TVGA
CONSULTANTS

2007.0262.00
December 1, 2008

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

Attn: Michael J. Hinton, P.E.
Environmental Engineer II

Re: Interim Remedial Measures (IRM) Work Plan
for the Former Electruk Battery Site

ELMA
NEW YORK

BUFFALO
NEW YORK

COOPERSTOWN
NEW YORK

JAMESTOWN
NEW YORK

NIAGARA FALLS
NEW YORK

SARATOGA SPRINGS
NEW YORK

SYRACUSE
NEW YORK

Dear Mr. Hinton:

In order to accelerate the remedial process and return the project site to active use as quickly as possible an Interim Remedial Measures (IRM) approach was recommended for implementation at the project site by the New York State Department of Environmental Conservation (NYSDEC) and TVGA Consultants (TVGA). Based on the limited scope of remediation necessary to reach commercial use cleanup standards as well as the fact there is remaining project budget, an IRM approach is feasible. The IRM would entail the removal and off-site disposal of contaminated water and sediments from the two interior and one exterior manmade drainage trenches followed by power washing and backfilling the trenches.

DESCRIPTION OF THE WORK AREAS

The work area consists of two interior and one exterior manmade drainage trenches. Trench 1 is located in the concrete pad north of the building, while Trenches 2 and 3 are located in the in the northwest and southwest building interior, respectively. A sediment sample was collected from each of these trenches and was analyzed for pH, Target Compound List (TCL) volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), pesticides and polychlorinated biphenyl's (PCBs) and RCRA metals. Also, due to the elevated lead concentrations detected in the sediment samples collected from Trenches 2 and 3, these two samples were also analyzed for TCLP lead to determine if the sediment was considered hazardous waste. Additionally, a water sample was collected from Trenches 1 and 3 and was analyzed for field pH, TCL VOCs, SVOCs, pesticides, PCBs and RCRA metals. The locations of the samples are depicted on Figure 6 included as Attachment 1.

Contaminants of concern detected in the sediment included arsenic, barium and lead within Trenches 1 through 3. The results of the TCLP analysis revealed that the sediment sample collected from Trench 2 contained a hazardous concentration of lead. Contaminants of concern identified in the surface water within the trenches was limited to lead within Trench 3.

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SCOPE OF WORK

Water and Sediment Removal

The selected contractor will remove and properly dispose of all water and sediment from the three trenches followed by power washing the exposed surfaces within the trenches. All solids, water and cleaning fluids will be contained for off-site disposal. TVGA personnel will be on-site to visually observe and document the work.

Backfill With Flowable Fill

The selected contractor will fill each of the trenches with a flowable fill to an elevation that matches the surrounding concrete slabs.

Cleanup Verification

Since each of the three trenches will be backfilled with a flowable fill, no post-cleaning samples will be required to confirm the efficacy of the cleaning process. However, TVGA and NYSDEC personnel will be on-site to visually observe the work, which will not be accepted until a result that is satisfactory to both the NYSDEC and TVGA is achieved.

Disposal

An estimated total of 26 cubic feet, or approximately one cubic yard, of contaminated sediment is contained within these three trenches. It should be noted that approximately 3 cubic feet of sediment within Trench 2 is considered hazardous waste based on the concentration of lead. The total volume of water in the trenches is approximately 525 gallons. Additionally, it is assumed that approximately 165 gallons of rinsate will be generated from the power washing of the trenches.

The contractor will place the sediment/sludge, fluids and/or mixtures thereof in drums or other storage vessels that are appropriate for the containment and transportation of the material. The contractor will be responsible for arranging and providing the labor associated with the loading, transportation and disposal of the material. The contractor will load and transport the waste materials from the site to an appropriately permitted off-site disposal facility. The contractor shall provide TVGA with bills of lading or fully executed waste manifests attesting to the proper disposal of this material at an approved facility.

Health and Safety Plan

TVGA will utilize the attached Health and Safety Plan (HASP) for the oversight of IRM activities, which is included as Attachment 2. The remediation subcontractor will utilize their own HASP for their personnel conducting the IRM work.

SCHEDULE

The IRM activities will be conducted in December 2008, and entire RI/AA project is anticipated to end in March 2008.

ESTIMATED COST

The cost for this work is estimated at $11,300; however; no increase to the overall contract amount will be required. A copy of the budget estimate as well as copies of the subcontractor quotes are included as Attachment 3.

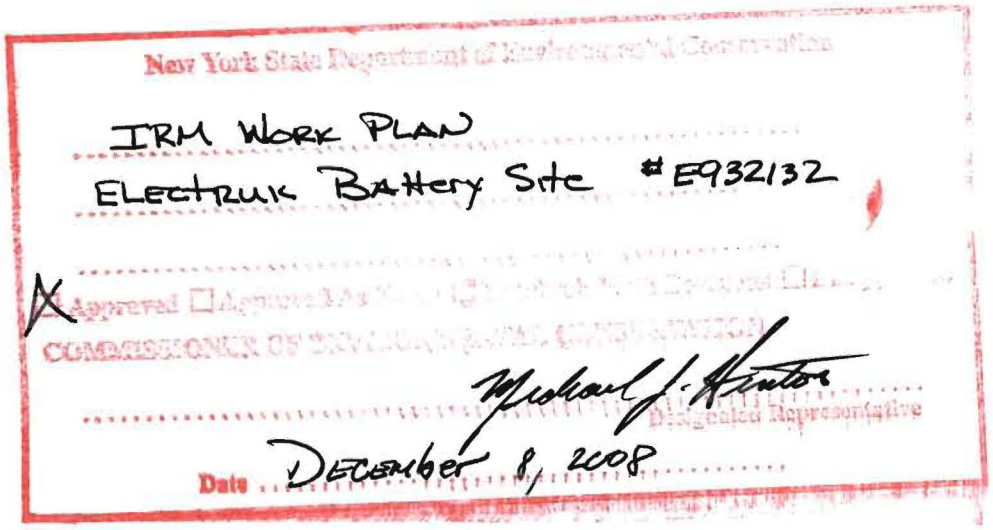
Please contact us with any questions or comments at your earliest convenience.

TVGA CONSULTANTS

James C. Manzella, CHMM
Project Scientist

Enclosures

cc: Thomas Sullivan (Town of Lockport)



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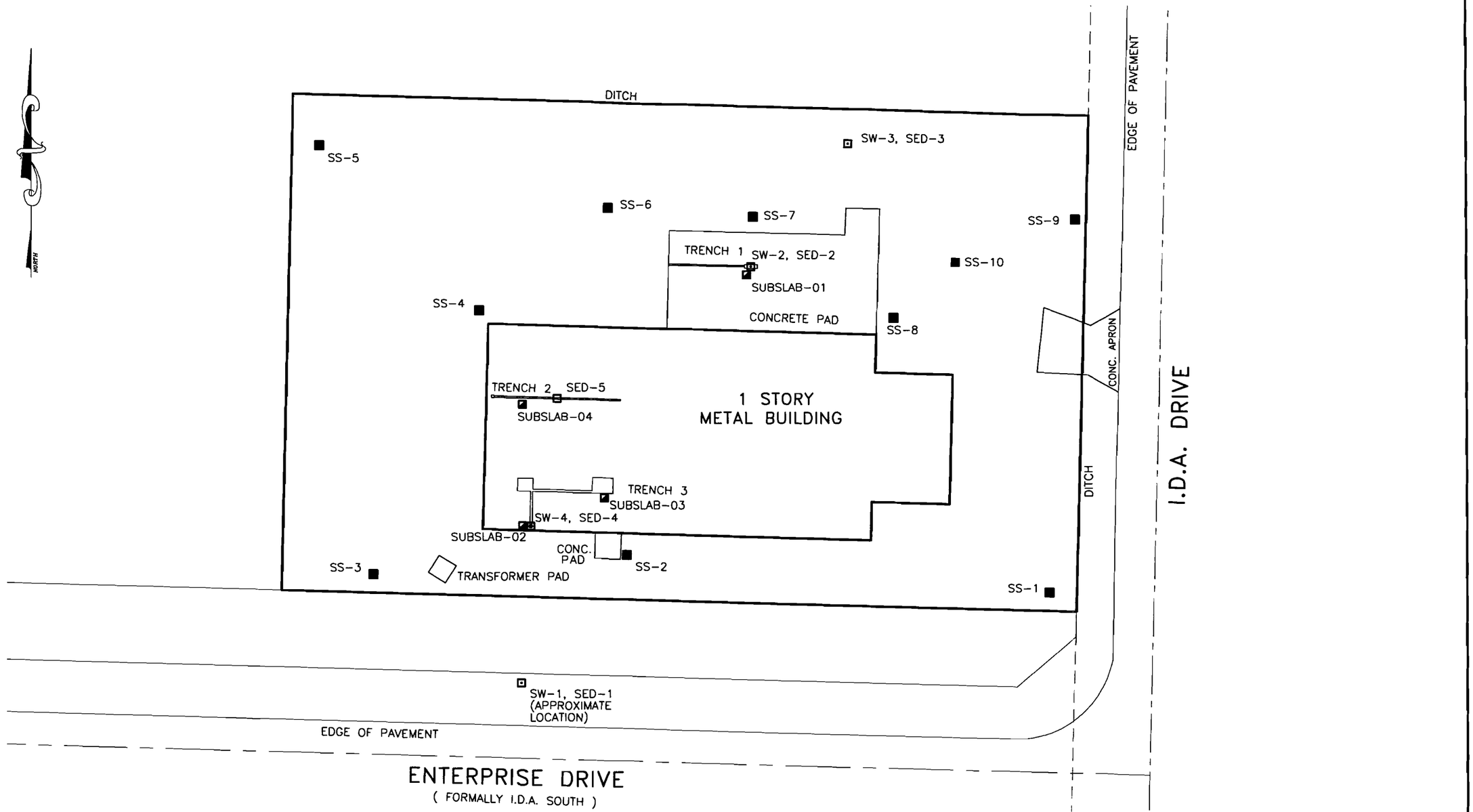
ATTACHMENT 1

FIGURE 6



LEGEND

- ■ SURFACE SOIL (SS) LOCATION
- ⊡ SURFACE WATER (SW) / SEDIMENT (SED) LOCATION
- ◪ SUBSLAB SOIL (SUBSLAB) LOCATION

SURFACE INVESTIGATION MAP

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REMEDIAL INVESTIGATION/ALTERNATIVES ANALYSIS PROGRAM
FORMER ELECTRUK BATTERY SITE
4922 IDA DRIVE
LOCKPORT, NEW YORK 14094

PROJECT NO. 2007.0262.00	SCALE: 1" = 40'	DATE: OCT. 2008	FIGURE NO. 6

ATTACHMENT 2

HEALTH AND SAFETY PLAN

INTERIM REMEDIAL MEASURES PROGRAM
FORMER ELECTRUK BATTERY SITE
(NYSDEC Site No. E932132)
4922 IDA PARK DRIVE, TOWN OF LOCKPORT
NIAGARA COUNTY, NEW YORK

FINAL HEALTH AND SAFETY PLAN

Prepared for:

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6560 Dysinger Road
Lockport, New York 14094

Prepared by:

TVGA CONSULTANTS

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2007.00262.00

DECEMBER 2008

DISCLAIMER

This Health and Safety Plan has been written for the exclusive use of TVGA and its employees. Properly trained and experienced TVGA subcontractors may also use it as a guideline document. However, TVGA does not guarantee the health and safety of any person entering the site.

Due to the potentially hazardous nature of the site and the activity occurring thereon, it is not possible to discover, evaluate, and provide protection for all possible hazards that may be encountered. Strict adherence to the health and safety guidelines set forth herein will reduce, but not eliminate, the potential for injury at the site. The health and safety guidelines in this plan were prepared specifically for this site and should not be used on any other site without prior research by trained health and safety specialists.

TVGA claims no responsibility for the use of this Plan by others. The Plan is written for the specific site conditions, purpose, dates, and personnel specified and must be amended if these conditions change.

IRM AT FORMER ELECTRUK BATTERY SITE
(NYSDEC Site No. E932132)
4922 IDA PARK DRIVE, TOWN OF LOCKPORT
NIAGARA COUNTY, NEW YORK

FINAL HEALTH AND SAFETY PLAN

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Figure 1: Map to Hospital

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Attachment C: Direct Reading Air Monitoring Form
Attachment D: Heat and Cold Stress Symptoms

1.0 INTRODUCTION

TVGA Consultants, on behalf of the Town of Lockport and Niagara County, will provide engineering and environmental services associated with the Interim Remedial Measures (IRM) program to be implemented at the Former Electruk Battery Site located in the Town of Lockport, Niagara County, New York. The project site has a history of industrial/manufacturing use, having been utilized to manufacture lead acid batteries from 1990 to 1996. The sources of environmental concern at this site include the presence of surface soil, subsurface soil, surface water and/or groundwater contaminated lead and/or solvents and the potential for residual with lead contamination on building surfaces. These concerns arise from the site's historical use as well as a 1996 fire that caused significant damage to the on-site building.

This Health and Safety Plan (HASP) has been developed to govern all IRM oversight work by TVGA at the Former Electruk Battery Site. This plan is intended to ensure the health and safety of TVGA personnel and the surrounding community during planned IRM activities. This Plan incorporates, by reference, the applicable requirements of the Occupational Safety and Health Administration in 29 CFR Parts 1910 and 1926.

The requirements and guidelines in the HASP are based on a review of available site specific information and an evaluation of potential hazards. These requirements can and will be modified by Senior Level Management (SLM), the Project Team Leader (PTL), the Site Safety Officer (SSO) or the Work Party Personnel (WPP), if necessary.

All field personnel working on this project must familiarize themselves with this HASP and abide by its requirements. Since every potential health and safety hazard encountered at a site cannot be anticipated, it is imperative that personnel are equipped and trained to respond promptly to a variety of possible hazards. Adherence to this HASP will minimize the possibility that personnel at the site and the public will be injured or exposed to significant health hazards. Information on potential health, safety and environmental hazards is discussed in conjunction with appropriate protective measures including assignment of responsibility, personal protective equipment (PPE) requirements, work practices, and emergency response procedures.

In general, contractors and subcontractors are responsible for complying with the HASP, as well as all Federal, State and local regulations pertaining to their work. With TVGA's permission, a contractor should modify this HASP to address activities of their employees within the scope-of-work this Plan addresses. These changes to the HASP by the contractor must be approved by TVGA. TVGA personnel can and must stop work by a TVGA contractor who is not following the health and safety procedures required by this HASP. However, the contractor/subcontractor expressly retains all responsibility for the safety of their personnel while working on this site.

This HASP is specifically intended for those personnel who will be conducting activities within the defined scope of work in specified areas of the site. Specific tasks covered by this HASP may include, but are not limited to:

- Performing inspections to characterize environmental hazards;

- Conducting non-intrusive inspections and instrument surveys;
- Excavating earthen materials, fill, debris, etc.;
- Collecting soil, groundwater, sediment and/or surface water samples; and
- Decontaminating personnel and equipment.

2.0 KEY PERSONNEL

2.1 Off-Site Personnel

Title: Principal
Description: Responsible for defining project objectives, allocating resources, determining the chain of command, and evaluating program outcome.
Contact: Robert R. Napieralski, TVGA, (716) 655-8842

Title: Project Manager
Description: Reports to upper level management, has authority to direct response operations, assumes total control over site activities.
Contact: Daniel E. Riker, TVGA, (716) 655-8842

2.2 On-Site Personnel

Title: Site Safety Officer
Description: Advises the field team on all aspects of health and safety issues, recommends stopping work if any operation threatens worker or public health and safety.
Contact: James C. Manzella, TVGA (716) 655-8842

Title: Project Team Leader
Description: Responsible for field team operations.
Contact: James C. Manzella, TVGA (716) 655-8842

Title: Work Party Personnel
Description: Performs field operations
Contact: TVGA personnel, Town of Lockport personnel, and subcontractor personnel.

2.3 Personnel Responsibilities

The primary safety personnel include the Project Team Leader (PTL), the Site Safety Officer (SSO) and the Work Party Personnel (WPP). For this project, the PTL and the SSO will be the same individual. Additionally, Senior Level Management (SLM) has the responsibility to ensure all project personnel are aware of the requirements of the HASP. The SLM may also recommend policy changes on safety matters including work practices, training and response actions and will provide the necessary resources to conduct the project safely. The PTL is responsible for the implementation of the HASP. The PTL is also responsible for conducting the initial on-site training.

The SSO is responsible for the day-to-day implementation of the HASP. The SSO will assist the PTL in providing initial training for all project personnel and for providing additional training in the form of safety meeting to discuss changed site conditions or upgrade training on an as needed basis. The SSO is also responsible for daily calibration of real-time air monitoring equipment and will ensure that all personnel assigned to operate the instrumentation are properly trained in its use and maintenance.

The SSO has the following specific responsibilities:

- Assuring that a complete copy of this HASP is at the site prior the start of field activities and that all workers are familiar with the document;
- Conducting training and briefing sessions if appropriate, prior to the start of field activities at the site and repeat sessions as necessary;
- Ensuring the availability, use, and proper maintenance of specified personal protective, decontamination, and other health and safety equipment;
- Maintaining a high level of safety awareness among team members and communicating pertinent matters to them promptly;
- Assuring that all field activities are performed in a manner consistent with Company policy and the HASP;
- Monitoring for dangerous conditions during field activities;
- Assuring proper decontamination of personnel and equipment;
- Preparing all health and safety documentation;
- Coordinating with emergency response personnel and medical support facilities, and representatives of the NYSDEC;
- Initiating immediate corrective actions in the event of an emergency or unsafe condition;
- Notifying the SLM and PTL promptly of an emergency, unsafe condition, problem encountered, or significant exceptions to the requirements in this HASP;
- Recommending improved health and safety measures to the SLM, or the PTL.

The SSO has the authority to:

- Suspend field activities or otherwise limit exposures if the health and safety of any persons appears to be endangered;
- Direct Company or contractor personnel to alter work practices that are deemed not properly protective of human health of the environment; and
- Suspend an individual from field activities for significant infraction of the requirements in this HASP.

The WPP is responsible for providing air monitoring during intrusive activities at the site. The WPP is directly responsible to the SSO and will assist the SSO in the day-to-day implementation of the HASP.

Site personnel are responsible for following the requirements of the HASP. They should become thoroughly familiar with the requirements of exposures that may adversely affect the health and safety of on-site personnel, off-site population, or the environment.

3.0 SITE ENTRY

3.1 Objectives

The objectives of the site entry will involve the removal and off-site disposal of contaminated water and sediments from the two interior and one exterior manmade drainage trenches followed by power washing and backfilling the trenches. All remedial work will be performed by a qualified subcontractor while oversight and documentation of the work will be performed by TVGA.

3.2 Safety Meetings

To ensure that the HASP is being followed, the Project Team Leader (PTL) shall conduct a safety meeting prior to initiating any site activity.

3.3 Safety Training

The SSO will confirm that every person assigned to a task has had adequate training for that task and that the training is up-to-date by checking with the TVGA Human Resources Office. TVGA and subcontractor personnel working on the site shall have a minimum of at least 24 hours of classroom-style health and safety training and 3 days of on-site training, as required by OSHA 29 CFR 1910.120. All training will have been conducted and certified in accordance with OSHA regulations outlined in 29 CFR 1910.120.

3.4 Medical Surveillance

All TVGA and subcontractor personnel working on this investigatory project will have had a medical surveillance physical consistent with OSHA regulations in 29 CFR 1910.120, and performed by a qualified occupational health physician. The SSO shall confirm prior to initiation of work on this site that every person assigned to a task has had an annual physical, has passed the medical examination, and has been determined medically fit by the occupational health physician for this type of work.

3.5 Site Mapping

A map of the site showing all areas to be accessed during the IRM work is depicted on Figure 6 attached to the IRM Work Plan. A map showing the route from the site to the nearest hospital has been included as Figure 1.

3.6 Meteorological Data

Fieldwork is expected to be completed in December 2008. Average temperatures for this month are expected to reach highs of approximately 35°F and lows of 20°F. Precipitation for this month is likely to be in the form of snow. Prior to each day's activities, the daily forecast should be monitored for indications of adverse work conditions.

4.0 HAZARD EVALUATION

4.1 Physical Hazards

Physical hazards such as the following may be encountered on site:

- Slippery surfaces - trip/fall
- Electrical - shock, fire
- Mechanical/Large Equipment - cuts, amputation, trauma
- Uneven Terrain/Excavations/Soil piles/Sink Holes - trip/fall

The planned IRM activities also presents hazards specific to working with heavy equipment. Personnel working on or around the vacuum trucks, or backhoes should be aware of the precautions listed below. The practices are meant to be guidelines, and are not all-inclusive of the safety measures necessary while performing intrusive activities.

Utility Clearance

Personnel involved in intrusive work shall determine the minimum distance from marked utilities which work can be conducted with the assistance of the locator line service.

- Elevated superstructures (e.g., vacuum truck, backhoe, etc) shall remain a distance of 10 feet away from utility lines and 20 feet away from power lines.

- During all intrusive activities the locator line service should be contacted to mark underground lines before any work is started.

Heavy Equipment Operations

Working around heavy equipment can be dangerous because of the size and power of the equipment, the limited field of vision of the operator and the noise levels that can be produced by the equipment. Heavy equipment to be utilized at the site may vacuum trucks, trucks and backhoes.

To ensure the safety of TVGA personnel in the work area, the following safety procedures regarding heavy equipment must be reviewed prior to and followed during work activities:

- Personnel should never approach a piece of heavy equipment without the operators' acknowledgment and stoppage of work or yielding to the employee.

- Never walk under the load of a bucket or stand beside an opening truck bed.

- Maintain visual contact with the operator when in close proximity to the heavy equipment.

- Wear hearing protection while on or around heavy equipment, when normal conversation cannot be heard above work operations.

Steel-toed shoes, safety glasses, and a hard hat shall be worn for all work conducted near heavy equipment.

4.2 Chemical Hazards

Known and suspected sources of contamination include potential past spills and releases of chemicals and wastes used, generated and/or stored on-site; and past discharges and spills of untreated process wastewater. Potential chemical hazards, which could be encountered during the IRM, include, but are not limited to:

- Solvents
- Acids
- Metals
- Residual lead contamination on building surfaces
- Lead contaminated soil, sediment, groundwater and surface water

4.3 Exposure Limits

Recommended Exposure Limits (RELs), and OSHA Permissible Exposure Limits (PELs) for several of the above chemical hazards are listed below. A complete list of the compounds detected on-site will be available upon completion of sampling and laboratory analysis. The RELs and PELs for the compounds listed below can be found in the NIOSH Guide to Chemical Hazards.

CHEMICAL	REL [1]	PEL [2]
Lead	0.05 mg/m^3	0.05 mg/m^3
Sulfuric Acid	1 mg/m^3	1 mg/m^3
Cadmium	CA	0.005 mg/m^3
Nickel (Ca)	0.015 mg/m^3	1.0 mg/m^3
Silver	0.01 mg/m^3	0.01 mg/m^3
Arsenic (Ca)	0.002 mg/m^3 (15 minutes)	0.01 mg/m^3
Chromium	0.5 mg/m^3	1.0 mg/m^3
Selenium	0.2 mg/m^3	0.2 mg/m^3
Mercury	0.05 mg/m^3	0.1 mg/m^3

1 REL = NIOSH recommended exposure limits, up to 10 hour work day exposure limit, 40 hours/week. REL in mg/m^3 = (REL in ppm x molecular weight) / 24.45.

2 PEL = OSHA permissible exposure limit, 8 hour exposure limit, 40 hours/week, OSHA 29 CFR 1910.1000. REL in mg/m^3 = (REL in ppm x molecular weight) / 24.45.
OSHA = Occupational Safety and Health Agency
NIOSH = National Institute for Occupational Safety and Health
N.A. = no applicable value available
CA = NIOSH recommends the substance be treated as a potential human carcinogen

4.4 Dispersion Pathways

Potential exposure mechanisms that can transport particulate and organic compounds from the IRM work areas to other areas of the site as well as beyond the boundaries of the site are:

- Volatilization and wind transport
- Surface water runoff from contaminated areas
- Groundwater flowing beneath the site

4.5 Potential IDLH and Other Dangerous Conditions

The Immediately Dangerous to Life and Health (IDLH) levels for chemicals potentially on-site and their IDLH level are listed below.

CHEMICAL	IDLH Level
Lead	100 mg/m^3
Sulfuric Acid	15 mg/m^3
Cadmium	9 mg/m^3
Nickel (Ca)	10 mg/m^3
Silver	10 mg/m^3
Arsenic (Ca)	50mg/m^3
Chromium	250 mg/m^3
Selenium	1 mg/m^3
Mercury	10 mg/m^3

CA = NIOSH recommends the substance be treated as a potential human carcinogen

The IDLH level is defined only for the purpose of respirator selection. The IDLH level represents a maximum concentration from which, in the event of respirator failure, one could escape within 30 minutes without experiencing any escape-impairing or irreversible health effects.

Visible indicators of potential IDLH conditions as well as other dangerous conditions are listed below.

- Confined spaces
- Unstable overhead structures
- Unusually colored solid or liquid wastes
- Containers or accumulation structures (e.g., drums, pits, sumps, etc.), the contents of which are unknown
- Potentially explosive or flammable situations indicated by bulging drums, gas generation, effervescence, or instrument readings
- Extremely hazardous materials such as cyanide, phosgene
- Visible vapor clouds
- Biological indicators such as dead animals, stressed vegetation

5.0 MONITORING AND ACTION LEVELS

5.1 Air Monitoring

The following environmental monitoring instruments and methods shall be used on site during the IRM program at the specified intervals. Due to the limited potential for dust generation during the IRM activities, dust will not be monitored during the IRM.

Photoionization Detector (PID)

A PID shall be used continuously at the downwind perimeter of the work area, during IRM activities. The PID shall be calibrated daily following manufacturers' recommendations (see Section 6.0 of the April 2008 RI/AA Field Sampling Plan). Readings and calibration data shall be recorded in daily logs by the SSO.

Temperature

Ambient temperature should be monitored throughout the work day for potential heat or cold stress conditions.

5.2 Action Levels

Should action levels be encountered, work operations shall cease until further evaluation is performed and safe levels are prevalent. If through engineering controls and monitoring, safe levels (below action levels) cannot be achieved, an upgrade in personal protection equipment shall be mandated by the SSO, or operations shall cease in that portion of the site. The action levels for this project are as follows:

- Volatile organic compounds (PID monitor): consistent readings of greater than 5 ppm above background levels in the breathing zone.
- Temperature: ambient air temperature below 36°F for cold stress, and above 90°F for heat stress.

Vapor Emission Response Plan

If the organic vapor level decreases below 5 ppm above background, work activities can resume. If the organic vapor levels are greater than 5 ppm over background but less than 25 ppm over background at the perimeter of the work area, activities can resume (while using the appropriate PPE) provided the organic vapor level 200 feet downwind of the work area or half the distance to the nearest residential or commercial structure, whichever is less, is below 5 ppm over background.

If the organic vapor level is above 25 ppm at the perimeter of the work area, activities must be shutdown. When work shutdown occurs, downwind air monitoring as directed by the SSO will be implemented to ensure that vapor emission does not impact the nearest

residential or commercial structure at levels exceeding those specified in the Major Vapor Emission section.

Major Vapor Emission

If any organic levels greater than 5 ppm over background are identified 200 feet downwind from the work area or half the distance to the nearest residential or commercial property, whichever is less, all work activities must be halted.

If, following the cessation of the work activities, or as the result of an emergency, organic levels persist above 5 ppm above background 200 feet downwind or half the distance to the nearest residential or commercial property from the work area, then the air quality must be monitored within 20 feet of the perimeter of the nearest residential or commercial structure (20-Foot Zone).

If efforts to abate the emission source are unsuccessful and if levels greater than 5 ppm above background persist for more than 30 minutes in the 20-Foot Zone, then the Major Vapor Emission Response Plan shall automatically be placed into effect. The Major Vapor Emission Response Plan shall be immediately placed into effect if organic vapor levels in the 20-Foot Zone are greater than 10 ppm above background.

Major Vapor Emission Response Plan

Upon activation, the following activities will be undertaken:

- All Emergency Response Contacts as listed in the HASP be contacted.
- The local police authorities will be immediately contacted by the SSO and advised of the situation.
- Frequent air monitoring will be conducted at 30 minute intervals within the 20-Foot Zone. If two successive readings below action levels are measured, air monitoring may be halted or modified by the Site Safety Officer.

6.0 SITE CONTROL MEASURES

Maintaining specific work zones both on-site and off-site, along with other precautionary measures outlined throughout this HASP will help control site access.

6.1 On-Site Control Measures

Temporary fencing or caution tape around the perimeter of the work areas will provide a suitable measure to control access to the work areas and to prevent unauthorized access to on-site work zones.

The SSO will establish and clearly mark the following areas with consultation of the PTL:

Exclusion Zone (EZ)

This will be the actual work area where potential contamination may exist. An outer boundary will be established and clearly marked. The area of the EZ will be established based on site work conditions, exposure monitoring, etc. In general, the EZ will incorporate the trench being cleaned and a 50-foot radius around the trench.

- Access to the EZ will be limited to employees and visitors who have a minimum 24-Hour Hazardous Site Worker training, protective equipment and responsibilities for work in the EZ. The entry of unauthorized personnel into the EZ will be prohibited.

- The Exclusion Zone will be in areas of IRM activities (i.e. the trenches and areas immediately adjacent to the trenches). The limits of the zone will change, as necessary, depending on the SSO's judgment regarding work conditions, air sampling, etc.

- Drilling or excavation activities inside the EZ will commence at Level D. Air monitoring will be performed while drilling or excavating proceeds using a photoionization detector (PID) and a particulate monitor.

Contamination Reduction Zone (CRZ)

An area between the actual work site (EZ) and Support Zone (SZ) will be established to facilitate employee and equipment decontamination, protective equipment storage and supply, and employee rest areas.

- The location of the CRZ will be established in an area offering minimal contamination and will be subject to change based on the SSO's judgments considering work conditions, air monitoring, etc.

- The CRZ will contain a boot wash with brushes and soap, a source of wash water for washing equipment and hands, and plastic garbage bags to contain disposable protective equipment.

Support Zone (SZ)

An area free from contamination will be identified and clearly marked where administrative or other support functions (not requiring entrance to the EZ or CRZ) can be performed. The actual siting of the SZ will be established by the PTL and SSO by considering distance from the EZ, visibility, accessibility, air monitoring data, etc.

All personnel working in the study area will enter their names in a site log, which will be maintained in the SZ. Personnel will only enter an EZ after proceeding through a

designated entry / checkpoint at the CRZ. Before engaging in any site work, all personnel involved in such work will be briefed on the following:

- Identity of PTL/SSO
- Boundaries, exit and entry point locations of the Exclusion Zone
- Decontamination procedures when required
- Chemical, radiological and physical hazards suspected of being in the EZ and their signs and symptoms of exposure
- Location of first aid equipment and qualified personnel
- Procedures to be used in contacting emergency personnel, including potential site evacuation procedures in case of emergencies
- Location of emergency equipment
- Location of emergency meeting point
- Contractor staff person in charge;
- Activities taking place that day
- Location of emergency eyewash station
- Heat or cold stress symptoms. All personnel will be advised to watch for signs of stress in staff working in EZ. Symptoms are defined in Attachment E
- Personnel protective equipment requirements and limitations

6.2 Off-Site Control Measures

No off-site work will be conducted as part of the IRM activities; therefore, off-site control measures are not required.

7.0 HAZARD COMMUNICATION

In compliance with 29 CFR 1910.1200, any hazardous materials brought on site by any personnel (TVGA or contractors) shall be accompanied with the material's MSDS. The SSO shall be responsible for maintaining the MSDSs on site, reviewing them for hazards that working personnel may be exposed to, and evaluating their use on site with respect to compatibility with other materials including personal protective equipment, and their hazards. Should the SSO deem the material too hazardous for use on site, the party responsible for bringing the material on site shall remove it from the site. No other hazardous materials are expected to be used during the environmental investigation at the site.

8.0 CONFINED SPACE ENTRY

No confined space entry by TVGA personnel is anticipated during the completion of this project. Should a potential confined space hazard exist, all proper confined space entry procedures, techniques, and equipment shall be consistent with OSHA regulations in 29 CFR 1910.146.

9.0 PERSONAL PROTECTIVE EQUIPMENT (PPE)

Based on evaluation of the potential hazards for the site, the initial levels of PPE have been designated as modified Level D for all site activities which is addressed below. No changes to the specified levels of PPE shall be made without the approval of the SSO and the PTL. If action levels are reached, work shall cease and further evaluations shall be performed by the SSO and advisors.

Modified Level D Protection

- Safety glasses with side shields
- Chemical resistant gloves
- Steel-toe and shank boots
- Hard hat
- Neoprene or butyl rubber outer boots

For the protection of site personnel, organic gas/vapor emissions will be continuously monitored during IRM activities, and the required level of protection upgraded if action levels warrant. If an upgrade in PPE is warranted, Level C Protection including full face air-purifying respirators with appropriate cartridges will be implemented.

Level C Protection

Level C Protection, the maximum level likely to be needed at this site, includes the following;

- Full-face air purifying respirators with NIOSH/MSHA - approved high efficiency (HEPA) canisters for acid mists/organic vapors (half-face respirators may be substituted for certain tasks, by approval of the SSO)
- Chemical-resistant (Poly-Tyvek) clothing, one piece, long sleeved
- Outer and inner gloves. Inner gloves to be tight-fitting latex or vinyl. Outer gloves of neoprene or nitrile
- Steel-toe and shank boots (chemical resistant);
- Disposable Tyvek "booties"
- Neoprene or butyl rubber outer boots
- Gloves and boots taped
- Hard hat

For all personnel that may be required to wear full-face respirators (all persons working near a borehole, for example), only NIOSH/MSHA - approved respirators will be used. These will contain cartridges approved for removal of organic vapors/acid mists and particulate. All team members will be fit-tested for respirators. Due to possible difficulties in achieving a proper seal between face and mask, persons with facial hair will not be fitted for respirators, nor will they be allowed to work in areas requiring respiratory protection. Unless the SSO directs otherwise, when respirators are used, the cartridges should be replaced after eight hours of use, or at the

end of each shift, or when any indication of breakthrough or excess resistance to breathing is detected.

Donning PPE

The following procedures should be followed when donning protective equipment.

- Inspect all equipment to ensure it is in good condition
- Don protective suit and gather suit around waist
- Put on outer boots over feet of the suit and tape at boot/suit junction
- Don inner gloves
- Don top half of protective suit and seal (as necessary)
- Don respirator protection (if necessary)
- Don outer gloves and tape at glove/suit junction (as necessary)
- Have assistant check all closures and observe wearer to ensure fit and durability of protective gear

10.0 DECONTAMINATION

Level C or higher PPE utilized during site operations warrants the institution of decontamination procedures.

Contaminated material must be either decontaminated or isolated immediately. All materials brought into the Exclusion Zone are presumed contaminated. Alconox and water shall be used as the decontamination solution. Decontamination equipment consisting of large wash tubs, scrub brushes, plastic sheeting, distilled water, plastic garbage bags, trash barrel, and respirator wipes will be used.

Protective clothing, especially reusable boots and gloves, will be decontaminated before leaving the Exclusion Zone by a thorough soap-and-water wash on the decontamination pad. Washing and rinsing solutions will be disposed on site unless elevated levels are detected with a PID. If elevated levels are detected, it may be necessary to dispose of decon solutions in a drum or an approved containment tank. Solid waste materials (disposable gloves and garments, tape, plastic drop cloths, etc.) will be containerized for proper disposal. Personnel will be advised that all clothing worn under protective clothing (underwear, shirts, socks, trousers) on-site should be laundered separately from street clothing before redressing. If protective clothing is breached and personal clothing becomes contaminated, the personal clothing will be disposed.

The need for widespread vehicle decontamination will be limited by keeping to a minimum the number of vehicles entering the Exclusion Zone. Vehicles leaving the Exclusion Zone must be decontaminated by high pressure and temperature water.

Personal Decontamination

The following steps must be taken to decontaminate personnel leaving a Level B or C work area.

- Place equipment and sample containers that must be decontaminated on a plastic drop cloth;
- Place disposable supplies and equipment in a labeled drum;
- Scrub non-disposable gloves and outer boots (if used) with a brush in a detergent water, then rinse in clean water;
- Remove outer gloves and boot covers;
- Remove protective garments, safety boots and hard hat;
- Wash inner gloves;
- Remove and wash respiratory protection (if worn);
- Remove inner clothing (as necessary for Draft decontamination at end of shift);
- Thoroughly wash face, hands and body; and
- Redress.

Equipment Decontamination

Personnel must take the following steps to decontaminate equipment and sample containers leaving Level A, B, or C work areas:

- Don protective equipment at Modified Level D;
- Wash reusable equipment in detergent solution and/or an appropriate solvent, or steam clean;
- Dry sample containers, etc., with paper towels (if necessary) and place on a clean drop cloth;
- Remove and discard used respirator cartridges. Wash respirators in fresh detergent water, rinse in clean water, and disinfectant. Store in a closed plastic bag, away from sources of contamination; and
- Launder clothing before reuse (or place in appropriate labeled impervious containers for transport to laundry).

Organic vapor/HEPA cartridges are the appropriate canisters for use with the involved substances. All respirators used shall be NIOSH and/or MSHA approved and their use shall be consistent with OSHA regulations in 29 CFR 1910.134. All on-site personnel wearing a respirator shall have respirator clearance from a qualified occupational health physician. In addition, the respirator wearers on site shall perform qualitative fit tests to ensure proper fit of the face seal of the respirator. Filter cartridges used shall be of the same manufacturer as the respirator and shall be changed on a daily basis at a minimum and/or if breathing becomes difficult.

11.0 EMERGENCY PROCEDURES

Prior to entering the site, all personal will complete the attached emergency data sheet. On-site personnel will abide by the following emergency procedures.

- The SSO shall be notified of any on-site emergencies and be responsible for ensuring that the appropriate measures are followed.
- Non-emergencies will be treated on site, documented and the injured party will be directed to seek further medical attention.
- All occupational injuries and illnesses will be reported, recorded, and investigated.

11.1 Communication

The SSO will have a cellular-type telephone on-site at all times for direct outside communications with emergency response organizations.

11.2 Personnel Injury

Upon notification of personnel injury the SSO will assess the nature of the injury. The appropriate first aid shall be initiated and, if necessary, contact shall be made for an ambulance and with the designated medical facility. If the injury increases the risk to others, activities on site will stop until the added risk is removed or minimized.

11.3 Fire/Explosion

Upon notification of fire or explosion, the designated emergency signal shall be sounded and all site personnel shall assemble at a safe distance upwind of the involved area. The SSO shall alert the appropriate fire department through the 911 emergency reporting system.

11.4 PPE Failure

If any site worker experiences a failure or alteration of PPE that affects the protection factor, that person and his or her buddy shall immediately exit the work area. Reentry and resuming work activities shall not be permitted until the equipment has been repaired or replaced.

11.5 Other Equipment Failure

If any equipment on site fails to operate properly, the Field Team Leader and the SSO shall be notified and will determine the effect of this failure on continuing operations on site. If the failure affects the safety of personnel or prevents completion of the remediation tasks, all personnel shall leave the work zone until the situation is evaluated and appropriate actions taken.

11.6 Spill Containment

Should a release of a chemical material occur on site, the SSO shall contain the spill to the extent immediately possible by the use of absorbent booms, pigs, pads, etc. The SSO shall contact appropriate spill response public departments (local or state) and a hazardous materials response contractor for further containment (refer to Section 12.0).

12.0 EMERGENCY MEDICAL CARE

12.1 Hospital

Name: Lockport Memorial Hospital
Address: 521 East Ave, Lockport, NY
Hospital #: (716)-514-5700
Emergency Room #: (716)-434-9110
Directions from site: Start out going north on IDA Park Drive to Upper Mountain Road. Turn right on Upper Mountain Road (NY 93), turn left on to Saunders Settlement Road (NY 31). Continue on Saunders Settlement Road and turn left on to Washburn Street (also NY 31) until East Avenue. Turn right on to East Avenue (also NY 31) and hospital is on the north side of East Avenue. Estimated drive time is 11 minutes and it is 4.8 miles.

12.2 Emergency Notification Numbers

Fire Department: 911
Police Department: 911
Department of Emergency Services: 911

Niagara County Health Department, Environmental Division:
5467 Upper Mountain Rd., Suite 100, Lockport, NY14094
Environmental Health
439-7453

Niagara County Emergency Services:
5526 Niagara St. Ext., Box 496, Lockport, NY 14095-0496
438-3471
911 (24-Hour Emergency Number)

NYSDEC Spill Response Unit: (716) 851-7220
NYSDEC Spill Hotline: 800-457-7362
NYSDOH Division of Environmental Health Assessment: (716) 847-4385

13.0 STANDARD OPERATING PROCEDURES

- Restricted areas are not to be accessed.
- Avoid unrestricted areas that seem questionable or unsafe.
- Minimize contact with hazardous substances.
- Use remote sampling, handling, and/or container-opening techniques whenever possible.
- Protect monitoring and sampling instruments by bagging, if necessary.
- Wear disposable outer garments and use disposable equipment where appropriate.
- All PPE and skin surfaces should be checked for cuts and/or punctures.
- Do not eat, smoke, or drink within the exclusion or contamination reduction zones.
- Due to the potential for the absorption, inhalation, or ingestion of toxic substances, those personnel required to take prescription drugs should not enter this site until their medication program is reviewed and approved for site access by a qualified physician.
- All personnel must be familiar with Client's operating safety procedures.
- The buddy system must always be used and enforced.
- No workers with beards or heavy sideburns are allowed to wear respirators.
- Use of contact lenses is prohibited on site.
- All heavy equipment involved should be equipped with available back-up signals.
- Eating, drinking, chewing gum or tobacco, smoking, or any similar practice is prohibited
- Hands and face must be thoroughly washed upon leaving the Exclusion Zone
- Whenever decontamination procedures for outer garments are in effect, it is recommended that the entire body should be thoroughly washed, as soon as possible, after the protective garment is removed. Thorough showers are required of all personnel at the completion of the workday.
- No excessive facial hair, which interferes with a satisfactory fit of the mask-to-face seal, is allowed for personnel required to wear respiratory protective equipment.
- Medicine and alcohol can exaggerate the effects from exposure to toxic chemicals.
- Fluids will be provided to staff to replace perspiration and will be sealed in containers. All fluids for ingestion will be kept in the Support Zone.
- Due to the effects of protective outer wear decreasing body ventilation, there exists an increase in the potential for heat casualties.
- All field personnel should check for any personal habit, which may allow contaminated soil or water onto or into the body. Jewelry, including watches, shall not be worn within the Exclusion Zone.
- All first aid treatments will be reported to the SSO, who will record each incident.

14.0 COMMUNITY HEALTH AND SAFETY PLAN

14.1 Potential Impacts

Potential hazards to the general public and surrounding community posed by this site investigation plan relate primarily to fugitive dust (particulate) emissions, organic contaminants and physical hazards associated with the operation of heavy equipment.

Potential exposure mechanisms that can transport particulates, both contaminated and non-contaminated, and volatile organic compounds beyond the site boundary include:

- Contaminated dust transported by wind erosion; and
- Volatile organic compounds transmitted by wind currents.

The site is located in an area that consists mainly of commercial properties. Commercial properties are primarily located west and north of the site, and are of a sufficient separation distance that it is unlikely that they will be adversely impacted by the IRM activities.

Limiting potential exposure mechanisms that can transport contaminants beyond the site boundary will be completed by implementation of an air monitoring plan, maintaining site control, the use of engineering controls and following emergency procedures.

14.2 Monitoring Plan

The IRM activities are not expected to produce measurable fugitive dust. Sediment within the three trenches is overlain by water and therefore it is not expected that fugitive dust will be generated during sediment removal. The air monitoring program will measure VOCs in the vicinity of the trenches on a continuous basis during IRM activities.

Should action levels be encountered, work operations shall cease until further evaluation is performed and safe levels are prevalent. If through engineering controls and monitoring, safe levels (below action levels) cannot be achieved, an upgrade in personal protection equipment shall be mandated by the SSO, or operations shall cease in that portion of the site. The action levels for this project and the response measures to be implemented to protect the community in the event that these action levels are exceeded are presented in Section 5.2.

14.3 Site Control

During the implementation of the investigation, TVGA will block the access into the site to the extent practicable using posts, cones rope and/or caution tape. Access to the working area will be restricted via the site control measures detailed in Section 6.0.

14.4 Engineering Controls

In the event measurable dust levels are detected during the IRM activities, then standard dust suppression techniques may be utilized, including the following:

- Wetting sediment, and equipment during removal.
- Restricting vehicle speeds to 10 mph.
- Postponing IRM activities during severe winds.
- Covering trenches and drumming sediment immediately after removal.

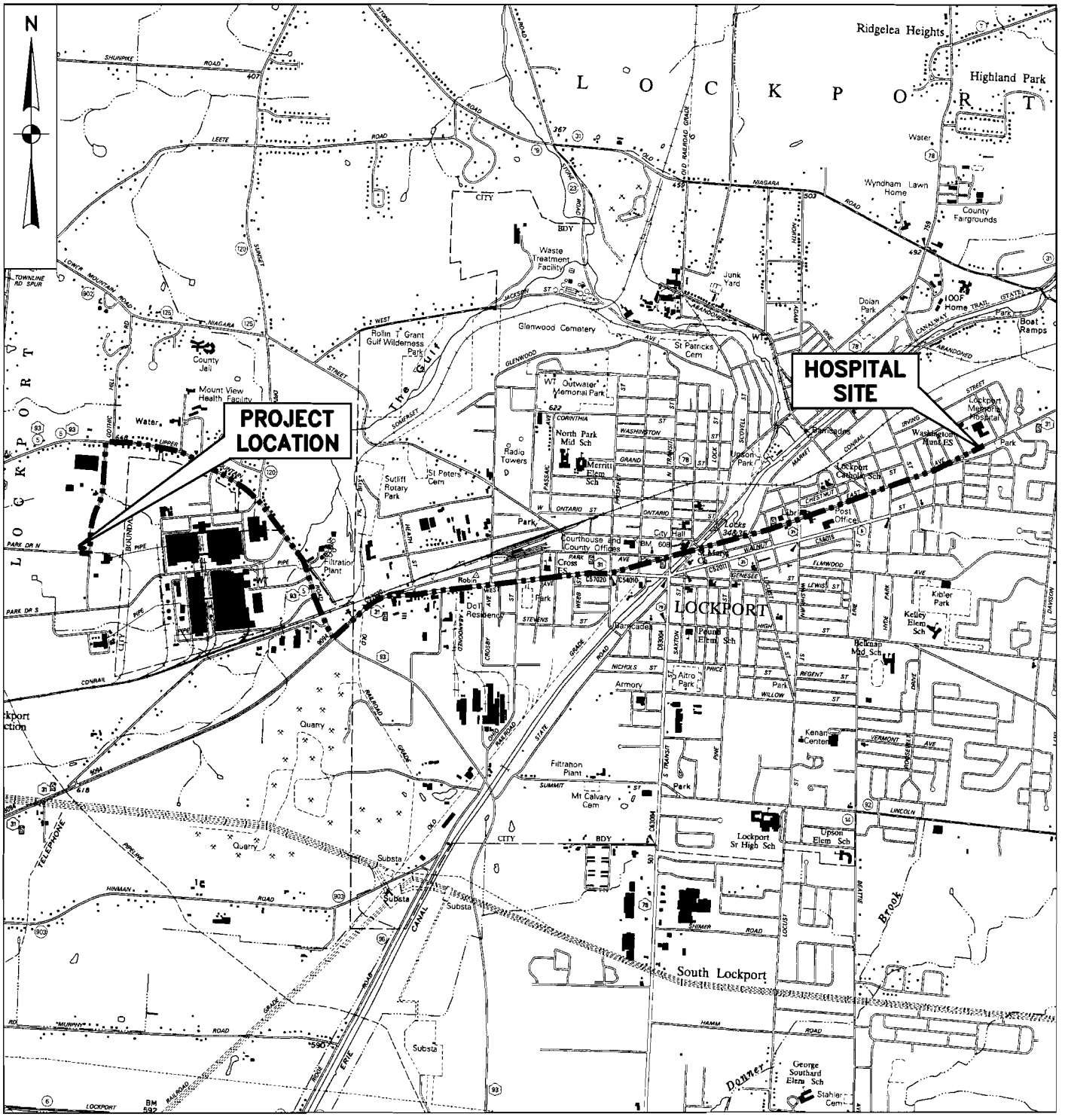
If the dust suppression techniques being utilized do not reduce airborne particulate then investigation activities will be suspended, until a review of the engineering controls can be completed.

14.5 Emergency Notification

This HASP has been developed to include details on emergency coordination and notification procedures to be implemented during an incident. The procedures for specific emergencies are outlined in Section 11.0 and the contact information for local emergency personnel is included in Section 12.0. In the event community health and safety is in question, dialing 911 will summon Fire and Police personnel which can take appropriate actions as necessary.

N:\2007.0262.00-SOQ for Electruck Site Grant Application\Engineering\10Deliverables\IRM\IRM HASP\IRM HASP.doc

FIGURES



U.S.G.S LOCKPORT QUADRANGLE
CAMBRIA QUADRANGLE

MAP TO HOSPITAL

TVGA CONSULTANTS
1000 MAPLE ROAD
ELMA, NEW YORK 14059-9530
P. 716.655.8842
F. 716.655.0937
www.tvga.com

INTERIM REMEDIAL MEASURES PROGRAM
FORMER ELECTRUK BATTERY SITE
4922 IDA DRIVE
LOCKPORT, NEW YORK 14094

PROJECT NO. 2007.0262.00	SCALE: 1" = 1,000'	DATE: DECEMBER 2008	FIGURE NO. 1

ATTACHMENT A

CERTIFICATION

TVGA
CONSULTANTS

IRM AT FORMER ELECTRUK BATTERY SITE

CERTIFICATION

PROJECT LOCATION: Former Electruk Battery Site, 4922 IDA Park Drive, Town of Lockport, Niagara County, NY
PROJECT NO. 2007.0262.00

Senior Level Management shall sign this form after she/he has conducted a pre-entry briefing.

Each employee conducting field work shall sign this form after the pre-entry briefing is completed and prior to commencing work on site. A copy of this signed form shall be kept at the site, and the original sent to the PTL, for inclusion into the project file.

Site Personnel Sign-off

☐ I have received a copy of the Site-Specific Health and Safety Plan.

☐ I have read the Plan and will comply with the provisions contained therein.

☐ I have attended a pre-entry briefing outlining the specific health and safety provisions on this site.

Name: _____ Date: _____
_____ Date: _____
_____ Date: _____
_____ Date: _____
_____ Date: _____
_____ Date: _____

TVGA Project Team Leader

☐ A pre-entry briefing has been conducted by myself on _____.

☐ I deferred the pre-entry briefing responsibility to the Site Health and Site Safety Officer (SSO).

Name: _____ Date: _____.

ATTACHMENT B

MEDICAL DATA SHEET

TVGA
CONSULTANTS

MEDICAL DATA SHEET

This brief Medical Data Sheet will be completed by all personnel potentially working on-site and will be kept in the Support Zone during the performance of site operations. This data sheet will accompany any personnel when medical assistance is needed or if transport to the hospital facilities is required:

Site: _____

Name: _____Home Telephone _____

Address: _____

_____

Age: _____ Height: _____ Weight: _____

Person to Contact in Case of Emergency:

_____ Phone No. _____

Drug or other Allergies: _____

_____

Particular Sensitivities: _____

Do You Wear Contacts? YES NO

Provide a Checklist of Previous Illnesses or Exposures to Hazardous Chemicals:

_____

_____

_____

What Medications are you presently using? _____

_____

Do you have any Medical Restriction? _____

_____

_____

Name, Address, and Phone Number of Personal Physician:_____

_____

_____

ATTACHMENT C

DIRECT READING AIR MONITORING FORM

TVGA
CONSULTANTS

DIRECT READING AIR MONITORING FORM

DATE:_____
PROJECT: Former Electruk Battery Site
PROJECT #: 2007.0262.00
WEATHER CONDITIONS:_____
WIND DIRECT/SPEED: _____

USER: _____
CALIBRATION: _____
CALIBRATED BY: _____
COMMENTS: _____

ACTIVITY	INSTRUMENT	WORKING RANGE	TIME	READING	COMMENTS

ATTACHMENT D

HEAT AND COLD STRESS SYMPTOMS

Hazard Alert

Heat Stress in Construction

Heat is a serious hazard in construction. Your body builds up heat when you work and sweats to get rid of extra heat. But sometimes your body may not cool off fast enough. This can happen, say, if you are up on a roof pouring hot asphalt or you are lifting heavy loads.

Too much heat can make you tired, hurt your job performance, and increase your chance of injury. You can get skin rash. You can also get:

- **Dehydration.** When your body loses water, you can't cool off fast enough. You feel thirsty and weak.
- **Cramps.** You can get muscle cramps from the heat even after you leave work.
- **Heat exhaustion.** You feel tired, nauseous, headachy, and giddy (dizzy and silly). Your skin is damp and looks muddy or flushed. You may faint.
- **Heat stroke.** You may have hot dry skin and a high temperature, Or you may feel confused. You may have convulsions or become unconscious. **Heat stroke can kill you** unless you get emergency medical help.

The Risk of Heat Stress

Your risk of heat stress depends on many things. These include:

- Your physical condition
- The weather (temperature, humidity)
- How much clothing you have on
- How fast you must move or how much weight you must lift
- If you are near a fan or there is a breeze
- If you are in the sun.

If there is an industrial hygienist on your work site, ask the hygienist about the Wet-Bulb Globe Temperature Index. It is a more precise way to estimate the risk of heat stress.

Protect Yourself

Try to do these things:

- **Drink a lot of cool water all day — before you feel thirsty.** Every 15 minutes, you may need a cup of water (5 to 7 ounces).

(Please turn the page.)

• **Keep taking rest breaks**. Rest in a cool, shady spot. Use fans.
• **Wear light-colored clothing,** made of cotton.
• **Do the heaviest work in the coolest time of the day**.
• **Work in the shade**.
• **For heavy work in hot areas,** take turns with other workers, so some can rest.
• **If you travel to a warm area for a new job,** you need time for your body to get used to the heat. Be extra careful the first 2 weeks on the job.
• **If you work in protective clothing,** you need more rest breaks. You may also need to check your temperature and heart rate. On a Superfund site where the temperature is 70 degrees or more, the U.S. Environmental Protection Agency (EPA) says a health professional should monitor your body weight, temperature, and heart rate.
• **If you think someone has heat stroke, call emergency services (or 911).** Immediately move the victim to the shade. Loosen his/her clothes. Wipe or spray his/her skin with cool water and fan him/her. You can use a piece of cardboard or other material as a fan.

OSHA does not have a special rule for heat. But because heat stress is known as a serious hazard, workers are protected under the **General Duty Clause** of the Occupational Safety and Health Act. The clause says employers must provide "employment free from recognized hazards causing or likely to cause physical harm."

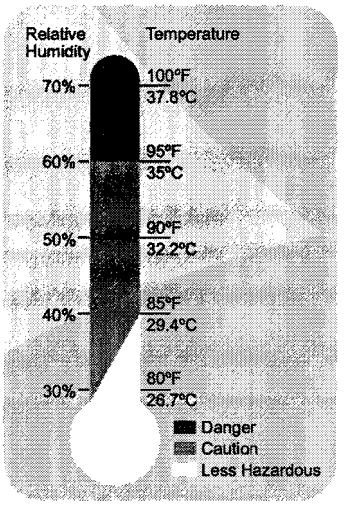
For more information, call your local union, the Center to Protect Workers' Rights (CPWR) (301-578-8500 or www.cpwr.com), the National Institute for Occupational Safety and Health (1-800-35-NIOSH or www.cdc.gov/niosh), or OSHA (1-800-321-OSHA or www.osha.gov). Or check the website www.elcosh.org

The Center to Protect Workers' Rights is the research and development institute of the Building and Construction Trades Dept., AFL-CIO: CPWR, Suite 1000, 8484 Georgia Ave., Silver Spring, MD 20910. (Edward C. Sullivan is president of the Building and Construction Trades Department and CPWR.) Production of this flyer was supported by grants UO2/310982 and UO2/312014 from the National Institute for Occupational Safety and Health (NIOSH). The contents are solely the responsibility of the authors and do not necessarily represent the official views of NIOSH.

The Heat Equation

HIGH TEMPERATURE + HIGH HUMIDITY
+ PHYSICAL WORK = HEAT ILLNESS

When the body is unable to cool itself through sweating, **serious** heat illnesses may occur. The most severe heat-induced illnesses are heat exhaustion and heat stroke. If left untreated, **heat exhaustion** could progress to **heat stroke** and possible **death**.



U.S. Department of Labor
Occupational Safety and Health Administration
OSHA 3154
2002

Heat Exhaustion

What are the symptoms?

HEADACHES; DIZZINESS OR LIGHTHEADEDNESS; WEAKNESS; MOOD CHANGES SUCH AS IRRITABILITY, CONFUSION, OR THE INABILITY TO THINK STRAIGHT; UPSET STOMACH; VOMITING; DECREASED OR DARK-COLORED URINE; FAINTING OR PASSING OUT; AND PALE, CLAMMY SKIN

What should you do?

- Act immediately. If not treated, heat exhaustion may advance to heat stroke or death.
- Move the victim to a cool, shaded area to rest. Don't leave the person alone. If symptoms include dizziness or lightheadedness, lay the victim on his or her back and raise the legs 6 to 8 inches. If symptoms include nausea or upset stomach, lay the victim on his or her side.
- Loosen and remove any heavy clothing.
- Have the person drink cool water (about a cup every 15 minutes) unless sick to the stomach.
- Cool the person's body by fanning and spraying with a cool mist of water or applying a wet cloth to the person's skin.
- Call 911 for emergency help if the person does not feel better in a few minutes.

Heat Stroke–A Medical Emergency

What are the symptoms?

DRY, PALE SKIN WITH NO SWEATING; HOT, RED SKIN THAT LOOKS SUNBURNED; MOOD CHANGES SUCH AS IRRITABILITY, CONFUSION, OR THE INABILITY TO THINK STRAIGHT; SEIZURES OR FITS; AND UNCONCIOUSNESS WITH NO RESPONSE

What should you do?

- Call 911 for emergency help immediately.
- Move the victim to a cool, shaded area. Don't leave the person alone. Lay the victim on his or her back. Move any nearby objects away from the person if symptoms include seizures or fits. If symptoms include nausea or upset stomach, lay the victim on his or her side.
- Loosen and remove any heavy clothing.
- Have the person drink cool water (about a cup every 15 minutes) if alert enough to drink something, unless sick to the stomach.
- Cool the person's body by fanning and spraying with a cool mist of water or wiping the victim with a wet cloth or covering him or her with a wet sheet.
- Place ice packs under the armpits and groin area.

How can you protect yourself and your coworkers?

- Learn the signs and symptoms of heat-induced illnesses and how to respond.
- Train your workforce about heat-induced illnesses.
- Perform the heaviest work during the coolest part of the day.
- Build up tolerance to the heat and the work activity slowly. This usually takes about 2 weeks.
- Use the buddy system, with people working in pairs.
- Drink plenty of cool water, about a cup every 15 to 20 minutes.
- Wear light, loose-fitting, breathable clothing, such as cotton.
- Take frequent, short breaks in cool, shaded areas to allow the body to cool down.
- Avoid eating large meals before working in hot environments.
- Avoid alcohol or beverages with caffeine. These make the body lose water and increase the risk for heat illnesses.

What factors put you at increased risk?

- Taking certain medications. Check with your health-care provider or pharmacist to see if any medicines you are taking affect you when working in hot environments.
- Having a previous heat-induced illness.
- Wearing personal protective equipment such as a respirator or protective suit.

Surviving the Cold Weather

Prolonged exposure to low temperatures, wind and/or moisture can result in cold-related injury from frostbite and hypothermia. Here are some suggestions on how to keep warm and avoid frostbite and hypothermia.

Dress properly

Wear several layers of loose-fitting clothing to insulate your body by trapping warm, dry air inside. Loosely woven cotton and wool clothes best trap air and resist dampness.

The head and neck lose heat faster than any other part of the body. Your cheeks, ears and nose are the most prone to frostbite. Wear a hat, scarf and turtleneck sweater to protect these areas.

Frostbite: What to look for

The extent of frostbite is difficult to judge until hours after thawing. There are two classifications of frostbite:

- Superficial frostbite is characterized by white, waxy or grayish-yellow patches on the affected areas. The skin feels cold and numb. The skin surface feels stiff and underlying tissue feels soft when depressed.
- Deep frostbite is characterized by waxy and pale skin. The affected parts feel cold, hard, and solid and cannot be depressed. Large blisters may appear after rewarming.

What to do

1. Get the victim out of the cold and to a warm place immediately.
2. Remove any constrictive clothing items that could impair circulation.
3. If you notice signs of frostbite, seek medical attention immediately.
4. Place dry, sterile gauze between toes and fingers to absorb moisture and to keep them from sticking together.
5. Slightly elevate the affected part to reduce pain and swelling.
6. If you are more than one hour from a medical facility and you have warm water, place the frostbitten part in the water (102 to 106 degrees Fahrenheit). If you do not have a thermometer, test the water first to see if it is warm, not hot. Rewarming usually takes 20 to 40 minutes or until tissues soften.

What not to do

1. Do not use water hotter than 106 degrees Fahrenheit.
2. Do not use water colder than 100 degrees Fahrenheit since it will not thaw frostbite quickly enough.
3. Do not rub or massage the frostbite area.
4. Do not rub with ice or snow.

Hypothermia

Hypothermia occurs when the body loses more heat than it produces. Symptoms include change in mental status, uncontrollable shivering, cool abdomen and a low core body temperature.

Severe hypothermia may cause rigid muscles, dark and puffy skin, irregular heartbeat and respiration, and unconsciousness.
Treat hypothermia by protecting the victim from further heat loss and seeking immediate medical attention. Get the victim out of the cold. Add insulation such as blankets, pillows, towels or newspapers beneath and around the victim. Be sure to cover the victim's head. Replace wet clothing with dry clothing. Handle the victim gently because rough handling can cause cardiac arrest. Keep the victim in a horizontal (flat) position.
Finally, the best way to avoid frostbite and hypothermia is to stay out of the cold. Read a book, clean house or watch TV. Be patient and wait out the dangerous cold weather.

How to Prevent Frostbite and Hypothermia

Prolonged exposure to low temperatures, wind or moisture - whether it be on a ski slope or in a stranded car - can result in cold-related illnesses such as frostbite and hypothermia. The National Safety Council offers these tips to help you spot and put a halt to these winter hazards.

How to detect and treat cold-related illnesses

Frostbite is the most common injury resulting from exposure to severe cold. Superficial frostbite is characterized by white, waxy, or grayish-yellow patches on the affected areas. The skin feels cold and numb. The skin surface feels stiff but underlying tissue feels soft and pliable when depressed. Treat superficial frostbite by taking the victim inside immediately. Remove any constrictive clothing items that could impair circulation. If you notice signs of frostbite, immediately seek medical attention. Place dry, sterile gauze between toes and fingers to absorb moisture and to keep them from sticking together. Slightly elevate the affected part to reduce pain and swelling. If you are more than one hour from a medical facility and you have warm water, place the frostbitten part in the water (102 to 106 degrees Fahrenheit). If you do not have a thermometer, test the water first to see if it is warm, not hot. Rewarming usually takes 20 to 40 minutes or until tissues soften.

Deep frostbite usually affects the feet or hands and is characterized by waxy, pale, solid skin. Blisters may appear. Treat deep frostbite by moving the victim indoors and immediately seek medical attention.

Hypothermia occurs when the body's temperature drops below 95 degrees Fahrenheit. Symptoms of this condition include change in mental status, uncontrollable shivering, cool abdomen and a low core body temperature. Severe hypothermia may produce rigid muscles, dark and puffy skin, irregular heart and respiratory rates, and unconsciousness.

Treat hypothermia by protecting the victim from further heat loss and calling for immediate medical attention. Get the victim out of the cold. Add insulation such as blankets, pillows, towels or newspapers beneath and around the victim. Be sure to cover the victim's head. Replace wet clothing with dry clothing. Handle the victim gently because rough handling can cause cardiac arrest. Keep the victim in a horizontal (flat) position. Give artificial respiration or CPR (if you are trained) as necessary.

How to prevent cold-related illnesses

Avoid frostbite and hypothermia when you are exposed to cold temperatures by wearing layered clothing, eating a well-balanced diet, and drinking warm, non-alcoholic, caffeine-free liquids to maintain fluid levels.
Avoid becoming wet, as wet clothing loses 90 percent of its insulating value.

12/22/1998 - Protecting Workers in Cold Environments

Fact Sheets (Program Highlights) - Table of Contents

U.S. Department of Labor
Occupational Safety and Health Administration

Fact Sheet No. OSHA 98-55

Protecting Workers in Cold Environments

December 1998

As the weather becomes "frightful" during winter months, workers who must brave the outdoor conditions face the occupational hazard of exposure to the cold. Prolonged exposure to freezing temperatures can result in health problems as serious as trench foot, frostbite, and hypothermia. Workers in such industries as construction, commercial fishing and agriculture need to be especially mindful of the weather, its effects on the body, proper prevention techniques, and treatment of cold-related disorders.

The Cold Environment

An individual gains body heat from food and muscular activity and loses it through convection, conduction, radiation and sweating to maintain a constant body temperature. When body temperature drops even a few degrees below its normal temperature of 98.6°F (37°C), the blood vessels constrict, decreasing peripheral blood flow to reduce heat loss from the surface of the skin. Shivering generates heat by increasing the body's metabolic rate.

The four environmental conditions that cause cold-related stress are low temperatures, high/cool winds, dampness and cold water. Wind chill, a combination of temperature and velocity, is a crucial factor to evaluate when working outside. For example, when the actual air temperature of the wind is 40°F (4°C) and its velocity is 35 mph, the exposed skin receives conditions equivalent to the still-air temperature being 11°F (-11°C)! A dangerous situation of rapid heat loss may arise for any individual exposed to high winds and cold temperatures.

Major Risk Factors for Cold-Related Stresses

- Wearing inadequate or wet clothing increases the effects of cold on the body.
- Taking certain drugs or medications such as alcohol, nicotine, caffeine, and medication that inhibits the body's response to the cold or impairs judgment.
- Having a cold or certain diseases, such as diabetes, heart, vascular, and thyroid problems, may make a person more susceptible to the winter elements.

- Being a male increases a person's risk to cold-related stresses. Sad, but true, men experience far greater death rates due to cold exposure than women, perhaps due to inherent risk-taking activities, body-fat composition or other physiological differences.
- Becoming exhausted or immobilized, especially due to injury or entrapment, may speed up the effects of cold weather.
- Aging -- the elderly are more vulnerable to the effects of harsh winter weather.

Harmful Effects of Cold

Trench Foot is caused by long, continuous exposure to a wet, cold environment, or actual immersion in water. Commercial fisherman, who experience these types of cold, wet environments daily, need to be especially cautious.

Symptoms:

Symptoms include a tingling and/or itching sensation, burning, pain, and swelling, sometimes forming blisters in more extreme cases.

Treatment:

Move individuals with trench foot to a warm, dry area, where the affected tissue can be treated with careful washing and drying, rewarming and slight elevation. Seek medical assistance as soon as possible.

Frostbite occurs when the skin tissue actually freezes, causing ice crystals to form between cells and draw water from them, which leads to cellular dehydration. Although this typically occurs at temperatures below 30°F (-1°C), wind chill effects can cause frostbite at above-freezing temperatures.

Symptoms:

Initial effects of frostbite include uncomfortable sensations of coldness; tingling, stinging or aching feeling of the exposed area followed by numbness. Ears, fingers, toes, cheeks, and noses are primarily affected. Frostbitten areas appear white and cold to the touch. The appearance of frostbite varies depending on whether rewarming has occurred.

Deeper frostbite involves freezing of deeper tissues (muscles, tendons, etc.) causing exposed areas to become numb, painless, hard to the touch.

Treatment:

If you suspect frostbite, you should seek medical assistance immediately. Any existing hypothermia should be treated first (See **Hypothermia** below). Frostbitten parts should be covered with dry, sterile gauze or soft, clean cloth bandages. Do not massage frostbitten tissue because this sometimes causes greater injury. Severe cases may require hospitalization and even amputation of affected tissue. Take measures to prevent further cold injury. If formal medical treatment will be delayed, consult with a licensed health care professional for training on rewarming techniques.

General Hypothermia occurs when body temperature falls to a level where normal muscular and cerebral functions are impaired. While hypothermia is generally associated with freezing temperatures, it may occur in any climate where a person's body temperature falls below normal. For instance, hypothermia is common among the elderly who live in cold houses.

Symptoms:

The first symptoms of hypothermia, shivering, an inability to do complex motor functions, lethargy, and mild confusion, occur as the core body temperature

decreases to around 95°F (35°C).
As body temperature continue to fall, hypothermia becomes more severe. The individual falls into a state of dazed consciousness, failing to complete even simple motor functions. The victim's speech becomes slurred and his or her behavior may become irrational.
The most severe state of hypothermia occurs when body temperature falls below 90°F (32°C). As a result, the body moves into a state of hibernation, slowing the heart rate, blood flow, and breathing. Unconsciousness and full heart failure can occur in the severely hypothermic state.

Treatment:

Treatment of hypothermia involves conserving the victim's remaining body heat and providing additional heat sources. Specific measures will vary depending upon the severity and setting (field or hospital). Handle hypothermic people very carefully because of the increased irritability of the cold heart. Seek medical assistance for persons suspected of being moderately or severely hypothermic.
If the person is unresponsive and not shivering, assume he or she is suffering from severe hypothermia. Reduction of heat loss can be accomplished by various means: obtaining shelter, removal of wet clothing, adding layers of dry clothing, blankets, or using a pre-warmed sleeping bag.
For mildly hypothermic cases or those more severe cases where medical treatment will be significantly delayed, external rewarming techniques may be applied. This includes body-to-body contact (e.g., placing the person in a prewarmed sleeping bag with a person of normal body temperature), chemical heat packs, or insulated hot water bottles. Good areas to place these packs are the armpits, neck, chest, and groin. It is best to have the person lying down when applying external rewarming.
You also may give mildly hypothermic people warm fluids orally, but avoid beverages containing alcohol or caffeine.

Preventing Cold-Related Disorders

Personal Protective Clothing is perhaps the most important step in fighting the elements is providing adequate layers of insulation from them. Wear at least three layers of clothing:
-- An outer layer to break the wind and allow some ventilation (like Gore-Tex® or nylon);
-- A middle layer of wool or synthetic fabric (Qualofil or Pile) to absorb sweat and retain insulation in a damp environment. Down is a useful lightweight insulator; however, it is ineffective once it becomes wet.
-- An inner layer of cotton or synthetic weave to allow ventilation.
Pay special attention to protecting feet, hands, face and head. Up to 40 percent of body heat can be lost when the head is exposed. Footgear should be insulated to protect against cold and dampness. Keep a change of clothing available in case work garments become wet.
Engineering Controls in the workplace through a variety of practices help reduce the risk of cold-related injuries.

- Use an on-site source of heat, such as air jets, radiant heaters, or contact warm plates.
- Shield work areas from drafty or windy conditions.

- Provide a heated shelter for employees who experience prolonged exposure to equivalent wind-chill temperatures of 20°F (-6°C) or less.
- Use thermal insulating material on equipment handles when temperatures drop below 30°F (-1°C).

Safe Work Practices, such as changes in work schedules and practices, are necessary to combat the effects of exceedingly cold weather.

- Allow a period of adjustment to the cold before embarking on a full work schedule.
- Always permit employees to set their own pace and take extra work breaks when needed.
- Reduce, as much as possible, the number of activities performed outdoors. When employees must brave the cold, select the warmest hours of the day and minimize activities that reduce circulation.
- Ensure that employees remain hydrated.
- Establish a buddy system for working outdoors.
- Educate employees to the symptoms of cold-related stresses -- heavy shivering, uncomfortable coldness, severe fatigue, drowsiness, or euphoria.

The quiet symptoms of potentially deadly cold-related ailments often go undetected until the victim's health is endangered. Knowing the facts on cold exposure and following a few simple guidelines can ensure that this season is a safe and healthy one.

ATTACHMENT E

NYSDOH GENERIC COMMUNITY AIR MONITORING PLAN

New York State Department of Health
Generic Community Air Monitoring Plan

A Community Air Monitoring Plan (CAMP) requires real-time monitoring for volatile organic compounds (VOCs) and particulates (i.e., dust) at the downwind perimeter of each designated work area when certain activities are in progress at contaminated sites. The CAMP is not intended for use in establishing action levels for worker respiratory protection. Rather, its intent is to provide a measure of protection for the downwind community (i.e., off-site receptors including residences and businesses and on-site workers not directly involved with the subject work activities) from potential airborne contaminant releases as a direct result of investigative and remedial work activities. The action levels specified herein require increased monitoring, corrective actions to abate emissions, and/or work shutdown. Additionally, the CAMP helps to confirm that work activities did not spread contamination off-site through the air.

The generic CAMP presented below will be sufficient to cover many, if not most, sites. Specific requirements should be reviewed for each situation in consultation with NYSDOH to ensure proper applicability. In some cases, a separate site-specific CAMP or supplement may be required. Depending upon the nature of contamination, chemical- specific monitoring with appropriately-sensitive methods may be required. Depending upon the proximity of potentially exposed individuals, more stringent monitoring or response levels than those presented below may be required. Special requirements will be necessary for work within 20 feet of potentially exposed individuals or structures and for indoor work with co-located residences or facilities. These requirements should be determined in consultation with NYSDOH.

Reliance on the CAMP should not preclude simple, common-sense measures to keep VOCs, dust, and odors at a minimum around the work areas.

Community Air Monitoring Plan

Depending upon the nature of known or potential contaminants at each site, real-time air monitoring for volatile organic compounds (VOCs) and/or particulate levels at the perimeter of the exclusion zone or work area will be necessary. Most sites will involve VOC and particulate monitoring; sites known to be contaminated with heavy metals alone may only require particulate monitoring. If radiological contamination is a concern, additional monitoring requirements may be necessary per consultation with appropriate NYSDEC/NYSDOH staff.

Continuous monitoring will be required for all ground intrusive activities and during the demolition of contaminated or potentially contaminated structures. Ground intrusive activities include, but are not limited to, soil/waste excavation and handling, test pitting or trenching, and the installation of soil borings or monitoring wells.

Periodic monitoring for VOCs will be required during non-intrusive activities such as the collection of soil and sediment samples or the collection of groundwater samples from existing monitoring wells. "Periodic" monitoring during sample collection might reasonably consist of taking a reading upon arrival at a sample location, monitoring while opening a well cap or overturning soil, monitoring during well baling/purging, and taking a reading prior to leaving a sample location. In some instances, depending upon the proximity of potentially exposed individuals, continuous monitoring may be required during sampling activities. Examples of such situations include groundwater sampling at wells on the curb of a busy urban street, in the midst of a public park, or adjacent to a school or residence.

VOC Monitoring, Response Levels, and Actions

Volatile organic compounds (VOCs) must be monitored at the downwind perimeter of the immediate work area (i.e., the exclusion zone) on a **continuous** basis or as otherwise specified. Upwind concentrations should be measured at the start of each workday and periodically

thereafter to establish background conditions. The monitoring work should be performed using equipment appropriate to measure the types of contaminants known or suspected to be present. The equipment should be calibrated at least daily for the contaminant(s) of concern or for an appropriate surrogate. The equipment should be capable of calculating 15-minute running average concentrations, which will be compared to the levels specified below.

- If the ambient air concentration of total organic vapors at the downwind perimeter of the work area or exclusion zone exceeds 5 parts per million (ppm) above background for the 15-minute average, work activities must be temporarily halted and monitoring continued. If the total organic vapor level readily decreases (per instantaneous readings) below 5 ppm over background, work activities can resume with continued monitoring.

- If total organic vapor levels at the downwind perimeter of the work area or exclusion zone persist at levels in excess of 5 ppm over background but less than 25 ppm, work activities must be halted, the source of vapors identified, corrective actions taken to abate emissions, and monitoring continued. After these steps, work activities can resume provided that the total organic vapor level 200 feet downwind of the exclusion zone or half the distance to the nearest potential receptor or residential/commercial structure, whichever is less - but in no case less than 20 feet, is below 5 ppm over background for the 15-minute average.

- If the organic vapor level is above 25 ppm at the perimeter of the work area, activities must be shutdown.

All 15-minute readings must be recorded and be available for State (DEC and DOH) personnel to review. Instantaneous readings, if any, used for decision purposes should also be recorded.

Particulate Monitoring, Response Levels, and Actions

Particulate concentrations should be monitored **continuously** at the upwind and downwind perimeters of the exclusion zone at temporary particulate monitoring stations. The particulate monitoring should be performed using real-time monitoring equipment capable of measuring particulate matter less than 10 micrometers in size (PM-10) and capable of integrating over a period of 15 minutes (or less) for comparison to the airborne particulate action level. The equipment must be equipped with an audible alarm to indicate exceedance of the action level. In addition, fugitive dust migration should be visually assessed during all work activities.

- If the downwind PM-10 particulate level is 100 micrograms per cubic meter (mcg/m3) greater than background (upwind perimeter) for the 15-minute period or if airborne dust is observed leaving the work area, then dust suppression techniques must be employed. Work may continue with dust suppression techniques provided that downwind PM-10 particulate levels do not exceed 150 mcg/m3 above the upwind level and provided that no visible dust is migrating from the work area.

- If, after implementation of dust suppression techniques, downwind PM-10 particulate levels are greater than 150 mcg/m3 above the upwind level, work must be stopped and a re-evaluation of activities initiated. Work can resume provided that dust suppression measures and other controls are successful in reducing the downwind PM-10 particulate concentration to within 150 mcg/m3 of the upwind level and in preventing visible dust migration.

All readings must be recorded and be available for State (DEC and DOH) personnel to review.

ATTACHMENT 3

PROJECT BUDGET AND SUBCONTRACTOR QUOTES

RI/AA Former Electruk Site
IRM Program

Budget Estimate

Labor

Level		Average Direct Labor Rate	IRM Program			Final RI/AA		Project Totals	
			Hrs	Amount	Amount	Hrs	Amount	Hrs	Amount
Principal		55.00		$ -	$ -		$ -	0	$ -
Project Manager		38.00	4	$ 152.00	$ -	4	$ 152.00	8	$ 304.00
Senior Scientist/Engineer		37.00		$ -	$ -		$ -	0	$ -
Project Scientist / Engineer		26.00	24	$ 624.00	$ -	8	$ 208.00	32	$ 832.00
Scientist / Engineer		23.00		$ -	$ -	1	$ 23.00	1	$ 23.00
CADD Technician		19.00		$ -	$ -	2	$ 38.00	2	$ 38.00
Technical Typist		17.00		$ -	$ -	1	$ 17.00	1	$ 17.00
Labor Total			28	$ 776.00	$ -	16	$ 438.00	44	$ 1,214.00

Expenses

Desc.	Unit	Rate	Unit	Amount	Amount	Unit	Amount	Unit	Amount
Mileage	$/mi	0.585	80	$ 46.80	$ -		$ -	80	$ 46.80
Portable Telephone	$/day	10.00	1	$ 10.00	$ -		$ -	1	$ 10.00
Expenses Subtotal				$ 56.80	$ -		$ -		$ 56.80

Equipment and Supplies

Desc.	Unit	Rate	Unit	Amount	Amount	Unit	Amount	Unit	Amount
Copies	$/pg.	0.2	100	$ 20.00	$ -	100	$ 20.00	200	$ 40.00
Protective Gloves	$/box	15.00	1	$ 15.00	$ -		$ -	1	$ 15.00
Misc. Sampling Supplies	$/event	50.00	1	$ 50.00	$ -		$ -	1	$ 50.00
Equipment and Supplies Subtotal				$ 85.00	$ -		$ 20.00		$ 105.00

IRM Subcontractor Cost

Desc.	Unit	Rate	Unit	Amount	Amount	Unit	Amount	Unit	Amount
Labor and Equipment	lump sum	2400.00	1	$ 2,400.00	$ -		$ -	1	$ 2,400.00
Disposal Non-Haz Liquids	$/gallon	0.65	690	$ 448.50	$ -		$ -	690	$ 448.50
Disposal Non-Haz Solids	$/gallon	3.50	205	$ 717.50	$ -		$ -	205	$ 717.50
Vacuum Truck Washout	$/each	135.00	1	$ 135.00			$ -	1	$ 135.00
Hazardous Material Disposal	$/drum	232.00	1	$ 232.00			$ -	1	$ 232.00
Drum for Haz Material	$/drum	49.00	1	$ 49.00			$ -	1	$ 49.00
Labor for Backfilling	lump sum	2700.00	1	$ 2,700.00			$ -	1	$ 2,700.00
100 psi Flowable Fill	lump sum	46.00	15	$ 690.00			$ -	15	$ 690.00
NYS Taxes	$/total	8.50%	1	$ 338.47			$ -	1	$ 338.47
IRM Subcontractor Subtotal				$ 7,710	$ -		$ -		$ 7,710.47

Project Totals

Level			0	Project Totals	
Description	IRM Program		Final RI/AA		
LABOR	Amount	Amount	Amount		Amount
Labor Total	$ 776.00	$ -	$ 438.00	0	$ 1,214.00

Total Direct Labor	$ 1,214.00
Indirect Labor (1.65%)	$ 2,003.00
Fixed Fee (7.5%)	$ 241.00
	$ 3,458.00

DIRECT COSTS				
Expenses	$ 56.80	$ -	$ -	0	$ 56.80
Equipment	$ 85.00	$ -	$ 20.00	0	$ 105.00
IRM Subcontractor	$ 7,710.47	$ -	$ -	0	$ 7,710.47
Direct Costs Total	$ 7,852.27	$ -	$ 20.00		$ 7,872.27
COST/TASK (labor and direct)	$ 10,062.90	$ -	$ 1,267.75	**PROJECT TOTAL**	
				$	**11,330.00**

Notes and Assumptions:

1) 12 hour work days
2) Two days to complete the IRM fieldwork.
3) 80 miles round trip.

ENVIRONMENTAL PRODUCTS & SERVICES OF VERMONT, INC

2775 Broadway Street, Suite 250
Buffalo, NY 14227

PHONE: (716) 597-0001
FAX: (716) 597-0505
1-866-597-0001

WORK QUOTATION / AUTHORIZATION

FIRM	TVGA Consultants	CONTACT	James C. Manzella, CHMM
	1000 Maple Rd.		Phone (716) 655-8842
	Elma, New York 14059		Fax (716) 655-0937
DATE	August, 7 2008		

Scope of work: 1) Vacuum and pressure wash material from trenches #1 and #3 as discussed in 8/5/08 walk through and bulk load in vac truck to our Syracuse facility for disposal as Non Hazardous. 2) Vacuum and pressure wash material from trench #2 as discussed in 8/5/08 walk through utilizing an electric drum vac and DOT drums to dispose of as Hazardous waste.

Labor & equipment	**$ 2400.00**	
Disposal of Non Hazardous material Bulked		
Liquids per gallon	**$ .65 per gal.**	448.5
Solids per gallon	**$ 3.50 per gal.**	717.5
Truck wash out	**$ 135.00 per wash**	135.00
Disposal of Hazardous material	**$ 232.00 per drum**	232.
D.O.T. 17H 55 gallon drum	**$ 49.00 per drum**	49
		3582
		3390
		6972
		592
		7564.62

Assumptions

- This quote does not include NYS tax
- All waste must meet disposal facility criteria.
- EPSVT estimates the bulk load to be 600 gallons, anything over that amount will be billed accordingly
- EPSVT estimates (1) drum of hazardous material, anything over that amount will be billed accordingly

JOB COST: [ ] TIME & MATERIAL [X] QUOTED $ SEE ABOVE

All work will conform to all local, state, and federal regulations. If this job is quoted, any disposal or other work beyond the scope of work described above, unless agreed in writing, will be billed at the current Time and Material rates. All customer containerized waste must meet US DOT "UN" packaging standards if it is a hazardous DOT material. If the packaging does not meet these standards, Environmental Products & Services of Vermont, Inc. will overpack the containers and all associated costs incurred will be charged to the customer at Environmental Products & Services of Vermont, Inc. standard Time and Material Rates. This quotation is valid for 30 days from the above date and subject to verification thereafter. Sales tax, if applicable, is a separate item. Standard payment terms are cash in advance, Visa/MasterCard, or phased billing with credit approval on net 10 days. Service charges may be imposed at 1.5 percent per month on all balances over thirty days. Customer will be responsible for all costs of collection, including, but not limited to, reasonable attorney's fees, court costs, and collection service fees.

Customer agrees to indemnify, exonerate, and hold Environmental Products & Services of Vermont, Inc. harmless against loss, damage, or expense, by reasons of suits, claims, demands, judgments, and causes of action for personal injury, death or property damage rising out of or in any way in consequence of the performance of all work undertaken by Environmental Products & Services of Vermont, Inc. except that in no instance shall the customer be held responsible for any liability claim demand or cause of action attributable solely to the gross negligence of Environmental Products & Services of Vermont, Inc.

I agree to accept the labor, materials, and equipment utilization as reported on the Environmental Products & Services of Vermont, Inc. Daily Job Reports. **If I wish to have them reviewed, I will have a representative on site at the completion of work each day to review and sign the Daily Job Reports.** The Daily Job Report is not applicable for product only sales.

Toby Thomas
Toby Thomas - EPS of Vermont, Inc. Representative

If you accept this proposal and terms set forth on both sides of the form, please sign below and return this original copy for our files.

By: _____ Title: _____ Date: _____

Job Number: _____ Customer Purchase Order Number: _____

ENVIRONMENTAL PRODUCTS & SERVICES OF VERMONT INC

2775 Broadway Street, Suite 250
Buffalo, NY 14227

PHONE: (716) 597-0001
FAX: (716) 597-0505
1-888-597-0001

WORK QUOTATION / AUTHORIZATION

FIRM	TVGA Consultants	CONTACT	James C. Manzella, CHMM
	1000 Maple Rd.		Phone (716) 655-8842
	Elma, New York 14059		Fax (716) 655-0937
DATE	November 12, 2008		

Environmental Products & Services of Vermont, Inc. will furnish all labor, equipment, supervision, and materials, unless otherwise specified, to perform the following scope of work.

Scope of work

Backfill to grade approximately 140 linear feet of floor trench with 100psi flow able fill

Labor and transportation.....**$ 2700.00**
(This price is based on 15 yards of flow able fill and a concrete pump truck at a 4 hour minimum, any additional cost will be billed at T&M Rates)

100 psi Flow able fill (approximately 15 yards @ $46.00 per yard).....**$ 690.00**

Estimate Total based on 15 yards of flow able fill.....$ 3390.00

The above quote is based on the following assumptions:

- Easy access to the work area
- Applicable NYS Sales Tax will be added to final invoice
- EPSVT will not be held responsible for any settling of the flow able fill
- Trench will be trowel to a smooth finish only

JOB COST: [ ] TIME & MATERIAL [x] QUOTED $ SEE ABOVE

All work will conform to all local, state, and federal regulations. If this job is quoted, any disposal or other work beyond the scope of work described above, unless agreed in writing, will be billed at the current Time and Material rates. All customer containerized waste must meet US DOT "UN" packaging standards if it is a hazardous DOT material. If the packaging does not meet these standards, Environmental Products & Services of Vermont, Inc. will overpack the containers and all associated costs incurred will be charged to the customer at Environmental Products & Services of Vermont, Inc. standard Time and Material Rates. This quotation is valid for 30 days from the above date and subject to verification thereafter. Sales tax, if applicable, is a separate item. Standard payment terms are cash in advance, Visa/MasterCard, or phased billing with credit approval on net 10 days. Service charges may be imposed at 1.5 percent per month on all balances over thirty days. Customer will be responsible for all costs of collection, including, but not limited to, reasonable attorney's fees, court costs, and collection service fees.

Customer agrees to indemnify, exonerate, and hold Environmental Products & Services of Vermont, Inc. harmless against loss, damage, or expense, by reasons of suits, claims, demands, judgments, and causes of action for personal injury, death or property damage rising out of or in any way in consequence of the performance of all work undertaken by Environmental Products & Services of Vermont, Inc. except that in no instance shall the customer be held responsible for any liability claim demand or cause of action attributable solely to the gross negligence of Environmental Products & Services of Vermont, Inc.

I agree to accept the labor, materials, and equipment utilization as reported on the Environmental Products & Services of Vermont, Inc. Daily Job Reports. **If I wish to have them reviewed, I will have a representative on site at the completion of work each day to review and sign the Daily Job Reports.** The Daily Job Report is not applicable for product only sales.

Johny Thomas
Environmental Products & Services of Vermont, Inc. Representative

If you accept this proposal and terms set forth on both sides of the form, please sign below and return this original copy for our files.

By: _____ Title: _____ Date: _____

Job Number: _____ Customer Purchase Order Number: _____

CONNECTICUT • MAINE • MASSACHUSETTS • NEW HAMPSHIRE • NEW YORK • RHODE ISLAND • VERMONT

THE ENVIRONMENTAL SERVICE GROUP (NY), INC.
177 Wales Ave
Tonawanda, NY 14150

Phone # (716) 695-6720 Fax # (716) 695-0161

Estimate

Date	Estimate #
11/14/2008	Q08090-1

Name / Address	Project
TVGA Consultants Mr. James Manzella One Thousand Maple Road Elma, New York 14059-9530	Q08090-TVGA-Electruk Battery Q08090 Electruck Battery Site Lockport, NY Niagara

Terms	Due Date	Rep	Location
Net 30	9/17/2008	MF	

Qty	Description	Rate	Units	Total
	The Environmental Service Group (NY), Inc. will provide all Labor, Equipment and Materials to safely complete the Cleaning of (3) Trenches and (2) sump pits located at the Electruk Battery Site in Lockport, New York. In addition, all Material removed from the trenches will be Transported for Disposal.			
1	Scope of Work: - Mobilization to site - Setup and clean (3) trenches and (2) sump pits utilizing scrapers and drum head vac. - Contain and collect all material into 55 gallon drums. - Pressure wash trenches and pits and collect all rinse water generated into drums for disposal. - Provide splash guards to contain overspray into trenches. - Fill trenches and Pits with flowable fill. - Cleanup and Demobilize from site. - Provide final waste disposal manifest.	4,650.00	Lump Sum	4,650.00T
12	Transportation and Disposal of Non-Haz waste 55 Gallon Drums	160.00	Per Unit	1,920.00T
1	One time Stop Off Charge for Drum Disposal	80.00	Lump Sum	80.00
	Qualifications and Exclusions: - Quantities are only estimated actual quantities used will be billed at unit prices listed.			

CUSTOMER ACCEPTANCE SUBJECT TO ATTACHED ESG TERMS AND CONDITIONS.

PLEASE RETURN VIA FAX.

Subtotal	$6,650.00
Sales Tax (8.0%)	$525.60
Total	$7,175.60

SIGNATURE: DATE:

OP-TECH®

256 Sawyer Ave.
Tonawanda, NY 14150
Phone: 716.873.7680
Fax: 716.873.7807
www.op-tech.us
Stock Symbol: OTES.OB

November 13, 2008

James C. Manzella, CHMM
Project Scientist
TVGA Consultants
1000 Maple Road
Elma, New York 14059

RE: ***REVISED***
QUOTATION FOR REMEDIATION SERVICES
FORMER ELECTRUK BATTERY SITE - LOCKPORT, NEW YORK

Dear James:

Op-Tech Environmental Services, Inc. (Op-Tech) is pleased to provide the following quotation to perform remediation services at the Former Electruk Battery Site in Lockport, New York. Op-Tech will provide the labor, equipment, and materials to perform the following Scope of Work:

Scope of Work

1. Collect one (1) composite sample of the sediment and have analyzed for TCLP Metals, TCLP Volatiles, and TCLP Semi-Volatiles.
2. Profile the waste as hazardous sludge based on the new analytical results, the existing analytical results and generator knowledge.
3. Pump the existing non contaminated water from Trench 1 and discharge onsite in a location designated by TVGA.
4. Utilize an industrial vacuum truck to remove the liquids and sediment from Trench 1, Trench 2 and Trench 3.
5. Pressure-wash each trench and vacuum out the rinsate.
6. Off-load the contents of the vacuum truck into 55 gallon drums.
7. Transport and dispose of the drums as hazardous sludge.
8. Fill three (3) trenches to grade with 100 psi flowable fill. The flowable fill will be placed utilizing a concrete pump.

Planning Assumptions

1. Op-Tech will have free and unrestricted access to the work site.
2. Op-Tech will have access to water onsite.

3. The quotation assumes that the analytical results and corresponding chains of custody utilized to create the charts are available for utilization to profile the waste.
4. The quotation assumes that the owner will provide an EPA ID number for waste shipment.
5. The quantity of drums to be generated is assumed to be 15 based on the calculations provide. This includes 150 gallons (three drums) of rinsate.
6. The quotation is based on proving 14 cubic yards of flowable fill to fill the trenches.
7. Applicable taxes are a separate line item.

Unit Cost

Provide Labor, Equipment, and Materials to Clean the Trenches	$1,840.00 lump sum
Provide Labor, Equipment, and Materials to Fill the Trenches	$2,350.00 lump sum
Transportation and Disposal, Hazardous Sludge	$ 300.00 per drum

Thank you for the opportunity to provide this quotation for your review and consideration. Please contact me at (716) 873-7680 should you have questions or require additional information.

Sincerely,

OP-TECH ENVIRONMENTAL SERVICES, INC.

Linda J. Grimmer
Buffalo Branch Manager

/ljg
F08-089

_____ *If this line is checked it indicates that your company requires to be named as Additional Insured on OP-TECH's General Liability insurance policy. Your signature below will serve to validate this requirement.*

AUTHORIZATION

If the Proposal is understood and accepted, please sign both copies and return one to OP-TECH. By accepting the Client authorizes OP-TECH to commence services described in this proposal as defined

herein and grants access, at reasonable times, to the described property. This proposal is valid for a period of thirty (30) days.

Name (print) _____ *Signature* _____

Title _____ *Date* _____