Pursuant to DER-10 requirements for sample frequency relative to material volume, a total of 41 grab samples and 19 composite samples were collected from the test pits. The grab samples were submitted for laboratory analysis for Target Compound List (TCL) volatile organic compounds (VOCs) via United States Environmental Protection Agency (USEPA) Test Method 8260 and the composite samples were submitted for analysis of TCL semi-volatile organic compounds (SVOCs) via USEPA Test Method 8270, polychlorinated biphenyls (PCBs) via USEPA Test Method 8082, pesticides via USEPA Test Method 8081, and Target Analyte List (TAL) metals via USEPA Test Method 6010C and 7471B. The samples were collected from each test pit at multiple horizons. Samples were submitted to ALS Environmental in Rochester, New York, under proper chain-of-custody procedures for laboratory analysis.

Laboratory Results

The laboratory analytical results for the grab samples are summarized in Table 1 and the results for the composite samples are summarized in Table 2. The laboratory reports and chain of custody records are included in Attachment 2. The laboratory results are discussed below:

Volatile Organic Compounds

With the exception of acetone in two samples [TP3 (1'-3') and TP11 (8'-10')], no VOCs were detected in the grab samples at concentrations exceeding the Allowable Constituent Levels for Imported Fill or Soil as listed in Table A-1 of the Excavation Work Plan for the Former Roblin Steel Site. The detected concentrations of acetone in these samples were only slightly above the Allowable Constituent Level and are well below the Part 375 Commercial Use Soil Cleanup Objective (SCO). Acetone is a common laboratory contaminant and these detections are not considered to represent concerns relative to the reuse of the stockpiled material.

Semi-Volatile Organic Compounds

One or more SVOCs were detected at concentration exceeding the Allowable Constituent Levels in fourteen of the nineteen samples analyzed. Parameters exceeding the Allowable Constituent Levels were limited to polycyclic aromatic hydrocarbons (PAHs), including benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(k)fluoranthene, chrysene, dibenz(a,h)anthracene, and indeno(1,2,3-cd)pyrene. With the exception of the SVOC levels detected in TP3 (0'-5'), the SVOC concentrations only slightly exceed the Allowable Constituent Levels.

Metals

Metals parameters exceeding the Allowable Constituent Levels were limited to arsenic in TP2, chromium in TP5 (0'-3'), arsenic in TP15, and arsenic, chromium, and manganese in TP16. With the exception of arsenic in TP2, TP15, and TP16, the detected metal concentrations were below the Part 375 Commercial Use SCOs.

Pesticides and PCBs

No PCBs or pesticides were detected above the Allowable Constituent Levels in any of the test pits.

Conclusions

Visual characterization of the stockpile material has indicated that concrete, brick, asphalt, and railroad ties are interspersed with soil throughout the stockpile. As indicated in the CAWP, all materials classified as solid waste should be removed from the stockpile prior to re-use. Additionally, the NYSDEC has previously indicated that all material that encroaches on the neighboring Edgewood Warehouse Site, which includes the northwest portion of the stockpile, is required to be removed. Furthemore, in order for the Site to be in compliance with the SMP, a 50 ft buffer must be established between the Roblin Site boundary and any stockpiled material as specified in the Master Erosion Control Plan, Attachment A-1 of the Excavation Work Plan for the Former Roblin Steel Site.

Several SVOCs and metals were detected in soil/fill material samples from throughout the stockpile at concentrations exceeding the Allowable Constituent Levels for Imported Fill or Soil as listed in Table A-1 of the Excavation Work Plan for the Former Roblin Steel Site. However, with the exception of SVOCs detected in one test pit (TP3), parameter concentrations only slightly exceed the Allowable Constituent Levels and the metals concentrations are generally below Part 375 Commercial Use SCOs. The SVOCs detected at concentrations exceeding the Allowable Constituent Levels were limited to PAHs. PAHs form from the incomplete combustion of fossil fuels, are also found in asphalt and are commonly detected in soils in urban environments. Based on the urban nature of the Site and the surrounding area, and in consideration of the institutional controls currently in place to restrict future use of the Site to commercial or industrial uses, the stockpiled material appears to be suitable for re-use during the redevelopment of the Site if placed under the prescribed cover system at the time of redevelopment.

Based on the characteristics of the stockpiled material, it does not appear that the temporary stockpiling of the material on the Roblin Site will adversely affect the underlying cover system or the Site if properly covered and monitored. Therefore, the following approach appears suitable for the interim management of this material until the time it is utilized as fill material during redevelopment of the site:

1. Segregate, remove and properly dispose of solid waste that is present within the stockpile;
2. Relocate the stockpile entirely onto the Roblin Site and maintain the prescribed 50 ft setback from the Site boundary; and
3. Cover the stockpile and implement appropriate erosion control, stormwater pollution prevention measures and periodic inspection procedures in accordance with the SMP.

Under this scenario, solid waste would be removed from the stockpile and the remaining soil material would be stockpiled on the Roblin Site until redevelopment of the site occurs, at which time it would be utilized as fill under the cover system associated with the new development. It is also recommended that a survey of the existing soil cover system be performed within the footprint of the stockpile once the stockpile is removed to confirm the required cover thickness, and that reestablishment of the vegetative cover occur within this area.

These recommendations are subject to NYSDEC review within the context of the CAWP, and LaBella advises that no action should be taken relative to the stockpile until NYSDEC concurrence with this approach is obtained.

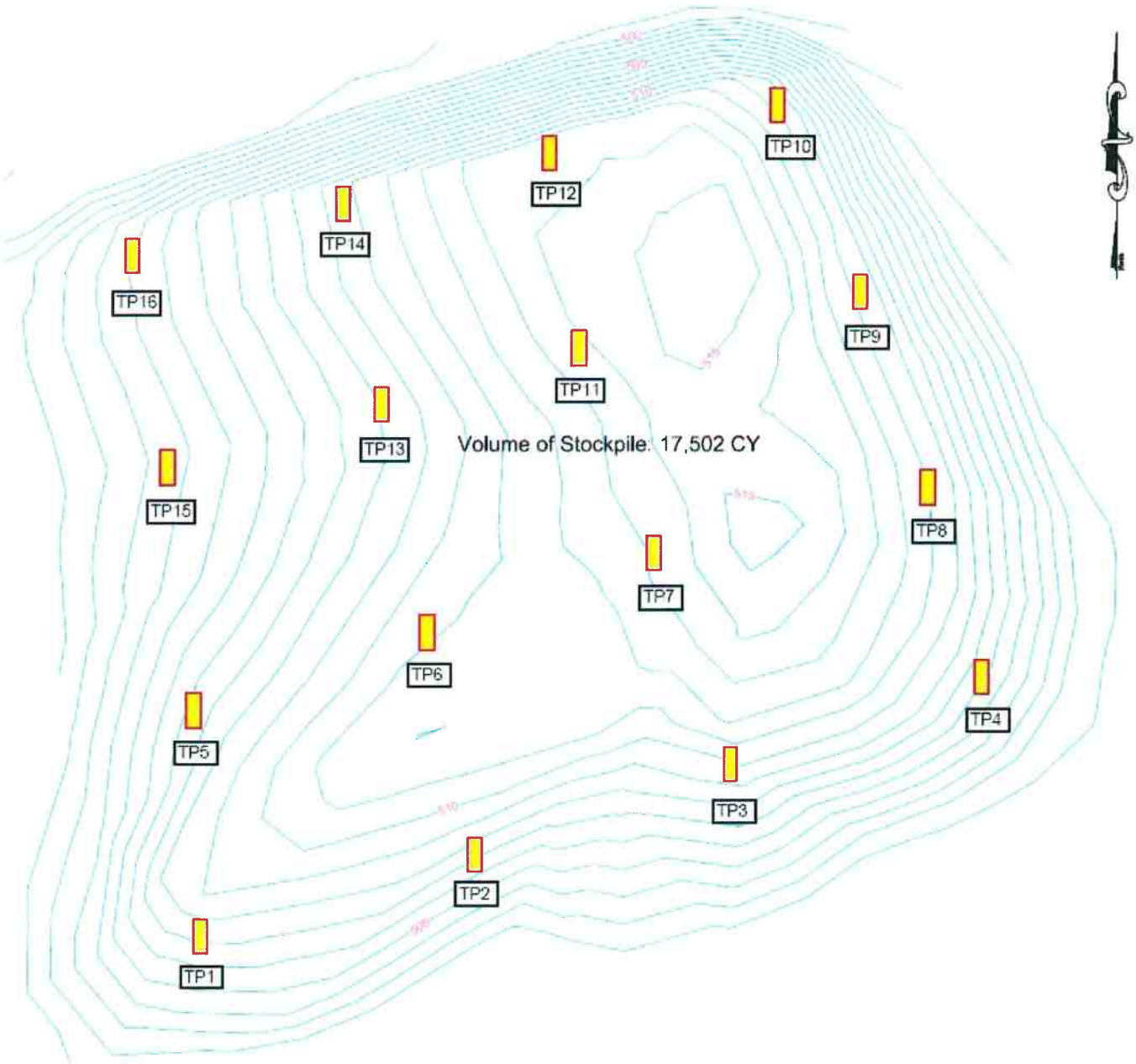
Respectfully submitted,

LABELLA ASSOCIATES, D.P.C.

Rob Napieralski, CPG
Regional Manager

Andrew Benkleman
Environmental Engineer

FIGURE



Stockpile volume survey performed by D&H Excavating, November 3, 2015

N

Not To Scale

FIGURE 1
Test Pit Location Map

Stockpile Characterization
Former Roblin Steel Site
Dunkirk, New York 14048

LABELLA

PROJECT NO.

2160146

TABLE

Table 1
Analytical Results for Grab Soil/Fill Material Samples

Former Roblin Steel Stockpile Characterization

		TP1 (2'-4')	TP1 (5'-7')	FD #1	FD #2	TP2 (2'-4')	TP2 (5'-7')	TP3 (1'-3')	TP3 (5'-7')	TP3 (8'-10')	TP4 (0'-2')	TP4 (3'-5')	TP4 (6'-8')	TP5 (1'-3')	TP5 (4'-6')	TP6 (1'-3')	TP6 (5'-7')	TP6 (9'-11')	TP7 (2'-4')	TP7 (6'-8')	TP7 (10'-12')	TP8 (1'-3')	TP8 (5'-7')	Allowable Constituent Levels	Part 375 Commercial SCO
Volatile Organic Compounds																									
2-Butanone (MEK)	ug/Kg	3.5	7.7	11	8.5		2.0 J		1.8 J	1.4 J			2.4 J		3.0	2.3 J	4.0 J	6.5			4.0			120	500,000
Acetone	ug/Kg	13	26	41	28		8.4		7.4	6.2		4.6	11		12	9.6	19	24		3.3	15	2.0 J		50	500,000
Trichloroethene (TCE)	ug/Kg																	0.95 J						470	200,000
Chloromethane	ug/Kg																							NL	NL
Methyl Acetate	ug/Kg						2.0 J																	NL	NL
Benzene	ug/Kg																							60	44,000
Carbon Disulfide	ug/Kg																							NL	NL
Ethylbenzene	ug/Kg																							1,000	390,000
Methylcyclohexane	ug/Kg					1.1 J																		NL	NL
o-Xylene	ug/Kg																							1,600	500,000
Isopropylbenzene (Cumene)	ug/Kg																							NL	NL
1,1,1 Trichloroethane (TCA)	ug/Kg																							680	500,000
Total Solids	%	89.2	87.3	89.1	89.9	85.4	89.5	92.4	90	91.9	89	83.5	89.2	90.9	87.2	85.4	90.2	87.6	81.9	88.6	87.6	89.2	87.4	NL	NL

		TP8 (9'-11')	TP9 (1'-3')	TP9 (5'-11') #1	TP9 (5'-11') #2	TP13 (1'-3')	TP13 (5'-7')	TP10 (1'-3')	TP10 (5'-7')	TP10 (9'-11')	TP11 (3'-5')	TP11 (8'-10')	TP11 (12'-14')	TP14 (3'-5')	TP14 (7'-9')	TP12 (1'-3')	TP12 (5'-7')	TP12 (9'-11')	TP15 (0'-1.5')	TP15 (1.5'-3')	TP16 (0'-1.5')	TP16 (1.5'-3')		Allowable Constituent Levels	Part 375 Commercial SCO
Volatile Organic Compounds																									
2-Butanone (MEK)	ug/Kg			3.1		10	7.6					32	5.2	7.8		2.2 J	10	2.2 J			2.1 J			120	500,000
Acetone	ug/Kg		4.9	15		54	33					100	22	14	3.6	10	39	7.4	8.7	4.4	9.8			50	500,000
Trichloroethene (TCE)	ug/Kg																							470	200,000
Chloromethane	ug/Kg					0.60 J																		NL	NL
Methyl Acetate	ug/Kg					6.6				1.1 J									2.7 J					NL	NL
Benzene	ug/Kg						0.23 J						0.24 J	0.16 J			0.28 J							60	44,000
Carbon Disulfide	ug/Kg											1.1 J									0.92 J			NL	NL
Ethylbenzene	ug/Kg						0.19 J										0.34 J							1,000	390,000
Methylcyclohexane	ug/Kg													0.62 J			2.3 J							NL	NL
o-Xylene	ug/Kg						0.79 J							0.54 J			0.24 J							1,600	500,000
Isopropylbenzene (Cumene)	ug/Kg																0.66 J							NL	NL
1,1,1-Trichloroethane (TCA)	ug/Kg																				19			680	500,000
Total Solids	%	84.3	89.1	86.5	88.4	89.9	88.5	86.8	90.8	90.1	86.9	82.9	86.5	90.6	90.3	86.3	88.9	87.3	83.9	84.7	88.8	86.1		NL	NL

Allowable Constituent Levels are from Table 4-1: Allowable Constituent Levels for Imported Fill or Soil, of the Excavation Work Plan included in the Site Management Plan for the former Roblin Steel Site

NYSDEC Part 375 Commercial Use Soil Cleanup Objectives, Table 375-6.8(b) (December 2006)

Parameters exceeding the Allowable Constituent Levels are indicated with shaded cells

Only detected parameters are included

J = Estimate value due the concentration between the MDL and the MDL.

Table 2
Analytical Results for Composite Soil/Fill Material Samples

Former Roblin Steel Stockpile Characterization

		TP1 Composite	FD #2	TP2 Composite	TP3 Composite-0'-5'	TP3 Composite 5'-10'	TP4 Composite (0'-4')	TP4 Composite (4'-8')	TP5 Composite (0'-3')	TP5 Composite (3'-6')	TP6 Composite	TP7 Composite	TP8 Composite	TP9 Composite	TP13 Composite	TP10 Composite	TP11 Composite	TP14 Composite	TP12 Composite	TP15 Composite	TP16 Composite	Allowable Constituent Levels	Part 375 Commercial SCO
Semi-Volatile Organic Compounds																							
2-Methylnaphthalene	ug/Kg	140 J	130 J	360 J			77 J		230 J		180 J	64 J			230 J	180 J	120 J	85 J	640	340 J	210 J	NL	NL
3- and 4-Methylphenol Coelution	ug/Kg																		200 J			330	NL
Acenaphthene	ug/Kg	82 J	76 J	230 J			54 J		110 J		59 J			450 J		72 J	130 J		130 J		190 J	98,000	500,000
Acenaphthylene	ug/Kg	550	540	970	4,500	510	1,400	440	350 J	150 J	290 J	110 J	220 J		790	200 J	130 J	170 J	320 J	100 J	140 J	107,000	500,000
Anthracene	ug/Kg	610	580	1,400	7,500	530	930	320 J	830	340 J	620	99 J	88 J	1,700	1,400	320 J	570	270 J	680	110 J	670	500,000	500,000
Benz(a)anthracene	ug/Kg	1,200	1,100	2,100	14,000	990	2,400	950	1,600	650 J	1,700	310 J	290 J	5,500	4,000	930	1,200	770	2,100	400	1,400	1,000	5,600
Benzo(a)pyrene	ug/Kg	1,800	1,600	2,300	17,000	1,300	4,000	1,400	1,800	760	1,800	430	710	5,600	4,300	1,100	1,000	850	2,500	380 J	1,300	1,000	1,000
Benzo(b)fluoranthene	ug/Kg	2,400	2,200	3,200	21,000	1,600	5,000	1,900	2,600	1,000	2,300	530	890	6,500	6,100	1,400	1,400	1,100	3,600	620	1,900	1,700	5,600
Benzo(g,h,i)perylene	ug/Kg	990	900	1,500	10,000	870	2,200	880	1,100	550 J	1,200	350 J	570	3,800	2,700	870	590	600	1,400	200 J	620	500,000	500,000
Benzo(k)fluoranthene	ug/Kg	830	780	1,100	7,000	590	1,700	650	890	280 J	790	190 J	290 J	2,200	2,200	500	450	430	1,200	240 J	690	1,700	56,000
Biphenyl	ug/Kg																		110 J			NL	NL
Bis(2-ethylhexyl) Phthalate	ug/Kg	200 BJ	220 BJ	270 BJ		290 BJ	210 BJ	370 BJ	290 BJ		220 BJ	180 BJ	170 BJ		230 BJ	220 BJ	340 BJ	150 BJ	180 B	94 BJ	320 BJ	NL	NL
Carbazole	ug/Kg	92 J	100 J	220 J	630 J	110 J	68 J	77 J	390 J		130 J				320 J	130 J	210 J	99 J	290 J		300 J	NL	NL
Chrysene	ug/Kg	1,400	1,200	2,200	14,000	1,000	2,600	1,000	1,800	700 J	1,700	360 J	300 J	5,700	4,000	1,000	1,300	780	2,500	420	1,500	1,000	56,000
Di-n-butyl Phthalate	ug/Kg	170 J		130 J		240 J	170 J	330 J	110 J		130 J	93 J	170 J			210 J	330 J	140 J	200 J		150 J	NL	NL
Dibenz(a,h)anthracene	ug/Kg	270 J	230 J	350 J	2,700 J	240 J	610	210 J	290 J	130 J	300 J	95 J	130 J	1,000 J	720 J	210 J	170 J	140 J	340 J	73 J	200 J	560	560
Dibenzofuran	ug/Kg	190 J	240 J	870	1,000 J	300 J	100 J		270 J		220 J				440 J	120 J	190 J	110 J	190 J	100 J	260 J	NL	NL
Diethyl Phthalate	ug/Kg						79 J	81 J	120 J							100 J	83 J		91 J		83 J	NL	NL
Fluoranthene	ug/Kg	2,700	2,500	5,300	28,000	2,000	3,100	1,800	4,200	1,000	4,000	540	310 J	9,200	9,000	2,300	3,700	1,700	5,100	620	3,400	500,000	500,000
Fluorene	ug/Kg	250 J	330 J	1,200	1,900 J	450	120 J		510		290 J			510 J	840	210 J	380 J	170 J	240 J		400	386,000	500,000
Indeno(1,2,3-cd)pyrene	ug/Kg	1,000	910	1,400	11,000	930	2,500	900	1,200	520 J	1,300	340 J	570	3,800	3,300	860	630	570	1,500	250 J	710	5,600	5,600
Naphthalene	ug/Kg	180 J	240 J	530	1,300 J	100 J	180 J		330 J	120 J	540				800	260 J	130 J	180 J	400	210 J	350 J	12,000	500,000
Phenanthrene	ug/Kg	1,500	1,500	4,700	11,000	1,500	650	720	3,300	500 J	1,900	330 J	130 J	7,100	5,300	1,400	3,700	1,100	3,000	480	2,900	500,000	500,000
Pyrene	ug/Kg	2,300	2,100	4,400	24,000	1,600	3,200	1,600	3,400	1,100	3,500	490	290 J	11,000	7,300	2,100	2,900	1,500	4,300	600	2,900	500,000	500,000
Metals																							
Aluminum, Total	mg/Kg	7,010	7,540	8,330	8,700	12,200	8,650	7,440	10,800	9,770	8,190	8,420	8,050	8,110	11,100	6,940	9,180	8,800	7,900	5,990	25,300	NL	NL
Arsenic, Total	mg/Kg	10	11.5	29	11.3	7.9	9.8	8.1	11.3	13.9	12.2	14.2	10.1	11.1	9.5	9.1	11	9.5	10.6	43.1	17.7	16	16
Barium, Total	mg/Kg	68.9	62.8	94.6	91.3	109	80.7	53.1	105	83.3	101	77.5	78.7	97.2	70.6	57.5	97.6	62.8	87.7	70.7	321	400	400
Beryllium, Total	mg/Kg	0.42	0.49	0.61	0.52	1.45	0.44	0.4	1.07	0.65	0.55	0.49	0.41	0.57	0.85	0.44	0.48	0.49	0.67	1.29	3.45	47	590
Calcium, Total	mg/Kg	8,730	22,000	9,610	8,170	46,000	3,560	5,840	28,400	2,950	7,200	15,400	24,300	18,200	19,100	7,200	3,590	15,000	15,400	3,670	121,000	NL	NL
Cadmium, Total	mg/Kg			0.20 J	0.12 J	0.09 J			0.15 J	0.20 J	0.49 BJ	0.38 BJ	0.40 BJ	0.40 BJ	0.27 BJ	0.41 BJ	0.41 BJ	0.40 BJ	0.50 BJ	0.85	0.62 B	7.5	9.3
Cobalt, Total	mg/Kg	8.0	7.8	7.9	8.8	5.9	7.8	7.0	6.7	13	7.4	7.4	7.0	8.1	4.8 J	5.4 J	6.8	5.5 J	5.9	14.5	2.7 J	NL	NL
Chromium, Total	mg/Kg	14.2	12.7	17.1	18.9	11.0	16.9	12.4	32.8	15.2	14.3	14.0	11.8	13.2	11.9	10.1	13.2	10.9	14.0	10.8	34.3	19	400
Copper, Total	mg/Kg	64.8	63.7	64.4	44.8	49.1	46.9	87.3	98	40.9	109	54.5	37.5	72.7	48.8	52.8	38.7	52.8	85	125	60.5	270	270
Iron, Total	mg/Kg	21,400	22,900	24,600	26,200	18,900	24,100	23,300	23,300	28,300	27,900	26,900	21,800	27,100	19,300	21,300	20,700	20,300	23,000	45,600	17,800	NL	NL
Potassium, Total	mg/Kg	780	830	1,060	1,010	980	910	760	1,110	1,070	1,160	1,020	910	940	710	700	820	720	820	590	1,500	NL	NL
Magnesium, Total	mg/Kg	3,390	2,750	3,630	3,870	8,810	3,010	3,140	5,260	2,960	2,950	3,620	3,400	3,400	3,150	2,360	1,920	4,210	2,990	1,200	17,100	NL	NL
Manganese, Total	mg/Kg	351	342	478	721	1,350	775	368	1,160	312	382	306	402	526	1,120	364	270	410	399	539	1,740	2,000	10,000
Sodium, Total	mg/Kg	680	600	740	520	870	630	530	700	180	790	510	820	860	1,000	660	390	780	890	250 B	840	NL	NL
Nickel, Total	mg/Kg	19.8	15.9	24.1	23.9	15.6	20.4	18.9	20.7	30.3	23.0	20.7	18.1	20.7	13.4	15.8	15.6	16.4	18.2	38.8	24.7	130	310
Lead, Total	mg/Kg	66.0	83.1	112	33.0	41.8	27.6	64.6	112	34.6	58.9	58.9	39.8	60.8	37.2	47.9	82.1	58.6	113	140	92.4	450	1,000
Antimony, Total	mg/Kg	0.9 J	1.0 J	0.7 J		0.7 J		2.8 J	2.1 J		2.3 J	1.1 J	1.1 J	1.4 J	1.0 J	1.1 J	1.2 J	1.3 J	1.9 J	2.8 J	1.5 J	NL	NL
Selenium, Total	mg/Kg	0.8 J		0.9 J		1.5	1.4		1.7	1.6		0.7 J		0.8 J	0.8 J					2.3	4.0	4.0	1,500
Vanadium, Total	mg/Kg	14.1	15.3	15.2	15.7	11.5	19.5	12.9	16.6	15.3	15.7	15.3	14.3	14.9	16.3	11.9	18.7	15.4	15.7	11.8	10.5	NL	NL
Zinc, Total	mg/Kg	106	95.3	117	124	75.5	81.9	88.7	114	129	138	93.9	70.9	89.6	63.2	72.3	81.7	82	115	159	233	2,480	10,000
Mercury, Total	mg/Kg	0.111	0.106	0.084	0.043	0.059	0.047	0.096	0.129	0.045	0.048	0.08	0.071	0.088	0.06	0.051	0.164	0.112	0.134	0.116	0.141	0.73	2.8
PCBs																							
Aroclor 1248	ug/Kg																				83	1,000	1,000
Aroclor 1254	ug/Kg			77																	93	1,000	1,000
Aroclor 1260	ug/Kg																				22 JP	1000	1,000
Pesticides																							
Endosulfan Sulfate	ug/Kg				21	7.3 J																200,000	200,000
Endrin Ketone	ug/Kg													21								NL	NL
Total Solids	%	83.9	89.9	89.9	89.6	90.9	88.5	90	85.2	88	83.6	87.8	87.1	89.3	85.6	93	84.2	93	83.5	87.1	89	NL	NL

Allowable Constituent Levels are from Table A-1: Allowable Constituent Levels for Imported Fill or Soil, of the Excavation Work Plan included in the Site Management Plan for the former Roblin Steel Site

NYSDEC Part 375 Commercial Use Soil Cleanup Objectives, Table 375-6.8(b) (December 2006)

Parameters exceeding the Allowable Constituent Levels are indicated with shaded cells

Parameters exceeding the Part 375 Commercial Use Soil Cleanup Objectives are indicated with Bold text

Only detected parameters are included

J = Estimate value due the concentration between the MDL and the MDL.

B = Analyte was also detected in the associated method blank at a concentration that may have contributed to the sample result

LABELLA Associates, D.P.C. | Engineering Architecture Environmental Planning

ATTACHMENT 1

Field Logs

LABELLA Associates, P.C.

300 PEARL STREET, BUFFALO, NY
ENVIRONMENTAL ENGINEERING CONSULTANTS

Former Roblin Steel Stockpile Characterization Test Pits
320 South Roberts Road, Dunkirk, NY

TEST PIT: TP - 1
SHEET 1 OF 1
JOB: 2160148
CHKD BY: CK

CONTRACTOR: D&H Excavting
OPERATOR:
LABELLA REPRESENTATIVE: Chris Kibler

TEST PIT LOCATION:
GROUND SURFACE ELEVATION NA
START DATE: 12-16-15

DATUM: NA
10.00 am

TYPE OF EQUIPMENT:

DEPTH (FEET)	SAMPLE NO AND DEPTH	STRATA CHANGE (FEET)	VISUAL CLASSIFICATION	PID FIELD SCREEN (PPM)	REMARKS
0			Fill (silty consistency) C&D Debris - brick, concrete, asphalt,	0	0
2			"	0	2
4			"	0	4
6			"	0	6
8					8
10					10
12					12
14					14
16			TP1 to 7'		16

7'

WATER LEVEL DATA			DEPTH (FT)			NOTES:
DATE	TIME	ELAPSED TIME	BOTTOM OF CASING	BOTTOM OF TEST PIT	GROUNDWATER ENCOUNTERED	ND = Non Detect
NA	NA	NA	NA			BGS = Below the Ground Surface
						NA = Not Applicable

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

TEST PIT: TP - 1

samples
10:15 am

TP1 2-4' - FD #1 (1 VOC Kit)
TP1 5-7' - FD #2 (1 VOC Kit, 1 comp 8oz jar) composite
TP1 comp. - Client is KHEOPS! (note on COC samples)

LABELLA Associates, PC.
300 PEARL STREET, BUFFALO, NY
ENVIRONMENTAL ENGINEERING CONSULTANTS

Former Roblin Steel Stockpile
Characterization Test Pits
320 South Roberts Road, Dunkirk, NY

TEST PIT: TP - 2
SHEET 1 OF 1
JOB: 2160148
CHKD BY: CK

CONTRACTOR: D&H Excavting
OPERATOR:
LABELLA REPRESENTATIVE: Chris Kibler

TEST PIT LOCATION:
GROUND SURFACE ELEVATION NA
START DATE: 12-16-15

DATUM NA
10:45am

TYPE OF EQUIPMENT:

DEPTH (FEET)	SAMPLE NO. AND DEPTH	STRATA CHANGE (FEET)	VISUAL CLASSIFICATION	PID FIELD SCREEN (PPM)	REMARKS
0			Fill (silty, clayey, sandy) (brick, asphalt, concrete - C&D debris)	0	0
2			"	0	2
4			"	0	4
6			"	0	6
8					8
10					10
12					12
14					14
16			- Test pit to 8'		16

WATER LEVEL DATA			DEPTH (FT)			NOTES
DATE	TIME	ELAPSED TIME	BOTTOM OF CASING	BOTTOM OF TEST PIT	GROUNDWATER ENCOUNTERED	ND = Non Detect BGS = Below the Ground Surface
NA	NA	NA	NA			NA = Not Applicable

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

TEST PIT: TP - 2

Sample @ 11:00
TP2 - 2'-4'
TP2 - 5'-7' ——— MS/MSD (Duc kits, 1 comp. 80z bottle)
- Client is KHEOPS! (note on COC samples)

LABELLA Associates, PC.
300 PEARL STREET, BUFFALO, NY
ENVIRONMENTAL ENGINEERING CONSULTANTS

Former Roblin Steel Stockpile Characterization Test Pits
320 South Roberts Road, Dunkirk, NY

TEST PIT: TP - 3
SHEET 1 OF 1
JOB: 2160148
CHKD BY: CK

CONTRACTOR: D&H Excavting
OPERATOR:
LABELLA REPRESENTATIVE: Chris Kibler

TEST PIT LOCATION:
GROUND SURFACE ELEVATION NA
START DATE: 12-16-15

DATUM NA

TYPE OF EQUIPMENT:

DEPTH (FEET)	SAMPLE NO. AND DEPTH	STRATA CHANGE (FEET)	VISUAL CLASSIFICATION	PID FIELD SCREEN (PPM)	REMARKS
0			(Silty, clayey consistency) - rr ties, foundry-type sand, Fill - C&D debris - asphalt, brick, concrete	0	0
2			"	0	2
4			"	0	4
6			"	0	6
8			"	0	8
10					10
12					12
14					14
16			- Test pit to 10'		16

WATER LEVEL DATA			DEPTH (FT)			NOTES:
DATE	TIME	ELAPSED TIME	BOTTOM OF CASING	BOTTOM OF TEST PIT	GROUNDWATER ENCOUNTERED	ND = Non Detect
NA	NA	NA	NA			BGS = Below the Ground Surface
						NA = Not Applicable

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

TEST PIT: TP - 3

Sample @ 12:20pm - 3 (kits) - 2 (comp's)

TP3 - 1-3
TP3 - 5-7
TP3 - 8-10

TP3 Comp - 0'-5'
TP3 Comp - 5'-10'

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ENVIRONMENTAL ENGINEERING CONSULTANTS

Former Roblin Steel Stockpile Characterization Test Pits
320 South Roberts Road, Dunkirk, NY

TEST PIT: TP - 4
SHEET 1 OF 1
JOB: 2160148
CHKD BY: CK

CONTRACTOR: D&H Excavting
OPERATOR:
LABELLA REPRESENTATIVE: Chris Kibler

TEST PIT LOCATION:
GROUND SURFACE ELEVATION NA
START DATE 12-16-15

DATUM NA

TYPE OF EQUIPMENT: 1300

DEPTH (FEET)	SAMPLE NO AND DEPTH	STRATA CHANGE (FEET)	VISUAL CLASSIFICATION	PID FIELD SCREEN (PPM)	REMARKS
0			Fill - asphalt, brick, concrete (clayey, silty consistency)	0.4	- slight petroleum odor - heavy amount of asphalt in first 4 feet
2			"	0.1	
4			"	0	
6			"	0	
8					- black staining 0-2' & 6-8'
10					
12					
14					
16			- Test pit to 8'		

WATER LEVEL DATA			DEPTH (FT)			NOTES
DATE	TIME	ELAPSED TIME	BOTTOM OF CASING	BOTTOM OF TEST PIT	GROUNDWATER ENCOUNTERED	ND = Non Detect BGS = Below the Ground Surface
NA	NA	NA	NA			NA = Not Applicable

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

TEST PIT: TP 4

Sample @ 1320 - 3 (13.1+) - 2 (comp's)

TP4 - 0'-2'
TP4 - 3'-5'
TP4 - 6-8'

TP4 Comp - 0'-4'
TP4 comp - 4'-8'

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Former Roblin Steel Stockpile Characterization Test Pits
320 South Roberts Road, Dunkirk, NY

TEST PIT: TP - 5
SHEET 1 OF 1
JOB: 2160148
CHKD BY: CK
1-16

CONTRACTOR: D&H Excavting
OPERATOR:
LABELLA REPRESENTATIVE: Chris Kibler

TEST PIT LOCATION:
GROUND SURFACE ELEVATION NA
START DATE: 12-16-15

DATUM: NA

TYPE OF EQUIPMENT:

DEPTH (FEET)	SAMPLE NO AND DEPTH	STRATA CHANGE (FEET)	VISUAL CLASSIFICATION	PID FIELD SCREEN (PPM)	REMARKS
0			(Clayey, Silty consistency) Fill - mostly asphalt, little concrete + clay tile	0	0
2			"	0	2
4			"	0	4
6					6
8					8
10					10
12					12
14					14
16			Test pit to 6'		16

WATER LEVEL DATA			DEPTH (FT)			NOTES
DATE	TIME	ELAPSED TIME	BOTTOM OF CASING	BOTTOM OF TEST PIT	GROUNDWATER ENCOUNTERED	ND = Non Detect
NA	NA	NA	NA			BGS = Below the Ground Surface
						NA = Not Applicable

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

TEST PIT: TP - 5

- sampled @ 14:20 (2 bags, 2 comps)
TP5 - 1-3'
TP5 - 4-6'
TP5 Composite (0-3')
TP5 Composite (3'-6')

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Former Roblin Steel Stockpile
Characterization Test Pits
320 South Roberts Road, Dunkirk, NY

TEST PIT: TP - 6
SHEET 1 OF 1
JOB: 2160148
CHKD BY: CK

CONTRACTOR: D&H Excavting
OPERATOR:
LABELLA REPRESENTATIVE: Chris Kibler

TEST PIT LOCATION:
GROUND SURFACE ELEVATION NA
START DATE: 12-17-15

DATUM: NA

TYPE OF EQUIPMENT:

DEPTH (FEET)	SAMPLE NO AND DEPTH	STRATA CHANGE (FEET)	VISUAL CLASSIFICATION	PID FIELD SCREEN (PPM)	REMARKS
0			(Silty, Clayey consistency) Fill (rod debris-asphalt, concrete, brick)	0	0
2				0	2
4				0	4
6				0	6
8				0	8
10				0	10
11'					
12					12
14					14
16			-Test pit to 11'		16

WATER LEVEL DATA			DEPTH (FT)			NOTES:
DATE	TIME	ELAPSED TIME	BOTTOM OF CASING	BOTTOM OF TEST PIT	GROUNDWATER ENCOUNTERED	ND = Non Detect
NA	NA	NA	NA			BGS = Below the Ground Surface
						NA = Not Applicable

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

TEST PIT: TP - 6

sample @ 1:45pm

TP6-1-3
TP6-5-7
TP6-9-11

TP6 Composite

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Former Roblin Steel Stockpile Characterization Test Pits
320 South Roberts Road, Dunkirk, NY

TEST PIT: TP - 7
SHEET 1 OF 1
JOB: 2160148
CHKD BY: CK

CONTRACTOR: D&H Excavting
OPERATOR:
LABELLA REPRESENTATIVE: Chris Kibler

TEST PIT LOCATION:
GROUND SURFACE ELEVATION NA
START DATE: 12-17-15

DATUM: NA

TYPE OF EQUIPMENT:

DEPTH (FEET)	SAMPLE NO. AND DEPTH	STRATA CHANGE (FEET)	VISUAL CLASSIFICATION	PID FIELD SCREEN (PPM)	REMARKS
0			Silty clayey (consistency) Fill and debris - asphalt, concrete, brick	0	0
2			"	0	2
4			"	0	4
6			"	0	6
8			"	0	8
10			"	0	10
12			"	0	12
13					
14					14
16			Test pit to 13'		16

WATER LEVEL DATA			DEPTH (FT)			NOTES:
DATE	TIME	ELAPSED TIME	BOTTOM OF CASING	BOTTOM OF TEST PIT	GROUNDWATER ENCOUNTERED	ND = Non Detect
NA	NA	NA	NA			BGS = Below the Ground Surface
						NA = Not Applicable

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

TEST PIT: TP - 7

Sampled @ 830

TP7 - 2-4
TP7 - 6-8
TP7 - 10-12

TP7 Composite

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ENVIRONMENTAL ENGINEERING CONSULTANTS

Former Roblin Steel Stockpile Characterization Test Pits
320 South Roberts Road, Dunkirk, NY

TEST PIT: TP - 8
SHEET 1 OF 1
JOB: 2160148
CHKD BY: CK

CONTRACTOR: D&H Excavting
OPERATOR:
LABELLA REPRESENTATIVE: Chris Kibler

TEST PIT LOCATION:
GROUND SURFACE ELEVATION NA
START DATE: 12-7-15

DATUM NAD 83 NA

TYPE OF EQUIPMENT:

DEPTH (FEET)	SAMPLE NO AND DEPTH	STRATA CHANGE (FEET)	VISUAL CLASSIFICATION	PID FIELD SCREEN (PPM)	REMARKS
0			Silty-clayey consistency Fill ctd debris - asphalt, concrete, brick	0	0
2			"	0	2
4			"	0	4
6			"	0	6
8			"	0	8
10			"	0	10
11'					
12					12
14					14
16			- Test pit to 11'		16

WATER LEVEL DATA			DEPTH (FT)			NOTES
DATE	TIME	ELAPSED TIME	BOTTOM OF CASING	BOTTOM OF TEST PIT	GROUNDWATER ENCOUNTERED	ND = Non Detect
NA	NA	NA	NA			BGS = Below the Ground Surface
						NA = Not Applicable

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

TEST PIT: TP - 8

sampled @ 9:10

TP8-1-3
TP8-5-7
TP8-9-11

TP8 composite

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Former Roblin Steel Stockpile Characterization Test Pits
320 South Roberts Road, Dunkirk, NY

TEST PIT: TP - 9
SHEET 1 OF 1
JOB: 2160148
CHKD BY: CK

CONTRACTOR: D&H Excavting
OPERATOR:
LABELLA REPRESENTATIVE: Chris Kibler

TEST PIT LOCATION:
GROUND SURFACE ELEVATION NA
START DATE: 12-17-15

DATUM: NA

TYPE OF EQUIPMENT:

DEPTH (FEET)	SAMPLE NO AND DEPTH	STRATA CHANGE (FEET)	VISUAL CLASSIFICATION	PID FIELD SCREEN (PPM)	REMARKS
0			Silty-clayey consistency Fill and debris - brick, asphalt, concrete	0	Black staining from asphalt 0'-6'
2			"	0	
4			"	0	
6			"	0	
8			"	0	
10			"	0	
11'					
12					
14					
16			Test pit full		

WATER LEVEL DATA			DEPTH (FT)			NOTES
DATE	TIME	ELAPSED TIME	BOTTOM OF CASING	BOTTOM OF TEST PIT	GROUNDWATER ENCOUNTERED	ND = Non Detect
NA	NA	NA	NA			BGS = Below the Ground Surface
						NA = Not Applicable

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

TEST PIT: TP - 9

- sample @ 930

TP9 - 1-3
TP9 - 5-7
TP9 - 9-11

TP9 Composite

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Former Roblin Steel Stockpile Characterization Test Pits
320 South Roberts Road, Dunkirk, NY

TEST PIT: TP - 10
SHEET 1 OF 1
JOB: 2160148
CHKD BY: CK

CONTRACTOR: D&H Excavting
OPERATOR:
LABELLA REPRESENTATIVE: Chris Kibler

TEST PIT LOCATION:
GROUND SURFACE ELEVATION: NA
START DATE: 12-17-15

DATUM: NA

TYPE OF EQUIPMENT:

DEPTH (FEET)	SAMPLE NO AND DEPTH	STRATA CHANGE (FEET)	VISUAL CLASSIFICATION	PID FIELD SCREEN (PPM)	REMARKS
0			Silty-clayey consistency (foundry sands) Fill - C&D debris - asphalt, brick, concrete	0	Black staining from asphalt 2'-8'
2			"	0	
4			"	0	
6			"	0	
8			"	0	
10			"	0	
12			"	0	
14			Test Pit to 11'		
16					

WATER LEVEL DATA			DEPTH (FT)			NOTES:
DATE	TIME	ELAPSED TIME	BOTTOM OF CASING	BOTTOM OF TEST PIT	GROUNDWATER ENCOUNTERED	ND = Non Detect
NA	NA	NA	NA			BGS = Below the Ground Surface
						NA = Not Applicable

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

TEST PIT: TP 10

Sampled @ KK

TP10 - 1-3
TP10 - 5-7
TP10 - 9-11

TP10 Composite

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ENVIRONMENTAL ENGINEERING CONSULTANTS

Former Roblin Steel Stockpile Characterization Test Pits
320 South Roberts Road, Dunkirk, NY

TEST PIT: TP - 11
SHEET 1 OF 1
JOB: 2160148
CHKD BY: CK

CONTRACTOR: D&H Excavting
OPERATOR:
LABELLA REPRESENTATIVE: Chris Kibler

TEST PIT LOCATION:
GROUND SURFACE ELEVATION: NA
START DATE: 12-17-14

DATUM: NA
10:30

TYPE OF EQUIPMENT:

DEPTH (FEET)	SAMPLE: SAMPLE NO AND DEPTH	SAMPLE: STRATA CHANGE (FEET)	VISUAL CLASSIFICATION	PID FIELD SCREEN (PPM)	REMARKS
0			Silty-clayey consistency (1 telephone pole) Fill GD Debris asphalt, brick, concrete	0	0 Black staining from asphalt 2-8'
2			"	0	2
4			"	0	4
6			"	0	6
8			"	0	8
10			"	0	10
12			"	0	12
14					14
16			Test pit to 14'		16

WATER LEVEL DATA			DEPTH (FT)			NOTES:
DATE	TIME	ELAPSED TIME	BOTTOM OF CASING	BOTTOM OF TEST PIT	GROUNDWATER ENCOUNTERED	ND = Non Detect
NA	NA	NA	NA			BGS = Below the Ground Surface
						NA = Not Applicable

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

TEST PIT: TP - 11

Sampled @ 10:50

TP11 - 3-5
TP11 - 8-10
TP11 - 12-14

- TP11 (composite)

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Former Roblin Steel Stockpile Characterization Test Pits
320 South Roberts Road, Dunkirk, NY

TEST PIT: TP - 12
SHEET 1 OF 1
JOB: 2160148
CHKD BY: CK

CONTRACTOR: D&H Excavting
OPERATOR:
LABELLA REPRESENTATIVE: Chris Kibler

TEST PIT LOCATION:
GROUND SURFACE ELEVATION NA
START DATE: 12-10-15

DATUM: NA
11:20

TYPE OF EQUIPMENT:

DEPTH (FEET)	SAMPLE NO. AND DEPTH	STRATA CHANGE (FEET)	VISUAL CLASSIFICATION	PID FIELD SCREEN (PPM)	REMARKS
0			Silty-clayey Consistency brick Fill C&D debris (asphalt, concrete,	0	0 Black Staining from asphalt throughout full test pit (0'-11')
2			"	0	2
4			"	0	4
6			"	0	6
8			"	0	8
10			"	0	10
12					12
14			Test pit to 11'		14
16					16

11'

WATER LEVEL DATA			DEPTH (FT)			NOTES:
DATE	TIME	ELAPSED TIME	BOTTOM OF CASING	BOTTOM OF TEST PIT	GROUNDWATER ENCOUNTERED	ND = Non Detect
NA	NA	NA	NA			BGS = Below the Ground Surface
						NA = Not Applicable

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

TEST PIT: TP - 12

- Sampled @ 11:20
- TP12-1-3
- TP12-5-7
- TP12-9-11
- TP12 composite

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ENVIRONMENTAL ENGINEERING CONSULTANTS

Former Roblin Steel Stockpile Characterization Test Pits
320 South Roberts Road, Dunkirk, NY

TEST PIT: TP - 13
SHEET 1 OF 1
JOB: 2160148
CHKD BY: CK

CONTRACTOR: D&H Excavting
OPERATOR:
LABELLA REPRESENTATIVE: Chris Kibler

TEST PIT LOCATION:
GROUND SURFACE ELEVATION NA
START DATE: 12-17-15

DATUM: NA

TYPE OF EQUIPMENT:

DEPTH (FEET)	SAMPLE NO. AND DEPTH	STRATA CHANGE (FEET)	VISUAL CLASSIFICATION	PID FIELD SCREEN (PPM)	REMARKS
0			Silty & Clayey consistency fundry sands Fill - C&D debris (brick, concrete, asphalt,	0	0
2			"	0	2
4			"	0	4
6			"	0	6
8					8
10					10
12					12
14					14
16			Test pit to 8'		16

WATER LEVEL DATA			DEPTH (FT)			NOTES:
DATE	TIME	ELAPSED TIME	BOTTOM OF CASING	BOTTOM OF TEST PIT	GROUNDWATER ENCOUNTERED	ND = Non Detect
NA	NA	NA	NA			BGS = Below the Ground Surface
						NA = Not Applicable

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

TEST PIT: TP - 13

- Sampled @ 12:40pm

TP13-1-3
TP13-5-7'

- TP13 composite

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ENVIRONMENTAL ENGINEERING CONSULTANTS

Former Roblin Steel Stockpile Characterization Test Pits
320 South Roberts Road, Dunkirk, NY

TEST PIT: TP - 14
SHEET 1 OF 1
JOB: 2160148
CHKD BY: CK

CONTRACTOR: D&H Excavting
OPERATOR:
LABELLA REPRESENTATIVE: Chris Kibler

TEST PIT LOCATION:
GROUND SURFACE ELEVATION NA
START DATE: 12-17-15

DATUM: NA

TYPE OF EQUIPMENT:

DEPTH (FEET)	SAMPLE NO. AND DEPTH	STRATA CHANGE (FEET)	VISUAL CLASSIFICATION	PID FIELD SCREEN (PPM)	REMARKS
0			Clay-Silty clay consistency	0	0
2			Fill - C&D debris (asphalt, concrete, brick)	0	2
4			"	0	4
6			"	0	6
8			"	0	8
10			"		10
12					12
14					14
16			Test pit to 10'		15

WATER LEVEL DATA			DEPTH (FT)			NOTES:
DATE	TIME	ELAPSED TIME	BOTTOM OF CASING	BOTTOM OF TEST PIT	GROUNDWATER ENCOUNTERED	ND = Non Detect
NA	NA	NA	NA			BGS = Below the Ground Surface
						NA = Not Applicable

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

TEST PIT: TP - 1

Sampled @ 12:20pm

TP14-3-5
TP14-7-9

- TP1 Composite

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ENVIRONMENTAL ENGINEERING CONSULTANTS

Former Roblin Steel Stockpile Characterization Test Pits
320 South Roberts Road, Dunkirk, NY

TEST PIT: TP - 15
SHEET 1 OF 1
JOB: 2160148
CHKD BY: CK

CONTRACTOR: D&H Excavting
OPERATOR:
LABELLA REPRESENTATIVE: Chris Kibler

TEST PIT LOCATION:
GROUND SURFACE ELEVATION NA
START DATE: 12-07-15

DATUM: NA
12:45

TYPE OF EQUIPMENT:

DEPTH (FEET)	SAMPLE: SAMPLE NO AND DEPTH	SAMPLE: STRATA CHANGE (FEET)	VISUAL CLASSIFICATION	PID FIELD SCREEN (PPM)	REMARKS
0			Silty-clayey (consistency twenty seven) Fill - C&D debris (brick, asphalt, concrete	0	0
2			"	0	2
4					4
6					6
8					8
10					10
12					12
14					14
16			Test Pit to 3'		16

3'

WATER LEVEL DATA			DEPTH (FT)			NOTES
DATE	TIME	ELAPSED TIME	BOTTOM OF CASING	BOTTOM OF TEST PIT	GROUNDWATER ENCOUNTERED	ND = Non Detect
NA	NA	NA	NA			BGS = Below the Ground Surface
						NA = Not Applicable

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

TEST PIT: TP 15

- Sampled @ 13:00

TP15 - 0 - 1.5
TP15 - 1.5 - 3

- TP15 composite

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ENVIRONMENTAL ENGINEERING CONSULTANTS

Former Roblin Steel Stockpile Characterization Test Pits
320 South Roberts Road, Dunkirk, NY

TEST PIT: TP - 16
SHEET 1 OF 1
JOB: 2160148
CHKD BY: CK

CONTRACTOR: D&H Excavting
OPERATOR:
LABELLA REPRESENTATIVE: Chris Kibler

TEST PIT LOCATION:
GROUND SURFACE ELEVATION NA
START DATE 12-17-15

DATUM: NA
1310

TYPE OF EQUIPMENT:

DEPTH (FEET)	SAMPLE NO AND DEPTH	STRATA CHANGE (FEET)	VISUAL CLASSIFICATION	PID FIELD SCREEN (PPM)	REMARKS
0			Clayey-silty consistency f(?) w/ Fill - C&D Debris - brick, concrete, asphalt	0	0
2			"	0	2
4					4
6					6
8					8
10					10
12					12
14					14
16			Test pit to 3'		16

3'

WATER LEVEL DATA			DEPTH (FT)			NOTES
DATE	TIME	ELAPSED TIME	BOTTOM OF CASING	BOTTOM OF TEST PIT	GROUNDWATER ENCOUNTERED	ND = Non Detect; BGS = Below the Ground Surface
NA	NA	NA	NA			NA = Not Applicable

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

TEST PIT: TP - 16

Sampled @ 13:20

TP16-0-1.5'
TP16-1.5'-3'

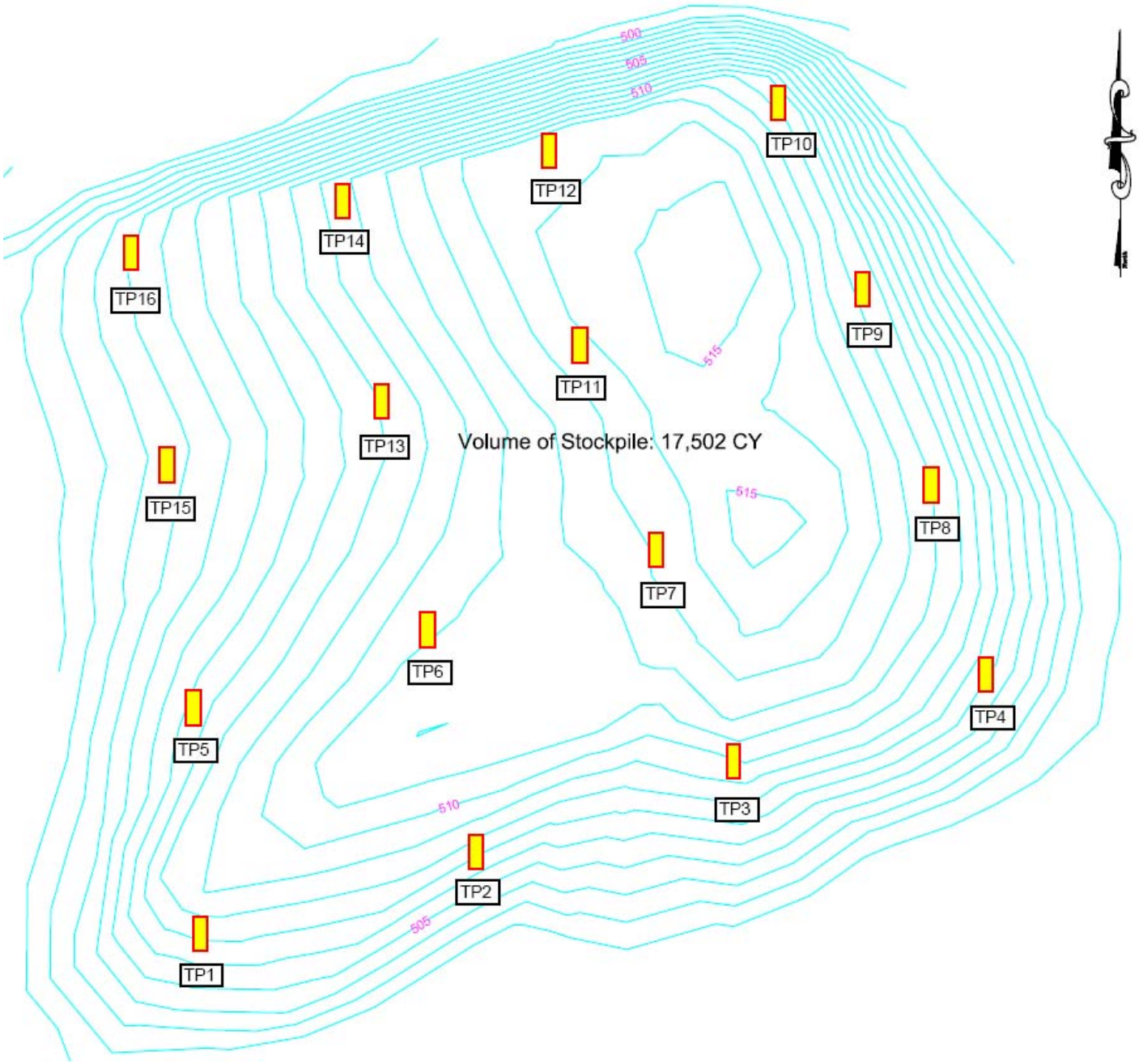
- TP16 composite

LABELLA Associates, D.P.C. | Engineering Architecture Environmental Planning

ATTACHMENT 2

Laboratory Analytical Report

FIGURE



Stockpile volume survey performed by D&H Excavating, November 3, 2015

N

Not To Scale

FIGURE 1
Test Pit Location Map

Stockpile Characterization
Former Roblin Steel Site
Dunkirk, New York 14048

LABELLA

PROJECT NO.

2160146

TABLE

Table 1
Analytical Results for Grab Soil/Fill Material Samples

Former Roblin Steel Stockpile Characterization

		TP1 (2'-4')	TP1 (5'-7')	FD #1	FD #2	TP2 (2'-4')	TP2 (5'-7')	TP3 (1'-3')	TP3 (5'-7')	TP3 (8'-10')	TP4 (0'-2')	TP4 (3'-5')	TP4 (6'-8')	TP5 (1'-3')	TP5 (4'-6')	TP6 (1'-3')	TP6 (5'-7')	TP6 (9'-11')	TP7 (2'-4')	TP7 (6'-8')	TP7 (10'-12')	TP8 (1'-3')	TP8 (5'-7')	Allowable Constituent Levels	Part 375 Commercial SCO
Volatile Organic Compounds																									
2-Butanone (MEK)	ug/Kg	3.5	7.7	11	8.5		2.0 J		1.8 J	1.4 J			2.4 J		3.0	2.3 J	4.0 J	6.5			4.0			120	500,000
Acetone	ug/Kg	13	26	41	28		8.4		7.4	6.2		4.6	11		12	9.6	19	24		3.3	15	2.0 J		50	500,000
Trichloroethene (TCE)	ug/Kg																	0.95 J						470	200,000
Chloromethane	ug/Kg																							NL	NL
Methyl Acetate	ug/Kg						2.0 J																	NL	NL
Benzene	ug/Kg																							60	44,000
Carbon Disulfide	ug/Kg																							NL	NL
Ethylbenzene	ug/Kg																							1,000	390,000
Methylcyclohexane	ug/Kg					1.1 J																		NL	NL
o-Xylene	ug/Kg																							1,600	500,000
Isopropylbenzene (Cumene)	ug/Kg																							NL	NL
1,1,1-Trichloroethane (TCA)	ug/Kg																							680	500,000
Total Solids	%	89.2	87.3	89.1	89.9	85.4	89.5	92.4	90	91.9	89	83.5	89.2	90.9	87.2	85.4	90.2	87.6	81.9	88.6	87.6	89.2	87.4	NL	NL

		TP8 (9'-11')	TP9 (1'-3')	TP9 (5'-11') #1	TP9 (5'-11') #2	TP13 (1'-3')	TP13 (5'-7')	TP10 (1'-3')	TP10 (5'-7')	TP10 (9'-11')	TP11 (3'-5')	TP11 (8'-10')	TP11 (12'-14')	TP14 (3'-5')	TP14 (7'-9')	TP12 (1'-3')	TP12 (5'-7')	TP12 (9'-11')	TP15 (0'-1.5')	TP15 (1.5'-3')	TP16 (0'-1.5')	TP16 (1.5'-3')		Allowable Constituent Levels	Part 375 Commercial SCO
Volatile Organic Compounds																									
2-Butanone (MEK)	ug/Kg			3.1		10	7.6					32	5.2	2.8		2.2 J	10	2.2 J			2.1 J			120	500,000
Acetone	ug/Kg		4.9	15		54	33					100	22	14	3.6	10	39	7.4	8.7	4.4	9.8			50	500,000
Trichloroethene (TCE)	ug/Kg																							470	200,000
Chloromethane	ug/Kg					0.60 J																		NL	NL
Methyl Acetate	ug/Kg					6.6				1.1 J									2.7 J					NL	NL
Benzene	ug/Kg						0.23 J						0.24 J	0.16 J			0.28 J							60	44,000
Carbon Disulfide	ug/Kg											1.1 J									0.92 J			NL	NL
Ethylbenzene	ug/Kg						0.19 J										0.34 J							1,000	390,000
Methylcyclohexane	ug/Kg													0.62 J			2.3 J							NL	NL
o-Xylene	ug/Kg						0.79 J							0.54 J			0.24 J							1,600	500,000
Isopropylbenzene (Cumene)	ug/Kg																0.66 J							NL	NL
1,1,1-Trichloroethane (TCA)	ug/Kg																				19			680	500,000
Total Solids	%	84.3	89.1	86.5	88.4	89.9	88.6	86.8	90.8	90.1	86.9	82.9	86.5	90.6	90.3	86.3	88.9	87.3	83.9	84.7	88.8	86.1		NL	NL

Allowable Constituent Levels are from Table A-1: Allowable Constituent Levels for Imported Fill or Soil, of the Excavation Work Plan included in the Site Management Plan for the former Roblin Steel Site

NYSDEC Part 375 Commercial Use Soil Cleanup Objectives, Table 375-6.8(b) (December 2006)

Parameters exeeding the Allowable Constituent Levels are indicated with shaded cells

Only detected parameters are included

J = Estimate value due the concentration between the MRL and the MDL.

Table 2
Analytical Results for Composite Soil/Fill Material Samples

Former Roblin Steel Stockpile Characterization

		TP1 Composite	FD #2	TP2 Composite	TP3 Composite-0'-5'	TP3 Composite 5'-10'	TP4 Composite (0'-4')	TP4 Composite (4'-8')	TP5 Composite (0'-3')	TP5 Composite (3'-6')	TP6 Composite	TP7 Composite	TP8 Composite	TP9 Composite	TP13 Composite	TP10 Composite	TP11 Composite	TP14 Composite	TP12 Composite	TP15 Composite	TP16 Composite	Allowable Constituent Levels	Part 375 Commercial SCO
Semi-Volatile Organic Compounds																							
2-Methylnaphthalene	ug/Kg	140 J	130 J	360 J			77 J		230 J		180 J	64 J			230 J	180 J	120 J	85 J	640	340 J	210 J	NL	NL
3- and 4-Methylphenol Coelution	ug/Kg																		200 J			330	NL
Acenaphthene	ug/Kg	82 J	76 J	230 J			64 J		110 J		69 J			450 J		72 J	130 J		130 J		190 J	98,000	500,000
Acenaphthylene	ug/Kg	550	540	970	4,500	510	1,400	440	350 J	150 J	290 J	110 J	220 J		790	200 J	130 J	170 J	320 J	100 J	140 J	107,000	500,000
Anthracene	ug/Kg	610	580	1,400	7,500	530	930	320 J	830	140 J	620	99 J	88 J	1,700	1,400	320 J	570	270 J	680	110 J	670	500,000	500,000
Benz(a)anthracene	ug/Kg	1,200	1,100	2,100	**14,000**	990	2,400	950	1,600	650 J	1,700	310 J	290 J	5,500	4,000	930	1,200	770	2,100	400	1,400	1,000	5,600
Benzo(a)pyrene	ug/Kg	**1,800**	**1,600**	**2,300**	**17,000**	**1,300**	**4,000**	**1,400**	**1,800**	760	**1,800**	430	710	**5,600**	**4,300**	**1,100**	1,000	850	**2,500**	380 J	**1,300**	1,000	1,000
Benzo(b)fluoranthene	ug/Kg	2,400	2,200	3,200	**21,000**	1,600	5,000	1,900	2,600	1,000	2,300	530	890	**6,500**	**6,100**	1,400	1,400	1,100	3,600	620	1,900	1,700	5,600
Benzo(g,h,i)perylene	ug/Kg	990	900	1,500	10,000	870	2,200	880	1,100	550 J	1,200	350 J	570	3,800	2,700	870	590	600	1,400	200 J	620	500,000	500,000
Benzo(k)fluoranthene	ug/Kg	830	780	1,100	7,000	590	1,700	650	890	280 J	790	190 J	290 J	2,200	2,200	500	450	430	1,200	240 J	690	1,700	56,000
Biphenyl	ug/Kg																		110 J			NL	NL
Bis(2-ethylhexyl) Phthalate	ug/Kg	200 BJ	220 BJ	270 BJ		290 BJ	210 BJ	370 BJ	290 BJ		220 BJ	180 BJ	170 BJ		230 BJ	220 BJ	340 BJ	150 BJ	380 B	94 BJ	320 BJ	NL	NL
Carbazole	ug/Kg	92 J	100 J	220 J	630 J	110 J	68 J	77 J	390 J		130 J				320 J	130 J	210 J	99 J	290 J		300 J	NL	NL
Chrysene	ug/Kg	1,300	1,200	2,200	14,000	1,000	2,600	1,000	1,800	700 J	1,700	360 J	300 J	6,700	4,000	1,000	1,300	780	2,500	420	1,500	1,000	56,000
Di-n-butyl Phthalate	ug/Kg	170 J		130 J		240 J	170 J	330 J	110 J		130 J	93 J	170 J			210 J	330 J	140 J	200 J		150 J	NL	NL
Dibenz(a,h)anthracene	ug/Kg	270 J	230 J	350 J	**2,700 J**	240 J	**610**	210 J	290 J	130 J	300 J	95 J	130 J	**1,000 J**	**720 J**	210 J	170 J	140 J	340 J	73 J	200 J	560	560
Dibenzofuran	ug/Kg	190 J	240 J	870	1,000 J	300 J	100 J		270 J		220 J				440 J	120 J	190 J	110 J	190 J	100 J	260 J	NL	NL
Diethyl Phthalate	ug/Kg						79 J	81 J	120 J							100 J	83 J		91 J		83 J	NL	NL
Fluoranthene	ug/Kg	2,700	2,500	5,300	28,000	2,000	3,100	1,800	4,200	1,000	4,000	540	310 J	9,200	9,000	2,300	3,700	1,700	5,100	620	3,400	500,000	500,000
Fluorene	ug/Kg	250 J	330 J	1,200	1,900 J	450	120 J		510		290 J			510 J	840	210 J	380 J	170 J	240 J		400	386,000	500,000
Indeno(1,2,3-cd)pyrene	ug/Kg	1,000	910	1,400	**11,000**	930	2,500	900	1,200	520 J	1,300	340 J	570	3,800	3,300	860	630	570	1,500	250 J	710	5,600	5,600
Naphthalene	ug/Kg	180 J	240 J	530	1,300 J	100 J	180 J		330 J	120 J	540				800	260 J	130 J	180 J	400	210 J	350 J	12,000	500,000
Phenanthrene	ug/Kg	1,500	1,500	4,700	11,000	1,500	650	720	3,300	500 J	1,900	330 J	130 J	7,100	5,300	1,400	3,200	1,100	3,000	480	2,900	500,000	500,000
Pyrene	ug/Kg	2,300	2,100	4,400	24,000	1,600	3,200	1,600	3,400	1,100	3,500	490	290 J	11,000	7,300	2,100	2,900	1,500	4,300	600	2,900	500,000	500,000
Metals																							
Aluminum, Total	mg/Kg	7,010	7,540	8,330	8,700	12,200	8,650	7,440	10,800	9,770	8,190	8,420	8,050	8,110	11,100	6,940	9,180	8,800	7,900	5,990	25,300	NL	NL
Arsenic, Total	mg/Kg	10	11.5	**29**	11.3	7.9	9.8	8.1	11.3	13.9	12.2	14.2	10.1	11.1	9.5	9.1	11	9.5	10.6	**43.1**	**17.7**	16	16
Barium, Total	mg/Kg	68.9	62.8	94.6	91.3	109	80.7	53.1	105	83.3	101	77.5	78.7	97.2	70.6	57.5	97.6	62.8	87.7	70.7	321	400	400
Beryllium, Total	mg/Kg	0.42	0.49	0.61	0.52	1.45	0.44	0.4	1.07	0.65	0.55	0.49	0.41	0.57	0.85	0.44	0.48	0.49	0.67	1.29	3.45	47	590
Calcium, Total	mg/Kg	8,730	22,000	9,610	8,170	46,000	3,560	5,840	28,400	2,950	7,200	15,400	24,300	18,200	19,100	7,200	3,590	15,000	15,400	3,670	121,000	NL	NL
Cadmium, Total	mg/Kg			0.20 J	0.12 J	0.09 J			0.15 J	0.20 J	0.49 BJ	0.38 BJ	0.40 BJ	0.40 BJ	0.27 BJ	0.41 BJ	0.41 BJ	0.40 BJ	0.50 BJ	0.85	0.62 B	7.5	9.3
Cobalt, Total	mg/Kg	8.0	7.8	7.9	8.8	5.9	7.8	7.0	6.7	13	7.4	7.4	7.0	8.1	4.8 J	5.4 J	6.8	5.5 J	5.9	14.5	2.7 J	NL	NL
Chromium, Total	mg/Kg	14.2	12.7	17.1	18.9	11.0	16.9	12.4	32.8	15.2	14.3	14.0	11.8	13.2	11.9	10.1	13.2	10.9	14.0	10.8	34.3	19	400
Copper, Total	mg/Kg	64.8	63.7	64.4	44.8	49.1	46.9	87.3	98	40.9	109	54.5	37.5	72.7	48.6	52.8	38.7	52.8	85	125	60.5	270	270
Iron, Total	mg/Kg	21,400	22,900	24,600	26,200	18,900	24,100	23,300	23,300	28,300	27,900	26,900	21,800	27,100	19,900	21,300	20,700	20,300	23,000	45,600	17,800	NL	NL
Potassium, Total	mg/Kg	780	830	1,060	1,010	980	910	760	1,110	1,070	1,160	1,020	910	940	710	700	820	720	820	590	1,500	NL	NL
Magnesium, Total	mg/Kg	3,390	2,750	3,630	3,870	8,810	3,010	3,140	5,260	2,960	2,950	3,620	3,400	3,400	3,150	2,360	1,920	4,210	2,990	1,200	17,100	NL	NL
Manganese, Total	mg/Kg	351	342	478	721	1,350	775	368	1,160	312	382	306	402	526	1,120	364	270	410	399	539	3,740	2,000	10,000
Sodium, Total	mg/Kg	680	600	740	520	870	630	530	700	180	790	510	820	860	1,000	660	390	780	890	250 B	840	NL	NL
Nickel, Total	mg/Kg	19.8	15.9	24.1	23.9	15.6	20.4	18.9	20.7	30.3	23.0	20.7	18.1	20.7	13.4	15.8	15.6	16.4	18.2	38.8	24.7	130	310
Lead, Total	mg/Kg	66.0	83.1	112	33.0	41.8	27.6	64.6	112	34.6	58.9	58.9	39.8	60.8	37.2	47.9	82.1	58.6	113	140	92.4	450	1,000
Antimony, Total	mg/Kg	0.9 J	1.0 J	0.7 J		0.7 J		2.8 J	2.1 J		2.3 J	1.1 J	1.1 J	1.4 J	1.0 J	1.1 J	1.2 J	1.3 J	1.9 J	2.8 J	1.5 J	NL	NL
Selenium, Total	mg/Kg	0.8 J		0.9 J		1.5	1.4		1.7	1.6		0.7 J		0.8 J	0.8 J					2.3	4.0	4.0	1,500
Vanadium, Total	mg/Kg	14.1	15.3	15.2	15.7	11.5	19.5	12.9	16.6	15.3	15.7	15.3	14.3	14.9	16.3	11.9	18.7	15.4	15.7	11.8	10.5	NL	NL
Zinc, Total	mg/Kg	106	95.3	117	124	75.6	81.9	88.7	114	129	138	93.9	70.9	89.6	63.2	72.3	81.7	82	115	159	233	2,480	10,000
Mercury, Total	mg/Kg	0.111	0.106	0.084	0.043	0.059	0.047	0.096	0.129	0.045	0.048	0.08	0.071	0.088	0.06	0.051	0.164	0.112	0.134	0.116	0.141	0.73	2.8
PCBs																							
Aroclor 1248	ug/Kg																				88	1,000	1,000
Aroclor 1254	ug/Kg			77																	93	1,000	1,000
Aroclor 1260	ug/Kg																				22 JP	1000	1,000
Pesticides																							
Endosulfan Sulfate	ug/Kg				21	7.3 J																200,000	200,000
Endrin Ketone	ug/Kg													21								NL	NL
Total Solids	%	88.9	89.9	89.9	89.6	90.9	88.5	90	85.2	88	88.6	87.8	87.1	89.3	85.6	88	84.2	88	88.5	87.1	89	NL	NL

Allowable Constituent Levels are from Table A-1: Allowable Constituent Levels for Imported Fill or Soil, of the Excavation Work Plan included in the Site Management Plan for the former Roblin Steel Site

NYSDEC Part 375 Commercial Use Soil Cleanup Objectives, Table 375-6.8(b) (December 2006)

Parameters exeeding the Allowable Constituent Levels are indicated with shaded cells

Parameters exeeding the Part 375 Commercial Use Soil Cleanup Objectives are indicated with Bold text

Only detected parameters are included

J = Estimate value due the concentration between the MRL and the MDL.

B = Analyte was also detected in the associated nethod blank at a concentration that may have contributed to the sample result

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

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

April 27, 2016

George P. Spanos P.E.
Director of Chautauqua County DPF
454 N. Work Street
Falconer, NY 14733

Dear Mr. Spanos:

Corrective Action Work Plan
Former Roblin Steel Site (Dunkirk), Dunkirk(C)
Chautauqua County, Site #B00173

This letter is being written to confirm our telephone discussion on April 25, 2016, regarding the County's letter of March 24, 2016 for the proposed screening and relocation of the stockpile of materials currently located on the Former Roblin Steel Site (Roblin) and partially on the adjacent Edgewood Warehouse Site (Edgewood)(Site #: E907032). Your proposal included relocation to the adjacent Closed Alumax Extrusions, Inc. Facility (Alumax) (Site #: V00589.)

The Department approved the Revised Corrective Action Work Plan (CAWP) (*KHEOPS for Chautauqua County; April 3, 2015*) submitted in April 2015. The current letter proposal has changed the CAWP approach wherein all unsuitable material would be removed from the noted Sites. The proposal to screen material larger than 2" in size for off-site disposal, and the relocation to the adjacent Alumax Site for the remainder, is unacceptable due to analytical data provided in your submittal. The data indicates that the majority of samples (13 of 18) exceed Commercial Use Site Cleanup Objectives (SCOs) for certain contaminants, which is not in compliance with either the Roblin Site's Final Engineering Report, Appendix A: Site Management Plan (SMP) (*TVGA Consultants for Chautauqua County; November 2010*) or the Alumax Site's Combined Institutional Control Plan/ Operations and Maintenance Plan (O&M Plan)(*URS Corp for Alcoa, Inc.; 2004.*)

The following items are required to address the proper management of the stockpile:

- The approved CAWP shall be implemented by June 30, 2016. Please present the Department with a schedule for work activity prior to commencement.
- All unsuitable material shall be removed from the Edgewood Warehouse Site and the Roblin Steel Site. Relocation to the Alumax Site is not acceptable.
- The stockpile is to be appropriately covered, and proper dust and erosion controls are to be maintained until the stockpile has been removed.
- Screening of Solid Waste (>2" screen) from the stockpile for disposal is acceptable, provided that the removal is implemented in compliance with the approved CAWP and the Roblin SMP.

- Remaining screened material (<2" screen) shall be relocated to an acceptable off-Site location for reuse only with the explicit approval of the NYSDEC Division of Materials Management.

If you have any questions or comments, please contact me at 716-851-7220 or e-mail: david.szymanski@dec.ny.gov .

Sincerely,

David Szymanski
Environmental Program Specialist -1
NYSDEC Region 9 – Div. of Environmental Remediation

DS/tm

ec: Chad Staniszewski – NYSDEC
David Locey – NYSDEC
Efrat Forgette - NYSDEC
Matt Forcucci - NYSDOH
Drew E. Rodgers – Chautauqua County Dept. of Public Facilities
Rob Napieralski – LaBella Associates, D.P.C.
Kenneth J. Strell - KHEOPS

LABELLA Associates, D.P.C. | Engineering Architecture Environmental Planning

APPENDIX 4

Waste Stream Approval Documentation

CHAUTAUQUA COUNTY DEPARTMENT OF PUBLIC FACILITIES
DIVISION OF SOLID WASTE

Vincent W. Horrigan
County Executive

George P. Spanos, P.E.
Director of Public Facilities

July 28, 2016

Chautauqua County Department of Public Facilities
454 N. Work Street
Falconer, New York 14733

Attention: Drew Rogers, Engineer III

Reference: Special Waste Stream – Contaminated Soil
Permit: CC0727.16S1 [One Time Disposal Permit]
Facility: **320 South Roberts Road**, Dunkirk, NY 14048
Expiration Date: 12/31/16

Dear Mr. Rogers:

This department has reviewed your permit application for disposal of contaminated soil. It is our understanding the waste is generated from road construction adjacent to above referenced location. Based upon the soil characterization report letter from Labella Associates, this waste is acceptable for disposal at our Chautauqua County Landfill (CCLF) up to and including the above referenced date.

A copy of this correspondence must be presented to our scale operator with **EACH LOAD** of material entering our facility. We have enclosed a copy of the executed NYSDEC application for your records. It should be noted that your waste transporter must have an approved hauling permit for transport to this facility. In the event significant changes in information presented on the above referenced application occur, you shall immediately notify this department in writing. Such changes shall include but not be limited to: change in process, change in facility name or address, change in waste composition, and/or change in hauler.

Thank you for choosing our facility for your disposal needs. If you have any questions, please contact me (telephone extension 203).

Sincerely,

T. TayPierce

Tracy Pierce, "TJ"
Solid Waste Analyst

Enclosure

cc: NYSDEC (Ltr, App. Frm); CCLF: Scale & A/R (Ltr); Permit-Generator Files (entire permit)

Office Use Only

Bill to: 607 **Generator:** Chautauqua County Dept. of Public Facilities **Hauler:** D&H Excavating [607]

Material: SOIL I **Origin:** Chautauqua County, NY **Site:** 320 South Roberts Road, Dunkirk, NY 14048

I:\Everyone\SHARE\1 EMPLOYEE FLDRS\TJP\WASTE PERMITS\2016PermitLttrs\Special\Soil\ChautauquaCo MilleniumParkway\CC0227.16S1 320SRobertsRdDunkirk Soil.doc

3889 TOWERVILLE RD., JAMESTOWN, NY 14701 · (716) 985-4785 · FAX (716) 985-4981 · E-MAIL: piercet@co.chautauqua.ny.us

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

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

July 27, 2016

Mr. Pantelis Panteli, P.E.
Chautauqua County DPF
Division of Solid Waste
3889 Towerville Road
Jamestown, New York 14701-9653

Dear Mr. Panteli:

Chautauqua County Department of Public Facilities
Application #CC0727.16S1
Contaminated Soil

The Department has reviewed the above referenced application for Treatment or Disposal of an Industrial Waste Stream (Form 47-19-7). Based on the information provided, this waste **is acceptable for 17,500 yd^3 for disposal at the Chautauqua Landfill** in Ellery, New York.

In the event that significant changes in the information presented on the application occur, you shall immediately notify this Department in writing. Such changes shall include, but not be limited to, changes in: process, facility name or address, waste composition and/or hauler.

Enclosed is a copy of the approved application. Should you have any questions, please call this office at (716) 851-7220.

Sincerely,

Beverly Lewinski
Environmental Engineer 1

BL/bb

Enclosure

cc: Mr. Peter Grasso, P.E., Regional Materials Management Engineer

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

Division of Materials Management, Region 9
270 Michigan Avenue, Buffalo, NY 14203-2915
P: (716) 851-7220 I F: (716) 851-7226
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July 27, 2016

Mr. Pantelis Panteli, P.E.
Chautauqua County DPF
Division of Solid Waste
3889 Towerville Road
Jamestown, New York 14701-9653

Dear Mr. Panteli:

Chautauqua County Department of Public Facilities
Application #CC0727.16S1
Contaminated Soil

You have requested that the above referenced contaminated soil be approved for 17,500 yd^3 for use as an **alternate daily cover (ADC)**. This letter shall service notice that the above referenced material has been approved for use as an ADC at your facility.

As with all daily covers, these materials must be spread in six inch layers unless otherwise pre-approved and they must control vectors, fires, blowing litter, odors and scavenging. Furthermore, the use of ADCs must not in itself produce nuisances (e.g. dusting and odors). In the event that nuisances do develop, this approval will be rescinded. In addition, runoff from the ADCs must be collected by the landfill's leachate collection system and tracking of the material out of the landfill footprint must be prevented. It is also understood that ADCs are not to be reused after initial placement. Finally, the ADC shall be used where it will be covered by the next day's waste or by clean soil.

Temporary storage of the ADC material is acceptable, provided that the following conditions are met. The storage area must be on an active portion of the landfill that allows run-off from the stockpile to be collected in the leachate collection system. The storage area should be located away from truck and equipment traffic to prevent tracking of the stockpiled material. Stockpiles should not be created next to slopes which may promote the dispersion of the ADC material due to erosion of the stockpile. Also, stockpiled material must not produce any nuisances (e.g. dusting or odors). If nuisances do develop, the stockpiled material must be promptly disposed in the landfill. Stockpiles of ADC should, in no way, interfere with the normal daily operation of the landfill. Finally, the amount and length of storage for ADCs should be minimized.

Should you have any questions, please contact this office at (716) 851-7220.

Sincerely,

Beverly Lewinski
Environmental Engineer 1

BL/bb

17-19-7 (10/86) - Text 12

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
DIVISION OF SOLID AND HAZARDOUS WASTE • BUREAU OF HAZARDOUS WASTE OPERATIONS
50 WOLF ROAD, ALBANY, NEW YORK 12233-4017

APPLICATION FOR TREATMENT OR DISPOSAL OF AN INDUSTRIAL WASTE STREAM

SEE APPLICATION INSTRUCTIONS ON REVERSE SIDE

FOR STATE USE ONLY		
SITE NO. 07512	APPLICATION NO. CC0727.16 S1	DATE RECEIVED 7/27/16
DEPARTMENT ACTION ☒ Approved ☐ Disapproved B.L		DATE 07/27/2016

1. NAME OF PROJECT/FACILITY	2. COUNTY	3. SITE NUMBER
Chautauqua County Landfill	Chautauqua	07S12
4. NAME OF OWNER	**5. ADDRESS (Street, City, State, Zip Code)**	**6. TELEPHONE NO.**
Chautauqua County	3889 Towerville Road Jamestown, NY 14701	(716) 985-4785
7. NAME OF OPERATOR	**8. ADDRESS (Street, City, State, Zip Code)**	**9. TELEPHONE NO.**
Dept. of Public Facilities	Same	(716) 985-4785

10. METHOD OF TREATMENT OR DISPOSAL

Sanitary Landfill – D90

11. COMPANY GENERATING WASTE	12. ADDRESS OF FACILITY GENERATING WASTE (Street, City, State, Zip Code)	
Chautauqua County Dept Public Facilities	3205 Roberts Rd. Ankirk NY. 14013	
13. REPRESENTATIVE OF WASTE GENERATOR	**14. MAILING ADDRESS OF REPRESENTATIVE**	**15. TELEPHONE NO.**
George Sparos	454 N. Work St, Falconer NY. 14733	(716) 661-8400

16. DESCRIPTION OF PROCESS PRODUCING WASTE

Excavation spoils generated during reconstruction of Talcott St. & Millennium Pkwy

17. EXPECTED ANNUAL WASTE PRODUCTION	18. WASTE HAULED IN	19. WASTE COMPOSITION
17,500 Tons/Year cubic yards / Gallons/Year	☐ Drums ☐ Bulk Tank ☐ Roll-Off Container ☒ Other dump trucks construction in Ankirk, NY.	19a. Average Percent Solids 98%

19b. PHYSICAL STATE: ☐ Liquid ☐ Slurry ☐ Sludge ☒ Solid ☐ Contained Gas

19c. pH Range: to

19. COMPONENTS	CONCENTRATION (Dry Weight) Upper %	Lower %	Typical %	UNIT (Check One) WL%	PPM
1) Soil			~75	☐	☐
2) Brick/Asphalt/Concrete			~25	☐	☐
3) Some Railroad ties				☐	☐
4)				☐	☐

20. IS AN ANALYSIS OF WASTE ATTACHED?	21. WAS A TCLP TEST CONDUCTED ON THE WASTE?	22. MATERIAL IS:
☒ Yes ☐ No	☐ Yes ☒ No If "Yes", attach results	☐ Hazardous ☒ Non-Hazardous

23. DETAIL ALL HAZARD AND NUISANCE PROBLEMS ASSOCIATED WITH THE WASTES. List necessary safety, handling, treatment, and disposal precautions.

Refer to LaBella report dated 1/29/16, entitled "Former Robin Steel Site (NYSDEC Site No. B00173-9) - Stockpile Characterization."

24. WHERE WAS MATERIAL DISPOSED OF PREVIOUSLY?

Material has been stockpiled at 3205 Roberts Rd. Ankirk, NY.

25. NAME OF WASTE TRANSPORTER	26. ADDRESS (Street, City, State, Zip Code)	27. NYSDEC PERMIT NO.	28. TELEPHONE NO.
See Attached			( ) -

29. CERTIFICATION

I hereby affirm under penalty of perjury that information provided on this form and attached statements and exhibits is true to the best of my knowledge and belief. False statements made herein are punishable as a Class A misdemeanor pursuant to Section 210.45 of the Penal Law.

a. SIGNATURE AND TITLE OF REPRESENTATIVE OF WASTE GENERATOR	DATE
X Dan Rudy Engineer III CCDPF	7/22/16
b. SIGNATURE AND TITLE OF REPRESENTATIVE OF TREATMENT OR DISPOSAL FACILITY	DATE
X T. Jay Price / Solid Waste Analyst	7/27/16

GENERATOR WASTE CHARACTERIZATION REPORT

GENERATOR INFORMATION:

Generator Name: Chautauqua County Dept. Public Facilities

Generating Facility Address: 320 S. Roberts Rd., Dunkirk, NY.

Technical Contact: George Sparos Phone (716) 661-8400

INVOICING INFORMATION:

Contracting Firm: D & H Excavating, Inc.

Billing Address: 11939 Rt. 98 South, Arcade, NY 14009

Contact: Eldon King III

e-mail: eldonking3@gmail.com Phone (716) 492-4956

Does contracting firm have an existing account with the CCLF? ☑ YES ☐ NO

TRANSPORTER INFORMATION:

Hauler Name: See Attached NYSDEC Permit No. 9A-834

Contact Person: _____ Phone (716) 492-4956

Is CCLF listed on hauler's Part 364 Permit? ☑ YES ☐ NO (if no, submit a Part 364 Permit modification)

WASTE INFORMATION:

1. *Does waste contain: a) less than 20% solids? ☐ Yes; ☒ No; b) any free liquid? ☐ Yes ☒ No
2. *Is Flash Point of waste less than 140° F? ☐ Yes ☒ No ☐ Not Applicable
3. *Corrosivity: Is pH of waste less than/equal to 2.0 or equal to/greater than 12.5 SU? ☐ Yes ☒ No ☐ Not Applicable
4. *Reactivity: Is waste Reactive? ☐ Yes ☒ No ☐ Not Applicable
5. *Is PCB concentration in waste equal to/greater than 30 mg/Kg? ☐ Yes ☒ No ☐ Not Applicable
6. *Is this a Listed Hazardous Waste as defined by USEPA Guidelines and 6NYCRR Part 371? ☐ Yes ☒ No

***If Any Of The Above Questions Is Answered Yes, Then The WASTE IS NOT ACCEPTABLE For Disposal At CCLF.**

7. Indicate the waste category: ☐ Industrial ☒ Special [i.e. Soil; ACM; Contaminated C&D; Other Contaminated Debris] TJP
8. Indicate the type(s) of contaminant(s) that is (are) present in the waste referenced above (VP=Virgin Petroleum).

   ☐ VP (Type): _____ ☐ ACM ☐ Non-VP/Mixture _____

   ☒ Other (please specify): Semi-volatile organic compounds & Metals
9. Aside from that listed in Item 8. above, is waste free of other known contaminants and/or residues: ☒ Yes ☐ No
10. What degree of odor does the waste exhibit? ☐ Strong ☐ Moderate ☐ Slight ☒ None

GENERATOR WASTE CHARACTERIZATION REPORT

11. Describe the incident or type of process and the location where this waste is/was generated [include contaminant(s)]:

Soil/fill generated during construction of Talcott St. & Millennium Pkwy. in Buffalo, NY.

12. Describe the physical characteristics of the waste (texture; size uniformity)? Silty clay soil w/ Concrete, brick, asphalt, sand & railroad ties.

TCLP TESTING

METALS: Applicable // Not Applicable

ANALYTE	NON-HAZARDOUS LIMIT (mg/L)	CONCENTRATION (mg/L)
Arsenic	5.0	
Barium	100.0	
Cadmium	1.0	
Chromium	5.0	
Lead	5.0	
Mercury	0.2	
Selenium	1.0	
Silver	5.0	

HERBICIDES/PESTICIDES: Applicable // Not Applicable

COMPOUND	NON-HAZARDOUS LIMIT (mg/l)	CONCENTRATION (mg/L)
2,4-D	10.0	
2,4,5-TP (Silvex)	1.0	
Endrin	0.02	
Lindane	0.4	
Methoxychlor	10.0	
Toxaphene	0.5	
Chlordane	0.03	
Heptachlor	0.008	

ACID EXTRACTABLES: Applicable // Not Applicable

COMPOUND	NON-HAZARDOUS LIMIT (mg/l)	CONCENTRATION (mg/L)
O-Creosol	200.0	
M-Creosol	200.0	
P-Creosol	200.0	
Pentachlorophenol	100.0	
2,4,5-Trichlorophenol	400.0	
2,4,6-Trichlorophenol	2.0	

BASE/NEUTRAL EXTRACTABLES: Applicable // Not Applicable

COMPOUND	NON-HAZARDOUS LIMIT (mg/l)	CONCENTRATION (mg/L)
1,4-Dichlorbenzene	7.5	
2,4-Dinitrotoulene	0.13	
Hexachlorobenzene	0.13	
Hexachlorobutadiene	0.5	
Hexachloroetane	3	
Nitrobenzene	2	
Pyridine	5	

VOLATILE ORGANICS: Applicable // Not Applicable

COMPOUND	NON-HAZARDOUS LIMIT (mg/l)	CONCENTRATION (mg/L)
1,1-Dichloroethylene	0.7	
Methyl ethyl ketone	200.0	
Tetrachloroethylene	0.7	
Vinyl chloride	0.2	
Benzene	0.5	
Carbon tetrachloride	0.5	
Chlorobenzene	100.0	
Chloroform	6.0	
Trichloroethylene	0.5	
1,2-Dichloroethane	0.5	

Other Analytical Testing:

-Refer to LaBella report dated 1/29/16, entitled "Former Roblin Steel Site (NYSDEC Site No. B00173-9) -Stockpile Characterization."

GENERATOR WASTE CHARACTERIZATION REPORT

WASTE DISPOSAL TERMS AND CONDITIONS

1. The Generator warrants that the information provided herein, including all attachments, is complete, factual and an accurate representation of the known or suspected hazards detailed herein.

2. The Generator shall indemnify, defend and hold harmless CCLF against any and all liabilities arising from the Generator's breach of any warranty hereunder, negligence or willful misconduct in connection with this matter.

3. No waste will be accepted at CCLF without pre-approval to transport and dispose said waste at CCLF.

4. The Generator warrants that the permitted material being disposed of at CCLF is comprised of material exclusively from the incident/process and site attested to in said permit (or sub-permit). It is the Generator's responsibility to characterize its waste and demonstrate that it is classified as non-hazardous solid waste, as defined by Title 6 of the New York Codes, Rules and Regulations Part 371.

5. CCLF reserves the right to reject/delay the disposal of any material based on its physical/olfactory characteristics that are observed upon arrival at CCLF. If it is subsequently determined that said waste is NOT acceptable for disposal at CCLF, the Generator, at his expense, agrees to remove the waste from CCLF premises immediately and properly dispose of the waste at an appropriate facility.

GENERATOR ACKNOWLEDGEMENT AND CERTIFICATION

The Generator acknowledges that it has read, understood and agrees to the above referenced terms and conditions. The signatory below warrants that he/she is authorized to sign on behalf of the Generator.

PRINTED NAME: Drew Rodgers

SIGNATURE: 

TITLE: Engineer III

COMPANY: CCDPF

DATE: 7/22/16

Mailing Address: Chautauqua County Landfill
3889 Towerville Road
Jamestown, NY 14701
Fax # (716) 985-4785
E-mail Address: landfill@co.chautauqua.ny.us

LABELLA Associates, D.P.C. | Engineering Architecture Environmental Planning

APPENDIX 5

Roblin Truck Tracking Prevention & Control Plan

Kibler, Christopher

From: Napieralski, Rob
Sent: Monday, October 03, 2016 3:34 PM
To: Kibler, Christopher
Subject: FW: Roblin Site #B00173

FYI

Robert Napieralski, C.P.G.
LaBella Associates, D.P.C.
Direct: 716-551-6283
Cell: 716-253-0444

From: Locey, David (DEC) [mailto:david.locey@dec.ny.gov]
Sent: Friday, September 30, 2016 12:52 PM
To: Rodgers, Drew; Szymanski, David (DEC)
Cc: Spanos, George; Napieralski, Rob; Strell, Kenneth; Tim Dietz (Tim@dhexc.com)
Subject: RE: Roblin Site #B00173

Drew,

The plan is acceptable provided that the concrete pad is inspected after each truck passes and all debris removed from its surface before the next truck drives onto the pad. The plan will also apply and the procedures will be followed, throughout the repair/replacement of the clean Roblin cover.

Before the endpoint samples are collected, the on-site inspector shall determine if any of the spoils remain co-mingled with the Roblin cover material, and if so, direct the contractor to excavate further and remove.

Before any work begins a project schedule is required, from the resumption of the spoils removal work to the completion of the cover repairs and submittal of the corrective action report.

The corrective action report will note that the concrete pad being used is located on the Alumax site. An account of this use of the Alumax site will be repeated in that site's next PRR.

David P. Locey
Environmental Engineer I, Division of Environmental Remediation
New York State Department of Environmental Conservation
270 Michigan Avenue, Buffalo, NY 14203-2915
P: 716-851-7220 | F: 716-851-7226 | david.locey@dec.ny.gov

www.dec.ny.gov |

From: Rodgers, Drew [mailto:RodgersD@co.chautauqua.ny.us]
Sent: 09-27-2016 08:05
To: Szymanski, David (DEC) <david.szymanski@dec.ny.gov>
Cc: Locey, David (DEC) <david.locey@dec.ny.gov>; Spanos, George <SpanosG@co.chautauqua.ny.us>; Napieralski, Rob (RNapieralski@LaBellaPC.com) <RNapieralski@LaBellaPC.com>; kstrell@labellapc.com; Tim Dietz (Tim@dhexc.com)

<Tim@dhexc.com>
Subject: Roblin Site #B00173

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

Dave,
Attached please find the Truck Tracking Prevention and Control plan prepared by LaBella Associates in conjunction with the contractor D&H Excavating for completion of the stockpile removal from the Roblin Site in Dunkirk. Please review and let us know if this will be an acceptable plan to complete the stockpile removal. It is estimated that there is 1 – 2 days of hauling that remains to complete the removal and we would like to resume that work as soon as possible following the NYSDEC acceptance of this plan. Following removal, we will have the final "endpoint sampling" and analytical testing completed per the CAWP and 6/24 email from email from LaBella Associates. Copies of the test results will be provided to NYSDEC once received. We are looking forward to final resolution on this matter and thank you very much for your understanding as we worked our way through this project.

Thank you,
Drew

Drew Rodgers, PE
Engineer III
Chautauqua County Department of Public Facilities
454 North Work Street
Falconer, NY 14733

Phone (716) 661-8410
Fax (716) 661-8451

LABELLA Associates, D.P.C.
Engineering
Architecture
Environmental
Planning

Truck Tracking Prevention & Control Plan

Former Roblin Steel Site (Site ID #B00173-9)

320 South Roberts Road

Dunkirk, NY

Prepared for:

D&H Excavating
11939 Route 98 South
Arcade, New York 14009

September 15, 2016

Table of Contents

1.0 INTRODUCTION AND BACKGROUND

The former Roblin Steel site (Site ID #B00173-9) located at 320 South Roberts Road in the City of Dunkirk, New York (see Figure 1), was remediated under the New York State Department of Environmental Conservation (NYSDEC) Environmental Restoration Program (ERP) by the County of Chautauqua between 2006 and 2010. The remedy implemented at the Roblin site included, but was not limited to the placement of an engineering controls consisting of 1-foot of clean cover soil across the site and the institution of a long term Site Management Plan (SMP).

The Roblin site was formerly part of a larger industrial complex and currently abuts two other brownfield sites, which include the former Alumax (Site ID #V00589) and former Edgewood Warehouse (Site ID #E907032) sites. The Alumax site was remediated under the NYSDEC Voluntary Cleanup Program. The Edgewood site was investigated under the ERP and entered into the NYSDEC Brownfield Cleanup Program, but remediation has no yet been initiated. All three sites are shown on Figure 2 and are owned or controlled by the County of Chautauqua.

During a requisite annual inspection of the engineering controls at the Roblin site in 2014, it was discovered that fill originating from a nearby, County road construction project had been placed on the Roblin site, on top of the cover system. The approximately 17,500 cubic yard stockpile of fill material also extended to the north and west onto the former Edgewood Warehouse site (see Figure 3). Pursuant to a NYSDEC-approved Corrective Action Plan (CAWP), the fill material was characterized in the spring of 2016 and was determined to be unsuitable for placement on the Roblin, Alumax or Edgewood sites. Therefore, as outlined in the CAWP, the stockpiled fill is required to be removed from the Roblin and Edgewood sites.

Chautauqua County contracted with D&H Excavating (D&H) to excavate, load and transport the stockpiled material to the Chautauqua County Landfill in Ellery, New York. The removal of the stockpile was initiated on August 1, 2016, but was discontinued by order of the NYSDEC on August 18, 2016 due to excessive tracking of soil onto public roads by trucks exiting the site and destined for the landfill. It is estimated that 1-2 days of hauling remain before the stockpile is completely removed from the Roblin and Edgewood sites. This plan is required to be approved by the NYSDEC and implemented prior to the resumption of stockpile removal activities at the site.

2.0 PROBLEM STATEMENT

Excessive quantities of soil were being tracked onto public streets by trucks exiting the site in route to the landfill. Measures previously employed to control the tracking of material onto the public roads were inadequate, as were staffing levels and equipment. New and improved preventative measures must be implemented to prevent the fouling of public roads by trucks exiting the site prior to resuming the work. Additionally, environmental monitoring must be performed to ensure that said preventative measures are effectively implemented.

3.0 PREVENTATIVE MEASURES

3.1 *Weather Conditions*

The hauling of fill material from the site shall not occur during or after precipitation events that cause muddy conditions on the site. That is, hauling shall be suspended at the on-set of precipitation events and shall not resume until dry conditions prevail on the ground surface at the site.

3.2 *Truck Routing On-Site*

The routing of trucks to the stockpile shall minimize the distance traveled on the unimproved ground surface. Trucks shall be routed from the loading point at the active face of the stockpile directly to the concrete slabs that extend along the southern limits of the site and shall remain on the concrete surface until accessing the gravel/asphalt drive that exits to the public road. Figure 4 depicts the on-site traffic pattern that will be utilized to minimize the fouling of truck tires.

3.3 *Truck Wheel Wash*

Upon driving onto the concrete slab, truck tires will be inspected for visible dirt/mud. If visible dirt/mud is observed on the truck tires, high pressure potable water will be utilized to rinse the material from the truck tires at the location shown in Figure 4. The water generated from this process will be permitted to run off the pad and infiltrate into the ground surface. No rinse water will be permitted to leave the limits of the brownfield sites or enter storm sewer inlets. Material dislodged from the trucks will be managed per Section 5.0.

4.0 ROAD MAINTENANCE

4.1 *Water Application*

The application of water on-site and on adjacent public roads shall be limited to that which is necessary to prevent fugitive dust emissions. The application of excessive volumes of water shall be avoided in order to prevent the creation of muddy conditions.

4.2 *Sweeping*

Public roads adjacent to the site onto which trucks exiting the site are routed shall be periodically cleaned using a sweeper that is equipped with a vacuum or a mechanical means of dirt collection and removal. The frequency of road cleaning shall be determined by the Environmental Monitor as discussed in Section 6.0, but shall be no less than twice daily.

4.3 *Debris Removal*

Any debris that is deposited on the nearby public roads by trucks exiting the site and traveling to the landfill shall be immediately removed via manual or mechanical means and placed back in the fill stockpile. If significant quantities of debris continue to be deposited on the public roads with regularity, hauling shall be suspended until which time preventative measures can be adjusted or intensified to eliminate the problem.

5.0 SPOILS MANAGEMENT

Debris that is dislodged or rinsed from trucks on the concrete slab shall be periodically removed via manual or mechanical means and placed in the fill stockpile for eventual removal to the landfill. Debris removed from the nearby public roads shall also be placed in the fill stockpile for disposal at the landfill. Any spoil material generated after the stockpile is fully removed shall be transported to the landfill for disposal.

6.0 DAILY MONITORING

An Environmental Monitor from LaBella Associates, D.P.C. will be on-site at all times during hauling operations to ensure that the procedures detailed in this plan are adhered to and to monitor the condition of the adjacent public roads. The Environmental Monitor shall be empowered to suspend hauling operations due to weather conditions, ineffective application of the preventative measures prescribed in this plan or other actions or conditions that result in the tracking of material onto the public roads.

The Environmental Monitor shall direct the frequency of daily street sweeping as dictated by road conditions, and shall ensure that debris removal is effectively performed as needed. Additionally, the Environmental Monitor shall contact the NYSDEC should the contractor fail to adhere to this plan.

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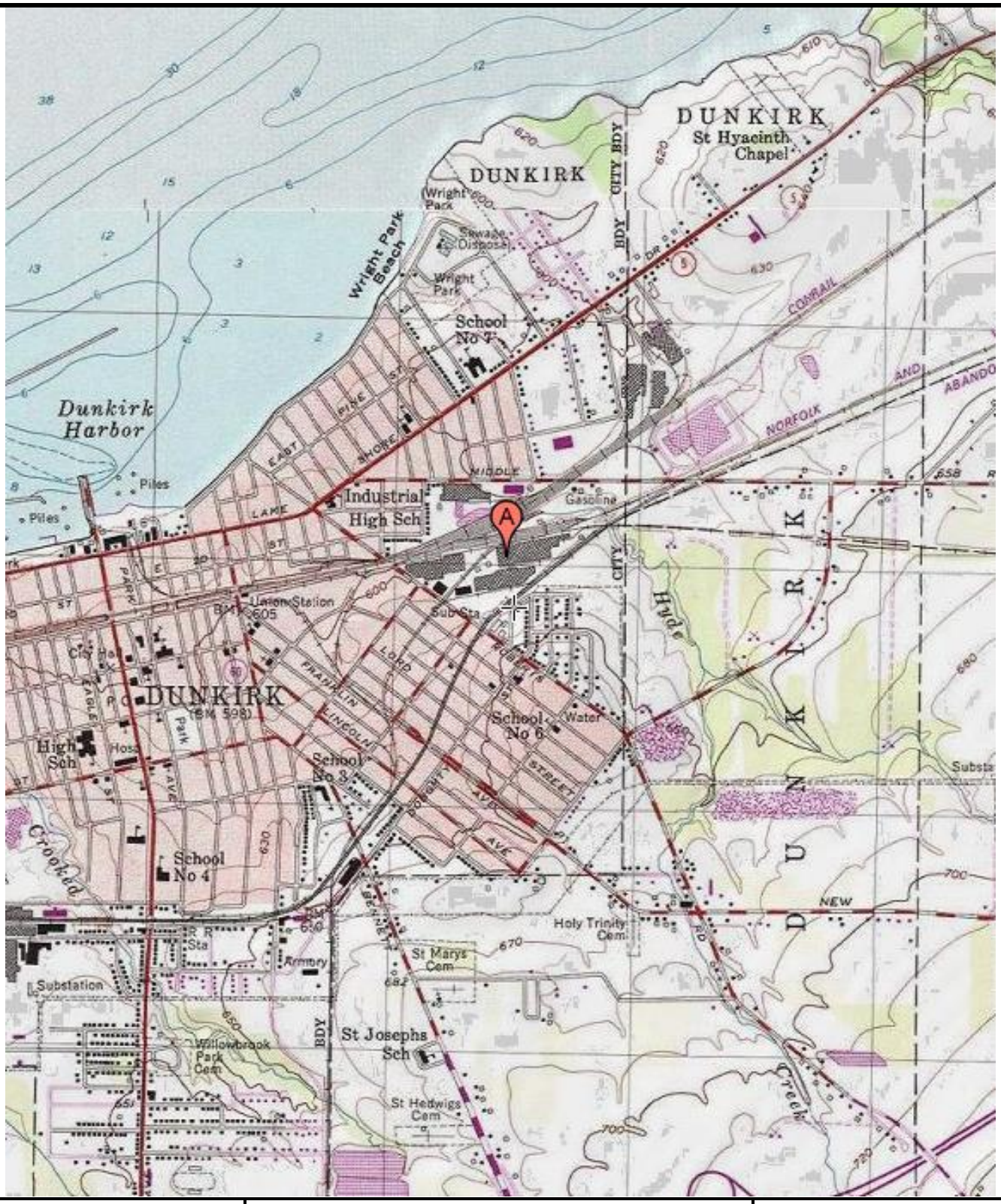
FIGURES



N

Not To Scale

FIGURE 1
SITE LOCATION MAP

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

LABELLA

N

Not To Scale

FIGURE 2
PROPERTY MAP

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

LABELLA

N

Not To Scale

FIGURE 3
LIMITS OF STOCKPILE

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

LABELLA

N

Not To Scale

FIGURE 4
TRUCK ROUTE/ TRUCK WASH

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

LABELLA

APPENDIX 6

Cover Inspection Form

COVER INSPECTION FORM
Former Roblin Steel Site

Property Name: Former Roblin Steel Site Inspection Date: 12-7-2016

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: 16.5 acres

Weather (during inspection): Temperature: 39°F Conditions: Cloudy, Windy

SIGNATURE: C. K. - Chris Kibler

The findings of this inspection were discussed with appropriate personnel, corrective actions were identified and implementation was mutually agreed upon:

Inspector: Chris Kibler Date: 12-7-2016

Next Scheduled Inspection Date: December-2017

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

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 # 6

Stockpile has been removed by O&H Excavating to Curtis landfill. O&H is scheduled to bring in virgin-source soil to fill low-point in former stockpile area. Then former stockpile area will be sampled (post-confirmatory) to assure adequate soil cover has been re-established. This work will likely happen in winter/spring 2017.

ATTACHMENTS

1. Site Sketch
2. Photographs
3. Laboratory Report (s)

LABELLA Associates, D.P.C. | Engineering Architecture Environmental Planning

APPENDIX 7

Photographs

Northwestern portion of Site where former stockpile resided.

Northwestern portion of Site where former stockpile resided.

Northwestern portion of Site where former stockpile resided.

Northwestern portion of Site where former stockpile resided.

Central portion of Site looking west.

Central portion of Site looking south.

Eastern portion of Site looking northwest.

Ditch north of Millennium Parkway on eastern portion of Site looking west.

Southeastern portion of Site looking northwest.

Ditch south of Millennium Parkway on eastern portion of Site looking west.

Eastern portion of Site looking east.

Eastern portion of Site looking east.

LABELLA Associates, D.P.C. | Engineering Architecture Environmental Planning

APPENDIX 8

Revised Confirmatory Sampling Plan

Kibler, Christopher

From: Napieralski, Rob
Sent: Friday, June 24, 2016 6:07 PM
To: 'Szymanski, David (DEC)'
Cc: RodgersD@co.chautauqua.ny.us; kstrell@kheopsdpc.com
Subject: RE: Roblin Site #B00173
Attachments: Stockpile Confirmatory sample lcoations printed.pdf

Hi Dave:

We are working with Chautauqua County to plan the removal of the stockpile on the above referenced site. The NYSDEC-approved Corrective Action Work Plan (CAWP) indicates that "endpoint sampling" is to be conducted for the soil cover underneath the stockpile once it has been removed in order to verify that the quality of the cover soil has not been impacted by the stockpile. The approved CAWP does not specify the number of confirmatory samples required. We propose to collect eight confirmatory samples of the cover system material from the locations shown on the attached figure. Given that no PCBs, Pesticides or Volatile Organic Compounds (VOC), other than low levels of the common laboratory contaminant Acetone, were detected in the stockpiled material at concentrations exceeding the Allowable Constituent Levels for Imported Fill or Soil for the Former Roblin Steel Site, it is proposed that the confirmatory samples be analyzed for Target Compound List (TCL) semi-volatile organic compounds and Target Analyte List (TAL) Metals only. Please let us know if this confirmatory sampling program is acceptable.

Regards,
Rob

Robert Napieralski, C.P.G.
LaBella Associates, D.P.C.
Direct: 716-551-6283
Cell: 716-253-0444

From: Szymanski, David (DEC) [mailto:david.szymanski@dec.ny.gov]
Sent: Monday, April 25, 2016 10:04 AM
To: Spanos, George
Cc: Rodgers, Drew; Napieralski, Rob; Staniszewski, Chad (DEC); Locey, David (DEC)
Subject: RE: Roblin Site #B00173

Chad Staniszewski, Dave Locey and I are free today if you'd like us to call. Does 2:00pm look ok for you?

From: Spanos, George [mailto:SpanosG@co.chautauqua.ny.us]
Sent: Friday, April 22, 2016 4:14 PM
To: Szymanski, David (DEC)
Cc: Rodgers, Drew; RNapieralski@LaBellaPC.com; Staniszewski, Chad (DEC); Locey, David (DEC)
Subject: RE: Roblin Site #B00173

Dave
Thank you for the response please forward some days next week that you are available to meet. We would like to close this project asap. Thank you

NOTE:
TOP NUMBER = CURRENT CONDITIONS
BOTTOM NUMBER = TOP OF CONTAMINATED FILL PLUS 1 FOOT
HORIZONTAL DATUM: NEW YORK STATE PLANE COORDINATE SYSTEM (WESTERN ZONE) NAD 88
VERTICAL DATUM: NAVD 83
FILL VOLUME: ±433 CUBIC YARDS

REV	DESCRIPTION	DATE	BY

NOTES:
UNAUTHORIZED ALTERATION OR ADDITION TO ANY SURVEY, DRAWING, DESIGN SPECIFICATION PLAN OR REPORT IS A VIOLATION OF SECTION 7209 PROVISION 2 OF THE NEW YORK STATE EDUCATION LAW.
THESE PLANS ARE NOT SUITABLE FOR MACHINE GUIDANCE USE OR PURPOSES

KHEOPS
ARCHITECTURE, ENGINEERING & SURVEY, DPC
300 Pearl Street, Suite 100
Buffalo, New York 14202
P. 716.848.8739
F. 716.856.0981
WWW.KHEOPSDPC.COM

Designed by:	JMP	Field Date:	11/21/16
Drawn by:	JMP	Office Date:	12/5/16
Checked by:	DRH	Job No.	2013.201.08
Dwg Scale:	Horiz: 1"=20' Vert: N/A	Book: Page: Map:	
		File Name:	SOIL COVER THICKNESS

SOIL COVER SURVEY
FORMER ROBLIN STEEL SITE
CITY OF DUNKIRK
CHAUTAQUA COUNTY, NEW YORK STATE

MAP NUMBER:

Sheet 1 of 1

File: N:\2013 Projects\2013.0201.00 Millennium CA-C\4 - Technical Data\CADD Drawings\2016 COVER THICKNESS\DUNKIRK 2016 THICKNESS.dwg, Last saved: 12/16/2016, Plot Date: 12/16/2016, By: PIETROWSKI JASON M.

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

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

June 27, 2016

Rob Napieralski
LaBella Associates, D.P.C.
300 Pearl St # 325,
Buffalo, NY 14202

Dear Mr. Napieralski:

Corrective Action Work Plan – Sampling Plan Revision
Former Roblin Steel Site (Dunkirk), Dunkirk(C)
Chautauqua County, Site #B00173

This letter is written in response to your e-mail of June 24, 2016, wherein you requested a modification to the confirmatory sampling plan, as outlined in the approved Corrective Action Work Plan (CAWP.) As proposed, the Department accepts your planned number and location of samples, and your request to reduce parameters to TCL semi-volatile organic compounds and TAL metals only, based upon previous stockpile analytical data.

Please note: Although pre-removal sampling provided the relevant data for the revised confirmatory sampling plan, any soil deemed to be at the endpoint of the excavation that is identified as potentially contaminated (discoloration/ sheen, odor, or of a dissimilar media,) shall be screened with a Photoionization Detector (or other suitable device,) and sampled as necessary to determine if additional excavation is required.

If you have any questions or comments, please contact me at 716-851-7220 or e-mail: david.szymanski@dec.ny.gov .

Sincerely,

David Szymanski
Environmental Program Specialist -1
NYSDEC Region 9

DS/tm

ec: Chad Staniszewski – NYSDEC
David Locey – NYSDEC
George P. Spanos - Chautauqua County Dept. of Public Facilities
Matt Forcucci - NYSDOH
Drew E. Rodgers – Chautauqua County Dept. of Public Facilities

APPENDIX 9

Site Management Periodic Review Report Notice-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: 11.8

Reporting Period: December 15, 2015 to December 14, 2016

	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/ECs 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.

X 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: 12-7-16

X Already in place as of 4/3/2015. Included as Appendix 2 of the 2016 Periodic Review Report.

SITE NO. B00173 **Box 3**

Description of Institutional Controls

Parcel	Owner	Institutional Control
79.12-4-29	Chautauqua Co.	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 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 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 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
	☐

2. If this site has an IC/EC Plan (or equivalent as required in the Decision Document), for each Institutional or Engineering control listed in Boxes 3 and/or 4, I certify by checking "YES" below that all of the following statements are true:

   (a) the Institutional Control and/or Engineering Control(s) employed at this site is unchanged since the date that the Control was put in-place, or was last approved by the Department;

   (b) nothing has occurred that would impair the ability of such Control, to protect public health and the environment;

   (c) access to the site will continue to be provided to the Department, to evaluate the remedy, including access to evaluate the continued maintenance of this Control;

   (d) nothing has occurred that would constitute a violation or failure to comply with the Site Management Plan for this Control; and

   (e) if a financial assurance mechanism is required by the oversight document for the site, the mechanism remains valid and sufficient for its intended purpose established in the document.

YES	NO
	☐

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

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

Signature of Owner, Remedial Party or Designated Representative — Date

IC CERTIFICATIONS
SITE NO. 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 _____ at _____,
print name print business address

am certifying as _____(Owner or Remedial Party)

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

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

IC/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 _____ at _____,
print name print business address

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

_____	_____	_____
Signature of Professional Engineer, for the Owner or Remedial Party, Rendering Certification	Stamp (Required for PE)	Date

LABELLA Associates, D.P.C. | Engineering Architecture Environmental Planning

APPENDIX 10

Groundwater Sampling Logs

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

Well I.D. MW-12

Site Location: Roblin Steel Site, Dunkirk, NY
Job No. **2160148**
Sample Date: Dec. 14 2016
LaBella Representative: CMK

Well I.D.	Initial Readings	1 Well Volume	2 Well Volumes	3 Well Volume	Sample	Post Sample	Details
Time	8:45	8:53	9:03	9:10	9:15		
Depth of well	23.94						
Depth to water	9'						
Well diameter	2"						
Well volume (gallons)	2.4						
Purging device	P.P.						
Containment device							
Purge time							
Gallons purged		2.4	2.4	2.4			
Sample device							
Field Parameters							
Temperature	4.9	4.6	4.4	4.5	4.3		
pH measurement	7.2	7.11	7.14	7.09	7.13		
Conductivity (mS/cm)	0.96	0.91	0.87	0.94	0.88		
ORP/Eh (mV)	160.2	150.4	138.2				
Turbidity (NTUs)	9.5	9.2	13.1	20.2	30.3		

WEATHER:

NOTES/FIELD OBSERVATIONS:

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.

Sample-MW-12-9:15am - 12-14-16

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

Well I.D. MW-9R

Site Location: Roblin Steel Site, Dunkirk, NY — Job No. **2160148**

Sample Date: Dec. 14 2016

LaBella Representative: CMK

Well I.D.	Initial Readings	1 Well Volume	2 Well Volumes	3 Well Volume	Sample	Post Sample	Details
Time	930	9:40	9:51	10:04	10:11		
Depth of well	16.7						
Depth to water	4.7"						
Well diameter	2"						
Well volume (gallons)	1.92						
Purging device	P.P.						
Containment device							
Purge time							
Gallons purged		1.92	1.92	1.92			
Sample device							
Field Parameters							
Temperature	4.8	4.6	4.4	4.5	4.2		
pH measurement	7.53	7.41	7.42	7.5	7.53		
Conductivity (mS/cm)	0.792	0.774	0.761	0.71	0.74		
ORP/Eh (mV)	190.8	180.1	182.1	189.3	186.4		
Turbidity (NTUs)	4.2	13.1	23.1	29.2	29.6		

WEATHER:

NOTES/FIELD OBSERVATIONS:

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.

MW-9R - Sample 10:11 - 12-14-16

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

Well I.D. MW-7R

Site Location: Roblin Steel Site, Dunkirk, NY
Job No. **2160148**
Sample Date: Dec. 14 2016
LaBella Representative: CMK

Well I.D.	Initial Readings	1 Well Volume	2 Well Volumes	3 Well Volume	Sample	Post Sample	Details
Time	10:30	10:37	10:48	10:59	11:06		
Depth of well	17.57						
Depth to water	3.31'						
Well diameter	2"						
Well volume (gallons)	2.3						
Purging device	PP						
Containment device							
Purge time							
Gallons purged		2.3	2.3	2.3			
Sample device							
Field Parameters							
Temperature	5.3	5.1	4.6	4.6	4.7		
pH measurement	7.6	7.41	7.52	7.51	7.57		
Conductivity (mS/cm)	1.384	1.336	1.348	1.291	1.311		
ORP/Eh (mV)	-50.6	-42.6	-44.7	-48.2	-41.2		
Turbidity (NTUs)	4.6	5.1	16.2	23.4	26.1		

WEATHER:

NOTES/FIELD OBSERVATIONS:

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.

MW-7R - sample 11:06 - 12-14-16

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

Well I.D. MW-4

Site Location: Roblin Steel Site, Dunkirk, NY — Job No. **2160148**

Sample Date: Dec. 14 2016

LaBella Representative: CMK

Well I.D.	Initial Readings	1 Well Volume	2 Well Volumes	3 Well Volume	Sample	Post Sample	Details
Time	11:20	11:27	11:34	11:41	11:51		
Depth of well	16.04						
Depth to water	3.10"						
Well diameter	2"						
Well volume (gallons)	2.1						
Purging device	P.P.						
Containment device							
Purge time							
Gallons purged		2.1	2.1	2.1			
Sample device							
Field Parameters							
Temperature	7	7.1	7.0	6.7	6.9		
pH measurement	7.22	7.11	7.18	7.16	7.19		
Conductivity (mS/cm)	0.788	0.799	0.787	0.781	0.782		
ORP/Eh (mV)	121.7	136.1	131.9	130.8	127.6		
Turbidity (NTUs)	21.1	45.1	56.1	73.8	58.1		

WEATHER:

NOTES/FIELD OBSERVATIONS:

-Turbidity ? -above 50 NTU's @ sampling event

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.

sample - MW4 - 11:51 - 12-14-16

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

Well I.D. MW-1

Site Location: Roblin Steel Site, Dunkirk, NY — Job No. **2160148**

Sample Date: Dec. 14 2016

LaBella Representative: CMK

Well I.D.	Initial Readings	1 Well Volume	2 Well Volumes	3 Well Volume	Sample	Post Sample	Details
Time	12:02	12:10	12:18	12:25	12:32		
Depth of well	18.15						
Depth to water	3'.3"						
Well diameter	2"						
Well volume (gallons)	2.4						
Purging device	P.P.						
Containment device							
Purge time							
Gallons purged		2.4	2.4	2.4			
Sample device							
Field Parameters							
Temperature	6.1	5.8	5.6	5.6	5.5		
pH measurement	7.87	7.81	7.81	7.87	7.84		
Conductivity (mS/cm)	0.459	0.444	0.441	0.457	0.451		
ORP/Eh (mV)	-261.6	-259.1	-259.6	-221.6	-231.4		
Turbidity (NTUs)	22.8	24.6	41.7	44.8	41.1		

WEATHER:

NOTES/FIELD OBSERVATIONS:

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.

-Sample - MW1 - 12:32 - 12-14-16

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

Well I.D. Ex MW-12

Site Location: Roblin Steel Site, Dunkirk, NY
Job No. **2160148**
Sample Date: Dec. 21 2016
LaBella Representative: CMK

Well I.D.	Initial Readings	1 Well Volume	2 Well Volumes	3 Well Volume	Sample	Post Sample	Details
Time	12:40	12:46	12:51	12:59	13:05		
Depth of well	23.1						
Depth to water	5.19"						
Well diameter	2"						
Well volume (gallons)	2.8						
Purging device	P.P.						
Containment device							
Purge time							
Gallons purged		2.8	2.8	2.8			
Sample device							
Field Parameters							
Temperature	7.1	6.9	6.8	6.8	6.6		
pH measurement	7.39	7.31	7.32	7.29	7.3		
Conductivity (mS/cm)	0.756	0.779	0.712	0.709	0.713		
ORP/Eh (mV)	-129.8	-114.8	-118.6	-109.2	-123.6		
Turbidity (NTUs)	12.6	13.1	12.6	11.1	9.8		

WEATHER:

NOTES/FIELD OBSERVATIONS:

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.

Sample-Ex-MW-12-13:05-12-14-16

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

Well I.D. MW-2R

Site Location: Roblin Steel Site, Dunkirk, NY — Job No. **2160148**

Sample Date: Dec. 14 2016

LaBella Representative: CMK

Well I.D.	Initial Readings	1 Well Volume	2 Well Volumes	3 Well Volume	Sample	Post Sample	Details
Time	13:15	13:22	13:30	13:36	13:48		
Depth of well	23.25						
Depth to water	5.71'						
Well diameter	2"						
Well volume (gallons)	2.8						
Purging device	P.P.						
Containment device							
Purge time							
Gallons purged		2.8	2.8	2.8			
Sample device							
Field Parameters							
Temperature	6.4	6.4	6.1	6.1	6.12		
pH measurement	7.56	7.51	7.52	7.49	7.51		
Conductivity (mS/cm)	0.663	0.661	0.651	0.654	0.663		
ORP/Eh (mV)	-63.1	-45.2	-44.1	-47.3	-45.6		
Turbidity (NTUs)	23	25.6	22.1	19.8	13.6		

WEATHER:

NOTES/FIELD OBSERVATIONS:

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.

-Sample-MW-2R-13:48 - 12-14-16

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

Well I.D. Ex MW-1R

Site Location: Roblin Steel Site, Dunkirk, NY
Job No. **2160148**
Sample Date: Dec. 14 2016
LaBella Representative: CMK

Well I.D.	Initial Readings	1 Well Volume	2 Well Volumes	3 Well Volume	Sample	Post Sample	Details
Time	14:00	14:06	14:13	14:20	14:28		
Depth of well	18.65						
Depth to water	4.7						
Well diameter	2"						
Well volume (gallons)	2.2						
Purging device	P.P.						
Containment device							
Purge time							
Gallons purged		2.2	2.2	2.2			
Sample device							
Field Parameters							
Temperature	5.2	5.3	5.1	5.4	5.1		
pH measurement	7.64	7.61	7.62	7.63	7.66		
Conductivity (mS/cm)	0.545	0.554	0.551	0.551	0.557		
ORP/Eh (mV)	-2.4	-1.6	-1.5	-2.4	-2.6		
Turbidity (NTUs)	24.9	26.8	24.2	24.6	21.1		

WEATHER:

NOTES/FIELD OBSERVATIONS:

F.D. - 14:28 (Ex MW-1R)

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.

- Sample - Ex MW-1R - 14:28 + F.D.

LABELLA Associates, D.P.C. | Engineering Architecture Environmental Planning

APPENDIX 11

Laboratory Analytical Results

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Tel: (716)691-2600

TestAmerica Job ID: 480-111156-1
Client Project/Site: Former Roblin Steel & Alumax Ext Sites

For:
LaBella Associates DPC
300 Pearl Street
Suite 130
Buffalo, New York 14202

Attn: Chris Kibler

Melissa Deyo

Authorized for release by:
12/29/2016 10:25:41 AM

Melissa Deyo, Project Manager I
(716)504-9874
melissa.deyo@testamericainc.com

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Definitions/Glossary

Client: LaBella Associates DPC
Project/Site: Former Roblin Steel & Alumax Ext Sites

TestAmerica Job ID: 480-111156-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
*	LCS or LCSD is outside acceptance limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
F1	MS and/or MSD Recovery is outside acceptance limits.

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
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
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)

Job ID: 480-111156-1

Laboratory: TestAmerica Buffalo

Narrative

Job Narrative
480-111156-1

Receipt
The samples were received on 12/15/2016 11:00 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 3.4° C.

GC/MS VOA
Method(s) 8260C: The laboratory control sample(LCS) for analytical batch 480-337023 recovered outside control limits for the following analyte: Methyl acetate. Methyl acetate has been identified as a poor performing analyte when analyzed using this method; therefore, re-extraction/re-analysis was not performed. MW-12 (480-111156-1), MW-9R (480-111156-2), MW-7R (480-111156-3), MW-4 (480-111156-4), MW-1 (480-111156-5), EX MW-12 (480-111156-6), EX MW-11R (480-111156-8), AL-2 (480-111156-9), AL-1 (480-111156-10), AL-7 (480-111156-11), FIELD DUPLICATE (480-111156-12) and TRIP BLANK (480-111156-13).

Method(s) 8260C: The continuing calibration verification (CCV) associated with batch 480-337023 recovered outside acceptance criteria, low biased, for 2-Hexanone, 1,1,2,2-Tetrachloroethane, 1,1,2-Trichloroethane, Chloromethane, 4-Methyl-2-pentanone, 2-Butanone. A reporting limit (RL) standard was analyzed, and the target analyte was detected. Since the associated samples were non-detect for this analyte, the data have been reported. The following samples are impacted: MW-12 (480-111156-1), MW-9R (480-111156-2), MW-7R (480-111156-3), MW-4 (480-111156-4), MW-1 (480-111156-5), EX MW-12 (480-111156-6), EX MW-11R (480-111156-8), AL-2 (480-111156-9), AL-1 (480-111156-10), AL-7 (480-111156-11), FIELD DUPLICATE (480-111156-12) and TRIP BLANK (480-111156-13).

Method(s) 8260C: The following samples were diluted to bring the concentration of target analytes within the calibration range: MW-9R (480-111156-2), EX MW-11R (480-111156-8), AL-1 (480-111156-10), FIELD DUPLICATE (480-111156-12), (480-111156-B-2 MS) and (480-111156-B-2 MSD). Elevated reporting limits (RLs) are provided.

Method(s) 8260C: The following sample was diluted due to the abundance of non-target analytes: AL-2 (480-111156-9). Elevated reporting limits (RLs) are provided.

Method(s) 8260C: The continuing calibration verification (CCV) associated with batch 480-337188 recovered outside acceptance criteria, low biased, for 2-Hexanone and 4-Methyl-2-pentanone (MIBK). A reporting limit (RL) standard was analyzed, and the target analytes were detected. Since the associated samples were non-detect for these analytes, the data have been reported. The following sample is impacted: MW-2R (480-111156-7).

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: Former Roblin Steel & Alumax Ext Sites

TestAmerica Job ID: 480-111156-1

Client Sample ID: MW-12 — Lab Sample ID: 480-111156-1

No Detections.

Client Sample ID: MW-9R — Lab Sample ID: 480-111156-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	500	F1	10	8.1	ug/L	10		8260C	Total/NA
Methylene Chloride	4.8	J	10	4.4	ug/L	10		8260C	Total/NA
Trichloroethene	230	F1	10	4.6	ug/L	10		8260C	Total/NA

Client Sample ID: MW-7R — Lab Sample ID: 480-111156-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	5.9		1.0	0.81	ug/L	1		8260C	Total/NA
Trichloroethene	2.0		1.0	0.46	ug/L	1		8260C	Total/NA
Vinyl chloride	3.7		1.0	0.90	ug/L	1		8260C	Total/NA

Client Sample ID: MW-4 — Lab Sample ID: 480-111156-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	1.2		1.0	0.81	ug/L	1		8260C	Total/NA
Trichloroethene	0.91	J	1.0	0.46	ug/L	1		8260C	Total/NA

Client Sample ID: MW-1 — Lab Sample ID: 480-111156-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Carbon disulfide	0.19	J	1.0	0.19	ug/L	1		8260C	Total/NA
Trichloroethene	0.53	J	1.0	0.46	ug/L	1		8260C	Total/NA

Client Sample ID: EX MW-12 — Lab Sample ID: 480-111156-6

No Detections.

Client Sample ID: MW-2R — Lab Sample ID: 480-111156-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	3.5		1.0	0.41	ug/L	1		8260C	Total/NA
cis-1,2-Dichloroethene	11		1.0	0.81	ug/L	1		8260C	Total/NA
Cyclohexane	5.0		1.0	0.18	ug/L	1		8260C	Total/NA
Methylcyclohexane	1.3		1.0	0.16	ug/L	1		8260C	Total/NA
Vinyl chloride	42		1.0	0.90	ug/L	1		8260C	Total/NA

Client Sample ID: EX MW-11R — Lab Sample ID: 480-111156-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethene	11	J	20	5.8	ug/L	20		8260C	Total/NA
cis-1,2-Dichloroethene	1000		20	16	ug/L	20		8260C	Total/NA
Cyclohexane	24		20	3.6	ug/L	20		8260C	Total/NA
Methylcyclohexane	20		20	3.2	ug/L	20		8260C	Total/NA
Methylene Chloride	12	J	20	8.8	ug/L	20		8260C	Total/NA
Trichloroethene	91		20	9.2	ug/L	20		8260C	Total/NA
Vinyl chloride	360		20	18	ug/L	20		8260C	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: LaBella Associates DPC
Project/Site: Former Roblin Steel & Alumax Ext Sites

TestAmerica Job ID: 480-111156-1

Client Sample ID: AL-2 — Lab Sample ID: 480-111156-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	9.0	J	20	8.2	ug/L	20		8260C	Total/NA
Methylene Chloride	12	J	20	8.8	ug/L	20		8260C	Total/NA

Client Sample ID: AL-1 — Lab Sample ID: 480-111156-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	2500		80	65	ug/L	80		8260C	Total/NA
Methylene Chloride	45	J	80	35	ug/L	80		8260C	Total/NA
Trichloroethene	130		80	37	ug/L	80		8260C	Total/NA
Vinyl chloride	850		80	72	ug/L	80		8260C	Total/NA

Client Sample ID: AL-7 — Lab Sample ID: 480-111156-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	7.0		1.0	0.81	ug/L	1		8260C	Total/NA
Trichloroethene	2.0		1.0	0.46	ug/L	1		8260C	Total/NA

Client Sample ID: FIELD DUPLICATE — Lab Sample ID: 480-111156-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	1100		25	20	ug/L	25		8260C	Total/NA
Cyclohexane	29		25	4.5	ug/L	25		8260C	Total/NA
Methylcyclohexane	18	J	25	4.0	ug/L	25		8260C	Total/NA
Methylene Chloride	15	J	25	11	ug/L	25		8260C	Total/NA
Trichloroethene	90		25	12	ug/L	25		8260C	Total/NA
Vinyl chloride	390		25	23	ug/L	25		8260C	Total/NA

Client Sample ID: TRIP BLANK — Lab Sample ID: 480-111156-13

No Detections.

This Detection Summary does not include radiochemical test results.

Client: LaBella Associates DPC
Project/Site: Former Roblin Steel & Alumax Ext Sites

TestAmerica Job ID: 480-111156-1

Client Sample ID: MW-12
Date Collected: 12/14/16 09:15
Date Received: 12/15/16 11:00

Lab Sample ID: 480-111156-1
Matrix: Water

Method: 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			12/19/16 13:10	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			12/19/16 13:10	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			12/19/16 13:10	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			12/19/16 13:10	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			12/19/16 13:10	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			12/19/16 13:10	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			12/19/16 13:10	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			12/19/16 13:10	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			12/19/16 13:10	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			12/19/16 13:10	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			12/19/16 13:10	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			12/19/16 13:10	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			12/19/16 13:10	1
2-Butanone (MEK)	ND		10	1.3	ug/L			12/19/16 13:10	1
2-Hexanone	ND		5.0	1.2	ug/L			12/19/16 13:10	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			12/19/16 13:10	1
Acetone	ND		10	3.0	ug/L			12/19/16 13:10	1
Benzene	ND		1.0	0.41	ug/L			12/19/16 13:10	1
Bromodichloromethane	ND		1.0	0.39	ug/L			12/19/16 13:10	1
Bromoform	ND		1.0	0.26	ug/L			12/19/16 13:10	1
Bromomethane	ND		1.0	0.69	ug/L			12/19/16 13:10	1
Carbon disulfide	ND		1.0	0.19	ug/L			12/19/16 13:10	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			12/19/16 13:10	1
Chlorobenzene	ND		1.0	0.75	ug/L			12/19/16 13:10	1
Dibromochloromethane	ND		1.0	0.32	ug/L			12/19/16 13:10	1
Chloroethane	ND		1.0	0.32	ug/L			12/19/16 13:10	1
Chloroform	ND		1.0	0.34	ug/L			12/19/16 13:10	1
Chloromethane	ND		1.0	0.35	ug/L			12/19/16 13:10	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			12/19/16 13:10	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			12/19/16 13:10	1
Cyclohexane	ND		1.0	0.18	ug/L			12/19/16 13:10	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			12/19/16 13:10	1
Ethylbenzene	ND		1.0	0.74	ug/L			12/19/16 13:10	1
1,2-Dibromoethane	ND		1.0	0.73	ug/L			12/19/16 13:10	1
Isopropylbenzene	ND		1.0	0.79	ug/L			12/19/16 13:10	1
Methyl acetate	ND	*	2.5	1.3	ug/L			12/19/16 13:10	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			12/19/16 13:10	1
Methylcyclohexane	ND		1.0	0.16	ug/L			12/19/16 13:10	1
Methylene Chloride	ND		1.0	0.44	ug/L			12/19/16 13:10	1
Styrene	ND		1.0	0.73	ug/L			12/19/16 13:10	1
Tetrachloroethene	ND		1.0	0.36	ug/L			12/19/16 13:10	1
Toluene	ND		1.0	0.51	ug/L			12/19/16 13:10	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			12/19/16 13:10	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			12/19/16 13:10	1
Trichloroethene	ND		1.0	0.46	ug/L			12/19/16 13:10	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			12/19/16 13:10	1
Vinyl chloride	ND		1.0	0.90	ug/L			12/19/16 13:10	1
Xylenes, Total	ND		2.0	0.66	ug/L			12/19/16 13:10	1

Client Sample ID: MW-12

Lab Sample ID: 480-111156-1

Date Collected: 12/14/16 09:15

Matrix: Water

Date Received: 12/15/16 11:00

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	*95*		*80 - 120*		*12/19/16 13:10*	*1*
1,2-Dichloroethane-d4 (Surr)	*95*		*77 - 120*		*12/19/16 13:10*	*1*
4-Bromofluorobenzene (Surr)	*100*		*73 - 120*		*12/19/16 13:10*	*1*
Dibromofluoromethane (Surr)	*98*		*75 - 123*		*12/19/16 13:10*	*1*

Client Sample ID: MW-9R

Lab Sample ID: 480-111156-2

Date Collected: 12/14/16 10:11

Matrix: Water

Date Received: 12/15/16 11:00

Method: 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			12/19/16 13:37	10
1,1,2,2-Tetrachloroethane	ND		10	2.1	ug/L			12/19/16 13:37	10
1,1,2-Trichloroethane	ND		10	2.3	ug/L			12/19/16 13:37	10
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		10	3.1	ug/L			12/19/16 13:37	10
1,1-Dichloroethane	ND		10	3.8	ug/L			12/19/16 13:37	10
1,1-Dichloroethene	ND		10	2.9	ug/L			12/19/16 13:37	10
1,2,4-Trichlorobenzene	ND		10	4.1	ug/L			12/19/16 13:37	10
1,2-Dibromo-3-Chloropropane	ND		10	3.9	ug/L			12/19/16 13:37	10
1,2-Dichlorobenzene	ND		10	7.9	ug/L			12/19/16 13:37	10
1,2-Dichloroethane	ND		10	2.1	ug/L			12/19/16 13:37	10
1,2-Dichloropropane	ND		10	7.2	ug/L			12/19/16 13:37	10
1,3-Dichlorobenzene	ND		10	7.8	ug/L			12/19/16 13:37	10
1,4-Dichlorobenzene	ND		10	8.4	ug/L			12/19/16 13:37	10
2-Butanone (MEK)	ND		100	13	ug/L			12/19/16 13:37	10
2-Hexanone	ND		50	12	ug/L			12/19/16 13:37	10
4-Methyl-2-pentanone (MIBK)	ND		50	21	ug/L			12/19/16 13:37	10
Acetone	ND		100	30	ug/L			12/19/16 13:37	10
Benzene	ND		10	4.1	ug/L			12/19/16 13:37	10
Bromodichloromethane	ND		10	3.9	ug/L			12/19/16 13:37	10
Bromoform	ND		10	2.6	ug/L			12/19/16 13:37	10
Bromomethane	ND		10	6.9	ug/L			12/19/16 13:37	10
Carbon disulfide	ND		10	1.9	ug/L			12/19/16 13:37	10
Carbon tetrachloride	ND		10	2.7	ug/L			12/19/16 13:37	10
Chlorobenzene	ND		10	7.5	ug/L			12/19/16 13:37	10
Dibromochloromethane	ND		10	3.2	ug/L			12/19/16 13:37	10
Chloroethane	ND		10	3.2	ug/L			12/19/16 13:37	10
Chloroform	ND		10	3.4	ug/L			12/19/16 13:37	10
Chloromethane	ND		10	3.5	ug/L			12/19/16 13:37	10
cis-1,2-Dichloroethene	**500**	**F1**	10	8.1	ug/L			12/19/16 13:37	10
cis-1,3-Dichloropropene	ND		10	3.6	ug/L			12/19/16 13:37	10
Cyclohexane	ND		10	1.8	ug/L			12/19/16 13:37	10
Dichlorodifluoromethane	ND		10	6.8	ug/L			12/19/16 13:37	10
Ethylbenzene	ND		10	7.4	ug/L			12/19/16 13:37	10
1,2-Dibromoethane	ND		10	7.3	ug/L			12/19/16 13:37	10
Isopropylbenzene	ND		10	7.9	ug/L			12/19/16 13:37	10
Methyl acetate	ND	F1 *	25	13	ug/L			12/19/16 13:37	10
Methyl tert-butyl ether	ND		10	1.6	ug/L			12/19/16 13:37	10
Methylcyclohexane	ND		10	1.6	ug/L			12/19/16 13:37	10
Methylene Chloride	**4.8**	**J**	10	4.4	ug/L			12/19/16 13:37	10

Client Sample ID: MW-9R

Date Collected: 12/14/16 10:11
Date Received: 12/15/16 11:00

Lab Sample ID: 480-111156-2
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Styrene	ND		10	7.3	ug/L			12/19/16 13:37	10
Tetrachloroethene	ND		10	3.6	ug/L			12/19/16 13:37	10
Toluene	ND		10	5.1	ug/L			12/19/16 13:37	10
trans-1,2-Dichloroethene	ND		10	9.0	ug/L			12/19/16 13:37	10
trans-1,3-Dichloropropene	ND		10	3.7	ug/L			12/19/16 13:37	10
Trichloroethene	**230**	**F1**	10	4.6	ug/L			12/19/16 13:37	10
Trichlorofluoromethane	ND		10	8.8	ug/L			12/19/16 13:37	10
Vinyl chloride	ND		10	9.0	ug/L			12/19/16 13:37	10
Xylenes, Total	ND		20	6.6	ug/L			12/19/16 13:37	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*96*		*80 - 120*		*12/19/16 13:37*	*10*
1,2-Dichloroethane-d4 (Surr)	*97*		*77 - 120*		*12/19/16 13:37*	*10*
4-Bromofluorobenzene (Surr)	*101*		*73 - 120*		*12/19/16 13:37*	*10*
Dibromofluoromethane (Surr)	*104*		*75 - 123*		*12/19/16 13:37*	*10*

Client Sample ID: MW-7R

Date Collected: 12/14/16 11:06
Date Received: 12/15/16 11:00

Lab Sample ID: 480-111156-3
Matrix: Water

Method: 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			12/19/16 14:04	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			12/19/16 14:04	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			12/19/16 14:04	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			12/19/16 14:04	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			12/19/16 14:04	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			12/19/16 14:04	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			12/19/16 14:04	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			12/19/16 14:04	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			12/19/16 14:04	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			12/19/16 14:04	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			12/19/16 14:04	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			12/19/16 14:04	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			12/19/16 14:04	1
2-Butanone (MEK)	ND		10	1.3	ug/L			12/19/16 14:04	1
2-Hexanone	ND		5.0	1.2	ug/L			12/19/16 14:04	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			12/19/16 14:04	1
Acetone	ND		10	3.0	ug/L			12/19/16 14:04	1
Benzene	ND		1.0	0.41	ug/L			12/19/16 14:04	1
Bromodichloromethane	ND		1.0	0.39	ug/L			12/19/16 14:04	1
Bromoform	ND		1.0	0.26	ug/L			12/19/16 14:04	1
Bromomethane	ND		1.0	0.69	ug/L			12/19/16 14:04	1
Carbon disulfide	ND		1.0	0.19	ug/L			12/19/16 14:04	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			12/19/16 14:04	1
Chlorobenzene	ND		1.0	0.75	ug/L			12/19/16 14:04	1
Dibromochloromethane	ND		1.0	0.32	ug/L			12/19/16 14:04	1
Chloroethane	ND		1.0	0.32	ug/L			12/19/16 14:04	1
Chloroform	ND		1.0	0.34	ug/L			12/19/16 14:04	1
Chloromethane	ND		1.0	0.35	ug/L			12/19/16 14:04	1

Client Sample ID: MW-7R

Date Collected: 12/14/16 11:06
Date Received: 12/15/16 11:00

Lab Sample ID: 480-111156-3
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
cis-1,2-Dichloroethene	**5.9**		1.0	0.81	ug/L			12/19/16 14:04	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			12/19/16 14:04	1
Cyclohexane	ND		1.0	0.18	ug/L			12/19/16 14:04	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			12/19/16 14:04	1
Ethylbenzene	ND		1.0	0.74	ug/L			12/19/16 14:04	1
1,2-Dibromoethane	ND		1.0	0.73	ug/L			12/19/16 14:04	1
Isopropylbenzene	ND		1.0	0.79	ug/L			12/19/16 14:04	1
Methyl acetate	ND	*	2.5	1.3	ug/L			12/19/16 14:04	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			12/19/16 14:04	1
Methylcyclohexane	ND		1.0	0.16	ug/L			12/19/16 14:04	1
Methylene Chloride	ND		1.0	0.44	ug/L			12/19/16 14:04	1
Styrene	ND		1.0	0.73	ug/L			12/19/16 14:04	1
Tetrachloroethene	ND		1.0	0.36	ug/L			12/19/16 14:04	1
Toluene	ND		1.0	0.51	ug/L			12/19/16 14:04	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			12/19/16 14:04	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			12/19/16 14:04	1
Trichloroethene	**2.0**		1.0	0.46	ug/L			12/19/16 14:04	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			12/19/16 14:04	1
Vinyl chloride	**3.7**		1.0	0.90	ug/L			12/19/16 14:04	1
Xylenes, Total	ND		2.0	0.66	ug/L			12/19/16 14:04	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*96*		*80 - 120*		*12/19/16 14:04*	*1*
1,2-Dichloroethane-d4 (Surr)	*97*		*77 - 120*		*12/19/16 14:04*	*1*
4-Bromofluorobenzene (Surr)	*99*		*73 - 120*		*12/19/16 14:04*	*1*
Dibromofluoromethane (Surr)	*99*		*75 - 123*		*12/19/16 14:04*	*1*

Client Sample ID: MW-4

Date Collected: 12/14/16 11:51
Date Received: 12/15/16 11:00

Lab Sample ID: 480-111156-4
Matrix: Water

Method: 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			12/19/16 14:31	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			12/19/16 14:31	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			12/19/16 14:31	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			12/19/16 14:31	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			12/19/16 14:31	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			12/19/16 14:31	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			12/19/16 14:31	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			12/19/16 14:31	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			12/19/16 14:31	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			12/19/16 14:31	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			12/19/16 14:31	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			12/19/16 14:31	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			12/19/16 14:31	1
2-Butanone (MEK)	ND		10	1.3	ug/L			12/19/16 14:31	1
2-Hexanone	ND		5.0	1.2	ug/L			12/19/16 14:31	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			12/19/16 14:31	1
Acetone	ND		10	3.0	ug/L			12/19/16 14:31	1

Client Sample ID: MW-4
Date Collected: 12/14/16 11:51
Date Received: 12/15/16 11:00

Lab Sample ID: 480-111156-4
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0	0.41	ug/L			12/19/16 14:31	1
Bromodichloromethane	ND		1.0	0.39	ug/L			12/19/16 14:31	1
Bromoform	ND		1.0	0.26	ug/L			12/19/16 14:31	1
Bromomethane	ND		1.0	0.69	ug/L			12/19/16 14:31	1
Carbon disulfide	ND		1.0	0.19	ug/L			12/19/16 14:31	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			12/19/16 14:31	1
Chlorobenzene	ND		1.0	0.75	ug/L			12/19/16 14:31	1
Dibromochloromethane	ND		1.0	0.32	ug/L			12/19/16 14:31	1
Chloroethane	ND		1.0	0.32	ug/L			12/19/16 14:31	1
Chloroform	ND		1.0	0.34	ug/L			12/19/16 14:31	1
Chloromethane	ND		1.0	0.35	ug/L			12/19/16 14:31	1
cis-1,2-Dichloroethene	**1.2**		1.0	0.81	ug/L			12/19/16 14:31	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			12/19/16 14:31	1
Cyclohexane	ND		1.0	0.18	ug/L			12/19/16 14:31	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			12/19/16 14:31	1
Ethylbenzene	ND		1.0	0.74	ug/L			12/19/16 14:31	1
1,2-Dibromoethane	ND		1.0	0.73	ug/L			12/19/16 14:31	1
Isopropylbenzene	ND		1.0	0.79	ug/L			12/19/16 14:31	1
Methyl acetate	ND	*	2.5	1.3	ug/L			12/19/16 14:31	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			12/19/16 14:31	1
Methylcyclohexane	ND		1.0	0.16	ug/L			12/19/16 14:31	1
Methylene Chloride	ND		1.0	0.44	ug/L			12/19/16 14:31	1
Styrene	ND		1.0	0.73	ug/L			12/19/16 14:31	1
Tetrachloroethene	ND		1.0	0.36	ug/L			12/19/16 14:31	1
Toluene	ND		1.0	0.51	ug/L			12/19/16 14:31	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			12/19/16 14:31	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			12/19/16 14:31	1
Trichloroethene	**0.91**	**J**	1.0	0.46	ug/L			12/19/16 14:31	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			12/19/16 14:31	1
Vinyl chloride	ND		1.0	0.90	ug/L			12/19/16 14:31	1
Xylenes, Total	ND		2.0	0.66	ug/L			12/19/16 14:31	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*93*		*80 - 120*		*12/19/16 14:31*	*1*
1,2-Dichloroethane-d4 (Surr)	*92*		*77 - 120*		*12/19/16 14:31*	*1*
4-Bromofluorobenzene (Surr)	*100*		*73 - 120*		*12/19/16 14:31*	*1*
Dibromofluoromethane (Surr)	*96*		*75 - 123*		*12/19/16 14:31*	*1*

Client Sample ID: MW-1
Date Collected: 12/14/16 12:32
Date Received: 12/15/16 11:00

Lab Sample ID: 480-111156-5
Matrix: Water

Method: 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			12/19/16 14:58	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			12/19/16 14:58	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			12/19/16 14:58	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			12/19/16 14:58	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			12/19/16 14:58	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			12/19/16 14:58	1

Client: LaBella Associates DPC
Project/Site: Former Roblin Steel & Alumax Ext Sites

TestAmerica Job ID: 480-111156-1

Client Sample ID: MW-1
Date Collected: 12/14/16 12:32
Date Received: 12/15/16 11:00

Lab Sample ID: 480-111156-5
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			12/19/16 14:58	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			12/19/16 14:58	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			12/19/16 14:58	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			12/19/16 14:58	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			12/19/16 14:58	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			12/19/16 14:58	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			12/19/16 14:58	1
2-Butanone (MEK)	ND		10	1.3	ug/L			12/19/16 14:58	1
2-Hexanone	ND		5.0	1.2	ug/L			12/19/16 14:58	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			12/19/16 14:58	1
Acetone	ND		10	3.0	ug/L			12/19/16 14:58	1
Benzene	ND		1.0	0.41	ug/L			12/19/16 14:58	1
Bromodichloromethane	ND		1.0	0.39	ug/L			12/19/16 14:58	1
Bromoform	ND		1.0	0.26	ug/L			12/19/16 14:58	1
Bromomethane	ND		1.0	0.69	ug/L			12/19/16 14:58	1
Carbon disulfide	**0.19**	**J**	1.0	0.19	ug/L			12/19/16 14:58	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			12/19/16 14:58	1
Chlorobenzene	ND		1.0	0.75	ug/L			12/19/16 14:58	1
Dibromochloromethane	ND		1.0	0.32	ug/L			12/19/16 14:58	1
Chloroethane	ND		1.0	0.32	ug/L			12/19/16 14:58	1
Chloroform	ND		1.0	0.34	ug/L			12/19/16 14:58	1
Chloromethane	ND		1.0	0.35	ug/L			12/19/16 14:58	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			12/19/16 14:58	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			12/19/16 14:58	1
Cyclohexane	ND		1.0	0.18	ug/L			12/19/16 14:58	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			12/19/16 14:58	1
Ethylbenzene	ND		1.0	0.74	ug/L			12/19/16 14:58	1
1,2-Dibromoethane	ND		1.0	0.73	ug/L			12/19/16 14:58	1
Isopropylbenzene	ND		1.0	0.79	ug/L			12/19/16 14:58	1
Methyl acetate	ND	*	2.5	1.3	ug/L			12/19/16 14:58	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			12/19/16 14:58	1
Methylcyclohexane	ND		1.0	0.16	ug/L			12/19/16 14:58	1
Methylene Chloride	ND		1.0	0.44	ug/L			12/19/16 14:58	1
Styrene	ND		1.0	0.73	ug/L			12/19/16 14:58	1
Tetrachloroethene	ND		1.0	0.36	ug/L			12/19/16 14:58	1
Toluene	ND		1.0	0.51	ug/L			12/19/16 14:58	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			12/19/16 14:58	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			12/19/16 14:58	1
Trichloroethene	**0.53**	**J**	1.0	0.46	ug/L			12/19/16 14:58	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			12/19/16 14:58	1
Vinyl chloride	ND		1.0	0.90	ug/L			12/19/16 14:58	1
Xylenes, Total	ND		2.0	0.66	ug/L			12/19/16 14:58	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*92*		*80 - 120*		*12/19/16 14:58*	*1*
1,2-Dichloroethane-d4 (Surr)	*96*		*77 - 120*		*12/19/16 14:58*	*1*
4-Bromofluorobenzene (Surr)	*100*		*73 - 120*		*12/19/16 14:58*	*1*
Dibromofluoromethane (Surr)	*101*		*75 - 123*		*12/19/16 14:58*	*1*

Client: LaBella Associates DPC
Project/Site: Former Roblin Steel & Alumax Ext Sites

TestAmerica Job ID: 480-111156-1

Client Sample ID: EX MW-12
Date Collected: 12/14/16 13:05
Date Received: 12/15/16 11:00

Lab Sample ID: 480-111156-6
Matrix: Water

Method: 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			12/19/16 15:24	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			12/19/16 15:24	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			12/19/16 15:24	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			12/19/16 15:24	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			12/19/16 15:24	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			12/19/16 15:24	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			12/19/16 15:24	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			12/19/16 15:24	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			12/19/16 15:24	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			12/19/16 15:24	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			12/19/16 15:24	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			12/19/16 15:24	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			12/19/16 15:24	1
2-Butanone (MEK)	ND		10	1.3	ug/L			12/19/16 15:24	1
2-Hexanone	ND		5.0	1.2	ug/L			12/19/16 15:24	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			12/19/16 15:24	1
Acetone	ND		10	3.0	ug/L			12/19/16 15:24	1
Benzene	ND		1.0	0.41	ug/L			12/19/16 15:24	1
Bromodichloromethane	ND		1.0	0.39	ug/L			12/19/16 15:24	1
Bromoform	ND		1.0	0.26	ug/L			12/19/16 15:24	1
Bromomethane	ND		1.0	0.69	ug/L			12/19/16 15:24	1
Carbon disulfide	ND		1.0	0.19	ug/L			12/19/16 15:24	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			12/19/16 15:24	1
Chlorobenzene	ND		1.0	0.75	ug/L			12/19/16 15:24	1
Dibromochloromethane	ND		1.0	0.32	ug/L			12/19/16 15:24	1
Chloroethane	ND		1.0	0.32	ug/L			12/19/16 15:24	1
Chloroform	ND		1.0	0.34	ug/L			12/19/16 15:24	1
Chloromethane	ND		1.0	0.35	ug/L			12/19/16 15:24	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			12/19/16 15:24	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			12/19/16 15:24	1
Cyclohexane	ND		1.0	0.18	ug/L			12/19/16 15:24	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			12/19/16 15:24	1
Ethylbenzene	ND		1.0	0.74	ug/L			12/19/16 15:24	1
1,2-Dibromoethane	ND		1.0	0.73	ug/L			12/19/16 15:24	1
Isopropylbenzene	ND		1.0	0.79	ug/L			12/19/16 15:24	1
Methyl acetate	ND	*	2.5	1.3	ug/L			12/19/16 15:24	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			12/19/16 15:24	1
Methylcyclohexane	ND		1.0	0.16	ug/L			12/19/16 15:24	1
Methylene Chloride	ND		1.0	0.44	ug/L			12/19/16 15:24	1
Styrene	ND		1.0	0.73	ug/L			12/19/16 15:24	1
Tetrachloroethene	ND		1.0	0.36	ug/L			12/19/16 15:24	1
Toluene	ND		1.0	0.51	ug/L			12/19/16 15:24	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			12/19/16 15:24	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			12/19/16 15:24	1
Trichloroethene	ND		1.0	0.46	ug/L			12/19/16 15:24	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			12/19/16 15:24	1
Vinyl chloride	ND		1.0	0.90	ug/L			12/19/16 15:24	1
Xylenes, Total	ND		2.0	0.66	ug/L			12/19/16 15:24	1

Client Sample ID: EX MW-12

Lab Sample ID: 480-111156-6

Date Collected: 12/14/16 13:05
Matrix: Water
Date Received: 12/15/16 11:00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*95*		*80 - 120*		*12/19/16 15:24*	*1*
1,2-Dichloroethane-d4 (Surr)	*95*		*77 - 120*		*12/19/16 15:24*	*1*
4-Bromofluorobenzene (Surr)	*101*		*73 - 120*		*12/19/16 15:24*	*1*
Dibromofluoromethane (Surr)	*101*		*75 - 123*		*12/19/16 15:24*	*1*

Client Sample ID: MW-2R

Lab Sample ID: 480-111156-7

Date Collected: 12/14/16 13:48
Matrix: Water
Date Received: 12/15/16 11:00

Method: 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			12/20/16 01:52	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			12/20/16 01:52	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			12/20/16 01:52	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			12/20/16 01:52	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			12/20/16 01:52	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			12/20/16 01:52	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			12/20/16 01:52	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			12/20/16 01:52	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			12/20/16 01:52	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			12/20/16 01:52	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			12/20/16 01:52	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			12/20/16 01:52	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			12/20/16 01:52	1
2-Butanone (MEK)	ND		10	1.3	ug/L			12/20/16 01:52	1
2-Hexanone	ND		5.0	1.2	ug/L			12/20/16 01:52	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			12/20/16 01:52	1
Acetone	ND		10	3.0	ug/L			12/20/16 01:52	1
Benzene	**3.5**		1.0	0.41	ug/L			12/20/16 01:52	1
Bromodichloromethane	ND		1.0	0.39	ug/L			12/20/16 01:52	1
Bromoform	ND		1.0	0.26	ug/L			12/20/16 01:52	1
Bromomethane	ND		1.0	0.69	ug/L			12/20/16 01:52	1
Carbon disulfide	ND		1.0	0.19	ug/L			12/20/16 01:52	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			12/20/16 01:52	1
Chlorobenzene	ND		1.0	0.75	ug/L			12/20/16 01:52	1
Dibromochloromethane	ND		1.0	0.32	ug/L			12/20/16 01:52	1
Chloroethane	ND		1.0	0.32	ug/L			12/20/16 01:52	1
Chloroform	ND		1.0	0.34	ug/L			12/20/16 01:52	1
Chloromethane	ND		1.0	0.35	ug/L			12/20/16 01:52	1
cis-1,2-Dichloroethene	**11**		1.0	0.81	ug/L			12/20/16 01:52	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			12/20/16 01:52	1
Cyclohexane	**5.0**		1.0	0.18	ug/L			12/20/16 01:52	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			12/20/16 01:52	1
Ethylbenzene	ND		1.0	0.74	ug/L			12/20/16 01:52	1
1,2-Dibromoethane	ND		1.0	0.73	ug/L			12/20/16 01:52	1
Isopropylbenzene	ND		1.0	0.79	ug/L			12/20/16 01:52	1
Methyl acetate	ND		2.5	1.3	ug/L			12/20/16 01:52	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			12/20/16 01:52	1
Methylcyclohexane	**1.3**		1.0	0.16	ug/L			12/20/16 01:52	1
Methylene Chloride	ND		1.0	0.44	ug/L			12/20/16 01:52	1

Client Sample ID: MW-2R
Date Collected: 12/14/16 13:48
Date Received: 12/15/16 11:00

Lab Sample ID: 480-111156-7
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Styrene	ND		1.0	0.73	ug/L			12/20/16 01:52	1
Tetrachloroethene	ND		1.0	0.36	ug/L			12/20/16 01:52	1
Toluene	ND		1.0	0.51	ug/L			12/20/16 01:52	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			12/20/16 01:52	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			12/20/16 01:52	1
Trichloroethene	ND		1.0	0.46	ug/L			12/20/16 01:52	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			12/20/16 01:52	1
Vinyl chloride	**42**		1.0	0.90	ug/L			12/20/16 01:52	1
Xylenes, Total	ND		2.0	0.66	ug/L			12/20/16 01:52	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*97*		*80 - 120*		*12/20/16 01:52*	*1*
1,2-Dichloroethane-d4 (Surr)	*102*		*77 - 120*		*12/20/16 01:52*	*1*
4-Bromofluorobenzene (Surr)	*100*		*73 - 120*		*12/20/16 01:52*	*1*
Dibromofluoromethane (Surr)	*106*		*75 - 123*		*12/20/16 01:52*	*1*

Client Sample ID: EX MW-11R
Date Collected: 12/14/16 14:20
Date Received: 12/15/16 11:00

Lab Sample ID: 480-111156-8
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		20	16	ug/L			12/19/16 16:18	20
1,1,2,2-Tetrachloroethane	ND		20	4.2	ug/L			12/19/16 16:18	20
1,1,2-Trichloroethane	ND		20	4.6	ug/L			12/19/16 16:18	20
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		20	6.2	ug/L			12/19/16 16:18	20
1,1-Dichloroethane	ND		20	7.6	ug/L			12/19/16 16:18	20
1,1-Dichloroethene	**11**	**J**	20	5.8	ug/L			12/19/16 16:18	20
1,2,4-Trichlorobenzene	ND		20	8.2	ug/L			12/19/16 16:18	20
1,2-Dibromo-3-Chloropropane	ND		20	7.8	ug/L			12/19/16 16:18	20
1,2-Dichlorobenzene	ND		20	16	ug/L			12/19/16 16:18	20
1,2-Dichloroethane	ND		20	4.2	ug/L			12/19/16 16:18	20
1,2-Dichloropropane	ND		20	14	ug/L			12/19/16 16:18	20
1,3-Dichlorobenzene	ND		20	16	ug/L			12/19/16 16:18	20
1,4-Dichlorobenzene	ND		20	17	ug/L			12/19/16 16:18	20
2-Butanone (MEK)	ND		200	26	ug/L			12/19/16 16:18	20
2-Hexanone	ND		100	25	ug/L			12/19/16 16:18	20
4-Methyl-2-pentanone (MIBK)	ND		100	42	ug/L			12/19/16 16:18	20
Acetone	ND		200	60	ug/L			12/19/16 16:18	20
Benzene	ND		20	8.2	ug/L			12/19/16 16:18	20
Bromodichloromethane	ND		20	7.8	ug/L			12/19/16 16:18	20
Bromoform	ND		20	5.2	ug/L			12/19/16 16:18	20
Bromomethane	ND		20	14	ug/L			12/19/16 16:18	20
Carbon disulfide	ND		20	3.8	ug/L			12/19/16 16:18	20
Carbon tetrachloride	ND		20	5.4	ug/L			12/19/16 16:18	20
Chlorobenzene	ND		20	15	ug/L			12/19/16 16:18	20
Dibromochloromethane	ND		20	6.4	ug/L			12/19/16 16:18	20
Chloroethane	ND		20	6.4	ug/L			12/19/16 16:18	20
Chloroform	ND		20	6.8	ug/L			12/19/16 16:18	20
Chloromethane	ND		20	7.0	ug/L			12/19/16 16:18	20

Client Sample ID: EX MW-11R

Lab Sample ID: 480-111156-8

Date Collected: 12/14/16 14:20

Matrix: Water

Date Received: 12/15/16 11:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
cis-1,2-Dichloroethene	**1000**		20	16	ug/L			12/19/16 16:18	20
cis-1,3-Dichloropropene	ND		20	7.2	ug/L			12/19/16 16:18	20
Cyclohexane	**24**		20	3.6	ug/L			12/19/16 16:18	20
Dichlorodifluoromethane	ND		20	14	ug/L			12/19/16 16:18	20
Ethylbenzene	ND		20	15	ug/L			12/19/16 16:18	20
1,2-Dibromoethane	ND		20	15	ug/L			12/19/16 16:18	20
Isopropylbenzene	ND		20	16	ug/L			12/19/16 16:18	20
Methyl acetate	ND	*	50	26	ug/L			12/19/16 16:18	20
Methyl tert-butyl ether	ND		20	3.2	ug/L			12/19/16 16:18	20
Methylcyclohexane	**20**		20	3.2	ug/L			12/19/16 16:18	20
Methylene Chloride	**12**	**J**	20	8.8	ug/L			12/19/16 16:18	20
Styrene	ND		20	15	ug/L			12/19/16 16:18	20
Tetrachloroethene	ND		20	7.2	ug/L			12/19/16 16:18	20
Toluene	ND		20	10	ug/L			12/19/16 16:18	20
trans-1,2-Dichloroethene	ND		20	18	ug/L			12/19/16 16:18	20
trans-1,3-Dichloropropene	ND		20	7.4	ug/L			12/19/16 16:18	20
Trichloroethene	**91**		20	9.2	ug/L			12/19/16 16:18	20
Trichlorofluoromethane	ND		20	18	ug/L			12/19/16 16:18	20
Vinyl chloride	**360**		20	18	ug/L			12/19/16 16:18	20
Xylenes, Total	ND		40	13	ug/L			12/19/16 16:18	20

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*97*		*80 - 120*		*12/19/16 16:18*	*20*
1,2-Dichloroethane-d4 (Surr)	*98*		*77 - 120*		*12/19/16 16:18*	*20*
4-Bromofluorobenzene (Surr)	*99*		*73 - 120*		*12/19/16 16:18*	*20*
Dibromofluoromethane (Surr)	*102*		*75 - 123*		*12/19/16 16:18*	*20*

Client Sample ID: AL-2

Lab Sample ID: 480-111156-9

Date Collected: 12/14/16 15:18

Matrix: Water

Date Received: 12/15/16 11:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		20	16	ug/L			12/19/16 16:45	20
1,1,2,2-Tetrachloroethane	ND		20	4.2	ug/L			12/19/16 16:45	20
1,1,2-Trichloroethane	ND		20	4.6	ug/L			12/19/16 16:45	20
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		20	6.2	ug/L			12/19/16 16:45	20
1,1-Dichloroethane	ND		20	7.6	ug/L			12/19/16 16:45	20
1,1-Dichloroethene	ND		20	5.8	ug/L			12/19/16 16:45	20
1,2,4-Trichlorobenzene	ND		20	8.2	ug/L			12/19/16 16:45	20
1,2-Dibromo-3-Chloropropane	ND		20	7.8	ug/L			12/19/16 16:45	20
1,2-Dichlorobenzene	ND		20	16	ug/L			12/19/16 16:45	20
1,2-Dichloroethane	ND		20	4.2	ug/L			12/19/16 16:45	20
1,2-Dichloropropane	ND		20	14	ug/L			12/19/16 16:45	20
1,3-Dichlorobenzene	ND		20	16	ug/L			12/19/16 16:45	20
1,4-Dichlorobenzene	ND		20	17	ug/L			12/19/16 16:45	20
2-Butanone (MEK)	ND		200	26	ug/L			12/19/16 16:45	20
2-Hexanone	ND		100	25	ug/L			12/19/16 16:45	20
4-Methyl-2-pentanone (MIBK)	ND		100	42	ug/L			12/19/16 16:45	20
Acetone	ND		200	60	ug/L			12/19/16 16:45	20

Client Sample ID: AL-2

Lab Sample ID: 480-111156-9

Date Collected: 12/14/16 15:18

Matrix: Water

Date Received: 12/15/16 11:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**9.0**	**J**	20	8.2	ug/L			12/19/16 16:45	20
Bromodichloromethane	ND		20	7.8	ug/L			12/19/16 16:45	20
Bromoform	ND		20	5.2	ug/L			12/19/16 16:45	20
Bromomethane	ND		20	14	ug/L			12/19/16 16:45	20
Carbon disulfide	ND		20	3.8	ug/L			12/19/16 16:45	20
Carbon tetrachloride	ND		20	5.4	ug/L			12/19/16 16:45	20
Chlorobenzene	ND		20	15	ug/L			12/19/16 16:45	20
Dibromochloromethane	ND		20	6.4	ug/L			12/19/16 16:45	20
Chloroethane	ND		20	6.4	ug/L			12/19/16 16:45	20
Chloroform	ND		20	6.8	ug/L			12/19/16 16:45	20
Chloromethane	ND		20	7.0	ug/L			12/19/16 16:45	20
cis-1,2-Dichloroethene	ND		20	16	ug/L			12/19/16 16:45	20
cis-1,3-Dichloropropene	ND		20	7.2	ug/L			12/19/16 16:45	20
Cyclohexane	ND		20	3.6	ug/L			12/19/16 16:45	20
Dichlorodifluoromethane	ND		20	14	ug/L			12/19/16 16:45	20
Ethylbenzene	ND		20	15	ug/L			12/19/16 16:45	20
1,2-Dibromoethane	ND		20	15	ug/L			12/19/16 16:45	20
Isopropylbenzene	ND		20	16	ug/L			12/19/16 16:45	20
Methyl acetate	ND	*	50	26	ug/L			12/19/16 16:45	20
Methyl tert-butyl ether	ND		20	3.2	ug/L			12/19/16 16:45	20
Methylcyclohexane	ND		20	3.2	ug/L			12/19/16 16:45	20
Methylene Chloride	**12**	**J**	20	8.8	ug/L			12/19/16 16:45	20
Styrene	ND		20	15	ug/L			12/19/16 16:45	20
Tetrachloroethene	ND		20	7.2	ug/L			12/19/16 16:45	20
Toluene	ND		20	10	ug/L			12/19/16 16:45	20
trans-1,2-Dichloroethene	ND		20	18	ug/L			12/19/16 16:45	20
trans-1,3-Dichloropropene	ND		20	7.4	ug/L			12/19/16 16:45	20
Trichloroethene	ND		20	9.2	ug/L			12/19/16 16:45	20
Trichlorofluoromethane	ND		20	18	ug/L			12/19/16 16:45	20
Vinyl chloride	ND		20	18	ug/L			12/19/16 16:45	20
Xylenes, Total	ND		40	13	ug/L			12/19/16 16:45	20

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*96*		*80 - 120*		*12/19/16 16:45*	*20*
1,2-Dichloroethane-d4 (Surr)	*95*		*77 - 120*		*12/19/16 16:45*	*20*
4-Bromofluorobenzene (Surr)	*100*		*73 - 120*		*12/19/16 16:45*	*20*
Dibromofluoromethane (Surr)	*98*		*75 - 123*		*12/19/16 16:45*	*20*

Client Sample ID: AL-1

Lab Sample ID: 480-111156-10

Date Collected: 12/14/16 16:02

Matrix: Water

Date Received: 12/15/16 11:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		80	66	ug/L			12/19/16 17:12	80
1,1,2,2-Tetrachloroethane	ND		80	17	ug/L			12/19/16 17:12	80
1,1,2-Trichloroethane	ND		80	18	ug/L			12/19/16 17:12	80
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		80	25	ug/L			12/19/16 17:12	80
1,1-Dichloroethane	ND		80	30	ug/L			12/19/16 17:12	80
1,1-Dichloroethene	ND		80	23	ug/L			12/19/16 17:12	80

Client: LaBella Associates DPC
Project/Site: Former Roblin Steel & Alumax Ext Sites

TestAmerica Job ID: 480-111156-1

Client Sample ID: AL-1
Date Collected: 12/14/16 16:02
Date Received: 12/15/16 11:00

Lab Sample ID: 480-111156-10
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	ND		80	33	ug/L			12/19/16 17:12	80
1,2-Dibromo-3-Chloropropane	ND		80	31	ug/L			12/19/16 17:12	80
1,2-Dichlorobenzene	ND		80	63	ug/L			12/19/16 17:12	80
1,2-Dichloroethane	ND		80	17	ug/L			12/19/16 17:12	80
1,2-Dichloropropane	ND		80	58	ug/L			12/19/16 17:12	80
1,3-Dichlorobenzene	ND		80	62	ug/L			12/19/16 17:12	80
1,4-Dichlorobenzene	ND		80	67	ug/L			12/19/16 17:12	80
2-Butanone (MEK)	ND		800	110	ug/L			12/19/16 17:12	80
2-Hexanone	ND		400	99	ug/L			12/19/16 17:12	80
4-Methyl-2-pentanone (MIBK)	ND		400	170	ug/L			12/19/16 17:12	80
Acetone	ND		800	240	ug/L			12/19/16 17:12	80
Benzene	ND		80	33	ug/L			12/19/16 17:12	80
Bromodichloromethane	ND		80	31	ug/L			12/19/16 17:12	80
Bromoform	ND		80	21	ug/L			12/19/16 17:12	80
Bromomethane	ND		80	55	ug/L			12/19/16 17:12	80
Carbon disulfide	ND		80	15	ug/L			12/19/16 17:12	80
Carbon tetrachloride	ND		80	22	ug/L			12/19/16 17:12	80
Chlorobenzene	ND		80	60	ug/L			12/19/16 17:12	80
Dibromochloromethane	ND		80	26	ug/L			12/19/16 17:12	80
Chloroethane	ND		80	26	ug/L			12/19/16 17:12	80
Chloroform	ND		80	27	ug/L			12/19/16 17:12	80
Chloromethane	ND		80	28	ug/L			12/19/16 17:12	80
cis-1,2-Dichloroethene	**2500**		80	65	ug/L			12/19/16 17:12	80
cis-1,3-Dichloropropene	ND		80	29	ug/L			12/19/16 17:12	80
Cyclohexane	ND		80	14	ug/L			12/19/16 17:12	80
Dichlorodifluoromethane	ND		80	54	ug/L			12/19/16 17:12	80
Ethylbenzene	ND		80	59	ug/L			12/19/16 17:12	80
1,2-Dibromoethane	ND		80	58	ug/L			12/19/16 17:12	80
Isopropylbenzene	ND		80	63	ug/L			12/19/16 17:12	80
Methyl acetate	ND	*	200	100	ug/L			12/19/16 17:12	80
Methyl tert-butyl ether	ND		80	13	ug/L			12/19/16 17:12	80
Methylcyclohexane	ND		80	13	ug/L			12/19/16 17:12	80
Methylene Chloride	**45**	**J**	80	35	ug/L			12/19/16 17:12	80
Styrene	ND		80	58	ug/L			12/19/16 17:12	80
Tetrachloroethene	ND		80	29	ug/L			12/19/16 17:12	80
Toluene	ND		80	41	ug/L			12/19/16 17:12	80
trans-1,2-Dichloroethene	ND		80	72	ug/L			12/19/16 17:12	80
trans-1,3-Dichloropropene	ND		80	30	ug/L			12/19/16 17:12	80
Trichloroethene	**130**		80	37	ug/L			12/19/16 17:12	80
Trichlorofluoromethane	ND		80	70	ug/L			12/19/16 17:12	80
Vinyl chloride	**850**		80	72	ug/L			12/19/16 17:12	80
Xylenes, Total	ND		160	53	ug/L			12/19/16 17:12	80

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*95*		*80 - 120*		*12/19/16 17:12*	*80*
1,2-Dichloroethane-d4 (Surr)	*93*		*77 - 120*		*12/19/16 17:12*	*80*
4-Bromofluorobenzene (Surr)	*101*		*73 - 120*		*12/19/16 17:12*	*80*
Dibromofluoromethane (Surr)	*99*		*75 - 123*		*12/19/16 17:12*	*80*

Client: LaBella Associates DPC
Project/Site: Former Roblin Steel & Alumax Ext Sites

TestAmerica Job ID: 480-111156-1

Client Sample ID: AL-7
Date Collected: 12/14/16 16:44
Date Received: 12/15/16 11:00

Lab Sample ID: 480-111156-11
Matrix: Water

Method: 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			12/19/16 17:38	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			12/19/16 17:38	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			12/19/16 17:38	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			12/19/16 17:38	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			12/19/16 17:38	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			12/19/16 17:38	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			12/19/16 17:38	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			12/19/16 17:38	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			12/19/16 17:38	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			12/19/16 17:38	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			12/19/16 17:38	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			12/19/16 17:38	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			12/19/16 17:38	1
2-Butanone (MEK)	ND		10	1.3	ug/L			12/19/16 17:38	1
2-Hexanone	ND		5.0	1.2	ug/L			12/19/16 17:38	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			12/19/16 17:38	1
Acetone	ND		10	3.0	ug/L			12/19/16 17:38	1
Benzene	ND		1.0	0.41	ug/L			12/19/16 17:38	1
Bromodichloromethane	ND		1.0	0.39	ug/L			12/19/16 17:38	1
Bromoform	ND		1.0	0.26	ug/L			12/19/16 17:38	1
Bromomethane	ND		1.0	0.69	ug/L			12/19/16 17:38	1
Carbon disulfide	ND		1.0	0.19	ug/L			12/19/16 17:38	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			12/19/16 17:38	1
Chlorobenzene	ND		1.0	0.75	ug/L			12/19/16 17:38	1
Dibromochloromethane	ND		1.0	0.32	ug/L			12/19/16 17:38	1
Chloroethane	ND		1.0	0.32	ug/L			12/19/16 17:38	1
Chloroform	ND		1.0	0.34	ug/L			12/19/16 17:38	1
Chloromethane	ND		1.0	0.35	ug/L			12/19/16 17:38	1
cis-1,2-Dichloroethene	**7.0**		1.0	0.81	ug/L			12/19/16 17:38	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			12/19/16 17:38	1
Cyclohexane	ND		1.0	0.18	ug/L			12/19/16 17:38	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			12/19/16 17:38	1
Ethylbenzene	ND		1.0	0.74	ug/L			12/19/16 17:38	1
1,2-Dibromoethane	ND		1.0	0.73	ug/L			12/19/16 17:38	1
Isopropylbenzene	ND		1.0	0.79	ug/L			12/19/16 17:38	1
Methyl acetate	ND	*	2.5	1.3	ug/L			12/19/16 17:38	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			12/19/16 17:38	1
Methylcyclohexane	ND		1.0	0.16	ug/L			12/19/16 17:38	1
Methylene Chloride	ND		1.0	0.44	ug/L			12/19/16 17:38	1
Styrene	ND		1.0	0.73	ug/L			12/19/16 17:38	1
Tetrachloroethene	ND		1.0	0.36	ug/L			12/19/16 17:38	1
Toluene	ND		1.0	0.51	ug/L			12/19/16 17:38	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			12/19/16 17:38	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			12/19/16 17:38	1
Trichloroethene	**2.0**		1.0	0.46	ug/L			12/19/16 17:38	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			12/19/16 17:38	1
Vinyl chloride	ND		1.0	0.90	ug/L			12/19/16 17:38	1
Xylenes, Total	ND		2.0	0.66	ug/L			12/19/16 17:38	1

Client Sample ID: AL-7

Lab Sample ID: 480-111156-11

Date Collected: 12/14/16 16:44
Matrix: Water
Date Received: 12/15/16 11:00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*95*		*80 - 120*		*12/19/16 17:38*	*1*
1,2-Dichloroethane-d4 (Surr)	*97*		*77 - 120*		*12/19/16 17:38*	*1*
4-Bromofluorobenzene (Surr)	*101*		*73 - 120*		*12/19/16 17:38*	*1*
Dibromofluoromethane (Surr)	*102*		*75 - 123*		*12/19/16 17:38*	*1*

Client Sample ID: FIELD DUPLICATE

Lab Sample ID: 480-111156-12

Date Collected: 12/14/16 00:00
Matrix: Water
Date Received: 12/15/16 11:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		25	21	ug/L			12/19/16 18:05	25
1,1,2,2-Tetrachloroethane	ND		25	5.3	ug/L			12/19/16 18:05	25
1,1,2-Trichloroethane	ND		25	5.8	ug/L			12/19/16 18:05	25
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		25	7.8	ug/L			12/19/16 18:05	25
1,1-Dichloroethane	ND		25	9.5	ug/L			12/19/16 18:05	25
1,1-Dichloroethene	ND		25	7.3	ug/L			12/19/16 18:05	25
1,2,4-Trichlorobenzene	ND		25	10	ug/L			12/19/16 18:05	25
1,2-Dibromo-3-Chloropropane	ND		25	9.8	ug/L			12/19/16 18:05	25
1,2-Dichlorobenzene	ND		25	20	ug/L			12/19/16 18:05	25
1,2-Dichloroethane	ND		25	5.3	ug/L			12/19/16 18:05	25
1,2-Dichloropropane	ND		25	18	ug/L			12/19/16 18:05	25
1,3-Dichlorobenzene	ND		25	20	ug/L			12/19/16 18:05	25
1,4-Dichlorobenzene	ND		25	21	ug/L			12/19/16 18:05	25
2-Butanone (MEK)	ND		250	33	ug/L			12/19/16 18:05	25
2-Hexanone	ND		130	31	ug/L			12/19/16 18:05	25
4-Methyl-2-pentanone (MIBK)	ND		130	53	ug/L			12/19/16 18:05	25
Acetone	ND		250	75	ug/L			12/19/16 18:05	25
Benzene	ND		25	10	ug/L			12/19/16 18:05	25
Bromodichloromethane	ND		25	9.8	ug/L			12/19/16 18:05	25
Bromoform	ND		25	6.5	ug/L			12/19/16 18:05	25
Bromomethane	ND		25	17	ug/L			12/19/16 18:05	25
Carbon disulfide	ND		25	4.8	ug/L			12/19/16 18:05	25
Carbon tetrachloride	ND		25	6.8	ug/L			12/19/16 18:05	25
Chlorobenzene	ND		25	19	ug/L			12/19/16 18:05	25
Dibromochloromethane	ND		25	8.0	ug/L			12/19/16 18:05	25
Chloroethane	ND		25	8.0	ug/L			12/19/16 18:05	25
Chloroform	ND		25	8.5	ug/L			12/19/16 18:05	25
Chloromethane	ND		25	8.8	ug/L			12/19/16 18:05	25
cis-1,2-Dichloroethene	**1100**		25	20	ug/L			12/19/16 18:05	25
cis-1,3-Dichloropropene	ND		25	9.0	ug/L			12/19/16 18:05	25
Cyclohexane	**29**		25	4.5	ug/L			12/19/16 18:05	25
Dichlorodifluoromethane	ND		25	17	ug/L			12/19/16 18:05	25
Ethylbenzene	ND		25	19	ug/L			12/19/16 18:05	25
1,2-Dibromoethane	ND		25	18	ug/L			12/19/16 18:05	25
Isopropylbenzene	ND		25	20	ug/L			12/19/16 18:05	25
Methyl acetate	ND	*	63	33	ug/L			12/19/16 18:05	25
Methyl tert-butyl ether	ND		25	4.0	ug/L			12/19/16 18:05	25
Methylcyclohexane	**18**	**J**	25	4.0	ug/L			12/19/16 18:05	25
Methylene Chloride	**15**	**J**	25	11	ug/L			12/19/16 18:05	25

Client Sample ID: FIELD DUPLICATE

Lab Sample ID: 480-111156-12

Date Collected: 12/14/16 00:00

Matrix: Water

Date Received: 12/15/16 11:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Styrene	ND		25	18	ug/L			12/19/16 18:05	25
Tetrachloroethene	ND		25	9.0	ug/L			12/19/16 18:05	25
Toluene	ND		25	13	ug/L			12/19/16 18:05	25
trans-1,2-Dichloroethene	ND		25	23	ug/L			12/19/16 18:05	25
trans-1,3-Dichloropropene	ND		25	9.3	ug/L			12/19/16 18:05	25
Trichloroethene	**90**		25	12	ug/L			12/19/16 18:05	25
Trichlorofluoromethane	ND		25	22	ug/L			12/19/16 18:05	25
Vinyl chloride	**390**		25	23	ug/L			12/19/16 18:05	25
Xylenes, Total	ND		50	17	ug/L			12/19/16 18:05	25

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*94*		*80 - 120*		*12/19/16 18:05*	*25*
1,2-Dichloroethane-d4 (Surr)	*93*		*77 - 120*		*12/19/16 18:05*	*25*
4-Bromofluorobenzene (Surr)	*99*		*73 - 120*		*12/19/16 18:05*	*25*
Dibromofluoromethane (Surr)	*99*		*75 - 123*		*12/19/16 18:05*	*25*

Client Sample ID: TRIP BLANK

Lab Sample ID: 480-111156-13

Date Collected: 12/14/16 00:00

Matrix: Water

Date Received: 12/15/16 11:00

Method: 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			12/19/16 18:32	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			12/19/16 18:32	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			12/19/16 18:32	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			12/19/16 18:32	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			12/19/16 18:32	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			12/19/16 18:32	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			12/19/16 18:32	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			12/19/16 18:32	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			12/19/16 18:32	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			12/19/16 18:32	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			12/19/16 18:32	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			12/19/16 18:32	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			12/19/16 18:32	1
2-Butanone (MEK)	ND		10	1.3	ug/L			12/19/16 18:32	1
2-Hexanone	ND		5.0	1.2	ug/L			12/19/16 18:32	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			12/19/16 18:32	1
Acetone	ND		10	3.0	ug/L			12/19/16 18:32	1
Benzene	ND		1.0	0.41	ug/L			12/19/16 18:32	1
Bromodichloromethane	ND		1.0	0.39	ug/L			12/19/16 18:32	1
Bromoform	ND		1.0	0.26	ug/L			12/19/16 18:32	1
Bromomethane	ND		1.0	0.69	ug/L			12/19/16 18:32	1
Carbon disulfide	ND		1.0	0.19	ug/L			12/19/16 18:32	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			12/19/16 18:32	1
Chlorobenzene	ND		1.0	0.75	ug/L			12/19/16 18:32	1
Dibromochloromethane	ND		1.0	0.32	ug/L			12/19/16 18:32	1
Chloroethane	ND		1.0	0.32	ug/L			12/19/16 18:32	1
Chloroform	ND		1.0	0.34	ug/L			12/19/16 18:32	1
Chloromethane	ND		1.0	0.35	ug/L			12/19/16 18:32	1

Client Sample ID: TRIP BLANK
Date Collected: 12/14/16 00:00
Date Received: 12/15/16 11:00

Lab Sample ID: 480-111156-13
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			12/19/16 18:32	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			12/19/16 18:32	1
Cyclohexane	ND		1.0	0.18	ug/L			12/19/16 18:32	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			12/19/16 18:32	1
Ethylbenzene	ND		1.0	0.74	ug/L			12/19/16 18:32	1
1,2-Dibromoethane	ND		1.0	0.73	ug/L			12/19/16 18:32	1
Isopropylbenzene	ND		1.0	0.79	ug/L			12/19/16 18:32	1
Methyl acetate	ND	*	2.5	1.3	ug/L			12/19/16 18:32	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			12/19/16 18:32	1
Methylcyclohexane	ND		1.0	0.16	ug/L			12/19/16 18:32	1
Methylene Chloride	ND		1.0	0.44	ug/L			12/19/16 18:32	1
Styrene	ND		1.0	0.73	ug/L			12/19/16 18:32	1
Tetrachloroethene	ND		1.0	0.36	ug/L			12/19/16 18:32	1
Toluene	ND		1.0	0.51	ug/L			12/19/16 18:32	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			12/19/16 18:32	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			12/19/16 18:32	1
Trichloroethene	ND		1.0	0.46	ug/L			12/19/16 18:32	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			12/19/16 18:32	1
Vinyl chloride	ND		1.0	0.90	ug/L			12/19/16 18:32	1
Xylenes, Total	ND		2.0	0.66	ug/L			12/19/16 18:32	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*95*		*80 - 120*		*12/19/16 18:32*	*1*
1,2-Dichloroethane-d4 (Surr)	*97*		*77 - 120*		*12/19/16 18:32*	*1*
4-Bromofluorobenzene (Surr)	*102*		*73 - 120*		*12/19/16 18:32*	*1*
Dibromofluoromethane (Surr)	*101*		*75 - 123*		*12/19/16 18:32*	*1*

Surrogate Summary

Client: LaBella Associates DPC
Project/Site: Former Roblin Steel & Alumax Ext Sites

TestAmerica Job ID: 480-111156-1

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

Matrix: Water

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)			
		TOL	12DCE	BFB	DBFM
Lab Sample ID	Client Sample ID	(80-120)	(77-120)	(73-120)	(75-123)
480-111156-1	MW-12	95	95	100	98
480-111156-2	MW-9R	96	97	101	104
480-111156-2 MS	MW-9R	94	95	99	99
480-111156-2 MSD	MW-9R	93	95	101	100
480-111156-3	MW-7R	96	97	99	99
480-111156-4	MW-4	93	92	100	96
480-111156-5	MW-1	92	96	100	101
480-111156-6	EX MW-12	95	95	101	101
480-111156-7	MW-2R	97	102	100	106
480-111156-8	EX MW-11R	97	98	99	102
480-111156-9	AL-2	96	95	100	98
480-111156-10	AL-1	95	93	101	99
480-111156-11	AL-7	95	97	101	102
480-111156-12	FIELD DUPLICATE	94	93	99	99
480-111156-13	TRIP BLANK	95	97	102	101
LCS 480-337023/4	Lab Control Sample	97	96	102	102
LCS 480-337188/4	Lab Control Sample	100	99	100	107
LCSD 480-337188/17	Lab Control Sample Dup	101	106	101	109
MB 480-337023/6	Method Blank	99	92	100	101
MB 480-337188/6	Method Blank	97	102	100	106

Surrogate Legend

TOL = Toluene-d8 (Surr)
12DCE = 1,2-Dichloroethane-d4 (Surr)
BFB = 4-Bromofluorobenzene (Surr)
DBFM = Dibromofluoromethane (Surr)

Client: LaBella Associates DPC
Project/Site: Former Roblin Steel & Alumax Ext Sites

TestAmerica Job ID: 480-111156-1

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

Lab Sample ID: MB 480-337023/6
Matrix: Water
Analysis Batch: 337023

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

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	*99*		*80 - 120*		*12/19/16 11:14*	*1*
1,2-Dichloroethane-d4 (Surr)	*92*		*77 - 120*		*12/19/16 11:14*	*1*
4-Bromofluorobenzene (Surr)	*100*		*73 - 120*		*12/19/16 11:14*	*1*
Dibromofluoromethane (Surr)	*101*		*75 - 123*		*12/19/16 11:14*	*1*

Lab Sample ID: LCS 480-337023/4
Matrix: Water
Analysis Batch: 337023

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	21.5		ug/L		86	73 - 126
1,1,2,2-Tetrachloroethane	25.0	20.5		ug/L		82	76 - 120
1,1,2-Trichloroethane	25.0	20.0		ug/L		80	76 - 122
1,1,2-Trichloro-1,2,2-trifluoroethane	25.0	20.6		ug/L		82	61 - 148
1,1-Dichloroethane	25.0	20.5		ug/L		82	77 - 120
1,1-Dichloroethene	25.0	21.4		ug/L		85	66 - 127
1,2,4-Trichlorobenzene	25.0	21.2		ug/L		85	79 - 122
1,2-Dibromo-3-Chloropropane	25.0	18.3		ug/L		73	56 - 134
1,2-Dichlorobenzene	25.0	22.1		ug/L		89	80 - 124
1,2-Dichloroethane	25.0	21.2		ug/L		85	75 - 120
1,2-Dichloropropane	25.0	21.7		ug/L		87	76 - 120
1,3-Dichlorobenzene	25.0	22.3		ug/L		89	77 - 120
1,4-Dichlorobenzene	25.0	22.3		ug/L		89	80 - 120
2-Butanone (MEK)	125	88.3		ug/L		71	57 - 140
2-Hexanone	125	81.9		ug/L		66	65 - 127
4-Methyl-2-pentanone (MIBK)	125	88.3		ug/L		71	71 - 125
Acetone	125	89.1		ug/L		71	56 - 142
Benzene	25.0	21.1		ug/L		84	71 - 124
Bromodichloromethane	25.0	21.3		ug/L		85	80 - 122
Bromoform	25.0	21.1		ug/L		84	61 - 132
Bromomethane	25.0	22.8		ug/L		91	55 - 144
Carbon disulfide	25.0	18.5		ug/L		74	59 - 134
Carbon tetrachloride	25.0	21.2		ug/L		85	72 - 134
Chlorobenzene	25.0	20.9		ug/L		84	80 - 120
Dibromochloromethane	25.0	20.4		ug/L		82	75 - 125
Chloroethane	25.0	22.2		ug/L		89	69 - 136
Chloroform	25.0	22.3		ug/L		89	73 - 127
Chloromethane	25.0	18.1		ug/L		72	68 - 124
cis-1,2-Dichloroethene	25.0	22.1		ug/L		88	74 - 124
cis-1,3-Dichloropropene	25.0	21.7		ug/L		87	74 - 124
Cyclohexane	25.0	19.9		ug/L		80	59 - 135
Dichlorodifluoromethane	25.0	17.1		ug/L		68	59 - 135
Ethylbenzene	25.0	21.0		ug/L		84	77 - 123
1,2-Dibromoethane	25.0	20.7		ug/L		83	77 - 120
Isopropylbenzene	25.0	21.6		ug/L		86	77 - 122
Methyl acetate	125	90.3	*	ug/L		72	74 - 133
Methyl tert-butyl ether	25.0	21.0		ug/L		84	77 - 120
Methylcyclohexane	25.0	20.9		ug/L		83	68 - 134
Methylene Chloride	25.0	21.2		ug/L		85	75 - 124
Styrene	25.0	21.4		ug/L		86	80 - 120
Tetrachloroethene	25.0	21.2		ug/L		85	74 - 122
Toluene	25.0	21.2		ug/L		85	80 - 122
trans-1,2-Dichloroethene	25.0	21.0		ug/L		84	73 - 127

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

Lab Sample ID: LCS 480-337023/4
Matrix: Water
Analysis Batch: 337023

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
trans-1,3-Dichloropropene			25.0	21.1		ug/L		84	80 - 120		
Trichloroethene			25.0	22.1		ug/L		89	74 - 123		
Trichlorofluoromethane			25.0	22.2		ug/L		89	62 - 150		
Vinyl chloride			25.0	19.7		ug/L		79	65 - 133		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Toluene-d8 (Surr)	*97*		*80 - 120*
1,2-Dichloroethane-d4 (Surr)	*96*		*77 - 120*
4-Bromofluorobenzene (Surr)	*102*		*73 - 120*
Dibromofluoromethane (Surr)	*102*		*75 - 123*

Lab Sample ID: 480-111156-2 MS
Matrix: Water
Analysis Batch: 337023

Client Sample ID: MW-9R
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	231		ug/L		92	73 - 126		
1,1,2,2-Tetrachloroethane	ND		250	207		ug/L		83	76 - 120		
1,1,2-Trichloroethane	ND		250	197		ug/L		79	76 - 122		
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		250	229		ug/L		92	61 - 148		
1,1-Dichloroethane	ND		250	211		ug/L		84	77 - 120		
1,1-Dichloroethene	ND		250	211		ug/L		84	66 - 127		
1,2,4-Trichlorobenzene	ND		250	205		ug/L		82	79 - 122		
1,2-Dibromo-3-Chloropropane	ND		250	187		ug/L		75	56 - 134		
1,2-Dichlorobenzene	ND		250	219		ug/L		88	80 - 124		
1,2-Dichloroethane	ND		250	217		ug/L		87	75 - 120		
1,2-Dichloropropane	ND		250	225		ug/L		90	76 - 120		
1,3-Dichlorobenzene	ND		250	225		ug/L		90	77 - 120		
1,4-Dichlorobenzene	ND		250	228		ug/L		91	78 - 124		
2-Butanone (MEK)	ND		1250	956		ug/L		76	57 - 140		
2-Hexanone	ND		1250	863		ug/L		69	65 - 127		
4-Methyl-2-pentanone (MIBK)	ND		1250	910		ug/L		73	71 - 125		
Acetone	ND		1250	912		ug/L		73	56 - 142		
Benzene	ND		250	218		ug/L		87	71 - 124		
Bromodichloromethane	ND		250	202		ug/L		81	80 - 122		
Bromoform	ND		250	191		ug/L		76	61 - 132		
Bromomethane	ND		250	246		ug/L		98	55 - 144		
Carbon disulfide	ND		250	185		ug/L		74	59 - 134		
Carbon tetrachloride	ND		250	215		ug/L		86	72 - 134		
Chlorobenzene	ND		250	214		ug/L		85	80 - 120		
Dibromochloromethane	ND		250	195		ug/L		78	75 - 125		
Chloroethane	ND		250	231		ug/L		92	69 - 136		
Chloroform	ND		250	223		ug/L		89	73 - 127		
Chloromethane	ND		250	181		ug/L		72	68 - 124		
cis-1,2-Dichloroethene	500	F1	250	622	F1	ug/L		50	74 - 124		
cis-1,3-Dichloropropene	ND		250	218		ug/L		87	74 - 124		
Cyclohexane	ND		250	211		ug/L		84	59 - 135		

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

Lab Sample ID: 480-111156-2 MS
Matrix: Water
Analysis Batch: 337023

Client Sample ID: MW-9R
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Dichlorodifluoromethane	ND		250	191		ug/L		76	59 - 135
Ethylbenzene	ND		250	213		ug/L		85	77 - 123
1,2-Dibromoethane	ND		250	215		ug/L		86	77 - 120
Isopropylbenzene	ND		250	226		ug/L		90	77 - 122
Methyl acetate	ND	F1 *	1250	877	F1	ug/L		70	74 - 133
Methyl tert-butyl ether	ND		250	198		ug/L		79	77 - 120
Methylcyclohexane	ND		250	223		ug/L		89	68 - 134
Methylene Chloride	4.8	J	250	209		ug/L		82	75 - 124
Styrene	ND		250	219		ug/L		87	80 - 120
Tetrachloroethene	ND		250	225		ug/L		90	74 - 122
Toluene	ND		250	217		ug/L		87	80 - 122
trans-1,2-Dichloroethene	ND		250	226		ug/L		90	73 - 127
trans-1,3-Dichloropropene	ND		250	204		ug/L		82	80 - 120
Trichloroethene	230	F1	250	414	F1	ug/L		73	74 - 123
Trichlorofluoromethane	ND		250	221		ug/L		89	62 - 150
Vinyl chloride	ND		250	228		ug/L		91	65 - 133

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
Toluene-d8 (Surr)	*94*		*80 - 120*
1,2-Dichloroethane-d4 (Surr)	*95*		*77 - 120*
4-Bromofluorobenzene (Surr)	*99*		*73 - 120*
Dibromofluoromethane (Surr)	*99*		*75 - 123*

Lab Sample ID: 480-111156-2 MSD
Matrix: Water
Analysis Batch: 337023

Client Sample ID: MW-9R
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	220		ug/L		88	73 - 126	5	15
1,1,2,2-Tetrachloroethane	ND		250	214		ug/L		85	76 - 120	3	15
1,1,2-Trichloroethane	ND		250	205		ug/L		82	76 - 122	3	15
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		250	209		ug/L		84	61 - 148	9	20
1,1-Dichloroethane	ND		250	205		ug/L		82	77 - 120	3	20
1,1-Dichloroethene	ND		250	207		ug/L		83	66 - 127	2	16
1,2,4-Trichlorobenzene	ND		250	200		ug/L		80	79 - 122	2	20
1,2-Dibromo-3-Chloropropane	ND		250	186		ug/L		74	56 - 134	1	15
1,2-Dichlorobenzene	ND		250	222		ug/L		89	80 - 124	1	20
1,2-Dichloroethane	ND		250	209		ug/L		84	75 - 120	4	20
1,2-Dichloropropane	ND		250	222		ug/L		89	76 - 120	2	20
1,3-Dichlorobenzene	ND		250	221		ug/L		88	77 - 120	2	20
1,4-Dichlorobenzene	ND		250	224		ug/L		90	78 - 124	2	20
2-Butanone (MEK)	ND		1250	956		ug/L		77	57 - 140	0	20
2-Hexanone	ND		1250	881		ug/L		70	65 - 127	2	15
4-Methyl-2-pentanone (MIBK)	ND		1250	916		ug/L		73	71 - 125	1	35
Acetone	ND		1250	964		ug/L		77	56 - 142	6	15
Benzene	ND		250	218		ug/L		87	71 - 124	0	13
Bromodichloromethane	ND		250	211		ug/L		84	80 - 122	4	15

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

Lab Sample ID: 480-111156-2 MSD
Matrix: Water
Analysis Batch: 337023

Client Sample ID: MW-9R
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Bromoform	ND		250	198		ug/L		79	61 - 132	4	15
Bromomethane	ND		250	235		ug/L		94	55 - 144	5	15
Carbon disulfide	ND		250	180		ug/L		72	59 - 134	3	15
Carbon tetrachloride	ND		250	208		ug/L		83	72 - 134	4	15
Chlorobenzene	ND		250	210		ug/L		84	80 - 120	2	25
Dibromochloromethane	ND		250	196		ug/L		78	75 - 125	0	15
Chloroethane	ND		250	224		ug/L		90	69 - 136	3	15
Chloroform	ND		250	220		ug/L		88	73 - 127	1	20
Chloromethane	ND		250	176		ug/L		70	68 - 124	3	15
cis-1,2-Dichloroethene	500	F1	250	611	F1	ug/L		46	74 - 124	2	15
cis-1,3-Dichloropropene	ND		250	215		ug/L		86	74 - 124	1	15
Cyclohexane	ND		250	198		ug/L		79	59 - 135	7	20
Dichlorodifluoromethane	ND		250	184		ug/L		74	59 - 135	4	20
Ethylbenzene	ND		250	210		ug/L		84	77 - 123	1	15
1,2-Dibromoethane	ND		250	206		ug/L		83	77 - 120	4	15
Isopropylbenzene	ND		250	213		ug/L		85	77 - 122	6	20
Methyl acetate	ND	F1 *	1250	907	F1	ug/L		73	74 - 133	3	20
Methyl tert-butyl ether	ND		250	205		ug/L		82	77 - 120	3	37
Methylcyclohexane	ND		250	216		ug/L		86	68 - 134	3	20
Methylene Chloride	4.8	J	250	215		ug/L		84	75 - 124	3	15
Styrene	ND		250	214		ug/L		86	80 - 120	2	20
Tetrachloroethene	ND		250	214		ug/L		86	74 - 122	5	20
Toluene	ND		250	212		ug/L		85	80 - 122	2	15
trans-1,2-Dichloroethene	ND		250	220		ug/L		88	73 - 127	3	20
trans-1,3-Dichloropropene	ND		250	202		ug/L		81	80 - 120	1	15
Trichloroethene	230	F1	250	398	F1	ug/L		66	74 - 123	4	16
Trichlorofluoromethane	ND		250	208		ug/L		83	62 - 150	6	20
Vinyl chloride	ND		250	213		ug/L		85	65 - 133	7	15

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
Toluene-d8 (Surr)	*93*		*80 - 120*
1,2-Dichloroethane-d4 (Surr)	*95*		*77 - 120*
4-Bromofluorobenzene (Surr)	*101*		*73 - 120*
Dibromofluoromethane (Surr)	*100*		*75 - 123*

Lab Sample ID: MB 480-337188/6
Matrix: Water
Analysis Batch: 337188

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			12/19/16 22:06	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			12/19/16 22:06	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			12/19/16 22:06	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			12/19/16 22:06	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			12/19/16 22:06	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			12/19/16 22:06	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			12/19/16 22:06	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			12/19/16 22:06	1

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

Lab Sample ID: MB 480-337188/6
Matrix: Water
Analysis Batch: 337188

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			12/19/16 22:06	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			12/19/16 22:06	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			12/19/16 22:06	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			12/19/16 22:06	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			12/19/16 22:06	1
2-Butanone (MEK)	ND		10	1.3	ug/L			12/19/16 22:06	1
2-Hexanone	ND		5.0	1.2	ug/L			12/19/16 22:06	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			12/19/16 22:06	1
Acetone	ND		10	3.0	ug/L			12/19/16 22:06	1
Benzene	ND		1.0	0.41	ug/L			12/19/16 22:06	1
Bromodichloromethane	ND		1.0	0.39	ug/L			12/19/16 22:06	1
Bromoform	ND		1.0	0.26	ug/L			12/19/16 22:06	1
Bromomethane	ND		1.0	0.69	ug/L			12/19/16 22:06	1
Carbon disulfide	ND		1.0	0.19	ug/L			12/19/16 22:06	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			12/19/16 22:06	1
Chlorobenzene	ND		1.0	0.75	ug/L			12/19/16 22:06	1
Dibromochloromethane	ND		1.0	0.32	ug/L			12/19/16 22:06	1
Chloroethane	ND		1.0	0.32	ug/L			12/19/16 22:06	1
Chloroform	ND		1.0	0.34	ug/L			12/19/16 22:06	1
Chloromethane	ND		1.0	0.35	ug/L			12/19/16 22:06	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			12/19/16 22:06	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			12/19/16 22:06	1
Cyclohexane	ND		1.0	0.18	ug/L			12/19/16 22:06	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			12/19/16 22:06	1
Ethylbenzene	ND		1.0	0.74	ug/L			12/19/16 22:06	1
1,2-Dibromoethane	ND		1.0	0.73	ug/L			12/19/16 22:06	1
Isopropylbenzene	ND		1.0	0.79	ug/L			12/19/16 22:06	1
Methyl acetate	ND		2.5	1.3	ug/L			12/19/16 22:06	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			12/19/16 22:06	1
Methylcyclohexane	ND		1.0	0.16	ug/L			12/19/16 22:06	1
Methylene Chloride	ND		1.0	0.44	ug/L			12/19/16 22:06	1
Styrene	ND		1.0	0.73	ug/L			12/19/16 22:06	1
Tetrachloroethene	ND		1.0	0.36	ug/L			12/19/16 22:06	1
Toluene	ND		1.0	0.51	ug/L			12/19/16 22:06	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			12/19/16 22:06	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			12/19/16 22:06	1
Trichloroethene	ND		1.0	0.46	ug/L			12/19/16 22:06	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			12/19/16 22:06	1
Vinyl chloride	ND		1.0	0.90	ug/L			12/19/16 22:06	1
Xylenes, Total	ND		2.0	0.66	ug/L			12/19/16 22:06	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*97*		*80 - 120*		*12/19/16 22:06*	*1*
1,2-Dichloroethane-d4 (Surr)	*102*		*77 - 120*		*12/19/16 22:06*	*1*
4-Bromofluorobenzene (Surr)	*100*		*73 - 120*		*12/19/16 22:06*	*1*
Dibromofluoromethane (Surr)	*106*		*75 - 123*		*12/19/16 22:06*	*1*

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

Lab Sample ID: LCS 480-337188/4
Matrix: Water
Analysis Batch: 337188

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	23.6		ug/L		95	73 - 126
1,1,2,2-Tetrachloroethane	25.0	22.3		ug/L		89	76 - 120
1,1,2-Trichloroethane	25.0	21.9		ug/L		88	76 - 122
1,1,2-Trichloro-1,2,2-trifluoroethane	25.0	22.4		ug/L		90	61 - 148
1,1-Dichloroethane	25.0	23.8		ug/L		95	77 - 120
1,1-Dichloroethene	25.0	22.8		ug/L		91	66 - 127
1,2,4-Trichlorobenzene	25.0	22.9		ug/L		92	79 - 122
1,2-Dibromo-3-Chloropropane	25.0	20.2		ug/L		81	56 - 134
1,2-Dichlorobenzene	25.0	24.8		ug/L		99	80 - 124
1,2-Dichloroethane	25.0	24.6		ug/L		98	75 - 120
1,2-Dichloropropane	25.0	24.6		ug/L		98	76 - 120
1,3-Dichlorobenzene	25.0	25.0		ug/L		100	77 - 120
1,4-Dichlorobenzene	25.0	25.0		ug/L		100	80 - 120
2-Butanone (MEK)	125	115		ug/L		92	57 - 140
2-Hexanone	125	96.3		ug/L		77	65 - 127
4-Methyl-2-pentanone (MIBK)	125	99.4		ug/L		80	71 - 125
Acetone	125	129		ug/L		104	56 - 142
Benzene	25.0	25.0		ug/L		100	71 - 124
Bromodichloromethane	25.0	24.4		ug/L		98	80 - 122
Bromoform	25.0	23.0		ug/L		92	61 - 132
Bromomethane	25.0	26.6		ug/L		107	55 - 144
Carbon disulfide	25.0	21.8		ug/L		87	59 - 134
Carbon tetrachloride	25.0	23.2		ug/L		93	72 - 134
Chlorobenzene	25.0	23.5		ug/L		94	80 - 120
Dibromochloromethane	25.0	22.8		ug/L		91	75 - 125
Chloroethane	25.0	25.4		ug/L		101	69 - 136
Chloroform	25.0	25.1		ug/L		100	73 - 127
Chloromethane	25.0	22.0		ug/L		88	68 - 124
cis-1,2-Dichloroethene	25.0	26.1		ug/L		105	74 - 124
cis-1,3-Dichloropropene	25.0	24.3		ug/L		97	74 - 124
Cyclohexane	25.0	21.0		ug/L		84	59 - 135
Dichlorodifluoromethane	25.0	24.0		ug/L		96	59 - 135
Ethylbenzene	25.0	23.2		ug/L		93	77 - 123
1,2-Dibromoethane	25.0	23.3		ug/L		93	77 - 120
Isopropylbenzene	25.0	23.7		ug/L		95	77 - 122
Methyl acetate	125	98.9		ug/L		79	74 - 133
Methyl tert-butyl ether	25.0	23.1		ug/L		92	77 - 120
Methylcyclohexane	25.0	22.1		ug/L		88	68 - 134
Methylene Chloride	25.0	23.8		ug/L		95	75 - 124
Styrene	25.0	24.8		ug/L		99	80 - 120
Tetrachloroethene	25.0	22.7		ug/L		91	74 - 122
Toluene	25.0	23.1		ug/L		92	80 - 122
trans-1,2-Dichloroethene	25.0	24.0		ug/L		96	73 - 127
trans-1,3-Dichloropropene	25.0	23.1		ug/L		92	80 - 120
Trichloroethene	25.0	24.7		ug/L		99	74 - 123
Trichlorofluoromethane	25.0	24.4		ug/L		98	62 - 150
Vinyl chloride	25.0	24.0		ug/L		96	65 - 133

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

Lab Sample ID: LCS 480-337188/4
Matrix: Water
Analysis Batch: 337188

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

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Toluene-d8 (Surr)	*100*		*80 - 120*
1,2-Dichloroethane-d4 (Surr)	*99*		*77 - 120*
4-Bromofluorobenzene (Surr)	*100*		*73 - 120*
Dibromofluoromethane (Surr)	*107*		*75 - 123*

Lab Sample ID: LCSD 480-337188/17
Matrix: Water
Analysis Batch: 337188

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

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1,1-Trichloroethane			25.0	24.0		ug/L		96	73 - 126	1	15
1,1,2,2-Tetrachloroethane			25.0	21.6		ug/L		86	76 - 120	4	15
1,1,2-Trichloroethane			25.0	21.7		ug/L		87	76 - 122	1	15
1,1,2-Trichloro-1,2,2-trifluoroethane			25.0	26.5		ug/L		106	61 - 148	17	20
1,1-Dichloroethane			25.0	23.5		ug/L		94	77 - 120	1	20
1,1-Dichloroethene			25.0	23.7		ug/L		95	66 - 127	4	16
1,2,4-Trichlorobenzene			25.0	21.3		ug/L		85	79 - 122	8	20
1,2-Dibromo-3-Chloropropane			25.0	18.7		ug/L		75	56 - 134	8	15
1,2-Dichlorobenzene			25.0	23.1		ug/L		93	80 - 124	7	20
1,2-Dichloroethane			25.0	24.2		ug/L		97	75 - 120	1	20
1,2-Dichloropropane			25.0	24.0		ug/L		96	76 - 120	3	20
1,3-Dichlorobenzene			25.0	23.3		ug/L		93	77 - 120	7	20
1,4-Dichlorobenzene			25.0	24.1		ug/L		96	80 - 120	4	20
2-Butanone (MEK)			125	108		ug/L		86	57 - 140	6	20
2-Hexanone			125	93.9		ug/L		75	65 - 127	3	15
4-Methyl-2-pentanone (MIBK)			125	98.7		ug/L		79	71 - 125	1	35
Acetone			125	118		ug/L		94	56 - 142	9	15
Benzene			25.0	24.6		ug/L		98	71 - 124	2	13
Bromodichloromethane			25.0	23.3		ug/L		93	80 - 122	5	15
Bromoform			25.0	21.3		ug/L		85	61 - 132	8	15
Bromomethane			25.0	29.0		ug/L		116	55 - 144	9	15
Carbon disulfide			25.0	23.0		ug/L		92	59 - 134	5	15
Carbon tetrachloride			25.0	23.9		ug/L		96	72 - 134	3	15
Chlorobenzene			25.0	23.0		ug/L		92	80 - 120	2	25
Dibromochloromethane			25.0	21.6		ug/L		86	75 - 125	5	15
Chloroethane			25.0	25.9		ug/L		104	69 - 136	2	15
Chloroform			25.0	23.9		ug/L		95	73 - 127	5	20
Chloromethane			25.0	23.0		ug/L		92	68 - 124	4	15
cis-1,2-Dichloroethene			25.0	25.1		ug/L		101	74 - 124	4	15
cis-1,3-Dichloropropene			25.0	24.0		ug/L		96	74 - 124	1	15
Cyclohexane			25.0	23.2		ug/L		93	59 - 135	10	20
Dichlorodifluoromethane			25.0	27.7		ug/L		111	59 - 135	14	20
Ethylbenzene			25.0	22.9		ug/L		92	77 - 123	1	15
1,2-Dibromoethane			25.0	22.8		ug/L		91	77 - 120	2	15
Isopropylbenzene			25.0	24.0		ug/L		96	77 - 122	1	20
Methyl acetate			125	97.8		ug/L		78	74 - 133	1	20
Methyl tert-butyl ether			25.0	22.7		ug/L		91	77 - 120	2	37

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

Lab Sample ID: LCSD 480-337188/17
Matrix: Water
Analysis Batch: 337188

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

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Methylcyclohexane			25.0	25.4		ug/L		101	68 - 134	14	20
Methylene Chloride			25.0	24.3		ug/L		97	75 - 124	2	15
Styrene			25.0	23.9		ug/L		96	80 - 120	4	20
Tetrachloroethene			25.0	23.6		ug/L		95	74 - 122	4	20
Toluene			25.0	23.1		ug/L		93	80 - 122	0	15
trans-1,2-Dichloroethene			25.0	23.8		ug/L		95	73 - 127	1	20
trans-1,3-Dichloropropene			25.0	22.0		ug/L		88	80 - 120	5	15
Trichloroethene			25.0	25.4		ug/L		101	74 - 123	3	16
Trichlorofluoromethane			25.0	26.9		ug/L		107	62 - 150	10	20
Vinyl chloride			25.0	25.8		ug/L		103	65 - 133	7	15

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
Toluene-d8 (Surr)	*101*		*80 - 120*
1,2-Dichloroethane-d4 (Surr)	*106*		*77 - 120*
4-Bromofluorobenzene (Surr)	*101*		*73 - 120*
Dibromofluoromethane (Surr)	*109*		*75 - 123*

QC Association Summary

Client: LaBella Associates DPC
Project/Site: Former Roblin Steel & Alumax Ext Sites

TestAmerica Job ID: 480-111156-1

GC/MS VOA

Analysis Batch: 337023

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-111156-1	MW-12	Total/NA	Water	8260C	
480-111156-2	MW-9R	Total/NA	Water	8260C	
480-111156-3	MW-7R	Total/NA	Water	8260C	
480-111156-4	MW-4	Total/NA	Water	8260C	
480-111156-5	MW-1	Total/NA	Water	8260C	
480-111156-6	EX MW-12	Total/NA	Water	8260C	
480-111156-8	EX MW-11R	Total/NA	Water	8260C	
480-111156-9	AL-2	Total/NA	Water	8260C	
480-111156-10	AL-1	Total/NA	Water	8260C	
480-111156-11	AL-7	Total/NA	Water	8260C	
480-111156-12	FIELD DUPLICATE	Total/NA	Water	8260C	
480-111156-13	TRIP BLANK	Total/NA	Water	8260C	
MB 480-337023/6	Method Blank	Total/NA	Water	8260C	
LCS 480-337023/4	Lab Control Sample	Total/NA	Water	8260C	
480-111156-2 MS	MW-9R	Total/NA	Water	8260C	
480-111156-2 MSD	MW-9R	Total/NA	Water	8260C	

Analysis Batch: 337188

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-111156-7	MW-2R	Total/NA	Water	8260C	
MB 480-337188/6	Method Blank	Total/NA	Water	8260C	
LCS 480-337188/4	Lab Control Sample	Total/NA	Water	8260C	
LCSD 480-337188/17	Lab Control Sample Dup	Total/NA	Water	8260C	

Lab Chronicle

Client: LaBella Associates DPC
Project/Site: Former Roblin Steel & Alumax Ext Sites

TestAmerica Job ID: 480-111156-1

Client Sample ID: MW-12
Date Collected: 12/14/16 09:15
Date Received: 12/15/16 11:00

Lab Sample ID: 480-111156-1
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	337023	12/19/16 13:10	NEA	TAL BUF

Client Sample ID: MW-9R
Date Collected: 12/14/16 10:11
Date Received: 12/15/16 11:00

Lab Sample ID: 480-111156-2
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		10	337023	12/19/16 13:37	NEA	TAL BUF

Client Sample ID: MW-7R
Date Collected: 12/14/16 11:06
Date Received: 12/15/16 11:00

Lab Sample ID: 480-111156-3
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	337023	12/19/16 14:04	NEA	TAL BUF

Client Sample ID: MW-4
Date Collected: 12/14/16 11:51
Date Received: 12/15/16 11:00

Lab Sample ID: 480-111156-4
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	337023	12/19/16 14:31	NEA	TAL BUF

Client Sample ID: MW-1
Date Collected: 12/14/16 12:32
Date Received: 12/15/16 11:00

Lab Sample ID: 480-111156-5
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	337023	12/19/16 14:58	NEA	TAL BUF

Client Sample ID: EX MW-12
Date Collected: 12/14/16 13:05
Date Received: 12/15/16 11:00

Lab Sample ID: 480-111156-6
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	337023	12/19/16 15:24	NEA	TAL BUF

Lab Chronicle

Client: LaBella Associates DPC
Project/Site: Former Roblin Steel & Alumax Ext Sites

TestAmerica Job ID: 480-111156-1

Client Sample ID: MW-2R
Lab Sample ID: 480-111156-7
Date Collected: 12/14/16 13:48
Matrix: Water
Date Received: 12/15/16 11:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	337188	12/20/16 01:52	NEA	TAL BUF

Client Sample ID: EX MW-11R
Lab Sample ID: 480-111156-8
Date Collected: 12/14/16 14:20
Matrix: Water
Date Received: 12/15/16 11:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		20	337023	12/19/16 16:18	NEA	TAL BUF

Client Sample ID: AL-2
Lab Sample ID: 480-111156-9
Date Collected: 12/14/16 15:18
Matrix: Water
Date Received: 12/15/16 11:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		20	337023	12/19/16 16:45	NEA	TAL BUF

Client Sample ID: AL-1
Lab Sample ID: 480-111156-10
Date Collected: 12/14/16 16:02
Matrix: Water
Date Received: 12/15/16 11:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		80	337023	12/19/16 17:12	NEA	TAL BUF

Client Sample ID: AL-7
Lab Sample ID: 480-111156-11
Date Collected: 12/14/16 16:44
Matrix: Water
Date Received: 12/15/16 11:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	337023	12/19/16 17:38	NEA	TAL BUF

Client Sample ID: FIELD DUPLICATE
Lab Sample ID: 480-111156-12
Date Collected: 12/14/16 00:00
Matrix: Water
Date Received: 12/15/16 11:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		25	337023	12/19/16 18:05	NEA	TAL BUF

Lab Chronicle

Client: LaBella Associates DPC
Project/Site: Former Roblin Steel & Alumax Ext Sites

TestAmerica Job ID: 480-111156-1

Client Sample ID: TRIP BLANK
Date Collected: 12/14/16 00:00
Date Received: 12/15/16 11:00

Lab Sample ID: 480-111156-13
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	337023	12/19/16 18:32	NEA	TAL BUF

Laboratory References:

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

Certification Summary

Client: LaBella Associates DPC
Project/Site: Former Roblin Steel & Alumax Ext Sites

TestAmerica Job ID: 480-111156-1

Laboratory: TestAmerica Buffalo

The certifications listed below are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
New York	NELAP	2	10026	03-31-17

Method Summary

Client: LaBella Associates DPC
Project/Site: Former Roblin Steel & Alumax Ext Sites

TestAmerica Job ID: 480-111156-1

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	TAL BUF

Protocol References:

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

Laboratory References:

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

Sample Summary

Client: LaBella Associates DPC
Project/Site: Former Roblin Steel & Alumax Ext Sites

TestAmerica Job ID: 480-111156-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
480-111156-1	MW-12	Water	12/14/16 09:15	12/15/16 11:00
480-111156-2	MW-9R	Water	12/14/16 10:11	12/15/16 11:00
480-111156-3	MW-7R	Water	12/14/16 11:06	12/15/16 11:00
480-111156-4	MW-4	Water	12/14/16 11:51	12/15/16 11:00
480-111156-5	MW-1	Water	12/14/16 12:32	12/15/16 11:00
480-111156-6	EX MW-12	Water	12/14/16 13:05	12/15/16 11:00
480-111156-7	MW-2R	Water	12/14/16 13:48	12/15/16 11:00
480-111156-8	EX MW-11R	Water	12/14/16 14:20	12/15/16 11:00
480-111156-9	AL-2	Water	12/14/16 15:18	12/15/16 11:00
480-111156-10	AL-1	Water	12/14/16 16:02	12/15/16 11:00
480-111156-11	AL-7	Water	12/14/16 16:44	12/15/16 11:00
480-111156-12	FIELD DUPLICATE	Water	12/14/16 00:00	12/15/16 11:00
480-111156-13	TRIP BLANK	Water	12/14/16 00:00	12/15/16 11:00

TestAmerica Buffalo

10 Hazelwood Drive

Amherst, NY 14228
Phone: 716.691.26[illegible] Fax: 716.691.7991

Chain of Custody Record

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480-111156 COC

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

Client Contact	Project Manager: Chris Kibler	Site Contact: Chris Kibler	Date: 12-14-16	COC No:
Company Name: LaBella	Tel/Fax: 716-768-4986	Lab Contact:	Carrier:	____ of ____ COCs
Address: 300 Pearl St, Suite 130	Analysis Turnaround Time			Sampler: Chris Kibler
City/State/Zip: Buffalo, NY 14202	☐ CALENDAR DAYS ☒ WORKING DAYS			For Lab Use Only:
Phone: 716-551-6281	TAT if different from Below			Walk-in Client:
Fax: 716-551-6282	☐ 2 weeks ☐ 1 week ☐ 2 days ☐ 1 day — Standard Turn			Lab Sampling:
Project Name: Former Robin Steel Site				Job / SDG No.:
Site: 320 S. Roberts Rd., Dunkirk, NY				
PO # 2160148				

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS / MSD (Y/N)	TCL VOCs (8260)	Sample Specific Notes:
MW-12	12-14-16	9:15	G	GW	3			X	
MW-9R	12-14-16	10:11	G	GW	3			X	
MW-7R	12-14-16	11:06	G	GW	3			X	
MW-4	12-14-16	11:51	G	GW	3			X	
MW-1	12-14-16	12:32	G	GW	3			X	
EX MW-12	12-14-16	13:05	G	GW	3			X	
MW-2R	12-14-16	13:40	G	GW	3			X	
EX MW-11R	12-14-16	14:25	G	GW	3			X	
AL-2	12-14-16	15:18	G	GW	3			X	
AL-1	12-14-16	16:02	G	GW	3			X	
AL-3	12-14-16	16:44	G	GW	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:
Trip Blank + Field Duplicate - TCL VOC analysis (8260) / NYSASP Category B - Level 4

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

	Company	Date/Time		Company	Date/Time
Relinquished by:	LaBella	12-14-16 1800	Received by:	TAB	12/15/16 10:30
Relinquished by:	TAB	12/15/16 11:00	Received by:	TAB	12/15/16 1100
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company:	Date/Time:

#1 3.4

12/29/2016

Login Sample Receipt Checklist

Client: LaBella Associates DPC

Job Number: 480-111156-1

Login Number: 111156

List Source: TestAmerica Buffalo

List Number: 1

Creator: Wallace, Cameron

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	LA BELLA
Samples received within 48 hours of sampling.	True	
Samples requiring field filtration have been filtered in the field.	True	
Chlorine Residual checked.	N/A	