

PERIODIC REVIEW REPORT

FORMER ROBLIN STEEL FACILITY
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

Prepared by:



ENGINEERING • LAND SURVEY • MAPPING • ENVIRONMENTAL

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**PERIODIC REVIEW REPORT
FORMER ROBLIN STEEL FACILITY
320 SOUTH ROBERTS ROAD, DUNKIRK NEW YORK**

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I. EXECUTIVE SUMMARY

A. Site Summary

The former Roblin Steel site (hereinafter referred to as the "Site") occupies approximately 12 acres of an inactive industrial park. The Site formerly contained the shell of a former 88,500-square-foot facility building that was demolished as part of the 2010 remedial activities. 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 property, necessitating remedial activities. Following completion of the remedial work described in the February 2006 Remedial Action Work Plan (RAWP), some contamination was left in the subsurface at this Site, which is hereafter referred to as 'remaining contamination'. The remedial efforts also included development of a November 2010 Site Management Plan (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.

B. Effectiveness of Remedial Program

The soil cover system constructed as part of the remediation of the site is currently in good condition and operating as designed. Additionally, the results of the groundwater monitoring revealed that total VOC concentrations have generally decreased during the recent sampling event performed in August, 2013. The remedial program is viewed to be effective in achieving the remedial objectives of the site. TVGA will continue to monitor the site based on the SMP.

C. Compliance

No areas of non-compliance regarding the major elements of the SMP were identified during this Periodic Review Report (PRR).

D. Recommendations

No recommended changes to the SMP were identified during this PRR.

II. SITE OVERVIEW

A. Site Background

The Site occupies approximately 12 acres of an inactive industrial park. The Site formerly contained the shell of a former 88,500-square-foot facility building. The building was demolished as part of the 2010 remedial activities. Figure 1 shows the location of the Site and Figure 2 is the site plan map. The adjoining properties located in

the industrial park include the former Alumax Extrusions site located to the south and the Edgewood Warehouse site 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 the majority of the on-site structures in the late 1980s and early 1990s. Since that time, the Site has been vacant.

In May 2013, a new highway construction project was initiated within the City called the Millennium Parkway Talcott Street Extension project. The alignment of the new roadway passes through the Site. Enclosed as Appendix F are three plan sheets from the roadway construction project (sheets ED-1, ED-2 and ED-3) which show the road alignment along with the environmental procedures that the construction contractor is required to follow during construction activities. The plans were developed in accordance with the SMP. To date, the only construction activities that have occurred on-site is digging for drainage and grading for the future roadway to the northeast.

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 site; and to the west by the Edgewood Warehouse site. Residential properties are situated to the northwest and south of the Site beyond the adjoining properties. Additionally, mixed commercial and light industrial properties are located to the north and west of the Site, while an undeveloped wooded area and Hyde Creek are located to the east.

The March 2005 Record of Decision (ROD) issued by the New York State Department of Environmental Conservation (NYSDEC) identified seven (7) impacted Media Groups (MGs) associated with the site. The MGs include:

- Surface soil/fill debris piles
- Subsurface soil/fill impacted with chlorinated VOCs
- Subsurface soil/fill with PAH and metals impacts and/or petroleum nuisance characteristics
- Drainage features and contents
- Building components
- Concrete and surface soil impacted with polychlorinated biphenyls (PCBs)
- Groundwater impacted with VOCs

B. Remedial Program Overview

The site investigation for the Site Investigation/Remedial Alternatives Report (SI/RAR) was conducted at the site from 2002 to 2003, and revealed that contamination associated with historical operations had impacted the property, necessitating remedial activities. The NYSDEC issued a ROD in March 2005. A Remedial Action Work Plan (RAWP) was prepared in February 2006 to describe 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 exceeds the Site-Specific Cleanup Levels (SSCLs)
- Excavation and off-site disposal of subsurface soils that exceed 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 are not part of the long-term monitoring program
- 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 of concrete slabs and top 12 inches of the foundations followed by the placement of the crushed concrete across the site
- Installation of a site-wide soil cover system
- Establishment of vegetative cover

Following completion of the remedial work described in the RAWP, some contamination may have been left in the subsurface at this Site. The remedial efforts also included development of a November 2010 Site Management Plan (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.

III. EFFECTIVENESS OF THE REMDIAL PROGRAM

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

As indicated in the October 2010 Post-Remedial Groundwater Monitoring Event Letter to the NYSDEC the remedial goals for on-site groundwater are being achieved. Based on the comparison of the pre-remedial and the post-remedial analytical results, the enhanced natural attenuation appears to be achieving the goal of reducing the concentrations of chlorinated solvents in the groundwater.

IV. IC/EC PLAN COMPLIANCE REPORT

A. Institutional Controls

In accordance with the SMP, the Site has a series of Institutional Controls in the form of site restrictions. Adherence to these Institutional Controls is required by the Environmental Easement. Site restrictions that apply to the Controlled Property are:

- The property may only be used for commercial or industrial use provided that the long-term Engineering and Institutional Controls included in the SMP are employed;
- The property 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 on the property that will disturb remaining contaminated material must be conducted in accordance with the SMP;
- The use of the groundwater underlying the property 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 property are prohibited; and
- The property owner is required to provide an Institutional Control/Engineering Control (IC/EC) certification, prepared and submitted by

a professional engineer or environmental professional acceptable to the NYSDEC annually or for a period to be approved by the NYSDEC, which will certify that the institutional controls and engineering controls put in place are unchanged from the previous certification or that any changes to the controls were approved by the NYSDEC; and, (2) 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.

The Environmental Easement is described on the Boundary Survey of the Former Roblin Steel Site, included as Appendix A. The site remains vacant, however the construction of a new roadway (The Millennium Parkway Project) has commenced and when completed the road will traverse the site from the southwest to the northeast. The project will conform to all requirements listed in the SMP. TVGA has been contracted by the County to perform the environmental oversight for the project. TVGA personnel will be present for all intrusive work completed on the site.

B. Engineering Controls

1. Soil Cover System

Exposure to remaining contamination in soil/fill at the Site is prevented by a soil cover system 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 Excavation Work Plan (EWP), which appears in Appendix A of the SMP, outlines the procedures that are required to be implemented in the event the cover system is breached, penetrated or temporarily removed, and any underlying remaining contamination is disturbed. The cover system is a permanent control and the quality and integrity of this system will be inspected at defined, regular intervals in perpetuity.

On August 15, 2013, Ms. Jessica Gostonski conducted the annual site inspection, which included traversing the site on-foot to observe the current conditions throughout site. The site is currently vacant and undeveloped consisting of shrubs and grasses. Ponding is occurring south of the northern property line boundary extending from approximately MW-04 and MW-07R. Construction of the Millennium Parkway is currently underway. The construction extends from South Roberts Road across the former Roblin Steel and Alumax sites to the western terminus of the reconstructed Progress Drive. The construction area is surrounded by silt fence. Some debris (such as logs, old railroad tracks, scrap metal, etc.) is located on the western portion of the site along both sides of the proposed roadway. Construction activities include the clearing of shrubs and grasses and the excavation and site grading for the proposed roadway and associated drainage. The roadway was designed and is

being constructed in accordance with the SMP. All disturbed portions of the site cover system will be reestablished. Any materials removed below the cover system will be inspected for visual or olfactory evidence of contamination. If contamination is observed, the material will be stockpiled and later disposed of off-site in accordance with the SMP. A TVGA representative will be on-site and equipped with a photoionization detector (PID) during all intrusive activities.

Remaining portions of the site cover systems are in place and performing as designed.

Appendix B includes photographs taken during the site inspection. Appendix C includes the NYSDEC "Site Management Periodic Review Report Notice – Institutional and Engineering Controls Certification Form."

2. Sub-Slab Vapor Venting System

No SSVVS has been 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 NYSDEC and NYSDOH guidance at the time the system is installed. The ultimate design of the SSVVS will be dependent upon the size and configuration of any newly constructed buildings. Therefore, the specific components of the SSVVS have not been determined.

V. MONITORING PLAN COMPLIANCE REPORT

A. 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.

This 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 of 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, this 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.

B. Groundwater Monitoring

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

Sampling Procedure

The eight groundwater monitoring wells (five downgradient monitoring wells (MW-01, MW-02, MW-04, MW-12 and EX-MW-12) and the three areas of groundwater with elevated chlorinated VOCs (MW-09R, MW-07 and EX-MW11) were purged and sampled in general accordance with the procedures detailed in the November 2010 SMP. All monitoring well sampling activities were recorded on groundwater sampling logs, which are included in Appendix D. 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 top of the riser. 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 or, in the case of wells with slow recharge rates, until the well was evacuated to dryness using dedicated polyethylene bailers. After the completion of development, the monitoring wells were allowed to recharge. The samples were collected within three hours of completion of well development using dedicated bailers and clean sample bottles containing preservatives provided by the laboratory. The groundwater samples were submitted for analysis of TCL VOCs.

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 Paradigm Environmental Services, Inc., which is a New York State Department of Health Environmental Laboratory Approval Program (ELAP) certified environmental laboratory, for analytical testing. The COC records established for the collected samples were maintained throughout laboratory handling. Copies of the COCs and complete analytical laboratory report are included as Appendix E.

Quality Assurance/Quality Control Samples

In addition to field samples, Quality Assurance/Quality Control (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 sample included blind field duplicate (collected from MW-9R) and trip blank samples that were analyzed for TCL VOCs.

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 the applicable water quality standards. Figure 2 depicts the locations of the monitoring wells as well as the post-remedial analytical results from this sampling event.

As shown in Table 1, no VOCs were detected in monitoring wells MW-01 and MW-12 during this sampling event.

One or more VOCs were detected at concentrations above standards in the samples collected from monitoring wells MW-02R, MW-04, MW-07R, MW-09R, EX-MW-11R, and EX-MW-12.

C. Comparisons with Remedial Objectives

No VOCs were detected in monitoring wells MW-01, MW-04 and MW-12 during this sampling event or the previous post-remediation sampling event; therefore, these wells are meeting the remedial objectives set in place for the site.

One or more VOCs were detected at concentrations above standards in the samples collected from monitoring wells MW-02R, MW-04, MW-07R, MW-09R, EX-MW-11R, and EX-MW-12. However the total VOC concentrations in all of these locations have decreased since the last sampling event performed in August 2010 with the exception of acetone in MW-04.

The VOC parameter concentrations in MW-02R have generally decreased or were reported as non-detect since the last sampling event. Chloroethane, cyclohexane, isopropylbenzene, methyl cyclohexane and vinyl chloride were detected for the first time or at a concentration slightly higher than the previous event. Chloroethane, cyclohexane, isopropylbenzene and methyl cyclohexane were detected in MW-02R for the first time. Cyclohexane and methyl cyclohexane do not have a regulatory standard associated with them, while isopropylbenzene was detected below the regulatory value and chloroethane was detected only slightly above the regulatory value. The detection of vinyl chloride has increased slightly since the last sampling event; however, the concentration is lower than the pre-remedial concentration from October 2002.

The VOC concentrations in MW-04 were all non-detect, with the exception of acetone. This is the first detection of acetone at this location and the total VOC concentration has increased overall. However; the concentration of acetone in MW-04 is below the regulatory value and no indications of a trend was identified. TVGA will continue to monitor acetone in MW-04 during future monitoring events.

The VOC parameter concentrations in MW-07R and EX-MW-12 have all decreased or were reported as non-detect during this sampling event when compared to the previous event.

The VOC concentrations in MW-09R have generally decreased or were reported as non-detect since the last sampling event with the exception of a few parameters which include: cyclohexane, methylcyclohexane and vinyl chloride. Cyclohexane, and methyl cyclohexane were detected in MW-09R for the first time. Cyclohexane and methyl cyclohexane do not have a regulatory standard associated with them. The detection of vinyl chloride has increased since the previous sampling event. The total VOC concentration in MW-09R has decreased from the previous sampling event; however, TVGA will continue to monitor these parameters at this location during future sampling events for indications of a trend.

The VOC concentrations in EX-MW-11R have decreased or were reported as non-detect since the last sampling event with the exception of vinyl chloride. The detection of vinyl chloride has increased slightly since the last sampling event performed in August 2010; however, the concentration is significantly lower than the pre-remedial concentration from October 2002.

A comparison of the results from MW-09R 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) with the exception of cis-1,2-dichloroethene. The concentration of cis-1,2-dichloroethene was 1.6 times greater in the duplicate than in MW-09R.

D. Monitoring Deficiencies

It should be noted that groundwater monitoring well MW-04 was not sampled on the original sampling date of 8/15/2013. MW-04 was sampled the following week, 8/21/13 due to the fact that the well could not be located during the original sampling date. Well MW-07R was originally mistaken for MW-4. When TVGA personnel went back out to the site, MW-04 was found and sampled. The wells that were difficult to locate due to high grasses and shrubs (MW-1, MW-4 and MW-7) were spray painted orange to make them more visible. The laboratory was contacted regarding the mix-up of MW-04 and MW-07R and the COC was updated to reflect the change.

E. Conclusions and Recommendations

Based on the information provided in the SMP, the groundwater monitoring program for this site is conducted on an annual basis for 30 years. The sampling frequency may be modified with the approval of the NYSDEC. The SMP would then be modified to reflect any changes in sampling plans approved by NYSDEC.

The detected VOC concentrations in the samples collected during this sampling event were lower than those from the previous sampling events. Based on the fact that the concentrations of VOCs have generally decreased, the enhanced natural attenuation appears to be achieving the goal of reducing the concentrations of VOCs in the groundwater. No changes to the Monitoring Plan or the SMP are recommended at this time.

VI. CONCLUSIONS AND RECOMMENDATIONS

At the time of the site inspection, the Former Roblin Steel Facility was in compliance with the SMP. The cap is functioning as designed and all disturbances to the cap during construction activities at the site are being monitored as described in the Excavation Work Plan (EWP), Health and Safety Plan (HASP) and Community Air Monitoring Plan (CAMP). All disturbed portions of the site cover system will be re-established. Based on the analytical results from this sampling event, total VOC concentrations in all of the sampling locations have decreased since the last sampling event performed in August 2010. Based on the fact that total VOC concentrations have generally decreased, it appears that natural attenuation is occurring at the site and the remedial objectives are being achieved.

No changes to the SMP or the PRR frequency are recommended at this time. The next groundwater monitoring event and PRR will be completed in 2014.

VII. LIMITATIONS

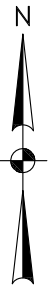
The conclusions presented in this report are based on information gathered in accordance generally accepted professional consulting principles and practices. All conclusions reflect observable conditions existing at the time of the site inspection. Information provided by outside sources (individuals, 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, TVGA 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 within 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 TVGA's intent that the conclusions and recommendations stated herein will be intended as guidance and not necessarily a firm course of action except where explicitly stated as such. TVGA 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 to 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. Furthermore, nothing contained in this report shall be construed as a warranty or affirmation by TVGA that the subject property described in this report are suitable collateral for any loan or that acquisition of such property by any lender through foreclosure proceedings or otherwise will pose no risk of potential environmental liability on the part of such lender.

N:\2010 Projects\2010.0128.07 Alumax and Roblin\5 - Project Deliverables\Roblin\Periodic Review Report - 2013_Roblin.docx

FIGURES



SITE LOCATION MAP

TVGA
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DUNKIRK, CHAUTAUQUA CO., N.Y.

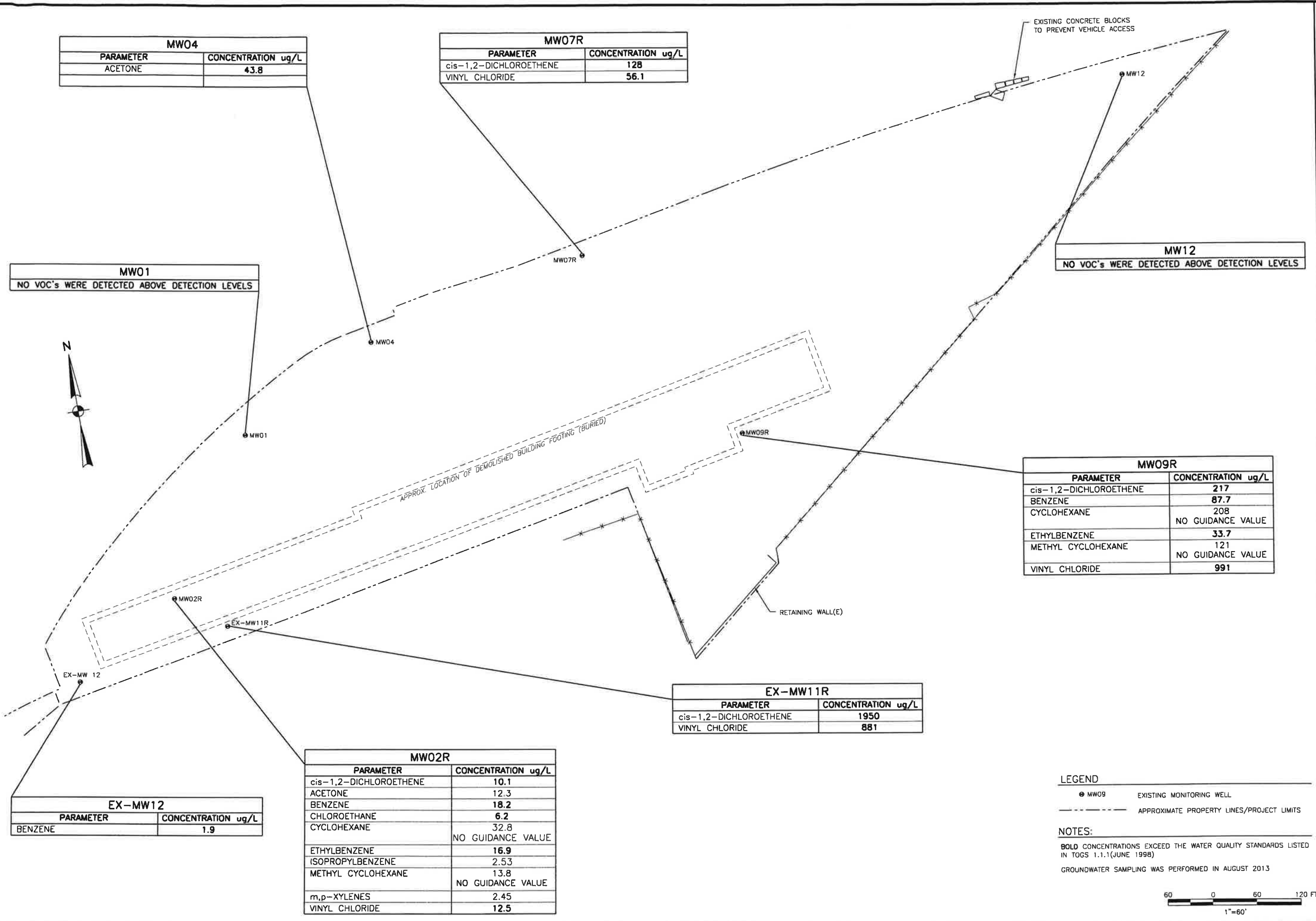
PROJ. NO. 2010.0128.07

SCALE: 1" = 2000'

DATE: SEPTEMBER 2013

FIGURE NO. 1

File: N:\2010 Projects\2010.0128.07 Alumax and Robin\4 - Technical Data\CADD Drawings\ROBLIN\FIGURE 2 GW SAMPLE RESULTS.dwg, Last saved: 9/26/2013, Plot Date: 10/1/2013, By: PETRANCHUK, TIMOTHY, Plot Style: HALF-BLACK.CTB



NEW YORK

FIGURE 2

SITE PLAN

FORMER ROBLIN STEEL SITE

CITY OF DUNKIRK

CHAUTAUQUA COUNTY

DESIGNED BY: T. BOYLE

DRAWN BY: T. BOYLE

CHECKED BY: A. BENKLEMAN

DATE: SEPTEMBER 2013

LAB NO.: 2010.0128.07

DRAWING FILE NO.:

FILE NAME:

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DESCRIPTION

NOTE:

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PLAN OR REPORT IS A VIOLATION

OF THE PROFESSIONAL ENGINEER'S

ETHICS AND THE NEW YORK STATE

LAW.

TABLES

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

PARAMETER	REGULATORY VALUE ⁽¹⁾	MW-01				MW-02R				MW-04				MW-07R				MW-09R				EX-MW-11R			
Collection Date		10/11/02	2/10/09	8/10/10	8/15/13	10/11/02	2/10/09	8/10/10	8/15/13	10/11/02	2/10/09	8/10/10	8/21/13	10/11/02	5/4/09	8/10/10	8/15/13	10/11/02	2/10/09	8/10/10	8/15/13	10/11/02	2/10/09	8/10/10	8/15/13
Volatile Organic Compounds (ug/L)																									
1,1-Dichloroethene	5		NOT SAMPLED			NA		21.3	10.1	NA				15				3	2.02			NA	354	5,320	1,950
cis-1,2-Dichloroethene	5					NA				NA				NA		904	128	NA	210	277	217	NA			
trans-1,2-Dichloroethene	5					NA				NA				NA				NA	4.48	17.3		NA			
1,2-Dichloroethene (Total)	5					88		21.3						1,500		904		380	214	294		41,000	354	5,320	
1,2,4-Trimethylbenzene	5						10												12.9						
2-Butanone	50						33.5	129												305					
Acetone	50							21.7	12.3				43.8							569					
Benzene	1	1				18	7.92	37.3	18.2	6				10	65	14		35	11.5	445	87.7				
Chloroethane	5								6.2																
Cyclohexane	-								32.8													208			
cis-1,3-Dichloropropene	0														1,500										
Ethylbenzene	5						9.81	18.9	16.9	2				4				12	5.66	69.6	33.7				
Isopropylbenzene	5								2.53																
Methyl Cyclohexane	-								13.8						99							121			
n-Propylbenzene	5						2.57																		
Tetrachloroethene	5														160										
Toluene	5					24	7.19	101						12	69	29.7		74	23.3	581					
m,p-Xylene	5	NA				NA	7.62	73.2	2.45	NA				NA	67	33.3		NA	20.5	239		NA			
o-Xylene	5	NA				NA	2.61	37.2		NA				NA				NA	11.5	128		NA			
Total Xylenes	5	4				11	10.23	110.4		10				23	67	33.3		75	32	367					
Trichloroethene	5					32		3.31						56		49.2		450	135	585		150,000	168	4,630	
Vinyl chloride	2					31		5.34	12.5					330	770	402	56.1	34	33		991	9,800	27	638	881
Total VOCs	-	5	0	0	0	204	91.45	579.95	127.78	18	0	0	43.8	1950	2797	2369.5	184.1	1063	716.34	3877.2	1658.4	200,800	903	15,908	2,831

PARAMETER	REGULATORY VALUE ⁽¹⁾	MW-12				EX-MW-12			
Collection Date		10/11/02	2/10/09	8/10/10	8/15/13	10/11/02	2/10/09	8/10/10	8/15/13
Volatile Organic Compounds (ug/L)									
cis-1,2-Dichloroethene	5	NA	NOT SAMPLED			NA		7.6	
trans-1,2-Dichloroethene	5	NA				NA			
1,2-Dichloroethene (Total)	5	150				150		7.6	
1,2-Dichloropropane	5								
1,2,4-Trimethylbenzene	5								
2-Butanone	50							31.3	
2-Hexanone	50							5.23	
4-Methyl-2-pentanone	-								
Acetone	50							73.8	
Benzene	1	1				1		24.0	1.9
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	
trans-1,3-Dichloropropene	5								
Trichloroethene	5							8.96	
Vinyl chloride	2	200				200		27.2	
Total VOCs	-	352	0	0	0	352	0	483.1	1.9

- Notes:
1. Regulatory values are derived from NYS Ambient Water Quality Standards TOGS 1.1.1 (Source of Drinking Water, groundwater).
 2. Guidance value was used when standard was not available.
 3. (-) = No regulatory value is associated with this compound.
 4. Shaded values represent exceedances of the regulatory value.
 5. ug/L = micrograms per Liter (equivalent to parts per billion (ppb)).
 6. Only compounds with one or more detections are shown.
 7. Blank spaces indicate that the analyte was not detected.
 8. "NA" = parameter was not analyzed

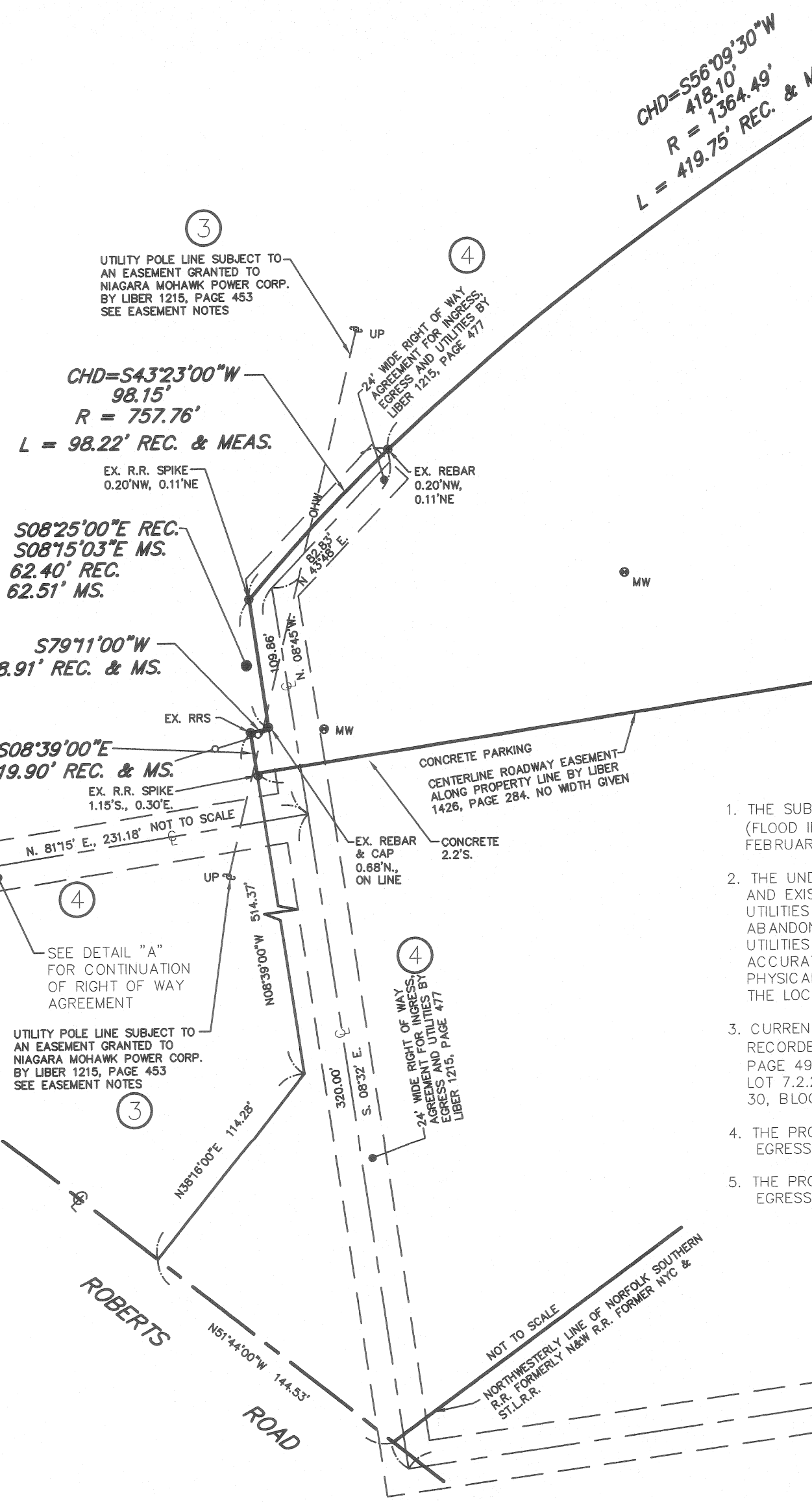
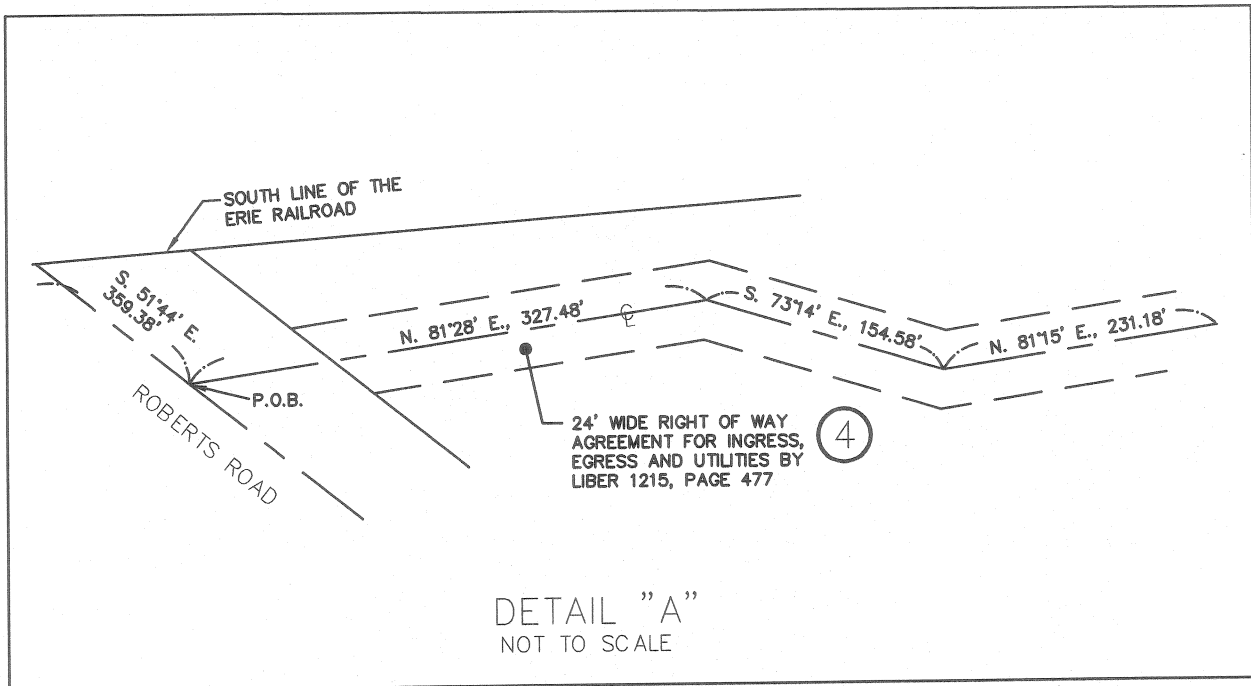
APPENDIX A
BOUNDARY SURVEY: FORMER ROBLIN STEEL SITE

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, P.C., 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 NORTH-WESTERLY 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 586'-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 ALONG SAID SOUTHERLY LINE, 378.93 FEET TO A POINT; THENCE S85°-22'-00"W 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 NORTH-EASTERLY 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 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 NORTH-EASTERLY CORNER OF AFOREMENTIONED NEW YORK CENTRAL LINES, LLC, SAID CURVE HAVING A RADIUS OF 260.49 FEET AND A CHORD BEARING OF 573°-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 556°-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 543°-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 NORTH-EASTERLY CORNER OF AFOREMENTIONED EDGEWOOD INVESTMENTS, INC.; THENCE S08°-39'-00"E, ALONG THE EASTERLY SAID LINE, 19.90 FEET TO A POINT AT THE NORTH-WESTERLY 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 NORTH-WESTERLY RIGHT OF WAY LINE OF NORFOLK SOUTHERN RAILROAD; THENCE N53°-33'-00"E, ALONG THE NORTH-WESTERLY SAID LINE, 172.65 FEET TO A POINT; THENCE N03°-05'-00"E, ALONG THE NORTH-WESTERLY SAID LINE, 20.37 FEET TO A POINT; THENCE N53°-33'-00"E, ALONG THE NORTH-WESTERLY SAID LINE, 183.89 FEET TO A POINT; THENCE N53°-35'-00"E, ALONG THE NORTH-WESTERLY SAID LINE, 524.58 FEET TO A POINT; THENCE ALONG THE NORTH-WESTERLY 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 FIRST PART RELATING TO THE RIGHTS UNDER SAID AGREEMENT WHICH ARE TRANSFERRED AND CONVEYED BY THIS DEED AND PARTY OF THE SECOND PARTHATIONS 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 THE 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 NORTH-WESTERLY 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 NORTH-EASTERLY 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 SAID 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.

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 72.2, LOT SIZE 3.53 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, THE RELATIVE POSITIONAL ACCURACY OF THIS SURVEY DOES NOT EXCEED THAT WHICH IS SPECIFIED THEREIN.

DATED: _____

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

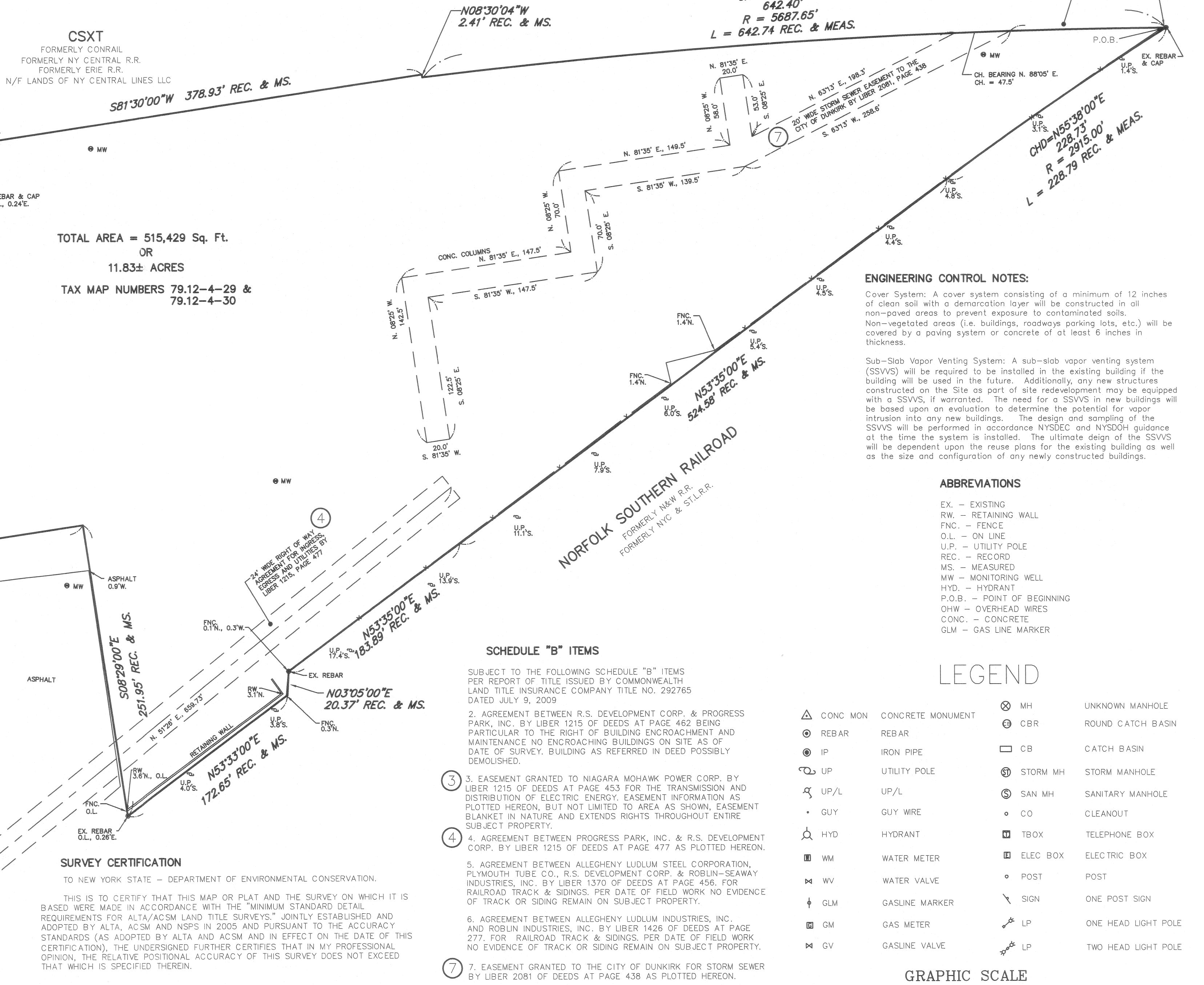
ENVIRONMENTAL EASEMENT AREA DESCRIPTION

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, P.C., 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 NORTH-WESTERLY 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 586'-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 ALONG SAID SOUTHERLY LINE, 378.93 FEET TO A POINT; THENCE S85°-22'-00"W 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 NORTH-EASTERLY 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 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 NORTH-EASTERLY CORNER OF AFOREMENTIONED NEW YORK CENTRAL LINES, LLC, SAID CURVE HAVING A RADIUS OF 260.49 FEET AND A CHORD BEARING OF 573°-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 556°-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 543°-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 NORTH-EASTERLY CORNER OF AFOREMENTIONED EDGEWOOD INVESTMENTS, INC.; THENCE S08°-39'-00"E, ALONG THE EASTERLY SAID LINE, 19.90 FEET TO A POINT AT THE NORTH-WESTERLY 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 NORTH-WESTERLY RIGHT OF WAY LINE OF NORFOLK SOUTHERN RAILROAD; THENCE N53°-33'-00"E, ALONG THE NORTH-WESTERLY SAID LINE, 172.65 FEET TO A POINT; THENCE N03°-05'-00"E, ALONG THE NORTH-WESTERLY SAID LINE, 20.37 FEET TO A POINT; THENCE N53°-33'-00"E ALONG THE NORTH-WESTERLY SAID LINE, 183.89 FEET TO A POINT; THENCE N53°-35'-00"E, ALONG THE NORTH-WESTERLY SAID LINE, 524.58 FEET TO A POINT; THENCE ALONG THE NORTH-WESTERLY 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.



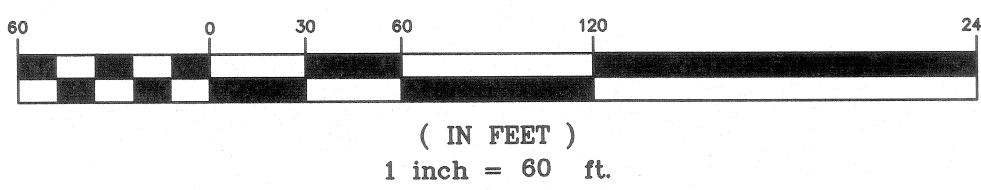
SCHEDULE "B" ITEMS

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

LEGEND

⊠	CONC MON	CONCRETE MONUMENT	⊗	MH	UNKNOWN MANHOLE
⊙	REBAR	REBAR	⊕	CBR	ROUND CATCH BASIN
⊖	IP	IRON PIPE	⊞	CB	CATCH BASIN
⊕	UP	UTILITY POLE	⊟	STM 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



DESIGNED BY: DMD	FIELD DATE: 1/21/09	DATE: 11/7/09	BY: BT
DRAWN BY: RAN	OFFICE DATE: 2/04/09	REVISED TO CURRENT SITE CONDITIONS	DESCRIPTION
CHECKED BY: MWW	JOB NO. 2005.03.08.00	REV	
FILE NAME: ROBLIN-ALTA.dwg	BOOK: 192		
	PAGE: 5984		
	MEP: 5984		
	FILE NAME: ROBLIN-ALTA.dwg		
	DWG SCALE: 1" = 60'		
	VERT: 1" = 60'		

NEW YORK

CITY OF DUNKIRK

BOUNDARY SURVEY (ALTA)
FORMER ROBLIN STEEL SITE

CHAUTAUQUA COUNTY

MAP NUMBER:
FIGURE 2

APPENDIX B
PHOTOGRAPHS



Photograph 1: Western portion of the site facing north/northeast



Photograph 2: Middle of the site facing northwest



Photograph 3: Eastern portion of the site depicting the proposed Millennium Parkway



Photograph 4: Eastern portion of the site facing west

APPENDIX C

**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: April 23, 2012 to July 23, 2013			
		YES	NO
1. Is the information above correct?		☒	☐
If NO, include handwritten above or on a separate sheet.			
2. Has some or all of the site property been sold, subdivided, merged, or undergone a tax map amendment during this Reporting Period?		☐	☒
3. Has there been any change of use at the site during this Reporting Period (see 6NYCRR 375-1.11(d))?		☐	☒
4. Have any federal, state, and/or local permits (e.g., building, discharge) been issued for or at the property during this Reporting Period?		☐	☒
If you answered YES to questions 2 thru 4, include documentation or evidence that documentation has been previously submitted with this certification form.			
5. Is the site currently undergoing development?		☒	☐

Box 2	
	YES NO
6. Is the current site use consistent with the use(s) listed below? Commercial and Industrial	☒ ☐
7. Are all ICs/ECs in place and functioning as designed?	☒ ☐
IF THE ANSWER TO EITHER QUESTION 6 OR 7 IS NO, sign and date below and DO NOT COMPLETE THE REST OF THIS FORM. Otherwise continue.	
A Corrective Measures Work Plan must be submitted along with this form to address these issues.	
_____ Signature of Owner, Remedial Party or Designated Representative	_____ Date

Description of Institutional Controls

<u>Parcel</u>	<u>Owner</u>	<u>Institutional Control</u>
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
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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.

Description of Engineering Controls

<u>Parcel</u>	<u>Engineering Control</u>
79.12-4-29	Cover System Vapor Mitigation
79.12-4-30	Vapor Mitigation Cover System

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 complete.

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

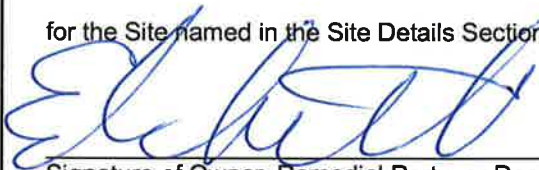
SITE OWNER OR DESIGNATED REPRESENTATIVE SIGNATURE

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 EDWARD SCHILLER at TUGA CONSULTANTS
print name 620 MAIN ST BUFFALO, NY 14202 print business address

am certifying as OWNER REPRESENTATIVE (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

10/2/13
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 EDWARD SCHILLER at TKA CONSULTANTS
print name 620 MAIN ST. BUFFALO, NY 14202 print business address

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



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



10/6/13
Date

APPENDIX D

GROUNDWATER SAMPLING LOGS

WELL SAMPLING LOG
WELL ID: MW-1

Project Name: Former Roblin Steel Site Groundwater Monitoring
Project Location: South Roberts Road, Dunkirk NY

Project No:
Date: 8/15/2013

Purge Information: [Well Riser=Casing (C); all measurements to TOC] Casing Diameter (in): 2 [Volume Conversion = 0.16]

Visible Well Damage/Comments: NONE

Well Depth (ft): 18.11 Water Level (ft): 4.1 Height of Water Column (ft): 14.01

1 Well Volume [WV] (gal): 2.2 3 Well Volumes (gal): 6.7

Method of Purging: Bailer / Submersible / Peristaltic w/ dedicated tubing / Other:

Purge Field Parameters Purge Start Time: 1400

Volume (gal) / WV	ORP/Eh (mV)	pH (SU)	Temp. (°C)	Cond. (mS/cm)	Turb. (NTU)	[Totalizer Start= gal] Characteristics
Initial / 0	-108	7.37	21.0	0.767	22.3	Clear
2.2 ¹	-107	7.58	17.76	0.751	186	Turbid
4.4 ²	-116	7.62	17.26	0.743	468	"
6.6 ³	-140	7.68	16.89	0.731	417	"

Total Volume Purged (gal): 6.6 Purge Complete Time: 1415 [Water Level (ft.):]

Sampling Information: Date:

Sample Time: 1500 Water Level(ft): - Sample Analysis: TCL VOCs No. of Bottles: 2

Sampling Method: Bailer- VOCs ; All // Peristaltic w/dedicated tubing- Remainder ; All //
Submersible- Remainder ; All // Manual grab w/- S/S Pitcher ; Sample Cont's

Sample Field Parameters

ORP/Eh (mV)	pH (SU)	Temp. (°C)	Cond. (mS/cm)	Turb. (NTU)	Characteristics
-105	7.92	18.31	0.732	373	Turbid

Other Comments:

Sampler's Signature: Jessica Gostomski

WELL SAMPLING LOG
WELL ID: MW-2R

Project Name: Former Roblin Steel Site Groundwater Monitoring
Project Location: South Roberts Road, Dunkirk NY

Project No:
Date: **8/15/2013**
Purge Information: [Well Riser=Casing (C); all measurements to TOC] Casing Diameter (in): 2 [Volume Conversion = 0.16]

Visible Well Damage/Comments: NONE

Well Depth (ft): 23.26 Water Level (ft): 7.16 Height of Water Column (ft): 16.1

1 Well Volume [WV] (gal): 2.6 3 Well Volumes (gal): 7.7

Method of Purging: Bailer / Submersible / Peristaltic w/ dedicated tubing / Other: _____

Purge Field Parameters Purge Start Time: 1550

Volume (gal) / WV	ORP/Eh (mV)	pH (SU)	Temp. (°C)	Cond. (mS/cm)	Turb. (NTU)	[Totalizer Start= gal] Characteristics
Initial / 0	-91	7.37	18.28	1.14	88.0	clear
2.6 / 1	-116	7.59	16.75	1.16	91.0	Turbid
5.2 / 2	-123	7.73	15.59	1.02	36.4	clear
7.7 / 3	-95	7.59	15.05	1.11	180	Turbid

Total Volume Purged (gal): 7.7 Purge Complete Time: 1600 [Water Level (ft.): _____]

Sampling Information: Date: 8/15/13

Sample Time: 1600 Water Level(ft): - Sample Analysis: **TCL VOCs** No. of Bottles: **2**

Sampling Method: **Bailer-** VOCs ; All // **Peristaltic w/dedicated tubing-** Remainder ; All // **Submersible-** Remainder ; All // **Manual grab w/-** S/S Pitcher ; Sample Cont's

Sample Field Parameters

ORP/Eh (mV)	pH (SU)	Temp. (°C)	Cond. (mS/cm)	Turb. (NTU)	Characteristics
-96	7.31	18.24	1.11	168	Turbid

Other Comments:

Sampler's Signature: Jessica Gostomski

WELL SAMPLING LOG
WELL ID: MW-4

Project Name: Former Roblin Steel Site Groundwater Monitoring
Project Location: South Roberts Road, Dunkirk NY

Project No:
Date: **8/21 /2013**
Purge Information: [Well Riser=Casing (C); all measurements to TOC] Casing Diameter (in): 2 [Volume Conversion = 0.16]

Visible Well Damage/Comments: NONE

Well Depth (ft): **16.04** Water Level (ft): _____ Height of Water Column (ft): _____

1 Well Volume [WV] (gal): _____ 3 Well Volumes (gal): _____

Method of Purging: Bailer / Submersible / Peristaltic w/ dedicated tubing / Other: _____

Purge Field Parameters Purge Start Time: _____

Volume (gal) / WV	ORP/Eh (mV)	pH (SU)	Temp. (°C)	Cond. (mS/cm)	Turb. (NTU)	[Totalizer Start= gal] Characteristics
Initial / 0	DON'T HAVE equipment to record					
/ 1						
/ 2						
/ 3						

Total Volume Purged (gal): _____ Purge Complete Time: _____ [Water Level (ft.): _____]

Sampling Information: Date: **8/21/13**

Sample Time: **1230** Water Level(ft): **—** Sample Analysis: **TCL VOCs** No. of Bottles: **2**

Sampling Method: **Bailer-** VOCs ; All // **Peristaltic w/dedicated tubing-** Remainder ; All //
Submersible- Remainder ; All // **Manual grab w/-** S/S Pitcher ; Sample Cont's

Sample Field Parameters

ORP/Eh (mV)	pH (SU)	Temp. (°C)	Cond. (mS/cm)	Turb. (NTU)	Characteristics
DON'T HAVE EQUIPMENT TO RECORD					

Other Comments:

could not find well on original sample
date of 8/15/13.

Sampler's Signature: Jessica Gostomski

WELL SAMPLING LOG
WELL ID: MW-7R

Project Name: Former Roblin Steel Site Groundwater Monitoring
Project Location: South Roberts Road, Dunkirk NY

Project No:
Date: 8/15/2013

Purge Information: [Well Riser=Casing (C); all measurements to TOC] Casing Diameter (in): 2 [Volume Conversion = 0.16]

Visible Well Damage/Comments: NONE

Well Depth (ft): 17.57 Water Level (ft): 3.9 Height of Water Column (ft): 12.77

1 Well Volume [WV] (gal): 2.04 3 Well Volumes (gal): 6.13

Method of Purging: Bailer / Submersible / Peristaltic w/ dedicated tubing / Other:

Purge Field Parameters Purge Start Time: 1225

Volume (gal) / WV	ORP/Eh (mV)	pH (SU)	Temp. (°C)	Cond. (mS/cm)	Turb. (NTU)	[Totalizer Start= gal] Characteristics
Initial / 0	15	7.59	20.19	1.87	11.1	clear
2.04 ¹	-43	7.66	17.14	2.02	>1000	Turbid
4.08 ¹²	-53	7.66	15.80	2.04	466	"
6.13 ¹³	-66	7.65	15.15	2.03	>1000	"

Total Volume Purged (gal): 6.13 Purge Complete Time: 1240 [Water Level (ft.):]

Sampling Information: Date: 8/15/13

Sample Time: 1245 Water Level(ft): - Sample Analysis: TCL VOCs No. of Bottles: 2

Sampling Method: **Bailer-** VOCs ; All // **Peristaltic w/dedicated tubing-** Remainder ; All //
Submersible- Remainder ; All // **Manual grab w/-** S/S Pitcher ; Sample Cont's

Sample Field Parameters

ORP/Eh (mV)	pH (SU)	Temp. (°C)	Cond. (mS/cm)	Turb. (NTU)	Characteristics
-57	7.62	15.23	2.04	>1000	Turbid

Other Comments:

Sampler's Signature: Jessica Gostomski

WELL SAMPLING LOG
WELL ID: MW-9R

Project Name: Former Roblin Steel Site Groundwater Monitoring
Project Location: South Roberts Road, Dunkirk NY

Project No:
Date: 8/15/2013

Purge Information: [Well Riser=Casing (C); all measurements to TOC] Casing Diameter (in): 2 [Volume Conversion = 0.16]

Visible Well Damage/Comments: NONE

Well Depth (ft): 16.67 Water Level (ft): 4.87 Height of Water Column (ft): 11.8

1 Well Volume [WV] (gal): 1.9 3 Well Volumes (gal): 5.7

Method of Purging: Bailer / Submersible / Peristaltic w/ dedicated tubing / Other:

Purge Field Parameters Purge Start Time: 1310

Volume (gal) / WV	ORP/Eh (mV)	pH (SU)	Temp. (°C)	Cond. (mS/cm)	Turb. (NTU)	[Totalizer Start= gal] Characteristics
Initial / 0	-63	7.77	20.83	1.29	29.7	Clear
1.9 / 1	-88	7.48	18.53	1.31	168	Turbid
3.8 / 2	-87	7.38	17.02	1.35	49.7	Clear
5.7 / 3	-85	7.33	15.66	1.50	222	Turbid

Total Volume Purged (gal): 5.7 Purge Complete Time: 1330 [Water Level (ft.): - 1]

Sampling Information: Date: 8/15/13

Sample Time: 1330 Water Level(ft): — Sample Analysis: **TCL VOCs** No. of Bottles: 2

Sampling Method: **Bailer-** VOCs ; All // **Peristaltic w/dedicated tubing-** Remainder ; All // **Submersible-** Remainder ; All // **Manual grab w/-** S/S Pitcher ; Sample Cont's

Sample Field Parameters

ORP/Eh (mV)	pH (SU)	Temp. (°C)	Cond. (mS/cm)	Turb. (NTU)	Characteristics
-86	7.32	16.41	1.51	251	Turbid

Other Comments:

*Dup Here - [2 samples]
TOC 1340

Sampler's Signature: Jessica Gostomski

WELL SAMPLING LOG
WELL ID: EX MW-11R

Project Name: Former Roblin Steel Site Groundwater Monitoring
Project Location: South Roberts Road, Dunkirk NY

Project No:
Date: **8/15/2013**
Purge Information: [Well Riser=Casing (C); all measurements to TOC] Casing Diameter (in): 2 [Volume Conversion = 0.16]

Visible Well Damage/Comments: NONE

Well Depth (ft): 18.64 Water Level (ft): 6.81 Height of Water Column (ft): 11.83

1 Well Volume [WV] (gal): 1.9 3 Well Volumes (gal): 5.7

Method of Purging: Bailer / Submersible / Peristaltic w/ dedicated tubing / Other: _____

Purge Field Parameters Purge Start Time: 1620

Volume (gal) / WV	ORP/Eh (mV)	pH (SU)	Temp. (°C)	Cond. (mS/cm)	Turb. (NTU)	[Totalizer Start= gal] Characteristics
Initial / 0	-127	7.83	19.55	0.760	14.7	clear
1.9 ¹	-108	7.68	17.05	0.759	124	Turbid sulfur odor
3.8 ²	-107	7.61	16.78	0.853	463	"
5.7 ³	-85	7.78	16.47	0.923	745	"

Total Volume Purged (gal): 5.7 Purge Complete Time: 1635 [Water Level (ft.): -]

Sampling Information: Date: 8/15/13

Sample Time: 1640 Water Level(ft): - Sample Analysis: **TCL VOCs** No. of Bottles: **2**

Sampling Method: **Bailer-** VOCs ; All // **Peristaltic w/dedicated tubing-** Remainder ; All // **Submersible-** Remainder ; All // **Manual grab w/-** S/S Pitcher ; Sample Cont's

Sample Field Parameters

ORP/Eh (mV)	pH (SU)	Temp. (°C)	Cond. (mS/cm)	Turb. (NTU)	Characteristics
-87	7.76	16.64	0.918	746	Turbid

Other Comments:

Sampler's Signature: Jessica Gostomski

WELL SAMPLING LOG
WELL ID: MW-12

Project Name: Former Roblin Steel Site Groundwater Monitoring
Project Location: South Roberts Road, Dunkirk NY

Project No:
Date: **8/15/2013**
Purge Information: [Well Riser=Casing (C); all measurements to TOC] Casing Diameter (in): 2 [Volume Conversion = 0.16]

Visible Well Damage/Comments: NONE

Well Depth (ft): **23.94** Water Level (ft): **10.54** Height of Water Column (ft): **13.4**

1 Well Volume [WV] (gal): **2.14** 3 Well Volumes (gal): **6.43**

Method of Purging: Bailer / Submersible / Peristaltic w/ dedicated tubing / Other:

Purge Field Parameters Purge Start Time: **11:15**

Volume (gal) / WV	ORP/Eh (mV)	pH (SU)	Temp. (°C)	Cond. (mS/cm)	Turb. (NTU)	[Totalizer Start= gal] Characteristics
Initial / 0	99	7.26	16.39	2.01	202	Turbid w/ orange liner pieces
2.14 ¹	37	6.92	16.32	1.88	71000	Turbid
4.28 ^{1/2}	35	7.00	15.71	1.85	912	"
6.43 ^{1/3}	26	7.05	15.12	1.82	707	"

Total Volume Purged (gal): **6.43** Purge Complete Time: **11:40** [Water Level (ft.):]

Sampling Information: Date: **8/15/13**

Sample Time: **11:45** Water Level(ft): **-** Sample Analysis: **TCL VOCs** No. of Bottles: **2**

Sampling Method: **Bailer-** VOCs ; All // **Peristaltic w/dedicated tubing-** Remainder ; All // **Submersible-** Remainder ; All // **Manual grab w/-** S/S Pitcher ; Sample Cont's

Sample Field Parameters

ORP/Eh (mV)	pH (SU)	Temp. (°C)	Cond. (mS/cm)	Turb. (NTU)	Characteristics
33	7.03	15.83	1.95	263	Turbid

Other Comments:

Sampler's Signature: Jessica Gostomski

WELL SAMPLING LOG
WELL ID: EX MW-12

Project Name: Former Roblin Steel Site Groundwater Monitoring
Project Location: South Roberts Road, Dunkirk NY

Project No:
Date: **8/15/2013**
Purge Information: [Well Riser=Casing (C); all measurements to TOC] Casing Diameter (in): 2 [Volume Conversion = 0.16]

Visible Well Damage/Comments: NONE

Well Depth (ft): 23.01 Water Level (ft): 9.19 Height of Water Column (ft): 13.82

1 Well Volume [WV] (gal): 2.2 3 Well Volumes (gal): 6.6

Method of Purging: Bailer / Submersible / Peristaltic w/ dedicated tubing / Other:

Purge Field Parameters Purge Start Time: 1515

Volume (gal) / WV	ORP/Eh (mV)	pH (SU)	Temp. (°C)	Cond. (mS/cm)	Turb. (NTU)	[Totalizer Start= gal] Characteristics
Initial / 0	-78	7.35	17.68	1.49	478	Turbid
2.2 ¹	-80	7.28	18.23	1.48	400	"
4.4 ²	-82	7.82	16.48	1.59	>1000	"
6.6 ³	-82	7.55	16.60	1.54	>1000	"

Total Volume Purged (gal): 6.6 Purge Complete Time: 1535 [Water Level (ft.): -]

Sampling Information: Date: 8/15/13

Sample Time: 1540 Water Level(ft): - Sample Analysis: **TCL VOCs** No. of Bottles: **2**

Sampling Method: **Bailer-** VOCs ; All // **Peristaltic w/dedicated tubing-** Remainder ; All //
Submersible- Remainder ; All // **Manual grab w/-** S/S Pitcher ; Sample Cont's

Sample Field Parameters

ORP/Eh (mV)	pH (SU)	Temp. (°C)	Cond. (mS/cm)	Turb. (NTU)	Characteristics
-80	7.50	16.58	1.55	>1000	Turbid - sulfur odor

Other Comments:

Sampler's Signature: Jessica Gostomski

APPENDIX E
**LABORATORY ANALYTICAL RESULTS/
CHAIN- OF- CUSTODY**



PARADIGM
ENVIRONMENTAL SERVICES, INC.

Analytical Report For
TVGA Engineering, Surveying

For Lab Project ID

133181

Referencing

Roblin, 2013.0128.07

Prepared

Monday, August 26, 2013

Any noncompliant QC parameters or other notes impacting data interpretation are flagged or documented on the final report or are noted below.

A handwritten signature in black ink, appearing to be "D. Smith", is written over a horizontal line.

Certifies that this report has been approved by the Technical Director or Designee

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



Client: TVGA Engineering, Surveying

Project Reference: Roblin, 2013.0128.07

Sample Identifier: MW-12

Lab Sample ID: 133181-01

Matrix: Groundwater

Date/Time Sampled: 8/15/2013 11:45

Date Received: 8/19/2013

Volatile Organics

Analyte	Result	Units	Qualifier	Date/Time Analyzed
1,1,1-Trichloroethane	< 2.00	ug/L		8/21/2013 18:10
1,1,2,2-Tetrachloroethane	< 2.00	ug/L		8/21/2013 18:10
1,1,2-Trichloroethane	< 2.00	ug/L		8/21/2013 18:10
1,1-Dichloroethane	< 2.00	ug/L		8/21/2013 18:10
1,1-Dichloroethene	< 2.00	ug/L		8/21/2013 18:10
1,2,3-Trichlorobenzene	< 5.00	ug/L		8/21/2013 18:10
1,2,4-Trichlorobenzene	< 5.00	ug/L		8/21/2013 18:10
1,2-Dibromo-3-Chloropropane	< 10.0	ug/L		8/21/2013 18:10
1,2-Dibromoethane	< 2.00	ug/L		8/21/2013 18:10
1,2-Dichlorobenzene	< 2.00	ug/L		8/21/2013 18:10
1,2-Dichloroethane	< 2.00	ug/L		8/21/2013 18:10
1,2-Dichloropropane	< 2.00	ug/L		8/21/2013 18:10
1,3-Dichlorobenzene	< 2.00	ug/L		8/21/2013 18:10
1,4-Dichlorobenzene	< 2.00	ug/L		8/21/2013 18:10
1,4-dioxane	< 20.0	ug/L		8/21/2013 18:10
2-Butanone	< 10.0	ug/L		8/21/2013 18:10
2-Hexanone	< 5.00	ug/L		8/21/2013 18:10
4-Methyl-2-pentanone	< 5.00	ug/L		8/21/2013 18:10
Acetone	< 10.0	ug/L		8/21/2013 18:10
Benzene	< 0.700	ug/L		8/21/2013 18:10
Bromochloromethane	< 5.00	ug/L		8/21/2013 18:10
Bromodichloromethane	< 2.00	ug/L		8/21/2013 18:10
Bromoform	< 5.00	ug/L		8/21/2013 18:10
Bromomethane	< 2.00	ug/L		8/21/2013 18:10
Carbon disulfide	< 2.00	ug/L		8/21/2013 18:10
Carbon Tetrachloride	< 2.00	ug/L		8/21/2013 18:10
Chlorobenzene	< 2.00	ug/L		8/21/2013 18:10
Chloroethane	< 2.00	ug/L		8/21/2013 18:10

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



Client: TVGA Engineering, Surveying

Project Reference: Roblin, 2013.0128.07

Sample Identifier: MW-12

Lab Sample ID: 133181-01

Matrix: Groundwater

Date/Time Sampled: 8/15/2013 11:45

Date Received: 8/19/2013

Chloroform	< 2.00	ug/L	8/21/2013 18:10
Chloromethane	< 2.00	ug/L	8/21/2013 18:10
cis-1,2-Dichloroethene	< 2.00	ug/L	8/21/2013 18:10
cis-1,3-Dichloropropene	< 2.00	ug/L	8/21/2013 18:10
Cyclohexane	< 10.0	ug/L	8/21/2013 18:10
Dibromochloromethane	< 2.00	ug/L	8/21/2013 18:10
Dichlorodifluoromethane	< 2.00	ug/L	8/21/2013 18:10
Ethylbenzene	< 2.00	ug/L	8/21/2013 18:10
Freon 113	< 2.00	ug/L	8/21/2013 18:10
Isopropylbenzene	< 2.00	ug/L	8/21/2013 18:10
m,p-Xylene	< 2.00	ug/L	8/21/2013 18:10
Methyl acetate	< 2.00	ug/L	8/21/2013 18:10
Methyl tert-butyl Ether	< 2.00	ug/L	8/21/2013 18:10
Methylcyclohexane	< 2.00	ug/L	8/21/2013 18:10
Methylene chloride	< 5.00	ug/L	8/21/2013 18:10
o-Xylene	< 2.00	ug/L	8/21/2013 18:10
Styrene	< 5.00	ug/L	8/21/2013 18:10
Tetrachloroethene	< 2.00	ug/L	8/21/2013 18:10
Toluene	< 2.00	ug/L	8/21/2013 18:10
trans-1,2-Dichloroethene	< 2.00	ug/L	8/21/2013 18:10
trans-1,3-Dichloropropene	< 2.00	ug/L	8/21/2013 18:10
Trichloroethene	< 2.00	ug/L	8/21/2013 18:10
Trichlorofluoromethane	< 2.00	ug/L	8/21/2013 18:10
Vinyl chloride	< 2.00	ug/L	8/21/2013 18:10

Method Reference(s): EPA 8260B

EPA 5030

Data File: x07758.D

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



Client: TVGA Engineering, Surveying

Project Reference: Roblin, 2013.0128.07

Sample Identifier: MW-4

Lab Sample ID: 133181-02

Matrix: Groundwater

Date/Time Sampled: 8/15/2013 12:45

Date Received: 8/19/2013

Volatile Organics

<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>Qualifier</u>	<u>Date/Time Analyzed</u>
1,1,1-Trichloroethane	< 20.0	ug/L		8/21/2013 18:33
1,1,2,2-Tetrachloroethane	< 20.0	ug/L		8/21/2013 18:33
1,1,2-Trichloroethane	< 20.0	ug/L		8/21/2013 18:33
1,1-Dichloroethane	< 20.0	ug/L		8/21/2013 18:33
1,1-Dichloroethene	< 20.0	ug/L		8/21/2013 18:33
1,2,3-Trichlorobenzene	< 50.0	ug/L		8/21/2013 18:33
1,2,4-Trichlorobenzene	< 50.0	ug/L		8/21/2013 18:33
1,2-Dibromo-3-Chloropropane	< 100	ug/L		8/21/2013 18:33
1,2-Dibromoethane	< 20.0	ug/L		8/21/2013 18:33
1,2-Dichlorobenzene	< 20.0	ug/L		8/21/2013 18:33
1,2-Dichloroethane	< 20.0	ug/L		8/21/2013 18:33
1,2-Dichloropropane	< 20.0	ug/L		8/21/2013 18:33
1,3-Dichlorobenzene	< 20.0	ug/L		8/21/2013 18:33
1,4-Dichlorobenzene	< 20.0	ug/L		8/21/2013 18:33
1,4-dioxane	< 200	ug/L		8/21/2013 18:33
2-Butanone	< 100	ug/L		8/21/2013 18:33
2-Hexanone	< 50.0	ug/L		8/21/2013 18:33
4-Methyl-2-pentanone	< 50.0	ug/L		8/21/2013 18:33
Acetone	< 100	ug/L		8/21/2013 18:33
Benzene	< 7.00	ug/L		8/21/2013 18:33
Bromochloromethane	< 50.0	ug/L		8/21/2013 18:33
Bromodichloromethane	< 20.0	ug/L		8/21/2013 18:33
Bromoform	< 50.0	ug/L		8/21/2013 18:33
Bromomethane	< 20.0	ug/L		8/21/2013 18:33
Carbon disulfide	< 20.0	ug/L		8/21/2013 18:33
Carbon Tetrachloride	< 20.0	ug/L		8/21/2013 18:33
Chlorobenzene	< 20.0	ug/L		8/21/2013 18:33
Chloroethane	< 20.0	ug/L		8/21/2013 18:33

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



Client: TVGA Engineering, Surveying

Project Reference: Roblin, 2013.0128.07

Sample Identifier: MW-4

Lab Sample ID: 133181-02

Matrix: Groundwater

Date/Time Sampled: 8/15/2013 12:45

Date Received: 8/19/2013

Chloroform	< 20.0	ug/L	8/21/2013 18:33
Chloromethane	< 20.0	ug/L	8/21/2013 18:33
cis-1,2-Dichloroethene	128	ug/L	8/21/2013 18:33
cis-1,3-Dichloropropene	< 20.0	ug/L	8/21/2013 18:33
Cyclohexane	< 100	ug/L	8/21/2013 18:33
Dibromochloromethane	< 20.0	ug/L	8/21/2013 18:33
Dichlorodifluoromethane	< 20.0	ug/L	8/21/2013 18:33
Ethylbenzene	< 20.0	ug/L	8/21/2013 18:33
Freon 113	< 20.0	ug/L	8/21/2013 18:33
Isopropylbenzene	< 20.0	ug/L	8/21/2013 18:33
m,p-Xylene	< 20.0	ug/L	8/21/2013 18:33
Methyl acetate	< 20.0	ug/L	8/21/2013 18:33
Methyl tert-butyl Ether	< 20.0	ug/L	8/21/2013 18:33
Methylcyclohexane	< 20.0	ug/L	8/21/2013 18:33
Methylene chloride	< 50.0	ug/L	8/21/2013 18:33
o-Xylene	< 20.0	ug/L	8/21/2013 18:33
Styrene	< 50.0	ug/L	8/21/2013 18:33
Tetrachloroethene	< 20.0	ug/L	8/21/2013 18:33
Toluene	< 20.0	ug/L	8/21/2013 18:33
trans-1,2-Dichloroethene	< 20.0	ug/L	8/21/2013 18:33
trans-1,3-Dichloropropene	< 20.0	ug/L	8/21/2013 18:33
Trichloroethene	< 20.0	ug/L	8/21/2013 18:33
Trichlorofluoromethane	< 20.0	ug/L	8/21/2013 18:33
Vinyl chloride	56.1	ug/L	8/21/2013 18:33

Method Reference(s): EPA 8260B

EPA 5030

Data File: x07759.D

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



Client: TVGA Engineering, Surveying

Project Reference: Roblin, 2013.0128.07

Sample Identifier: MW-9R

Lab Sample ID: 133181-03

Matrix: Groundwater

Date/Time Sampled: 8/15/2013 13:30

Date Received: 8/19/2013

Volatile Organics

Analyte	Result	Units	Qualifier	Date/Time Analyzed
1,1,1-Trichloroethane	< 10.0	ug/L		8/21/2013 18:56
1,1,2,2-Tetrachloroethane	< 10.0	ug/L		8/21/2013 18:56
1,1,2-Trichloroethane	< 10.0	ug/L		8/21/2013 18:56
1,1-Dichloroethane	< 10.0	ug/L		8/21/2013 18:56
1,1-Dichloroethene	< 10.0	ug/L		8/21/2013 18:56
1,2,3-Trichlorobenzene	< 25.0	ug/L		8/21/2013 18:56
1,2,4-Trichlorobenzene	< 25.0	ug/L		8/21/2013 18:56
1,2-Dibromo-3-Chloropropane	< 50.0	ug/L		8/21/2013 18:56
1,2-Dibromoethane	< 10.0	ug/L		8/21/2013 18:56
1,2-Dichlorobenzene	< 10.0	ug/L		8/21/2013 18:56
1,2-Dichloroethane	< 10.0	ug/L		8/21/2013 18:56
1,2-Dichloropropane	< 10.0	ug/L		8/21/2013 18:56
1,3-Dichlorobenzene	< 10.0	ug/L		8/21/2013 18:56
1,4-Dichlorobenzene	< 10.0	ug/L		8/21/2013 18:56
1,4-dioxane	< 100	ug/L		8/21/2013 18:56
2-Butanone	< 50.0	ug/L		8/21/2013 18:56
2-Hexanone	< 25.0	ug/L		8/21/2013 18:56
4-Methyl-2-pentanone	< 25.0	ug/L		8/21/2013 18:56
Acetone	< 50.0	ug/L		8/21/2013 18:56
Benzene	87.7	ug/L		8/21/2013 18:56
Bromochloromethane	< 25.0	ug/L		8/21/2013 18:56
Bromodichloromethane	< 10.0	ug/L		8/21/2013 18:56
Bromoform	< 25.0	ug/L		8/21/2013 18:56
Bromomethane	< 10.0	ug/L		8/21/2013 18:56
Carbon disulfide	< 10.0	ug/L		8/21/2013 18:56
Carbon Tetrachloride	< 10.0	ug/L		8/21/2013 18:56
Chlorobenzene	< 10.0	ug/L		8/21/2013 18:56
Chloroethane	< 10.0	ug/L		8/21/2013 18:56

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Client: TVGA Engineering, Surveying

Project Reference: Roblin, 2013.0128.07

Sample Identifier: MW-9R

Lab Sample ID: 133181-03

Matrix: Groundwater

Date/Time Sampled: 8/15/2013 13:30

Date Received: 8/19/2013

Chloroform	< 10.0	ug/L	8/21/2013 18:56
Chloromethane	< 10.0	ug/L	8/21/2013 18:56
cis-1,2-Dichloroethene	217	ug/L	8/21/2013 18:56
cis-1,3-Dichloropropene	< 10.0	ug/L	8/21/2013 18:56
Cyclohexane	208	ug/L	8/21/2013 18:56
Dibromochloromethane	< 10.0	ug/L	8/21/2013 18:56
Dichlorodifluoromethane	< 10.0	ug/L	8/21/2013 18:56
Ethylbenzene	33.7	ug/L	8/21/2013 18:56
Freon 113	< 10.0	ug/L	8/21/2013 18:56
Isopropylbenzene	< 10.0	ug/L	8/21/2013 18:56
m,p-Xylene	< 10.0	ug/L	8/21/2013 18:56
Methyl acetate	< 10.0	ug/L	8/21/2013 18:56
Methyl tert-butyl Ether	< 10.0	ug/L	8/21/2013 18:56
Methylcyclohexane	121	ug/L	8/21/2013 18:56
Methylene chloride	< 25.0	ug/L	8/21/2013 18:56
o-Xylene	< 10.0	ug/L	8/21/2013 18:56
Styrene	< 25.0	ug/L	8/21/2013 18:56
Tetrachloroethene	< 10.0	ug/L	8/21/2013 18:56
Toluene	< 10.0	ug/L	8/21/2013 18:56
trans-1,2-Dichloroethene	< 10.0	ug/L	8/21/2013 18:56
trans-1,3-Dichloropropene	< 10.0	ug/L	8/21/2013 18:56
Trichloroethene	< 10.0	ug/L	8/21/2013 18:56
Trichlorofluoromethane	< 10.0	ug/L	8/21/2013 18:56
Vinyl chloride	991	ug/L	8/21/2013 18:56

Method Reference(s): EPA 8260B

EPA 5030

Data File: x07760.D

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



Client: TVGA Engineering, Surveying

Project Reference: Roblin, 2013.0128.07

Sample Identifier: MW-1

Lab Sample ID: 133181-04

Matrix: Groundwater

Date/Time Sampled: 8/15/2013 15:00

Date Received: 8/19/2013

Volatile Organics

Analyte	Result	Units	Qualifier	Date/Time Analyzed
1,1,1-Trichloroethane	< 2.00	ug/L		8/22/2013 14:06
1,1,2,2-Tetrachloroethane	< 2.00	ug/L		8/22/2013 14:06
1,1,2-Trichloroethane	< 2.00	ug/L		8/22/2013 14:06
1,1-Dichloroethane	< 2.00	ug/L		8/22/2013 14:06
1,1-Dichloroethene	< 2.00	ug/L		8/22/2013 14:06
1,2,3-Trichlorobenzene	< 5.00	ug/L		8/22/2013 14:06
1,2,4-Trichlorobenzene	< 5.00	ug/L		8/22/2013 14:06
1,2-Dibromo-3-Chloropropane	< 10.0	ug/L		8/22/2013 14:06
1,2-Dibromoethane	< 2.00	ug/L		8/22/2013 14:06
1,2-Dichlorobenzene	< 2.00	ug/L		8/22/2013 14:06
1,2-Dichloroethane	< 2.00	ug/L		8/22/2013 14:06
1,2-Dichloropropane	< 2.00	ug/L		8/22/2013 14:06
1,3-Dichlorobenzene	< 2.00	ug/L		8/22/2013 14:06
1,4-Dichlorobenzene	< 2.00	ug/L		8/22/2013 14:06
1,4-dioxane	< 20.0	ug/L		8/22/2013 14:06
2-Butanone	< 10.0	ug/L		8/22/2013 14:06
2-Hexanone	< 5.00	ug/L		8/22/2013 14:06
4-Methyl-2-pentanone	< 5.00	ug/L		8/22/2013 14:06
Acetone	< 10.0	ug/L		8/22/2013 14:06
Benzene	< 0.700	ug/L		8/22/2013 14:06
Bromochloromethane	< 5.00	ug/L		8/22/2013 14:06
Bromodichloromethane	< 2.00	ug/L		8/22/2013 14:06
Bromoform	< 5.00	ug/L		8/22/2013 14:06
Bromomethane	< 2.00	ug/L		8/22/2013 14:06
Carbon disulfide	< 2.00	ug/L		8/22/2013 14:06
Carbon Tetrachloride	< 2.00	ug/L		8/22/2013 14:06
Chlorobenzene	< 2.00	ug/L		8/22/2013 14:06
Chloroethane	< 2.00	ug/L		8/22/2013 14:06

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Client: TVGA Engineering, Surveying

Project Reference: Roblin, 2013.0128.07

Sample Identifier: MW-1

Lab Sample ID: 133181-04

Matrix: Groundwater

Date/Time Sampled: 8/15/2013 15:00

Date Received: 8/19/2013

Chloroform	< 2.00	ug/L	8/22/2013 14:06
Chloromethane	< 2.00	ug/L	8/22/2013 14:06
cis-1,2-Dichloroethene	< 2.00	ug/L	8/22/2013 14:06
cis-1,3-Dichloropropene	< 2.00	ug/L	8/22/2013 14:06
Cyclohexane	< 10.0	ug/L	8/22/2013 14:06
Dibromochloromethane	< 2.00	ug/L	8/22/2013 14:06
Dichlorodifluoromethane	< 2.00	ug/L	8/22/2013 14:06
Ethylbenzene	< 2.00	ug/L	8/22/2013 14:06
Freon 113	< 2.00	ug/L	8/22/2013 14:06
Isopropylbenzene	< 2.00	ug/L	8/22/2013 14:06
m,p-Xylene	< 2.00	ug/L	8/22/2013 14:06
Methyl acetate	< 2.00	ug/L	8/22/2013 14:06
Methyl tert-butyl Ether	< 2.00	ug/L	8/22/2013 14:06
Methylcyclohexane	< 2.00	ug/L	8/22/2013 14:06
Methylene chloride	< 5.00	ug/L	8/22/2013 14:06
o-Xylene	< 2.00	ug/L	8/22/2013 14:06
Styrene	< 5.00	ug/L	8/22/2013 14:06
Tetrachloroethene	< 2.00	ug/L	8/22/2013 14:06
Toluene	< 2.00	ug/L	8/22/2013 14:06
trans-1,2-Dichloroethene	< 2.00	ug/L	8/22/2013 14:06
trans-1,3-Dichloropropene	< 2.00	ug/L	8/22/2013 14:06
Trichloroethene	< 2.00	ug/L	8/22/2013 14:06
Trichlorofluoromethane	< 2.00	ug/L	8/22/2013 14:06
Vinyl chloride	< 2.00	ug/L	8/22/2013 14:06

Method Reference(s): EPA 8260B

EPA 5030

Data File: x07782.D

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



Client: TVGA Engineering, Surveying

Project Reference: Roblin, 2013.0128.07

Sample Identifier: DUP

Lab Sample ID: 133181-05

Matrix: Groundwater

Date/Time Sampled: 8/15/2013 13:40

Date Received: 8/19/2013

Volatile Organics

Analyte	Result	Units	Qualifier	Date/Time Analyzed
1,1,1-Trichloroethane	< 20.0	ug/L		8/21/2013 19:42
1,1,2,2-Tetrachloroethane	< 20.0	ug/L		8/21/2013 19:42
1,1,2-Trichloroethane	< 20.0	ug/L		8/21/2013 19:42
1,1-Dichloroethane	< 20.0	ug/L		8/21/2013 19:42
1,1-Dichloroethene	< 20.0	ug/L		8/21/2013 19:42
1,2,3-Trichlorobenzene	< 50.0	ug/L		8/21/2013 19:42
1,2,4-Trichlorobenzene	< 50.0	ug/L		8/21/2013 19:42
1,2-Dibromo-3-Chloropropane	< 100	ug/L		8/21/2013 19:42
1,2-Dibromoethane	< 20.0	ug/L		8/21/2013 19:42
1,2-Dichlorobenzene	< 20.0	ug/L		8/21/2013 19:42
1,2-Dichloroethane	< 20.0	ug/L		8/21/2013 19:42
1,2-Dichloropropane	< 20.0	ug/L		8/21/2013 19:42
1,3-Dichlorobenzene	< 20.0	ug/L		8/21/2013 19:42
1,4-Dichlorobenzene	< 20.0	ug/L		8/21/2013 19:42
1,4-dioxane	< 200	ug/L		8/21/2013 19:42
2-Butanone	< 100	ug/L		8/21/2013 19:42
2-Hexanone	< 50.0	ug/L		8/21/2013 19:42
4-Methyl-2-pentanone	< 50.0	ug/L		8/21/2013 19:42
Acetone	< 100	ug/L		8/21/2013 19:42
Benzene	69.6	ug/L		8/21/2013 19:42
Bromochloromethane	< 50.0	ug/L		8/21/2013 19:42
Bromodichloromethane	< 20.0	ug/L		8/21/2013 19:42
Bromoform	< 50.0	ug/L		8/21/2013 19:42
Bromomethane	< 20.0	ug/L		8/21/2013 19:42
Carbon disulfide	< 20.0	ug/L		8/21/2013 19:42
Carbon Tetrachloride	< 20.0	ug/L		8/21/2013 19:42
Chlorobenzene	< 20.0	ug/L		8/21/2013 19:42
Chloroethane	< 20.0	ug/L		8/21/2013 19:42

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Client: TVGA Engineering, Surveying

Project Reference: Roblin, 2013.0128.07

Sample Identifier: DUP

Lab Sample ID: 133181-05

Matrix: Groundwater

Date/Time Sampled: 8/15/2013 13:40

Date Received: 8/19/2013

Chloroform	< 20.0	ug/L	8/21/2013 19:42
Chloromethane	< 20.0	ug/L	8/21/2013 19:42
cis-1,2-Dichloroethene	342	ug/L	8/21/2013 19:42
cis-1,3-Dichloropropene	< 20.0	ug/L	8/21/2013 19:42
Cyclohexane	170	ug/L	8/21/2013 19:42
Dibromochloromethane	< 20.0	ug/L	8/21/2013 19:42
Dichlorodifluoromethane	< 20.0	ug/L	8/21/2013 19:42
Ethylbenzene	27.8	ug/L	8/21/2013 19:42
Freon 113	< 20.0	ug/L	8/21/2013 19:42
Isopropylbenzene	< 20.0	ug/L	8/21/2013 19:42
m,p-Xylene	< 20.0	ug/L	8/21/2013 19:42
Methyl acetate	< 20.0	ug/L	8/21/2013 19:42
Methyl tert-butyl Ether	< 20.0	ug/L	8/21/2013 19:42
Methylcyclohexane	92.4	ug/L	8/21/2013 19:42
Methylene chloride	< 50.0	ug/L	8/21/2013 19:42
o-Xylene	< 20.0	ug/L	8/21/2013 19:42
Styrene	< 50.0	ug/L	8/21/2013 19:42
Tetrachloroethene	< 20.0	ug/L	8/21/2013 19:42
Toluene	< 20.0	ug/L	8/21/2013 19:42
trans-1,2-Dichloroethene	< 20.0	ug/L	8/21/2013 19:42
trans-1,3-Dichloropropene	< 20.0	ug/L	8/21/2013 19:42
Trichloroethene	< 20.0	ug/L	8/21/2013 19:42
Trichlorofluoromethane	< 20.0	ug/L	8/21/2013 19:42
Vinyl chloride	1080	ug/L	8/21/2013 19:42

Method Reference(s): EPA 8260B

EPA 5030

Data File: x07762.D

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



Client: TVGA Engineering, Surveying

Project Reference: Roblin, 2013.0128.07

Sample Identifier: EX MW-12

Lab Sample ID: 133181-06

Matrix: Groundwater

Date/Time Sampled: 8/15/2013 15:40

Date Received: 8/19/2013

Volatile Organics

Analyte	Result	Units	Qualifier	Date/Time Analyzed
1,1,1-Trichloroethane	< 2.00	ug/L		8/21/2013 20:06
1,1,2,2-Tetrachloroethane	< 2.00	ug/L		8/21/2013 20:06
1,1,2-Trichloroethane	< 2.00	ug/L		8/21/2013 20:06
1,1-Dichloroethane	< 2.00	ug/L		8/21/2013 20:06
1,1-Dichloroethene	< 2.00	ug/L		8/21/2013 20:06
1,2,3-Trichlorobenzene	< 5.00	ug/L		8/21/2013 20:06
1,2,4-Trichlorobenzene	< 5.00	ug/L		8/21/2013 20:06
1,2-Dibromo-3-Chloropropane	< 10.0	ug/L		8/21/2013 20:06
1,2-Dibromoethane	< 2.00	ug/L		8/21/2013 20:06
1,2-Dichlorobenzene	< 2.00	ug/L		8/21/2013 20:06
1,2-Dichloroethane	< 2.00	ug/L		8/21/2013 20:06
1,2-Dichloropropane	< 2.00	ug/L		8/21/2013 20:06
1,3-Dichlorobenzene	< 2.00	ug/L		8/21/2013 20:06
1,4-Dichlorobenzene	< 2.00	ug/L		8/21/2013 20:06
1,4-dioxane	< 20.0	ug/L		8/21/2013 20:06
2-Butanone	< 10.0	ug/L		8/21/2013 20:06
2-Hexanone	< 5.00	ug/L		8/21/2013 20:06
4-Methyl-2-pentanone	< 5.00	ug/L		8/21/2013 20:06
Acetone	< 10.0	ug/L		8/21/2013 20:06
Benzene	1.87	ug/L		8/21/2013 20:06
Bromochloromethane	< 5.00	ug/L		8/21/2013 20:06
Bromodichloromethane	< 2.00	ug/L		8/21/2013 20:06
Bromoform	< 5.00	ug/L		8/21/2013 20:06
Bromomethane	< 2.00	ug/L		8/21/2013 20:06
Carbon disulfide	< 2.00	ug/L		8/21/2013 20:06
Carbon Tetrachloride	< 2.00	ug/L		8/21/2013 20:06
Chlorobenzene	< 2.00	ug/L		8/21/2013 20:06
Chloroethane	< 2.00	ug/L		8/21/2013 20:06

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Client: TVGA Engineering, Surveying

Project Reference: Roblin, 2013.0128.07

Sample Identifier: EX MW-12

Lab Sample ID: 133181-06

Matrix: Groundwater

Date/Time Sampled: 8/15/2013 15:40

Date Received: 8/19/2013

Chloroform	< 2.00	ug/L	8/21/2013 20:06
Chloromethane	< 2.00	ug/L	8/21/2013 20:06
cis-1,2-Dichloroethene	< 2.00	ug/L	8/21/2013 20:06
cis-1,3-Dichloropropene	< 2.00	ug/L	8/21/2013 20:06
Cyclohexane	< 10.0	ug/L	8/21/2013 20:06
Dibromochloromethane	< 2.00	ug/L	8/21/2013 20:06
Dichlorodifluoromethane	< 2.00	ug/L	8/21/2013 20:06
Ethylbenzene	< 2.00	ug/L	8/21/2013 20:06
Freon 113	< 2.00	ug/L	8/21/2013 20:06
Isopropylbenzene	< 2.00	ug/L	8/21/2013 20:06
m,p-Xylene	< 2.00	ug/L	8/21/2013 20:06
Methyl acetate	< 2.00	ug/L	8/21/2013 20:06
Methyl tert-butyl Ether	< 2.00	ug/L	8/21/2013 20:06
Methylcyclohexane	< 2.00	ug/L	8/21/2013 20:06
Methylene chloride	< 5.00	ug/L	8/21/2013 20:06
o-Xylene	< 2.00	ug/L	8/21/2013 20:06
Styrene	< 5.00	ug/L	8/21/2013 20:06
Tetrachloroethene	< 2.00	ug/L	8/21/2013 20:06
Toluene	< 2.00	ug/L	8/21/2013 20:06
trans-1,2-Dichloroethene	< 2.00	ug/L	8/21/2013 20:06
trans-1,3-Dichloropropene	< 2.00	ug/L	8/21/2013 20:06
Trichloroethene	< 2.00	ug/L	8/21/2013 20:06
Trichlorofluoromethane	< 2.00	ug/L	8/21/2013 20:06
Vinyl chloride	< 2.00	ug/L	8/21/2013 20:06

Method Reference(s): EPA 8260B

EPA 5030

Data File: x07763.D

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



Client: TVGA Engineering, Surveying

Project Reference: Roblin, 2013.0128.07

Sample Identifier: MW-2R

Lab Sample ID: 133181-07

Matrix: Groundwater

Date/Time Sampled: 8/15/2013 16:00

Date Received: 8/19/2013

Volatile Organics

Analyte	Result	Units	Qualifier	Date/Time Analyzed
1,1,1-Trichloroethane	< 2.00	ug/L		8/21/2013 20:29
1,1,2,2-Tetrachloroethane	< 2.00	ug/L		8/21/2013 20:29
1,1,2-Trichloroethane	< 2.00	ug/L		8/21/2013 20:29
1,1-Dichloroethane	< 2.00	ug/L		8/21/2013 20:29
1,1-Dichloroethene	< 2.00	ug/L		8/21/2013 20:29
1,2,3-Trichlorobenzene	< 5.00	ug/L		8/21/2013 20:29
1,2,4-Trichlorobenzene	< 5.00	ug/L		8/21/2013 20:29
1,2-Dibromo-3-Chloropropane	< 10.0	ug/L		8/21/2013 20:29
1,2-Dibromoethane	< 2.00	ug/L		8/21/2013 20:29
1,2-Dichlorobenzene	< 2.00	ug/L		8/21/2013 20:29
1,2-Dichloroethane	< 2.00	ug/L		8/21/2013 20:29
1,2-Dichloropropane	< 2.00	ug/L		8/21/2013 20:29
1,3-Dichlorobenzene	< 2.00	ug/L		8/21/2013 20:29
1,4-Dichlorobenzene	< 2.00	ug/L		8/21/2013 20:29
1,4-dioxane	< 20.0	ug/L		8/21/2013 20:29
2-Butanone	< 10.0	ug/L		8/21/2013 20:29
2-Hexanone	< 5.00	ug/L		8/21/2013 20:29
4-Methyl-2-pentanone	< 5.00	ug/L		8/21/2013 20:29
Acetone	12.3	ug/L		8/21/2013 20:29
Benzene	18.2	ug/L		8/21/2013 20:29
Bromochloromethane	< 5.00	ug/L		8/21/2013 20:29
Bromodichloromethane	< 2.00	ug/L		8/21/2013 20:29
Bromoform	< 5.00	ug/L		8/21/2013 20:29
Bromomethane	< 2.00	ug/L		8/21/2013 20:29
Carbon disulfide	< 2.00	ug/L		8/21/2013 20:29
Carbon Tetrachloride	< 2.00	ug/L		8/21/2013 20:29
Chlorobenzene	< 2.00	ug/L		8/21/2013 20:29
Chloroethane	6.20	ug/L		8/21/2013 20:29

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Client: TVGA Engineering, Surveying

Project Reference: Roblin, 2013.0128.07

Sample Identifier: MW-2R

Lab Sample ID: 133181-07

Matrix: Groundwater

Date/Time Sampled: 8/15/2013 16:00

Date Received: 8/19/2013

Chloroform	< 2.00	ug/L	8/21/2013 20:29
Chloromethane	< 2.00	ug/L	8/21/2013 20:29
cis-1,2-Dichloroethene	10.1	ug/L	8/21/2013 20:29
cis-1,3-Dichloropropene	< 2.00	ug/L	8/21/2013 20:29
Cyclohexane	32.8	ug/L	8/21/2013 20:29
Dibromochloromethane	< 2.00	ug/L	8/21/2013 20:29
Dichlorodifluoromethane	< 2.00	ug/L	8/21/2013 20:29
Ethylbenzene	16.9	ug/L	8/21/2013 20:29
Freon 113	< 2.00	ug/L	8/21/2013 20:29
Isopropylbenzene	2.53	ug/L	8/21/2013 20:29
m,p-Xylene	2.45	ug/L	8/21/2013 20:29
Methyl acetate	< 2.00	ug/L	8/21/2013 20:29
Methyl tert-butyl Ether	< 2.00	ug/L	8/21/2013 20:29
Methylcyclohexane	13.8	ug/L	8/21/2013 20:29
Methylene chloride	< 5.00	ug/L	8/21/2013 20:29
o-Xylene	< 2.00	ug/L	8/21/2013 20:29
Styrene	< 5.00	ug/L	8/21/2013 20:29
Tetrachloroethene	< 2.00	ug/L	8/21/2013 20:29
Toluene	< 2.00	ug/L	8/21/2013 20:29
trans-1,2-Dichloroethene	< 2.00	ug/L	8/21/2013 20:29
trans-1,3-Dichloropropene	< 2.00	ug/L	8/21/2013 20:29
Trichloroethene	< 2.00	ug/L	8/21/2013 20:29
Trichlorofluoromethane	< 2.00	ug/L	8/21/2013 20:29
Vinyl chloride	12.5	ug/L	8/21/2013 20:29

Method Reference(s): EPA 8260B

EPA 5030

Data File: x07764.D

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



Client: TVGA Engineering, Surveying

Project Reference: Roblin, 2013.0128.07

Sample Identifier: EX MW-11R

Lab Sample ID: 133181-08

Matrix: Groundwater

Date/Time Sampled: 8/15/2013 16:40

Date Received: 8/19/2013

Volatile Organics

Analyte	Result	Units	Qualifier	Date/Time Analyzed
1,1,1-Trichloroethane	< 200	ug/L		8/21/2013 20:52
1,1,2,2-Tetrachloroethane	< 200	ug/L		8/21/2013 20:52
1,1,2-Trichloroethane	< 200	ug/L		8/21/2013 20:52
1,1-Dichloroethane	< 200	ug/L		8/21/2013 20:52
1,1-Dichloroethene	< 200	ug/L		8/21/2013 20:52
1,2,3-Trichlorobenzene	< 500	ug/L		8/21/2013 20:52
1,2,4-Trichlorobenzene	< 500	ug/L		8/21/2013 20:52
1,2-Dibromo-3-Chloropropane	< 1000	ug/L		8/21/2013 20:52
1,2-Dibromoethane	< 200	ug/L		8/21/2013 20:52
1,2-Dichlorobenzene	< 200	ug/L		8/21/2013 20:52
1,2-Dichloroethane	< 200	ug/L		8/21/2013 20:52
1,2-Dichloropropane	< 200	ug/L		8/21/2013 20:52
1,3-Dichlorobenzene	< 200	ug/L		8/21/2013 20:52
1,4-Dichlorobenzene	< 200	ug/L		8/21/2013 20:52
1,4-dioxane	< 2000	ug/L		8/21/2013 20:52
2-Butanone	< 1000	ug/L		8/21/2013 20:52
2-Hexanone	< 500	ug/L		8/21/2013 20:52
4-Methyl-2-pentanone	< 500	ug/L		8/21/2013 20:52
Acetone	< 1000	ug/L		8/21/2013 20:52
Benzene	< 70.0	ug/L		8/21/2013 20:52
Bromochloromethane	< 500	ug/L		8/21/2013 20:52
Bromodichloromethane	< 200	ug/L		8/21/2013 20:52
Bromoform	< 500	ug/L		8/21/2013 20:52
Bromomethane	< 200	ug/L		8/21/2013 20:52
Carbon disulfide	< 200	ug/L		8/21/2013 20:52
Carbon Tetrachloride	< 200	ug/L		8/21/2013 20:52
Chlorobenzene	< 200	ug/L		8/21/2013 20:52
Chloroethane	< 200	ug/L		8/21/2013 20:52

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Client: TVGA Engineering, Surveying

Project Reference: Roblin, 2013.0128.07

Sample Identifier: EX MW-11R

Lab Sample ID: 133181-08

Matrix: Groundwater

Date/Time Sampled: 8/15/2013 16:40

Date Received: 8/19/2013

Chloroform	< 200	ug/L	8/21/2013 20:52
Chloromethane	< 200	ug/L	8/21/2013 20:52
cis-1,2-Dichloroethene	1950	ug/L	8/21/2013 20:52
cis-1,3-Dichloropropene	< 200	ug/L	8/21/2013 20:52
Cyclohexane	< 1000	ug/L	8/21/2013 20:52
Dibromochloromethane	< 200	ug/L	8/21/2013 20:52
Dichlorodifluoromethane	< 200	ug/L	8/21/2013 20:52
Ethylbenzene	< 200	ug/L	8/21/2013 20:52
Freon 113	< 200	ug/L	8/21/2013 20:52
Isopropylbenzene	< 200	ug/L	8/21/2013 20:52
m,p-Xylene	< 200	ug/L	8/21/2013 20:52
Methyl acetate	< 200	ug/L	8/21/2013 20:52
Methyl tert-butyl Ether	< 200	ug/L	8/21/2013 20:52
Methylcyclohexane	< 200	ug/L	8/21/2013 20:52
Methylene chloride	< 500	ug/L	8/21/2013 20:52
o-Xylene	< 200	ug/L	8/21/2013 20:52
Styrene	< 500	ug/L	8/21/2013 20:52
Tetrachloroethene	< 200	ug/L	8/21/2013 20:52
Toluene	< 200	ug/L	8/21/2013 20:52
trans-1,2-Dichloroethene	< 200	ug/L	8/21/2013 20:52
trans-1,3-Dichloropropene	< 200	ug/L	8/21/2013 20:52
Trichloroethene	< 200	ug/L	8/21/2013 20:52
Trichlorofluoromethane	< 200	ug/L	8/21/2013 20:52
Vinyl chloride	881	ug/L	8/21/2013 20:52

Method Reference(s): EPA 8260B

EPA 5030

Data File: x07765.D

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Client: TVGA Engineering, Surveying

Project Reference: Roblin, 2013.0128.07

Sample Identifier: Trip Blank

Lab Sample ID: 133181-09

Matrix: Groundwater

Date/Time Sampled: 8/15/2013

Date Received: 8/19/2013

Volatile Organics

Analyte	Result	Units	Qualifier	Date/Time Analyzed
1,1,1-Trichloroethane	< 2.00	ug/L		8/21/2013 21:15
1,1,2,2-Tetrachloroethane	< 2.00	ug/L		8/21/2013 21:15
1,1,2-Trichloroethane	< 2.00	ug/L		8/21/2013 21:15
1,1-Dichloroethane	< 2.00	ug/L		8/21/2013 21:15
1,1-Dichloroethene	< 2.00	ug/L		8/21/2013 21:15
1,2,3-Trichlorobenzene	< 5.00	ug/L		8/21/2013 21:15
1,2,4-Trichlorobenzene	< 5.00	ug/L		8/21/2013 21:15
1,2-Dibromo-3-Chloropropane	< 10.0	ug/L		8/21/2013 21:15
1,2-Dibromoethane	< 2.00	ug/L		8/21/2013 21:15
1,2-Dichlorobenzene	< 2.00	ug/L		8/21/2013 21:15
1,2-Dichloroethane	< 2.00	ug/L		8/21/2013 21:15
1,2-Dichloropropane	< 2.00	ug/L		8/21/2013 21:15
1,3-Dichlorobenzene	< 2.00	ug/L		8/21/2013 21:15
1,4-Dichlorobenzene	< 2.00	ug/L		8/21/2013 21:15
1,4-dioxane	< 20.0	ug/L		8/21/2013 21:15
2-Butanone	< 10.0	ug/L		8/21/2013 21:15
2-Hexanone	< 5.00	ug/L		8/21/2013 21:15
4-Methyl-2-pentanone	< 5.00	ug/L		8/21/2013 21:15
Acetone	< 10.0	ug/L		8/21/2013 21:15
Benzene	< 0.700	ug/L		8/21/2013 21:15
Bromochloromethane	< 5.00	ug/L		8/21/2013 21:15
Bromodichloromethane	< 2.00	ug/L		8/21/2013 21:15
Bromoform	< 5.00	ug/L		8/21/2013 21:15
Bromomethane	< 2.00	ug/L		8/21/2013 21:15
Carbon disulfide	< 2.00	ug/L		8/21/2013 21:15
Carbon Tetrachloride	< 2.00	ug/L		8/21/2013 21:15
Chlorobenzene	< 2.00	ug/L		8/21/2013 21:15
Chloroethane	< 2.00	ug/L		8/21/2013 21:15

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Client: TVGA Engineering, Surveying

Project Reference: Roblin, 2013.0128.07

Sample Identifier: Trip Blank

Lab Sample ID: 133181-09

Matrix: Groundwater

Date/Time Sampled: 8/15/2013

Date Received: 8/19/2013

Chloroform	< 2.00	ug/L	8/21/2013 21:15
Chloromethane	< 2.00	ug/L	8/21/2013 21:15
cis-1,2-Dichloroethene	< 2.00	ug/L	8/21/2013 21:15
cis-1,3-Dichloropropene	< 2.00	ug/L	8/21/2013 21:15
Cyclohexane	< 10.0	ug/L	8/21/2013 21:15
Dibromochloromethane	< 2.00	ug/L	8/21/2013 21:15
Dichlorodifluoromethane	< 2.00	ug/L	8/21/2013 21:15
Ethylbenzene	< 2.00	ug/L	8/21/2013 21:15
Freon 113	< 2.00	ug/L	8/21/2013 21:15
Isopropylbenzene	< 2.00	ug/L	8/21/2013 21:15
m,p-Xylene	< 2.00	ug/L	8/21/2013 21:15
Methyl acetate	< 2.00	ug/L	8/21/2013 21:15
Methyl tert-butyl Ether	< 2.00	ug/L	8/21/2013 21:15
Methylcyclohexane	< 2.00	ug/L	8/21/2013 21:15
Methylene chloride	< 5.00	ug/L	8/21/2013 21:15
o-Xylene	< 2.00	ug/L	8/21/2013 21:15
Styrene	< 5.00	ug/L	8/21/2013 21:15
Tetrachloroethene	< 2.00	ug/L	8/21/2013 21:15
Toluene	< 2.00	ug/L	8/21/2013 21:15
trans-1,2-Dichloroethene	< 2.00	ug/L	8/21/2013 21:15
trans-1,3-Dichloropropene	< 2.00	ug/L	8/21/2013 21:15
Trichloroethene	< 2.00	ug/L	8/21/2013 21:15
Trichlorofluoromethane	< 2.00	ug/L	8/21/2013 21:15
Vinyl chloride	< 2.00	ug/L	8/21/2013 21:15

Method Reference(s): EPA 8260B

EPA 5030

Data File: x07766.D

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Analytical Report Appendix

The reported results relate only to the samples as they have been received by the laboratory.

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All soil/sludge samples have been reported on a dry weight basis, unless qualified "reported as received". Other solids are reported as received.

Low level Volatiles blank reports for soil/solid matrix are based on a nominal 5 gram weight. Sample results and reporting limits are based on actual weight, which may be more or less than 5 grams.

The Chain of Custody provides additional information, including compliance with sample condition requirements upon receipt. Sample condition requirements are defined under the 2003 NELAC Standard, sections 5.5.8.3.1 and 5.5.8.3.2.

NYSDOH ELAP does not certify for all parameters. Paradigm Environmental Services or the indicated subcontracted laboratory does hold certification for all analytes where certification is offered by ELAP unless otherwise specified. Aliquots separated for certain tests, such as TCLP, are indicated on the Chain of Custody and final reports with an "A" suffix.

Data qualifiers are used, when necessary, to provide additional information about the data. This information may be communicated as a flag or as text at the bottom of the report. Please refer to the following list of analyte-specific, frequently used data flags and their meaning:

"<" = Analyzed for but not detected at or above the quantitation limit.

"E" = Result has been estimated, calibration limit exceeded.

"Z" = See case narrative.

"D" = Sample, Laboratory Control Sample, or Matrix Spike Duplicate results above Relative Percent Difference limit.

"M" = Matrix spike recoveries outside QC limits. Matrix bias indicated.

"B" = Method blank contained trace levels of analyte. Refer to included method blank report.

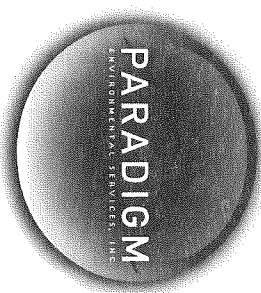
"V" = Sample concentration is >10 times the spike. No meaningful Spike Recovery can be calculated.

"J" = Result estimated between the quantitation limit and half the quantitation limit.

"L" = Laboratory Control Sample recovery outside accepted QC limits.

"C" = Concentration differs by more than 40% between the primary and secondary analytical columns.

CHAIN OF CUSTODY



133181

1 of 2

REPORT TO:		INVOICE TO:		LAB PROJECT ID	
CLIENT: TUGA CONSULTANTS	CLIENT:	ADDRESS: 1030 MAIN STREET	ADDRESS: SAME	Quotation #:	200.0128.07
CITY: BUFFALO	CITY:	STATE: NY	STATE:	ZIP:	
PHONE: 716-849-8739	PHONE:	ATTN:	ATTN:	Email:	Tried@tuga.com
PROJECT REFERENCE: Reberin		Matrix Codes: AQ - Aqueous Liquid NQ - Non-Aqueous Liquid WA - Water WG - Groundwater DW - Drinking Water WW - Wastewater SO - Soil SL - Sludge SD - Solid PT - Paint WP - Wipe CK - Caulk OL - Oil AR - Air			

DATE COLLECTED	TIME COLLECTED	COMPOSITE	GRADES	SAMPLE IDENTIFIER	MACTED	NO. OF	REQUESTED ANALYSIS	REMARKS	PARADIGM LAB SAMPLE NUMBER
1 8/15/13	1145		6A	MUD-12	2	2	X		01
2	1245			MUD-12 MUD-7	2	2	X		02
3	1330			MUD-AK	2	2	X		03
4	1500			MUD-1	2	2	X		04
5	1340			DUP	2	2	X		05
6	1540			EX MUD-12	2	2	X		06
7	1600			MUD-AK	2	2	X		07
8	1640			EX MUD-11K	2	2	X		08
9				STRIP BLANK	2	2	X		09
10									

30L trip blank

Turnaround Time		Report Supplements	
Availability contingent upon lab approval; additional fees may apply.			
Standard 5 day	☒	Batch QC	☐
Rush 3 day	☐	Category A	☐
Rush 2 day	☐	Category B	☐
Rush 1 day	☐	Other	☐
Other	☐	Other EDD	☐
please indicate:		please indicate:	

Received By	Date/Time	Received @ Lab By	Date/Time
<i>[Signature]</i>	8/15/13/1800	<i>[Signature]</i>	8/16/13/1100
PI.F.		PI.F.	
Total Cost:			



Chain of Custody Supplement

Client: TVGA Completed by: SSL
Lab Project ID: 133181 Date: 8/19/13

Sample Condition Requirements

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

NELAC compliance with the sample condition requirements upon receipt			
Condition	Yes	No	N/A
Container Type	☒	☐	☐
Comments	<u>2N</u>		
Transferred to method-compliant container	☐	☐	☒
Headspace (<1 mL)	☒	☐	☐
Comments			
Preservation	☒	☐	☐
Comments			
Chlorine Absent (<0.10 ppm per test strip)	☐	☐	☒
Comments	<u>No A. 12 mg 8/19/13</u>		
Holding Time	☒	☐	☐
Comments			
Temperature	☒	☐	☐
Comments	<u>3° Temp blank</u>		
Sufficient Sample Quantity	☒	☐	☐
Comments			



PARADIGM
ENVIRONMENTAL SERVICES, INC.

Analytical Report For
TVGA Engineering, Surveying

For Lab Project ID

133231

Referencing

Roblin

Prepared

Wednesday, August 28, 2013

Any noncompliant QC parameters or other notes impacting data interpretation are flagged or documented on the final report or are noted below.

A handwritten signature in black ink, consisting of several overlapping, stylized strokes, positioned above a horizontal line.

Certifies that this report has been approved by the Technical Director or Designee

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



Lab Project ID: 133231

Client: TVGA Engineering, Surveying

Project Reference: Roblin

Sample Identifier: MW - 4

Lab Sample ID: 133231-01

Matrix: Groundwater

Date/Time Sampled: 8/21/2013 12:30

Date Received: 8/22/2013

Volatile Organics

<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>Qualifier</u>	<u>Date/Time Analyzed</u>
1,1,1-Trichloroethane	< 2.00	ug/L		8/27/2013 15:20
1,1,2,2-Tetrachloroethane	< 2.00	ug/L		8/27/2013 15:20
1,1,2-Trichloroethane	< 2.00	ug/L		8/27/2013 15:20
1,1-Dichloroethane	< 2.00	ug/L		8/27/2013 15:20
1,1-Dichloroethene	< 2.00	ug/L		8/27/2013 15:20
1,2,3-Trichlorobenzene	< 5.00	ug/L		8/27/2013 15:20
1,2,4-Trichlorobenzene	< 5.00	ug/L		8/27/2013 15:20
1,2-Dibromo-3-Chloropropane	< 10.0	ug/L		8/27/2013 15:20
1,2-Dibromoethane	< 2.00	ug/L		8/27/2013 15:20
1,2-Dichlorobenzene	< 2.00	ug/L		8/27/2013 15:20
1,2-Dichloroethane	< 2.00	ug/L		8/27/2013 15:20
1,2-Dichloropropane	< 2.00	ug/L		8/27/2013 15:20
1,3-Dichlorobenzene	< 2.00	ug/L		8/27/2013 15:20
1,4-Dichlorobenzene	< 2.00	ug/L		8/27/2013 15:20
1,4-dioxane	< 20.0	ug/L		8/27/2013 15:20
2-Butanone	< 10.0	ug/L		8/27/2013 15:20
2-Hexanone	< 5.00	ug/L		8/27/2013 15:20
4-Methyl-2-pentanone	< 5.00	ug/L		8/27/2013 15:20
Acetone	43.8	ug/L		8/27/2013 15:20
Benzene	< 0.700	ug/L		8/27/2013 15:20
Bromochloromethane	< 5.00	ug/L		8/27/2013 15:20
Bromodichloromethane	< 2.00	ug/L		8/27/2013 15:20
Bromoform	< 5.00	ug/L		8/27/2013 15:20
Bromomethane	< 2.00	ug/L		8/27/2013 15:20
Carbon disulfide	< 2.00	ug/L		8/27/2013 15:20
Carbon Tetrachloride	< 2.00	ug/L		8/27/2013 15:20
Chlorobenzene	< 2.00	ug/L		8/27/2013 15:20
Chloroethane	< 2.00	ug/L		8/27/2013 15:20

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Client: TVGA Engineering, Surveying

Project Reference: Roblin

Sample Identifier: MW - 4

Lab Sample ID: 133231-01

Matrix: Groundwater

Date/Time Sampled: 8/21/2013 12:30

Date Received: 8/22/2013

Chloroform	< 2.00	ug/L	8/27/2013 15:20
Chloromethane	< 2.00	ug/L	8/27/2013 15:20
cis-1,2-Dichloroethene	< 2.00	ug/L	8/27/2013 15:20
cis-1,3-Dichloropropene	< 2.00	ug/L	8/27/2013 15:20
Cyclohexane	< 10.0	ug/L	8/27/2013 15:20
Dibromochloromethane	< 2.00	ug/L	8/27/2013 15:20
Dichlorodifluoromethane	< 2.00	ug/L	8/27/2013 15:20
Ethylbenzene	< 2.00	ug/L	8/27/2013 15:20
Freon 113	< 2.00	ug/L	8/27/2013 15:20
Isopropylbenzene	< 2.00	ug/L	8/27/2013 15:20
m,p-Xylene	< 2.00	ug/L	8/27/2013 15:20
Methyl acetate	< 2.00	ug/L	8/27/2013 15:20
Methyl tert-butyl Ether	< 2.00	ug/L	8/27/2013 15:20
Methylcyclohexane	< 2.00	ug/L	8/27/2013 15:20
Methylene chloride	< 5.00	ug/L	8/27/2013 15:20
o-Xylene	< 2.00	ug/L	8/27/2013 15:20
Styrene	< 5.00	ug/L	8/27/2013 15:20
Tetrachloroethene	< 2.00	ug/L	8/27/2013 15:20
Toluene	< 2.00	ug/L	8/27/2013 15:20
trans-1,2-Dichloroethene	< 2.00	ug/L	8/27/2013 15:20
trans-1,3-Dichloropropene	< 2.00	ug/L	8/27/2013 15:20
Trichloroethene	< 2.00	ug/L	8/27/2013 15:20
Trichlorofluoromethane	< 2.00	ug/L	8/27/2013 15:20
Vinyl chloride	< 2.00	ug/L	8/27/2013 15:20

Method Reference(s): EPA 8260B

EPA 5030

Data File: x07874.D

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Analytical Report Appendix

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"E" = Result has been estimated, calibration limit exceeded.

"Z" = See case narrative.

"D" = Sample, Laboratory Control Sample, or Matrix Spike Duplicate results above Relative Percent Difference limit.

"M" = Matrix spike recoveries outside QC limits. Matrix bias indicated.

"B" = Method blank contained trace levels of analyte. Refer to included method blank report.

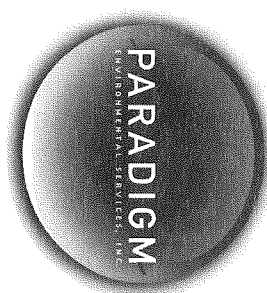
"V" = Sample concentration is >10 times the spike. No meaningful Spike Recovery can be calculated.

"J" = Result estimated between the quantitation limit and half the quantitation limit.

"L" = Laboratory Control Sample recovery outside accepted QC limits.

"C" = Concentration differs by more than 40% between the primary and secondary analytical columns.

CHAIN OF CUSTODY



REPORT TO:

INVOICE TO:

LAB PROJECT ID

CLIENT:	TRIA Consultants	CLIENT:	
ADDRESS:	1030 Main Street	ADDRESS:	133231
CITY:	Buffalo NY	CITY:	STATE:
PHONE:	716-849-8739	PHONE:	ZIP:
ATTN:	Tony Reid	ATTN:	

Quotation #: 20100128.07

Email: TRIED@triga.com

PROJECT REFERENCE

Roblin

Matrix Codes:	WA - Water	DW - Drinking Water	SO - Soil	SD - Solid	WP - Wipe	OL - Oil
AQ - Aqueous Liquid	WG - Groundwater	WW - Wastewater	SL - Sludge	PT - Paint	CK - Caulk	AR - Air
NQ - Non-Aqueous Liquid						

REQUESTED ANALYSIS

DATE COLLECTED	TIME COLLECTED	C O M P O S I T E	G R A B	SAMPLE IDENTIFIER	M C A D R E I S	C O N T A I N E R S	REMARKS	PARADIGM LAB SAMPLE NUMBER
8/21/13	1230		G	MUO-4				01

Turnaround Time

Report Supplements

Availability contingent upon lab approval; additional fees may apply.

Standard 5 day	☒	Batch QC	☐	Basic EDD	☐
Rush 3 day	☐	Category A	☐	NYSDEC EDD	☐
Rush 2 day	☐	Category B	☐		
Rush 1 day	☐				
Other	☐	Other	☐	Other EDD	☐
please indicate:		please indicate:		please indicate:	

Sampled By: *[Signature]* Date/Time: 8/21/13 1230

Relinquished By: *[Signature]* Date/Time: 8/21/13 1545

Received By: *[Signature]* Date/Time: 8/22/13 1345

Received @ Lab By: *[Signature]* Date/Time: 8/22/13 1345

Total Cost:

P.L.F.

1 of 2



2 of 2

Chain of Custody Supplement

Client: TUGA

Completed by: SSL

Lab Project ID: 133231

Date: 8/22/13

Sample Condition Requirements

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

NELAC compliance with the sample condition requirements upon receipt			
Condition	Yes	No	N/A
Container Type	☒	☐	☐
Comments	<u>2V</u>		
Transferred to method-compliant container	☐	☐	☒
Headspace (<1 mL)	☒	☐	☐
Comments			
Preservation	☒	☐	☒
Comments	<u>SSL 8/22</u>		
Chlorine Absent (<0.10 ppm per test strip)	☐	☐	☐
Comments	<u>NOA</u>		
Holding Time	☒	☐	☐
Comments			
Temperature	☐	☒	☐
Comments	<u>14°C iced</u>		
Sufficient Sample Quantity	☒	☐	☐
Comments			

APPENDIX F
MILLENNIUM PARKWAY
ENVIRONMENTAL CONSTRUCTION PLANS

ENVIRONMENTAL NOTES

GENERAL

1. THIS CONTRACT IS DESIGNED IN GENERAL ACCORDANCE WITH THE SITE MANAGEMENT PLAN AND COMBINED INSTITUTIONAL CONTROL PLAN / OPERATIONS AND MAINTENANCE PLANS FOR THE FORMER ROBLIN STEEL AND ALUMAX SITES RESPECTIVELY. HOWEVER, IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO COMPLY WITH THE REQUIREMENTS OF EACH OF THESE PLANS. ADDITIONAL GUIDANCE IS PROVIDED IN THE NOTES THAT FOLLOW, WITH REFERENCE TO WHERE COPIES OF THE MANAGEMENT PLANS AND ASSOCIATED GUIDANCE MATERIALS CAN BE OBTAINED.

2. CHAUTAUQUA COUNTY DEPARTMENT OF PUBLIC FACILITIES (CCDPF) WILL HAVE A DESIGNATED ENVIRONMENTAL INSPECTOR ON-SITE TO ASSIST, MONITOR, AND APPROVE ALL ACTIVITIES ON BOTH OF THE BROWNFIELD SITES. THE CONTRACTOR SHALL PROVIDE WEEKLY SCHEDULES OF ANTICIPATED ACTIVITIES ON THESE SITES. ANY CHANGES TO THIS SCHEDULE SHALL BE MADE WITH PROPER ADVANCE NOTICE TO THE CCDPF.

3. WORK SHALL NOT BE PERFORMED ON THESE BROWNFIELD SITES WITHOUT PROPER NOTIFICATION.

FORMER ROBLIN STEEL (NYSDEC SITE #B-00173-9):

1. ALL WORK CONDUCTED AT THE FORMER ROBLIN STEEL SITE SHALL BE CONDUCTED IN CONFORMANCE WITH THE *NOVEMBER 2010 SITE MANAGEMENT PLAN (SMP)* A COPY OF WHICH CAN BE OBTAINED FROM THE NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION (NYSDEC) - DIVISION OF ENVIRONMENTAL REMEDIATION - REGION 9 AT 270 MICHIGAN AVENUE, BUFFALO, NY 14203, (716)-851-7220.

2. THE NYSDEC REQUIRES A 60 DAY CHANGE OF USE NOTIFICATION PRIOR TO ANY WORK AT THIS SITE. NOTIFICATION PROCEDURES ARE CONTAINED IN SECTION 1.4 OF NYSDEC'S DER-10 MAY 3, 2010 AVAILABLE AT: [HTTP://WWW.DEC.NY.GOV/REGULATIONS/2393.HTML](http://www.dec.ny.gov/regulations/2393.html). ADDITIONAL NOTIFICATION PROCEDURES ARE INCLUDED IN THE EXCAVATION WORK PLAN WHICH IS INCLUDED IN THE SITE MANAGEMENT PLAN.

3. A COVER SYSTEM CONSISTING OF A VEGETATED SOIL LAYER (12-INCH) WITH AN UNDERLYING DEMARCATION LAYER (AN ORANGE PLASTIC MESH) HAS PREVIOUSLY BEEN INSTALLED ACROSS THE ENTIRE FORMER ROBLIN STEEL SITE. SOIL LOCATED ABOVE THE EXISTING DEMARCATION LAYER CAN REUSED WITHOUT SAMPLING.

4. FOLLOWING ANY SOIL COVER REMOVAL AND/OR OTHER INVASIVE ACTIVITIES, THIS COVER SYSTEM MUST BE REPLACED. THE COVER SYSTEM SHALL CONSIST OF A MINIMUM OF 12-INCHES OF SOIL COVER (CAPABLE OF SUPPORTING VEGETATION) WITH AN UNDERLYING DEMARCATION LAYER. NON-VEGETATED AREAS (I.E. BUILDINGS ROADWAYS, PARKING LOTS, ETC.) MUST BE COVERED BY A PAVING SYSTEM OR CONCRETE OF AT LEAST 6-INCHES IN THICKNESS.

5. ANY INTRUSIVE WORK THAT WILL PENETRATE THE SOIL COVER SYSTEM, OR ENCOUNTER OR DISTURB THE REMAINING CONTAMINATION, INCLUDING ANY MODIFICATIONS OR REPAIRS TO THE EXISTING SOIL COVER, SHALL BE PERFORMED IN COMPLIANCE WITH THE EXCAVATION WORK PLAN.

6. THE EXCAVATION WORK PLAN DETAILS INCLUDE: SOIL SCREENING (INITIAL FIELD TESTING), STOCKPILING, EXCAVATION/LOAD OUT, OFF SITE TRANSPORT AND DISPOSAL, POTENTIAL MATERIAL REUSE, FLUIDS MANAGEMENT, COVER RESTORATION, AND PROCEDURES FOR USE OF OFF-SITE BACKFILL. THE EXCAVATION WORK PLAN ALSO IDENTIFIES THE STORMWATER, COMMUNITY AIR MONITORING, ODOR AND DUST CONTROL REQUIREMENTS, AND THE CONTINGENCY PLAN THAT MUST BE FOLLOWED.

7. STORMWATER MANAGEMENT MUST FOLLOW THE PROJECT STORMWATER POLLUTION PREVENTION PLAN (SWPPP).

FORMER ALUMAX SITE (NYSDEC #VCP V00589-9):

1. ALL WORK CONDUCTED AT THE FORMER ALUMAX SITE SHALL BE CONDUCTED IN CONFORMANCE WITH THE *JUNE 23, 2004 COMBINED INSTITUTIONAL CONTROL PLAN / OPERATIONS AND MAINTENANCE PLAN* A COPY OF WHICH CAN BE OBTAINED FROM THE NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION (NYSDEC) - DIVISION OF ENVIRONMENTAL REMEDIATION - REGION 9 AT 270 MICHIGAN AVENUE, BUFFALO, NY 14203, (716)-851-7220.

2. THE NYSDEC REQUIRES A 60 DAY CHANGE OF USE NOTIFICATION PRIOR TO ANY WORK ON THIS SITE. NOTIFICATION PROCEDURES ARE CONTAINED IN SECTION 1.4 OF NYSDEC'S DER-10 MAY 3, 2010 AVAILABLE AT: [HTTP://WWW.DEC.NY.GOV/REGULATIONS/2393.HTML](http://www.dec.ny.gov/regulations/2393.html).

3. CURRENTLY THERE IS NO COVER SYSTEM ACROSS THE FORMER ALLUMAX SITE.

4. ALL PROJECT DISTURBANCE AREAS WITHIN THIS SITE MUST HAVE A COVER SYSTEM INSTALLED IN ACCORDANCE WITH THE SITE MANAGEMENT PLAN. THE COVER SYSTEM SHALL CONSIST OF ONE OF THE FOLLOWING:

- a) SOIL: 12-INCHES OF VEGETATED SOIL UNDERLAIN BY A DEMARCATION LAYER IN OUTDOOR AREAS; PAYMENT ITEM 207.21 PER SECTION 737.0101
- b) ASPHALT: A MINIMUM OF 6 INCHES OF MATERIAL (ASPHALT AND SUBBASE MATERIAL) IN AREAS THAT WILL BECOME ROADS SIDEWALKS AND PARKING LOTS.
- c) CONCRETE: A MINIMUM OF 6 INCHES OF MATERIAL (CONCRETE AND SUBBASE MATERIAL) IN AREAS THAT WILL BECOME SLAB-ON-GRADE STRUCTURES, ROADS SIDEWALKS AND PARKING LOTS IN LIEU OF ASPHALT.

100 - 123 RUGGLES STREET (TALCOTT STREET RIGHT-OF-WAY (ROW) - NORTH OF RUGGLES STREET AND EAST OF TALCOTT STREET) NYSDEC SPILL NO. 0901423

1. PETROLEUM-DISPENSING FACILITIES (E.G. A DISPENSING PUMP, FILL PORT AND VENT PIPES) WERE FORMERLY LOCATED IN THIS PORTION OF THE TALCOTT ROW. THESE FACILITIES WERE REMOVED IN 2011, HOWEVER, PETROLEUM CONTAMINATION MAY STILL BE LOCATED UNDER THE ADJACENT PAVEMENT AT DEPTHS GREATER THAN 4 TO 5 FEET.

2. IF PETROLEUM CONTAMINATION IS ENCOUNTERED DURING CONSTRUCTION, NOTIFY THE NEW YORK STATE SPILL HOTLINE IMMEDIATELY (WITHIN 2 HOURS OF DISCOVERY) AT (800) 457-7362. NEW YORK STATE DEPARTMENT OF CONSERVATION REGION 9 SPILLS DIVISION CAN BE REACHED AT (716) 851-7220. REFERENCE NYSDEC SPILL NO. 0901423.

3. LABORATORY ANALYSIS REQUIRED BY THE NYSDEC SHALL BE PAID UNDER ITEM 205.0401.

BROWNFIELD SITE EXCAVATION PROCEDURES AND GUIDELINES

1. PROCEDURES, METHODS, AND PAY ITEMS ASSOCIATED WITH EXCAVATIONS AND RE-USE OF, OR DISPOSAL OF, EXISTING SOILS/MATERIALS ON THE FORMER ROBLIN STEEL AND ALLUMAX SITES ARE PROVIDED HERE FOR GENERAL GUIDANCE AND FOR BIDDING PURPOSES. REFER TO THE NOTED SPECIFICATIONS FOR A FULL UNDERSTANDING OF THE WORK TO BE PERFORMED. NO SEPARATE OR ADDITIONAL PAYMENTS WILL BE MADE FOR OTHER INCIDENTAL WORK REQUIRED TO BE IN COMPLIANCE WITH THE SITE MANAGEMENT PLANS FOR THESE SITES. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO UNDERSTAND, AND TO BE IN FULL COMPLIANCE WITH THESE SITE MANAGEMENT PLANS.

a) ALL EXCAVATIONS (ITEM 203.02 OR 206.02) OF EXISTING SOILS/MATERIALS ON THESE SITES SHALL BE INSPECTED BY THE CCDPF ENVIRONMENTAL INSPECTOR DURING THE EXCAVATION. THE CONTRACTOR SHALL PROVIDE THE ENVIRONMENTAL INSPECTOR WITH PROPER ACCESS TO THESE MATERIALS FOR BASIC CONTAMINATION FIELD TESTING. AS DETERMINED BY THE ENVIRONMENTAL INSPECTOR:

- i. EXCAVATED SOILS/MATERIALS (ITEM 203.02 AND 206.02) THAT ARE NOT VISIBLY STAINED, DISCOLORED, OR THAT PRODUCE ELEVATED PHOTOIONIZATION DETECTOR (PID) READINGS (SUSTAINED READINGS OF 5 PPM OR GREATER) CAN BE IMMEDIATELY REUSED (ITEM 203.03) ON-SITE WITHOUT ANY FURTHER TESTING.
- ii. EXCAVATED SOILS/MATERIALS (ITEM 203.02 AND 206.02) THAT ARE DETERMINED TO BE STAINED, DISCOLORED, OR THAT PRODUCES ELEVATED PID READINGS (SUSTAINED READINGS OF 5 PPM OR GREATER) SHALL BE STOCKPILED ON-SITE FOR SAMPLING AND LABORATORY TESTING. SEGREGATION AND STOCKPILING SHALL BE PAID FOR UNDER ITEM 205.02NN. LABORATORY ANALYSIS SHALL BE PAID UNDER ITEMS 205.040X. THE RESULTS OF THE LAB TESTING WILL DETERMINE IF THE SOIL/MATERIAL IS:

- 1. TO BE REUSED ON-SITE UNDER ITEM 205.06NN
- 2. CONTAMINATED NON-HAZARDOUS WASTE SOIL TO BE DISPOSED OF OFF-SITE UNDER ITEM 205.0502NN
- 3. CONTAMINATED HAZARDOUS WASTE SOIL TO BE DISPOSED OF OFF-SITE UNDER ITEM 205.0501NN

b) ANY EXCAVATIONS DEFINED UNDER SECTION (a) DETERMINED TO BE RE-USABLE ON-SITE SHALL:

- i. ONLY BE USED ON THE BROWNFIELD SITE FROM WHICH IT WAS EXCAVATED.
- ii. BE PLACED BELOW THE PROPOSED COVER SOIL / DEMARCATION LAYER.
- iii. NOT BE USED WITHIN A COVER SOIL LAYER (TOP 12" OF SOIL), WITHIN LANDSCAPING BERMS, OR AS BACKFILL FOR SUBSURFACE UTILITY LINES.

2. THE EXISTING SOIL COVER MATERIAL (TOP 12" +/-) LOCATED ABOVE THE DEMARCATION LAYER ON THE FORMER ROBLIN STEEL SITE, IF EXCAVATED, CAN BE REUSED WITHOUT SAMPLING. HOWEVER, SINCE ALL AREAS ON THIS SITE REQUIRE A MINIMUM OF 12-INCHES OF SOIL COVER, THESE AREAS SHOULD REMAIN UNDISTURBED EXCEPT AS SPECIFICALLY NECESSARY TO CONSTRUCT COMPONENTS OF THIS PROJECT.

3. THE FOLLOWING TABLE SUMMARIZES BOTH THE ESTIMATE OF REQUIRED EXCAVATIONS ON EACH OF THE BROWNFIELD SITES, AND BASED UPON PREVIOUSLY PERFORMED TESTS BY CCDPF, QUANTITIES OF SAMPLING AND LABORATORY TESTING, AS WELL AS QUANTITIES OF OFF-SITE DISPOSAL. NOTE THAT THESE QUANTITIES ARE ESTIMATES ONLY AND THAT ONLY ACTUAL FIELD VERIFIED QUANTITIES WILL BE PAID.

BROWNFIELD SITE (REFER TO DWG. ED-2 FOR LOCATIONS AND BOUNDARIES)	SERIALIZATION (NN)	REQUIRED EXCAVATIONS (ITEMS 203.02 & 206.02)	ESTIMATE OF MATERIALS PASSING FIELD TEST (IMMEDIATE RE-USE UNDER ITEM 205.06NN)	ESTIMATE OF MATERIALS TO BE STOCKPILED (ITEM 205.02NN)	ESTIMATE OF LABORATORY ANALYSIS 205.040X	ESTIMATE OF MATERIALS THAT WILL PASS LAB TESTS (RE-USE UNDER ITEM 205.06NN)	ESTIMATE OF CONTAMINATED NON-HAZARDOUS MATERIALS THAT WILL REQUIRE OFF-SITE DISPOSAL (ITEM 205.0502NN)	ESTIMATE OF CONTAMINATED HAZARDOUS MATERIALS THAT WILL REQUIRE OFF-SITE DISPOSAL (ITEM 205.0501NN)
FORMER ROBLIN STEEL SITE	01	325 CY	125 CY	200 CY	2	0 CY	255 TONS (180 CY)	30 TONS (20 CY)
FORMER ALUMAX SITE	02	6000 CY	3500 CY	2500 CY	6	500 CY	2100 TONS (1500 CY)	700 TONS (500 CY)

4. THE CONTRACTOR SHOULD TAKE NOTE THAT ALL SOILS/MATERIALS EXCAVATED FROM EITHER OF THESE BROWNFIELD SITES MUST EITHER BE:

- a) USED ON-SITE IN AN APPROVED LOCATION PER ITEM 205.06NN.
- b) PROPERLY DISPOSED OF AS PER ITEM 205.0501NN OR ITEM 205.0502NN

5. IF THE CONTRACTOR ELECTS TO PERFORM ANY WORK/OPERATIONS ON THESE SITES NOT SPECIFICALLY CALLED FOR ON THE PLANS, OR REQUIRED AS DETERMINED BY THE ENGINEER, HE/SHE SHALL BE RESPONSIBLE FOR ALL COSTS ASSOCIATED WITH THE WORK AND FOR BEING IN COMPLIANCE WITH THE SITE MANAGEMENT PLANS. ANY DEVIATIONS FROM THE CONTRACT PLANS SHOULD BE DISCUSSED AND APPROVED WITH THE ENGINEER AND/OR THE CCDPF ENVIRONMENTAL INSPECTOR BEFOREHAND.

STOCKPILING / SAMPLING / LABORATORY TESTING NOTES

1. ANY SOILS/MATERIALS FAILING THE INITIAL FIELD TESTING SHALL BE STOCKPILED ON-SITE. SEGREGATION AND STOCKPILING WILL BE DONE ON A TIERED APPROACH, AS IDENTIFIED UNDER ITEM 205.02NN, BUT GENERALLY WILL NOT BE REQUIRED AT A GREATER FREQUENCY THAN ONE (1) SAMPLE LAB TEST FOR EVERY 500 CY.

2. STOCKPILES SHALL BE SEPARATED IF THE SOILS/MATERIALS SOURCE/LOCATION, AS DETERMINED BY THE ENVIRONMENTAL INSPECTOR, IF DEEMED TO BE DIFFERENT FROM OTHER STOCKPILES.

3. ALL SAMPLING WILL BE DONE BY THE CCDPF ENVIRONMENTAL INSPECTOR WHOM WILL ALSO BE RESPONSIBLE FOR COORDINATING WITH THE LABORATORY FOR TESTING.

4. THE CONTRACTOR WILL BE RESPONSIBLE FOR ALL COSTS ASSOCIATED WITH THE LABORATORY TESTING AS IDENTIFIED UNDER ITEM 205.040X.

5. THE CONTRACTOR MAY SELECT THE LABORATORY OF HIS CHOICE PROVIDED THEY ARE APPROVED AS PER ITEM 205.040X.

STOCKPILING / SAMPLING / LABORATORY TESTING NOTES (CONTINUED)

6. ALL SOILS/MATERIALS SHALL REMAIN IN THEIR STOCKPILES UNTIL THE CCDPF ENVIRONMENTAL INSPECTOR HAS RECEIVED THE RESULTS OF THE LAB TESTING AND DETERMINED IF:

- a) THE MATERIALS WILL BE USED AS FILL ON-SITE.
- b) THE MATERIALS MUST BE DISPOSED OFF OFF-SITE.

7. IF THE CCDPF ENVIRONMENTAL INSPECTOR APPROVES ANY SOILS/MATERIALS EITHER THROUGH THE INITIAL FIELD TESTING, OR AFTER LABORATORY TESTING, IT IS EXPECTED THAT THESE MATERIALS WILL BE USED IN AN APPROPRIATE LOCATION ON-SITE.

8. CONTAMINATED NON-HAZARDOUS WASTE SOILS APPROVED FOR OFF-SITE DISPOSAL UNDER ITEM 205.0502NN SHALL BE SENT TO AN APPROVED SOLID WASTE LANDFILL. APPROVAL OF THIS FACILITY SHALL BE COORDINATED WITH THE CCDPF ENVIRONMENTAL INSPECTOR. QUANTITY OF LABORATORY ANALYSIS (ITEMS 205.040X) REQUIRED PRIOR TO DISPOSAL SHALL BE DETERMINED BY THE SOLID WASTE ANALYST.

9. CONTAMINATED HAZARDOUS WASTE SOILS APPROVED FOR OFF-SITE DISPOSAL UNDER ITEM 205.0501NN SHALL BE SENT TO AN APPROVED PART 360 HAZARDOUS WASTE LANDFILL. APPROVAL OF THIS FACILITY SHALL BE COORDINATED WITH THE CCDPF ENVIRONMENTAL INSPECTOR. PROPER WASTE MANIFESTS SHALL BE SUBMITTED ON ALL WASTE SOIL MATERIAL DISPOSED OF UNDER ITEM 205.0501NN. QUANTITY OF LABORATORY ANALYSIS (ITEMS 205.040X) SHALL BE DETERMINED BY THE HAZARDOUS WASTE LANDFILL PRIOR TO DISPOSAL.

10. IF THE CONTRACTOR ELECTS ON HIS OWN TO DISPOSE OF ANY SOILS/MATERIALS THAT HAVE OTHERWISE BEEN APPROVED OR ARE PENDING APPROVAL, HE SHALL DO SO BOTH AT HIS OWN COSTS, AND IN ACCORDANCE WITH THE SITE MANAGEMENT PLAN.

11. THE CONTRACTOR SHALL INCORPORATE THE NECESSARY STEPS AND TIMEFRAMES INTO HIS CONSTRUCTION SCHEDULE.

- a) ALL FIELD TESTING WILL BE DONE THE DAY OF (DURING) EXCAVATION.
- b) IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO COORDINATE STOCKPILING SAMPLING, AND LABORATORY TESTING WITH THE CCDPF ENVIRONMENTAL INSPECTOR.
- c) IT IS ESTIMATED THAT SAMPLING / LAB TESTING WILL TAKE APPROXIMATELY ONE (1) WEEK, THOUGH THIS MAY VARY FROM LAB TO LAB. EXPEDITED TESTING MAY BE AVAILABLE AT SOME LABS.

12. THE ESTIMATED QUANTITIES FOR ITEMS 203.03, 205.0501NN, 205.0502NN AND 205.06NN, IN THE TABLE CONTAINED IN THESE NOTES ARE APPROXIMATE AND FOR BIDDING PURPOSES ONLY. THE CONTRACTOR SHALL MAKE NO CLAIM FOR EXTRA PAYMENTS OR DELAYS IF THESE ESTIMATED QUANTITIES ARE LATER DETERMINED TO BE INACCURATE. THE PROCEDURES OUTLINED IN THE PLANS AND CONTRACT BOOK SHALL BE FOLLOWED FOR ALL EXCAVATIONS ON THESE SITES AND COMPENSATION TO THE CONTRACTOR WILL BE MADE ONLY UNDER THE IDENTIFIED SPECIFICATIONS AT THE BID PRICES IN THE CONTRACT.

REVISION	DESCRIPTION	DATE	BY

TVGA CONSULTANTS 620 MAIN STREET BUFFALO, NEW YORK 14202-1906 P. 716.849.8739 F. 716.856.0981 WWW.TVGA.COM	CHAUTAUQUA COUNTY DEPT. OF PUBLIC FACILITIES 454 NORTH WORK STREET - FALCONER , NEW YORK 14733		 ENGINEERING DIVISION			
	DESIGNED BY	ETF		DATE	10/2012	SHEET TITLE ENVIRONMENTAL NOTES
	DRAWN BY	TJB		DATE	10/2012	
	CHECKED BY	GMW		DATE	10/2012	
	APPROVED BY	ETF		DATE	11/2012	PROJECT TITLE CONSTRUCTION MILLENNIUM PARKWAY TALCOTT STREET EXTENSION P.I.N. : 5757.55
PROJECT NO.	2006.0006.01		SCALE	NA	SHEET 23 OF 141	

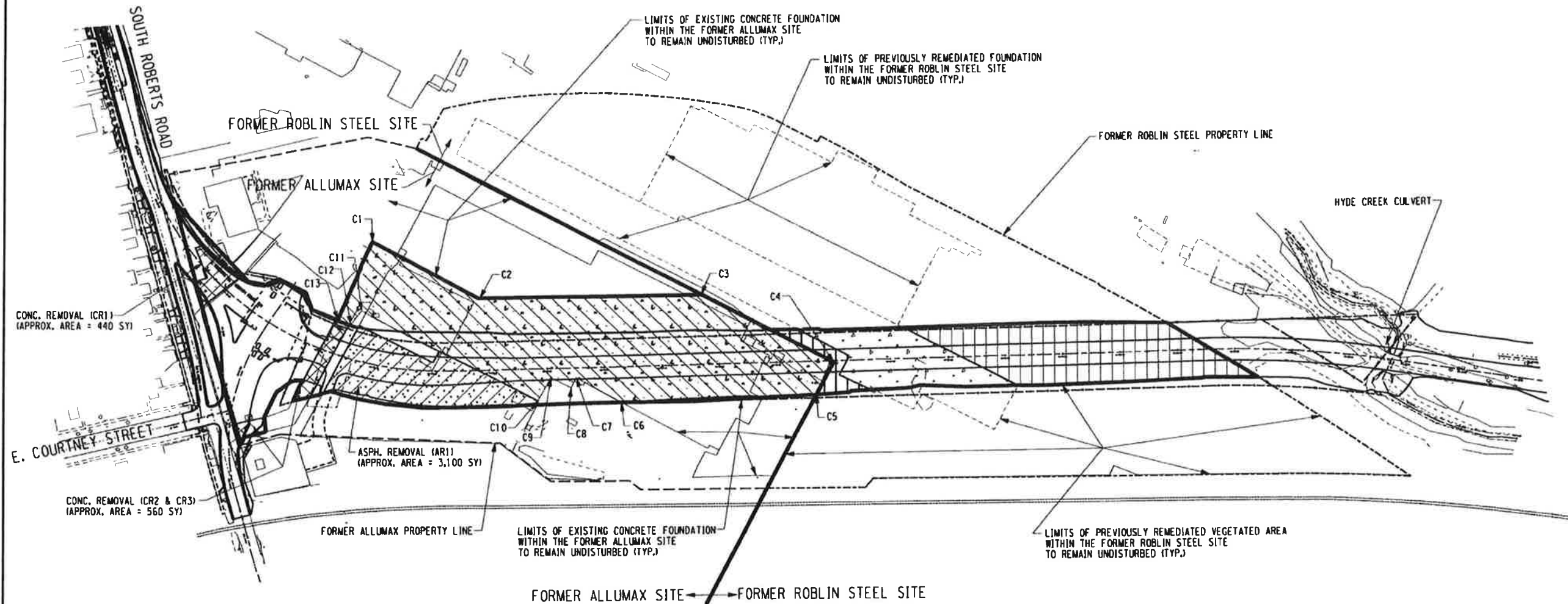


TABLE OF COORDINATES		
PNT. NO.	NORTHING	EASTING
C1	906619.38	950428.13
C2	906655.32	950633.34
C3	906902.33	950933.54
C4	906952.32	951190.9
C5	906888.67	951202.87
C6	906666.76	950944.73
C7	906651.51	950855.44
C8	906631.87	950859.43
C9	906624.34	950820.93
C10	906578.9	950829.13
C11	906512.22	950489.7
C12	906481.18	950490.51
C13	906473.63	950467.64

LIMITS OF DISTURBED AREA WITHIN THE BROWNFIELD SITES

FORMER ALLUMAX SITE

- A-1** EXISTING CONCRETE FOUNDATION AREAS OF THE FORMER ALLUMAX SITE TO BE RUBBLIZED (PLAN AREA = 13,500 SY) (SEE GRADING PLAN ON DWG. FOR PROPOSED GRADING)
- A-2** EXISTING CONCRETE DRIVEWAY / PARKING AREAS ON THE FORMER ALLUMAX SITE TO BE REMOVED (PLAN AREA = 3,660 SY)
- A-3** EXISTING ASPHALT CONCRETE PARKING LOT FOR THE FORMER ALLUMAX SITE TO BE REMOVED (PLAN AREA = 3,100 SY)
- A-4** EXISTING VEGETATED AREAS ON THE FORMER ALLUMAX SITE (WORK PERFORMED ONLY AS REQUIRED WITHIN R.O.W.)

FORMER ROBLIN STEEL SITE

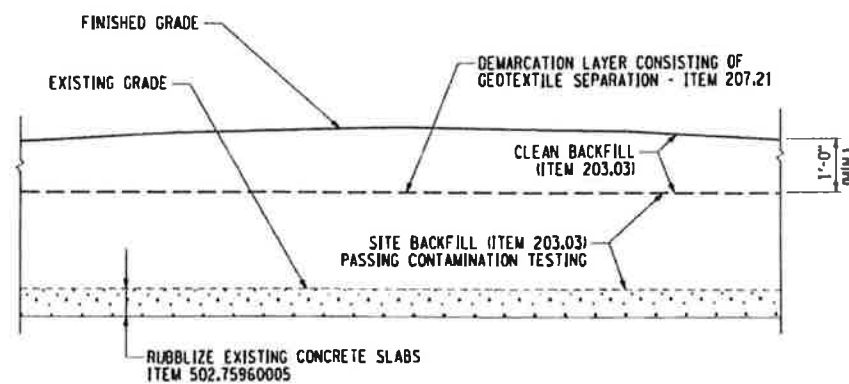
- R-1** CONCRETE FOUNDATION OF THE FORMER ROBLIN STEEL SITE THAT HAS BEEN PREVIOUSLY REMEDIATED. (RUBBLIZED/ CRUSHED CONCRETE, DEMARCATION LAYER PLACED WITH 1' (MIN.) FILL OVER TOP). (SHOWN FOR INFORMATION PURPOSES ONLY)
- R-2** VEGETATED AREAS ON THE FORMER ROBLIN STEEL SITE THAT HAS BEEN PREVIOUSLY REMEDIATED. (DEMARCATION LAYER PLACED WITH 1' (MIN.) FILL OVER TOP). (SHOWN FOR INFORMATION PURPOSES ONLY)

	AREA	FINISHED SECTION	DESCRIPTION OF WORK	ITEM 502.75960005	ITEM 207.21
FORMER ALLUMAX SITE	A-1	FILL > 1'	RUBBLIZE CONCRETE, PLACE ACCEPTED SITE EXCAVATED BACKFILL, AND BUILD PER PLANS (DEMARCATION LAYER REQUIRED)	13,500	13,500
		CUT OR FILL < 1'	RUBBLIZE CONCRETE, EXCAVATE TO 1' BELOW FINISHED GRADE, AND BUILD PER PLANS (DEMARCATION LAYER REQUIRED)		
	A-2	FILL > 1'	REMOVE CONCRETE, AND BUILD PER PLANS (DEMARCATION LAYER REQUIRED)	-	3,660
		CUT OR FILL < 1'	REMOVE CONCRETE, EXCAVATE TO 1' BELOW FINISHED GRADE, AND BUILD PER PLANS (DEMARCATION LAYER REQUIRED)		
	A-3	FILL > 1'	REMOVE ASPHALT CONCRETE, AND BUILD PER PLANS (DEMARCATION LAYER REQUIRED)	-	3,100
		CUT OR FILL < 1'	REMOVE ASPHALT CONCRETE, EXCAVATE TO 1' BELOW FINISHED GRADE, AND BUILD PER PLANS (DEMARCATION LAYER REQUIRED)		
FORMER ROBLIN STEEL	A-4	FILL > 1'	BUILD PER PLANS (DEMARCATION LAYER REQUIRED)	-	5,400
	A-4	CUT OR FILL < 1'	EXCAVATE TO 1' BELOW FINISHED GRADE, AND BUILD PER PLANS (DEMARCATION LAYER REQUIRED)		
FORMER ROBLIN STEEL	R-1	FILL	BUILD PER PLANS	-	920
	R-2	CUT	EXCAVATE TO 1' BELOW FINISHED GRADE, PLACE NEW DEMARCATION LAYER AT BOTTOM OF EXCAVATION, AND BUILD PER PLANS		

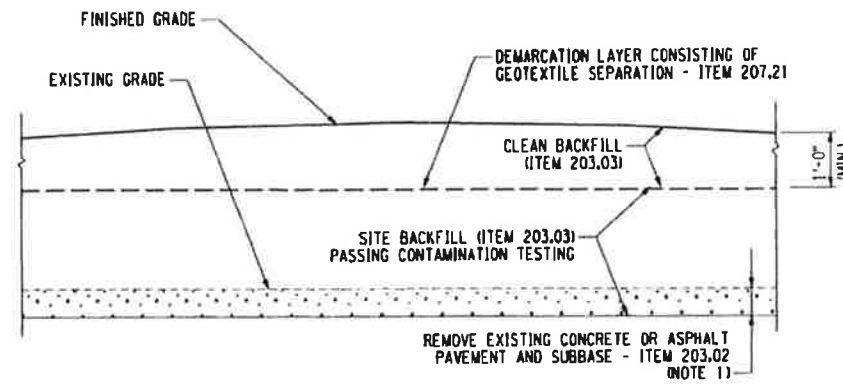
NOTES:

- ALL WORK DONE ON THE BROWNFIELD SITES (THE FORMER ALLUMAX AND ROBLIN STEEL PROPERTIES) SHALL BE DONE IN CONFORMANCE WITH THE ASSOCIATED INDIVIDUAL SITE MANAGEMENT PLANS. SEE ENVIRONMENTAL NOTES ON DWG. ED-1 AND CONTRACT DOCUMENTS FOR ADDITIONAL INFORMATION REGARDING THE REQUIREMENTS OF THESE SITE MANAGEMENT PLANS.
- THE WORK SHOWN ON THIS DRAWING DESCRIBES THE WORK NECESSARY TO BE IN GENERAL CONFORMANCE WITH THE BROWNFIELD SITE MANAGEMENT PLANS. HOWEVER IT IS THE CONTRACTOR'S RESPONSIBILITY TO UNDERSTAND THE ENTIRE SITE MANAGEMENT PLANS AND TO PERFORM HIS ACTIVITIES IN COMPLIANCE.
- DRAINAGE EXCAVATIONS AND BACKFILLS WITHIN THESE BROWNFIELD SITES SHALL CONFORM TO THE INFORMATION SHOWN ON THIS DRAWING AND THE DETAILS ON ED-3.
SEE DWG. ED-3 FOR ADDITIONAL DETAILS, AND FOR GRADING OUTSIDE ROW.
- RUBBLIZATION AREA (OUTSIDE ROW) IS SHOWN AS APPROXIMATE AND IS REQUIRED PER THE PROJECT'S SWPPP. LAYOUT OF THESE AREAS TO BE VERIFIED BY THE ENGINEER.
- QUANTITIES SHOWN IN THE TABLE ON THIS DRAWING ARE ESTIMATED AND SHALL BE FIELD MEASURED FOR ACTUAL PAYMENT.

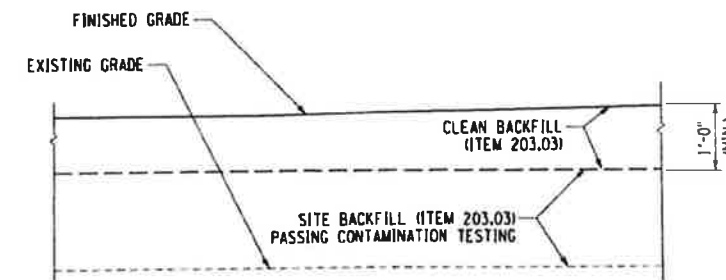
TVGA CONSULTANTS 670 WARD STREET BUFFALO, NEW YORK 14202-1906 P: 716.849.8739 F: 716.856.0981 www.tvga.com		CHAUTAUQUA COUNTY DEPT. OF PUBLIC FACILITIES 454 NORTH WORK STREET - FALCONER, NEW YORK 14733		 ENGINEERING DIVISION	
		DESIGNED BY: ETF	DATE: 11/2012		
DRAWN BY: TJB		DATE: 11/2012	ENVIRONMENTAL PLANS AND DETAILS		
CHECKED BY: AAS		DATE: 11/2012	PROJECT TITLE: CONSTRUCTION MILLENNIUM PARKWAY		
APPROVED BY: ETF		DATE: 11/2012	TALCOTT STREET EXTENSION P.I.N. : 5757.55		
PROJECT NO.: 2006.0006.01		SCALE: 1"=200'	DRAWING: ED-2		
			SHEET 24 OF 141		



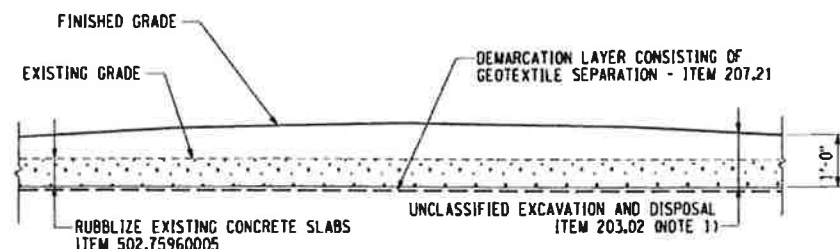
RUBBLIZATION DETAIL - AREA A-1
(FILL > 1'-0")
N.T.S.



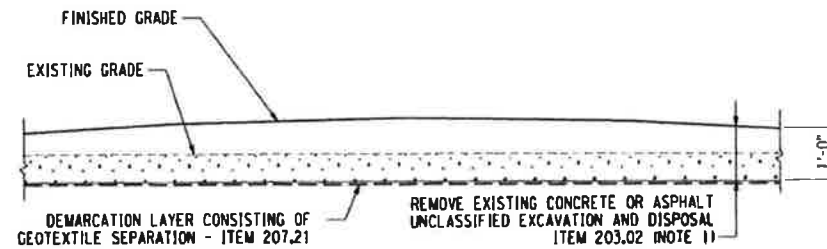
CONCRETE AND ASPHALT REMOVAL DETAIL - AREAS A-2 AND A-3
(FILL > 1'-0")
N.T.S.



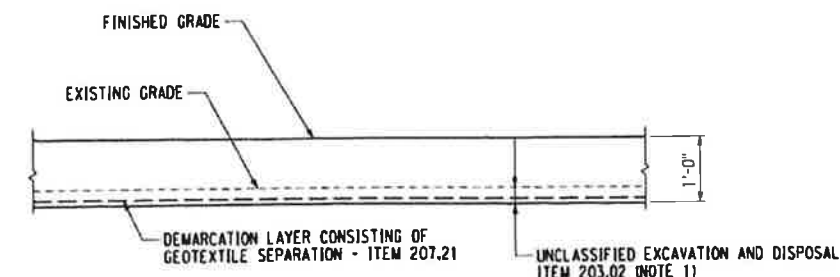
VEGETATED AREAS DETAIL - AREA A-4
(FILL > 1'-0")
N.T.S.



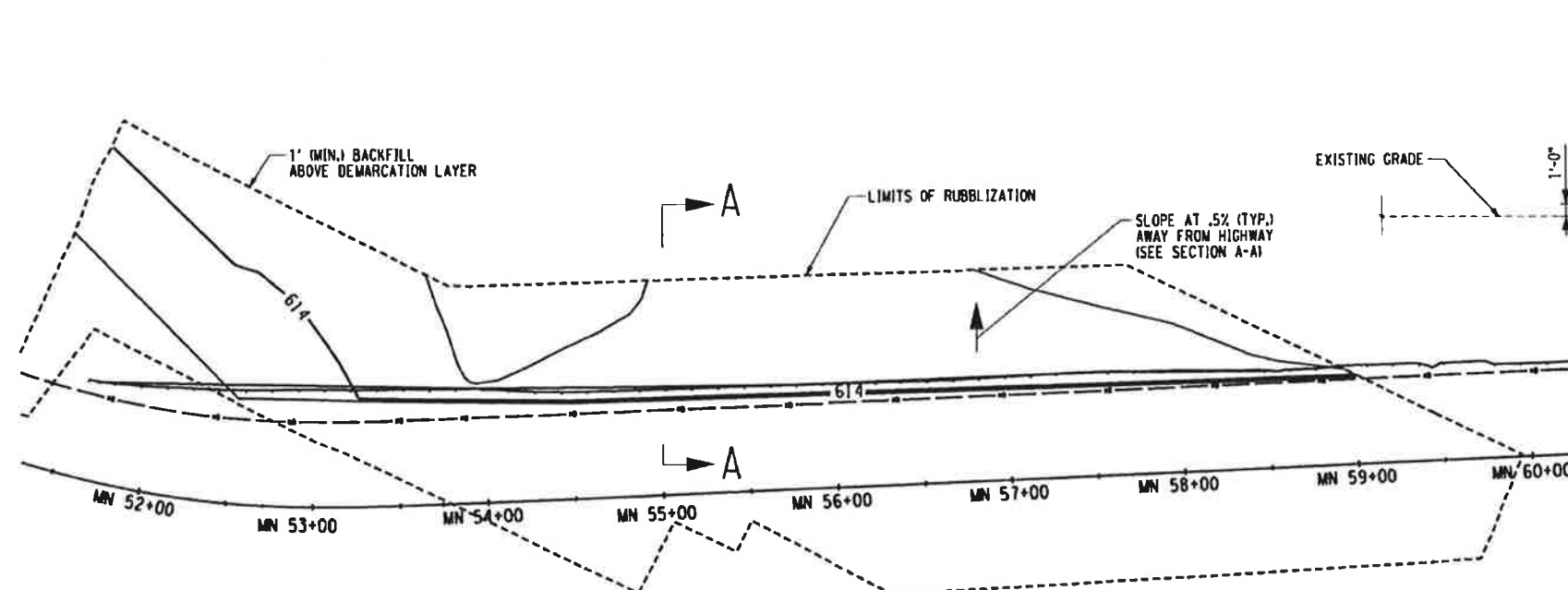
RUBBLIZATION DETAIL - AREA A-1
(CUT OR FILL < 1'-0")
N.T.S.



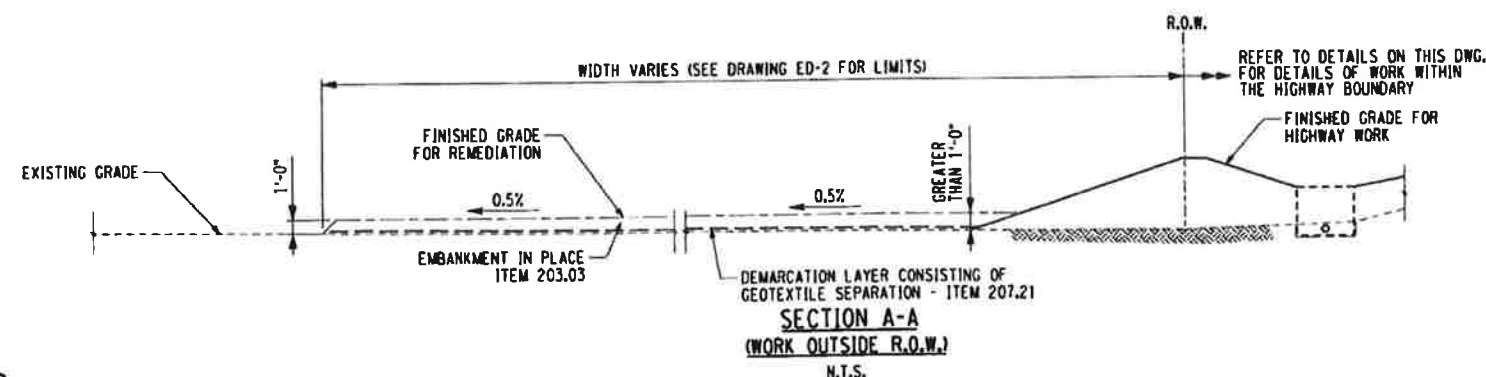
CONCRETE AND ASPHALT REMOVAL - AREAS A-2 AND A-3
(CUT OR FILL < 1'-0")
N.T.S.



VEGETATED AREAS DETAIL - AREA A-4
(CUT OR FILL < 1'-0")
N.T.S.



GRADING PLAN
N.T.S.



SECTION A-A
(WORK OUTSIDE R.O.W.)
N.T.S.

NOTES:

1. TEST AND REMEDIATE EXCAVATED SOIL/ASPHALT PER SOIL FILL MANAGEMENT PLAN.

FORMER ALLUMAX SITE DETAILS

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CHAUTAUQUA COUNTY DEPT. OF PUBLIC FACILITIES
454 NORTH WORK STREET - FALCONER, NEW YORK 14733

DESIGNED BY	GMW	DATE	10/2012
DRAWN BY	TJB	DATE	10/2012
CHECKED BY	GMW	DATE	10/2012
APPROVED BY	ETF	DATE	11/2012
PROJECT NO.	2006.0006.01	SCALE	N.T.S.

SHEET TITLE	ENVIRONMENTAL DETAILS
PROJECT TITLE	CONSTRUCTION MILLENNIUM PARKWAY TALCOTT STREET EXTENSION P.I.N. : 5757.55

ENGINEERING DIVISION	ED-3
SHEET 25 OF 141	