ORANGE COUNTY
DEPARTMENT OF PARKS,
RECREATION AND CONSERVATION

Site Investigation/ Remedial Alternatives Report

Glenmere Lake Property
Orange County, New York

NYSDEC ERP Site No. E3-36-071

February 2011

Dvirka and Bartilucci CONSULTING ENGINEERS

SITE INVESTIGATION/
REMEDIAL ALTERNATIVES REPORT
GLENMERE LAKE PROPERTY
ORANGE COUNTY, NEW YORK

NYSDEC ERP SITE NO. E3-36-071

Prepared for:

ORANGE COUNTY
DEPARTMENT OF PARKS, RECREATION AND CONSERVATION

Prepared by:

DVIRKA AND BARTILUCCI CONSULTING ENGINEERS
WOODBURY, NEW YORK

FEBRUARY 2011

CERTIFICATIONS

I, Brian M. Veith, certify that I am currently a New York State (NYS) registered Professional Engineer and that this report was prepared in accordance with all applicable statutes and regulations and in substantial conformance with the Division of Environmental Remediation (DER) Technical Guidance for Site Investigation and Remediation (DER-10) and that all activities were performed in full accordance with the DER-approved work plan and any DER-approved modifications.

071687	2/17/11	Brian Veith
NYS Professional Engineer #	Date	Signature

SITE INVESTIGATION/REMEDIAL ALTERNATIVES REPORT
GLENMERE LAKE PROPERTY
ORANGE COUNTY, NEW YORK

TABLE OF CONTENTS

TABLE OF CONTENTS (continued)

TABLE OF CONTENTS (continued)

List of Appendices

List of Figures

List of Tables

List of Drawings

EXECUTIVE SUMMARY

The County of Orange, New York (Orange County) completed a Site Investigation and Remedial Alternatives analysis of the Glenmere Lake Property (the Site) under the New York State Department of Environmental Conservation (NYSDEC) Environmental Restoration Program (ERP). This project was completed in accordance with the NYSDEC-approved Work Plan dated July 2008. The basic objectives of this project included:

- Investigate the identified environmental concerns associated with the Site and determine if they have resulted in surface and subsurface contamination and evaluate the extent of contamination, if any.
- Evaluate local soil and groundwater quality to assess if chemical concerns exist relative to applicable NYSDEC standards and guidelines.
- Identify potential migration pathways of any identified contamination from the point of discharge to soil, groundwater, surface water and sediment.
- Identify potential human and environmental exposure pathways associated with identified contamination, if any.
- Select appropriate remedial actions needed to address site-related contamination and to eliminate or mitigate impacts to potential human and ecological receptors.

This report provides a detailed description of the investigation scope, its findings and recommended remedial actions.

The Site is owned by Orange County and is located on Pine Hill Road in the Town of Chester, Orange County, New York. The 9.9-acre site is partially secured with a 6-foot chain-link fence and borders the northeast end of the 350-acre Glenmere Lake, which serves as the Village of Florida's drinking water supply. The Site was formally a part of a larger estate complex but is currently overgrown with four dilapidated buildings and foundations located in the westernmost portion of the Site. A concrete and stone building, formerly used as a pump house, is located in the eastern portion of the Site. Located throughout the Site is miscellaneous debris, such as automotive parts, metal containers, appliances (white metal), wood scraps and

roofing shingles. The highest concentration of this material is located south of the dilapidated buildings.

It should be noted that four underground storage tanks (USTs) and one aboveground storage tank (AST), along with associated contaminated soil was removed from the Site as part of an interim remedial measure (IRM) completed in July and August 2010. This work was conducted prior to overall site remediation due to the potential for environmental damage as a result of the potential leakage from these tanks. A total of 473 gallons of oily water was removed from two of the USTs and a total of approximately 200 tons of soil was removed from the Site.

Glenmere Lake contains one of the largest known populations of the Northern Cricket Frog (*Acris crepitans*) in Orange County and possibly in the state of New York. The cricket frog is listed as an endangered species in the State of New York. In order to ensure that the investigation and remediation of the Site did not harm the frogs or their habitat, a study was completed in April and May 2008 prior to undertaking the project. While cricket frogs were observed on the easternmost portion of the Site, no cricket frogs were observed or captured in the western portion of the Site or in the vicinity of the dilapidated buildings.

The dilapidated buildings located in the western portion of the Site have been found to contain asbestos-containing material and lead-based paint. Furthermore, the buildings have collapsed or have partially collapsed. Based on these conditions, the existing buildings represent a potential hazard to personnel who may enter the Site and to wildlife. Surface soil and shallow subsurface soil samples collected from within the area and downgradient of the dilapidated buildings were found to contain metals (primarily, lead and arsenic) at concentrations in excess of ecological and commercial Soil Cleanup Objectives (SCOs). Given the shallow nature of the metal contaminants, they are potentially accessible to the public and wildlife, and therefore represent a potential exposure pathway.

Site-related contaminants were not detected above the applicable SCGs in filtered groundwater samples collected from groundwater probes.

Sediment samples collected from Glenmere Lake downgradient of the dilapidated buildings contain elevated concentrations of several metals, including lead, arsenic, mercury and copper. While direct exposure to humans is not expected, aquatic organisms will be exposed to these contaminants under current conditions. Water quality testing performed by the Village of Florida does not indicate the Site is having an impact on the public water supply that originates from Glenmere Lake.

Based on a detailed analysis of three different remedial alternatives, which is detailed in this report, it is recommended that the remediation of the Glenmere Lake Property include the abatement, demolition and off-site removal of all existing on-site structures. Asbestos containing material and lead-based paint will require abatement prior to the demolition of the structures. Where a building to be demolished is ruled structurally unsafe by a competent official, the building demolition will have to be performed as an asbestos project in compliance with Industrial Code Rule 56.

After completing the building demolition, all on-site soil that exceeds ecological SCOs for metals will be excavated. Based on the results of the surface soil sampling, the area to be excavated (including the building footprints) is estimated to be approximately 64,000 square feet. The surface soil sampling indicated that the highest levels of metals were detected in surface soil. Therefore, soil from the entire area will be excavated to a minimum of 6 inches below grade. Based on the results from deeper soil sampling, shallow subsurface soil in portions of the Site may also require excavation up to 2 feet in depth. Based on these depths, the volume of soil requiring excavation is estimated to be approximately 2,000 cubic yards.

All excavated soil will be temporarily stockpiled on-site. Excavated soil with the highest levels of contamination (i.e., containing contaminants greater than commercial SCOs) will be subsequently disposed off-site. Soil containing contaminants less than commercial SCOs will be backfilled on-site within available sub-grade basements, and covered with a demarcation layer and two feet of clean soil. Any soil that cannot be accommodated by the sub-grade basements will be disposed off-site. Excavations will be filled to grade with clean soil.

Due to the potential of generating dust during implementation of the recommended alternative, the use of dust controls and air monitoring will be necessary. Once the buildings are demolished and the soil is removed, the Site will be restored. Since residual contamination will remain that is above unrestricted SCOs, institutional controls, including groundwater monitoring, an environmental easement which would restrict the future use of the Site and preparation of a Site Management Plan will be required.

1.0 INTRODUCTION

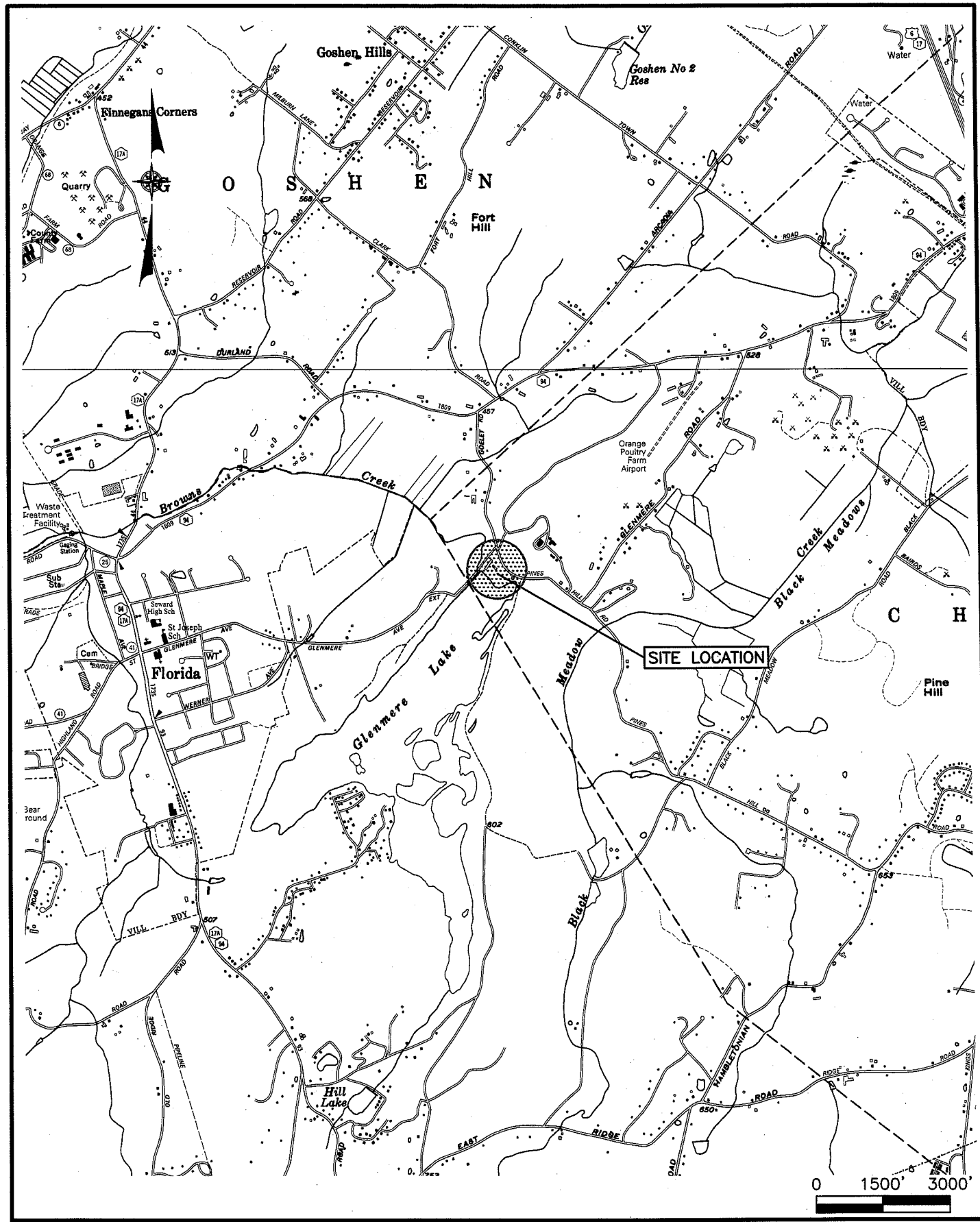
1.1 Project Background and Chronology

Under the New York State Department of Environmental Conservation's (NYSDEC's) Environmental Restoration Program (ERP), the County of Orange, New York (Orange County) retained Dvirka and Bartilucci Consulting Engineers (D&B) to provide environmental consulting services related to the investigation and remediation of the Glenmere Lake Property (i.e., the Site), located in the Town of Chester, Orange County, New York. A site location map is provided as Figure 1-1.

Note that, since initiating the project in February 2008, the project scope of work has evolved in response to NYSDEC direction and the findings of the completed site investigations. The original contract scope of work included undertaking the following project phases in the following order:

- Work Element I - Interim Remedial Measure (IRM);
- Work Element II - Site Investigation and Remedial Alternatives Report; and
- Work Element III - Remedial Design Work Plan and Report.

However, during the March 2008 project kickoff meeting, representatives of the NYSDEC Division of Fish, Wildlife and Marine Resources directed Orange County to perform an intensive amphibian survey of the Site specific to the Northern Cricket Frog before proceeding with the planned work. Furthermore, the NYSDEC required the survey to be underway before the anticipated emergence of the Cricket Frogs from their wintering areas, which was expected by early spring. D&B was successful in meeting this deadline by quickly selecting a subconsultant to execute the survey (with input and approval from Orange County and the NYSDEC) and having the survey underway by April 9, 2008. The fieldwork related to the survey was completed by mid-May 2008, and a draft report was provided to the NYSDEC for review by the end of May 2008. After addressing comments from the NYSDEC, the Cricket Frog Report was finalized in June 2008 and is provided as Appendix A.



Dvirka and Bartilucci
CONSULTING ENGINEERS
A DIVISION OF WILLIAM F. COSULICH ASSOCIATES, P.C.

GLENMERE LAKE PROPERTY
ORANGE COUNTY, NEW YORK

SITE LOCATION MAP

FIGURE 1-1

The development of the IRM work plan under Work Element I was delayed in order to incorporate the findings of the completed Cricket Frog survey. For similar reasons, it was agreed that the site investigation (Work Element II) would also be completed prior to the development of the IRM work plan. The site investigation was completed in October 2008 in accordance with the NYSDEC-approved July 2008 Site Investigation/Remedial Alternatives Work Plan, as modified by the NYSDEC and New York State Department of Health (NYSDOH) September 2008 comment letter. The investigation included sediment, soil and groundwater sample collection and laboratory analysis, an asbestos and lead-based paint survey, and a Fish and Wildlife Impact Analysis.

Following the site investigation, D&B submitted a draft IRM work plan to the NYSDEC in January 2009 as part of Work Element I. The IRM work plan described the planned IRM, which included the demolition of on-site structures, the removal of aboveground and underground storage tanks, and the excavation and off-site disposal of shallow soil found to contain elevated levels of lead and several other heavy metals during the October 2008 site investigation. The IRM work plan also summarized the findings of the Cricket Frog survey and the October 2008 site investigation. The NYSDEC and NYSDOH provided comments on the draft IRM work plan by March 2009. D&B addressed the comments and finalized the IRM work plan in April 2009, with the NYSDEC providing final approval in June 2009. D&B developed contract plans and specifications on a parallel track with the drafting of the IRM work plan, for Orange County. The plans and specifications were to be used in procuring contractors to implement the IRM work and were provided to the NYSDEC and NYSDOH in May 2009.

Based on NYSDEC comments on the IRM work plan, D&B completed supplemental sampling of shallow soil and Glenmere Lake sediments during the third week of May 2009 in order to further delineate the presence of several metals detected at elevated concentrations during the October 2008 site investigation. Based on the results of the supplemental sampling presented to the NYSDEC on June 26, 2009 and discussions during a July 7, 2009 conference call between the NYSDEC, NYSDOH, Orange County and D&B, it was agreed that the most efficient approach to remediating the Site was to modify and, where necessary, expand the IRM scope of work to address all site remediation requirements. In order to evaluate potential

remedial options and to select the final full site remedy, the NYSDEC directed Orange County to proceed with the development of this Site Investigation/Remedial Alternatives (SI/RA) Report, which originally was to be completed after undertaking the IRM.

On July 31, 2009, NYSDEC requested that several additional soil samples be collected at the Site between the site structures and the shoreline of Glenmere Lake to further define the extent of metal impacts. This additional sampling was completed on August 7, 2009 and associated analytical data was provided to the NYSDEC and Orange County on August 26, 2009.

In September 2009, the NYSDEC suggested to Orange County that the removal of the underground and aboveground tanks that was to be completed as part of the original IRM be completed in 2010, given there were ERP funds currently available to complete this work. In October 2009, Orange County agreed to remove all accessible USTs and ASTs located on the Site, which was completed in July and August 2010. This work included removal of contaminated soil associated with the tanks, as well as oily water present in two of the USTs. Additional detail is provided in Section 5.1. The tank removal is documented in the February 2011 Construction Completion Report, included in electronic format as Appendix G.

1.2 SI/RA Report Outline

This SI/RA report summarizes all field and chemical data generated by the sampling events and wildlife surveys described above, and has been completed in accordance with the requirements set forth in the NYSDEC's ERP Procedures Handbook, as well as NYSDEC's DER-10. The SI/RA report includes the following information:

- Background information regarding the Site;
- A description of field investigation activities performed;
- Investigation/analytical results and data validation/usability evaluation;
- Identification and location of contaminants;

- Comparison of contaminant concentrations to standards, criteria and guidelines (SCGs);
- A summary of the findings of the asbestos/lead-based paint survey;
- A Fish and Wildlife Impact Analysis;
- Assessment of potential contaminant migration pathways and potential impacts on human and environmental receptors/exposure assessment; and
- Conclusions regarding the significance of the findings.

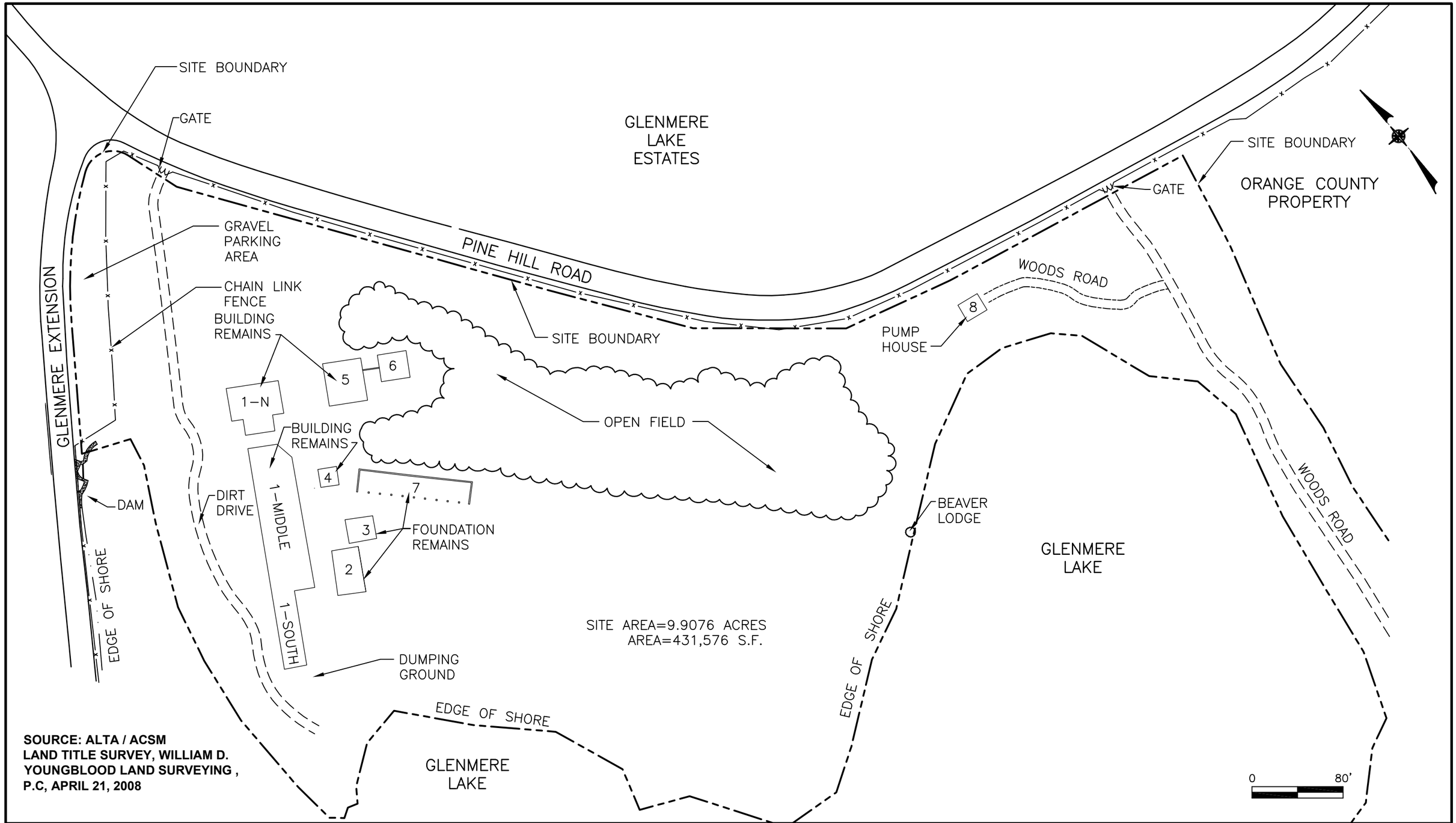
In addition, this SI/RA Report provides an analysis of potential remedial alternatives that could be utilized in the remediation of documented contamination along with recommendations for site remediation. With the exception of the storage tank removal which has been previously completed, this report incorporates the planned IRM activities described in the April 2009 IRM work plan, and therefore consolidates all recommended remedial activities in this document.

1.3 Site Description

Details concerning the Glenmere Lake Property are limited to a brief description provided by Orange County and on-site observations made by D&B. Note that during the planning stage of this project, D&B formally requested information from the Orange County Department of Health, as well as the NYSDEC, concerning the environmental history of the Site. However, D&B was informed by these agencies that such records were not available.

The Site is owned by Orange County and is located on Pine Hill Road in the Town of Chester, Orange County, New York (see Figure 1-1). The 9.9-acre site borders the northeast end of the 350-acre Glenmere Lake, which serves as the Village of Florida's drinking water supply.

The Site is an overgrown parcel with a number of dilapidated buildings and foundations located in the westernmost portion of the Site. A site plan is provided as Figure 1-2. The 9.9-acre site is partially secured with a 6-foot chain link fence with two locked gates located on Pine Hill Road as shown on Figure 1-2. In addition to the existing dilapidated buildings, there



SOURCE: ALTA / ACSM LAND TITLE SURVEY, WILLIAM D. YOUNGBLOOD LAND SURVEYING , P.C, APRIL 21, 2008

\\Nt4\cadwork\2777\2777-PL02.dwg, 2/18/2011 4:46:40 PM, dbcadd

Dvirka and Bartilucci CONSULTING ENGINEERS
A DIVISION OF WILLIAM F. COSULICH ASSOCIATES, P.C.

GLENMERE LAKE ENVIRONMENTAL SITE RESTORATION
ORANGE COUNTY DEPARTMENT OF PARKS, RECREATION AND CONSERVATION

SITE PLAN

FIGURE 1-2

are at least three concrete structures in this area of the Site that were likely foundations for other former buildings/structures. It is assumed that these structures have completely deteriorated over time to where only the foundations remain. A fourth concrete structure was also present in this area that served as a vault for a 5,000-gallon UST. The vault and the UST were removed as part of a tank removal IRM completed in July and August 2010.

The four dilapidated buildings include a house, a milk barn and two connected structures with a smaller barn area and a garage area with below-grade stairs. In addition, a concrete and stone building, formerly used as a pump house, is located in the eastern portion of the Site. Located throughout the Site is miscellaneous debris, such as automotive parts, metal containers, appliances (white metal), wood scraps and roofing shingles. The highest concentration of this material is located south of the dilapidated buildings as shown on Figure 1-2.

According to Orange County, there are no known underground utilities servicing the Site. Based on recent site visits, electrical power appears to have been provided to the Site by two overhead power lines, the first entering the western portion of the Site at the corner of Glenmere Extension and Pine Hill Road, and the second coming into the Site at Pine Hill Road further east and connecting to the pump house.

1.4 Site History

Based on limited historical information provided by Orange County, the 9.9-acre Glenmere Lake Property was originally part of a 1,440-acre estate owned by Richard Goelet in the 1940's, under the name "Glenmere Lake Estates, Inc." Mr. Goelet built a 40,000-square foot mansion on a hill across (north) from the Site, and built servant's quarters, a maintenance facility and stables on the Site. The estate was sold to A.M. Gootnick in 1977 and Abraham Prusoff operated the land as a resort and golf course. In 1978, Orange County acquired the estate for back taxes. Portions of the estate were later sold, including the mansion parcel, leaving the reservoir and other lands, including the Site, in the County's ownership. The on-site facilities and buildings have been abandoned for nearly 30 years.

1.5 Northern Cricket Frog Survey

Glenmere Lake contains one of the largest known populations of the Northern Cricket Frog (*Acris crepitans*) in Orange County and possibly in the state of New York. Note that the Northern Cricket Frog is an endangered species in the State of New York. In order to ensure that the investigation and remediation of the Site did not harm the frogs or their habitat, an intensive spring migration study was completed in April and May 2008. The objective of the study was to determine if the cricket frogs were wintering on the Site or if the Site was utilized as a migration route back to Glenmere Lake as the frogs emerged from winter hibernation, and provide recommendations for protecting the frogs during the planned site remediation.

The study involved the construction of a drift fence around the Site designed to funnel any wildlife attempting to enter or exit the Site to hide boxes and traps. Figure 1-3 depicts the locations of the drift fence, hide boxes and traps around the Site. The hide boxes were opened and inspected twice daily. All frogs and other animals were identified, counted and released on the lakeside of the drift fences. While cricket frogs were observed on the easternmost portion of the Site, no cricket frogs were observed or captured in the western portion of the Site or in the vicinity of the dilapidated buildings. The drift fence was removed by Orange County in September 2010. Additional details of the study are available in the June 2008 report entitled, "Results of a Northern Cricket Frog Drift Fence Survey at Glenmere Lake, Orange County, New York," prepared by Herpetological Associates, Inc., under contract with D&B. The Cricket Frog Report is provided as Appendix A.

1.6 Areas of Concern and Project Objectives

As detailed in the July 2008 SI/RA work plan, the completed site investigation was designed to investigate the following potential environmental concerns:

- Given the poor condition of the dilapidated buildings, it is possible that asbestos and lead-containing building materials have impacted soil quality.

PINE HILL ROAD

GLENMERE EXTENSION

GLENMERE LAKE

GLENMERE LAKE

LEGEND

APPROXIMATE PROPERTY BOUNDARY

DRIFT FENCE LOCATION

APPROXIMATE LOCATION OF DILAPIDATED STRUCTURES

[1] HIDE BOX LOCATION

(1) TRAP LOCATION

[1] TRAP OR HIDE BOX CAPTURING FROGS OUTSIDE DRIFT FENCE

0 80'

Dvirka and Bartilucci CONSULTING ENGINEERS
A DIVISION OF WILLIAM F. COSULICH ASSOCIATES, P.C.

Herpetological Associates, Inc.

GLENMERE LAKE ENVIRONMENTAL SITE RESTORATION
ORANGE COUNTY DEPARTMENT OF PARKS, RECREATION AND CONSERVATION

NORTHERN CRICKET FROG STUDY AREA

FIGURE 1-3

- The Site was used for agricultural purposes, and as a result, it is possible that residual agricultural chemicals such as pesticides and herbicides are present due to utilization on the Site, or improper disposal.

- Four empty 55-gallon drums labeled as containing tetrachloroethylene (PCE) were discovered on-site. However, the drums were removed from the Site. There was no evidence that the drum contents were discharged on-site. In addition, at least six areas scattered around the Site were observed to contain rusted 55-gallon drums. Two of these areas are located inside the dilapidated buildings.

- Several ASTs and USTs previously utilized for petroleum storage were present on the Site.

- Miscellaneous debris and equipment has been dumped on-site, included wrecked automobiles. This dumping could have resulted in the contamination of site soil and groundwater by petroleum products and other contaminants.

- A former concrete pump house with a lower level is present adjacent to Glenmere Lake on the northeast portion of the Site. The pump house is associated with one UST located adjacent to the northwest corner of the structure. It is unknown if any oil-containing equipment has been or is currently present within the pump house.

Accordingly, the primary objectives of the SI/RA include:

- Investigate the identified environmental concerns associated with the Site and determine if they have resulted in surface and subsurface contamination and evaluate the extent of contamination, if any.

- Evaluate local soil and groundwater quality to assess if chemical concerns exist relative to applicable NYSDEC standards and guidelines.

- Identify potential migration pathways of any identified contamination from the point of discharge to soil, groundwater, surface water and sediment.

- Identify potential human and environmental exposure pathways associated with identified contamination, if any.

- Select appropriate remedial actions needed to address site-related contamination and to eliminate or mitigate impacts to potential human and ecological receptors.

1.7 Remedial Action Objectives

Remedial action objectives are goals developed for the protection of human health and the environment. These objectives require an assessment of the contaminants and media of concern, migration pathways, exposure routes and potential receptors. Typically, remediation goals are established based on SCGs to protect human health and the environment. As per discussion with the NYSDEC, SCGs for site surface and subsurface soil are the Soil Cleanup Objectives (SCOs) as defined in NYSDEC 6 NYCRR Part 375, including SCOs for the protection of ecological resources, SCOs for the protection of human health based on commercial land uses and SCOs for the protection of groundwater. Sediment SCGs include the lowest and severe effect levels provided in the NYSDEC document entitled, "Technical Guidance for Screening Contaminated Sediments." Groundwater SCGs include the Class GA groundwater standards and guidance values provided in the NYSDEC Technical and Operation Guidance Series (TOGS) 1.1.1 for groundwater.

The Remedial Action Objectives of this report include the following:

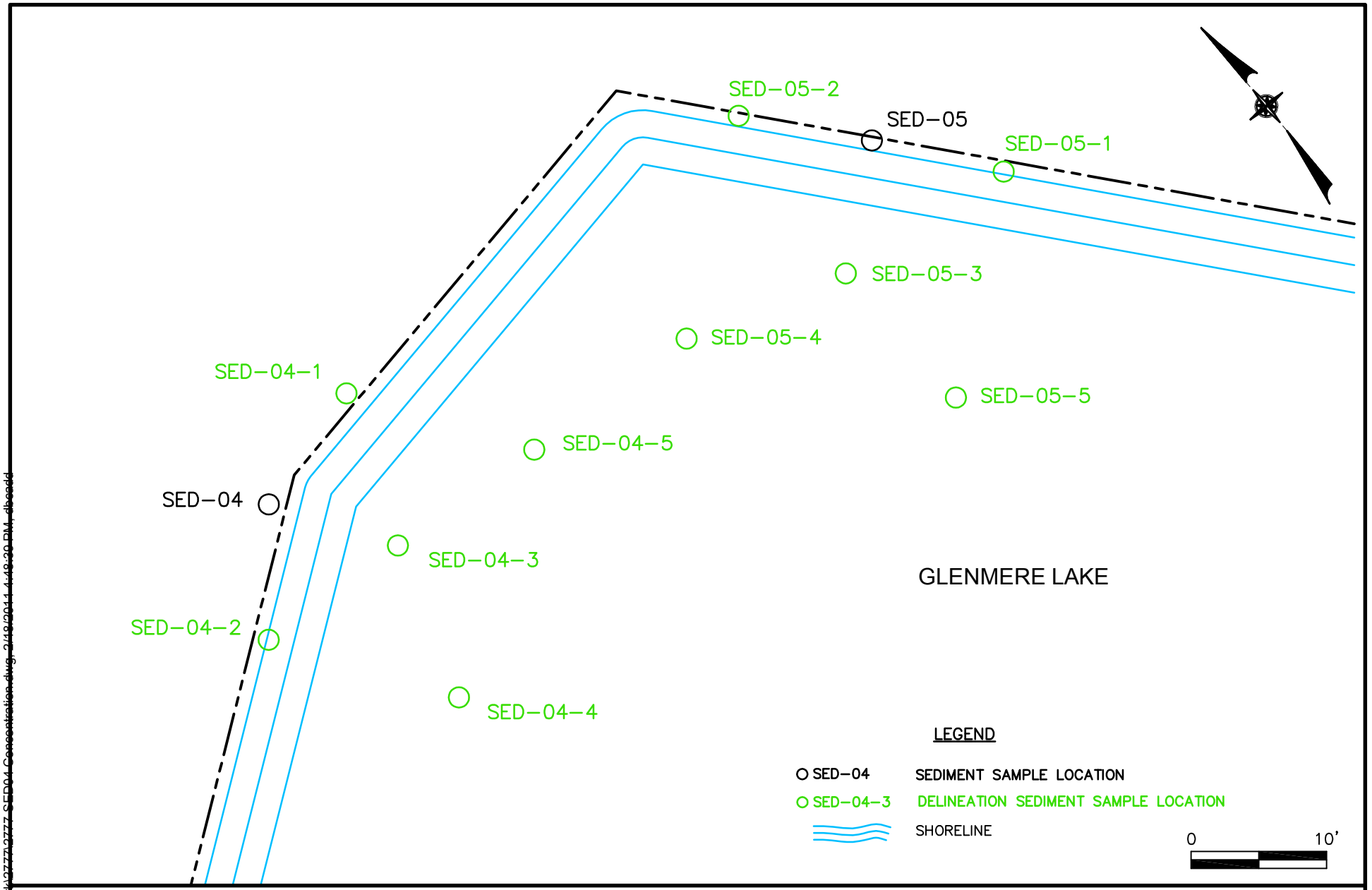
- Prevent exposure of the community to site-related contaminants.
- Prevent exposure of wildlife to site-related contaminants.
- Reduce contaminant mass through the removal of impacted soil.
- Mitigate migration of contaminants that could result in impacts to surface water and sediment of Glenmere Lake.
- Protect on-site workers and the surrounding community from exposure to site-related contaminants during the implementation of the remedy.

2.0 SITE INVESTIGATION SCOPE OF WORK

This section provides an overview of the field activities associated with the completed site investigation of the Glenmere Lake Property. The site investigation was performed in October 2008 by D&B's subconsultant, Geovation Engineering, P.C., in accordance with the NYSDEC-approved work plan dated July 2008 and NYSDEC/NYSDOH comments on the investigation scope received by D&B in September of 2008. Any deviations from the work plan due to field conditions or any other reason are discussed below. In order to meet the objectives stated under Section 1.6, the following activities were completed:

- Geophysical Survey
- Asbestos and Lead-Based Paint Survey
- Fish and Wildlife Impact Analysis
- Surface Soil and Shallow Subsurface Soil Sampling
- Soil Probe and Subsurface Soil Sampling
- Groundwater Probe Sampling
- Sediment Sampling
- Site Survey

A sample location map is provided as Drawing 1, included in a map pocket at the end of this section of the report. Drawing 1 depicts the surveyed sampling locations. In May 2009, supplemental sampling was performed to delineate the extent of heavy metal contamination detected in surface soil in the vicinity of the on-site dilapidated buildings, as well as offshore in Glenmere Lake sediment. Additional surface soil samples were collected in August 2009. The locations of the supplemental surface soil samples and shallow subsurface soil samples are depicted on Drawing 1. Figures 2-1 and 2-2 depict the supplemental sediment sample locations and background sediment sample locations, respectively.



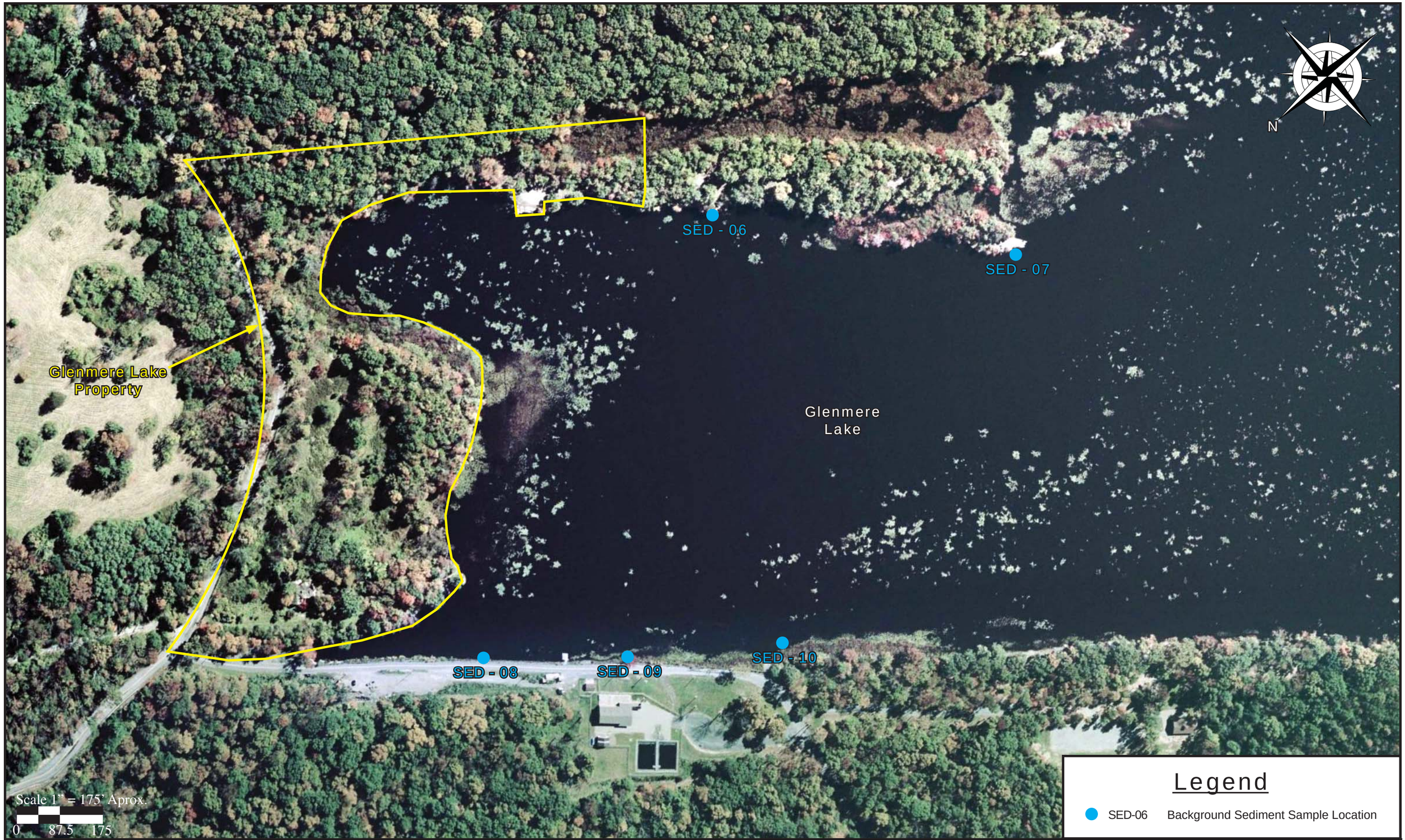
\\NAS\edwork\2277\2277 SED04 Concentration.dwg, 2/18/2011 4:18:30 PM, dkeald

Dvirka and Bartilucci CONSULTING ENGINEERS
A DIVISION OF WILLIAM F. COSULICH ASSOCIATES, P.C.

ORANGE COUNTY DEPARTMENT OF PARKS
RECREATION AND CONSERVATION

DELINEATION SEDIMENT SAMPLE LOCATION MAP

FIGURE 2-1



Dvirka and Bartilucci CONSULTING ENGINEERS
A DIVISION OF WILLIAM F. COSULICH ASSOCIATES, P.C.

GLENMERE LAKE PROPERTY

Background Sediment Sample Location Map

Source: Googlearth.com

Figure 2-2

2777 GlenmereLakeProperty_Map.indd (02/02/11 - 5:16 PM)

Additionally, Table 2-1 provides a summary of the completed sampling, including sample IDs, sample depths, number of samples selected for analysis, and sample location rationale. Table 2-2 summarizes the laboratory analysis performed on each environmental sample. These tables are organized by sample media. For each sample media, the tables specifically identify the samples that address each environmental concern listed in Section 1.6.

2.1 Asbestos and Lead-Based Paint Survey

Quality Environmental Solutions and Technologies, Inc. (Quest) performed an asbestos and lead-based paint survey of the dilapidated buildings and structures located on the Site in October 2008 under subcontract to D&B. Quest collected a total of 91 samples of building materials suspected of containing asbestos from eight structures located on the Site. In addition, Quest performed a limited x-ray fluorescence (XRF) survey of accessible areas of the eight structures to determine if lead-based paint was present. Given the lack of specific information concerning the site buildings, each structure has been designated a number for identification purposes, as illustrated on Figure 1-2, provided in Section 1.0. The findings of the asbestos and lead-based paint survey completed by Quest are provided as Appendix B and discussed in Section 4.1.

2.2 Fish and Wildlife Impact Analysis

D&B performed a Fish and Wildlife Impact Analysis (FWIA) for the Site in October 2008. The FWIA conforms to the guidelines contained in Step IIA of the NYSDEC Technical and Administrative Guidance Memorandum entitled, "Fish and Wildlife Impact Analysis for Inactive Hazardous Waste Sites," dated October 1994. The purpose of the FWIA is to provide a description of the existing ecology of the Site, including a site-specific description of major habitat types with associated wildlife populations, identify any other significant on-site resources and evaluate potential impacts to these resources. The findings of the FWIA are provided as Appendix C and discussed in Section 4.6.

TABLE 2-1

Orange County Department of Parks, Recreation and Conservation
Environmental Restoration Program Project
Glenmere Lake Property

SAMPLING INFORMATION SUMMARY

Sample Media	Area of Environmental Concern	Sample Point ID	Completion Depth Below Grade	Sample Depth Below Grade	Installation or Sample Date	No. of Samples Selected for Analysis	Sample Point Objectives/Comments
Surface Soil Samples	Residual Lead and Asbestos from Former Buildings	SS-01 through SS-24	2"	0-2"	10/27/2008, 10/29/2008	24	Presence of asbestos and lead in building materials could have impacted shallow soil.
	Agricultural Chemical Use	SS-25 through SS-28	2"	0-2"	10/29/2008	4	Property included horse stables and other agricultural uses.
	Miscellaneous Drums	SS-29 through SS-34	2"	0-2"	10/27/2008	6	At least six areas scattered around the site were observed to contain rusted 55-gallon drums. Two of these areas are located inside the dilapidated buildings. Former contents and spill history are unknown.
	Background	SS-35 through SS-39	2"	0-2"	10/27/2008	5	Collect samples off-site to determine if concentrations detected on-site are typical of the area.
	May 2009 Supplemental Samples	SS-01, SS-06, SS-18, SS-23, SS-24, SS-31, SS-32 and SS-Composite	6"	0-6"	5/20/2009	8	Determine likely soil disposal methods.
	August 2009 Supplemental Samples	SS-40 through SS-45, SS-51 and SS-52	6"	0-6"	8/7/2009	8	Further define metal impacts south and east of the dilapidated buildings. Investigate a possible link between metal concentrations in surface soil and surface water sediment.
		SS-46 through SS-50	6"	0-6"	8/7/2009	5	Confirm or refine extent of areas requiring remediation.
Shallow Subsurface Soil Samples	May 2009 Supplemental Samples	SS-02	1.5'	0.5-1' and 1-1.5'	5/20/2009	2	Delineate the vertical extent of lead contamination present in shallow soil in the vicinity of the dilapidated buildings on site.
		SS-19	1.5	0.5-1' and 1-1.5'	5/20/2009	2	
		SS-24	1.5	0.5-1' and 1-1.5'	5/20/2009	2	
		SS-33	1.5	0.5-1' and 1-1.5'	5/20/2009	2	
Subsurface Soil Samples	Four Empty 55-Gallon Drums, Labeled Tetrachloroethylene (PCE)	SB-01	3'	1-3'	10/24/2008	1	Determine if PCE was discharged to the soil.
		SB-02	5.5'	4-5'6"	10/23/2008	1	
		SB-03	4.5'	2'6"-4'6"	10/24/2008	1	
		SB-04	5'	3-5'	10/23/2008	1	
	Aboveground and Underground Storage Tanks	SB-05	8.5'	3-5'	10/23/2008	1	At least two aboveground and three underground petroleum storage tanks may be present on-site. Condition and spill history are unknown.
		SB-06	6'	4-6'	10/23/2008	1	
		SB-07	4'	2-4'	10/24/2008	1	
		SB-08	8'	6-8'	10/24/2008	1	
		SB-09	6'	4-6'	10/23/2008	1	
		SB-10	8'	6-8'	10/23/2008	1	
		SB-11	6'	4'-6'	10/23/2008	1	

TABLE 2-1

Orange County Department of Parks, Recreation and Conservation
Environmental Restoration Program Project
Glenmere Lake Property

SAMPLING INFORMATION SUMMARY

Sample Media	Area of Environmental Concern	Sample Point ID	Completion Depth Below Grade	Sample Depth Below Grade	Installation or Sample Date	No. of Samples Selected for Analysis	Sample Point Objectives/Comments
Subsurface Soil Samples (continued)	Uncontrolled Dump Area	SB-12	2.5'	6"-2.5'	10/23/2008	1	Unknown if hazardous or petroleum wastes were discharged to area.
		SB-13	5.5'	3-5'	10/23/2008	1	
	Pump House	SB-14	22'	6-7'	10/22/2008	1	At least one suspected underground petroleum storage tank is associated with the Pump House. Condition and spill history are unknown. Pump House may have or had oil-containing electrical equipment.
		SB-15	12'	10-12'	10/22/2008	1	
		GP-08 S	12'	11-12'	10/22/2008	1	
Sediment Sampling	Sediment	SED-01 through SED-05	6" *	0-6"*	10/29/2008	5	Determine if hazardous or petroleum contaminants are present in sediment at the site.
	Delineation Samples	SED-04-1 through SED-04-5 and SED-05-1 through SED-05-5	6" *	0-6"*	5/21/2009	10	Delineate extent of elevated metal concentrations detected in sediment samples SED-04 and SED-05.
	Background	SED-06 through SED-10	6" *	0-6"*	5/21/2009	5	Determine background metal concentrations in sediment.
Groundwater Probes	Groundwater	GP-01 through GP-06	--	--	--	6	Assess groundwater chemical quality at the site.
		GP-07	13-17'	Water Table	10/22/2008	1	
		GP-08	6-10'	Water Table	10/22/2008	1	
		GP-09	6-10'	Water Table	10/24/2008	1	
		GP-10	6-10'	Water Table	10/24/2008	1	

Notes:

*: Samples collected along shoreline below water surface 0-6" into sediment.

-- : Groundwater not encountered at these locations.

TABLE 2-2

Orange County Department of Parks, Recreation and Conservation
Environmental Restoration Program Project
Glenmere Lake Property

CHEMICAL SAMPLING SUMMARY

Sample Media	Area of Environmental Concern	Sample Point ID	No. of Samples Selected for Analysis	Analysis [1]													
				VOCs	BTEX	Chlorinated VOCs	SVOCs	PAHs	PCBs	TAL Metals	TPHs	Pesticides	Herbicides	Lead, Copper Arsenic, Mercury, Zinc	Lead	TCLP Lead	Asbestos
Surface Soil Samples	Residual Lead and Asbestos from Former Buildings	SS-01 through SS-06 SS-09 through SS-24	22	--	--	--	--	--	--	--	--	--	--	--	X	--	X
		SS-07 and SS-08	2	--	--	--	X	--	X	X	--	X	--	--	--	--	X
	Agricultural Chemical Use	SS-25 through SS-28	4	--	--	--	--	--	--	--	--	X	X	--	--	--	--
	Miscellaneous Drums	SS-29 through SS-34	6	X	--	--	X	--	X	X	--	X	--	--	--	--	--
	Background	SS-35 and SS-36	2	--	--	--	--	--	--	X	--	--	--	--	--	--	X
		SS-37 through SS-39	3	--	--	--	--	--	--	X	--	--	--	--	--	--	--
	May 2009 Supplemental Samples	SS-01, SS-06, SS-18, SS-23, SS-24, SS-31, SS-32 and SS-Composite	8	--	--	--	--	--	--	--	--	--	--	--	--	X	--
	August 2009 Supplemental Samples	SS-40 through SS-45, SS-51 and SS-52	8	--	--	--	--	--	--	--	--	--	--	X	--	--	--
		SS-46 through SS-50	5	--	--	--	--	--	--	--	--	--	--	--	X	--	--
Shallow Subsurface Soil Samples	May 2009 Supplemental Samples	SS-02 (1-1.5), SS-19 (0.5-1), SS-19 (1-1.5), SS-24 (0.5-1), SS-33 (0.5-1) and SS-33 (1-1.5)	6	--	--	--	--	--	--	--	--	--	--	--	X	--	--
		SS-02 (0.5-1), SS-24 (1-1.5)	2	--	--	--	--	--	--	--	--	--	--	--	X	X	--
Subsurface Soil Samples	Four Empty 55-Gallon Drums, Labeled Tetrachloroethylene (PCE)	SB-01, SB-02 and SB-04	3	--	--	X	--	--	--	--	--	--	--	--	--	--	--
		SB-03	1	X	--	--	X	--	X	X	--	X	--	--	--	--	--
	Aboveground and Underground Storage Tanks	SB-05 and SB-07 through SB-11	6	X	--	--	X	--	X	X	X	X	--	--	--	--	--
		SB-06	1	--	X	--	--	X	--	--	X	--	--	--	--	--	--
	Uncontrolled Dump Area	SB-12 and SB-13	2	X	--	--	X	--	X	X	X	X	--	--	--	--	X

TABLE 2-2

Orange County Department of Parks, Recreation and Conservation
Environmental Restoration Program Project
Glenmere Lake Property

CHEMICAL SAMPLING SUMMARY

Sample Media	Area of Environmental Concern	Sample Point ID	No. of Samples Selected for Analysis	Analysis [1]													
				VOCs	BTEX	Chlorinated VOCs	SVOCs	PAHs	PCBs	TAL Metals	TPHs	Pesticides	Herbicides	Lead, Copper Arsenic, Mercury, Zinc	Lead	TCLP Lead	Asbestos
Subsurface Soil Samples (continued)	Pump House	SB-14	1	--	X	--	--	X	--	--	X	--	--	--	--	--	--
		SB-15	1	X	--	--	X	--	X	X	X	X	--	--	--	--	--
		GP-08 S	1	X	--	--	X	--	X	X	X	X	--	--	--	--	--
Sediment Samples	Sediment	SED-01 through SED-05	5	--	--	--	X	--	X	X	--	--	--	--	--	--	--
	Delineation Samples	SED-04-1 through SED-04-5, and SED-05-1 through SED-05-5	10	--	--	--	--	--	--	X	--	--	--	--	--	--	--
	Background Samples	SED-06 through SED-10	5	--	--	--	--	--	--	X	--	--	--	--	--	--	--
Groundwater Probes	Groundwater	GP-01 through GP-06* and GP-07 through GP-10	4	X	--	--	X	--	X	X	--	X	--	--	--	--	--

Notes:

X: Sample selected for analysis. --: Sample not selected for analysis.

[1] Analyses include Target Compound List (TCL) Volatile Organic Compounds (VOCs), BTEX and Chlorinated VOCs by EPA Method 8260. TCL Semivolatile Organic Compounds (SVOCs) by EPA Method 8270. Polycyclic Aromatic Hydrocarbons (PAHs) by EPA Method 8270. Polychlorinated Biphenyls (PCBs) by EPA Method 8082. Target Analyte List (TAL) metals, lead by EPA Method 6000/7000 Series. TCLP lead by EPA Method 1311/6010. Total Petroleum Hydrocarbons (TPHs) by EPA Method 8015. TCL Pesticides by EPA Method 8081. TCL Herbicides by EPA Method 8151. Asbestos by Polarized Light Microscopy (PLM).

[2] If the turbidity during sampling is greater than 50 NTUs, then a sample must be analyzed for both total and dissolved metals.

*: Groundwater not encountered at these locations; samples not collected.

2.3 Geophysical Survey

Prior to undertaking any intrusive activities, a 1-day geophysical survey of the Glenmere Lake property was conducted in order to verify the location of suspected on-site underground storage tanks (USTs) and buried aboveground storage tanks (ASTs), as well as other buried metallic objects. Geovation conducted the survey using electromagnetic methods (a Geometrics G585G magnetic gradiometer) at suspected tank locations and the "dumping ground" located south of Structure 1. As described below, the identified tanks were later removed during an IRM.

Based on the completed geophysical survey and field observations recorded during the removal of the tanks, there were at least four USTs and one AST on-site as follows:

- One 1,000-gallon UST (UST-8) located adjacent to the northwest corner of the pump house (Structure 8).
- One 1,000-gallon UST (UST-6) located south of Structure 6.
- One 5,000-gallon UST located in Structure 3 (UST-3) and one 1,000-gallon AST located adjacent to Structure 3 (AST-3). The larger UST was actually buried within Structure 3, which served as a vault for the UST. The smaller AST was exposed.
- One 1,000-gallon UST (UST-1) located south of the middle of Structure 1.

The approximate former location of each UST and AST is shown on Drawing 1. As mentioned, the above USTs and AST were removed from the Site, along with associated petroleum-contaminated soil and oily water contained within UST-3 and UST-6, as an IRM completed in July and August 2010. Additional detail is provided in Section 5.1.

Strong magnetic signatures were also identified in the dumping grounds where debris was mounded up on the ground surface. The size of the magnetic signatures was not indicative of buried USTs, but may represent buried metallic debris within the mounded piles. Based on these findings, the sampling locations were adjusted accordingly.

2.4 Surface Soil and Shallow Subsurface Soil Sampling

A total of 39 surface soil samples were collected for chemical analysis throughout the Site as part of the October 2008 site investigation. The surveyed sample locations are depicted on Drawing 1. Consistent with NYSDEC and NYSDOH requirements, the surface soil samples were collected at a depth of 0 to 2 inches below ground surface using a disposable polyethylene scoop.

As summarized on Table 2-1, the 39 surface soil samples have been organized into four groups, each related to an area of environmental concern. Specific analyses chosen for each sample were based on the suspected contaminants of concern, and are summarized on Table 2-2. The areas of concern and related samples are as follows:

- Residual Lead and Asbestos from Former Buildings: 24 samples (SS-01 through SS-24)
- Agricultural Chemical Use: 4 samples (SS-25 through SS-28)
- Miscellaneous Drums: 6 samples (SS-29 through SS-34)
- Background Samples: 5 samples (SS-35 through SS-39)

As described in Section 4.2, relatively high lead concentrations were detected in some of the surface soil samples collected in the vicinity of the dilapidated buildings. In agreement with the NYSDEC, additional shallow soil samples were collected in May 2009 in order to obtain a better understanding of the lead contamination. As detailed in Tables 2-1 and 2-2, seven previously completed surface soil samples were selected for TCLP lead analysis, including SS-01, 06, 18, 23, 24, 31 and 32. Samples were collected using a disposable scoop from 0 to 6 inches in depth rather than 0 to 2 inches in order to provide some guidance as to the likely disposal method of shallow soil. One sample made from a composite of the seven locations was also analyzed for TCLP lead. In addition, shallow subsurface soil samples were collected from 6 to 12 and 12 to 18 inches in depth for total lead analysis from four surface soil locations with the

highest lead concentrations, including SS-02, 19, 24 and 33. The 6 to 12-inch sample from SS-02 and 12 to 18-inch sample from SS-24 were also analyzed for TCLP lead.

As detailed in Tables 2-1 and 2-2, a total of 13 additional surface soil samples (SS-40 through SS-52) were collected from the Site in August 2009. The locations of the samples are depicted on Drawing 1. As indicated on Drawing 1, eight of the 13 samples (SS-40 through SS-45, SS-51 and SS-52) were collected to the south and east of the dilapidated buildings to better define metal impacts in the area and investigate a possible link between surface soil and sediment metal concentrations. These samples were analyzed for lead, copper, arsenic, mercury and zinc. The remaining five samples (SS-46 through SS-50) were collected from the perimeter of the dilapidated building area in order to better define the area of the Site that may require remediation. These samples were analyzed for total lead.

Sample locations were staked/marked and surveyed, as detailed in Section 2.9. Analytical results associated with surface soil and shallow subsurface soil samples are summarized in Appendix D. The results are discussed in Section 4.2.

2.5 Soil Probe and Subsurface Soil Sampling

A total of 15 soil probes were completed as part of the site investigation. The surveyed soil probe locations are depicted on Drawing 1. The soil probes were completed using direct push sampling techniques, i.e., Geoprobe. Soil samples were collected continuously from ground surface to the probe termination depth utilizing a decontaminated macro core soil sampler fitted with a disposable 4-foot acetate liner. During the advancement of each probe, each recovered soil sample was inspected and characterized by a geologist in accordance with the Unified Soil Classification System (USCS). A photoionization detector (PID) was utilized to screen each sample for the presence of VOCs, and any evidence of contamination was documented. All observations were recorded in the project field book. Boring logs are provided in Appendix E.

As summarized on Table 2-1, the 15 soil probes have been organized into four groups, each related to an area of environmental concern. The areas of concern and related soil probes are as follows:

- Four Empty 55-Gallon Drums, Labeled Tetrachloroethylene (PCE): 4 soil probes (SB-01 through SB-04)
- Aboveground and Underground Storage Tanks: 7 soil probes (SB-05 through SB-11)
- Uncontrolled Dump Area: 2 soil probes (SB-12 and SB-13)
- Pump House: 2 soil probes (SB-14 and SB-15)

Soil probes SB-01 through SB-13 were terminated at less than 10 feet due to refusal, assumed to be bedrock, indicating that bedrock is relatively shallow throughout the Site. The water table was not encountered above bedrock in these borings. Soil borings SB-14 and SB-15 located near the Pump House, were completed to total depths of 22 feet and 12 feet, respectively. SB-14 was advanced until refusal, while SB-15 was advanced to 12 feet.

As indicated on Table 2-2, one soil sample was selected for laboratory analysis from each probe, biased toward the zone with the highest PID readings or visual impacts. If no impacts were observed, the sample was collected from the base of the probe. Specific analyses chosen for each sample were based on the suspected contaminants of concern, and are summarized on Table 2-2. In addition, one soil sample was collected at a depth of 11 to 12 feet below grade from groundwater probe GP-08. GP-08 was completed off the southwest corner of the Pump House.

Analytical results associated with subsurface soil samples are summarized in Appendix D. The results are discussed in Section 4.3.

Upon completion, all soil probes were backfilled with any excess soil left over from the soil samples. Soil probe locations were staked/marked and surveyed, as detailed in Section 2.9. All non-dedicated sampling equipment was decontaminated between sampling locations in accordance with the work plan.

2.6 Groundwater Probe Sampling

A total of 10 groundwater probes were planned throughout the Site to investigate groundwater quality. However, groundwater was not encountered before refusal at groundwater probes GP-01 through GP-06. Refusal at these locations was likely the result of encountering shallow bedrock at these locations. Groundwater samples were successfully collected at four groundwater probes, including GP-07 and GP-08, located in the vicinity of the pump house, and GP-09 and GP-10, located south of the dilapidated buildings on the western portion of the Site. The surveyed groundwater probe locations are depicted on Drawing 1.

Groundwater probe samples were collected using direct push sampling techniques and were installed utilizing a decontaminated screened sampler. The decontaminated probe and rods were driven until the sampler tip was approximately 1-foot below the target sampling depth. All completed groundwater probe samples were collected at the water table. Table 2-1 summarizes the depth of each collected groundwater sample. Once that depth was reached, the expendable drive point was disengaged and the rods pulled back a distance of about 2 feet to expose the screened sampler. Disposable polyethylene tubing, equipped with a bottom check valve, was used to convey groundwater to the surface for collection. Each sample, upon retrieval, was analyzed in the field for pH, conductivity, turbidity and temperature.

As indicated on Table 2-2, all groundwater probe samples were analyzed for VOCs, SVOCs, TAL metals, PCBs and pesticides. Due to the elevated turbidity of the groundwater samples above 50 NTUs (nephelometeric turbidity units), the metals analysis included filtered (dissolved phase) and unfiltered (total metal) samples. Analytical results associated with groundwater probe samples are summarized in Appendix D. The results are discussed in Section 4.4.

Groundwater probe locations were staked/marked and surveyed, as detailed in Section 2.9. All non-dedicated sampling equipment was decontaminated between sampling locations in accordance with the work plan.

2.7 Sediment Sampling

In order to assess the quality of Glenmere Lake sediments, five sediment samples were collected for chemical analysis. The sample locations are depicted on Drawing 1. The sediment samples were collected adjacent to the property shoreline, downgradient of the former Pump House and dilapidated buildings. As indicated on Table 2-1, sediment samples were collected from the upper 6 inches of sediment using disposable scoops. Upon retrieval, each sample was screened for VOCs using a PID and logged for indications of contamination such as odors or staining. As indicated on Table 2-2, all five sediment samples were analyzed for SVOCs, TAL metals and PCBs.

As described in Section 4.5, elevated metal concentrations were detected in sediment samples SED-04 and SED-05, collected downgradient of the dilapidated buildings. In agreement with the NYSDEC, five additional sediment samples were collected at both SED-04 and SED-05 in May 2009 in order to determine the extent of the elevated metal concentrations. Figure 2-1 depicts the locations of the delineation sediment samples. As depicted on Figure 2-1, three new samples were collected approximately 10 feet from each completed sediment sample and then two new samples further offshore approximately 20 feet from each completed sediment sample. Sample locations accessible from the shore were collected with a disposable scoop from 0 to 6 inches below the lake bottom. Sample locations further offshore were collected from 0 to 6 inches below the lake bottom using a dredge sampler from a small boat. As indicated on Table 2-2, all delineation sediment samples were analyzed for TAL metals. All non-dedicated sampling equipment was decontaminated between sampling locations in accordance with the work plan.

Five additional sediment samples were collected along the shoreline of Glenmere Lake to determine background metal concentrations in sediment. Figure 2-2 depicts the location of the background sediment samples. The background sediment samples were analyzed for TAL metals.

Analytical results associated with sediment samples are summarized in Appendix D. The results are discussed in Section 4.5.

2.8 Management of Investigation Derived Waste

Any soil recovered during the advancement of the soil probes that was not retained for chemical analysis was placed back in the soil probe after completion. During groundwater probe sampling, all purge water was discharged to the ground.

2.9 Site Survey

Prior to sampling activities, a survey of the Glenmere Lake property was completed by William D. Youngblood, L.S., a New York State licensed surveyor, under contract with D&B. The site survey met all of the requirements of the American Land Title Association/American Congress of Surveying and Mapping (ALTA/ACSM) Land and Title Surveys. The completed survey was provided on a scaled site plan in AutoCAD format to serve as the site base map.

At the completion of sampling activities, the location and elevation of all completed sample points, with the exception of the May and August 2009 supplemental samples, were surveyed by William D. Youngblood, L.S., for placement on the base map (see Drawing 1). The locations of the supplemental samples are approximate. The survey elevations were measured to an accuracy of 0.01 foot above the National Geodetic Vertical Datum of 1929 (an approximation of mean sea level).

2.10 Analytical and QA/QC Procedures

All sample analyses associated with the site investigation of the Glenmere Lake Property were performed by Chemtech Environmental Laboratory, a certified NYSDOH Environmental Laboratory Approval Program (ELAP) laboratory. All analyses were conducted utilizing NYSDEC 6/00 Analytical Services Protocol (ASP) methods, or latest version, that are at least as stringent as USEPA CLP protocols. NYSDEC ASP Category B data packages were provided for all analyses and are included in electronic format as Appendix H. Laboratory data packages for

data generated during the tank removal IRM are included in the February 2011 Construction Completion Report (see Appendix G). In accordance with USEPA guidance, samples were shipped daily to ensure that they were received at the laboratory no later than 48 hour after collection.

Quality assurance/quality control (QA/QC) samples that were collected as part of the site investigation included matrix spike (MS) and matrix spike duplicate (MSD) samples, field blanks and trip blanks. The MS/MSD samples and field blanks were collected at a frequency of one per twenty environmental samples for each sampled medium per analytical parameter. Trip blanks were shipped to and from the field with the sample containers when VOC analyses were conducted on aqueous samples. Trip blanks consist of VOC vials filled at the laboratory with distilled, deionized water, which remained unopened in the field and are analyzed for VOCs only to provide indication of potential sample contamination due to sample transport, preservation, storage and preparation procedures, as well as atmospheric conditions during transportation and time on-site. QA/QC procedures are described further in the site-specific QA/QC plan, provided in the July 2008 work plan.

2.11 Data Usability Summary Report

This Data Usability Summary Report (DUSR) addresses the data generated during the site investigation of the Glenmere Lake Property. A DUSR for data generated during the tank removal IRM is included in the February 2011 Construction Completion Report (see Appendix G).

Surface soil, subsurface soil, groundwater and sediment samples were collected in October 2008 in support of the site investigation at the Glenmere Lake property. Depending on sample location and matrix, samples were analyzed for VOCs, SVOCs, TAL metals, lead, PCBs, pesticides, herbicides, total petroleum hydrocarbons and/or asbestos.

Additional surface soil, shallow subsurface soil and sediment samples were collected in May 2009. Surface soil samples were analyzed for TCLP lead. Shallow subsurface soil samples were analyzed for total lead and/or TCLP lead. Sediment samples were analyzed for TAL metals.

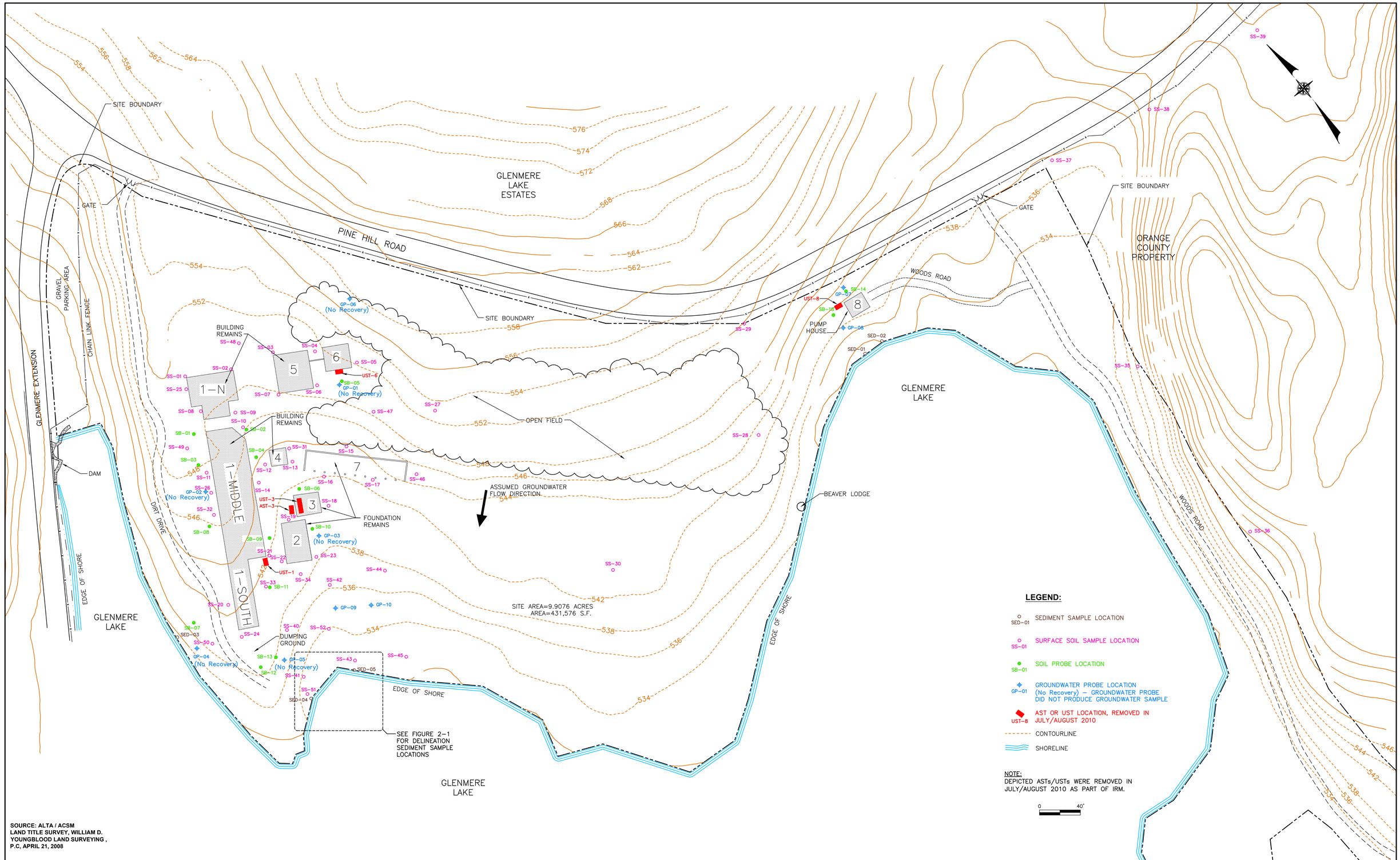
Sample analysis was performed by Chemtech Environmental Laboratory in accordance with NYSDEC 6/00 ASP requirements. The NYSDEC ASP Category B data packages submitted by Chemtech have been reviewed for contract and method compliance to determine the usability of the sample results. These data packages are included in electronic format as Appendix H. The findings of the review process are summarized below.

All samples were analyzed within the method specified holding times and all Quality Assurance/Quality Control (QA/QC) requirements (i.e., calibrations, tunes, surrogate recoveries, area counts etc) were met.

In the October 2008 data, several samples required reanalysis due to surrogate recoveries and/or internal standard area counts being outside QC limits. In all instances the reanalysis had similar results to that in the initial run and therefore the data from the initial was used for environmental assessment purposes and is included on the data summary tables.

In the May 2009 data, four sediment metal samples required analysis at a secondary dilution. Original analyses were reported except for the metals exceeding the calibration range in which the secondary dilution result was reported. Numerous metals were qualified as estimated based on the percent difference above QC limit in the serial dilution sample or percent recovery below QC limit in the matrix spike.

No problems were found with the sample results and all results are deemed usable for environmental assessment purposes.



LEGEND:

- SED-01 — SEDIMENT SAMPLE LOCATION
- SS-01 — SURFACE SOIL SAMPLE LOCATION
- SB-01 — SOIL PROBE LOCATION
- GP-01 — GROUNDWATER PROBE LOCATION (No Recovery) – GROUNDWATER PROBE DID NOT PRODUCE GROUNDWATER SAMPLE
- UST-8 — AST OR UST LOCATION, REMOVED IN JULY/AUGUST 2010
- CONTOURLINE
- SHORELINE

NOTE:
DEPICTED ASTs/USTs WERE REMOVED IN JULY/AUGUST 2010 AS PART OF IRM.

0 40'

SOURCE: ALTA / ACSM LAND TITLE SURVEY, WILLIAM D. YOUNGBLOOD LAND SURVEYING , P.C, APRIL 21, 2008

NO.	DATE	REVISION	INT.

PROJECT ENGINEER:	DRAWN BY:
T.F.	A.R.S.
DESIGNED BY:	CHECKED BY:
A.C.	T.F.

Dvirka and Bartilucci CONSULTING ENGINEERS
A DIVISION OF WILLIAM F. COSULICH ASSOCIATES, P.C.

ORANGE COUNTY DEPARTMENT OF PARKS
RECREATION AND CONSERVATION
ORANGE COUNTY — NEW YORK

GLENMERE LAKE PROPERTY

COMPLETED SAMPLE LOCATION MAP

PROJECT NO.	DRAWING NO.
2777	1
DATE: NOVEMBER 2010	
SCALE: 1"=40'	

3.0 SITE GEOLOGY AND HYDROGEOLOGY

The following section presents the findings, as well as a discussion and interpretation of geologic and hydrogeologic data collected during the Site Investigation. Site-specific information utilized in support of this evaluation predominantly includes logs from completed soil probes. Due to shallow bedrock and generally dry conditions encountered in the soil probes, information on groundwater is limited. No groundwater monitoring wells were installed during the Site Investigation. Sample locations referenced in this section are depicted on Drawing 1, and the logs for the soil probes are included in Appendix E.

3.1 Site Topography

The site topography generally slopes from north to south toward Glenmere Lake, from a maximum elevation of approximately 560 feet above mean sea level along Pine Hill Road to a minimum elevation at Glenmere Lake of approximately 532 feet. Surveyed topographic contours are included on the sample location map included as Drawing 1.

3.2 Site Stratigraphy

According to United States Geological Survey (USGS) Water-Supply Paper 1985, stratigraphy in this region of Orange County generally consists of thin native unconsolidated glacial deposits overlying bedrock. The following is a brief description of these two units:

3.2.1 Glacial Deposits

According to the USGS, the glacial deposits consist of Pleistocene-aged till and are composed of an unsorted mix of gravel, sand, silt and clay. The logs for the soil probes generally corroborate this regional description. Beneath up to 6 inches of topsoil, the glacial deposits are generally described as sand, often mixed with significant amounts of gravel and some silt and clay. The most significant silt and clay deposits were observed in the vicinity of the pump house in soil probes SB-14 and SB-15 soil probe. SB-14 exhibited a predominantly silty matrix below

a depth of 12 feet to the base of the boring at 22 feet. Overall, it is likely that the glacial deposits are fairly permeable. The color of the glacial deposits is typically brown, with some gray observed closer to the base of the probes.

Assuming that soil probe refusal is indicative of bedrock, the thickness of the glacial deposits appears to vary due to irregularities of the underlying bedrock surface. However, the glacial deposits are fairly thin throughout the vicinity of the dilapidated buildings, with a thickness of less than 10 feet. The glacial deposits are thickest in the vicinity of the Pump House to the east of the dilapidated buildings, being a maximum of 22 feet thick at SB-14.

3.2.2 Bedrock

Bedrock is located beneath the glacial deposits. Core samples of the bedrock were not collected. According to USGS regional bedrock maps, the bedrock underlying the site consists of Precambrian and Paleozoic-aged folded shale and sandstone. The bedrock surface is shallowest in the northwest portion of the site in the vicinity of the northern portions of Building 1, at a maximum elevation of approximately 546 feet above mean sea level at soil probe SB-01. In fact, the bedrock was observed to outcrop in this area. Bedrock appears to follow the topography and dip to the south toward Glenmere Lake. Bedrock also dips to the east toward the Pump House, with a minimum elevation of approximately 518 feet above mean sea level near the Pump House at soil probe SB-14.

Evidence of a thin discontinuous zone of weathered bedrock, generally consisting of a coarse gravel, was observed in some soil probes, including SB-02 and SB-05.

3.3 Groundwater

Due to the shallow bedrock, groundwater was generally not encountered in soil and groundwater probes attempted in the relatively thin glacial deposits in the vicinity of the dilapidated buildings. Therefore, it is assumed that the water table is present within the bedrock in this area.

Groundwater was encountered in the vicinity of the Pump House where the glacial deposits are thicker, including at soil probes SB-14 and SB-15, and groundwater probes GP-07 and GP-08. Groundwater was also encountered at groundwater probes GP-09 and GP-10, located south of the dilapidated buildings and closer to Glenmere Lake. Based on the topography, it is assumed that groundwater flows in a southern direction toward Glenmere Lake.

4.0 SITE INVESTIGATION FINDINGS

This section presents a detailed discussion of the results of the site investigation specific to the presence or absence of contaminants. In order to present a logical discussion of the data generated as part of this site investigation, the discussion has been organized into the following subsections:

- Asbestos and Lead-Based Paint Survey
- Surface Soil and Shallow Subsurface Soil
- Subsurface Soil
- Groundwater
- Sediment
- Human Health and Ecological Exposure Assessment
- Summary of Conditions

All sample locations are shown on Drawing 1, which was introduced in Section 2.0. In addition, Drawing 1 provides the approximate location of the one AST and four USTs confirmed to be present through physical inspection and the completed geophysical surveys summarized in Section 2.3, and subsequently removed during an IRM completed in July and August 2010.

All chemical data associated with the collected environmental samples are presented in Appendix D. Note that all surface and subsurface soil analytical data has been compared to two Soil Cleanup Objectives (SCOs) defined in NYSDEC 6 NYCRR Part 375, including:

- SCOs for the protection of ecological resources. These SCOs have been selected given the proximity of Glenmere Lake.
- SCOs for the protection of human health based on commercial land uses. These SCOs have been selected given the intended future use of the Site as parkland, thereby making the property accessible to the public.

- Site-specific background evaluation. Soil samples collected from off-site locations were compared to the results of on-site sampling data to determine if some of the constituents detected may be due to background conditions.

Groundwater analytical results are compared to the Class GA groundwater standards and guidance values provided in the NYSDEC Technical and Operation Guidance Series (TOGS) 1.1.1 for groundwater (hereinafter referred to as NYSDEC or Glass GA groundwater standards).

The sediment samples collected along the shoreline of Glenmere Lake were compared to sediment screening criteria established by the NYSDEC in the document entitled, "Technical Guidance for Screening Contaminated Sediments," revised in January 1999. Background sediment samples were collected and that data was compared to the results of the near-site sediment sampling to determine if constituents detected may be due to background conditions.

4.1 Asbestos and Lead-Based Paint Survey

The findings of the asbestos and lead-based paint survey completed by Quest are provided as Appendix B. In October 2008, Quest collected a total of 91 samples of building materials suspected of containing asbestos from eight structures located on the Site. In addition, Quest performed a limited x-ray fluorescence (XRF) survey of accessible areas of the eight structures to determine if lead-based paint was present. Given the lack of specific information concerning the Site buildings, each structure has been designated a number for identification purposes, as illustrated on Figure 1-2.

Based on the completed analysis, asbestos-containing material (ACM) was confirmed to be present in the following on-site buildings and structures:

- Structure No. 1 (north)
- Structure No. 1 (middle)
- Structure No. 1 (south)
- Structure No. 5

- Structure No. 6
- Structure No. 8 (pump house)

Based on the completed XRF survey, the following structures were noted as containing paint with a lead concentration equal to or greater than 1.0 milligram per square centimeter.

- Structure No. 1 (north)
- Structure No. 1 (middle)
- Structure No. 1 (south)
- Structure No. 4
- Structure No. 5
- Structure No. 6
- Structure No. 8 (pump house)

4.2 Surface Soil and Shallow Subsurface Soil

Surface Soil

As summarized in Table 2-1, a total of 60 surface soil samples were selected for chemical analysis as part of the site investigation. The majority of surface soil samples were collected at a depth of 0 to 2 inches. Some samples were collected at a depth of 0 to 6 inches to provide some guidance as to the likely disposal method. All surface soil data are summarized in the following tables provided in Appendix D:

- Table 1: Metals
- Table 2: Toxicity Characteristic Leaching Procedure (TCLP) for Lead
- Table 3: Volatile Organic Compounds (VOCs)
- Table 4: Semivolatile Organic Compounds (SVOCs)

- Table 5: Polychlorinated Biphenyls (PCBs)
- Table 6: Pesticides/Herbicides
- Table 7: Asbestos

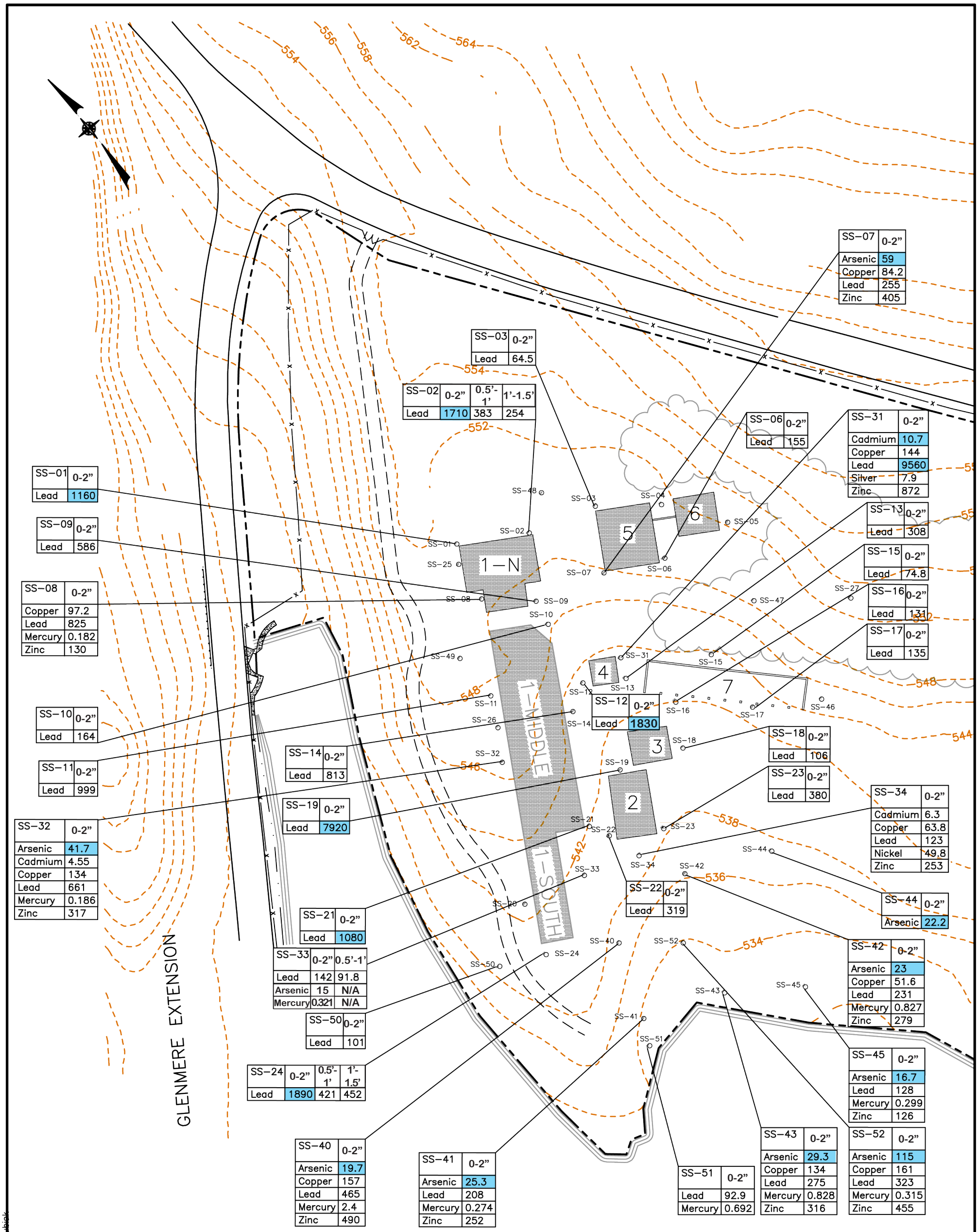
Note that, in addition to the 60 surface soil samples, a total of eight shallow subsurface soil samples were also collected for lead analysis in order to define the vertical extent of lead contamination in the vicinity of the dilapidated buildings. The results for the shallow subsurface soil samples are summarized on Table 8.

Figure 4-1 provides the location and concentration of a number of metals exceeding the ecological and commercial SCOs in surface soil and shallow subsurface soil in the vicinity of the dilapidated buildings.

Background Surface Soil

A total of five surface soil samples (SS-35, 36, 37, 38 and 39) were collected off-site to the east of the Site in order to determine typical background concentrations of metals in undisturbed areas where contamination would not be expected. As shown on Table 1, a number of metals were found in the background samples at concentrations above the ecological SCOs, including:

- Lead
- Mercury
- Manganese
- Silver
- Zinc



Scale 1" = 60' Aprox.

0 30 60

SOURCE: ALTA / ACSM. LAND TITLE SURVEY, WILLIAM D. YOUNGBLOOD LAND SURVEYING , P.C, APRIL 21, 2008

LEGEND:

○ SS-51 — **SURFACE SOIL LOCATON**

SS-51	
LEAD	92.9
MERCURY	0.69

CONCENTRATION IN MILLIGRAMS PER KILOGRAM. EXCEEDS ECOLOGICAL SCOs.

1830 — **EXCEEDS COMMERCIAL SCOs.**

Dvirka and Bartilucci CONSULTING ENGINEERS
A DIVISION OF WILLIAM F. COSULICH ASSOCIATES, P.C.

GLENMERE LAKE ENVIRONMENTAL SITE RESTORATION
ORANGE COUNTY DEPARTMENT OF PARKS, RECREATION AND CONSERVATION

METAL CONCENTRATIONS IN SURFACE SOIL EXCEEDING SCOs

FIGURE 4-1

Silver was found to exceed the ecological SCO of 2.0 mg/kg in all five background samples, with a maximum concentration of 6.06 mg/kg detected in SS-38. Mercury was detected above the ecological SCOs in two of the five samples collected, and lead, zinc and manganese were detected above ecological SCOs in one of the five samples collected.

On-Site Surface Soil

As shown on Table 1 and Figure 4-1, lead and, to a lesser degree, arsenic were found at concentrations well above the ecological SCOs in surface soil samples collected in the vicinity of the dilapidated buildings located in the western portion of the Site. Lead and arsenic were also detected in several surface soil samples at levels above the commercial use SCOs of 1,000 mg/kg and 16 mg/kg, respectively. Some of the highest lead and arsenic concentrations in surface soil include the following samples:

- SS-01 with a lead concentration of 1,160 mg/kg
- SS-02 with a lead concentration of 1,710 mg/kg
- SS-07 with an arsenic concentration of 59 mg/kg
- SS-12 with a lead concentration of 1,830 mg/kg
- SS-19 with a lead concentration of 7,920 mg/kg
- SS-21 with a lead concentration of 1,080 mg/kg
- SS-24 with a lead concentration of 1,890 mg/kg
- SS-31 with a lead concentration of 9,560 mg/kg
- SS-32 with an arsenic concentration of 42 mg/kg

Due to the high concentrations of lead detected in the surface soil samples, TCLP lead samples were collected for chemical analysis from several surface soil sample locations listed above. The TCLP lead extract concentration summarized in Table 2 ranged from non-detectable to a maximum of 1,300 ug/l. The hazardous waste limit for lead is 5,000 ug/l; therefore, soil at the Site would not be characteristically hazardous with respect to lead concentrations.

While generally lower in concentration, lead and arsenic were also present at elevated concentrations to the south (downgradient) of the dilapidated buildings between the structures and the lake shoreline as shown by the results of samples SS-33, SS-34, SS-40 through SS-45, SS-51 and SS-52. Of these samples, SS-40 had the highest level of lead with a concentration of 465 mg/kg. SS-52 had the highest level of arsenic with a concentration of 115 mg/kg.

In addition to lead and arsenic, several other metals were also detected above the ecological SCOs in the vicinity and south of the dilapidated buildings, including:

- Cadmium
- Copper
- Mercury
- Silver
- Nickel
- Zinc

A total of 12 surface soil samples collected in the vicinity of the dilapidated buildings, as well as throughout other areas of the Site, were also selected for analysis of VOCs (Table 3), PCBs (Table 5), and pesticides and herbicides (Table 6). VOCs, PCBs and herbicides were not detected. Several pesticides were detected in several surface soil samples above their respective ecological SCO, but below the commercial SCO, including 4,4-DDD, 4,4-DDE, 4,4-DDT and dieldrin.

As shown on Table 4, two surface soil samples collected in the vicinity of the dilapidated buildings (SS-31 and SS-32) also exhibited concentrations of benzo(a)pyrene above the commercial SCOs. The benzo(a)pyrene concentration in SS-31 also exceeded the ecological SCO. SS-31 also exhibited the presence of dibenzo(a,h)anthracene above the commercial SCO. Again, both surface soil samples were collected in the vicinity of the dilapidated buildings.

A total of 24 surface soil samples collected in the vicinity of the dilapidated buildings were also analyzed for the presence of asbestos. As summarized on Table 7, all 24 samples were found to be free of any detectable asbestos.

Shallow Subsurface Soil

As summarized in Table 8, a total of eight shallow subsurface soil samples were collected in May 2009 in order to delineate the vertical extent of lead contamination present in shallow soil in the vicinity of the dilapidated buildings. Of the eight collected shallow subsurface soil samples, five samples exhibited detectable concentrations of lead in exceedance of its ecological SCO of 63 mg/kg, ranging in concentration from 91.8 mg/kg to a maximum concentration of 452 mg/kg. None of the shallow samples collected exhibited concentrations of lead above the commercial SCOs. The detected lead concentrations were generally greatest near the surface (0.5-1.0 foot below ground surface) and exhibited an overall decrease in the deeper samples (1.0-1.5 feet below ground surface).

4.3 Subsurface Soil

As summarized in Table 2-1, a total of 15 shallow soil probes were completed throughout the Site in order to physically inspect soil for evidence of potential contamination and to collect soil samples for chemical analysis. In addition, one soil sample was collected from groundwater probe location GP-08 and, therefore, a total of 16 soil samples were selected for chemical analysis. All subsurface soil data are summarized in the following tables provided in Appendix D:

- Table 9: Metals
- Table 10: VOCs
- Table 11: SVOCs
- Table 12: PCBs
- Table 13: Total Petroleum Hydrocarbons (TPHCs)

- Table 14: Pesticides

The majority of probes were terminated at less than 10 feet due to encountering bedrock, indicating bedrock is relatively shallow throughout the Site. However, soil probe SB-14 was advanced to a depth of 22 feet in the vicinity of the pump house, indicating bedrock is deeper in this area.

The majority of soil samples recovered from the soil probes did not exhibit any evidence of contamination such as staining, elevated photoionization detector (PID) measurements or chemical/petroleum odors. Exceptions to this general finding were limited to:

- SB-10 where a hydrocarbon-like odor was observed at 6 to 8 feet below grade along with a PID reading of up to 82 parts per million (ppm). SB-10 was completed 10 feet south of the location of a 5,000-gallon UST (UST-3), which has since been removed.
- SB-15 where a hydrocarbon odor was detected between 7 and 10 feet along with a PID measurement of up to 98 ppm. SB-15 was completed immediately to the southwest of a 1,000-gallon UST (UST-8) located adjacent to the pump house. The UST has since been removed.
- GP-08, where a slight hydrocarbon odor was detected between 7 and 10 feet along with a PID measurement of up to 6.5 ppm from 11 to 11.5 feet below ground surface. GP-08 was completed further south of SB-15 in the vicinity of the pump house.

As a result of the above findings from SB-15 and GP-08, a spill was reported for the site and the NYSDEC designated the Site as number 0808247.

As shown on Table 9, in general, metal concentrations were found to be below their respective commercial SCOs in all subsurface soil samples, with the exception of SB-05 (3 to 5 feet), SB-07 (2 to 4 feet) and SB-10 (6 to 8 feet), which exhibited arsenic concentrations of 97 mg/kg, 18 mg/kg and 31 mg/kg, respectively. In addition to arsenic, several metals were detected above their respective ecological SCO in one or more samples, including nickel, mercury, silver, lead and manganese. Lead and manganese were detected just above the ecological SCOs of 63 mg/kg and 1,600 mg/kg in only one sample. The levels of silver detected, although above ecological SCOs in all of the samples, are comparable to the levels of silver

detected in background surface soil samples. Although nickel was detected in three samples above the ecological SCO of 30 mg/kg, the highest level detected was 33.7 mg/kg, just slightly above the SCO. Mercury was detected in two samples at concentrations of 0.3 mg/kg and 0.4 mg/kg, above the ecological SCO of 0.18 mg/kg.

As summarized on Table 10, VOCs were not detected in any of the subsurface soil samples, with the exception of acetone, a common laboratory contaminant, detected at 750 ug/kg in SB-05 (3 to 5 feet). PCBs (Table 12) were not detected in any subsurface soil samples selected for these analyses. In addition, pesticides (Table 14) were not detected in any subsurface soil sample above SCOs, with the exception of 4,4-DDE detected at concentrations of 3.5 ug/kg in SB-07 (2 to 4 feet) and 7.0 ug/kg in SB-12 (0.5 to 2.5 feet), above the ecological SCO of 3.3 ug/kg.

Several subsurface soil samples exhibited low to trace concentrations of several SVOCs, as summarized in Table 11, but well below the ecological and commercial SCOs, with total SVOC concentrations ranging from non-detectable to a maximum concentration of 632 ug/kg at SB-10 (6 to 8 feet). As described above, SB-10 exhibited evidence of a hydrocarbon-like odor at this depth. TPH concentrations summarized in Table 13 ranged from less than 5.0 mg/kg at SB-14 (6 to 7 feet) to a maximum of 1,020 mg/kg detected at SB-10 (6 to 8 feet). There are no SCOs for TPHs.

4.4 Groundwater

As shown on Table 2-1, a total of ten groundwater probes were to be completed as part of the investigation scope of work. However, due to shallow bedrock conditions at GP-01 through GP-06, groundwater was not encountered before advancement of the groundwater probe sampler was terminated by bedrock refusal. As a result, groundwater samples could not be collected at these locations. Groundwater samples were successfully collected at GP-07, located upgradient of the pump house, GP-08, located downgradient of the pump house, and at GP-09 and GP-10, located downgradient of the dilapidated buildings on the western portion of the Site.

All groundwater sample data are summarized in the following tables provided in Appendix D:

- Table 15: VOCs
- Table 16: SVOCs
- Table 17: Metals (Filtered and Unfiltered)
- Table 18: PCBs
- Table 19: Pesticides

As summarized in Table 15, the four groundwater samples were found to be free of any detectable levels of VOCs. In addition, all SVOCs (Table 16) were found to be non-detectable in the samples collected from GP-07, GP-09 and GP-10. Although the sample collected from GP-08 exhibited several PAHs, none of the compounds were detected at concentrations above Class GA Groundwater Standards.

Due to the turbidity of groundwater samples collected from the groundwater probes, the samples selected for metals analysis (Table 17) included filtered (dissolved phase) and unfiltered (total metal) samples. As expected, the filtered or dissolved phase groundwater samples generally exhibited lower metal concentrations than the corresponding unfiltered or total metal samples. While a number of metals in the unfiltered samples exceeded the GA Groundwater Standards, including chromium, iron, lead, manganese, nickel and sodium, at one or more groundwater probes, only iron, manganese and sodium exceeded the GA Groundwater Standards in the filtered samples. It should be noted that with groundwater probe samples, filtered samples are a more accurate measure of the actual metal concentrations when compared to unfiltered samples given the inherent turbidity of the groundwater probe samples.

PCBs and pesticides were not detected in the four groundwater probe samples.

4.5 Sediment

As summarized on Table 2-1, a total of 20 sediment samples were collected for chemical analysis from Glenmere Lake adjacent to the Site shoreline. Five samples (SED-01 through SED-05) were collected in October 2008. Samples SED-01 and SED-02 were collected downgradient of the pump house, and SED-03 through SED-05 were collected downgradient of the dilapidated buildings. In May of 2009, a total of ten additional sediment samples were collected in the vicinity of SED-04 and SED-05 to further define the extent of metal contamination at these two locations. In addition, five background sediment samples (SED-06 through SED-10) were collected off-site to provide a better understanding as to typical metal concentrations in the sediments of Glenmere Lake. As described above, all sediment sample results were compared to NYSDEC sediment screening criteria. Background concentrations of metals in samples SED-6 through SED-9 were also considered in evaluating the results.

All sediment sample data are summarized in the following tables provided in Appendix D:

- Table 20: Metals
- Table 21: SVOCs
- Table 22: PCBs

As detailed above, a total of five sediment samples (SED-01 through SED-05) were collected from Glenmere Lake during the initial investigation. As shown on Table 20, the majority of metals in the five samples were found to exceed the NYSDEC "lowest effect level" screening criteria in one or more samples, including:

- Antimony
- Arsenic
- Cadmium
- Copper
- Iron
- Lead
- Manganese
- Mercury

- Nickel
- Silver
- Zinc

In general, the highest metal concentrations were detected in SED-04 and SED-05, located downhill (downgradient) of the dilapidated buildings, including:

- Arsenic, detected in SED-05 at 86 mg/kg.
- Copper, detected in SED-05 at 900 mg/kg.
- Lead, detected in SED-04 at 506 mg/kg.

A total of 10 sediment samples were collected in May 2009 to further delineate the elevated concentrations of metals found at sample locations SED-04 and SED-05. A figure depicting the May 2009 sediment sample locations and SED-04 and SED-05 with metal concentration data is provided as Figure 4-2.

As shown in Figure 4-2, several metals were detected at concentrations exceeding the Sediment Severe Effect Level in one or more of the May 2009 sediment samples, including:

- Arsenic
- Mercury
- Copper
- Lead
- Zinc

In general, the four sediment samples that were collected 20 feet offshore exhibited metals at lower concentrations when compared to the "inshore" samples. However three of the "offshore" samples exhibited detectable concentrations of two or more metals in exceedance of the Sediment Severe Effect Level, including:

SED-05-2	
Arsenic	149
Cadmium	3.05
Chromium	20.2
Mercury	0.516
Copper	398
Lead	428
Zinc	478

SED-05	
Arsenic	86
Cadmium	2.55
Chromium	5.69
Mercury	0.108
Copper	900
Lead	106
Zinc	234

SED-05-1	
Arsenic	14.5
Cadmium	1.03
Chromium	22.2
Mercury	1.1
Copper	110
Lead	227
Zinc	291

SED-05-4	
Arsenic	8.74
Cadmium	0.53
Chromium	13.8
Mercury	ND
Copper	37.1
Lead	88.8
Zinc	136

SED-05-3	
Arsenic	41
Cadmium	2.8
Chromium	21.7
Mercury	ND
Copper	215
Lead	801
Zinc	698

SED-04-1	
Arsenic	176
Cadmium	2.51
Chromium	35.2
Mercury	6.5
Copper	1350
Lead	859
Zinc	424

SED-05-5	
Arsenic	3.04
Cadmium	4.68
Chromium	17.1
Mercury	ND
Copper	120
Lead	223
Zinc	191

SED-04	
Arsenic	20.2
Cadmium	1.43
Chromium	18.4
Mercury	0.466
Copper	194
Lead	506
Zinc	112

SED-04-5	
Arsenic	27
Cadmium	0.81
Chromium	12.4
Mercury	3.1
Copper	376
Lead	338
Zinc	185

SED-04-2	
Arsenic	4.09
Cadmium	0.58
Chromium	15.1
Mercury	2.6
Copper	45.8
Lead	530
Zinc	163

SED-04-3	
Arsenic	23.9
Cadmium	0.75
Chromium	16.4
Mercury	2.6
Copper	128
Lead	463
Zinc	158

SED-04-4	
Arsenic	9.25
Cadmium	1.55
Chromium	20.3
Mercury	0.328
Copper	38.4
Lead	561
Zinc	307

SED-05-2
SED-05
SED-05-1
SED-05-3
SED-05-4
SED-04-1
SED-05-5
SED-04-5
SED-04
SED-04-3
SED-04-2
SED-04-4

0 10'

LEGEND

- SED-05 — FIRST ROUND SEDIMENT SAMPLE LOCATION
- SED-05-5 — MAY 2009 SEDIMENT DELINEATION SAMPLE LOCATION
- SHORELINE

SED-05-5	
Arsenic	3.04
Cadmium	4.68
Chromium	17.1
Mercury	ND
Copper	120
Lead	223
Zinc	191

- SAMPLE ID
- CONCENTRATION IN MILLIGRAMS PER KILOGRAM
- CONSTITUENT WAS NOT DETECTED
- CONCENTRATION EXCEEDS THE SEDIMENT SEVERE EFFECT LEVEL

Dvirka and Bartilucci CONSULTING ENGINEERS
A DIVISION OF WILLIAM F. COSULICH ASSOCIATES, P.C.

ORANGE COUNTY DEPARTMENT OF PARKS
RECREATION AND CONSERVATION

DELINEATION SEDIMENT SAMPLE CONCENTRATION MAP

FIGURE 4-2

F:\2777\2777-SED04 Concentration.dwg, 2/7/2011 10:46:44 AM, \\att\Canon iR C3200-C1 PS Ver2.1

- Mercury
- Copper
- Lead
- Zinc

As noted above, five sediment samples were collected along the shoreline of Glenmere Lake, well outside the Glenmere Lake property, in order to obtain background metal concentration data for Glenmere Lake sediments. Figure 4-3 provides the background sample locations and concentration data. With the exception of copper and lead in sample location SED-10, no other background samples exhibited the presence of metals above the Sediment Severe Effect Level. However, all background samples exhibited the presence of at least two metals at concentrations exceeding the Sediment Lowest Effect Level. Note that background sediment sample SED-10 exhibited concentrations of arsenic, calcium, chromium, mercury and zinc above the Sediment Lowest Effect Level.

Sediment samples SED-01 through SED-05 were found to be free of detectable levels of SVOCs, with the exception of SED-04 which exhibited 4-methylphenol at an estimated concentration of 190 ug/kg.

PCBs were found to be below detectable concentrations in sediment samples SED-01 through SED-05, with the exception of Aroclor 1260 that was detected at a concentration of 420 ug/kg in SED-01. This concentration exceeds the PCB screening values based on a one percent organic carbon fraction identified in the referenced NYSDEC sediment guidance. However, PCBs were not detected on-site. This lone detection at a relatively low concentration does not constitute a contaminant of concern.

N

SED - 06

SED-06	
Arsenic	3.7
Cadmium	1.38*
Chromium	22.2
Mercury	ND
Copper	71.7*
Lead	44.7*
Zinc	74.8

SED - 07

SED-07	
Arsenic	3.7
Cadmium	1.02*
Chromium	16.8
Mercury	ND
Copper	52.6*
Lead	22.9
Zinc	54.1

Glenmere Lake Property

Glenmere Lake

SED-08	
Arsenic	1.78
Cadmium	0.8 *
Chromium	6.09
Mercury	ND
Copper	36.2*
Lead	8.05
Zinc	30.5

SED - 08

SED-09	
Arsenic	2.07
Cadmium	1.21*
Chromium	18.4
Mercury	ND
Copper	33 *
Lead	24.2
Zinc	83.8

SED - 09

SED-10	
Arsenic	7.08 *
Cadmium	0.9 *
Chromium	28.2 *
Mercury	0.236*
Copper	159
Lead	692
Zinc	217 *

SED - 10

Scale 1" = 175' Aprox.

0 87.5 175

Legend

SED-06 Background Sediment Sample Location

SED-10	
Arsenic	7.08 *
Cadmium	0.9 *
Chromium	28.2 *
Mercury	0.236*
Copper	159
Lead	692
Zinc	217 *

← Sample ID

← Concentration in Milligrams per Kilogram

← Concentration Exceeds Sediment Severe Effect Level

* ← Concentration Exceeds Sediment Lowest Effect Level

Dvirka and Bartilucci CONSULTING ENGINEERS
A DIVISION OF WILLIAM F. COSULICH ASSOCIATES, P.C.

GLENMERE LAKE PROPERTY

Background Sediment Sample Concentration Map

Source: Googlearth.com

Figure 4-3

4.6 Human Health and Ecological Exposure Assessment

4.6.1 Introduction

The purpose of this exposure assessment is to determine how and when an individual or wildlife might be exposed to contaminants of potential concern associated with the Glenmere Lake property. A contaminant of potential concern (COPC) is any chemical detected above the NYSDEC cleanup guidelines in a medium, which could produce adverse health effects under the right conditions of dose and exposure. For exposure to occur, there must be a complete "pathway of exposure" where a person can come into contact with COPCs. For a pathway to be complete, there must be: (1) a source or medium containing the COPCs; (2) a release of the COPCs and a mechanism for transport; (3) a location where human contact can take place (i.e., an exposure point); (4) a feasible means for the COPC to enter the person's body; and (5) people who could come into contact with the COPC at an exposure point called a "receptor." The ways in which the COPC can enter the body are called "routes of exposure." Ingestion (by mouth), dermal (contact with skin) and inhalation (breathing into the lungs) are the routes of exposure considered in this and other human health risk assessments. This assessment considers both current and potential future exposures.

As with any exposure assessment, it is not intended to predict disease outcome, but rather, is meant to be used as a tool to make decisions regarding the need for remediation or the institution of precautionary measures, such as limiting the affected area to non-residential land uses. Given the available information for the Site, and keeping the purpose of the assessment in mind, the following evaluation for the Glenmere Lake property is qualitative in nature. Consistent with the previous presentation of the environmental data, the exposure is presented by medium of interest.

4.6.2 Existing Site Conditions

As detailed in Section 1.3, the Glenmere Lake property is a 9.9-acre parcel located on the northernmost shoreline of Glenmere Lake. The Site contains a mixture of woodland and open

vegetated fields. There are a number of dilapidated structures and concrete foundations located in the westernmost portion of the Site. The Site is partially secured with a chain-link fence and is not accessible to the public under existing conditions, although Site conditions do not prevent potential trespassing. As detailed in the Fish and Wildlife Impact Analysis (FWIA) completed for this project and provided in Appendix C, the property is utilized by a wide variety of animals and contains high-value habitat. Furthermore, while it has been confirmed through the completed drift fence survey that the Northern Cricket Frog does not use the dilapidated buildings as overwintering sites, the New York Endangered Frog Species does utilize portions of the Site as habitat.

The dilapidated buildings and structures located on-site have collapsed or are partially collapsed and, therefore, are potentially hazardous to anyone that attempts to enter the structures. Furthermore, the building materials have been confirmed to contain asbestos and lead-based paint. Therefore, under current conditions, the existing dilapidated structures represent a potential hazard to receptors who may trespass on the Site, as well as to wildlife that may access and use the Site for habitat.

4.6.3 Surface Soil

A number of contaminants were detected above the ecological SCOs in the on-site surface soil samples including arsenic, cadmium, copper, lead, mercury, silver, nickel, zinc and a limited number of pesticides and PAHs. Elevated levels of silver were also detected in background surface soil samples, indicating the observed on-site concentrations of these metals may be typical of background soil concentrations within the vicinity of the Glenmere Lake property and are not necessarily attributable to historical site-related activities. However, the elevated levels of the remaining metals, primarily lead and arsenic, were found in surface soil throughout the area of the dilapidated buildings at concentrations well above their respective ecological SCOs and commercial SCOs.

While the Site is partially fenced and not open to the public, there is a potential for access to the Site by trespassers. Therefore, there exists the potential for exposure to surface soil

contamination by human receptors that may trespass on the Site. Exposure could occur through dermal contact, direct ingestion and inhalation of windblown dust. In addition, existing wildlife could be exposed to these surface contaminants through the following mechanisms:

- Direct ingestion of or contact with soil
- Inhalation of soil particles from wind or other disturbance
- Vegetative uptake of contaminants from soil and related food web effects
- Food web effects of ingesting soil organisms containing the surface soil contaminants.

4.6.4 Subsurface Soil

Metals contamination has been detected within the subsurface soil in the immediate vicinity of the dilapidated buildings, with arsenic, mercury, nickel, silver, lead and manganese exceeding the NYSDEC ecological SCOs. Arsenic was also detected at levels exceeding the NYSDEC commercial SCOs. As noted previously, the concentrations of silver detected in the subsurface soil samples are comparable to background surface soil samples and, therefore, are likely not attributable to historical site-related activities. Manganese and nickel were detected at levels just above the ecological SCOs and the concentrations are not likely attributable to historical site-related activities.

Only three of the 16 soil probes, SB-10, SB-15 and GP-08, exhibited the presence of petroleum contamination through the detection of a petroleum odor. Furthermore, contaminated soil was at depths of at least 2 feet or greater at these locations. Based on these conditions, direct exposure to subsurface soil contaminants will not occur. The only significant potential for exposure to the subsurface soil contaminants under current Site conditions is for construction workers who may need to complete excavations associated with future Site development or remedial activities in impacted areas. During such excavation activities, workers could be exposed to subsurface soil contaminants through several routes of exposure, including dermal contact and inhalation.

4.6.5 Groundwater

As discussed in Section 4.4, groundwater has not been adversely impacted by the presence of metals and PAHs in on-site soil. While several PAHs were identified in groundwater collected from GP-08, located downgradient of the pump house and a known UST, all contaminants exhibited concentrations less than NYSDEC Class GA groundwater standards.

On-site groundwater is not used as a potable water source or for any other uses and there are no known private or public groundwater supply wells within the area of the Site. Glenmere Lake is used by the Village of Florida as a public drinking water supply. However, due to the low levels of contaminants detected in only one of the groundwater monitoring points, it is not expected that the on-site groundwater will have an impact on the water quality of the lake. Therefore, groundwater is not considered a potential exposure pathway.

4.6.6 Air

VOCs were not detected in Site soil or groundwater. As a result, inhalation of contaminants released to the air through volatilization of contaminants from surface soil, subsurface soil or groundwater does not represent a potential exposure pathway for receptors. However, as discussed above, inhalation of windblown dust from areas of the Site containing surface soil with elevated levels of lead and arsenic does represent a potential for exposure to receptors.

4.6.7 Sediment

Elevated concentrations of several metals, including lead, arsenic, mercury, copper and zinc were detected in the sediment of Glenmere Lake downgradient of the dilapidated buildings in excess of the NYSDEC Sediment Severe Effect Level as far as 20 feet offshore. While under current conditions it is highly unlikely that an individual would come in direct contact with this sediment, aquatic organisms live and feed in the sediment, resulting in exposure through the following mechanisms:

- Direct ingestion of or contact with sediment
- Accumulation and concentration through the food web to fish and piscivorous birds and mammals

While Glenmere Lake is utilized as a potable water source, recent results of water quality sampling performed by the Village of Florida do not indicate the site is having an impact on the quality of drinking water.

4.6.8 Future Use and Potential Exposure Routes

Based on information provided by Orange County, there are plans for the redevelopment of the Site as a passive park area and open space. As discussed under Section 6.0, remedial actions are recommended to be completed. The recommended remedial actions will be protective of human health and the environment, considering the intended future use of the Site. As stated in Section 1.0, the objectives of the remediation include: prevent exposure of the community to site-related contaminants; prevent exposure of wildlife to site-related contaminants; reduce contaminant mass; mitigate migration of contaminants that could result in impacts to surface water and sediment; and protect on-site workers and the surrounding community from exposure to site-related contaminants during the implementation of the selected remedy.

4.7 Summary of Conditions

This section provides a summary of the overall extent of contamination and potential routes of exposure associated with the Glenmere Lake property.

The dilapidated buildings located in the western portion of the Site have been found to contain asbestos-containing material and lead-based paint. Furthermore, the buildings have collapsed or have partially collapsed. Based on these conditions, the existing buildings represent a potential hazard to personnel who may enter the Site and to wildlife. Surface soil samples

collected from within the area and downgradient of the dilapidated buildings were found to contain metals (primarily, lead and arsenic) at concentrations in excess of ecological and commercial SCOs. Given the shallow nature of the metal contaminants, these contaminants are potentially accessible to the public and wildlife. Therefore, the presence of the metals at the observed concentrations in shallow soil represents a potential exposure pathway.

Site-related metal contaminants are present in subsurface soil within the area of the dilapidated buildings. However, contamination is found at a minimum of 2 feet below grade, therefore, direct exposure to these contaminants is not expected under current conditions.

Site-related contaminants were not detected in the monitoring wells above the applicable SCGs. Metal concentrations above NYSDEC Class GA groundwater standards were detected in unfiltered samples, however all filtered samples were less than NYSDEC Class GA groundwater standards, with the exception of iron, manganese and sodium. Iron, manganese and sodium are not considered site-related contaminants. Furthermore, on-site groundwater is not utilized as a source of drinking water and direct exposure to these contaminants in groundwater is not expected under current conditions.

Sediment samples collected from Glenmere Lake downgradient of the dilapidated buildings contain elevated concentrations of several metals, including lead, arsenic, mercury, copper and zinc. While direct exposure to humans is not expected, aquatic organisms will be exposed to these contaminants under current conditions. Water quality testing performed by the Village of Florida does not indicate the Site is having an impact on the public water supply that originates from Glenmere Lake.

5.0 REMEDIAL TECHNOLOGY ASSESSMENT

5.1 Introduction

In general, response actions which satisfy remedial objectives for a site include institutional, isolation, containment, removal or treatment actions which will be developed into remedial alternatives for the site in question. In addition, New York State Department of Environmental Conservation (NYSDEC) Division of Environmental Remediation technical guidance for site investigation and remediation dated May 2010 (DER-10) requires the evaluation and comparison of a no-action alternative, as well as an alternative that achieves unrestricted soil cleanup objectives to the remaining alternatives. 6 NYCRR 375-4.8(d) also requires evaluation of at least one alternative which achieves Unrestricted Soil Cleanup Objectives (SCOs). Each remedial action alternative is developed to satisfy the remedial action objectives for the Site. Technologies and process options, which are available commercially and have been demonstrated to be successful for remediating sites with similar contaminants of concern, are identified in the discussion below. The technologies which are not appropriate for the Site due to site-specific factors or constraints have not been included for further consideration.

As discussed in Section 1.1 of this report, an interim remedial measure (IRM) for the Site was conducted to remove one aboveground and four underground storage tanks. This work was conducted prior to overall site remediation due to the potential for environmental damage as a result of the potential leakage from these tanks. Three of the underground storage tanks (UST-1, UST-6 and UST-8) were 1,000-gallon tanks and the fourth underground storage tank (UST-3) was a 5,000 gallon tank. The aboveground storage tank (AST-3) was a 1,000-gallon tank. Prior to removal, liquid was identified in UST-3 and UST-6 and, based on the results of sample analysis, the liquid in both tanks was confirmed as No. 2 fuel oil. A vacuum truck removed a total of 473 gallons of oily water from UST-3 and UST-6. After removal of the tanks from each area, the Contractor assessed the soil beneath the AST and surrounding the USTs for evidence of staining, fuel oil odors and total VOCs using a photoionization detector (PID). Soil exhibiting evidence of staining, odors and significant PID concentrations was excavated and stockpiled

adjacent to the excavation area on poly sheeting. A total of approximately 200 tons of soil was removed from the site. Upon completion of all excavation activities, the contaminated soil was transported to the Contractor's staging and storage area, sampled and disposed of off-site at a permitted facility. The IRM is documented in the February 2011 Construction Completion Report, included in electronic format as Appendix G.

As discussed in Section 1.0, a number of dilapidated buildings and foundations are located on-site. The results of the lead and asbestos survey presented in Section 4.0 indicate that the buildings contain lead and asbestos. As a result, all of the "action" alternatives described in Section 6.0 would include removal of these structures. Other potential alternatives such as building rehabilitation will not be considered.

The remedial technologies discussed below are considered potentially applicable with regard to the remediation of contaminated soil and sediment identified at the Site.

5.2 No Action

The no-action alternative will be considered for the Site pursuant to DER-10 as described above. The no-action alternative will serve as a baseline to compare and evaluate the effectiveness of other actions. Under the no-action scenario, limited remedial response actions may be considered including groundwater monitoring. Monitoring will consist of periodic groundwater sampling to evaluate changes over time in conditions at the Site including any increase in contamination which may necessitate further remedial action.

5.3 Institutional Controls

For alternatives where contaminated soil and sediment would remain on-site, institutional controls will be required to restrict use of the Site and disturbances of the soil and sediment. An institutional control is any non-physical means of enforcing restriction on the use of a real property that limits human and environmental exposure, provides notice to the potential owners, operators, or members of the public, or prevents actions that would interfere with the

effectiveness of the remedial program. Types of institutional controls include implementation of an environmental easement that would require a Site Management Plan including notifications prior to ground intrusive activities, health and safety issues and an operations, maintenance and monitoring plan. Institutional controls can also include deed restrictions, discharge permits, site security (other than fencing), local permits, consent orders/decrees, zoning restrictions, condemnation of property and public health advisories. Institutional controls are potentially applicable to the Site and will be considered further.

5.4 Engineering Controls

An Engineering Control (EC) is any physical barrier or method employed to actively or passively contain, stabilize or monitor contamination, restrict the movement of contamination to ensure the long-term effectiveness of the remedial program, or eliminate potential exposure pathways to contamination. Engineering controls include, but are not limited to, pavement, caps, covers, subsurface barriers, vapor barriers, slurry walls, building ventilation systems, fences, access controls, treatment and filtrations systems, and alternate water supplies. Although the Site is currently fenced and is posted with no trespassing signs, it is possible for unauthorized personnel to access the Site from the Glenmere Lake shoreline. Therefore, engineering controls in the form of fencing around the dilapidated buildings will also be considered for this project.

5.5 Soil Remediation Technologies

As discussed in Section 4.0, surface and shallow subsurface soil will require remediation. Regarding the technologies selected for evaluation, it should be noted that a number of innovative technologies requiring longer timeframes and offering less certain degrees of effectiveness were not considered applicable to this project due to the existing and future use of the Site.

For example, a potentially applicable technology to the remediation of metals contaminated soil is solidification. Solidification involves mixing a binding reagent with the contaminated media or waste either in-situ or ex-situ. Cement-based mix designs are most

commonly used and the material is mixed with the contaminated soil which converts contaminants into less soluble, mobile or toxic forms. A limiting factor is the increase in volume of the material and since the contaminated soil is primarily surficial soil, the solidified material would not be conducive to future use of the property as a park. Therefore, solidification will not be considered further.

The following sections describe potentially applicable technologies for the remediation of surface and shallow subsurface soil.

5.5.1 Excavation and Off-Site Disposal

Excavation and off-site disposal would be an active remedial response action and would include removal of contaminated soil from the Site and disposal of the contaminated materials at an off-site permitted landfill or treatment facility. Standard excavation equipment would be utilized to excavate contaminated soil. Excavated areas where the contaminated soil has been removed would be replaced with clean fill obtained from an off-site permitted facility.

This technology is commercially available, can be implemented at the Site and would allow for the achievement of remedial action objectives developed for the Site and detailed under Section 1.7. Since it would provide for removal of contaminated soil and disposal or treatment of the soil off-site, it would provide for protection to human health and the environment. Therefore, this technology would be considered further.

5.5.2 Surface Barriers

Potentially applicable isolation/containment technologies include surface barriers, such as permeable covers and low permeability caps. These technologies are designed to prevent direct contact with contaminants from the area of concern and do not provide any treatment for the isolated/contained contaminated soil. Various forms of surface barriers also significantly reduce the infiltration of precipitation into contaminated soil, and minimize surface runoff and contact with contaminated material. Low permeability caps have an advantage over permeable covers in

that these technologies would limit infiltration in addition to mitigating direct contact with contaminated material. However, low permeability caps are more costly, require a sloped surface to promote runoff and may preclude/limit the future use of the capped area and require additional maintenance.

Since the future use of the Site will be a passive park with hiking trails, a permeable soil cover would be a potentially applicable technology for the mitigation of direct contact with contaminated soil and, therefore, this technology will be considered further.

5.5.3 Consolidation

Consolidation is a process where contaminated material is excavated and placed in an open excavation or low lying area on-site that would subsequently be covered. For the Glenmere Lake property, once the on-site buildings are demolished the existing subgrade basements will need to be filled to grade. Since soil excavation is a potentially applicable technology, consolidation of the excavated soil on-site in the subgrade basement areas will be evaluated as a potentially applicable technology.

5.6 Sediment Remediation Technologies

As discussed in Section 4.0, Glenmere Lake sediment in the vicinity of the Site exhibited site-related contaminants at concentrations above site SCGs. Based on the results of the analysis presented in Section 4.0, sediment remediation will be considered as part of this evaluation. The United States Environmental Protection Agency (USEPA) has prepared a document entitled "Contaminated Sediment Remediation Guidance for Hazardous Waste Sites" dated December 2005. Within this guidance, the USEPA identified three major technologies applicable to sediment remediation including dredging and excavation, in-situ capping and monitored natural recovery. The following sections provide a brief description and screening of each of these technologies as they apply to the Glenmere Lake Property.

5.6.1 Dredging and Excavation

Sediment dredging is a process which removes contaminated sediment while it is still submerged, while sediment excavation is performed once surface water has been drained or diverted from the area of sediment contamination. Sediment excavation requires dewatering the area of the lake which requires sediment removal. Dewatering can be performed through the use of pumps and sheeting. Once dewatered, sediment can be removed using mechanical equipment. It would also require the construction of a haul road to the shoreline to provide access to the lake. Ensuring the area of concern remains dry during the excavation period can be difficult since storm water runoff naturally drains to this area and significant seepage can occur. Excavated sediment may still require dewatering prior to off-site shipment and therefore an area for staging of the sediment in close proximity to the lake would be required. Sediment excavation would likely cause significant impacts to the area of the shoreline from which sediment removal is required.

Sediment dredging can be performed by mechanical dredging using heavy excavation equipment stationed on the shoreline. In addition, hydraulic dredging could also be performed without the use of shore-based equipment from a smaller barge floated on the lake. For sediment dredging using equipment staged on the shoreline, similar disruption to the shoreline as discussed above would be incurred. Use of the barge and hydraulic dredging would not require placement of heavy equipment on the shoreline but would require a staging area for dewatering of the sediment. Since the area to be remediated will not be dewatered, mobilizing sediment into the surface water column during the dredging activities is a concern. This can be addressed through the use of a turbidity curtain. The turbidity curtain is a floating impermeable barrier constructed with flotation material and a lower hem containing ballast material. These curtains can contain the suspended material in the area where the work is being performed in order to minimize mobilization of sediment to remaining portions of the lake. With regard to dewatering of the sediment dredged from the lake, this can be addressed with the use of a Geotube container or other technology. Geotube containers are constructed of geotextiles designed to contain and dewater the sediment. Sediment is pumped into the container where polymers are added to the

sediment to enhance separation. Clear water drains from the tube back into the lake. Permits for discharge back to the lake would be required.

While either sediment excavation or sediment dredging can be readily completed with commercially available equipment, several factors should be considered when evaluating these technologies including the availability of suitable areas for staging excavated/dredged materials prior to off-site disposal, access to the area to be excavated/dredged, and whether the long-term risk reduction outweighs the sediment disturbance, habitat disruption and potential entrainment of contaminants in surface water, which is utilized as a public drinking water supply. Access to the lake by a barge to perform the hydraulic dredging may be difficult and require the creation of an access ramp either on-site or another more suitable off-site location. In addition, during dredging, consideration needs to be given to ensure minimizing the spread of contaminants to the surrounding environment. Regardless of these significant drawbacks, sediment dredging will be considered further, since this technology is potentially applicable to the remediation of the contaminated lake sediment at the Site.

5.6.2 In-Situ Sediment Capping

In-situ sediment capping of lake sediment includes the placement of a material over the contaminated sediment. Caps are generally constructed of granular material such as sand or gravel but can include geotextiles, liners or multilayer caps with reactive materials that reduce contaminant flux. Sediment caps are intended to isolate the contaminants from the overlying surface water and organisms. When evaluating the use of caps for sediment remediation, consideration should be given to the depth of the sediment below the water, whether the long-term risk outweighs the habitat disruption during installation of the cap, contaminant flux through the cap, and whether the sediment has the sufficient strength to support the cap. Typically, placement of a cap would be less disruptive than dredging or excavation since the sediment remains in place. Contaminated sediment can become exposed in the future if the cap is significantly disturbed. In addition, capping may change the top layer of contaminated sediment from an oxidizing to an anoxic condition which may change the solubility of metal

contaminants. Since the primary contaminants of concern for the site are metals, this technology will not be considered further.

5.6.3 Monitored Natural Recovery

Monitored natural recovery typically relies on naturally occurring processes to remediate sediment. Such processes include physical, chemical and biological mechanisms that will reduce the risk of the contaminants in the sediment. Such processes include burial through sedimentation, dispersion as well as reduction of bioavailability through increased sorption. Since it is unlikely that any of these processes will significantly modify the current exposure scenario at the Glenmere Lake site for the contaminants of concern, this technology will not be considered further.

5.7 Remedial Technology Assessment Summary

Based on the screening of remedial technologies, the following technologies will be considered further for soil remediation at the Site:

- Excavation and off-site disposal;
- Surface barriers; and
- Consolidation.

In addition, for sediment remediation of Glenmere Lake adjacent to the Site, the only technology that will be considered further is dredging/excavation. The above technologies will be considered either as remedial alternatives in and of themselves or in combination to form alternatives. No action and engineering/institutional controls will also be evaluated further in combination with the response actions to form alternatives.

6.0 POTENTIAL REMEDIAL ALTERNATIVES EVALUATION

6.1 Introduction

Based on the preliminary evaluation of the remedial technologies discussed in Section 5.0, the technologies selected for further consideration were developed into potential remedial alternatives. The purpose of this section is to provide an engineering evaluation of potential remedial alternatives for the Glenmere Lake Property. The goal of this evaluation is to demonstrate how the selected remedy would be protective of human health and the environment. For the Site, three remedial alternatives were developed for consideration:

- Alternative 1: No Further Action with Engineering/Institutional Controls
- Alternative 2: Building Demolition, Excavation of Soil, Partial On-Site Consolidation and Covering, Off-Site Disposal and Institutional Controls
- Alternative 3: Building Demolition, Excavation and Off-Site Disposal of Soil, and In-Shore Lake Sediment Dredging/Excavation

The above alternatives have been evaluated against the following nine remedy selection factors in accordance with the requirements set forth in DER -10.

Conformance to Standards and Criteria

Conformance with applicable regulatory standards and criteria evaluates the alternatives against the federal and New York State standards and criteria identified for the Site. This evaluation also considers the remedial action objectives developed for the Site in Section 1.7. These standards are considered a minimum performance specification for each remedial alternative under consideration.

The following is a list of major SCGs that apply to the Site:

- 6 NYCRR Part 364 - Waste Transporter Permits

- 6 NYCRR Part 370 - Hazardous Waste Management System
- 6 NYCRR Part 375 - Environmental Remediation Programs
- 6 NYCRR Part 376 - Land Disposal Restrictions
- 6 NYCRR Part 703 – Surface Water and Groundwater Quality Standards and Groundwater Effluent Standards
- 10 NYCRR Part 5 – Public Water Supplies
- 12 NYCRR Part 56 – Asbestos
- 29 CFR Part 1910 – Asbestos Regulations
- 29 CFR Part 1910.120 - Hazardous Waste Operations and Emergency Response Standard
- 29 CFR Part 1910.1025 – Lead.
- 29 CFR Part 1926 – Safety and Health Regulations for Construction
- 29 CFR Part 1926.62 – Lead (Construction Industry Standard)
- New York State Department of Health (NYSDOH) Generic Community Air Monitoring Plan
- NYSDEC Technical and Operation Guidance Series (TOGS) (1.1.1) Ambient Water Quality Standards and Guidance Values.
- NYSDEC Technical Guidance for Screening Contaminated Sediments - January 1999.
- NYSDEC Air Guide 1: Guidelines for the Control of Toxic Ambient Air Contaminants
- NYSDEC DER-10 Technical Guidance for Site Investigation and Remediation May 2010
- NYSDEC Municipal Assistance for Environmental Restoration Projects Procedures Handbook - July 2004
- NYSDOL
- Title X – U.S. Department of Housing and Urban Development (HUD) “Guidelines for the Evaluation and Control Lead-Based Paint Hazards in Housing.”

Overall Protectiveness of Public Health and the Environment

Protection of health and the environment is evaluated on the basis of estimated reductions in the potential for both human and wildlife exposure to contaminants for each remedial alternative. The evaluation focuses on whether a specific alternative achieves adequate protection under the conditions of the Site's future use and how site risks are eliminated, reduced or controlled through treatment, engineering or institutional controls. An integral part of this evaluation is an assessment of long-term residual risks to be expected after remediation has been completed. Evaluation of the human health and environmental protection factor is generally based, in part, on the findings of the exposure assessment.

Short-Term Effectiveness and Impacts

Evaluation of short-term effectiveness and impacts of each alternative examines health and environmental risks likely to exist during the implementation of a particular remedial alternative. Principal factors for consideration include the expediency with which a particular alternative can be completed, potential impacts on the nearby community, on-site workers and environment, and mitigation measures for short-term risks required by a given alternative during the necessary implementation period.

Long-Term Effectiveness and Permanence

Examination of long-term impacts and effectiveness for each alternative requires an estimation of the degree of permanence afforded by each alternative. To this end, the anticipated service life of each alternative must be estimated, together with the estimated quantity and characterization of residual contamination remaining on-site at the end of this service life. The magnitude of residual risks must also be considered in terms of the amount and concentrations of contaminants remaining following implementation of a remedial action, considering the persistence, toxicity and mobility of these contaminants, and their propensity to bioaccumulate. This evaluation also includes the adequacy and reliability of controls required for the alternative.

Reduction in Toxicity, Mobility and/or Volume of Contamination

Reduction in toxicity, mobility and/or volume of contamination is evaluated on the basis of the estimated quantity of contamination treated or destroyed, together with the estimated quantity of waste materials produced by the treatment process itself. Furthermore, this evaluation considers whether a particular alternative would achieve the irreversible destruction of contaminants, treatment of the contaminants or merely removal of contaminants for disposal elsewhere. Reduction of the mobility of the contaminants at the Site is also considered in this evaluation.

Implementability

Evaluation of implementability examines the difficulty associated with the installation and/or operation of each alternative on-site and the proven or perceived reliability with which an alternative can achieve performance goals. The evaluation examines the potential need for future remedial action, the level of oversight required by regulatory agencies, the availability of certain technology resources required by each alternative and community acceptance of the alternative.

Cost

Cost evaluations presented in this document estimate the capital, and operation, monitoring and maintenance (OM&M) costs associated with each remedial alternative. From these estimates, a total present worth for each option is determined.

Community Acceptance

Community acceptance evaluates the technical and administrative issues and concerns that the community may have regarding each of the alternatives.

Land Use

Evaluation of land use examines whether the alternative is suitable for the site, based on current and future use of the site and factors such as:

- zoning;
- any applicable comprehensive community master plans or land use plans;
- surrounding property uses;
- citizen participation;
- environmental justice concerns;
- land use designations;
- population growth patterns;
- accessibility to existing infrastructure;
- proximity to cultural resources;
- proximity to natural resources;
- off-site groundwater impacts;
- proximity to floodplains;
- geography and geology of the site; and
- current institutional controls.

The following sections provide a more detailed description of the remedial alternatives.

6.2 Description of Remedial Alternatives

6.2.1 Alternative 1: No Further Action with Engineering/Institutional Controls

The no further action alternative will be considered and serve as a baseline to compare and evaluate the effectiveness of other actions. Under the no further action scenario, although limited remedial response actions may be considered such as fencing around the dilapidated buildings and monitoring of groundwater, active remediation would not be performed.

Since no contamination would be remediated, institutional controls would be necessary under this alternative. These institutional controls include establishment of an environmental easement, which would:

- Ensure appropriate future use/control of the Site that would protect human health and the environment;
- Include required notifications prior to any ground-intrusive activities that may encounter contaminated materials (notification of NYSDEC and on-site workers would be required prior to excavating soil).
- Include an excavation work plan identifying requirements in the event of excavation, which would be included as part of the Site Management Plan;
- Include provision for groundwater monitoring, as discussed below, which would be described in the Site Management Plan;
- Include a periodic inspection program to ensure appropriate use of the Site and minimize the potential for exposures, which would be included as part of the Site Management Plan; and
- Include a periodic certification program requiring certification that the institutional controls are in place, have not been altered and are still effective, which would be described in the Site Management Plan.

The Site is partially secured with a chain-link fence and is not accessible to the public under existing conditions, although Site conditions do not prevent potential trespassing. The dilapidated buildings and structures located on-site have collapsed or are partially collapsed and therefore are potentially hazardous to anyone that attempts to enter the structures. Therefore, this

alternative will include the placement of fencing around the dilapidated buildings as an engineering control. Although groundwater quality is not currently an issue at the Site, groundwater monitoring would also be included as part of this alternative to ensure groundwater quality does not deteriorate. Monitoring would consist of periodic groundwater sampling to evaluate changes in groundwater contaminant concentrations. Groundwater monitoring would involve quarterly sampling of two upgradient wells and three downgradient wells for 2 years. Groundwater monitoring wells are not currently installed at the Site, so this alternative would include the costs associated with the installation and development of the wells.

Subsequent to the first 2 years of monitoring, the groundwater data will be evaluated to determine future groundwater monitoring requirements. Groundwater samples would be analyzed for full target compound list, volatile organic compounds (VOCs), semivolatile organic compounds (SVOCs), pesticides and target analyte list (TAL) metals. A Site Management Plan (SMP) that provides more detail regarding post-remediation monitoring would be prepared and submitted to NYSDEC for approval and would be included as part of the environmental easement for the Site. The SMP would be maintained at the Orange County offices.

6.2.2 Alternative 2: Building Demolition, Excavation of Soil, Partial On-Site Consolidation and Covering, Off-Site Disposal and Institutional Controls

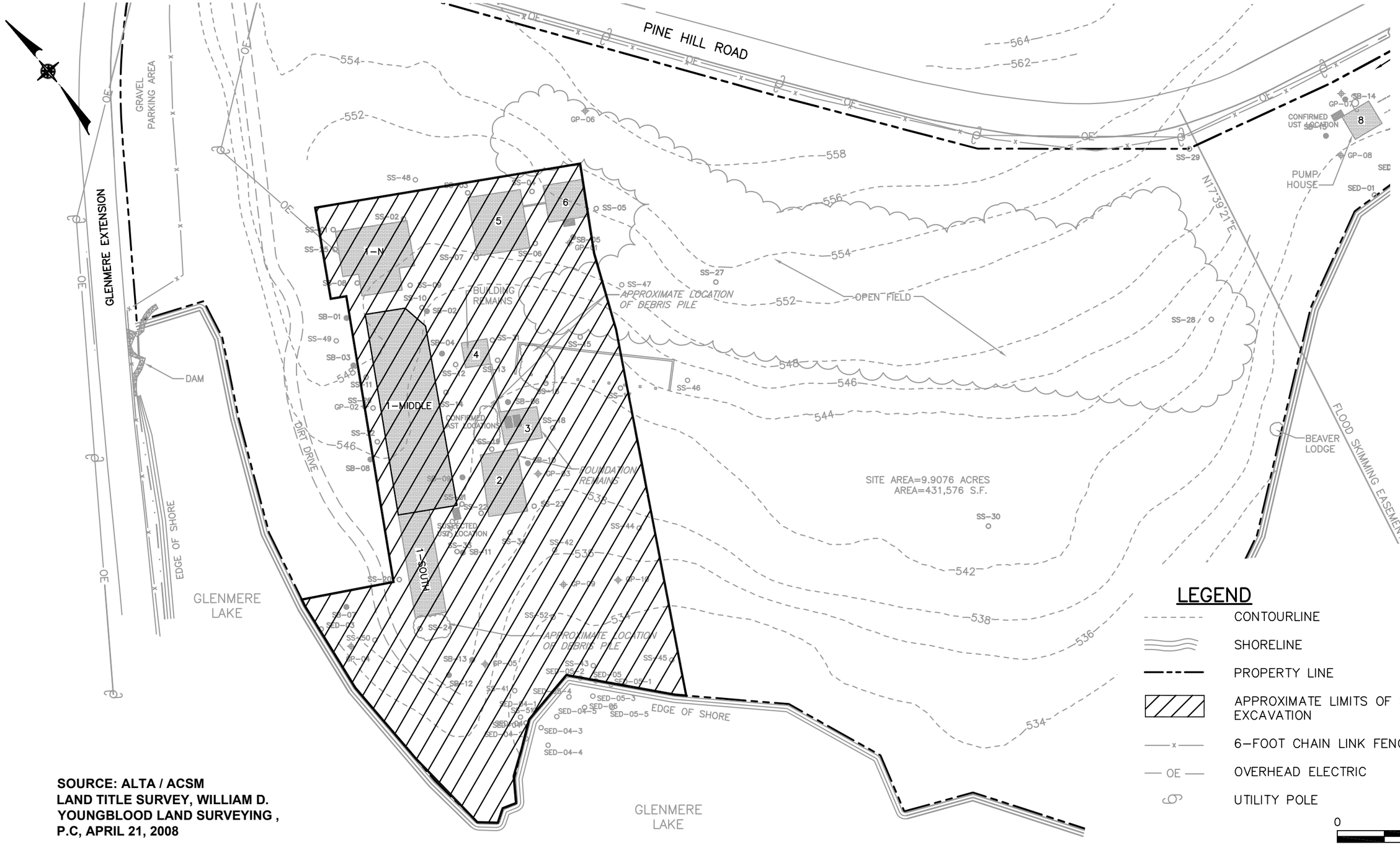
This alternative would include the abatement, demolition and off-site removal of all existing structures present at the Site. Asbestos containing materials (ACM) and lead-based paint coated materials would require abatement prior to the demolition of the structures; however, in situations where the building to be demolished is ruled structurally unsafe by a licensed Professional Engineer, Registered Architect, Building Inspector, Fire Inspector or other official of competent jurisdiction, the building demolition would have to be performed as an asbestos project in compliance with Industrial Code Rule 56 (ICR-56). During controlled demolition procedures, the entire demolition area will be considered the regulated abatement work area. The regulated abatement work area will be enclosed within a barrier to prevent unauthorized entry and will be posted with signs in accordance with current Occupational Safety and Health Administration (OSHA) regulations. The structures will be wetted on a continuous basis prior to, during and subsequent to their demolition and removal. Upon completion of the

demolition activities and the removal of all debris within the foundation footprint, it is possible that asbestos or lead-based paint may be present in soil of the earthen floors. Endpoint sampling, as discussed below, will be performed in these areas.

After completing the building demolition, excavation of all soil on-site that exceeds ecological SCOs for metals would then be performed (see Figure 6-1). Based on the results of the surface soil sampling described in Section 4.0, the area to be excavated (including the building footprints) is estimated to be approximately 64,000 square feet. Results of the soil sampling indicated the highest levels of contamination were detected in the shallow soil; therefore, soil from the entire area will be excavated to a minimum of 6 inches below grade. Based on the results of deeper soil sampling, shallow subsurface soil in portions of the Site may also require excavation up to 2 feet in depth. If samples collected at the base of the 2-foot excavation still exhibit levels above the ecological SCOs for metals, a demarcation layer will be placed in these areas and covered with clean fill.

The volume of contaminated soil requiring excavation is estimated to be approximately 2,000 cubic yards. All excavated soil will be stockpiled on-site. Soil immediately surrounding the buildings which are anticipated to contain the highest levels of contamination will be removed and stockpiled separately from remaining soil and will be disposed of off-site. Stockpiled soil will be sampled in accordance with NYSDEC DER-10, May 2010.

In lieu of off-site transportation and disposal of all soil, excavated soil containing contaminants less than the commercial SCOs, would be backfilled on-site within the area of the Building 1-N and 1-Middle sub-grade basements. This area would then be covered with a demarcation layer material to mark the location of contaminated materials. Two (2) feet of clean soil would then be placed above the demarcation layer. Although, for commercial use, only 1 foot of soil cover is typically required for protection of human health, 2 feet of clean soil is being utilized for protection of ecological resources. If necessary, additional clean soil would be placed in the excavation/basement in order to match the surrounding surface grade. Note that, at



SOURCE: ALTA / ACSM LAND TITLE SURVEY, WILLIAM D. YOUNGBLOOD LAND SURVEYING , P.C, APRIL 21, 2008

Dvirka and Bartilucci CONSULTING ENGINEERS
A DIVISION OF WILLIAM F. COSULICH ASSOCIATES, P.C.

GLENMERE LAKE ENVIRONMENTAL SITE RESTORATION
ORANGE COUNTY DEPARTMENT OF PARKS, RECREATION AND CONSERVATION

REMEDIAL PLAN - ALTERNATIVE 2

FIGURE 6-1

\\Nt4\cadwork\2777\dwg\2777-PL06.dwg, 2/22/2011 10:49:40 AM, dbcadd

this time, the actual volume of the two subgrade basements is not known. Therefore, it is possible that a portion of the soil meeting this criteria would have to be transported off-site for disposal if the basements cannot accommodate all of this soil.

Excavation confirmation samples will be collected from the bottom and the sidewalls of the excavation to determine the characteristics of the remaining soil prior to backfilling in accordance with NYSDEC DER-10, May 2010. Additional soil excavation may be required based on the results of the confirmation samples.

The potential for generation of dust would exist during implementation of this alternative, and as a result, implementation of appropriate controls would be necessary. Air monitoring would be conducted during remediation activities in accordance with NYSDEC and NYSDOH requirements to protect the health and safety of on-site workers and the surrounding community. Dust controls would be implemented in conformance with the Contractor's Health and Safety Plan and Community Air Monitoring Plan. Standard emission control techniques include:

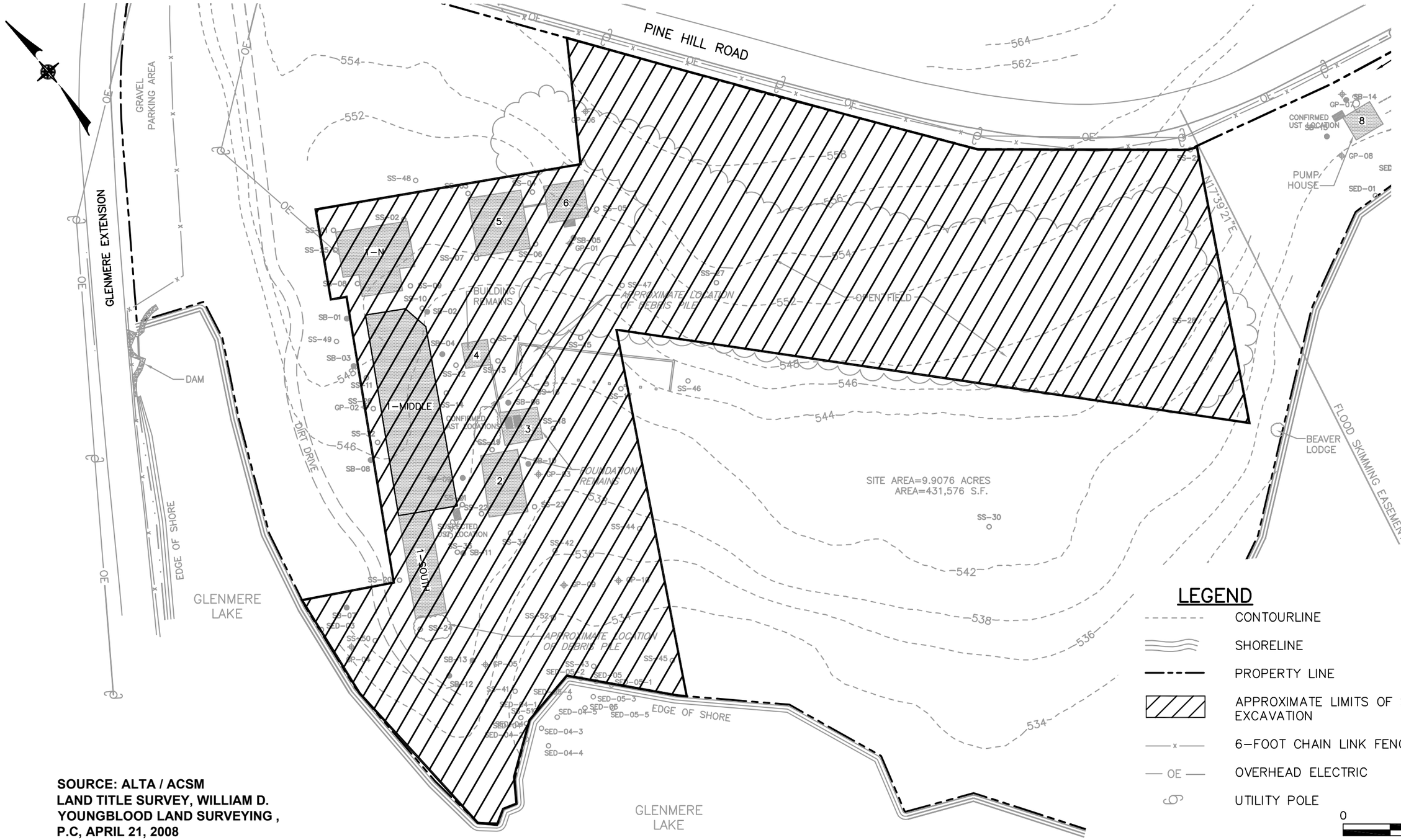
- Installing gravel pads at vehicle egress points;
- Application of wetting agents to soil;
- Tarping/covering containers;
- Restricting vehicle speeds on-site to 10 miles per hour; and
- Covering of stockpiled soil and inactive excavations.

Once the buildings are demolished and the soil is removed, the Site would be restored. Since residual contamination will remain on-site that is above unrestricted SCOs, institutional controls, including groundwater monitoring, an environmental easement which would restrict the future use of the site and preparation of a Site Management Plan, as discussed in Section 6.2.1, would be required as part of this alternative.

6.2.3 Alternative 3: Building Demolition, Excavation and Off-Site Disposal of Soil, and In-Shore Lake Sediment Dredging/Excavation

This alternative would include all aspects of Alternative 2, but would also include the excavation and off-site disposal of all contaminated soil above the unrestricted SCOs and sediment remediation. This alternative would include building demolition, excavation and off-site disposal of all soil to meet unrestricted SCOs. With the exception of the soil sampling performed in the vicinity of the existing structures, only limited surface soil sampling has been performed throughout the remaining portion of the site. Three surface soil samples collected from the northern portion of the site indicated levels of pesticides above the unrestricted SCOs. Based on this information, it is estimated that the northern portion of the site would require removal of the surficial soil in order to achieve unrestricted SCOs. Since the southern portion of the site is primarily wooded, it is not anticipated that any soil removal would be required in the wooded areas of the site. Note that as part of this alternative a pre-design investigation would be required to further delineate the extent of the soil requiring removal to achieve unrestricted SCOs.

Based on the above assumptions, the estimated area to be excavated is approximately 130,000 square feet. (see Figure 6-2). Since the highest levels of contamination were found in the vicinity of the existing structures, it is assumed that soil to a depth of 4 feet would need to be removed from this entire area. It is also assumed that the exceedances of SCOs for the remaining area of the site is limited to the surficial soil and therefore soil in the remaining portion of the site will be removed to a depth of 2 feet. The total volume of soil to be removed and disposed of off-site for this alternative is approximately 14,000 cubic yards. All excavated soil would be disposed of off-site and the building subgrade basements and excavations would be backfilled with clean fill. Prior to backfilling, confirmation samples would be collected from the excavation to determine if levels above unrestricted SCOs remain. Additional soil removal would be required if contaminants are found to be present above unrestricted SCOs. Since all site contaminants would be remediated under this alternative, engineering and institutional controls would not be required.



\\Nt4\cadwork\2777\dwg\2777-PL06.dwg, 2/22/2011 10:50:10 AM, dbcadd

Dvirka and Bartilucci CONSULTING ENGINEERS
A DIVISION OF WILLIAM F. COSULICH ASSOCIATES, P.C.

GLENMERE LAKE ENVIRONMENTAL SITE RESTORATION
ORANGE COUNTY DEPARTMENT OF PARKS, RECREATION AND CONSERVATION

REMEDIAL PLAN - ALTERNATIVE 3

FIGURE 6-2

This alternative would also include the remediation of lake sediments that exhibit levels of contaminants greater than the Sediment Severe Effect Levels for site contaminants of concern. For this alternative, it is assumed that the area of lake to be considered for sediment remediation will be the small cove area of Glenmere Lake (where SED-04 and SED-05 were sampled) and the area that is encompassed by the supplemental sample locations collected in May 2009. See Figure 4-2. Based on this data, it is assumed a minimum of 1 foot of sediment would be remediated from this area.

Removal of the shallow sediment in this area would need to be performed at a time of the year when there would be the least impacts to the environment. As discussed in Section 1.5, Glenmere Lake has one of the largest known populations of the Northern Cricket Frog, an endangered species in New York state. Therefore, coordination with NYSDEC with regard to the timing of sediment removal would be required before proceeding with this remedial activity.

It is estimated that a minimum of 200 square yards of the lake bottom would be dredged to remove at least 100 cubic yards of contaminated sediment based on existing sediment data and the assumptions discussed above. However, further sampling would be necessary during the design phase to better define the area and depth of sediments remediated. A turbidity curtain would be used to minimize impacts of mobilized sediment to the portions of the lake outside of the remediation area. Sediments would need to be dewatered prior to off-site disposal. Water from the dewatering would likely be managed by treating the water, as necessary, prior to returning it to the lake. The water could also be removed for off-site treatment and/or disposal. Appropriate permits for the dredging and discharge of this water would need to be obtained.

Prior to removal of the sediment, additional samples would be collected at depth to demonstrate quality of the sediment that will be left exposed after the dredging is completed. In addition, further sediment sampling would be required to define the limits of the lake bottom that contains sediment exhibiting contaminants at concentrations exceeding the Sediment Severe Effect Level. A detailed work plan would be prepared prior to initiating any sediment remediation, which must be approved by the NYSDEC and NYSDOH. The work plan, at a

minimum, would describe the methods to be used for dredging, handling, storing, sampling, transporting and disposing of contaminated sediment.

Since all contaminated soil, sediment and the dilapidated buildings would be removed from the Site, institutional controls would not be required to restrict use of the property. Groundwater monitoring would also not be included in this alternative.

6.3 Comparative Evaluation of Remedial Alternatives

Provided below is a comparative analysis of the remedial alternatives with respect to each of the evaluation criteria presented in Section 6.1 with the understanding that the intended future use of the Site would be limited to passive parkland. Based on this detailed evaluation, a remedial plan for the Site is recommended under Section 6.4.

6.3.1 Conformance to Standards and Criteria

Alternative 1 would not meet the standards and criteria for the Site, since contaminated soil and sediment would remain at the Site.

Alternative 2 would be compliant with the standards and criteria established for the Site with the exception that lake sediment containing metals above SCGs would remain. All soil exceeding the commercial SCOs for metals within the top 2 feet of the site would be removed from the Site, which would also remove a significant volume of soil exceeding the commercial SCO for other contaminants, including PAHs. Soil exceeding the ecological SCOs present within the area of excavation would be consolidated on-site and covered, which would mitigate exposure to contaminated surface soil. This would also remediate the source of metal contamination detected in the lake sediment by eliminating potential for migration of contaminated soil to the lake. Appropriate dust suppressant methods would be utilized during the excavation of contaminated soil. Therefore, this alternative would reduce contaminant mass, mitigate exposure to possible receptors, would be protective of on-site workers and the surrounding community, and would comply with the applicable SCGs related to waste

management and disposal. Institutional controls would be placed on the property due to the remaining soil and sediment contamination.

Alternative 3 would be compliant with the standards and criteria established for the Site. All soil exceeding the unrestricted SCOs and sediment exceeding the Sediment Severe Effect Level for site contaminants of concern would be removed from Glenmere Lake. Appropriate dust suppressant methods would be utilized during the excavation of contaminated soil. Therefore, this alternative would reduce contaminant mass, would be protective of on-site workers and the surrounding community and would comply with the applicable SCGs related to waste management and disposal. Institutional and engineering controls would not be placed on the property due to the fact that all media contaminated above SCGs would be removed from the site.

Since more soil exceeding SCGs would be removed from the Site under Alternative 3 and the lake sediment would be remediated, Alternative 3 would be more compliant with the standards and criteria established for the Site than Alternatives 1 and 2.

6.3.2 Overall Protectiveness of Public Health and the Environment

Alternative 1 would only be partially effective at reducing the potential exposures to humans through the fencing of the dilapidated buildings. Alternative 1 would not reduce the potential for wildlife exposures to contaminants since all contaminated soil and sediment would remain in-place. Institutional controls would require that future use of the property be restricted and that any future intrusive activities are performed with proper notification, appropriate personnel protection and proper handling of contaminated materials.

Alternative 2 would reduce the potential for human and wildlife exposures to contaminants through the removal and covering of contaminated soil and through the placement of institutional controls on the Site. Aquatic wildlife could be exposed to the contaminated lake sediment that remains in place, but the source of this contamination, which is the metals in the nearby surface soil, would be remediated. Therefore, this potential exposure will likely be

reduced over time through burial by natural sedimentation processes. Since a portion of the contaminated soil would not be removed from the Site under this alternative, there is still the possibility of exposure to contaminated materials during ground-intrusive type activities. Therefore, institutional controls would require that any future intrusive activities are performed with proper notification, appropriate personnel protection and proper handling of contaminated materials. The institutional controls would also require site management activities to ensure maintenance of the soil cover, including the demarcation layer and clean fill cover materials. Therefore, Alternative 2 is protective of human health and the environment, and would allow for the future use of the Site as passive parkland.

Alternative 3 would reduce the potential for human health and environmental exposures to contaminants through the removal of contaminated soil and sediment. Since all contaminated soil exceeding unrestricted SCOs would be removed from the Site under this alternative, there would not be any future exposures to soil contamination. In addition, sediment exceeding the Severe Effect Level criteria would also be removed off-site. Therefore, Alternative 3 is protective of human health and the environment, and would allow for the future use of the Site as passive parkland.

All of the alternatives would provide some protection of public health and the environment. However, the removal of all of the contaminated soil at the site in Alternative 3 would provide the most protection to human health and the environment. The removal of the majority of the contaminated soil from the site and the implementation of institutional controls under Alternative 2 would preclude exposure to any soil above applicable SCOs. Therefore, Alternative 3 would be the most protective of human health and the environment followed by Alternatives 2 and 1, respectively.

6.3.3 Short-Term Effectiveness and Impacts

Only Alternatives 2 and 3 would be effective in the short-term through the removal of large volumes of contaminated soil and reducing the potential for exposure to contaminated soil. However, since the overall time required for the implementation of Alternatives 2 and 3 would

be longer than Alternative 1, Alternatives 2 and 3 represent greater short-term impacts during implementation than Alternative 1. These impacts would include construction-related truck traffic and noise, as well as an increased potential for impacts from dust. The estimated time to implement Alternative 2, including building demolition and soil removal, is 1 to 2 months, and the estimated time to implement Alternative 3, including building demolition, soil removal and sediment remediation, is 4 to 6 months. The potential for off-site migration of contaminated soil due to soil erosion during construction, and tracking by hauling vehicles is also greater for Alternatives 2 and 3. As part of the sediment removal associated with Alternative 3, there would be short-term impacts to the Lake and shoreline and Alternatives 3 and 2, respectively, would be more effective in the short-term through the removal of contaminated soil and sediment than Alternative 1. However, since a larger volume of soil and sediment will be removed and transported off-site during implementation of Alternative 3, Alternative 2 would have less short-term impacts than Alternative 3. Therefore Alternative 1 represents the least short-term impacts and Alternative 2 would have less short-term impacts than Alternative 3.

6.3.4 Long-Term Effectiveness and Permanence

Alternative 1 is not considered an effective long-term and permanent remedial action. Potential for exposure to contaminated soil, while reduced to some degree by fencing the dilapidated buildings, would not be an effective action over the long term, since the contaminant mass and building materials would remain on-site.

Alternative 2 is considered an effective long-term remedial action. Removal of the contaminated surface soil provides a permanent alternative since the potential for exposure to contaminants would be removed. The risk posed by the covered contaminated soil that remains would be minimal, since institutional controls would be established to protect future workers from the potential for exposure to contaminated soil. Although sediment in excess of the SCGs will remain, recent water quality sampling results do not indicate these sediments are impacting the quality of drinking water. In addition, since the source of the sediment contaminants would be remediated under this alternative, the risks associated with the contaminated sediment would be reduced over the long term through burial by natural sedimentation processes. Therefore,

impacts related to contaminated sediment would not be expected in the future under Alternative 2.

Alternative 3 is considered an effective long-term and permanent remedial action. Removal of the contaminated soil and sediment provides a permanent alternative since the potential for exposure to this material would be mitigated. Long-term institutional controls would not be required. Since in-shore sediment will be dredged/excavated, areas of the shoreline wetland may be damaged in order to access this material. Efforts will be made to re-establish the wetland area; however, this re-establishment may take many years before the area is fully restored to pre-remediation conditions.

Alternative 3 removes all contaminated soil and sediment and will not require the use of institutional controls; therefore, this alternative is the most effective and permanent in the long term. Although the potential exists for exposure to remaining soil and sediment after implementation of Alternative 2, the use of institutional controls limits this potential. Alternative 1 would not be effective in the long-term and therefore, Alternative 3 would be the most effective in the long-term followed by Alternatives 2 and 1, respectively.

6.3.5 Reduction in Toxicity, Mobility and/or Volume of Contamination

Alternative 1 would not reduce the toxicity, mobility and/or volume of contamination, since no remedial work would be completed at the Site as part of this alternative and all contaminated soil and sediment would remain.

Alternative 2 would reduce the toxicity, mobility and volume of contamination on-site through the removal of contaminated soil exceeding commercial SCOs. Some contaminated soil above the ecological SCOs, but less than the commercial SCOs, would remain on-site; however, there would be a reduction in mobility by limiting the potential for migration via erosion since the contaminated soil will be covered with 2 feet of clean soil. Contaminated lake sediment in the vicinity of the Site above the Sediment Severe Effect Level would not be remediated. However, the contaminated surface soil, which is the likely source of the lake sediment

contaminants, will have been remediated, and the toxicity and mobility of the remaining contaminated sediment would be reduced through burial by natural sedimentation processes over time.

Alternative 3 would reduce the toxicity, mobility and volume of contamination on-site through the removal of contaminated soil exceeding unrestricted use SCOs and sediment above the Sediment Severe Effect Level.

Since, under Alternative 3, a larger amount of contaminated soil and sediment would be removed from the Site, Alternative 3 would be more effective than Alternatives 2 and 1, respectively, at reducing the toxicity, mobility and volume of contaminated soil at the Site.

6.3.6 Implementability

Implementation of Alternative 1 would not require any additional labor, equipment, materials or supplies, with the exception of constructing and maintaining the fence around the dilapidated buildings. Additionally, although execution of the institutional controls under Alternative 1 would require coordination among the parties involved, the coordination effort required is not expected to impact overall implementation of the alternative.

The necessary labor, equipment, materials and supplies for implementation of Alternatives 2 and 3 are readily available. Although all necessary labor, equipment and supplies are readily available for implementation of Alternative 3, implementation of the dredging would require coordination with federal, state and local authorities. Additional precautions and limitations may be imposed on the dredging given the existence of the endangered Northern Cricket Frog population living in Glenmere Lake.

Although execution of the institutional controls under Alternative 2 would require coordination among the parties involved, the coordination effort required is not expected to impact overall implementation of the alternative. Therefore, Alternative 1 is the easiest to implement, followed by Alternatives 2 and 3, respectively.

6.3.7 Cost Effectiveness

Estimated capital costs and the estimated present worth of long-term (30-year) operation, maintenance and monitoring (OM&M) costs associated with each of the alternatives, are presented in Table 6-1. A detailed breakdown of each estimate is provided in Appendix F.

The following assumptions were utilized in the preparation of the cost estimates:

- All costs (e.g., excavation, backfill, etc.) were estimated based on recent bids for remediation projects and Means Site Work Cost Data, experience in construction, with adjustment for hazardous waste site remediation, and recent communications with remedial contractors, material suppliers, waste transporters and disposal facilities. Note that these costs can vary dramatically over time based on numerous economic factors.
- The estimated present worth of operation, maintenance and monitoring is based on 30 years at 5 percent.
- A 20 percent contingency has been included.

A more detailed list of explanations and assumptions which apply to the cost estimates is presented in Appendix F.

6.3.8 Community Acceptance

Although Alternative 3 would likely be acceptable to the community since contaminated soil and sediment will be removed from the Site, impacts to Glenmere Lake and surrounding wetlands may not be acceptable. Alternative 2 should also be acceptable, since the majority of the contaminated soil will be removed from the Site or isolated to prevent direct exposure and institutional controls would be implemented as necessary for future protection of human health and the environment. It is highly unlikely that Alternative 1 would be acceptable to the community.

Table 6-1

ALTERNATIVES COST SUMMARY

Alternative	Estimated Capital Cost[1]	Estimated Present Worth[2] of Annual Operation Maintenance and Monitoring	Total Estimated Present Worth
Alternative 1	$55,000	$160,000	$215,000
Alternative 2	$1,410,000	$160,000	$1,570,000
Alternative 3	$3,707,000	$0	$3,707,000

[1] Including estimated engineering and administration fees and contingency.
[2] 30 years at 5% interest.

6.3.9 Land Use

As discussed in Section 6.1, the screening of the alternatives with respect to land use evaluates whether the proposed alternatives are suitable for implementation at the site based on the current and future land uses. The evaluation is to consider criteria such as zoning, community master plans and surrounding property uses. The site is an overgrown parcel owned by Orange County. The County has indicated that future use of the property would include a park designed for passive recreational activities.

Since Alternative 1 will not allow for redevelopment of the site, it would not provide for suitable land use in the future. Alternatives 2 and 3 would allow for redevelopment of the property, which would be consistent with future land use plans. Both Alternatives 2 and 3 would reduce impacts to nearby natural resources including the adjacent Glenmere Lake where Alternative 1 would not reduce the potential for future impacts to the lake.

6.4 Recommended Remedial Alternative

Based on the evaluation of the remedial alternatives described above, building demolition and excavation of all soil exceeding ecological SCOs, partial on-site consolidation and covering, off-site disposal and institutional controls, as discussed in Alternative 2, would be protective of human health and the environment and meets the remedy selection criteria and, therefore, is the recommended alternative for this Site. This alternative would remove the impacts to human health and the environment through the demolition of the existing buildings and removal/containment of contaminated soil. Although Alternative 2 does not remove contaminated sediment from the adjacent Glenmere Lake, once Alternative 2 is implemented it is expected that natural processes will reduce the risk of the contaminants in the sediments through burial by natural sedimentation processes. Although Alternative 3 also meets the remedy selection criteria for the site, this alternative is not recommended due to the significant short term impacts to the environment through the removal of sediment from the lake and the higher cost of the alternative. Alternative 3 would also be more difficult to implement due to the need for mobilization of dredging equipment and space required for storage/dewatering of sediment.

Alternative 1, where the buildings would not be demolished and the contaminated soil would not be removed from the Site, is also not recommended.

APPENDIX A

NORTHERN CRICKET FROG DRIFT FENCE SURVEY AT GLENMERE LAKE, JUNE 2008

APPENDIX B

QUEST ASBESTOS AND LEAD-BASED PAINT SURVEY REPORT

QuES&T

Quality Environmental Solutions & Technologies, Inc.

November 5, 2008

Dvirka & Bartilucci
330 Crossways Park Drive
Woodbury, NY 11797-2015

ATTN: Thomas Fox

Via E-mail: **tfox@db-eng.com**

Re.: Glenmere Lake Properties, Glenmere Avenue, Florida, NY
Pre-Demolition Surveys for Asbestos-containing Materials
QuES&T Project #Q08-5048

Dear Mr. Fox,

Attached is the Pre-Demolition Report for Asbestos-containing Materials (ACM) conducted throughout accessible interiors and exteriors of the above-referenced location(s) by **Qu**ality **E**nvironmental **S**olutions **&** **T**echnologies, Inc. **(QuES&T)**. The inspections included visual assessment and representative sampling for the detection of ACM. Limited demolition of building surfaces and installed equipment was performed as part of this survey. Sample collection and analysis were conducted in compliance with the requirements of Title 12 NYCRR Part 56-1 and 29 CFR 1926.1101.

The attached report summarizes the inspection protocol and inspection results for review. **QuES&T** believes this report accurately reflects the material condition existing in the functional spaces at the time of our inspection.

Should you wish to discuss this matter further or require additional information concerning this transmittal, feel free to contact us at (845) 298-6031. **QuES&T** greatly appreciates the opportunity to assist Dvirka & Bartilucci in the environmental services area.

Sincerely,

Paul

Paul A. Rodriguez
Technical Services, Manager
NYS/AHERA Inspector
Cert. #AH 02-04344
EPA Lead Inspector/Risk Assessor

Attachment: Report

QuES&T

Quality Environmental Solutions & Technologies, Inc.

PRE-DEMOLITION SURVEYS FOR ASBESTOS-CONTAINING MATERIALS

at

"Glenmere Lake Properties – Eight (8) Structures"
Glenmere Avenue
Florida, New York 10921

for

Dvirka & Bartilucci
330 Crossways Park Drive
Woodbury, New York 11797-2015

Project #Q08-5048

1376 Route 9, Wappingers Falls, NY 12590 • Phone: 845-298-6031 • Fax: 845-298-6251 • Online:www.Qualityenv.com

Table of Contents

I. INTRODUCTION:

At the request of Mr. Thomas Fox, of Dvirka & Bartilucci, Pre-Demolition Surveys for the detection of Asbestos-containing Materials (ACM) were performed by **Qu**ality **E**nvironmental **S**olutions **&** **T**echnologies, Inc. **(QuES&T)** throughout accessible, as well as structurally-sound, interior and exterior areas of "Glenmere Lake Properties – Eight (8) Structures," Glenmere Avenue, Florida, New York. A breakdown of building names & locations is attached (Appendix "A").

The purpose of these surveys was to perform visual inspections of accessible, as well as structurally-sound, interior and exterior areas in preparation for demolition and to conduct representative sampling of suspect ACM. Samples collected were analyzed by Polarized Light Microscopy (PLM) for friable materials, and Quantitative Transmission Electron Microscopy (QTEM) for non-friable organically-bound materials.

QuES&T established functional spaces based either on physical barriers (i.e. walls, doors, etc.) or homogeneity of material. Within each functional space identified, a visual inspection was performed to identify suspect material.

Licensed NYS/AHERA Asbestos Inspectors Mr. Paul A. Rodriguez (Cert. #AH 02-04344) and Mr. Rudy Lipinski (Cert. #AH 05-09049), of **QuES&T**, collected a total of ninety-one **(91)** samples of suspect materials for laboratory analysis on October 23, 2008. Fifty-five (55) samples were analyzed by Polarized Light Microscopy (PLM) for friable materials, and nineteen (19) samples were analyzed by Quantitative Transmission Electron Microscopy (QTEM) for non-friable organically bound materials (additionally, seventeen (17) samples were analyzed by Confirmatory-PLM upon Negative-resulting QTEM results). Samples consisting of multiple layers were separated and analyzed independently in the laboratory.

II. INSPECTION SUMMARY:

A visual inspection was performed and material types were established based on appearance, color, and texture. Representative bulk sampling was performed on suspect building material for laboratory analysis using PLM and QTEM.

A total of ***ninety-one samples*** were collected and analyzed. A breakdown of samples collected per building is as follows:

- **"Collapsed Structure #1 (North)":**
  - Façade Beige Stucco (outermost layer).
  - Façade White Stucco (middle layer).
  - Façade Tar Paper (bottom layer).
  - Window Glazing Compound.

- **"Collapsed Structure #1 (Middle)":**
  - Façade Beige Stucco (outermost layer).
  - Façade White Stucco (middle layer).
  - Façade Tar Paper (bottom layer).
  - Brick & Mortar Chimney.
  - Window Glazing Compound.

- **"Collapsed Structure #1 (South)":**
  - Façade Beige Stucco (outermost layer).
  - Façade White Stucco (middle layer).
  - Façade Tar Paper (bottom layer).
  - Cementitious Foundation.
  - Skim Coats over Cementitious Foundation.
  - Plaster Ceilings & Walls.
  - Transite Shingles (loose on ground & foundation).
  - Rolled Roofing.

- **"Collapsed Structure #2":**
  - Cementitious Foundation.

- **"Collapsed Structure #3":**
  - Cementitious Foundation.
  - Particle Board Walls.

- **"Collapsed Structure #4":**
  - Brick & Mortar Chimney.
  - Cementitious Foundation.
  - Window Glazing Compound.
  - Roofing Shingles & Tar Papers.

Samples Collected (cont'd)

- **"Collapsed Structure #5":**
  - Façade Beige Stucco (outermost layer).
  - Façade White Stucco (middle layer).
  - Terra Cotta Block & Mortar.
  - Particle Board Ceilings.
  - Plaster Walls.
  - Roofing Tar Papers.

- **"Collapsed Structure #6":**
  - Façade Beige Stucco (outermost layer).
  - Façade White Stucco (middle layer).
  - Terra Cotta Block & Mortar.
  - Tank Insulation.
  - Window Glazing Compound.
  - Roofing Shingles & Tar Papers.

- **"Collapsed Structure #7":**
  - Cementitious Foundation.

- **"Pump House #8":**
  - Façade Stone Mortar.
  - Plaster Ceilings & Walls.
  - Rope Gaskets (loose on shop table).
  - Cementitious Floor Slab.
  - Window Glazing Compound.
  - Roofing Shingles & Tar Papers.

III. LISTING OF IDENTIFIED ABESTOS-CONTAINING MATERIALS (ACM):

(Please see attached drawings for approx. ACM locations)

KEY: FT^3 = Cubic Feet SF = Square Feet LF = Linear Feet

Location	Material	Approx. Qty.	Friable?	Condition
"COLLAPSED STRUCTURE #1 (NORTH)"				
Throughout	Entire Structure w/intact ACM Stucco Layers *-AND-* Misc. ACM Debris	35,000 ft^3 (building)	Yes	Significantly Damaged
	NOTE: ***No Access to Interiors (structurally unsound). Therefore, entire building/structure must be removed as Asbestos-containing Material(s) as per Industrial Code Rule 56 (ICR-56) and/or approved NYS-DOL Site-Specific Variance(s).***			
"COLLAPSED STRUCTURE #1 (MIDDLE)"				
Throughout	Entire Structure w/intact ACM Stucco Layers, ACM Ceiling/Wall Plasters, ACM Tank/Boiler Insulation *-AND-* Misc. ACM Debris	48,000 ft^3 (building)	Yes	Significantly Damaged
	NOTE: ***No Access to Interiors (structurally unsound). Therefore, entire building/structure must be removed as Asbestos-containing Material(s) as per Industrial Code Rule 56 (ICR-56) and/or approved NYS-DOL Site-Specific Variance(s).***			
"COLLAPSED STRUCTURE #1 (SOUTH)"				
Throughout	Entire Structure w/intact ACM Stucco Layers, ACM Ceiling/Wall Plasters, ACM Transite Shingles *-AND-* Misc. ACM Debris	52,500 ft^3 (building)	Yes	Significantly Damaged
	NOTE: ***No Access to Interiors (structurally unsound). Therefore, entire building/structure must be removed as Asbestos-containing Material(s) as per Industrial Code Rule 56 (ICR-56) and/or approved NYS-DOL Site-Specific Variance(s).***			

Identified ACM (cont'd)

KEY: FT^3 = Cubic Feet SF = Square Feet LF = Linear Feet

Location	Material	Approx. Qty.	Friable?	Condition
"COLLAPSED STRUCTURE #5"				
Throughout	Entire Structure w/intact ACM Stucco Layers *-AND-* Misc. ACM Debris	45,000 ft^3 (building)	Yes	Significantly Damaged
"COLLAPSED STRUCTURE #6"				
Throughout	Entire Structure w/intact ACM Stucco Layers, ACM Tank/Boiler Insulation *-AND-* Misc. ACM Debris	25,000 ft^3 (building)	Yes	Significantly Damaged
"PUMPHOUSE #8"				
On Shop Table	ACM Rope Gaskets	5 SF (total)	Yes	Good

NOTE: ***No Access to Interiors (structurally unsound). Therefore, entire building/structure must be removed as Asbestos-containing Material(s) as per Industrial Code Rule 56 (ICR-56) and/or approved NYS-DOL Site-Specific Variance(s).***

NOTE: ***No Access to Interiors (structurally unsound). Therefore, entire building/structure must be removed as Asbestos-containing Material(s) as per Industrial Code Rule 56 (ICR-56) and/or approved NYS-DOL Site-Specific Variance(s).***

IV. GENERAL DISCUSSION:

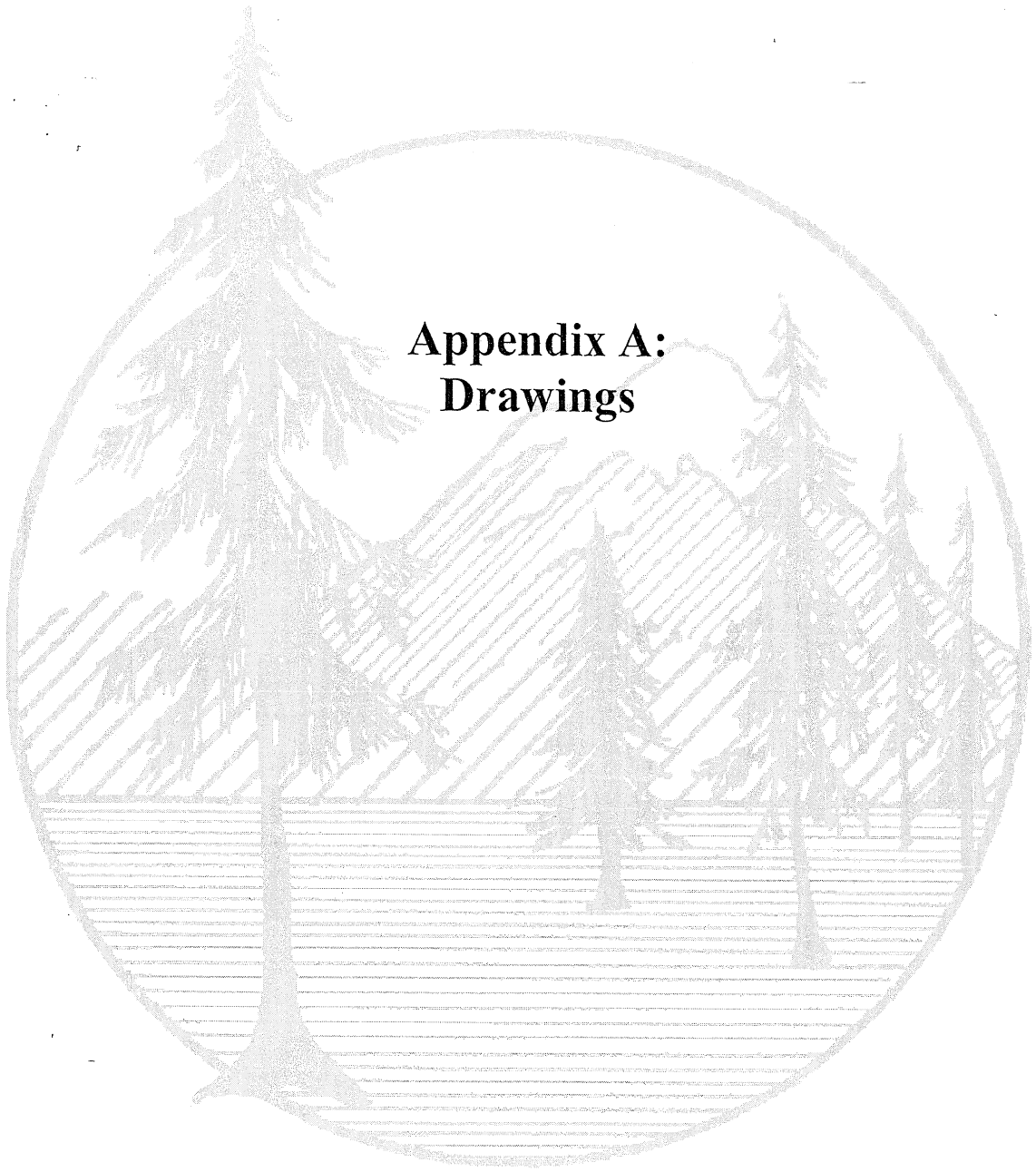
All construction personnel as well as individuals who have access to locations where ACM exists should be informed of its presence and the proper work practices in these areas. Conspicuous labeling of all ACM is suggested to ensure personnel is adequately informed. Personnel should be informed not to rest, lean or store material or equipment on or near these surfaces and not to cut, saw, drill, sand or disturb ACM. All removal, disturbance and repair of ACM should be performed in compliance with Title 12 NYCRR Part 56 by persons properly trained to handle ACM. Facility custodial and maintenance personnel should receive training commensurate with their work activities; as defined in 29 CFR 1910.1001.

V. TRANSMITTAL OF BUILDING SURVEY INFORMATION:

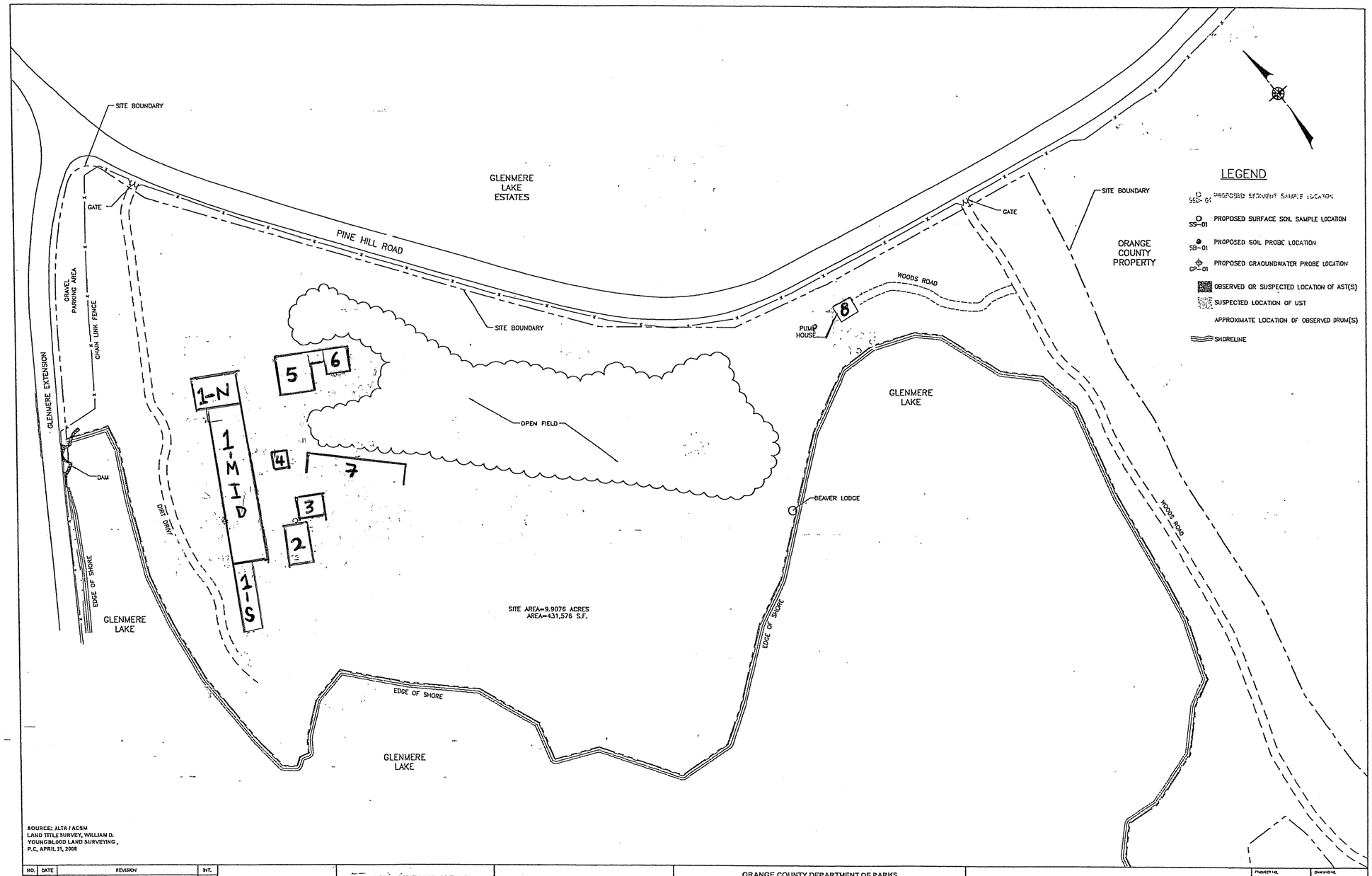
As specified in Title 12 NYCRR Part 56-1.9(d), "Information derived from this building survey shall be immediately transmitted by the building owner or his/her agent to the commissioner through the Department's Division of Safety and Health, Asbestos Control Bureau, and to the local government entity charged with issuing a permit for such demolition under applicable State or local laws or, if no such permit is required, to the town or city clerk where the building is located."

VI. ABATEMENT REQUIRED:

As specified in Title 12 NYCRR Part 56-1.9(e), "If the building survey finds that a building to be demolished contains asbestos or asbestos material as defined in section 56-1.4 of this Subpart, no bids shall be advertised nor contracts awarded nor demolition work commenced by any owner or agent prior to completion of an asbestos remediation contract performed by a licensed asbestos contractor, in conformance with all standards set forth in this Part (rule)." (emphasis added).



Appendix A:
Drawings



SOURCE: ALTA / ACSM
LAND TITLE SURVEY, WILLIAM D.
YOUNGBLOOD LAND SURVEYING,
P.C, APRIL 11, 2008

NO.	DATE	REVISION	INT.

PROJECT ENGINEER	DRAWN BY
T.F.	A.R.S.
DESIGNED BY	CHECKED BY
A.C.	T.F.

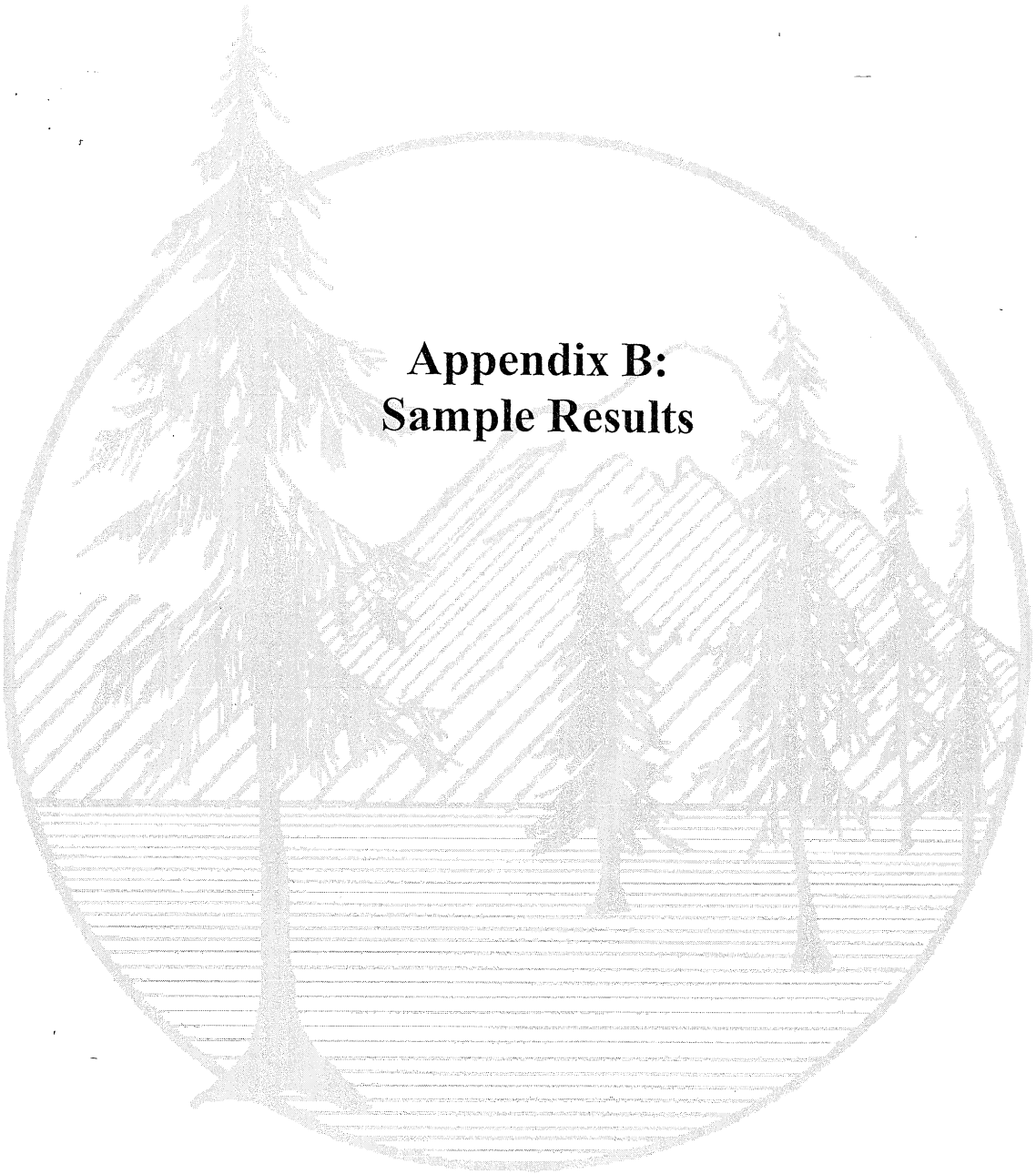
Dvirka and Bartilucci CONSULTING ENGINEERS
A DIVISION OF WILLIAM F. COSULICH ASSOCIATES, P.C.

ORANGE COUNTY DEPARTMENT OF PARKS
RECREATION AND CONSERVATION
ORANGE COUNTY NEW YORK

GLENMERE LAKE PROPERTY

SAMPLE LOCATION MAP

PROJECT NO.	DRAWING NO.
2777	1
DATE	
3/27/09	
SCALE	
1"=40'	



Appendix B:
Sample Results

Eastern Analytical Services, Inc.

Bulk Sample Results

RE: CPN Q08-5048 - Dvirka & Bartilucci - Glenmere Lake Properties - Glenmere Avenue - Florida, NY

Date Collected : 10/23/2008
Collected By : P. Rodriguez/R. Lipinski
Date Received : 10/24/2008
Date Analyzed : 10/29-30/2008
Analyzed By : Ghayath Elias
Signature :
Analytical Method : EPA/600/R-93/116/NYS-DOH 198.1 (PLM)
NVLAP Lab No. 101646-0
NYS Lab No. 10851

Client: QuES&T, Inc.
1376 Route 9
Wappingers Falls, NY 12590

Sample ID Number		5048-20	5048-23	5048-26	5048-29
Layer Number					
Lab ID Number		1702460	1702463	1702466	1702469
Sample Location		Collapsed Structure #1 (North), Façade, Outermost Layer	Collapsed Structure #1 (North), Façade, Middle Layer	Collapsed Structure #1 (Middle), Façade, Outermost Layer	Collapsed Structure #1 (Middle), Façade, Middle Layer
Sample Description		Beige Stucco	White Stucco	Beige Stucco	White Stucco
Method of Quantification		Point Count	Point Count	Point Count	Point Count
Appearance	Layered	No	No	No	No
	Homogenous	Yes	Yes	Yes	Yes
	Fibrous	No	No	No	No
	Color	Pink	Gray	Pink	Gray
Sample Treatment		None	None	None	None
Asbestos Content	% Amosite	0.0	0.0	0.0	0.0
	% Chrysotile	2.8	2.5	2.7	2.3
	% Other	0.0	0.0	0.0	0.0
	% Total Asbestos	2.8	2.5	2.7	2.3
Other Fibrous Materials Present	% Fibrous Glass	0.0	0.0	0.0	0.0
	% Cellulose	0.0	0.0	0.0	0.0
	% Other	0.0	1.3 Synthetics	< 1.0 Synthetics	0.0
	% Unidentified	0.0	0.0	0.0	0.0
Non-Fibrous Materials Present	% Silicates	0.0	0.0	0.0	0.0
	% Carbonates	0.0	0.0	0.0	0.0
	% Other	0.0	0.0	0.0	0.0
	% Unidentified	97.2	96.2	97.3	97.7

Eastern Analytical Services, Inc.

Bulk Sample Results

RE: CPN Q08-5048 - Dvirka & Bartilucci - Glenmere Lake Properties - Glenmere Avenue - Florida, NY

Date Collected : 10/23/2008
Collected By : P. Rodriguez/R. Lipinski
Date Received : 10/24/2008
Date Analyzed : 10/29-30/2008
Analyzed By : Ghayath Elias
Signature :
Analytical Method : EPA/600/R-93/116/NYS-DOH 198.1 (PLM)
NVLAP Lab No. 101646-0
NYS Lab No. 10851

Client: QuES&T, Inc.
1376 Route 9
Wappingers Falls, NY 12590

Sample ID Number		5048-32	5048-32	5048-33	5048-36
Layer Number		1	2		
Lab ID Number		1702472	1702472	1702473	1702476
Sample Location		Collapsed Structure #1 (Middle), Chimney	Collapsed Structure #1 (Middle), Chimney	Collapsed Structure #1 (South), Façade, Outermost Layer	Collapsed Structure #1 (South), Façade, Middle Layer
Sample Description		Brick & Mortar (Brick Layer)	Brick & Mortar (Mortar Layer)	Beige Stucco	White Stucco
Method of Quantification		Visual Estimation	Visual Estimation	Point Count	Point Count
Appearance	Layered	No	No	No	No
	Homogenous	Yes	Yes	Yes	Yes
	Fibrous	No	No	No	No
	Color	Red	Gray	Pink	Gray
Sample Treatment		None	None	None	None
Asbestos Content	% Amosite	0.0	0.0	0.0	0.0
	% Chrysotile	0.0	0.0	2.9	3.3
	% Other	0.0	0.0	0.0	0.0
	% Total Asbestos	0.0	0.0	2.9	3.3
Other Fibrous Materials Present	% Fibrous Glass	0.0	0.0	0.0	0.0
	% Cellulose	0.0	0.0	0.0	0.0
	% Other	0.0	0.0	0.0	0.0
	% Unidentified	0.0	0.0	0.0	0.0
Non-Fibrous Materials Present	% Silicates	25.0	20.0	0.0	0.0
	% Carbonates	5.0	30.0	0.0	0.0
	% Other	0.0	0.0	0.0	0.0
	% Unidentified	70.0	50.0	97.1	96.7

Eastern Analytical Services, Inc.

Bulk Sample Results

RE: CPN Q08-5048 - Dvirka & Bartilucci - Glenmere Lake Properties - Glenmere Avenue - Florida, NY

Date Collected : 10/23/2008
Collected By : P. Rodriguez/R. Lipinski
Date Received : 10/24/2008
Date Analyzed : 10/29-30/2008
Analyzed By : Ghayath Elias
Signature :
Analytical Method : EPA/600/R-93/116/NYS-DOH 198.1 (PLM)
NVLAP Lab No. 101646-0
NYS Lab No. 10851

Client: QuES&T, Inc.
1376 Route 9
Wappingers Falls, NY 12590

Sample ID Number		5048-39	5048-40	5048-41	5048-42
Layer Number					
Lab ID Number		1702479	1702480	1702481	1702482
Sample Location		Collapsed Structure #1 (South), Foundation, over Concrete	Collapsed Structure #1 (South), Foundation, over Concrete	Collapsed Structure #1 (South), Foundation, over Concrete	Collapsed Structure #1 (South), Foundation, behind Skim Coat
Sample Description		Skim Coat	Skim Coat	Skim Coat	Cementitious Slab
Method of Quantification		Visual Estimation	Visual Estimation	Visual Estimation	Visual Estimation
Appearance	Layered	No	No	No	No
	Homogenous	Yes	Yes	Yes	Yes
	Fibrous	No	No	No	No
	Color	Gray	Gray	Gray	Gray
Sample Treatment		None	None	None	None
Asbestos Content	% Amosite	0.0	0.0	0.0	0.0
	% Chrysotile	0.0	0.0	0.0	0.0
	% Other	0.0	0.0	0.0	0.0
	% Total Asbestos	0.0	0.0	0.0	0.0
Other Fibrous Materials Present	% Fibrous Glass	0.0	0.0	0.0	0.0
	% Cellulose	0.0	0.0	0.0	0.0
	% Other	0.0	0.0	0.0	0.0
	% Unidentified	0.0	0.0	0.0	0.0
Non-Fibrous Materials Present	% Silicates	20.0	20.0	30.0	10.0
	% Carbonates	30.0	30.0	20.0	50.0
	% Other	0.0	0.0	0.0	0.0
	% Unidentified	50.0	50.0	50.0	40.0

Eastern Analytical Services, Inc.

Bulk Sample Results

RE: CPN Q08-5048 - Dvirka & Bartilucci - Glenmere Lake Properties - Glenmere Avenue - Florida, NY

Date Collected : 10/23/2008
Collected By : P. Rodriguez/R. Lipinski
Date Received : 10/24/2008
Date Analyzed : 10/29-30/2008
Analyzed By : Ghayath Elias
Signature :
Analytical Method : EPA/600/R-93/116/NYS-DOH 198.1 (PLM)
NVLAP Lab No. 101646-0
NYS Lab No. 10851

Client: QuES&T, Inc.
1376 Route 9
Wappingers Falls, NY 12590

Sample ID Number		5048-43	5048-44	5048-45	5048-46
Layer Number					
Lab ID Number		1702483	1702484	1702485	1702486
Sample Location		Collapsed Structure #1 (South), Foundation, behind Skim Coat	Collapsed Structure #1 (South), Interior Ceiling & Walls	Collapsed Structure #1 (South), Interior Ceiling & Walls	Collapsed Structure #1 (South), Interior Ceiling & Walls
Sample Description		Cementitious Slab	Plaster	Plaster	Plaster
Method of Quantification		Visual Estimation	Visual Estimation	Visual Estimation	Point Count
Appearance	Layered	No	No	No	No
	Homogenous	Yes	Yes	Yes	Yes
	Fibrous	No	No	No	No
	Color	Gray	Gray	Gray	Gray
Sample Treatment		None	None	None	None
Asbestos Content	% Amosite	0.0	0.0	0.0	0.0
	% Chrysotile	0.0	0.0	0.0	1.5
	% Other	0.0	0.0	0.0	0.0
	% Total Asbestos	0.0	0.0	0.0	1.5
Other Fibrous Materials Present	% Fibrous Glass	0.0	0.0	0.0	0.0
	% Cellulose	0.0	0.0	0.0	0.0
	% Other	0.0	0.0	0.0	0.0
	% Unidentified	0.0	0.0	0.0	0.0
Non-Fibrous Materials Present	% Silicates	10.0	30.0	30.0	0.0
	% Carbonates	40.0	20.0	20.0	0.0
	% Other	0.0	0.0	0.0	0.0
	% Unidentified	50.0	50.0	50.0	98.5

Eastern Analytical Services, Inc.

Bulk Sample Results

RE: CPN Q08-5048 - Dvirka & Bartilucci - Glenmere Lake Properties - Glenmere Avenue - Florida, NY

Client: QuES&T, Inc.
1376 Route 9
Wappingers Falls, NY 12590

Date Collected : 10/23/2008
Collected By : P. Rodriguez/R. Lipinski
Date Received : 10/24/2008
Date Analyzed : 10/29-30/2008
Analyzed By : Ghayath Elias
Signature :
Analytical Method : EPA/600/R-93/116/NYS-DOH 198.1 (PLM)
NVLAP Lab No. 101646-0
NYS Lab No. 10851

Sample ID Number		5048-49	5048-51	5048-52	5048-53
Layer Number					
Lab ID Number		1702489	1702491	1702492	1702493
Sample Location		Collapsed Structure #1 (South), Loose on Ground & Foundation	Collapsed Structure #2, Foundation	Collapsed Structure #2, Foundation	Collapsed Structure #3, Interior Walls
Sample Description		Transite Siding	Cementitious Slab	Cementitious Slab	Particle Board
Method of Quantification		Point Count	Visual Estimation	Visual Estimation	Visual Estimation
Appearance	Layered	Yes	No	No	Yes
	Homogenous	No	Yes	Yes	No
	Fibrous	Yes	No	No	Yes
	Color	Gray/White	Gray	Gray	Brown/Gray
Sample Treatment		Homogenized	None	None	Homogenized
Asbestos Content	% Amosite	0.0	0.0	0.0	0.0
	% Chrysotile	9.2	0.0	0.0	0.0
	% Other	0.0	0.0	0.0	0.0
	% Total Asbestos	9.2	0.0	0.0	0.0
Other Fibrous Materials Present	% Fibrous Glass	0.0	0.0	0.0	0.0
	% Cellulose	0.0	0.0	0.0	70.0
	% Other	0.0	0.0	0.0	0.0
	% Unidentified	0.0	0.0	0.0	0.0
Non-Fibrous Materials Present	% Silicates	0.0	10.0	10.0	10.0
	% Carbonates	0.0	50.0	40.0	0.0
	% Other	0.0	0.0	0.0	0.0
	% Unidentified	90.8	40.0	50.0	20.0

Eastern Analytical Services, Inc.

Bulk Sample Results

RE: CPN Q08-5048 - Dvirka & Bartilucci - Glenmere Lake Properties - Glenmere Avenue - Florida, NY

Client: QuES&T, Inc.
1376 Route 9
Wappingers Falls, NY 12590

Date Collected : 10/23/2008
Collected By : P. Rodriguez/R. Lipinski
Date Received : 10/24/2008
Date Analyzed : 10/29-30/2008
Analyzed By : Ghayath Elias
Signature :
Analytical Method : EPA/600/R-93/116/NYS-DOH 198.1 (PLM)
NVLAP Lab No. 101646-0
NYS Lab No. 10851

Sample ID Number		5048-54	5048-55	5048-56	5048-57
Layer Number					1
Lab ID Number		1702494	1702495	1702496	1702497
Sample Location		Collapsed Structure #3, Interior Walls	Collapsed Structure #3, Foundation	Collapsed Structure #3, Foundation	Collapsed Structure #4, Chimney
Sample Description		Particle Board	Cementitious Slab	Cementitious Slab	Brick & Mortar (Brick Layer)
Method of Quantification		Visual Estimation	Visual Estimation	Visual Estimation	Visual Estimation
Appearance	Layered	Yes	No	No	No
	Homogenous	No	Yes	Yes	Yes
	Fibrous	Yes	No	No	No
	Color	Brown/Gray	Gray	Gray	Red
Sample Treatment		Homogenized	None	None	None
Asbestos Content	% Amosite	0.0	0.0	0.0	0.0
	% Chrysotile	0.0	0.0	0.0	0.0
	% Other	0.0	0.0	0.0	0.0
	% Total Asbestos	0.0	0.0	0.0	0.0
Other Fibrous Materials Present	% Fibrous Glass	0.0	0.0	0.0	0.0
	% Cellulose	70.0	0.0	0.0	0.0
	% Other	0.0	0.0	0.0	0.0
	% Unidentified	0.0	0.0	0.0	0.0
Non-Fibrous Materials Present	% Silicates	10.0	10.0	10.0	15.0
	% Carbonates	0.0	40.0	40.0	5.0
	% Other	0.0	0.0	0.0	0.0
	% Unidentified	20.0	50.0	50.0	80.0

Eastern Analytical Services, Inc.

Bulk Sample Results

RE: CPN Q08-5048 - Dvirka & Bartilucci - Glenmere Lake Properties - Glenmere Avenue - Florida, NY

Client: QuES&T, Inc.
1376 Route 9
Wappingers Falls, NY 12590

Date Collected : 10/23/2008
Collected By : P. Rodriguez/R. Lipinski
Date Received : 10/24/2008
Date Analyzed : 10/29-30/2008
Analyzed By : Ghayath Elias
Signature :
Analytical Method : EPA/600/R-93/116/NYS-DOH 198.1 (PLM)
NVLAP Lab No. 101646-0
NYS Lab No. 10851

Sample ID Number		5048-57	5048-58	5048-59	5048-60
Layer Number		2			
Lab ID Number		1702497	1702498	1702499	1702500
Sample Location		Collapsed Structure #4, Chimney	Collapsed Structure #4, Foundation	Collapsed Structure #4, Foundation	Collapsed Structure #5, Façade, Outermost Layer
Sample Description		Brick & Mortar (Mortar Layer)	Cementitious Slab	Cementitious Slab	Beige Stucco
Method of Quantification		Visual Estimation	Visual Estimation	Visual Estimation	Point Count
Appearance	Layered	No	No	No	No
	Homogenous	Yes	Yes	Yes	Yes
	Fibrous	No	No	No	No
	Color	Gray	Gray	Gray	Pink
Sample Treatment		None	None	None	None
Asbestos Content	% Amosite	0.0	0.0	0.0	0.0
	% Chrysotile	0.0	0.0	0.0	< 1.0
	% Other	0.0	0.0	0.0	0.0
	% Total Asbestos	0.0	0.0	0.0	< 1.0
Other Fibrous Materials Present	% Fibrous Glass	0.0	0.0	0.0	0.0
	% Cellulose	0.0	0.0	0.0	0.0
	% Other	0.0	0.0	0.0	0.0
	% Unidentified	0.0	0.0	0.0	0.0
Non-Fibrous Materials Present	% Silicates	40.0	10.0	10.0	0.0
	% Carbonates	10.0	40.0	40.0	0.0
	% Other	0.0	0.0	0.0	0.0
	% Unidentified	50.0	50.0	50.0	100.0

Eastern Analytical Services, Inc.

Bulk Sample Results

RE: CPN Q08-5048 - Dvirka & Bartilucci - Glenmere Lake Properties - Glenmere Avenue - Florida, NY

Client: QuES&T, Inc.
1376 Route 9
Wappingers Falls, NY 12590

Date Collected : 10/23/2008
Collected By : P. Rodriguez/R. Lipinski
Date Received : 10/24/2008
Date Analyzed : 10/29-30/2008
Analyzed By : Ghayath Elias
Signature :
Analytical Method : EPA/600/R-93/116/NYS-DOH 198.1 (PLM)
NVLAP Lab No. 101646-0
NYS Lab No. 10851

Sample ID Number		5048-61	5048-63	5048-66	5048-66
Layer Number				1	2
Lab ID Number		1702501	1702503	1702506	1702506
Sample Location		Collapsed Structure #5, Façade, Outermost Layer	Collapsed Structure #5, Façade, Bottom Layer on Terra Cotta	Collapsed Structure #5, Façade, behind Stucco	Collapsed Structure #5, Façade, behind Stucco
Sample Description		Beige Stucco	White Stucco	Terra Cotta & Mortar (Terra Cotta Layer)	Terra Cotta & Mortar (Mortar Layer)
Method of Quantification		Point Count	Point Count	Visual Estimation	Visual Estimation
Appearance	Layered	No	No	No	No
	Homogenous	Yes	Yes	Yes	Yes
	Fibrous	No	No	No	No
	Color	Pink	White	Tan	Gray
Sample Treatment		None	None	None	None
Asbestos Content	% Amosite	0.0	0.0	0.0	0.0
	% Chrysotile	2.0	2.5	0.0	0.0
	% Other	0.0	0.0	0.0	0.0
	% Total Asbestos	2.0	2.5	0.0	0.0
Other Fibrous Materials Present	% Fibrous Glass	0.0	0.0	0.0	0.0
	% Cellulose	0.0	0.0	0.0	0.0
	% Other	0.0	0.0	0.0	0.0
	% Unidentified	0.0	0.0	0.0	0.0
Non-Fibrous Materials Present	% Silicates	0.0	0.0	15.0	10.0
	% Carbonates	0.0	0.0	0.0	40.0
	% Other	0.0	0.0	0.0	0.0
	% Unidentified	98.0	97.5	85.0	50.0

Eastern Analytical Services, Inc.

Bulk Sample Results

RE: CPN Q08-5048 - Dvirka & Bartilucci - Glenmere Lake Properties - Glenmere Avenue - Florida, NY

Client: QuES&T, Inc.
1376 Route 9
Wappingers Falls, NY 12590

Date Collected : 10/23/2008
Collected By : P. Rodriguez/R. Lipinski
Date Received : 10/24/2008
Date Analyzed : 10/29-30/2008
Analyzed By : Ghayath Elias
Signature :
Analytical Method : EPA/600/R-93/116/NYS-DOH 198.1 (PLM)
NVLAP Lab No. 101646-0
NYS Lab No. 10851

Sample ID Number		5048-67	5048-68	5048-68	5048-69
Layer Number			1	2	1
Lab ID Number		1702507	1702508	1702508	1702509
Sample Location		Collapsed Structure #5, Interior Ceiling	Collapsed Structure #5, Interior Walls	Collapsed Structure #5, Interior Walls	Collapsed Structure #5, Interior Walls
Sample Description		Particle Board	Plaster (Plaster Layer)	Plaster (Scratch Layer)	Plaster (Plaster Layer)
Method of Quantification		Visual Estimation	Visual Estimation	Visual Estimation	Visual Estimation
Appearance	Layered	No	No	No	No
	Homogenous	Yes	Yes	Yes	Yes
	Fibrous	Yes	No	No	No
	Color	Brown	White	Gray	White
Sample Treatment		None	None	None	None
Asbestos Content	% Amosite	0.0	0.0	0.0	0.0
	% Chrysotile	0.0	0.0	0.0	0.0
	% Other	0.0	0.0	0.0	0.0
	% Total Asbestos	0.0	0.0	0.0	0.0
Other Fibrous Materials Present	% Fibrous Glass	0.0	0.0	0.0	0.0
	% Cellulose	70.0	0.0	0.0	0.0
	% Other	0.0	0.0	0.0	0.0
	% Unidentified	0.0	0.0	0.0	0.0
Non-Fibrous Materials Present	% Silicates	10.0	20.0	20.0	5.0
	% Carbonates	0.0	30.0	30.0	20.0
	% Other	0.0	0.0	0.0	0.0
	% Unidentified	20.0	50.0	50.0	75.0

Eastern Analytical Services, Inc.

Bulk Sample Results

RE: CPN Q08-5048 - Dvirka & Bartilucci - Glenmere Lake Properties - Glenmere Avenue - Florida, NY

Date Collected : 10/23/2008
Collected By : P. Rodriguez/R. Lipinski
Date Received : 10/24/2008
Date Analyzed : 10/29-30/2008
Analyzed By : Ghayath Elias
Signature :
Analytical Method : EPA/600/R-93/116/NYS-DOH 198.1 (PLM)
NVLAP Lab No. 101646-0
NYS Lab No. 10851

Client: QuES&T, Inc.
1376 Route 9
Wappingers Falls, NY 12590

Sample ID Number		5048-69	5048-70	5048-70	5048-71
Layer Number		2	1	2	
Lab ID Number		1702509	1702510	1702510	1702511
Sample Location		Collapsed Structure #5, Interior Walls	Collapsed Structure #5, Interior Walls	Collapsed Structure #5, Interior Walls	Collapsed Structure #6, Façade, Outermost Layer
Sample Description		Plaster (Scratch Layer)	Plaster (Plaster Layer)	Plaster (Scratch Layer)	Beige Stucco
Method of Quantification		Visual Estimation	Visual Estimation	Visual Estimation	Point Count
Appearance	Layered	No	No	No	No
	Homogenous	Yes	Yes	Yes	Yes
	Fibrous	No	No	No	No
	Color	Gray	White	Gray	Pink
Sample Treatment		None	None	None	None
Asbestos Content	% Amosite	0.0	0.0	0.0	0.0
	% Chrysotile	0.0	0.0	0.0	< 1.0
	% Other	0.0	0.0	0.0	0.0
	% Total Asbestos	0.0	0.0	0.0	< 1.0
Other Fibrous Materials Present	% Fibrous Glass	0.0	0.0	0.0	0.0
	% Cellulose	0.0	0.0	0.0	0.0
	% Other	0.0	0.0	0.0	0.0
	% Unidentified	0.0	0.0	0.0	0.0
Non-Fibrous Materials Present	% Silicates	10.0	10.0	25.0	0.0
	% Carbonates	30.0	20.0	10.0	0.0
	% Other	0.0	0.0	0.0	0.0
	% Unidentified	60.0	70.0	65.0	100.0

Eastern Analytical Services, Inc.

Bulk Sample Results

RE: CPN Q08-5048 - Dvirka & Bartilucci - Glenmere Lake Properties - Glenmere Avenue - Florida, NY

Client: QuES&T, Inc.
1376 Route 9
Wappingers Falls, NY 12590

Date Collected : 10/23/2008
Collected By : P. Rodriguez/R. Lipinski
Date Received : 10/24/2008
Date Analyzed : 10/29-30/2008
Analyzed By : Ghayath Elias
Signature :
Analytical Method : EPA/600/R-93/116/NYS-DOH 198.1 (PLM)
NVLAP Lab No. 101646-0
NYS Lab No. 10851

Sample ID Number		5048-72	5048-74	5048-77	5048-77
Layer Number				1	2
Lab ID Number		1702512	1702514	1702517	1702517
Sample Location		Collapsed Structure #6, Façade, Outermost Layer	Collapsed Structure #6, Façade, Bottom Layer on Terra Cotta	Collapsed Structure #6, Façade, behind Stucco	Collapsed Structure #6, Façade, behind Stucco
Sample Description		Beige Stucco	White Stucco	Terra Cotta & Mortar (Terra Cotta Layer)	Terra Cotta & Mortar (Mortar Layer)
Method of Quantification		Point Count	Point Count	Visual Estimation	Visual Estimation
Appearance	Layered	No	No	No	No
	Homogenous	Yes	Yes	Yes	Yes
	Fibrous	No	No	No	No
	Color	Pink	Gray	Tan	Gray
Sample Treatment		None	None	None	None
Asbestos Content	% Amosite	0.0	0.0	0.0	0.0
	% Chrysotile	1.2	2.8	0.0	0.0
	% Other	0.0	0.0	0.0	0.0
	% Total Asbestos	1.2	2.8	0.0	0.0
Other Fibrous Materials Present	% Fibrous Glass	0.0	0.0	0.0	0.0
	% Cellulose	0.0	0.0	0.0	0.0
	% Other	0.0	0.0	0.0	0.0
	% Unidentified	0.0	0.0	0.0	0.0
Non-Fibrous Materials Present	% Silicates	0.0	0.0	5.0	10.0
	% Carbonates	0.0	0.0	15.0	30.0
	% Other	0.0	0.0	0.0	0.0
	% Unidentified	98.8	97.2	80.0	60.0

Eastern Analytical Services, Inc.

Bulk Sample Results

RE: CPN Q08-5048 - Dvirka & Bartilucci - Glenmere Lake Properties - Glenmere Avenue - Florida, NY

Client: QuES&T, Inc.
1376 Route 9
Wappingers Falls, NY 12590

Date Collected : 10/23/2008
Collected By : P. Rodriguez/R. Lipinski
Date Received : 10/24/2008
Date Analyzed : 10/29-30/2008
Analyzed By : Ghayath Elias
Signature :
Analytical Method : EPA/600/R-93/116/NYS-DOH 198.1 (PLM)
NVLAP Lab No. 101646-0
NYS Lab No. 10851

Sample ID Number		5048-78	5048-81	5048-82	5048-83
Layer Number					
Lab ID Number		1702518	1702521	1702522	1702523
Sample Location		Collapsed Structure #6, on Tank (150 sf)	Collapsed Structure #7, Foundation	Collapsed Structure #7, Foundation	Collapsed Structure #8, (Pump House), Façade
Sample Description		Tank Insulation	Cementitious Slab	Cementitious Slab	Stone Mortar
Method of Quantification		Point Count	Visual Estimation	Visual Estimation	Visual Estimation
Appearance	Layered	No	No	No	No
	Homogenous	Yes	Yes	Yes	Yes
	Fibrous	Yes	No	No	No
	Color	Gray	Gray	Gray	Gray
Sample Treatment		None	None	None	None
Asbestos Content	% Amosite	0.0	0.0	0.0	0.0
	% Chrysotile	24.8	0.0	0.0	0.0
	% Other	0.0	0.0	0.0	0.0
	% Total Asbestos	24.8	0.0	0.0	0.0
Other Fibrous Materials Present	% Fibrous Glass	0.0	0.0	0.0	0.0
	% Cellulose	0.0	0.0	0.0	0.0
	% Other	0.0	0.0	0.0	0.0
	% Unidentified	0.0	0.0	0.0	0.0
Non-Fibrous Materials Present	% Silicates	0.0	15.0	15.0	10.0
	% Carbonates	0.0	35.0	35.0	25.0
	% Other	0.0	0.0	0.0	0.0
	% Unidentified	75.2	50.0	50.0	65.0

Eastern Analytical Services, Inc.

Bulk Sample Results

RE: CPN Q08-5048 - Dvirka & Bartilucci - Glenmere Lake Properties - Glenmere Avenue - Florida, NY

Date Collected : 10/23/2008
Collected By : P. Rodriguez/R. Lipinski
Date Received : 10/24/2008
Date Analyzed : 10/29-30/2008
Analyzed By : Ghayath Elias
Signature :
Analytical Method : EPA/600/R-93/116/NYS-DOH 198.1 (PLM)
NVLAP Lab No. 101646-0
NYS Lab No. 10851

Client: QuES&T, Inc.
1376 Route 9
Wappingers Falls, NY 12590

Sample ID Number		5048-84	5048-85	5048-86	5048-87
Layer Number					
Lab ID Number		1702524	1702525	1702526	1702527
Sample Location		Collapsed Structure #8, (Pump House), Façade	Collapsed Structure #8, (Pump House), Interior Ceiling & Walls	Collapsed Structure #8, (Pump House), Interior Ceiling & Walls	Collapsed Structure #8, (Pump House), Interior Ceiling & Walls
Sample Description		Stone Mortar	Plaster	Plaster	Plaster
Method of Quantification		Visual Estimation	Visual Estimation	Visual Estimation	Visual Estimation
Appearance	Layered	No	Yes	Yes	Yes
	Homogenous	Yes	No	No	No
	Fibrous	No	No	No	No
	Color	Gray	Gray/Beige	Gray/Beige	Gray/Beige
Sample Treatment		None	Homogenized	Homogenized	Homogenized
Asbestos Content	% Amosite	0.0	0.0	0.0	0.0
	% Chrysotile	0.0	0.0	0.0	0.0
	% Other	0.0	0.0	0.0	0.0
	% Total Asbestos	0.0	0.0	0.0	0.0
Other Fibrous Materials Present	% Fibrous Glass	0.0	0.0	0.0	0.0
	% Cellulose	0.0	0.0	0.0	0.0
	% Other	0.0	0.0	0.0	0.0
	% Unidentified	0.0	0.0	0.0	0.0
Non-Fibrous Materials Present	% Silicates	10.0	5.0	10.0	10.0
	% Carbonates	25.0	35.0	30.0	30.0
	% Other	0.0	0.0	0.0	0.0
	% Unidentified	65.0	60.0	60.0	60.0

Eastern Analytical Services, Inc.

Bulk Sample Results

RE: CPN Q08-5048 - Dvirka & Bartilucci - Glenmere Lake Properties - Glenmere Avenue - Florida, NY

Date Collected : 10/23/2008
Collected By : P. Rodriguez/R. Lipinski
Date Received : 10/24/2008
Date Analyzed : 10/29-30/2008
Analyzed By : Ghayath Elias
Signature :
Analytical Method : EPA/600/R-93/116/NYS-DOH 198.1 (PLM)
NVLAP Lab No. 101646-0
NYS Lab No. 10851

Client: QuES&T, Inc.
1376 Route 9
Wappingers Falls, NY 12590

Sample ID Number		5048-88	5048-89	5048-90
Layer Number				
Lab ID Number		1702528	1702529	1702530
Sample Location		Collapsed Structure #8, (Pump House), Interior Floor	Collapsed Structure #8, (Pump House), Interior Floor	Collapsed Structure #8, (Pump House), on Shop Table
Sample Description		Cementitious Slab	Cementitious Slab	Rope Gaskets
Method of Quantification		Visual Estimation	Visual Estimation	Point Count
Appearance	Layered	No	No	No
	Homogenous	Yes	Yes	Yes
	Fibrous	No	No	Yes
	Color	Gray	Gray	White
Sample Treatment		None	None	None
Asbestos Content	% Amosite	0.0	0.0	0.0
	% Chrysotile	0.0	0.0	10.1
	% Other	0.0	0.0	0.0
	% Total Asbestos	0.0	0.0	10.1
Other Fibrous Materials Present	% Fibrous Glass	0.0	0.0	0.0
	% Cellulose	0.0	0.0	14.0
	% Other	0.0	0.0	0.0
	% Unidentified	0.0	0.0	0.0
Non-Fibrous Materials Present	% Silicates	10.0	10.0	0.0
	% Carbonates	30.0	35.0	0.0
	% Other	0.0	0.0	0.0
	% Unidentified	60.0	55.0	75.9

QUALITY ENVIRONMENTAL SOLUTIONS & TECHNOLOGIES, INC.

BULK SAMPLE FORM

CLIENT: DVIRKA & BARTILUCCI

ADDRESS: 330 CROSSWAYS PARK DRIVE
WOODBURY, NY 11797-2015

CONTACT: THOMAS FOX

PROJECT ID: GLENEMERE LAKE PROPERTIES,
GLENMERE AVE., FLORIDA, NY

PROJECT # : Q08-5048

SAMPLED BY: P. RODRIGUEZ / R. LIPINSKI

DATE SAMPLED: 23-Oct-08

ANALYSIS METHOD: PLM

TURN-AROUND TIME: _____ HOURS
3 - 5 DAYS
_____ OTHER

SAMPLE # LAB#	LOCATION	SAMPLE DESCRIPTION	COMMENTS
5048-20	Collapsed Structure #1 (North), Façade, Outermost Layer	Beige Stucco	STOP AT FIRST POSITIVE
5048-21	Collapsed Structure #1 (North), Façade, Outermost Layer	Beige Stucco	
5048-22	Collapsed Structure #1 (North), Façade, Outermost Layer	Beige Stucco	
5048-23	Collapsed Structure #1 (North), Façade, Middle Layer	White Stucco	STOP AT FIRST POSITIVE
5048-24	Collapsed Structure #1 (North), Façade, Middle Layer	White Stucco	
5048-25	Collapsed Structure #1 (North), Façade, Middle Layer	White Stucco	
5048-26	Collapsed Structure #1 (Middle), Façade, Outermost Layer	Beige Stucco	STOP AT FIRST POSITIVE
5048-27	Collapsed Structure #1 (Middle), Façade, Outermost Layer	Beige Stucco	
5048-28	Collapsed Structure #1 (Middle), Façade, Outermost Layer	Beige Stucco	
5048-29	Collapsed Structure #1 (Middle), Façade, Middle Layer	White Stucco	STOP

CHAIN OF CUSTODY (SEE LAST PAGE)

SUBMITTED BY: _____ DATE: _____

RECEIVED BY: _____ DATE: _____

QUALITY ENVIRONMENTAL SOLUTIONS & TECHNOLOGIES, INC.

BULK SAMPLE FORM

CLIENT: DVIRKA & BARTILUCCI

ADDRESS: 330 CROSSWAYS PARK DRIVE
WOODBURY, NY 11797-2015

CONTACT: THOMAS FOX

PROJECT ID: GLENEMERE LAKE PROPERTIES,
GLENMERE AVE., FLORIDA, NY

PROJECT # : Q08-5048

SAMPLED BY: P. RODRIGUEZ / R. LIPINSKI

DATE SAMPLED: 23-Oct-08

ANALYSIS METHOD: PLM

TURN-AROUND TIME: _____ HOURS
3 - 5 DAYS
_____ OTHER

SAMPLE # LAB#	LOCATION	SAMPLE DESCRIPTION	COMMENTS
5048-30	Collapsed Structure #1 (Middle), Façade, Middle Layer	White Stucco	AT FIRST POSITIVE
5048-31	Collapsed Structure #1 (Middle), Façade, Middle Layer	White Stucco	
5048-32	Collapsed Structure #1 (Middle), Chimney	Brick & Mortar (separate layers)	
5048-33	Collapsed Structure #1 (South), Façade, Outermost Layer	Beige Stucco	STOP AT FIRST POSITIVE
5048-34	Collapsed Structure #1 (South), Façade, Outermost Layer	Beige Stucco	
5048-35	Collapsed Structure #1 (South), Façade, Outermost Layer	Beige Stucco	
5048-36	Collapsed Structure #1 (South), Façade, Middle Layer	White Stucco	STOP AT FIRST POSITIVE
5048-37	Collapsed Structure #1 (South), Façade, Middle Layer	White Stucco	
5048-38	Collapsed Structure #1 (South), Façade, Middle Layer	White Stucco	
5048-39	Collapsed Structure #1 (South), Foundation, over Concrete	Skim Coat	STOP

CHAIN OF CUSTODY (SEE LAST PAGE)

SUBMITTED BY: _____ DATE: _____

RECEIVED BY: _____ DATE: _____

QUALITY ENVIRONMENTAL SOLUTIONS & TECHNOLOGIES, INC.

BULK SAMPLE FORM

CLIENT: DVIRKA & BARTILUCCI

ADDRESS: 330 CROSSWAYS PARK DRIVE
WOODBURY, NY 11797-2015

CONTACT: THOMAS FOX

PROJECT ID: GLENEMERE LAKE PROPERTIES,
GLENMERE AVE., FLORIDA, NY

PROJECT # : Q08-5048

SAMPLED BY: P. RODRIGUEZ / R. LIPINSKI

DATE SAMPLED: 23-Oct-08

ANALYSIS METHOD: PLM

TURN-AROUND TIME: _____ HOURS
3 - 5 DAYS
_____ OTHER

SAMPLE # LAB#	LOCATION	SAMPLE DESCRIPTION	COMMENTS
5048-40	Collapsed Structure #1 (South), Foundation, over Concrete	Skim Coat	AT FIRST POSITIVE
5048-41	Collapsed Structure #1 (South), Foundation, over Concrete	Skim Coat	
5048-42	Collapsed Structure #1 (South), Foundation, behind Skim Coat	Cementitious Slab	STOP AT FIRST POSITIVE
5048-43	Collapsed Structure #1 (South), Foundation, behind Skim Coat	Cementitious Slab	
5048-44	Collapsed Structure #1 (South), Interior Ceiling & Walls	Plaster	STOP AT FIRST POSITIVE
5048-45	Collapsed Structure #1 (South), Interior Ceiling & Walls	Plaster	
5048-46	Collapsed Structure #1 (South), Interior Ceiling & Walls	Plaster	
5048-47	Collapsed Structure #1 (South), Interior Ceiling & Walls	Plaster	
5048-48	Collapsed Structure #1 (South), Interior Ceiling & Walls	Plaster	
5048-49	Collapsed Structure #1 (South), Loose on Ground & Foundation	Transite Siding	STOP AT

CHAIN OF CUSTODY (SEE LAST PAGE)

SUBMITTED BY: _____ DATE: _____

RECEIVED BY: _____ DATE: _____

QUALITY ENVIRONMENTAL SOLUTIONS & TECHNOLOGIES, INC.

BULK SAMPLE FORM

CLIENT: DVIRKA & BARTILUCCI

ADDRESS: 330 CROSSWAYS PARK DRIVE
WOODBURY, NY 11797-2015

CONTACT: THOMAS FOX

PROJECT ID: GLENEMERE LAKE PROPERTIES,
GLENMERE AVE., FLORIDA, NY

PROJECT # : Q08-5048

SAMPLED BY: P. RODRIGUEZ / R. LIPINSKI

DATE SAMPLED: 23-Oct-08

ANALYSIS METHOD: PLM

TURN-AROUND TIME: _____ HOURS
3 - 5 DAYS
_____ OTHER

SAMPLE # LAB#	LOCATION	SAMPLE DESCRIPTION	COMMENTS
5048-50	Collapsed Structure #1 (South), Loose on Ground & Foundation	Transite Siding	FIRST POSITIVE
5048-51	Collapsed Structure #2, Foundation	Cementitious Slab	STOP AT FIRST POSITIVE
5048-52	Collapsed Structure #2, Foundation	Cementitious Slab	
5048-53	Collapsed Structure #3, Interior Walls	Particle Board	STOP AT FIRST POSITIVE
5048-54	Collapsed Structure #3, Interior Walls	Particle Board	
5048-55	Collapsed Structure #3, Foundation	Cementitious Slab	STOP AT FIRST POSITIVE
5048-56	Collapsed Structure #3, Foundation	Cementitious Slab	
5048-57	Collapsed Structure #4, Chimney	Brick & Mortar (separate layers)	
5048-58	Collapsed Structure #4, Foundation	Cementitious Slab	STOP AT FIRST POSITIVE
5048-59	Collapsed Structure #4, Foundation	Cementitious Slab	

CHAIN OF CUSTODY (SEE LAST PAGE)

SUBMITTED BY: _____ DATE: _____

RECEIVED BY: _____ DATE: _____

QUALITY ENVIRONMENTAL SOLUTIONS & TECHNOLOGIES, INC.

BULK SAMPLE FORM

CLIENT: DVIRKA & BARTILUCCI

ADDRESS: 330 CROSSWAYS PARK DRIVE
WOODBURY, NY 11797-2015

CONTACT: THOMAS FOX

PROJECT ID: GLENEMERE LAKE PROPERTIES,
GLENMERE AVE., FLORIDA, NY

PROJECT # : Q08-5048

SAMPLED BY: P. RODRIGUEZ / R. LIPINSKI

DATE SAMPLED: 23-Oct-08

ANALYSIS METHOD: PLM

TURN-AROUND TIME: _____ HOURS
3 - 5 DAYS
_____ OTHER

SAMPLE # LAB#	LOCATION	SAMPLE DESCRIPTION	COMMENTS
5048-60	Collapsed Structure #5, Façade, Outermost Layer	Beige Stucco	STOP AT FIRST POSITIVE
5048-61	Collapsed Structure #5, Façade, Outermost Layer	Beige Stucco	
5048-62	Collapsed Structure #5, Façade, Outermost Layer	Beige Stucco	
5048-63	Collapsed Structure #5, Façade, Bottom Layer on Terra Cotta	White Stucco	STOP AT FIRST POSITIVE
5048-64	Collapsed Structure #5, Façade, Bottom Layer on Terra Cotta	White Stucco	
5048-65	Collapsed Structure #5, Façade, Bottom Layer on Terra Cotta	White Stucco	
5048-66	Collapsed Structure #5, Façade, behind Stucco	Terra Cotta & Mortar (separate layers)	
5048-67	Collapsed Structure #5, Interior Ceiling	Particle Board	
5048-68	Collapsed Structure #5, Interior Walls	Plaster	STOP AT FIRST
5048-69	Collapsed Structure #5, Interior Walls	Plaster	

CHAIN OF CUSTODY (SEE LAST PAGE)

SUBMITTED BY: _____ DATE: _____

RECEIVED BY: _____ DATE: _____

QUALITY ENVIRONMENTAL SOLUTIONS & TECHNOLOGIES, INC.

BULK SAMPLE FORM

CLIENT: DVIRKA & BARTILUCCI

ADDRESS: 330 CROSSWAYS PARK DRIVE
WOODBURY, NY 11797-2015

CONTACT: THOMAS FOX

PROJECT ID: GLENEMERE LAKE PROPERTIES,
GLENMERE AVE., FLORIDA, NY

PROJECT # : Q08-5048

SAMPLED BY: P. RODRIGUEZ / R. LIPINSKI

DATE SAMPLED: 23-Oct-08

ANALYSIS METHOD: PLM

TURN-AROUND TIME: _____ HOURS
3 - 5 DAYS
_____ OTHER

SAMPLE # LAB#	LOCATION	SAMPLE DESCRIPTION	COMMENTS
5048-70	Collapsed Structure #5, Interior Walls	Plaster	POSITIVE
5048-71	Collapsed Structure #6, Façade, Outermost Layer	Beige Stucco	STOP AT FIRST POSITIVE
5048-72	Collapsed Structure #6, Façade, Outermost Layer	Beige Stucco	
5048-73	Collapsed Structure #6, Façade, Outermost Layer	Beige Stucco	
5048-74	Collapsed Structure #6, Façade, Bottom Layer on Terra Cotta	White Stucco	STOP AT FIRST POSITIVE
5048-75	Collapsed Structure #6, Façade, Bottom Layer on Terra Cotta	White Stucco	
5048-76	Collapsed Structure #6, Façade, Bottom Layer on Terra Cotta	White Stucco	
5048-77	Collapsed Structure #6, Façade, behind Stucco	Terra Cotta & Mortar (separate layers)	
5048-78	Collapsed Structure #6, on Tank (150 sf)	Tank Insulation	STOP AT FIRST
5048-79	Collapsed Structure #6, on Tank (150 sf)	Tank Insulation	

CHAIN OF CUSTODY (SEE LAST PAGE)

SUBMITTED BY: _____ DATE: _____

RECEIVED BY: _____ DATE: _____

QUALITY ENVIRONMENTAL SOLUTIONS & TECHNOLOGIES, INC.

BULK SAMPLE FORM

CLIENT: DVIRKA & BARTILUCCI

ADDRESS: 330 CROSSWAYS PARK DRIVE
WOODBURY, NY 11797-2015

CONTACT: THOMAS FOX

PROJECT ID: GLENEMERE LAKE PROPERTIES,
GLENMERE AVE., FLORIDA, NY

PROJECT # : Q08-5048

SAMPLED BY: P. RODRIGUEZ / R. LIPINSKI

DATE SAMPLED: 23-Oct-08

ANALYSIS METHOD: PLM

TURN-AROUND TIME: _____ HOURS
3 - 5 DAYS
_____ OTHER

SAMPLE # LAB#	LOCATION	SAMPLE DESCRIPTION	COMMENTS
5048-80	Collapsed Structure #6, on Tank (150 sf)	Tank Insulation	POSITIVE
5048-81	Collapsed Structure #7, Foundation	Cementitious Slab	STOP AT FIRST POSITIVE
5048-82	Collapsed Structure #7, Foundation	Cementitious Slab	
5048-83	Structure #8 (Pump House), Façade	Stone Mortar	STOP AT FIRST POSITIVE
5048-84	Structure #8 (Pump House), Façade	Stone Mortar	
5048-85	Structure #8 (Pump House), Interior Ceiling & Walls	Plaster	STOP AT FIRST POSITIVE
5048-86	Structure #8 (Pump House), Interior Ceiling & Walls	Plaster	
5048-87	Structure #8 (Pump House), Interior Ceiling & Walls	Plaster	
5048-88	Structure #8 (Pump House), Interior Floor	Cementitious Slab	STOP AT FIRST
5048-89	Structure #8 (Pump House), Interior Floor	Cementitious Slab	

CHAIN OF CUSTODY (SEE LAST PAGE)

SUBMITTED BY: _____ DATE: _____

RECEIVED BY: _____ DATE: _____

QUALITY ENVIRONMENTAL SOLUTIONS & TECHNOLOGIES, INC.

BULK SAMPLE FORM

CLIENT: DVIRKA & BARTILUCCI

ADDRESS: 330 CROSSWAYS PARK DRIVE
WOODBURY, NY 11797-2015

CONTACT: THOMAS FOX

PROJECT ID: GLENEMERE LAKE PROPERTIES,
GLENMERE AVE., FLORIDA, NY

PROJECT # : Q08-5048

SAMPLED BY: P. RODRIGUEZ / R. LIPINSKI

DATE SAMPLED: 23-Oct-08

ANALYSIS METHOD: PLM

TURN-AROUND TIME: _____ HOURS
3 - 5 DAYS
_____ OTHER

SAMPLE # LAB#	LOCATION	SAMPLE DESCRIPTION	COMMENTS
5048-90	Structure #8 (Pump House), on Shop Table	Rope Gaskets	

CHAIN OF CUSTODY (SEE LAST PAGE)

SUBMITTED BY: P.A. Rodriguez DATE: October 24, 2008

RECEIVED BY: _____ DATE: _____

Eastern Analytical Services, Inc.

Bulk Sample Results

RE: CPN Q08-5048 - Dvirka & Bartilucci - Glenmere Lake Properties - Glenmere Avenue - Florida, NY

Date Collected : 10/23/2008
Collected By : P. Rodriguez/R. Lipinski
Date Received : 10/24/2008
Date Analyzed : 10/29-31/2008
Analyzed By : Ghayath Elias/Ernest Sanchez
Signature :
Analytical Method : NYS-DOH 198.4
NVLAP Lab No. 101646-0
NYS Lab No. 10851

Client QuES&T, Inc.
1376 Route 9
Wappingers Falls, NY 12590

Sample ID Number		5048-01	5048-02	5048-03	5048-04
Layer Number					
Lab ID Number		1701613	1701614	1701615	1701616
Sample Location		Collapsed Structure #1 (North), on Approx. (15) Windows	Collapsed Structure #1 (North), Façade, Bottom Layer behind Stucco	Collapsed Structure #1 (Middle), on Approx. (5) Windows	Collapsed Structure #1 (Middle), Façade, Bottom Layer Behind Stucco
Sample Description		Glazing Compound	Tar Paper	Glazing Compound	Tar Paper
Analytical Method		Tem	Tem	Tem	Tem
Appearance	Layered	No	No	No	No
	Homogenous	Yes	Yes	Yes	Yes
	Fibrous	No	Yes	No	Yes
	Color	Gray	Black	Gray	Black
Asbestos Content	% Amosite	0.0	0.0	0.0	0.0
	% Chrysotile	0.0	0.3	< 0.1	1.3
	% Other	0.0	0.0	0.0	0.0
	% Total Asbestos	0.0	0.3	< 0.1	1.3
Other Materials Present	% Organic	15.4	94.9	12.3	81.1
	% Carbonates	83.0	2.3	85.3	12.3
	% Other Inorganic	1.6	2.5	2.4	5.3

Eastern Analytical Services, Inc.

Bulk Sample Results

RE: CPN Q08-5048 - Dvirka & Bartilucci - Glenmere Lake Properties - Glenmere Avenue - Florida, NY

Date Collected : 10/23/2008
Collected By : P. Rodriguez/R. Lipinski
Date Received : 10/24/2008
Date Analyzed.: 10/29-31/2008
Analyzed By : Ghayath Elias/Ernest Sanchez
Signature :
Analytical Method : NYS-DOH 198.4
NVLAP Lab No. 101646-0
NYS Lab No. 10851

Client QuES&T, Inc.
1376 Route 9
Wappingers Falls, NY 12590

Sample ID Number		5048-05	5048-06	5048-07	5048-08
Layer Number					
Lab ID Number		1701617	1701618	1701619	1701620
Sample Location		Collapsed Structure #1 (Middle), Interior Walls, behind Wood	Collapsed Structure #1 (South), Façade, Bottom Layer Behind Stucco	Collapsed Structure #1 (South), Roof, on Metal	Collapsed Structure #1 (South), Roof, on Metal
Sample Description		Tar Paper	Tar Paper	Rolled Roofing	Rolled Roofing (Prepped, not Analyzed)
Analytical Method		Tem	Tem	Tem	Tem
Appearance	Layered	Yes	No	Yes	Yes
	Homogenous	No	Yes	No	No
	Fibrous	Yes	Yes	Yes	Yes
	Color	Black/Green	Black	Black	Black
Asbestos Content	% Amosite	0.0	0.0	0.0	NA
	% Chrysotile	< 0.1	< 0.1	17.5	NA
	% Other	0.0	0.0	0.0	NA
	% Total Asbestos	< 0.1	< 0.1	17.5	NA
Other Materials Present	% Organic	98.0	94.5	38.3	NA
	% Carbonates	0.4	2.3	3.3	NA
	% Other Inorganic	1.6	3.2	40.9	NA

Eastern Analytical Services, Inc.

Bulk Sample Results

RE: CPN Q08-5048 - Dvirka & Bartilucci - Glenmere Lake Properties - Glenmere Avenue - Florida, NY

Date Collected : 10/23/2008
Collected By : P. Rodriguez/R. Lipinski
Date Received : 10/24/2008
Date Analyzed : 10/29-31/2008
Analyzed By : Ghayath Elias/Ernest Sanchez
Signature :
Analytical Method : NYS-DOH 198.4
NVLAP Lab No. 101646-0
NYS Lab No. 10851

Client QuES&T, Inc.
1376 Route 9
Wappingers Falls, NY 12590

Sample ID Number		5048-09	5048-10	5048-11	5048-12
Layer Number					
Lab ID Number		1701621	1701622	1701623	1701624
Sample Location		Collapsed Structure #4, on Approx. (2) Windows	Collapsed Structure #4, Roof, Top Layer	Collapsed Structure #4, Roof, Bottom Layer on Wood	Collapsed Structure #5, Roof, on Wood
Sample Description		Glazing Compound	Shingle	Tar Paper	Tar Paper
Analytical Method		Tem	Tem	Tem	Tem
Appearance	Layered	No	Yes	Yes	Yes
	Homogenous	Yes	No	No	No
	Fibrous	No	Yes	Yes	Yes
	Color	Gray	Black	Black	Black
Asbestos Content	% Amosite	0.0	0.0	0.0	0.0
	% Chrysotile	0.0	0.0	< 0.1	0.0
	% Other	0.0	0.0	0.0	0.0
	% Total Asbestos	0.0	0.0	< 0.1	0.0
Other Materials Present	% Organic	8.3	68.9	97.1	97.4
	% Carbonates	89.3	10.6	0.1	0.1
	% Other Inorganic	2.4	20.5	2.8	2.5

Eastern Analytical Services, Inc.

Bulk Sample Results

RE: CPN Q08-5048 - Dvirka & Bartilucci - Glenmere Lake Properties - Glenmere Avenue - Florida, NY

Client QuES&T, Inc.
1376 Route 9
Wappingers Falls, NY 12590

Date Collected : 10/23/2008
Collected By : P. Rodriguez/R. Lipinski
Date Received : 10/24/2008
Date Analyzed : 10/29-31/2008
Analyzed By : Ghayath Elias/Ernest Sanchez
Signature :
Analytical Method : NYS-DOH 198.4
NVLAP Lab No. 101646-0
NYS Lab No. 10851

Sample ID Number		5048-13	5048-14	5048-15	5048-16
Layer Number					
Lab ID Number		1701625	1701626	1701627	1701628
Sample Location		Collapsed Structure #6, on Approx. (6) Windows	Collapsed Structure #6, Roof, Top Layer	Collapsed Structure #6, Roof, Bottom Layer on Wood	Structure #8, (Pump House), on Approx. (6) Windows
Sample Description		Glazing Compound	Shingle	Tar Paper	Glazing Compound
Analytical Method		Tem	Tem	Tem	Tem
Appearance	Layered	No	Yes	Yes	No
	Homogenous	Yes	No	No	Yes
	Fibrous	No	Yes	Yes	No
	Color	Gray	Black/Green	Black	Gray
Asbestos Content	% Amosite	0.0	0.0	0.0	0.0
	% Chrysotile	0.7	0.0	0.0	0.0
	% Other	0.0	0.0	0.0	0.0
	% Total Asbestos	0.7	0.0	0.0	0.0
Other Materials Present	% Organic	6.8	40.4	89.0	9.0
	% Carbonates	86.2	0.0	1.1	87.6
	% Other Inorganic	6.3	59.6	9.9	3.4

Eastern Analytical Services, Inc.

Bulk Sample Results

RE: CPN Q08-5048 - Dvirka & Bartilucci - Glenmere Lake Properties - Glenmere Avenue - Florida, NY

Date Collected : 10/23/2008
Collected By : P. Rodriguez/R. Lipinski
Date Received : 10/24/2008
Date Analyzed : 10/29-31/2008
Analyzed By : Ghayath Elias/Ernest Sanchez
Signature :
Analytical Method : NYS-DOH 198.4
NVLAP Lab No. 101646-0
NYS Lab No. 10851

Client QuES&T, Inc.
1376 Route 9
Wappingers Falls, NY 12590

Sample ID Number		5048-17	5048-18	5048-19
Layer Number				
Lab ID Number		1701629	1701630	1701631
Sample Location		Structure #8, (Pump House), Roof, Top Layer	Structure #8, (Pump House), Roof, 2nd Layer	Structure #8, (Pump House), Roof, Bottom Layer on Wood
Sample Description		Shingle	Shingle	Tar Paper
Analytical Method		Tem	Tem	Tem
Appearance	Layered	Yes	Yes	No
	Homogenous	No	No	Yes
	Fibrous	Yes	Yes	Yes
	Color	Black/Gray	Black/Gray	Black
Asbestos Content	% Amosite	0.0	0.0	0.0
	% Chrysotile	0.0	0.0	< 0.1
	% Other	0.0	0.0	0.0
	% Total Asbestos	0.0	0.0	< 0.1
Other Materials Present	% Organic	71.9	58.9	97.8
	% Carbonates	20.9	17.6	0.0
	% Other Inorganic	7.2	23.5	2.2

QUALITY ENVIRONMENTAL SOLUTIONS & TECHNOLOGIES, INC.

BULK SAMPLE FORM

CLIENT: **DVIRKA & BARTILUCCI**

ADDRESS: **330 CROSSWAYS PARK DRIVE**
WOODBURY, NY 11797-2015

CONTACT: **THOMAS FOX**

PROJECT ID: **GLENEMERE LAKE PROPERTIES,**
GLENMERE AVE., FLORIDA, NY

PROJECT # : **Q08-5048**

SAMPLED BY: **P. RODRIGUEZ / R. LIPINSKI**

DATE SAMPLED: **23-Oct-08**

ANALYSIS METHOD: **QTEM / PLM**

TURN-AROUND TIME: _____ HOURS
3 - 5 DAYS
_____ OTHER

SAMPLE # LAB#	LOCATION	SAMPLE DESCRIPTION	COMMENTS
5048-01	Collapsed Structure #1 (North), on approx. (15) Windows	Glazing Compound	
5048-02	Collapsed Structure #1 (North), Façade, Bottom Layer behind Stucco	Tar Paper	
5048-03	Collapsed Structure #1 (Middle), on approx. (5) Windows	Glazing Compound	
5048-04	Collapsed Structure #1 (Middle), Façade, Bottom Layer behind Stucco	Tar Paper	
5048-05	Collapsed Structure #1 (Middle), Interior Walls, behind Wood	Tar Paper	
5048-06	Collapsed Structure #1 (South), Façade, Bottom Layer behind Stucco	Tar Paper	
5048-07	Collapsed Structure #1 (South), Roof, on Metal	Rolled Roofing	**STOP AT FIRST POSITIVE**
5048-08	Collapsed Structure #1 (South), Roof, on Metal	Rolled Roofing	
5048-09	Collapsed Structure #4, on approx. (2) Windows	Glazing Compound	
5048-10	Collapsed Structure #4, Roof, Top Layer	Shingle	

CHAIN OF CUSTODY (SEE LAST PAGE)

SUBMITTED BY: _____ DATE: _____

RECEIVED BY: _____ DATE: _____

QUALITY ENVIRONMENTAL SOLUTIONS & TECHNOLOGIES, INC.

BULK SAMPLE FORM

CLIENT: DVIRKA & BARTILUCCI

ADDRESS: 330 CROSSWAYS PARK DRIVE
WOODBURY, NY 11797-2015

CONTACT: THOMAS FOX

PROJECT ID: GLENEMERE LAKE PROPERTIES,
GLENMERE AVE., FLORIDA, NY

PROJECT # : Q08-5048

SAMPLED BY: P. RODRIGUEZ / R. LIPINSKI

DATE SAMPLED: 23-Oct-08

ANALYSIS METHOD: QTEM / PLM

TURN-AROUND TIME: _____ HOURS
3 - 5 DAYS
_____ OTHER

SAMPLE # LAB#	LOCATION	SAMPLE DESCRIPTION	COMMENTS
5048-11	Collapsed Structure #4, Roof, Bottom Layer on Wood	Tar Paper	
5048-12	Collapsed Structure #5, Roof, on Wood	Tar Paper	
5048-13	Collapsed Structure #6, on approx. (6) Windows	Glazing Compound	
5048-14	Collapsed Structure #6, Roof, Top Layer	Shingle	
5048-15	Collapsed Structure #6, Roof, Bottom Layer on Wood	Tar Paper	
5048-16	Structure #8 (Pump House), on approx. (6) Windows	Glazing Compound	
5048-17	Structure #8 (Pump House), Roof, Top Layer	Shingle	
5048-18	Structure #8 (Pump House), Roof, 2nd Layer	Shingle	
5048-19	Structure #8 (Pump House), Roof, Bottom Layer on Wood	Tar Paper	

CHAIN OF CUSTODY (SEE LAST PAGE)

SUBMITTED BY: P.A. Rodriguez DATE: October 24, 2008

RECEIVED BY: _____ DATE: _____

Eastern Analytical Services, Inc.

Bulk Sample Results

RE: CPN Q08-5048 - Dvirka & Bartilucci - Glenmere Lake Properties - Glenmere Avenue - Florida, NY

Date Collected : 10/23/2008
Collected By : P. Rodriguez/R. Lipinski
Date Received : 10/24/2008
Date Analyzed : 10/31/2008
Analyzed By : Damien Warner
Signature :
Analytical Method : NYS-DOH 198.6
NVLAP Lab No. 101646-0
NYS Lab No. 10851

Client QuES&T, Inc.
1376 Route 9
Wappingers Falls, NY 12590

Sample ID Number		5048-01	5048-02	5048-03	5048-04
Layer Number					
Lab ID Number		1701613	1701614	1701615	1701616
Sample Location		Collapsed Structure #1 (North), on Approx. (15) Windows	Collapsed Structure #1 (North), Façade, Bottom Layer behind Stucco	Collapsed Structure #1 (Middle), on Approx. (5) Windows	Collapsed Structure #1 (Middle), Façade, Bottom Layer Behind Stucco
Sample Description		Glazing Compound	Tar Paper	Glazing Compound	Tar Paper
Analytical Method		Plm	Plm	Plm	Plm
Appearance	Layered	No	No	No	No
	Homogenous	Yes	Yes	Yes	Yes
	Fibrous	No	Yes	No	Yes
	Color	Gray	Black	Gray	Black
Asbestos Content	% Amosite	0.0	0.0	0.0	0.0
	% Chrysotile	0.0	< 0.1	< 0.1	0.1
	% Other	0.0	0.0	0.0	0.0
	% Total Asbestos	0.0	< 0.1	< 0.1	0.1
Other Materials Present	% Organic	15.4	94.9	12.3	81.1
	% Carbonates	83.0	2.3	85.3	12.3
	% Other Inorganic	1.6	2.8	2.4	6.5

Eastern Analytical Services, Inc.

Bulk Sample Results

RE: CPN Q08-5048 - Dvirka & Bartilucci - Glenmere Lake Properties - Glenmere Avenue - Florida, NY

Date Collected : 10/23/2008
Collected By : P. Rodriguez/R. Lipinski
Date Received : 10/24/2008
Date Analyzed : 10/31/2008
Analyzed By : Damien Warner
Signature :
Analytical Method : NYS-DOH 198.6
NVLAP Lab No. 101646-0
NYS Lab No. 10851

Client QuES&T, Inc.
1376 Route 9
Wappingers Falls, NY 12590

Sample ID Number		5048-05	5048-06	5048-09	5048-10
Layer Number					
Lab ID Number		1701617	1701618	1701621	1701622
Sample Location		Collapsed Structure #1 (Middle), Interior Walls, behind Wood	Collapsed Structure #1 (South), Façade, Bottom Layer Behind Stucco	Collapsed Structure #4, on Approx. (2) Windows	Collapsed Structure #4, Roof, Top Layer
Sample Description		Tar Paper	Tar Paper	Glazing Compound	Shingle
Analytical Method		Plm	Plm	Plm	Plm
Appearance	Layered	Yes	No	No	Yes
	Homogenous	No	Yes	Yes	No
	Fibrous	Yes	Yes	No	Yes
	Color	Black/Green	Black	Gray	Black
Asbestos Content	% Amosite	0.0	0.0	0.0	0.0
	% Chrysotile	< 0.1	< 0.1	0.0	0.0
	% Other	0.0	0.0	0.0	0.0
	% Total Asbestos	< 0.1	< 0.1	0.0	0.0
Other Materials Present	% Organic	98.0	94.5	8.3	68.9
	% Carbonates	0.4	2.3	89.3	10.6
	% Other Inorganic	1.6	3.2	2.4	20.5

Eastern Analytical Services, Inc.

Bulk Sample Results

RE: CPN Q08-5048 - Dvirka & Bartilucci - Glenmere Lake Properties - Glenmere Avenue - Florida, NY

Date Collected : 10/23/2008
Collected By : P. Rodriguez/R. Lipinski
Date Received : 10/24/2008
Date Analyzed : 10/31/2008
Analyzed By : Damien Warner
Signature :
Analytical Method : NYS-DOH 198.6
NVLAP Lab No. 101646-0
NYS Lab No. 10851

Client QuES&T, Inc.
1376 Route 9
Wappingers Falls, NY 12590

Sample ID Number		5048-11	5048-12	5048-13	5048-14
Layer Number					
Lab ID Number		1701623	1701624	1701625	1701626
Sample Location		Collapsed Structure #4, Roof, Bottom Layer on Wood	Collapsed Structure #5, Roof, on Wood	Collapsed Structure #6, on Approx. (6) Windows	Collapsed Structure #6, Roof, Top Layer
Sample Description		Tar Paper	Tar Paper	Glazing Compound	Shingle
Analytical Method		Plm	Plm	Plm	Plm
Appearance	Layered	Yes	Yes	No	Yes
	Homogenous	No	No	Yes	No
	Fibrous	Yes	Yes	No	Yes
	Color	Black	Black	Gray	Black/Green
Asbestos Content	% Amosite	0.0	0.0	0.0	0.0
	% Chrysotile	< 0.1	0.0	0.2	0.0
	% Other	0.0	0.0	0.0	0.0
	% Total Asbestos	< 0.1	0.0	0.2	0.0
Other Materials Present	% Organic	97.1	97.4	6.8	40.4
	% Carbonates	0.1	0.1	86.2	0.0
	% Other Inorganic	2.8	2.5	6.8	59.6

Eastern Analytical Services, Inc.

Bulk Sample Results

RE: CPN Q08-5048 - Dvirka & Bartilucci - Glenmere Lake Properties - Glenmere Avenue - Florida, NY

Date Collected : 10/23/2008
Collected By : P. Rodriguez/R. Lipinski
Date Received : 10/24/2008
Date Analyzed : 10/31/2008
Analyzed By : Damien Warner
Signature :
Analytical Method : NYS-DOH 198.6
NVLAP Lab No. 101646-0
NYS Lab No. 10851

Client QuES&T, Inc.
1376 Route 9
Wappingers Falls, NY 12590

Sample ID Number		5048-15	5048-16	5048-17	5048-18
Layer Number					
Lab ID Number		1701627	1701628	1701629	1701630
Sample Location		Collapsed Structure #6, Roof, Bottom Layer on Wood	Structure #8, (Pump House), on Approx. (6) Windows	Structure #8, (Pump House), Roof, Top Layer	Structure #8, (Pump House), Roof, 2nd Layer
Sample Description		Tar Paper	Glazing Compound	Shingle	Shingle
Analytical Method		Plm	Plm	Plm	Plm
Appearance	Layered	Yes	No	Yes	Yes
	Homogenous	No	Yes	No	No
	Fibrous	Yes	No	Yes	Yes
	Color	Black	Gray	Black/Gray	Black/Gray
Asbestos Content	% Amosite	0.0	0.0	0.0	0.0
	% Chrysotile	0.0	0.0	0.0	0.0
	% Other	0.0	0.0	0.0	0.0
	% Total Asbestos	0.0	0.0	0.0	0.0
Other Materials Present	% Organic	89.0	9.0	71.9	58.9
	% Carbonates	1.1	87.6	20.9	17.6
	% Other Inorganic	9.9	3.4	7.2	23.5

Eastern Analytical Services, Inc.

Bulk Sample Results

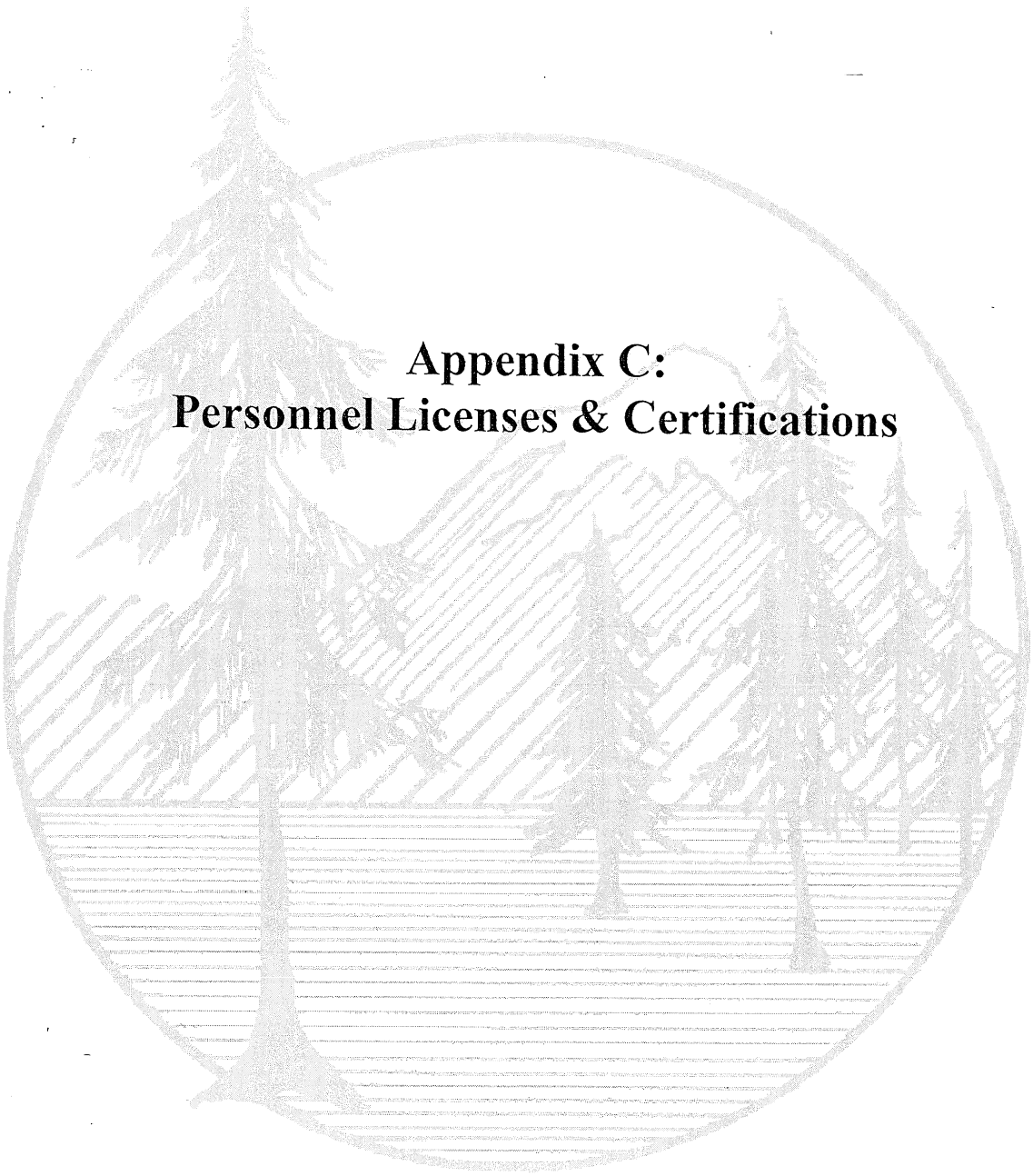
RE: CPN Q08-5048 - Dvirka & Bartilucci - Glenmere Lake Properties - Glenmere Avenue - Florida, NY

Client QuES&T, Inc.
1376 Route 9
Wappingers Falls, NY 12590

Date Collected :	10/23/2008
Collected By :	P. Rodriguez/R. Lipinski
Date Received :	10/24/2008
Date Analyzed :	10/31/2008
Analyzed By :	Damien Warner
Signature :	
Analytical Method :	NYS-DOH 198.6
NVLAP Lab No.	101646-0
NYS Lab No.	10851

Sample ID Number		5048-19
Layer Number		
Lab ID Number		1701631
Sample Location		Structure #8, (Pump House), Roof, Bottom Layer on Wood
Sample Description		Tar Paper
Analytical Method		Plm
Appearance	Layered	No
	Homogenous	Yes
	Fibrous	Yes
	Color	Black
Asbestos Content	% Amosite	0.0
	% Chrysotile	< 0.1
	% Other	0.0
	% Total Asbestos	< 0.1
Other Materials Present	% Organic	97.8
	% Carbonates	0.0
	% Other Inorganic	2.2

QuES&T
Quality Environmental Solutions & Technologies, Inc.



Appendix C:
Personnel Licenses & Certifications

NEW YORK STATE DEPARTMENT OF HEALTH
WADSWORTH CENTER
RICHARD E. DAINES, M.D.

Expires 12:01 AM April 01, 2009
Issued April 01, 2008

CERTIFICATE OF APPROVAL FOR LABORATORY SERVICE

Issued in accordance with and pursuant to section 502 Public Health Law of New York State

MR. PAUL E. STASCAVAGE
EAS INC - EASTERN ANALYTICAL SERVICES INC
1 WESTCHESTER PLAZA
ELMSFORD, NY 10523-1610

NY Lab Id No: 10851
EPA Lab Code: NY00909

is hereby APPROVED as an Environmental Laboratory for the category
ENVIRONMENTAL ANALYSES AIR AND EMISSIONS
All approved subcategories and/or analytes are listed below:

Metals	
Lead, Total	NIOSH 7082
Miscellaneous Air	
Asbestos	40 CFR 763 APX A No. III
	YAMATE, AGARWAL GIBB
Fibers	NIOSH 7400 A RULES
Radon	Charcoal canister

Serial No.: 35928

NEW YORK STATE DEPARTMENT OF HEALTH
WADSWORTH CENTER
RICHARD F. DANIES, M.D.

Expires 12:01 AM April 01, 2009
Issued April 01, 2008

CERTIFICATE OF APPROVAL FOR LABORATORY SERVICE

Issued in accordance with and pursuant to section 502 Public Health Law of New York State

MR. PAUL E. STASCAVAGE
EAS INC - EASTERN ANALYTICAL SERVICES INC
4 WESTCHESTER PLAZA
ELMSFORD, NY 10523-1610

NY Lab Id No: 10851
EPA Lab Code: NY00909

Is hereby APPROVED as an Environmental Laboratory in conformance with the National Environmental Laboratory Accreditation Conference Standards for the category ENVIRONMENTAL ANALYSES NON POTABLE WATER.
All approved analytes are listed below:

Purgeable Aromatics	
1,4-Dichlorobenzene	EPA 602
Benzene	EPA 602
Chlorobenzene	EPA 602
Ethylbenzene	EPA 602
Total Xylenes	EPA 602
Wastewater Metals I	
Barium, Total	EPA 208.1
	EPA 7080A
Cadmium, Total	EPA 213.1
	EPA 7130
Chromium, Total	EPA 218.1
	EPA 7190
Copper, Total	EPA 220.1
Lead, Total	EPA 239.1
	EPA 7420
Nickel, Total	EPA 249.1
	EPA 7520
Silver, Total	EPA 272.1
	EPA 7760A
Wastewater Metals II	
Arsenic, Total	SM 18-19 3113B (99)
Mercury, Total	EPA 245.1 Rev. 3.0
Selenium, Total	SM 18-19 3113B (99)
Wastewater Miscellaneous	
Hydrogen Ion (pH)	EPA 9040B
	SM 18-20 4500-H B (00)

Serial No.: 35924

Property of the New York State Department of Health. Valid only at the address shown. Must be conspicuously posted. Void if removed, altered, or mutilated. Continued accreditation depends on successful ongoing participation in the Program. Consumers are urged to call (518) 485-5570 to verify laboratory's accreditation status.

NEW YORK STATE DEPARTMENT OF HEALTH
WADSWORTH CENTER
RICHARD F. DAINES, M.D.

Expires 12:01 AM April 01, 2009
Issued April 01, 2008

CERTIFICATE OF APPROVAL FOR LABORATORY SERVICE

Issued in accordance with and pursuant to section 502 Public Health Law of New York State

MR. PAUL E. STASCAVAGE
EAS INC. EASTERN ANALYTICAL SERVICES INC
4 WESTCHESTER PLAZA
ELMSFORD, NY 10523-1610

NY Lab Id No: 10851
EPA Lab Code: NY00909

Is hereby APPROVED as an Environmental Laboratory in conformance with the National Environmental Laboratory Accreditation Conference Standards for the category ENVIRONMENTAL ANALYSES SOLID AND HAZARDOUS WASTE
All approved analytes are listed below:

Characteristic Testing	
Corrosivity	EPA 1110
Metals	
Barium, Total	EPA 7080A
Cadmium, Total	EPA 7130
Chromium, Total	EPA 7190
Lead, Total	EPA 7420
Nickel, Total	EPA 7520
Silver, Total	EPA 7760A
Miscellaneous	
Hydrogen ion (pH)	EPA 9040B
	EPA 9045D
Lead in Paint	ASTM D3335-85A
Sample Preparation Methods	
	EPA 1311
	EPA 3050B

Serial No. 35925

Property of the New York State Department of Health. Valid only at the address shown. Must be conspicuously posted. Valid certificates have a raised seal. Continued accreditation depends on successful grading on proficiency in the Program. Consumers may call (518) 485-5570 to verify laboratory's accreditation status.

NEW YORK STATE DEPARTMENT OF HEALTH
WADSWORTH CENTER
RICHARD F. DAINES, M.D.

Expires 12:01 AM April 01, 2009
Issued April 01, 2008

CERTIFICATE OF APPROVAL FOR LABORATORY SERVICE

Issued in accordance with and pursuant to Section 502 Public Health Law of New York State

MR. PAUL E. STASCAVAGE
EAS INC - EASTERN ANALYTICAL SERVICES INC
4 WESTCHESTER PLAZA
ELMSFORD, NY 10523-1610

NY Lab Id No: 10851
EPA Lab Code: NY00909

is hereby APPROVED as an Environmental Laboratory in conformance with the National Environmental Laboratory Accreditation Conference Standards for the category
ENVIRONMENTAL ANALYSES POTABLE WATER
All approved analytes are listed below:

Drinking Water Metals	
Copper, Total	SM 18-20 3111B (99)
Iron, Total	SM 18-20 3111B (99)
Lead, Total	EPA 200.8 Rev. 5.4
Drinking Water Miscellaneous	
Asbestos	EPA 100.1
Drinking Water Non-Metals	
Hydrogen Ion (pH)	SM 18-20 4500-H+ B (00)

Serial No.: 35923

Property of the New York State Department of Health. Valid only at the address shown. Must be conspicuously posted. Valid certificates have a raised seal. Continued accreditation depends on successful ongoing participation in the Program. Consumers are urged to call (518) 486-3570 to verify laboratory's accreditation status.

NEW YORK STATE DEPARTMENT OF HEALTH
WADSWORTH CENTER
RICHARD F. DAINES, M.D.

Expires 12:01 AM April 01, 2009
Issued April 01, 2008

CERTIFICATE OF APPROVAL FOR LABORATORY SERVICE

Issued in accordance with and pursuant to section 502 Public Health Law of New York State—

MR. PAUL E. STASCAVAGE
EAS INC - EASTERN ANALYTICAL SERVICES INC
4 WESTCHESTER PLAZA
ELMSFORD, NY 10523-1610

NY Lab Id No: 10851
EPA Lab Code: NY00909

is hereby APPROVED as an Environmental Laboratory for the category
ENVIRONMENTAL ANALYSES SOLID AND HAZARDOUS WASTE
All approved subcategories and/or analytes are listed below:

Miscellaneous	
Asbestos in Friable Material	EPA 600/M4-82/020 Item 198.1 of Manual
Asbestos in Non-Friable Material-PLM	Item 198.6 of Manual (NOB by PLM)
Asbestos in Non-Friable Material-TEM	ITEM 198.4 OF MANUAL
Lead in Dust Wipes	EPA 7420
Lead in Paint	EPA 7420
Sample Preparation Methods	
	APP. 14.2, HUD JUNE 1995
	ASTM E-1979-98
	EPA 3050B

Serial No.: 36926

Property of the New York State Department of Health. Valid only at the address shown. Must be conspicuously posted. Valid certificate bears a raised seal. Continued accreditation depends on successful ongoing participation in the Program. Consumers are urged to call (518) 485-5570 to verify laboratory's accreditation status.

NEW YORK STATE DEPARTMENT OF LABOR
DIVISION OF SAFETY AND HEALTH
LICENSE AND CERTIFICATE UNIT
STATE CAMPUS BUILDING 12
ALBANY, NY 12240

ASBESTOS HANDLING LICENSE

Quality Environmental Solutions & Technologies, Inc.
1376 Route 9,
Wappingers Falls, NY 12590

FILE NUMBER: 99 0018
LICENSE NUMBER: 29086
LICENSE CLASS: RESTRICTED
DATE OF ISSUE: 12/31/2007
EXPIRATION DATE: 01/31/2009

Duly Authorized Representative: Lawrence J. Holzapfel

This license has been issued in accordance with applicable provisions of Article 30 of the Labor Law of New York State and of the New York State Codes, Rules and Regulations (12 NYCRR Part 56). It is subject to suspension or revocation for a (1) serious violation of state, federal or local laws with regard to the conduct of an asbestos project, or (2) demonstrated lack of responsibility in the conduct of any job involving asbestos or asbestos material.

This license is valid only for the contractor named above and this license or a photocopy must be prominently displayed at the asbestos project worksite. This license verifies that all persons employed by the licensee on an asbestos project in New York State have been issued an Asbestos Certificate, appropriate for the type of work they perform, by the New York State Department of Labor.

Maureen A. Cox, Director
FOR THE COMMISSIONER OF LABOR

SH 432 (4-07)

Empire State Development

MWBD
DIVISION OF
Minority and Women's Business Development

The hereto named firm is designated a

MBE

by the

Division of Minority and Women's Business Development

QUALITY ENVIRONMENTAL SOLUTIONS & TECHNOLOGIES INC.

WAPPINGERS FALLS, NY

DIRECTOR

CERTIFICATION ANALYST

49952-2006
CERTIFICATE NUMBER

08/04/2008
EXPIRATION DATE

STATE OF NEW YORK - DEPARTMENT OF LABOR

ASBESTOS CERTIFICATE

PAUL A RODRIGUEZ

CLASS(EXPIRES)

C A/H/C (03/09) D I/S/P (03/09)

E M/G/P/L (03/09) J H P/M (03/09)

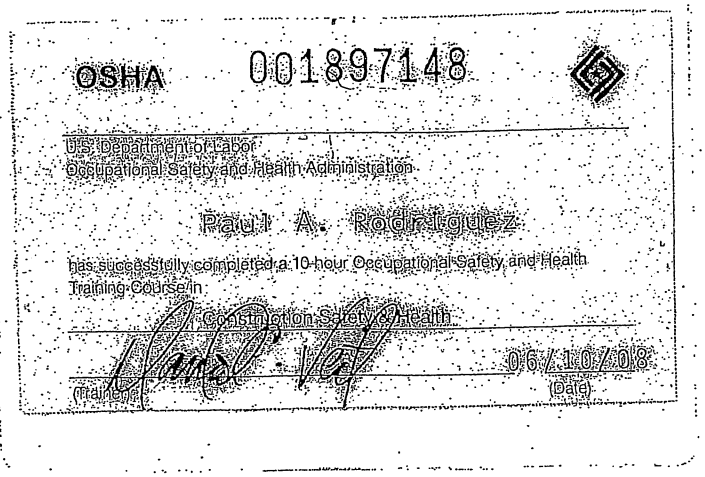
CERT# 02-04344

DMV# 471279478

MUST BE CARRIED ON ASBESTOS PROJECTS

EYES BRO
HAIR BRO
HGT 5' 09"

IF FOUND RETURN TO:
NYSDOL - L&C UNIT
ROOM 290A BUILDING 12
STATE OFFICE CAMPUS
ALBANY NY 12240



OSHA 00189748

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

Paul A. Rodriguez

has successfully completed a 10-hour Occupational Safety and Health Training Course in

Construction Safety & Health

(trainer) 06/10/08 (Date)

QuES&T

Quality Environmental Solutions & Technologies, Inc
1376 Wappingers Falls, NY 12590
Phone 845-298-6031 Fax 845-298-6251

HEREBY CERTIFIES THAT

PAUL A. RODRIGUEZ

HAS SUCCESSFULLY COMPLETED A SEMINAR IN:

10 HOUR CONSTRUCTION SAFETY

MEETING THE REQUIREMENTS OF THE OSHA OUTREACH TRAINING PROGRAM AND IS AWARDED THIS CERTIFICATE BY

David C. Veit

DAVID VEIT
OSHA AUTHORIZED OUTREACH TRAINER #C 0008985

ON THIS DATE: JUNE 10, 2008

CERTIFICATE NUMBER: 08-OSHA10-02-10

LITHO. IN U.S.A.

STATE OF NEW YORK - DEPARTMENT OF LABOR

ASBESTOS CERTIFICATE

RUDY W[illegible]
CLASS(EXPIRES)
C A[illegible]C(01/09) D INSP(01/09)
H EM (01/09)

CERT# 05-09049
DMV# 252360689

MUST BE CARRIED ON ASBESTOS PROJECTS

EYES BRO
HAIR BRO
HGT 6' 05"

IF FOUND RETURN TO:
NYSDOL - L&C UNIT
ROOM 290A BUILDING 12
STATE OFFICE CAMPUS
ALBANY NY 12240

The American Industrial Hygiene Association

CELEBRATING 30 Thirty Years of AIHA Accrediting Labs 1974 – 2004

acknowledges that

Eastern Analytical Services, Inc.

4 Westchester Plaza, Elmsford, NY 10523-1610

Laboratory ID: 100263

has fulfilled the requirements of the AIHA Laboratory Quality Assurance Programs (LQAP), thereby, conforming to the ISO/IEC 17025:1999 international standard, *General Requirements for the Competence of Testing and Calibration Laboratories*. The above named laboratory, along with all premises from which key activities are performed, as listed above, have been accredited by AIHA in the following:

ACCREDITATION PROGRAMS

✓	INDUSTRIAL HYGIENE	Accreditation Expires: 10/01/2008
✓	ENVIRONMENTAL LEAD	Accreditation Expires: 10/01/2008
☐	ENVIRONMENTAL MICROBIOLOGY	Accreditation Expires:
☐	FOOD	Accreditation Expires:

Specific Field(s) of Testing (FoT)/Method(s) within each Accreditation Program for which the above named laboratory maintains accreditation is outlined on the attached Scope of Accreditation. Continued accreditation is contingent upon successful on-going compliance with LQAP requirements. This certificate is not valid without the attached Scope of Accreditation. Please review the AIHA website for the most current status of the scope of accreditation.

John A. Kenny, CIH, CSP
Chairperson, Analytical Accreditation Board

Frank M. Renshaw, PhD, CIH, CSP
President, AIHA

Date Issued: 01/05/2007

United States Department of Commerce
National Institute of Standards and Technology

NVLAP®

Certificate of Accreditation to ISO/IEC 17025:2005

NVLAP LAB CODE: 101646-0

Eastern Analytical Services, Inc.
Elmsford, NY

is accredited by the National Voluntary Laboratory Accreditation Program for specific services, listed on the Scope of Accreditation, for:

BULK ASBESTOS FIBER ANALYSIS

This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2005. This accreditation demonstrates technical competence for a defined scope and the operation of a laboratory quality management system (refer to joint ISO-ILAC-IAF Communique dated 18 June 2005).

2007-10-01 through 2008-09-30
Effective dates

DEPARTMENT OF COMMERCE * UNITED STATES OF AMERICA *

Sally A. Bruce
For the National Institute of Standards and Technology

NVLAP-01C (REV. 2006-09-13)

QuES&T

Quality Environmental Solutions & Technologies, Inc.

January 19, 2009

Dvirka & Bartilucci
330 Crossways Park Drive
Woodbury, NY 11797-2015

ATTN: Thomas Fox

Via E-mail: **tfox@db-eng.com**

Re.: Glenmere Lake Properties, Glenmere Avenue, Florida, NY
XRF Lead Surveys
QuES&T Project #Q08-5048

Dear Mr. Fox,

Quality **E**nvironmental **S**olutions **&** **T**echnologies, Inc. **(QuES&T)** performed limited XRF Lead-Testing throughout accessible, as well as structurally-sound, interior and exterior areas of "Glenmere Lake Properties – Eight (8) Structures," Glenmere Avenue, Florida, New York. A breakdown of building names & locations is attached (Appendix "B"). The purpose of these surveys was to perform XRF Lead-Testing of accessible, as well as structurally-sound, interior and exterior areas in preparation for demolition. A total of thirty **(30)** samples were taken (including calibrations) on October 23, 2008.

Based on review of the data generated by the Niton XLp-300A XRF Spectrum Analyzer, the following surfaces tested were identified as lead-based as defined by HUD/EPA (equal to or in excess of 1.0 milligram per square centimeter):

- **COLLAPSED STRUCTURE #1 (NORTH, MIDDLE & SOUTH) – INTERIORS:**
  - NO access; all painted components must be 'assumed' lead-based and/or lead-containing.

- **COLLAPSED STRUCTURE #1 (NORTH, MIDDLE & SOUTH) – EXTERIORS:**
  - ALL painted "Entry & Stable" Doors/components (i.e. frames, saddles, thresholds, etc.) exceeded the 1.0 milligram per square centimeter HUD/EPA threshold.
  - Additional "inaccessible" components such as, but not limited to, must be 'assumed' lead-based and/or lead-containing:
    - Windows/components (i.e. sills, sashes, frames, trims, etc.).
    - Ceilings/Walls/Floors.
    - Miscellaneous painted interior components & materials.

- **FOUNDATION STRUCTURES #2 & #3:**
  - NO painted components present.

- **COLLAPSED STRUCTURE #4 – INTERIORS:**
  - NO access; all painted components must be 'assumed' lead-based and/or lead-containing.

- **COLLAPSED STRUCTURE #4 – EXTERIORS:**
  - ALL painted Doors/components (i.e. frames, saddles, thresholds, etc.) exceeded the 1.0 milligram per square centimeter HUD/EPA threshold.
  - Additional "inaccessible" components such as, but not limited to, must be 'assumed' lead-based and/or lead-containing:
    - Windows/components (i.e. sills, sashes, frames, trims, etc.).
    - Ceilings/Walls/Floors.
    - Miscellaneous painted interior components & materials.

Identified Lead-Based Paints (cont'd)

- **COLLAPSED STRUCTURES #5 & #6 – INTERIORS:**
  - NO access; all painted components must be 'assumed' lead-based and/or lead-containing.

- **COLLAPSED STRUCTURES #5 & #6 – EXTERIORS:**
  - ALL painted Doors/components (i.e. frames, saddles, thresholds, etc.) exceeded the 1.0 milligram per square centimeter HUD/EPA threshold.
  - Additional "inaccessible" components such as, but not limited to, must be 'assumed' lead-based and/or lead-containing:
    - Windows/components (i.e. sills, sashes, frames, trims, etc.).
    - Ceilings/Walls/Floors.
    - Miscellaneous painted interior components & materials.

- **FOUNDATION STRUCTURE #7:**
  - NO painted components present.

- **PUMPHOUSE STRUCTURE #8 – INTERIORS:**
  - ALL painted Doors/components (i.e. frames, saddles, thresholds, etc.) exceeded the 1.0 milligram per square centimeter HUD/EPA threshold.
  - Painted metallic Tank.

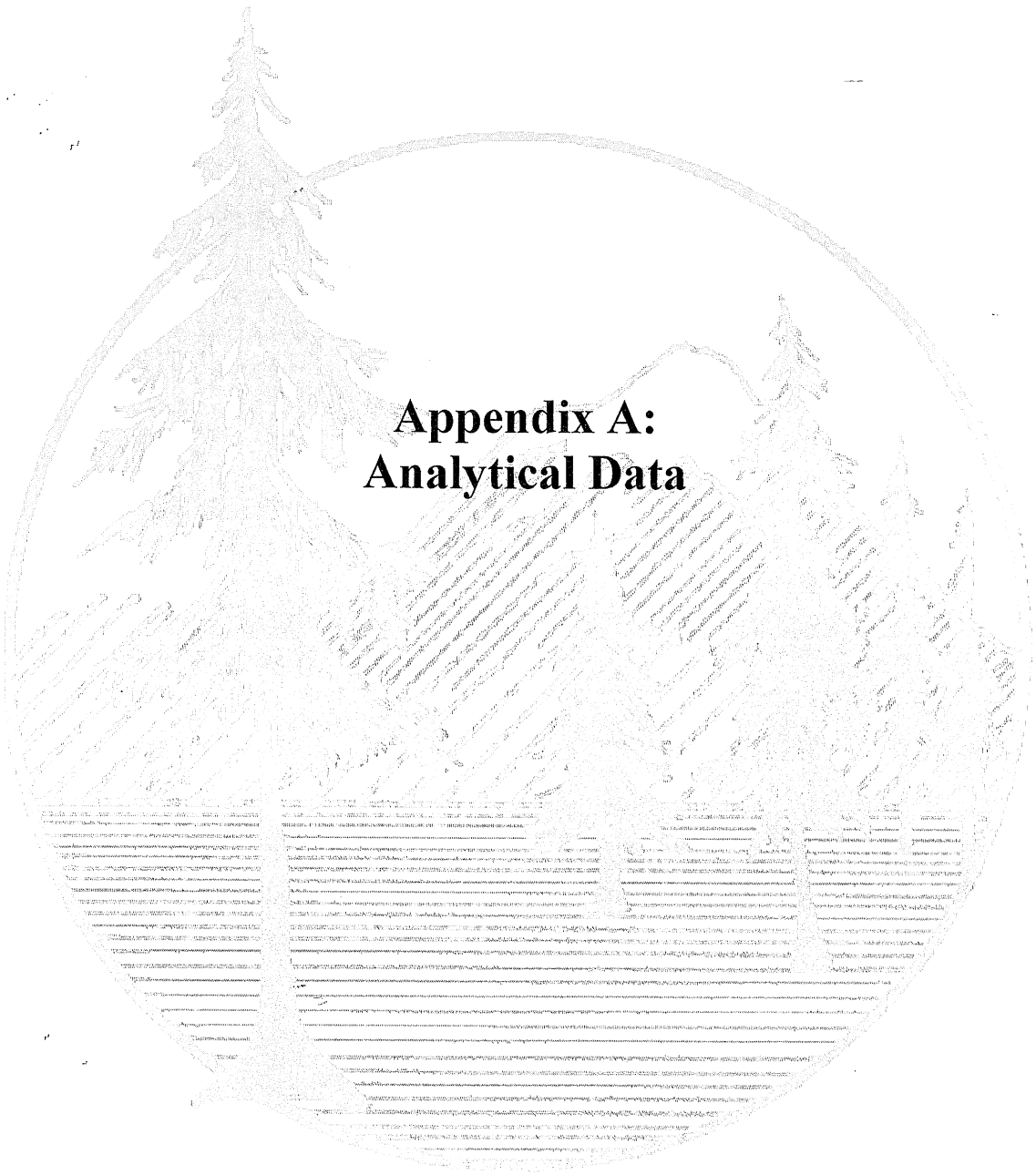
- ***Additionally, it should be noted that some components tested did in fact contain minimal levels of lead. OSHA does not recognize a limit for the concentration of lead in paint for the purpose of disturbance. As almost all paint contains some amount of lead, monitoring of workers performing demolition/renovation activities should be completed in order to document personnel exposure. Items containing any amount of lead concentration are considered a lead containing coating under 29 CFR 1926.62, OSHA Lead Exposure in Construction.***

Should you wish to discuss this matter further or require additional information concerning this transmittal, please contact us at (845) 298-6031. **QuES&T** greatly appreciates the opportunity to assist Dvirka & Bartilucci in the environmental remediation services area.

Sincerely,

Paul A. Rodriguez
Technical Services, Division Manager
NYS/AHERA Inspector
Cert. #AH 02-04344
EPA Lead Inspector/Risk Assessor

Attachment(s): Analytical Results



Appendix A:
Analytical Data

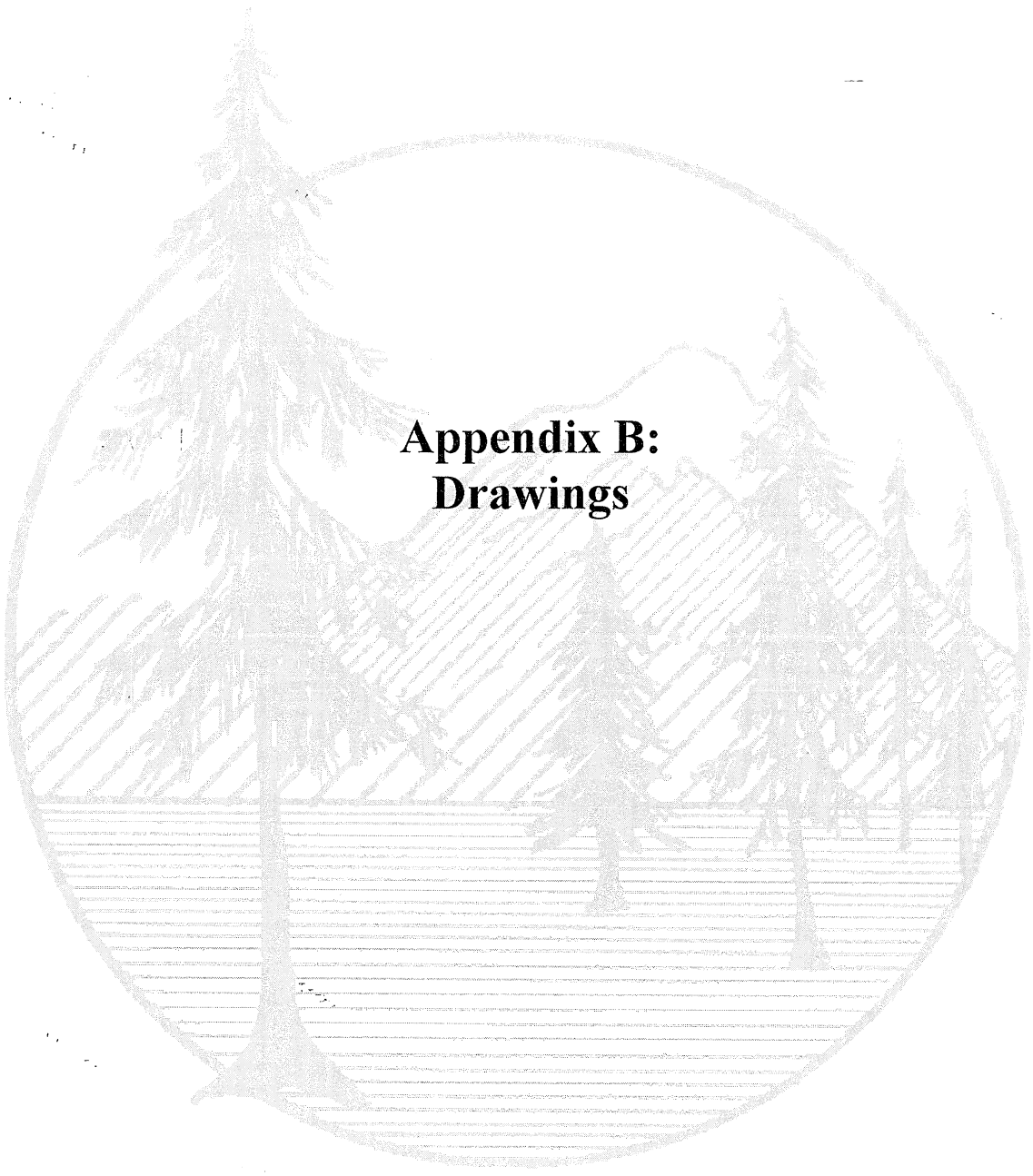
Quality Environmental Solutions
& Technologies, Inc.
1376 Route 9
Wappingers Falls, NY 12590
(845) 298-6031

Limited XRF Lead Survey

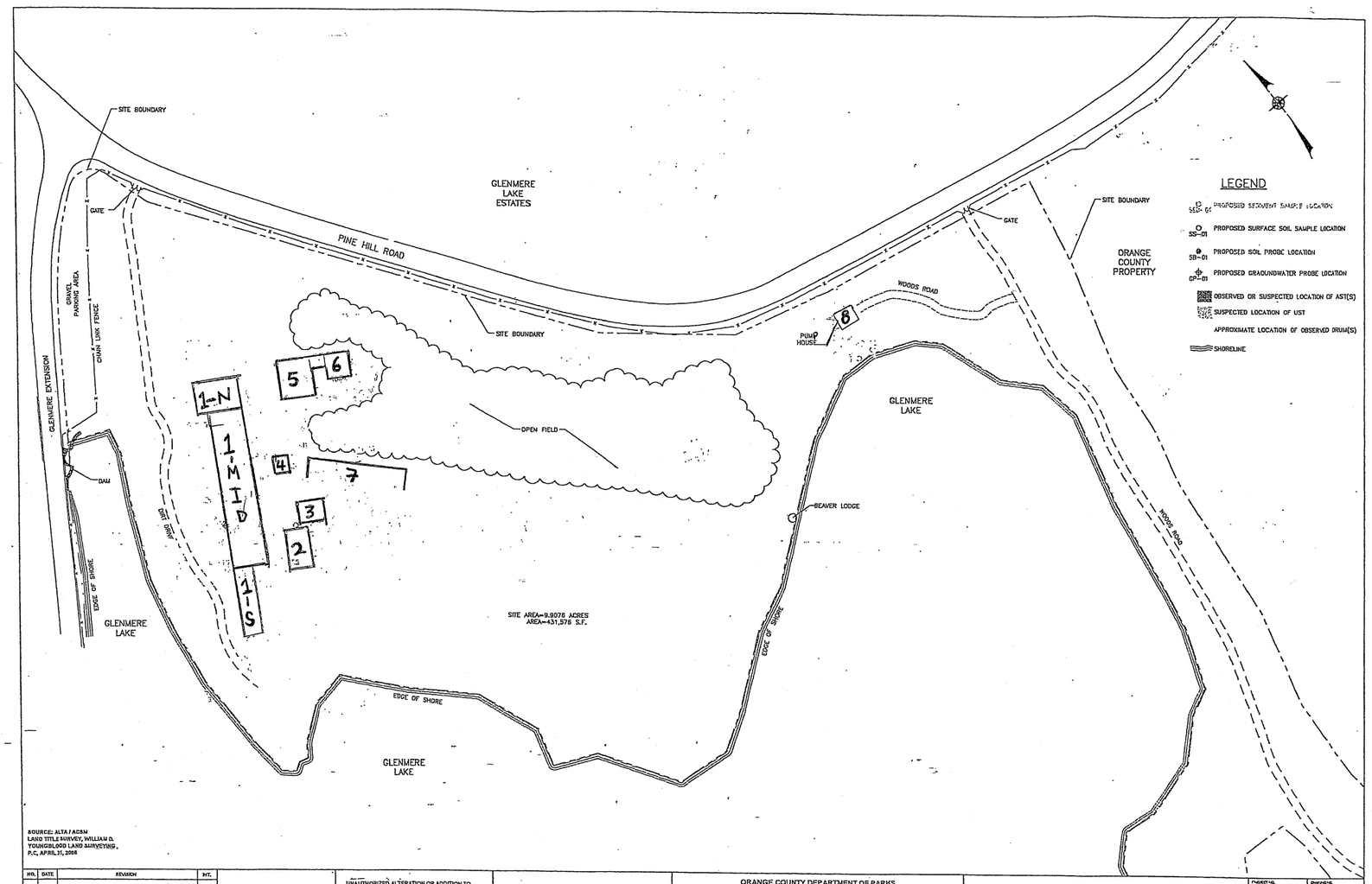
Dvirka Bartilucci
330 Crossways Park Drive
Woodbury, NY 11797-2015
Project #Q08-5048

Sample	Building	Interior/Exterior	Floor	Location/Room	Object	Component	Substrate	Color	Condition	Result	PB Concentration (mg/cm^2)
1	SHUTTER_CAL										
2	NIST									Positive	1.1
3	NIST									Positive	1
4	Collapsed Barn # 1	Exterior		North Section	Door		Wood	Dark Gray	Poor	Positive	5.6
5	Collapsed Barn # 1	Exterior		North Section	Door	Frame	Wood	Dark Gray	Poor	Positive	4.8
6	Collapsed Barn # 1	Interior		North Open Area	Wall		Wood	Light Gray	Poor	Negative	0.3
7	Collapsed Barn # 1	Exterior		Center Section	Door		Wood	Dark Gray	Poor	Positive	4.3
8	Collapsed Barn # 1	Exterior		Center Section	Door	Frame	Wood	Dark Gray	Poor	Positive	9.4
9	Collapsed Barn # 1	Exterior		South Section	Stable Door		Wood	Red	Poor	Positive	1.4
10	Collapsed Barn # 1	Exterior		South Section	Stable Door	Frame	Wood	Green	Poor	Positive	4.7
11	Collapsed Structure # 4	Exterior			Door		Wood	Blue	Poor	Positive	4.9
12	Collapsed Structure # 4	Exterior			Door	Frame	Wood	Gray	Poor	Positive	14.4
13	Collapsed Structure # 4	Exterior			Wall		Wood	Clear	Poor	Negative	0.4
14	Collapsed Structure # 6	Exterior			Window	Frame	Wood	Blue	Poor	Negative	0.4
15	Collapsed Structure # 6	Exterior			Window	Frame	Wood	Blue	Poor	Negative	0.7
16	Collapsed Structure # 6	Exterior			Door		Wood	Blue	Poor	Negative	0.13
17	Collapsed Structure # 6	Exterior			Door	Frame	Wood	Blue	Poor	Positive	1.4
18	Collapsed Barn # 1	Interior		North Section	Wall		Wood	White	Poor	Positive	4.2
19	Collapsed Barn # 1	Exterior		North Section	Window	Frame	Wood	Blue	Poor	Negative	0.4
20	Collapsed Structure # 7	Exterior			Window	Sash	Metal	White	Poor	Negative	0.15
21	Collapsed Structure # 7	Exterior			Window	Sill	Wood	White	Poor	Negative	0.02
22	Collapsed Structure # 7	Interior			Wall		Plaster	White	Poor	Negative	0.03
23	Pump House # 8	Interior			Door		Wood	Gray	Poor	Positive	7.6
24	Pump House # 8	Interior			Door	Frame	Wood	Gray	Poor	Positive	4.3
25	Pump House # 8	Interior			Wall		Plaster	Gray	Poor	Negative	0.15
26	Pump House # 8	Interior			Ceiling		Plaster	Gray	Poor	Negative	0.1
27	Pump House # 8	Interior			Tank		Metal	Gray	Poor	Positive	3.1
28	Pump House # 8	Interior			Pump Wheel		Metal	Red	Poor	Negative	0
29	NIST									Positive	1.3
30	NIST									Positive	1.1

Inspector(s): Rudy Lipinski
Conducted: October 23, 2008



Appendix B:
Drawings



SOURCE: ALTA / ACSM LAND TITLE SURVEY, WILLIAM D. YOUNGBLOOD LAND SURVEYING, P.C., APRIL 31, 2008

NO.	DATE	REVISION	INT.

PROJECT MANAGER	DRAWN
T.F.	A.R.R.
DESIGNED	CHECKED
A.C.	T.F.

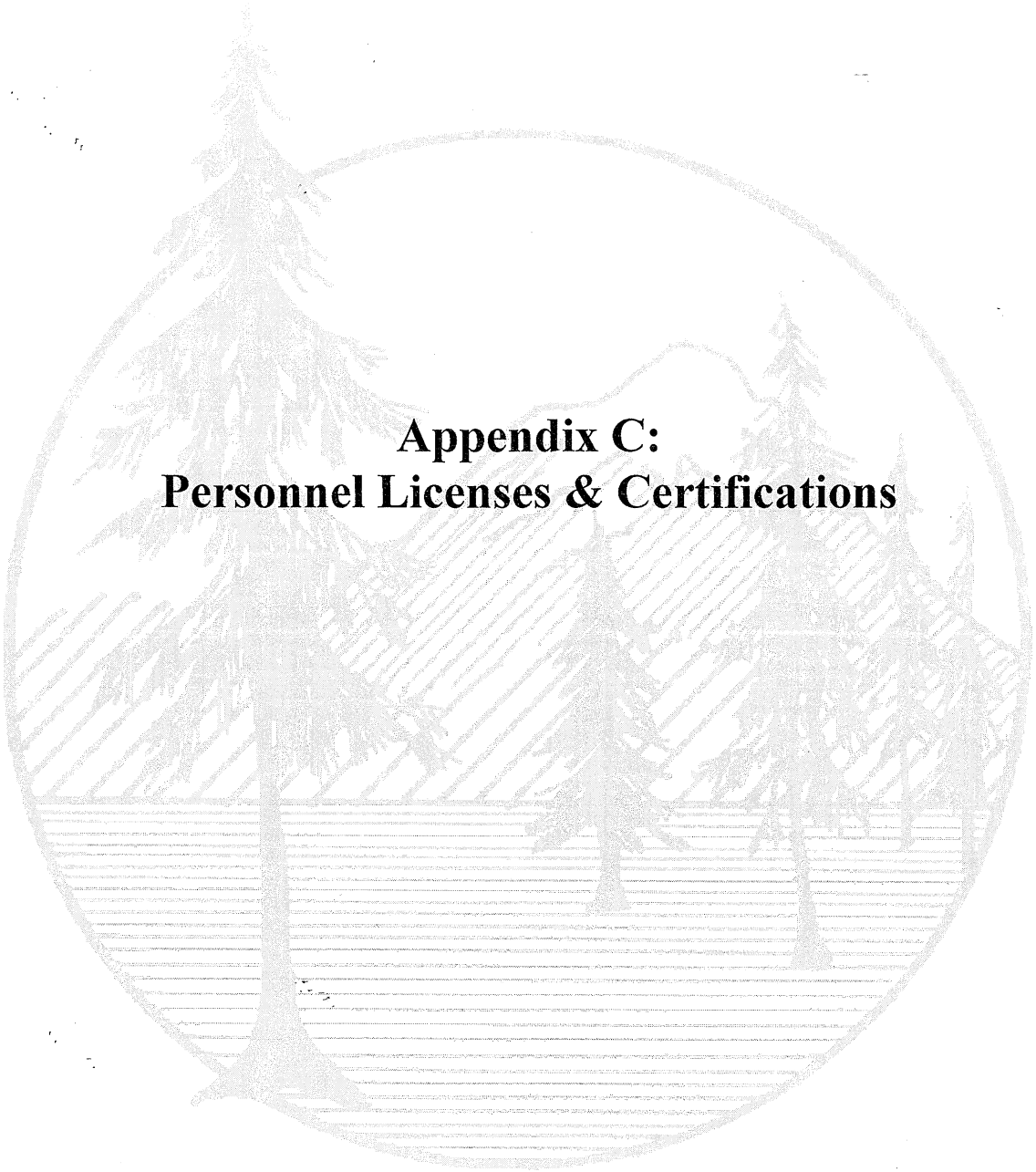
Dvirka and Bartilucci CONSULTING ENGINEERS
A DIVISION OF WILLIAM F. COSULICH ASSOCIATES, P.C.

ORANGE COUNTY DEPARTMENT OF PARKS
RECREATION AND CONSERVATION
ORANGE COUNTY — NEW YORK

GLENMERE LAKE PROPERTY

SAMPLE LOCATION MAP

PROJECT NO.	DRAWING NO.
2777	1
DATE	
5/27/09	
SCALE	
1"=40'	



Appendix C:
Personnel Licenses & Certifications

STATE OF NEW YORK – DEPARTMENT OF LABOR
DIVISION OF SAFETY AND HEALTH

RADIOACTIVE MATERIALS LICENSE

DL# 06-054

PURSUANT TO THE LABOR LAW AND INDUSTRIAL CODE RULE 38, AND IN RELIANCE ON STATEMENTS AND REPRESNETATIONS HERETOFORE MADE BY THE LICENSEE DESIGNATED BELOW, A LICENSE IS HEREBY ISSUED AUTHORIZING SUCH LICENSEE TO RECEIVE, POSSESS, USE AND TRANSFER RADIOACTIVE MATERIAL(S) DESIGNATED BELOW; AND TO USE SUCH RADIOACTIVE MATERIALS FOR THE PURPOSE(S) AND AT THE PLACE(S) DESIGNATED BELOW. THIS LICENSE IS SUBJECT TO ALL APPLICABLE RULES, REGULATIONS AND ORDERS NOW OR HEREAFTER IN EFFECT OF ALL APPROPRIATE REGULATORY AGENCIES AND TO ANY CONDITIONS SPECIFIED BELOW.

1. NAME OF LICENSEE:	3. LICENSE NUMBER
FEIN: 14-18800097 Quality Environmental Solutions & Technologies, Inc. PHONE: (845) 298-6031	2939-4173
	4. EXPIRATION DATE March 31, 2009
2. ADDRESS OF LICENSEE 11376 Route 9 Wappingers Falls, NY 12590	5A. REFERENCE NO. b. AMENDMENT NO. 2

6. Radioactive Materials (element in mass number)	7. Chemical and/or physical form	8. Maximum quantity licensee may possess at any one time
A. Cobalt 57	A. Sealed Source	A. See Condition 9
B. Cadmium 109	B. Sealed Source	B. See Condition 9

9. Authorized use.

Conditions 6.A and 6B:

1. The licensee is authorized to use any sealed source, or associated portable x-ray fluorescence device which has been manufactured and distributed in accordance with a specific license issued by an Agreement State or the United States Nuclear Regulatory Commission. Combinations of sources and devices must be compatible for use as stated in a Sealed Source and Device Registration Certificate (i.e. stated in the registration certificate for the source or device).

2. No single source may exceed the maximum activity specified for that nuclide in the Sealed Source and Device Registration Certificate for any device in which the source is to be used.

3. Only portable x-ray fluorescence devices which require continuous activation by the operator, and which incorporate a mechanism to automatically return the source to its shielded position (e.g., a "dead-man" switch) may be obtained and used under this license. Devices which rely upon positive action by the operator to shield the source, such as operation of a key switch, or which do not require continuous operator activation during exposure, are not authorized under this license.

3. License Number 2939-4173 5a. Ref. No. 2 b. Amend. No.

10. A. Licensed material shall be stored at the location indicated in Condition 2 and may be used at temporary job sites of the licensee anywhere within the State of New York, where the Department of Labor exercises jurisdiction.

B. Overnight storage at other locations shall be in accordance with statements referenced in Condition 20. of the license, provided that such storage may not be in a residence, or in an attached garage except within a vehicle. Any vehicle used for storage shall be driven only for purposes associated with use or transport of the contained radioactive material, by a person qualified to use the material, and no passengers shall be carried unless they are also involved in work under this license. Vehicular storage shall only be allowed if no other storage is possible and shall not exceed five (5) consecutive nights unless authorization to exceed this limit is obtained from the Department.

C. Under no circumstances shall radioactive material authorized by this license be transferred to the custody of any person or firm other than the licensee, or be used or stored by another person or firm or its employees; unless that person or firm possesses a valid license to possess and use such radioactive material.

11. A. The Radiation Safety Officer for this license is Kenneth W. Houseman.

B. Licensed material shall be used by, or under the supervision of the Radiation Safety Officer, by licensee personnel trained and certified by the manufacturer. The licensee shall maintain a complete and accurate record of the qualifications of each person permitted to use radiation sources under this license.

12. Sealed sources containing radioactive materials shall not be opened or removed from devices.

13. A. The licensee is not authorized to dismantle, repair or affect any changes in the source holders/devices.

B. The licensee shall not alter labels attached to source holders or devices, and shall maintain labels in legible condition at all times.

14. The licensee shall instruct persons who engage in work under the license, in accordance with section 38.27(c) of Code Rule 38. Such instruction shall include the licensee's operating and emergency procedures, and other information contained in documents incorporated in Condition 20.

15. The licensee shall conduct a physical inventory every six (6) months to account for all devices received and possessed under the License. The records of the inventories shall be maintained for three (3) years from the date of the inventory for inspection by the Department, and shall include the quantities and kinds of licensed material, Manufacturer's Name and Model No., location of devices, the date of the inventory and the name of the person who performed it.

STATE OF NEW YORK – DEPARTMENT OF LABOR
DIVISION OF SAFETY AND HEALTH

RADIOACTIVE MATERIALS LICENSE

3. License Number 2939-4173 5a. Ref. No. 2 b. Amend. No. -

16. A. The licensee shall maintain a utilization log containing the identification of devices used, dates removed and returned to storage, the location of use, and the identity of user.
    B. The log shall be kept at the location of storage and shall contain sufficient detail to enable the licensee to inform the Department at any time, of the exact location of each device.

17. Current copies of the following documents shall be maintained at temporary job sites for Department inspection:
    A. The manufacturer's instruction manual and the licensee's operating and emergency procedures.
    B. A copy of the results of the latest test for leakage and/or contamination performed on the sealed sources.

18. In the event that a theft, loss or other serious incident does occur, the Department shall be notified immediately by telephone and subsequent information acquired by the licensee shall be reported as it is received. All device users must carry the NYSDOL's current telephone number in their emergency procedures.

19. The licensee shall ensure that all persons authorized to use portable devices comply with safe use and maintenance procedures and that they do not leave a device unattended or unsecured at any time, even for a few minutes.

20. Except as specifically provided otherwise in this License, the licensee shall conduct its program in accordance with the statements, representation and procedures contained in the documents, including any enclosures, listed below. The Department's Regulations shall govern, unless the statements, representation and procedures in the licensee's application and correspondence are more restrictive than the Regulations.
    A. License Renewal Request dated January 10, 2006, signed by Vincent R. Lander.
    B. License Renewal Application dated March 13, 2006, signed by Vincent R. Lander, with attachments.
    C. Leter dated March 24, 2006, signed by Kenneth W. Houseman with attachments.

Linda Angello
COMMISSIONER OF LABOR

DATE: 3/27/06

by: Clayton J. Brault, CHP
Principal Radiophysicist

United States Environmental Protection Agency

This is to certify that:

Quality Environmental Solutions & Technologies, Inc.

1376 Route 9
Wappingers Falls, NY 12590

has fulfilled the requirements of the Toxic Substances Contol Act (TSCA) Section 402(a)(1), and has received certification as a firm, pursuant to 40 CFR Part 745.226 to conduct lead-based paint activities:

Jurisdiction: State of New York excluding Indian Tribes

This certification is valid from the date of issuance and expires May 30, 2006

Certification # NY-11-052006-063 Issued on: April 17, 2003

Kenneth S. Stoller, P.E., QEP, DEE, Chief
Pesticides & Toxic Substances Branch

Certificate of Achievement

Rudy Lipinski

Quality Environmental Solutions & Technology

Has successfully completed the
Thermo NITON Analyzers LLC Manufacturer's Training Course
and is now certified in operation, monitoring and machine maintenance
of the **NITON XRF Spectrum Analyzer.**
Certificate issued by Thermo NITON Analyzers LLC.

Thermo
ELECTRON CORPORATION

Victoria Grzybinski
Training Coordinator

Director of Training

0033000000JbOTT
Certificate Number

2006 May 24 / New York, NY
Date & Site of Course

NITON

CORPORATION

Certificate of Achievement

Paul A. Rodriguez

Quality Env Solutions & Technologies Inc

has successfully completed the Manufacturer's Training Course for the
NITON Spectrum Analyzer *and is now certified*
in radiation safety and monitoring, measurement technology,
and machine maintenance of the **NITON XRF Spectrum Analyzer.**
(CIH's - The ABIH awards 1 CM point, approval #5827)

A2031941883
Certificate Number

03/26/02 E. Elmhurst, NY
Date & Site of Course

Victoria Grzybinski
Training Coordinator

Director of Training

United States Environmental Protection Agency

This is to certify that

Paul A. Rodriguez

has fulfilled the requirements of the Toxic Substances Control Act (TSCA) Section 402(a)(1) and has received certification to conduct lead-based paint activities pursuant to 40 CFR Part 745.226 as a:

Inspector

In the Jurisdiction of:

New York

This certification is valid from the date of issuance and expires May 31, 2009

NY-I-8331-1

Certification #

JUN 23 2006

Issued On

Kenneth S. Stoller, P.E., QEP, DEE, Chief

Pesticides & Toxic Substances Branch

New York

INSPECTOR

Certified Lead-Based
Paint Professional

Certification No NY-I-8331-1	
Date of Birth 03/16/1974	Expiration Date 05/31/2009
Address 73 Balfour Drive Wappingers Falls, NY 12590	
Badge Holder's Name Paul A. Rodriguez	
Badge Holder's Signature Paul A. Rodriguez	

If found, drop in any mailbox
Postmaster: Please return to:
US EPA
1200 Pennsylvania Ave, NW
(MC-7404OT)
Washington, DC 20460
or call 1-800-424-LEAD

United States Environmental Protection Agency

This is to certify that

Paul A. Rodriguez

has fulfilled the requirements of the Toxic Substances Control Act (TSCA) Section 402(a)(1) and has received certification to conduct lead-based paint activities pursuant to 40 CFR Part 745.226 as a:

Risk Assessor

In the Jurisdiction of:

New York

This certification is valid from the date of issuance and expires May 31, 2009

NY-R-8331-1

Certification #

JUN 23 2006

Issued On

Kenneth S. Stoller

Kenneth S. Stoller, P.E., QEP, DEE, Chief

Pesticides & Toxic Substances Branch

New York

RISK ASSESSOR

Certified Lead-Based
Paint Professional

Certification No NY-R-8331-1

Date of Birth	Expiration Date
03/16/1974	05/31/2009

Address
73 Balfour Drive
Wappingers Falls, NY 12590

Badge Holder's Name
Paul A. Rodriguez

Badge Holder's Signature
Paul A. Rodriguez

If found, drop in any mailbox
Postmaster: Please return to:
US EPA
1200 Pennsylvania Ave, NW
(MC-7404OT)
Washington, DC 20460
or call 1-800-424-LEAD

APPENDIX C

FISH AND WILDLIFE IMPACT ANALYSIS

Appendix C

Fish and Wildlife Impact Analysis
Glenmere Lake Property

1.0 Introduction

This Fish and Wildlife Impact Analysis (FWIA) provides an overall habitat based assessment of the Glenmere Lake Property (the Site), located on Pine Hill Road along the northeast end of Glenmere Lake in the Town of Chester, Orange County, New York. This assessment conforms to the guidelines contained in Step I and IIA of the New York State Department of Environmental Conservation (NYSDEC) Technical and Administrative Guidance Memorandum (TAGM) entitled, "Fish and Wildlife Impact Analysis for Inactive Hazardous Waste Sites," dated October 1994. The purpose of this FWIA is to provide a description of the existing ecology of the Site, including a site-specific description of major habitat types with associated wildlife populations, identify any other significant on-site resources and evaluate potential impacts to these resources. The information presented in this FWIA was obtained during the Site Investigation and related field work as documented in the Site Investigation/Remedial Alternatives (SI/RA) Report, and supplemented with data from outside sources, including the NYSDEC, U.S. Fish and Wildlife Service, and New York State Historic Preservation Officer. The field survey for this assessment was conducted in October 2008.

2.0 Major Habitat Types

The Glenmere Lake Property is an upland area bordering Glenmere Lake's northeast end. The Site is surrounded by private property to the west, north and east and is largely residential housing or recreational areas. Perimeter fencing is in place to prevent intrusion and illegal dumping. The Site grades north to south with grades varying from 5% to 15% with steeper grades on the northern part of the property and slighter grades near the edge of the lake. Total change in elevation is approximately 30 feet across much of the Site. The eastern edge of the property contains a peninsula roughly 200 feet long that forks into two extensions of 80 to 100 feet. This portion of the property contains more gradual slopes.

An open field is located in the central portion of the Site; otherwise it is primarily forested with most trees 30 to 60 years of age. A number of structures including a house and dairy barn are located in the westernmost portion of the Site and are currently in a dilapidated state. Some debris including lawn maintenance equipment, vehicle parts, steel drums, and bottles can be found near the building remnants. The peninsula is segregated from the main site by a cove in the lake. An unpaved road traverses the peninsula that is otherwise wooded.

Based on the contour of the land, any storm water runoff from the dilapidated structures would flow to the south toward the Glenmere Lake shoreline. There is a shallow trench or drainage swale located in the central portion of the Site, east of the dilapidated structures, which trends generally in a west to east direction.

A list of vegetative species observed on the Glenmere Lake Property is provided in Table 1.

Table 1 Vegetative Species Observed on the Glenmere Lake Property

Common Name	Scientific Name
Herbaceous Plants	
Common ragweed	Ambrosia artemisiifolia
Common lambsquarters	Chenopodium album
Daisy	Chrysanthemum sp.
Crown vetch	Coronilla varia
Crabgrass	Digitaria sp.
Butter and eggs	Linaria vulgaris
Yellow woodsorrel	Oxalis stricta
Fall panicum	Panicum dichotomiflorum
Ground cherry	Physalis heterophylla
Pokeweed	Phytolacca americana
Broadleaf plantain	Plantago major
Smartweed, Knotweed	Polygonum sp.
Nightshade	Solanum dulcamara
Common goldenrod	Solidago juncea
Early flowering goldenrod	Solidago nemoralis
Stiff goldenrod	Solidago rigida
Common mullein	Verbascum thapsus
Vetch	Vicia sp.
Shrubs and Vines	
Japanese honeysuckle	Lonicera japonica
Virginia creeper	Parthenocissus quinquefolia
Poison ivy	Rhus radicans
Trees	
Red maple	Acer rubrum
Flowering dogwood	Cornus florida
White pine	Pinus strobus
Black cherry	Prunus serotina
White oak	Quercus alba
Black oak	Quercus velutina
Black locust	Robinia pseudoacacia

3.0 Wetlands

There are no areas on the upland portion of the property that would meet the definition of wetlands utilizing federal and state criteria. However, low areas of the Site within 50 feet of the Glenmere Lake shoreline will certainly allow for the formation of seasonally flooded areas typically referred to as vernal ponds. No vegetation obligate to wetlands was identified, although several prominent facultative wetland species can be observed across the southern portions of the Site with the most common species being red maple (Acer rubrum). The nearshore areas of the lake possess common emergent hydrophytes including water lilies and arrowheads.

4.0 Mammals

The sparsely developed area surrounding the Site, as well as the protected nature of the waterfront surrounding Glenmere Lake as a drinking water reservoir, permit large home ranges for mammalian activity on the Site. The adjacent road and recreational public limit the mammals that would inhabit the Site to those that are tolerant of human presence. Heavy deer browse is readily observed on all red cedars found on the property. Scats from deer and cottontail rabbits are present all across the Site. Eastern chipmunks and gray squirrels were observed active and common across the Site. Runways typically associated with vole and mice activities were observed throughout the field/forest edges. Probable mammal inhabitants are listed in Table 2.

Table 2 Mammals Likely to Inhabit the Glenmere Lake Property

Common Name	Scientific Name
Eastern chipmunk	Tamias striatus
Gray Squirrel	Sciurus carolinensis
Cottontail rabbit	Sylvilagus floridanus
White-footed mouse	Peromyscus leucopus
House mouse	Mus musculus
White-tailed deer	Odocoileus virginianus
Raccoon	Procyon lotor

5.0 Birds

Birds were present and actively feeding across all habitat regions on the Site. Several species of ground foraging songbirds including finches (Carpodacus sp.), warblers (Dendroica sp.), and sparrows (Spizella sp.) were observed moving between trees and from the field to surrounding bushes. Common birds also included mockingbirds (Mimus polyglottus), starlings (Sturnus vulgaris) and American robins (Turdus migratorius). Although no hawk species were observed, the tall trees, open field, proximity to fresh water, and abundance of small mammals make this habitat to a variety of local hawks and owls. Turkey vultures were observed hovering above roadways.

Waterfowl were observed within the open water areas of Glenmere Lake in the cove as well as farther from shore. Mallards, Teal, and Canadian geese were common to the area. No breeding was observed, although breeding indications would be limited at the time of the field survey. The emergent vegetation in the lake shallows near shore as well as the isolation that the property provides from routine human activity make this an excellent area for waterfowl to feed and rest during winter migration as well as year round for more resident species. A subset of the New York State Bird Atlas listing for Orange County, New York is presented in Table 3 providing species observed or expected to utilize this area of Glenmere Lake.

Table 3 Avifauna Likely to Inhabit the Glenmere Lake Property

Common Name	Scientific Name
Canada goose	Branta canadensis
Sharp-shinned hawk	Accipiter striatus
Broad-winged hawk	Buteo platypterus
Red-tailed hawk	Buteo jamaicensis
Turkey vulture	Cathartes aura
Kestrel	Falco sparverius
Killdeer	Charadrius vociferus
Mourning dove	Zenaida macroura
Yellow-bellied sapsucker	Sphyrapicus varius
Red-bellied woodpecker	Melanerpes carolinus
Downy woodpecker	Picoides pubescens
Hairy woodpecker	Picoides villosus
Eastern kingbird	Tyrannus tyrannus
American crow	Corvus brachyrhynchos
Blue jay	Cyanocitta cristata
Black-capped chickadee	Parus atricapillus
Tufted titmouse	Parus bicolor
White-breasted nuthatch	Sitta carolinensis
Red-breasted nuthatch	Sitta canadensis
Brown creeper	Certhia americana
House wren	Troglodytes aedon
Winter wren	Troglodytes troglodytes
Carolina wren	Thryothorus ludovicianus
Gray catbird	Dumetella carolinensis
Northern mockingbird	Mimus polyglottos
American robin	Turdus migratorius
Wood thrush	Hyocichla mustelina
Cedar waxwing	Bonbycilla cedrorum
Solitary vireo	Vireo solitarius
Yellow warbler	Dendroica petechia

Table 3 Avifauna Likely to Inhabit the Glenmere Lake Property (Continued)

Common Name	Scientific Name
Yellow-rumped warbler	Dendroica coronata
Bay-breasted warbler	Dendroica castanea
Blackpoll warbler	Dendroica striata
Pine warbler	Dendroica pinus
Ovenbird	Seirus aurocapillus
Common yellowthroat	Geothlypis trichas
Common grackle	Quiscalus quiscula
European starling	Sturnus vulgaris
House sparrow	Passer domesticus
Northern cardinal	Cardinalis cardinalis
Indigo bunting	Passerina cyanea
Brown-headed cowbird	Molothrus ater
Scarlet tanager	Piranga olivacea
House finch	Carpodacus mexicanus
Purple finch	Carpodacus purpureus
American goldfinch	Carduelis tristis
Northern junco	Junco hyemalis
Rufous-sided towhee	Pipilo erythrophthalmus
Chipping sparrow	Spizella passerina
Field sparrow	Spizella pusilla
Song sparrow	Melospiza melodia
White-throated sparrow	Zonotrichia albicollis
Mallard	Anas platyrhynchos
Black duck	Anas rubripes
Green-winged teal	Ana crecca
Wood duck	Aix sponsa

6.0 Fish

There is no standing water on the Glenmere Lake Property year round that supports fisheries. The lake has a healthy population of freshwater game fisheries that have been well chronicled by local newspapers and environmental organizations. Ice fishing for chain pickerel is a popular pastime in the area. Other common species that are present include largemouth bass, yellow perch, crappie and sunfish. Based on site topography, runoff from the Site can enter the lake at any point along the shore. Of primary concern would be runoff from the area of the dilapidated buildings. This likely provides a continual food supply to small foraging fish. Finfish species that likely frequent the nearshore area are provided in Table 4.

Table 4 Finfish Likely to Inhabit Glenmere Lake Near the Glenmere Lake Property

Common Name	Scientific Name
American eel	Anguilla rostrata
American shad	Alosa sapidissima
Lake chub	Coueius plumbeus
Common shiner	Luxilus cornutus
Golden shiner	Notemigonus crysoleucas
Chain pickerel	Esox niger
Redbreast sunfish	Leponis auritus
Pumpkinseed	Lepomis gibbosus
Largemouth bass	Micropterus salmoides
Black crappie	Pomoxis nigromaculatus
Yellow perch	Perca flavescens

7.0 Reptiles and Amphibians

No reptiles or amphibians were observed during the field survey. However, this was not unexpected given the time of year that the survey was conducted. However, the close proximity to the lake, available vernal ponds, and vegetation and rock cover provide excellent habitat for many locally abundant reptiles and amphibians.

As detailed in Appendix A of the SI/RA Report, a capture and release study was performed at the Site in the Spring of 2008 targeting use of the dilapidated buildings by the Northern Cricket Frog, an endangered species in the State of New York. Although this species was not captured emanating from the dilapidated buildings, they were observed in vernal ponds located on the extreme eastern limits of the Glenmere Lake property as well as in the surrounding lake waters. Other amphibian species observed on and near the property included the northern red-backed salamander, northern dusky salamander, green frog, bullfrog, pickerel frog, northern spring peeper, and northern gray tree frog. In addition to the natural cover across the Site, the dilapidated buildings offer cover to snakes common to the area. Snakes observed during the Spring 2008 study included the eastern garter snake, eastern ribbon snake, northern water snake, northern black racer, and northern brown snake. The open shoreline and infrequent human disturbance also permit turtle basking and breeding for species including the eastern painted turtle and snapping turtle. Table 5 contains a list of reptiles and amphibians common to the area that could likely inhabit the Site and/or surrounding areas.

Table 5 Reptiles and Amphibians Likely to Inhabit the Glenmere Lake Property

Common Name	Scientific Name
Northern cricket frog	Acris crepitans
Green frog	Rana clamitans
Bull frog	Rana catesbeiana
Pickerel frog	Rana palustris
Northern spring peeper	Hyla crucifer
Northern gray treefrog	Hyla versicolor
Eastern garter snake	Thamnophis sirtalis
Eastern ribbon snake	Thamnophis sauritis
Northern brown snake	Storeia dekayi
Northern water snake	Nerodia sipedon
Northern black racer	Coluber constrictor
Eastern painted turtle	Chrysemys picta
Snapping turtle	Chelydra serpentina

8.0 Rare Species and Critical Habitats

Based on a review of the New York Natural Heritage files by the NYSDEC Wildlife Resources Center, Orange County contains 52 endangered and 40 threatened species in the State of New York. The Northern Cricket Frog, an endangered species in New York State, is known to utilize the Glenmere Lake Property and site investigations have revealed that the Site is integral to this species existence. The Natural Heritage program identifies only five thriving populations in New York State with development as a primary threat to the species. The Northern Cricket Frog has been observed resting and feeding on the Site and upland observations in Spring suggest that the Glenmere Lake Property as well as other shoreline areas around the Lake offer critical wintering habitat for this species.

As detailed in Appendix A of the SI/RA Report, an intensive collection study that was performed around the dilapidated buildings located in the western portion of the Glenmere Lake property in the Spring of 2008 found that this area of the Site was not used for wintering. During the study, the cricket frogs were observed in vernal ponds located on the extreme eastern portion of the Glenmere Lake property well outside of the study area.

Except for occasional transient individuals, no federally listed or proposed endangered or threatened species exist within a two mile radius of the Site according to the U.S. Fish and Wildlife Service. Table 6 provides a list of all federally listed and proposed threatened or endangered species associated with Orange County in New York State.

Table 6 Federally Listed Endangered and Threatened Species and Candidate Species, Orange County, New York

Common Name	Scientific Name	Status
Atlantic Sturgeon	Acipenser oxyrinchus oxyrinchus	C
Bald Eagle	Haliaeetus leucocephalus	D
Bog Turtle	Clemmys [=Glyptemys] muhlenbergii	T
Indiana Bat	Myotis sodalis	E
Dwarf Wedge Mussel	Alasmidonta heterodon	E
Shortnose Sturgeon	Asipenser brevirostrum	E

Status Codes: E = Endangered; T = Threatened; P = Proposed; C = Candidate; D = Delisted; W = Winter; S = Summer

9.0 Biological Associations Found in the Project Vicinity

The areas surrounding the Glenmere Lake Property within a 2.5 mile radius consists of a mix of residential, commercial, and public lands. Glenmere Lake is a reservoir that provides drinking water to the village of Florida and thus has a largely protected shoreline. Motorized vessels and swimming are prohibited in the lake. The Glenmere Lake Property is surrounded to the north, east, and west by residential property and a private golf course. Development is spread with many homesteads on property of two acres or greater. An association of cover types with common dominant species is presented in Table 7. The biological associations observed are common for this general area.

Table 7 Floral and Faunal Associations Observed Within 2.5 Miles of the Glenmere Lake Property

Species	**Grassland/ Field**	**Forested/ Grassland/ Field**	**Forested**	**Freshwater Wetlands/ Ponds**	**Cultivated Lawn**
Plants					
Common ragweed	X	X			
Daisy	X	X			
Crown vetch	X	X		X	
Fescue					X

Table 7 Floral and Faunal Associations Observed Within 2.5 Miles of the Glenmere Lake Property (continued)

Species	Grassland/ Field	Forested/ Grassland/ Field	Forested	Freshwater Wetlands/ Ponds	Cultivated Lawn
Plants (continued)					
Goldenrod	X	X		X	
Virginia creeper		X	X		X
Multiflora rose	X	X		X	
Red maple			X		X
Flowering Dogwood		X	X		X
Black locust		X	X		X
Animals					
Chain Pickerel				X	
Gray Squirrel		X	X		X
Mice/voles/shrews	X	X	X	X	X
Black Duck				X	
Hawks	X	X	X	X	
Finches		X	X		X
Sparrows	X	X	X		X
Northern spring peeper				X	
Eastern garter snake	X	X		X	

10.0 Observations of Stress Potentially Related to Site Contaminants

Other than physically disturbed areas, there were no indications of visibly stressed vegetation that could be attributed to site-related contaminants. The remnants of lawn maintenance equipment were present but there was no indication that this equipment contained fuels and lubricants at abandonment. Friable asbestos building materials were also present and exposed to the environment associated with the dilapidated buildings and the remains of the heating system. No discernable impact to local vegetation was noticeable. Any contaminants in storm water runoff that may flow from the western portion of the Site would likely discharge to Glenmere Lake directly south of the dilapidated buildings.

No data is available to identify impacts to the Glenmere Lake ecosystem from the past use of this property; however, environmental indicators suggest that, other than past property management of vegetation through physical clearing, no significant long term impacts to the environment can be identified without additional information on possible contamination. Please refer to Section 12.0 of this FWIA for a discussion of contaminants of concern identified during the Site Investigation, as well as potential pathways of contaminant migration and exposure.

11.0 Habitat Values of Vegetative Zones Within the Project Site

The assessment of habitat value provides for assessments of primary functions such as food chain production, specialized habitat and hydrologic interactions. As part of the analysis, cultural values concerning recreation, aesthetics or other special features must be taken into consideration.

The information gathered during the Site Investigation can provide for a hierarchy of habitat values for the cover types found at the Glenmere Lake Property. It should be noted that this approach is highly subjective. Those functions assumed to be valuable in relative efficiency or importance are ranked as 3 (high), 2 (moderate), 1 (low) or 0 (non-existent). Specific factors and brief descriptions that were utilized in the habitat value analysis of the Site's qualitative evaluation are as follows:

- Nutrient Transport Function - Transport of nutrients in detrital-based food chains is strongly dependent on the hydrologic characteristics of the particular ecosystem. For example, wetlands located in lower lying areas export more detrital material than do the higher marsh areas infrequently affected by creek/river overflow. Similarly, detrital transport in the riverine systems is dependent on the river flow regime, especially during periods of peak discharge. In contrast, very little detrital material is exported from isolated ponds and marshes, except during periods of episodic overflow resulting from exceptionally high precipitation.

- Food Chain Support - This function refers to the secondary productivity values of consumer species that a particular ecosystem can support. Secondary productivity is an overall measure of the efficiency of the habitat in terms of nutrient transfer to higher trophic levels.

- Hydroperiod - This factor refers to the frequency of inundation either by river flow runoff or direct precipitation. Areas of good hydrologic linkage help maintain a regular interchange of nutrients and other materials necessary to support diverse flora and fauna.

- Elevational Location - From the above factors, it is apparent that hydrologic relationships will progressively deteriorate as the depth of flooding decreases. The weakest hydrologic linkages exist in those areas physically isolated from other areas in the system.

- Cultural Evaluation - This particular factor is difficult to assess in detail because of the number of socio-economic considerations which may be involved. Hence, the evaluation in relation to local residential, commercial, or industrial development is largely left to the professional judgment of the project personnel on a specific case-by-case basis.

- Recreation - Recreation is a vital personal and social need which provides opportunity for self-expression, physical exercise, and a change of pace from normal or routine activities. Outdoor recreation is a major leisure activity and is growing in national importance with a trend towards a higher standard of living. A significant portion of the total recreational output is water based or water related. As such, greater weight is given to those types of habitats.

- Socio-Economic - This factor pertains to benefits which can be attributed directly to renewable resources, recreational enjoyment, or other features associated with a particular habitat.

- Aesthetics - Selected types of habitats are distinctive landscape features that can please the aesthetic sense through the intrinsic appreciation of natural beauty. Wetlands, or any other type of natural landscape, can also be offensive if their features have been adversely modified by incompatible human activities. Aesthetic value can be largely determined by the degree of visual diversity and contrast between the physical elements, such as landforms, water bodies, vegetation types and land use types.

- Food Chain Production - This factor determines the growth of vegetation in a habitat and influences the populations and secondary productivity of animals that feed on the plants, or that feed at high trophic levels in the community.

- Primary Productivity - Primary productivity is a measure of the stored food potential of the vegetation in excess of that used by the plants in metabolism. This determination provides an overall measure of the energy input directly available to the consumer species. It should be noted that the possible range of productivity values, both within and between particular environments, is extremely variable and dependent on a number of local conditions. For the present analysis, literature values for primary productivity as a function of biomass were utilized.

- Water Purification Factor - Through a variety of physical, biological, and chemical processes, some habitats function to naturally purify water by removing organic and mineral particulate matter from runoff and/or rivers and streams. For example, wetlands may be significant in minimizing some of the harmful effects of pollutants introduced into natural ecological systems by the activities of man. Thus, wetlands, especially when part of riverine or estuarine systems, can be an integral part of water quality and pollution control objectives.

Based upon the above factors, a qualitative analysis of the habitat value of the vegetative and aquatic communities at the Glenmere Lake Property was performed and the results are presented in Table 8.

Table 8 Qualitative Habitat Value Analysis Within the Glenmere Lake Property

Evaluation Factor	Glenmere Lake Property	Glenmere Lake
Food Chain Production	3	3
Primary Productivity	3	3
Nutrient Transport	3	3
Food Chain Support	3	3
Hydroperiod	2	3
Elevational Location	2	2
Cultural Location	2	3
Recreation	1	3
Socio-Economic	2	3
Aesthetics	3	3
Water Purification Factor	3	3
Totals	*27*	*32*

Based upon these results, the upland and near shore habitats associated with the Site are high value habitats. The upland and near shore area provide important and perhaps critical habitat to the New York State endangered Northern Cricket Frog for all phases of its life cycle with vernal ponds and wintering rock edges. The mixture of deciduous forest and open field provide habitat for small mammals and reptiles, and food chain support to larger mammals. The buffer that the Site provides between the road and developed areas, and the lake provide security for feeding waterfowl. The property acts as buffer between developed property and Glenmere Lake providing assimilation of contaminants contained in overland runoff. The visages from the property looking south to the lake are pleasing. Although site access is limited, bird watching opportunities and other passive recreational opportunities are available.

12.0 Pathway Analysis

As detailed above, the property is utilized by a wide variety of animals and contains high-value habitat. Furthermore, while it has been confirmed through the completed drift fence survey that the Northern Cricket Frog does not use the dilapidated buildings as over wintering sites, this New York State endangered species does utilize portions of the Site as habitat.

The dilapidated buildings located on-site have collapsed or are partially collapsed and, therefore, are potentially hazardous to wildlife that attempts to enter the structures. Furthermore, the building materials have been confirmed to contain asbestos and lead-based paint. Therefore, under current conditions, the existing dilapidated structures represent a potential hazard to wildlife receptors that may access and use the Site for habitat.

The following provides a discussion of contaminants of concern and potential pathways of contaminant migration and exposure by sample media.

Soil

A number of contaminants were detected at elevated concentrations in on-site surface soil samples including arsenic, cadmium, copper, lead, mercury, silver, nickel, zinc and a limited number of pesticides and polycyclic aromatic hydrocarbons (PAHs). Silver concentrations may be attributable to background conditions. However, elevated concentrations of the remaining metals, primarily lead and arsenic, were found in surface soil throughout the area of the dilapidated buildings. Existing wildlife could be exposed to these surface contaminants through the following mechanisms:

- Direct ingestion of or contact with soil;
- Inhalation of soil particles from wind or other disturbance;
- Vegetative uptake of contaminants from soil and related food web effects; and
- Food web effects of ingesting soil organisms containing the surface soil contaminants.

Groundwater

The Site Investigation found that groundwater has not been adversely impacted by the presence of metals and PAHs in on-site soil. It is not expected that the on-site groundwater will have an impact on the water quality of the lake. Therefore, groundwater is not considered a potential exposure pathway.

Air

Volatile organic compounds (VOCs) were not detected in Site soil or groundwater. As a result, inhalation of contaminants released to the air through volatilization of contaminants from surface soil, subsurface soil or groundwater does not represent a potential exposure pathway for receptors. However, as discussed above, inhalation of windblown dust from areas of the Site containing surface soil with elevated levels of lead and arsenic does represent a potential for exposure to receptors.

Sediment

Elevated concentrations of several metals, including lead, arsenic, mercury, copper and zinc were detected in the sediment of Glenmere Lake downgradient of the dilapidated buildings in excess of the NYSDEC Sediment Severe Effect Level as far as 20 feet offshore. Aquatic organisms live and feed in the lake sediment, potentially resulting in exposure through the following mechanisms:

- Direct ingestion of or contact with sediment
- Accumulation and concentration through the food web to fish and piscivorous birds and mammals

Future Use and Potential Exposure Routes

Based on information provided by Orange County, there are plans for the redevelopment of the Site as a passive park area and open space. As discussed in the SI/RA Report, remedial actions are recommended to be completed. The recommended remedial actions will be protective of the environment, considering the intended future use of the Site. As stated in SI/RA Report, the objectives of the remediation include preventing the exposure of wildlife to site-related contaminants and mitigating the migration of contaminants that could result in impacts to surface water and sediment.

APPENDIX D

CHEMICAL DATA TABLES

Table 1
Glenmere Lake Property
Surface Soil Sample Results
Target Analyte List (TAL) Metals

CONSTITUENT			Site Id:	SS-01	SS-02	SS-03	SS-04	SS-05	SS-06	SS-07	SS-08	SS-09	SS-10
			Sample Id:	SS-1	SS-2	SS-3	SS-4	SS-5	SS-6	SS-7	SS-8	SS-9	SS-10
Units in mg/kg			Sample Date:	10/29/2008	10/29/2008	10/27/2008	10/27/2008	10/27/2008	10/27/2008	10/27/2008	10/27/2008	10/27/2008	10/27/2008
	Ecological Resources SCOs	Commercial Use SCOs											
Aluminum	NA	NA		NA	NA	NA	NA	NA	NA	8,960	8,070	NA	NA
Antimony	NA	NA		NA	NA	NA	NA	NA	NA	1.400 U	1.140 U	NA	NA
Arsenic	13	16		NA	NA	NA	NA	NA	NA	***59***	11.2	NA	NA
Barium	433	400		NA	NA	NA	NA	NA	NA	146	111	NA	NA
Beryllium	10	590		NA	NA	NA	NA	NA	NA	0.35	0.294	NA	NA
Cadmium	4	9.3		NA	NA	NA	NA	NA	NA	3.49	2.07	NA	NA
Calcium	NA	NA		NA	NA	NA	NA	NA	NA	12,500	2,480	NA	NA
Chromium	41	1,500		NA	NA	NA	NA	NA	NA	22.5	16.1	NA	NA
Cobalt	NA	NA		NA	NA	NA	NA	NA	NA	6.67	4.25	NA	NA
Copper	50	270		NA	NA	NA	NA	NA	NA	***84.2***	***97.2***	NA	NA
Iron	NA	NA		NA	NA	NA	NA	NA	NA	17,100	11,600	NA	NA
Lead	63	1,000		***1,160***	***1,710***	***64.5***	62.5	57.5	***155***	***255***	***825***	***586***	***164***
Magnesium	NA	NA		NA	NA	NA	NA	NA	NA	7420	2540	NA	NA
Manganese	1,600	10,000		NA	NA	NA	NA	NA	NA	568	319	NA	NA
Mercury	0.18	2.8		NA	NA	NA	NA	NA	NA	0.065	***0.182***	NA	NA
Nickel	30	310		NA	NA	NA	NA	NA	NA	21.5	10.5	NA	NA
Potassium	NA	NA		NA	NA	NA	NA	NA	NA	1090	712	NA	NA
Selenium	3.9	1,500		NA	NA	NA	NA	NA	NA	0.925 U	0.752 U	NA	NA
Silver	2	1,500		NA	NA	NA	NA	NA	NA	***3.28***	***2.25***	NA	NA
Sodium	NA	NA		NA	NA	NA	NA	NA	NA	111 J	80.4 J	NA	NA
Thallium	NA	NA		NA	NA	NA	NA	NA	NA	1.120 U	0.908 U	NA	NA
Vanadium	NA	NA		NA	NA	NA	NA	NA	NA	15.9	14.2	NA	NA
Zinc	109	10,000		NA	NA	NA	NA	NA	NA	***405***	***130***	NA	NA

mg/kg	milligrams per kilograms
NA	Not applicable or not analyzed
U	Not detected
J	Estimated value
Exceeded Ecological SCOs	
Exceeded Commercial Use SCOs	

Table 1
Glenmere Lake Property
Surface Soil Sample Results
Target Analyte List (TAL) Metals

CONSTITUENT			Site Id:	SS-11	SS-12	SS-13	SS-14	SS-15	SS-16	SS-17	SS-18	SS-19	SS-20
			Sample Id:	SS-11	SS-12	SS-13	SS-14	SS-15	SS-16	SS-17	SS-18	SS-19	SS-20
Units in mg/kg			Sample Date:	10/29/2008	10/27/2008	10/27/2008	10/27/2008	10/27/2008	10/27/2008	10/27/2008	10/27/2008	10/27/2008	10/29/2008
	Ecological Resources SCOs	Commercial Use SCOs											
Aluminum	NA	NA		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	NA	NA		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	13	16		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	433	400		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	10	590		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	4	9.3		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Calcium	NA	NA		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	41	1,500		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	NA	NA		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	50	270		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	NA	NA		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	63	1,000		***999***	***1,830***	***308***	***813***	***74.8***	***131***	***135***	***106***	***7,920***	0.672
Magnesium	NA	NA		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	1,600	10,000		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	0.18	2.8		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	30	310		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Potassium	NA	NA		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	3.9	1,500		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	2	1,500		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sodium	NA	NA		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	NA	NA		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	NA	NA		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	109	10,000		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

mg/kg	milligrams per kilograms
NA	Not applicable or not analyzed
U	Not detected
J	Estimated value
Exceeded Ecological SCOs	
Exceeded Commercial Use SCOs	

Table 1
Glenmere Lake Property
Surface Soil Sample Results
Target Analyte List (TAL) Metals

CONSTITUENT			Site Id:	SS-21	SS-22	SS-23	SS-24	SS-29	SS-30	SS-31	SS-32	SS-33	SS-34
			Sample Id:	SS-21	SS-22	SS-23	SS-24	SS-29	SS-30	SS-31	SS-32	SS-33	SS-34
Units in mg/kg			Sample Date:	10/27/2008	10/27/2008	10/27/2008	10/27/2008	10/27/2008	10/27/2008	10/27/2008	10/29/2008	10/27/2008	10/29/2008
	Ecological Resources SCOs	Commercial Use SCOs											
Aluminum	NA	NA		NA	NA	NA	NA	11,600	15,400	11,200	10,100	9,560	10,400
Antimony	NA	NA		NA	NA	NA	NA	1.000 U	1.080 U	304	1.570 U	1.170 U	1.070 U
Arsenic	13	16		NA	NA	NA	NA	3.42	6.46	10.6	***41.7***	***15***	4.84
Barium	433	400		NA	NA	NA	NA	37	61.5	257	239	60.8	68.5
Beryllium	10	590		NA	NA	NA	NA	0.377	0.549	0.323	0.362 J	0.319	0.384
Cadmium	4	9.3		NA	NA	NA	NA	2.56	2.79	***10.7***	***4.55***	3.06	***6.3***
Calcium	NA	NA		NA	NA	NA	NA	80.6 J	666	15,400	14,000	2,500	2070
Chromium	41	1,500		NA	NA	NA	NA	14.7	17.3	25.7	23	14.6	17.4
Cobalt	NA	NA		NA	NA	NA	NA	7.2	9.32	8.53	6.37	6.28	9.21
Copper	50	270		NA	NA	NA	NA	17.8	19.6	***144***	***134***	24.9	***63.8***
Iron	NA	NA		NA	NA	NA	NA	19,800	23,700	38,300	18,700	24,100	22,600
Lead	63	1,000		***1,080***	***319***	***380***	***1,890***	35.2	21.5	***9560***	***661***	***142***	***123***
Magnesium	NA	NA		NA	NA	NA	NA	4,060	5,070	4,690	4,550	2,920	4,110
Manganese	1,600	10,000		NA	NA	NA	NA	536	829	828	581	524	625
Mercury	0.18	2.8		NA	NA	NA	NA	0.09	0.041	0.113	***0.186***	***0.321***	0.085
Nickel	30	310		NA	NA	NA	NA	16.9	25	18.2	17.6	14.5	***49.8***
Potassium	NA	NA		NA	NA	NA	NA	754	1,060	1,020	1,220	950	1310
Selenium	3.9	1,500		NA	NA	NA	NA	0.664 U	0.717 U	0.868 U	1.040 U	0.772 U	0.707 U
Silver	2	1,500		NA	NA	NA	NA	***3.77***	***4.43***	***7.9***	***3.64***	***4.54***	***4.64***
Sodium	NA	NA		NA	NA	NA	NA	84.9	81.7 J	114	99.4 U	73.7 U	70.6 J
Thallium	NA	NA		NA	NA	NA	NA	0.802 U	0.866 U	1.050 U	1.260 U	0.932 U	0.854 U
Vanadium	NA	NA		NA	NA	NA	NA	21.6	23.2	16.9	19.8	18	17.8
Zinc	109	10,000		NA	NA	NA	NA	76.1	61.2	***872***	***317***	81.7	***253***

mg/kg	milligrams per kilograms
NA	Not applicable or not analyzed
U	Not detected
J	Estimated value
Exceeded Ecological SCOs	
Exceeded Commercial Use SCOs	

Table 1
Glenmere Lake Property
Surface Soil Sample Results
Target Analyte List (TAL) Metals

CONSTITUENT		Site Id:	SS-35	SS-36	SS-37	SS-38	SS-39	SS-40	SS-41	SS-42	SS-43	SS-44
		Sample Id:	SS-35	SS-36	SS-37	SS-38	SS-39	SS-40	SS-41	SS-42	SS-43	SS-44
Units in mg/kg		Sample Date:	10/27/2008	10/27/2008	10/27/2008	10/27/2008	10/27/2008	8/7/2009	8/7/2009	8/7/2009	8/7/2009	8/7/2009
	Ecological Resources SCOs	Commercial Use SCOs										
Aluminum	NA	NA	16,400	24,000	13,400	21,300	20,100	NA	NA	NA	NA	NA
Antimony	NA	NA	1.200 U	1.070 U	1.170 U	1.020 U	1.070 U	NA	NA	NA	NA	NA
Arsenic	13	16	7.29	1.29	3.69	5.79	4.6	***19.7***	***25.3***	***23***	***29.3***	***22.2***
Barium	433	400	44	36.8	60.4	60.1	80.9	NA	NA	NA	NA	NA
Beryllium	10	590	0.634	0.412	0.506	0.826	1.06	NA	NA	NA	NA	NA
Cadmium	4	9.3	3.56	3.47	3.25	4	3.31	NA	NA	NA	NA	NA
Calcium	NA	NA	34.5 U	30.9 U	44100	29.3 U	30.7 U	NA	NA	NA	NA	NA
Chromium	41	1,500	20.4	24.5	14.3	23.5	18.9	NA	NA	NA	NA	NA
Cobalt	NA	NA	12.5	7.01	7.46	13.1	13.3	NA	NA	NA	NA	NA
Copper	50	270	36.4	6.6	31.1	24	21	***157***	33.5	***51.6***	***134***	19.3
Iron	NA	NA	28,000	28,700	22,500	32,500	25,900	NA	NA	NA	NA	NA
Lead	63	1,000	***72.8***	61.7	31	32	46.1	***465***	***208***	***231***	***275***	52.4
Magnesium	NA	NA	6,390	5,850	29,900	8,070	5,010	NA	NA	NA	NA	NA
Manganese	1,600	10,000	790	362	723	768	***2,550***	NA	NA	NA	NA	NA
Mercury	0.18	2.8	***0.213***	0.068	0.104	0.101	***0.239***	***2.4***	***0.274***	***0.827***	***0.828***	0.081
Nickel	30	310	23.5	17.6	16.9	24.6	21.2	NA	NA	NA	NA	NA
Potassium	NA	NA	801	659	1,110	1,170	716	NA	NA	NA	NA	NA
Selenium	3.9	1,500	0.792 U	0.709 U	0.775 U	0.673 U	0.706 U	NA	NA	NA	NA	NA
Silver	2	1,500	***5.32***	***5.38***	***4.21***	***6.06***	***5.12***	NA	NA	NA	NA	NA
Sodium	NA	NA	75.6 U	67.7 U	830	64.2 U	67.4 U	NA	NA	NA	NA	NA
Thallium	NA	NA	0.957 U	0.856 U	0.935 U	0.813 U	0.853 U	NA	NA	NA	NA	NA
Vanadium	NA	NA	27.8	42.2	19.8	28.7	29.9	NA	NA	NA	NA	NA
Zinc	109	10,000	86.3	60.5	***553***	95.3	87.1	***490***	***252***	***279***	***316***	67.3

mg/kg	milligrams per kilograms
NA	Not applicable or not analyzed
U	Not detected
J	Estimated value
Exceeded Ecological SCOs	
Exceeded Commercial Use SCOs	

Table 1
Glenmere Lake Property
Surface Soil Sample Results
Target Analyte List (TAL) Metals

		Site Id:	SS-45	SS-46	SS-47	SS-48	SS-49	SS-50	SS-51	SS-52
CONSTITUENT		Sample Id:	SS-45	SS-46	SS-47	SS-48	SS-49	SS-50	SS-51	SS-52
Units in mg/kg		Sample Date:	8/7/2009	8/7/2009	8/7/2009	8/7/2009	8/7/2009	8/7/2009	8/7/2009	8/7/2009
	Ecological Resources SCOs	Commercial Use SCOs								
Aluminum	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	13	16	***16.7***	NA	NA	NA	NA	NA	4.38	***115***
Barium	433	400	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	10	590	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	4	9.3	NA	NA	NA	NA	NA	NA	NA	NA
Calcium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	41	1,500	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	50	270	42.3	NA	NA	NA	NA	NA	18.1	***161***
Iron	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	63	1,000	***128***	17.3	47.2	45.8	42.1	***101***	***92.9***	***323***
Magnesium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	1,600	10,000	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	0.18	2.8	***0.299***	NA	NA	NA	NA	NA	***0.692***	***0.315***
Nickel	30	310	NA	NA	NA	NA	NA	NA	NA	NA
Potassium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	3.9	1,500	NA	NA	NA	NA	NA	NA	NA	NA
Silver	2	1,500	NA	NA	NA	NA	NA	NA	NA	NA
Sodium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	109	10,000	***126***	NA	NA	NA	NA	NA	65.1	***455***

mg/kg	milligrams per kilograms
NA	Not applicable or not analyzed
U	Not detected
J	Estimated value
Exceeded Ecological SCOs	
Exceeded Commercial Use SCOs	

Table 2
Glenmere Lake Property
Surface Soil Sample Results
TCLP Lead

Site Id:	Sample Id:	Sample Date:	Lead Units in ug/l
SS-01	SS-01	5/20/2009	1,270
SS-02	SS-02 (0.5-1')	5/20/2009	223
SS-06	SS-06	5/20/2009	26.0 U
SS-18	SS-18	5/20/2009	26.0 U
SS-23	SS-23	5/20/2009	26.0 U
SS-24	SS-24 (1-1.5')	5/20/2009	125
SS-24	SS-24	5/20/2009	1,300
SS-31	SS-31	5/20/2009	26.0 U
SS-32	SS-32	5/20/2009	61.2
SS-COMPOSITE	SS-Composite	5/20/2009	110

ug/l	micrograms per liter
U	Not detected

Table 3
Glenmere Lake Property
Surface Soil Sample Results
TCL Volatile Organic Compounds

CONSTITUENT		Site Id:	SS-29	SS-30	SS-31	SS-32	SS-33	SS-34
		Sample Id:	SS-29	SS-30	SS-31	SS-32	SS-33	SS-34
Units in ug/kg		Sample Date:	10/27/2008	10/27/2008	10/27/2008	10/29/2008	10/27/2008	10/29/2008
	Ecological Resources SCOs	Commercial Use SCOs						
1,1,1-Trichloroethane	NA	500,000	5.7 U	6.1 U	7.4 U	9.0 U	6.7 U	6.1 U
1,1,2,2-Tetrachloroethane	NA	NA	5.4 U	5.7 U	6.9 U	8.5 U	6.3 U	5.7 U
1,1,2-Trichloroethane	NA	NA	3.7 U	3.9 U	4.7 U	5.8 U	4.3 U	3.9 U
1,1-Dichloroethane	NA	240,000	6.8 U	7.2 U	8.7 U	11 U	7.9 U	7.2 U
1,1-Dichloroethylene	NA	500,000	6.0 U	6.4 U	7.8 U	9.5 U	7.0 U	6.4 U
1,2,4-Trichlorobenzene	NA	NA	4.0 U	4.2 U	5.1 U	6.3 U	4.6 U	4.2 U
1,2-Dichloroethane	10,000	30,000	5.0 U	5.2 U	6.4 U	7.8 U	5.8 U	5.3 U
1,2-Dichloropropane	NA	NA	5.7 U	6.0 U	7.3 U	8.9 U	6.6 U	6.0 U
2-Hexanone	NA	NA	26 U	28 U	34 U	42 U	31 U	28 U
Acetone	2,200	500,000	100 U	110 U	130 U	160 U	120 U	110 U
Benzene	70,000	44,000	4.3 U	4.6 U	5.6 U	6.9 U	5.1 U	4.6 U
Benzene, 1-methylethyl-	NA	NA	5.0 U	5.2 U	6.4 U	7.8 U	5.8 U	5.3 U
Bromodichloromethane	NA	NA	4.2 U	4.5 U	5.4 U	6.7 U	4.9 U	4.5 U
Bromoform	NA	NA	4.9 U	5.2 U	6.3 U	7.7 U	5.7 U	5.2 U
Carbon disulfide	NA	NA	6.5 U	6.9 U	8.4 U	10 U	7.6 U	6.9 U
Carbon tetrachloride	NA	22,000	3.6 U	3.8 U	4.6 U	5.6 U	4.2 U	3.8 U
Chlorobenzene	40,000	500,000	4.6 U	4.9 U	5.9 U	7.2 U	5.4 U	4.9 U
Chloroethane	NA	NA	11 U	12 U	14 U	18 U	13 U	12 U
Chloroform	12,000	350,000	5.4 U	5.7 U	6.9 U	8.5 U	6.3 U	5.7 U
cis-1,2-Dichloroethylene	NA	500,000	7.8 U	8.2 U	10 U	12 U	9.1 U	8.3 U
cis-1,3-Dichloropropene	NA	NA	4.0 U	4.3 U	5.2 U	6.4 U	4.7 U	4.3 U
Cyclohexane	NA	NA	6.2 U	6.5 U	7.9 U	9.7 U	7.2 U	6.6 U
1,2-Dibromo-3-chloropropane	NA	NA	6.2 U	6.5 U	7.9 U	9.7 U	7.2 U	6.6 U
Dibromochloromethane	NA	NA	4.0 U	4.2 U	5.1 U	6.3 U	4.6 U	4.2 U
Dichlorodifluoromethane	NA	NA	12 U	12 U	15 U	18 U	14 U	12 U
1,2-Dibromoethane (EDB)	NA	NA	5.0 U	5.2 U	6.4 U	7.8 U	5.8 U	5.3 U
trans-1,2-Dichloroethene	NA	500,000	7.4 U	7.9 U	9.6 U	12 U	8.7 U	7.9 U
Ethylbenzene	NA	390,000	4.8 U	5.1 U	6.2 U	7.6 U	5.6 U	5.1 U
Freon 113	NA	NA	10 U	11 U	13 U	16 U	12 U	11 U
1,3-Dichlorobenzene	NA	280,000	4.0 U	4.3 U	5.2 U	6.4 U	4.7 U	4.3 U
Methyl Acetate	NA	NA	10 U	11 U	13 U	16 U	12 U	11 U
Bromomethane	NA	NA	12 U	13 U	16 U	19 U	14 U	13 U
Chloromethane	NA	NA	8.0 U	8.5 U	10 U	13 U	9.4 U	8.6 U
Methyl ethyl ketone	100,000	500,000	30 U	32 U	39 U	48 U	35 U	32 U
Methyl isobutylketone (MIBK)	NA	NA	23 U	24 U	30 U	36 U	27 U	25 U
Methylcyclohexane	NA	NA	5.0 U	5.3 U	6.5 U	7.9 U	5.8 U	5.3 U
Methylene chloride	12,000	500,000	15 U	16 U	19 U	23 U	17 U	16 U
Methyltert-butylether	NA	500,000	5.4 U	5.7 U	6.9 U	8.5 U	6.3 U	5.7 U
1,2-Dichlorobenzene	NA	500,000	5.2 U	5.5 U	6.7 U	8.2 U	6.1 U	5.5 U
o-Xylene	260	500,000	4.6 U	4.9 U	5.9 U	7.2 U	5.4 U	4.9 U
1,4-Dichlorobenzene	20,000	130,000	4.6 U	4.9 U	6.0 U	7.3 U	5.4 U	5.0 U
m,p-Xylene	260	500,000	11 U	12 U	14 U	18 U	13 U	12 U
Styrene	NA	NA	3.7 U	4.0 U	4.8 U	5.9 U	4.4 U	4.0 U
Tetrachloroethylene	2,000	150,000	7.5 U	7.9 U	9.6 U	12 U	8.7 U	8.0 U
Toluene	36,000	500,000	5.3 U	5.6 U	6.8 U	8.4 U	6.2 U	5.7 U
trans-1,3-Dichloropropene	NA	NA	5.1 U	5.4 U	6.5 U	8.0 U	5.9 U	5.4 U
Trichloroethylene	2,000	200,000	4.4 U	4.7 U	5.7 U	6.9 U	5.1 U	4.7 U
Trichlorofluoromethane	NA	NA	7.2 U	7.6 U	9.3 U	11 U	8.4 U	7.7 U
Vinyl chloride	NA	13,000	8.3 U	8.8 U	11 U	13 U	9.7 U	8.9 U

ug/kg micrograms per kilograms
NA Not applicable
U Not detected

Table 4
Glenmere Lake Property
Surface Soil Sample Results
TCL Semivolatile Organic Compounds

CONSTITUENT		Site Id:	SS-07	SS-08	SS-29	SS-30	SS-31
		Sample Id:	SS-7	SS-8	SS-29	SS-30	SS-31
Units in ug/kg		Sample Date:	10/27/2008	10/27/2008	10/27/2008	10/27/2008	10/27/2008
	Ecological Resources SCOs	Commercial Use SCOs					
2,2-oxyblis (1-chloropropane)	NA	NA	23 U	19 U	17 U	18 U	220 U
2,4,5-Trichlorophenol	NA	NA	17 U	13 U	12 U	13 U	160 U
2,4,6-Trichlorophenol	NA	NA	13 U	11 U	9.4 U	10 U	120 U
2,4-Dichlorophenol	NA	NA	13 U	11 U	9.6 U	10 U	120 U
2,4-Dimethylphenol	NA	NA	17 U	13 U	12 U	13 U	160 U
2,4-Dinitrophenol	NA	NA	30 U	24 U	21 U	23 U	280 U
2,4-Dinitrotoluene	NA	NA	18 U	15 U	13 U	14 U	170 U
2,6-Dinitrotoluene	NA	NA	20 U	16 U	14 U	16 U	190 U
2-Chloronaphthalene	NA	NA	14 U	11 U	9.8 U	11 U	130 U
2-Chlorophenol	NA	NA	15 U	12 U	11 U	12 U	140 U
2-Methylnaphthalene	NA	NA	16 U	13 U	11 U	12 U	150 U
3,3-Dichlorobenzidine	NA	NA	42 U	34 U	30 U	33 U	390 U
4,6-Dinitro-o-cresol	NA	NA	75 U	61 U	54 U	59 U	710 U
4-Bromophenyl-phenylether	NA	NA	25 U	21 U	18 U	20 U	240 U
4-Chlorophenylphenyl ether	NA	NA	21 U	17 U	15 U	17 U	200 U
Acenaphthene	20,000	500,000	12 U	9.8 U	58 J	9.4 U	110 U
Acenaphthylene	NA	500,000	8.2 U	6.6 U	5.9 U	6.4 U	77 U
Acetophenone	NA	NA	17 U	13 U	12 U	13 U	160 U
Anthracene	NA	500,000	19 U	51 J	140 J	15 U	1200 J
Atrazine	NA	NA	39 U	32 U	28 U	31 U	370 U
Benzaldehyde	NA	NA	1700	15 U	13 U	15 U	180 U
Benzo(a)anthracene	NA	5,600	79 J	260 J	870	10 U	4400 J
Benzo(a)pyrene	2,600	1,000	78 J	260 J	880	13 U	***3800 J***
Benzo(b)fluoranthene	NA	5,600	110 J	360 J	1300	31 U	5100 J
Benzo(ghi)perylene	NA	500,000	40 U	170 J	700	31 U	2500 J
Benzo(k)fluoranthene	NA	56,000	26 U	130 J	370 J	20 U	1900 J
Biphenyl	NA	NA	17 U	13 U	12 U	13 U	150 U
Bis(2-chloroethoxy)methane	NA	NA	13 U	10 U	9.3 U	10 U	120 U
Bis(2-chloroethyl)ether	NA	NA	7.3 U	5.9 U	5.3 U	5.7 U	68 U
Bis(2-ethylhexyl)phthalate (BEHP)	NA	NA	21 U	17 U	15 U	17 U	200 U
Butyl benzyl phthalate	NA	NA	35 U	29 U	25 U	28 U	330 U
Caprolactam	NA	NA	67 U	54 U	48 U	52 U	630 U
Carbazole	NA	NA	43 U	35 U	79 J	33 U	400 U
Chrysene	NA	56,000	90 J	300 J	1000	8.1 U	4600 J
Dibenzo(a,h)anthracene	NA	560	41 U	33 U	110 J	32 U	600 J
Dibenzofuran	NA	350,000	17 U	14 U	12 U	13 U	160 U
Diethyl phthalate	NA	NA	19 U	15 U	14 U	15 U	180 U
Dimethyl phthalate	NA	NA	16 U	13 U	12 U	13 U	150 U
Di-n-butyl phthalate	NA	NA	26 U	21 U	19 U	20 U	250 U
Di-n-octyl phthalate	NA	NA	20 U	16 U	14 U	15 U	180 U
Fluoranthene	NA	500,000	150 J	540	1900	11 U	7900
Fluorene	30,000	500,000	15 U	12 U	74 J	12 U	140 U
Hexachlorobenzene	NA	6,000	17 U	14 U	12 U	13 U	160 U
Hexachlorobutadiene	NA	NA	23 U	18 U	16 U	18 U	210 U
Hexachlorocyclopentadiene	NA	NA	29 U	23 U	21 U	22 U	270 U
Hexachloroethane	NA	NA	18 U	15 U	13 U	14 U	170 U
Indeno(1,2,3-cd)pyrene	NA	5,600	14 U	150 J	600	11 U	2300 J
Isophorone	NA	NA	18 U	15 U	13 U	14 U	170 U
3-Nitroaniline	NA	NA	37 U	30 U	27 U	29 U	350 U
Naphthalene	NA	500,000	13 U	11 U	9.7 U	10 U	130 U
Nitrobenzene	NA	NA	13 U	11 U	9.4 U	10 U	120 U

See next page for footnotes.

Table 4
Glenmere Lake Property
Surface Soil Sample Results
TCL Semivolatile Organic Compounds

CONSTITUENT		Site Id:	SS-07	SS-08	SS-29	SS-30	SS-31
		Sample Id:	SS-7	SS-8	SS-29	SS-30	SS-31
Units in ug/kg		Sample Date:	10/27/2008	10/27/2008	10/27/2008	10/27/2008	10/27/2008
	Ecological Resources SCOs	Commercial Use SCOs					
N-Nitrosodiphenylamine	NA	NA	42 U	34 U	30 U	33 U	390 U
N-Nitrosodipropylamine	NA	NA	20 U	16 U	15 U	16 U	190 U
2-Methylphenol	NA	500,000	15 U	12 U	11 U	12 U	140 U
2-Nitroaniline	NA	NA	26 U	21 U	19 U	20 U	250 U
2-Nitrophenol	NA	NA	20 U	17 U	15 U	16 U	190 U
4-Chloroaniline	NA	NA	37 U	30 U	26 U	29 U	340 U
4-Chloro-3-methylphenol	NA	NA	16 U	13 U	12 U	13 U	150 U
Pentachlorophenol	800	6,700	63 U	51 U	46 U	49 U	590 U
4-Methylphenol	NA	500,000	17 U	14 U	12 U	13 U	160 U
Phenanthrene	NA	500,000	62 J	240 J	1100	14 U	3800 J
Phenol	30,000	500,000	16 U	13 U	11 U	12 U	150 U
4-Nitroaniline	NA	NA	44 U	36 U	32 U	34 U	410 U
4-Nitrophenol	NA	NA	33 U	27 U	24 U	26 U	310 U
Pyrene	NA	500,000	140 J	500	2000	9.5 U	6800
Total PAHs	NA	NA	709	2961	11102	0	44900
Total Semivolatile Organics	NA	NA	709	2961	11181	0	44900

ug/kg micrograms per kilograms
NA Not applicable
U Not detected
J Estimated value
Exceeded Ecological SCOs
Exceeded Commercial Use SCOs

Table 4
Glenmere Lake Property
Surface Soil Sample Results
TCL Semivolatile Organic Compounds

CONSTITUENT		Site Id:	SS-32	SS-33	SS-34
		Sample Id:	SS-32	SS-33	SS-34
Units in ug/kg		Sample Date:	10/29/2008	10/27/2008	10/29/2008
	Ecological Resources SCOs	Commercial Use SCOs			
2,2-oxyblis (1-chloropropane)	NA	NA	260 U	380 U	18 U
2,4,5-Trichlorophenol	NA	NA	190 U	280 U	13 U
2,4,6-Trichlorophenol	NA	NA	150 U	220 U	10 U
2,4-Dichlorophenol	NA	NA	150 U	220 U	10 U
2,4-Dimethylphenol	NA	NA	190 U	280 U	13 U
2,4-Dinitrophenol	NA	NA	340 U	500 U	23 U
2,4-Dinitrotoluene	NA	NA	210 U	310 U	14 U
2,6-Dinitrotoluene	NA	NA	230 U	330 U	15 U
2-Chloronaphthalene	NA	NA	150 U	230 U	10 U
2-Chlorophenol	NA	NA	170 U	250 U	12 U
2-Methylnaphthalene	NA	NA	180 U	260 U	12 U
3,3-Dichlorobenzidine	NA	NA	480 U	700 U	32 U
4,6-Dinitro-o-cresol	NA	NA	860 U	1300 U	58 U
4-Bromophenyl-phenylether	NA	NA	290 U	420 U	20 U
4-Chlorophenylphenyl ether	NA	NA	240 U	350 U	16 U
Acenaphthene	20,000	500,000	140 U	200 U	9.3 U
Acenaphthylene	NA	500,000	93 U	140 U	91 J
Acetophenone	NA	NA	190 U	280 U	13 U
Anthracene	NA	500,000	210 U	310 U	220 J
Atrazine	NA	NA	450 U	660 U	30 U
Benzaldehyde	NA	NA	210 U	310 U	14 U
Benzo(a)anthracene	NA	5,600	1800 J	220 U	1200
Benzo(a)pyrene	2,600	1,000	1500 J	270 U	1000
Benzo(b)fluoranthene	NA	5,600	2100 J	670 U	1400
Benzo(ghi)perylene	NA	500,000	910 J	670 U	680
Benzo(k)fluoranthene	NA	56,000	970 J	430 U	540
Biphenyl	NA	NA	190 U	280 U	13 U
Bis(2-chloroethoxy)methane	NA	NA	150 U	210 U	9.8 U
Bis(2-chloroethyl)ether	NA	NA	83 U	120 U	5.6 U
Bis(2-ethylhexyl)phthalate (BEHP)	NA	NA	240 U	360 U	16 U
Butyl benzyl phthalate	NA	NA	400 U	590 U	27 U
Caprolactam	NA	NA	760 U	1100 U	51 U
Carbazole	NA	NA	480 U	710 U	200 J
Chrysene	NA	56,000	2000 J	170 U	1100
Dibenzo(a,h)anthracene	NA	560	470 U	680 U	160 J
Dibenzofuran	NA	350,000	200 U	290 U	13 U
Diethyl phthalate	NA	NA	220 U	320 U	15 U
Dimethyl phthalate	NA	NA	190 U	270 U	12 U
Di-n-butyl phthalate	NA	NA	300 U	440 U	20 U
Di-n-octyl phthalate	NA	NA	220 U	330 U	15 U
Fluoranthene	NA	500,000	3600 J	230 U	2100
Fluorene	30,000	500,000	170 U	250 U	12 U
Hexachlorobenzene	NA	6,000	190 U	280 U	13 U
Hexachlorobutadiene	NA	NA	260 U	380 U	17 U
Hexachlorocyclopentadiene	NA	NA	330 U	480 U	22 U
Hexachloroethane	NA	NA	210 U	300 U	14 U
Indeno(1,2,3-cd)pyrene	NA	5,600	950 J	240 U	710
Isophorone	NA	NA	210 U	300 U	14 U
3-Nitroaniline	NA	NA	420 U	620 U	28 U
Naphthalene	NA	500,000	150 U	220 U	10 U
Nitrobenzene	NA	NA	150 U	220 U	10 U

See next page for footnotes.

Table 4
Glenmere Lake Property
Surface Soil Sample Results
TCL Semivolatile Organic Compounds

CONSTITUENT		Site Id:	SS-32	SS-33	SS-34
		Sample Id:	SS-32	SS-33	SS-34
Units in ug/kg		Sample Date:	10/29/2008	10/27/2008	10/29/2008
	Ecological Resources SCOs	Commercial Use SCOs			
N-Nitrosodiphenylamine	NA	NA	480 U	700 U	32 U
N-Nitrosodipropylamine	NA	NA	230 U	340 U	16 U
2-Methylphenol	NA	500,000	170 U	250 U	11 U
2-Nitroaniline	NA	NA	300 U	440 U	20 U
2-Nitrophenol	NA	NA	230 U	340 U	16 U
4-Chloroaniline	NA	NA	420 U	610 U	28 U
4-Chloro-3-methylphenol	NA	NA	190 U	270 U	13 U
Pentachlorophenol	800	6,700	720 U	1100 U	49 U
4-Methylphenol	NA	500,000	190 U	280 U	13 U
Phenanthrene	NA	500,000	1600 J	290 U	1000
Phenol	30,000	500,000	180 U	260 U	12 U
4-Nitroaniline	NA	NA	500 U	730 U	34 U
4-Nitrophenol	NA	NA	380 U	550 U	25 U
Pyrene	NA	500,000	2900 J	200 U	1900
Total PAHs	NA	NA	18330	0	12101
Total Semivolatile Organics	NA	NA	18330	0	12301

ug/kg micrograms per kilograms
NA Not applicable
U Not detected
J Estimated value
Exceeded Ecological SCOs
Exceeded Commercial Use SCOs

Table 5
Glenmere Lake Property
Surface Soil Sample Results
Polychlorinated Biphenyls (PCBs)

CONSTITUENT		Site Id:	SS-07	SS-08	SS-29	SS-30	SS-31	SS-32	SS-33	SS-34
		Sample Id:	SS-7	SS-8	SS-29	SS-30	SS-31	SS-32	SS-33	SS-34
Units in ug/kg		Sample Date:	10/27/2008	10/27/2008	10/27/2008	10/27/2008	10/27/2008	10/29/2008	10/27/2008	10/29/2008
	Ecological Resources SCOs	Commercial Use SCOs								
Aroclor 1016	1000	1000	6.3 U	5.1 U	4.6 U	4.9 U	5.9 U	7.2 U	5.3 U	4.8 U
Aroclor 1221	1000	1000	7.7 U	6.2 U	5.6 U	6.0 U	7.2 U	8.8 U	6.4 U	5.9 U
Aroclor 1232	1000	1000	8.1 U	6.5 U	5.8 U	6.3 U	7.6 U	9.2 U	6.7 U	6.2 U
Aroclor 1242	1000	1000	3.6 U	2.9 U	2.6 U	2.8 U	3.3 U	4.0 U	3.0 U	2.7 U
Aroclor 1248	1000	1000	7.8 U	6.3 U	5.6 U	6.0 U	7.3 U	8.8 U	6.5 U	6.0 U
Aroclor 1254	1000	1000	7.9 U	6.4 U	5.7 U	6.1 U	7.4 U	9.0 U	6.6 U	6.1 U
Aroclor 1260	1000	1000	6.3 U	5.1 U	4.5 U	4.9 U	5.9 U	7.2 U	5.2 U	4.8 U

ug/kg micrograms per kilograms
U Not detected

Table 6
Glenmere Lake Property
Surface Soil Sample Results
Pesticides and Herbicides

		Site Id:	SS-07	SS-08	SS-25	SS-26	SS-27	SS-28	SS-29	SS-30	SS-31	SS-32	SS-33	SS-34
CONSTITUENT		Sample Id:	SS-7	SS-8	SS-25	SS-26	SS-27	SS-28	SS-29	SS-30	SS-31	SS-32	SS-33	SS-34
Units in ug/kg		Sample Date:	10/27/2008	10/27/2008	10/29/2008	10/29/2008	10/27/2008	10/27/2008	10/27/2008	10/27/2008	10/27/2008	10/29/2008	10/27/2008	10/29/2008
	Ecological Resources SCOs	Commercial Use SCOs												
4,4-DDD	3.3	92000	4.6 U	3.7 U	4.0 U	4.0 U	3.7 U	3.5 U	3.3 U	0.35 U	4.3 U	5.2 U	3.8 U	***15 J***
4,4-DDE	3.3	62000	3.2 U	***100***	***140***	***79***	***290***	***25***	***5.5 J***	0.25 U	3.0 U	***150***	2.7 U	***65***
4,4-DDT	3.3	47000	2.7 U	***59***	***67***	***57***	***62***	2.0 U	1.9 U	0.21 U	2.5 U	***260***	2.3 U	***71***
Aldrin	140	680	2.7 U	2.2 U	2.4 U	2.3 U	2.2 U	2.0 U	1.9 U	0.21 U	2.5 U	3.1 U	2.3 U	2.1 U
alpha-BHC	40	3400	2.4 U	1.9 U	2.1 U	2.1 U	1.9 U	1.8 U	1.7 U	0.18 U	2.2 U	2.7 U	2.0 U	1.8 U
alpha-Chlordane	1300	24000	3.2 U	2.6 U	2.8 U	2.8 U	2.6 U	2.4 U	2.3 U	0.25 U	3.0 U	3.6 U	2.7 U	2.5 U
beta-BHC	600	3000	3.0 U	2.5 U	2.7 U	2.6 U	2.4 U	2.3 U	2.2 U	0.24 U	2.9 U	3.5 U	2.5 U	2.3 U
delta-BHC	40	500000	3.0 U	2.5 U	2.7 U	2.6 U	2.4 U	2.3 U	2.2 U	0.24 U	2.9 U	3.5 U	2.5 U	2.3 U
Dieldrin	0.6	1400	3.2 U	2.6 U	2.8 U	2.8 U	2.6 U	2.4 U	2.3 U	0.25 U	3.0 U	***18 J***	2.7 U	2.5 U
Endosulfan I	NA	200000	3.2 U	2.6 U	2.8 U	2.8 U	2.6 U	2.4 U	2.3 U	0.25 U	3.0 U	3.6 U	2.7 U	2.5 U
Endosulfan II	NA	200000	3.4 U	2.7 U	3.0 U	2.9 U	2.7 U	2.6 U	2.4 U	0.26 U	3.2 U	3.8 U	2.8 U	2.6 U
Endosulfan sulfate	NA	200000	3.9 U	3.1 U	3.4 U	3.4 U	3.1 U	45	32	0.30 U	3.6 U	4.4 U	3.2 U	3.0 U
Endrin	14	89000	9.6 U	7.8 U	8.5 U	8.3 U	7.8 U	7.3 U	6.9 U	0.75 U	9.0 U	11 U	8.0 U	7.4 U
Endrin aldehyde	NA	NA	3.4 U	2.7 U	3.0 U	2.9 U	2.7 U	2.6 U	2.4 U	0.26 U	3.2 U	3.8 U	2.8 U	2.6 U
Endrin ketone	NA	NA	8.0 U	6.4 U	7.0 U	6.9 U	6.4 U	6.0 U	5.7 U	0.62 U	7.5 U	9.0 U	6.6 U	6.1 U
gamma-Chlordane	NA	NA	3.0 U	2.5 U	2.7 U	2.6 U	2.4 U	2.3 U	2.2 U	0.24 U	2.9 U	3.5 U	2.5 U	2.3 U
Heptachlor	140	15000	2.5 U	2.1 U	2.2 U	2.2 U	2.0 U	1.9 U	1.8 U	0.20 U	2.4 U	2.9 U	2.1 U	1.9 U
Heptachlor epoxide	NA	NA	3.2 U	2.6 U	2.8 U	2.8 U	2.6 U	2.4 U	2.3 U	0.25 U	3.0 U	3.6 U	2.7 U	2.5 U
Lindane	6000	9200	2.7 U	2.2 U	2.4 U	2.3 U	2.2 U	2.0 U	1.9 U	0.21 U	2.5 U	3.1 U	2.3 U	2.1 U
Methoxychlor	NA	NA	3.6 U	2.9 U	3.1 U	3.1 U	2.9 U	2.7 U	2.6 U	0.28 U	3.3 U	4.0 U	3.0 U	2.7 U
Toxaphene	NA	NA	61 U	49 U	53 U	52 U	49 U	46 U	44 U	4.7 U	57 U	69 U	50 U	46 U
2,4,5-T	NA	NA	NA	NA	8.390 U	8.260 U	7.720 U	7.220 U	NA	NA	NA	NA	NA	NA
2,4-D	NA	NA	NA	NA	13.7 U	13.5 U	12.6 U	11.8 U	NA	NA	NA	NA	NA	NA
2,4-DB	NA	NA	NA	NA	19.0 U	18.7 U	17.5 U	16.4 U	NA	NA	NA	NA	NA	NA
Dicamba	NA	NA	NA	NA	13.6 U	13.4 U	12.5 U	11.7 U	NA	NA	NA	NA	NA	NA
Dichlorprop	NA	NA	NA	NA	14.8 U	14.6 U	13.6 U	12.7 U	NA	NA	NA	NA	NA	NA
Dinoseb	NA	NA	NA	NA	14.5 U	14.3 U	13.4 U	12.5 U	NA	NA	NA	NA	NA	NA
Silvex	NA	500,000	NA	NA	7.880 U	7.760 U	7.260 U	6.780 U	NA	NA	NA	NA	NA	NA

ug/kg micrograms per kilograms
NA Not applicable or not analyzed
U Not detected
J Estimated value
Exceeded Ecological SCOs

Table 7
Glenmere Lake Property
Surface Soil Sample Results
Asbestos

Site Id:	Sample Id:	Sample Date:	Asbestos
SB-12	SB-12[0.5-2.5]	10/23/2008	ND
SB-13	SB-13[3-5]	10/23/2008	ND
SS-01	SS-1	10/29/2008	ND
SS-02	SS-2	10/29/2008	ND
SS-03	SS-3	10/27/2008	ND
SS-04	SS-4	10/27/2008	ND
SS-05	SS-5	10/27/2008	ND
SS-06	SS-6	10/27/2008	ND
SS-07	SS-7	10/27/2008	ND
SS-08	SS-8	10/27/2008	ND
SS-09	SS-9	10/27/2008	ND
SS-10	SS-10	10/27/2008	ND
SS-11	SS-11	10/29/2008	ND
SS-12	SS-12	10/27/2008	ND
SS-13	SS-13	10/27/2008	ND
SS-14	SS-14	10/27/2008	ND
SS-15	SS-15	10/27/2008	ND
SS-16	SS-16	10/27/2008	ND
SS-17	SS-17	10/27/2008	ND
SS-18	SS-18	10/27/2008	ND
SS-19	SS-19	10/27/2008	ND
SS-20	SS-20	10/29/2008	ND
SS-21	SS-21	10/27/2008	ND
SS-22	SS-22	10/27/2008	ND
SS-23	SS-23	10/27/2008	ND
SS-24	SS-24	10/27/2008	ND
SS-35	SS-35	10/27/2008	ND
SS-36	SS-36	10/27/2008	ND

ND Not detected

Table 8
Glenmere Lake Property
Shallow Soil Near Dilapidated
Buildings Sample Results
Total Lead

Site Id:	Sample Id:	Sample Date:	Starting Depth FBLS	Ending Depth FBLS	Lead Units in mg/kg Ecological Resources SCOs	Lead Units in mg/kg Commercial Use SCOs
					63	1,000
SS-02	SS-02 (0.5-1')	5/20/2009	0.5	1	***383***	
SS-02	SS-02 (1-1.5')	5/20/2009	1	1.5	***254***	
SS-19	SS-19 (0.5-1')	5/20/2009	0.5	1	27.6	
SS-19	SS-19 (1-1.5')	5/20/2009	1	1.5	42.5	
SS-24	SS-24 (0.5-1')	5/20/2009	0.5	1	***421***	
SS-24	SS-24 (1-1.5')	5/20/2009	1	1.5	***452***	
SS-33	SS-33 (0.5-1')	5/20/2009	0.5	1	***91.8***	
SS-33	SS-33 (1-1.5')	5/20/2009	1	1.5	52.8	

mg/kg milligrams per kilograms
FBLS Feet below land surface
Exceeded Ecological SCOs

Table 9
Glenmere Lake Property
Subsurface Soil Sample Results
Target Analyte List (TAL) Metals

CONSTITUENT	Site Id:	GP-08	SB-03	SB-05	SB-07	SB-08	SB-09	SB-10	SB-11	SB-12	SB-13	SB-15
	Sample Id:	GP-08[11-12]	SB-3[2.5-4.5]	SB-5[3-5]	SB-7[2-4]	SB-8[6-8]	SB-9[4-6]	SB-10[6-8]	SB-11[4-6]	SB-12[0.5-2.5]	SB-13[3-5]	SB-15[10-12]
Units in mg/kg	Sample Date:	10/22/2008	10/24/2008	10/23/2008	10/24/2008	10/24/2008	10/23/2008	10/23/2008	10/23/2008	10/23/2008	10/23/2008	10/22/2008
	Starting Depth FBLS:	11	2.5	3	2	6	4	6	4	0.5	3	10
	Ending Depth FBLS:	12	4.5	5	4	8	6	8	6	2.5	5	12
	Ecological Resources SCOs	Commercial Use SCOs										
Aluminum	NA	NA	9780	16200	13100	12300	15600	11500	14500	13800	16300	16100	9360
Antimony	NA	NA	0.914 U	0.872 U	0.916 U	0.917 U	0.915 U	0.934 U	0.911 U	0.973 U	0.891 U	0.866 U	0.939 U
Arsenic	13	16	3.05	5.18	***96.6***	***17.8***	4.96	***15.6***	***30.6***	7.04	1.66	9.72	0.851
Barium	433	400	31.2	27.4	53.2	40.6	18.5	46.4	36.4	30.4	69.8	27.4	23.4
Beryllium	10	590	0.395	0.657	0.559	0.469	0.579	0.438	0.717	0.608	0.483	0.592	0.398
Cadmium	4	9.3	0.079 J	2.62	1.91	1.87	2.38	1.82	2.6	2.51	2.51	2.5	0.158 J
Calcium	NA	NA	918	2140	3260	922	2420	1530	1060	1570	1130	748	1060
Chromium	41	1,500	12.9	22.3	16.8	16.4	25.5	16.7	19.6	19.1	19.9	20.7	13
Cobalt	NA	NA	8.69	16.7	10.5	10.1	10.9	10.3	20.3	16.3	13.9	17	8.14
Copper	50	270	27.1	40	26.6	20.7	45.8	27.1	39.9	22.1	31	37.8	28.7
Iron	NA	NA	20500	32800	24200	24400	32700	24000	34600	34900	29900	33000	19900
Lead	63	1,000	9.68	17.4	24.3	25.4	13.2	***74***	28.6	21.4	41.5	17.6	11.1
Magnesium	NA	NA	4350	8400	5180	5350	7480	5380	6720	4410	8210	9440	4420
Manganese	1,600	10,000	865	1540	887	689	***1640***	847	741	830	1390	1530	286
Mercury	0.18	2.8	0.016	0.018	0.057	***0.405***	0.024	***0.303***	0.062	0.019	0.034	0.048	0.011 J
Nickel	30	310	18.2	***31.4***	21.1	21.5	***33.7***	20.6	30	18.1	26	***30.1***	19
Potassium	NA	NA	345	726	513	509	712	530	703	699	546	661	352
Selenium	3.9	1,500	0.605 U	0.577 U	0.606 U	0.607 U	0.605 U	0.618 U	0.603 U	0.643 U	0.589 U	0.573 U	0.621 U
Silver	2	1,500	***3.01***	***5.98***	***4.44***	***4.41***	***5.93***	***4.38***	***6.35***	***6.35***	***5.48***	***6.02***	***2.96***
Sodium	NA	NA	108	55.0 U	57.8 U	57.9 U	62.7 J	61.7 J	82.2	61.4 U	56.2 U	54.7 U	102
Thallium	NA	NA	0.730 U	0.696 U	0.732 U	0.733 U	0.731 U	0.746 U	0.728 U	0.776 U	0.711 U	0.692 U	0.750 U
Vanadium	NA	NA	13.7	23.4	19.2	18.7	21.5	17.5	21.3	24.4	22.7	20.6	14.5
Zinc	109	10,000	46.6	75.7	69.8	81.9	80.4	93.8	80.9	47.5	71.5	71.9	53.3

mg/kg	milligrams per kilograms
FBLS	Feet below land surface
NA	Not applicable or not analyzed
U	Not detected
J	Estimated value
Exceeded Ecological SCOs	
Exceeded Commercial Use SCOs	

Table 10
Glenmore Lake Property
Subsurface Soil Sample Results
TCL Volatile Organic Compounds

CONSTITUENT	Site Id:	Ecological Resources SCOs	Commercial Use SCOs	GP-08	SB-01	SB-02	SB-03	SB-04
	Sample Id:			GP-08[11-12]	SB-1[1-3]	SB-2[4.5-5]	SB-3[2.5-4.5]	SB-4[3-5]
Units in mg/kg	Sample Date:			10/22/2008	10/24/2008	10/23/2008	10/24/2008	10/23/2008
	Starting Depth FBLS:			11	0	4.5	2.5	3
	Ending Depth FBLS:			12	3	5	4.5	5
1,1,1,2-Tetrachloroethane		NA	NA	NA	4.8 U	4.8 U	NA	4.7 U
1,1,1-Trichloroethane		NA	500,000	5.3 U	5.3 U	5.4 U	4.9 U	5.2 U
1,1,2,2-Tetrachloroethane		NA	NA	4.9 U	5.0 U	5.1 U	4.6 U	4.9 U
1,1,2-Trichloroethane		NA	NA	3.4 U	3.4 U	3.5 U	3.1 U	3.4 U
1,1-Dichloroethane		NA	240,000	6.2 U	6.3 U	6.4 U	5.8 U	6.2 U
1,1-Dichloroethylene		NA	500,000	5.6 U	5.6 U	5.7 U	5.2 U	5.5 U
1,2,4-Trichlorobenzene		NA	NA	3.7 U	3.7 U	3.7 U	3.4 U	3.6 U
1,2-Dichloroethane		10,000	30,000	4.6 U	4.6 U	4.7 U	4.2 U	4.5 U
1,2-Dichloropropane		NA	NA	5.2 U	5.3 U	5.3 U	4.9 U	5.2 U
2-Hexanone		NA	NA	24 U	NA	NA	23 U	NA
Acetone		2,200	500,000	95 U	NA	NA	88 U	NA
Benzene		70,000	44,000	4.0 U	NA	NA	3.7 U	NA
Benzene, 1-methylethyl-		NA	NA	4.6 U	NA	NA	4.2 U	NA
Bromodichloromethane		NA	NA	3.9 U	3.9 U	4.0 U	3.6 U	3.8 U
Bromoform		NA	NA	4.5 U	NA	NA	4.2 U	NA
Carbon disulfide		NA	NA	6.0 U	NA	NA	5.6 U	NA
Carbon tetrachloride		NA	22,000	3.3 U	3.3 U	3.3 U	3.0 U	3.2 U
Chlorobenzene		40,000	500,000	4.2 U	4.3 U	4.3 U	3.9 U	4.2 U
Chloroethane		NA	NA	10 U	10 U	10 U	9.5 U	10 U
Chloroform		12,000	350,000	4.9 U	5.0 U	5.1 U	4.6 U	4.9 U
cis-1,2-Dichloroethylene		NA	500,000	7.2 U	NA	NA	6.7 U	NA
cis-1,3-Dichloropropene		NA	NA	3.7 U	3.8 U	3.8 U	3.5 U	3.7 U
Cyclohexane		NA	NA	5.7 U	NA	NA	5.3 U	NA
1,2-Dibromo-3-chloropropane		NA	NA	5.7 U	5.7 U	5.8 U	5.3 U	5.6 U
Dibromochloromethane		NA	NA	3.7 U	3.7 U	3.7 U	3.4 U	3.6 U
Dichlorodifluoromethane		NA	NA	11 U	11 U	11 U	9.9 U	11 U
1,2-Dibromoethane (EDB)		NA	NA	4.6 U	NA	NA	4.2 U	NA
trans-1,2-Dichloroethene		NA	500,000	6.8 U	6.9 U	7.0 U	6.3 U	6.8 U
Ethylbenzene		NA	390,000	4.4 U	NA	NA	4.1 U	NA
Freon 113		NA	NA	9.3 U	9.4 U	9.5 U	8.7 U	9.2 U
1,3-Dichlorobenzene		NA	280,000	3.7 U	3.8 U	3.8 U	3.5 U	3.7 U
Methyl Acetate		NA	NA	9.4 U	NA	NA	8.7 U	NA
Bromomethane		NA	NA	11 U	NA	NA	10 U	NA
Chloromethane		NA	NA	7.4 U	7.5 U	7.5 U	6.9 U	7.3 U
Methyl ethyl ketone		100,000	500,000	28 U	NA	NA	26 U	NA
Methyl isobutylketone (MIBK)		NA	NA	21 U	NA	NA	20 U	NA
Methylcyclohexane		NA	NA	4.6 U	NA	NA	4.3 U	NA
Methylene chloride		12,000	500,000	14 U	14 U	14 U	13 U	13 U
Methyltert-butylether		NA	500,000	4.9 U	NA	NA	4.6 U	NA
1,2-Dichlorobenzene		NA	500,000	4.8 U	4.8 U	4.9 U	4.4 U	4.7 U
o-Xylene		260	500,000	4.2 U	NA	NA	3.9 U	NA
1,4-Dichlorobenzene		20,000	130,000	4.3 U	4.3 U	4.4 U	4.0 U	4.2 U
m,p-Xylene		260	500,000	10 U	NA	NA	9.6 U	NA
Styrene		NA	NA	3.4 U	NA	NA	3.2 U	NA
Tetrachloroethylene		2,000	150,000	6.9 U	7.0 U	7.0 U	6.4 U	6.8 U
Toluene		36,000	500,000	4.9 U	NA	NA	4.5 U	NA
trans-1,3-Dichloropropene		NA	NA	4.7 U	4.7 U	4.8 U	4.3 U	4.6 U
Trichloroethylene		2,000	200,000	4.1 U	4.1 U	4.1 U	3.8 U	4.0 U
Trichlorofluoromethane		NA	NA	6.6 U	6.7 U	6.8 U	6.1 U	6.5 U
Vinyl chloride		NA	13,000	7.7 U	7.8 U	7.8 U	7.1 U	7.6 U

ug/kg	micrograms per kilograms
FBLS	Feet below land surface
NA	Not applicable or not analyzed
U	Not detected

Table 10
Glenmore Lake Property
Subsurface Soil Sample Results
TCL Volatile Organic Compounds

CONSTITUENT		Site Id:	SB-05	SB-06	SB-07	SB-08	SB-09	SB-10
		Sample Id:	SB-5[3-5]	SB-6[4-6]	SB-7[2-4]	SB-8[6-8]	SB-9[4-6]	SB-10[6-8]
Units in mg/kg		Sample Date:	10/23/2008	10/23/2008	10/24/2008	10/24/2008	10/23/2008	10/23/2008
		Starting Depth FBLS:	3	4	2	6	4	6
		Ending Depth FBLS:	5	6	4	8	6	8
	Ecological Resources SCOs	Commercial Use SCOs						
1,1,1,2-Tetrachloroethane	NA	NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	NA	500,000	5.2 U	NA	5.2 U	5.2 U	5.3 U	5.1 U
1,1,2,2-Tetrachloroethane	NA	NA	4.9 U	NA	4.8 U	4.8 U	5.0 U	4.8 U
1,1,2-Trichloroethane	NA	NA	3.4 U	NA	3.3 U	3.3 U	3.4 U	3.3 U
1,1-Dichloroethane	NA	240,000	6.2 U	NA	6.1 U	6.1 U	6.2 U	6.0 U
1,1-Dichloroethylene	NA	500,000	5.5 U	NA	5.4 U	5.4 U	5.6 U	5.4 U
1,2,4-Trichlorobenzene	NA	NA	3.6 U	NA	3.6 U	3.6 U	3.7 U	3.6 U
1,2-Dichloroethane	10,000	30,000	4.5 U	NA	4.5 U	4.5 U	4.6 U	4.4 U
1,2-Dichloropropane	NA	NA	5.2 U	NA	5.1 U	5.1 U	5.2 U	5.1 U
2-Hexanone	NA	NA	24 U	NA	24 U	24 U	24 U	24 U
Acetone	2,200	500,000	750	NA	93 U	93 U	95 U	92 U
Benzene	70,000	44,000	4.0 U	4.3 U	3.9 U	3.9 U	4.0 U	3.9 U
Benzene, 1-methylethyl-	NA	NA	4.5 U	NA	4.5 U	4.5 U	4.6 U	4.4 U
Bromodichloromethane	NA	NA	3.9 U	NA	3.8 U	3.8 U	3.9 U	3.8 U
Bromoform	NA	NA	4.5 U	NA	4.4 U	4.4 U	4.5 U	4.4 U
Carbon disulfide	NA	NA	5.9 U	NA	5.9 U	5.9 U	6.0 U	5.8 U
Carbon tetrachloride	NA	22,000	3.2 U	NA	3.2 U	3.2 U	3.3 U	3.2 U
Chlorobenzene	40,000	500,000	4.2 U	NA	4.1 U	4.1 U	4.2 U	4.1 U
Chloroethane	NA	NA	10 U	NA	10 U	10 U	10 U	10 U
Chloroform	12,000	350,000	4.9 U	NA	4.8 U	4.8 U	5.0 U	4.8 U
cis-1,2-Dichloroethylene	NA	500,000	7.1 U	NA	7.0 U	7.0 U	7.2 U	7.0 U
cis-1,3-Dichloropropene	NA	NA	3.7 U	NA	3.6 U	3.6 U	3.7 U	3.6 U
Cyclohexane	NA	NA	5.6 U	NA	5.6 U	5.6 U	5.7 U	5.5 U
1,2-Dibromo-3-chloropropane	NA	NA	5.6 U	NA	5.6 U	5.6 U	5.7 U	5.5 U
Dibromochloromethane	NA	NA	3.6 U	NA	3.6 U	3.6 U	3.7 U	3.6 U
Dichlorodifluoromethane	NA	NA	11 U	NA	10 U	10 U	11 U	10 U
1,2-Dibromoethane (EDB)	NA	NA	4.5 U	NA	4.5 U	4.5 U	4.6 U	4.4 U
trans-1,2-Dichloroethene	NA	500,000	6.8 U	NA	6.7 U	6.7 U	6.9 U	6.6 U
Ethylbenzene	NA	390,000	4.4 U	4.8 U	4.4 U	4.4 U	4.5 U	4.3 U
Freon 113	NA	NA	9.2 U	NA	9.2 U	9.2 U	9.4 U	9.1 U
1,3-Dichlorobenzene	NA	280,000	3.7 U	NA	3.6 U	3.6 U	3.7 U	3.6 U
Methyl Acetate	NA	NA	9.3 U	NA	9.2 U	9.2 U	9.4 U	9.1 U
Bromomethane	NA	NA	11 U	NA	11 U	11 U	11 U	11 U
Chloromethane	NA	NA	7.3 U	NA	7.2 U	7.2 U	7.4 U	7.2 U
Methyl ethyl ketone	100,000	500,000	28 U	NA	27 U	27 U	28 U	27 U
Methyl isobutylketone (MIBK)	NA	NA	21 U	NA	21 U	21 U	21 U	21 U
Methylcyclohexane	NA	NA	4.6 U	NA	4.5 U	4.5 U	4.6 U	4.5 U
Methylene chloride	12,000	500,000	13 U	NA	13 U	13 U	14 U	13 U
Methyltert-butylether	NA	500,000	4.9 U	NA	4.8 U	4.8 U	5.0 U	4.8 U
1,2-Dichlorobenzene	NA	500,000	4.7 U	NA	4.7 U	4.7 U	4.8 U	4.6 U
o-Xylene	260	500,000	4.2 U	4.5 U	4.1 U	4.1 U	4.2 U	4.1 U
1,4-Dichlorobenzene	20,000	130,000	4.2 U	NA	4.2 U	4.2 U	4.3 U	4.2 U
m,p-Xylene	260	500,000	10 U	11 U	10 U	10 U	10 U	10 U
Styrene	NA	NA	3.4 U	NA	3.4 U	3.4 U	3.5 U	3.3 U
Tetrachloroethylene	2,000	150,000	6.8 U	NA	6.8 U	6.8 U	6.9 U	6.7 U
Toluene	36,000	500,000	4.8 U	5.2 U	4.8 U	4.8 U	4.9 U	4.7 U
trans-1,3-Dichloropropene	NA	NA	4.6 U	NA	4.6 U	4.6 U	4.7 U	4.5 U
Trichloroethylene	2,000	200,000	4.0 U	NA	4.0 U	4.0 U	4.1 U	3.9 U
Trichlorofluoromethane	NA	NA	6.5 U	NA	6.5 U	6.5 U	6.6 U	6.4 U
Vinyl chloride	NA	13,000	7.6 U	NA	7.5 U	7.5 U	7.7 U	7.4 U

ug/kg	micrograms per kilograms
FBLS	Feet below land surface
NA	Not applicable or not analyzed
U	Not detected

Table 10
Glenmore Lake Property
Subsurface Soil Sample Results
TCL Volatile Organic Compounds

CONSTITUENT		Site Id:	SB-11	SB-12	SB-13	SB-14	SB-15
		Sample Id:	SB-11[4-6]	SB-12[0.5-2.5]	SB-13[3-5]	SB-14[6-7]	SB-15[10-12]
Units in mg/kg		Sample Date:	10/23/2008	10/23/2008	10/23/2008	10/22/2008	10/22/2008
		Starting Depth FBLS:	4	0.5	3	6	10
		Ending Depth FBLS:	6	2.5	5	7	12
	Ecological Resources SCOs	Commercial Use SCOs					
1,1,1,2-Tetrachloroethane	NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	NA	500,000	5.6 U	5.1 U	5.0 U	NA	5.3 U
1,1,2,2-Tetrachloroethane	NA	NA	5.2 U	4.7 U	4.7 U	NA	5.0 U
1,1,2-Trichloroethane	NA	NA	3.6 U	3.2 U	3.2 U	NA	3.4 U
1,1-Dichloroethane	NA	240,000	6.6 U	6.0 U	5.9 U	NA	6.2 U
1,1-Dichloroethylene	NA	500,000	5.9 U	5.3 U	5.3 U	NA	5.6 U
1,2,4-Trichlorobenzene	NA	NA	3.9 U	3.5 U	3.5 U	NA	3.7 U
1,2-Dichloroethane	10,000	30,000	4.8 U	4.4 U	4.3 U	NA	4.6 U
1,2-Dichloropropane	NA	NA	5.5 U	5.0 U	4.9 U	NA	5.2 U
2-Hexanone	NA	NA	26 U	23 U	23 U	NA	24 U
Acetone	2,200	500,000	100 U	91 U	90 U	NA	95 U
Benzene	70,000	44,000	4.2 U	3.8 U	3.8 U	3.7 U	4.0 U
Benzene, 1-methylethyl-	NA	NA	4.8 U	4.4 U	4.3 U	NA	4.6 U
Bromodichloromethane	NA	NA	4.1 U	3.7 U	3.7 U	NA	3.9 U
Bromoform	NA	NA	4.8 U	4.3 U	4.3 U	NA	4.5 U
Carbon disulfide	NA	NA	6.4 U	5.7 U	5.7 U	NA	6.0 U
Carbon tetrachloride	NA	22,000	3.5 U	3.1 U	3.1 U	NA	3.3 U
Chlorobenzene	40,000	500,000	4.5 U	4.0 U	4.0 U	NA	4.2 U
Chloroethane	NA	NA	11 U	9.8 U	9.7 U	NA	10 U
Chloroform	12,000	350,000	5.2 U	4.7 U	4.7 U	NA	5.0 U
cis-1,2-Dichloroethylene	NA	500,000	7.6 U	6.9 U	6.8 U	NA	7.2 U
cis-1,3-Dichloropropene	NA	NA	3.9 U	3.6 U	3.5 U	NA	3.7 U
Cyclohexane	NA	NA	6.0 U	5.4 U	5.4 U	NA	5.7 U
1,2-Dibromo-3-chloropropane	NA	NA	6.0 U	5.4 U	5.4 U	NA	5.7 U
Dibromochloromethane	NA	NA	3.9 U	3.5 U	3.5 U	NA	3.7 U
Dichlorodifluoromethane	NA	NA	11 U	10 U	10 U	NA	11 U
1,2-Dibromoethane (EDB)	NA	NA	4.8 U	4.4 U	4.3 U	NA	4.6 U
trans-1,2-Dichloroethene	NA	500,000	7.2 U	6.5 U	6.5 U	NA	6.9 U
Ethylbenzene	NA	390,000	4.7 U	4.3 U	4.2 U	4.1 U	4.5 U
Freon 113	NA	NA	9.9 U	8.9 U	8.8 U	NA	9.4 U
1,3-Dichlorobenzene	NA	280,000	3.9 U	3.6 U	3.5 U	NA	3.7 U
Methyl Acetate	NA	NA	9.9 U	9.0 U	8.9 U	NA	9.4 U
Bromomethane	NA	NA	12 U	11 U	11 U	NA	11 U
Chloromethane	NA	NA	7.8 U	7.1 U	7.0 U	NA	7.4 U
Methyl ethyl ketone	100,000	500,000	30 U	27 U	26 U	NA	28 U
Methyl isobutylketone (MIBK)	NA	NA	22 U	20 U	20 U	NA	21 U
Methylcyclohexane	NA	NA	4.9 U	4.4 U	4.4 U	NA	4.6 U
Methylene chloride	12,000	500,000	14 U	13 U	13 U	NA	14 U
Methyltert-butylether	NA	500,000	5.2 U	4.7 U	4.7 U	NA	5.0 U
1,2-Dichlorobenzene	NA	500,000	5.1 U	4.6 U	4.5 U	NA	4.8 U
o-Xylene	260	500,000	4.5 U	4.0 U	4.0 U	3.9 U	4.2 U
1,4-Dichlorobenzene	20,000	130,000	4.5 U	4.1 U	4.1 U	NA	4.3 U
m,p-Xylene	260	500,000	11 U	9.9 U	9.8 U	9.5 U	10 U
Styrene	NA	NA	3.6 U	3.3 U	3.3 U	NA	3.5 U
Tetrachloroethylene	2,000	150,000	7.3 U	6.6 U	6.5 U	NA	6.9 U
Toluene	36,000	500,000	5.2 U	4.7 U	4.6 U	4.5 U	4.9 U
trans-1,3-Dichloropropene	NA	NA	4.9 U	4.5 U	4.4 U	NA	4.7 U
Trichloroethylene	2,000	200,000	4.3 U	3.9 U	3.8 U	NA	4.1 U
Trichlorofluoromethane	NA	NA	7.0 U	6.3 U	6.3 U	NA	6.6 U
Vinyl chloride	NA	13,000	8.1 U	7.3 U	7.3 U	NA	7.7 U

ug/kg	micrograms per kilograms
FBLS	Feet below land surface
NA	Not applicable or not analyzed
U	Not detected

Table 11
Glenmere Lake Property
Subsurface Soil Sample Results
TCL Semivolatile Organic Compounds

		Site Id:	GP-08	SB-03	SB-05	SB-06	SB-07
		Sample Id:	GP-08[11-12]	SB-3[2.5-4.5]	SB-5[3-5]	SB-6[4-6]	SB-7[2-4]
		Sample Date:	10/22/2008	10/24/2008	10/23/2008	10/23/2008	10/24/2008
CONSTITUENT		Starting Depth FBLS:	11	2.5	3	4	2
Units in ug/kg		Ending Depth FBLS:	12	4.5	5	6	4
	Ecological Resources SCOs	Commercial Use SCOs					
2,2-oxyblis (1-chloropropane)	NA	NA	15 U	14 U	15 U	NA	15 U
2,4,5-Trichlorophenol	NA	NA	11 U	10 U	11 U	NA	11 U
2,4,6-Trichlorophenol	NA	NA	8.5 U	8.1 U	8.5 U	NA	8.5 U
2,4-Dichlorophenol	NA	NA	8.7 U	8.2 U	8.7 U	NA	8.7 U
2,4-Dimethylphenol	NA	NA	11 U	10 U	11 U	NA	11 U
2,4-Dinitrophenol	NA	NA	20 U	18 U	20 U	NA	20 U
2,4-Dinitrotoluene	NA	NA	12 U	11 U	12 U	NA	12 U
2,6-Dinitrotoluene	NA	NA	13 U	12 U	13 U	NA	13 U
2-Chloronaphthalene	NA	NA	8.9 U	8.4 U	8.9 U	NA	8.9 U
2-Chlorophenol	NA	NA	9.9 U	9.4 U	10 U	NA	10 U
2-Methylnaphthalene	NA	NA	10 U	9.8 U	10 U	NA	10 U
3,3-Dichlorobenzidine	NA	NA	28 U	26 U	28 U	NA	28 U
4,6-Dinitro-o-cresol	NA	NA	49 U	47 U	50 U	NA	50 U
4-Bromophenyl-phenylether	NA	NA	17 U	16 U	17 U	NA	17 U
4-Chlorophenylphenyl ether	NA	NA	14 U	13 U	14 U	NA	14 U
Acenaphthene	20,000	500,000	7.9 U	7.5 U	7.9 U	8.5 U	7.9 U
Acenaphthylene	NA	500,000	5.4 U	5.1 U	5.4 U	5.8 U	5.4 U
Acetophenone	NA	NA	11 U	10 U	11 U	NA	11 U
Anthracene	NA	500,000	12 U	12 U	12 U	13 U	12 U
Atrazine	NA	NA	26 U	24 U	26 U	NA	26 U
Benzaldehyde	NA	NA	12 U	12 U	12 U	NA	12 U
Benzo(a)anthracene	NA	5,600	8.8 U	8.3 U	8.8 U	9.5 U	8.8 U
Benzo(a)pyrene	2,600	1,000	11 U	10 U	11 U	12 U	11 U
Benzo(b)fluoranthene	NA	5,600	26 U	25 U	26 U	28 U	26 U
Benzo(ghi)perylene	NA	500,000	27 U	25 U	27 U	28 U	27 U
Benzo(k)fluoranthene	NA	56,000	17 U	16 U	17 U	18 U	17 U
Biphenyl	NA	NA	11 U	10 U	11 U	NA	11 U
Bis(2-chloroethoxy)methane	NA	NA	8.4 U	8.0 U	8.4 U	NA	8.4 U
Bis(2-chloroethyl)ether	NA	NA	4.8 U	4.5 U	4.8 U	NA	4.8 U
Bis(2-ethylhexyl)phthalate (BEHP)	NA	NA	59 J	13 U	43 J	NA	52 J
Butyl benzyl phthalate	NA	NA	23 U	22 U	23 U	NA	23 U
Caprolactam	NA	NA	44 U	42 U	44 U	NA	44 U
Carbazole	NA	NA	28 U	27 U	28 U	NA	28 U
Chrysene	NA	56,000	6.8 U	6.5 U	6.8 U	7.3 U	6.8 U
Dibenzo(a,h)anthracene	NA	560	27 U	25 U	27 U	29 U	27 U
Dibenzofuran	NA	350,000	11 U	11 U	11 U	NA	11 U
Diethyl phthalate	NA	NA	12 U	12 U	13 U	NA	13 U
Dimethyl phthalate	NA	NA	11 U	10 U	11 U	NA	11 U
Di-n-butyl phthalate	NA	NA	17 U	16 U	17 U	NA	17 U
Di-n-octyl phthalate	NA	NA	13 U	12 U	13 U	NA	13 U
Fluoranthene	NA	500,000	8.9 U	8.4 U	49 J	9.5 U	44 J
Fluorene	30,000	500,000	9.9 U	9.3 U	9.9 U	11 U	9.9 U
Hexachlorobenzene	NA	6,000	11 U	10 U	11 U	NA	11 U
Hexachlorobutadiene	NA	NA	15 U	14 U	15 U	NA	15 U
Hexachlorocyclopentadiene	NA	NA	19 U	18 U	19 U	NA	19 U
Hexachloroethane	NA	NA	12 U	11 U	12 U	NA	12 U
Indeno(1,2,3-cd)pyrene	NA	5,600	9.3 U	8.8 U	9.3 U	9.9 U	9.3 U
Isophorone	NA	NA	12 U	11 U	12 U	NA	12 U
3-Nitroaniline	NA	NA	24 U	23 U	24 U	NA	24 U

See next page for footnotes.

Table 11
Glenmere Lake Property
Subsurface Soil Sample Results
TCL Semivolatile Organic Compounds

		Site Id:	GP-08	SB-03	SB-05	SB-06	SB-07
		Sample Id:	GP-08[11-12]	SB-3[2.5-4.5]	SB-5[3-5]	SB-6[4-6]	SB-7[2-4]
		Sample Date:	10/22/2008	10/24/2008	10/23/2008	10/23/2008	10/24/2008
CONSTITUENT		Starting Depth FBLS:	11	2.5	3	4	2
Units in ug/kg		Ending Depth FBLS:	12	4.5	5	6	4
	Ecological Resources SCOs	Commercial Use SCOs					
Naphthalene	NA	500,000	8.8 U	8.4 U	8.9 U	9.5 U	8.9 U
Nitrobenzene	NA	NA	8.6 U	8.1 U	8.6 U	NA	8.6 U
N-Nitrosodiphenylamine	NA	NA	28 U	26 U	28 U	NA	28 U
N-Nitrosodipropylamine	NA	NA	13 U	13 U	13 U	NA	13 U
2-Methylphenol	NA	500,000	9.7 U	9.2 U	9.8 U	NA	9.8 U
2-Nitroaniline	NA	NA	17 U	16 U	17 U	NA	17 U
2-Nitrophenol	NA	NA	13 U	13 U	13 U	NA	13 U
4-Chloroaniline	NA	NA	24 U	23 U	24 U	NA	24 U
4-Chloro-3-methylphenol	NA	NA	11 U	10 U	11 U	NA	11 U
Pentachlorophenol	800	6,700	42 U	39 U	42 U	NA	42 U
4-Methylphenol	NA	500,000	11 U	11 U	11 U	NA	11 U
Phenanthrene	NA	500,000	11 U	11 U	45 J	12 U	11 U
Phenol	30,000	500,000	10 U	9.6 U	10 U	NA	10 U
4-Nitroaniline	NA	NA	29 U	27 U	29 U	NA	29 U
4-Nitrophenol	NA	NA	22 U	21 U	22 U	NA	22 U
Pyrene	NA	500,000	8.0 U	7.6 U	52 J	8.6 U	48 J
Total PAHs	NA	NA	0	0	146	0	92
Total Semivolatile Organics	NA	NA	59	0	189	NA	144

ug/kg	micrograms per kilograms
FBLS	Feet below land surface
NA	Not applicable or not analyzed
U	Not detected
J	Estimated value

Table 11
Glenmere Lake Property
Subsurface Soil Sample Results
TCL Semivolatile Organic Compounds

		Site Id:	SB-08	SB-09	SB-10	SB-11	SB-12
		Sample Id:	SB-8[6-8]	SB-9[4-6]	SB-10[6-8]	SB-11[4-6]	SB-12[0.5-2.5]
		Sample Date:	10/24/2008	10/23/2008	10/23/2008	10/23/2008	10/23/2008
CONSTITUENT		Starting Depth FBLS:	6	4	6	4	0.5
Units in ug/kg		Ending Depth FBLS:	8	6	8	6	2.5
	Ecological Resources SCOs	Commercial Use SCOs					
2,2-oxyblis (1-chloropropane)	NA	NA	15 U	16 U	15 U	16 U	15 U
2,4,5-Trichlorophenol	NA	NA	11 U	11 U	11 U	12 U	11 U
2,4,6-Trichlorophenol	NA	NA	8.5 U	8.8 U	8.5 U	9.0 U	8.2 U
2,4-Dichlorophenol	NA	NA	8.7 U	9.0 U	8.7 U	9.2 U	8.4 U
2,4-Dimethylphenol	NA	NA	11 U	11 U	11 U	12 U	11 U
2,4-Dinitrophenol	NA	NA	20 U	20 U	20 U	21 U	19 U
2,4-Dinitrotoluene	NA	NA	12 U	13 U	12 U	13 U	12 U
2,6-Dinitrotoluene	NA	NA	13 U	14 U	13 U	14 U	13 U
2-Chloronaphthalene	NA	NA	8.9 U	9.2 U	8.9 U	9.4 U	8.6 U
2-Chlorophenol	NA	NA	9.9 U	10 U	10 U	11 U	9.6 U
2-Methylnaphthalene	NA	NA	10 U	11 U	10 U	11 U	10 U
3,3-Dichlorobenzidine	NA	NA	28 U	29 U	28 U	29 U	27 U
4,6-Dinitro-o-cresol	NA	NA	50 U	51 U	50 U	53 U	48 U
4-Bromophenyl-phenylether	NA	NA	17 U	17 U	17 U	18 U	16 U
4-Chlorophenylphenyl ether	NA	NA	14 U	14 U	14 U	15 U	14 U
Acenaphthene	20,000	500,000	7.9 U	8.2 U	7.9 U	8.4 U	7.7 U
Acenaphthylene	NA	500,000	5.4 U	5.5 U	5.4 U	5.7 U	5.2 U
Acetophenone	NA	NA	11 U	11 U	11 U	12 U	11 U
Anthracene	NA	500,000	12 U	13 U	140 J	13 U	12 U
Atrazine	NA	NA	26 U	27 U	26 U	27 U	25 U
Benzaldehyde	NA	NA	12 U	13 U	12 U	13 U	12 U
Benzo(a)anthracene	NA	5,600	8.8 U	9.1 U	8.8 U	9.4 U	8.5 U
Benzo(a)pyrene	2,600	1,000	11 U	11 U	11 U	11 U	10 U
Benzo(b)fluoranthene	NA	5,600	26 U	27 U	26 U	28 U	36 J
Benzo(ghi)perylene	NA	500,000	27 U	27 U	27 U	28 U	26 U
Benzo(k)fluoranthene	NA	56,000	17 U	17 U	17 U	18 U	16 U
Biphenyl	NA	NA	11 U	11 U	120 J	11 U	10 U
Bis(2-chloroethoxy)methane	NA	NA	8.4 U	8.7 U	8.4 U	8.9 U	8.2 U
Bis(2-chloroethyl)ether	NA	NA	4.8 U	4.9 U	4.8 U	5.1 U	4.6 U
Bis(2-ethylhexyl)phthalate (BEHP)	NA	NA	14 U	14 U	14 U	110 J	81 J
Butyl benzyl phthalate	NA	NA	23 U	24 U	23 U	25 U	22 U
Caprolactam	NA	NA	44 U	45 U	44 U	47 U	43 U
Carbazole	NA	NA	28 U	29 U	28 U	30 U	27 U
Chrysene	NA	56,000	6.8 U	7.0 U	6.8 U	7.2 U	38 J
Dibenzo(a,h)anthracene	NA	560	27 U	28 U	27 U	29 U	26 U
Dibenzofuran	NA	350,000	11 U	12 U	11 U	12 U	11 U
Diethyl phthalate	NA	NA	12 U	13 U	13 U	13 U	12 U
Dimethyl phthalate	NA	NA	11 U	11 U	11 U	11 U	10 U
Di-n-butyl phthalate	NA	NA	17 U	18 U	17 U	18 U	17 U
Di-n-octyl phthalate	NA	NA	13 U	13 U	13 U	14 U	12 U
Fluoranthene	NA	500,000	8.9 U	9.2 U	51 J	9.4 U	64 J
Fluorene	30,000	500,000	9.9 U	10 U	9.9 U	10 U	9.5 U
Hexachlorobenzene	NA	6,000	11 U	11 U	11 U	12 U	11 U
Hexachlorobutadiene	NA	NA	15 U	15 U	15 U	16 U	14 U
Hexachlorocyclopentadiene	NA	NA	19 U	19 U	19 U	20 U	18 U
Hexachloroethane	NA	NA	12 U	12 U	12 U	13 U	12 U
Indeno(1,2,3-cd)pyrene	NA	5,600	9.3 U	9.6 U	9.3 U	9.8 U	9.0 U
Isophorone	NA	NA	12 U	12 U	12 U	13 U	12 U
3-Nitroaniline	NA	NA	24 U	25 U	24 U	26 U	24 U

See next page for footnotes.

Table 11
Glenmere Lake Property
Subsurface Soil Sample Results
TCL Semivolatile Organic Compounds

		Site Id:	SB-08	SB-09	SB-10	SB-11	SB-12
		Sample Id:	SB-8[6-8]	SB-9[4-6]	SB-10[6-8]	SB-11[4-6]	SB-12[0.5-2.5]
		Sample Date:	10/24/2008	10/23/2008	10/23/2008	10/23/2008	10/23/2008
CONSTITUENT		Starting Depth FBLS:	6	4	6	4	0.5
Units in ug/kg		Ending Depth FBLS:	8	6	8	6	2.5
	Ecological Resources SCOs	Commercial Use SCOs					
Naphthalene	NA	500,000	8.8 U	9.1 U	8.9 U	9.4 U	8.6 U
Nitrobenzene	NA	NA	8.6 U	8.9 U	8.6 U	9.1 U	8.3 U
N-Nitrosodiphenylamine	NA	NA	28 U	28 U	28 U	29 U	27 U
N-Nitrosodipropylamine	NA	NA	13 U	14 U	13 U	14 U	13 U
2-Methylphenol	NA	500,000	9.7 U	10 U	9.8 U	10 U	9.4 U
2-Nitroaniline	NA	NA	17 U	18 U	17 U	18 U	17 U
2-Nitrophenol	NA	NA	13 U	14 U	13 U	14 U	13 U
4-Chloroaniline	NA	NA	24 U	25 U	24 U	26 U	23 U
4-Chloro-3-methylphenol	NA	NA	11 U	11 U	11 U	11 U	10 U
Pentachlorophenol	800	6,700	42 U	43 U	42 U	44 U	40 U
4-Methylphenol	NA	500,000	11 U	11 U	11 U	12 U	11 U
Phenanthrene	NA	500,000	11 U	12 U	250 J	12 U	11 U
Phenol	30,000	500,000	10 U	11 U	10 U	11 U	9.9 U
4-Nitroaniline	NA	NA	29 U	30 U	29 U	31 U	28 U
4-Nitrophenol	NA	NA	22 U	22 U	22 U	23 U	21 U
Pyrene	NA	500,000	8.0 U	8.3 U	71 J	8.5 U	64 J
Total PAHs	NA	NA	0	0	512	0	202
Total Semivolatile Organics	NA	NA	0	0	632	110	283

ug/kg	micrograms per kilograms
FBLS	Feet below land surface
NA	Not applicable or not analyzed
U	Not detected
J	Estimated value

Table 11
Glenmere Lake Property
Subsurface Soil Sample Results
TCL Semivolatile Organic Compounds

		Site Id:	SB-13	SB-14	SB-15
		Sample Id:	SB-13[3-5]	SB-14[6-7]	SB-15[10-12]
		Sample Date:	10/23/2008	10/22/2008	10/22/2008
CONSTITUENT		Starting Depth FBLS:	3	6	10
Units in ug/kg		Ending Depth FBLS:	5	7	12
	Ecological Resources SCOs	Commercial Use SCOs			
2,2-oxyblis (1-chloropropane)	NA	NA	14 U	NA	15 U
2,4,5-Trichlorophenol	NA	NA	10 U	NA	11 U
2,4,6-Trichlorophenol	NA	NA	8.1 U	NA	8.7 U
2,4-Dichlorophenol	NA	NA	8.2 U	NA	8.9 U
2,4-Dimethylphenol	NA	NA	10 U	NA	11 U
2,4-Dinitrophenol	NA	NA	18 U	NA	20 U
2,4-Dinitrotoluene	NA	NA	12 U	NA	12 U
2,6-Dinitrotoluene	NA	NA	12 U	NA	13 U
2-Chloronaphthalene	NA	NA	8.4 U	NA	9.1 U
2-Chlorophenol	NA	NA	9.4 U	NA	10 U
2-Methylnaphthalene	NA	NA	9.8 U	NA	11 U
3,3-Dichlorobenzidine	NA	NA	26 U	NA	28 U
4,6-Dinitro-o-cresol	NA	NA	47 U	NA	51 U
4-Bromophenyl-phenylether	NA	NA	16 U	NA	17 U
4-Chlorophenylphenyl ether	NA	NA	13 U	NA	14 U
Acenaphthene	20,000	500,000	7.5 U	7.4 U	8.1 U
Acenaphthylene	NA	500,000	5.1 U	5.0 U	5.5 U
Acetophenone	NA	NA	10 U	NA	11 U
Anthracene	NA	500,000	12 U	12 U	13 U
Atrazine	NA	NA	25 U	NA	26 U
Benzaldehyde	NA	NA	12 U	NA	13 U
Benzo(a)anthracene	NA	5,600	8.4 U	8.3 U	9.0 U
Benzo(a)pyrene	2,600	1,000	10 U	10 U	11 U
Benzo(b)fluoranthene	NA	5,600	25 U	25 U	27 U
Benzo(ghi)perylene	NA	500,000	25 U	25 U	27 U
Benzo(k)fluoranthene	NA	56,000	16 U	16 U	17 U
Biphenyl	NA	NA	10 U	NA	11 U
Bis(2-chloroethoxy)methane	NA	NA	8.0 U	NA	8.6 U
Bis(2-chloroethyl)ether	NA	NA	4.5 U	NA	4.9 U
Bis(2-ethylhexyl)phthalate (BEHP)	NA	NA	13 U	NA	14 U
Butyl benzyl phthalate	NA	NA	22 U	NA	24 U
Caprolactam	NA	NA	42 U	NA	45 U
Carbazole	NA	NA	27 U	NA	29 U
Chrysene	NA	56,000	6.5 U	6.4 U	7.0 U
Dibenzo(a,h)anthracene	NA	560	26 U	25 U	28 U
Dibenzofuran	NA	350,000	11 U	NA	12 U
Diethyl phthalate	NA	NA	12 U	NA	13 U
Dimethyl phthalate	NA	NA	10 U	NA	11 U
Di-n-butyl phthalate	NA	NA	16 U	NA	18 U
Di-n-octyl phthalate	NA	NA	12 U	NA	13 U
Fluoranthene	NA	500,000	8.4 U	8.3 U	9.1 U
Fluorene	30,000	500,000	9.3 U	9.3 U	92 J
Hexachlorobenzene	NA	6,000	10 U	NA	11 U
Hexachlorobutadiene	NA	NA	14 U	NA	15 U
Hexachlorocyclopentadiene	NA	NA	18 U	NA	19 U
Hexachloroethane	NA	NA	11 U	NA	12 U
Indeno(1,2,3-cd)pyrene	NA	5,600	8.8 U	8.7 U	9.5 U
Isophorone	NA	NA	11 U	NA	12 U
3-Nitroaniline	NA	NA	23 U	NA	25 U

See next page for footnotes.

Table 11
Glenmere Lake Property
Subsurface Soil Sample Results
TCL Semivolatile Organic Compounds

		Site Id:	SB-13	SB-14	SB-15
		Sample Id:	SB-13[3-5]	SB-14[6-7]	SB-15[10-12]
		Sample Date:	10/23/2008	10/22/2008	10/22/2008
CONSTITUENT		Starting Depth FBLS:	3	6	10
Units in ug/kg		Ending Depth FBLS:	5	7	12
	Ecological Resources SCOs	Commercial Use SCOs			
Naphthalene	NA	500,000	8.4 U	8.3 U	9.0 U
Nitrobenzene	NA	NA	8.2 U	NA	8.8 U
N-Nitrosodiphenylamine	NA	NA	26 U	NA	28 U
N-Nitrosodipropylamine	NA	NA	13 U	NA	14 U
2-Methylphenol	NA	500,000	9.2 U	NA	10 U
2-Nitroaniline	NA	NA	16 U	NA	18 U
2-Nitrophenol	NA	NA	13 U	NA	14 U
4-Chloroaniline	NA	NA	23 U	NA	25 U
4-Chloro-3-methylphenol	NA	NA	10 U	NA	11 U
Pentachlorophenol	800	6,700	39 U	NA	42 U
4-Methylphenol	NA	500,000	11 U	NA	11 U
Phenanthrene	NA	500,000	11 U	11 U	200 J
Phenol	30,000	500,000	9.7 U	NA	10 U
4-Nitroaniline	NA	NA	27 U	NA	30 U
4-Nitrophenol	NA	NA	21 U	NA	22 U
Pyrene	NA	500,000	7.6 U	7.5 U	8.2 U
Total PAHs	NA	NA	0	0	292
Total Semivolatile Organics	NA	NA	0	NA	292

ug/kg	micrograms per kilograms
FBLS	Feet below land surface
NA	Not applicable or not analyzed
U	Not detected
J	Estimated value

Table 12
Glenmere Lake Property
Subsurface Soil Sample Results
Polychlorinated Biphenyls (PCBs)

			Site Id:	GP-08	SB-03	SB-05	SB-07	SB-08	SB-09	SB-10	SB-11	SB-12	SB-13	SB-15
			Sample Id:	GP-08[11-12]	SB-3[2.5-4.5]	SB-5[3-5]	SB-7[2-4]	SB-8[6-8]	SB-9[4-6]	SB-10[6-8]	SB-11[4-6]	SB-12[0.5-2.5]	SB-13[3-5]	SB-15[10-12]
			Sample Date:	10/22/2008	10/23/2008	10/23/2008	10/23/2008	10/23/2008	10/23/2008	10/23/2008	10/23/2008	10/23/2008	10/23/2008	10/22/2008
CONSTITUENT			Starting Depth FBLS:	11	2.5	3	2	6	4	6	4	0.5	3	10
Units in ug/kg			Ending Depth FBLS:	12	4.5	5	4	8	6	8	6	2.5	5	12
	Ecological Resources SCOs	Commercial Use SCOs												
Aroclor 1016	1000	1000		4.2 U	3.9 U	4.1 U	4.1 U	4.2 U	4.3 U	4.2 U	4.4 U	4.0 U	3.9 U	4.2 U
Aroclor 1221	1000	1000		5.1 U	4.8 U	5.1 U	5.1 U	5.1 U	5.2 U	5.1 U	5.4 U	4.9 U	4.8 U	5.2 U
Aroclor 1232	1000	1000		5.3 U	5.0 U	5.3 U	5.3 U	5.3 U	5.5 U	5.3 U	5.6 U	5.1 U	5.0 U	5.4 U
Aroclor 1242	1000	1000		2.3 U	2.2 U	2.3 U	2.3 U	2.3 U	2.4 U	2.3 U	2.5 U	2.3 U	2.2 U	2.4 U
Aroclor 1248	1000	1000		5.1 U	4.8 U	5.1 U	5.1 U	5.1 U	5.3 U	5.1 U	5.4 U	4.9 U	4.8 U	5.2 U
Aroclor 1254	1000	1000		5.2 U	4.9 U	5.2 U	5.2 U	5.2 U	5.4 U	5.2 U	5.5 U	5.0 U	4.9 U	5.3 U
Aroclor 1260	1000	1000		4.1 U	3.9 U	4.1 U	4.1 U	4.1 U	4.3 U	4.1 U	4.4 U	4.0 U	3.9 U	4.2 U

ug/kg micrograms per kilograms
FBLS Feet below land surface
U Not detected

Table 13
Glenmere Lake Property
Surface Soil Sample Results
Total Petroleum Hydrocarbons (TPHCs)

Site Id:	Sample Id:	Sample Date:	Starting Depth FBLS	Ending Depth FBLS	TPHCs Units in ug/kg
GP-08	GP-08[11-12]	10/22/2008	11	12	14900
SB-05	SB-5[3-5]	10/23/2008	3	5	29200
SB-06	SB-6[4-6]	10/23/2008	4	6	14800
SB-07	SB-7[2-4]	10/23/2008	2	4	37000
SB-08	SB-8[6-8]	10/23/2008	6	8	6820
SB-09	SB-9[4-6]	10/23/2008	4	6	47800
SB-10	SB-10[6-8]	10/23/2008	6	8	1020000
SB-11	SB-11[4-6]	10/23/2008	4	6	13200
SB-12	SB-12[0.5-2.5]	10/23/2008	0.5	2.5	59400
SB-13	SB-13[3-5]	10/23/2008	3	5	6090
SB-14	SB-14[6-7]	10/22/2008	6	7	4770 J
SB-15	SB-15[10-12]	10/22/2008	10	12	208000

ug/kg	micrograms per kilograms
FBLS	Feet below land surface
J	Estimated value

Table 14
Glenmere Lake Property
Subsurface Soil Sample Results
Pesticides

		Site Id:	GP-08	SB-03	SB-05	SB-07	SB-08	SB-09	SB-10	SB-11	SB-12	SB-13	SB-15
		Sample Id:	GP-08[11-12]	SB-3[2.5-4.5]	SB-5[3-5]	SB-7[2-4]	SB-8[6-8]	SB-9[4-6]	SB-10[6-8]	SB-11[4-6]	SB-12[0.5-2.5]	SB-13[3-5]	SB-15[10-12]
		Sample Date:	10/22/2008	10/23/2008	10/23/2008	10/23/2008	10/23/2008	10/23/2008	10/23/2008	10/23/2008	10/23/2008	10/23/2008	10/22/2008
CONSTITUENT		Starting Depth FBLS:	11	2.5	3	2	6	4	6	4	0.5	3	10
Units in ug/kg		Ending Depth FBLS:	12	4.5	5	4	8	6	8	6	2.5	5	12
	Ecological Resources SCOs	Commercial Use SCOs											
4,4-DDD	3.3	92000	0.30 U	0.27 U	0.30 U	0.30 U	0.30 U	0.31 U	0.30 U	0.32 U	0.29 U	0.28 U	0.31 U
4,4-DDE	3.3	62000	0.21 U	0.19 U	0.21 U	***3.5***	0.21 U	0.22 U	0.21 U	0.22 U	***7***	0.20 U	0.22 U
4,4-DDT	3.3	47000	0.18 U	0.16 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.19 U	2.6	0.17 U	0.18 U
Aldrin	140	680	0.18 U	0.16 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.19 U	0.17 U	0.17 U	0.18 U
alpha-BHC	40	3400	0.16 U	0.14 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.15 U	0.15 U	0.16 U
alpha-Chlordane	1300	24000	0.21 U	0.19 U	0.21 U	0.21 U	0.21 U	0.22 U	0.21 U	0.22 U	0.20 U	0.20 U	0.22 U
beta-BHC	600	3000	0.20 U	0.18 U	0.20 U	0.20 U	0.20 U	0.21 U	0.20 U	0.21 U	0.19 U	0.19 U	0.20 U
delta-BHC	40	500000	0.20 U	0.18 U	0.20 U	0.20 U	0.20 U	0.21 U	0.20 U	0.21 U	0.19 U	0.19 U	0.20 U
Dieldrin	0.6	1400	0.21 U	0.19 U	0.21 U	0.21 U	0.21 U	0.22 U	0.21 U	0.22 U	0.20 U	0.20 U	0.22 U
Endosulfan I	NA	200000	0.21 U	0.19 U	0.21 U	0.21 U	0.21 U	0.22 U	0.21 U	0.22 U	0.20 U	0.20 U	0.22 U
Endosulfan II	NA	200000	0.22 U	0.20 U	0.22 U	0.22 U	0.22 U	0.23 U	0.22 U	0.23 U	0.21 U	0.21 U	0.23 U
Endosulfan sulfate	NA	200000	0.26 U	0.23 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.27 U	0.25 U	0.24 U	0.26 U
Endrin	14	89000	0.63 U	0.57 U	0.63 U	0.63 U	0.63 U	0.65 U	0.63 U	0.67 U	0.61 U	0.60 U	0.65 U
Endrin aldehyde	NA	NA	0.22 U	0.20 U	0.22 U	0.22 U	0.22 U	0.23 U	0.22 U	0.23 U	0.21 U	0.21 U	0.23 U
Endrin ketone	NA	NA	0.52 U	0.47 U	0.52 U	0.52 U	0.52 U	0.54 U	0.52 U	0.55 U	0.50 U	0.49 U	0.53 U
gamma-Chlordane	NA	NA	0.20 U	0.18 U	0.20 U	0.20 U	0.20 U	0.21 U	0.20 U	0.21 U	0.19 U	0.19 U	0.20 U
Heptachlor	140	15000	0.17 U	0.15 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.18 U	0.16 U	0.16 U	0.17 U
Heptachlor epoxide	NA	NA	0.21 U	0.19 U	0.21 U	2.8	0.21 U	0.22 U	0.21 U	0.22 U	0.20 U	0.20 U	0.22 U
Lindane	6000	9200	0.18 U	0.16 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.19 U	0.17 U	0.17 U	0.18 U
Methoxychlor	NA	NA	0.23 U	0.21 U	0.23 U	0.23 U	0.23 U	0.24 U	0.23 U	0.25 U	0.23 U	0.22 U	0.24 U
Toxaphene	NA	NA	4.0 U	3.6 U	4.0 U	4.0 U	4.0 U	4.1 U	4.0 U	4.2 U	3.8 U	3.8 U	4.1 U

ug/kg micrograms per kilograms
FBLS Feet below land surface
NA Not applicable
U Not detected
Exceeded Ecological SCOs

Table 15
Glenmere Lake Property
Groundwater Probe Sample Results
Volatile Organic Compounds

	Site Id:	GP-07	GP-08	GP-09	GP-10
CONSTITUENT	Sample Id:	GP-07	GP-08	GP-9	GP-10
Units in ug/l	Sample Date:	10/22/2008	10/22/2008	10/24/2008	10/29/2008
	NYSDEC SCG				
1,1,1-Trichloroethane	5	0.39 U	2.0 U	0.39 U	0.39 U
1,1,2,2-Tetrachloroethane	5	0.37 U	1.8 U	0.37 U	0.37 U
1,1,2-Trichloroethane	1	0.32 U	1.6 U	0.32 U	0.32 U
1,1-Dichloroethane	5	0.67 U	3.4 U	0.67 U	0.67 U
1,1-Dichloroethylene	5	0.67 U	3.4 U	0.67 U	0.67 U
1,2,4-Trichlorobenzene	5	0.39 U	2.0 U	0.39 U	0.39 U
1,2-Dichloroethane	0.6	0.41 U	2.0 U	0.41 U	0.41 U
1,2-Dichloropropane	1	0.46 U	2.3 U	0.46 U	0.46 U
2-Hexanone	50	1.8 U	8.8 U	1.8 U	1.8 U
Acetone	50	2.2 U	11 U	2.2 U	2.2 U
Benzene	1	0.35 U	1.8 U	0.35 U	0.35 U
Benzene, 1-methylethyl-	5	0.37 U	1.8 U	0.37 U	0.37 U
Bromodichloromethane	50	0.23 U	1.2 U	0.23 U	0.23 U
Bromoform	50	0.44 U	2.2 U	0.44 U	0.44 U
Carbon disulfide	60	0.20 U	1.0 U	0.20 U	0.20 U
Carbon tetrachloride	5	0.27 U	1.4 U	0.27 U	0.27 U
Chlorobenzene	5	0.28 U	1.4 U	0.28 U	0.28 U
Chloroethane	5	0.80 U	4.0 U	0.80 U	0.80 U
Chloroform	7	0.45 U	2.2 U	0.45 U	0.45 U
cis-1,2-Dichloroethylene	5	0.72 U	3.6 U	0.72 U	0.72 U
cis-1,3-Dichloropropene	0.4	0.29 U	1.4 U	0.29 U	0.29 U
Cyclohexane	NA	0.57 U	2.8 U	0.57 U	0.57 U
DBCP	0.04	0.58 U	2.9 U	0.58 U	0.58 U
Dibromochloromethane	50	0.23 U	1.2 U	0.23 U	0.23 U
Dichlorodifluoromethane	5	0.88 U	4.4 U	0.88 U	0.88 U
EDB	0.0006	0.26 U	1.3 U	0.26 U	0.26 U
Ethene, 1,2-dichloro-, (E)-	5	0.44 U	2.2 U	0.44 U	0.44 U
Ethylbenzene	5	0.05 U	0.25 U	0.05 U	0.05 U
Freon 113	NA	0.61 U	3.0 U	0.61 U	0.61 U
m-Dichlorobenzene	3	0.28 U	1.4 U	0.28 U	0.28 U
Methyl Acetate	NA	0.45 U	2.2 U	0.45 U	0.45 U
Methyl bromide	5	1.4 U	6.8 U	1.4 U	1.4 U
Methyl chloride	5	0.37 U	1.8 U	0.37 U	0.37 U
Methyl ethyl ketone	50	1.9 U	9.7 U	1.9 U	1.9 U
Methyl isobutylketone (MIBK)	NA	1.8 U	8.8 U	1.8 U	1.8 U
Methylcyclohexane	NA	0.47 U	2.4 U	0.47 U	0.47 U
Methylene chloride	5	0.38 U	1.9 U	0.38 U	0.38 U
Methyltert-butylether	10	0.23 U	1.2 U	0.23 U	0.23 U
o-Dichlorobenzene	3	0.40 U	2.0 U	0.40 U	0.40 U
o-Xylene	5	0.16 U	0.80 U	0.16 U	0.16 U
p-Dichlorobenzene	3	0.22 U	1.1 U	0.22 U	0.22 U
p-Xylene	5	0.47 U	2.4 U	0.47 U	0.47 U
Styrene	5	0.19 U	0.95 U	0.19 U	0.19 U
Tetrachloroethylene	5	0.97 U	4.8 U	0.97 U	0.97 U
Toluene	5	0.16 U	0.80 U	0.16 U	0.16 U
trans-1,3-Dichloropropene	0.4	0.31 U	1.6 U	0.31 U	0.31 U
Trichloroethylene	5	0.34 U	1.7 U	0.34 U	0.34 U
Trichlorofluoromethane	5	0.53 U	2.6 U	0.53 U	0.53 U
Vinyl chloride	2	0.30 U	1.5 U	0.30 U	0.30 U

ug/l micrograms per liter
U Not detected
NA Not applicable

Table 16
Glenmere Lake Property
Groundwater Probe Sample Results
Semivolatile Organic Compounds

CONSTITUENT	Site Id:	GP-07	GP-08	GP-09	GP-10
	Sample Id:	GP-07	GP-08	GP-9	GP-10
Units in ug/l	Sample Date:	10/22/2008	10/22/2008	10/24/2008	10/29/2008
	NYSDEC SCG				
2,2-oxyblis (1-chloropropane)	NA	0.280 U	0.280 U	0.280 U	0.280 U
2,4,5-Trichlorophenol	1	0.390 U	0.390 U	0.400 U	0.390 U
2,4,6-Trichlorophenol	1	0.360 U	0.360 U	0.360 U	0.360 U
2,4-Dichlorophenol	5	0.350 U	0.350 U	0.350 U	0.350 U
2,4-Dimethylphenol	50	0.780 U	0.780 U	0.790 U	0.780 U
2,4-Dinitrophenol	10	0.650 U	0.660 U	0.670 U	0.660 U
2,4-Dinitrotoluene	5	0.350 U	0.350 U	0.350 U	0.350 U
2,6-Dinitrotoluene	5	0.360 U	0.360 U	0.360 U	0.360 U
2-Chloronaphthalene	10	0.230 U	0.240 U	0.240 U	0.240 U
2-Chlorophenol	1	0.340 U	0.340 U	0.340 U	0.340 U
2-Methylnaphthalene	NA	0.380 U	4.0J	0.390 U	0.380 U
3,3-Dichlorobenzidine	5	1.1 U	1.1 U	1.1 U	1.1 U
4,6-Dinitro-o-cresol	NA	0.300 U	0.300 U	0.300 U	0.300 U
4-Bromophenyl-phenylether	NA	1.4 U	1.4 U	1.5 U	1.4 U
4-Chlorophenylphenyl ether	NA	0.300 U	0.300 U	0.300 U	0.300 U
Acenaphthene	20	0.330 U	4.2J	0.330 U	0.330 U
Acenaphthylene	NA	0.360 U	1.9J	0.360 U	0.360 U
Acetophenone	NA	0.380 U	0.380 U	0.390 U	0.380 U
Anthracene	50	1.4 U	1.5 U	1.5 U	1.5 U
Atrazine	NA	0.380 U	0.380 U	0.390 U	0.380 U
Benzaldehyde	NA	0.280 U	0.280 U	0.280 U	0.280 U
Benzo(a)anthracene	0.002	1.3 U	1.3 U	1.4 U	1.3 U
Benzo(a)pyrene	0	0.220 U	0.230 U	0.230 U	0.230 U
Benzo(b)fluoranthene	0.002	0.440 U	0.440 U	0.450 U	0.440 U
Benzo(ghi)perylene	NA	0.400 U	0.400 U	0.410 U	0.400 U
Benzo(k)fluoranthene	0.002	0.310 U	0.310 U	0.310 U	0.310 U
Biphenyl	NA	0.330 U	9.5J	0.330 U	0.330 U
Bis(2-chloroethoxy)methane	5	0.340 U	0.340 U	0.340 U	0.340 U
Bis(2-chloroethyl)ether	1	0.290 U	0.290 U	0.290 U	0.290 U
Bis(2-ethylhexyl)phthalate (BEHP)	5	1.3 U	1.3 U	1.4 U	1.3 U
Butyl benzyl phthalate	50	0.430 U	0.430 U	0.440 U	0.430 U
Caprolactam	NA	1.5 U	1.5 U	1.5 U	1.5 U
Carbazole	NA	0.240 U	0.250 U	0.250 U	0.250 U
Chrysene	0.002	0.270 U	0.270 U	0.270 U	0.270 U
Dibenzo(a,h)anthracene	NA	0.550 U	0.560 U	0.560 U	0.560 U
Dibenzofuran	NA	0.320 U	3.9J	0.320 U	0.320 U
Diethyl phthalate	50	0.330 U	0.330 U	0.330 U	0.330 U
Dimethyl phthalate	50	0.280 U	0.280 U	0.280 U	0.280 U
Di-n-butyl phthalate	50	6.0 U	6.0 U	6.1 U	6.0 U
Di-n-octyl phthalate	50	0.270 U	0.270 U	0.270 U	0.270 U
Fluoranthene	50	0.200 U	0.210 U	0.210 U	0.210 U
Fluorene	50	0.290 U	7.7J	0.290 U	0.290 U
Hexachlorobenzene	0.04	0.280 U	0.280 U	0.280 U	0.280 U
Hexachlorobutadiene	0.5	0.400 U	0.400 U	0.410 U	0.400 U
Hexachlorocyclopentadiene	5	0.570 U	0.580 U	0.580 U	0.580 U
Hexachloroethane	5	0.230 U	0.240 U	0.240 U	0.240 U
Indeno(1,2,3-cd)pyrene	0.002	0.670 U	0.680 U	0.690 U	0.680 U
Isophorone	50	0.270 U	0.270 U	0.270 U	0.270 U
m-Nitroaniline	5	0.360 U	0.360 U	0.360 U	0.360 U

See next page for footnotes.

Table 16
Glenmere Lake Property
Groundwater Probe Sample Results
Semivolatile Organic Compounds

CONSTITUENT	Site Id:	GP-07	GP-08	GP-09	GP-10
	Sample Id:	GP-07	GP-08	GP-9	GP-10
Units in ug/l	Sample Date:	10/22/2008	10/22/2008	10/24/2008	10/29/2008
	NYSDEC SCG				
Naphthalene	10	0.290 U	0.290 U	0.290 U	0.290 U
Nitrobenzene	0.4	0.340 U	0.340 U	0.340 U	0.340 U
N-Nitrosodiphenylamine	50	0.360 U	0.360 U	0.360 U	0.360 U
N-Nitrosodipropylamine	NA	0.350 U	0.350 U	0.350 U	0.350 U
o-Cresol	1	0.370 U	0.370 U	0.380 U	0.370 U
o-Nitroaniline	5	0.260 U	0.260 U	0.260 U	0.260 U
o-Nitrophenol	1	0.290 U	0.290 U	0.290 U	0.290 U
p-Chloroaniline	5	0.940 U	0.950 U	0.960 U	0.950 U
p-Chloro-m-cresol	1	0.220 U	0.230 U	0.230 U	0.230 U
PCP	1	0.530 U	0.540 U	0.540 U	0.540 U
p-Cresol	1	0.400 U	0.400 U	0.410 U	0.400 U
Phenanthrene	50	1.4 U	9.1J	1.4 U	1.4 U
Phenol	1	0.560 U	0.570 U	0.570 U	0.570 U
p-Nitroaniline	5	0.370 U	0.370 U	0.380 U	0.370 U
p-Nitrophenol	1	1.8 U	1.8 U	1.8 U	1.8 U
Pyrene	50	1.4 U	1.5 U	1.5 U	1.5 U
Total PAHs	NA	0	26.8	0	0
Total Semivolatile Organics	NA	0	40.3	0	0

ug/l micrograms per liter
U Not detected
NA Not applicable

Table 17
Glenmere Lake Property
Groundwater Probe Sample Results
Metals (Filtered and Unfiltered)

CONSTITUENT Units in ug/l	Site Id: Sample Id: Sample Date: Type:	NYSDEC SCG	GP-07 GP-07 10/22/2008 Unfiltered	GP-07 GP-07 10/22/2008 Filtered	GP-08 GP-08 10/22/2008 Unfiltered	GP-08 GP-08 10/22/2008 Filtered	GP-09 GP-9 10/24/2008 Unfiltered	GP-09 GP-9 10/24/2008 Filtered	GP-10 GP-10 10/29/2008 Unfiltered	GP-10 GP-10 10/29/2008 Filtered
Aluminum		NA	28800	1410	62000	174	8680	765	16400	976
Antimony		3	9.500 U	9.500 U	9.500 U	9.500 U	9.500 U	9.500 U	9.500 U	9.500 U
Arsenic		25	7.550J	5.400 U	18.1	5.400 U	5.400 U	5.400 U	5.400 U	5.400 U
Barium		1000	133	11.8J	282	11.2 U	55.8	21.6J	52.4	11.2 U
Beryllium		3	1.380J	0.300 U	2.860J	0.300 U	0.300 U	0.300 U	0.620J	0.300 U
Cadmium		5	0.900 U	0.900 U	0.900 U	0.900 U	0.900 U	0.900 U	2.350J	0.900 U
Calcium		NA	45100	32200	35400	23100	16100	15600	10900	11100
Chromium		50	***97.4***	2.230J	***75.8***	1.400 U	9.22	21.8	20	1.540J
Cobalt		NA	24.2	2.500 U	60.5	2.500 U	9.350J	2.570J	13.3J	2.500 U
Copper		200	102	3.950J	164	3.700 U	15.5	3.700 U	35.8	3.700 U
Iron		300	***59600***	***2110***	***107000***	176	***11600***	***642***	***26700***	***776***
Lead		25	***71.6***	7.85	***171***	4.770J	20.7	4.960J	***32.8***	6.1
Magnesium		35000	15900	5470	26200	4600	5920	3390	8960	3640
Manganese		300	***2150***	215	***8900***	***3100***	***2170***	***1770***	***1380***	152
Mercury		0.7	0.06 U	0.06 U	0.14J	0.06 U	0.06 U	0.06 U	0.07J	0.06 U
Nickel		100	60.9	4.900 U	***110***	4.900 U	15.5J	27.4	26.6	4.900 U
Potassium		NA	6300	1560	7500	1050	5750	4540	6440	4200
Selenium		10	4.500 U	4.500 U	4.500 U	4.500 U	4.500 U	4.500 U	4.500 U	4.500 U
Silver		50	8.38	1.700 U	15	1.700 U	2.300J	1.700 U	4.690J	1.700 U
Sodium		20000	***27500***	***25800***	***26800***	***22800***	***36700***	***36600***	18900	17900
Thallium		0.5	3.100 U	3.100 U	3.100 U	3.100 U	3.100 U	3.100 U	3.100 U	3.100 U
Vanadium		NA	41.3	4.100 U	82.7	4.100 U	13.1J	4.100 U	23	4.100 U
Zinc		2000	145	11.6J	295	9.040J	40.8	19.3J	76.8	26.1

ug/l micrograms per liter
NA Not applicable or not analyzed
U Not detected
J Estimated value
Exceeded SCG

Table 18
Glenmere Lake Property
Groundwater Probe Sample Results
Polychlorinated Biphenyls (PCBs)

	Site Id:	GP-07	GP-08	GP-09	GP-10
CONSTITUENT	Sample Id:	GP-07	GP-08	GP-9	GP-10
Units in ug/l	Sample Date:	10/22/2008	10/22/2008	10/24/2008	10/29/2008
	NYSDEC SCG				
Aroclor 1016	0.1	0.146 U	0.146 U	0.145 U	0.146 U
Aroclor 1221	0.1	0.116 U	0.116 U	0.115 U	0.116 U
Aroclor 1232	0.1	0.119 U	0.119 U	0.117 U	0.119 U
Aroclor 1242	0.1	0.075 U	0.075 U	0.075 U	0.075 U
Aroclor 1248	0.1	0.104 U	0.104 U	0.103 U	0.104 U
Aroclor 1254	0.1	0.143 U	0.143 U	0.142 U	0.143 U
Aroclor 1260	0.1	0.0920 U	0.0920 U	0.0910 U	0.0920 U

ug/l micrograms per liter
U Not detected

Table 19
Glenmere Lake Property
Groundwater Probe Sample Results
Pesticides

CONSTITUENT	Site Id:	GP-07	GP-08	GP-09	GP-10
	Sample Id:	GP-07	GP-08	GP-9	GP-10
Units in ug/l	Sample Date:	10/22/2008	10/22/2008	10/24/2008	10/29/2008
	NYSDEC SCG				
4,4-DDD	0	0.0072 U	0.0072 U	0.0072 U	0.0072 U
4,4-DDE	0	0.0074 U	0.0074 U	0.0073 U	0.0074 U
4,4-DDT	0	0.0066 U	0.0066 U	0.0065 U	0.0066 U
Aldrin	0	0.0308 U	0.0308 U	0.0305 U	0.0308 U
alpha-BHC	0	0.0065 U	0.0065 U	0.0064 U	0.0065 U
alpha-Chlordane	NA	0.0078 U	0.0078 U	0.0078 U	0.0078 U
beta-BHC	0	0.0072 U	0.0072 U	0.0072 U	0.0072 U
delta-BHC	0	0.0516 U	0.0516 U	0.0510 U	0.0516 U
Dieldrin	0	0.0076 U	0.0076 U	0.0075 U	0.0076 U
Endosulfan I	NA	0.0078 U	0.0078 U	0.0077 U	0.0078 U
Endosulfan II	NA	0.0075 U	0.0075 U	0.0074 U	0.0075 U
Endosulfan sulfate	NA	0.0089 U	0.0089 U	0.0088 U	0.0089 U
Endrin	0	0.0071 U	0.0071 U	0.0071 U	0.0071 U
Endrin aldehyde	5	0.0091 U	0.0091 U	0.0090 U	0.0091 U
Endrin ketone	5	0.0080 U	0.0080 U	0.0079 U	0.0080 U
gamma-Chlordane	NA	0.0080 U	0.0080 U	0.0079 U	0.0080 U
Heptachlor	0	0.0234 U	0.0234 U	0.0232 U	0.0234 U
Heptachlor epoxide	0	0.0125 U	0.0125 U	0.0124 U	0.0125 U
Lindane	0	0.0073 U	0.0073 U	0.0072 U	0.0073 U
Methoxychlor	35	0.0074 U	0.0074 U	0.0073 U	0.0074 U
Toxaphene	0	0.0928 U	0.0928 U	0.0918 U	0.0928 U

ug/l	micrograms per liter
U	Not detected
NA	Not applicable

Table 20
Glenmere Lake Property
Sediment Sample Results
Target Analyte List (TAL) Metals

CONSTITUENT			Site Id:	SED-01	SED-02	SED-03	SED-04	SED-04-1	SED-04-2	SED-04-3	SED-04-4	SED-04-5	SED-05	SED-05-1
			Sample Id:	SED-01	SED-02	SED-03	SED-04	SED-04-1	SED-04-2	SED-04-3	SED-04-4	SED-04-5	SED-05	SED-05-1
Units in mg/kg			Sample Date:	10/29/2008	10/29/2008	10/29/2008	10/29/2008	5/21/2009	5/21/2009	5/21/2009	5/21/2009	5/21/2009	10/29/2008	5/21/2009
	Sediment Lowest Effect Level	Sediment Severe Effect Level												
Aluminum	NA	NA		11300	13300	12400	9400	12600	11600	11300	9800	7460	3100	16800
Antimony	2	25		4.010 U	***5.79***	0.606 U	2.190 U	***5.140 J***	0.68 J	1.460 J	1.160 J	1.400 J	7.650 U	1.130 J
Arsenic	6	33		***8.41***	5.9	***9.41***	***20.2***	***176***	4.09	23.9	9.25	***27***	***86***	***14.5***
Barium	NA	NA		102	97.4	17.8	60.5	237	76.2	103	108	93	64.7	108
Beryllium	NA	NA		0.595 J	0.811	0.543	0.420 J	0.94 J	0.5	0.48	0.43	0.31 J	0.185 U	0.68
Cadmium	0.6	9		***2.14***	***2.97***	***2.21***	***1.43***	***2.51***	0.58	0.75	1.55	***0.81***	***2.55***	***1.03***
Calcium	NA	NA		4370	4220	424	3610	18500 J	1160 J	4880 J	2420 J	4630 J	7380	4370 J
Chromium	26	110		15.5	20.4	15.1	18.4	***35.2***	15.1	16.4	20.3	12.4	5.69	22.2
Cobalt	NA	NA		5.04	7.24	8.64	4.66	15.6	5.41	5.08	8.85	5.61	7.800 J	7.33
Copper	16	110		***134***	***225***	***60.1***	***194***	***1350***	***45.8***	***128***	***38.4***	***376***	***900***	***110***
Iron	20000	40000		NA	15900	***25200***	11300	***47100 J***	16600 J	13500 J	13700 J	14200 J	16300	14800 J
Lead	31	110		***63.9***	***231***	***46.6***	***506***	***859***	***530***	***463***	***561***	***338***	***106***	***227***
Magnesium	NA	NA		2970	3650	6210	2420	3570 J	4370 J	2920 J	3080 J	1960 J	1210	4560 J
Manganese	460	1,100		269	161	334	455	***1490 J***	158 J	***464 J***	402 J	***578 J***	***529***	244 J
Mercury	0.15	1.3		0.016 J	0.055 J	0.032	***0.466***	***6.5 J D***	***2.6 J D***	***2.6 J D***	***0.328 J D***	***3.1 J D***	0.108 J	***1.1 J D***
Nickel	16	50		15.8	***19.4***	***21.4***	13.3	***19.9***	15.9	12.2	13.6	9.71	7.900 J	***20.1***
Potassium	NA	NA		761	822	466	603	1330	513	824	598	645	1120	1040
Selenium	NA	NA		2.650 U	1.820 U	0.401 U	1.450 U	10.8	0.28 J	4.02	1.42	3.91	5.060 U	1.95
Silver	1	2.2		***3.12***	***3.21***	***4.61***	***2.22***	0.61 U	0.05 U	0.21 U	0.10 U	0.22 U	***2.830 J***	0.10 U
Sodium	NA	NA		1330	933	74.1	230	1340	90.6	434	207	409	823	331
Thallium	NA	NA		3.200 U	2.200 U	0.484 U	1.750 U	1.100 U	0.09 U	0.38 U	0.18 U	0.40 U	6.110 U	0.18 U
Vanadium	NA	NA		27.1	25.3	17.4	20.9	42	17.7	24.2	17.7	18.8	22.1	27.3
Zinc	120	270		***132***	***266***	72.3	112	***424***	***163***	***158***	***307***	***185***	***234***	***291***

mg/kg	milligrams per kilograms
NA	Not applicable or not analyzed
U	Not detected
J	Estimated value
D	Detected at secondary dilution
Exceeded Lowest Level	
Exceeded Severe Level	

Table 20
Glenmere Lake Property
Sediment Sample Results
Target Analyte List (TAL) Metals

CONSTITUENT			Site Id:	SED-05-2	SED-05-3	SED-05-4	SED-05-5	SED-06	SED-07	SED-08	SED-09	SED-10
			Sample Id:	SED-05-2	SED-05-3	SED-05-4	SED-05-5	SED-06	SED-07	SED-08	SED-09	SED-10
Units in mg/kg			Sample Date:	5/21/2009	5/21/2009	5/21/2009	5/21/2009	5/20/2009	5/20/2009	5/21/2009	5/21/2009	5/21/2009
	Sediment Lowest Effect Level	Sediment Severe Effect Level										
Aluminum	NA	NA		12900	13000	12400	12400	18300 D	13000 D	3870	14500 D	12700
Antimony	2	25		***3.770 J***	***4.300 J***	0.61 J	1.590 J	0.51 J	0.43 J	0.21 J	0.42 J	1.86
Arsenic	6	33		***149***	***41***	***8.74***	3.04	3.7	3.7	1.78	2.07	***7.08***
Barium	NA	NA		230	457	72.4	50.4	40.7	21.2	8.07	30.8	92.2
Beryllium	NA	NA		0.67 J	0.55 J	0.54	0.68	0.54	0.48	0.21	0.47	0.42
Cadmium	0.6	9		***3.05***	***2.8***	0.53	***4.68***	***1.38***	***1.02***	***0.8***	***1.21***	***0.9***
Calcium	NA	NA		14000 J	8670 J	1920 J	3980 J	619 J	437 J	118000 D J	946 J	2450 J
Chromium	26	110		20.2	21.7	13.8	17.1	22.2	16.8	6.09	18.4	***28.2***
Cobalt	NA	NA		13.2	8.62	8.38	20.3	11.2	9.13	2.55	9.76	7.2
Copper	16	110		***398***	***215***	***37.1***	***120***	***71.7***	***52.6***	***36.2***	***33***	***159***
Iron	20000	40000		***40300 J***	***20900 J***	14500 J	17400 J	***28500 J***	***24000 J***	6350 J	***24200 J***	***25500 J***
Lead	31	110		***428***	***801***	***88.8***	***223***	***44.7***	22.9	8.05	24.2	***692***
Magnesium	NA	NA		3700 J	3690 J	2850 J	3890 J	8980 J	7200 J	70900 D J	8790 J	6250 J
Manganese	460	1,100		***1420 J***	***560 J***	453 J	375 J	435 J	426 J	174 J	258 J	***899 J***
Mercury	0.15	1.3		***0.516 J D***	0.256 J U	0.061 J U	0.091 J U	0.028 J U	0.025 J U	0.025 J U	0.028 J U	***0.236 J D***
Nickel	16	50		***16.9***	***17.4***	12.2	***25.7***	***28.6***	***23.7***	6.87	***28.5***	***22.7***
Potassium	NA	NA		1400	1210	501	1070	578	374	295	530	610
Selenium	NA	NA		9.23	7.38	1.29	3.77	0.12 U	0.10 U	0.10 U	0.12 U	1.14
Silver	1	2.2		0.48 U	0.38 U	0.09 U	0.14 U	0.04 U	0.04 U	0.04 U	0.04 U	0.10 U
Sodium	NA	NA		1270	868	186	291	62.9	55.9	112	102	541
Thallium	NA	NA		0.86 U	0.69 U	0.16 U	0.25 U	0.08 U	0.07 U	0.07 U	0.08 U	0.19 U
Vanadium	NA	NA		41.4	34.1	19.9	31	22.9	16.9	7.74	18.6	22.7
Zinc	120	270		***478***	***698***	***136***	***191***	74.8	54.1	30.5	83.8	***217***

mg/kg	milligrams per kilograms
NA	Not applicable or not analyzed
U	Not detected
J	Estimated value
D	Detected at secondary dilution
Exceeded Lowest Level	
Exceeded Severe Level	

Table 21
Glenmere Lake Property
Sediment Sample Results
TCL Semivolatile Organic Compounds

CONSTITUENT			Site Id:	SED-01	SED-02	SED-03	SED-04	SED-05
			Sample Id:	SED-01	SED-02	SED-03	SED-04	SED-05
Units in ug/kg			Sample Date:	10/29/2008	10/29/2008	10/29/2008	10/29/2008	10/29/2008
	Wildlife Bioaccumulation Criteria*	Human Health Bioaccumulation Criteria*						
2,2-oxyblis (1-chloropropane)	NA	NA		140 U	91 U	20 U	71 U	270 U
2,4,5-Trichlorophenol	NA	NA		98 U	65 U	14 U	51 U	200 U
2,4,6-Trichlorophenol	NA	NA		77 U	51 U	11 U	40 U	150 U
2,4-Dichlorophenol	NA	NA		78 U	52 U	12 U	41 U	160 U
2,4-Dimethylphenol	NA	NA		99 U	66 U	15 U	52 U	200 U
2,4-Dinitrophenol	NA	NA		180 U	120 U	26 U	92 U	350 U
2,4-Dinitrotoluene	NA	NA		110 U	73 U	16 U	57 U	220 U
2,6-Dinitrotoluene	NA	NA		120 U	79 U	17 U	62 U	240 U
2-Chloronaphthalene	NA	NA		80 U	53 U	12 U	42 U	160 U
2-Chlorophenol	NA	NA		90 U	60 U	13 U	47 U	180 U
2-Methylnaphthalene	NA	NA		93 U	62 U	14 U	49 U	190 U
3,3-Dichlorobenzidine	NA	NA		250 U	170 U	37 U	130 U	500 U
4,6-Dinitro-o-cresol	NA	NA		450 U	300 U	66 U	230 U	890 U
4-Bromophenyl-phenylether	NA	NA		150 U	100 U	22 U	79 U	300 U
4-Chlorophenylphenyl ether	NA	NA		130 U	84 U	19 U	66 U	250 U
Acenaphthene	NA	NA		71 U	48 U	11 U	38 U	140 U
Acenaphthylene	NA	NA		48 U	32 U	7.1 U	25 U	96 U
Acetophenone	NA	NA		98 U	66 U	14 U	52 U	200 U
Anthracene	NA	NA		110 U	74 U	16 U	58 U	220 U
Atrazine	NA	NA		230 U	160 U	34 U	120 U	470 U
Benzaldehyde	NA	NA		110 U	74 U	16 U	58 U	220 U
Benzo(a)anthracene	NA	NA		79 U	53 U	12 U	42 U	160 U
Benzo(a)pyrene	NA	NA		97 U	65 U	14 U	51 U	190 U
Benzo(b)fluoranthene	NA	NA		240 U	160 U	35 U	130 U	470 U
Benzo(ghi)perylene	NA	NA		240 U	160 U	35 U	130 U	480 U
Benzo(k)fluoranthene	NA	NA		150 U	100 U	22 U	80 U	300 U
Biphenyl	NA	NA		98 U	65 U	14 U	51 U	190 U
Bis(2-chloroethoxy)methane	NA	NA		76 U	51 U	11 U	40 U	150 U
Bis(2-chloroethyl)ether	NA	300		43 U	29 U	6.4 U	23 U	86 U
Bis(2-ethylhexyl)phthalate (BEHP)	NA	NA		130 U	84 U	19 U	66 U	250 U
Butyl benzyl phthalate	NA	NA		210 U	140 U	31 U	110 U	420 U
Caprolactam	NA	NA		400 U	260 U	58 U	210 U	790 U
Carbazole	NA	NA		250 U	170 U	37 U	130 U	500 U
Chrysene	NA	NA		61 U	41 U	9.0 U	32 U	120 U
Dibenzo(a,h)anthracene	NA	NA		240 U	160 U	36 U	130 U	480 U
Dibenzofuran	NA	NA		100 U	68 U	15 U	54 U	200 U
Diethyl phthalate	NA	NA		110 U	75 U	17 U	59 U	220 U
Dimethyl phthalate	NA	NA		96 U	64 U	14 U	51 U	190 U
Di-n-butyl phthalate	NA	NA		150 U	100 U	23 U	82 U	310 U
Di-n-octyl phthalate	NA	NA		120 U	77 U	17 U	61 U	230 U
Fluoranthene	NA	NA		80 U	53 U	12 U	42 U	160 U
Fluorene	NA	NA		89 U	59 U	13 U	47 U	180 U
Hexachlorobenzene	120000	1500		100 U	67 U	15 U	52 U	200 U
Hexachlorobutadiene	40000	3000		130 U	89 U	20 U	70 U	270 U
Hexachlorocyclopentadiene	NA	NA		170 U	110 U	25 U	89 U	340 U
Hexachloroethane	NA	NA		110 U	72 U	16 U	57 U	220 U
Indeno(1,2,3-cd)pyrene	NA	NA		84 U	56 U	12 U	44 U	170 U
Isophorone	NA	NA		110 U	72 U	16 U	57 U	220 U
3-Nitroaniline	NA	NA		220 U	150 U	32 U	120 U	440 U

See next page for footnotes.

Table 21
Glenmere Lake Property
Sediment Sample Results
TCL Semivolatile Organic Compounds

CONSTITUENT	Wildlife Bioaccumulation Criteria*	Human Health Bioaccumulation Criteria*	Site Id: SED-01	SED-02	SED-03	SED-04	SED-05
			Sample Id: SED-01	SED-02	SED-03	SED-04	SED-05
Units in ug/kg			Sample Date: 10/29/2008	10/29/2008	10/29/2008	10/29/2008	10/29/2008
Naphthalene	NA	NA	80 U	53 U	12 U	42 U	160 U
Nitrobenzene	NA	NA	77 U	52 U	11 U	41 U	150 U
N-Nitrosodiphenylamine	NA	NA	250 U	170 U	37 U	130 U	500 U
N-Nitrosodipropylamine	NA	NA	120 U	80 U	18 U	63 U	240 U
2-Methylphenol	NA	NA	88 U	59 U	13 U	46 U	180 U
2-Nitroaniline	NA	NA	150 U	100 U	23 U	81 U	310 U
2-Nitrophenol	NA	NA	120 U	81 U	18 U	64 U	240 U
4-Chloroaniline	NA	NA	220 U	140 U	32 U	110 U	430 U
4-Chloro-3-methylphenol	NA	NA	97 U	65 U	14 U	51 U	190 U
Pentachlorophenol	NA	NA	370 U	250 U	55 U	200 U	750 U
4-Methylphenol	NA	NA	100 U	67 U	15 U	190 J	200 U
Phenanthrene	NA	NA	100 U	69 U	15 U	54 U	210 U
Phenol	NA	NA	92 U	61 U	14 U	48 U	180 U
4-Nitroaniline	NA	NA	260 U	170 U	38 U	140 U	520 U
4-Nitrophenol	NA	NA	200 U	130 U	29 U	100 U	390 U
Pyrene	NA	NA	72 U	48 U	11 U	38 U	140 U
Total PAHs	NA	NA	0	0	0	0	0
Total Semivolatile Organics	NA	NA	0	0	0	190	0

ug/kg micrograms per kilograms
NA Not applicable
U Not detected
J Estimated value
* Criteria based on sediment organic carbon content of 1%

Table 22
Glenmere Lake Property
Sediment Sample Results
Polychlorinated Biphenyls (PCBs)

CONSTITUENT Units in ug/kg	Wildlife Bioaccumulation Criteria*	Human Health Bioaccumulation Criteria*	Site Id: Sample Id: Sample Date:	SED-01 SED-01 10/29/2008	SED-02 SED-02 10/29/2008	SED-03 SED-03 10/29/2008	SED-04 SED-04 10/29/2008	SED-05 SED-05 10/29/2008
Aroclor 1016	NA	NA		37 U	25 U	5.5 U	20 U	74 U
Aroclor 1221	NA	NA		46 U	30 U	6.7 U	24 U	91 U
Aroclor 1232	NA	NA		48 U	32 U	7.0 U	25 U	95 U
Aroclor 1242	NA	NA		21 U	14 U	3.1 U	11 U	42 U
Aroclor 1248	NA	NA		46 U	31 U	6.7 U	24 U	92 U
Aroclor 1254	NA	NA		47 U	31 U	6.8 U	25 U	93 U
Aroclor 1260	NA	NA		420	25 U	5.5 U	20 U	74 U
Total PCBs	14	0.008		***420***	0	0	0	0

ug/kg micrograms per kilograms
NA Not applicable
U Not detected
* Criteria based on sediment organic carbon content of 1%

Exceeded Wildlife Bioaccumulation Criteria
Exceeded Human Health Bioaccumulation Criteria

APPENDIX E

BORING LOGS

Dvirka and Bartilucci CONSULTING ENGINEERS
A DIVISION OF WILLIAM F. COSULICH ASSOCIATES, P.C.

	Project No.:	Boring No.: SB-1
	Project Name: Glenmore	Sheet 1 of 1
		By: M.P. Mader
Drilling Contractor: Zebra	Geologist:	Boring Completion Depth: 3'
Driller: Mark Laura Brian Lombardo	Drilling Method: GeoProbe 5' core	Ground Surface Elevation:
Drill Rig: UV 25,	Drive Hammer Weight:	Boring Diameter: 2"
Date Started: 10/24/08	Date Completed: 10/24/08	

Depth (ft.)	Soil Sample No.	Type	Blows Per 6"	Rec	Headspace Analysis FID ppm	PID ppm	CH4 ppm	Sample Description	USCS
-0-						0.		- Top 6" = Dark Brown Organic Top Soil - Moist	
-1.5'-						0.		Brown, Fine to Coarse Gravel w/ some Sand + Trace Silt (Dry)	
-2-									
-3-						0.			
-4-									
-5-									
-6-									
-7-									
-8-									
-9-									
-10-									

Sample Types:
SS =
ST =
D&M =
UC = Undisturbed Core (Dennison Type)

NOTES: Refusal at 2' - 1st attempt
Refusal at 3' - 2nd attempt.

Dvirka and Bartilucci CONSULTING ENGINEERS
A DIVISION OF WILLIAM F. COSULICH ASSOCIATES, P.C.

Project No.:
Project Name: Glenmere

Boring No.: SB-2
Sheet 1 of 1
By: C.M.-P.C.Mendez

Drilling Contractor: Zebra
Driller: Mark Lagra / Brian Lombardo
Drill Rig: UV 25
Date Started: 10/23/08

Geologist:
Drilling Method: Geoprobe 5' core
Drive Hammer Weight:
Date Completed: 10/23/08

Boring Completion Depth: 5 1/2'
Ground Surface Elevation:
Boring Diameter: 2"

Depth (ft.)	Soil Sample No.	Type	Blows Per 6"	Rec	Headspace Analysis FID ppm	PID ppm	CH4 ppm	Sample Description	USCS
-0-						0.		Top 6" = Dark Brown Sand w/some Organics and Trace Silt/Gravel - Moist	
-1.5'-						0.		Light Brown Silt w/some Clay & trace Sand & trace Gravel (Coarse) - Dry	
-2-									
-3-						0.			
-4-						0.			
-5-						0.		Light Brown Silt some clay - Dry Brown Grey Fine to Coarse gravel w/some Sand - Dry	
-6-									
-7-									
-8-									
-9-									
-10-									

Sample Types:
SS =
ST =
D&M =
UC = Undisturbed Core (Dennison Type)

NOTES: Refusal at 5 1/2'

Dvirka and Bartilucci CONSULTING ENGINEERS
A DIVISION OF WILLIAM E. COSULICH ASSOCIATES, P.C.

	Project No.:	Boring No.: SB-3
	Project Name: Glenmere	Sheet 1 of 1
		By: M.P. Monks
Drilling Contractor: Zebra	Geologist:	Boring Completion Depth: 4½'
Driller: Mark L. Brian L.	Drilling Method: GeoProbe 5' core	Ground Surface Elevation:
Drill Rig: UV 25	Drive Hammer Weight:	Boring Diameter: 2"
Date Started: 10/24/08	Date Completed: 10/24/08	

Depth (ft.)	Soil Sample No.	Type	Blows Per 6"	Rec	Headspace Analysis FID ppm	PID ppm	CH4 ppm	Sample Description	USCS
-0-						0.1		Top 6" = Dark Brown Organic Top Soil - moist	
-1.5'-						0.1		Brown Sand w/ coarse gravel & Trace Silt - Dry	
-2-						0.0			
-3-						0.0		Grey-Brown Sand w/ coarse gravel & trace silt - Dry	
-4-									
-5-									
-6-									
-7-									
-8-									
-9-									
-10-									

Sample Types:
SS =
ST =
D&M =
UC = Undisturbed Core (Dennison Type)

NOTES: Refusal at 4½'

Dvirka and Bartilucci CONSULTING ENGINEERS
A DIVISION OF WILLIAM F. COSULICH ASSOCIATES, P.C.

Project No.:	Project Name: Glenmere	Boring No.: SB-4 Sheet 1 of 1 By: M.P. Morka
Drilling Contractor: Zebra Driller: Mark L. & Brian L. Drill Rig: UV-25 Date Started: 10/23/08	Geologist: Drilling Method: GeoProbe 5' core Drive Hammer Weight: Date Completed: 10/23/08	Boring Completion Depth: "5'2" Ground Surface Elevation: Boring Diameter: 2"

Depth (ft.)	Soil Sample No.	Type	Blows Per 6"	Rec	Headspace Analysis FID ppm	PID ppm	CH4 ppm	Sample Description	USCS
-0-						0.		Top 6" = Black Organic Top Soil w/sand & some silt & wood chips - Moist	
-1.5'-						0.		- Brown Fine to Coarse Sand w/some gravel & trace silt - Dry	
-2-						0.			
-3-						0.			
-4-									
-5-						0.		Grey Stone Dust - Dry	
-6-									
-7-									
-8-									
-9-									
-10-									

Sample Types:
SS =
ST =
D&M =
UC = Undisturbed Core (Dennison Type)

NOTES: Refusal at 5'2".

BjD&B.d

Dvirka and Bartilucci CONSULTING ENGINEERS
A DIVISION OF WILLIAM F. COSULICH ASSOCIATES, P.C.

Project No.:
Project Name: Glenmere

Boring No.: SB-5
Sheet 1 of 1
By: M.P. Mosher

Drilling Contractor: Zebra
Driller: Mark L. & Brian L.
Drill Rig: LV-25
Date Started: 10/23/08

Geologist:
Drilling Method: GeoProbe 5' Core
Drive Hammer Weight:
Date Completed: 10/23/08

Boring Completion Depth: "8 1/2'
Ground Surface Elevation:
Boring Diameter: 2"

Depth (ft.)	Soil Sample No.	Type	Blows Per 6"	Rec	Headspace Analysis FID ppm	PID ppm	CH4 ppm	Sample Description	USCS
-0-						0		Top 4" = Black organic Top Soil - moist	
-1.5'-						1.1		Brown Sand w/some Coarse gravel & trace silt Dry	
-2-						2.2			
-3-						2.6			
-4-									
-5-						0.3		Brown Sand w/some Coarse gravel & trace Silt. Dry	
-6-						0.5			
-7-									
-8-						0.5		Grey Gravel w/Some sand - Dry	
-9-									
-10-									

Sample Types:
SS =
ST =
D&M =
UC = Undisturbed Core (Dennison Type)

NOTES: Refusal at 8 1/2' - 3 attempts

B:\D&B.d

Dvirka and Bartilucci CONSULTING ENGINEERS
A DIVISION OF WILLIAM F. COSULICH ASSOCIATES, P.C.

	Project No.: Project Name: Glenmere	Boring No.: SB-6 Sheet 1 of 1 By: M.P. Marks
Drilling Contractor: Zebra Driller: Mark L. & Brian L. Drill Rig: UV-25 Date Started: 10/23/08	Geologist: Drilling Method: Geoprobe-5' core Drive Hammer Weight: Date Completed: 10/23/08	Boring Completion Depth: 6' Ground Surface Elevation: Boring Diameter: 2"

Depth (ft.)	Soil Sample No.	Type	Blows Per 6"	Rec	Headspace Analysis FID ppm	PID ppm	CH4 ppm	Sample Description	USCS
-0-						0.		Top 4" - Dark Brown Top Soil - Sand w/trace silt - moist	
-1.5'-						0.		Brown Sand w/some gravel & trace Silt - Dry	
-2-								Brown Sand w/trace gravel - Dry	
-3-						0.			
-4-									
-5-						0.		Grey-Brown Sand w/some Coarse gravel & trace silt - Dry	
-6-									
-7-									
-8-									
-9-									
-10-									

Sample Types:
SS =
ST =
D&M =
UC = Undisturbed Core (Dennison Type)

NOTES: Refusal at 6' - 2 attempts

BgD&B.d

Dvirka and Bartilucci CONSULTING ENGINEERS
A DIVISION OF WILLIAM F. COSULICH ASSOCIATES, P.C.

	Project No.:	Boring No.: SB-7 ✓
	Project Name: Glenmere	Sheet 1 of 1
		By: M.P. Morlan
Drilling Contractor: Zebra	Geologist:	Boring Completion Depth: 4'
Driller: Mark L. & Brian L.	Drilling Method: Geoprobe 5' core	Ground Surface Elevation:
Drill Rig: UV-25	Drive Hammer Weight:	Boring Diameter: 2"
Date Started: 10/24/08	Date Completed: 10/24/08	

Depth (ft.)	Soil Sample No.	Type	Blows Per 6"	Rec	Headspace Analysis FID ppm	PID ppm	CH4 ppm	Sample Description	USCS
-0-						0.		2" Dark Brown organic Top Soil-Moist; Brown Sand w/some gravel & trace silt - Dry	
-1.5'-						0.		Grey-Brown Sand w/some gravel & Trace silt. - Dry	
-2-						0.		Brown Sand w/some gravel & trace silt - Dry	
-3-						0.			
-4-									
-5-									
-6-									
-7-									
-8-									
-9-									
-10-									

Sample Types:
SS =
ST =
D&M =
UC = Undisturbed Core (Dennison Type)

NOTES: Refusal at 4'

Dvirka and Bartilucci CONSULTING ENGINEERS
A DIVISION OF WILLIAM F. COSULICH ASSOCIATES, P.C.

	Project No.: Glenmere Project Name:	Boring No.: SB-8 ✓ Sheet 1 of 1 By: W.P. Mark
Drilling Contractor: Zebra Driller: Mark L. / Brian L. Drill Rig: UV25 Date Started: 10/24/08	Geologist: Drilling Method: Geoprobe 5' Core Drive Hammer Weight: Date Completed: 10/24/08	Boring Completion Depth: "8' Ground Surface Elevation: Boring Diameter: 2"

Depth (ft.)	Soil Sample No.	Type	Blows Per 6"	Rec	Headspace Analysis FID ppm	PID ppm	CH4 ppm	Sample Description	USCS
-0-						0.		Top 4" = Dark Brown Organic Topsoil - Moist Brown Sand w/some gravel - Dry	
-1.5'-						0.		Light Brown Sand w/silt & trace gravel - Dry	
-2-									
-3-						0.			
-4-						0.			
-5-						0.		Light Brown Sand w/silt & trace gravel - Dry	
-6-						0.			
-7-						0.			
-8-									
-9-									
-10-									

Sample Types:
SS =
ST =
D&M =
UC = Undisturbed Core (Dennison Type)

NOTES: Refusal at 8'

Dvirka and Bartilucci CONSULTING ENGINEERS
A DIVISION OF WILLIAM F. COSULICH ASSOCIATES, P.C.

Project No.: Glenmere
Project Name:

Boring No.: SB-9
Sheet 1 of 1
By: M.P. Mark

Drilling Contractor: Zebra
Driller: Mark L / Brian L.
Drill Rig: UV 25
Date Started: 10/23/08

Geologist:
Drilling Method: Geoprobe 5' Core
Drive Hammer Weight:
Date Completed: 10/23/08

Boring Completion Depth: "6'
Ground Surface Elevation:
Boring Diameter: 2"

Depth (ft.)	Soil Sample No.	Type	Blows Per 6"	Rec	Headspace Analysis FID ppm	PID ppm	CH4 ppm	Sample Description	USCS
-0-						0		Top 6" = Dark Brown Organic Top Soil - moist Grey Fine to Coarse gravel w/some Sand - Dry	
-1.5'-						0		Brown Sand w/some Fine to Coarse gravel a trace silt - Dry	
-2-						0			
-3-								Light Brown Silt w/some clay a trace gravel - Dry	
-4-						0			
-5-						0		Brown Sand w/some Coarse to Fine gravel - Dry	
-6-									
-7-									
-8-									
-9-									
-10-									

Sample Types:
SS =
ST =
D&M =
UC = Undisturbed Core (Dennison Type)

NOTES: Refusal at 6'
- 2 attempts

B&D&B.d

Dvirka and Bartilucci CONSULTING ENGINEERS
A DIVISION OF WILLIAM E. COSULICH ASSOCIATES, P.C.

	Project No.: Project Name: Glenmere	Boring No.: SB-10 Sheet 1 of 1 By: M.P. Morley
Drilling Contractor: Zebra Driller: Mark L & Brian L. Drill Rig: GV 25 Date Started: 10/23/08	Geologist: Drilling Method: GeoProbe 5' Core Drive Hammer Weight: Date Completed: 10/23/08	Boring Completion Depth: 8' Ground Surface Elevation: Boring Diameter: 2"

Depth (ft.)	Soil Sample No.	Type	Blows Per 6"	Rec	Headspace Analysis FID ppm	PID ppm	CH4 ppm	Sample Description	USCS
-0-						0		Top 6" = Black Top Soil w/trace silt - moist Brown Sand w/some coarse gravel & trace silt - Dry	
-1.5'-						0			
-2-								Brown Sand w/trace medium to coarse gravel & trace silt - Dry	
-3-						0			
-4-						0			
-5-						6.0		Brown Sand & w/trace medium to coarse gravel & trace silt - Dry	
-6-						32.5		Grey-Brown sand w/some medium gravel & trace silt - Hydrocarbon odor - Dry	
-7-						56.2			
-8-						820		Grey silt w/some medium gravel & trace clay - Strong Hydrocarbon odor. - Slight Moisture	
-9-									
-10-									

Sample Types:
SS =
ST =
D&M =
UC = Undisturbed Core (Dennison Type)

NOTES: Refusal at 8'

B:\D&B.d

Dvirka and Bartilucci CONSULTING ENGINEERS
A DIVISION OF WILLIAM F. COSULICH ASSOCIATES, P.C.

Project No.:
Project Name: Glenmere

Boring No.: SB-11
Sheet 1 of 1
By: M.L. Mark

Drilling Contractor: Zebra
Driller: Mark L./Brian L.
Drill Rig: UV 25
Date Started: 10/23/08

Geologist:
Drilling Method: Geoprobe 5' Core
Drive Hammer Weight:
Date Completed: 10/23/08

Boring Completion Depth: "6'
Ground Surface Elevation:
Boring Diameter: 2"

Depth (ft.)	Soil Sample No.	Type	Blows Per 6"	Rec	Headspace Analysis FID ppm	PID ppm	CH4 ppm	Sample Description	USCS
-0-					0 →			Top 4" Black organic Top Soil w/roots - moist	
-1.5'-					0 →			Light Brown Sand w/some fine to coarse gravel + trace Silt - Dry	
-2-									
-3-					0 →				
-4-					0 →				
-5-					0 →			Brown-Grey Sand w/some silt, Some Fine to Medium gravel + trace Clay - Dry	
-6-									
-7-									
-8-									
-9-									
-10-									

Sample Types:
SS =
ST =
D&M =
UC = Undisturbed Core (Dennison Type)

NOTES: Refusal at 6'
2 - Attempts

B:\D&B.d

Dvirka and Bartilucci CONSULTING ENGINEERS
A DIVISION OF WILLIAM F. COSULICH ASSOCIATES, P.C.

Project No.:
Project Name: Glenmere

Boring No.: SB-12
Sheet 1 of 1
By: W.P. Mosher

Drilling Contractor: Zebra
Driller: Mark L. + Brian L.
Drill Rig: UV-25
Date Started: 10/23/08

Geologist:
Drilling Method: GeoProbe 5' Core
Drive Hammer Weight:
Date Completed: 10/23/08

Boring Completion Depth: 2 1/2'
Ground Surface Elevation:
Boring Diameter: 2"

Depth (ft.)	Soil Sample No.	Type	Blows Per 6"	Rec	Headspace Analysis FID ppm	PID ppm	CH4 ppm	Sample Description	USCS
-0-						0.		Top 4" = Dark Brown Organic Top Soil - Moist	
-1.5'-						0.		Brown Sand w/some medium - coarse gravel - Dry	
-2-						0.		Grey Sand w/some medium to Coarse gravel - Dry	
-3-									
-4-									
-5-									
-6-									
-7-									
-8-									
-9-									
-10-									

Sample Types:
SS =
ST =
D&M =
UC = Undisturbed Core (Dennison Type)

NOTES: Refusal at 2 1/2'
3 attempts

B&D&B.d

Dvirka and Bartilucci CONSULTING ENGINEERS
A DIVISION OF WILLIAM F. COSULICH ASSOCIATES, P.C.

Project No.:
Project Name: Glenmere

Boring No.: SB-13
Sheet 1 of 1
By: M.P. Monk

Drilling Contractor: Zebra
Driller: Mark L. & Brian L.
Drill Rig: UV-25
Date Started: 10/23/08

Geologist:
Drilling Method: GeoProbe 5' core
Drive Hammer Weight:
Date Completed: 10/23/08

Boring Completion Depth: 5 1/2'
Ground Surface Elevation:
Boring Diameter: 2"

Depth (ft.)	Soil Sample No.	Type	Blows Per 6"	Rec	Headspace Analysis FID ppm	PID ppm	CH4 ppm	Sample Description	USCS
-0-						0		Top 4" = Dark Brown Organic Top Soil / Brown Silt w/ some Sand & Fine Gravel - Moist Dry	
-1.5'-						0		Brown Sand w/ some Fine - medium Gravel - Dry	
-2-						0			
-3-						0		Grey Sand w/ some Fine - medium Gravel - Dry	
-4-									
-5-						0		Grey Sand w/ rock chips - Dry	
-6-									
-7-									
-8-									
-9-									
-10-									

Sample Types:
SS =
ST =
D&M =
UC = Undisturbed Core (Dennison Type)

NOTES:

Dvirka and Bartilucci CONSULTING ENGINEERS
A DIVISION OF WILLIAM E. COSULICH ASSOCIATES, P.C.

Project No.:
Project Name: Glenmere

Boring No.: SB-14
Sheet 1 of 3.
By: [signature]

Drilling Contractor: Zebra
Driller: Mark L. & Brian L.
Drill Rig: UV-25
Date Started: 10/22/08

Geologist:
Drilling Method: GeoProbe 4' core
Drive Hammer Weight:
Date Completed: 10/22/08

Boring Completion Depth: 22'
Ground Surface Elevation:
Boring Diameter: 2"

Depth (ft.)	Soil Sample No.	Type	Blows Per 6"	Rec	Headspace Analysis FID ppm	PID ppm	CH4 ppm	Sample Description	USCS
-0-						0.		6" Dark Brown Organic Top Soil / - Moist	
-1.5'-						0.		Brown Sand w/some fine to coarse gravel - Dry	
-2-						0.			
-3-									
-4-						0.		Brown Sand w/some fine to Coarse gravel - Dry	
-5-						0.			
-6-						0.			
-7-						0.			
-8-						0.		Grey-Brown Sand w/some medium to Coarse gravel - Dry	
-9-						0.			
-10-						0.			

Sample Types:
SS =
ST =
D&M =
UC = Undisturbed Core (Dennison Type)

NOTES:

B:\D&B.d

Dvirka and Bartilucci CONSULTING ENGINEERS
A DIVISION OF WILLIAM F. COSULICH ASSOCIATES, P.C.

Project No.:
Project Name: Glenmere

Boring No.: SB-14
Sheet 2 of 3
By:

Drilling Contractor: Zebra
Driller: Mark L & Brian L
Drill Rig: UV-25
Date Started: 10/22/08

Geologist:
Drilling Method: GeoProbe 4' core
Drive Hammer Weight:
Date Completed: 10/22/08

Boring Completion Depth: " 22'
Ground Surface Elevation:
Boring Diameter: 2"

Depth (ft.)	Soil Sample No.	Type	Blows Per 6"	Rec	Headspace Analysis FID ppm	PID ppm	CH4 ppm	Sample Description	USCS
0-						0. 0.		Grey-Brown Medium to Coarse Gravel w/some Sand - moist	
1.5'-									
2-						0.		Brown Silt w/some Clay - moist	
3-						0.			
4-						0.		Brown-Grey Silt w/some coarse gravel - moist	
5-						0.			
6-						0.		Brown Grey Silt w/some Coarse gravel - moist	
7-						0.		Brown Silt w/some coarse gravel - moist	
8-						0.			
9-									
10-						0.		Brown Silt w/some Coarse gravel & trace Clay - moist	

Sample Types:
SS =
ST =
D&M =
UC = Undisturbed Core (Dennison Type)

NOTES:

Dvirka and Bartilucci CONSULTING ENGINEERS
A DIVISION OF WILLIAM F. COSULICH ASSOCIATES, P.C.

Project No.:
Project Name: Glenmere

Boring No.: SB-14
Sheet 3 of 3
By: M.P. Mandia

Drilling Contractor: Zebra
Driller: Mark L. & Brian L.
Drill Rig: UV-25
Date Started: 10/22/08

Geologist:
Drilling Method: GeoProbe 4' cores
Drive Hammer Weight:
Date Completed: 10/22/08

Boring Completion Depth: " 22'
Ground Surface Elevation:
Boring Diameter: 2"

Depth (ft.)	Soil Sample No.	Type	Blows Per 6"	Rec	Headspace Analysis FID ppm	PID ppm	CH4 ppm	Sample Description	USCS
20-						0.		Grey Silt w/some coarse gravel & trace clay - moist	
21.5'-						0.			
22-									
-3-									
-4-									
-5-									
-6-									
-7-									
-8-									
-9-									
-10-									

Sample Types:
SS =
ST =
D&M =
UC = Undisturbed Core (Dennison Type)

NOTES: Refusal at 22'

Dvirka and Bartilucci CONSULTING ENGINEERS
A DIVISION OF WILLIAM F. COSULICH ASSOCIATES, P.C.

Project No.:
Project Name: Glenmere

Boring No.: SB-15
Sheet 1 of 2
By: M.P.

Drilling Contractor: Zebra
Driller: Mark L. & Brian L.
Drill Rig: UV-25
Date Started: 10/22/08

Geologist:
Drilling Method: GeoProbe 4' Core
Drive Hammer Weight:
Date Completed: 10/22/08

Boring Completion Depth: 12'
Ground Surface Elevation:
Boring Diameter: 2"

Depth (ft.)	Soil Sample No.	Type	Blows Per 6"	Rec	Headspace Analysis FID ppm	PID ppm	CH4 ppm	Sample Description	USCS
-0-						0		4" Dark Brown Top Soil - Moist	
-1.5'-						0		Brown Sand w/some medium to Coarse gravel Dry	
-2-						.3			
-3-									
-4-						.7		Medium Brown Sand w/some Fine to coarse gravel - Dry	
-5-						0		Brown Silt w/some clay- trace gravel (Fine) - Dry	
-6-						0		Grey Gravel (Fine to Coarse) w trace silt - Dry	
-7-								Grey-Brown Clay w/some silt & trace fine gravel - moist	
-8-						.3		Brown Sand w/some medium to Coarse gravel - moist Slight hydrocarbon odor	
-9-									
-10-						.7			

Sample Types:
SS =
ST =
D&M =
UC = Undisturbed Core (Dennison Type)

NOTES:

Dvirka and Bartilucci CONSULTING ENGINEERS
A DIVISION OF WILLIAM F. COSULICH ASSOCIATES, P.C.

	Project No.:	Boring No.: SB-15
	Project Name: Glenmere	Sheet 2 of 2
		By: M.L. Mark
Drilling Contractor: Zebra	Geologist:	Boring Completion Depth: 12'
Driller: Mark L. & Brian L.	Drilling Method: GeoProbe 4' core	Ground Surface Elevation:
Drill Rig: UV-25	Drive Hammer Weight:	Boring Diameter: 2"
Date Started: 10/22/08	Date Completed: 10/22/08	

Depth (ft.)	Soil Sample No.	Type	Blows Per 6"	Rec	Headspace Analysis FID ppm	PID ppm	CH4 ppm	Sample Description	USCS
0-						42.		Grey-Brown Clay w/some silt & Fine to Coarse gravel. Moist.	
1.5'-						98.		Strong Hydrocarbon Odor	
-2-									
-3-									
-4-									
-5-									
-6-									
-7-									
-8-									
-9-									
-10-									

Sample Types:
SS =
ST =
D&M =
UC = Undisturbed Core (Dennison Type)

NOTES:

APPENDIX F

REMEDIAL ALTERNATIVE COST ESTIMATES

ALTERNATIVE 1 - NO ACTION AND ENGINEERING/INSTITUTIONAL CONTROLS
ENVIRONMENTAL RESTORATION PROGRAM PROJECT
GLENMERE LAKE PROPERTY, ORANGE COUNTY, NEW YORK
PRELIMINARY COST ESTIMATE

Description	Unit of Measure	Estimated Quantity	Unit Price	Subtotal	Total
Capital Costs					
Fencing					
Installation of 6 foot high chain link fencing	*Lineal Foot*	*895*	*$23.00*	*$20,585.00*	
Total					**$20,585.00**
Monitoring Wells					
Installation of 5 shallow groundwater monitoring wells	*well*	*500*	*$50.00*	*$25,000.00*	
Total					**$25,000.00**
				Subtotal	**$45,585.00**
				Contingency (20%)	**$9,117.00**
				Total Capital Costs	**$55,000.00**
ANNUAL OPERATING, MONITORING AND MAINTENANCE (OM&M) COSTS					
Annual Inspections/Certifications					
Inspection	1	Mandays	$800	$800	
Annual Certification	2	Mandays	$800	$1,600	
Estimated Annual Costs				$2,400	
Present Worth of Annual Inspections (30 yrs, i=5%)					**$40,000**
Groundwater Monitoring (Costs Per Event)					
Groundwater Sampling	2	Mandays	$500	$1,000	
Purge Water Disposal	4	Drums	$200	$800	
Equipment, Materials and Supplies	1	LS	$1,000	$1,000	
Sample Analysis	4	Samples	$500	$2,000	
Reporting	2	Mandays	$500	$1,000	
Estimated Per Event Monitoring Costs				$5,800	
Present Worth of Annual Groundwater Monitoring (30 yrs, i=5%)					**$120,000**
				Total OM&M Costs	**$160,000**
ALTERNATIVE 1 - TOTAL ESTIMATED COSTS					**$215,000**

ALTERNATIVE 2 - BUILDING DEMOLITION, EXCAVATION OF SOIL; PARTIAL ON-SITE CONSOLIDATION AND COVER; OFF-SITE DISPOSAL AND INSTITUTIONAL CONTROLS

ENVIRONMENTAL RESTORATION PROGRAM PROJECT

GLENMERE LAKE PROPERTY, ORANGE COUNTY, NEW YORK

PRELIMINARY COST ESTIMATE

Description	Unit of Measure	Estimated Quantity	Unit Price	Subtotal	Total
Capital Costs					
Engineering Oversight					
Dvirka and Bartilucci Consulting Engineers	*Week*	*6*	*$2,000.00*	*$12,000.00*	
Geovation	*Week*	*6*	*$3,600.00*	*$21,600.00*	
QUEST	*Week*	*4*	*$3,850.00*	*$15,400.00*	
Total					**$49,000.00**
Submittals, Mobilization and Demobilization	**L.S.**	**1**	**$102,000.00**		**$102,000.00**
Health and Safety	**Day**	**20**	**$400.00**		**$8,000.00**
Site Controls					
Erosion and Storm Water Runoff Controls	*L.S.*	*1*	*$31,000.00*	*$31,000.00*	
Dust Control	*Week*	*4*	*$250.00*	*$1,000.00*	
Temporary Electric	*Week*	*4*	*$1,200.00*	*$4,800.00*	
Total					**$36,800.00**
Clearing	**Acre**	**1.5**	**$2,800.00**		**$4,200.00**
Temporary Access Road and Staging Area	**S.Y.**	**2,800**	**$12.00**		**$33,600.00**
Demolition					
Disconnect On-Site Electric	*LS*	*1*	*$500.00*	*$500.00*	
Demolition Dust Control	*Day*	*10*	*$1,100.00*	*$11,000.00*	
Demolition of and Removal of Debris from Building #1	*SF*	*13,200*	*$16.50*	*$217,800.00*	
Removal of Debris from Building #2	*SF*	*1,900*	*$12.50*	*$23,750.00*	
Removal of Debris from Building #3	*SF*	*1,350*	*$12.50*	*$16,875.00*	
Removal of Debris from Building #4	*SF*	*300*	*$16.50*	*$4,950.00*	
Demolition of and Removal of Debris from Building #5	*SF*	*2,200*	*$16.50*	*$36,300.00*	
Demolition of and Removal of Debris from Building #6	*SF*	*750*	*$16.50*	*$12,375.00*	
Removal of Debris from Building #7	*SF*	*2,100*	*$16.50*	*$34,650.00*	
Demolition of and Removal of Debris from Building #8	*SF*	*500*	*$16.50*	*$8,250.00*	
Misc Debris Piles Removal	*Yard*	*40*	*$50.00*	*$2,000.00*	
Demolition and Removal of Building Foundation Walls to 2 feet bgs	*Day*	*1*	*$3,500.00*	*$3,500.00*	
Post-Demolition Soil Excavation	*CY*	*700*	*$10.00*	*$7,000.00*	
Post-Demolition Endpoint Samples	*Each Sample*	*15*	*$200.00*	*$3,000.00*	
TCLP Characterization Sample of Lead-Based Paint Building Debris (Lead Only)	*Each Sample*	*5*	*$50.00*	*$250.00*	
Total					**$382,200.00**

ALTERNATIVE 2 - BUILDING DEMOLITION, EXCAVATION OF SOIL; PARTIAL ON-SITE CONSOLIDATION AND COVER; OFF-SITE DISPOSAL AND INSTITUTIONAL CONTROLS

ENVIRONMENTAL RESTORATION PROGRAM PROJECT

GLENMERE LAKE PROPERTY, ORANGE COUNTY, NEW YORK

PRELIMINARY COST ESTIMATE

	Unit of Measure	Estimated Quantity	Unit Price	Subtotal	Total
Contaminated Soil Excavation					
Soil Excavation	*C.Y.*	*1,300*	*$10.00*	*$13,000.00*	
Excavation Confirmation Samples	*Each Sample*	*20*	*$250.00*	*$5,000.00*	
Total					**$18,000.00**
Off-Site Transportation and Disposal					
Soil Waste Characterization Sampling	*Each Sample (VOCs only)* *Each Sample (Remaining parameters)*	*7* *3*	*$100.00* *$1,100.00*	*$700.00* *$3,300.00*	
Transportation and Off-Site Disposal of Non-Hazardous Soil	*Tons*	*900*	*$60.00*	*$54,000.00*	
Transportation and Off-Site Disposal of ACM Soil	*Tons*	*1,050*	*$83.00*	*$87,150.00*	
Transportation and Off-Site Disposal of ACM Debris	*Yard*	*4,130*	*$72.00*	*$297,360.00*	
Transportation and Off-Site Disposal of Non-ACM Debris	*Yard*	*120*	*$50.00*	*$6,000.00*	
Total					**$449,000.00**
On-Site Consolidation and Capping					
Placement/Compaction of Soil in Foundation of Building	*CY*	*700*	*$5.00*	*$3,500.00*	
Demarcation Layer	*SY*	*700*	*$2.00*	*$1,400.00*	
Obtain/Place of 2 feet of Soil Cover	*CY*	*480*	*$20.00*	*$9,607.41*	
Clean Fill Sampling	*Sample*	*5*	*$1,200.00*	*$6,000.00*	
Total					**$21,000.00**
Monitoring Wells					
Installation of 5 shallow groundwater monitoring wells	*well*	*5*	*$500.00*	*$2,500.00*	
Total					**$2,500.00**
Site Restoration					
Backfill to Grade	*CY*	*1,100*	*$20.00*	*$22,000.00*	
Clean Fill Sampling	*Sample*	*8*	*$1,200.00*	*$9,600.00*	
Topsoil/Seed	*Acre*	*1.5*	*$25,000.00*	*$37,500.00*	
Total					**$69,100.00**

Subtotal	**$1,175,000.00**
Contingency (20%)	**$235,000.00**
Total Capital Costs	**$1,410,000.00**

ALTERNATIVE 2 - BUILDING DEMOLITION, EXCAVATION OF SOIL; PARTIAL ON-SITE CONSOLIDATION AND COVER; OFF-SITE DISPOSAL AND INSTITUTIONAL CONTROLS

ENVIRONMENTAL RESTORATION PROGRAM PROJECT

GLENMERE LAKE PROPERTY, ORANGE COUNTY, NEW YORK

PRELIMINARY COST ESTIMATE

	Unit of Measure	Estimated Quantity	Unit Price	Subtotal	Total
ANNUAL OPERATING, MONITORING AND MAINTENANCE (OM&M) COSTS					
Annual Inspections/Certifications					
Inspection	1	Mandays	$800	$800	
Annual Certification	2	Mandays	$800	$1,600	
Estimated Annual Costs				$2,400	
Present Worth of Annual Inspections (30 yrs, i=5%)					**$40,000**
Groundwater Monitoring (Costs Per Event)					
Groundwater Sampling	2	Mandays	$500	$1,000	
Purge Water Disposal	4	Drums	$200	$800	
Equipment, Materials and Supplies	1	LS	$1,000	$1,000	
Sample Analysis	4	Samples	$500	$2,000	
Reporting	2	Mandays	$500	$1,000	
Estimated Per Event Monitoring Costs				$5,800	
Present Worth of Annual Groundwater Monitoring (30 yrs, i=5%)					**$120,000**
				Total OM&M Costs	**$160,000**
ALTERNATIVE 2 - TOTAL ESTIMATED COSTS					**$1,570,000.00**

ALTERNATIVE 3 - BUILDING DEMOLITION, EXCAVATION OF SOIL AND OFF-SITE DISPOSAL AND IN-SHORE LAKE SEDIMENT DREDGING/EXCAVATION
ENVIRONMENTAL RESTORATION PROGRAM PROJECT
GLENMERE LAKE PROPERTY, ORANGE COUNTY, NEW YORK
PRELIMINARY COST ESTIMATE

Description	Unit of Measure	Estimated Quantity	Unit Price	Subtotal	Total
Engineering Oversight					
Dvirka and Bartilucci Consulting Engineers	*Week*	*7*	*$2,000.00*	*$14,000.00*	
Geovation	*Week*	*7*	*$3,600.00*	*$25,200.00*	
QUEST	*Week*	*4*	*$3,850.00*	*$15,400.00*	
Total					**$54,600.00**
Submittals, Mobilization and Demobilization	**L.S.**	**1**	**$276,000.00**		**$276,000.00**
Health and Safety	**Day**	**50**	**$400.00**		**$20,000.00**
Site Controls					
Erosion and Storm Water Runoff Controls	*L.S.*	*2*	*$31,000.00*	*$62,000.00*	
Dust Control	*Week*	*5*	*$250.00*	*$1,250.00*	
Temporary Electric	*Week*	*5*	*$1,200.00*	*$6,000.00*	
Total					**$69,000.00**
Clearing	**Acre**	**3.0**	**$2,800.00**		**$8,356.29**
Temporary Access Road and Staging Area	**S.Y.**	**2,800**	**$12.00**		**$33,600.00**
Demolition					
Disconnect On-Site Electric	*LS*	*1*	*$500.00*	*$500.00*	
Demolition Dust Control	*Day*	*10*	*$1,100.00*	*$11,000.00*	
Demolition of and Removal of Debris from Building #1	*SF*	*13,200*	*$16.50*	*$217,800.00*	
Removal of Debris from Building #2	*SF*	*1,900*	*$12.50*	*$23,750.00*	
Removal of Debris from Building #3	*SF*	*1,350*	*$12.50*	*$16,875.00*	
Removal of Debris from Building #4	*SF*	*300*	*$16.50*	*$4,950.00*	
Demolition of and Removal of Debris from Building #5	*SF*	*2,200*	*$16.50*	*$36,300.00*	
Demolition of and Removal of Debris from Building #6	*SF*	*750*	*$16.50*	*$12,375.00*	
Removal of Debris from Building #7	*SF*	*2,100*	*$16.50*	*$34,650.00*	
Demolition of and Removal of Debris from Building #8	*SF*	*500*	*$16.50*	*$8,250.00*	
Misc Debris Piles Removal	*Yard*	*40*	*$50.00*	*$2,000.00*	
Demolition and Removal of Building Foundation Walls to 2 feet bgs	*Day*	*1*	*$3,500.00*	*$3,500.00*	
Post-Demolition Soil Excavation	*CY*	*700*	*$10.00*	*$7,000.00*	
Post-Demolition Confirmation Samples	*Each Sample*	*15*	*$200.00*	*$3,000.00*	
TCLP Characterization Sample of Lead-Based Paint Building Debris (Lead Only)	*Each Sample*	*5*	*$50.00*	*$250.00*	
Total					**$382,200.00**

ALTERNATIVE 3 - BUILDING DEMOLITION, EXCAVATION OF SOIL AND OFF-SITE DISPOSAL AND IN-SHORE LAKE SEDIMENT DREDGING/EXCAVATION
ENVIRONMENTAL RESTORATION PROGRAM PROJECT
GLENMERE LAKE PROPERTY, ORANGE COUNTY, NEW YORK
PRELIMINARY COST ESTIMATE

	Unit of Measure	Estimated Quantity	Unit Price	Subtotal	Total
Contaminated Soil Excavation					
Pre-Design Sampling	*Each Sample*	*15*	*$250.00*	*$3,750.00*	
Soil Excavation	*C.Y.*	*13,670*	*$10.00*	*$136,703.70*	
Excavation Confirmation Samples	*Each Sample*	*40*	*$250.00*	*$10,000.00*	
Total					**$146,703.70**
Contaminated Sediment Excavation/Dredging					
Sediment Excavation/Dredging	*C.Y.*	*100*	*$20.00*	*$2,000.00*	
Pre-Removal Sampling	*Each Sample*	*20*	*$250.00*	*$5,000.00*	
Turbidity Screen	*S.Y.*	*150*	*$10.00*	*$1,500.00*	
Sediment Dewatering	*Each*	*1*	*$5,000.00*	*$5,000.00*	
Total					**$14,000.00**
Off-Site Transportation and Disposal					
Soil Waste Characterization Sampling	*Each Sample (VOCs only)* *Each Sample (Remaining parameters)*	*32* *15*	*$100.00* *$1,100.00*	*$3,200.00* *$16,500.00*	
Transportation and Off-Site Disposal of Non-Hazardous Soil	*Tons*	*20,656*	*$60.00*	*$1,239,333.33*	
Transportation and Off-Site Disposal of ACM Soil	*Tons*	*1,050*	*$83.00*	*$87,150.00*	
Transportation and Off-Site Disposal of ACM Debris	*Yard*	*4,130*	*$72.00*	*$297,360.00*	
Transportation and Off-Site Disposal of Non-ACM Debris	*Yard*	*120*	*$50.00*	*$6,000.00*	
Transportation and Off-site Disposal of Non-Hazardous Sediment	*Tons*	*150*	*$60.00*	*$9,000.00*	
Total					**$1,649,543.33**
Site Restoration					
Backfill to Grade	*CY*	*15,600*	*$20.00*	*$312,000.00*	
Clean Fill Sampling	*Sample*	*40*	*$1,200.00*	*$48,000.00*	
Topsoil/Seed	*Acre*	*3.0*	*$25,000.00*	*$74,609.73*	
Total					**$434,609.73**

Subtotal	**$3,089,000.00**
Contingency (20%)	**$617,800.00**
ALTERNATIVE 3 - TOTAL ESTIMATED COSTS	**$3,706,800.00**

APPENDIX G

CONSTRUCTION COMPLETION REPORT
FEBRUARY 2011 (ELECTRONIC)

APPENDIX H

NYSDEC ASP CATEGORY B
DATA PACKAGES (ELECTRONIC)