# Stuart Park Complex – Ultralife Battery VILLAGE OF NEWARK, WAYNE COUNTY, NEW YORK

# **Final Engineering Report**

**NYSDEC Site Number: V00178-8** 

## Prepared for:

Ultralife Corporation 2000 Technology Parkway Newark, New York

## Prepared by:

LaBella Associates, P.C. 300 State Street, Suite 201 Rochester, New York (585)454-6110

**JUNE 2011** 

## **CERTIFICATIONS**

"I DANTEL NOLL certify that I am currently a NYS registered professional engineer, I had primary direct responsibility for the implementation of the subject construction program, and I certify that the Remedial Action Work Plan was implemented and that all construction activities were completed in substantial conformance with the DER-approved Remedial Action Work Plan.
"The data submitted to DER demonstrates that the remediation requirements set forth in the Remedial Action Work Plan and all applicable statutes and regulations have been or will be achieved in accordance with the time frames, if any, established in the work plan.
"All use restrictions, institutional controls, engineering controls and/or any operation and maintenance requirements applicable to the site are contained in a declaration of covenants and restrictions created and filed with the clerk of the County in which the site is located.
"A Site Management Plan has been submitted for the continual and proper operation, maintenance, and monitoring of any engineering controls employed at the site including the proper maintenance of any remaining monitoring wells, and that such plan has been approved by DER."

081996

NYS Professional Engineer #

6/20/2011

Date

Signature

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# FINAL ENGINEERING REPORT

#### 1.0 BACKGROUND AND SITE DESCRIPTION

Ultralife Corporation entered into a Voluntary Cleanup Agreement (VCA) with the New York State Department of Environmental Conservation (NYSDEC) on January 8, 2001 to investigate and remediate an approximately 14-acre portion of a larger approximately 67-acre property located in the Village of Newark, New York (hereinafter "VCA Site"). The VCA Site has been remediated to enable the VCA Site to be used for commercial or industrial uses, and will continue to be used by Ultralife Corporation as a manufacturing Site.

The VCA Site is located at 2000 Technology Parkway (formerly 1350 Route 88 South) in the County of Wayne, New York and was identified as Newark Tax Map # 36110-14-423352.3 in the VCA. The Tax ID number changed when the Site address name changed in approximately 2008, and is now Tax ID Map 14 Parcel 499340. The 14.41-acre VCA Site is situated on an approximately 67-acre parcel (66.37-acres according to the survey) bounded by vacant land to the north, vacant land and Silver Hill Road to the south, vacant land to the east, and South Main Street to the west (see Figure 1). The original VCP site was 14.24 acres but as part of the remedy implemented at the site the VCP boundaries were expanded to include off-site acreage remediated which increases the VCP site acreage to 14.41 acres. The boundaries of the VCA Site are identified in the ALTA Survey included in Appendix A.

As discussed with the NYSDEC, the VCA Site boundary has been redefined based on the extent of the remedial work performed. A new ALTA survey of the VCA Site boundary was completed subsequent to the remedial work, and is included in Appendix A.

An electronic copy of this FER with all supporting documentation is included as Appendix B.

#### 2.0 SUMMARY OF THE FINAL SITE REMEDY

The final VCA Site remedy consisted of the excavation, transport and disposal of sediments from two drainage ditches impacted with Semi-Volatile Organic Compounds (SVOCs) and heavy metals. Details on the final remedy are further described in this Final Engineering Report (FER).

#### 2.1 REMEDIAL ACTION OBJECTIVES

Based on the results of the Remedial Investigation and remedial actions performed to date, the following Remedial Action Objectives (RAOs) were identified for the final remedy at the Site.

#### 2.1.1 Sediment RAOs

The RAOs for sediment used during the remedial action were:

• NYSDEC Technical Guidance for Screening Contaminated Sediments (latest revision January 25, 1999).

### 2.2 DESCRIPTION OF THE FINAL SELECTED REMEDY

The site was remediated in accordance with the remedy approved by the NYSDEC in the RAWP dated January 2010. The RAWP was conditionally approved on March 31, 2010 prior to remedial action implementation. The RASR was approved by the NYSDEC prior to remedial action implementation.

The factors considered during the selection of the final remedy to close out remediation of the VCA Site are those listed in 6NYCRR 375-1.8. The following are the components of the selected remedy:

- 1. Excavation of sediment impacts above SCOs as recommended and approved in the Remedial Investigation (RI) Report. The impacts were removed from the discharge points of the two (2) outfalls to approximately 200 feet downgradient for Outfall #1 and 110 feet downgradient for Outfall #2.
- 2. Backfill and restoration of areas disturbed during the remedial action to original condition.

- 3. Expanding the VCA Site Boundary to include the off-site removal areas.
- 4. Surveying the new VCA Site Boundary.
- 5. Execution and recording of Deed Restriction to restrict land use and prevent future exposure to any contamination remaining at the VCA Site.
- 6. Implementation of a Site Management Plan (SMP) for long term management of remaining contamination as required by the Deed Restriction, which includes plans for: (1) Institutional and Engineering Controls, (2) monitoring, and (3) reporting;
- 7. Periodic certification of the institutional and engineering controls listed above.

# 3.0 INTERIM REMEDIAL MEASURES, OPERABLE UNITS AND REMEDIAL CONTRACTS

A former underground wastewater storage vault (crock) was located adjacent to Building 4000 and historically accepted drainage from hazardous material operations. Impacted soil and groundwater were identified in this area by Lu Engineers in October 2001. In October of 2003, prior to the removal of the crock, Marcor Remediation, Inc. ("Marcor") sampled six (6) groundwater monitoring wells and in December of 2003 Marcor sampled a seventh well onsite. Additionally Marcor completed four (4) soil borings (SB-01 through SB-04) in November of 2003. Subsequently Marcor removed four (4) 55-gallon drums of wastewater from the crock in November, 2003 and returned in December 2003 to remove the crock. A soil remediation was conducted by Marcor. following the removal of the crock which included removal and disposal of approximately 35 cubic yards of impacted soil and 550 gallons of impacted groundwater. The resulting excavation was six (6) feet wide, twenty (20) feet long, and ten (10) feet deep. Confirmatory soil samples indicated that the crock removal and subsequent source area soil and groundwater removal in that area achieved Part 375-6 commercial and industrial reuse objectives for soil. Sediments from the northern outfall were also sampled. The sediment samples analytical results were compared to the NYSDEC Technical and Administrative Guidance Memorandum (TAGM) 4046 Recommended Soil Cleanup Objectives (RSCOs). The sediment samples were reported to contain several SVOCs at concentrations that exceeded the RSCOs. Subsequent groundwater monitoring indicated that metals of concern in groundwater generally achieved the Part 703 Groundwater Standards, with the exception of arsenic. Specifically, the last sampling completed in 2007 indicated one monitoring well (MW-05) with arsenic above the Part 703 Groundwater Standards. Additional monitoring is included as part of the Site Management Plan; however, a deed restriction is in-place which precludes the use of groundwater at the Site unless subsequent sampling indicates concentrations of metals have decreased to below Part 703 Groundwater Standards (and NYSDEC approves removal of this restriction).

# 4.0 DESCRIPTION OF FINAL REMEDIAL ACTIONS PERFORMED

Final remedial activities completed at the Site were conducted in July and August 2010 in accordance with the NYSDEC-approved Remedial Action Work Plan (RAWP) for the VCA Site (dated January 2010, conditionally approved on March 31, 2010). The two (2) deviations from the RAWP are noted below in Section 4.10 and were approved by the NYSDEC.

#### 4.1 GOVERNING DOCUMENTS

#### 4.1.1 Site Specific Health & Safety Plan (HASP)

All final remedial work performed under this Remedial Action was in full compliance with governmental requirements, including Site and worker safety requirements mandated by Federal OSHA.

The Health and Safety Plan (HASP) was complied with for all final remedial and invasive work performed at the Site.

### 4.1.2 Community Air Monitoring Plan (CAMP)

Real-time air monitoring for volatile organic compounds (VOCs) and/or particulate levels was conducted at the perimeter of the work area. Continuous monitoring was conducted during ground intrusive activities, and periodic monitoring was conducted during non-intrusive activities using a Minirae Lite Photoionization Detector (VOCs) and a TSI 8520 Dust Trak (particulates). VOCs and particulate concentrations were monitored at the downwind perimeter of the immediate work area and upwind periodically to establish baseline levels of VOCs and particulates. An action level of 5 parts per million above background for a 15-minute average was used for VOCs, at which point work would be halted until ambient air conditions returned to background levels. An action level of 100 micrograms per cubic meter greater than background was used for particulate monitoring, at which point dust suppression techniques would be employed. If airborne dust was observed leaving the work area, dust suppression techniques would also be implemented.

#### 4.2 REMEDIAL PROGRAM ELEMENTS

#### 4.2.1 Contractors and Consultants

- TREC Environmental Inc. (TREC): performed excavation and backfilling/restoration activities.
- Paradigm Environmental Services, Inc.: performed laboratory analysis on sediment and wastewater characterization samples.
- Silvarole Trucking: transported excavated sediment to High Acres Landfill in Fairport, New York.
- LaBella Associates, P.C. (Dan Noll, P.E.): provided oversight of remedial activities to ensure compliance with the NYSDEC-approved RAWP.
- Mitkem Laboratories, Inc.: performed laboratory analysis on the backfill materials.

#### 4.2.2 Site Preparation

- TREC mobilized to the Site on July 14, 2010;
- Grubbing of Outfall #2 took place on July 14, 2010, and grubbing of Outfall #1 took place on July 19, 2010;
- A sump was excavated at the discharge point of each outfall and pumped to retention areas in order to minimize the amount of water in the outfall ditch during the remedial excavation;
- Bales of straw were placed at the bottom of each outfall ditch and approximately
  every 75 feet throughout the ditches to prevent sediment migration downstream
  during remedial activities. Additionally, straw bale retention areas were
  constructed near each outfall to retain sediments from water pumped into the
  retention areas from the sumps installed at each outfall discharge point;
- Grade stakes were installed approximately every 15 feet along the outfall ditches in order to get accurate measurements of the depth of the remedial excavations;
- Sediment staging areas were constructed including berms to contain the material, poly sheeting to retain all liquids, and a sump area to gather resulting liquids and allow the sediment to dewater prior to off-site transport and disposal;

- Backfill used in the restoration of the drainage ditches was sampled consistent
  with 6 NYCRR 375-6.7(d) and NYSDEC DER-10 and pre-approved by the
  NYSDEC. Information regarding the backfill laboratory data reports is included
  in Appendix C;
- Wastewater from the sumps of each staging area was collected, sampled and approved by the Village of Newark for disposal through Ultralife's industrial sewer system at a rate of 55-gallons per day, three (3) times a week (refer to Appendix E); and,
- A pre-construction meeting was held on June 10, 2009.

#### 4.2.3 General Site Controls

- Security at the Site is provided by Ultralife Corporation Security Department;
- Record keeping by LaBella included listing persons on-Site and their involvement, logging CAMP-required parameters, and documenting general site activities and conversations. A sign-in/sign-out sheet is maintained by the Ultralife Security Department.
- Equipment used during Site activities were manually cleaned (shovels) of any residual sediment at the end of each day.
- Staged sediment was placed on 2 layers of 6 ml poly sheeting and covered with poly sheeting. Excessive water that accumulated in the staged pile sumps was removed on July 21, 2010 and again on August 16, 2010 to allow the sediment to dry further before disposal. All soil tracked onto the asphalt driveway was swept and placed onto the staged pile.

#### 4.2.4 Nuisance Controls

- Dust control measures were not implemented due to the nature of working with sediments, the fact that action levels were not exceeded during Site work, and the fact that no visible dust was observed during remedial activities;
- No adverse odors were encountered during remedial activities;
- Trucks used the most direct route to enter and exit the Site as approved by Ultralife Corporation; and,
- No complaints were received during remedial activities.

#### 4.2.5 CAMP Results

No photoionization detector (PID) readings were recorded that were greater than 0.0 parts-per-million (ppm). Particulate monitoring was conducted for the duration of remedial activities and action levels were not exceeded. Additionally, dust was not observed during remedial activities. As a preventative measure, sand and silt that accumulated on the asphalt driveway near Outfall #2 was swept and removed to avoid any potential dust problems associated with the material.

Copies of all field data sheets relating to the CAMP are provided in electronic format in Appendix D.

#### 4.2.6 Reporting

The project was short in duration and no formal reporting was completed. Verbal discussions were conducted in person and via telephone during the remedial actions with the NYSDEC.

A digital photo log of work completed to this point is included in electronic format in Appendix F.

#### 4.3 CONTAMINATED MATERIALS REMOVAL

- The sediment cleanup objectives (SCOs) for the site were the NYSDEC Technical Guidance for Screening Contaminated Sediments (latest revision January 25, 1999);
- The extent of contamination was determined prior to the remedial actions and screening and confirmation sampling were not required by the NYSDEC;
- Sediments in the wetted portion were removed from each outfall to depths and distances downgradient defined in the RAWP;
- The extent of the removal areas for Outfall #1 and #2 are shown on Figure 2; and,
- Erosion control measures were implemented in accordance with the RAWP and included straw bales in the outfall ditches, straw bales and silt fencing in retention areas, spreading straw and Ernst Seed Mix on all areas impacted by Site activities, securing jute mesh along the bank of Outfall #2 where Site activities had significantly damaged the original grade, and securing the jute mesh with "live stakes" (Black Locust).

#### 4.3.1 Outfall Sediments

Sediments were excavated from Outfall #1 to approximately 3 feet bgs for the first 20 feet below the outfall. Sediments were excavated to approximately 2 feet bgs. from the 20 ft. mark for the remaining length of the removal area (200 feet total length)Sediments were planned to be excavated to 3 feet bgs from Outfall #2 for the first 20 feet; however, due to unanticipated shallow shale bedrock, the first 20-ft. were only excavated to approximately 1.5 feet bgs. Sediments were excavated to approximately 2-ft. bgs from the 20 ft. mark until approximately 99 ft. from the outfall where shale was again encountered at 1.5 ft. bgs. The remaining length of the excavation for Outfall #2 (between 99 ft. and 119 ft. from the outfall) were excavated to the top of the shale.

Each outfall was excavated approximately 2-ft. on either side of the ditch centerline (i.e., removal width was approximately 4-ft. wide for the entire length of the excavation).

Figure 2 illustrates the removal locations and depths and a cross section of the removal area for each outfall are included as Figures 3A and 3B. Live stakes (black locust) were not noted in the RAWP but were used to secure the jute mesh along the upgradient sloped portion of Outfall #2. A NYSDEC representative was onsite during the remedial activities and approved these deviations. All excavation equipment that contacted impacted material was decontaminated at the end of the project. The decontamination consisted of removing bulk materials with shovels followed by removing the remaining materials with a power washer.

### 4.3.1.1 Disposal Details

Waste characterization samples were collected and submitted for laboratory analysis of Toxicity Characteristic Leaching Procedure (TCLP) Semivolatile Organic Compounds (SVOCs) and TCLP Metals. A total of five sediment grab samples were collected from the staged sediment following excavation and were submitted to be composited by the laboratory prior to analysis. On August 18, 2010 Silvarole Trucking and TREC facilitated the removal of the staged sediments. Two Part 364 permitted Silvarole trucks transported a total of 195.8 tons of contaminated sediments in a total of six loads to High Acres Landfill in Fairport, New York for disposal. A copy of the waste profile is included in Appendix G. The Silvarole trucks remained on Ultralife driveway asphalt during loading of the sediments, and didn't require decontamination procedures prior to leaving the site. However, the loading equipment was decontaminated by power washing the equipment over the bed of the last truckload of sediment. The decon water

was sent with the sediment. Confirmation sampling was not conducted as part of the remedial action as agreed upon with the NYSDEC and outlined in the RAWP. The waste characterization data, disposal receipts and waste profile for the sediment are included in Appendix G. In addition, the water generated during dewatering of the sediments was disposed of to the Village of Newark sewer system subsequent to sampling and approval. The water characterization testing and Village of Newark approval request is provided in Appendix E.

A total of approximately 146.7 tons and 49.1 tons of contaminated sediment were removed from Outfall #1 and #2, respectively. Approximately 770 gallons of water (14 55-gal. drums) was removed and containerized from the staging area sumps of Outfall #1 and #2, respectively.

#### 4.3.1.2 On-Site Reuse

No sediment was reused during remedial activities at the Site.

#### 4.3.2 Wastewater

Wastewater was removed from sumps installed in each of the two (2) staging areas. The staging areas are shown on Figure 2. A total of fourteen (14) fifty-five (55)-gallon drums were used to store the wastewater at the Ultralife facility pending waste characterization. The general location of the temporary storage location of the drums is also shown on Figure 2.

#### 4.3.2.1 Disposal Details

One wastewater sample was collected for waste characterization purposes from the sediment staging area sump prior to containerizing the wastewater in 55-gallon drums. The sample was analyzed for Total Compound List (TCL) Volatile Organic Compounds (VOCs) and SVOCs, Pesticides, and Total Analyte List (TAL) Metals. The data was presented to the Village of Newark and the wastewater was approved for discharge through Ultralife's industrial sewer system at a rate of 55-gallons per day, three (3) times per week. Discharge of the wastewater was conducted by Ultralife in accordance with the frequency specified by the Village of Newark. The request for approval letter from Ultralife to the Village of Newark, Wastewater Treatment Plant is included in Appendix E.

#### 4.3.2.2 On-Site Reuse

No wastewater was reused during remedial activities at the Site.

#### 4.4 REMEDIAL PERFORMANCE/DOCUMENTATION SAMPLING

Sediments were removed to specific depths and lengths from each outfall as agreed upon with the NYSDEC in the approved January 2010 RAWP, and as further described above. Figures 2, 3A and 3B show the extent of the sediment removals.

#### 4.5 IMPORTED BACKFILL

A total of 280.66 tons of bank run gravel was imported from Smith Sand and Gravel in Marcellus, New York to the site for restoration purposes. The bank and run was used to restore the outfall ditches (including the temporary sump areas) to approximately their original grade and used to restore the sloped portion of the ditch in places where remedial activities impacted them. The backfill used during the remedial activities was sampled prior to remedial activities and submitted for laboratory analysis TCL VOCs, TCL SVOCs, Pesticides, PCBs, and Metals including Cyanide. The backfill sample was reported to contain no VOCs, SVOCs, Pesticides, or PCBs above laboratory method detection limits and no metals above Part 375-6 Unrestricted Use RSCOs. The results of the backfill sampling were discussed with the NYSDEC and verbal approval was granted by the NYSDEC to use the backfill during restoration activities. The bills of lading for the backfill and the laboratory analytical reports for the backfill sampling are found in Appendix C [Note: The analytical report refers to the bank run as "BCKFL"].

#### 4.6 SITE RESTORATION

The base of the drainage ditches excavated during the remedial activities and the sump areas were backfilled with the bank run gravel to approximately their original grade. The original grade and sinuosity were maintained during the backfilling operations and compaction was accomplished by TREC using the excavator bucket in 6 to 8-inch lifts. The bank run gravel was also used to restore areas adjacent to the removal areas that were disturbed during remedial activities. It was agreed upon with the NYSDEC representative at the time of fieldwork that this material contained sufficient sand and silt to promote vegetative growth and would be more suitable and stable for use as a cover than topsoil. Straw mulch and Ernst Seeds ERNMX-178 seed mix was used to seed areas disturbed during remedial activities. Biodegradable jute mesh was used adjacent to the sump area of Outfall #2 in order to stabilize the sloped portion of the drainage ditch and was staked with black locust live stakes. Additional use of jute mesh for erosion control purposes was deemed unnecessary by the NYSDEC representative at

the time of fieldwork. Pictures documenting the restoration work are included in Appendix F.

#### 4.7 CONTAMINATION REMAINING AT THE SITE

Several locations at the Site have elevated concentrations of metals in apparent fill material beneath 2 feet in depth and several areas at the VCA Site have contaminants in soil and groundwater and have not yet been remediated to unrestricted levels. The applicable data tables from the Final Investigation Report that provide these results and the applicable mapping from the Final Investigation Report that provide the location of these samples are included in Appendix H.

Exposure to remaining contamination in soil/fill at the site is prevented by an existing soil cover system over the VCA Site that is comprised of approximately 24 inches of clean soil, asphalt pavement, concrete-covered sidewalks, and concrete building slabs. The Excavation Work Plan that appears in Appendix I outlines the procedures required to be implemented in the event the existing cover system is breached (i.e., excavations greater than 2-ft.), penetrated or temporarily removed, and any underlying remaining contamination is disturbed.

Since contaminated soil and groundwater remains beneath the VCA Site after completion of the Remedial Action, Institutional and Engineering Controls are required to protect human health and the environment. These Engineering and Institutional Controls (ECs/ICs) are described in the following sections. Long-term management of these EC/ICs and residual contamination will be performed under the Site Management Plan (SMP) approved by the NYSDEC included as Appendix L. The portion of the Site that the SMP applies to is included as Figure 4.

#### 4.8 SOIL COVER SYSTEM

The soil cover system was not placed on the site separately, rather, the impacts left in-place are generally greater than 2-ft. in depth. This cover system is comprised of approximately 24 inches of clean soil, asphalt pavement, concrete-covered sidewalks, and concrete building slabs. An Excavation Work Plan, which outlines the procedures required in the event the cover system and/or underlying residual contamination are disturbed, is provided as Appendix I and in Appendix A of the SMP.

#### 4.9 OTHER ENGINEERING CONTROLS

The remedy for the VCA Site did not require the construction of any other engineering control systems.

#### 4.10 INSTITUTIONAL CONTROLS

The final VCA Site remedy requires that a deed restriction be placed on the property to (1) implement, maintain and monitor the Engineering Controls; (2) prevent future exposure to remaining contamination by controlling disturbances of the subsurface contamination through the Soil Management Plan in the SMP; and, (3) limit the use and development of the Site to commercial and industrial uses only.

Adherence to the Institutional Controls on the site is required by the Deed Restriction and will be implemented under the Site Management Plan. The institutional controls for the site are:

- Compliance with the Deed Restriction and the SMP by the Grantor and the Grantor's successors and assigns.
- All Engineering Controls must be maintained and inspected as specified in the SMP.
- All Engineering Controls on the Controlled Property must be inspected at a frequency and in a manner defined in the SMP.
- Groundwater and other environmental or public health monitoring must be performed as defined in the SMP.
- Data and information pertinent to Site Management must be reported at the frequency and in a manner defined in the SMP.

Institutional Controls identified in the Deed Restriction may not be discontinued without an amendment to or extinguishment of the Deed Restriction. The Deed Restrictions for this property are identified below:

• The property can only be used for commercial and industrial purposes provided that the long-term Engineering and Institutional Controls included in this SMP are employed.

- The property may not be used for a higher level of use, such as unrestricted, residential, or restricted residential use without additional remediation and amendment of the Deed Restriction, as approved by the NYSDEC.
- All future ground intrusive activities greater than 2-ft. in depth within the VCP boundary must be conducted in accordance with this SMP.
- The use of the groundwater underlying the property is prohibited without NYSDEC approval and treatment rendering it safe for intended use.
- Vegetable gardens and farming on the property are prohibited.

The SMP and deed restriction require that the site owner or remedial party submit to NYSDEC a written statement that certifies, under penalty of perjury, that (1) controls employed at the Controlled Property are unchanged from the previous certification or that any changes to the controls were approved by the NYSDEC; and (2) nothing has occurred that impairs the ability of the controls to protect public health and environment or that constitute a violation or failure to comply with the SMP. NYSDEC retains the right to access such Controlled Property, pursuant to the terms in the Deed Restriction, at any time in order to evaluate the continued maintenance of any and all controls. This certification must be submitted annually, or an alternate period of time that NYSDEC may allow and will be made by an expert that the NYSDEC finds acceptable.

The deed restriction for the site was executed on May 24, 2011, and filed with the Wayne County Clerk on June 6, 2011. The County Recording Identifier number for this filing is R9128382. A copy of the deed restriction and proof of filing is provided in Appendix K.

#### 4.11 DEVIATIONS FROM THE REMEDIAL ACTION WORK PLAN

As stated in the RAWP, sediments were to be removed to 2 feet in depth from 20 feet downgradient of the outfall for the extent of the proposed excavation area. During the Outfall #2 excavation activities, refusal due to the presence of a shale layer was encountered at approximately 1.5 feet below original grade in the initial 20 feet of length in the sump area and in the final 20 feet of the length in the excavation as shown on Figure 2. Additionally, live stakes (black locust) were used to secure the jute mesh along the upgradient sloped portion of Outfall #2. A NYSDEC representative was onsite during the remedial activities and approved these deviations.

There were no other deviations from the RAWP during remedial actions.

## 4.12 CITIZEN PARTICIPATION (CP)

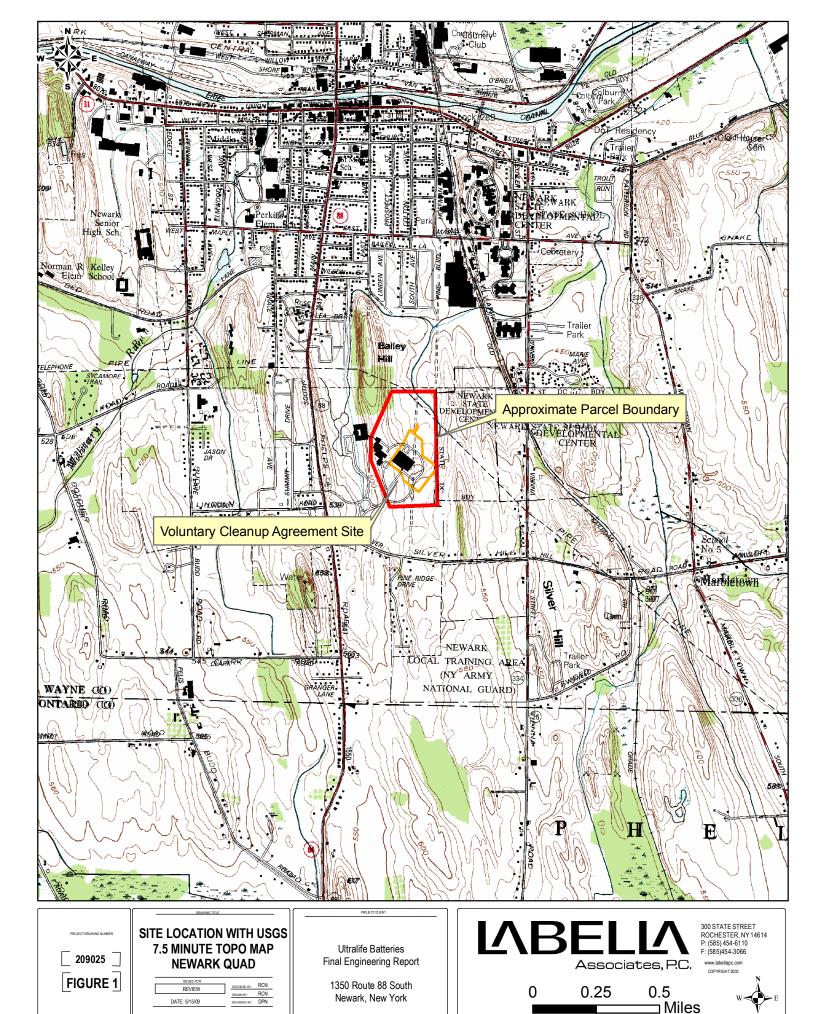
A fact sheet was distributed to the Site Contact List in July 2010 prior to remedy implementation. Upon acceptance of the FER a fact sheet will be distributed to the Site Contact List which explains that the Site remedy has been completed and that the NYSDEC has approved the final remedy.

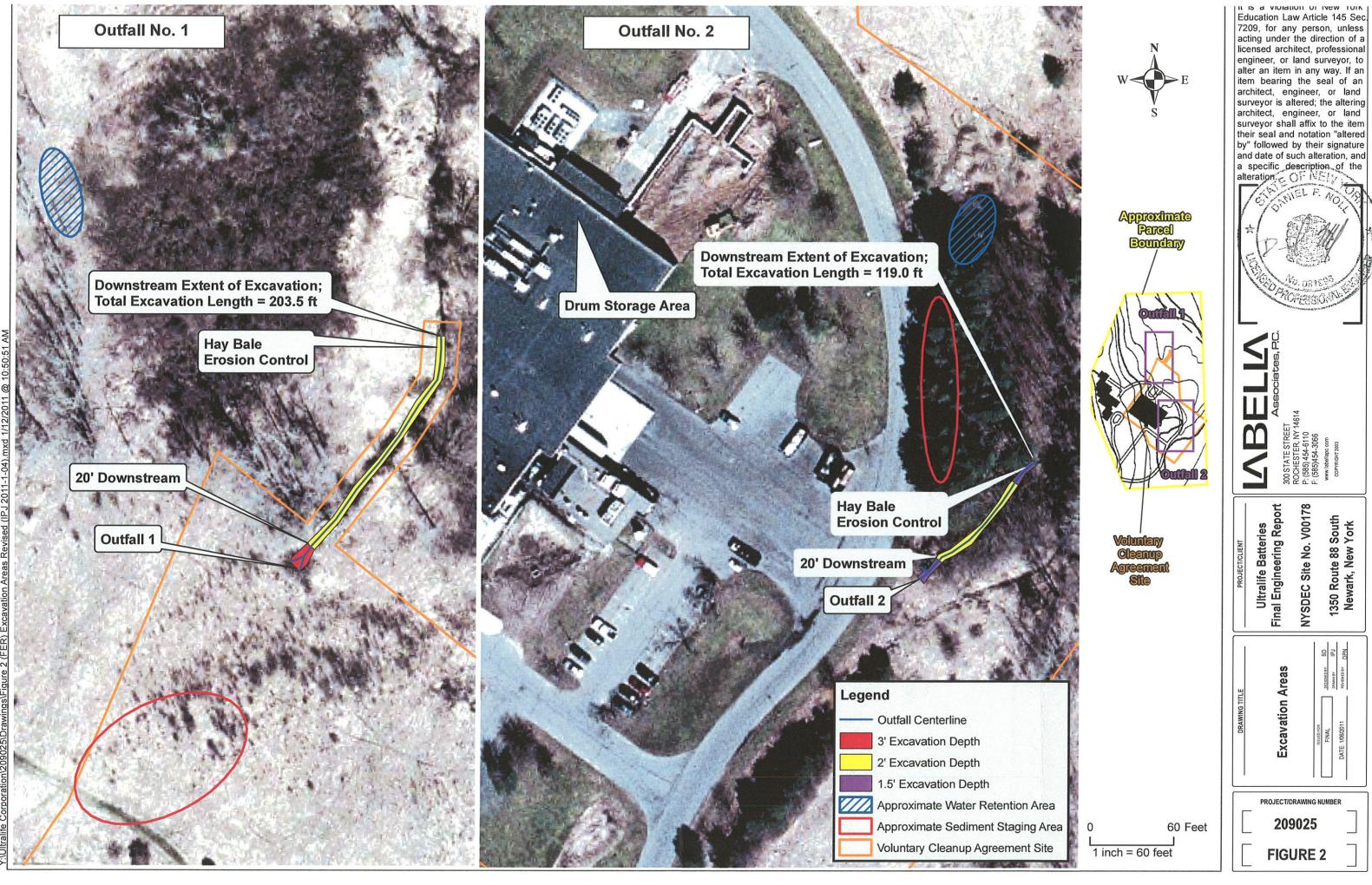
Y:\ULTRALIFE CORPORATION\209025\REPORTS\FER\RPT.2011.06.13.FINAL FER.DOC

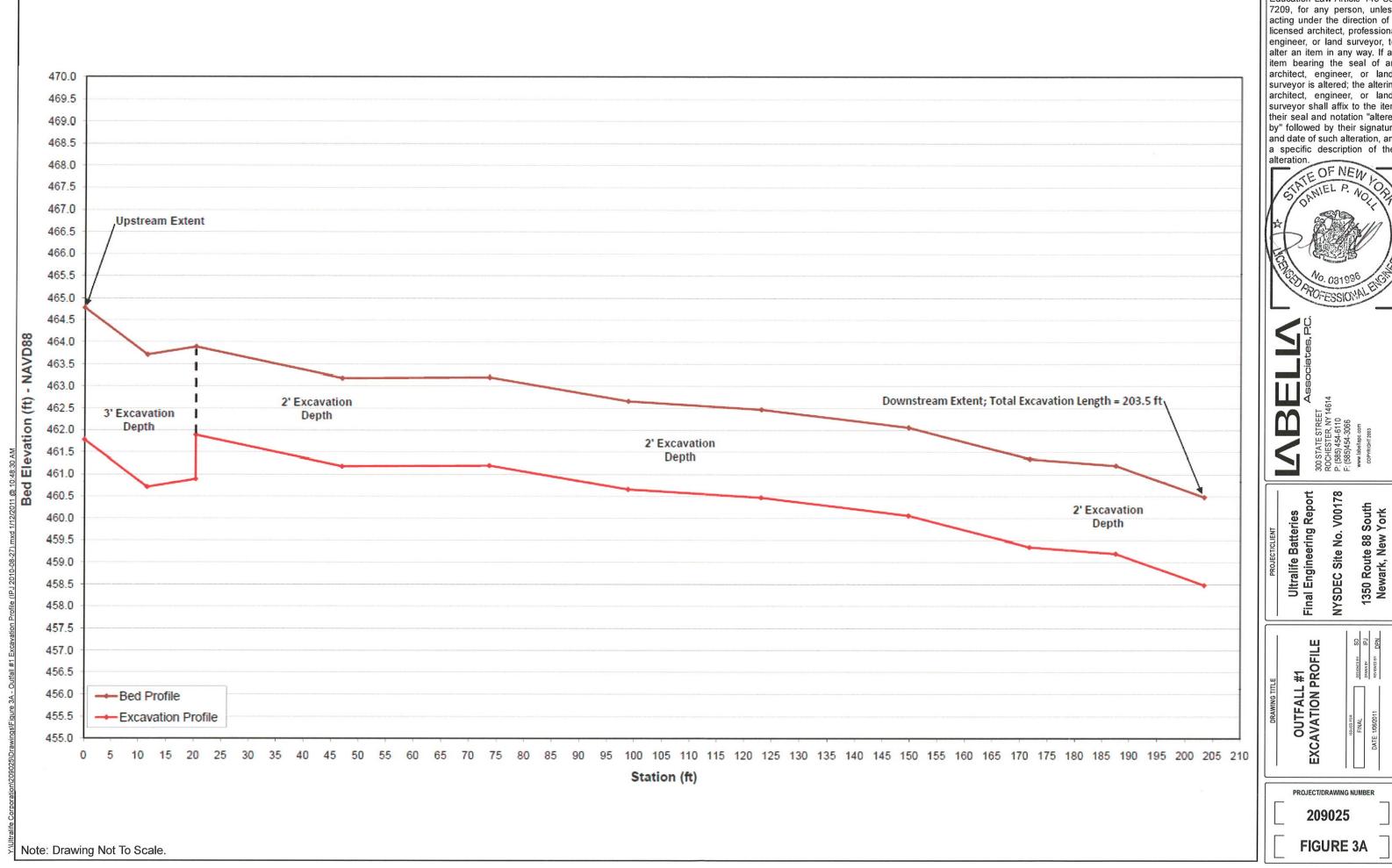
# MBELLA

LaBella Associates, P.C. 300 State Street Rochester, New York 14614

**Figures** 

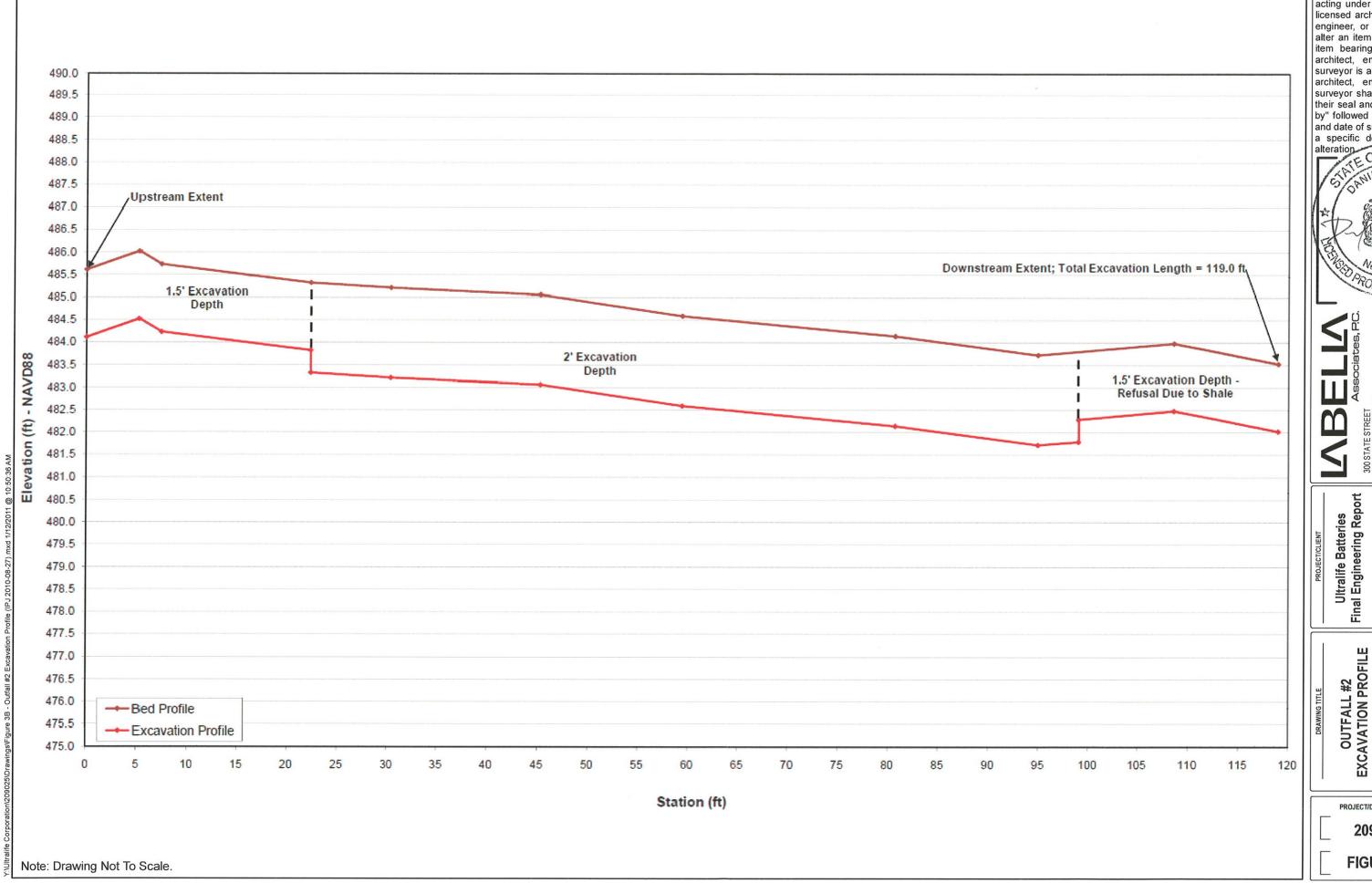






It is a violation of New York Education Law Article 145 Sec 7209, for any person, unless acting under the direction of a licensed architect, professional engineer, or land surveyor, to alter an item in any way. If an item bearing the seal of an architect, engineer, or land surveyor is altered; the altering architect, engineer, or land surveyor shall affix to the item their seal and notation "altered by" followed by their signature and date of such alteration, and a specific description of the



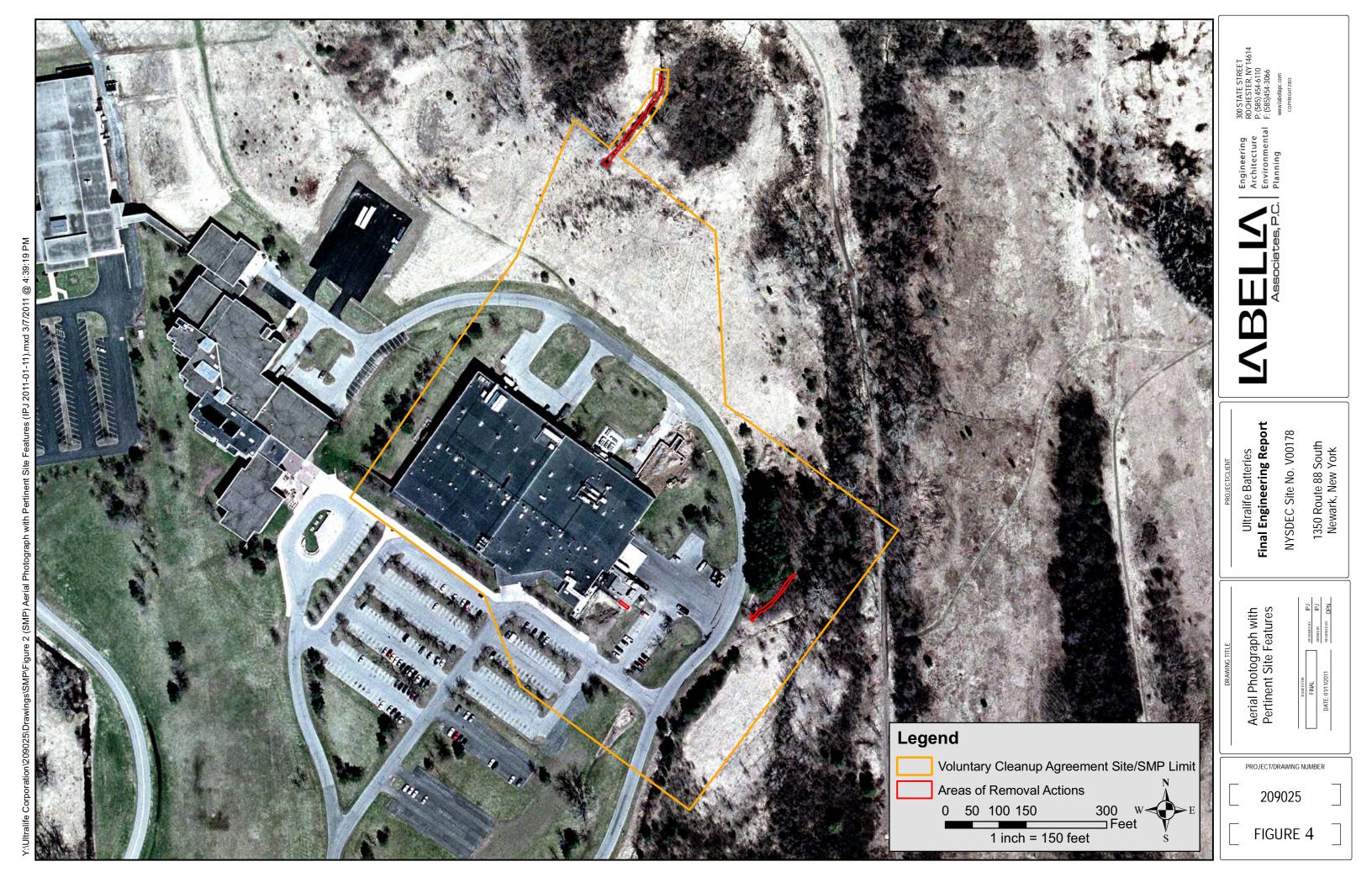


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PROJECT/DRAWING NUMBER

209025

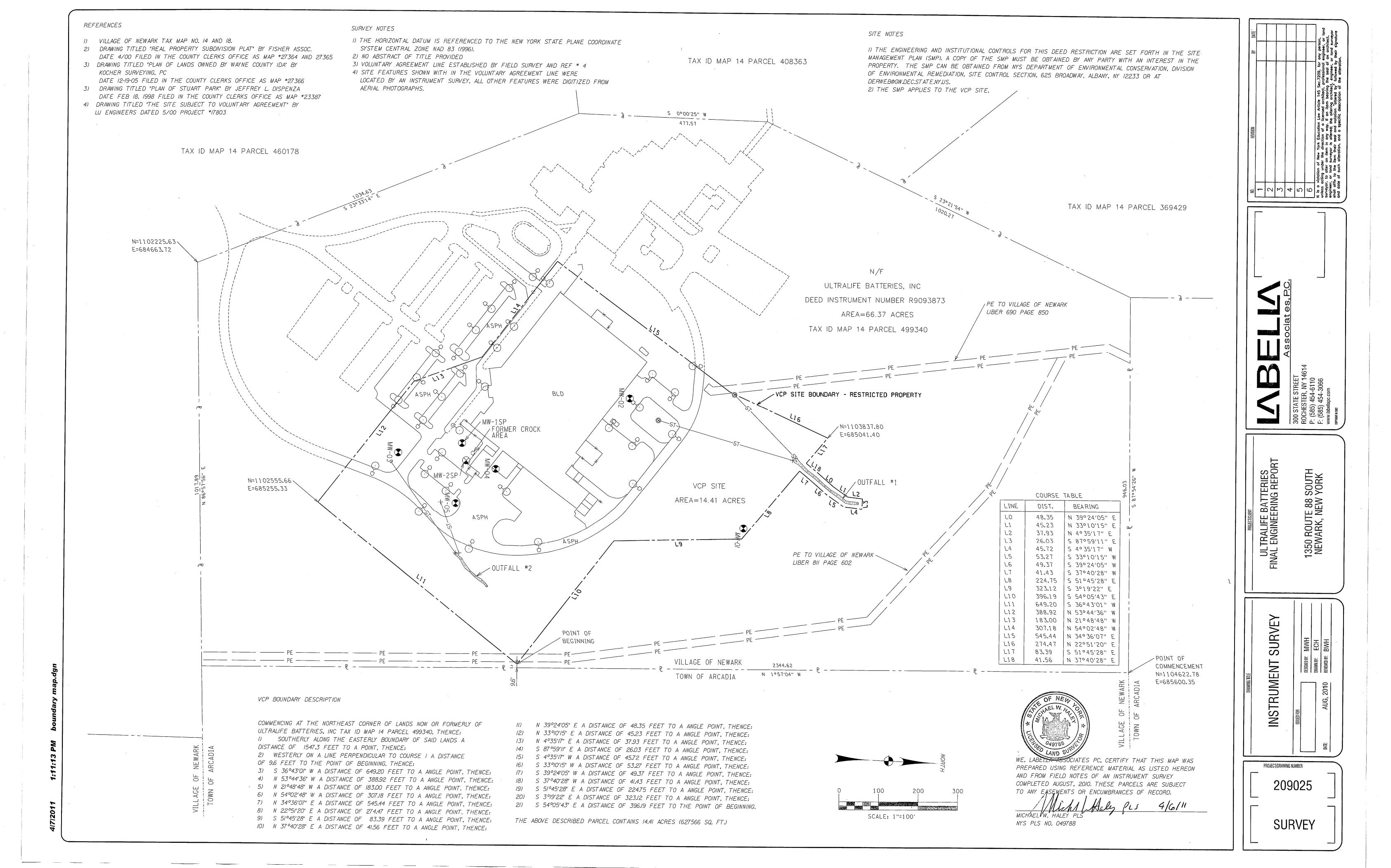
FIGURE 3B





LaBella Associates, P.C. 300 State Street Rochester, New York 14614

# **Appendix A**Survey Map, Metes and Bounds





LaBella Associates, P.C. 300 State Street Rochester, New York 14614

# **Appendix B**Digital Copy of the FER (CD)



LaBella Associates, P.C. 300 State Street Rochester, New York 14614

# **Appendix C**Backfill Analytical Report

RG ROCHESTER INC. SMITH SAND/GRAVEL 7120 SODUS CENTER RD. SODUS, NY 14551 (315)483-6510

ID# 733

SUSTOMER: Trec ultralifie

ITEM:

Bank Run

PRICE/TON:

GROSS

65640 lb

TARE

26240 1b RECALLED

HET

39400 1ь

NET TONS

19.70 T

06:19AM 07/21/2010

TICKET#8732

RG ROCHESTER INC. SMITH SAND/SRAUEL 7120 SUDUS CENTER RD. 800US, MY 14551 (315)483-6510

TD# 733

CUSTOMER: Tree ENU

ITEM:

PRICE/TON:

GRUSS

73920 16

TARE

26240 1b RECALLED .

HET

47680 lb

**NET TONS** 

23.84 T

87x35AH 97/21/2919

TICKET#8734

RG ROCHESTER INC.

ID RECALLED ID RECALLED

081424M 07/21/2010

710KET#8739

RG ROCHESTER INC-SMITH SAND/GRAVEL 7120 SCOUS CENTER RD-SCOUS- NY 14551 (315)483-6510

ID# 733

CUSTOMER: Tree 6

Ultru life

PRICE/TON:

GROSS

66580 1ь

TARE

26240 1b RECALLED

HET

46340 15

HET TONS

20-17 T

12:25PM 07/19/2010

TICKET#8702

RG ROCHESTER INC-SMITH SAND/GRAVEL 7120 SODUS CENTER RD-SQSUS, NY 14551 (315)483-6510

104 733

CLISTOMER: JREC ENU

ITEM:

PRICE/TON:

GROSS

65180 16

TARE

26240 15 RECALLED

HET

38940 16

**NET TOHS** 

19.47 T

01:27PM 07/19/2010

TICKET#8703

RG ROCHESTER INC. SMITH SANDVERAVEL 7120 SCCUS CENTER RD. SUDUS, NY 14551 (315)483-6510

Sent Or. Control of Co

GROSS 66180 Ib TARE 26240 Ib RECALLED HET 39940 Ib

NET TONS 19, 97 32:23PM 07/19/2010

LICKET#8705

RG ROCHESTER INC. SMITH SAND/GRAVEL 7120 SUDUS CENTER RD. 900US, NY 14551 (315)463-6518

10# 733

ITEH:

PRICE/TON:

**GR053** 

70580 lb

TARE

26240 Ib RECALLED

NET

44340 lb

NET TONS

22-17 T

09:16AM 07/19/2010

TICKET#8697

RG ROCHESTER INC. SMITH SAND/GRAVEL 7120 SODUS CENTER RD. SCDES, NY 14551 (315)463-6519

10# 733

ITEM:

PRICE/TON:

SROSS

66400 lb

TARE

26240 1b RECALLED

MET

40160 lb

HET TOHS

20×08 T

19:20AM 07/19/2010

710kE7#8699

SMITH SAND/GRAVEL 20 SUCUS CENTER RD STORY OF THE STORY

10# 133

CASTOMERS 

21.91

11:224N U7719/2010

RG ROCHESTER INC. SMITH SAMD/GRAVEL 7120 SODUS CENTER RD. SCOUR, NY 14551 (315)483-6510

ID# 733

CLISTOMER: True En U
LITER Ultra-life
Bank Run

GROSS

70140 16

TORE

26240 1b RECALLED

NET

43900 lb

MET TONS

21.95 T

07:24AH 07/16/2010

TICKET#8661

RG ROCHESTER INC. SMITH SAND/GRAVEL 7120 SODUS CENTER RD. SDENUS, NY 14551 (315)483-6510

10# 733

CLETOMER: True Env Ultra life Bonk Run

PRICE/TON:

GROSS

65460 15

TARE

26240 Ib RECALLED.

HET

39220 1b

**NET TONS** 

19.61 T

03:32AM 07/16/2019

TICKET#8669

回 杏

10:23AM 07:716/2010

RG ROCHESTER INC. SMITH SAND/GRAVEL 7125 SODUS CENTER RD. 900US, NY 14551 (315)483-6510

ID# 02

CUSTOMER: Srek Env

ultra life

ITEM:

Barkkur

PRICE/TON:

GROSS

400000 lb

TARE

17600 1b RECALLED

NET 22400 15

NET TONS

11-20 T

10:48AM 97/14/2010

TICKET#8620

1018 Washington

-----

Spencerport 14559

RG ROCHESTER INC. SMITH SAND/GRAUEL 7120 SODUS CENTER RD. SODUS, NY 14551 (315)493-6510

ID# 62

CUSTOMER: TREC FAL

ITEM:

Bank An

PRICE/TON:

GROSS

36200 15

TARE

17600 Ib RECALLED

NET

18600 15

HET TOHS

8,30 T

0611689 07/15/2010

TICKET#8637

#594-5545

CUSTUMER: FREE ENVIRONMENTER: COLORER LIFE

TIEN: Bank Run-

\$ 68360 1b 24780 1b RE 43580 1b

TONS 21, 79

02:1999 07/15/2010

コニンドロー製の人間を

15 Poplar Drive Rochester, NY 14625 (585) 586-8240 Fax (585) 218-9495

RG Rochester, Inc.



TO:	Keith @ Trec	From: Shannon
Fax:	594-5675	Pages: 6
Phone	e:	<b>Date:</b> 2/4/11
Re:	Scale tickets	CC:
	jent 🗆 For Review ase Recycle	☐ Please Comment ☐ Please Reply
Keith,		
Here a	re the scale tickets as po	er your request.
Thank	5,	
Shann	on	

Report Date: 19-Mar-10 11:28





✓ Final Report

☐ Re-Issued Report

☐ Revised Report

A DIVISION OF SPECTRUM ANALYTICAL, INC. Featuring HANIBAL TECHNOLOGY

#### Laboratory Report

LaBella Associates 300 State Street, Suite 201 Rochester, NY 14614 Work Order: J0337

Project: LaBella Smith Sand and Gravel

Project #: 209025

Attn: Dan Noll

<u>Laboratory ID</u> <u>Client Sample ID</u>

Matrix

Date Sampled

Date Received

J0337-01 BCKFL

Soil

25-Feb-10 10:36

03-Mar-10 11:50

I attest that the information contained within the report has been reviewed for accuracy and checked against the quality control requirements for each method. The results relate only to the samples(s) as recevied.

All applicable NELAC or USEPA CLP requirments have been meet.

Mitkem Laboratories is accredited under the National Environmental Laboratory Approval Program (NELAP) and is certified by several States, as well as USEPA and US Department of Defense. The current list of our laboratory approvals and certifications is available on the Certifications page our web site at www.mitkem.com.

Please contact the Laboratory or Technical Director at 401-732-3400 with any questions regarding the data contained in the laboratory report.

N/A Department of Defense Connecticut PH-0153 Delaware N/A Maine 2007037 M-RI907 Massachusetts New Hampshire 2631 New Jersey RI001 New York 11522 North Carolina 581 Pennsylvania 68-00520 Rhode Island LAI00301 T104704422-08-TX Texas **USDA** P330-08-00023

 Texas
 T104704422-08

 USDA
 P330-08-00023

 USEPA - ISM
 EP-W-09-039

 USEPA - SOM
 EP-W-05-030



Authorized by:

Yihai Ding Laboratory Director

Technical Reviewer's Initials:

CIW

Officerne I brosker



\* Data Summary Pack \*

## New York State Department of Environmental Conservation Sample Identification and Analytical Requirements Summary

Project Name: LaBella Stand By – 209025

		Analytical Requirements						
Customer Sample ID	Laboratory Sample ID	MSVOA Method #	MSSEMI Method #	GC* Method #	ME	Other		
BCKFL	J0337-01	SW8260_LOW_S	SW8270_S	SW8081_S	SW6010_S	SEE DATA		
BCKFL	J0337-01	479		SW8082_S	SW7471			

### New York State Department of Environmental Conservation Sample Preparation and Analysis Summary MSVOA

Project Name: LaBella Stand By - 209025

Laboratory Sample ID	Matrix	Date Collected	Date Received By Lab	Date Extracted	Date Analyzed
SW8260_LOW_S					
J0337-01B	SL	2/25/2010	3/3/2010	NA	3/7/2010

### New York State Department of Environmental Conservation Sample Preparation and Analysis Summary MSSEMI

Project Name: LaBella Stand By - 209025

SDG:  $\frac{\text{J0337}}{\text{J0337}}$ 

Laboratory Sample ID	Matrix	Date Collected	Date Received By Lab	Date Extracted	Date Analyzed
SW8270_S			, <u>,                                    </u>		
J0337-01A	SL	2/25/2010	3/3/2010	3/4/2010	3/9/2010

### New York State Department of Environmental Conservation Sample Preparation and Analysis Summary GC\*

Project Name: LaBella Stand By - 209025

Laboratory Sample ID	Matrix	Date Collected	Date Received By Lab	Date Extracted	Date Analyzed
SW8081_S					
J0337-01A	SL	2/25/2010	3/3/2010	3/3/2010	3/8/2010
SW8082_S	-				
J0337-01A	SL	2/25/2010	3/3/2010	3/3/2010	3/8/2010

### New York State Department of Environmental Conservation Sample Preparation and Analysis Summary MSVOA

Project Name: LaBella Stand By - 209025

Laboratory Sample ID	Matrix	Analytical Protocol	Extraction Method	Low/Medium Level	Dil/Conc Factor
SW8260_LOW_S					
J0337-01B	SL	SW8260_LOW_S	NA	LOW	1

## New York State Department of Environmental Conservation Sample Preparation and Analysis Summary MSSEMI

Project Name: LaBella Stand By – 209025

Laboratory Sample ID	Matrix	Analytical Protocol	Extraction Method	Auxiliary Cleanup	Dil/Conc Factor
SW8270_S					
J0337-01A	SL	SW8270_S	3550B	NA	1

### New York State Department of Environmental Conservation Sample Preparation and Analysis Summary GC\*

Project Name: LaBella Stand By - 209025

Laboratory Sample ID	Matrix	Analytical Protocol	Extraction Method	Auxiliary Cleanup	Dil/Conc Factor
SW8081_S					-
J0337-01A	SL	SW8081_S	3550B	GPC/Sulfur	1
SW8082_S					
J0337-01A	SL	SW8082_S	3550B	GPC/Acid/Sulfur	1

## New York State Department of Environmental Conservation Sample Preparation and Analysis Summary ME

Project Name: LaBella Stand By - 209025

Laboratory Sample ID	Matrix	Metals Requested	Date Received By Lab	Date Analyzed
SW6010_S				
J0337-01A	SL	SW6010_S	3/3/2010	3/12/2010
SW7471				
J0337-01A	SL	SW7471	3/3/2010	3/9/2010

### Analytical Data Package for LaBella Associates, P.C.

Client Project: Smith Sand & Gravel

SDG# SJ0337

Mitkem Project ID: J0337

March 19, 2010

Prepared For:

LaBella Associates, P.C.

300 State Street

Suite 201

Rochester, NY 14614 Attn: Mr. Dan Noll

Prepared By:

Mitkem Laboratories

175 Metro Center Boulevard

Warwick, RI 02886 (401) 732-3400

#### **SDG Narrative**

Mitkem Corporation submits the enclosed data package in response to LaBella Associates, P.C.'s Smith Sand & Gravel. Under this deliverable, analysis results are presented for one soil sample that were received on March 3, 2010. Analyses were performed per specifications in the project's contract and the chain of custody form, following discussions with the client. Following the narrative is Mitkem Work Order for cross-referencing client sample ID and laboratory sample ID.

The analyses were performed according to NYSDEC ASP protocols and reported per NYSDEC ASP requirement for Category B deliverable.

The following observation and/or deviations are observed for the following analyses:

#### 1. Overall Observation:

Where needed, manual integrations were performed to improve data quality. The corrections were reviewed and associated hardcopies generated and reported as required. Manual integrations are coded to provide the data reviewer justification for such action. The codes are labeled on the ion chromatogram signal (GC/MS signal) and chromatogram for GC based analysis as follows:

- M1 peak tailing or fronting.
- M2 peak co-elution.
- M3 rising or falling baseline.
- M4 retention time shift.
- M5 miscellaneous under this category, the justification is explained.
- M6 software did not integrate peak.
- M7 partial peak integration.

The enclosed report includes the originals of all data with the exception of logbook pages and certain initial calibrations. Photocopies of logbook pages are included, with the originals maintained on file at the laboratory. The originals of initial calibrations that are shared among several cases are maintained on file at the laboratory, with photocopies included in the data package.

#### 2. Volatile Analysis:

Surrogate recovery: recoveries were within the QC limits.

Lab control sample/lab control sample duplicate: spike recoveries and replicate RPDs were within the QC limits.

Sample analysis: no unusual observation was made for this analysis.

#### 3. Semivolatile Analysis:

Surrogate recovery: recoveries were within the QC limits.

Lab control sample/lab control sample duplicate: spike recoveries were within the QC limits with the exception of low recovery of 4-chloroaniline, 3-nitroaniline, 4-nitroaniline and 3,3'-dichlorobenzidine in LCS-49583 and its duplicate. Replicate RPDs were within the QC limits with the exception of 3,3'-dichlorobenzidine.

Sample analysis: no other unusual observation was made for this analysis.

#### 4. Pesticides Analysis:

Surrogate recovery: recoveries were within the QC limits.

Lab control sample/lab control sample duplicate: spike recoveries and replicate RPDs were within the QC limits for both columns.

Sample analysis: no unusual observation was made for this analysis.

#### 5. PCB Analysis:

Surrogate recovery: recoveries were within the QC limits.

Lab control sample/lab control sample duplicate: spike recoveries and replicate RPDs were within the QC limits for both columns.

Sample analysis: no unusual observation was made for this analysis.

#### 6. Metals Analysis:

Lab control sample: spike recoveries were within the QC limits.

Sample analysis: no unusual observation was made for the analysis.

#### 7. Cyanide Analysis:

Lab control sample: spike recovery was within the QC limits.

Sample analysis: no unusual observation was made for the analysis.

The pages in this report have been numbered consecutively, starting from this narrative and ending with a page saying only "Last Page of Data Report".

I certify that this data package is in compliance, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package has been authorized by the laboratory manager or his designee, as verified by the following signature.

agnus Huntity
Agnes Huntley

CLP Project Manager

03/19/10

HT = Test logged in but has been placed on hold

03/19/2010 10:49

WorkOrder: J0337

Client ID: LABELLA

Comments: N/A

Mitkem Laboratories

Report Level: ASP-B

HC Due: 03/17/10 Case:

Special Program: Fax Due: 03/12/10 Fax Report: Location: LABELLA\_STANDBY\_CONTRACT, 209025 WO Name: LaBella Smith Sand and Gravel Project: LaBella Stand By

EDD: ENVIROINSITE\_1

**PO:** 209025 SDG:

Lab Samp ID	Lab Samp ID Client Sample ID	Collection Date  Date Recv'd Matrix Test Code	Date Recv'd	Matrix	Test Code	Samp / Lab Test Comments	HF HT MS SEL Storage
J0337-01A	BCKFL	02/25/2010 10:36 03/03/2010	03/03/2010	Soil	PMoist	Have anther 4oz jar in VOC /	A1
J0337-01A	BCKFL	02/25/2010 10:36 03/03/2010	03/03/2010	Soil	SW6010_S	Have anther 4oz jar in VOC / TAL	, A1
J0337-01A	BCKFL	02/25/2010 10:36	03/03/2010	Soil	SW7471	Have anther 4oz jar in VOC / TAL	A
J0337-01A	BCKFL	02/25/2010 10:36	03/03/2010	Soii	SW8081_S	Have anther 4oz jar in VOC /	A1
J0337-01A	BCKFL	02/25/2010 10:36 03/03/2010	03/03/2010	Soil	SW8082_S	Have anther 4oz jar in VOC /	A1
J0337-01A	BCKFL	02/25/2010 10:36	03/03/2010	Soil	SW8270_S	Have anther 4oz jar in VOC / TCL+STARS	.≻ A1
J0337-01A	BCKFL	02/25/2010 10:36 03/03/2010	03/03/2010	Soil	SW9012_S	Have anther 4oz jar in VOC /	A1
J0337-01B	BCKFL	02/25/2010 10:36 03/03/2010	03/03/2010	Soil	SW8260_LOW_S	/ 2CVE+special+STARS_VOC	Y VOA

HF = Fraction logged in but all tests have been placed on hold

Lab Client Rep: Shirley S Ng

#### 1A - FORM I VOA-1 VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT	SAMPLE	NO.
BCKFL		

Lab Name: MITK	EM LABORA	ATORIES			Contract:	-	
Lab Code: MITK	EM	Case No.:	J0337		Mod. Ref No.:	SDG No.: SJ0337	
Matrix: (SOIL/S	SED/WATER	) SOIL			Lab Sample ID:	J0337-01B	
Sample wt/vol:	5.	10 (g/mL)	G		Lab File ID:	V5L6533.D	
Level: (TRACE/I	LOW/MED)	LOW		<u></u>	Date Received:	03/03/2010	
% Moisture: not	dec.	10			Date Analyzed:	03/07/2010	
GC Column: DB-	-624	ID:	0.25	(mm)	Dilution Factor:	1.0	
Soil Extract Vo	olume:			(uL)	Soil Aliquot Vol	ume:	(uL)
Purge Volume:	10.0			(mL)			

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG	Q
74-87-3	Chloromethane	5.4	Ü
75-01-4	Vinyl chloride	5.4	Ū
	Bromomethane	5.4	Ū
75-00-3	Chloroethane	5.4	Ū
75-69-4	Trichlorofluoromethane	5.4	Ü
75-35-4	1,1-Dichloroethene	5.4	U
67-64-1	Acetone	5.4	U
75-15-0	Carbon disulfide	5.4	U
75-09-2	Methylene chloride	1.7	J
156-60-5	trans-1,2-Dichloroethene	5.4	Ū
1634-04-4	Methyl tert-butyl ether	5.4	Ū
	1,1-Dichloroethane	5.4	U
108-05-4	Vinyl acetate	5.4	U
78-93-3	2-Butanone	5.4	U
156-59-2	cis-1,2-Dichloroethene	5.4	U
67-66-3	Chloroform	5.4	U
71-55-6	1,1,1-Trichloroethane	5.4	Ū
56-23-5	Carbon tetrachloride	5.4	Ū
107-06-2	1,2-Dichloroethane	5.4	U
71-43-2	Benzene	5.4	U
79-01-6	Trichloroethene	5.4	Ū
78-87-5	1,2-Dichloropropane	5.4	U
75-27-4	Bromodichloromethane	5.4	Ū
10061-01-5	cis-1,3-Dichloropropene	5.4	U
108-10-1	4-Methyl-2-pentanone	5.4	U
108-88-3		5.4	U
10061-02-6	trans-1,3-Dichloropropene	5.4	Ū
79-00-5	1,1,2-Trichloroethane	5.4	U
127-18-4	Tetrachloroethene	5.4	U
591-78-6	2-Hexanone	5.4	Ŭ -
124-48-1	Dibromochloromethane	5.4	Ū
108-90-7	Chlorobenzene	5.4	U
100-41-4	Ethylbenzene	5.4	U
1330-20-7	m,p-Xylene	5.4	U
95-47-6	o-Xylene	5.4	U

#### 1B - FORM I VOA-2 VOLATILE ORGANICS ANALYSIS DATA SHEET

	CLIENT	SAMPLE	NO.
	BCKFL		
-			
l			

Lab Name: MITKEM LABOR	ATORIES		Contract:	
Lab Code: MITKEM	Case No.:	J0337	Mod. Ref No.:	SDG No.: SJ0337
Matrix: (SOIL/SED/WATER	SOIL		Lab Sample ID:	J0337-01B
Sample wt/vol: 5.	10 (g/mL) (	G	Lab File ID:	V5L6533.D
Level: (TRACE/LOW/MED)	LOW		Date Received:	03/03/2010
% Moisture: not dec.	10		Date Analyzed:	03/07/2010
GC Column: DB-624	ID: (	0.25 (mm)	Dilution Factor:	1.0
Soil Extract Volume:		(uL)	Soil Aliquot Vol	ume: (uL
Purge Volume: 10.0		(mL)		

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG	Q
1330-20-7	Xylene (Total)	5.4	U
100-42-5	Styrene	5.4	U
75-25 <b>-</b> 2	Bromoform	5.4	U
98-82-8	Isopropylbenzene	5.4	U
79-34-5	1,1,2,2-Tetrachloroethane	5.4	U
	n-Propylbenzene	5.4	U
108-67-8	1,3,5-Trimethylbenzene	5.4	U
98-06-6	tert-Butylbenzene	5.4	U
95-63-6	1,2,4-Trimethylbenzene	5.4	U
135-98-8	sec-Butylbenzene	5.4	U
99-87-6	4-Isopropyltoluene	5.4	U
541-73-1	1,3-Dichlorobenzene	5.4	Ū
106-46-7	1,4-Dichlorobenzene	5.4	Ū
104-51-8	n-Butylbenzene	5.4	U
95-50-1	1,2-Dichlorobenzene	5.4	Ū
91-20-3	Naphthalene	5.4	Ū
110-75-8	2-Chloroethyl vinyl ether	5.4	Ū

#### 1A - FORM I VOA-1 VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT	SAMPLE	NO.
LCS-49	650	

Lab Name: MITKEM LABORATORIES Contract: Lab Code: MITKEM Case No.: J0337 Mod. Ref No.: SDG No.: SJ0337 Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: LCS-49650 Sample wt/vol: 5.00 (g/mL) GLab File ID: V5L6527.D Level: (TRACE/LOW/MED) LOW Date Received: % Moisture: not dec. Date Analyzed: 03/07/2010 0.0 GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0 Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

(mL)

		CONCENTRATION UNITS:	
CAS NO.	COMPOUND	(ug/L or ug/Kg) $\mu$ G/KG	Q
74-87-3	Chloromethane	51	
75-01-4	Vinyl chloride	50	
	Bromomethane	49	
75-00-3	Chloroethane	51	
75-69-4	Trichlorofluoromethane	51	
75-35-4	1,1-Dichloroethene	50	
67-64-1	Acetone	32	
75 <b>-</b> 15-0	Carbon disulfide	. 52	
75-09-2	Methylene chloride	53	
	trans-1,2-Dichloroethene	51	
1634-04-4	Methyl tert-butyl ether	53	
	1,1-Dichloroethane	52	
108-05-4	Vinyl acetate	52	
78-93-3	2-Butanone	41	
156-59-2	cis-1,2-Dichloroethene	53	
	Chloroform	52	
	1,1,1-Trichloroethane	52	
	Carbon tetrachloride	51	
107-06-2	1,2-Dichloroethane	52	
71-43-2	Benzene	53	
79-01-6	Trichloroethene	51	
78-87-5	1,2-Dichloropropane	54	
	Bromodichloromethane	55	
	cis-1,3-Dichloropropene	54	
108-10-1	4-Methyl-2-pentanone	54	
108-88-3		56	
10061-02-6	trans-1,3-Dichloropropene	55	
79-00-5	1,1,2-Trichloroethane	54	
	Tetrachloroethene	54	
591-78-6	2-Hexanone	47	
124-48-1	Dibromochloromethane	56	
108-90-7	Chlorobenzene	57	
	Ethylbenzene	56	
	m,p-Xylene	110	
	o-Xylene	56	

Purge Volume: 10.0

#### 1B - FORM I VOA-2 VOLATILE ORGANICS ANALYSIS DATA SHEET

	CLIENT	SAMPLE	NO.
ı	LCS-49	650	

Lab Name: MITKEM LABOR	ATORIES			Contract:	
Lab Code: MITKEM	Case No.:	J0337		Mod. Ref No.:	SDG No.: SJ0337
Matrix: (SOIL/SED/WATER	soil			Lab Sample ID:	LCS-49650
Sample wt/vol: 5.	00 (g/mL)	G		Lab File ID:	V5L6527.D
Level: (TRACE/LOW/MED)	LOW			Date Received:	
% Moisture: not dec.	0.0			Date Analyzed:	03/07/2010
GC Column: DB-624	ID:	0.25	(mm)	Dilution Factor:	1.0
Soil Extract Volume:			(uL)	Soil Aliquot Vol	ume: (uL
Purge Volume: 10.0			(mL)		

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) µg/Kg	Q
1330-20-7	Xylene (Total)	170	
100-42-5	Styrene	57	
75-25-2	Bromoform	58	
98-82-8	Isopropylbenzene	55	
79-34-5	1,1,2,2-Tetrachloroethane	55	
103-65-1	n-Propylbenzene	54	
108-67-8	1,3,5-Trimethylbenzene	55	
98-06-6	tert-Butylbenzene	54	
95-63-6	1,2,4-Trimethylbenzene	55	
	sec-Butylbenzene	54	-
99-87-6	4-Isopropyltoluene	55	
541-73-1	1,3-Dichlorobenzene	54	
106-46-7	1,4-Dichlorobenzene	55	
104-51-8		55	
95-50-1	1,2-Dichlorobenzene	55	
91-20-3	Naphthalene	58	
110-75-8	2-Chloroethyl vinyl ether	52	

#### 1A - FORM I VOA-1 VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT	SAMPLE	NO.
LCSD-4	9650	,

Lab Name: MITKEM LABOR	ATORIES		Contract:		
Lab Code: MITKEM	Case No.:	J0337	Mod. Ref No.:	SDG No.: SJ0337	
Matrix: (SOIL/SED/WATER	) SOIL		Lab Sample ID:	LCSD-49650	
Sample wt/vol: 5.	00 (g/mL)	G	Lab File ID:	V5L6528.D	
Level: (TRACE/LOW/MED)	LOW		Date Received:	· · · · · · · · · · · · · · · · · · ·	
% Moisture: not dec.	0.0		Date Analyzed:	03/07/2010	
GC Column: DB-624	ID:	0.25 (mm	) Dilution Factor:	1.0	
Soil Extract Volume:		(uL	Soil Aliquot Vol	ume:	(uL)
Purge Volume: 10.0		(mL)	)		

		CONCENTRATION UNITS:	
CAS NO.	COMPOUND	(ug/L or ug/Kg) µg/KG	Q
74-87-3	Chloromethane	53	
	Vinyl chloride	53	
	Bromomethane	54	
75-00-3	Chloroethane	52	
75-69-4	Trichlorofluoromethane	52	
75-35-4	1,1-Dichloroethene	51	
67-64-1	Acetone	35	
75-15-0	Carbon disulfide	52	
75-09 <b>-</b> 2	Methylene chloride	58	
156-60-5	trans-1,2-Dichloroethene	54	
1634-04-4	Methyl tert-butyl ether	57	
	1,1-Dichloroethane	55	
108-05-4	Vinyl acetate	57	
78 <b>-</b> 93-3	2-Butanone	43	
156-59-2	cis-1,2-Dichloroethene	55	
67-66-3	Chloroform	55	
71-55-6	1,1,1-Trichloroethane	51	
56-23-5	Carbon tetrachloride	48	
107-06-2	1,2-Dichloroethane	57	
71-43-2	Benzene	55	
79-01-6	Trichloroethene	50	
78-87 <b>-</b> 5	1,2-Dichloropropane	57	
75-27-4	Bromodichloromethane	57	
10061-01-5	cis-1,3-Dichloropropene	57	
108-10-1	4-Methyl-2-pentanone	61	
108-88-3	Toluene	53	
	trans-1,3-Dichloropropene	56	
	1,1,2-Trichloroethane	61	
	Tetrachloroethene	47	
591-78-6	2-Hexanone	56	
	Dibromochloromethane	60	
	Chlorobenzene	54	
	Ethylbenzene	49	
	m,p-Xylene	94	
95-47-6	o-Xylene	48	

#### 1B - FORM I VOA-2 VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT	SAMPLE	NO.
LCSD-4	9650	

Lab Name: MITKEM LABOR	ATORIES		Contract:	
Lab Code: MITKEM	Case No.:	J0337	Mod. Ref No.:	SDG No.: SJ0337
Matrix: (SOIL/SED/WATER	R) SOIL		Lab Sample ID:	LCSD-49650
Sample wt/vol: 5.	00 (g/mL)	G	Lab File ID:	V5L6528.D
Level: (TRACE/LOW/MED)	LOW		Date Received:	
% Moisture: not dec.	0.0		Date Analyzed:	03/07/2010
GC Column: DB-624	ID:	0.25 (mm)	Dilution Factor:	1.0
Soil Extract Volume:		(uL)	Soil Aliquot Vol	ume: (uL)
Purge Volume: 10.0		(mL)		

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG	Q
1330-20-7	Xylene (Total)	140	
100-42-5	Styrene	53	
	Bromoform	63	
	Isopropylbenzene	44	
79-34-5	1,1,2,2-Tetrachloroethane	63	
103-65-1	n-Propylbenzene	42	
	1,3,5-Trimethylbenzene	43	
	tert-Butylbenzene	43	
95-63-6	1,2,4-Trimethylbenzene	44	
135-98-8	sec-Butylbenzene	41	
	4-Isopropyltoluene	41	
	1,3-Dichlorobenzene	46	
	1,4-Dichlorobenzene	46	
	n-Butylbenzene	42	
	1,2-Dichlorobenzene	47	
		51	
110-75-8	2-Chloroethyl vinyl ether	51	

#### 1D - FORM I SV-1 SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT	SAMPLE	NO.	
BCKFL			

Lab Name: MITKEM LABORATORIES	Contract:	
Lab Code: MITKEM Case No.: J0337	Mod. Ref No.:	SDG No.: SJ0337
Matrix: (SOIL/SED/WATER) SOIL	Lab Sample ID:	J0337-01A
Sample wt/vol: 30.3 (g/mL) G	Lab File ID:	S1G2446.D
Level: (LOW/MED) LOW	Extraction: (Type	e) SONC
% Moisture: 10 Decanted: (Y/N) N	Date Received:	03/03/2010
Concentrated Extract Volume: 1000 (uL)	Date Extracted:	03/04/2010
Injection Volume: 1.0 (uL) GPC Factor:	Date Analyzed:	03/09/2010
GPC Cleanup: (Y/N) N pH:	Dilution Factor:	1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) µg/Kg	
	·	<u>-</u>	
108-95-2		360	U
	Bis(2-chloroethyl)ether	360	U
	2-Chlorophenol	360	Ū
	1,3-Dichlorobenzene	360	Ū
	1,4-Dichlorobenzene	360	Ū
	1,2-Dichlorobenzene	360	Ū
	2-Methylphenol	360	U.
	2,2'-oxybis(1-Chloropropane)	360	Ū
	4-Methylphenol	360	U
	N-Nitroso-di-n-propylamine	360	Ū
	Hexachloroethane	360	U
	Nitrobenzene	360	Ū
78-59 <b>-</b> 1	Isophorone	360	U
88-75-5	2-Nitrophenol	360	Ü
105-67-9	2,4-Dimethylphenol	360	U
120-83-2	2,4-Dichlorophenol	360	U
120-82-1	1,2,4-Trichlorobenzene	360	U
91-20-3	Naphthalene	360	U
106-47-8	4-Chloroaniline	360	U
	Bis(2-chloroethoxy)methane	360	U
87 <b>-</b> 68-3	Hexachlorobutadiene	360	U
59-50-7	4-Chloro-3-methylphenol	360	U
91-57-6	2-Methylnaphthalene	360	Ū
	Hexachlorocyclopentadiene	360	Ū
88-06-2	2,4,6-Trichlorophenol	360	U
95-95-4	2,4,5-Trichlorophenol	740	U
91 <b>-</b> 58-7	2-Chloronaphthalene	360	U
88-74-4	2-Nitroaniline	740	U
131-11-3	Dimethylphthalate	360	U
208-96-8	Acenaphthylene	360	U
	2,6-Dinitrotoluene	360	Ū
99-09-2	3-Nitroaniline	740	U
83-32-9	Acenaphthene	360	U
	2,4-Dinitrophenol	740	U
100-02-7	4-Nitrophenol	740	U
132-64-9	Dibenzofuran	360	U

#### 1E - FORM I SV-2 SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT	SAMPLE	NO.
BCKFL		
		-

Lab Name: MITKEM LABORATORIES	Contract:
Lab Code: MITKEM Case No.: J0337	Mod. Ref No.: SDG No.: SJ0337
Matrix: (SOIL/SED/WATER) SOIL	Lab Sample ID: J0337-01A
Sample wt/vol: 30.3 (g/mL) G	Lab File ID: S1G2446.D
Level: (LOW/MED) LOW	Extraction: (Type) SONC
% Moisture: 10 Decanted: (Y/N) N	Date Received: 03/03/2010
Concentrated Extract Volume: 1000 (uL)	Date Extracted: 03/04/2010
Injection Volume: 1.0 (uL) GPC Factor: 1.00	Date Analyzed: 03/09/2010
GPC Cleanup: (Y/N) N pH:	Dilution Factor: 1.0

		CONCENTRATION UNITS:	T	
CAS NO.	COMPOUND	(ug/L or ug/Kg) μG/KG	2	
121-14-2	2,4-Dinitrotoluene	360	U	
84-66-2	Diethylphthalate	360	U	
7005-72-3	4-Chlorophenyl-phenylether	360	Ū	
86-73-7	Fluorene	360	Ū	
100-01-6	4-Nitroaniline	740	Ū	
534-52-1	4,6-Dinitro-2-methylphenol	740	U	
86-30-6	N-Nitrosodiphenylamine	360	U	
101-55-3	4-Bromophenyl-phenylether	360	U	
118-74-1	Hexachlorobenzene	360	U	
87-86-5	Pentachlorophenol	740	U	
85-01-8	Phenanthrene	360	U	
120-12-7	Anthracene	360	U	
86-74-8	Carbazole	360	U	
84-74-2	Di-n-butylphthalate	360	U	
206-44-0	Fluoranthene	360	Ū	
129-00-0	Pyrene	360	U	
85-68-7	Butylbenzylphthalate	360	U	
	3,3'-Dichlorobenzidine	360	U	
	Benzo(a)anthracene	360	Ü	
218-01-9		360	Ū	
117-81-7	*	360	U	
117-84-0		360	Ū	
205-99-2		360	Ū	
207-08-9	Benzo(k)fluoranthene	360	Ū	
50-32-8		360	Ū	
	Indeno(1,2,3-cd)pyrene	360	U	
	Dibenzo(a,h)anthracene	360	Ŭ	
191-24-2	Benzo(g,h,i)perylene	360	Ū	

#### 1D - FORM I SV-1 SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT	SAMPLE	NO.
LCS-49	583	

Lab Name: MITKEM	LABORATORIES	Contract:	
Lab Code: MITKEM	Case No.: J0337	Mod. Ref No.:	SDG No.: SJ0337
Matrix: (SOIL/SED/	WATER) SOIL	Lab Sample ID:	LCS-49583
Sample wt/vol:	30.0 (g/mL) G	Lab File ID:	S1G2443.D
Level: (LOW/MED)	LOW	Extraction: (Type	e) SONC
% Moisture:	Decanted: (Y/N)	Date Received:	:
Concentrated Extra	act Volume: 1000 (uL)	Date Extracted:	03/04/2010
Injection Volume:	1.0 (uL) GPC Factor: 1.00	Date Analyzed:	03/09/2010
GPC Cleanup: (Y/N)	N pH:	Dilution Factor:	1.0

		CONCENTRATION UNITS:	
CAS NO.	COMPOUND	(ug/L or ug/Kg) μG/KG	Q
108-95-2	Phenol	1400	1
111-44-4	Bis(2-chloroethy1)ether	1300	1
	2-Chlorophenol	1400	
541-73-1	1,3-Dichlorobenzene	1300	
	1,4-Dichlorobenzene	1300	
	1,2-Dichlorobenzene	1300	
95-48-7	2-Methylphenol	1400	
	2,2'-oxybis(1-Chloropropane)	1300	1
106-44-5	4-Methylphenol	1700	i
621-64-7	N-Nitroso-di-n-propylamine	1300	
	Hexachloroethane	1400	
98-95 <b>-</b> 3	Nitrobenzene	1400	
78-59-1	Isophorone	1300	
	2-Nitrophenol	1500	
	2,4-Dimethylphenol	1500	
	2,4-Dichlorophenol	1600	
120-82-1	1,2,4-Trichlorobenzene	1700	
91-20-3	Naphthalene	1500	
106-47-8	4-Chloroaniline	100	J
111-91-1	Bis(2-chloroethoxy)methane	1300	
87-68-3	Hexachlorobutadiene	1800	
59-50-7	4-Chloro-3-methylphenol	1700	
91-57-6	2-Methylnaphthalene	1500	
77-47-4	Hexachlorocyclopentadiene	1600	
88-06-2	2,4,6-Trichlorophenol	1500	
95-95-4	2,4,5-Trichlorophenol	1500	
91-58-7	2-Chloronaphthalene	1300	1
	2-Nitroaniline	1200	
131-11-3	Dimethylphthalate	1400	
208-96-8	Acenaphthylene	1200	
606-20-2	2,6-Dinitrotoluene	1400	
99-09-2	3-Nitroaniline	190	J
	Acenaphthene	1400	
51-28-5	2,4-Dinitrophenol	1400	
100-02-7	4-Nitrophenol	1400	
132-64-9	Dibenzofuran	1400	

#### 1E - FORM I SV-2 SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT	SAMPLE	NO.
LCS-49	583	
	*	

Lab Name: MITKEM LABORATORI	[ES	Contract:	·
Lab Code: MITKEM Case	e No.: J0337	Mod. Ref No.:	SDG No.: SJ0337
Matrix: (SOIL/SED/WATER) S	OIL	Lab Sample ID:	LCS-49583
Sample wt/vol: 30.0 (	g/mL) G	Lab File ID:	S1G2443.D
Level: (LOW/MED) LOW		Extraction: (Type	e) SONC
% Moisture: Decar	nted: (Y/N)	Date Received:	
Concentrated Extract Volume	: 1000 (uL)	Date Extracted:	03/04/2010
Injection Volume: 1.0 (uL)	GPC Factor: 1.00	Date Analyzed:	03/09/2010
GPC Cleanup: (Y/N) N	pH:	Dilution Factor:	1.0

		CONCENTRATION UNITS:	
CAS NO.	COMPOUND	(ug/L or ug/Kg) µG/KG	Q
121-14-2	2,4-Dinitrotoluene	1500	
84-66-2	Diethylphthalate	1300	
7005-72-3	4-Chlorophenyl-phenylether	1600	1
86-73-7	Fluorene	1500	
100-01-6	4-Nitroaniline	460	J
534-52-1	4,6-Dinitro-2-methylphenol	1300	
86-30-6	N-Nitrosodiphenylamine	1300	
101-55-3	4-Bromophenyl-phenylether	1800	
118-74-1	Hexachlorobenzene	1600	1
87-86-5	Pentachlorophenol	. 1600	
85-01-8	Phenanthrene	1600	
120-12-7	Anthracene	1300	
86-74-8	Carbazole	1400	
84-74-2	Di-n-butylphthalate	1400	
206-44-0	Fluoranthene	1400	
129-00-0	Pyrene	1300	
85-68-7	Butylbenzylphthalate	1100	
	3,3'-Dichlorobenzidine	17	J
56-55-3	Benzo(a)anthracene	1400	
218-01-9	1 -	1400	
117-81-7		1100	
	Di-n-octylphthalate	1500	
	Benzo(b) fluoranthene	1700	
	Benzo(k)fluoranthene	2100	
	Benzo(a)pyrene	1400	
	Indeno(1,2,3-cd)pyrene	1600	
	Dibenzo(a,h)anthracene	1800	
191-24-2	Benzo(g,h,i)perylene '	1500	

#### 1D - FORM I SV-1 SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT	SAMPLE	NO.
LCSD-4	9583	

Lab Name: MITKEM	LABORATORIES		Contract:	
Lab Code: MITKEM	Case No.: <u>J0337</u>		Mod. Ref No.:	SDG No.: SJ0337
Matrix: (SOIL/SED/	WATER) SOIL		Lab Sample ID:	LCSD-49583
Sample wt/vol:	30.0 (g/mL) G		Lab File ID:	S1G2444.D
Level: (LOW/MED)	LOW		Extraction: (Typ	e) SONC
% Moisture:	Decanted: (Y/N)		Date Received:	· 
Concentrated Extra	act Volume: 1000	(uL)	Date Extracted:	03/04/2010
Injection Volume:	1.0 (uL) GPC Factor:	1.00	Date Analyzed:	03/09/2010
GPC Cleanup: (Y/N)	N pH:		Dilution Factor:	1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG	Q
108-95-2	Phonol	1400	<u> </u>
	Bis(2-chloroethyl)ether	1200	<del>                                     </del>
	2-Chlorophenol	1400	+
	1,3-Dichlorobenzene	1200	_
	1,4-Dichlorobenzene	1200	-
	1,2-Dichlorobenzene	1300	<u> </u>
	2-Methylphenol	1400	-
	2,2'-oxybis(1-Chloropropane)	1200	<b></b>
	4-Methylphenol		<u> </u>
		1600	+
	N-Nitroso-di-n-propylamine Hexachloroethane	1300	1
		1300 1300	┼
	Nitrobenzene		
	Isophorone	1300	-
	2-Nitrophenol 2,4-Dimethylphenol	1300	-
	2,4-Dichlorophenol	1600	-
	1,2,4-Dichiorophenoi	1600	
	Naphthalene		<del> </del>
	4-Chloroaniline	1500	J.
	Bis(2-chloroethoxy)methane	140	J
	Hexachlorobutadiene	1300	-
		1600	
	4-Chloro-3-methylphenol	and the second s	<u> </u>
	2-Methylnaphthalene	1500	
	Hexachlorocyclopentadiene	1800	ļ
	2,4,6-Trichlorophenol	1500	
	2,4,5-Trichlorophenol	1600	1
	2-Chloronaphthalene 2-Nitroaniline	1400	1
		1300	_
	Dimethylphthalate	1400	
	Acenaphthylene	1300	
	2,6-Dinitrotoluene	1400	<del> </del>
	3-Nitroaniline	240	J
	Acenaphthene	1400	1
	2,4-Dinitrophenol	1500	+-
	4-Nitrophenol	1400	+-
132-64-9	Dibenzofuran	1500	

#### 1E - FORM I SV-2 SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.
LCSD-49583

Lab Name: MITKEM L	ABORATORIES	Contract:	
Lab Code: MITKEM	Case No.: J0337	Mod. Ref No.:	SDG No.: SJ0337
Matrix: (SOIL/SED/W	ATER) SOIL	Lab Sample ID:	LCSD-49583
Sample wt/vol:	30.0 (g/mL) G	Lab File ID:	S1G2444.D
Level: (LOW/MED) L	OW	Extraction: (Type	e) SONC
% Moisture:	Decanted: (Y/N)	Date Received:	
Concentrated Extrac	t Volume: 1000 (uL)	Date Extracted:	03/04/2010
Injection Volume: _	1.0 (uL) GPC Factor: 1.00	Date Analyzed:	03/09/2010
GPC Cleanup: (Y/N)	N pH:	Dilution Factor:	1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG	Q
121-14-2	2,4-Dinitrotoluene	1600	
84-66-2	Diethylphthalate	1300	
7005-72-3	4-Chlorophenyl-phenylether	1600	
86-73-7	Fluorene	1500	
100-01-6	4-Nitroaniline	450	J
534-52-1	4,6-Dinitro-2-methylphenol	1300	
86-30-6	N-Nitrosodiphenylamine	1400	
101-55-3	4-Bromophenyl-phenylether	1700	
118-74-1	Hexachlorobenzene	1600	
87-86-5	Pentachlorophenol	1500	
85-01 <b>-</b> 8	Phenanthrene	1600	
120-12-7	Anthracene	1200	
86-74-8	Carbazole	1300	
84-74-2	Di-n-butylphthalate	1300	
206-44-0	Fluoranthene	1400	
129-00-0	Pyrene	1200	
85-68-7	Butylbenzylphthalate	1100	
91-94-1	3,3'-Dichlorobenzidine	36	J
56-55-3	Benzo(a)anthracene	1200	
218-01-9	Chrysene	1300	
117-81-7	· · · · · · · · · · · · · · · · · · ·	1100	
117-84-0	Di-n-octylphthalate	1500	
205-99-2	Benzo(b)fluoranthene	1600	
	Benzo(k)fluoranthene	1900	
	Benzo(a)pyrene	1400	
193-39-5	Indeno(1,2,3-cd)pyrene	1400	
53-70-3	Dibenzo(a,h)anthracene	1500	
191-24-2	Benzo(g,h,i)perylene	1300	

CLIENT	SAMPLE	NO.
BCKFL		

Lab Name: MITKEM LABORATORIES	Contract:	
Lab Code: MITKEM Case No.: J0337	Mod. Ref No.:	SDG No.: SJ0337
Matrix: (SOIL/SED/WATER) SOIL	Lab Sample ID:	J0337-01A
Sample wt/vol: 30.5 (g/mL) G	Lab File ID:	E5F5807F.D/E5F5807R.D
% Moisture: 10 Decanted: (Y/N) N	Date Received:	03/03/2010
Extraction: (Type) SONC	Date Extracted:	03/03/2010
Concentrated Extract Volume: 5000 (uL)	Date Analyzed:	03/08/2010
Injection Volume: 1.0 (uL) GPC Factor: 2.00	Dilution Factor:	1.0
GPC Cleanup: (Y/N) Y pH:	Sulfur Cleanup:	(Y/N) Y

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG	Q
319-84-6	alpha-BHC	1.9	U
319-85 <b>-</b> 7	beta-BHC	1.9	U
319-86 <b>-</b> 8	delta-BHC	1.9	U
58-89-9	gamma-BHC (Lindane)	1.9	U
76-44-8	Heptachlor	1.9	U
309-00-2	Aldrin	1.9	U
1024-57-3	Heptachlor epoxide	1.9	U
959-98-8	Endosulfan I	1.9	U
60-57-1	Dieldrin	.3.6	U
72-55-9	4,4'-DDE	3.6	U
72-20-8	Endrin	3.6	U
33213-65-9	Endosulfan II	3.6	U
72-54-8	4,4'-DDD	3.6	U
1031-07-8	Endosulfan sulfate	3.6	U
50 <b>-</b> 29-3	4,4'-DDT	3.6	U
72-43-5	Methoxychlor	19	U
53494-70-5	Endrin ketone	3.6	U
7421-93-4	Endrin aldehyde	3.6	U
5103-71-9	alpha-Chlordane	1.9	U
5103-74-2	gamma-Chlordane	1.9	U
8001-35-2	Toxaphene	190	U

CLIENT SAMPLE NO.

LCS-49580(1)

Lab Name: MITKEM LABORATORIES	Contract:
Lab Code: MITKEM Case No.: J0337	Mod. Ref No.: SDG No.: SJ0337
Matrix: (SOIL/SED/WATER) SOIL	Lab Sample ID: LCS-49580
Sample wt/vol:30 (g/mL) G	Lab File ID: E5F5804F.D
% Moisture: Decanted: (Y/N)	Date Received:
Extraction: (Type) SONC	Date Extracted: 03/03/2010
Concentrated Extract Volume: 5000 (uL)	Date Analyzed: 03/08/2010
Injection Volume: 1.0 (uL) GPC Factor: 2.00	Dilution Factor: 1.0
GPC Cleanup:(Y/N) Y pH:	Sulfur Cleanup: (Y/N) Y

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG	Q
319-84-6	alpha-BHC	5.8	
319-85-7	beta-BHC	6.2	
319-86-8	delta-BHC	6.5	
58-89-9	gamma-BHC (Lindane)	5.8	
76-44-8	Heptachlor	6.0	
309-00-2	Aldrin	5.7	
1024-57-3	Heptachlor epoxide	6.3	
959-98-8	Endosulfan I	5.1	
60-57-1	Dieldrin	13	-
72-55-9	4,4´-DDE	14	
72-20-8	Endrin	13	
33213-65-9	Endosulfan II	12	
72-54-8	4,4'-DDD	14	
1031-07-8	Endosulfan sulfate	15	
50-29-3	4,4'-DDT	13	
72-43-5	Methoxychlor	66	
53494-70-5	Endrin ketone	14	
7421-93-4	Endrin aldehyde	13	
5103-71-9	alpha-Chlordane	6.3	1
5103-74-2	gamma-Chlordane	6.3	
8001-35-2	Toxaphene	170	U

CLIENT SAMPLE NO.

LCS-49580(2)

Lab Name: MITKEM LA	ABORATORIES	Contract:	
Lab Code: MITKEM	Case No.: J0337	Mod. Ref No.:	SDG No.: SJ0337
Matrix: (SOIL/SED/W	ATER) SOIL	Lab Sample ID:	LCS-49580
Sample wt/vol:	30 (g/mL) G	Lab File ID:	E5F5804R.D
% Moisture:	Decanted: (Y/N)	Date Received:	
Extraction: (Type)	SONC	Date Extracted:	03/03/2010
Concentrated Extrac	t Volume: 5000 (uL)	Date Analyzed:	03/08/2010
Injection Volume:	1.0 (uL) GPC Factor: 2.00	Dilution Factor:	1.0
GPC Cleanup: (Y/N)	Y рн:	Sulfur Cleanup:	(Y/N) <u>Y</u>

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG	Q
319-84-6	alpha-BHC	5.9	1.
319-85-7	beta-BHC	6.3	
319-86-8	delta-BHC	6.9	
58-89-9	gamma-BHC (Lindane)	6.1	
76-44-8	Heptachlor	6.0	
309-00-2	Aldrin	6.0	
1024-57-3	Heptachlor epoxide	6.4	
959-98-8	Endosulfan I	5.3	
60-57-1	Dieldrin	14	
72-55-9	4,4'-DDE	14	
72-20-8	Endrin	13	•
33213-65-9	Endosulfan II	12	
72-54-8	4,4'-DDD	14	
1031-07-8	Endosulfan sulfate	14	
50-29-3	4,4´-DDT	14	
72-43-5	Methoxychlor	71	
53494-70-5	Endrin ketone	14	
7421-93-4	Endrin aldehyde	13	
5103-71-9	alpha-Chlordane	6.5	
5103-74-2	gamma-Chlordane	6.5	
8001-35-2	Toxaphene	170	U
	· ·		_

		SAMPLE	
ı	LCSD-4	9580(1)	

Lab Name: MITKEM LABORATORIES	Contract:	
Lab Code: MITKEM Case No.: J0337	Mod. Ref No.: SDG No.: SJ0337	
Matrix: (SOIL/SED/WATER) SOIL	Lab Sample ID: LCSD-49580	
Sample wt/vol: 30 (g/mL) G	Lab File ID: E5F5805F.D	
% Moisture: Decanted: (Y/N)	Date Received:	
Extraction: (Type) SONC	Date Extracted: 03/03/2010	
Concentrated Extract Volume: 5000 (uL)	Date Analyzed: 03/08/2010	
Injection Volume: (uL) GPC Factor: 2.00	Dilution Factor: 1.0	
GPC Cleanup: (Y/N) Y pH:	Sulfur Cleanup: (Y/N) Y	

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG	0
319-84-6	alpha-BHC	5.9	
319-85-7	beta-BHC	6.3	
319-86-8	delta-BHC	6.6	+
58-89-9	gamma-BHC (Lindane)	5.9	+ .
76-44-8	Heptachlor	6.1	<del> </del>
309-00-2	Aldrin	5.8	
1024-57-3	Heptachlor epoxide	6.4	
959-98-8	Endosulfan I	5.1	
60-57-1	Dieldrin	14	
72-55-9	4,4´-DDE	14	
72-20-8	Endrin	13	
33213-65-9	Endosulfan II	.12	
72-54-8	4,4'-DDD	14	
1031-07-8	Endosulfan sulfate	15	
50-29-3	4,4'-DDT	13	
72-43-5	Methoxychlor	66	
53494-70-5	Endrin ketone	14	
7421-93-4	Endrin aldehyde	13	
5103-71-9	alpha-Chlordane	6.4	
5103-74-2	gamma-Chlordane	6.4	
8001-35-2	Toxaphene	170	U

CLIENT	SAMPLE	NO.
LCSD-4	9580(2)	

Lab Name: MITKEM	LABORATORIES	Contract:	
Lab Code: MITKEM	Case No.: J0337	Mod. Ref No.:	SDG No.: SJ0337
Matrix: (SOIL/SED	/WATER) SOIL	Lab Sample ID:	LCSD-49580
Sample wt/vol:	30 (g/mL) G	Lab File ID:	E5F5805R.D
% Moisture:	Decanted: (Y/N)	Date Received:	
Extraction: (Type	) SONC	Date Extracted:	03/03/2010
Concentrated Extra	act Volume: 5000 (uL)	Date Analyzed:	03/08/2010
Injection Volume:	1.0 (uL) GPC Factor: 2.00	Dilution Factor:	1.0
GPC Cleanup: (Y/N)	Y рН:	Sulfur Cleanup:	(Y/N) Y

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG	Q
319-84-6	alpha-BHC	6.0	
319-85-7	beta-BHC	6.4	
319-86-8	delta-BHC	7.0	
58-89-9	gamma-BHC (Lindane)	6.2	
76-44-8	Heptachlor	6.1	
309-00-2	Aldrin	6.0	
1024-57-3	Heptachlor epoxide	6.6	
959-98-8	Endosulfan I	5.4	-
60-57-1	Dieldrin	14	
72-55-9	4,4'-DDE	14	
72-20-8	Endrin	14	
33213-65-9	Endosulfan II	12	
72-54-8	4,4'-DDD	14	
1031-07-8	Endosulfan sulfate	14	
50-29-3	4,4´-DDT	. 14	
72-43-5	Methoxychlor	71	
53494-70-5	Endrin ketone	15	
7421-93-4	Endrin aldehyde	13	*
5103-71-9	alpha-Chlordane	6.6	
5103-74-2	gamma-Chlordane	6.7	
8001-35-2	Toxaphene	170	U

# 1H - FORM I ARO AROCLOR ORGANICS ANALYSIS DATA SHEET

CLIENT	SAMPLE	NO.	
BCKFL			

Lab Name: MITKEM LABORATORIES	Contract:	
Lab Code: MITKEM Case No.: J0337	Mod. Ref No.:	SDG No.: SJ0337
Matrix: (SOIL/SED/WATER) SOIL	Lab Sample ID:	J0337-01A
Sample wt/vol: 30.5 (g/mL) G	Lab File ID:	E3H1022F.D/E3H1022R.D
% Moisture: 10 Decanted: (Y/N) N	Date Received:	03/03/2010
Extraction: (Type) SONC	Date Extracted:	03/03/2010
Concentrated Extract Volume: 5000 (uL)	Date Analyzed:	03/08/2010
Injection Volume: 1.0 (uL) GPC Factor: 2.00	Dilution Factor:	1.0
GPC Cleanup: (Y/N) Y pH:	Sulfur Cleanup:	(Y/N) Y
Acid Cleanup: (Y/N) Y		

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG	Q
12674-11-2	Aroclor-1016	36	U
11104-28-2	Aroclor-1221	36	U
11141-16-5	Aroclor-1232	36	U
53469-21-9	Aroclor-1242	36	U
12672-29-6	Aroclor-1248	36	U .
11097-69-1	Aroclor-1254	36	U
11096-82-5	Aroclor-1260	36	U

#### 1H - FORM I ARO AROCLOR ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

LCS-49579(1)

Lab Name: MITKEM LABORATORIES	Contract:	
Lab Code: MITKEM Case No.: J0337	Mod. Ref No.: SDG No.: SJ03	37
Matrix: (SOIL/SED/WATER) SOIL	Lab Sample ID: LCS-49579	
Sample wt/vol: 30 (g/mL) G	Lab File ID: E3H0955F.D	
% Moisture: Decanted: (Y/N)	Date Received:	
Extraction: (Type) SONC	Date Extracted: 03/03/2010	
Concentrated Extract Volume: 10000 (uL)	Date Analyzed: 03/05/2010	
Injection Volume: 1.0 (uL) GPC Factor: 1.00	Dilution Factor: 1.0	
GPC Cleanup: (Y/N) N pH:	Sulfur Cleanup: (Y/N) Y	

Acid Cleanup: (Y/N) Y

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG	Q
12674-11-2	Aroclor-1016	120	-
11104-28-2	Aroclor-1221	33 U	
11141-16-5	Aroclor-1232	33 U	
53469-21-9	Aroclor-1242	33 U	
12672-29-6	Aroclor-1248	33 U	
11097-69-1	Aroclor-1254	33 U	
11096-82-5	Aroclor-1260	130	

# 1H - FORM I ARO AROCLOR ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

LCS-49579(2)

Lab Name: MITKEM LABORATORIES	Contract:	
Lab Code: MITKEM Case No.: J0337	Mod. Ref No.:	SDG No.: SJ0337
Matrix: (SOIL/SED/WATER) SOIL	Lab Sample ID:	LCS-49579
Sample wt/vol: 30 (g/mL) G	Lab File ID:	E3H0955R.D
% Moisture: Decanted: (Y/N)	Date Received:	
Extraction: (Type) SONC	Date Extracted:	03/03/2010
Concentrated Extract Volume: 10000 (uL)	Date Analyzed:	03/05/2010
<pre>Injection Volume:1.0 (uL) GPC Factor:</pre>	Dilution Factor:	1.0
GPC Cleanup: (Y/N) N pH:	Sulfur Cleanup:	(Y/N) Y
Acid Cleanup: (Y/N) Y		

CAS NO.	COMPOUND		CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG	Q
12674-11-2	Aroclor-1016		120	
11104-28-2	Aroclor-1221		33	U
11141-16-5	Aroclor-1232		33	U
53469-21-9	Aroclor-1242		33	U
12672-29-6	Aroclor-1248		33	U
11097-69-1	Aroclor-1254		33	U
11096-82-5	Aroclor-1260	**	140	

## 1H - FORM I ARO AROCLOR ORGANICS ANALYSIS DATA SHEET

CLIENT	SAMPLE	NO.
LCSD-4	9579(1)	
1		

Lab Name: MITKEM LABORATORIES	Contract:
Lab Code: MITKEM Case No.: J0337	Mod. Ref No.: SDG No.: SJ0337
Matrix: (SOIL/SED/WATER) SOIL	Lab Sample ID: LCSD-49579
Sample wt/vol: 30 (g/mL) G	Lab File ID: E3H0956F.D
% Moisture: Decanted: (Y/N)	Date Received:
Extraction: (Type) SONC	Date Extracted: 03/03/2010
Concentrated Extract Volume: 10000 (uL)	Date Analyzed: 03/05/2010
Injection Volume: 1.0 (uL) GPC Factor: 1.00	Dilution Factor: 1.0
GPC Cleanup:(Y/N) N pH:	Sulfur Cleanup: (Y/N) Y

Acid Cleanup: (Y/N) Y

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG	Q
12674-11-2	Aroclor-1016	120	
11104-28-2	Aroclor-1221	33	Ū
11141-16-5	Aroclor-1232	33	U
53469-21-9	Aroclor-1242	33	U
12672-29-6	Aroclor-1248	33	U
11097-69-1	Aroclor-1254	33	Ū
11096-82-5	Aroclor-1260	130	

## 1H - FORM I ARO AROCLOR ORGANICS ANALYSIS DATA SHEET

CLIENT	SAMPLE	NO.
LCSD-4	9579(2)	

Lab Name: MITKEM LABORATORIES	Contract:	
Lab Code: MITKEM Case No.: J0337	Mod. Ref No.:	SDG No.: SJ0337
Matrix: (SOIL/SED/WATER) SOIL	Lab Sample ID:	LCSD-49579
Sample wt/vol: 30 (g/mL) G	Lab File ID:	E3H0956R.D
% Moisture: Decanted: (Y/N)	Date Received:	
Extraction: (Type) SONC	Date Extracted:	03/03/2010
Concentrated Extract Volume: 10000 (uL)	Date Analyzed:	03/05/2010
Injection Volume: 1.0 (uL) GPC Factor: 1.00	Dilution Factor:	1.0
GPC Cleanup: (Y/N) N pH:	Sulfur Cleanup:	(Y/N) Y
7 1 2 0		

Acid Cleanup: (Y/N) Y

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) µg/KG	Q
12674-11-2	Aroclor-1016	120	
11104-28-2	Aroclor-1221	33	U
11141-16-5	Aroclor-1232	33	U
53469-21-9	Aroclor-1242	33	U
12672-29-6	Aroclor-1248	33	U
11097-69-1	Aroclor-1254	33	U
11096-82-5	Aroclor-1260	130	

EPA SAMPLE NO.

### INORGANIC ANALYSIS DATA SHEET

Lab Name: Mitkem Laboratories

Contract:

BCKFL 209025

Lab Code: MITKEM

SDG No.: SJ0337

Matrix (soil/water):

SOIL

Case No.:

SAS No.:

J0337-01

Level (low/med): MED

Lab Sample ID:

Date Received:

03/03/2010

% Solids: 90.0

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	С	Q	M
7429-90-5	Aluminum	3640			Р
7440-36-0	Antimony	0.11	U		P
7440-38-2	Arsenic	2.1			P
7440-39-3	Barium	28.0			P
7440-41-7	Beryllium	0.19	<u> </u>		P
7440-43-9	Cadmium	0.079	В		P
7440-70-2	Calcium	70300			P
7440-47-3	Chromium	4.1			P
7440-48-4	Cobalt	3.5			P
7440-50-8	Copper	13.7			P
7439-89-6	Iron	8490			Р
7439-92-1	Lead	3.7		-	P
7439-95-41	Magnesium	7720			P
7439-96-51	Manganese	420			P
7439-97-61	Mercury	0.0055	Ū		CV
7440-02-01	Nickel	7.5			P
7440-09-7	Potassium	418			Р
7782-49-2	Selenium	0.47	U		Р
7440-22-4	Silver	0.048	U		P
7440-23-5	Sodium	60.9			P
7440-28-0	Thallium	0.64			P
7440-62-2	Vanadium	6.5			P
7440-66-6	Zinc	27.9			P
57-12-5	Cyanide	0.31	В	<del></del>	CA

Commer	nts:			

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### LABORATORY CONTROL SAMPLE

Lab Name: Mitkem Lab		atories	Contract: 209025		
Lab Code:	MITKEM	Case No.:	SAS No.:	SDG No.:	SJ0337
Solid LCS	Source:		_	LCS(D) ID:	
Aqueous LC	S Source:		-	LCS-49678	

Aqueous (ug/l			٠)		Solid (mg/Kg)				
Analyte	True	Found	%R	True	Found	С	Limits	%R	
Mercury				0.8	0.	8	0.6	0.9 100.0	

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### LABORATORY CONTROL SAMPLE

Lab Name: Mitkem Laboratories			Contract:	209025			
Lab Code:	MITKEM	Case No.:	SAS No.:		SDG No.:	SJ0337	
Solid LCS	Source:				LCS(D) ID:		
Aqueous LO	CS Source:				LCS-49688		

	Aqu	eous (ug/I	۲)	Solid (mg/Kg)				
Analyte	True	Found	%R	True	Found	С	Limits	%R
Cyanide				5.0	5.	4	4	6.0 108.0

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### LABORATORY CONTROL SAMPLE

Lab Name:	Mitkem Laborat	tories	Contract:	209025					
Lab Code:	MITKEM	Case No.:	SAS No.:	*	SDG No.:	SJ0337			
Solid LCS	Source:		-		LCS(D) ID:				
Aqueous Lo	CS Source:				LCS-49706				

	Aqu	eous (ug/I	۱)		Solid	l (mg/Kg)		
Analyte	True	Found	%R	True	Found	C Lim	its	%R
Aluminum				455.0	434.3	364	546.0	95.5
Antimony				22.8	25.9	18.2	27.3	113.6
Arsenic	***			22.8	22.4	18.2	27.3	98.2
Barium				455.0	439.3	364	546.0	96.5
Beryllium				11.4	11.1	9.1	13.6	97.4
Cadmium				11.4	11.3	9.1	13.6	99.1
Calcium				1135.0	1084.8	908	1362.0	95.6
Chromium				45.5	44.0	36.4	54.6	96.7
Cobalt				113.5	112.0	90.8	136.2	98.7
Copper				56.5	55.1	45.2	67.8	97.5
Iron				227.5	225.7	182	273.0	99.2
Lead				22.8	23.0	18.2	27.3	100.9
Magnesium				1135.0	1085.1	908	1362.0	95.6
Manganese			•	113.5	113.4	90.8	136.2	99.9
Nickel				113.5	110.8	90.8	136.2	97.6
Potassium				1135.0	1141.8	908	1362.0	100.6
Selenium				22.8	22.1	18.2	27.3	96.9
Silver				56.5	59.3	42.4	67.8	105.0
Sodium				1135.0	1150.4	908	1362.0	101.4
Thallium				22.8	23.0	18.2	27.3	100.9
Vanadium				113.5	110.6	90.8	136.2	97.4
Zinc				113.5	109.8	90.8	136.2	96.7

### 2D - FORM II VOA-4

### SOIL VOLATILE DEUTERATED MONITORING COMPOUND RECOVERY

Lab Name: MITKEM LABORATORIES Contract:

Lab Code: MITKEM Case No.: J0337 Mod. Ref No.: SDG No.: SJ0337

Level: (LOW/MED) LOW

	CLIENT	VDMC1	VDMC2	VDMC3	VDMC4			TOT
	SAMPLE NO.	(DBFM) #	(DCE) #	(TOL) #	(BFB) #			OUT
01	LCS-49650	94	96	101	103			0
02	LCSD-49650	93	93	101	102			
03	MB-49650	98	96	99	102			0
04	BCKFL	94	84	100	101	*		0

		QC LIMITS
VDMC1	(DBFM) Dibromofluoromethane	(65-132)
VDMC2	(DCE) = 1,2-Dichloroethane-d4	(65-128)
VDMC3	(TOL) = Toluene-d8	(85-115)
VDMC4	(BFB) = Bromofluorobenzene	(77-111)

<sup>#</sup> Column to be used to flag recovery values

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<sup>\*</sup> Values outside of contract required QC limits

### 2K - FORM II SV-4

### SOIL SEMIVOLATILE DEUTERATED MONITORING COMPOUND RECOVERY

Lab Name: MITKEM LABORATORIES Contract:

Lab Code: MITKEM Case No.: J0337 Mod. Ref No.: SDG No.: SJ0337

Level: (LOW/MED) LOW

	CLIENT	SDMC1	SDMC2	SDMC3	SDMC4	SDMC5	SDMC6		TOT
	SAMPLE NO.	(NBZ) #	(FBP) #	(TPH) #	(PHL) #	(2FP) #	(TBP) #		OUT
01	MB-49583	88	90	89	89	86	111		0
02	LCS-49583	90	88	88	86	86	112		0
03	LCSD-49583	90	93	89	85	90	110	·	0
04	BCKFL	70	77	77	62	67	67	·	0

		QC LIMITS
SDMC1	(NBZ) = Nitrobenzene-d5	(35-100)
SDMC2	(FBP) = 2-Fluorobiphenyl	(45-105)
SDMC3	(TPH) = Terphenyl-d14	(30-125)
SDMC4	(PHL) = Phenol-d5	(40-100)
SDMC5	(2FP) = 2-Fluorophenol	(35-105)
SDMC6	(TBP) = 2, 4, 6-Tribromophenol	(35-125)

<sup>#</sup> Column to be used to flag recovery values

<sup>\*</sup> Values outside of contract required QC limits

D DMC diluted out

### 2P - FORM II PEST-2 SOIL PESTICIDE SURROGATE RECOVERY

Lab Name: MITKEM LABORATORIES

Contract:

Lab Code: MITKEM

Case No.: J0337

Mod. Ref No.:

SDG No.: SJ0337

GC Column(1): CLPPest ID: 0.53 (mm) GC Column(2): CLPPestII

ID: 0.53 (mm)

	CLIENT	TCX 1	TCX 2	DCB 1	DCB 2	OTHER	OTHER	TOT
	SAMPLE NO.	%REC #	%REC #	%REC #	%REC #	(1)	(2)	OUT
01	MB-49580	80	83	100	107			0
02	LCS-49580	78	80	98	104		,	0
03	LCSD-49580	82	87	103	110			0
04	BCKFL	72	74	90	99			0

QC LIMITS

(14-113)

(55-130)

TCX = Tetrachloro-m-xylene

DCB = Decachlorobiphenyl

# Column to be used to flag recovery values

- \* Values outside of QC limits
- D Surrogate diluted out

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## 2R - FORM II ARO-2 SOIL AROCLOR SURROGATE RECOVERY

Lab Name: MITKEM LABORATORIES

Contract:

Lab Code: MITKEM

Case No.: J0337

Mod. Ref No.:

SDG No.: SJ0337

GC Column(1): CLPPest

ID: 0.53 (mm) GC Column(2): CLPPestII

ID: 0.53 (mm)

	CLIENT	TCX 1	TCX 2	DCB 1	DCB 2	OTHER	OTHER	TOT
	SAMPLE NO.	%REC #	%REC #	%REC #	%REC #	(1)	(2)	OUT
01	MB-49579	69	76	86	84			0
02	LCS-49579	73	79	88	. 87			0
03	LCSD-49579	84	89	91	89			0
04	BCKFL	71	76	85	84	-		0

QC LIMITS

(13-120)

(60-125)

TCX = Tetrachloro-m-xylene

DCB = Decachlorobiphenyl

# Column to be used to flag recovery values

\* Values outside of QC limits

D Surrogate diluted out

 $SOM_002$ 

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# 3 - FORM III SOIL LABORATORY CONTROL SAMPLE RECOVERY

CLIENT SAMPLE NO.

LCS-49650

Lab Name: MITKEM LABORATORIES Contract:

Lab Code: MITKEM Case No.: J0337 Mod. Ref No.: SDG No.: SJ0337

Lab Sample ID: LCS-49650 LCS Lot No.:

Date Extracted: 03/07/2010 Date Analyzed (1): 03/07/2010

	ODIVE	CAMPLE	T 00			00
COMBOLIND	SPIKE	SAMPLE	LCS		,,	QC.
COMPOUND	ADDED	CONCENTRATION	CONCENTRATION	LCS %REC	#	LIMITS
Ch l		0.0000	50.000	. 100		REC.
Chloromethane	50.0000	0.0000	50.8990	102		50 - 130
Vinyl chloride	50.0000	0.0000	50.3250	101		60 - 125
Bromomethane	50.0000	0.0000	49.3526			30 - 160
Chloroethane	50.0000	0.0000	51.4824	103		40 - 155
Trichlorofluoromethane	50.0000	0.0000	50.8552	102		25 - 185
1,1-Dichloroethene	50.0000	0.0000	49.5836			65 - 135
Acetone	50.0000	0.0000	31.9411	64		20 - 160
Carbon disulfide	50.0000	0.0000	51.5976	103		45 - 160
Methylene chloride	50.0000	0.0000	52.8141	106	, i	55 - 140
trans-1,2-Dichloroethene	50.0000	0.0000	50.5822	101		65 - 135
Methyl tert-butyl ether	50.0000	0.0000	52.6292	105		75 - 126
1,1-Dichloroethane	50.0000	0.0000	52,4474	105		75 - 125
Vinyl acetate	50.0000	0.0000	52.2920	105		65 - 138
2-Butanone	50.0000	0.0000	41.4454	83		30 - 160
cis-1,2-Dichloroethene	50.0000	0.0000	52.6279	105		65 - 125
Chloroform	50.0000	0.0000	52.2313	104		70 - 125
1,1,1-Trichloroethane	50.0000	0.0000	51.7862	104		70 - 135
Carbon tetrachloride	50.0000	0.0000	50.7147	101		65 - 135
1,2-Dichloroethane	50.0000	0.0000	52.3042	105		70 - 135
Benzene	50.0000	0.0000	53.0740	106		75 - 125
Trichloroethene	50.0000	0.0000	51.3969	103		75 - 125
1,2-Dichloropropane	50.0000	0.0000	54.1255	108		70 - 120
Bromodichloromethane	50.0000	0.0000	54.7292	109		70 - 130
cis-1,3-Dichloropropene	50.0000	0.0000	53.5413	107		70 - 125
4-Methyl-2-pentanone	50.0000	0.0000	54.4410	109		45 - 145
Toluene	50.0000	0.0000	56.1778	112		70 - 125
trans-1,3-Dichloropropene	50.0000	0.0000	54.6023	109		65 - 125
1,1,2-Trichloroethane	50.0000	0.0000	54.3178	109		60 - 125
Tetrachloroethene	50.0000	0.0000	54.0872	108		65 - 140
2-Hexanone	50.0000	0.0000	46.8596	94		45 - 145
Dibromochloromethane	50.0000	0.0000	55.7471	111		65 - 130
Chlorobenzene	50.0000	0.0000	57.3973	115		75 - 125
Ethylbenzene	50.0000	0.0000	55.6851	111		75 - 125
m,p-Xylene	100.0000	0.0000	109.3887	109		80 - 125
o-Xylene	50.0000	0.0000	55.8265	112		75 - 125
Xylene (Total)	150.0000	0.0000	165.2152	110		83 - 125
Styrene	50.0000	0.0000	56.7271	113		75 - 125
Bromoform	50.0000	0.0000	57.6424	115		55 - 135
Isopropylbenzene	50.0000	0.0000	55.3508	111		75 - 130
1,1,2,2-Tetrachloroethane	50.0000	0.0000	54.9011	110		55 - 130
n-Propylbenzene	50.0000	0.0000	54.0639	108		65 - 135
1,3,5-Trimethylbenzene	50.0000	0.0000	55.2962	111		65 - 135
tert-Butylbenzene	50.0000	0.0000	54.2031	108		65 - 130
1,2,4-Trimethylbenzene	50.0000	0.0000	54.5482	109	-,	65 - 135

# 3 - FORM III SOIL LABORATORY CONTROL SAMPLE RECOVERY

CLIENT SAMPLE NO.

LCS-49650

Lab	Name: MI	TKEM LABO	RATORIES		Contract	<u> </u>					
Lab	Code: MI	TKEM	Case No.	<b>:</b> J0337	Mod. Ref	No.:	SDG No	0.:	SJC	337	
Lab	Sample ID	LCS-4	9650		LCS Lot 1	No.:					
Date	e Extracte	d: 03/07	/2010		Date Ana	lyzed (1): $0$	3/07/2010				
				SPIKE	SAMPLE	LCS			QC.		
	COMPOUND			ADDED	CONCENTRATION	CONCENTRATION	LCS %REC	# 3	LIMI		-
	COMPOUND						200 01.20	"   -	REC		
	sec-Butylbenzene			50.0000	0.0000	53.8755	108	6	5 -	130	ŀ
	4-Isopro	pyltoluene		50.0000	0.0000	54.9363	110	7!	5 -	135	
	1,3-Dichlorobenzene			50.0000	0.0000	54.2447	108	71	) –	125	
	1,4-Dich	lorobenzen	9	50.0000	0.0000	55.3945	111	70	) –	125	
	n-Butylbe	enzene		50.0000	0.0000	54.5322	109	6!	<u> </u>	140	
	1,2-Dich	lorobenzene	3	50.0000	0.0000	54.7592	110	7!	5 —	120	
	Naphthale	ene		50.0000	0.0000	58.4809	117	4(	) –	125	
	2-Chloro	ethyl viny	Lether	50.0000	0.0000	52.2445	104	70	) –	130	
* Va	lumn to be lues outside Recovery:	de of QC li			alues with an as	sterisk		,		,	
COMM	ENTS:										

## 3 - FORM III

## SOIL LABORATORY CONTROL SAMPLE DUPLICATE RECOVERY

EPA SAMPLE NO.

LCSD-49650

Lab Name: MITKEM LABORATORIES

Contract:

Lab Code: MITKEM Case No.: J0337

Mod. Ref No.:

SDG No.: SJ0337

Lab Sample ID: LCSD-49650

LCS Lot No.:

	SPIKE	LCSD					QC	LIMITS
	ADDED	CONCENTRATION	LCSD %REC	#	%RPD	#		
COMPOUND							RPD	REC.
Chloromethane	50.0000	1 .			5		40	50 - 130
Vinyl chloride	50.0000	-			5		40	60 - 125
Bromomethane	50.0000				9		40	30 - 160
Chloroethane	50.0000				1		40	40 - 155
Trichlorofluoromethane	50.0000				1		40	25 - 185
1,1-Dichloroethene	50.0000				3		40	65 - 135
Acetone	50.0000				10		40	20 - 160
Carbon disulfide	50.0000				2		40	45 - 160
Methylene chloride	50.0000				10		40	55 - 140
trans-1,2-Dichloroethene	50.0000	54.1321	108		7		40	65 - 135
Methyl tert-butyl ether	50.0000	'	114		8		40	75 - 126
1,1-Dichloroethane	50.0000	55.4570	111	Ī	6		40	75 - 125
Vinyl acetate	50.0000	56.9377	114		8		40	65 - 138
2-Butanone	50.0000	43.3316	87	·	5		40	30 - 160
cis-1,2-Dichloroethene	50.0000	55.1307	110		5		40	65 - 125
Chloroform	50.0000	55.3011	111		7		40	70 - 125
1,1,1-Trichloroethane	50.0000	50.9890	102		2		40	70 - 135
Carbon tetrachloride	50.0000	48.3962	97		4		40	65 - 135
1,2-Dichloroethane	50.0000	56.9949	114		8		40	70 - 135
Benzene	50.0000	55.4315	111		5		40	75 - 125
Trichloroethene	50.0000	49.7477	99		4		40	75 - 125
1,2-Dichloropropane	50.0000	56.5167	113		5		40	70 - 120
Bromodichloromethane	50.0000	57.0234	114		4		40	70 - 130
cis-1,3-Dichloropropene	50.0000	56.5397	113		5		40	70 - 125
4-Methyl-2-pentanone	50.0000	61.3230	123		12		40	45 - 145
Toluene	50.0000	52.7897	106		6		40	70 - 125
trans-1,3-Dichloropropene	50.0000	56.0830	112		3		40	65 - 125
1,1,2-Trichloroethane	50.0000	60.9775	122		11		40	60 - 125
Tetrachloroethene	50.0000	46.8674	94		14		40	65 - 140
2-Hexanone	50.0000	56.1591	112		17		40	45 - 145
Dibromochloromethane	50.0000	59.7813	120		8		40	65 - 130
Chlorobenzene	50.0000	54.0427	108		6		40	75 - 125
Ethylbenzene	50.0000	48.6001	97		13	$\neg$	40	75 - 125
m,p-Xylene	100.0000	93.8249	94		15		40	80 - 125
o-Xylene	50.0000	48.2705	97		14		40	75 - 125
Xylene (Total)	150.0000	142.0954	95		15		40	83 - 125
Styrene	50.0000				7		40	75 - 125
Bromoform	50.0000				10		40	55 - 135
Isopropylbenzene	50.0000				23		40	75 - 130
1,1,2,2-Tetrachloroethane	50.0000				14		40	55 - 130
n-Propylbenzene	50.0000				25		40	65 - 135
1,3,5-Trimethylbenzene	50.0000				25		40	65 - 135
tert-Butylbenzene	50.0000				22		40	65 - 130
1,2,4-Trimethylbenzene	50.0000				22		40	65 - 135
sec-Butylbenzene	50.0000				27	$\dashv$	40	65 - 130
4-Isopropyltoluene	50.0000				28		40	75 - 135
L		<u> </u>						

### 3 - FORM III

## SOIL LABORATORY CONTROL SAMPLE DUPLICATE RECOVERY

EPA SAMPLE NO.

LCSD-49650

Lab Name: MITKEM LABORATORIES			Contract:				
Lab Code:	MITKEM (	Case No.:	J0337	Mod. Ref No.:	SDG No.:	SJ0337	
Lab Sample	ID: LCSD-496	550		LCS Lot No.:			

	SPIKE ADDED	LCSD CONCENTRATION	LCSD %REC	#	%RPD	#	QC	LIMITS
COMPOUND	ADDED	CONCENTIATION	HCDD SINEC	π	OKID	π .	RPD	REC.
1,3-Dichlorobenzene	50.0000	45.5749	91		17		40	70 - 125
1,4-Dichlorobenzene	50.0000	46.3639	93		18		40	70 - 125
n-Butylbenzene	50.0000	41.5269	83		27		40	65 - 140
1,2-Dichlorobenzene	50.0000	47.3630	95		15		40	75 - 120
Naphthalene	50.0000	50.9343	102		14		40	40 - 125
2-Chloroethyl vinyl ether	50.0000	51.1270	102		2		40	70 - 130

<sup>#</sup> Column to be used to flag recovery and RPD values with an asterisk

*	Values	outside	٥f	OC.	limits

RPD:	0	out of	52	outside	lim	its			
Spike	Recove	ry:	0	out of _	52	outside	limits		
COMME	NTS:		,					 	

# 3 - FORM III SOIL LABORATORY CONTROL SAMPLE RECOVERY

CLIENT SAMPLE NO.

LCS-49583

Lab Name: MITKEM LABORATORIES Contract:

Lab Code: MITKEM Case No.: J0337 Mod. Ref No.: SDG No.: SJ0337

Lab Sample ID: LCS-49583 LCS Lot No.:

Date Extracted: 03/04/2010 Date Analyzed (1): 03/09/2010

	SPIKE	SAMPLE	LCS			QC.
COMPOUND	ADDED	CONCENTRATION	CONCENTRATION	LCS %REC	#	LIMITS
						REC.
Phenol	1667.0000	0.0000	1394.5619	84	1.	40 - 100
Bis(2-chloroethyl)ether	1667.0000	0.0000	1273.5475	76	1	40 - 105
2-Chlorophenol	1667.0000	0.0000	1385.4729	. 83		45 - 105
1,3-Dichlorobenzene	1667.0000	0.0000	1269.4962	76		40 - 100
1,4-Dichlorobenzene	1667.0000	0.0000	1299.9125	78		35 - 105
1,2-Dichlorobenzene	1667.0000	0.0000	1329.3320	80		45 - 95
2-Methylphenol	1667.0000	0.0000	1431.1105	86		40 - 105
2,2'-oxybis(1-Chloropropan	1667.0000	0.0000	1255.6228	75		20 - 115
4-Methylphenol	1667.0000	0.0000	1677.8612	101		40 - 105
N-Nitroso-di-n-propylamine	1667.0000	0.0000	1331.4373	80		40 - 115
Hexachloroethane	1667.0000	0.0000	1380.0818	83		35 - 110
Nitrobenzene	1667.0000	0.0000	1430.4933	86		40 - 115
Isophorone	1667.0000	0.0000	1284.6890	77		45 - 110
2-Nitrophenol	1667.0000	0.0000	1528.8642	92		40 - 110
2,4-Dimethylphenol	1667.0000	0.0000	1486.9223	89		30 - 105
2,4-Dichlorophenol	1667.0000	0.0000	1603.3097	96		45 - 110
1,2,4-Trichlorobenzene	1667.0000	0.0000	1665.7520	100		45 - 110
Naphthalene	1667.0000	0.0000	1469.1715	88		40 - 105
4-Chloroaniline	1667.0000	0.0000	103.3654	6	*	10 - 95
Bis(2-chloroethoxy)methane	1667.0000	0.0000	1332.0142	80		45 - 110
Hexachlorobutadiene	1667.0000	0.0000	1753.2413	105		40 - 115
4-Chloro-3-methylphenol	1667.0000	0.0000	1704.1769	102		45 - 115
2-Methylnaphthalene	1667.0000	0.0000	1528.0779	92		45 - 105
Hexachlorocyclopentadiene	1667.0000	0.0000	1638.0690	98		8 - 148
2,4,6-Trichlorophenol	1667.0000	0.0000	1543.0816	93		45 - 110
2,4,5-Trichlorophenol	1667.0000	0.0000	1502.4652	90		50 - 110
2-Chloronaphthalene	1667.0000	0.0000	1304.9460	78		45 - 105
2-Nitroaniline	1667.0000	0.0000	1193.1525	72		45 - 120
Dimethylphthalate	1667.0000	0.0000	1412.0777	85		50 - 110
Acenaphthylene	1667.0000	0.0000	1245.5556	75		45 - 105
2,6-Dinitrotoluene	1667.0000	0.0000				50 - 110
3-Nitroaniline	1667.0000	0.0000	190.2036	11	*	23 110
Acenaphthene	1667.0000					45 - 110
2,4-Dinitrophenol	1667.0000	0.0000	1370.4946	82		15 - 130
4-Nitrophenol	1667.0000			.86		15 - 140
Dibenzofuran	1667.0000					50 - 105
2,4-Dinitrotoluene	1667.0000					50 - 115
Diethylphthalate	1667.0000					50 - 115
4-Chlorophenyl-phenylether	1667.0000				ļ	45 - 110
Fluorene	1667.0000					50 - 110
4-Nitroaniline	1667.0000				*	
4,6-Dinitro-2-methylphenol	1667.0000					30 - 135
N-Nitrosodiphenylamine	1667.0000					50 - 115
4-Bromophenyl-phenylether	1667.0000	0.0000	1767.2461	106		45 - 115

# 3 - FORM III SOIL LABORATORY CONTROL SAMPLE RECOVERY

CLIENT SAMPLE NO.

LCS-49583

Lab Name:	MITKEM LABO	ORATORIES	Contract:	
Lab Code:	MITKEM	Case No.: J0337	Mod. Ref No.:	SDG No.: SJ0337
Lab Sample	ID: LCS-	49583	LCS Lot No.:	
Date Extrac	ted: 03/04	4/2010	Date Analyzed (1):	03/09/2010

	SPIKE	SAMPLE	LCS			QC.
COMPOUND	ADDED	CONCENTRATION	CONCENTRATION	LCS %REC	#	LIMITS
						REC.
Hexachlorobenzene	1667.0000	0.0000	1644.0506	99		45 - 120
Pentachlorophenol	1667.0000	0.0000	1597.7386	96		25 - 120
Phenanthrene	1667.0000	0.0000	1634.2434	98		50 - 110
Anthracene	1667.0000	0.0000	1330.7824	80		55 - 105
Carbazole	1667.0000	0.0000	1400.2799	84		45 - 115
Di-n-butylphthalate	1667.0000	0.0000	1434.2978	86		55 - 110
Fluoranthene	1667.0000	0.0000	1429.1510	. 86		55 - 115
Pyrene	1667.0000	0.0000	1279.1557	77		45 - 125
Butylbenzylphthalate	1667.0000	0.0000	1064.5840	64		50 - 125
3,3'-Dichlorobenzidine	1667.0000	0.0000	16.6752	1	*	10 - 130
Benzo(a)anthracene	1667.0000	0.0000	1351.1092	81		50 - 110
Chrysene	1667.0000	0.0000	1395.9584	84		55 - 110
Bis(2-ethylhexyl)phthalate	1667.0000	0.0000	1130.8955	68		45 - 125
Di-n-octylphthalate	1667.0000	0.0000	1491.2154	89		40 - 130
Benzo(b) fluoranthene	1667.0000	0.0000	1659.0109	100		45 - 115
Benzo(k)fluoranthene	1667.0000	0.0000	2081.2515	125		45 - 125
Benzo(a)pyrene	1667.0000	0.0000	1447.7711	87		50 - 110
Indeno(1,2,3-cd)pyrene	1667.0000	0.0000	1641.7440	98		40 - 120
Dibenzo(a,h)anthracene	1667.0000	0.0000	1765.6926	106		40 - 125
Benzo(g,h,i)perylene	1667.0000	0.0000	1537.0362	92		40 - 125

#	Column	to	be	used	to	flag	recovery	and	RPD	values	with	an	asteri	sk
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* Values outsi	de of QC	limits			
Spike Recovery	7: <u>4</u>	out of	64	outside limits	
COMMENTS:					
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## 3 - FORM III

## SOIL LABORATORY CONTROL SAMPLE DUPLICATE RECOVERY

EPA SAMPLE NO.

LCSD-49583

Lab Name: MITKEM LABORATORIES

Contract:

Lab Code: MITKEM Case No.: J0337

Mod. Ref No.:

SDG No.: SJ0337

Lab Sample ID: LCSD-49583

LCS Lot No.:

	SPIKE	LCSD	ICCD ODEC	ш	0 D D D	ш	QC	LIMITS
COMPOUND	ADDED	CONCENTRATION	LCSD %REC	#	%RPD	#	RPD	REC.
Phenol	1667.0000	1364.4124	82		2		40	40 - 100
Bis(2-chloroethyl)ether	1667.0000	1249.8293			1		40	40 - 105
2-Chlorophenol	1667.0000	1408.6865	_		2		40	45 - 105
1,3-Dichlorobenzene	1667.0000	1225.7434	74		3		40	40 - 100
1,4-Dichlorobenzene	1667.0000		73		7		40	35 - 105
		1298.7572			3		40	45 - 95
1,2-Dichlorobenzene	1667.0000				2			40 - 105
2-Methylphenol	1667.0000	1403.5609	73		3		40	20 - 115
2,2'-oxybis(1-Chloropropan	1667.0000	1225.1622			7		40	
4-Methylphenol	1667.0000	1560.3768					40	40 - 105
N-Nitroso-di-n-propylamine	1667.0000	1323.1725	79		1		40	40 - 115
Hexachloroethane	1667.0000	1321.1873	79		5		40	35 - 110
Nitrobenzene	1667.0000		81		. 6		40	40 - 115
Isophorone	1667.0000		81		5		40	45 - 110
2-Nitrophenol	1667.0000	1390.8078	83		10	_	40	40 - 110
2,4-Dimethylphenol	1667.0000		79		12		40	30 - 105
2,4-Dichlorophenol	1667.0000	1573.6332	94		2		40	45 - 110
1,2,4-Trichlorobenzene	1667.0000	1619.7663	97		3		40	45 - 110
Naphthalene	1667.0000	1468.0025	88		0		40	40 - 105
4-Chloroaniline	1667.0000	138.7791	8	*	29		40	1095
Bis(2-chloroethoxy)methane	1667.0000	1316.2575	79		1		40	45 - 110
Hexachlorobutadiene	1667.0000	1801.7496	108		3		40	40 - 115
4-Chloro-3-methylphenol	1667.0000	1613.3435	. 97		5		40	45 - 115
2-Methylnaphthalene	1667.0000	1533.7191	92		0		40	45 - 105
Hexachlorocyclopentadiene	1667.0000	1817.2740	109		11		40	8 - 148
2,4,6-Trichlorophenol	1667.0000	1537.4045	92		1		40	45 - 110
2,4,5-Trichlorophenol	1667.0000	1567.3230	94		4		40	50 - 110
2-Chloronaphthalene	1667.0000	1415.8370	85		9		40	45 - 105
2-Nitroaniline	1667.0000	1252.1578	75		4		40	45 - 120
Dimethylphthalate	1667.0000	1433.3679	.86		1		40	50 - 110
Acenaphthylene	1667.0000	1315.4338	. 79		5		40	45 - 105
2,6-Dinitrotoluene	1667.0000	1395.0196	84		1		40	50 - 110
3-Nitroaniline	1667.0000	238.9106	14	*	24		40	25 - 110
Acenaphthene	1667.0000	1440.3882	86		0		40	45 - 110
2,4-Dinitrophenol	1667.0000	1464.9852	. 88		7		40	15 - 130
4-Nitrophenol	1667.0000		83		4		40	15 - 140
Dibenzofuran	1667.0000		87		6		40	50 - 105
2,4-Dinitrotoluene	1667.0000				3		40	50 - 115
Diethylphthalate	1667.0000		80		1		40	50 - 115
4-Chlorophenyl-phenylether	1667.0000				5		40	45 - 110
Fluorene	1667.0000				2		40	50 - 110
4-Nitroaniline	1667.0000			*	4		40	35 - 115
4,6-Dinitro-2-methylphenol	1667.0000				4		40	30 - 135
N-Nitrosodiphenylamine	1667.0000				5		40	50 - 115
4-Bromophenyl-phenylether	1667.0000				1		40	45 - 115
Hexachlorobenzene	1667.0000				4		40	45 - 120
Pentachlorophenol	1667.0000				4		40	25 - 120
r enracutorobuenot	1007.0000	1000.0000	34		7		-10	120

# 3 - FORM III SOIL LABORATORY CONTROL SAMPLE DUPLICATE RECOVERY

EPA SAMPLE NO.

LCSD-49583

Lab Name:	MITKEM LABORA	ATORIES		Contract:	•	
Lab Code:	MITKEM	Case No.:	J0337 .	Mod. Ref No.:	SDG No.:	SJ0337
Lab Sampl	e ID: LCSD-49	9583		LCS Lot No.:		

	SPIKE	LCSD					QC	LIMITS
	ADDED	CONCENTRATION	LCSD %REC	#	%RPD	#		
COMPOUND							RPD	REC.
Phenanthrene	1667.0000	1585.2848	95		3		40	50 - 110
Anthracene	1667.0000	1242.5350	75		6		40	55 - 105
Carbazole	1667.0000	1313.4876	79		6		40	45 - 115
Di-n-butylphthalate	1667.0000	1336.2326	80		7		40	55 - 110
Fluoranthene	1667.0000	1360.0726	82		5		40	55 - 115
Pyrene	1667.0000	1240.8981	74		4		40	45 - 125
Butylbenzylphthalate	1667.0000	1066.1065	64		0		40	50 - 125
3,3'-Dichlorobenzidine	1667.0000	36.1660	2	*	67	*	40	10 - 130
Benzo(a)anthracene	1667.0000	1175.4895	71		13		40	50 - 110
Chrysene	1667.0000	1318.5022	79		6		40	55 - 110
Bis(2-ethylhexyl)phthalate	1667.0000	1090.5739	65		5		40	45 - 125
Di-n-octylphthalate	1667.0000	1499.3986	90		1		40	40 - 130
Benzo(b) fluoranthene	1667.0000	1586.3605	95		5		40	45 - 115
Benzo(k)fluoranthene	1667.0000	1862.8161	112		11		40	45 - 125
Benzo(a)pyrene	1667.0000	1388.3544	83		5		40	50 - 110
Indeno(1,2,3-cd)pyrene	1667.0000	1384.4086	83		17		40	40 - 120
Dibenzo(a,h)anthracene	1667.0000	1459.4152	88		19		40	40 - 125
Benzo(g,h,i)perylene	1667.0000	1278.6611	77		18		40	40 - 125

<sup>#</sup> Column to be used to flag recovery and RPD values with an asterisk

k	Values	outside	of	QC	limits
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RPD:	1	out of	64	outsio	de lim	its	
Spike	Recove	ery:	4	out of	64	outside limits	
COMME	NTS:						

CLIENT SAMPLE NO.

LCS-49580

Lab Name: MITKEM LABORATORIES Contract:

Lab Code: MITKEM Case No.: J0337 Mod. Ref No.: SDG No.: SJ0337

Lab Sample ID: LCS-49580 LCS Lot No.:

Date Extracted: 03/03/2010 Date Analyzed (1): 03/08/2010

Instrument ID (1): E5 GC Column(1): CLPPest ID: 0.53 (mm)

COMPOUND	7.16573777 7.75777		0.5.5.6	
COMPOUND	AMOUNT ADDED	AMOUNT RECOVERED	%REC #	QC LIMITS
	(UG/KG)	(UG/KG)		
alpha-BHC	6.6670	5.8034	87	60-125
beta-BHC	6.6670	6.1505	92	60-125
delta-BHC	6.6670	6.4727	97	55-130
gamma-BHC (Lindane)	6.6670	5.8443	88	60-125
Heptachlor	6.6670	5.9573	89	50-140
Aldrin	6.6670	5.7287	86	45-140
Heptachlor epoxide	6.6670	6.3262	95	65-130
Endosulfan I	6.6670	5.0823	76	15-13
Dieldrin	13.3330	13.2273	99	65-12
4,4´-DDE	13.3330	13.5296	101	70-12
Endrin	13.3330	13.0183	98	60-13
Endosulfan II	13.3330	11.8200	89	35-14
4,4´-DDD	13.3330	14.0011	105	30-13
Endosulfan sulfate	13.3330	14.5288	109	60-13
4,4'-DDT	13.3330	13.3340	100	45-14
Methoxychlor	66.6670	65.7639	99	55-14.
Endrin ketone	13.3330	13.8920	104	65-13
Endrin aldehyde	13.3330	12.9913	97	35-14
alpha-Chlordane	6.6670	6.2616	94	65-12
gamma-Chlordane	6.6670	6.3259	95	65-12

Instrument ID (2): E5 GC Column(2): CLPPestII ID: 0.53 (mm)

Date Analyzed (2): 03/08/2010

COMPOUND	AMOUNT ADDED	AMOUNT RECOVERED	%REC	# QC LIMITS
	(UG/KG)	(UG/KG)		
alpha-BHC	6.6670	5,9161	89	60-12
beta-BHC	6.6670	6.2669	94	60-12
delta-BHC	6.6670	6.9142	104	55-13
gamma-BHC (Lindane)	6.6670	6.0699	91	60-12

COMMENTS:

CLIENT SAMPLE NO.

LCS-49580

Lab Name: MITKE	M LABORATORIES	Co	ontract:		
Lab Code: MITKE	Case No.	: J0337 Mo	od. Ref No.:	SDG No.	: SJ033
Lab Sample ID:	LCS-49580	L	CS Lot No.:		
Date Extracted:	03/03/2010	Da	ate Analyzed (1):	03/08/2010	
Heptachlor		6.6670	6.0071	90	50-140
Aldrin		6.6670	5.9586	89	45-140
Heptachlor epox	ride	6.6670	6.4209	96	65-130
Endosulfan I		6.6670	5.2678	79	15-135
Dieldrin		13.3330	13.5759	102	65-125
4,4´-DDE		13.3330	13.5759	102	70-125
Endrin		13.3330	13.2307	99	60-135
Endosulfan II		13.3330	12.2200	92	35-140
4,4'-DDD		13.3330	14.1110	106	30-135
Endosulfan sulf	ate	13.3330	14.1112	106	60-135
4,4´-DDT		13.3330	13.9173	104	45-140
Methoxychlor		66.6670	70.9905	106	55-145
Endrin ketone		13.3330	14.4939	109	65-135
Endrin aldehyde	:	13.3330	13.4578	101	35-145
alpha-Chlordane	:	6.6670	6.4869	97	65-120
gamma-Chlordane		6.6670	6.5211	98	65-125

T 00	B				4.0		
TC2	Recovery:	: 0	out	OI	40	outside	limits.

COMMENTS:		•		

<sup>#</sup> Column to be used to flag recovery values with an asterisk

<sup>\*</sup> Values outside of QC limits

CLIENT SAMPLE NO.

LCSD-49580

Lab Name: MITKEM LABORATORIES Contract:

Lab Code: MITKEM Case No.: J0337 Mod. Ref No.: SDG No.: SJ0337

Lab Sample ID: LCSD-49580 LCS Lot No.:

Date Extracted: 03/03/2010 Date Analyzed (1): 03/08/2010

Instrument ID (1): E5 GC Column(1): CLPPest ID: 0.53 (mm)

COMPOUND	AMOUNT ADDED	AMOUNT RECOVERED	%REC #	QC LIMITS
	(UG/KG)	(UG/KG)		
alpha-BHC	6.6670	5.8609	88	60-125
beta-BHC	6.6670	6.2715	94	60-125
delta-BHC	6.6670	6.5982	99	55-130
gamma-BHC (Lindane)	6.6670	5.9482	89	60-125
Heptachlor	6.6670	6.0522	91	50-140
Aldrin	6.6670	5.7565	86	45-140
Heptachlor epoxide	6.6670	6.3831	96	65-130
Endosulfan I	6.6670	5.1494	77	15-135
Dieldrin	13.3330	13.5108	101	65-125
4,4´-DDE	13.3330	13.8691	104	70-125
Endrin	13.3330	13.0912	98	60-135
Endosulfan II	13.3330	11.8766	89	35-140
4,4´-DDD	13.3330	14.1106	106	30-135
Endosulfan sulfate	13.3330	14.5759	109	60-135
4,4'-DDT	13.3330	13.4779	101	45-140
Methoxychlor	66.6670	65.9909	99	55-145
Endrin ketone	13.3330	13.9055	104	65-135
Endrin aldehyde	13.3330	12.8560	96	35-145
alpha-Chlordane	6.6670	6.4443	97	65-120
gamma-Chlordane	6.6670	6.3556	95	65-125

Instrument ID (2): E5 GC Column(2): CLPPestII ID: 0.53 (mm)

Date Analyzed (2): 03/08/2010

COMPOUND	AMOUNT ADDED	AMOUNT RECOVERED	%REC	#	QC LIMITS
	(UG/KG)	(UG/KG)			
alpha-BHC	6.6670	5.9905	90		60-125
beta-BHC	6.6670	6.3794	96		60-125
delta-BHC	6.6670	7.0495	106		55 <b>-</b> 130
gamma-BHC (Lindane)	6.6670	6.1705	93		60-125

COMMENTS:

CLIENT SAMPLE NO.

LCSD-49580

Lab Name: MITKE	LM LABORATORIES	CC	Contract:				
Lab Code: MITKE	CM Case No.:	: J0337 Mc	od. Ref No.:	SDG No.: SJ0337			
Lab Sample ID:	LCSD-49580	LC	CS Lot No.:				
Date Extracted:	03/03/2010	Da	ate Analyzed (1):	03/08/2010			
Heptachlor		6.6670	6.1260	92 50-140			
Aldrin		6.6670	5.9952	90 45-140			
Heptachlor epox	kide	6.6670	6.5809	99 65-130			
Endosulfan I	· .	6.6670	5.3850	81 15–135			
Dieldrin		13.3330	13.8736	104 65-125			
4,4'-DDE		13.3330	13.8486	104 70-125			
Endrin		13.3330	13.7755	103 60-135			
Endosulfan II		13.3330	12.3200	92 35-140			
4,4´-DDD		13.3330	14.2287	107 30-135			
Endosulfan sulf	Tate	13.3330	14.2323	107 60-135			
4,4'-DDT		13.3330	14.0905	106 45-140			
Methoxychlor		66,6670	70.5278	106 55-145			
Endrin ketone		13.3330	14.5408	109 65-135			
Endrin aldehyde	2	13.3330	13.4575	101 35-145			
alpha-Chlordane	2	6.6670	6.6061	99 65-120			
gamma-Chlordane	<b>9</b> .	6.6670	6.6794	100 65-125			

TCC	Recovery:	$\cap$	out	o f	4.0	outside	limita
псэ	wecovery.	O	Out	OI	40	Outside	TTIIIT CO.

COMMENTS:				
	,	-		

<sup>#</sup> Column to be used to flag recovery values with an asterisk

<sup>\*</sup> Values outside of QC limits

## 3P - FORM III ARO-4 SOIL AROCLOR LABORATORY CONTROL

CLIENT SAMPLE NO.

LCS-49579

			SAMPLE	RECOV	/ERY				
Lab Name:	MITKEM LA	ABORATORII	ES	Cont	tract:		-		
Lab Code:	MITKEM	Case	No.: J0337	Mod. Ref No.:		SDO	G No.: SJ033	7	
Lab Sample	ID: LCS	5-49579		LCS	Lot No.:		_		
Date Extrac	eted: 03,	/03/2010		Dat∈	e Analyzed (1):	03/0	5/20	10	
Instrument	ID (1):	E3		GC C	Column(1): CL	PPest		ID: 0.53	(mm.)
	COMPOUND		AMOUNT ADDED (UG/KG)	AM	MOUNT RECOVERED	%REC	#	QC LIMITS	
Aroclor-10	16		133.33	30	119.339	0 90		40-140	
Aroclor-12	260		133.33	30	131.190	8 98		60-130	
Instrument Date Analyz		E3 03/05/20	10	GC C	Column(2): CL	PPestII		ID: 0.53	(mm)
Date Analyz	.ea (2):	03/03/20	10						
	COMPOUND		AMOUNT ADDED	AM	OUNT RECOVERED	%REC	#	QC LIMITS	
			(UG/KG)		(UG/KG)				
Aroclor-10			133.33		122.881	8 92		40-140	
Aroclor-12	60		133.33	30	135.348	7 102		60-130	
<pre># Column to * Values ou</pre>			recovery values wi	th an	n asterisk				
LCS Recover	y: <u> </u>	out of _	4 outside lim.	its.					
		•							

## 3P - FORM III ARO-4 SOIL AROCLOR LABORATORY CONTROL

CLIENT SAMPLE NO.

LCSD-49579

	SAMPLE RE	COVERY			
Lab Name: MITKEM LABORATORIES		Contract:			
Lab Code: MITKEM Case No.: J0337		Mod. Ref No.: SDG No.: SJ0337			
Lab Sample ID: LCSD-49579		CCS Lot No.:			
Date Extracted: 03/03/2010		Date Analyzed (1):	03/05/20	10	
Instrument ID (1): E3	·	GC Column(1): CLPI	Pest	ID: 0.53	(mm)
COMPOUND	AMOUNT ADDED (UG/KG)	AMOUNT RECOVERED (UG/KG)	%REC #	QC LIMITS	
Aroclor-1016	133.3330	120.5061	90	40-140	
Aroclor-1260	133.3330	129.5251	97	60-130	
Instrument ID (2): E3		CC Column(2): CLPF	PestII	ID: 0.53	(mm)
Date Analyzed (2): 03/05/2010	)				
COMPOUND	AMOUNT ADDED (UG/KG)	AMOUNT RECOVERED (UG/KG)	%REC #	QC LIMITS	
Aroclor-1016	133.3330	123.9492	93	40-140	
Aroclor-1260	133.3330	133.5736	100	60-130	
# Column to be used to flag re * Values outside of QC limits  LCS Recovery: 0 out of	covery values with  4 outside limit				

COMMENTS:

### 4A - FORM IV VOA VOLATILE METHOD BLANK SUMMARY

CLIENT SAMPLE NO.

MB-49650

Lab Name: MITKEM LABORATORIES

Lab Code: MITKEM Case No.: J0337 Mod. Ref No.: SDG No.: SJ0337

Lab File ID: V5L6530.D Lab Sample ID: MB-49650

Instrument ID: V5

Matrix: (SOIL/SED/WATER) SOIL Date Analyzed: 03/07/2010

Level: (TRACE or LOW/MED) LOW Time Analyzed: 15:32

GC Column: DB-624 ID: 0.25 (mm) Heated Purge: (Y/N) Y

	EPA	LAB	LAB	TIME
	SAMPLE NO.	SAMPLE ID	FILE ID	ANALYZED
01	LCS-49650	LCS-49650	V5L6527.D	14:06
02	LCSD-49650	LCSD-49650	V5L6528.D	14:34
03	BCKFL	J0337-01B	V5L6533.D	16:57

COMMENTS:	

## 1A - FORM I VOA-1 VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT	SAMPLE	NO.
MB-496	50	

Lab Name: MITKEM LABOR	ATORIES	Contract:	
Lab Code: MITKEM	Case No.: J0337	Mod. Ref No.:	SDG No.: SJ0337
Matrix: (SOIL/SED/WATER	R) SOIL	Lab Sample ID:	MB-49650
Sample wt/vol: 5.	00 (g/mL) G	Lab File ID:	V5L6530.D
Level: (TRACE/LOW/MED)	LOW	Date Received:	
% Moisture: not dec.	0.0	Date Analyzed:	03/07/2010
GC Column: DB-624	ID: 0.25 (m	m) Dilution Factor:	1.0
Soil Extract Volume:	(u	L) Soil Aliquot Vol	ume: (uL)
Purge Volume: 10.0	(m.	L)	

CAC NO	COMPONIND	CONCENTRATION UNITS:	
CAS NO.	COMPOUND	(ug/L or ug/Kg) µG/KG	Q
74-87-3	Chloromethane	5.0	U
75-01-4	Vinyl chloride	5.0	U
74-83-9	Bromomethane	5.0	Ū
75-00-3	Chloroethane	5.0	U
75-69-4	Trichlorofluoromethane	5.0	Ū
75-35-4	1,1-Dichloroethene	5.0	Ū
67-64-1	Acetone	5.0	U
75-15-0	Carbon disulfide	5.0	U ·
75-09-2	Methylene chloride	5.0	Ü
156-60-5	trans-1,2-Dichloroethene	5.0	U
1634-04-4	Methyl tert-butyl ether	5.0	U
75-34-3	1,1-Dichloroethane	5.0	U
108-05-4	Vinyl acetate	5.0	U
78-93-3	2-Butanone	5.0	U
156-59-2	cis-1,2-Dichloroethene	5.0	U
67-66-3	Chloroform	5.0	Ū
71-55-6	1,1,1-Trichloroethane	5.0	Ū
56-23-5	Carbon tetrachloride	5.0	U
107-06-2	1,2-Dichloroethane	5.0	Ū
71-43-2	Benzene	5.0	Ū
79-01-6	Trichloroethene	5.0	Ū
78-87-5	1,2-Dichloropropane	5.0	Ū
	Bromodichloromethane	5.0	Ū
10061-01-5	cis-1,3-Dichloropropene	5.0	Ü
	4-Methyl-2-pentanone	5.0	Ū
108-88-3	Toluene	5.0	Ū
10061-02-6	trans-1,3-Dichloropropene	5.0	Ū
	1,1,2-Trichloroethane	5.0	Ū
127-18-4	Tetrachloroethene	5.0	Ū
591-78-6	2-Hexanone	5.0	Ū
124-48-1	Dibromochloromethane	5.0	Ū
108-90-7	Chlorobenzene	5.0	Ū
100-41-4	Ethylbenzene	5.0	U
	m,p-Xylene	5.0	Ū
	o-Xylene	5.0	U

## 1B - FORM I VOA-2 VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT	SAMPLE	NO.
MB-496	50	

Lab Name: MITKEM LABOR	ATORIES	Contract:	
Lab Code: MITKEM	Case No.: <u>J0337</u>	Mod. Ref No.:	SDG No.: SJ0337
Matrix: (SOIL/SED/WATER	) SOIL	Lab Sample ID:	MB-49650
Sample wt/vol: 5.	00 (g/mL) G	Lab File ID:	V5L6530.D
Level: (TRACE/LOW/MED)	LOW	Date Received:	
% Moisture: not dec.	0.0	Date Analyzed:	03/07/2010
GC Column: DB-624	ID: 0.25	(mm) Dilution Factor:	1.0
Soil Extract Volume:		(uL) Soil Aliquot Volu	me: (uL)
Purge Volume: 10.0		(mL)	

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) µg/Kg	Q
1330-20-7	Xylene (Total)	5.0	U
100-42-5	Styrene	5.0	Ü
75-25-2	Bromoform	5.0	U
98-82-8	Isopropylbenzene	5.0	U
79-34-5	1,1,2,2-Tetrachloroethane	5.0	U
103-65-1	n-Propylbenzene	5.0	U
	1,3,5-Trimethylbenzene	5.0	U
	tert-Butylbenzene	5.0	U
	1,2,4-Trimethylbenzene	5.0	U
135-98-8	sec-Butylbenzene	5.0	U
	4-Isopropyltoluene	5.0	U
	1,3-Dichlorobenzene	5.0	U
	1,4-Dichlorobenzene	5.0	U
	n-Butylbenzene	5.0	U
	1,2-Dichlorobenzene	5.0	U
	Naphthalene	5.0	Ü
110-75-8	2-Chloroethyl vinyl ether	5.0	U

## 4C - FORM IV SV SEMIVOLATILE METHOD BLANK SUMMARY

CLIENT SAMPLE NO.

Lab Name: MITKE	M LABORATORIES	Contract:	
Lab Code: MITKE	Case No.: J0337	Mod. Ref No.:	SDG No.: SJ0337
Lab File ID:	S1G2442.D	Lab Sample ID:	MB-49583
Instrument ID:	S1	Date Extracted:	03/04/2010
Matrix: (SOIL/SE	ED/WATER) SOIL	Date Analyzed:	03/09/2010
Level: (LOW/MED)	LOW	Time Analyzed:	12:38
Extraction: (Typ	pe) SONC	GPC Cleanup: (Y/	'N) N

	EPA	LAB	LAB	DATE
	SAMPLE NO.	SAMPLE ID	FILE ID	ANALYZED
01	LCS-49583	LCS-49583	S1G2443.D	03/09/2010
02	LCSD-49583	LCSD-49583	S1G2444.D	03/09/2010
03	BCKFL	J0337-01A	S1G2446.D	03/09/2010

COMMENTS:				
	 		·	

## 1D - FORM I SV-1 SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO. MB-49583

Lab Name: MITKEM LABORATORIES	Contract:
Lab Code: MITKEM Case No.: J0337	Mod. Ref No.: SDG No.: SJ0337
Matrix: (SOIL/SED/WATER) SOIL	Lab Sample ID: MB-49583
Sample wt/vol:30.0 (g/mL) G	Lab File ID: S1G2442.D
Level: (LOW/MED) LOW	Extraction: (Type) SONC
% Moisture: Decanted: (Y/N)	Date Received:
Concentrated Extract Volume: 1000 (uL)	Date Extracted: 03/04/2010
Injection Volume:1.0 (uL) GPC Factor:1.00	Date Analyzed: 03/09/2010
GPC Cleanup: (Y/N) N pH:	Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG	Q
108-95-2	Phenol	330	Ū
	Bis(2-chloroethyl)ether	330	U
	2-Chlorophenol	330	U
541-73-1	1,3-Dichlorobenzene	. 330	Ū
106-46-7	1,4-Dichlorobenzene	330	U
95-50-1	1,2-Dichlorobenzene	330	Ū
95-48-7	2-Methylphenol	330	Ü
108-60-1	2,2'-oxybis(1-Chloropropane)	330	Ū
	4-Methylphenol	330	Ū
621-64-7	N-Nitroso-di-n-propylamine	330	Ū
67-72-1	Hexachloroethane	330	U
98-95-3	Nitrobenzene	330	U
78-59-1	Isophorone	330	U
	2-Nitrophenol	330	Ū
	2,4-Dimethylphenol	330	U
	2,4-Dichlorophenol	330	U
120-82-1	1,2,4-Trichlorobenzene	330	Ū
91-20-3	Naphthalene	330	U
106-47-8	4-Chloroaniline	330	U
111-91-1	Bis(2-chloroethoxy)methane	330	Ü
	Hexachlorobutadiene	330	U
59-50-7	4-Chloro-3-methylphenol	330	U
91-57-6	2-Methylnaphthalene	330	U
77-47-4	Hexachlorocyclopentadiene	330	U
88-06-2	2,4,6-Trichlorophenol	330	U
	2,4,5-Trichlorophenol	670	U
	2-Chloronaphthalene	330	Ü.
88-74-4	2-Nitroaniline	670	U
131-11-3	Dimethylphthalate	330	U
208-96-8	Acenaphthylene	330	. U
	2,6-Dinitrotoluene	330	Ū
	3-Nitroaniline	670	U
	Acenaphthene	330	Ū
	2,4-Dinitrophenol	670	Ū
	4-Nitrophenol	670	U
	Dibenzofuran	330	Ū

## 1E - FORM I SV-2 SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.
MB-49583

Lab Name: MITKEM LABORATORIES Contract: SDG No.: SJ0337 Lab Code: MITKEM Case No.: J0337 Mod. Ref No.: Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: MB-49583 Lab File ID: S1G2442.D Sample wt/vol: 30.0 (g/mL) G Level: (LOW/MED) LOW Extraction: (Type) SONC % Moisture: Decanted: (Y/N) Date Received: Concentrated Extract Volume: 1000 (uL) Date Extracted: 03/04/2010 Injection Volume: 1.0 (uL) GPC Factor: 1.00 Date Analyzed: 03/09/2010 GPC Cleanup: (Y/N) N pH: Dilution Factor: 1.0

		CONCENTRATION UNITS:	T
CAS NO.	COMPOUND	(ug/L or ug/Kg) μG/KG	Q
121-14-2	2,4-Dinitrotoluene	330	U
84-66-2	Diethylphthalate	330	U
7005-72-3	4-Chlorophenyl-phenylether	330	Ū
86-73-7	Fluorene	330	U
100-01-6	4-Nitroaniline	670	U
534-52-1	4,6-Dinitro-2-methylphenol	670	U
86-30-6	N-Nitrosodiphenylamine	330	U
101-55-3	4-Bromophenyl-phenylether	330	U,
118-74-1	Hexachlorobenzene	330	U
87-86-5	Pentachlorophenol	670	U
85-01-8	Phenanthrene	330	U
120-12-7	Anthracene	330	Ū
86-74-8	Carbazole	330	Ū
84-74-2	Di-n-butylphthalate	330	Ū
206-44-0	Fluoranthene	330	U
129-00-0		330	Ū
85-68-7	Butylbenzylphthalate	330	Ū
91-94-1	3,3'-Dichlorobenzidine	330	Ū
56-55-3	Benzo(a)anthracene	330	Ū
218-01-9	I	330	Ū
117-81-7		330	Ū
	Di-n-octylphthalate	330	U
	Benzo(b)fluoranthene	330	U
207-08-9	1	330	Ū
	Benzo(a)pyrene	330	U
	Indeno(1,2,3-cd)pyrene	330	Ü
	Dibenzo(a,h)anthracene	330	Ū
191-24-2	Benzo(g,h,i)perylene	330	U

## 4E - FORM IV PEST PESTICIDE METHOD BLANK SUMMARY

CLIENT SAMPLE NO.

MB-49580

03/08/2010

03/08/2010

03/08/2010

03/08/2010

03/08/2010

03/08/2010

Lab Name: MITKEM	1 LABORATORIES	Со	ntract:		
Lab Code: MITKEM	Case No.: J03	337 Mo	d. Ref No.:		SDG No.: SJ0337
Lab File ID:	E5F5803F.D / E5F5803R	D La	b Sample ID:	MB-49580	
Matrix: (SOIL/SE	D/WATER) SOIL Extr	action: (Typ	pe) SONC	Date Ext	tracted: 03/03/2010
Sulfur Cleanup:	(Y/N) <u>Y</u>	GP	C Cleanup:(Y/N	N) Y	
Date Analyzed (1)	03/08/2010	Da	te Analyzed (2	2): 03/08	/2010
Time Analyzed (1)	17:08	Ti	me Analyzed (2	2): 17:08	
Instrument ID (1)	: E5	In	strument ID (2	2): E5	
GC Column(1): C	LPPest ID: 0.	53 (mm) GC	Column(2):	CLPPestII	ID: 0.53 (mm)
	EPA SAMPLE NO	LAB	DATE	DATE	(2)

LCS-49580

LCSD-49580

J0337-01A

COMMENTS:			
			 ·

01 LCS-49580

02 LCSD-49580

03 BCKFL

## 1G - FORM I PEST PESTICIDE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

Lab Name: MITKEM LABORATORIES	Contract:	·
Lab Code: MITKEM Case No.: J0337	Mod. Ref No.:	SDG No.: SJ0337
Matrix: (SOIL/SED/WATER) SOIL	Lab Sample ID:	MB-49580
Sample wt/vol: 30.0 (g/mL) G	Lab File ID:	E5F5803F.D/E5F5803R.D
% Moisture: Decanted: (Y/N)	Date Received:	
Extraction: (Type) SONC	Date Extracted:	03/03/2010
Concentrated Extract Volume: 5000 (uL)	Date Analyzed:	03/08/2010
Injection Volume: 1.0 (uL) GPC Factor: 2.00	Dilution Factor:	1.0
GPC Cleanup: (Y/N) Y pH:	Sulfur Cleanup:	(Y/N) Y

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG	ı Q
319-84-6	alpha-BHC	1.7	U
	-		
319-85-7		1.7	Ū
319-86-8	delta-BHC	1.7	U
58-89-9	gamma-BHC (Lindane)	1.7	U
76-44-8	Heptachlor	1.7	U
309-00-2	Aldrin	1.7	U
1024-57-3	Heptachlor epoxide	1.7	U
959-98-8	Endosulfan I	1.7	U
60-57-1	Dieldrin	3.3	U
72-55-9	4,4'-DDE	3.3	U
72-20-8	Endrin	3.3	U
33213-65-9	Endosulfan II	3.3	U
72-54-8	4,4'-DDD	3.3	U
1031-07-8	Endosulfan sulfate	. 3.3	U
50-29-3	4,4'-DDT	3.3	U
72-43-5	Methoxychlor	17	U .
53494-70-5	Endrin ketone	3.3	U
7421-93-4	Endrin aldehyde	3.3	U
5103-71-9	alpha-Chlordane	1.7	U
5103-74-2	gamma-Chlordane	1.7	U
8001-35-2	Toxaphene	170	U

## 4F - FORM IV ARO AROCLOR METHOD BLANK SUMMARY

CLIENT SAMPLE NO.

Lab Name: MITKEM LA	ABORATORIES	Contract:
Lab Code: MITKEM	Case No.: J0337	Mod. Ref No.: SDG No.: SJ0337
Lab File ID: E3H	10954F.D / E3H0954R.D	Lab Sample ID: MB-49579
Matrix: (SOIL/SED/W	ATER) SOIL Extraction:	(Type) SONC Date Extracted: 03/03/2010
Sulfur Cleanup: (Y/	N) Y	GPC Cleanup: (Y/N) N
Acid Cleanup: (Y/N	<u>Y</u>	
Date Analyzed (1):	03/05/2010	Date Analyzed (2): 03/05/2010
Time Analyzed (1):	15:26	Time Analyzed (2): 15:26
Instrument ID (1):	E3	Instrument ID (2): E3
GC Column(1): CLPF	Pest ID: 0.53 (mm	GC Column(2): CLPPestII ID: 0.53 (mm
	EPA LAB	DATE DATE

	EPA	LAB	DATE	DATE
	SAMPLE NO.	SAMPLE ID	ANALYZED (1)	ANALYZED (2)
01	LCS-49579	LCS-49579	03/05/2010	03/05/2010
02	LCSD-49579	LCSD-49579	03/05/2010	03/05/2010
03	BCKFL	J0337-01A	03/08/2010	03/08/2010

COMMENTS:			

## 1H - FORM I ARO AROCLOR ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

Lab Name: MITKEM LABORATORIES	Contract:	
Lab Code: MITKEM Case No.: J0337	Mod. Ref No.:	SDG No.: SJ0337
Matrix: (SOIL/SED/WATER) SOIL	Lab Sample ID:	MB-49579
Sample wt/vol: 30.0 (g/mL) G	Lab File ID:	E3H0954F.D/E3H0954R.D
% Moisture: Decanted: (Y/N)	Date Received:	
Extraction: (Type) SONC	Date Extracted:	03/03/2010
Concentrated Extract Volume: 10000 (uL)	Date Analyzed:	03/05/2010
Injection Volume: 1.0 (uL) GPC Factor: 1.00	Dilution Factor:	1.0
GPC Cleanup: (Y/N) N pH:	Sulfur Cleanup:	(Y/N) Y
Acid Cleanup: (Y/N) Y		

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG	Q
12674-11-2	Aroclor-1016	33	U
11104-28-2	Aroclor-1221	33	U
11141-16-5	Aroclor-1232	33	U
53469-21-9	Aroclor-1242	33	U
12672-29-6	Aroclor-1248	33	U
11097-69-1	Aroclor-1254	33	U
11096-82-5	Aroclor-1260	33	U

3

BLANKS

Lab Name: Mitkem Laboratories

Contract:

209025

Lab Code: MITKEM

Case No.:

SAS No.:

SDG No.:

SJ0337

Preparation Blank Matrix (soil/water): SOIL

Method Blank ID:

MB-49678

Preparation Blank Concentration Units (ug/L or mg/kg): MG/KG

FIMS1 100309C

				,	ETM2T_T002030	_					
	Initial										
	Calibration				Continuing Calibration						
	Blank (ug/L	)		Blank (ug/L)							7
Analyte		С	1	С	2	С	3	C	С	М	
Mercury	0.056	ט	0.056	Ū	0.056	U	0.056	Ū	0.005 U	CV	7

3

BLANKS

Lab Name: Mitkem Laboratories

Contract:

209025

Lab Code: MITKEM

Case No.:

SAS No.:

SDG No.:

SJ0337

Preparation Blank Matrix (soil/water): SOIL

Method Blank ID:

MB-49688

Preparation Blank Concentration Units (ug/L or mg/kg): MG/KG

LACHAT1 100309A

	Initial										
	Calibration	C	Preparation Blank								
<u> </u>	Blank (ug/L	Blank (ug/L)									
Analyte		С	1	С	2	С	3	С		С	М
Cyanide	5.1	В	4.7	В	7.2	В	5.2	В	0.233	В	CA

U.S. EPA - CLP

3

BLANKS

Lab Name: Mitkem Laboratories Contract:

209025

Lab Code: MITKEM

Case No.:

SAS No.:

SDG No.:

SJ0337

Preparation Blank Matrix (soil/water): SOIL

Method Blank ID:

MB-49706

Preparation Blank Concentration Units (ug/L or mg/kg): MG/KG

OPTIMA3 100312B

	Initial										
	Calibration	ו	C	ont	inuing Calib	ra	tion		Preparation	n	
	Blank (ug/L	)		Blank (ug/L)		Blank					
Analyte		С	1	С	2	С	3	С		С	М
Potassium	59.0	U	59.0	U	59.0	U			5.022		Р
Sodium	29.0	U	29.0	U	29.0	Ū			0.910	Ū	Р

U.S. EPA - CLP

3

BLANKS

Lab Name: Mitkem Laboratories

Contract:

209025

Lab Code: MITKEM

Case No.:

SAS No.:

SDG No.:

SJ0337

Preparation Blank Matrix (soil/water): SOIL

MB-49706

Method Blank ID:

Preparation Blank Concentration Units (ug/L or mg/kg): MG/KG

				0	PTIMA3_10031	2C					
	Initial										
	Calibratio	n	C	ont	inuing Calib	ra	ition		Preparation	n	
	Blank (ug/I	( د		Blank (ug/L)					Blank		İ
Analyte		С	1	С	2	С	3	С		С	М
Aluminum	12.0	Ū	12.0	U	12.0	ΰ			3.603	В	Р
Antimony	4.2	Ū	6.3	В	4.2	U			0.245	В	P
Arsenic	3.1	Ū	3.1	Ū	3.1	U	_		0.160	U	Р
Barium	2.9	U	2.9	ט	2.9	U			0.380	U	Р
Beryllium	0.0	В	0.1	В	0.1	В			0.003	В	P
Cadmium	0.5	U	0.5	Ū	0.5	Ū			0.013	U	P
Calcium	-215.4	В	87.0	Ū	-123.4	В	-91.6	В	6.600	Ū	P
Chromium	0.5	Ü	0.5	Ū	0.5	U			0.054	U	P
Cobalt	0.7	Ū	0.7	Ū	0.7	Ū			0.035	Ū	P
Copper	4.7	υ	4.7	U	4.7	Ū			0.420	U	P
Iron	47.0	U	47.0	U	47.0	Ü			9.271	В	P
Lead	2.1	U	3.1	В	2.1	Ü			0.247	В	Р
Magnesium	62.0	U	62.0	U	62.0	U			1.989	В	Р
Manganese	3.5	Ū	3.5	U	3.5	U			0.470	Ü	Р
Nickel	0.6	U	0.6	U	0.6	Ū			0.066	Ū	Р
Selenium	10.0	U	-16.0	В	10.0	U			0.780	U	P
Silver	8.3	В	2.4	Ū	2.4	Ū			0.079	U	P
Thallium	5.7	Ū	5.7	Ū	5.7	Ū			0.240	ΰ	Р
Vanadium	0.5	В	0.7	В	0.8	В			0.038	Ū	P
Zinc	7.0	U	7.0	U	7.4	В			0.338	В	P

U.S. EPA - CLP

3

BLANKS

Lab Name:	Mitkem La	aboratorie	S			Contract:	-	209025					
Lab Code:	MITKEM	Case	e No	o.:		SAS No.:			SDG	No.:	SJ0:	337	<i>'</i>
Preparatio	on Blank M	Matrix (so	il/	water):						Method	Blan	k :	D:
Preparatio	on Blank C	Concentrat	ion	Units (ug		or mg/kg): PTIMA3_10031	2C						
		Initial											
	C	alibration	n		Cont	tinuing Calib	ora	tion	ĺ	Prepara	ation	L	
	В	lank (ug/L	)			Blank (ug/I	۱)			Blar	nk		
Analyte	,		С	1	С	2	C	3	С			C	М

87.0 U

Calcium

#### 8A - FORM VIII VOA

#### VOLATILE INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: MITKEM LABORATORIES Contract:

Lab Code: MITKEM Case No.: J0337 Mod. Ref No.: SDG No.: SJ0337

GC Column: DB-624 ID: 0.25 (mm) Init. Calib. Date(s): 03/07/2010 03/07/2010

EPA Sample No.(VSTD#####): VSTD050K5 Date Analyzed: 03/07/2010

Lab File ID (Standard): V5L6521.D Time Analyzed: 10:25

Instrument ID: V5 Heated Purge: (Y/N) Y

		IS1 (S1 )		IS2 (S2 )	·	IS3 (S3 )	
		AREA #	‡ RT #	AREA #	RT #	AREA #	RT #
	12 HOUR STD	777631	6.382	707112	9.622	311211	12.397
	UPPER LIMIT	1555262	6.882	1414224	10.122	622422	12.897
	LOWER LIMIT	388816	5.882	353556	9.122	155606	11.897
	SAMPLE NO.						
01	LCS-49650	564741	6.371	491939	9.623	235051	12.398
02	LCSD-49650	547625	6.371	479105	9.623	231105	12.398
03	MB-49650	545390	6.373	471013	9.625	229298	12.400
04	BCKFL	559568	6.382	480307	9.633	227473	12.397

IS1 () = Fluorobenzene

IS2 () = Chlorobenzene-d5

IS3 () = 1,4-Dichlorobenzene-d4

AREA UPPER LIMIT = 200% (Low-Medium Volatiles) and 140% (Trace Volatiles) of

internal standard area

AREA LOWER LIMIT = 50% (Low-Medium Volatiles) and 60% (Trace Volatiles) of

internal standard area

RT UPPER LIMIT = +0.50 (Low-Medium Volatiles) and +0.33 (Trace Volatiles)

minutes of internal standard RT

RT LOWER LIMIT = -0.50 (Low-Medium Volatiles) and -0.33 (Trace Volatiles)

minutes of internal standard RT

# Column used to flag values outside contract required QC limits with an asterisk.

#### 8C - FORM VIII SV-1

#### SEMIVOLATILE INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: MITKEM LABORATORIES Contract:

Lab Code: MITKEM Case No.: J0337 Mod. Ref No.: SDG No.: SJ0337

EPA Sample No.(SSTD020##): SSTD0501W Date Analyzed: 03/09/2010

Lab File ID (Standard): S1G2441.D Time Analyzed: 12:05

Instrument ID: S1

		IS1 (DCB)		IS2 (NPT)		IS3 (ANT)	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
	12 HOUR STD	132906	3.451	396431	4.618	262621	6.325
	UPPER LIMIT	265812	3.951	792862	5.118	525242	6.825
	LOWER LIMIT	66453	2.951	198216	4.118	131311	5.825
	SAMPLE NO.						
01	MB-49583	148579	3.444	461403	4.621	323056	6.318
02	LCS-49583	137157	3.451	422645	4.617	299088	6.324
03	LCSD-49583	149880	3.452	452917	4.618	301685	6.325
04	BCKFL	141673	3.454	445942	4.621	288907	6.317

IS1 (DCB) = 1,4-Dichlorobenzene-d4

IS2 (NPT) = Naphthalene-d8

IS3 (ANT) = Acenaphthene-d10

AREA UPPER LIMIT = 200% of internal standard area

AREA LOWER LIMIT = 50% of internal standard area

RT UPPER LIMIT = +0.50 minutes of internal standard RT

RT LOWER LIMIT = -0.50 minutes of internal standard RT

# Column used to flag values outside contract required QC limits with an asterisk.

#### 8D - FORM VIII SV-2

#### SEMIVOLATILE INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: MITKEM LABORATORIES Contract:

Lab Code: MITKEM Case No.: J0337 Mod. Ref No.: SDG No.: SJ0337

EPA Sample No.(SSTD020##): SSTD0501W Date Analyzed: 03/09/2010

Lab File ID (Standard): S1G2441.D Time Analyzed: 12:05

Instrument ID: S1 GC Column: Rxi-5sil MS ID: 0.25 (mm)

		IS4 (PHN)			IS5 (CRY)		IS6 (PRY)	
		AREA	#	RT #	AREA #	RT #	AREA #	RT #
	12 HOUR STD	348501		7.772	358924	10.365	284891	11.726
	UPPER LIMIT	697002		8.272	717848	10.865	569782	12.226
	LOWER LIMIT	174251		7.272	179462	9.865	142446	11.226
	SAMPLE NO.							
1	MB-49583	425909		7.765	435503	10.358	362519	11.719
2	LCS-49583	371668		7.772	412417	10.365	235053	11.715
3	LCSD-49583	396555		7.773	434652	10.366	238663	11.716
4	BCKFL	409327		7.765	407296	10.358	168189	11.708

IS4 (PHN) = Phenanthrene-d10

IS5 (CRY) = Chrysene-d12

IS6 (PRY) = Perylene-d12

AREA UPPER LIMIT = 200% of internal standard area

AREA LOWER LIMIT = 50% of internal standard area

RT UPPER LIMIT = +0.50 minutes of internal standard RT

RT LOWER LIMIT = -0.50 minutes of internal standard RT

# Column used to flag values outside contract required QC limits with an asterisk.

Report Date: 27-Apr-10 20:29





✓ Final Report Re-Issued Report ☐ Revised Report

A DIVISION OF SPECTRUM ANALYTICAL, INC. Featuring HANIBAL TECHNOLOGY

#### Laboratory Report

LaBella Associates 300 State Street, Suite 201 Rochester, NY 14614

Work Order: J0540

Project: LaBella Stand By Ultalife Project #: ULTRALIFER 209025

Attn: Dan Noll

Laboratory ID Client Sample ID

**Matrix** 

**Date Sampled** 

Date Received

J0540-01 TOPSOIL Soil

22-Mar-10 15:00

24-Mar-10 09:48

I attest that the information contained within the report has been reviewed for accuracy and checked against the quality control requirements for each method. The results relate only to the samples(s) as recevied.

All applicable NELAC or USEPA CLP requirments have been meet.

Mitkem Laboratories is accredited under the National Environmental Laboratory Approval Program (NELAP) and is certified by several States, as well as USEPA and US Department of Defense. The current list of our laboratory approvals and certifications is available on the Certifications page our web site at www.mitkem.com.

Please contact the Laboratory or Technical Director at 401-732-3400 with any questions regarding the data contained in the laboratory report.

N/A Department of Defense Connecticut PH-0153 Delaware N/A Maine 2007037 Massachusetts M-RI907 New Hampshire 2631 RI001 New Jersey New York 11522 North Carolina 581 Pennsylvania 68-00520 Rhode Island LAI00301 T104704422-08-TX Texas USDA

P330-08-00023 EP-W-09-039 USEPA - ISM USEPA - SOM EP-W-05-030





Authorized by:

Yihai Ding Laboratory Director

Technical Reviewer's Initials:



LaBella Associates, P.C. 300 State Street

Rochester, New York 14614

### **Appendix D**CAMP Air Monitoring Data

	Ultralife					
	v olivati (e		A 197.	7-19	5-10	
-K	Wind Direction		primare		Wind	
Time	Wind Virection	10	Dust	PID	Dust	
815	NW	8,0	0,085	<i>5.0</i>		
430	11			6,0	0,030	
845	SE	6.0	0,047	0.0	baseline	
900	NE.	0.0	0,043			
915	11	0.0	0.045	8.0	10	
930	. [	0,0	0.039	0.0	0,040	
945	.(	0.0	0,044	0.0		
1000		0.0	0.033	0,0	0,038	
1015	1(	0.0	0,037	0.0	0.091	
S.A.		5,0	0,03 Le	0,0	0.068	
1030	((	0.0	0,034	0.0	0.034	18
1045		0,0	0,061	0,0	140,0	
1100	11	0,0	0,060	0,0	0.042	
1115	1 (	0.0	0.057	0,0	0,038	
1136	11	0.0	0.061	0.0	0.03z	
1145	11	0,0	0.061		14 7 4 4 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	
	Lunch	Break		a		
1315	31	0.0	0,08	0,0	0.047	
1330	10	0,0	0.046	6.0	0,090	
1345	11	0,0	0,075	0,0	0.066	
1400	E	0.0	0,085	0,0	0.069	
1415	no wind	0,0	0.036	10,0		
1430	[C	0.0	0,183	-		
1445	W	0.0	0.069		0.064	
1500	N	6.0	0.057		0.060	
					0,000	S.B

				The state of the s	110
		3 4 A C	0		00100
Time	I A Day	Upwine	a de	Down	Sind (a out tall)
	Wind Dir	PID	Dust	PiD	Dest
900	11	0.0	0,020	0,0	0.038
915	•(	2019		0,0	0,839
930	21			0,0	0,042
				0.0	0,040
945	le le			6.0	0.036
1000	l.			0.0	0,037
1015	(1			0,0	0,045
1030	(1			0.0	0,038
1045	. A1			0,0	0,023
1100	1 (			0.0	0,061
1115	1.5			0.0	0.027
1130	. ( -			0,0	0,031
		Lunct			·
1230	11			0.0	0.039
1245	18			0,0	0038
1300	H			0,0	0.053
1315	. (			0.0	0.067
1330	11			0,0	0.055
1345	17			0.0	0.066
1400 1415 1430	71			0.0	0,037
1915	/(			0,0	0.027
1430	(1			0,0	0,032
1445	11			0,0	0,040
					0,010

Ultraffe

J-20-10

Time Wind Treation PIT Dust THS NA 0.0 0830 DD D.036  900 "" 0.0 0.032  815 E 0.0 0.040  830 "" 0.0 0.038  845 "" 0.0 0.035  900 "" 0.0 0.035  915 "" 0.0 0.035  916 "" 0.0 0.035  11 0.0 0.035  11 0.0 0.030  10 0.0 0.030  10 0.0 0.036  10 0.0 0.027  10 0.0 0.025  1100 "" 0.0 0.025  1100 "" 0.0 0.035  1145 "" 0.0 0.035  1145 "" 0.0 0.036  1145 "" 0.0 0.037  1145 "" 0.0 0.037		1	yprin	d	Dov	awind
\$15 E 0.0 0.032 \$15 E 0.0 0.040 \$30 11 0,0 0.038 \$45 11 0,0 0.038 \$45 11 0.0 0.035 \$95 11 0.0 0.035 \$95 11 0.0 0.035 \$100 0 11 0.0 0.036 \$100 0 11 0.0 0.056 \$100 11 0.0 0.025 \$100 11 0.0 0.025 \$1100 11 0.0 0.025 \$1145 11 0.0 0.034 \$1200 11 0.0 0.037 \$1200 11 0.0 0.031 \$1145 11 0.0 0.037 \$1300 11 0.0 0.037 \$1300 11 0.0 0.051 \$1315 11 0.0 0.062 \$1330 11 0.0 0.051	Time	Wind Three	tion PID	The state of the s	PIP	
815 E 0.0 0.040 830 III 0.0 0.038 845 II 0.0 0.026 900 II 0.0 0.035 915 II 0.0 0.023 920 II 0.0 0.071 945 II 0.0 0.030 1000 II 0.0 0.056 1030 II 0.0 0.025 1100 II 0.0 0.025 1100 II 0.0 0.055 1145 II 0.0 0.031  LUNCH 1230 II 0.0 0.043 1245 II 0.0 0.056 1330 II 0.0 0.056 1330 II 0.0 0.056 1345 II 0.0 0.056 1345 II 0.0 0.051	745	MA	0,0	0.830	00	0,036
830 11 0,0 0.038  845 11 0,0 0,026  900 11 0.0 0,035  915 11 0.0 0,023  930 11 0.0 0,030  1000 11 0.0 0,030  1015 11 0.0 0,036  1030 11 0.0 0,025  1100 11 0,0 0,025  1115 11 0,0 0,042  1130 11 0,0 0,031  LUNCH  1230 11 0,0 0,043  1245 11 0,0 0,051  1315 11 0,0 0,051  1315 11 0,0 0,051		"(			0,0	0.032
845  900  11  0.0 0.035  915  11  0.0 0.035  930  11  0.0 0.030  0.0 0.030  0.0 0.083  1015  11  0.0 0.086  1030  11  0.0 0.025  1000  11  0.0 0.025  1100  11  0.0 0.025  1115  11  0.0 0.035  1145  11  0.0 0.036  1245  11  0.0 0.037  1300  11  0.0 0.037  1300  11  0.0 0.037  1315  11  0.0 0.037  1300  11  0.0 0.082  1345  11  0.0 0.051	815	E			0.0	0.040
900 11 0.0 0,035 915 11 0.0 0,035 930 11 0.0 0,030 1000 0 11 0.0 0,030 1000 0 11 0.0 0,036 1015 11 0.0 0,056 1030 11 0.0 0,029 1045 11 0.0 0,029 1018 11 0.0 0,029 1019 11 0.0 0,042 1019 11 0.0 0,042 1019 11 0.0 0,035 1145 11 0.0 0,035 1245 11 0.0 0,037 1300 11 0.0 0,057 1315 11 0.0 0,051 1315 11 0.0 0,051		- 1 (			0,0	0.038
915 11 0.0 0P23 980 11 0.0 0.071  945 11 0.0 0.030  1000 0 11 0.0 0.083  1015 11 0.0 0.056  1030 11 0.0 0.029  1045 11 0.0 0.025  1100 11 0.0 0.024  1115 11 0.0 0.042  1130 11 0.0 0.039  1200 11 0.0 0.039  1215 11 0.0 0.037  1300 11 0.0 0.037  1315 11 0.0 0.051  1400 11 0.0 0.051				<u> </u>	0,0	0,026
980 11 945 11 0.0 0.030 1000 11 0.0 0.030 1015 11 0.0 0.056 1030 11 0.0 0.056 1030 11 0.0 0.029 1000 11 0.0 0.025 1100 11 0.0 0.025 1115 11 0.0 0.042 1115 11 0.0 0.045 1145 11 0.0 0.039 1145 11 0.0 0.037 11300 11 0.0 0.043 1245 11 0.0 0.057 1300 11 0.0 0.057 1315 11 0.0 0.051 1315 11 0.0 0.051		( (			6.0	0,035
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7-20-10

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LaBella Associates, P.C. 300 State Street Rochester, New York 14614

#### Appendix E

Wastewater Disposal Permit and Characterization Sampling

#### Noll, Dan

From: Diggory, John [jdiggory@ulbi.com]
Sent: Diggory, John [jdiggory@ulbi.com]
Thursday, September 16, 2010 4:19 PM

To: Noll, Dan

Subject: Wastewater Discharge

Attachments: Wastewater Discharge Submission.pdf

Dan,

Per your request, here is the response from Lu Engineers, on behalf of the Village of Newark. Also attached is the original discharge request. Discharge of the wastewater started on Wednesday, September 15<sup>th</sup>.

If you have any questions please feel free to contact me.

#### Best Regards,

John Diggory, CIH, CSP, CHMM | Director of Environmental, Health and Safety & Manufacturing Manager 9-Volt | Ultralife Corporation | Office 315-359-6329 | Mobile 585-355-9822 | idiggory@ultralifecorp.com | www.ultralifecorp.com

From: Susan Hilton [mailto:sue-hilton@luengineers.com]

Sent: Friday, September 10, 2010 3:35 PM

To: Marino, Richard

Cc: "Carlton Timerson"; "Doug Alaimo"

Subject: RE: Wastewater

Rick -

Funny you should ask, Corky and I spoke about this right before lunch today. We will allow the discharge of 55 gallons of wastewater per day on Wednesday, Thursday and Friday. The discharge will be limited to those weekdays between the hours of 7am and 4pm. The discharge can be no more than 55 gallons of this wastewater to the sewer in a given day. In your request you indicated that you were going to mix it with the cathode wastewater which is fine, but no more than 55 gallons of the wastewater can be discharged at a time. We don't want three drums of the wastewater discharged to the cathode system and then the wastewater discharged.

Please let us know the date of the first anticipated discharge and let us know when the discharge has ceased.

If you have any questions, please contact me.



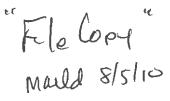
Susan A. Hilton, P.E.
Group Leader - Asbestos, Water and Wastewater
Associate
175 Sully's Trail, Suite 202
Corporate Crossings Office Park
Pittsford, New York 14534

Phone: (585) 385-7417 ext. 256

Fax: (585) 385-3741



August 4, 2010



Carlton Timerson Village of Newark – Wastewater Treatment Plant 321 Murray Street Newark, New York 14513

Dear Mr. Timerson

The purpose of this note is to provide written notification prior to the introduction of any new wastewater or pollutants, as required in Part III, Item 3 of our Industrial User Discharge Permit.

As part of our voluntary clean-up project we have produced a quantity of 14ea - 55 gallon drums of wastewater from the soil runoff.

This wastewater was sampled and tested for the following: TCLP SVOC, TCLP Metals, TCLP VOC, TCLP SVOC, Pesticides, TAL Metals

We are providing the lab results from the above listed analysis. We would like to obtain approval to discharge this wastewater at a rate of 55 gallons per day through our Cathode Wastewater Discharge to sanitary sewer.

Should you have any questions, or require further information, please do not hesitate to contact me.

Sincerely,

Richard Marino Facilities & Environmental Manager

cc: John Diggory, Ultralife Corporation
Sue Hilton, Lu Engineers



#### **Analytical Report Cover Page**

#### LaBella Associates

For Lab Project # 10-3021
Issued July 30, 2010
This report contains a total of 8 pages

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

Any noncompliant QC parameters having impact on the data are flagged or documented on the final report.

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

Each page of this document is part of a multipage report. This document may not be reproduced except in its entirety, without the prior consent of Paradigm Environmental Services, Inc.

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

NYSDOH ELAP does not certify for all parameters. Paradigm Environmental Services or the indicated subcontracted laboratory does hold certification for all analytes where certification is offered by ELAP unless otherwise specified.

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

"ND" = analyzed for but not detected.

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

"Z" = See case narrative.

"D" = Duplicate results outside QC limits. May indicate a non-homogenous matrix.

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

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



179 Lake Avenue, Rochester, NY 14608 Office: (585) 647-2530 Fax: (585) 647-3311

#### LAB REPORT FOR TCLP RCRA METALS ANALYSIS

Client:

LaBella Associates

Lab Project No.: Lab Sample No.: 10-3021 10055

Client Job Site:

Ultralife

Sample Type:

**TCLP Extract** 

Client Job No.:

209025

Date Sampled: Date Received:

07/22/2010 07/23/2010

Field Location: Field ID No.: Staged Soil C-1 through C-5

N/A

Parameter	Date Analyzed	Analytical Method	Result (mg/L)	Regulatory Limit (mg/L)
Arsenic	07/28/2010	SW846 6010	<0.100	5.0
Barium	07/28/2010	SW846 6010	1.63	100
Cadmium	07/28/2010	SW846 6010	<0.025	1.0
Chromium	07/28/2010	SW846 6010	<0.050	5.0
Lead	07/28/2010	SW846 6010	<0.100	5.0
Mercury	07/26/2010	SW846 7470	<0.0020	0.2
Selenium	07/28/2010	SW846 6010	<0.100	1.0
Silver	07/28/2010	SW846 6010	<0.050	5.0
				1

ELAP ID No.:10958

Comments:

Approved By:

Bruce Hoogesteger, Technical Director

#### LAB REPORT FOR TAL METALS ANALYSIS IN WATERS

Client:

LaBella Associates

Lab Project No.: Lab Sample No.: 10-3021 10056

Client Job Site:

Ultralife

Sample Type:

Water

Client Job No.:

209025

Date Sampled:

Date Received:

07/22/2010 07/23/2010

Field Location:

Field ID No.:

Wastewater

N/A

Parameter	Date Analyzed	Analytical Method	Result (mg/L)
Aluminum	07/28/2010	EPA 200.7	0.244
Antimony	07/28/2010	EPA 200.7	<0.060
Arsenic	07/28/2010	EPA 200.7	0.011
Barium	07/28/2010	EPA 200.7	0.253
Beryllium .	07/28/2010	EPA 200.7	<0.005
Cadmium	07/28/2010	EPA 200.7	<0.005
Calcium	07/28/2010	EPA 200.7	160
Chromium	07/28/2010	EPA 200.7	<0.010
Cobalt	07/28/2010	EPA 200.7	<0.010
Copper	07/28/2010	EPA 200.7	0.036
Iron	07/28/2010	EPA 200.7	2.53
Lead	07/28/2010	EPA 200.7	<0.005
' Magnesium	07/28/2010	EPA 200.7	37.7
Manganese	07/29/2010	EPA 200.7	13.0
Mercury	07/26/2010	EPA 245.1	<0.0002
Nickel	07/28/2010	EPA 200.7	<0.040
** Potassium	07/30/2010	EPA 200.7	14.3
Selenium	07/28/2010	EPA 200.7	<0.005.7
i Silver	07/28/2010	EPA 200.7	<0.010
Sodium	07/30/2010	EPA 200.7	81.1
Thallium	07/28/2010	EPA 200.7	<0.006
Vanadium	07/28/2010	EPA 200.7	<0.010
Zinc	07/28/2010	EPA 200.7	0.133

ELAP ID No.:10958

Comments:

Approved By:

Bruce Hoogesteger, Tedhnical Director

This report is part of a multipage document and should only be evaluated in its entirety. Chain of Custody provides additional information, File ID:103021.xls including compliance with sample condition requirements upon receipt.



#### Pesticide Analysis Report for Non-potable Water

Client: LaBella Associates

**Client Job Site:** 

Ultralife

Lab Project Number: 10-3021

Lab Sample Number: 10056

Client Job Number:

209025

**Date Sampled:** 

07/22/2010

Field Location: Fleid ID Number: Wastewater N/A

**Date Received:** 

07/23/2010

Sample Type:

Water

Date Analyzed:

07/28/2010

Pesticide Identification	Results in ug / L
Aldrin	ND< 0.100
alpha-BHC	ND< 0.100
beta-BHC	ND< 0.100
delta-BHC	ND< 0.100
gamma-BHC	ND< 0.100
alpha-Chlordane	ND< 0.100
gamma-Chlordane	ND< 0.100
4,4'-DDD	ND< 0.100
4,4'-DDE	ND< 0.100
4,4'-DDT	ND< 0.100
Dieldrin	ND< 0.100
Endosulfan I	ND< 0.100
Endosulfan II	ND< 0.100
Endosuifan Sulfate	ND< 0.100
Endrin	ND< 0.100
Endrin Aldehyde	ND< 0.100
Endrin Ketone	ND< 0.100
Heptachlor	ND< 0.100
Heptachlor Epoxide	ND< 0.100
Methoxychlor	ND< 0.100
Toxaphene	ND< 5.00

ELAP Number 10958

Method: EPA 8081

Comments: ND denotes Non Detect ug / L = microgram per Liter

Signature:



#### Semi-Volatile Analysis Report for TCLP Extract

Client: LaBella Associates

**Client Job Site:** 

Ultralife

Lab Project Number: 10-3021

Client Job Number: 209025

Staged Soil C-1 through C-5

Lab Sample Number: 10055

07/22/2010

Field Location: Field ID Number:

Date Sampled: Date Received:

07/23/2010

N/A

Sample Type:

**TCLP Extract** 

Date Analyzed:

07/27/2010

Base / Neutrals	Results in ug / L	Regulatory Limits in ug / L
1.4-Dichlorobenzene	ND< 40.0	7,500
2.4-Dinitrotoluene	ND< 40.0	130
Hexachlorobenzene	ND< 40.0	130
l lexachiorobutadiene	ND< 40.0	500
Hexachloroethane	ND< 40.0	3000
Nitrobenzene	ND< 40.0	2000
Pyridine	ND< 40.0	5000

Acids	Results in ug / L	Regulatory Limits in ug / L
Cresols (as m.p.o-Cresol)	ND< 80.0	200,000
Pentachlorophenol	ND< 100	100,000
2.4.5-Trichlorophenol	ND< 100	400,000
2.4.6-Trichlorophenol	ND< 40.0	2000
2,1,0 (1.0.0.0.0)	the state of the s	D-4- Cliv. 050476

ELAP Number 10958

Method: EPA 8270C

Data File: S52175.D

Comments: ND denotes Non Detect ug / L = microgram per Liter

Signature:



#### Semi -Volatile Analysis Report for Non-potable Water

Client: LaBella Associates

**Client Job Site:** 

Ultralife

Lab Project Number: 10-3021

Lab Sample Number: 10056

Client Job Number:

209025

Date Sampled:

07/22/2010

Field Location: Field ID Number: Wastewater N/A

**Date Received:** 

07/23/2010

Results in ug / L

Sample Type:

Water

Date Analyzed:

07/27/2010

Base / Neutrals	Résults in ug / L	Base / Neutrals
Acenaphthene	ND< 10.0	Dibenz (a,h) anthracene
Anthracene	ND< 10.0	Fluoranthene
Benzo (a) anthracene	ND< 10.0	Fluorene
Benzo (a) pyrene	ND< 10.0	Indeno (1,2,3-cd) pyrene
Benzo (b) fluoranthene	ND< 10.0	Naphthalene
· · · · · · · · · · · · · · · · ·		

Nesults in ug / L	Dase / Negurais	
ND< 10.0	Dibenz (a,h) anthracene	ND< 10.0
ND< 10.0	Fluoranthene	ND< 10.0
ND< 10.0	Fluorene	ND< 10.0
ND< 10.0	Indeno (1,2,3-cd) pyrene	ND< 10.0
ND< 10.0	Naphthalene	ND< 10.0
ND< 10.0	Phenanthrene	ND< 10.0
ND< 10.0	Pyrene	ND< 10.0
ND< 10.0	Acenaphthylene	ND< 10.0
ND< 10.0	1,2-Dichlorobenzene	ND< 10.0
ND< 25.0	1,3-Dichlorobenzene	ND< 10.0
ND< 10.0	1,4-Dichlorobenzene	ND< 10.0
ND< 10.0	1,2,4-Trichlorobenzene	ND< 10.0
ND< 10.0	Nitrobenzene	ND< 10.0
ND< 10.0	2,4-Dinitrotoluene	ND< 10.0
ND< 10.0	2,6-Dinitrotoluene	ND< 10.0
ND< 10.0	Bis (2-chloroethyl) ether	ND< 10.0
ND< 10.0	Bis (2-chloroisopropyl) ether	ND< 10.0
ND< 10.0	Bis (2-chloroethoxy) methan	ND< 10.0
ND< 10.0		ND< 10.0
ND< 10.0	4-Chlorophenyl phonyl ether	ND< 10.0
ND< 10.0	Benzidine	ND< 25.0
ND< 10.0	3,3'-Dichlorobenzidine	ND< 10.0
ND< 10.0	4-Chloroaniline	ND< 10.0
	2-Nitroaniline	ND< 25.0
	3-Nitroaniline	ND< 25.0
	4-Nitroaniline	ND< 25.0
	ND< 10.0	ND< 10.0 Dibenz (a,h) anthracene ND< 10.0 Fluoranthene ND< 10.0 Indeno (1,2,3-cd) pyrene ND< 10.0 Naphthalene ND< 10.0 Phenanthrene ND< 10.0 Pyrene ND< 10.0 Acenaphthylene ND< 10.0 1,2-Dichlorobenzene ND< 10.0 1,4-Dichlorobenzene ND< 10.0 Nitrobenzene ND< 10.0 Nitrobenzene ND< 10.0 Sis (2-chlorothyl) ether ND< 10.0 Bis (2-chlorothyl) ether ND< 10.0 Bis (2-chlorophenyl phenyl ether ND< 10.0 Benzidine ND< 10.0 Sitrophorophenyl phenyl ether ND< 10.0 Benzidine ND< 10.0 Benzidine ND< 10.0 Sitrophorophorophiline ND< 10.0 Sitrophorophorophiline ND< 10.0 Senzidine

Acids	Results in ug / L	Acids	Results in ug / L
Phenol	ND< 10.0	2-Methylphenol	ND< 10.0
2-Chlorophenol	ND< 10.0	3&4-Methylphenol	ND< 10.0
2,4-Dichlorophenol	ND< 10.0	2,4-Dimethylphenol	ND< 10.0
2,6-Dichlorophenol	ND< 10.0	2-Nitrophenol	ND< 10.0
2,4,5-Trichlorophenol	ND< 25.0	4-Nitrophenol	ND< 25.0
2,4,6-Trichlorophenol	ND< 10.0	2,4-Dinitrophenol	ND< 25.0
Pentachlorophenol	ND< 25.0	4,6-Dinitro-2-methylphenol	ND< 25.0
4-Chloro-3-methylphenol	ND< 10.0	Benzoic acid	ND< 25.0
4-0111010-0-1110011y1p1101101		EBA 00700	Data File: S52171 D

ELAP Number 10958

Method: EPA 8270C

Data File: S52171.U

Comments: ND denotes Non Detect ug / L = microgram per Liter

Signature:



#### Volatile Analysis Report for Non-potable Water

Client: LaBella Associates

**Client Job Site:** 

Ultralife

Lab Project Number: 10-3021

Client Job Number:

209025

Lab Sample Number: 10056

Field Location:

Wastewater

Date Sampled:

07/22/2010

Field ID Number:

N/A

**Date Received:** 

07/23/2010

Sample Type:

Water

Date Analyzed:

07/29/2010

<u>Halocarbons</u>	Results in Ug/L
Bromodichloromethane	ND< 2.00
Bromomethane	ND< 2.00
Bromoform	ND< 5.00
Carbon Tetrachloride	ND< 2.00
Chloroethane	ND< 2.00
Chloromethane	ND< 2.00
2-Chloroethyl vinyl Ether	ND< 10.0
Chloroform	ND< 2.00
Dibromochloromethane	ND4 2.00
1,1-Dichloroethane	ND< 2.00
1,2-Dichloroethane	ND< 2.00
1,1-Dichloroethene	ND< 2.00
cis-1,2-Dichloroethene	ND< 2.00
trans-1,2-Dichloroethene	ND< 2.00
1,2-Dichloropropane	ND< 2.00
cis-1,3-Dichloropropene	ND< 2.00
trans-1,3-Dichloropropene	ND< 2.00

Aromatics	Results in ug / L
Benzene	ND< 0.700
Chlorobenzene	ND< 2.00
Ethylbenzene	ND< 2.00
Toluene	ND< 2.00
m,p-Xylene	ND< 2.00
o-Xylene	ND< 2.00
Styrene	ND< 5.00
1,2-Dichlorobenzene	ND< 2.00
1,3-Dichlorobenzeno	ND≺ 2.00
1,4-Dichlorobenzene	ND< 2.00

Ketones	Results in ug / L
Acetone	11.9
2-Butanone	ND< 10.0
2-Hexanone	ND< 5.00
4-Methyl-2-pentanone	□ ND< 5.00

Miscelianeous	Results in ug / L
Carbon disulfide	ND< 5.00
Vinyl acetate	ND< 5.00

ELAP Number 10958

Trichloroethene

Vinyl chloride

Methylene chloride 1,1,2,2-Tetrachioroethane

Tetrachloroethene

1,1,1-Trichloroethane

1,1,2-Trichloroethane

Trichlorofluoromethane

Method: EPA 8260B

ND< 5.00

ND< 2.00

ND< 2.00

ND< 2.00

ND< 2.00

ND< 2.00

ND< 2.00 ND< 2.00

Data File: V77113.D

Comments: ND denotes Non Detect ug / L = microgram per Liter

Bruce Hoogesteger: Technical Director

This report is part of a multipage document and should only be evaluated in its entirety. Chain of Custody provides additional information, including compliance with sample condition 103021V1.XLS requirements upon receipt.

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# CHAIN OF CUSTODY

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٢	Icacl	z G	Received @ Lab By	men 7/83/16	1345	



#### Appendix F Project Photo Log



View of a portion of Outfall #1 prior to remedial actions.



View of Outfall #1 from downgradient extent during grubbing.



View of Outfall #1 after grubbing.



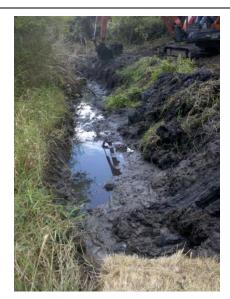
View of Outfall #1 sump.



View of Outfall #1 retention area.



View of Outfall #1 during excavation activities.



View of Outfall #1 during excavation



View of Outfall #1 downgradient sediment dam.



View of Outfall #1 staging



View of Outfall #1 after restoration.



View of Outfall #1 after restoration.



View of Outfall #1 approximately 1 month after remedial activities.



View of Outfall #1 approximately 1 month after remedial \_activities.



View of Outfall #2 during grubbing.



View of Outfall #2 downgradient sediment dam prior to remedial activities.



View of Outfall #2 retention area.



View of Outfall #2 sump.



View of Outfall #2 during remedial activities.



View of Outfall #2 during remedial activities.



View of Outfall #2 staging area.



View of jute mesh on bank of Outfall #2 held in place with black locust live stakes.



View of Outfall #2 after restoration.



View of Outfall #2 work area and jute approximately 1 month after remedial activities.



View of Outfall #2 approximately 1 month after remedial activities.



LaBella Associates, P.C. 300 State Street Rochester, New York 14614

#### Appendix G

Sediment Characterization Documentation and Disposal Documentation



#### **Analytical Report Cover Page**

#### LaBella Associates

For Lab Project # 10-3021 Issued July 30, 2010 This report contains a total of 8 pages

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

Any noncompliant QC parameters having impact on the data are flagged or documented on the final report.

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

Each page of this document is part of a multipage report. This document may not be reproduced except in its entirety, without the prior consent of Paradigm Environmental Services, Inc.

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

NYSDOH ELAP does not certify for all parameters. Paradigm Environmental Services or the indicated subcontracted laboratory does hold certification for all analytes where certification is offered by ELAP unless otherwise specified.

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

"ND" = analyzed for but not detected.

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

"Z" = See case narrative.

"D" = Duplicate results outside QC limits. May indicate a non-homogenous matrix.

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

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



179 Lake Avenue, Rochester, NY 14608 Office: (585) 647-2530 Fax: (585) 647-3311

#### LAB REPORT FOR TCLP RCRA METALS ANALYSIS

Client:

**LaBella Associates** 

Lab Project No.: Lab Sample No.: 10-3021 10055

**Client Job Site:** 

Ultralife

Sample Type:

**TCLP Extract** 

Client Job No.:

209025

Date Sampled: Date Received:

07/22/2010 07/23/2010

Field Location: Field ID No.:

Staged Soil C-1 through C-5

N/A

Parameter	Date Analyzed	Analytical Method	Result (mg/L)	Regulatory Limit (mg/L)
Arsenic	07/28/2010	SW846 6010	<0.100	5.0
Barium	07/28/2010	SW846 6010	1.63	100
Cadmium	07/28/2010	SW846 6010	<0.025	1.0
Chromium	07/28/2010	SW846 6010	<0.050	96 · <b>5.0</b> · · · · ·
Lead	07/28/2010	SW846 6010	<0.100	5.0
Mercury	07/26/2010	SW846 7470	<0.0020	0.2
Selenium	07/28/2010	SW846 6010	<0.100	1.0
Silver	07/28/2010	SW846 6010	<0.050	5.0
				13

ELAP ID No.:10958

Comments:

Approved By:

Bruce Hoogesteger, Technical Director



#### Semi-Volatile Analysis Report for TCLP Extract

Client: LaBella Associates

**Client Job Site:** 

Ultralife

Lab Project Number: 10-3021

Client Job Number:

209025

Lab Sample Number: 10055

Field Location:

Staged Soil C-1 through C-5

Date Sampled:

07/22/2010

Field ID Number:

N/A

**Date Received:** 

07/23/2010

Sample Type:

**TCLP Extract** 

Date Analyzed:

07/27/2010

Base / Neutrals	Results in ug / L	Regulatory Limits in ug / L
1,4-Dichlorobenzene	ND< 40.0	7,500
2,4-Dinitrotoluene	ND< 40.0	130
Hexachlorobenzene	ND< 40.0	130
Hexachlorobutadiene	ND< 40.0	500
Hexachloroethane	ND< 40.0	3000
Nitrobenzene	ND< 40.0	2000
Pyridine	ND< 40.0	5000

Acids	Results in ug / L	Regulatory Limits in ug / L
Cresols (as m,p,o-Cresol)	ND< 80.0	200,000
Pentachlorophenol	ND< 100	100,000
2,4,5-Trichlorophenol	ND< 100	400,000
2.4.6-Trichlorophenol	ND< 40.0	2000
2,4,6- I richlorophenol	ND< 40.0	2000

ELAP Number 10958

Method: EPA 8270C

Data File: S52175.D

Comments: ND denotes Non Detect ug / L = microgram per Liter

Signature:

Bruce Hoogesteger: Technical Director

# PARADIGM

5
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OF C
<i>UST</i>
ODY

Temperature:	Holding Time:	Preservation:	Container Type:	Receipt Parameter	Sample Condition: Per NELAC/ELAP 210/241/242/243/244	**LAB USE ONLY BELOW THIS LINE**	10	<b>8</b>	7	o	ÓΊ	4	ω	27-22-10 530	17-22-630	DATE TIME		PROJECT NAME/SITE NAME:	(585) 647-2530 • (800) 724-1 FAX: (585) 647-3311	179 Lake Avenue Rochester, NY 14608	SERVICES, INC.
ature:	Time:	Preservation: For CI, ph btwo 549	r Type:	eter	AC/ELAP 210/24	ELOWTHIS	-							×	×	m ⊣ − w o ™ ≅ o c	COMMENIS	ATTN: /	PHON	ADDF CITY:	2
z	~ (	2 Z	z	NELAC Compliance	1/242/243/244	LINE**								Wastewater	Staged Soil C-1 through	SAMPLE LOCATION/FIELD ID	<u>.</u>	ONOIL, S. Davis	ROCKUSTER FAX:	tate 51 0	REPORTITO:
Received @ Lab By	Received By SAC	Refinquished By	Sampled By											Water 5	15 118 5 7 W	X-BHAMCY SBMZ-AHZOO TCLP SVOC	Al.	ATTN:	/46/4 PHONE:	ZIP:// CITY:	ates COMPANY:
LIMEN 7)6	2800 7/2	7/2	7/27					. Y						XXXX	<b>X</b>	TCLP Metals TCL VOC TCL SVOC Pesticides TAL Metals	REQUESTED ANALYSIS		FAX:	STATE:	INVOICE TO:
83 / 6   345 Date/Time	23/10 12 30 PI.F.	1230	o 530						edf 7193110	S. Court	persion as to	do not analyze	trip blank rec'd-	9	Composite in le	REMARKS	GOUIE#:	1 2		ZIP: TURNAROUNDTIME	LAB PROJECT#:
			Total Cost:						Ĉ	on hold		20	c'd-	at 10gin. 1 0 0 5 6	10055	PARADIGM LAB SAMPLE NUMBER		5	STD OTHER	TURNAROUND TIME: (WORKING DAYS)	_



High Acres LF 425 Perinton Pkwy Fairport, NY, 14450 Ph: (585) 223-6132

Original Ticket# 798945

Gustomer Name	TRECENVIRONMENTAL-105980NY	TR Carrier	SIL SILVAROLE	TRUCKING, INC.
---------------	----------------------------	------------	---------------	----------------

Ticket Date 08/18/2010

Vehicle# 102

Volume

Payment Type Credit Account

Container

Manual Ticket#

Driver

Hauling Ticket# Route

Check#

Billing # 0005644

State Waste Code

Gen EPA ID NOT REQUIRED

Manifest 25182

Grid CELL 10

Destination

PB

Profile 105980NY (NON HAZ SOIL)

Generator 190-ULTRALIFECORP ULTRA CORPORATION

	Time	Scale	Operator	Inbound	Gross	107860 1	b
In	08/18/2010 10:22:12	A_Scale_1	mmaloney		Tare	37280 1	ь
Out	08/18/2010 10:37:56	B Scale 2	savra		Net	70580 1	Ь

Tons

Comments

Product	LD%	Qty	MOU	Rate	Fee	Amount	Origin
1 Cont Soil RCG-Tons 2 FUEL-Fuel Surcharg 3 EVF-P-Standard Env	100 100	35. 29		1986 had not may 100° 148 may not more than	7		WAY WAY WAY

Total Fees

Total Ticket

Driver's Eignature



High Acres LF 425 Perinton Pkwy Fairport, NY, 14450 Ph: (585) 223-6132

Original Ticket# 799032

Customer Name TRECENVIRONMENTAL-105980NY TR Carrier SIL SILVAROLE TRUCKING, INC.

Ticket Date 08/18/2010

Vehicle# A3

Payment Type Credit Account

Unluma Container

Manual Ticket#

Hauling Ticket#

Check#

Route

Billing # 0005644

State Waste Code

Gen EPA ID NOT REQUIRED

Manifest

Grid CELL 10

Destination

Profile

105980NY (NON HAZ SOIL)

Generator

190-ULTRALIFECORP ULTRA CORPORATION

Time

Scale

Operator Inbound Gross

83648 16

In

08/18/2010 13:40:58

A Scale 1

mmalonev

Tare

39740 1h

Out 08/18/2010 13:57:40

B Scale 2

mmaloney

Not

43900 1h

Tons

21, 95

Comments

Product	LD%	Qty	UOM	Rate	Fee	Amount	Origin
1 Cont Soil RCG-Tons 2 FUEL-Fuel Surcharg 3 EVF-P-Standard Env	100 100	21.95				WF	λΥ λΥ

Driver's Signature

Intal Fees Total Ticket



High Acres LF 425 Perinton Pkwy Fairport, NY, 14450 Ph: (585) 223-6132 Original Ticket# 798988

Customer Name TRECENVIRONMENTAL-105980NY TR Carrier SIL SILVAROLE TRUCKING, INC. Ticket Date 08/18/2010 Vehicle# 102 Velume

00/10/C010 venicie# 1

Payment Type Credit Account Container

Manual Ticket# Driver
Hauling Ticket# Check#

Route Billing # 0005644

State Waste Code Gen EPA ID NOT REQUIRED

Manifest 25183 Grid CELL 10

Destination

Profile

105980NY (NON HAZ SOIL)

Generator 190-ULTRALIFECORP ULTRA CORPORATION

Comments

P	roduct	LDX	Oty	MOU	Rate	Fee	Amount	Origin
1	Cont Soil RCG-Tons FUEL-Fuel Surcharg	100	23.30		N. SEPT. AND SHAPE WITH A LOSS SHAPE SHAPE STOLEN OF SEPT.	* 100 Table 100	W	IAY
	EVF-P-Standard Env			7				IAY

Driver's Signature (

Total Fees

Total Ticket



High Acres LF 425 Parinton Pkwv Fairport, NY, 14450 Ph: (585) 223-6132

Original Ticket# 798981

Customer Name TRECENVIRONMENTAL-105980NY TR Carrier SIL SILVAROLE TRUCKING, INC. Ticket Date 08/18/2010 Vehicle# 83 Volume Payment Type Credit Account Container Manual Ticket# Driver Hauling Ticket# Check# Route Billing # 0005644 State Waste Code Gen EPA ID NOT REQUIRED Manifest 24987

Destination

Profile 105980NY (NON HAZ SOTI)

190-ULTRALIFECORP ULTRA CORPORATION

Time Scale 115360 16 08/18/2010 11:52:06 A Scale 1 amaloney 39820 15 Out 08/18/2010 12:03:17 B Scale 2 mmalonev Net: 7554Ø 1h Tons

Comments

Pr	oduct	LD%	Qty	UOM	Rate	Fee	Amount	Origin
2	Cont Soil RCG-Tons FUEL-Fuel Surcharg EVF-P-Standard Env	100	37.77					WAY WAY

Driver's Signature

Total Fees Total Ticket

CELL 10



High Acres LF 425 Perinton Pkwy Fairport, NY, 14450 Ph: (585) 223-6132

Customer Name TRECENVIRONMENTAL-105980NY TR Carrier SIL SELVAROLE TRUCKING, INC.

Ticket Date 08/18/2010

Payment Type Gradit Account

Manual Ticket# Hauling Ticket#

Route

State Waste Code

Manifest 24986

Destination

Profile

105980NY (NON HAZ SDIL)

190-ULTRALIFECURP ULTRA CORPORATION

1.82 08/18/2010 09:53:34 Out 08/18/2010 10:04:37

Scale A Scale 1 B Scale 2

sayra

Vehicle# 83

Billing # 0005644

Sen EPA ID NOT REQUIRED

Check#

sayra

Original -

Volume

Ticket# 798932

Inbound Gross

Tare

112640 15 39900 16

72740 15

Tons

36.37

Comments

Product	LD%	,	MOU		Amount	Origin
1 Cont Soil RCG-Yo 2 FUEL-Fuel Surcha 3 EVF-P-Standard E	ns 100 ng 100	36, 37				WRY WRY WAY

Driver's Signature

Total Fees

Total Ticket



High Acres LF 425 Perinton Pkwy Fairport, NY, (4450 Ph: (585) 223-6132

Original Ticket# 798903

licket Date	Credit Account # t# ods	Cannier SIL SILVAROLE T Vehicle# 102 Container Driver Check# Billing # 0005644 Gen SPA ID NOT REQUIRED Grid CELL 10	RUCKING, INC. Volume
Profile Generator	105980NY (NON HAZ SOIL) 190-ULTRALIFECORP ULTRA CORPO	RATION	

In Out	Time 08/18/2010 08:24:12 08/18/2010 08:38:23	Operator mmalonev sayra	(abound	Gross Tare Nat	107620 15 37340 15 70280 16
Comm	ients			Tons	35. 14

Product	LDX	20.5	MOU	Rate	Fee	Amoent	Origin
1 Cont Soil RCG-Tons 2 FUEL-Fuel Surcharg 3 EVF-P-Standard Env	100	35.14					WAY WAY

Total Fees
Driver's Signature Total Ticket

W	$M_{\odot}$
WASTE MA	MAGEMENT

#### **Generator's Non-hazardous Waste Profile Sheet**

Requested Disposal Facility: High Acres Landfill Profile Number: 105980NY							
Renewal for Profile Number:			xpiration Date:				
☐ Check here if there are multiple generating locations for							
A. Waste Generator Facility Information (mus		on of waste ge	eneration/orig	in)			
1. Generator Name: Ultralife Battery JUNEAUTE CORPO		<u> </u>					
Site Address: 2000 Technology Parkway	7. Email Addı	ress: khambley@tro	ecenv.com				
3. City/ZIP:	8. Phone: 585	5-594-5545	9. FAX: 585-59	4-5675			
4. State: NY	10. NAICS Co	de: 335°	712				
5. County: WAYNE	11. Generator	USEPA ID #:N	4D986969	301			
6. Contact Name/Title: Keith Hambley	12. State ID# (	if applicable):					
B. Customer Information 🛘 same as above	P. O. Number						
Customer Name: TREC Environmental Inc.	6. Phone: 585-59	94-5545	FAX: 585-594-567	5			
2. Billing Address: 1018 Washington St		ame: Ricelli Trucki					
3. City, State and ZIP: Spencerport, NY, 14559	8. Transporter II	) # (if appl.):					
4. Contact Name: Keith Hambley	_						
5. Contact Email: khambley@trecenv.com							
C.Waste Stream Information							
1. DESCRIPTION							
a. Common Waste Name: Non Hazardous Soil							
State Waste Code(s):							
b. Describe Process Generating Waste or Source of Contar	nination:						
Excavation of stream sediment							
c. Typical Color(s): Brown							
d. Strong Odor?  Yes  No Describe:							
e. Physical State at 70°F:  Solid  Liquid  Pov	rden Dermier	Na su Chuana D	Othor	7.2			
f. Layers? Single layer Multi-layer NA	vder 🔾 semi-so	ond or Studge	Other:				
- •							
g. Water Reactive?  Yes  No If Yes, Describe:							
h. Free Liquid Range (%): to							
i. pH Range: to VA(solid)		_/					
j. Liquid Flash Point:	☐ ≥ 200°F	MA(solid)					
k. Flammable Solid: Yes V No			CA				
<ol> <li>Physical Constituents: List all constituents of waste stream</li> <li>Constituents (Total Composition Must be ≥ 100%)</li> </ol>	Lower Range	, Wood U-2U%): Unit of Measure	(See Attached	Unit of Measure			
1. Poly Liner	0	%	1	%			
2. <u>Soil</u>	99	%	100	%			
3	-		.				
4 5							
6.							
2. ESTIMATED QUANTITY OF WASTE AND SHIPPING INFORMA	LVION	1		<u> </u>			
a. Mone Time Event Dase Repeat Event							
b. Estimated Annual Quantity: 250 Tons	Autoria Die		Other (or eath	A.			
*							
c. Shipping Frequency: 1 Units pe				Other			
d. Is this a U.S. Department of Transportation (USDOT) Haza	•	-					
e. USDOT Shipping Description (if applicable):							
3. SAFETY REQUIREMENTS (Handling, PPE, etc.):							



#### Generator's Non-hazardous Waste Profile Sheet

105980NY

$\angle$	D. Regulatory Status (Please check appropriate responses)	)				
1.	<ul> <li>a. Does the waste meet the definition of a USEPA listed or characteristic hazard</li> <li>l. If yes, please complete a hazardous waste profile.</li> </ul>		oy 40 CFR	Part 261		s <b>I</b> No
2.	☐ Delisted Hazardous Waste ☐ Excluded Wastes	Under 40CFR 261.4	ng docum	entation	. 🗅 Үе	s 🗹 No
3.	. Is the waste from a Federal (40 CFR 300, Appendix B) or state mandated clean-up?	? If yes, see instructions.			☐ Yes	. V No
4.	. Does the waste represented by this waste profile sheet contain radioactive ma	iterial?			☐ Yes	M Mo
	1. Waste Identification: a. Does the waste meet the definition of a USEPA listed or characteristic hazardous waste as defined by 40 CFR Part 261?   Yes					
	b. If yes, is disposal regulated by a State Agency for radioactive waste/NORM?	?	Yes	🔾 №		
5.	(If yes, list in Chemical Composition - C. I.I)  a. If yes, are the PCBs regulated by 40 CFR 761?				☐ Yes	s <b>⊘</b> ino
	• • • • • • • • • • • • • • • • • • • •					
	•		☐ Yes	⊔ No		
6.	Does the waste contain untreated, regulated medical or infectious waste?					
7.						
	1. Waste Identification:  a. Does the waste meet the definition of a USEPA listed or characteristic hazardous waste as defined by 40 CFR Part 261?   1. If yes, please complete a hazardous waste profile.  b. Does the waste meet the definition of a state hazardous waste other than identified in D.1.a?  1. If yes, please complete a hazardous waste profile.  2. Is this waste included in one or more of categories below (Check all that apply)? If yes, attach supporting documentation.     Delisted Hazardous Waste   Check   Delisted Hazardous Waste   Check all that apply)? If yes, attach supporting documentation.      Delisted Hazardous Waste   Check   Delisted Hazardous Waste   Check all that apply)? If yes, attach supporting documentation.      Delisted Hazardous Waste Debris   Treated Characteristic Hazardous Waste      Treated Mazardous Waste   Debris   Treated Characteristic Hazardous Waste      Treated Mazardous Waste   Debris   Treated Characteristic Hazardous Waste      Treated Mazardous Waste   Debris   Treated Characteristic Hazardous Waste      Treated Mazardous Waste   Debris   Treated Characteristic Hazardous Waste      Dest the waste regulated by the Nuclear Regulatory Commission?   Yes   No      Months   Treated Mazardous Waste   Profile Sheet contain Polychlorinated Biphenyls (PCBs)?      If Yes, is it remediation waste from a project being performed under the Self-Implementing option provided in      A USER Tell 26(C)   Yes   No      Dest the waste contain abbestos?   Yes   No      If Yes, were the PCBs regulated by 40 CFR 761?   Yes   No      If Yes, were the PCBs regulated by 40 CFR 761?   Yes   No      If Yes, were the Waste contain abbestos?   Yes   No      If Yes, were the Waste Contain untreated, regulated medical or infectious waste?   Priable   Non      If Yes, were t		-	able		
8.	40 CFR 63 subpart GGGGG)?					🗹 No
	E. Generator Certification (Please read and certify by signatu	ure below)				
Ву	y signing this Generator's Waste Profile Sheet, I hereby certify that all:					
1.	Information submitted in this profile and all attached documents contain true an	nd accurate description	s of the wa	ste mat	erial;	
2.		or suspected hazards pe	ertaining to	this wa	aste has	been
3.		ing a representative sar	nple in acc	cordanc	e with	
4.				•		or
5.	Check all that apply:					
	a. Attached analytical pertains to the waste. Identify laboratory & sample II					
		ntify by laboratory & sar	nnlo ID #'	and pa	ramete	rs
	lesiedy.11ttactuttett #.		upie in # :	, and po		
	c. Additional information necessary to characterize the profiled waste has					DS).
	<ul> <li>c. Additional information necessary to characterize the profiled waste has Indicate the number of attached pages:</li> <li>d. I am an agent signing on behalf of the Generator, and the delegation of a</li> </ul>	been attached (other th	nen analyti	cal, suc	h as MS	
Ce	Is this waste included in one or more of categories below (Check all that apply)? If yes, attach supporting documentation   Yes   No   Delated Hazardous Waste     Excluded Wastes Under 40CFR 261.4   Treated Hazardous Waste Debris   Treated Hazardous Waste     Preated Hazardous Waste     Preated Hazardous Waste     Preated Hazardous Waste					
Co	c. Additional information necessary to characterize the profiled waste has Indicate the number of attached pages:  d. I am an agent signing on behalf of the Generator, and the delegation of a is available upon request.  ertification Signature:  Corporation  Corporation	been attached (other the	nen analyti Generato	cal, suc	h as MS	



LaBella Associates, P.C. 300 State Street Rochester, New York 14614

### **Appendix H**

Final Investigation Tables and Figures

#### Test Pit Soil Analysis Summary – Table 2 Metals, Total Cyanide, and Total Organic Carbon

Ultralife Batteries, Inc. Newark, New York

Metais	TP-01 (3.0-3.5 ft.)	TP-02 (5.5-6.0 ft.)	TP-04 (6.5-7.0 ft.)	TP-05 (4.0-4.5 ft.)	TP-05 (5.5-6.0 ft.)	TP-09 (1.5-2.0 ft.)	TP-11 (0.5-1.0 ft.)	TP-12 (3.0-3.5 ft.)	TP-14 (1.0-1.5 ft.)	TP-15 (1.5-2.0 ft.)	Recommended Soil Cleanup Objectives
Aluminum	5,080	3,620	5,170	6,920	6,040	4,640	9,310	5,750	4,180	3,300	SB
Antimony	ND	SB									
Arsenic	4.10	10.6	3.50	9.40	17.9	3.80	12.2	44.7	3.40	14.4	7.5 or SB
Barium	26.0	31.5	30.4	51.4	41.7	26.2	70.3	32.0	23.0	16.6	300 or SB
Beryllium	ND	ND	ND	0.0800	ND	ND	0.190	ND	ND	0.0800	0.16 or SB
Cadmium	ND	ND	ND	0.110	ND	ND	ND	ND	ND	ND	1 or SB
Calcium	39,200	45,900	55,200	6,620	2,090	3,380	6,840	3,860	1,840	6,430	SB
Chromium	7.40	5.20	7.60	8.80	8.50	7.60	12.1	7.60	8.50	4.70	10 or SB
Cobalt	3.80	3.30	3.90	4.30	3.50	3.90	5.10	4.00	2.70	2.70	30 or SB
Copper	12.7	17.0	14.3	8.60	7.10	6.50	11.8	6.20	3.00	4.20	25 or SB
Iron	ND	2,000 or SB									
Lead	7.20	14.5	6.90	32.8	5.80	4.70	18.5	180	9.40	38.8	SB
Magnesium	13,800	14,300	23,400	4,050	1,550	2,050	2,860	2,500	1,560	3,140	SB **
Manganese	343	657	331	453	341	106	736	409	73.0	232	SB
Mercury	ND	0.0100	ND	0.0200	0.0200	ND	0.0900	0.0200	0.0200	ND	0.1
Nickel	7.80	7.70	8.10	6.90	5.30	7.60	8.90	6.60	5.30	4.50	13 or SB
Potassium	1,150	635	1,130	738	678	744	916	668	739	428	SB
Selenium	1.50	1.80	1.30	1.90	1.50	ND	2.00	ND	ND	1.00	2 or SB
Silver	ND	SB									
Sodium	144	81.0	170	67.3	44.2	174	101	64.5	73.6	40.4	SB
Thallium	ND	SB									
Vanadium	13.5	9.10	13.4	15.1	26.3	13.3	22.3	13.1	14.3	9.00	150 or SB
Zinc	36.1	53.4	39.9	45.0	70.0	37.4	72.8	35.6	52.9	21.7	20 or SB
Total Cyanide	ND	NA									
Total Organic Carbon	ND	1,760	2,040	6,040	2,410	839	19,600	5,880	2,420	1,480	NA

- NA = Not Applicable, ND = Less than laboratory detection limits, B = detected in blank, SB = Site Background, concentrations shown in shaded background indicate detection above laboratory limits, and concentrations shown in bold type and shaded indicate values above New York State Department of Environmental Conservation (NYSDEC) TAGM 4046 Recommended Soil Cleanup Objectives.
- 2. Concentrations are expressed in parts per million (ppm) equivalent to mg/kg or mg/L.
- 3. \*\* Eastern US Background for Magnesium is 100-5,000 ppm.
- 4. Samples collected by GeoQuest Environmental, Inc. on November 2, 2005 and analyzed by Columbia Analytical Services, Rochester, New York (Lab ID # 10145).

#### Test Pit Soil Analytical Summary – Table 2 (Page 1 of 2) Semi-Volatile Organic Compounds – Method OLM 4.2

Ultralife Batteries, Inc. Newark, New York

Chemical Compound	TP-01	TP-02	TP-04	TP-05	TP-05	TP-09	TP-11	TP-12	TP-14	TP-15	Recommended Soil Cleanup
onemous compound	(3.0-3.5 ft.)	(5.5-6.0 ft.)	(6.5-7.0 ft.)	(4.0-4.5 ft.)	(5.5-6.0 ft.)	(1.5-2.0 ft.)	(0.5-1.0 ft.)	(3.0-3.5 ft.)	(1.0-1.5 ft.)	(1.5-2.0 ft.)	Objectives
Acenaphthene	ND	ND	ND	ND	ND	ND	0.120 J	ND	ND	ND	50
Acenaphthylene	ND	41									
Acetophenone	ND	-									
Anthracene	ND	ND	ND	ND	ND	ND	0.240	ND	0.040 J	ND	50
Atrazine	ND	-									
Benzaldehyde	ND	_									
Benzo (a) Anthracene	ND	ND	ND	ND	0.045 J	ND	0.500	ND	ND	ND	0.224
Benzo (a) Pyrene	ND	ND	ND	ND	0.047 J	ND	0.520	ND	ND	ND	0.061
Benzo (b) Fluoranthene	ND	ND	ND	ND	ND	ND	0.400 J	ND	ND	ND	1.1
Benzo (g,h,i) Perylene	ND	ND	ND	ND	ND	ND	0.340 J	ND	ND	ND	50
Benzo (k) Fluoranthene	ND	ND	ND	ND	0.048 J	ND	0.400 J	ND	ND	ND	1.1
1,1'- Biphenyl	ND	-									
Butyl Benzyl Phthalate	ND	50									
Di-N-Butylphthalate	ND	8.1									
Caprolactam	ND	-									
Carbazole	ND	ND	ND	ND	ND	ND	0.110 J	ND	ND	ND	-
Indeno (1,2,3-cd) Pyrene	ND	ND	ND	ND	ND	ND	0.290 J	ND	ND	ND	3.2
4-Chloroaniline	ND	0.220									
Bis (-2-Chloroethoxy) Methane	ND	_									
Bis (-2-Chloroethyl) Ether	ND	-									
2-Chloronaphthalene	ND	-									
2-Chlorophenol	ND	0.8									
2,2'- Oxybis (1-Chloropropane)	ND	-									
Chrysene	ND	ND	ND	ND	0,055	ND	0.530	ND	ND	ND	0.4
Dibenz (a,h) Anthracene	ND	ND	ND	ND	ND	ND	0.086 J	ND	ND	ND	0.014
Dibenzofuran	ND	ND	ND	ND	ND	ND	0.110	ND	ND	ND	6.2
3,3'- Dichlorobenzidine	ND	NA									
2,4- Dichlorophenol	ND	0.4									
Diethylphthalate	ND	7.1									
Dimethyl Phthalate	ND	2.0									
2,4- Dimethylphenol	ND	1 -									
2,4- Dinitrophenol	ND	0.200									
2,4- Dinitrotoluene	ND	1.0									
2,6- Dinitrotoluene	ND	1.0									
Bis (2-Ethylhexyl) Phthalate	ND	ND	ND	0.051J	ND	ND	ND	ND	0.055 J	0.055 J	50
Fluoranthene	ND	ND	ND	ND	0.130 J	ND	1.500	ND	ND	ND	50
Fluorene	ND	50									

### Test Pit Soil Analytical Summary - Table 2 (Page 2 of 2) Semi-Volatile Organic Compounds - Method OLM 4.2

Ultralife Batteries, Inc. Newark, New York

				Nev	wark, New Yo						
	TP-01	TP-02	TP-04	TP-05	TP-05	TP-09	TP-11	TP-12	TP-14	TP-15	RSCO
Chemical Compound	(3.0-3.5 ft.)	(5.5-6.0 ft.)	(6.5-7.0 ft.)	(4.0-4.5 ft.)	(5.5-6.0 ft.)	(1.5-2.0 ft.)	(0.5-1.0 ft.)	(3.0-3.5 ft.)	(1.0-1.5 ft.)	(1.5-2.0 ft.)	(ppm)
-lexachlorobenzene	ND	0.41									
Hexachlorobutadiene	ND	<u> </u>									
Hexachlorocyclopentadiene	ND										
Hexachloroethane	ND	- 4 40									
sophorone	ND	4.40									
2- Methylnaphthalene	ND	36.4									
4,6- Dinitro-2- Methylphenol	ND										
4- Chloro-3- Methylphenol	ND										
2- Methylphenol	ND	0.100									
4- Methylphenol	ND	0.9									
Naphthalene	ND	ND	ND	ND	ND	ND	0.079 J	ND	ND	ND	13
2- Nitroaniline	ND	0.430									
2- Nitroaniline	ND	0.500									
	ND										
4- Nitroaniline	ND	0.200									
Nitrobenzene	ND	0.330									
2- Nitrophenol	ND	0.100									
4- Nitrophenol	ND	ND	ND ND	ND	ND	ND	ND	ND	ND	ND	-
N- Nitrosodiphenylamine	ND										
Di-n-octyl Phthalate	ND	ND ND	ND	ND	ND	ND	ND	ND	ND	ND	1.0
Pentachlorophenol	ND	ND	ND	ND	0.092 J	ND	1.500	ND	0.140 J	ND	50
Phenanthrene	ND	ND ND	ND ND	ND	ND	ND	ND	ND	ND	ND	0.03
Phenol	ND ND	ND	ND ND	ND	ND	ND	ND	ND	ND	ND	-
4- Bromophenyl- Phenylether	ND	ND	ND	ND ND	ND	ND	ND	ND	ND	ND	-
4- Chlorophenyl- Phenylether	ND	ND	+ ND	ND ND	ND	ND	ND	ND	ND	ND	•
N- nitroso-di-n- Propylamine	ND ND	ND ND	ND	ND	0.110 J	ND	1,100	ND	ND	ND	50
Pyrene	ND ND	ND	ND ND	ND	ND	ND	ND	ND	ND	ND	-
2,4,6- Trichlorophenol		ND ND	ND	ND	ND	ND	ND	ND	ND	ND	0.1
2,4,5- Trichlorophenol	ND							ND	0.235	0.055	NA
Total Semi-Volatile Organic Compounds	ND	ND	ND	0.051J	0.527	ND	7.825	עח	0.233	0.033	19/1

- 1. NA = Not Applicable, ND = Less than laboratory detection limits, J = estimated value, concentrations shown in shaded background indicate detection above laboratory limits, and concentrations shown in bold type and shaded indicate values above New York State Department of Environmental Conservation (NYSDEC) TAGM 4046 Recommended Soil Cleanup Objectives (RSCO).
- 2. -= No standard available.
- 3. Concentrations are expressed in parts per million (ppm) equivalent to mg/kg.
- Samples collected by GeoQuest Environmental, Inc. on November 2, 2005 and analyzed by Columbia Analytical Services, Rochester, New York (Lab ID # 10145).

## Test Pit Soil Analytical Summary – Table 2 (Page 1 of 2) Volatile Organic Compounds – Method OLM Ultralife Batteries, Inc.

Newark, New York

Chemical Compound	TP-01 (3.0-3.5 ft.)	TP-02 (5.5-6.0 ft.)	TP-04 (6.5-7.0 ft.)	TP-05 (4.0-4.5 ft.)	TP-05 D (4.0-4.5 ft.)	TP-05 (5.5-6.0 ft.)	TP-09 (1.5-2.0 ft.)	TP-11 (0.5-1.0 ft.)	TP-12 (3.0-3.5 ft.)	TP-14 (1.0-1.5 ft.)	TP-15 (1.5-2.0 ft.)	Recommended Soil Cleanup Objectives
Acetone	ND	ND	0.011 J	0.450 E	0.460 D	0.081	ND	ND	ND	0.0042 J	ND	0.2
Benzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.06
Bromodichloromethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	-
Bromoform	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	-
Bromomethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	-
2- Butanone (MEK)	ND	ND	ND	0.110	0.120	0.010	ND	ND	ND	ND	ND	0.3
Methyl Tert- Butyl Ether	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	-
Carbon Disulfide	ND	ND	ND	0.00095 J	ND	ND	ND	ND	ND	ND	ND	2.7
Carbon Tetrachloride	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.6
Chlorobenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1.7
Chloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1.9
Chloroform	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.3
Chloromethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	-
1,2- Dibromo-3- Chloropropane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
Cyclohexane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	-
Dibromochloromethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA
1,2- Dibromoethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	-
1,2- Dichlorobenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	7.9
1,4- Dichlorobenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	8.5
1,3- Dichlorobenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1.6
Dichlorodifluoromethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	-
1,1- Dichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.4
1,2- Dichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	-
1,1- Dichloroethene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	-
Trans-1,2- Dichloroethene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.3
Cis-1,2-Dichloroethene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	-
1,2- Dichloropropane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	-
Trans-1,3- Dichloropropene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	-
Cis-1,3- Dichloropropene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	-
Ethylbenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	5.5
2- Hexanone	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	-
Isopropylbenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	•
Methyl Acetate	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<b>†</b>
Methylcyclohexane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<del>                                     </del>
Methylene Chloride	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.1
4- Methyl-2- Pentanone	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1.0

### Test Pit Soil Analytical Summary – Table 2 (Page 2 of 2) Volatile Organic Compounds – Method OLM

Ultralife Batteries, Inc. Newark, New York

Chemical Compound	TP-01 (3.0-3.5 ft.)	TP-02 (5.5-6.0 ft.)	TP-04 (6.5-7.0 ft.)	TP-05 (4.0-4.5 ft.)	TP-05D (4.0-4.5 ft.)	TP-05 (5.5-6.0 ft.)	TP-09 (1.5-2.0 ft.)	TP-11 (0.5-1.0 ft.)	TP-12 (3.0-3.5 ft.)	TP-14 (1.0-1.5 ft.)	TP-15 (1.5-2.0 ft.)	Recommended Soil Cleanup Objectives
Styrene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	-
1,1,2,2- Tetrachloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	-
Tetrachloroethene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1.4
Toluene	ND	ND	ND	ND	0.0068 J	ND	0.0030 J	0.0034 J	ND	ND	ND	1.5
1,2,4- Trichlorobenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	3.4
1,1,1- Trichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1.4
1,1,2- Trichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	-
Trichloroethene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.7
Trichlorofluoromethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	-
1,1,2-Trichloro-1,2,2- Trifluoroeth	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	-
Vinyl Chloride	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.2
M+P- Xylene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1.2
O- Xylene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1.2
Total Volatile Organic Compounds	ND	ND	0.011	0.56095	0.5868	0.091	0.0030	0.0034	ND	0.0042	ND	NA

- 1. NA = Not Applicable, ND = Less than laboratory detection limits, J = estimated value, E = concentrations exceeded calibration range, D = secondary dilution, concentrations shown in shaded background indicate detection above laboratory limits, and concentrations shown in bold type and shaded indicate values above New York State Department of Environmental Conservation (NYSDEC) TAGM 4046 Recommended Soil Cleanup Objectives.
- -= No standards available.
- 3. Concentrations are expressed in parts per million (ppm) equivalent to Mg/kg.
- 4. Samples collected by GeoQuest Environmental, Inc. on November 2, 2005 and analyzed by Columbia Analytical Services, Rochester, New York (Lab ID # 10145).

#### Soil Analytical Summary – Table 2 Pesticides/ PCBs – Method OLM 4.2

Ultralife Batteries, Inc. Newark, New York

Chemical Compound	TP-01 (3.0-3.5 ft.)	TP-02 (5.5-6.0 ft.)	TP-04 (6.5-7.0 ft.)	TP-05 (4.0-4.5 ft.)	TP-05 (5.5-6.0 ft.)	TP-09 (1.5-2.0 ft.)	TP-11 (0.5-1.0 ft.)	TP-12 (3.0-3.5 ft.)	TP-14 (1.0-1.5 ft.)	TP-15 (1.5-2.0 ft.)	Recommended Soil Cleanup Objectives
Aroclor-1016	ND	1.0									
Aroclor-1221	ND	1.0									
Aroclor-1232	ND	1.0									
Aroclor-1242	ND	1.0									
Aroclor-1248	ND	1.0									
Aroclor-1254	ND	1.0									
Aroclor-1260	ND	1.0									
Aldrin	ND	0.041									
Alpha-BHC	ND	0.11									
Beta-BHC	ND	0.2									
Delta-BHC	ND	0.3									
Gamma-BHC (Lindane)	ND	0.06									
Alpha-Chlordane	ND	0.54									
Gamma-Chlordane	ND	0.54									
4,4'-DDD	ND	ND	0.0045	ND	ND	ND	ND	ND	0.0076	0.0067	2.9
4,4'-DDE	0.012	ND	0.0086	0.0066	ND	ND	0.013	ND	ND	ND	2.1
4,4'-DDT	0.0073	ND	ND	ND	ND	ND	0.009	ND	ND	ND	2.1
Dieldrin	ND	0.044									
Endosulfan I	ND	0.9									
Endosulfan II	ND	0.9									
Endosulfan Sulfate	ND	1.0									
Endrin	ND	0.10									
Endrin Aldehyde	ND	-									
Endrin Ketone	ND	NA									
Heptachlor	ND	0.10									
Heptachlor Epoxide	ND	0.02									
Methoxychlor	ND	-									
Toxaphene	ND	-									
Total Pesticide/PCBs	0.0193	ND	0.0131	0.0066	ND .	ND	0.022	ND	0.0076	0.0067	NA

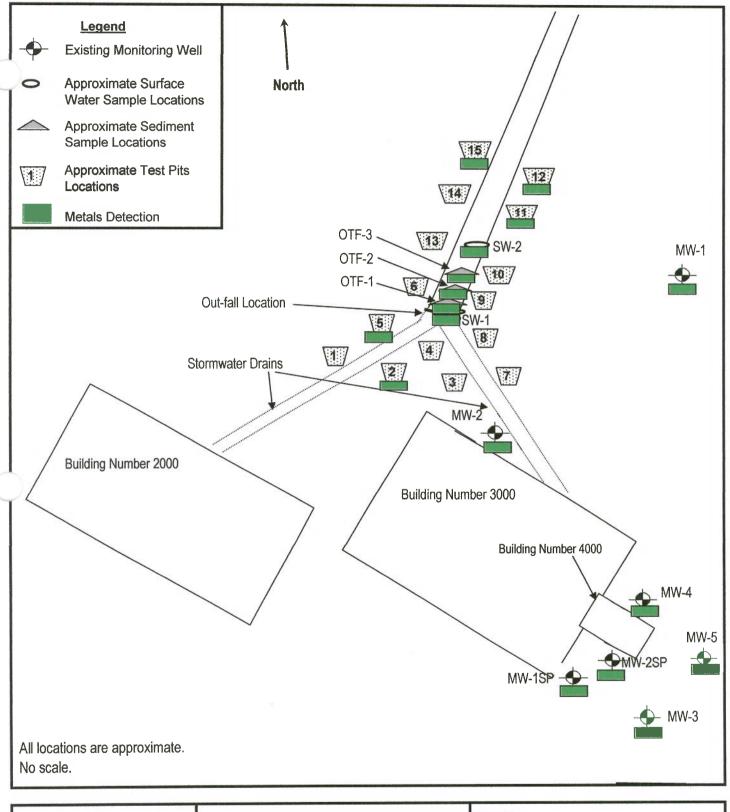
- 1. NA = Not Applicable, ND = Less than laboratory detection limits, concentrations shown in shaded background indicate detection above laboratory limits, and concentrations shown in bold type and shaded indicate values above New York State Department of Environmental Conservation (NYSDEC) TAGM 4046 Recommended Soil Cleanup Objectives.
- 2. -= No standard available.
- 3. Concentrations are expressed in parts per million (ppm) equivalent to mg/kg or mg/L.
- 4. Samples collected by GeoQuest Environmental, Inc. on November 2, 2005 and analyzed by Columbia Analytical Services, Rochester, New York (Lab ID # 10145).

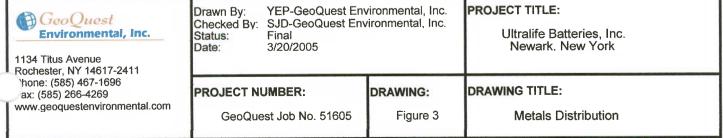
### Test Pit Soil Analysis Summary – Table 2 Metals and Total Organic Carbon – Method ILM 4.2

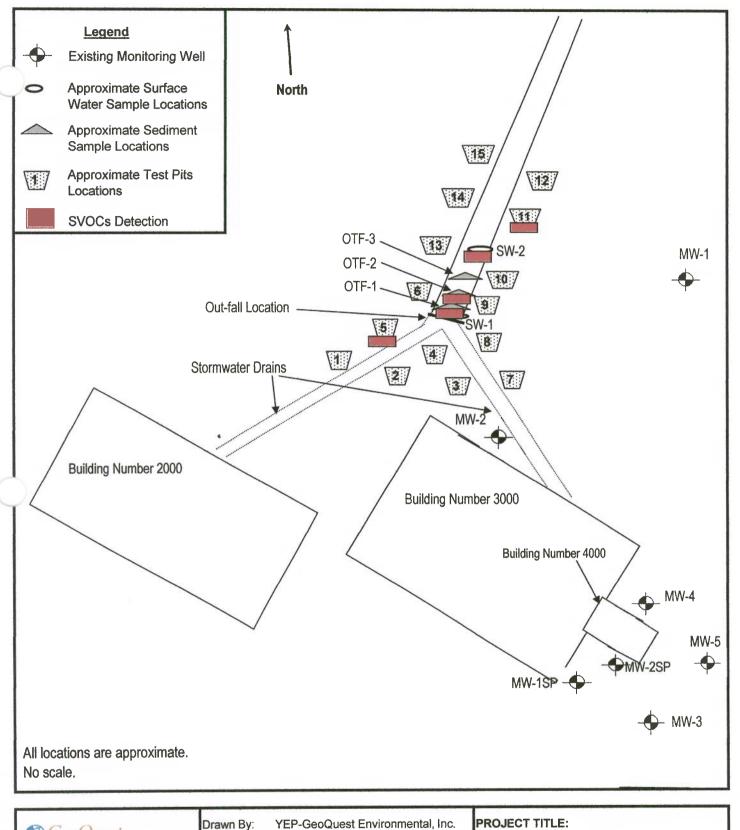
Ultralife Batteries, Inc. Newark, New York

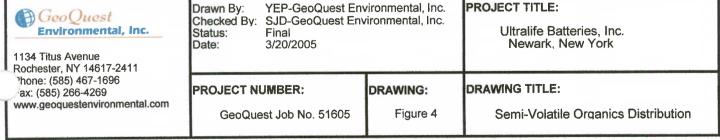
	TP-12 (3.0-3.5 ft.) 11/2005	TP-16 (0.0-0.5 ft.) 5/2007	TP-17 (3.5-4.0 ft.) 5/2007	TP-19 (0.5-1.0 ft.) 5/2007	TP-22 (0.0-0.5 ft.) 5/2007	TP-22 (3.0-3.5 ft.) 5/2007	Recommended Soil Cleanup Objectives (ppm)
Arsenic	44,7	6.4	1.3	6.7	8.3	1.4	7.5 or SB
Total Organic Carbon	5,880	16,500	804	8,240	18,100	1,260	NA

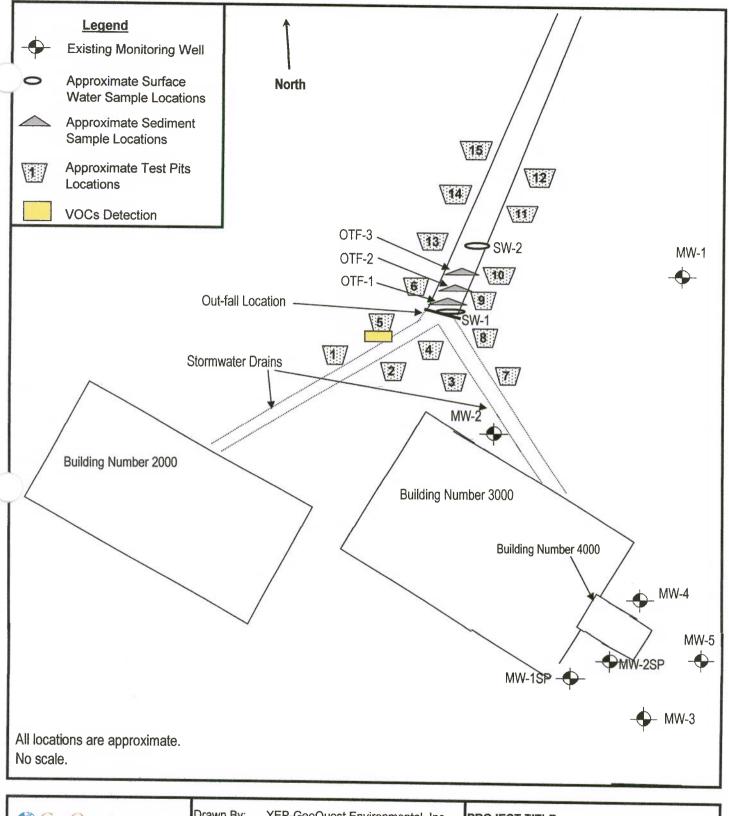
- 1. NA = Not Applicable, ND = Less than laboratory detection limits, Concentrations shown in bold type and shaded indicate values above New York State Department of Environmental Conservation (NYSDEC) TAGM 4046 Recommended Soil Cleanup Objectives. Concentrations shaded are above the laboratory detection limits.
- 2. Concentrations are expressed in parts per million (ppm) equivalent to mg/kg.
- 3. Sample collected from test pit TP-12 by GeoQuest Environmental, Inc. on November 2, 2005 and analyzed by Columbia Analytical Services, Rochester, New York (Lab ID # 10145).
- 4. Samples collected from test pits TP-16, TP-17, TP-19, and TP-22 by GeoQuest Environmental, Inc. on May 10, 2007 and analyzed by Columbia Analytical Services.

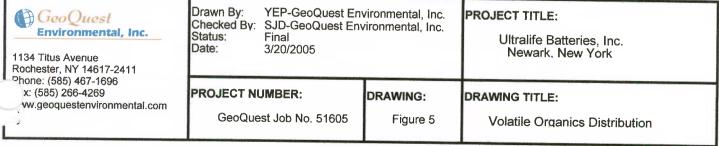


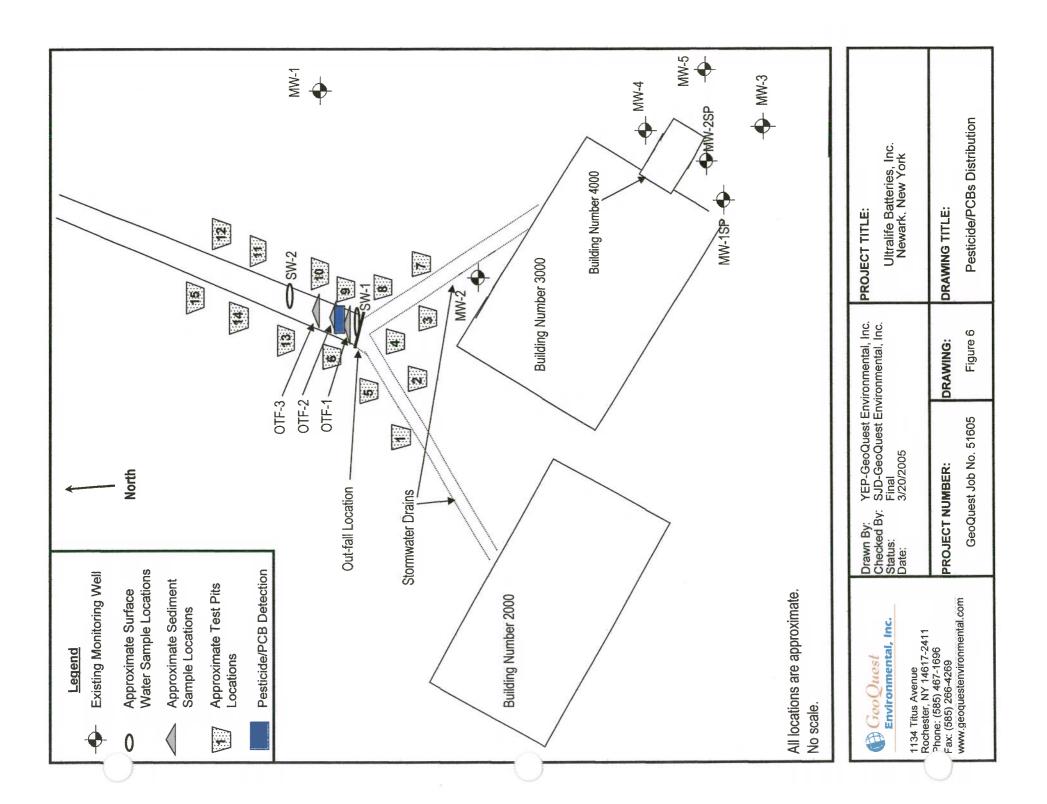














LaBella Associates, P.C. 300 State Street Rochester, New York 14614

# **Appendix I**Excavation Work Plan

#### APPENDIX I – EXCAVATION WORK PLAN

#### A-1 NOTIFICATION

At least 15 days prior to the start of any activity that is anticipated to extend beyond a depth of 2-feet below the ground surface, the site owner or their representative will notify the Department. Currently, this notification will be made to:

Ms. Charlotte Theobald
Division of Environmental Remediation
NYSDEC, Region 8 Office
6274 East Avon-Lima Road
Avon, New York 14414
cbtheoba@gw.dec.state.ny.us

#### This notification will include:

- A detailed description of the work to be performed, including the location and areal extent, plans for replacing 2-ft. of clean material over disturbed areas, estimated volumes of soil to be excavated below 2-ft. and where this material will be relocated on-site or disposed of off-site (i.e., permitted disposal facility);
- A summary of environmental conditions anticipated in the work areas, including any known laboratory data for the soils in the area of work, potential presence of grossly contaminated media, and plans for any pre-construction sampling;
- A schedule for the work (start and completion of all intrusive work);
- A summary of the applicable components of this EWP;
- A statement that the work will be performed in compliance with this EWP and 29
   CFR 1910.120;
- A copy of the contractor's health and safety plan, in electronic format, if it differs from the HASP provided in Appendix 6 of this document;
- Identification of disposal facilities for potential waste streams; and

Identification of sources of any anticipated backfill, along with all required

chemical testing results.

A-2 SOIL SCREENING METHODS

Visual, olfactory, and instrument-based soil screening will be performed by a

qualified environmental professional during all remedial and development excavations

below the 2-foot depth into known or potentially contaminated material (remaining

contamination). Soil screening will be performed regardless of when the invasive work is

done and will include all excavation and invasive work performed during development,

such as excavations for foundations and utility work, after issuance of the Limited

Liability Release.

Soils will be segregated based on previous environmental data and screening

results into material that requires off-site disposal, material that requires testing, material

that can be returned to the subsurface, and material that can be used as cover soil.

A-3 STOCKPILE METHODS

Soil stockpiles will be continuously encircled with a berm and/or silt fence. Hay

bales will be used as needed near catch basins, surface waters and other discharge points.

Stockpiles will be kept covered at all times with appropriately anchored tarps.

Stockpiles will be routinely inspected and damaged tarp covers will be promptly

replaced.

Stockpiles will be inspected at a minimum once each week and after every storm

event. Results of inspections will be recorded in a logbook and maintained at the site and

available for inspection by NYSDEC.

2

Excavation Work Plan Stuart Park Complex – Ultralife Battery 2000 Technology Parkway, Newark, New York

LaBella Project No. 209025

**LABELIA** 

A-4 MATERIALS EXCAVATION AND LOAD OUT

A qualified environmental professional or person under their supervision will

oversee all invasive work beyond 2-ft. in depth and the excavation and load-out of all

excavated material.

The owner of the property and its contractors are solely responsible for safe

execution of all invasive and other work performed under this Plan.

The presence of utilities and easements on the site will be investigated by the

qualified environmental professional. It will be determined whether a risk or impediment

to the planned work under this SMP is posed by utilities or easements on the site.

Loaded vehicles leaving (if any) the site will be appropriately lined, tarped,

securely covered, manifested, and placarded in accordance with appropriate Federal,

State, local, and NYSDOT requirements (and all other applicable transportation

requirements).

All outbound trucks will be deconned (washed, brushed off) before leaving the

site until the activities performed under this section are complete. The qualified

environmental professional will be responsible for ensuring that all outbound trucks are

decontaminated (washed, brushed off) before leaving the site.

The qualified environmental professional will also be responsible for ensuring

that all locations where vehicles enter or exit the site shall be inspected daily for evidence

of off-site soil tracking. Cleaning of the adjacent streets will be performed as needed to

maintain a clean condition with respect to site-derived materials.

A-5 MATERIALS TRANSPORT OFF-SITE

All transport of materials will be performed by licensed haulers in accordance

with appropriate local, State, and Federal regulations, including 6 NYCRR Part 364.

Haulers will be appropriately licensed and trucks properly placarded.

2

Excavation Work Plan Stuart Park Complex – Ultralife Battery 2000 Technology Parkway, Newark, New York

LaBella Project No. 209025

**LABELIA** 

Material transported by trucks exiting the site will be secured with tight-fitting covers. Loose-fitting canvas-type truck covers will be prohibited. If loads contain wet material capable of producing free liquid, truck liners will be used.

All trucks will be decontaminated prior to leaving the site. Truck decontamination material will be collected and disposed of off-site in an appropriate manner in accordance with all applicable local, State, and Federal regulations.

All trucks loaded with site material will exit the vicinity of the site using only these approved truck routes. This is the most appropriate route and takes into account: (a) limiting transport through residential areas and past sensitive sites; (b) use of city mapped truck routes; (c) prohibiting off-site queuing of trucks entering the facility; (d) limiting total distance to major highways; (e) promoting safety in access to highways; and (f) overall safety in transport; (g) community input [where necessary].

Trucks will be prohibited from stopping and idling in the neighborhood outside the project site.

Egress points for truck and equipment transport from the site will be kept clean of dirt and other materials during site remediation and development.

Queuing of trucks will be performed on-site in order to minimize off-site disturbance. Off-site queuing will be prohibited.

#### A-6 MATERIALS DISPOSAL OFF-SITE

All soil/fill/solid waste excavated and removed from the site will be treated as contaminated and regulated material and will be transported and disposed in accordance with all local, State (including 6NYCRR Part 360) and Federal regulations. If disposal of soil/fill from this site is proposed for unregulated off-site disposal (i.e., clean soil removed for development purposes), a formal request with an associated plan will be made to the NYSDEC. Unregulated off-site management of materials from this site will not occur without formal NYSDEC approval.

Off-site disposal locations for excavated soils will be identified in the preexcavation notification. This will include estimated quantities and a breakdown by class of disposal facility if appropriate, e.g., hazardous waste disposal facility, solid waste landfill, petroleum treatment facility, C/D recycling facility. Actual disposal quantities and associated documentation will be provided to NYSDEC in the Periodic Review Reports. This documentation will include: waste profiles, test results, facility acceptance letters, manifests, bills of lading, and facility receipts.

Non-hazardous historic fill and contaminated soils taken off-site will be handled, at minimum, as a Municipal Solid Waste per 6NYCRR Part 360-1.2. Material that does not meet Track 1 unrestricted SCOs is prohibited from being taken to a New York State recycling facility (6NYCRR Part 360-16 Registration Facility).

#### **A-7 MATERIALS REUSE ON-SITE**

#### A-7.1 SOIL COVER SYSTEM: 0-2 FEET

The soil/fill material that consists of the soil cover (0-2 feet) will be stockpiled and staged separately from the soil/fill material located below the soil cover (greater than 2 feet deep). Soil cover material excavated can be reused as soil cover material as long as there is no evidence of staining, grossly contaminated material, PID readings (greater than 10 ppm above background), or odors. If the cover system soil/fill material has evidence of staining, grossly contaminated material, elevated PID readings or odors then the soil/fill material must be either sampled to determine if it can be placed below the 2 foot soil cover system or it must be containerized and characterized for off-site disposal.

#### A-7.2 SOIL BELOW THE COVER SYSTEM

Contaminated on-site material, including historic fill and contaminated soil, that is acceptable for re-use on-site will be placed 2.0-feet below the soil cover or impervious surface and will not be reused within the cover soil layer (i.e., within 2-ft. of the surface). Material reused on-site does not require sampling that is placed below the soil cover. If there is evidence that the soil/fill material is impacted (e.g., staining, odors, PID readings, grossly contaminated), sampling will need to be completed to determine if the material

can be placed below the soil cover or off-site disposal is needed. Grossly contaminated soil/fill material cannot be returned to the excavation and must be disposed off-site in accordance with all applicable local, State and Federal regulations.

The segregated soil/fill material will be stockpiled on and covered with a minimum of a double layer of 6 mil polyethene sheeting.

The qualified environmental professional will ensure that procedures defined for materials reuse in this SMP are followed and that unacceptable material does not remain on-site. Contaminated on-site material, including historic fill and contaminated soil, that is acceptable for re-use on-site will be placed below the soil cover layer or impervious surface, and will not be reused within a cover soil layer, within landscaping berms, or as backfill for subsurface utility lines.

Any demolition material proposed for reuse on-site will be sampled for asbestos and the results will be reported to the NYSDEC for acceptance. The crushing or processing of and the reuse of potentially contaminated concrete on the site will not be performed without prior NYSDEC notification and approval. Organic matter (wood, roots, stumps, etc.) or other solid waste derived from clearing and grubbing of the site will be managed in accordance with all applicable local, State, and Federal regulations.

#### A-8 FLUIDS MANAGEMENT

All liquids to be removed from the site, including excavation dewatering and groundwater monitoring well purge and development waters, will be handled, transported and disposed in accordance with applicable local, State, and Federal regulations.

Discharge of water generated during large-scale construction activities to surface waters (i.e., a local pond, stream or river) will be performed under a SPDES permit.

#### A-9 COVER SYSTEM RESTORATION

After the completion of soil removal and any other invasive activities the cover system will be restored in a manner that complies with the RAWP. If the type of cover system changes from that which exists prior to the excavation (e.g., a soil cover is

replaced by asphalt), this will constitute a modification of the cover element of the remedy. A figure showing the modified surface will be included in the subsequent Periodic Review Report and in any updates to the Site Management Plan.

#### A-10 BACKFILL FROM OFF-SITE SOURCES

All material proposed for import onto the site will be approved by the qualified environmental professional and will be in compliance with the provisions in this SMP prior to receipt at the Site.

Material from industrial sites, spill sites, or other environmental remediation sites or potentially contaminated sites will not be imported to the site. All imported soils will meet the backfill and cover soil quality standards established in 6NYCRR 375-6.7(d).

Soils that meet 'exempt' fill requirements under 6 NYCRR Part 360, but do not meet backfill or cover soil objectives for this site, will not be imported onto the site without prior approval by NYSDEC. Solid waste will not be imported onto the site.

Trucks entering the site with imported soils will be securely covered with tight fitting covers. Imported soils will be stockpiled separately from excavated materials and covered to prevent wind and precipitation erosion issues.

#### A-11 STORMWATER POLLUTION PREVENTION

With regard to larger excavations that may be proposed at the Site, procedures for stormwater pollution prevention shall be specified in a project-specific Stormwater Pollution Prevention Plan that conforms to the requirements of NYSDEC Division of Water guidelines and NYS regulations. If not covered in the project-specific Stormwater Pollution Prevention Plan, the following will also apply:

 Barriers and hay bale checks will be installed and inspected once a week and after every storm event. Results of inspections will be recorded in a logbook and maintained at the site and available for inspection by NYSDEC. All necessary repairs shall be made immediately.

 Accumulated sediments will be removed as required to keep the barrier and hay bale check functional.

• All undercutting or erosion of the silt fence to anchor shall be repaired

immediately with appropriate backfill materials.

Manufacturer's recommendations will be followed for replacing silt fencing

damaged due to weathering.

• Erosion and sediment control measures identified in the SMP shall be observed to

ensure that they are operating correctly. Where discharge locations or points are

accessible, they shall be inspected to ascertain whether erosion control measures

are effective in preventing significant impacts to receiving waters.

• Silt fencing or hay bales will be installed around the entire perimeter of the

construction area.

A-12 CONTINGENCY PLAN

If underground tanks or other previously unidentified contaminant sources are

found during post-remedial subsurface excavations or development related construction,

excavation activities will be suspended until sufficient equipment is mobilized to address

the condition.

Sampling will be performed on product, sediment and surrounding soils, etc. as

necessary to determine the nature of the material and proper disposal method. Chemical

analysis will be performed for full list of analytes (TAL metals, TCL volatiles and semi-

volatiles, pesticides and PCBS), unless the site history and previous sampling results

provide a sufficient justification to limit the list of analytes. In this case a reduced list of

analytes will be proposed to the NYSDEC for approval prior to sampling.

8

Excavation Work Plan Stuart Park Complex – Ultralife Battery 2000 Technology Parkway, Newark, New York

LaBella Project No. 209025

**LABELIA** 

Identification of unknown or unexpected contaminated media identified by screening during invasive site work will be promptly communicated by phone to NYSDEC's Project Manager. Reportable quantities of petroleum product will also be reported to the NYSDEC spills hotline. These findings will be also included in the Periodic Review Reports prepared pursuant to Section 5 of the SMP.

#### A-13 ODOR CONTROL PLAN

This odor control plan is capable of controlling emissions of nuisance odors offsite [and on-site, if there are residents or tenants on the property]. Specific odor control
methods to be used on a routine basis will include limiting the area of open excavations
and size of soil stockpiles and covering soil stockpiles. If nuisance odors are identified at
the site boundary, or if odor complaints are received, work will be halted and the source
of odors will be identified and corrected. Work will not resume until all nuisance odors
have been abated. NYSDEC and NYSDOH will be notified of all odor events and of any
other complaints about the project. Implementation of all odor controls, including the
halt of work, is the responsibility of the property owner's Remediation Engineer, and any
measures that are implemented will be discussed in the Periodic Review Report.

All necessary means will be employed to prevent on- and off-site nuisances. At a minimum, these measures will include: (a) limiting the area of open excavations and size of soil stockpiles; (b) shrouding open excavations with tarps and other covers; and (c) using foams to cover exposed odorous soils. If odors develop and cannot be otherwise controlled, additional means to eliminate odor nuisances will include: (d) direct load-out of soils to trucks for off-site disposal; (e) use of chemical odorants in spray or misting systems; and, (f) use of staff to monitor odors in surrounding neighborhoods.

If nuisance odors develop during intrusive work that cannot be corrected, or where the control of nuisance odors cannot otherwise be achieved due to on-site conditions or close proximity to sensitive receptors, odor control will be achieved by sheltering the excavation and handling areas in a temporary containment structure equipped with appropriate air venting/filtering systems.

## A-14 COMMUNITY AIR MONITORING AND FUGITIVE DUST AND PARTICULATE MONITORING PLAN

A copy of the Community Air Monitoring Plan (CAMP) and Fugitive Dust and Particulate Monitoring Plan component of the EWP, obtained from Appendix 1A and 1B of NYSDEC DER-10 Technical Guidance for Site Investigation and Remediation, dated May 2010, is included as Appendix 8 of the SMP. The air monitoring station locations will be based on prevailing wind conditions for that day and will be checked throughout the day and adjusted according to the prevailing wind direction. The provisions of the CAMP and the Fugitive Dust and Particulate Monitoring will be followed during all ground-intrusive activities greater than 2-ft. in depth performed at the Site. Exceedances of action levels listed in the CAMP and Fugitive Dust and Particulate Monitoring will be reported to the NYSDEC and NYSDOH Project Managers.

#### A-15 DUST CONTROL PLAN

Dust will be managed during invasive on-site work and will include, at a minimum, the items listed below:

- Dust suppression will be conducted as needed on roads. Watering trucks will
  be equipped with a water cannon capable of spraying water directly onto offroad areas including excavations and stockpiles.
- Clearing and grubbing of larger sites will be done in stages to limit the area of exposed, unvegetated soils vulnerable to dust production.
- Gravel will be used on roadways to provide a clean and dust-free road surface.
- On-site roads will be limited in total area to minimize the area required for water truck sprinkling.

#### A-16 OTHER NUISANCES

A plan for rodent control will be developed and utilized by the contractor prior to and during site clearing and site grubbing, and during all remedial work.

A plan will be developed and utilized by the contractor for all remedial work to ensure compliance with local noise and control ordinances.

## **MBELLA**

LaBella Associates, P.C. 300 State Street Rochester, New York 14614

Appendix J
Inspection Log



300 State Street

Rochester, New York 14614 Phone: (585) 454-6110 Fax: (585) 454-3066

#### SITE-WIDE INSPECTION FORM

Project Name: NYSDEC Site No. V00178-8

Location: Ultralife Corporation, 2000 Technology Parkway, Newark,

New York 14513

Project No.: 209025

Inspected By:

Date of Inspection:

Weather Conditions:

1. COMMNETS ON GENERAL SITE CONDITIONS:
2. CURRENT USE OF SITE:
3. ARE CURRENT SOIL CONDITIONS IN ACCORDANCE WITH THE EXCAVATION WORK PLAN? YES/NO
5. ARE CURRENT SOIL CONDITIONS IN ACCORDANCE WITH THE EACAVATION WORK FLAN? TES/NO
If No, Explain and indicate actions to be taken:
4. PHOTOGRAPHS TAKEN OF OUTFALL AREAS? YES/NO
5. SITE RECORDS UP TO DATE? YES/NO
COMMENTS AND/OR ACTIONS TAKEN

Y:\Ultralife Corporation\209025\Reports\SMP\SITE INSPECTION FORM.docx



LaBella Associates, P.C. 300 State Street Rochester, New York 14614

# **Appendix K**Deed Restriction



### **Wayne County Clerk's Office**

**Recording Page** 

**Declaration Covenants** 

Instrument Number: R9128382

Date/Time: 06/06/2011 11:51 AM

First OR: ULTRALIFE CORPORATION

First EE: NO GRANTEE

Town: ARCADIA TOWN OF Town: NEWARK VILLAGE

Pages: 6

Employee ld: md Serial Number:

Transfer Tax Number:

State of New York County of Wayne

-FEES-

Recording and Filing

\$70.00 Transfer Tax \$0.00

**Basic Tax** 

Local Tax **Additional Tax** 

Special Tax Withheld

Total

\$70.00

\$0.00

-MORTGAGE TAX-

**Amount Taxed** 

-TRANSFER TAX-**Consideration Amount** 

\*\*\* WARNING - This sheet constitutes the Clerks endorsement required by Section 319 of the Real Property Law of the State of New York.

**Wayne County Clerk** 

\*\*\*DO NOT DETACH\*\*\* \*\*\*THIS IS NOT A BILL\*\*\*

#### **DECLARATION of COVENANTS and RESTRICTIONS**

WAYNE COU (formerly known as Ultralife Batteries, Inc. and hereinafter "Ultralife"), a corporation organized and existing under the laws of the State of Delaware and having an office for the transaction of business at 2000 Technology Parkway (formerly 1350 Route 88 South), Newark, New York 14513.

WHEREAS, Ultralife owns a parcel of real property at 1350 Route 88 South (new address 2000 Technology Parkway) in the Village of Newark, County of Wayne, State of New York, Tax ID Map 14 Parcel 499340 (formerly Tax Map Parcel No. 36110-14-423352.3) (the "Property"), which Property was conveyed by the Wayne County Industrial Development Agency to Ultralife Batteries, Inc, (now known as Ultralife Corporation) by deed dated February 14, 2008 and recorded in the Wayne County Clerk's Office as electronic instrument number R9093873; and

WHEREAS, a portion of the Property is the subject of Voluntary Cleanup Program Agreement No. B8-0537-98-08 ("Voluntary Agreement"), dated January 8, 2001, executed by Ultralife Batteries, Inc. as part of the New York State Department of Environmental Conservation's (the "Department") Voluntary Cleanup Program; the Property and the Voluntary Cleanup Program Site (the "VCP Site") are more particularly described on the survey attached to this Declaration in Appendix "A"; and

WHEREAS, the Department approved a remedy for the VCP Site which is protective of public health and the environment for the Contemplated Use as defined in the Voluntary Agreement and such remedy requires that the Property be subject to certain restrictive covenants.

NOW, THEREFORE, Ultralife, for itself and its successors and/or assigns, covenants that:

First, the VCP Site subject to this Declaration of Covenants and Restrictions is as shown on the survey attached to this Declaration as Appendix "A" ("VCP Site" is identified on the survey) and made a part hereof.

Second, unless prior written approval is first obtained from the Department or, if the Department shall no longer exist, any New York State agency or agencies subsequently created to protect the environment of the State and the health of the State's citizens, hereinafter referred to as "the Relevant Agency", any future construction, use or occupancy at the VCP Site which involves disturbance or excavation below the top two feet of the soil cover system, must be conducted in accordance with the Department approved Site Management Plan (described below).

Third, unless the owner first obtains permission to discontinue such controls from the Department or Relevant Agency, the owner of the VCP Site shall continue in full force and

effect this deed restriction, and the engineering controls required for the remedy, and shall comply with the Department approved Site Management Plan ("SMP") (and modifications as approved by the Department or Relevant Agency) which describes the engineering controls required. The SMP is incorporated into this Declaration and made enforceable hereto.

An up-to-date version of the SMP may be obtained from:

Regional Remediation Engineer: or Region 8 NYS DEC 6274 East Avon-Lima Road East Avon, NY 14414 Site Control Section Division of Environmental Remediation NYS DEC 625 Broadway Albany, NY 12233

Fourth, the owner of the VCP Site is permitted to use the VCP Site for commercial or industrial purposes but shall be prohibited from using the VCP Site for other purposes without the express written waiver of such prohibition by the Department or Relevant Agency.

Fifth, the owner of the VCP Site shall prohibit the use of the groundwater underlying the VCP Site without treatment rendering it safe for drinking water or industrial purposes, as appropriate, unless the user first obtains permission to do so from the Department or Relevant Agency.

Sixth, the owner of the VCP Site shall allow the Department, its agents, employees, or other representatives of the State to enter and inspect the VCP Site in a reasonable manner and at reasonable times to assure compliance with the above-stated restrictions.

Seventh, the owner of the VCP Site shall submit to the Department an annual written statement by an expert the Department finds acceptable certifying that the controls at the VCP Site are unchanged from the previous certification, or that any changes to the controls were approved by the Department or the Relevant Agency, and that nothing has occurred that would impair the ability of such controls to protect the public health or the environment.

Eighth, this Declaration is and shall be deemed a covenant that shall run with the land and shall be binding upon all future owners of the VCP Site, and shall provide that the owner and its successors and assigns consent to enforcement by the Department or Relevant Agency of the prohibitions and restrictions required to be recorded, and hereby covenant not to contest the authority of the Relevant Agency to seek enforcement.

Ninth, any deed of conveyance of the VCP Site, or any portion thereof, shall recite, unless the Department or Relevant Agency has consented to the termination of such covenants and restrictions, that said conveyance is subject to this Declaration of Covenants and Restrictions.

IN WITNESS WHEREOF, the undersigned has executed this instrument the day written below.

**Ultralife Corporation** 

Peter F. Comerford

Secretary

STATE OF NEW YORK

) ss:

**COUNTY OF WAYNE** 

)

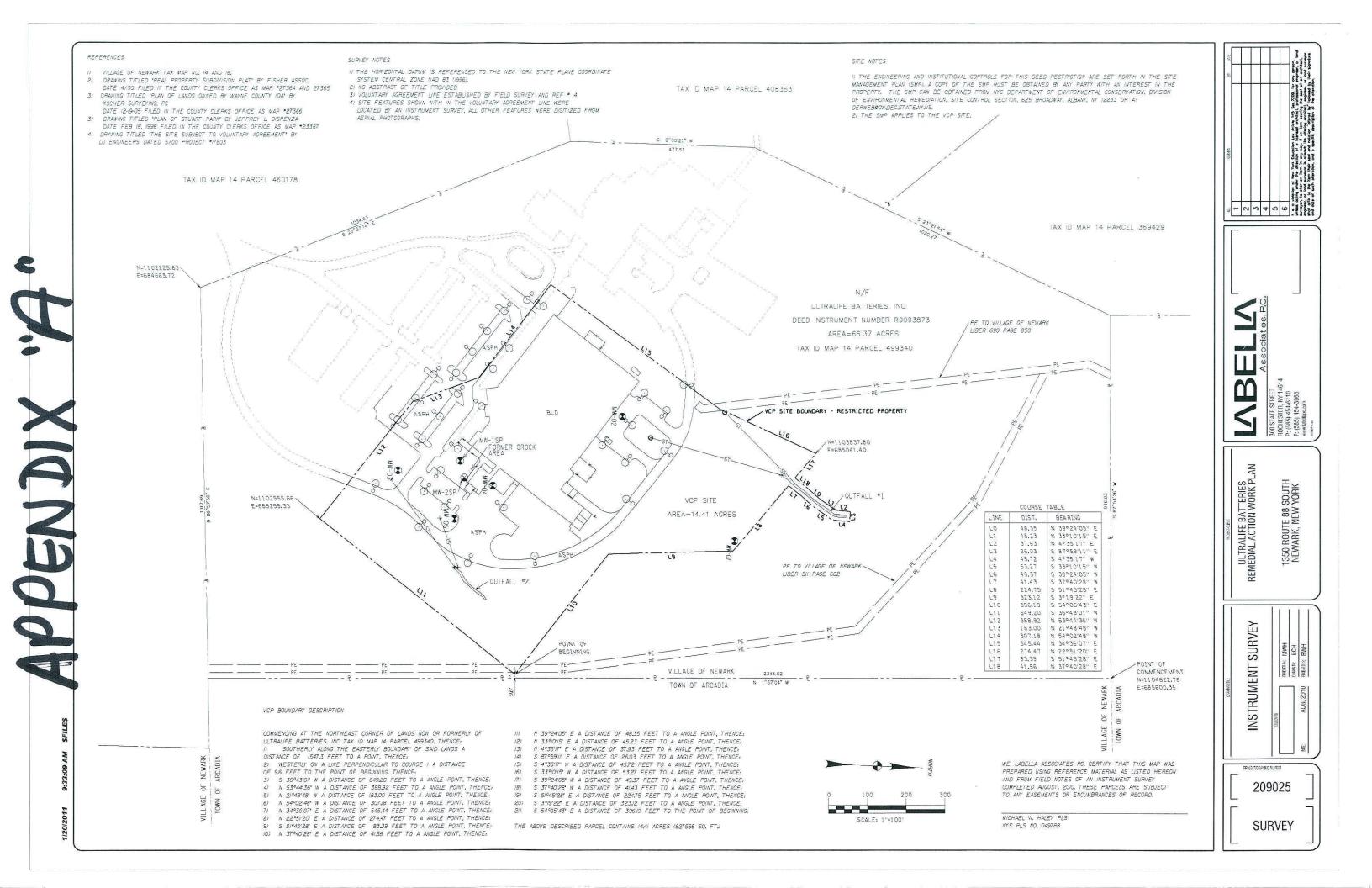
On the 24<sup>th</sup> day of May, in the year 2011, before me the undersigned, personally appeared Peter F. Comerford, personally known to me or proved to me on the basis of satisfactory evidence to be the individual whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his capacity, and that by his signature on the instrument, the individual, or the person upon behalf of which the individual acted, executed the instrument.

Notary Public, State of New York

WANDA A. VANDERLEE
Notary Public in the State of New York

Wayne County

Commission Expires December 15, 4





LaBella Associates, P.C. 300 State Street Rochester, New York 14614

# Appendix L Site Management Plan

# Stuart Park Complex – Ultralife Battery VILLAGE OF NEWARK, WAYNE COUNTY, NEW YORK

### Site Management Plan

**NYSDEC Site Number: V00178-8** 

#### Prepared for:

Ultralife Corporation 2000 Technology Parkway Newark, New York 14513

#### Prepared by:

LaBella Associates, P.C. 300 State Street, Suite 201 Rochester, New York 14614 (585) 454-6110

#### Revisions to Final Approved Site Management Plan:

Revision #	Submitted Date	Summary of Revision	DEC Approval Date

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#### SITE MANAGEMENT PLAN

## 1.0 INTRODUCTION AND DESCRIPTION OF REMEDIAL PROGRAM

#### 1.1 INTRODUCTION

This document is required as an element of the remedial program at Ultralife Corporation (hereinafter referred to as the "Site") under the New York State (NYS) Voluntary Cleanup Program (VCP) administered by New York State Department of Environmental Conservation (NYSDEC). The site was remediated in accordance with Voluntary Cleanup Agreement (VCA) #V00178-8, which was executed on January 8, 2001.

#### 1.1.1 General

Ultralife Corporation (formerly known as Ultralife Batteries, Inc.), hereinafter referred to as Ultralife, entered into a VCA with the NYSDEC to remediate a 14.24-acre portion of a larger (approximately 67-acre) parcel located in Village of Newark, Wayne County. This VCA required the Remedial Party, Ultralife, to investigate and remediate contaminated media at the site. The original VCP site was 14.24 acres. As part of the remedy implemented at the site the VCP boundaries were expanded to include off-site acreage which increases the VCP site acreage to 14.41 acres. A figure showing the site location and boundaries of the 14.41-acre portion of a larger (approximately 67-acre) parcel is provided in Figure 1. The boundaries of the site are more fully described in the metes and bounds site description that is part of the Deed Restriction, which is included in Appendix 9.

Site Management Plan
Stuart Park Complex – Ultralife Battery
2000 Technology Parkway, Newark, New York
LaBella Project No. 209025

After completion of the remedial work described in the Remedial Action Work Plan, some contamination was left in the subsurface at this site, which is hereafter referred to as 'remaining contamination." This Site Management Plan (SMP) was prepared to manage remaining contamination at the site until the Deed Restriction is extinguished in accordance with ECL Article 71, Title 36. All reports associated with the site can be viewed by contacting the NYSDEC or its successor agency managing environmental issues in New York State.

This SMP was prepared by LaBella Associates, P.C. (LaBella), on behalf of Ultralife, in accordance with the requirements in NYSDEC DER-10 Technical Guidance for Site Investigation and Remediation, dated May, 2010, and the guidelines provided by NYSDEC. This SMP addresses the means for implementing the Institutional Controls (ICs) and Engineering Controls (ECs) required by the Deed Restriction for the site.

#### 1.1.2 Purpose

The site contains contamination left after completion of the remedial action. Engineering Controls have been incorporated into the site remedy to control exposure to remaining contamination during the use of the site to ensure protection of public health and the environment. A Deed Restriction recorded with the Wayne County Clerk will require compliance with this SMP and all ECs and ICs placed on the site. The ICs place restrictions on site use, and mandate maintenance, monitoring and reporting measures for all ECs and ICs. This SMP specifies the methods necessary to ensure compliance with all ECs and ICs required by the Deed Restriction for contamination that remains at the site. This plan has been approved by the NYSDEC, and compliance with this plan is required by grantor of the Deed Restriction and the grantor's successors and assigns. This SMP may only be revised with the approval of the NYSDEC.

This SMP provides a detailed description of all procedures required to manage remaining contamination at the site after completion of the Remedial Action, including: (1) implementation and management of all Engineering and Institutional Controls; (2) media monitoring; and (3) performance of periodic inspections, certification of results, and submittal of Periodic Review Reports to NYSDEC.

Site Management Plan
Stuart Park Complex – Ultralife Battery
2000 Technology Parkway, Newark, New York
LaBella Project No. 209025

To address these needs, this SMP includes: (1) an Engineering and Institutional Control Plan for implementation and management of EC/ICs; and (2) a Monitoring Plan for implementation of Site Monitoring.

This plan also includes a description of the Periodic Review Reports for periodic submittal of data, information, recommendations, and certifications to NYSDEC.

It is important to note that:

- This SMP details the site-specific implementation procedures that are required by the Deed Restriction. Failure to properly implement the SMP is a violation of the Deed Restriction, which is grounds for revocation of the Limited Liability Release;
- Failure to comply with this SMP is also a violation of Environmental Conservation Law, 6NYCRR Part 375 and the VCA #V00178-8 for the site, and thereby subject to applicable penalties.

#### 1.1.3 Revisions

Revisions to this plan will be proposed in writing to the NYSDEC's project manager. The NYSDEC will provide a notice of any approved changes to the SMP, and append these notices to the SMP that is retained in its files.

#### 1.2 SITE BACKGROUND

#### 1.2.1 Site Location and Description

The site is located in the Village of Newark, Wayne County, New York and is identified as Tax ID Map 14 Parcel 499340. The current VCP Site consists of 14.41-acre portion of a larger (approximate 67-acre) tax parcel that is bounded to the north by vacant/undeveloped land, to the south by Silver Hill Road, to the east by vacant/undeveloped land, and to the west by Route 88. As stated in Section 1.1.1, the original VCP site was 14.24 acres. As part of the remedy implemented at the site the VCP boundaries were expanded to include off-site acreage which increases the VCP site

acreage to 14.41 acres. The VCP Site and larger parcel is a manufacturing Site. The VCP Site is improved with one approximate 117,000-square foot building. In addition to the building, property improvements include parking lots, paved access roads, and paved loading/unloading areas. The remainder of the VCP Site consists of grass, landscaped areas, and undeveloped vegetated and wooded land. The facility is located in a zoned industrial park (the Stuart Park Complex) situated in a primarily agricultural/rural and residential area. Figure 2 is an aerial photograph of the Site and illustrates the general Site features.

Storm water runoff from the property (including some roof drains) discharges to two (2) outfalls. Outfall #1 is located on the northern portion of the property and Outfall #2 is located on the eastern portion of the property as shown on Figure 2. Outfall #1 previously received non-contact cooling water; however, the non-contact cooling water consisted only of potable water and was redirected to the sanitary sewer in September 2008. Runoff is directed to the outfalls via a series of on-site catch basins with associated underground conduits, and/or surface channels. Flow from the two (2) outfalls is directed to a wetland area, which eventually joins Marbletown Creek.

#### 1.2.2 Site History

Prior to 1968 the site consisted of undeveloped farm land. The Site was initially developed in 1968 by Sara Coventry as a corporate headquarters and distribution center. In the early 1980's Eastman Kodak purchased the Site and began a battery manufacturing operation. In 1991, Ultralife purchased the manufacturing operations from Eastman Kodak with Eastman Kodak retaining ownership of the facility. In 1998 the facility was purchased by Wayne County Industrial Development Agency (IDA) with Ultralife continuing operations as a tenant.

#### 1.2.3 Geologic Conditions

Five overburden soil deposits were encountered and observed by GeoQuest during test pit explorations that include: Topsoil, a Fill Deposit, a buried Topsoil Deposit, a Lacustrine deposit, and a Glacial Till deposit. The Topsoil Deposit is approximately 0.5-feet to 1-foot thick and overlays the Fill Deposit at the majority of the test pit locations. This topsoil was placed over the Fill Deposit during construction of the facility. The description of the topsoil is dark brown SILT, trace medium to fine sand, with root fibers. The Fill Deposit is generally located below the topsoil and generally

overlays the Buried Topsoil Deposit. The Fill Deposit generally consist of approximately 3-feet of light brown gravel, some coarse to fine sand, little silt, trace clay, with root fibers. The Fill deposit appears to be regarded native soils from the Site similar to the glacial till in grain size that was reveled in the test pit explorations. Underlying the Fill deposit is a Buried Topsoil Deposit that may represent the original ground surface. The Buried Topsoil deposit is described as grey to black silt, some fine sand, with root fibers. The buried topsoil is approximately 1-foot thick. Underlying the Buried Topsoil Deposit is a Lacustrine Deposit described as green-grey fine sand, some silt. The lacustrine is approximately 0.5-feet thick. Below the Lacustrine Deposit is the Glacial Till deposit that is very dense and was difficult to excavate. The Glacial Till Deposit is generally described as light brown gravel, some coarse to fine sand, little silt, trace clay. Additional details on the geologic conditions can be found in the Remedial Investigation Report by GeoQuest Environmental, Inc.

The depth to groundwater at the Site ranges from approximately 0.5-feet to 6.55-feet below the ground surface based on the measurements made by GeoQuest. The groundwater flow direction is generally towards the north, based on the Lu Engineers Groundwater contour map dated July 18, 2001. Refer to Appendix 1 that represents the recent groundwater flow direction based on the well survey completed by Parrone Engineering.

#### 1.3 SUMMARY OF REMEDIAL INVESTIGATION FINDINGS

A Remedial Investigation (RI) was performed to characterize the nature and extent of contamination at the site. The results of the RI are described in detail in the following reports:

• Final Investigation Report (Revised and Amended), Ultralife Batteries, Inc. 2000 Technology Parkway, Newark, New York ID#V00178-8, Volume No. 1., dated December, 2008 and prepared by GeoQuest Environmental, Inc., (GeoQuest) 43 Legionnaire Drive, Rochester, New York.

Generally, the RI determined that the nature and extent of contaminants of concern at the Site included:

- Previous underground wastewater storage vault remedial work (see below for details) was effective and no further remediation was recommended.
- Soil types consist of topsoil, fill deposits, buried topsoil, a lacustrine deposit, and a glacial till deposit (no coal or ash was observed within test pits excavated).
- Depth to groundwater varied between 0.5 and 6.55-feet below ground surface (BGS) with groundwater flow direction generally to the north.
- Volatile organic compounds (VOCs) were not detected in photoionization detector (PID) headspace scans.
- Two areas of sediment impacted with polyaromatic hydrocarbons (PAHs) and heavy metals were identified (Outfall #1 and Outfall #2) and the nature and extent of such contaminants were delineated both on and off the defined VCP Site.
- The impacted sediments associated with the two (2) outfalls required remediation. Specifically, the RI Report indicated that the drainage ditch of Outfall #1 was impacted from the discharge point to 200 ft. downgradient and the drainage ditch of Outfall #2 was impacted from the discharge point to 110 ft. downgradient.

In a letter dated May 8, 2009 the NYSDEC approved the Final Investigation Report and requested a Remedial Action Selection Report and a Remedial Action Work Plan.

#### Summary of Cinder Block Drainage Vault Soil Removal

Ultralife implemented a soil remediation project to address the cinder block drainage vault adjacent to building 4000 between October and December 2003. Marcor Remediation, Inc., (Marcor) conducted the soil removal work, which consisted of removing 35 cubic yards (cy) of impacted soil and 550 gallons of water. These materials were disposed of off-site. Twelve confirmatory soil samples were collected from the bottom and sidewalls of the excavation. The samples were analyzed for VOCs, SVOCs and Target Analyte List (TAL) Metals. The confirmatory soil samples did not detect concentrations of contaminants above the NYSDEC Technical and Administrative Guidance Memorandum (TAGM) #4046 Recommended Soil Cleanup Objectives (RSCOs), with the exception of one soil sample from the bottom of the excavation that indicated zinc at a concentration of 53.4 parts per million (ppm), which is slightly above the Eastern USA Background of 50 ppm. [Note: The

TAGM 4046 criteria were being used based on the time this work was completed; however, the NYSDEC Part 375-6, effective December 14, 2006 indicate an unrestricted use criteria of 109 ppm for zinc.] Appendix 2 includes a figure and table from the Final Investigation Report that provide the location of the soil removal and confirmatory soil samples and the confirmatory soil sample results.

#### 1.4 SUMMARY OF REMEDIAL ACTIONS

The site was remediated in accordance with the NYSDEC-approved Remedial Action Work Plan (RAWP) on March 31, 2010.

Based on the results of the RI, and the residual contamination remaining after the IRM Actions, the following Remedial Actions were performed at the site to address the remaining areas of concern (AOCs):

- 1. Excavation of sediment from the two outfall areas;
- 2. Execution and recording of a Deed Restriction to restrict land use and groundwater use at the site and prevent future exposure to any contamination remaining at the site.
- 3. Development and implementation of this Site Management Plan for long term management of remaining contamination as required by the Deed Restriction, which includes plans for: (1) Institutional and Engineering Controls, (2) monitoring, and (3) reporting.

Remedial activities were completed at the site in July and August 2010.

#### 1.4.1 Removal of Contaminated Materials from the Site

The extent of the removal areas are detailed below. These areas are based on the RI Report findings and approval of the report by NYSDEC. In general, the 4 parts per million (ppm) of total PAHs and elevated metal concentrations were the criteria used for determining the extents of removal. In addition, Figures 4, 5A, and 5B illustrate the outfall removal areas. The areas of sediment removal are further defined below:

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Sediments were excavated from Outfall #1 to approximately 3 feet bgs. for the first 20 feet below the outfall. Sediments were excavated to approximately 2 feet bgs. from the 20 ft. mark for the remaining length of the removal area (200 feet total length). Sediments were planned to be excavated to 3 feet bgs. from Outfall #2 for the first 20 feet; however, due to unanticipated shallow shale bedrock, the first 20-ft. were only excavated to approximately 1.5 feet bgs. Sediments were excavated to approximately 2-ft. bgs. from the 20 ft. mark until approximately 99 ft. from the outfall where shale was again encountered at 1.5 ft. bgs. The remaining length of the excavation for Outfall #2 (between 99 ft. and 119 ft. from the outfall) were excavated to the top of the shale.

Each outfall was excavated approximately 2-ft. on either side of the ditch centerline (i.e., removal width was approximately 4-ft. wide for the entire length of the excavation).

#### 1.4.2 Remaining Contamination

This SMP is required due to several locations at the site that were identified with elevated concentrations of metals in fill material beneath the 2-ft. soil cover system and several areas where contaminants in soil and groundwater have not yet been remediated to unrestricted levels. The applicable data tables from the Final Investigation that provide these results and the applicable mapping from the Final Investigation that provide the location of these samples are included in Appendix 2.

### 2.0 ENGINEERING AND INSTITUTIONAL CONTROLS PLAN

#### 2.1 INTRODUCTION

#### 2.1.1 General

Since remaining contaminated soil and groundwater exists beneath the site, Engineering Controls and Institutional Controls (EC/ICs) are required to protect human health and the environment from direct exposure to these residual contaminants. This Engineering and Institutional Control Plan describes the procedures for the implementation and management of all EC/ICs at the site. The EC/IC Plan is one component of the SMP and is subject to revision by the NYSDEC.

#### 2.1.2 Purpose

This plan provides:

- A description of all EC/ICs on the site;
- The basic implementation and intended role of each EC/IC;
- A description of the key components of the ICs set forth in the Deed Restriction;
- A description of the features to be evaluated during each required inspection and periodic review;
- A description of plans and procedures to be followed for implementation of EC/ICs, such as the implementation of the Excavation Work Plan for the proper handling of remaining contamination that may be disturbed during maintenance or redevelopment work on the site; and
- Any other provisions necessary to identify or establish methods for implementing the EC/ICs required by the site remedy, as determined by the NYSDEC.

#### 2.2 ENGINEERING CONTROLS

#### 2.2.1 Engineering Control Systems

#### 2.2.1.1 Soil Cover System

Exposure to remaining contamination in soil/fill at the site is prevented by an existing soil cover system over the site. [Note: The soil cover system was not placed on the site separately, rather, the impacts left in-place are generally greater than 2-ft. in depth.] This cover system is comprised of approximately 24 inches of clean soil, asphalt pavement, concrete-covered sidewalks, and concrete building slabs. The Excavation Work Plan that appears in Appendix 3 outlines the procedures required to be implemented in the event the cover system is breached (i.e., excavations greater than 2-ft. in depth), penetrated or temporarily removed, and any underlying remaining contamination is disturbed. Procedures for the inspection and maintenance of this cover are provided in the Monitoring Plan included in Section 3 of this SMP.

#### 2.3 INSTITUTIONAL CONTROLS

A series of Institutional Controls is required by the RAWP to: (1) implement, maintain and monitor Engineering Control systems; (2) prevent future exposure to remaining contamination by controlling disturbances of the subsurface contamination; and (3) limit the use and development of the site to commercial and industrial uses only. Adherence to these Institutional Controls on the site is required by the Deed Restriction and will be implemented under this Site Management Plan. The institutional controls for the site are:

- Compliance with the Deed Restriction and this SMP by the Grantor and the Grantor's successors and assigns.
- All Engineering Controls must be maintained and inspected as specified in this SMP.
- All Engineering Controls on the Controlled Property must be inspected at a frequency and in a manner defined in the SMP.

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- Groundwater and other environmental or public health monitoring must be performed as defined in this SMP.
- Data and information pertinent to Site Management must be reported at the frequency and in a manner defined in this SMP.

Institutional Controls identified in the Deed Restriction may not be discontinued without an amendment to or extinguishment of the Deed Restriction. The Deed Restrictions for this property are identified below:

- The property can only be used for commercial and industrial purposes provided that the long-term Engineering and Institutional Controls included in this SMP are employed.
- The property may not be used for a higher level of use, such as unrestricted, residential, or restricted residential use without additional remediation and amendment of the Deed Restriction, as approved by the NYSDEC.
- All future ground intrusive activities greater than 2-ft. in depth within the VCP boundary must be conducted in accordance with this SMP.
- The use of the groundwater underlying the property is prohibited without NYSDEC approval and treatment rendering it safe for intended use.
- Vegetable gardens and farming on the property are prohibited.
- The site owner or remedial party will submit to NYSDEC a written statement that certifies, under penalty of perjury, that (1) controls employed at the Controlled Property are unchanged from the previous certification or that any changes to the controls were approved by the NYSDEC; and (2) nothing has occurred that impairs the ability of the controls to protect public health and environment or that constitute a violation or failure to comply with the SMP. NYSDEC retains the right to access such Controlled Property, pursuant to the terms in the Deed Restriction, at any time in order to evaluate the continued maintenance of any and all controls. This certification shall be submitted annually, or an alternate period of time that NYSDEC may allow and will be made by an expert that the NYSDEC finds acceptable.

#### 2.3.1 Excavation Work Plan

The site has been remediated for restricted commercial or industrial use. Any future intrusive work that will penetrate the soil cover system (i.e., greater than 2-ft. in depth), or encounter or disturb the remaining contamination, including any modifications or repairs to the existing cover system will be performed in compliance with the Excavation Work Plan (EWP) that is attached as Appendix 3 to this SMP. Any work conducted pursuant to the EWP must also be conducted in accordance with the procedures defined in a Health and Safety Plan (HASP) and Community Air Monitoring Plan (CAMP) prepared for the site. A sample HASP and CAMP is attached as Appendix 6 and 8, respectively, to this SMP that is in current compliance with DER-10, and 29 CFR 1910, 29 CFR 1926, and all other applicable Federal, State and local regulations. Based on future changes to State and Federal health and safety requirements, and specific methods employed by future contractors, the HASP and CAMP will be updated and resubmitted with the notification provided in Section A-1 of the EWP. Any intrusive construction work that will penetrate the soil cover system (i.e., greater than 2-ft. in depth) or encounter or disturb the remaining contamination, will be performed in compliance with the EWP, HASP, and CAMP, and will be included in the periodic inspection and certification reports submitted under the Inspections, Reporting, and Certifications (See Section 5). Shallow intrusive work (i.e., less than 2-ft. in depth) that does not penetrate the cover material or encounter the remaining contamination does not need to be documented or reported in the periodic inspections and certification reports.

The site owner and associated parties preparing the remedial documents submitted to the State, and parties performing this work, are completely responsible for the safe performance of all intrusive work, the structural integrity of excavations, proper disposal of excavation de-water, control of runoff from open excavations into remaining contamination, and for structures that may be affected by excavations (such as building foundations and bridge footings). The site owner will ensure that site development activities will not interfere with, or otherwise impair or compromise, the engineering controls described in this SMP.

#### 2.4 INSPECTIONS AND NOTIFICATIONS

#### 2.4.1 Inspections

Inspections of all remedial components installed at the site will be conducted at the frequency specified in the SMP Monitoring Plan schedule. A comprehensive sitewide inspection will be conducted annually, regardless of the frequency of the Periodic Review Report. The inspections will determine and document the following:

- Whether Engineering Controls continue to perform as designed;
- If these controls continue to be protective of human health and the environment;
- Compliance with requirements of this SMP and the Deed Restriction;
- Achievement of remedial performance criteria;
- Sampling and analysis of appropriate media during monitoring events;
- If site records are complete and up to date; and
- Changes, or needed changes, to the remedial or monitoring system.

Inspections will be conducted in accordance with the procedures set forth in the Monitoring Plan of this SMP (Section 3). The reporting requirements are outlined in Section 5 of this plan (Section 5).

If an emergency, such as a natural disaster or an unforeseen failure of any of the ECs occurs, an inspection of the site will be conducted within 5 days of the event to verify the effectiveness of the EC/ICs implemented at the site by a qualified environmental professional as determined by NYSDEC.

#### 2.4.2 Notifications

Notifications will be submitted by the property owner to the NYSDEC as needed for the following reasons:

- 60-day advance notice of any proposed change in use as defined under the terms of the VCA, 6 NYCRR Part 375, and/or Environmental Conservation Law.
- 15-day advance notice of any proposed ground-intrusive activities greater than 2-ft. in depth.

- Notice within 48-hours of any damage or defect to the foundations structures that reduces or has the potential to reduce the effectiveness of the Engineering Controls and likewise any action to be taken to mitigate the damage or defect.
- Verbal notice by noon of the following day of any emergency, such as a fire, flood, or earthquake that reduces or has the potential to reduce the effectiveness of the Engineering Controls in place at the site, with written confirmation within 7 days that includes a summary of actions taken, or to be taken, and the potential impact to the environment and the public.
- Follow-up status reports on actions taken to respond to any emergency event requiring ongoing responsive action shall be submitted to the NYSDEC within 45 days and shall describe and document actions taken to restore the effectiveness of the ECs.

Any change in the ownership of the site or the responsibility for implementing this SMP will include the following notifications:

- At least 60 days prior to the change, the NYSDEC will be notified in writing of the proposed change. This will include a certification that the prospective purchaser has been provided with a copy of the VCA, and all approved work plans and reports, including this SMP.
- Within 15 days after the transfer of all or part of the site, the new owner's name, contact representative, and contact information will be confirmed in writing.

#### 2.5 CONTINGENCY PLAN

Emergencies may include injury to personnel, fire or explosion, environmental release, or serious weather conditions.

#### 2.5.1 Emergency Telephone Numbers

In the event of any environmentally related situation or unplanned occurrence requiring assistance the Owner or Owner's representative(s) should contact the appropriate party from the contact list below. For emergencies, appropriate emergency response personnel should be contacted. Prompt contact should also be made to the

Ultralife Director of EHS. These emergency contact lists must be maintained in an easily accessible location at the site.

**Table 1: Emergency Contact Numbers** 

Medical, Fire, and Police:	911
One Call Center:	(800) 272-4480 (3 day notice required for utility markout)
Finger Lakes Poison Control:	585-273-3854
Pollution Toxic Chemical Oil Spills:	(800) 424-8802
NYSDEC Spills Hotline	(800) 457-7362

**Table 2: Contact Numbers** 

John Diggory	(315) 332-7100	
Peter Comerford	(315) 332-7100	
Richard Marino	(315) 332-7100	

<sup>\*</sup> Note: Contact numbers subject to change and should be updated as necessary

#### 2.5.2 Map and Directions to Nearest Health Facility

Site Location: 2000 Technology Parkway, Newark, New York

Nearest Hospital Name: Newark-Wayne Community Hospital

Hospital Location: 1200 Driving Park Avenue, Newark, New York

Hospital Telephone: 315-332-2022

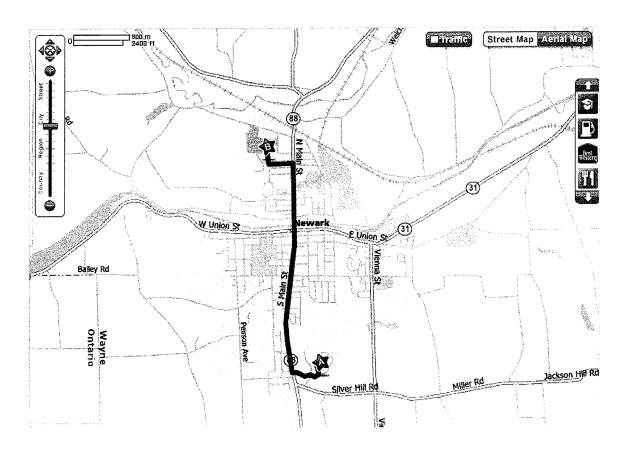
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#### Directions to the Hospital:

- 1. Start out going South on Technology Parkway approximately 500 ft.
- 2. At the traffic circle, take the 2<sup>nd</sup> exit and stay on Technology Parkway 0.2 mi.
- 3. Turn right at S. Main St/NY-88-2.3 mi.
- 4. Turn left at Stuerwald Avenue 0.2 mi
- 5. Turn right at Driving Park Avenue 0.2 mi.
- 6. End at 1200 Driving Park Avenue, Newark, New York.

Total Distance: Approximately 2.9 mi.

Total Estimated Time: Approximately 8 minutes.



#### 2.5.3 Response Procedures

As appropriate, the fire department and other emergency response group will be notified immediately by telephone of the emergency. The emergency telephone number list is found at the beginning of this Contingency Plan (Table 1). The list will also posted prominently at the site and made readily available to all personnel at all times.

#### 3.0 SITE MONITORING PLAN

#### 3.1 INTRODUCTION

#### 3.1.1 General

The Monitoring Plan describes the measures for evaluating the performance and effectiveness of the remedy to reduce or mitigate contamination at the site, the soil cover system, and all affected site media identified below. This Monitoring Plan may only be revised with the approval of NYSDEC.

#### 3.1.2 Purpose and Schedule

This Monitoring Plan describes the methods to be used for:

- Sampling and analysis of all appropriate media (e.g., groundwater and sediments);
- Assessing compliance with applicable NYSDEC standards, criteria, and guidance, particularly ambient groundwater standards and Part 375 SCOs for soil;
- Assessing achievement of the remedial performance criteria;
- Evaluating site information periodically to confirm that the remedy continues to be effective in protecting public health and the environment; and
- Preparing the necessary reports for the various monitoring activities to adequately address these issues, this Monitoring Plan provides information on:
  - o Sampling locations, protocol, and frequency;
  - Information on all designed monitoring systems (e.g., monitoring well logs);

- o Analytical sampling program requirements;
- o Reporting requirements;
- Quality Assurance/Quality Control (QA/QC) requirements;
- Inspection and maintenance requirements for monitoring wells;
- o Monitoring well decommissioning procedures; and
- o Annual inspection and periodic certification.

Monitoring of the outfall remedy performance and overall reduction in contamination on-site will be conducted for the first year and will occur one month, six months, and one year after completion of the outfall remedy. Annual groundwater monitoring will occur for two (2) years. The frequency therafter will be determined by NYSDEC.

**Table 3: Monitoring/Inspection Schedule** 

Monitoring Program	Frequency*	Matrix	Analysis
Groundwater	Annually for 2 years	Liquid	TAL Metals
Sediment	One Sampling Event One Year After Remedy implementation	Sediment	TAL Metals TCL SVOCs + TICs
Vegetative Cover	1 month, 6 months, 1 year after Remedy Implementation	NA	NA

<sup>\*</sup> The frequency of events will be conducted as specified unless otherwise approved by NYSDEC and NYSDOH

#### 3.2 SOIL COVER SYSTEM MONITORING

The soil cover system will be monitored throughout the year by adherence to the Excavation Work Plan. An annual inspection will be conducted by a walk-through inspection of the VCP Site to confirm conditions have not changed throughout the year.

#### 3.3 MEDIA MONITORING PROGRAM

The following media will be monitored at the frequency specified:

- <u>Vegetative Cover Restoration Monitoring</u>: The vegetative cover will be monitored at 1-month, 6-months and 1-year after completion of the soil/sediment removal work in the banks around the Outfall # 1 and #2 excavations. The details of this monitoring are identified in Section 3.3.1 below.
- <u>Sediment Monitoring:</u> 1-year after completion of the sediment removal work, the sediment that has accumulated in the bed of the Outfall #1 and #2 will be sampled as detailed in Section 3.3.2 below.
- <u>Groundwater Monitoring:</u> Groundwater will be sampled annually for two (2) years as detailed in Section 3.3.3 below.

#### 3.3.1 Vegetative Cover Restoration Monitoring

As identified in the RAWP, the following monitoring will be performed for the vegetative cover restoration. The bank stability and vegetative community composition (species and density) will be monitored to ensure that Outfall ditch restoration establishes an initial vegetative cover (90% cover by end of first year), maintains slope stability and reestablishes the local plants. The monitoring will be accomplished by visual observation of each restoration area. The restoration areas will be photographed for documentation and submitted in summary letter to NYSDEC after each monitoring event. In the event that restoration (vegetative cover incomplete or slopes are not stable) then appropriate actions will be implemented (e.g., erosion controls, additional topsoil and seeding, etc.). The monitoring will be accomplished by observing the restoration areas at the 1 month, 6 month, and 1 year interval after the remedy has been implemented.

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#### 3.3.2 Sediment Monitoring

Sediment samples will be collected one year after the sediment removal work to evaluate the effectiveness of the Sediment Removal remedial work. Each outfall will have the following sediment sampling completed:

- Collection of 5 sediment samples down the centerline of the drainage ditch. One sample will be collected from the discharge point of the outfall (i.e., start of removal area) and one sample will be collected from the end of the removal area Outfall #1 200 feet from discharge point and Outfall #2 110 feet from discharge point. The remaining three samples will be collected equidistance from the outfall discharge point to the end of the removal area.
- Sediment samples will be collected from 0-6 inches in depth.
- Samples will be placed in laboratory cleaned 4-ounce jars and submitted under chain of custody to a New York State Department of Health (NYSDOH) Environmental Laboratory Approval Program (ELAP) certified laboratory for analysis of Target Compound List (TCL) Semi-Volatile Organic Compounds (SVOCs) including 20 Tentatively Identified Compounds (TICs) using United States Environmental Protection Agency (USEPA) Method 8270 and Target Analyte List (TAL) Metals using USEPA Method 6000/7000 series.
- The laboratory results will be reported in Analytical Services
   Protocol (ASP) Category B Deliverables data package and a Data
   Usability Summary Report (DUSR) will be completed in accordance with NYSDEC's DER-10 Appendix 2B.
- A letter report will be submitted to NYSDEC and NYSDOH to
  document the sampling work and the laboratory results will be
  compared to the applicable criteria. The submittal will also include
  the DUSR and the laboratory data package on compact disc.

#### 3.3.3 Groundwater Monitoring

Groundwater monitoring will be performed annually for two (2) years on seven (7) existing groundwater monitoring wells (refer to Appendix 1 for monitoring well location map and monitoring well construction logs). The sampling frequency may be modified with the approval NYSDEC. The SMP will be modified to reflect changes in sampling plans approved by NYSDEC.

The depth to groundwater ranges from 0.5 to 6.55 feet below ground surface. Groundwater flow direction is generally towards the north. The sampling protocols and reporting are described below.

Low flow groundwater sampling methodologies will be implemented in order to obtain a representative sample of current groundwater conditions at the site. In order to accomplish this task, the following steps will be taken:

- Initially, static water levels will be collected using a water level measuring device(s) capable of measuring to 0.01 foot accuracy for evaluating the groundwater contours at the Site.
- Subsequent to collecting groundwater elevations, low flow purging of the monitoring wells will include the collection of water quality indicator parameters. Water quality indicator parameters will be recorded at five (5)-minute intervals during the purging of the well. These water quality indicator parameters will include:
  - > Water Level Drawdown
  - > Temperature
  - Pd ⋖
  - Dissolved Oxygen
  - > Specific Conductance
  - > Oxidation Reduction Potential
  - > Turbidity

- Groundwater sampling will commence once the groundwater quality indicator parameters have stabilized for at least three (3) consecutive readings for the following parameters:
  - ➤ Water Level Drawdown: <0.3′
  - > Temperature: +/- 3%
  - ➤ pH:+/- 0.1unit
  - ➤ Dissolved Oxygen: +/-10%
  - > Specific Conductance: +/-3%
  - > Oxidation Reduction Potential: +/-10 millivolts
  - Turbidity: +/-10% for values greater than 1 NTU
- After chemical indicator and drawdown parameters have stabilized sampling can begin.
- Each sample collected will be properly labeled.
- After collection of the samples, the pump tubing can be dedicated to the well for re-sampling (by hanging the tubing inside the well), decontaminated, or properly discarded.
- The monitoring well will be secured.
- Any reusable low flow groundwater sampling equipment will be decontaminated after each monitoring well prior to sampling additional wells at the Site.
- The samples will be submitted to a NYSDOH ELAP certified laboratory for the parameters tested under chain of custody. Groundwater samples will be analyzed for Target Analyte List (TAL) Metals using United States Environmental Protection Agency (USEPA) Method 6010 and 7471 (mercury).
- The groundwater results will be provided in an ASP Category B deliverables data package and a DUSR will be completed to evaluate the usability of the data in accordance with DER-10 Appendix 2B.

All monitoring well sampling activities will be recorded in a field book and a groundwater-sampling log presented in Appendix 4. Other observations (e.g., well integrity) will be noted on the well sampling log. The well sampling log will serve as the inspection form for the groundwater monitoring well network and will be included with the groundwater monitoring reports.

#### 3.3.3.1 Monitoring Well Repairs, Replacement and Decommissioning

If biofouling or silt accumulation occurs in the wells, the wells will be physically agitated/surged and redeveloped. Additionally, monitoring wells will be properly decommissioned and replaced (as per the Monitoring Plan), if an event renders the wells unusable.

Repairs and/or replacement of wells in the monitoring well network will be performed based on assessments of structural integrity and overall performance.

The NYSDEC will be notified prior to any repair or decommissioning of monitoring wells for the purpose of replacement, and the repair or decommissioning and replacement process will be documented in the subsequent Periodic Review Report. Well decommissioning without replacement will be done only with the prior approval of NYSDEC. Well decommissioning and abandonment will be performed in accordance with NYSDEC DER CP-43: Commissioner's Policy on Groundwater Monitoring Well Decommissioning. Monitoring wells that are decommissioned because they have been rendered unusable will be reinstalled in the nearest available location, unless otherwise approved by the NYSDEC.

#### 3.4 SITE-WIDE INSPECTION

Site-wide inspections will be performed on a regular schedule at a minimum of once a year. Site-wide inspections will also be performed after all severe weather conditions that may affect Engineering Controls or monitoring devices (e.g., groundwater monitoring wells). During these inspections, an inspection form will be completed (Appendix 7). The form will compile sufficient information to assess the following:

- Compliance with all ICs, including site usage;
- An evaluation of the condition and continued effectiveness of ECs;

- General site conditions at the time of the inspection;
- The site management activities being conducted including, where appropriate, confirmation sampling and a health and safety inspection; and
- Confirm that site records are up to date.

#### 3.5 MONITORING QUALITY ASSURANCE/QUALITY CONTROL

All sampling and analyses will be performed in accordance with the requirements of the Quality Assurance Project Plan (QAPP) prepared for the site (Appendix 5). Main Components of the QAPP include:

- QA/QC Objectives for Data Measurement
- Measurement of Data Quality
- QC Targets
- Sampling Program:
  - o Sample containers will be properly washed, decontaminated, and appropriate preservative will be added (if applicable) prior to their use by the analytical laboratory. Containers with preservative will be tagged as such.
  - o Sample holding times will be in accordance with the NYSDEC ASP requirements.
  - o Field QC samples (e.g., trip blanks, coded field duplicates, and matrix spike/matrix spike duplicates) will be collected as necessary.
- Sample, Containers, Tracking and Custody
- Sample Handling, Packaging, and Shipping
- Calibration Procedures and Frequency:
  - All field analytical equipment will be calibrated immediately prior to each day's use. Calibration procedures will conform to manufacturer's standard instructions.

- o The laboratory will follow all calibration procedures and schedules as specified in USEPA SW-846 and subsequent updates that apply to the instruments used for the analytical methods.
- Chain of Custody
- Groundwater Sampling Procedures
- Decontamination and Management of Sampling Derived Waste
- Preparation of a Data Usability Summary Report (DUSR), which will present the
  results of data validation, including a summary assessment of laboratory data
  packages, sample preservation and chain of custody procedures, and a summary
  assessment of precision, accuracy, representativeness, comparability, and
  completeness for each analytical method
- Documentation and Corrections to Documentation
- Field Instrumentation

#### 3.6 MONITORING REPORTING REQUIREMENTS

Forms and any other information generated during regular monitoring events and inspections will be kept on file on-site. All forms, and other relevant reporting formats used during the monitoring/inspection events, will be (1) subject to approval by NYSDEC and (2) submitted at the time of the Periodic Review Report, as specified in Section 5.0 of this SMP.

All monitoring results will be reported to NYSDEC on a periodic basis in the Periodic Review Report. A letter report will also be prepared subsequent to each sampling event. The report will include, at a minimum:

- Date of event;
- Personnel conducting sampling;
- Description of the activities performed;
- Type of samples collected (e.g., groundwater, sediment);
- Copies of all field forms completed (e.g., well sampling logs, chain-of-custody documentation);

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- Sampling results in comparison to appropriate standards/criteria;
- A figure illustrating sample type and sampling locations;
- Copies of all laboratory data sheets and the required laboratory data deliverables required for all points sampled to be submitted electronically in the NYSDEC-identified format;
- Any observations, conclusions, or recommendations; and
- A determination as to whether groundwater conditions have changed since the last reporting event.

Data will be reported in hard copy or digital format as determined by NYSDEC. A summary of the monitoring program deliverables are summarized in Table 4 below.

Table 4: Schedule of Monitoring/Inspection Reports

Task	Reporting Frequency*	
Sediment Sampling	One Sampling Event One Year After Remedy implementation	
Vegetative Cover Inspections	1 month, 6 months, 1 year after implementation of the remedy	
Groundwater Sampling	Annually for 2 years	
Soil Cover System Inspeciton	Annually	

<sup>\*</sup> The frequency of events will be conducted as specified until otherwise approved by NYSDEC

#### 4.0 OPERATION AND MAINTENANCE PLAN

#### 4.1 INTRODUCTION

The final site remedy does not rely on any mechanical systems to protect public health and the environment; therefore, the operation and maintenance of such mechanical remedial components is not included in this SMP.

# 5.0 INSPECTIONS, REPORTING AND CERTIFICATIONS

#### 5.1 SITE INSPECTIONS

### 5.1.1 Inspection Frequency

All inspections will be conducted at the frequency specified in the schedules provided in Section 3 Monitoring Plan of this SMP. At a minimum, a site-wide inspection will be conducted annually. Inspections of remedial components will also be conducted whenever a severe condition has taken place, such as an erosion or flooding event that may affect the ECs. The inspections will determine and document the following:

- Whether Engineering Controls continue to perform as designed;
- If these controls continue to be protective of human health and the environment;
- Compliance with requirements of this SMP and the Deed Restriction; and
- If site records are complete and up to date.

The annual inspection will be documented by the certification presented in Section 5.2.

### 5.1.2 Inspection Forms, Sampling Data, and Maintenance Reports

All inspections and monitoring events will be recorded on the appropriate forms contained in the SMP's appendices. Additionally, a general site-wide inspection form will be completed during the site-wide inspection (see Appendix 7). These forms are subject to NYSDEC revision. All applicable inspection forms and other records, including all media sampling data, generated for the site during the reporting period will be provided in electronic format to NYSDEC in the Periodic Review Report.

# 5.1.3 Evaluation of Records and Reporting

The results of the inspection and site monitoring data will be evaluated as part of the EC/IC certification to confirm that the:

- EC/ICs are in place, are performing properly, and remain effective
- The Monitoring Plan is being implemented
- Operation and maintenance activities are being conducted properly; and, based on the above items
- The site remedy continues to be protective of public health and the environment and is performing as designed in the RAWP and FER

# 5.1.4 Reporting Schedule

The following table identifies the reporting schedule for the site.

Table 5: Reporting Schedule

Reporting Type	Approximate due date	Description				
Vegetative Bank Cover	1-month, 6-months and 1-yr after sediment removal completed	Letter report with pictures				
Sediment Sampling	1-yr after sediment removal completed	Letter report with figure showing locations and laboratory data attached				
Groundwater sampling	Annually for the 2 sampling events	Letter report with figure showing well locations, groundwater flow direction and laboratory data attached				
Annual Inspection/Certification	Annually	Certification identified in Section 5.2				

# 5.2 CERTIFICATION OF ENGINEERING AND INSTITUTIONAL CONTROLS

After the last inspection of the reporting period, a qualified environmental professional will prepare the following certification:

The following certification will be provided to the NYSDEC annually:

For each institutional or engineering control identified for the site, I certify that all of the following statements are true:

- The inspection of the site to confirm the effectiveness of the institutional and engineering controls required by the remedial program was performed under my direction;
- The institutional control and/or engineering control employed at this site is unchanged from the date the control was put in place, or last approved by the Department;
- Nothing has occurred that would constitute a violation or failure to comply with any site management plan for this control;
- Nothing has occurred that would impair the ability of the control to protect the public health and environment;
- Access to the site will continue to be provided to the Department to evaluate the remedy, including access to evaluate the continued maintenance of the control;
- Use of the site is compliant with the deed restriction;
- To the best of my knowledge and belief, the work and conclusions described in this certification are in accordance with the requirements of the site remedial program;
- The information presented in this report is accurate and complete; and
- I certify that all information and statements in this certification form are true. I understand that a false statement made herein is punishable as a Class "A" misdemeanor, pursuant to Section 210.45 of the Penal Law. I, <u>name</u>, of <u>business address</u>, am certifying as the Owner's Designated Site Representative for the site.

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#### 5.3 PERIODIC REVIEW REPORT

A Periodic Review Report will be submitted to the Department annually, beginning1 year after the Limited Liability Release Letter is issued. In the event that the site is subdivided into separate parcels with different ownership, a single Periodic Review Report will be prepared that addresses the site described in the Metes and Bounds. The report will be prepared in accordance with NYSDEC DER-10 and submitted within 45 days of the end of each certification period. Media sampling results will also incorporated into the Periodic Review Report. The report will include:

- Identification, assessment and certification of all ECs/ICs required by the remedy for the site;
- Results of the required annual site inspections and severe condition inspections, if applicable;
- All applicable inspection forms and other records generated for the site during the reporting period in electronic format;
- A summary of any discharge monitoring data and/or information generated during the reporting period with comments and conclusions;
- Data summary tables and graphical representations of contaminants of concern by media (e.g., sediment, groundwater), which include a listing of all compounds analyzed, along with the applicable standards, with all exceedances highlighted.
   These will include a presentation of past data as part of an evaluation of contaminant concentration trends;
- Results of all analyses, copies of all laboratory data sheets, and the required laboratory data deliverables for all samples collected during the reporting period will be submitted electronically in a NYSDEC-approved format;
- A site evaluation, which includes the following:
  - o The compliance of the remedy with the requirements of the site-specific RAWP;

- Any new conclusions or observations regarding site contamination based on inspections or data generated by the Monitoring Plan for the media being monitored;
- o Recommendations regarding any necessary changes to the remedy and/or Monitoring Plan; and
- o The overall performance and effectiveness of the remedy.

The Periodic Review Report will be submitted, in hard-copy format, to the NYSDEC Regional Office in which the site is located, and in electronic format to NYSDEC Regional Office and the NYSDOH Bureau of Environmental Exposure Investigation.

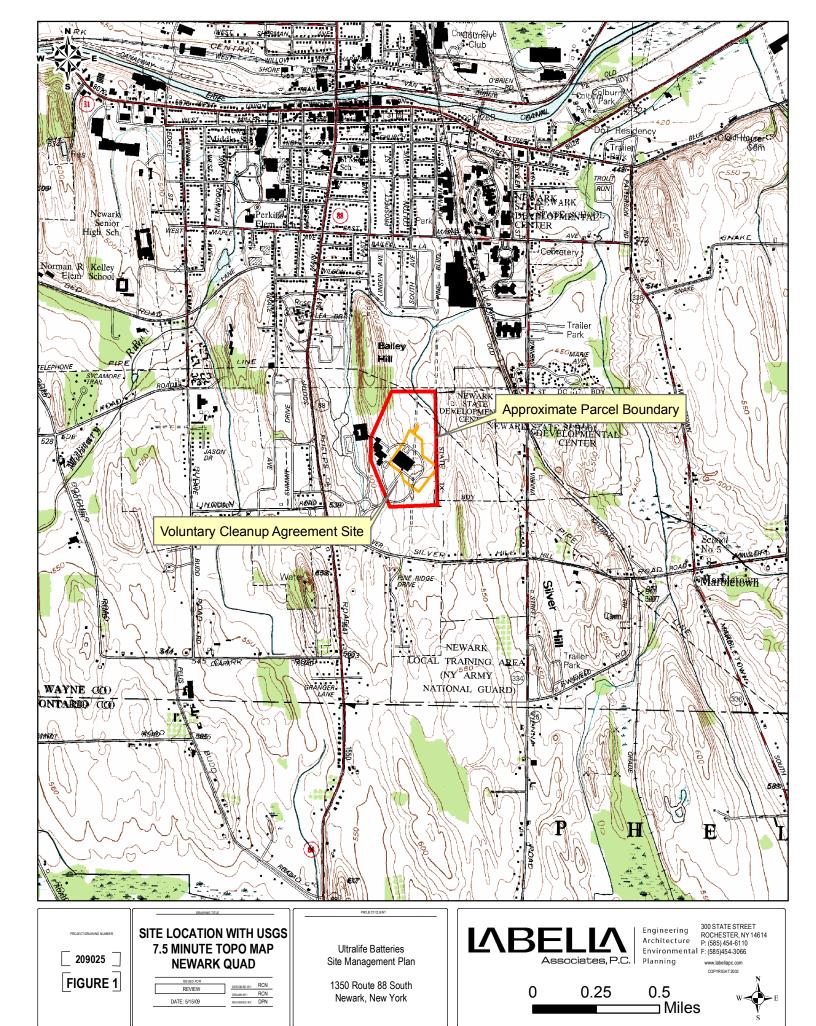
### 5.4 CORRECTIVE MEASURES PLAN

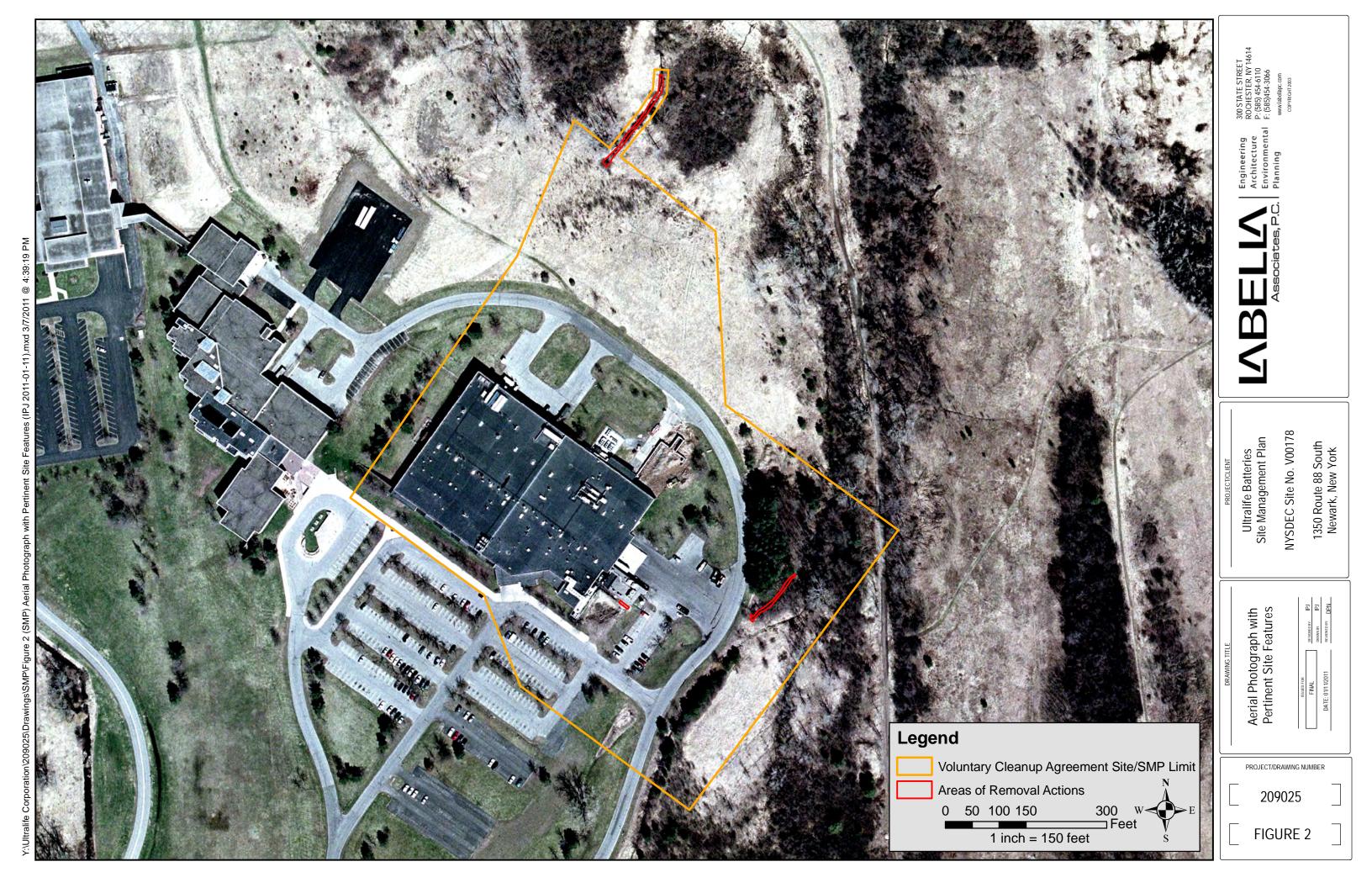
If any component of the remedy is found to have failed, or if the periodic certification cannot be provided due to the failure of an institutional or engineering control, a corrective measures plan will be submitted to the NYSDEC for approval. This plan will explain the failure and provide the details and schedule for performing work necessary to correct the failure. Unless an emergency condition exists, no work will be performed pursuant to the corrective measures plan until it is approved by the NYSDEC.

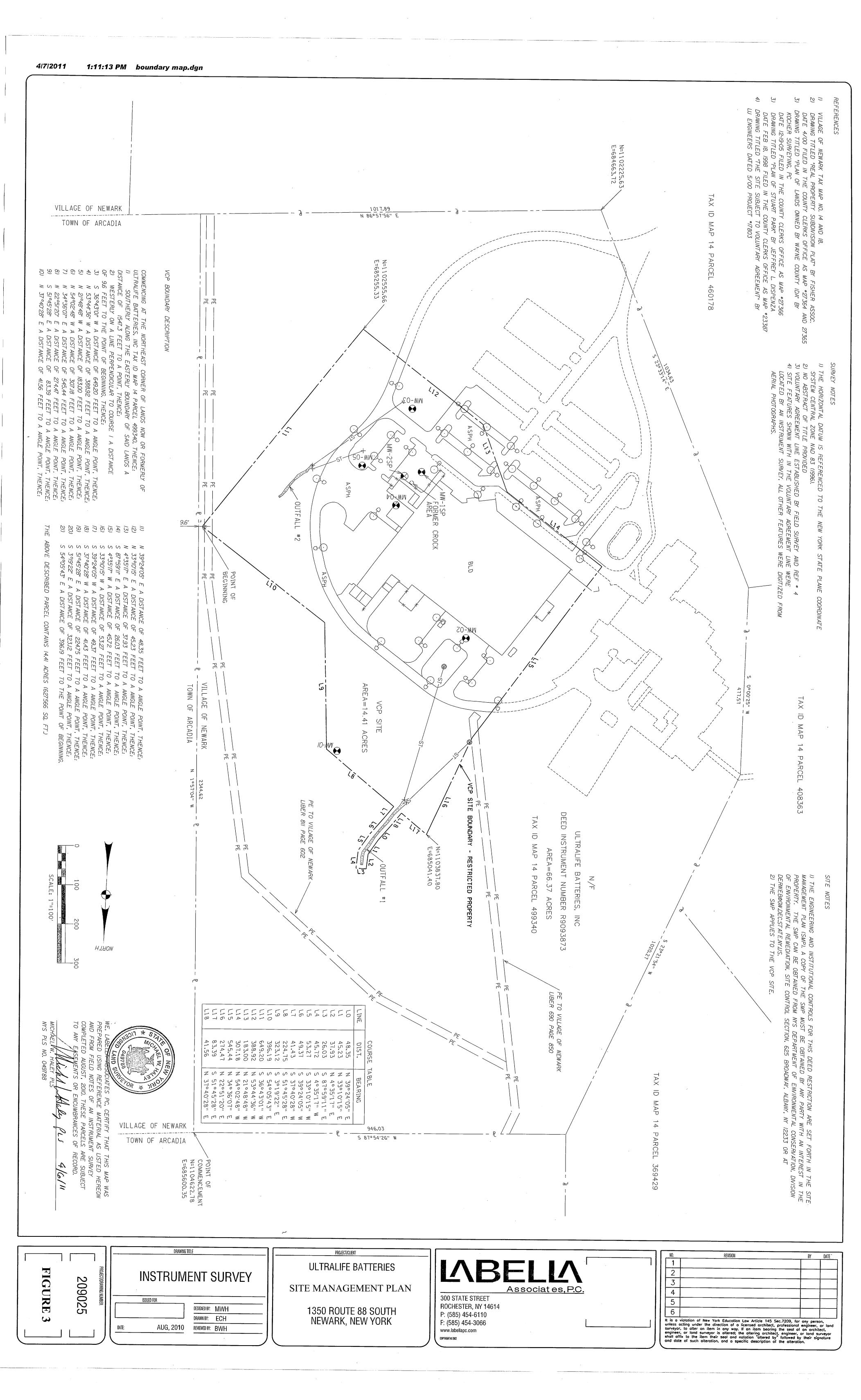
Y:\ULTRALIFE CORPORATION\209025\REPORTS\SMP\RPT.2011.06.13.FINAL SMP.DOCX

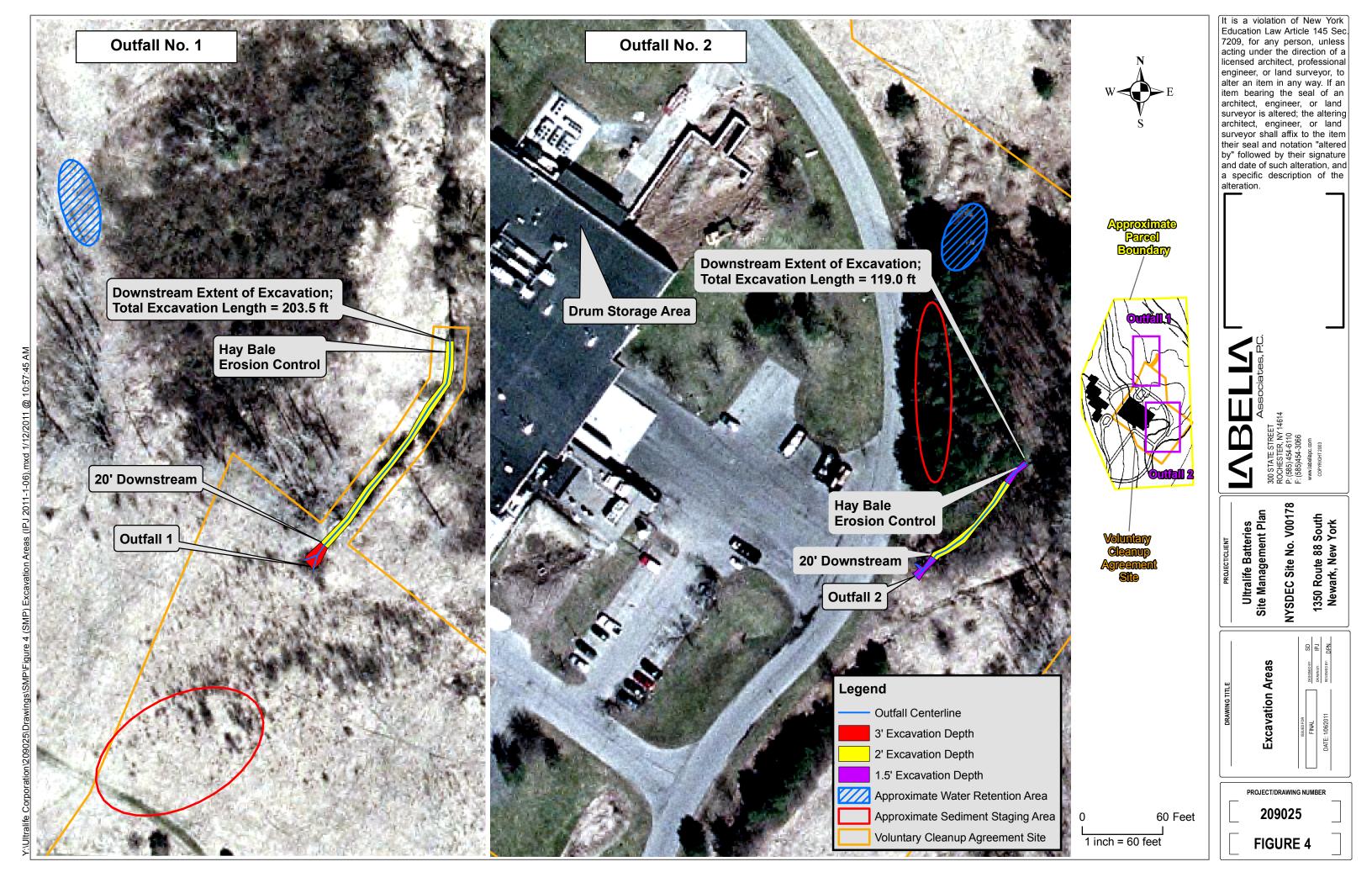


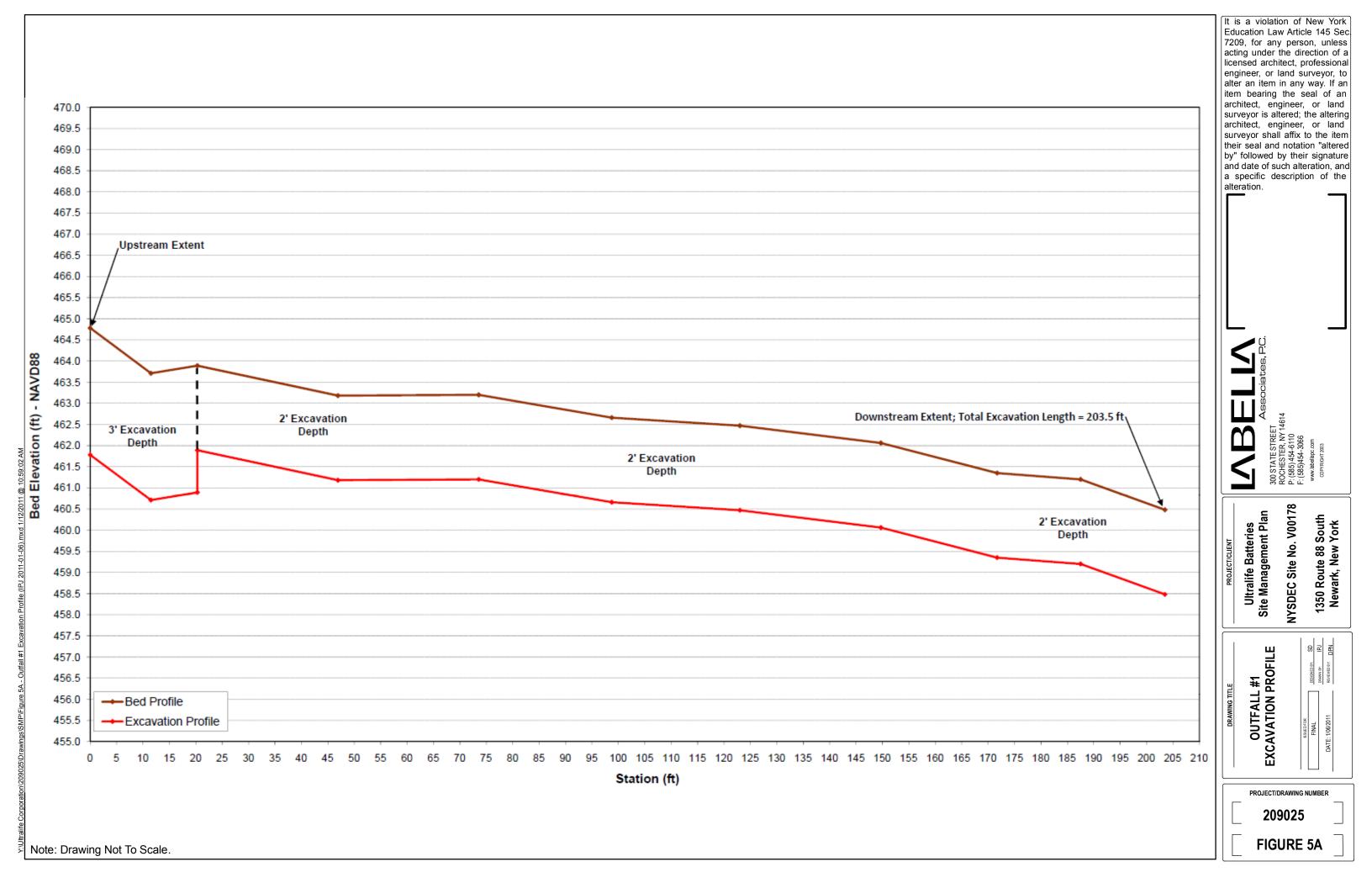
# **Figures**

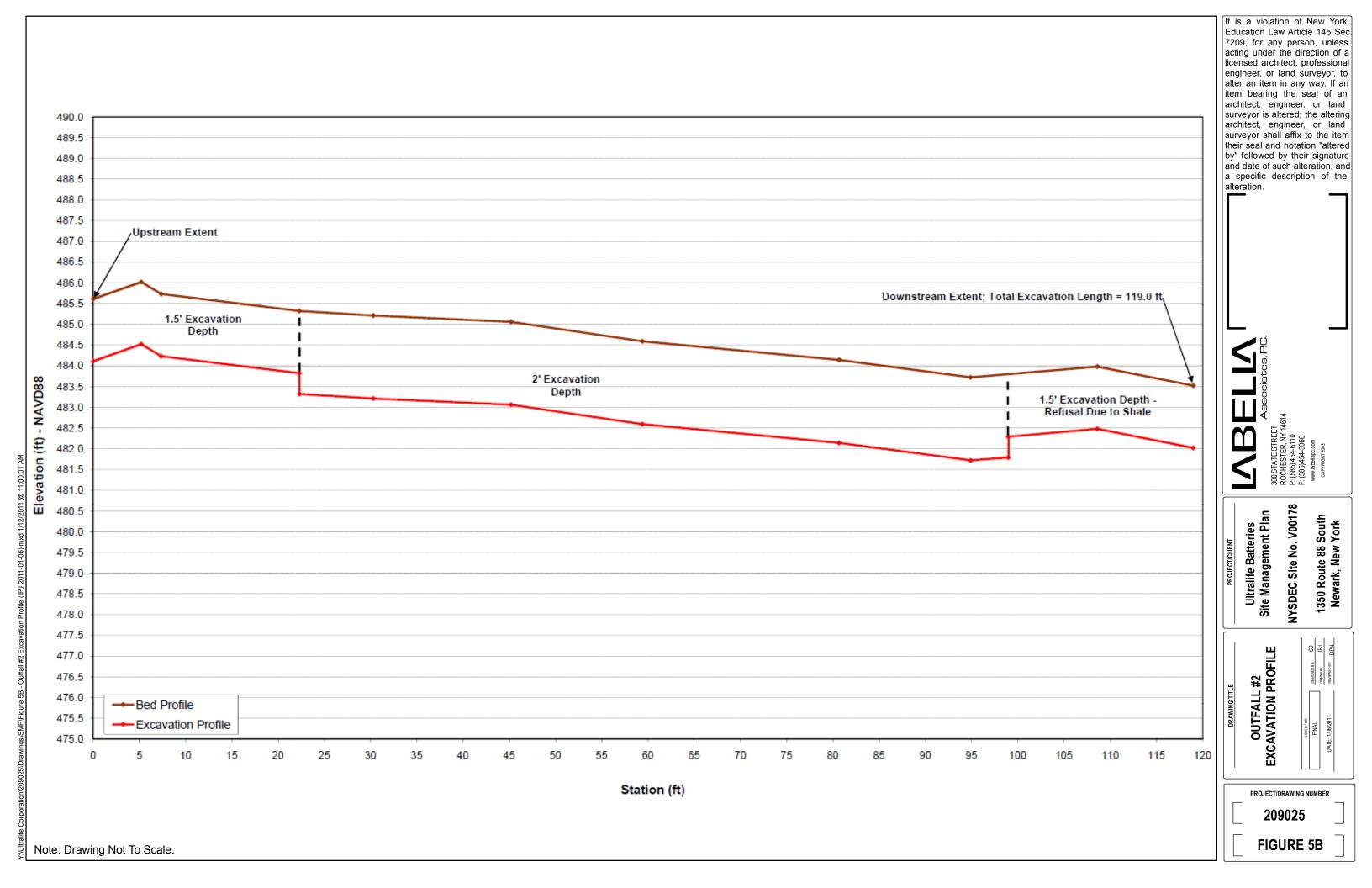














# FIGURE 7 - MAP AND DIRECTIONS TO THE MEDICAL FACILITY NEWARK-WAYNE COMMUNITY HOSPITAL

Total Time: 8 minutes Total Distance: 2.9 miles

Start: 2000 Technology Parkway, Newark, NY

START	1. Start out going <b>SOUTH</b> on <b>Technology Parkway</b> .	~500 ft.
	2. At the traffic circle, take the <b>2nd</b> exit and stay on <b>Technology Pkwy</b> .	0.2 mi
<b>(</b>	3. Turn <b>right</b> at <b>S Main St/NY-88</b> .	2.3 mi
<u>(†)</u>	4. Turn left at Stuerwald Ave	0.2 mi
<b>(</b>	5. Turn right at Driving Park Ave	0.2 mi
END	6. End at 1200 Driving Park Ave, Newark, NY	
	Total Mileage/Time	~2.9 mi / 8
		min

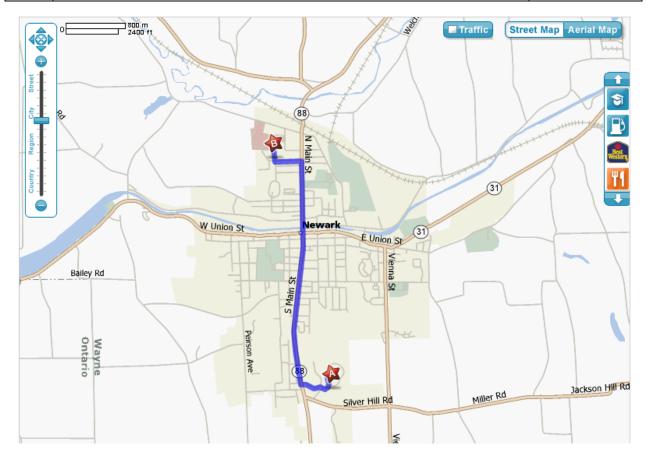


Figure 7
Site Management Plan
Stuart Park Complex – Ultralife Battery
2000 Technology Parkway, Newark, New York
LaBella Project No. 209025



# **Appendix 1**

Groundwater Monitoring Well Network and Historic Groundwater Flow Contour





# Appendix 2

Pertinent Documents from the Final Investigation Report

# Test Pit Soil Analysis Summary – Table 2 Metals, Total Cyanide, and Total Organic Carbon

Ultralife Batteries, Inc. Newark, New York

Metais	TP-01 (3.0-3.5 ft.)	TP-02 (5.5-6.0 ft.)	TP-04 (6.5-7.0 ft.)	TP-05 (4.0-4.5 ft.)	TP-05 (5.5-6.0 ft.)	TP-09 (1.5-2.0 ft.)	TP-11 (0.5-1.0 ft.)	TP-12 (3.0-3.5 ft.)	TP-14 (1.0-1.5 ft.)	TP-15 (1.5-2.0 ft.)	Recommended Soil Cleanup Objectives
Aluminum	5,080	3,620	5,170	6,920	6,040	4,640	9,310	5,750	4,180	3,300	SB
Antimony	ND	SB									
Arsenic	4.10	10.6	3.50	9.40	17.9	3.80	12.2	44.7	3.40	14.4	7.5 or SB
Barium	26.0	31.5	30.4	51.4	41.7	26.2	70.3	32.0	23.0	16.6	300 or SB
Beryllium	ND	ND	ND	0.0800	ND	ND	0.190	ND	ND	0.0800	0.16 or SB
Cadmium	ND	ND	ND	0.110	ND	ND	ND	ND	ND	ND	1 or SB
Calcium	39,200	45,900	55,200	6,620	2,090	3,380	6,840	3,860	1,840	6,430	SB
Chromium	7.40	5.20	7.60	8.80	8.50	7.60	12.1	7.60	8.50	4.70	10 or SB
Cobalt	3.80	3.30	3.90	4.30	3.50	3.90	5.10	4.00	2.70	2.70	30 or SB
Copper	12.7	17.0	14.3	8.60	7.10	6.50	11.8	6.20	3.00	4.20	25 or SB
Iron	ND	2,000 or SB									
Lead	7.20	14.5	6.90	32.8	5.80	4.70	18.5	180	9.40	38.8	SB
Magnesium	13,800	14,300	23,400	4,050	1,550	2,050	2,860	2,500	1,560	3,140	SB **
Manganese	343	657	331	453	341	106	736	409	73.0	232	SB
Mercury	ND	0.0100	ND	0.0200	0.0200	ND	0.0900	0.0200	0.0200	ND	0.1
Nickel	7.80	7.70	8.10	6.90	5.30	7.60	8.90	6.60	5.30	4.50	13 or SB
Potassium	1,150	635	1,130	738	678	744	916	668	739	428	SB
Selenium	1.50	1.80	1.30	1.90	1.50	ND	2.00	ND	ND	1.00	2 or SB
Silver	ND	SB									
Sodium	144	81.0	170	67.3	44.2	174	101	64.5	73.6	40.4	SB
Thallium	ND	SB									
Vanadium	13.5	9.10	13.4	15.1	26.3	13.3	22.3	13.1	14.3	9.00	150 or SB
Zinc	36.1	53.4	39.9	45.0	70.0	37.4	72.8	35.6	52.9	21.7	20 or SB
Total Cyanide	ND	NA									
Total Organic Carbon	ND	1,760	2,040	6,040	2,410	839	19,600	5,880	2,420	1,480	NA

- NA = Not Applicable, ND = Less than laboratory detection limits, B = detected in blank, SB = Site Background, concentrations shown in shaded background indicate detection above laboratory limits, and concentrations shown in bold type and shaded indicate values above New York State Department of Environmental Conservation (NYSDEC) TAGM 4046 Recommended Soil Cleanup Objectives.
- 2. Concentrations are expressed in parts per million (ppm) equivalent to mg/kg or mg/L.
- 3. \*\* Eastern US Background for Magnesium is 100-5,000 ppm.
- 4. Samples collected by GeoQuest Environmental, Inc. on November 2, 2005 and analyzed by Columbia Analytical Services, Rochester, New York (Lab ID # 10145).

# Test Pit Soil Analytical Summary – Table 2 (Page 1 of 2) Semi-Volatile Organic Compounds – Method OLM 4.2

Ultralife Batteries, Inc. Newark, New York

Chemical Compound	TP-01 (3.0-3.5 ft.)	TP-02 (5.5-6.0 ft.)	TP-04 (6.5-7.0 ft.)	TP-05 (4.0-4.5 ft.)	TP-05 (5.5-6.0 ft.)	TP-09 (1.5-2.0 ft.)	TP-11 (0.5-1.0 ft.)	TP-12 (3.0-3.5 ft.)	TP-14 (1.0-1.5 ft.)	TP-15 (1.5-2.0 ft.)	Recommended Soil Cleanup Objectives
Acenaphthene	ND	ND	ND	ND	ND	ND	0.120 J	ND	ND	ND	50
Acenaphthylene	ND	41									
Acetophenone	ND	-									
Anthracene	ND	ND	ND	ND	ND	ND	0.240	ND	0.040 J	ND	50
Atrazine	ND	-									
Benzaldehyde	ND	-									
Benzo (a) Anthracene	ND	ND	ND	ND	0.045 J	ND	0.500	ND	ND	ND	0.224
Benzo (a) Pyrene	ND	ND	ND	ND	0.047 J	ND	0.520	ND	ND	ND	0.061
Benzo (b) Fluoranthene	ND	ND	ND	ND	ND	ND	0.400 J	ND	ND	ND	1.1
Benzo (g,h,i) Perylene	ND	ND	ND	ND	ND	ND	0.340 J	ND	ND	ND	50
Benzo (k) Fluoranthene	ND	ND	ND	ND	0.048 J	ND	0.400 J	ND	ND	ND	1.1
1,1'- Biphenyl	ND	-									
Butyl Benzyl Phthalate	ND	50									
Di-N-Butylphthalate	ND	8.1									
Caprolactam	ND	-									
Carbazole	ND	ND	ND	ND	ND	ND	0.110 J	ND	ND	ND	-
Indeno (1,2,3-cd) Pyrene	ND	ND	ND	ND	ND	ND	0.290 J	ND	ND	ND	3.2
4-Chloroaniline	ND	0.220									
Bis (-2-Chloroethoxy) Methane	ND	_									
Bis (-2-Chloroethyl) Ether	ND	-									
2-Chloronaphthalene	ND	-									
2-Chlorophenol	ND	0.8									
2,2'- Oxybis (1-Chloropropane)	ND	-									
Chrysene	ND	ND	ND	ND	0.055	ND	0.530	ND	ND	ND	0.4
Dibenz (a,h) Anthracene	ND	ND	ND	ND	ND	ND	0.086 J	ND	ND	ND	0.014
Dibenzofuran	ND	ND	ND	ND	ND	ND	0.110	ND	ND	ND	6.2
3,3'- Dichlorobenzidine	ND	NA									
2,4- Dichlorophenol	ND	0.4									
Diethylphthalate	ND	7.1									
Dimethyl Phthalate	ND	2.0									
2,4- Dimethylphenol	ND	•									
2,4- Dinitrophenol	ND	0.200									
2,4- Dinitrotoluene	ND	1.0									
2,6- Dinitrotoluene	ND	1.0									
Bis (2-Ethylhexyl) Phthalate	ND	ND	ND	0.051J	ND	ND	ND	ND	0.055 J	0.055 J	50
Fluoranthene	ND	ND	ND	ND	0.130 J	ND	1.500	ND	ND	ND	50
Fluorene	ND	50									

# Test Pit Soil Analytical Summary - Table 2 (Page 2 of 2) Semi-Volatile Organic Compounds - Method OLM 4.2

Ultralife Batteries, Inc. Newark, New York

				Ne	wark, New Yo					75.45	5000
	TP-01	TP-02	TP-04	TP-05	TP-05	TP-09	TP-11	TP-12	TP-14	TP-15	RSCO
Chemical Compound	(3.0-3.5 ft.)	(5.5-6.0 ft.)	(6.5-7.0 ft.)	(4.0-4.5 ft.)	(5.5-6.0 ft.)	(1.5-2.0 ft.)	(0.5-1.0 ft.)	(3.0-3.5 ft.)	(1.0-1.5 ft.)	(1.5-2.0 ft.)	(ppm)
Hexachlorobenzene	ND	0.41									
Hexachlorobutadiene	ND										
Hexachlorocyclopentadiene	ND	-									
Hexachloroethane	ND	- 4 40									
Isophorone	ND	4.40									
2- Methylnaphthalene	ND	36.4									
4.6- Dinitro-2- Methylphenol	ND										
4- Chloro-3- Methylphenol	ND	0.400									
2- Methylphenol	ND	0.100									
4- Methylphenol	ND	0.9									
Naphthalene	ND	ND	ND	ND	ND	ND	0.079 J	ND	ND	ND	13
2- Nitroaniline	ND	0.430									
	ND	0.500									
3- Nitroaniline	ND	-									
4- Nitroaniline	ND	0.200									
Nitrobenzene	ND	0.330									
2- Nitrophenol	ND	0.100									
4- Nitrophenol	ND	<u> </u>									
N- Nitrosodiphenylamine	ND	ND	ND ND	ND	ND	ND	ND	ND	ND	ND	-
Di-n-octyl Phthalate	ND ND	ND ND	ND	ND	ND	ND	ND	ND	ND	ND	1.0
Pentachlorophenol	ND	ND	ND	ND	0.092 J	ND	1,500	ND	0.140 J	ND	50
Phenanthrene		ND ND	ND	ND	ND	ND	ND	ND	ND	ND	0.03
Phenol	ND ND	ND ND	ND ND	ND ND	ND	ND	ND	ND	ND	ND	•
4- Bromophenyl- Phenylether	ND	ND	ND	ND ND	ND	ND	ND	ND	ND	ND	-
4- Chlorophenyl- Phenylether	ND	ND ND	ND ND	ND ND	ND	ND	ND	ND	ND	ND	•
N- nitroso-di-n- Propylamine	ND		ND ND	ND ND	0.110 J	ND ND	1,100	ND	ND	ND	50
Pyrene	ND	ND	ND ND	ND ND	ND	ND ND	ND	ND	ND	ND	-
2,4,6- Trichlorophenol	ND	ND	ND ND	ND	ND	ND	ND	ND	ND	ND	0.1
2,4,5- Trichlorophenol	ND	ND	UNU_	H IND						0.055	NIA
Total Semi-Volatile Organic Compounds	ND	ND	ND	0.051J	0.527	ND	7.825	ND	0.235	0.055	NA

Notes:

2. -= No standard available.

3. Concentrations are expressed in parts per million (ppm) equivalent to mg/kg.

NA = Not Applicable, ND = Less than laboratory detection limits, J = estimated value, concentrations shown in shaded background indicate detection above laboratory limits, and concentrations shown in bold type and shaded indicate values above New York State Department of Environmental Conservation (NYSDEC) TAGM 4046 Recommended Soil Cleanup Objectives (RSCO).

Samples collected by GeoQuest Environmental, Inc. on November 2, 2005 and analyzed by Columbia Analytical Services, Rochester, New York (Lab ID # 10145).

# Test Pit Soil Analytical Summary – Table 2 (Page 1 of 2) Volatile Organic Compounds – Method OLM Ultralife Batteries, Inc.

Newark, New York

Chemical Compound	TP-01 (3.0-3.5 ft.)	TP-02 (5.5-6.0 ft.)	TP-04 (6.5-7.0 ft.)	TP-05 (4.0-4.5 ft.)	TP-05 D (4.0-4.5 ft.)	TP-05 (5.5-6.0 ft.)	TP-09 (1.5-2.0 ft.)	TP-11 (0.5-1.0 ft.)	TP-12 (3.0-3.5 ft.)	TP-14 (1.0-1.5 ft.)	TP-15 (1.5-2.0 ft.)	Recommended Soil Cleanup Objectives
Acetone	ND	ND	0.011 J	0.450 E	0.460 D	0.081	ND	ND	ND	0.0042 J	ND	0.2
Benzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.06
Bromodichloromethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	-
Bromoform	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	-
Bromomethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	-
2- Butanone (MEK)	ND	ND	ND	0.110	0.120	0.010	ND	ND	ND	ND	ND	0.3
Methyl Tert- Butyl Ether	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	-
Carbon Disulfide	ND	ND	ND	0.00095 J	ND	ND	ND	ND	ND	ND	ND	2.7
Carbon Tetrachloride	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.6
Chlorobenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1.7
Chloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1.9
Chloroform	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.3
Chloromethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	-
1,2- Dibromo-3- Chloropropane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
Cyclohexane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	-
Dibromochloromethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA
1,2- Dibromoethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	-
1,2- Dichlorobenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	7.9
1,4- Dichlorobenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	8.5
1,3- Dichlorobenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1.6
Dichlorodifluoromethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	-
1,1- Dichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.4
1,2- Dichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	-
1,1- Dichloroethene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	-
Trans-1,2- Dichloroethene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.3
Cis-1,2-Dichloroethene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	-
1,2- Dichloropropane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	-
Trans-1,3- Dichloropropene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	-
Cis-1,3- Dichloropropene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	-
Ethylbenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	5.5
2- Hexanone	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	-
Isopropylbenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	•
Methyl Acetate	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<b>†</b>
Methylcyclohexane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<del>                                     </del>
Methylene Chloride	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.1
4- Methyl-2- Pentanone	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1.0

# Test Pit Soil Analytical Summary – Table 2 (Page 2 of 2) Volatile Organic Compounds – Method OLM

Ultralife Batteries, Inc. Newark, New York

Chemical Compound	TP-01 (3.0-3.5 ft.)	TP-02 (5.5-6.0 ft.)	TP-04 (6.5-7.0 ft.)	TP-05 (4.0-4.5 ft.)	TP-05D (4.0-4.5 ft.)	TP-05 (5.5-6.0 ft.)	TP-09 (1.5-2.0 ft.)	TP-11 (0.5-1.0 ft.)	TP-12 (3.0-3.5 ft.)	TP-14 (1.0-1.5 ft.)	TP-15 (1.5-2.0 ft.)	Recommended Soil Cleanup Objectives
Styrene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	-
1,1,2,2- Tetrachloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	-
Tetrachloroethene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1.4
Toluene	ND	ND	ND	ND	0.0068 J	ND	0.0030 J	0.0034 J	ND	ND	ND	1.5
1,2,4- Trichlorobenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	3.4
1,1,1- Trichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1.4
1,1,2- Trichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	-
Trichloroethene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.7
Trichlorofluoromethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	-
1,1,2-Trichloro-1,2,2- Trifluoroeth	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	-
Vinyl Chloride	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.2
M+P- Xylene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1.2
O- Xylene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1.2
Total Volatile Organic Compounds	ND	ND	0.011	0.56095	0.5868	0.091	0.0030	0.0034	ND	0.0042	ND	NA

- 1. NA = Not Applicable, ND = Less than laboratory detection limits, J = estimated value, E = concentrations exceeded calibration range, D = secondary dilution, concentrations shown in shaded background indicate detection above laboratory limits, and concentrations shown in bold type and shaded indicate values above New York State Department of Environmental Conservation (NYSDEC) TAGM 4046 Recommended Soil Cleanup Objectives.
- -= No standards available.
- 3. Concentrations are expressed in parts per million (ppm) equivalent to Mg/kg.
- 4. Samples collected by GeoQuest Environmental, Inc. on November 2, 2005 and analyzed by Columbia Analytical Services, Rochester, New York (Lab ID # 10145).

# Soil Analytical Summary – Table 2 Pesticides/ PCBs – Method OLM 4.2

Ultralife Batteries, Inc. Newark, New York

Chemical Compound	TP-01 (3.0-3.5 ft.)	TP-02 (5.5-6.0 ft.)	TP-04 (6.5-7.0 ft.)	TP-05 (4.0-4.5 ft.)	TP-05 (5.5-6.0 ft.)	TP-09 (1.5-2.0 ft.)	TP-11 (0.5-1.0 ft.)	TP-12 (3.0-3.5 ft.)	TP-14 (1.0-1.5 ft.)	TP-15 (1.5-2.0 ft.)	Recommended Soil Cleanup Objectives
Aroclor-1016	ND	1.0									
Aroclor-1221	ND	1.0									
Aroclor-1232	ND	1.0									
Aroclor-1242	ND	1.0									
Aroclor-1248	ND	1.0									
Aroclor-1254	ND	1.0									
Aroclor-1260	ND	1.0									
Aldrin	ND	0.041									
Alpha-BHC	ND	0.11									
Beta-BHC	ND	0.2									
Delta-BHC	ND	0.3									
Gamma-BHC (Lindane)	ND	0.06									
Alpha-Chlordane	ND	0.54									
Gamma-Chlordane	ND	0.54									
4,4'-DDD	ND	ND	0.0045	ND	ND	ND	ND	ND	0.0076	0.0067	2.9
4,4'-DDE	0.012	ND	0.0086	0.0066	ND	ND	0.013	ND	ND	ND	2.1
4,4'-DDT	0.0073	ND	ND	ND	ND	ND	0.009	ND	ND	ND	2.1
Dieldrin	ND	0.044									
Endosulfan I	ND	0.9									
Endosulfan II	ND	0.9									
Endosulfan Sulfate	ND	1.0									
Endrin	ND	0.10									
Endrin Aldehyde	ND	-									
Endrin Ketone	ND	NA									
Heptachlor	ND	0.10									
Heptachlor Epoxide	ND	0.02									
Methoxychlor	ND	-									
Toxaphene	ND	-									
Total Pesticide/PCBs	0.0193	ND	0.0131	0.0066	ND .	ND	0.022	ND	0.0076	0.0067	NA

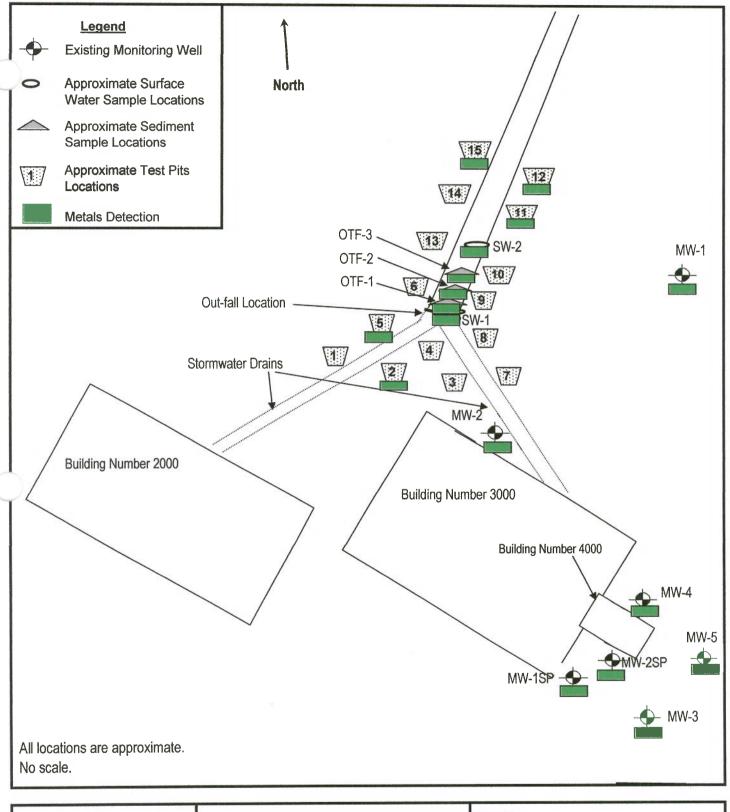
- 1. NA = Not Applicable, ND = Less than laboratory detection limits, concentrations shown in shaded background indicate detection above laboratory limits, and concentrations shown in bold type and shaded indicate values above New York State Department of Environmental Conservation (NYSDEC) TAGM 4046 Recommended Soil Cleanup Objectives.
- 2. -= No standard available.
- 3. Concentrations are expressed in parts per million (ppm) equivalent to mg/kg or mg/L.
- 4. Samples collected by GeoQuest Environmental, Inc. on November 2, 2005 and analyzed by Columbia Analytical Services, Rochester, New York (Lab ID # 10145).

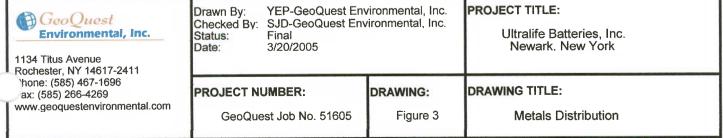
# Test Pit Soil Analysis Summary – Table 2 Metals and Total Organic Carbon – Method ILM 4.2

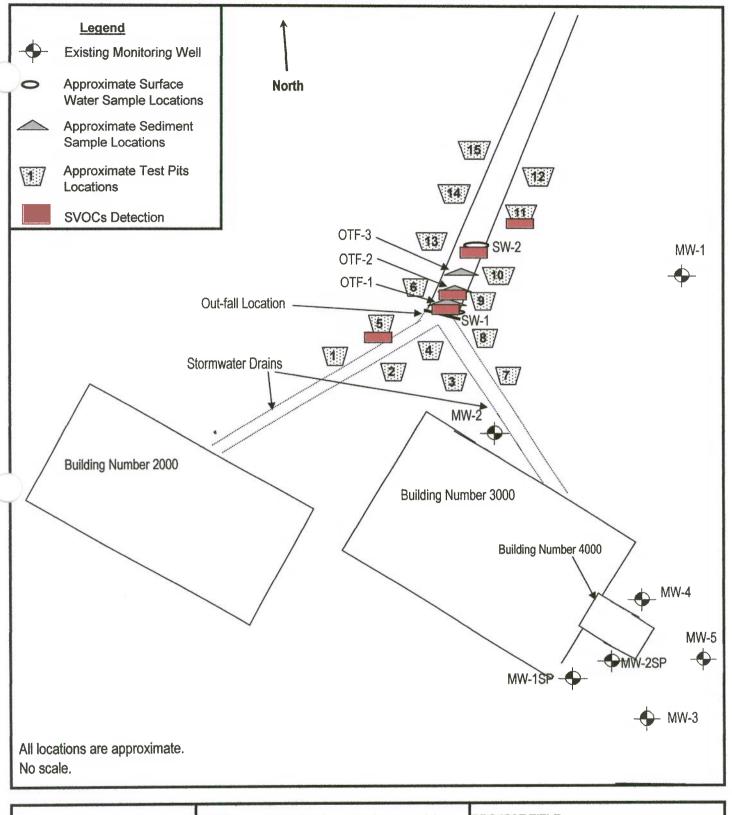
Ultralife Batteries, Inc. Newark, New York

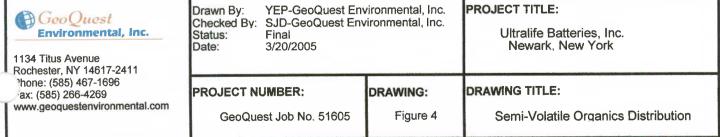
	TP-12 (3.0-3.5 ft.) 11/2005	TP-16 (0.0-0.5 ft.) 5/2007	TP-17 (3.5-4.0 ft.) 5/2007	TP-19 (0.5-1.0 ft.) 5/2007	TP-22 (0.0-0.5 ft.) 5/2007	TP-22 (3.0-3.5 ft.) 5/2007	Recommended Soil Cleanup Objectives (ppm)
Arsenic	44,7	6.4	1.3	6.7	8.3	1.4	7.5 or SB
Total Organic Carbon	5,880	16,500	804	8,240	18,100	1,260	NA

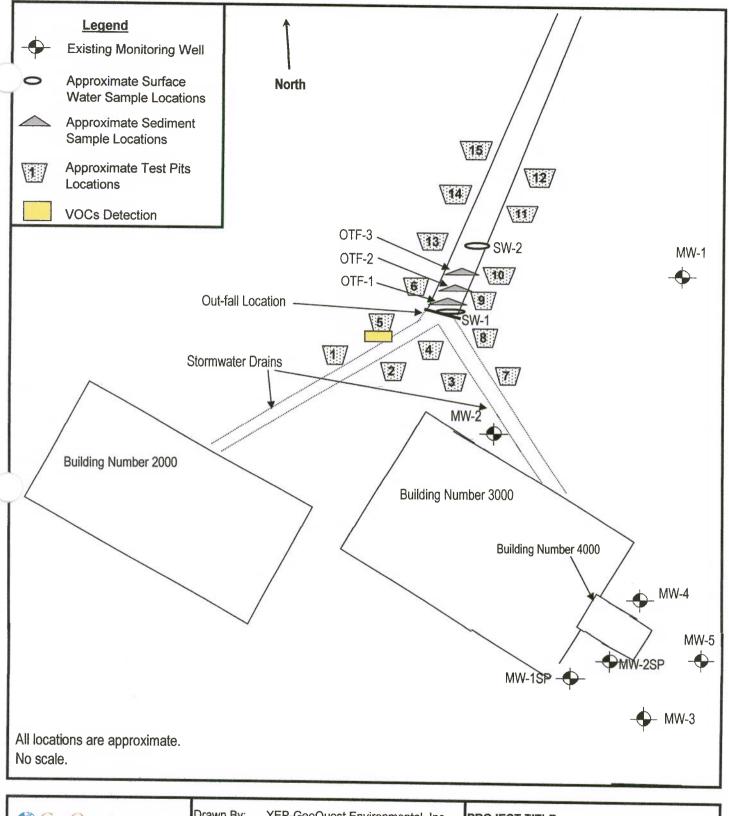
- 1. NA = Not Applicable, ND = Less than laboratory detection limits, Concentrations shown in bold type and shaded indicate values above New York State Department of Environmental Conservation (NYSDEC) TAGM 4046 Recommended Soil Cleanup Objectives. Concentrations shaded are above the laboratory detection limits.
- 2. Concentrations are expressed in parts per million (ppm) equivalent to mg/kg.
- 3. Sample collected from test pit TP-12 by GeoQuest Environmental, Inc. on November 2, 2005 and analyzed by Columbia Analytical Services, Rochester, New York (Lab ID # 10145).
- 4. Samples collected from test pits TP-16, TP-17, TP-19, and TP-22 by GeoQuest Environmental, Inc. on May 10, 2007 and analyzed by Columbia Analytical Services.

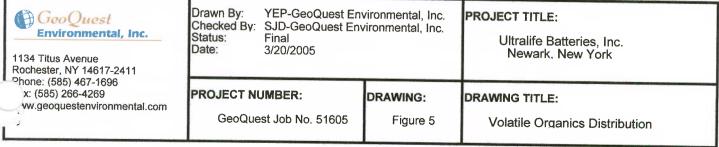


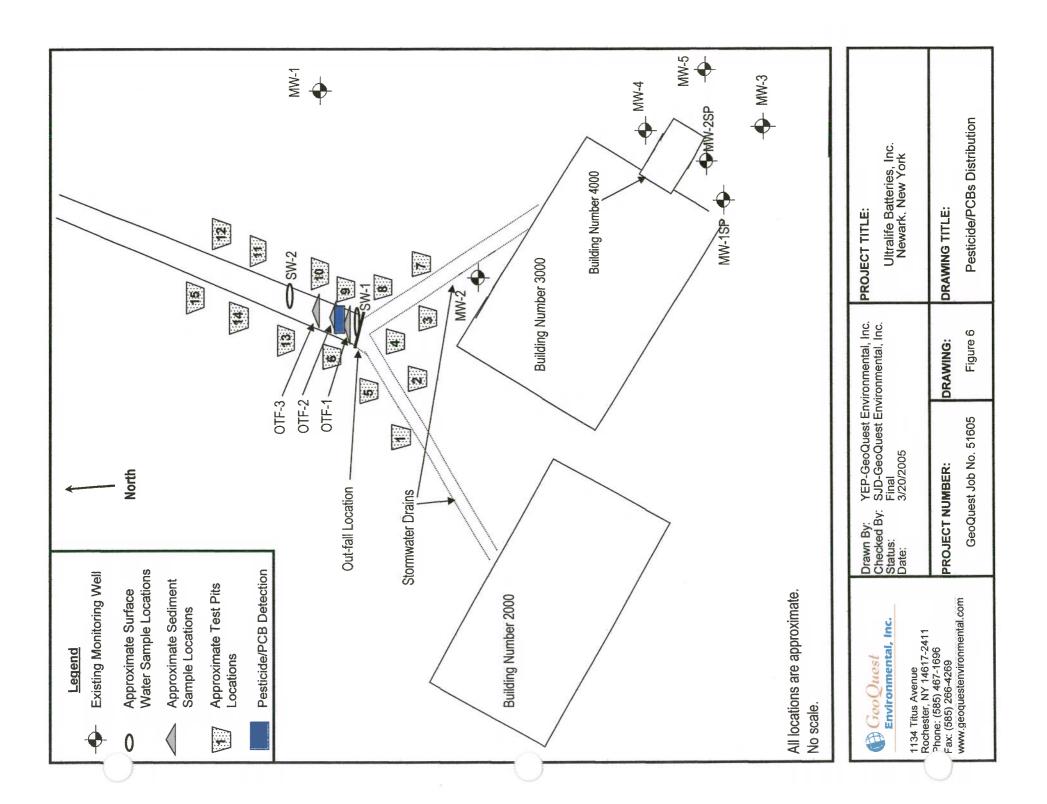














# **Appendix 3**Excavation Work Plan

# APPENDIX 3 – EXCAVATION WORK PLAN

#### A-1 NOTIFICATION

At least 15 days prior to the start of any activity that is anticipated to extend beyond a depth of 2-feet below the ground surface, the site owner or their representative will notify the Department. Currently, this notification will be made to:

Ms. Charlotte Theobald
Division of Environmental Remediation
NYSDEC, Region 8 Office
6274 East Avon-Lima Road
Avon, New York 14414
cbtheoba@gw.dec.state.ny.us

### This notification will include:

- A detailed description of the work to be performed, including the location and areal extent, plans for replacing 2-ft. of clean material over disturbed areas, estimated volumes of soil to be excavated below 2-ft. and where this material will be relocated on-site or disposed of off-site (i.e., permitted disposal facility);
- A summary of environmental conditions anticipated in the work areas, including any known laboratory data for the soils in the area of work, potential presence of grossly contaminated media, and plans for any pre-construction sampling;
- A schedule for the work (start and completion of all intrusive work);
- A summary of the applicable components of this EWP;
- A statement that the work will be performed in compliance with this EWP and 29
   CFR 1910.120;
- A copy of the contractor's health and safety plan, in electronic format, if it differs from the HASP provided in Appendix 6 of this document;
- Identification of disposal facilities for potential waste streams; and

Identification of sources of any anticipated backfill, along with all required

chemical testing results.

A-2 SOIL SCREENING METHODS

Visual, olfactory, and instrument-based soil screening will be performed by a

qualified environmental professional during all remedial and development excavations

below the 2-foot depth into known or potentially contaminated material (remaining

contamination). Soil screening will be performed regardless of when the invasive work is

done and will include all excavation and invasive work performed during development,

such as excavations for foundations and utility work, after issuance of the Limited

Liability Release.

Soils will be segregated based on previous environmental data and screening

results into material that requires off-site disposal, material that requires testing, material

that can be returned to the subsurface, and material that can be used as cover soil.

A-3 STOCKPILE METHODS

Soil stockpiles will be continuously encircled with a berm and/or silt fence. Hay

bales will be used as needed near catch basins, surface waters and other discharge points.

Stockpiles will be kept covered at all times with appropriately anchored tarps.

Stockpiles will be routinely inspected and damaged tarp covers will be promptly

replaced.

Stockpiles will be inspected at a minimum once each week and after every storm

event. Results of inspections will be recorded in a logbook and maintained at the site and

available for inspection by NYSDEC.

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A-4 MATERIALS EXCAVATION AND LOAD OUT

A qualified environmental professional or person under their supervision will

oversee all invasive work beyond 2-ft. in depth and the excavation and load-out of all

excavated material.

The owner of the property and its contractors are solely responsible for safe

execution of all invasive and other work performed under this Plan.

The presence of utilities and easements on the site will be investigated by the

qualified environmental professional. It will be determined whether a risk or impediment

to the planned work under this SMP is posed by utilities or easements on the site.

Loaded vehicles leaving (if any) the site will be appropriately lined, tarped,

securely covered, manifested, and placarded in accordance with appropriate Federal,

State, local, and NYSDOT requirements (and all other applicable transportation

requirements).

All outbound trucks will be deconned (washed, brushed off) before leaving the

site until the activities performed under this section are complete. The qualified

environmental professional will be responsible for ensuring that all outbound trucks are

decontaminated (washed, brushed off) before leaving the site.

The qualified environmental professional will also be responsible for ensuring

that all locations where vehicles enter or exit the site shall be inspected daily for evidence

of off-site soil tracking. Cleaning of the adjacent streets will be performed as needed to

maintain a clean condition with respect to site-derived materials.

A-5 MATERIALS TRANSPORT OFF-SITE

All transport of materials will be performed by licensed haulers in accordance

with appropriate local, State, and Federal regulations, including 6 NYCRR Part 364.

Haulers will be appropriately licensed and trucks properly placarded.

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Material transported by trucks exiting the site will be secured with tight-fitting covers. Loose-fitting canvas-type truck covers will be prohibited. If loads contain wet material capable of producing free liquid, truck liners will be used.

All trucks will be decontaminated prior to leaving the site. Truck decontamination material will be collected and disposed of off-site in an appropriate manner in accordance with all applicable local, State, and Federal regulations.

All trucks loaded with site material will exit the vicinity of the site using only these approved truck routes. This is the most appropriate route and takes into account: (a) limiting transport through residential areas and past sensitive sites; (b) use of city mapped truck routes; (c) prohibiting off-site queuing of trucks entering the facility; (d) limiting total distance to major highways; (e) promoting safety in access to highways; and (f) overall safety in transport; (g) community input [where necessary].

Trucks will be prohibited from stopping and idling in the neighborhood outside the project site.

Egress points for truck and equipment transport from the site will be kept clean of dirt and other materials during site remediation and development.

Queuing of trucks will be performed on-site in order to minimize off-site disturbance. Off-site queuing will be prohibited.

### A-6 MATERIALS DISPOSAL OFF-SITE

All soil/fill/solid waste excavated and removed from the site will be treated as contaminated and regulated material and will be transported and disposed in accordance with all local, State (including 6NYCRR Part 360) and Federal regulations. If disposal of soil/fill from this site is proposed for unregulated off-site disposal (i.e., clean soil removed for development purposes), a formal request with an associated plan will be made to the NYSDEC. Unregulated off-site management of materials from this site will not occur without formal NYSDEC approval.

Off-site disposal locations for excavated soils will be identified in the preexcavation notification. This will include estimated quantities and a breakdown by class of disposal facility if appropriate, e.g., hazardous waste disposal facility, solid waste landfill, petroleum treatment facility, C/D recycling facility. Actual disposal quantities and associated documentation will be provided to NYSDEC in the Periodic Review Reports. This documentation will include: waste profiles, test results, facility acceptance letters, manifests, bills of lading, and facility receipts.

Non-hazardous historic fill and contaminated soils taken off-site will be handled, at minimum, as a Municipal Solid Waste per 6NYCRR Part 360-1.2. Material that does not meet Track 1 unrestricted SCOs is prohibited from being taken to a New York State recycling facility (6NYCRR Part 360-16 Registration Facility).

#### **A-7 MATERIALS REUSE ON-SITE**

#### A-7.1 SOIL COVER SYSTEM: 0-2 FEET

The soil/fill material that consists of the soil cover (0-2 feet) will be stockpiled and staged separately from the soil/fill material located below the soil cover (greater than 2 feet deep). Soil cover material excavated can be reused as soil cover material as long as there is no evidence of staining, grossly contaminated material, PID readings (greater than 10 ppm above background), or odors. If the cover system soil/fill material has evidence of staining, grossly contaminated material, elevated PID readings or odors then the soil/fill material must be either sampled to determine if it can be placed below the 2 foot soil cover system or it must be containerized and characterized for off-site disposal.

### A-7.2 SOIL BELOW THE COVER SYSTEM

Contaminated on-site material, including historic fill and contaminated soil, that is acceptable for re-use on-site will be placed 2.0-feet below the soil cover or impervious surface and will not be reused within the cover soil layer (i.e., within 2-ft. of the surface). Material reused on-site does not require sampling that is placed below the soil cover. If there is evidence that the soil/fill material is impacted (e.g., staining, odors, PID readings, grossly contaminated), sampling will need to be completed to determine if the material

can be placed below the soil cover or off-site disposal is needed. Grossly contaminated soil/fill material cannot be returned to the excavation and must be disposed off-site in accordance with all applicable local, State and Federal regulations.

The segregated soil/fill material will be stockpiled on and covered with a minimum of a double layer of 6 mil polyethene sheeting.

The qualified environmental professional will ensure that procedures defined for materials reuse in this SMP are followed and that unacceptable material does not remain on-site. Contaminated on-site material, including historic fill and contaminated soil, that is acceptable for re-use on-site will be placed below the soil cover layer or impervious surface, and will not be reused within a cover soil layer, within landscaping berms, or as backfill for subsurface utility lines.

Any demolition material proposed for reuse on-site will be sampled for asbestos and the results will be reported to the NYSDEC for acceptance. The crushing or processing of and the reuse of potentially contaminated concrete on the site will not be performed without prior NYSDEC notification and approval. Organic matter (wood, roots, stumps, etc.) or other solid waste derived from clearing and grubbing of the site will be managed in accordance with all applicable local, State, and Federal regulations.

#### A-8 FLUIDS MANAGEMENT

All liquids to be removed from the site, including excavation dewatering and groundwater monitoring well purge and development waters, will be handled, transported and disposed in accordance with applicable local, State, and Federal regulations.

Discharge of water generated during large-scale construction activities to surface waters (i.e., a local pond, stream or river) will be performed under a SPDES permit.

#### A-9 COVER SYSTEM RESTORATION

After the completion of soil removal and any other invasive activities the cover system will be restored in a manner that complies with the RAWP. If the type of cover system changes from that which exists prior to the excavation (e.g., a soil cover is

replaced by asphalt), this will constitute a modification of the cover element of the remedy. A figure showing the modified surface will be included in the subsequent Periodic Review Report and in any updates to the Site Management Plan.

#### A-10 BACKFILL FROM OFF-SITE SOURCES

All material proposed for import onto the site will be approved by the qualified environmental professional and will be in compliance with the provisions in this SMP prior to receipt at the Site.

Material from industrial sites, spill sites, or other environmental remediation sites or potentially contaminated sites will not be imported to the site. All imported soils will meet the backfill and cover soil quality standards established in 6NYCRR 375-6.7(d).

Soils that meet 'exempt' fill requirements under 6 NYCRR Part 360, but do not meet backfill or cover soil objectives for this site, will not be imported onto the site without prior approval by NYSDEC. Solid waste will not be imported onto the site.

Trucks entering the site with imported soils will be securely covered with tight fitting covers. Imported soils will be stockpiled separately from excavated materials and covered to prevent wind and precipitation erosion issues.

#### A-11 STORMWATER POLLUTION PREVENTION

With regard to larger excavations that may be proposed at the Site, procedures for stormwater pollution prevention shall be specified in a project-specific Stormwater Pollution Prevention Plan that conforms to the requirements of NYSDEC Division of Water guidelines and NYS regulations. If not covered in the project-specific Stormwater Pollution Prevention Plan, the following will also apply:

 Barriers and hay bale checks will be installed and inspected once a week and after every storm event. Results of inspections will be recorded in a logbook and maintained at the site and available for inspection by NYSDEC. All necessary repairs shall be made immediately.

 Accumulated sediments will be removed as required to keep the barrier and hay bale check functional.

• All undercutting or erosion of the silt fence to anchor shall be repaired

immediately with appropriate backfill materials.

Manufacturer's recommendations will be followed for replacing silt fencing

damaged due to weathering.

• Erosion and sediment control measures identified in the SMP shall be observed to

ensure that they are operating correctly. Where discharge locations or points are

accessible, they shall be inspected to ascertain whether erosion control measures

are effective in preventing significant impacts to receiving waters.

• Silt fencing or hay bales will be installed around the entire perimeter of the

construction area.

A-12 CONTINGENCY PLAN

If underground tanks or other previously unidentified contaminant sources are

found during post-remedial subsurface excavations or development related construction,

excavation activities will be suspended until sufficient equipment is mobilized to address

the condition.

Sampling will be performed on product, sediment and surrounding soils, etc. as

necessary to determine the nature of the material and proper disposal method. Chemical

analysis will be performed for full list of analytes (TAL metals, TCL volatiles and semi-

volatiles, pesticides and PCBS), unless the site history and previous sampling results

provide a sufficient justification to limit the list of analytes. In this case a reduced list of

analytes will be proposed to the NYSDEC for approval prior to sampling.

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Identification of unknown or unexpected contaminated media identified by screening during invasive site work will be promptly communicated by phone to NYSDEC's Project Manager. Reportable quantities of petroleum product will also be reported to the NYSDEC spills hotline. These findings will be also included in the Periodic Review Reports prepared pursuant to Section 5 of the SMP.

#### A-13 ODOR CONTROL PLAN

This odor control plan is capable of controlling emissions of nuisance odors offsite [and on-site, if there are residents or tenants on the property]. Specific odor control
methods to be used on a routine basis will include limiting the area of open excavations
and size of soil stockpiles and covering soil stockpiles. If nuisance odors are identified at
the site boundary, or if odor complaints are received, work will be halted and the source
of odors will be identified and corrected. Work will not resume until all nuisance odors
have been abated. NYSDEC and NYSDOH will be notified of all odor events and of any
other complaints about the project. Implementation of all odor controls, including the
halt of work, is the responsibility of the property owner's Remediation Engineer, and any
measures that are implemented will be discussed in the Periodic Review Report.

All necessary means will be employed to prevent on- and off-site nuisances. At a minimum, these measures will include: (a) limiting the area of open excavations and size of soil stockpiles; (b) shrouding open excavations with tarps and other covers; and (c) using foams to cover exposed odorous soils. If odors develop and cannot be otherwise controlled, additional means to eliminate odor nuisances will include: (d) direct load-out of soils to trucks for off-site disposal; (e) use of chemical odorants in spray or misting systems; and, (f) use of staff to monitor odors in surrounding neighborhoods.

If nuisance odors develop during intrusive work that cannot be corrected, or where the control of nuisance odors cannot otherwise be achieved due to on-site conditions or close proximity to sensitive receptors, odor control will be achieved by sheltering the excavation and handling areas in a temporary containment structure equipped with appropriate air venting/filtering systems.

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# A-14 COMMUNITY AIR MONITORING AND FUGITIVE DUST AND PARTICULATE MONITORING PLAN

A copy of the Community Air Monitoring Plan (CAMP) and Fugitive Dust and Particulate Monitoring Plan component of the EWP, obtained from Appendix 1A and 1B of NYSDEC DER-10 Technical Guidance for Site Investigation and Remediation, dated May 2010, is included as Appendix 8 of the SMP. The air monitoring station locations will be based on prevailing wind conditions for that day and will be checked throughout the day and adjusted according to the prevailing wind direction. The provisions of the CAMP and the Fugitive Dust and Particulate Monitoring will be followed during all ground-intrusive activities greater than 2-ft. in depth performed at the Site. Exceedances of action levels listed in the CAMP and Fugitive Dust and Particulate Monitoring will be reported to the NYSDEC and NYSDOH Project Managers.

# A-15 DUST CONTROL PLAN

Dust will be managed during invasive on-site work and will include, at a minimum, the items listed below:

- Dust suppression will be conducted as needed on roads. Watering trucks will
  be equipped with a water cannon capable of spraying water directly onto offroad areas including excavations and stockpiles.
- Clearing and grubbing of larger sites will be done in stages to limit the area of exposed, unvegetated soils vulnerable to dust production.
- Gravel will be used on roadways to provide a clean and dust-free road surface.
- On-site roads will be limited in total area to minimize the area required for water truck sprinkling.

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# A-16 OTHER NUISANCES

A plan for rodent control will be developed and utilized by the contractor prior to and during site clearing and site grubbing, and during all remedial work.

A plan will be developed and utilized by the contractor for all remedial work to ensure compliance with local noise and control ordinances.

Stuart Park Complex – Ultralife Battery 2000 Technology Parkway, Newark, New York LaBella Project No. 209025



# **Appendix 4**Groundwater Sampling Log



	$5$ LL $^{\prime}$			Project N	ame: U	Jltralife Corpor	ation					
_ \_	Associates			Location:	2	2000 Technolog	y Parkway, Ne	wark, New Y	ork			
300 State St				Project N		209025		·				
	ew York 14614			Sampled								
	585) 454-6110 585) 454-3066			Date:								
WELL I												
WELL I	.D			Weather:	_							_
WELL SA	MPLING IN	FORMATION	ON									
Well Diam	eter:					St	tatic Water Lev	vel:				
Depth of V	Vell:					L	ength of Well S	Screen:				
Measuring	Point:	Top of PVC	·			D	epth to Top of	Pump:				
Pump Type	e:	QED Sampl	e Pro Blac	dder Pump	(Low Flow	<u>T</u>	ubing Type:					
FIELD PA	RAMETER	MEASURE	MENT									
Time	Pump Rate	Gallons	pН	Temp	Conductivi		Dissolved O <sub>2</sub>	Redox	Alkalinity	Iron (II)	Comments	_
		Purged		°C	(µS/cm)	(NTU)	(mg/L)	(mV)	_			
			+/- 0.1		+/- 3%		+ 10%	+/- 10 mV				
												_
	T. ( )		C 11 1	D 1								
				_								
Purge Time	e Start:			Purge Ti	me End:			Final Sta	itic Water Le	evel:		
OBSERVA	ATIONS											
Notes:												
10105.												



# **Appendix 5**Quality Assurance Project Plan

#### 1. Introduction

This Quality Assurance Project Plan (QAPP) contains procedures that provide for collected data to be properly evaluated and document that Quality Control (QC) procedures have been followed in the collection of samples. This QAPP represents the methodology and measurement procedures used in collecting quality field data. This methodology includes the proper use of equipment, documentation of sample collection, and sample handling practices.

Procedures used in LaBella Associates, P.C.'s (LaBella's) QC program are compatible with federal, state, and local regulations, as well as, appropriate professional and technical standards.

This QC program has been organized into the following areas:

- QC Objectives and Checks
- Field Equipment, Handling, and Calibration
- Sampling Techniques
- Sample Handling and Packaging

It should be noted that the Site Management Plan (SMP) may have site-specific details that will differ from the procedures in this QC program. In such cases, the SMP should be followed (subsequent to regulatory approval).

# 2. Quality Control Objectives

The United States Environmental Protection Agency (USEPA) has identified five general levels of analytical data quality as being potentially applicable to site investigations conducted under CERCLA. These levels are summarized below:

- **Level I** Field screening. This level is characterized by the use of portable instruments, which can provide real-time data to assist in the optimization of sampling point locations and for health and safety support. Data can be generated regarding the presence or absence of certain contaminants (especially volatiles) at sampling locations.
- Level II Field analysis. This level is characterized by the use of portable analytical instruments, which can be used on site or in mobile laboratories stationed near a site (close-support labs). Depending upon the types of contaminants, sample matrix, and personnel skills, qualitative and quantitative data can be obtained.
- Level III Laboratory analysis using methods other than the Contract Laboratory Program (CLP) Routine Analytical Services (RAS). This level is used primarily in support of engineering studies using standard USEPA-approved procedures. Some procedures may be equivalent to CLP RAS, without the CLP requirements for documentation.
- Level IV CLP Routine Analytical Services. This level is characterized by rigorous QC protocols and documentation and provides qualitative and quantitative analytical data. Some regions have obtained similar support via their own regional laboratories, university laboratories, or other commercial laboratories.
- Level V Non-standard methods. Analyses, which may require method modification and/or

development. CLP Special Analytical Services (SAS) are considered Level V.

Unless stated otherwise, all data will be generated in accordance with Level IV. When CLP methodology is not available, federal and state approved methods will be utilized. Level III will be utilized, as necessary, for non-CLP RAS work which may include ignitability, corrosivity, reactivity, EP toxicity, and other state approved parameters for characterization. Level I will be used throughout the implementation of the SMP for health and safety monitoring activities.

All measurements will be made to provide that analytical results are representative of the media and conditions measured. Unless otherwise specified, all data will be calculated and reported in units consistent with other organizations reporting similar data to allow comparability of data bases among organizations. Data will be reported in  $\mu g/L$  and mg/L for aqueous samples, and  $\mu g/kg$  and mg/kg (dry weight) for soils, or otherwise as applicable.

The characteristics of major importance for the assessment of generated data are accuracy, precision, completeness, representativeness, and comparability. Application of these characteristics to specific projects is addressed later in this document. The characteristics are defined below.

# 2.1. Accuracy

Accuracy is the degree of agreement of a measurement or average of measurements with an accepted reference or "true" value and is a measure of bias in the system.

#### 2.2. Precision

Precision is the degree of mutual agreement among individual measurements of a given parameter.

# 2.3. Completeness

Completeness is a measure of the amount of valid data obtained from a measurement system compared to the amount expected to be obtained under correct normal conditions.

### 2.4. Representativeness

Representativeness expresses the degree to which data accurately and precisely represents a characteristic of a population, parameter variations at a sampling point, a process condition, or an environmental condition

Careful choice and use of appropriate methods in the field will ensure that samples are representative. This is relatively easy with water or air samples since these components are homogeneously dispersed. In soil and sediment, contaminants are unlikely to be evenly distributed, and thus it is important for the sampler and analyst to exercise good judgment when removing a sample.

# 2.5. Comparability

Comparability expresses the confidence with which one data set can be compared to another. The data sets may be inter- or intra- laboratory.

# 3. Measurement of Data Quality

# 3.1. Accuracy

Accuracy of a particular analysis is measured by assessing its performance with "known" samples. These "knowns" take the form of USEPA standard reference materials, or laboratory prepared solutions of target analytes spiked into a pure water or sample matrix. In the case of GC or GC/MS analyses, solutions of surrogate compounds, which can be spiked into every sample and are designed to mimic the behavior of target analytes without interfering with their determination, are used.

In each case the recovery of the analyte is measured as a percentage, correcting for analytes known to be present in the original sample if necessary, as in the case of a matrix spike analysis. For USEPA supplied known solutions, this recovery is compared to the published data that accompany the solution.

For LaBella's prepared solutions, the recovery is compared to USEPA-developed data or LaBella's historical data as available. For surrogate compounds, recoveries are compared to USEPA CLP acceptable recovery tables.

If recoveries do not meet required criteria, then the analytical data for the batch (or, in the case of surrogate compounds, for the individual sample) are considered potentially inaccurate. The analyst or his supervisor must initiate an investigation of the cause of the problem and take corrective action. This can include recalibration of the instrument, reanalysis of the QC sample, reanalysis of the samples in the batch, or flagging the data as suspect if the problems cannot be resolved. For highly contaminated samples, recovery of the matrix spike may depend on sample homogeneity. As a rule, analyses are not corrected for recovery of matrix spike or surrogate compounds.

#### 3.2. Precision

Precision of a particular analysis is measured by assessing its performance with duplicate or replicate samples. Duplicate samples are pairs of samples taken in the field and transported to the laboratory as distinct samples. Their identity as duplicates is sometimes not known to ASC and usually not known to bench analysts, so their usefulness for monitoring analytical precision at bench level is limited. For most purposes, precision is determined by the analysis of replicate pairs (i.e., two samples prepared at the laboratory from one original sample). Often in replicate analysis the sample chosen for replication does not contain target analytes so that quantitation of precision is impossible. For USEPA CLP analyses, replicate pairs of spiked samples, known as matrix spike/matrix spike duplicate samples, are used for precision studies. This has the advantage that two real positive values for a target analyte can be compared.

Precision is calculated in terms of Relative Percent Difference (RPD).

- Where  $X_1$  and  $X_2$  represent the individual values found for the target analyte in the two replicate analyses or in the matrix spike/matrix spike duplicate analyses.
- RPDs must be compared to the method RPD for the analysis. The analyst or his supervisor
  must investigate the cause of RPDs outside stated acceptance limits. This may include a
  visual inspection of the sample for non homogeneity, analysis of check samples, etc. Followup action may include sample reanalysis or flagging of the data as suspect if problems cannot
  be resolved.
- During the data review and validation process, field duplicate RPDs are assessed as a measure of the total variability of both field sampling and laboratory analysis.

# 3.3. Completeness

Completeness for each parameter is calculated as follows:

• LaBella's target value for completeness for all parameters is 100%. A completeness value of 95% will be considered acceptable. Incomplete results will be reported to the site managers. In planning the field sample collection, the site manager will plan to collect field duplicates from identified critical areas. This procedure should assure 100% completeness for these areas.

# 3.4. Representativeness

The characteristic of representativeness is not quantifiable. Subjective factors to be taken into account are as follows:

- The degree of homogeneity of a site;
- The degree of homogeneity of a sample taken from one point in a site; and
- The available information on which a sampling plan is based.

To maximize representativeness of results, sampling techniques and sample locations will be carefully chosen so that they provide laboratory samples representative of the site and the specific area. Within the laboratory, precautions are taken to extract from the sample bottle an aliquot representative of the whole sample. This includes premixing the sample and discarding pebbles from soil samples.

# 4. QC Targets

Target values for detection limit, percent spike recovery and percent "true" value of known check standards, and RPD of duplicates/replicates are included in the QAPP, Analytical Procedures. Note that tabulated values are not always attainable. Instances may arise where high sample concentrations, non homogeneity of samples, or matrix interferences preclude achievement of target detection limits or other quality control criteria. In such instances, LaBella will report reasons for deviations from these detection limits or noncompliance with quality control criteria.

# **5.** Groundwater Sampling Procedures

The groundwater sampling plan outlined in this subsection has been prepared in general accordance with RCRA Groundwater Monitoring Technical Enforcement Guidance Document 9950.1 (September 1986), Office of Solid Waste and Emergency Response.

Water levels in all existing monitoring wells will be measured to within 0.01 foot prior to purging and sampling. Purging and sampling of each well will be accomplished as specified in the Site Management Plan (i.e., using low-flow sampling techniques).

In addition to the protocols in the SMP, the following will also be conducted:

- Water clarity will be quantified during sampling with a turbidity meter;
- Any observable physical characteristics of the groundwater (e.g., color, sheen, odor, turbidity) at the time of sampling will be recorded; and
- Weather conditions (i.e., air temperature, sky condition, recent heavy rainfall, drought conditions) at the time of sampling will be recorded.

The volumes specified in Table 1 will be used for the samples to be collected.

# 6. Management of Sampling-Derived Waste

#### Purpose:

The purposes of these guidelines are to ensure the proper holding, storage, transportation, and disposal of materials. Sampling-derived waste (SDW) included the following:

- Well development and purge waters and discarded groundwater samples;
- Decontamination waters and associated solids;
- Soiled disposable personal protective equipment (PPE);
- Used disposable sampling equipment;
- Used plastic sheeting and aluminum foil;
- Other equipment or materials that either contain or have been in contact with potentially-impacted environmental media.

#### Procedure:

- 1. Personal protective equipment, disposable sampling equipment, and similar equipment may be disposed as municipal waste, unless waste characterization results mandate disposal as industrial wastes.
- 2. Groundwater purge waters will be containerized and the results of the groundwater testing will be used to determine disposal methods. Depending on the sample results, the purge waters can be disposed of to the sanitary sewer system (subsequent to approval by the municipality) or if impacts warrant, then the purge waters will be profiled and shipped off-site for disposal at a NYSDEC permitted facility. All waste containers for disposal should be staged in a secure area with controlled access. Pending transfer, all containers will be covered and secured when not immediately attended. Label all containers with regard to contents, origin, and date of generation. Use indelible ink for all labeling.

# 7. Decontamination

Sampling methods and equipment have been chosen to minimize decontamination requirements and to prevent the possibility of cross-contamination. Decontamination of equipment will be performed between discrete sampling locations. Equipment used to collect composite samples will not require decontamination between aliquots of the same composite sample. All sampling equipment will be decontaminated prior to sampling, after sampling each monitoring well, and after the completion of all sampling.

Decontamination will consist of:

- Alconox and water scrubbing with brushes; and
- Potable water rinse.

# 8. Sample Containers

The volumes and containers required for the sampling activities are included in pre-washed sample containers will be ordered directly from a firm, which prepares the containers in accordance with USEPA bottle washing procedures.

Table 1 Groundwater Samples (all may not apply)

Type of Analysis	Type and Size of Container	Number of Containers and Sample Volume (per sample)	Preservation	Maximum Holding Time
Volatile Organics	40-ml glass vial with Teflon-backed septum	Two (2); fill completely, no air space	Cool to 4° C (ice in cooler), Hydrochloric acid to pH <2	7 days
Semi-volatile Organics	1,000-ml amber glass jar	One (1); fill completely	Cool to 4° C (ice in cooler)	7/40 days
Pesticides	1,000-ml amber glass jar	One (1); fill completely	Cool to 4° C (ice in cooler)	7/40 days
PCBs	1,000-ml amber glass jar	One (1); fill completely	Cool to 4° C (ice in cooler)	7/40 days
Metals	500-ml polyethylene	One (1); fill completely	Cool to 4° C (Nitric acid to pH <2	6 months

Notes:

- 1. Holding time is based on the times from verified time of sample receipt at the laboratory.
- 2. All sample bottles will be prepared in accordance with USEPA bottle washing procedures. These procedures are incorporated in LaBella's Quality Control Procedures Manual, January, 1992.

# TABLE 2 Soil Samples

Type of Analysis	Type and Size of Container	Number of Containers and Sample Volume (per sample)	Preservation	Maximum Holding Time
Volatile Organics, Semi-volatile Organics, PCBs, and Pesticides	8-oz, glass jar with Teflon-lined cap	Two (2), fill as completely as possible	Cool to 4° C (ice in cooler)	7 days
RCRA Characterization	8-oz. glass jar with Teflon-lined cap	One (1); fill completely	Cool to 4° C (ice in cooler)	Must be extracted within 10 days; analyzed with 30 days

#### Notes:

- 1. Holding time is based on the times from verified time of sample receipt at the laboratory.
- 2. All sample bottles will be prepared in accordance with USEPA bottle washing procedures. These procedures are incorporated in LaBella's Quality Control Procedures Manual, January, 1992.

# TABLE 3 List of Major Instruments for Sampling and Analysis

- Photovac Micro Tip PID or MiniRae PID
- Hollige Series 963 Nephlometer (turbidity meter)
- pH/Temperature/Conductivity Meter Portable
- Hewlett Packard (HP) 1000 computer with RTE-6 operating system; and HP 9144 computer with RTE-4 operating system
  equipped with Aquarius software for control and data acquisition from gas chromatograph/mass spectrometer (GC/MS) systems;
  combined wiley and National Bureau of Standards (NBS) mass spectral library; and data archiving on magnetic tape
- Viriam 6000 and 37000 gas chromatrographs equipped with flame ionization, electron capture, photoionization and wall detectors
  as appropriate for various analyses,, and interfaced to Variam DS604 or D5634 data systems for processing data.
- Spectra-Physics Model SP 4100 and SP 4270 and Variam 4270 cam puting integrators
- Perkin Eimer (PE) 3000% and 3030% fully Automated Atomic Absorption Spectrophotometers (AAS) with Furnace Atomizer and background correction system
- PE Plasma II Inductively Coupled Argon Plasma (ICAP) Spectre meter with PE7500 laboratory computer
- Dionex 20001 ion chromatograph with conductivity detector for anion analysis, with integrating recorder

# 9. Sample Custody

This section describes standard operating procedures for sample identification and chain-of-custody to be

utilized for all Phase II field activities. The purpose of these procedures is to ensure that the quality of the samples is maintained during their collection, transportation, and storage through analysis. All chain-of-custody requirements comply with standard operating procedures indicated in USEPA sample handling protocol.

Sample identification documents must be carefully prepared so that sample identification and chain-of-custody can be maintained and sample disposition controlled. Sample identification documents include:

- Field notebooks,
- Sample label,
- Custody seals, and
- Chain-of-custody records.

# 10. Chain-of-Custody

The primary objective of the chain-of-custody procedures is to provide an accurate written or computerized record that can be used to trace the possession and handling of a sample from collection to completion of all required analyses. A sample is in custody if it is:

- In someone's physical possession;
- In someone's view;
- · Locked up; or
- Kept in a secured area that is restricted to authorized personnel.

# 10.1. Field Custody Procedures

- As few persons as possible should handle samples.
- Sample bottles will be obtained precleaned from a source such as I-Chem. Coolers or boxes
  containing cleaned bottles should be sealed with a custody tape seal during transport to the
  field or while in storage prior to use.
- The sample collector is personally responsible for the care and custody of samples collected until they are transferred to another person or dispatched properly under chain-of-custody rules.
- The sample collector will record sample data in the notebook.
- The site manager will determine whether proper custody procedures were followed during the fieldwork and decide if additional samples are required.

### 10.2. Sample Tags

Sample tags attached to or affixed around the sample container must be used to properly identify all samples collected in the field. The sample tags are to be placed on the bottles so as not to obscure any QC lot numbers on the bottles; sample information must be printed in a legible manner using waterproof ink. Field identification must be sufficient to enable cross-reference with the logbook. For chain-of-custody purposes, all QC samples are subject to exactly the same custodial procedures and documentation as "real" samples.

# 10.3. Transfer of Custody and Shipment

- The coolers in which the samples are packed must be accompanied by a chain-of-custody record. When transferring samples, the individuals relinquishing and receiving them must sign, date, and note the time on the chain-of-custody record. This record documents sample custody transfer
- Shipping containers must be sealed with custody seals for shipment to the laboratory. The method of shipment, name of courier, and other pertinent information are entered in the "Remarks" section of the chain-of-custody record and traffic reports.
- All shipments must be accompanied by the chain-of-custody record identifying their contents. The
  original record accompanies the shipment. The other copies are distributed appropriately to the
  site manage.
- If sent by mail, the package is registered with return receipt requested. If sent by common carrier, a bill of lading is used. Freight bills, Postal Service receipts, and bill of lading are retained as part of the permanent documentation.

## 10.4. Chain-of-Custody Record

The chain-of-custody record must be fully completed in duplicate, using black carbon paper where possible, by the field technician who has been designated by the project manager as responsible for sample shipment to the appropriate laboratory for analysis. In addition, if samples are known to require rapid turnaround in the laboratory because of project time constraints or analytical concerns (e.g., extraction time or sample retention period limitations, etc.), the person completing the chain-of-custody record should note these constraints in the "Remarks" section of the record.

#### 10.5. Laboratory Custody Procedures

A designated sample custodian accepts custody of the shipped samples and verifies that the sample identification number matches that on the chain-of-custody record and traffic reports, if required. Pertinent information as to shipment, pickup, and courier is entered in the "Remarks" section.

### 10.6. Custody Seals

Custody seals are preprinted adhesive-backed seals with security slots designed to break if the seals are disturbed. Sample shipping containers (coolers, cardboard boxes, etc., as appropriate) are sealed in as many places as necessary to ensure security. Seals must be signed and dated before use. On receipt at the laboratory, the custodian must check (and certify, by completing the package receipt log and LABMIS entries) that seals on boxes and bottles are intact. Strapping tape should be placed over the seals to ensure that seals are not accidentally broken during shipment.

# 11. Documentation

# 11.1. Sample Identification

All containers of samples collected from the project will be identified using the following format on a label or tag fixed to the sample container (labels are to be covered with Mylar tape):

#### XX-YY-O/D

- XX This set of initials indicates the specific Phase II sampling project
- YY These initials identify the sample location. Actual sample locations will be recorded in the task log.
- O/D An "O" designates an original sample; "D" identifies it as a duplicate.

Each sample will be labeled, chemically preserved, if required and sealed immediately after collection. To minimize handling of sample containers, labels will be filled out prior to sample collection. The sample label will be filled out using waterproof ink and will be firmly affixed to the sample containers and protected with Mylar tape. The sample label will give the following information:

- Name of sampler,
- Date and time of collection,
- Sample number,
- Analysis required,
- pH, and
- Preservation.

# 11.2. Daily Logs

Daily logs and data forms are necessary to provide sufficient data and observations to enable participants to reconstruct event that occurred during the project and to refresh the memory of the field personnel if called upon to give testimony during legal proceedings. All daily logs will be kept in a bound waterproof notebook containing numbered pages. All entries will be made in waterproof ink, dated, and signed. No pages will be removed for any reason. Corrections will be made according to the procedures given at the end of this section. The daily logs will include a site log and task log.

The site log is the responsibility of the site manager and will include a complete summary of the day's activity at the site.

# The Task Log will include:

- Name of person making entry (signature).
- Names of team members on-site.
- Levels of personnel protection:
  - Level of protection originally used;
  - Changes in protection, if required; and
  - Reasons for changes.

- Time spent collecting samples.
- Documentation on samples taken, including:
  - Sampling location and depth station numbers;
  - Sampling date and time, sampling personnel;
  - Type of sample (grab, composite, etc.); and
  - Sample matrix.
- On-site measurement data.
- Field observations and remarks.
- Weather conditions, wind direction, etc.
- Unusual circumstances or difficulties.
- Initials of person recording the information.

### 12. Corrections to Documentation

#### 12.1. Notebook

As with any data logbooks, no pages will be removed for any reason. If corrections are necessary, these must be made by drawing a single line through the original entry (so that the original entry can still be read) and writing the corrected entry alongside. The correction must be initialed and dated. Most corrected errors will require a footnote explaining the correction.

# 12.2. Sampling Forms

As previously stated, all sample identification tags, chain-of-custody records, and other forms must be written in waterproof ink. None of these documents are to be destroyed or thrown away, even if they are illegible or contain inaccuracies that require a replacement document.

If an error is made on a document assigned to one individual, that individual may make corrections simply by crossing a line through the error and entering the corrected information. The incorrect information should not be obliterated. Any subsequent error discovered on a document should be corrected by the person who made the entry. All corrections must be initialed and dated.

# 12.3. Photographs

Photographs will be taken as directed by the site manager. Documentation of a photograph is crucial to its validity as a representation of an existing situation. The following information will be noted in the task log concerning photographs:

- Date, time, location photograph was taken;
- Photographer (signature);
- Weather conditions;
- Description of photograph taken;
- Reasons why photograph was taken;
- Sequential number of the photograph and the film roll number; and
- Camera lens system used.

After the photographs have been developed, the information recorded in the field notebook should be transferred to the back of the photographs

# 13. Sample Handling, Packaging, and Shipping

The transportation and handling of samples must be accomplished in a manner that not only protects the integrity of the sample, but also prevents any detrimental effects due to the possible hazardous nature of samples. Regulations for packaging, marking, labeling, and shipping hazardous materials are promulgated by the United States Department of Transportation (DOT) in the Code of Federal Regulation, 49 CFR 171 through 177. All samples will be delivered to the laboratory with 24 to 48 hours from the day of collection.

All chain-of-custody requirements must comply with standard operating procedures in the USEPA sample handling protocol. All sample control and chain-of-custody procedures applicable to the Consultant are presented in the Field Personnel Chain-of-Custody Documentation and Quality Control Procedures Manual, January 1992.

# 13.1. Sample Packaging

Samples must be packaged carefully to avoid breakage or contamination and must be shipped to the laboratory at proper temperatures. The following sample packaging requirements will be followed:

- Sample bottle lids must never be mixed. All sample lids must stay with the original containers.
- The sample volume level can be marked by placing the top of the label at the appropriate sample height, or with a grease pencil. This procedure will help the laboratory to determine if any leakage occurred during shipment. The label should not cover any bottle preparation QC lot numbers.
- All sample bottles are placed in a plastic bag to minimize the potential for vermiculite contamination.
- Shipping coolers must be partially filled with packing materials and ice when required, to prevent the bottles from moving during shipment.
- The sample bottles must be placed in the cooler in such a way as to ensure that they do not touch one another.
- The environmental samples are to be cooled. The use of "blue ice" or some other artificial icing material is preferred. If necessary, ice may be used, provided that it is placed in plastic bags. Ice is not to be used as a substitute for packing materials.
- Any remaining space in the cooler should be filled with inert packing material. Under no circumstances should material such as sawdust, sand, etc., be used.
- A duplicate custody record and traffic reports, if required must be placed in a plastic bag and taped to the bottom of the cooler lid. Custody seals are affixed to the sample cooler.

# 13.2. Shipping Containers

Shipping containers are to be custody-sealed for shipment as appropriate. The container custody seal will consist of filament tape wrapped around the package at least twice and custody seals affixed in such a way that access to the container can be gained only by cutting the filament tape and breaking a seal.

Field personnel will make arrangements for transportation of samples to the lab. When custody is relinquished to a shipper, field personnel will telephone the lab custodian to inform him of the expected time of arrival of the sample shipment and to advise him of any time constraints on sample analysis. The lab must be notified as early in the week as possible, and in no case later than 3 p.m. (EST) on Thursday, regarding samples intended for Saturday delivery.

# 13.3. Marking and Labeling

- Use abbreviations only where specified.
- The words "This End Up" or "This Side Up" must be clearly printed on the top of the outer package. Upward pointing arrows should be placed on the sides of the package. The words "Laboratory Samples" should also be printed on the top of the package.
- After a sample container has been sealed, two chain-of-custody seals are placed on the container, one on the front and one on the back. The seals are protected from accidental damage by placing strapping tape over then.
- If samples are designated as medium or high hazard, they must be sealed in metal paint cans, placed in the cooler with vermiculite and labeled and placarded in accordance with DOT regulations.
- In addition, the coolers must also be labeled and placarded in accordance with DOT regulations if shipping medium and high hazard samples.

# 14. Calibration Procedures and Frequency

All instruments and equipment used during sampling and analysis will be operated, calibrated, and maintained according to the manufacturer's guidelines and recommendations as well as criteria set forth in the applicable analytical methodology references. Operation, calibration, and maintenance will be performed by personnel properly trained in these procedures. Documentation of all routine and special maintenance and calibration information will be maintained in an appropriate logbook or reference file, and will be available on request. Table 7-1 lists the major instruments to be used for sampling and analysis. Brief descriptions of calibration procedures for major field and laboratory instruments follow.

#### 15. Field Instrumentation

# 15.1. Photovac Micro Tip Flameionizer (FID)

Standard operating procedures for the FID require that routine maintenance and calibration be performed every six months. Field calibration will be performed on a daily basis. The packages used for calibration are non-toxic analyzed gas mixtures available in pressurized containers.

# 15.2. Photovac/MiniRae Photoionization Detector (PID)

Standard operating procedures for the PID require that routine maintenance and calibration be performed every six months. Field calibration will be performed on a daily basis. The packages used for calibration are non-toxic analyzed gas mixtures available in pressurized containers.

# 15.3. Conductance, Temperature, and pH Meter

Temperature and conductance instruments are factory calibrated. Temperature accuracy can be checked against an NBS certified thermometer prior to field use if necessary. Conductance accuracy may be checked with a solution of known conductance and recalibration can be instituted, if necessary.

To recalibrate conductance, remove the black plug revealing the adjustment potentiometer screw. Add standard solution to cup, discard and refill. Repeat procedure until the digital display indicates the same value twice in a row. Adjust the potentiometer until the digital display indicates the known value of conductance. To increase the digital display reading, turn the adjustment potentiometer screw counterclockwise (clockwise to decrease).

To standardize the pH electrode and meter, place the pH electrode in the 7.0 buffer bottle. Adjust the "ZERO" potentiometer on the face of the tester so that the digital display indicates 7.00.

Then place the pH electrode in the 4.0 or 10.0 buffer bottle (depending on where you expect the actual measurement to be). Adjust the "SLOPE" potentiometer on the face of the tester so that the digital display indicates the value of the buffer chosen.

Note: There is interaction between the "ZERO" and "SLOPE" adjustments, so the procedure should be repeated several times.

Do not subject the pH electrode to freezing temperatures.

It is good practice to rinse the electrode in distilled water when going from one buffer to another. When not in use the cap should be kept on the electrode. Keeping the cotton in the cap moist will keep the electrode ready to use. Moisten the cotton frequently (once a week, usually).

# **15.4.** Nephelometer (Turbidity Meter)

The Series 95 nephelometer is calibrated before each use. Allow the instrument to warm up for approximately 2 hours. Using turbidity-free deionized water, zero the meter. Set the scale to 100, fill with a 40 NTU standard (AEPA-1 turbidity standard from Advanced Polymer Systems, Inc.), and insert into the instrument. Adjust the standardize control to give a readout of 200. Re-zero the instrument and repeat these steps with the scale set at 10 and 1 using 4.0 and 0.4 NTU standards, respectively. These standards are prepared by diluting aliquots of the 40 NTU standard.

# 16. Internal Quality Control Checks

QC data are necessary to determine precision and accuracy and to demonstrate the absence of interferences and/or contamination of field equipment. Field-based QC will comprise at least 10% of each data set generated and will consist of standards, replicates, spikes, and blanks. Field duplicates and field blanks will be analyzed by the laboratory as samples and will not necessarily be identified to the laboratory as duplicates or blanks. For each matrix, field duplicates will be provided at a rate of one per 10 samples collected or one per shipment, whichever is greater. Field blanks which consist of trip, routine field, and rinsate blanks will be provided at a rate of one per 20 samples collected for each parameter group, or one per shipment, whichever is greater.

Calculations will be performed for recoveries and standard deviations along with review of retention times, response factors, chromatograms, calibration, tuning, and all other QC information generated. All QC data, including split samples, will be documented in the site logbook. QC records will be retained and results reported with sample data.

# 16.1. Blank Samples

Blank samples are analyzed in order to assess possible contamination from the field and/or laboratory so that corrective measures may be taken, if necessary. Field samples are discussed in the following subsection:

### 16.2. Field Blanks

Various types of blanks are used to check the cleanliness of field handling methods. The following types of blanks may be used: the trip blank, the routine field blank, and the field equipment blank. They are analyzed in the laboratory as samples, and their purpose is to assess the sampling and transport procedures as possible sources of sample contamination. Field staff may add blanks if field circumstances are such that they consider normal procedures are not sufficient to prevent or control sample contamination, or at the direction of the project manager. Rigorous documentation of all blanks in the site logbooks is mandatory.

- Routine Field Blanks or bottle blanks are blank samples prepared in the field to access
  ambient field conditions. They will be prepared by filling empty sample containers with
  deionized water and any necessary preservatives. They will be handled like a sample and
  shipped to the laboratory for analysis.
- **Trip Blanks** are similar to routine field blanks with the exception that they are <u>not</u> exposed to field conditions. Their analytical results give the overall level of contamination from everything except ambient field conditions. For the RI/FS, one trip blank will be collected with every batch of water samples for volatile organic analysis. Each trip blank will be prepared by filling a 40-ml vial with deionized water prior to the sampling trip, transported to the site, handled like a sample, and returned to the laboratory for analysis without being opened in the field.
- **Field Equipment Blanks** are blank samples (sometimes called transfer blanks or rinsate blanks) designed to demonstrate that sampling equipment has been properly prepared and cleaned before field use, and that cleaning procedures between samples are sufficient to minimize cross contamination. If a sampling team is familiar with a particular site, they may be able to predict which areas or samples are likely to have the highest concentration of contaminants. Unless other constraints apply, these samples should be taken last to avoid

excessive contamination of sampling equipment.

# 16.3. Field Duplicates

Field duplicate samples consist of a set of two samples collected independently at a sampling location during a single sampling event. In some instances the field duplicate can be a blind duplicate, i.e., indistinguishable from other analytical samples so that personnel performing the analyses are not able to determine which samples are field duplicates. Field duplicates are designed to assess the consistency of the overall sampling and analytical system.

# 16.4. Quality Control Check Samples

Inorganic and organic control check samples are available from USEPA free of charge and are used as a means of evaluating analytical techniques of the analyst. Control check samples are subjected to the entire sample procedure, including extraction, digestion, etc., as appropriate for the analytical method utilized.

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# **Appendix 6**Health and Safety Plan



# Site Health and Safety Plan

Location:

Stuart Park Complex – Ultralife Battery 2000 Technology Parkway Newark, New York

Prepared For:

Ultralife Corporation 2000 Technology Parkway Newark, New York

LaBella Project No. 209025

January 2010

# Site Health and Safety Plan

# Location:

Stuart Park Complex – Ultralife Battery 2000 Technology Parkway Newark, New York

Prepared For:
Ultralife Corporation
2000 Technology Parkway
Newark, New York

LaBella Project No. 209025 January 2010

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# SITE HEALTH AND SAFETY PLAN

**Project Title:** Remedial Action Voluntary Cleanup Program Site #V00178-8 **Project Number:** 209025 **Project Location (Site):** 2000 Technology Parkway, Newark. New York **Environmental Director:** Gregory Senecal, CHMM **Project Manager:** Dan Noll, P.E. **Plan Review Date: Plan Approval Date:** Plan Approved By: Mr. Richard Rote, CIH **Site Safety Supervisor:** Mike Pelychaty **Site Contact:** To Be Determined **Safety Director:** Rick Rote, CIH Proposed Date(s) of Field Anticipated for April 2010 (may vary) **Activities: Site Conditions:** Slightly sloping, encompassing approximately 14.24 acres **Site Environmental** Prior Environmental Report by GeoQuest Environmental, Inc. **Information Provided By:** dated December 2008. Air Monitoring Provided By: LaBella Associates, P.C. **Site Control Provided By:** Contractor(s)

# **EMERGENCY CONTACTS**

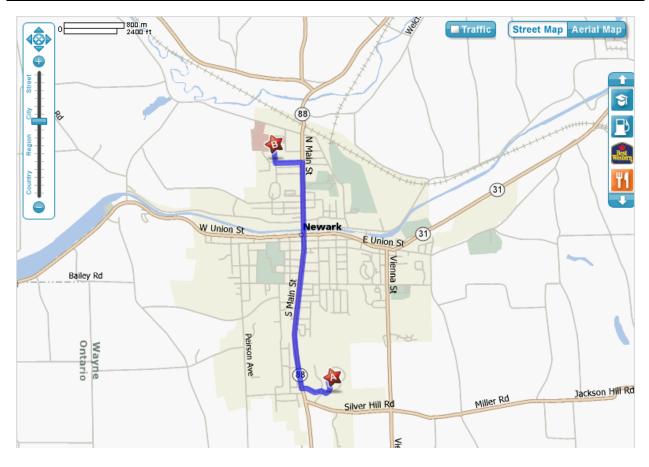
	Name	Phone Number
Ambulance:	As Per Emergency Service	911
Hospital Emergency:	Newark-Wayne Community Hospital	315-332-2022
Poison Control Center:	Finger Lakes Poison Control	585-273-3854
Police (local, state):	Newark Police Department	911
Fire Department:	Newark Fire Department	911
Site Contact:	John Diggory	Cell: 315-359-6329
Agency Contact:	NYSDEC – Charlotte Theobald Finger Lakes Poison Control NYSDOH – Melissa Menetti	585-226-5354 1-800-222-1222 1-800-458-1158 ext. 27860
Environmental Director:	Greg Senecal, CHMM	Direct: 585-295-6243 Cell: 585-752-6480 Home: 585-323-2142
Project Manager:	Dan Noll, P.E.	Direct: 585-295-611 Cell: 585-301-8458
Site Safety Supervisor:	Mike Pelychaty	Direct: 585-295-6253 Cell: 585-451-6225
Safety Director	Rick Rote, CIH	Direct: 585-295-6241

# MAP AND DIRECTIONS TO THE MEDICAL FACILITY NEWARK-WAYNE COMMUNITY HOSPITAL

Total Time: 8 minutes Total Distance: 2.9 miles

Start: 2000 Technology Parkway, Newark, NY

START	1.	Start out going SOUTH on Technology Parkway.	~500 ft.
	2.	At the traffic circle, take the 2nd exit and stay on Technology Pkwy.	0.2 mi
$\rightarrow$	3.	Turn right at S Main St/NY-88.	2.3 mi
<b>+</b>	4.	Turn left at Stuerwald Ave	0.2 mi
$\overline{\bullet}$	5.	Turn right at Driving Park Ave	0.2 mi
END	6.	End at 1200 Driving Park Ave, Newark, NY	
		Total Mileage/Time	~2.9 mi / 8 min



- iii -Site Health and Safety Plan Stuart Park Complex – Ultralife Battery 2000 Technology Parkway, Newark, New York LaBella Project No. 209025

# 1.0 Introduction

The purpose of this Health and Safety Plan (HASP) it to provide guidelines for responding to potential health and safety issues that may be encountered during the Remedial Action (RA) at the Site located at 2000 Technology Parkway in the Village of Newark, Wayne County, New York. This HASP only reflects the policies of LaBella Associates P.C. The requirements of this HASP are applicable to all approved LaBella personnel at the work site. This document's project specifications and the Community Air Monitoring Plan (CAMP) are to be consulted for guidance in preventing and quickly abating any threat to human safety or the environment. The provisions of the HASP were developed in general accordance with 29 CFR 1910 and 29 CFR 1926 and do not replace or supersede any regulatory requirements of the USEPA, NYSDEC, OSHA or and other regulatory body.

# 2.0 Responsibilities

This HASP presents guidelines to minimize the risk of injury to project personnel, and to provide rapid response in the event of injury. The HASP is applicable only to activities of approved LaBella personnel and their authorized visitors. The Project Manager shall implement the provisions of this HASP for the duration of the project. It is the responsibility of LaBella employees to follow the requirements of this HASP, and all applicable company safety procedures.

### 3.0 Activities Covered

The activities covered under this HASP are limited to the following:

- □ Management of environmental remediation activities
- □ Environmental Monitoring
- Collection of samples
- ☐ Management of excavated soil, sediments and water.

# 4.0 Work Area Access and Site Control

The contractor(s) will have primary responsibility for work area access and site control.

# 5.0 Potential Health and Safety Hazards

This section lists some potential health and safety hazards that project personnel may encounter at the project site and some actions to be implemented by approved personnel to control and reduce the associated risk to health and safety. This is not intended to be a complete listing of any and all potential health and safety hazards. New or different hazards may be encountered as site environmental and site work conditions change. The suggested actions to be taken under this plan are not to be substituted for good judgment on the part of project personnel. At all times, the Site Safety Officer has responsibility for site safety and his or her instructions must be followed.



# 5.1 Hazards Due to Heavy Machinery

#### **Potential Hazard:**

Heavy machinery including trucks, excavators, backhoes, etc will be in operation at the site. The presence of such equipment presents the danger of being struck or crushed. Use caution when working near heavy machinery.

#### **Protective Action:**

Make sure that operators are aware of your activities, and heed operator's instructions and warnings. Wear bright colored clothing and walk safe distances from heavy equipment. A hard hat, safety glasses and steel toe shoes are required.

### 5.2 Excavation Hazards

#### **Potential Hazard:**

Excavations and trenches can collapse, causing injury or death. Edges of excavations can be unstable and collapse. Toxic and asphyxiant gases can accumulate in confined spaces and trenches. Excavations that require working within the excavation will require air monitoring in the breathing zone (refer to Section 9.0).

Excavations left open create a fall hazard which can cause injury or death.

#### **Protective Action:**

Personnel must receive approval from the Project Manager to enter an excavation for any reason. Subsequently, approved personnel are to receive authorization for entry from the Site Safety Officer. Approved personnel are not to enter excavations over 4 feet in depth unless excavations are adequately sloped. Additional personal protective equipment may be required based on the air monitoring.

Personnel should exercise caution near all excavations at the site as it is expected that excavation sidewalls will be unstable.

Fencing and/or barriers accompanied by "no trespassing" signs should be placed around all excavations when left open for any period of time when work is not being conducted.

# 5.3 Cuts, Punctures and Other Injuries

#### Potential Hazard:

In any excavation or construction, work site there is the potential for the presence of sharp or jagged edges on rock, metal materials, and other sharp objects. Serious cuts and punctures can result in loss of blood and infection.

#### **Protective Action:**

The Project Manager is responsible for making First Aid supplies available at the work site to treat minor injuries. The Site Safety Officer is responsible for arranging the transportation of authorized on-site personnel to medical facilities when First Aid treatment in not sufficient. Do not move seriously injured workers. All injuries requiring treatment are to be reported to the Project Manager. Serious injuries are to be reported immediately to the Site Safety Officer

# 5.4 Injury Due to Exposure of Chemical Hazards

#### **Potential Hazards:**

Volatile organic vapors from petroleum products, chlorinated solvents or other chemicals may be encountered during excavation activities at the project work site. Inhalation of high concentrations of organic vapors can cause headache, stupor, drowsiness, confusion and other health effects. Skin contact can cause irritation, chemical burn, or dermatitis.

#### **Protective Action:**

The presence of organic vapors may be detected by their odor and by monitoring instrumentation. Approved employees will not work in environments where hazardous concentrations of organic vapors are present. Air monitoring (refer to Section 9.0) of the work area will be performed at least every 60 minutes or more often using a Photoionization Detector (PID). Personnel are to leave the work area whenever PID measurements of ambient air exceed 25 ppm consistently for a 5 minute period. In the event that sustained total volatile organic compound (VOC) readings of 25 ppm are encountered personnel should upgrade personal protective equipment to Level C (refer to Section 8.0) and an Exclusion Zone should be established around the work area to limit and monitor access to this area (refer to Section 6.0).

### 5.5 Injuries Due to Extreme Hot or Cold Weather Conditions

#### **Potential Hazards:**

Extreme hot weather conditions can cause heat exhaustion, heat stress and heat stroke or extreme cold weather conditions can cause hypothermia.

#### **Protective Action:**

Precaution measures should be taken such as dress appropriately for the weather conditions and drink plenty of fluid. If personnel should suffer from any of the above conditions, proper techniques should be taken to cool down or heat up the body and taken to the nearest hospital if needed.

# 5.6 Biological Hazards

#### **Potential Hazards:**

Biological hazards include insects, snakes, poisonous/irritant plants, and wild animals.

#### **Protective Action:**

Precaution measures should be taken to dress appropriately in order to avoid contact with biological hazards. Based on the location of the work and the heavy equipment employed, wild animals are not anticipated to be a significant concern; however, in the event wild animals are observed, personnel should avoid contact with animals and attempt to scare animals off (e.g., honking a horn or yelling). In the event animals are not deterred or appear rabid, the local game warden and/or NYSDEC should be contacted.

#### 6.0 Work Zones

In the event that conditions warrant establishing various work zones (i.e., based on hazards - Section 5.4), the following work zones should be established:

#### **Exclusion Zone (EZ):**

The EZ will be established in the immediate vicinity and adjacent downwind direction of site activities that elevate breathing zone VOC concentrations to unacceptable levels based on field screening. These site activities include contaminated soil excavation and soil sampling activities. If access to the site is required to accommodate non-project related personnel then an EZ will be established by constructing a barrier around the work area (yellow caution tape and/or construction fencing). The EZ barrier shall encompass the work area and any equipment staging/soil staging areas necessary to perform the associated work. The contractor(s) will be responsible for establishing the EZ and limiting access to approved personnel. Depending on the condition for establishing the EZ, access to the EZ may require adequate PPE (e.g., Level C).

### **Contaminant Reduction Zone (CRZ):**

The CRZ will be the area where personnel entering the EZ will don proper PPE prior to entering the EZ and the area where PPE may be removed. The CRZ will also be the area where decontamination of equipment and personnel will be conducted as necessary.

## 7.0 Decontamination Procedures

Upon leaving the work area, approved personnel shall decontaminate footwear as needed. Under normal work conditions, detailed personal decontamination procedures will not be necessary. Work clothing may become contaminated in the event of an unexpected splash or spill or contact with a contaminated substance. Minor splashes on clothing and footwear can be rinsed with clean water. Heavily contaminated clothing should be removed if it cannot be rinsed with water. Personnel assigned to this project should be prepared with a change of clothing whenever on site.

Personnel will use the contractor's disposal container for disposal of PPE.

# 8.0 Personal Protective Equipment

Generally, site conditions at this work site require level of protection of Level D or modified Level D. However, air monitoring will be conducted to determine if up-grading to Level C PPE is required (refer to Section 9.0). Descriptions of the typical safety equipment associated with Level D and Level C are provided below:

#### Level D:

Hard hat, safety glasses, rubber nitrile sampling gloves, steel toe construction grade boots, etc.

4



## Level C:

Level D PPE and full or ½-face respirator and tyvek suit (if necessary). [Note: Organic vapor cartridges are to be changed after each 8-hours of use or more frequently.]

# 9.0 Air Monitoring

According to 29 CFR 1910.120(h), air monitoring shall be used to identify and quantify airborne levels of hazardous substances and health hazards in order to determine the appropriate level of employee protection required for personnel working onsite. Air monitoring will consist at a minimum of the procedure listed below. Air monitoring instruments will be calibrated and maintained in accordance with the manufacturer's specifications.

The Air Monitor will utilize a photoionization Detector (PID) to screen the ambient air in the work areas (excavation, soil staging, and soil grading areas) for total Volatile Organic Compounds (VOCs) and a DustTrak tm Model 8520 aerosol monitor or equivalent for measuring particulates. Work area ambient air will generally be monitored in the work area and downwind of the work area. Air monitoring of the work areas and downwind of the work areas will be performed at least every 60 minutes or more often using a PID, and the DustTrak meter.

If sustained PID readings of greater than 25 ppm are recorded in the breathing zone, then either personnel are to leave the work area until satisfactory readings are obtained or approved personnel may re-enter the work areas wearing at a minimum a ½ face respirator with organic vapor cartridges for an 8-hour duration (i.e., upgrade to Level C PPE). Organic vapor cartridges are to be changed after each 8-hours of use or more frequently, if necessary. If PID readings are sustained, in the work area, at levels above 50 ppm for a 5 minute average, work will be stopped immediately until safe levels of VOCs are encountered or additional PPE will be required (i.e., Level B).

If dust concentrations exceed the upwind concentration by  $100 \,\mu\text{g/m}^3$  (0.1 mg/m³) consistently for a 10 minute period within the work area or at the downwind location, then LaBella personnel may not re-enter the work area until dust concentrations in the work area decrease below  $100 \,\mu\text{g/m}^3$  (0.1 mg/m³), which may be accomplished by the construction manager implementing dust control or suppression measures.

# 10.0 Emergency Action Plan

In the event of an emergency, employees are to turn off and shut down all powered equipment and leave the work areas immediately. Employees are to walk or drive out of the Site as quickly as possible and wait at the assigned 'safe area'. Follow the instructions of the Site Safety Officer.

Employees are not authorized or trained to provide rescue and medical efforts. Rescue and medical efforts will be provided by local authorities.

# 11.0 Medical Surveillance

Medical surveillance will be provided to all employees who are injured due to overexposure from an emergency incident involving hazardous substances at this site.

# 12.0 Employee Training

Personnel who are not familiar with this site plan will receive training on its entire content and organization before working at the Site.

Individuals directly involved with the remedial work will be 40-hour OSHA HAZWOPER trained with current 8-hour refresher certification.

 $Y: \label{thm:local_corporation} Y: \label{thm:local_corporation$ 

Table 1 **Exposure Limits and Recognition Qualities** 

Compound	PEL-TWA (ppm)(b)(d)	TLV-TWA (ppm)(c)(d)	STEL (ppm)(b)	LEL (%)(e)	UEL (%)(f)	IDLH (ppm)(g)(d)	Odor	Odor Threshold (ppm)	Ionization Potential
Acetone	750	500	NA	2.15	13.2	20,000	Sweet	4.58	9.69
Anthracene	.2	.2	NA	NA	NA	NA	Faint aromatic	NA	NA
Benzene	1	0.5	5	1.3	7.9	3000	Pleasant	8.65	9.24
Benzo (a) pyrene (coal tar pitch	0.2	0.1	NA	NA	NA	700	NA	NA	NA
volatiles)									
Benzo (a)anthracene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo (b) Fluoranthene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo (g,h,i)perylene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo (k) Fluoranthene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	NA	NA	NA	NA	NA	NA	NA	NA	10.88
Carbon Disulfide	20	1	NA	1.3	50	500	Odorless or strong	.096	10.07
							garlic type		
Chlorobenzene	75	10	NA	1.3	9.6	2,400	Faint almond	0.741	9.07
Chloroform	50	2	NA	NA	NA	1,000	ethereal odor	11.7	11.42
Chrysene	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethylene	200	200	NA	9.7	12.8	400	Acrid	NA	9.65
1,2-Dichlorobenzene	50	25	NA	2.2	9.2		Pleasant		9.07
Ethylbenzene	100	100	NA	1.0	6.7	2,000	Ether	2.3	8.76
Fluoranthene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	500	50	NA	12	23	5,000	Chloroform-like	10.2	11.35
Naphthalene	10, Skin	10	NA	0.9	5.9	250	Moth Balls	0.3	8.12
n-propylbenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	NA	NA	NA	NA	NA	NA	NA	NA	NA
p-Isopropylbenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA
sec-Butylbenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethane	NA	NA	NA	NA	NA	NA	Sweet	NA	NA
Toluene	100	100	NA	0.9	9.5	2,000	Sweet	2.1	8.82
Trichloroethylene	100	50	NA	8	12.5	1,000	Chloroform	1.36	9.45
1,2,4-Trimethylbenzene	NA	25	NA	0.9	6.4	NA	Distinct	2.4	NA
1,3,5-Trimethylbenzene	NA	25	NA	NA	NA	NA	Distinct	2.4	NA
Vinyl Chloride	1	1	NA	NA	NA	NA	NA	NA	NA
Xylenes (o,m,p)	100	100	NA	1	7	1,000	Sweet	1.1	8.56
Metals	22					,,,,,,			
Arsenic	0.01	0.2	NA	NA	NA	100, Ca	Almond		NA
Cadmium	0.2	0.5	NA	NA	NA	,			NA
Chromium	1	0.5	NA NA	NA	NA				NA
Lead	0.05	0.15	NA	NA	NA	700			NA
Mercury	0.05	0.05	NA NA	NA NA	NA NA	28	Odorless		NA
Selenium	0.03	0.02	NA NA	NA NA	NA NA	Unknown	Odorioss		NA
Solomum	0.2	0.02	11/1	11/1	11/11	Chichown			11/1

- Skin = Skin Absorption
  OSHA-PEL Permissible Exposure Limit (flame weighted average, 8-hour): NIOSH Guide, June 1990
  ACGIH 8 hour time weighted average from Threshold Limit Values and Biological Exposure Indices for 2003. (b) (c) (d) (e) (f) (g)

- Metal compounds in mg/m3
  Lower Exposure Limit (%)
  Upper Exposure Limit (%)
  Immediately Dangerous to Life or Health Level: NIOSH Guide, June 1990.

- All values are given in parts per million (PPM) unless otherwise indicated.
   Ca = Possible Human Carcinogen, no IDLH information.



**Appendix 7**Site-Wide Inspection For



300 State Street

Rochester, New York 14614 Phone: (585) 454-6110 Fax: (585) 454-3066

#### SITE-WIDE INSPECTION FORM

Project Name: NYSDEC Site No. V00178-8

Location: Ultralife Corporation, 2000 Technology Parkway, Newark,

New York 14513

Project No.: 209025

Inspected By:

Date of Inspection:

Weather Conditions:

1. COMMNETS ON GENERAL SITE CONDITIONS:						
A CUIDDENTELIGE OF CITE						
2. CURRENT USE OF SITE:						
3. ARE CURRENT SOIL CONDITIONS IN ACCORDANCE WITH THE EXCAVATION WORK PLAN? YES/NO						
If No, Explain and indicate actions to be taken:						
4. PHOTOGRAPHS TAKEN OF OUTFALL AREAS? YES/NO						
4.THOTOGRAPHS TAKEN OF OUTFALL AREAS: TES/NO						
5. SITE RECORDS UP TO DATE? YES/NO						
COMMENTS AND/OR ACTIONS TAKEN						

Y:\Ultralife Corporation\209025\Reports\SMP\SITE INSPECTION FORM.docx



# **Appendix 8**Community Air Monitoring Plan

## Appendix 1A New York State Department of Health Generic Community Air Monitoring Plan

#### Overview

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 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 DEC/NYSDOH staff.

**Continuous monitoring** will be required for all <u>ground intrusive</u> 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 <u>non-intrusive</u> 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

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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, particularly if wind direction changes. 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.

- 1. 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.
- 2. 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.
- 3. If the organic vapor level is above 25 ppm at the perimeter of the work area, activities must be shutdown.
- 4. All 15-minute readings must be recorded and be available for State (DEC and NYSDOH) 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.

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- 1. 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.
- 2. 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.
- 3. All readings must be recorded and be available for State (DEC and NYSDOH) and County Health personnel to review.

December 2009

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### Appendix 1B **Fugitive Dust and Particulate Monitoring**

A program for suppressing fugitive dust and particulate matter monitoring at hazardous waste sites is a responsibility on the remedial party performing the work. These procedures must be incorporated into appropriate intrusive work plans. The following fugitive dust suppression and particulate monitoring program should be employed at sites during construction and other intrusive activities which warrant its use:

- Reasonable fugitive dust suppression techniques must be employed during all site activities which may generate fugitive dust.
- Particulate monitoring must be employed during the handling of waste or contaminated soil or when activities on site may generate fugitive dust from exposed waste or contaminated soil. Remedial activities may also include the excavation, grading, or placement of clean fill. These control measures should not be considered necessary for these activities.
- Particulate monitoring must be performed using real-time particulate monitors and shall monitor particulate matter less than ten microns (PM10) with the following minimum performance standards:
  - (a) Objects to be measured: Dust, mists or aerosols;
  - (b) Measurement Ranges: 0.001 to 400 mg/m3 (1 to 400,000 :ug/m3);
- (c) Precision (2-sigma) at constant temperature: +/- 10 :g/m3 for one second averaging; and +/- 1.5 g/m3 for sixty second averaging;
  - (d) Accuracy: +/- 5% of reading +/- precision (Referred to gravimetric calibration with SAE fine test dust (mmd= 2 to 3 :m, g= 2.5, as aerosolized);
    - (e) Resolution: 0.1% of reading or 1g/m3, whichever is larger;
    - (f) Particle Size Range of Maximum Response: 0.1-10;
    - (g) Total Number of Data Points in Memory: 10,000;
- (h) Logged Data: Each data point with average concentration, time/date and data point number
- (i) Run Summary: overall average, maximum concentrations, time/date of maximum, total number of logged points, start time/date, total elapsed time (run duration), STEL concentration and time/date occurrence, averaging (logging) period, calibration factor, and tag number;
- Alarm Averaging Time (user selectable): real-time (1-60 seconds) or STEL (15 minutes), alarms required;
  - (k) Operating Time: 48 hours (fully charged NiCd battery); continuously with charger;
  - (l) Operating Temperature: -10 to 50° C (14 to 122° F);
- (m) Particulate levels will be monitored upwind and immediately downwind at the working site and integrated over a period not to exceed 15 minutes.
- In order to ensure the validity of the fugitive dust measurements performed, there must be 4. appropriate Quality Assurance/Quality Control (QA/QC). It is the responsibility of the remedial party to adequately supplement QA/QC Plans to include the following critical features: periodic instrument calibration, operator training, daily instrument performance (span) checks, and a record keeping plan.
  - The action level will be established at 150 ug/m3 (15 minutes average). While conservative, 5.

this short-term interval will provide a real-time assessment of on-site air quality to assure both health and safety. If particulate levels are detected in excess of 150 ug/m3, the upwind background level must be confirmed immediately. If the working site particulate measurement is greater than 100 ug/m3 above the background level, additional dust suppression techniques must be implemented to reduce the generation of fugitive dust and corrective action taken to protect site personnel and reduce the potential for contaminant migration. Corrective measures may include increasing the level of personal protection for on-site personnel and implementing additional dust suppression techniques (see paragraph 7). Should the action level of 150 ug/m3 continue to be exceeded work must stop and DER must be notified as provided in the site design or remedial work plan. The notification shall include a description of the control measures implemented to prevent further exceedances.

- 6. It must be recognized that the generation of dust from waste or contaminated soil that migrates off-site, has the potential for transporting contaminants off-site. There may be situations when dust is being generated and leaving the site and the monitoring equipment does not measure PM10 at or above the action level. Since this situation has the potential to allow for the migration of contaminants off-site, it is unacceptable. While it is not practical to quantify total suspended particulates on a real-time basis, it is appropriate to rely on visual observation. If dust is observed leaving the working site, additional dust suppression techniques must be employed. Activities that have a high dusting potentialsuch as solidification and treatment involving materials like kiln dust and lime--will require the need for special measures to be considered.
- The following techniques have been shown to be effective for the controlling of the generation and migration of dust during construction activities:
  - (a) Applying water on haul roads:
  - (b) Wetting equipment and excavation faces;
  - (c) Spraying water on buckets during excavation and dumping;
  - (d) Hauling materials in properly tarped or watertight containers;
  - (e) Restricting vehicle speeds to 10 mph;
  - (f) Covering excavated areas and material after excavation activity ceases; and
  - (g) Reducing the excavation size and/or number of excavations.

Experience has shown that the chance of exceeding the 150ug/m3 action level is remote when the above-mentioned techniques are used. When techniques involving water application are used, care must be taken not to use excess water, which can result in unacceptably wet conditions. Using atomizing sprays will prevent overly wet conditions, conserve water, and provide an effective means of suppressing the fugitive dust.

The evaluation of weather conditions is necessary for proper fugitive dust control. When extreme wind conditions make dust control ineffective, as a last resort remedial actions may need to be suspended. There may be situations that require fugitive dust suppression and particulate monitoring requirements with action levels more stringent than those provided above. Under some circumstances, the contaminant concentration and/or toxicity may require additional monitoring to protect site personnel and the public. Additional integrated sampling and chemical analysis of the dust may also be in order. This must be evaluated when a health and safety plan is developed and when appropriate suppression and monitoring requirements are established for protection of health and the environment.

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Appendix 9
Deed Restriction



## **Wayne County Clerk's Office**

**Recording Page** 

Receipt Number: 11-10640

**Declaration Covenants** 

Instrument Number: R9128382

Date/Time: 06/06/2011 11:51 AM

First OR: ULTRALIFE CORPORATION

First EE: NO GRANTEE

Town: ARCADIA TOWN OF Town: NEWARK VILLAGE

Pages: 6

Employee ld: md Serial Number:

Transfer Tax Number:

State of New York County of Wayne

-FEES-

Recording and Filing

Transfer Tax \$0.00

\$70.00

\$0.00

Basic Tax Local Tax Additional Tax Special Tax

Withheld

Total \$70.00

-MORTGAGE TAX-

**Amount Taxed** 

-TRANSFER TAX-Consideration Amount

\*\*\* WARNING - This sheet constitutes the Clerks endorsement required by Section 319 of the Real Property Law of the State of New York.

**Wayne County Clerk** 

\*\*\*DO NOT DETACH\*\*\*
\*\*\*THIS IS NOT A BILL\*\*\*

#### **DECLARATION of COVENANTS and RESTRICTIONS**

WAYNE COU (formerly known as Ultralife Batteries, Inc. and hereinafter "Ultralife"), a corporation organized and existing under the laws of the State of Delaware and having an office for the transaction of business at 2000 Technology Parkway (formerly 1350 Route 88 South), Newark, New York 14513.

WHEREAS, Ultralife owns a parcel of real property at 1350 Route 88 South (new address 2000 Technology Parkway) in the Village of Newark, County of Wayne, State of New York, Tax ID Map 14 Parcel 499340 (formerly Tax Map Parcel No. 36110-14-423352.3) (the "Property"), which Property was conveyed by the Wayne County Industrial Development Agency to Ultralife Batteries, Inc, (now known as Ultralife Corporation) by deed dated February 14, 2008 and recorded in the Wayne County Clerk's Office as electronic instrument number R9093873; and

WHEREAS, a portion of the Property is the subject of Voluntary Cleanup Program Agreement No. B8-0537-98-08 ("Voluntary Agreement"), dated January 8, 2001, executed by Ultralife Batteries, Inc. as part of the New York State Department of Environmental Conservation's (the "Department") Voluntary Cleanup Program; the Property and the Voluntary Cleanup Program Site (the "VCP Site") are more particularly described on the survey attached to this Declaration in Appendix "A"; and

WHEREAS, the Department approved a remedy for the VCP Site which is protective of public health and the environment for the Contemplated Use as defined in the Voluntary Agreement and such remedy requires that the Property be subject to certain restrictive covenants.

NOW, THEREFORE, Ultralife, for itself and its successors and/or assigns, covenants that:

First, the VCP Site subject to this Declaration of Covenants and Restrictions is as shown on the survey attached to this Declaration as Appendix "A" ("VCP Site" is identified on the survey) and made a part hereof.

Second, unless prior written approval is first obtained from the Department or, if the Department shall no longer exist, any New York State agency or agencies subsequently created to protect the environment of the State and the health of the State's citizens, hereinafter referred to as "the Relevant Agency", any future construction, use or occupancy at the VCP Site which involves disturbance or excavation below the top two feet of the soil cover system, must be conducted in accordance with the Department approved Site Management Plan (described below).

Third, unless the owner first obtains permission to discontinue such controls from the Department or Relevant Agency, the owner of the VCP Site shall continue in full force and

effect this deed restriction, and the engineering controls required for the remedy, and shall comply with the Department approved Site Management Plan ("SMP") (and modifications as approved by the Department or Relevant Agency) which describes the engineering controls required. The SMP is incorporated into this Declaration and made enforceable hereto.

An up-to-date version of the SMP may be obtained from:

Regional Remediation Engineer: or Region 8 NYS DEC 6274 East Avon-Lima Road East Avon, NY 14414 Site Control Section Division of Environmental Remediation NYS DEC 625 Broadway Albany, NY 12233

Fourth, the owner of the VCP Site is permitted to use the VCP Site for commercial or industrial purposes but shall be prohibited from using the VCP Site for other purposes without the express written waiver of such prohibition by the Department or Relevant Agency.

Fifth, the owner of the VCP Site shall prohibit the use of the groundwater underlying the VCP Site without treatment rendering it safe for drinking water or industrial purposes, as appropriate, unless the user first obtains permission to do so from the Department or Relevant Agency.

Sixth, the owner of the VCP Site shall allow the Department, its agents, employees, or other representatives of the State to enter and inspect the VCP Site in a reasonable manner and at reasonable times to assure compliance with the above-stated restrictions.

Seventh, the owner of the VCP Site shall submit to the Department an annual written statement by an expert the Department finds acceptable certifying that the controls at the VCP Site are unchanged from the previous certification, or that any changes to the controls were approved by the Department or the Relevant Agency, and that nothing has occurred that would impair the ability of such controls to protect the public health or the environment.

Eighth, this Declaration is and shall be deemed a covenant that shall run with the land and shall be binding upon all future owners of the VCP Site, and shall provide that the owner and its successors and assigns consent to enforcement by the Department or Relevant Agency of the prohibitions and restrictions required to be recorded, and hereby covenant not to contest the authority of the Relevant Agency to seek enforcement.

Ninth, any deed of conveyance of the VCP Site, or any portion thereof, shall recite, unless the Department or Relevant Agency has consented to the termination of such covenants and restrictions, that said conveyance is subject to this Declaration of Covenants and Restrictions.

IN WITNESS WHEREOF, the undersigned has executed this instrument the day written below.

**Ultralife Corporation** 

Peter F. Comerford

Secretary

STATE OF NEW YORK

) ss:

**COUNTY OF WAYNE** 

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On the 24<sup>th</sup> day of May, in the year 2011, before me the undersigned, personally appeared Peter F. Comerford, personally known to me or proved to me on the basis of satisfactory evidence to be the individual whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his capacity, and that by his signature on the instrument, the individual, or the person upon behalf of which the individual acted, executed the instrument.

Notary Public, State of New York

WANDA A. VANDERLEE
Notary Public in the State of New York

Wayne County

Commission Expires December 15, 4